



# Illinois Environmental Protection Agency

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

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

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

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

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

### I. Source Location Information

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

Project Name: FAP 541 (Illinois Route 132) Office Phone Number, if available: \_\_\_\_\_

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

182-300 W. Grand Avenue (ISGS #2674V2-2)

City: Lake Villa State: IL Zip Code: 60046

County: Lake Township: Lake Villa

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

Latitude: 42.41576 Longitude: - 88.08807

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

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

Approximate Start Date (mm/dd/yyyy): \_\_\_\_\_ Approximate End Date (mm/dd/yyyy): \_\_\_\_\_

Estimated Volume of debris (cu. Yd.): 948

### 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 2674V2-02-B01 through -B04 were sampled within the construction zone adjacent to ISGS #2674V2-2 (Residences). Refer to PSI Report for ISGS #2674V2-2 (Residences) including Table 4-4, and Figures 4-2 and 4-4.

- 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]:

See attached data summary table and associated laboratory data package J207164-1.


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

I, Tom Campbell (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: WSP USA  
 Street Address: 115 W Washington St., Suite 1270S  
 City: Indianapolis State: IN Zip Code: 46204  
 Phone: (317) 972-1706

Tom Campbell  
 Printed Name:

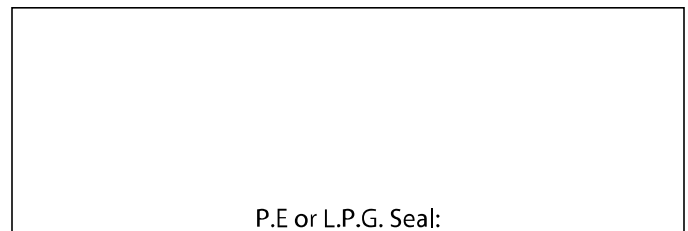
  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

02/03/2022

Date:



Expires 11/30/2023





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

**Analytical Data Summary**  
**PTB #196-002; Work Order 04 - IDOT Job # P-91-583-12**

**Key to Data Tables**

- MAC = Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- TACO = Tiered Approach to Corrective Action Objectives
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers and Shading**

- # = pH is less than 6.25 or greater than 9.0 standard units.
- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- r = Concentration exceeds a TACO Tier 1 RO for the Residential Soil Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds applicable comparison criteria.

PTB #196-002; Work Order 04 - IDOT Job # P-91-583-12  
CONTAMINANTS OF CONCERN

SITE	ISGS #2674V2-2 (Residences)					Comparison Criteria					
	2674V2-02-B01	2674V2-02-B02	2674V2-02-B03	2674V2-02-B04		MACs			TACO		
BORING	2674V2-02-B01 (0-5)	2674V2-02-B02 (0-5)	2674V2-02-B03 (0-5)	2674V2-02-B04 (0-5)	2674V2-02-B04 (0-5)D	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
SAMPLE	Soil	Soil	Soil	Soil	Soil						
MATRIX	0-5	0-5	0-5	0-5	0-5						
DEPTH (feet)	8.7	8.2	7.9	7.4	8.3						
pH	--	--	--	--	--						
PID (meter units)											
<b>VOCs (mg/kg)</b>											
Chloroform	ND U	ND U	0.00084 J	ND U	ND U	0.3	--	--	0.3	0.76	--
<b>SVOCs (mg/kg)</b>											
2-Methylnaphthalene	ND U	ND U	0.022 J	ND U	ND U	--	--	--	--	--	--
Anthracene	ND U	ND U	0.012 J	ND U	ND U	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	ND U	ND U	0.037 J	0.014 J	ND U	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	ND U	ND U	0.039 J	0.012 J	ND U	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	ND U	ND U	0.063 J	0.016 J	ND U	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	ND UJ	ND U	0.028 J	ND U	ND U	--	--	--	--	--	--
Benzo(k)fluoranthene	ND U	ND U	0.021 J	ND U	ND U	9	--	--	9	1,700	--
Chrysene	ND U	ND U	0.051	0.019 J	ND U	88	--	--	88	17,000	--
Fluoranthene	ND U	ND U	0.063	0.021 J	ND U	3,100	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	ND UJ	ND U	0.018 J	ND U	ND U	0.9	1.6	0.9	1.6	170	--
Naphthalene	ND U	ND U	0.011 J	ND U	ND U	1.8	--	--	170	1.8	--
Phenanthrene	ND U	ND U	0.066	0.018 J	ND U	--	--	--	--	--	--
Pyrene	ND U	ND U	0.085	0.026 J	ND U	2,300	--	--	2,300	61,000	--
<b>Inorganics (mg/kg)</b>											
Antimony	0.55 J	0.74 J	0.45 J	0.53 J	0.25 J	5	--	--	31	82	--
Arsenic	6.0	8.0	5.1	6.5	1.1	11.3	13	--	13	61	--
Barium	44	72	47	73 J	7.9 J	1,500	--	--	5,500	14,000	--
Beryllium	0.57	0.67	0.47	0.69	ND U	22	--	--	160	410	--
Boron	9.6	8.4	5.2	7.4	3.4	40	--	--	16,000	41,000	--
Cadmium	ND U	ND U	0.25	0.28	0.029 J	5.2	--	--	78	200	--
Calcium	82,000	2,600	37,000	20,000	32,000	--	--	--	--	--	--
Chromium	16	23 †	13	19 J	3.9 J	21	--	--	230	690	--
Cobalt	11	18	7.8	11 J	2.5 J	20	--	--	4,700	12,000	--
Copper	20	25	19	26 J	4.1 J	2,900	--	--	2,900	8,200	--
Iron	19,000 †m	25,000 †m	12,000	19,000 J †m	1,700 J	15,000	15,900	--	--	--	--
Lead	12	18	89	28 J	1.3 J	107	--	--	400	700	--
Magnesium	40,000	5,600	21,000	13,000	16,000	325,000	--	--	--	730,000	--
Manganese	440	790 †m	360	420 J	170 J	630	636	--	1,600	4,100	--
Mercury	0.022	0.042	0.056	0.073	0.0069 J	0.89	--	--	10	0.1	--
Nickel	28	45	18	29 J	5.2 J	100	--	--	1,600	4,100	--
Potassium	2,300	2,600	1,100	2,000 J	370 J	--	--	--	--	--	--
Selenium	ND U	0.80	0.66	0.89	ND U	1.3	--	--	390	1,000	--
Silver	0.12 J	0.37	0.15 J	0.28 J	ND U	4.4	--	--	390	1,000	--
Sodium	190	310	450	380	200	--	--	--	--	--	--
Vanadium	20	29	19	27 J	7.9 J	550	--	--	550	1,400	--
Zinc	54	71	89	110 J	19 J	5,100	--	--	23,000	61,000	--
<b>TCLP Metals (mg/L)</b>											
Barium	0.35 J	0.20 J	0.32 J	0.26 J	0.13 J	--	--	--	--	--	2
Boron	0.059 J	0.068 J	0.052 J	0.077 J	ND U	--	--	--	--	--	2
Chromium	ND U	ND U	ND U	ND U	ND U	--	--	--	--	--	0.1
Cobalt	0.050	ND U	ND U	ND U	0.013 J	--	--	--	--	--	1
Iron	ND U	ND U	ND U	ND U	ND U	--	--	--	--	--	5
Manganese	0.34 L	0.013 J	0.089	0.27 L	0.76 L	--	--	--	--	--	0.15
Zinc	ND U	ND U	0.077 J	0.041 J	0.052 J	--	--	--	--	--	5
<b>SPLP Metals (mg/L)</b>											
Manganese	0.33 L	NA	NA	0.69 L	0.15	--	--	--	--	--	0.15

## ANALYTICAL REPORT

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

Laboratory Job ID: 500-207164-1

Client Project/Site: IDOT - 196-002-WO04 Lake Villa

**For:**

WSP USA Inc.  
30 North LaSalle Street  
Chicago, Illinois 60602

Attn: Dean Tiebot



Authorized for release by:  
11/5/2021 1:02:48 PM

Richard Wright, Senior Project Manager  
(708)746-0045  
[Richard.Wright@Eurofinset.com](mailto:Richard.Wright@Eurofinset.com)

### LINKS

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results through  
**TotalAccess**

Have a Question?



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[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

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

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

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# Case Narrative

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

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## Job ID: 500-207164-1

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Laboratory: Eurofins TestAmerica, Chicago

### Narrative

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#### Job Narrative 500-207164-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 10/20/2021 3:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 12.1° C.

#### GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### GC/MS Semi VOA

Method 8270D: The laboratory control sample (LCS) for preparation batch 500-625508 and analytical batch 500-625679 recovered outside control limits for the following analytes: 2,2'-oxybis[1-chloropropane], 2,4-Dimethylphenol, 3 & 4 Methylphenol, 2-Chlorophenol, N-Nitrosodi-n-propylamine, Isophorone, Bis(2-chloroethyl)ether and Bis(2-chloroethoxy)methane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

Method 6010B: The method blank for preparation batch 500-626752 and analytical batch 500-627041 contained Iron above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method 6010B: The method blank for preparation batch 500-626752 and analytical batch 500-627087 contained Iron above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

**Client Sample ID: 2674V2-02-B04 (0-5)**

**Lab Sample ID: 500-207164-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.018	J	0.045	0.0063	mg/Kg	1	✳	8270D	Total/NA
Fluoranthene	0.021	J	0.045	0.0083	mg/Kg	1	✳	8270D	Total/NA
Pyrene	0.026	J	0.045	0.0089	mg/Kg	1	✳	8270D	Total/NA
Benzo[a]anthracene	0.014	J	0.045	0.0061	mg/Kg	1	✳	8270D	Total/NA
Chrysene	0.019	J	0.045	0.012	mg/Kg	1	✳	8270D	Total/NA
Benzo[b]fluoranthene	0.016	J	0.045	0.0097	mg/Kg	1	✳	8270D	Total/NA
Benzo[a]pyrene	0.012	J	0.045	0.0087	mg/Kg	1	✳	8270D	Total/NA
Antimony	0.53	J	1.3	0.25	mg/Kg	1	✳	6010B	Total/NA
Arsenic	6.5		0.64	0.22	mg/Kg	1	✳	6010B	Total/NA
Barium	73		0.64	0.073	mg/Kg	1	✳	6010B	Total/NA
Beryllium	0.69		0.26	0.060	mg/Kg	1	✳	6010B	Total/NA
Boron	7.4		3.2	0.30	mg/Kg	1	✳	6010B	Total/NA
Cadmium	0.28		0.13	0.023	mg/Kg	1	✳	6010B	Total/NA
Calcium	20000	B	13	2.2	mg/Kg	1	✳	6010B	Total/NA
Chromium	19		0.64	0.32	mg/Kg	1	✳	6010B	Total/NA
Cobalt	11		0.32	0.084	mg/Kg	1	✳	6010B	Total/NA
Copper	26		0.64	0.18	mg/Kg	1	✳	6010B	Total/NA
Iron	19000	B	13	6.7	mg/Kg	1	✳	6010B	Total/NA
Lead	28		0.32	0.15	mg/Kg	1	✳	6010B	Total/NA
Magnesium	13000		6.4	3.2	mg/Kg	1	✳	6010B	Total/NA
Manganese	420	B	0.64	0.093	mg/Kg	1	✳	6010B	Total/NA
Nickel	29		0.64	0.19	mg/Kg	1	✳	6010B	Total/NA
Potassium	2000		32	11	mg/Kg	1	✳	6010B	Total/NA
Selenium	0.89		0.64	0.38	mg/Kg	1	✳	6010B	Total/NA
Silver	0.28	J	0.32	0.083	mg/Kg	1	✳	6010B	Total/NA
Sodium	380		64	9.5	mg/Kg	1	✳	6010B	Total/NA
Vanadium	27		0.32	0.076	mg/Kg	1	✳	6010B	Total/NA
Zinc	110		1.3	0.57	mg/Kg	1	✳	6010B	Total/NA
Barium	0.26	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.077	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.27		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.041	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.69		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.073		0.022	0.0072	mg/Kg	1	✳	7471B	Total/NA
pH	7.4		0.2	0.2	SU	1		9045D	Total/NA

**Client Sample ID: 2674V2-02-B04 (0-5)D**

**Lab Sample ID: 500-207164-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.25	J	1.1	0.22	mg/Kg	1	✳	6010B	Total/NA
Arsenic	1.1		0.56	0.19	mg/Kg	1	✳	6010B	Total/NA
Barium	7.9		0.56	0.064	mg/Kg	1	✳	6010B	Total/NA
Boron	3.4		2.8	0.26	mg/Kg	1	✳	6010B	Total/NA
Cadmium	0.029	J	0.11	0.020	mg/Kg	1	✳	6010B	Total/NA
Calcium	32000	B	22	3.8	mg/Kg	2	✳	6010B	Total/NA
Chromium	3.9		0.56	0.28	mg/Kg	1	✳	6010B	Total/NA
Cobalt	2.5		0.28	0.073	mg/Kg	1	✳	6010B	Total/NA
Copper	4.1		0.56	0.16	mg/Kg	1	✳	6010B	Total/NA
Iron	1700	B	22	12	mg/Kg	2	✳	6010B	Total/NA
Lead	1.3		0.56	0.26	mg/Kg	2	✳	6010B	Total/NA
Magnesium	16000		11	5.5	mg/Kg	2	✳	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago



# Detection Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

**Client Sample ID: 2674V2-02-B04 (0-5)D (Continued)**

**Lab Sample ID: 500-207164-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	170	B	0.56	0.081	mg/Kg	1	☼	6010B	Total/NA
Nickel	5.2		0.56	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	370		28	9.9	mg/Kg	1	☼	6010B	Total/NA
Sodium	200		56	8.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	7.9		0.28	0.066	mg/Kg	1	☼	6010B	Total/NA
Zinc	19		1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Barium	0.13	J	0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.013	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.76		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.052	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.15		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.0069	J	0.019	0.0063	mg/Kg	1	☼	7471B	Total/NA
pH	8.3		0.2	0.2	SU	1		9045D	Total/NA

**Client Sample ID: 2674V2-02-B03 (0-5)**

**Lab Sample ID: 500-207164-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.00084	J	0.0019	0.00066	mg/Kg	1	☼	8260B	Total/NA
Naphthalene	0.011	J	0.039	0.0060	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.022	J	0.079	0.0072	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.066		0.039	0.0055	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.012	J	0.039	0.0066	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.063		0.039	0.0073	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.085		0.039	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.037	J	0.039	0.0053	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.051		0.039	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.063	*3	0.039	0.0085	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.021	J*3	0.039	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.039	*3	0.039	0.0076	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.018	J*3	0.039	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.028	J*3	0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.45	J	1.1	0.21	mg/Kg	1	☼	6010B	Total/NA
Arsenic	5.1		0.55	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	47		0.55	0.063	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.47		0.22	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	5.2		2.7	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.25		0.11	0.020	mg/Kg	1	☼	6010B	Total/NA
Calcium	37000	B	22	3.7	mg/Kg	2	☼	6010B	Total/NA
Chromium	13		0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	7.8		0.27	0.072	mg/Kg	1	☼	6010B	Total/NA
Copper	19		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	12000	B	11	5.7	mg/Kg	1	☼	6010B	Total/NA
Lead	89		0.55	0.25	mg/Kg	2	☼	6010B	Total/NA
Magnesium	21000		5.5	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	360	B	0.55	0.080	mg/Kg	1	☼	6010B	Total/NA
Nickel	18		0.55	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	1100		27	9.7	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.66		0.55	0.32	mg/Kg	1	☼	6010B	Total/NA
Silver	0.15	J	0.27	0.071	mg/Kg	1	☼	6010B	Total/NA
Sodium	450		55	8.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	19		0.27	0.065	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Detection Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

## Client Sample ID: 2674V2-02-B03 (0-5) (Continued)

## Lab Sample ID: 500-207164-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	89		1.1	0.48	mg/Kg	1	☼	6010B	Total/NA
Barium	0.32	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.052	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.089		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.077	J	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.056		0.020	0.0066	mg/Kg	1	☼	7471B	Total/NA
pH	7.9		0.2	0.2	SU	1		9045D	Total/NA

## Client Sample ID: 2674V2-02-B02 (0-5)

## Lab Sample ID: 500-207164-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.74	J	1.1	0.21	mg/Kg	1	☼	6010B	Total/NA
Arsenic	8.0		0.55	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	72		0.55	0.062	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.67		0.22	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	8.4		2.7	0.26	mg/Kg	1	☼	6010B	Total/NA
Calcium	2600	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	23		0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	18		0.27	0.072	mg/Kg	1	☼	6010B	Total/NA
Copper	25		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	25000	B	11	5.7	mg/Kg	1	☼	6010B	Total/NA
Lead	18		0.27	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	5600		5.5	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	790	B	0.55	0.079	mg/Kg	1	☼	6010B	Total/NA
Nickel	45		0.55	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	2600		27	9.7	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.80		0.55	0.32	mg/Kg	1	☼	6010B	Total/NA
Silver	0.37		0.27	0.071	mg/Kg	1	☼	6010B	Total/NA
Sodium	310		55	8.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	29		0.27	0.065	mg/Kg	1	☼	6010B	Total/NA
Zinc	71		1.1	0.48	mg/Kg	1	☼	6010B	Total/NA
Barium	0.20	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.068	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.013	J	0.025	0.010	mg/L	1		6010B	TCLP
Mercury	0.042		0.017	0.0057	mg/Kg	1	☼	7471B	Total/NA
pH	8.2		0.2	0.2	SU	1		9045D	Total/NA

## Client Sample ID: 2674V2-02-B01 (0-5)

## Lab Sample ID: 500-207164-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.55	J	1.1	0.21	mg/Kg	1	☼	6010B	Total/NA
Arsenic	6.0		0.55	0.19	mg/Kg	1	☼	6010B	Total/NA
Barium	44		0.55	0.062	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.57		0.22	0.051	mg/Kg	1	☼	6010B	Total/NA
Boron	9.6		2.7	0.25	mg/Kg	1	☼	6010B	Total/NA
Calcium	82000	B	55	9.2	mg/Kg	5	☼	6010B	Total/NA
Chromium	16		0.55	0.27	mg/Kg	1	☼	6010B	Total/NA
Cobalt	11		0.27	0.071	mg/Kg	1	☼	6010B	Total/NA
Copper	20		0.55	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	19000	B	55	28	mg/Kg	5	☼	6010B	Total/NA
Lead	12		1.4	0.63	mg/Kg	5	☼	6010B	Total/NA
Magnesium	40000		27	14	mg/Kg	5	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Detection Summary

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

**Client Sample ID: 2674V2-02-B01 (0-5) (Continued)**

**Lab Sample ID: 500-207164-5**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	440	B	0.55	0.079	mg/Kg	1	☼	6010B	Total/NA
Nickel	28		0.55	0.16	mg/Kg	1	☼	6010B	Total/NA
Potassium	2300		27	9.7	mg/Kg	1	☼	6010B	Total/NA
Silver	0.12	J	0.27	0.070	mg/Kg	1	☼	6010B	Total/NA
Sodium	190		55	8.1	mg/Kg	1	☼	6010B	Total/NA
Vanadium	20		0.27	0.064	mg/Kg	1	☼	6010B	Total/NA
Zinc	54		1.1	0.48	mg/Kg	1	☼	6010B	Total/NA
Barium	0.35	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.059	J	0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.050		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.34		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.33		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.022		0.016	0.0055	mg/Kg	1	☼	7471B	Total/NA
pH	8.7		0.2	0.2	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Method Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CHI
6010B	Metals (ICP)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
7470A	TCLP Mercury	SW846	TAL CHI
7471B	Mercury (CVAA)	SW846	TAL CHI
9045D	pH	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
1311	TCLP Extraction	SW846	TAL CHI
1312	SPLP Extraction	SW846	TAL CHI
3010A	Preparation, Total Metals	SW846	TAL CHI
3050B	Preparation, Metals	SW846	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI
5035	Closed System Purge and Trap	SW846	TAL CHI
7470A	Preparation, Mercury	SW846	TAL CHI
7471B	Preparation, Mercury	SW846	TAL CHI

#### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Sample Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-207164-1	2674V2-02-B04 (0-5)	Solid	10/20/21 09:14	10/20/21 15:30
500-207164-2	2674V2-02-B04 (0-5)D	Solid	10/20/21 09:18	10/20/21 15:30
500-207164-3	2674V2-02-B03 (0-5)	Solid	10/20/21 09:28	10/20/21 15:30
500-207164-4	2674V2-02-B02 (0-5)	Solid	10/20/21 09:36	10/20/21 15:30
500-207164-5	2674V2-02-B01 (0-5)	Solid	10/20/21 09:47	10/20/21 15:30

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# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

**Client Sample ID: 2674V2-02-B04 (0-5)**

**Lab Sample ID: 500-207164-1**

**Date Collected: 10/20/21 09:14**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

**Percent Solids: 72.8**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.025		0.025	0.011	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
Benzene	<0.0025		0.0025	0.00063	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
Bromodichloromethane	<0.0025		0.0025	0.00050	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
Bromoform	<0.0025		0.0025	0.00072	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
Bromomethane	<0.0061		0.0061	0.0023	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
2-Butanone (MEK)	<0.0061		0.0061	0.0027	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
Carbon disulfide	<0.0061		0.0061	0.0013	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
Carbon tetrachloride	<0.0025		0.0025	0.00071	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
Chlorobenzene	<0.0025		0.0025	0.00091	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
Chloroethane	<0.0061		0.0061	0.0018	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
Chloroform	<0.0025		0.0025	0.00085	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
Chloromethane	<0.0061		0.0061	0.0025	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
cis-1,2-Dichloroethene	<0.0025		0.0025	0.00069	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
cis-1,3-Dichloropropene	<0.0025		0.0025	0.00074	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
Dibromochloromethane	<0.0025		0.0025	0.00080	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
1,1-Dichloroethane	<0.0025		0.0025	0.00084	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
1,2-Dichloroethane	<0.0061		0.0061	0.0019	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
1,1-Dichloroethene	<0.0025		0.0025	0.00085	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
1,2-Dichloropropane	<0.0025		0.0025	0.00064	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
1,3-Dichloropropane, Total	<0.0025		0.0025	0.00086	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
Ethylbenzene	<0.0025		0.0025	0.0012	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
2-Hexanone	<0.0061		0.0061	0.0019	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
Methylene Chloride	<0.0061		0.0061	0.0024	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
4-Methyl-2-pentanone (MIBK)	<0.0061		0.0061	0.0018	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
Methyl tert-butyl ether	<0.0025		0.0025	0.00072	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
Styrene	<0.0025		0.0025	0.00074	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
1,1,2,2-Tetrachloroethane	<0.0025		0.0025	0.00078	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
Tetrachloroethene	<0.0025		0.0025	0.00084	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
Toluene	<0.0025		0.0025	0.00062	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
trans-1,2-Dichloroethene	<0.0025		0.0025	0.0011	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
trans-1,3-Dichloropropene	<0.0025		0.0025	0.00086	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
1,1,1-Trichloroethane	<0.0025		0.0025	0.00082	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
1,1,2-Trichloroethane	<0.0025		0.0025	0.0011	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
Trichloroethene	<0.0025		0.0025	0.00083	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
Vinyl acetate	<0.0061		0.0061	0.0021	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
Vinyl chloride	<0.0025		0.0025	0.0011	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1
Xylenes, Total	<0.0049		0.0049	0.00079	mg/Kg	☼	10/20/21 18:07	10/30/21 17:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		75 - 131	10/20/21 18:07	10/30/21 17:24	1
Dibromofluoromethane	109		75 - 126	10/20/21 18:07	10/30/21 17:24	1
1,2-Dichloroethane-d4 (Surr)	107		70 - 134	10/20/21 18:07	10/30/21 17:24	1
Toluene-d8 (Surr)	111		75 - 124	10/20/21 18:07	10/30/21 17:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.23		0.23	0.10	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
Bis(2-chloroethyl)ether	<0.23	+	0.23	0.067	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
1,3-Dichlorobenzene	<0.23		0.23	0.051	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
1,4-Dichlorobenzene	<0.23		0.23	0.058	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

**Client Sample ID: 2674V2-02-B04 (0-5)**

**Lab Sample ID: 500-207164-1**

**Date Collected: 10/20/21 09:14**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

**Percent Solids: 72.8**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.23		0.23	0.054	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
2-Methylphenol	<0.23		0.23	0.072	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
2,2'-oxybis[1-chloropropane]	<0.23	+	0.23	0.052	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
N-Nitrosodi-n-propylamine	<0.091	+	0.091	0.055	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
Hexachloroethane	<0.23		0.23	0.068	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
2-Chlorophenol	<0.23	+	0.23	0.077	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
Nitrobenzene	<0.045		0.045	0.011	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
Bis(2-chloroethoxy)methane	<0.23	+	0.23	0.046	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
1,2,4-Trichlorobenzene	<0.23		0.23	0.049	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
Isophorone	<0.23	+	0.23	0.051	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
2,4-Dimethylphenol	<0.45	+	0.45	0.17	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
Hexachlorobutadiene	<0.23		0.23	0.071	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
Naphthalene	<0.045		0.045	0.0069	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
2,4-Dichlorophenol	<0.45		0.45	0.11	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
4-Chloroaniline	<0.91		0.91	0.21	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
2,4,6-Trichlorophenol	<0.45		0.45	0.15	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
2,4,5-Trichlorophenol	<0.45		0.45	0.10	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
Hexachlorocyclopentadiene	<0.91		0.91	0.26	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
2-Methylnaphthalene	<0.091		0.091	0.0083	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
2-Nitroaniline	<0.23		0.23	0.061	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
2-Chloronaphthalene	<0.23		0.23	0.050	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
4-Chloro-3-methylphenol	<0.45		0.45	0.15	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
2,6-Dinitrotoluene	<0.23		0.23	0.089	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
2-Nitrophenol	<0.45		0.45	0.11	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
3-Nitroaniline	<0.45		0.45	0.14	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
Dimethyl phthalate	<0.23		0.23	0.059	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
2,4-Dinitrophenol	<0.91		0.91	0.79	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
Acenaphthylene	<0.045		0.045	0.0059	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
2,4-Dinitrotoluene	<0.23		0.23	0.072	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
Acenaphthene	<0.045		0.045	0.0081	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
Dibenzofuran	<0.23		0.23	0.053	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
4-Nitrophenol	<0.91		0.91	0.43	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
Fluorene	<0.045		0.045	0.0063	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
4-Nitroaniline	<0.45		0.45	0.19	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
4-Bromophenyl phenyl ether	<0.23		0.23	0.059	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
Hexachlorobenzene	<0.091		0.091	0.010	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
Diethyl phthalate	<0.23		0.23	0.076	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
4-Chlorophenyl phenyl ether	<0.23		0.23	0.053	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
Pentachlorophenol	<0.91		0.91	0.72	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
N-Nitrosodiphenylamine	<0.23		0.23	0.053	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
4,6-Dinitro-2-methylphenol	<0.91		0.91	0.36	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
<b>Phenanthrene</b>	<b>0.018</b>	<b>J</b>	0.045	0.0063	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
Anthracene	<0.045		0.045	0.0075	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
Carbazole	<0.23		0.23	0.11	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
Di-n-butyl phthalate	<0.23		0.23	0.069	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
<b>Fluoranthene</b>	<b>0.021</b>	<b>J</b>	0.045	0.0083	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
<b>Pyrene</b>	<b>0.026</b>	<b>J</b>	0.045	0.0089	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
Butyl benzyl phthalate	<0.23		0.23	0.086	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
<b>Benzo[a]anthracene</b>	<b>0.014</b>	<b>J</b>	0.045	0.0061	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

**Client Sample ID: 2674V2-02-B04 (0-5)**

**Lab Sample ID: 500-207164-1**

Date Collected: 10/20/21 09:14

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 72.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chrysene</b>	<b>0.019</b>	<b>J</b>	0.045	0.012	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
3,3'-Dichlorobenzidine	<0.23		0.23	0.063	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
Bis(2-ethylhexyl) phthalate	<0.23		0.23	0.082	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
Di-n-octyl phthalate	<0.23		0.23	0.073	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
<b>Benzo[b]fluoranthene</b>	<b>0.016</b>	<b>J</b>	0.045	0.0097	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
Benzo[k]fluoranthene	<0.045		0.045	0.013	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
<b>Benzo[a]pyrene</b>	<b>0.012</b>	<b>J</b>	0.045	0.0087	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
Indeno[1,2,3-cd]pyrene	<0.045		0.045	0.012	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
Dibenz(a,h)anthracene	<0.045		0.045	0.0087	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
Benzo[g,h,i]perylene	<0.045		0.045	0.015	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1
3 & 4 Methylphenol	<0.23	+	0.23	0.075	mg/Kg	☼	10/26/21 13:52	10/28/21 18:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	129		31 - 166	10/26/21 13:52	10/28/21 18:41	1
Phenol-d5	116		30 - 153	10/26/21 13:52	10/28/21 18:41	1
Nitrobenzene-d5 (Surr)	106		37 - 147	10/26/21 13:52	10/28/21 18:41	1
2-Fluorobiphenyl (Surr)	99		43 - 145	10/26/21 13:52	10/28/21 18:41	1
2,4,6-Tribromophenol	90		31 - 143	10/26/21 13:52	10/28/21 18:41	1
Terphenyl-d14 (Surr)	96		42 - 157	10/26/21 13:52	10/28/21 18:41	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>	1.3	0.25	mg/Kg	☼	11/02/21 10:30	11/03/21 12:30	1
<b>Arsenic</b>	<b>6.5</b>		0.64	0.22	mg/Kg	☼	11/02/21 10:30	11/03/21 12:30	1
<b>Barium</b>	<b>73</b>		0.64	0.073	mg/Kg	☼	11/02/21 10:30	11/03/21 12:30	1
<b>Beryllium</b>	<b>0.69</b>		0.26	0.060	mg/Kg	☼	11/02/21 10:30	11/03/21 12:30	1
<b>Boron</b>	<b>7.4</b>		3.2	0.30	mg/Kg	☼	11/02/21 10:30	11/03/21 12:30	1
<b>Cadmium</b>	<b>0.28</b>		0.13	0.023	mg/Kg	☼	11/02/21 10:30	11/03/21 12:30	1
<b>Calcium</b>	<b>20000</b>	<b>B</b>	13	2.2	mg/Kg	☼	11/02/21 10:30	11/03/21 12:30	1
<b>Chromium</b>	<b>19</b>		0.64	0.32	mg/Kg	☼	11/02/21 10:30	11/03/21 12:30	1
<b>Cobalt</b>	<b>11</b>		0.32	0.084	mg/Kg	☼	11/02/21 10:30	11/03/21 12:30	1
<b>Copper</b>	<b>26</b>		0.64	0.18	mg/Kg	☼	11/02/21 10:30	11/03/21 12:30	1
<b>Iron</b>	<b>19000</b>	<b>B</b>	13	6.7	mg/Kg	☼	11/02/21 10:30	11/03/21 12:30	1
<b>Lead</b>	<b>28</b>		0.32	0.15	mg/Kg	☼	11/02/21 10:30	11/03/21 12:30	1
<b>Magnesium</b>	<b>13000</b>		6.4	3.2	mg/Kg	☼	11/02/21 10:30	11/03/21 12:30	1
<b>Manganese</b>	<b>420</b>	<b>B</b>	0.64	0.093	mg/Kg	☼	11/02/21 10:30	11/03/21 12:30	1
<b>Nickel</b>	<b>29</b>		0.64	0.19	mg/Kg	☼	11/02/21 10:30	11/03/21 12:30	1
<b>Potassium</b>	<b>2000</b>		32	11	mg/Kg	☼	11/02/21 10:30	11/03/21 12:30	1
<b>Selenium</b>	<b>0.89</b>		0.64	0.38	mg/Kg	☼	11/02/21 10:30	11/03/21 12:30	1
<b>Silver</b>	<b>0.28</b>	<b>J</b>	0.32	0.083	mg/Kg	☼	11/02/21 10:30	11/03/21 12:30	1
<b>Sodium</b>	<b>380</b>		64	9.5	mg/Kg	☼	11/02/21 10:30	11/03/21 12:30	1
Thallium	<0.64		0.64	0.32	mg/Kg	☼	11/02/21 10:30	11/03/21 12:30	1
<b>Vanadium</b>	<b>27</b>		0.32	0.076	mg/Kg	☼	11/02/21 10:30	11/03/21 12:30	1
<b>Zinc</b>	<b>110</b>		1.3	0.57	mg/Kg	☼	11/02/21 10:30	11/03/21 12:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>0.26</b>	<b>J</b>	0.50	0.050	mg/L		10/28/21 08:18	10/28/21 21:21	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/28/21 08:18	10/28/21 21:21	1
<b>Boron</b>	<b>0.077</b>	<b>J</b>	0.50	0.050	mg/L		10/28/21 08:18	10/28/21 21:21	1

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# Client Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

**Client Sample ID: 2674V2-02-B04 (0-5)**

**Lab Sample ID: 500-207164-1**

Date Collected: 10/20/21 09:14

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 72.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/28/21 08:18	10/28/21 21:21	1
Chromium	<0.025		0.025	0.010	mg/L		10/28/21 08:18	10/28/21 21:21	1
Cobalt	<0.025		0.025	0.010	mg/L		10/28/21 08:18	10/28/21 21:21	1
Iron	<0.40		0.40	0.20	mg/L		10/31/21 08:28	11/01/21 11:45	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/28/21 08:18	10/28/21 21:21	1
<b>Manganese</b>	<b>0.27</b>		0.025	0.010	mg/L		10/28/21 08:18	10/28/21 21:21	1
Nickel	<0.025		0.025	0.010	mg/L		10/28/21 08:18	10/28/21 21:21	1
Selenium	<0.050		0.050	0.020	mg/L		10/28/21 08:18	10/28/21 21:21	1
Silver	<0.025		0.025	0.010	mg/L		10/31/21 08:28	11/01/21 11:45	1
<b>Zinc</b>	<b>0.041</b>	<b>J</b>	0.50	0.020	mg/L		10/28/21 08:18	10/28/21 21:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>0.69</b>		0.025	0.010	mg/L		10/28/21 08:23	10/29/21 14:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/28/21 08:18	10/29/21 12:22	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/28/21 08:18	10/29/21 12:22	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/29/21 09:35	11/01/21 10:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.073</b>		0.022	0.0072	mg/Kg	☼	10/28/21 14:10	10/29/21 07:25	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>7.4</b>		0.2	0.2	SU			10/25/21 18:06	1

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

**Client Sample ID: 2674V2-02-B04 (0-5)D**

**Lab Sample ID: 500-207164-2**

**Date Collected: 10/20/21 09:18**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

**Percent Solids: 85.5**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.016		0.016	0.0071	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
Benzene	<0.0016		0.0016	0.00042	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
Bromoform	<0.0016		0.0016	0.00048	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
Bromomethane	<0.0041		0.0041	0.0015	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
2-Butanone (MEK)	<0.0041		0.0041	0.0018	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
Carbon disulfide	<0.0041		0.0041	0.00085	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
Carbon tetrachloride	<0.0016		0.0016	0.00048	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
Chlorobenzene	<0.0016		0.0016	0.00060	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
Chloroethane	<0.0041		0.0041	0.0012	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
Chloroform	<0.0016		0.0016	0.00057	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
Chloromethane	<0.0041		0.0041	0.0016	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00046	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00049	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
Dibromochloromethane	<0.0016		0.0016	0.00054	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
1,1-Dichloroethane	<0.0016		0.0016	0.00056	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
1,2-Dichloroethane	<0.0041		0.0041	0.0013	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
1,1-Dichloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
1,2-Dichloropropene	<0.0016		0.0016	0.00042	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00058	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
Ethylbenzene	<0.0016		0.0016	0.00078	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
Methylene Chloride	<0.0041		0.0041	0.0016	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.0012	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00048	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
Styrene	<0.0016		0.0016	0.00050	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
Tetrachloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00073	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00058	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
1,1,1-Trichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00070	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
Trichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
Vinyl acetate	<0.0041		0.0041	0.0014	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
Vinyl chloride	<0.0016		0.0016	0.00073	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1
Xylenes, Total	<0.0033		0.0033	0.00052	mg/Kg	☼	10/20/21 18:07	10/30/21 17:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		75 - 131	10/20/21 18:07	10/30/21 17:49	1
Dibromofluoromethane	108		75 - 126	10/20/21 18:07	10/30/21 17:49	1
1,2-Dichloroethane-d4 (Surr)	106		70 - 134	10/20/21 18:07	10/30/21 17:49	1
Toluene-d8 (Surr)	108		75 - 124	10/20/21 18:07	10/30/21 17:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.083	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
Bis(2-chloroethyl)ether	<0.19	*+	0.19	0.056	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

**Client Sample ID: 2674V2-02-B04 (0-5)D**

**Lab Sample ID: 500-207164-2**

**Date Collected: 10/20/21 09:18**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

**Percent Solids: 85.5**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
2,2'-oxybis[1-chloropropane]	<0.19	++	0.19	0.043	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
N-Nitrosodi-n-propylamine	<0.076	++	0.076	0.046	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
2-Chlorophenol	<0.19	++	0.19	0.064	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
Bis(2-chloroethoxy)methane	<0.19	++	0.19	0.038	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
Isophorone	<0.19	++	0.19	0.042	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
2,4-Dimethylphenol	<0.37	++	0.37	0.14	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
Naphthalene	<0.037		0.037	0.0058	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
2-Methylnaphthalene	<0.076		0.076	0.0069	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
2,4-Dinitrophenol	<0.76		0.76	0.66	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
Pentachlorophenol	<0.76		0.76	0.60	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
Phenanthrene	<0.037		0.037	0.0052	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
Anthracene	<0.037		0.037	0.0063	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
Fluoranthene	<0.037		0.037	0.0070	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
Pyrene	<0.037		0.037	0.0074	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
Benzo[a]anthracene	<0.037		0.037	0.0050	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

**Client Sample ID: 2674V2-02-B04 (0-5)D**

**Lab Sample ID: 500-207164-2**

Date Collected: 10/20/21 09:18

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 85.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.037		0.037	0.010	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
Benzo[b]fluoranthene	<0.037		0.037	0.0081	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
Benzo[a]pyrene	<0.037		0.037	0.0073	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0097	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0072	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1
3 & 4 Methylphenol	<0.19	*+	0.19	0.063	mg/Kg	☼	10/26/21 13:52	10/28/21 19:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	142		31 - 166	10/26/21 13:52	10/28/21 19:02	1
Phenol-d5	126		30 - 153	10/26/21 13:52	10/28/21 19:02	1
Nitrobenzene-d5 (Surr)	116		37 - 147	10/26/21 13:52	10/28/21 19:02	1
2-Fluorobiphenyl (Surr)	108		43 - 145	10/26/21 13:52	10/28/21 19:02	1
2,4,6-Tribromophenol	95		31 - 143	10/26/21 13:52	10/28/21 19:02	1
Terphenyl-d14 (Surr)	100		42 - 157	10/26/21 13:52	10/28/21 19:02	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.25</b>	<b>J</b>	1.1	0.22	mg/Kg	☼	11/02/21 10:30	11/03/21 12:33	1
<b>Arsenic</b>	<b>1.1</b>		0.56	0.19	mg/Kg	☼	11/02/21 10:30	11/03/21 12:33	1
<b>Barium</b>	<b>7.9</b>		0.56	0.064	mg/Kg	☼	11/02/21 10:30	11/03/21 12:33	1
Beryllium	<0.22		0.22	0.052	mg/Kg	☼	11/02/21 10:30	11/03/21 12:33	1
<b>Boron</b>	<b>3.4</b>		2.8	0.26	mg/Kg	☼	11/02/21 10:30	11/03/21 12:33	1
<b>Cadmium</b>	<b>0.029</b>	<b>J</b>	0.11	0.020	mg/Kg	☼	11/02/21 10:30	11/03/21 12:33	1
<b>Calcium</b>	<b>32000</b>	<b>B</b>	22	3.8	mg/Kg	☼	11/02/21 10:30	11/03/21 15:16	2
<b>Chromium</b>	<b>3.9</b>		0.56	0.28	mg/Kg	☼	11/02/21 10:30	11/03/21 12:33	1
<b>Cobalt</b>	<b>2.5</b>		0.28	0.073	mg/Kg	☼	11/02/21 10:30	11/03/21 12:33	1
<b>Copper</b>	<b>4.1</b>		0.56	0.16	mg/Kg	☼	11/02/21 10:30	11/03/21 12:33	1
<b>Iron</b>	<b>1700</b>	<b>B</b>	22	12	mg/Kg	☼	11/02/21 10:30	11/03/21 15:16	2
<b>Lead</b>	<b>1.3</b>		0.56	0.26	mg/Kg	☼	11/02/21 10:30	11/03/21 15:16	2
<b>Magnesium</b>	<b>16000</b>		11	5.5	mg/Kg	☼	11/02/21 10:30	11/03/21 15:16	2
<b>Manganese</b>	<b>170</b>	<b>B</b>	0.56	0.081	mg/Kg	☼	11/02/21 10:30	11/03/21 12:33	1
<b>Nickel</b>	<b>5.2</b>		0.56	0.16	mg/Kg	☼	11/02/21 10:30	11/03/21 12:33	1
<b>Potassium</b>	<b>370</b>		28	9.9	mg/Kg	☼	11/02/21 10:30	11/03/21 12:33	1
Selenium	<0.56		0.56	0.33	mg/Kg	☼	11/02/21 10:30	11/03/21 12:33	1
Silver	<0.28		0.28	0.072	mg/Kg	☼	11/02/21 10:30	11/03/21 12:33	1
<b>Sodium</b>	<b>200</b>		56	8.3	mg/Kg	☼	11/02/21 10:30	11/03/21 12:33	1
Thallium	<0.56		0.56	0.28	mg/Kg	☼	11/02/21 10:30	11/03/21 12:33	1
<b>Vanadium</b>	<b>7.9</b>		0.28	0.066	mg/Kg	☼	11/02/21 10:30	11/03/21 12:33	1
<b>Zinc</b>	<b>19</b>		1.1	0.49	mg/Kg	☼	11/02/21 10:30	11/03/21 12:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>0.13</b>	<b>J</b>	0.50	0.050	mg/L		10/28/21 08:18	10/28/21 21:25	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/28/21 08:18	10/28/21 21:25	1
Boron	<0.50		0.50	0.050	mg/L		10/28/21 08:18	10/28/21 21:25	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

**Client Sample ID: 2674V2-02-B04 (0-5)D**

**Lab Sample ID: 500-207164-2**

Date Collected: 10/20/21 09:18

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 85.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/28/21 08:18	10/28/21 21:25	1
Chromium	<0.025		0.025	0.010	mg/L		10/28/21 08:18	10/28/21 21:25	1
<b>Cobalt</b>	<b>0.013</b>	<b>J</b>	0.025	0.010	mg/L		10/28/21 08:18	10/28/21 21:25	1
Iron	<0.40		0.40	0.20	mg/L		10/31/21 08:28	11/01/21 12:24	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/28/21 08:18	10/28/21 21:25	1
<b>Manganese</b>	<b>0.76</b>		0.025	0.010	mg/L		10/28/21 08:18	10/28/21 21:25	1
Nickel	<0.025		0.025	0.010	mg/L		10/28/21 08:18	10/28/21 21:25	1
Selenium	<0.050		0.050	0.020	mg/L		10/28/21 08:18	10/28/21 21:25	1
Silver	<0.025		0.025	0.010	mg/L		10/31/21 08:28	11/01/21 12:24	1
<b>Zinc</b>	<b>0.052</b>	<b>J</b>	0.50	0.020	mg/L		10/28/21 08:18	10/28/21 21:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>0.15</b>		0.025	0.010	mg/L		10/28/21 08:23	10/29/21 14:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/28/21 08:18	10/29/21 12:23	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/28/21 08:18	10/29/21 12:23	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/29/21 09:35	11/01/21 10:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.0069</b>	<b>J</b>	0.019	0.0063	mg/Kg	☼	10/28/21 14:10	10/29/21 07:27	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>8.3</b>		0.2	0.2	SU			10/25/21 18:08	1

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

**Client Sample ID: 2674V2-02-B03 (0-5)**

**Lab Sample ID: 500-207164-3**

Date Collected: 10/20/21 09:28

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 83.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0083	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
Benzene	<0.0019		0.0019	0.00048	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
Bromodichloromethane	<0.0019		0.0019	0.00039	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
Bromoform	<0.0019		0.0019	0.00055	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
Bromomethane	<0.0047		0.0047	0.0018	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
2-Butanone (MEK)	<0.0047		0.0047	0.0021	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
Carbon disulfide	<0.0047		0.0047	0.00099	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
Carbon tetrachloride	<0.0019		0.0019	0.00055	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
Chlorobenzene	<0.0019		0.0019	0.00070	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
Chloroethane	<0.0047		0.0047	0.0014	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
<b>Chloroform</b>	<b>0.00084</b>	<b>J</b>	0.0019	0.00066	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
Chloromethane	<0.0047		0.0047	0.0019	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00053	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00057	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
Dibromochloromethane	<0.0019		0.0019	0.00062	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
1,1-Dichloroethane	<0.0019		0.0019	0.00065	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
1,2-Dichloroethane	<0.0047		0.0047	0.0015	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
1,1-Dichloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
1,2-Dichloropropene	<0.0019		0.0019	0.00049	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
1,3-Dichloropropene, Total	<0.0019		0.0019	0.00067	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
Ethylbenzene	<0.0019		0.0019	0.00091	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
2-Hexanone	<0.0047		0.0047	0.0015	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
Methylene Chloride	<0.0047		0.0047	0.0019	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
4-Methyl-2-pentanone (MIBK)	<0.0047		0.0047	0.0014	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00056	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
Styrene	<0.0019		0.0019	0.00057	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00061	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
Tetrachloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
Toluene	<0.0019		0.0019	0.00048	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00084	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00067	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
1,1,1-Trichloroethane	<0.0019		0.0019	0.00064	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00081	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
Trichloroethene	<0.0019		0.0019	0.00064	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
Vinyl acetate	<0.0047		0.0047	0.0016	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
Vinyl chloride	<0.0019		0.0019	0.00084	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1
Xylenes, Total	<0.0038		0.0038	0.00061	mg/Kg	☼	10/20/21 18:07	10/30/21 18:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		75 - 131	10/20/21 18:07	10/30/21 18:15	1
Dibromofluoromethane	110		75 - 126	10/20/21 18:07	10/30/21 18:15	1
1,2-Dichloroethane-d4 (Surr)	111		70 - 134	10/20/21 18:07	10/30/21 18:15	1
Toluene-d8 (Surr)	111		75 - 124	10/20/21 18:07	10/30/21 18:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.087	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
Bis(2-chloroethyl)ether	<0.20	*+	0.20	0.059	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

**Client Sample ID: 2674V2-02-B03 (0-5)**

**Lab Sample ID: 500-207164-3**

Date Collected: 10/20/21 09:28

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 83.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
2,2'-oxybis[1-chloropropane]	<0.20	++	0.20	0.046	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
N-Nitrosodi-n-propylamine	<0.079	++	0.079	0.048	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
2-Chlorophenol	<0.20	++	0.20	0.067	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
Bis(2-chloroethoxy)methane	<0.20	++	0.20	0.040	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
Isophorone	<0.20	++	0.20	0.044	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
2,4-Dimethylphenol	<0.39	++	0.39	0.15	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
<b>Naphthalene</b>	<b>0.011</b>	<b>J</b>	0.039	0.0060	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
<b>2-Methylnaphthalene</b>	<b>0.022</b>	<b>J</b>	0.079	0.0072	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.32	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
<b>Phenanthrene</b>	<b>0.066</b>		0.039	0.0055	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
<b>Anthracene</b>	<b>0.012</b>	<b>J</b>	0.039	0.0066	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
<b>Fluoranthene</b>	<b>0.063</b>		0.039	0.0073	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
<b>Pyrene</b>	<b>0.085</b>		0.039	0.0078	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
<b>Benzo[a]anthracene</b>	<b>0.037</b>	<b>J</b>	0.039	0.0053	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1

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# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

**Client Sample ID: 2674V2-02-B03 (0-5)**

**Lab Sample ID: 500-207164-3**

Date Collected: 10/20/21 09:28

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 83.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chrysene</b>	<b>0.051</b>		0.039	0.011	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
<b>Benzo[b]fluoranthene</b>	<b>0.063</b>	<b>*3</b>	0.039	0.0085	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
<b>Benzo[k]fluoranthene</b>	<b>0.021</b>	<b>J *3</b>	0.039	0.012	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
<b>Benzo[a]pyrene</b>	<b>0.039</b>	<b>*3</b>	0.039	0.0076	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.018</b>	<b>J *3</b>	0.039	0.010	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
Dibenz(a,h)anthracene	<0.039	*3	0.039	0.0076	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
<b>Benzo[g,h,i]perylene</b>	<b>0.028</b>	<b>J *3</b>	0.039	0.013	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1
3 & 4 Methylphenol	<0.20	*+	0.20	0.066	mg/Kg	☼	10/26/21 13:52	10/28/21 19:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	129		31 - 166	10/26/21 13:52	10/28/21 19:23	1
Phenol-d5	118		30 - 153	10/26/21 13:52	10/28/21 19:23	1
Nitrobenzene-d5 (Surr)	105		37 - 147	10/26/21 13:52	10/28/21 19:23	1
2-Fluorobiphenyl (Surr)	99		43 - 145	10/26/21 13:52	10/28/21 19:23	1
2,4,6-Tribromophenol	94		31 - 143	10/26/21 13:52	10/28/21 19:23	1
Terphenyl-d14 (Surr)	102		42 - 157	10/26/21 13:52	10/28/21 19:23	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	☼	11/02/21 10:30	11/03/21 12:36	1
<b>Arsenic</b>	<b>5.1</b>		0.55	0.19	mg/Kg	☼	11/02/21 10:30	11/03/21 12:36	1
<b>Barium</b>	<b>47</b>		0.55	0.063	mg/Kg	☼	11/02/21 10:30	11/03/21 12:36	1
<b>Beryllium</b>	<b>0.47</b>		0.22	0.051	mg/Kg	☼	11/02/21 10:30	11/03/21 12:36	1
<b>Boron</b>	<b>5.2</b>		2.7	0.26	mg/Kg	☼	11/02/21 10:30	11/03/21 12:36	1
<b>Cadmium</b>	<b>0.25</b>		0.11	0.020	mg/Kg	☼	11/02/21 10:30	11/03/21 12:36	1
<b>Calcium</b>	<b>37000</b>	<b>B</b>	22	3.7	mg/Kg	☼	11/02/21 10:30	11/03/21 15:19	2
<b>Chromium</b>	<b>13</b>		0.55	0.27	mg/Kg	☼	11/02/21 10:30	11/03/21 12:36	1
<b>Cobalt</b>	<b>7.8</b>		0.27	0.072	mg/Kg	☼	11/02/21 10:30	11/03/21 12:36	1
<b>Copper</b>	<b>19</b>		0.55	0.15	mg/Kg	☼	11/02/21 10:30	11/03/21 12:36	1
<b>Iron</b>	<b>12000</b>	<b>B</b>	11	5.7	mg/Kg	☼	11/02/21 10:30	11/03/21 12:36	1
<b>Lead</b>	<b>89</b>		0.55	0.25	mg/Kg	☼	11/02/21 10:30	11/03/21 15:19	2
<b>Magnesium</b>	<b>21000</b>		5.5	2.7	mg/Kg	☼	11/02/21 10:30	11/03/21 12:36	1
<b>Manganese</b>	<b>360</b>	<b>B</b>	0.55	0.080	mg/Kg	☼	11/02/21 10:30	11/03/21 12:36	1
<b>Nickel</b>	<b>18</b>		0.55	0.16	mg/Kg	☼	11/02/21 10:30	11/03/21 12:36	1
<b>Potassium</b>	<b>1100</b>		27	9.7	mg/Kg	☼	11/02/21 10:30	11/03/21 12:36	1
<b>Selenium</b>	<b>0.66</b>		0.55	0.32	mg/Kg	☼	11/02/21 10:30	11/03/21 12:36	1
<b>Silver</b>	<b>0.15</b>	<b>J</b>	0.27	0.071	mg/Kg	☼	11/02/21 10:30	11/03/21 12:36	1
<b>Sodium</b>	<b>450</b>		55	8.1	mg/Kg	☼	11/02/21 10:30	11/03/21 12:36	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	11/02/21 10:30	11/03/21 12:36	1
<b>Vanadium</b>	<b>19</b>		0.27	0.065	mg/Kg	☼	11/02/21 10:30	11/03/21 12:36	1
<b>Zinc</b>	<b>89</b>		1.1	0.48	mg/Kg	☼	11/02/21 10:30	11/03/21 12:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>0.32</b>	<b>J</b>	0.50	0.050	mg/L		10/28/21 08:18	10/28/21 21:28	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/28/21 08:18	10/28/21 21:28	1
<b>Boron</b>	<b>0.052</b>	<b>J</b>	0.50	0.050	mg/L		10/28/21 08:18	10/28/21 21:28	1

Eurofins TestAmerica, Chicago



# Client Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

**Client Sample ID: 2674V2-02-B03 (0-5)**

**Lab Sample ID: 500-207164-3**

Date Collected: 10/20/21 09:28

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 83.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/28/21 08:18	10/28/21 21:28	1
Chromium	<0.025		0.025	0.010	mg/L		10/28/21 08:18	10/28/21 21:28	1
Cobalt	<0.025		0.025	0.010	mg/L		10/28/21 08:18	10/28/21 21:28	1
Iron	<0.40		0.40	0.20	mg/L		10/31/21 08:28	11/01/21 12:27	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/28/21 08:18	10/28/21 21:28	1
<b>Manganese</b>	<b>0.089</b>		0.025	0.010	mg/L		10/28/21 08:18	10/28/21 21:28	1
Nickel	<0.025		0.025	0.010	mg/L		10/28/21 08:18	10/28/21 21:28	1
Selenium	<0.050		0.050	0.020	mg/L		10/28/21 08:18	10/28/21 21:28	1
Silver	<0.025		0.025	0.010	mg/L		10/31/21 08:28	11/01/21 12:27	1
<b>Zinc</b>	<b>0.077 J</b>		0.50	0.020	mg/L		10/28/21 08:18	10/28/21 21:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/28/21 08:18	10/29/21 12:25	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/28/21 08:18	10/29/21 12:25	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/29/21 09:35	11/01/21 10:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<b>0.056</b>		0.020	0.0066	mg/Kg	☼	10/28/21 14:10	10/29/21 07:41	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	<b>7.9</b>		0.2	0.2	SU			10/25/21 18:13	1

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

**Client Sample ID: 2674V2-02-B02 (0-5)**

**Lab Sample ID: 500-207164-4**

Date Collected: 10/20/21 09:36

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 86.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.021		0.021	0.0091	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
Benzene	<0.0021		0.0021	0.00053	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
Bromodichloromethane	<0.0021		0.0021	0.00043	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
Bromoform	<0.0021		0.0021	0.00061	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
Bromomethane	<0.0052		0.0052	0.0020	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
2-Butanone (MEK)	<0.0052		0.0052	0.0023	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
Carbon disulfide	<0.0052		0.0052	0.0011	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
Carbon tetrachloride	<0.0021		0.0021	0.00061	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
Chlorobenzene	<0.0021		0.0021	0.00077	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
Chloroethane	<0.0052		0.0052	0.0015	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
Chloroform	<0.0021		0.0021	0.00072	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
Chloromethane	<0.0052		0.0052	0.0021	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
cis-1,2-Dichloroethene	<0.0021		0.0021	0.00058	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
cis-1,3-Dichloropropene	<0.0021		0.0021	0.00063	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
Dibromochloromethane	<0.0021		0.0021	0.00068	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
1,1-Dichloroethane	<0.0021		0.0021	0.00072	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
1,2-Dichloroethane	<0.0052		0.0052	0.0016	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
1,1-Dichloroethene	<0.0021		0.0021	0.00072	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
1,2-Dichloropropene	<0.0021		0.0021	0.00054	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
1,3-Dichloropropene, Total	<0.0021		0.0021	0.00073	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
Ethylbenzene	<0.0021		0.0021	0.0010	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
2-Hexanone	<0.0052		0.0052	0.0016	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
Methylene Chloride	<0.0052		0.0052	0.0021	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
4-Methyl-2-pentanone (MIBK)	<0.0052		0.0052	0.0015	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
Methyl tert-butyl ether	<0.0021		0.0021	0.00061	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
Styrene	<0.0021		0.0021	0.00063	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
1,1,2,2-Tetrachloroethane	<0.0021		0.0021	0.00067	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
Tetrachloroethene	<0.0021		0.0021	0.00071	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
Toluene	<0.0021		0.0021	0.00053	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
trans-1,2-Dichloroethene	<0.0021		0.0021	0.00093	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
trans-1,3-Dichloropropene	<0.0021		0.0021	0.00073	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
1,1,1-Trichloroethane	<0.0021		0.0021	0.00070	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
1,1,2-Trichloroethane	<0.0021		0.0021	0.00090	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
Trichloroethene	<0.0021		0.0021	0.00071	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
Vinyl acetate	<0.0052		0.0052	0.0018	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
Vinyl chloride	<0.0021		0.0021	0.00092	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1
Xylenes, Total	<0.0042		0.0042	0.00067	mg/Kg	☼	10/20/21 18:07	10/30/21 18:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		75 - 131	10/20/21 18:07	10/30/21 18:40	1
Dibromofluoromethane	110		75 - 126	10/20/21 18:07	10/30/21 18:40	1
1,2-Dichloroethane-d4 (Surr)	111		70 - 134	10/20/21 18:07	10/30/21 18:40	1
Toluene-d8 (Surr)	109		75 - 124	10/20/21 18:07	10/30/21 18:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.082	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
Bis(2-chloroethyl)ether	<0.19	*+	0.19	0.056	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
1,4-Dichlorobenzene	<0.19		0.19	0.047	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

**Client Sample ID: 2674V2-02-B02 (0-5)**

**Lab Sample ID: 500-207164-4**

**Date Collected: 10/20/21 09:36**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

**Percent Solids: 86.6**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
2-Methylphenol	<0.19		0.19	0.059	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
2,2'-oxybis[1-chloropropane]	<0.19	++	0.19	0.043	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
N-Nitrosodi-n-propylamine	<0.075	++	0.075	0.045	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
Hexachloroethane	<0.19		0.19	0.056	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
2-Chlorophenol	<0.19	++	0.19	0.063	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
Nitrobenzene	<0.037		0.037	0.0092	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
Bis(2-chloroethoxy)methane	<0.19	++	0.19	0.038	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
Isophorone	<0.19	++	0.19	0.042	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
2,4-Dimethylphenol	<0.37	++	0.37	0.14	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
Hexachlorobutadiene	<0.19		0.19	0.058	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
2,4-Dichlorophenol	<0.37		0.37	0.088	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
4-Chloroaniline	<0.75		0.75	0.17	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
2-Methylnaphthalene	<0.075		0.075	0.0068	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
3-Nitroaniline	<0.37		0.37	0.11	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
Dimethyl phthalate	<0.19		0.19	0.048	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
2,4-Dinitrophenol	<0.75		0.75	0.65	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
Dibenzofuran	<0.19		0.19	0.043	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
4-Nitrophenol	<0.75		0.75	0.35	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
4-Nitroaniline	<0.37		0.37	0.15	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
Hexachlorobenzene	<0.075		0.075	0.0086	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
Pentachlorophenol	<0.75		0.75	0.59	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.30	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
Phenanthrene	<0.037		0.037	0.0052	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
Anthracene	<0.037		0.037	0.0062	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
Carbazole	<0.19		0.19	0.093	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
Di-n-butyl phthalate	<0.19		0.19	0.056	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
Fluoranthene	<0.037		0.037	0.0069	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
Pyrene	<0.037		0.037	0.0074	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
Butyl benzyl phthalate	<0.19		0.19	0.070	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
Benzo[a]anthracene	<0.037		0.037	0.0050	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1

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# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

**Client Sample ID: 2674V2-02-B02 (0-5)**

**Lab Sample ID: 500-207164-4**

Date Collected: 10/20/21 09:36

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 86.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.037		0.037	0.010	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
Di-n-octyl phthalate	<0.19		0.19	0.060	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
Benzo[b]fluoranthene	<0.037		0.037	0.0080	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
Benzo[a]pyrene	<0.037		0.037	0.0072	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0096	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0072	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1
3 & 4 Methylphenol	<0.19	*+	0.19	0.062	mg/Kg	☼	10/26/21 13:52	10/28/21 19:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	127		31 - 166	10/26/21 13:52	10/28/21 19:44	1
Phenol-d5	119		30 - 153	10/26/21 13:52	10/28/21 19:44	1
Nitrobenzene-d5 (Surr)	106		37 - 147	10/26/21 13:52	10/28/21 19:44	1
2-Fluorobiphenyl (Surr)	98		43 - 145	10/26/21 13:52	10/28/21 19:44	1
2,4,6-Tribromophenol	79		31 - 143	10/26/21 13:52	10/28/21 19:44	1
Terphenyl-d14 (Surr)	100		42 - 157	10/26/21 13:52	10/28/21 19:44	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.74	J	1.1	0.21	mg/Kg	☼	11/02/21 10:30	11/03/21 12:39	1
Arsenic	8.0		0.55	0.19	mg/Kg	☼	11/02/21 10:30	11/03/21 12:39	1
Barium	72		0.55	0.062	mg/Kg	☼	11/02/21 10:30	11/03/21 12:39	1
Beryllium	0.67		0.22	0.051	mg/Kg	☼	11/02/21 10:30	11/03/21 12:39	1
Boron	8.4		2.7	0.26	mg/Kg	☼	11/02/21 10:30	11/03/21 12:39	1
Cadmium	<0.11		0.11	0.020	mg/Kg	☼	11/02/21 10:30	11/03/21 12:39	1
Calcium	2600	B	11	1.9	mg/Kg	☼	11/02/21 10:30	11/03/21 12:39	1
Chromium	23		0.55	0.27	mg/Kg	☼	11/02/21 10:30	11/03/21 12:39	1
Cobalt	18		0.27	0.072	mg/Kg	☼	11/02/21 10:30	11/03/21 12:39	1
Copper	25		0.55	0.15	mg/Kg	☼	11/02/21 10:30	11/03/21 12:39	1
Iron	25000	B	11	5.7	mg/Kg	☼	11/02/21 10:30	11/03/21 12:39	1
Lead	18		0.27	0.13	mg/Kg	☼	11/02/21 10:30	11/03/21 12:39	1
Magnesium	5600		5.5	2.7	mg/Kg	☼	11/02/21 10:30	11/03/21 12:39	1
Manganese	790	B	0.55	0.079	mg/Kg	☼	11/02/21 10:30	11/03/21 12:39	1
Nickel	45		0.55	0.16	mg/Kg	☼	11/02/21 10:30	11/03/21 12:39	1
Potassium	2600		27	9.7	mg/Kg	☼	11/02/21 10:30	11/03/21 12:39	1
Selenium	0.80		0.55	0.32	mg/Kg	☼	11/02/21 10:30	11/03/21 12:39	1
Silver	0.37		0.27	0.071	mg/Kg	☼	11/02/21 10:30	11/03/21 12:39	1
Sodium	310		55	8.1	mg/Kg	☼	11/02/21 10:30	11/03/21 12:39	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	11/02/21 10:30	11/03/21 12:39	1
Vanadium	29		0.27	0.065	mg/Kg	☼	11/02/21 10:30	11/03/21 12:39	1
Zinc	71		1.1	0.48	mg/Kg	☼	11/02/21 10:30	11/03/21 12:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.20	J	0.50	0.050	mg/L		10/28/21 08:18	10/28/21 21:38	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/28/21 08:18	10/28/21 21:38	1
Boron	0.068	J	0.50	0.050	mg/L		10/28/21 08:18	10/28/21 21:38	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

**Client Sample ID: 2674V2-02-B02 (0-5)**

**Lab Sample ID: 500-207164-4**

Date Collected: 10/20/21 09:36

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 86.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/28/21 08:18	10/28/21 21:38	1
Chromium	<0.025		0.025	0.010	mg/L		10/28/21 08:18	10/28/21 21:38	1
Cobalt	<0.025		0.025	0.010	mg/L		10/28/21 08:18	10/28/21 21:38	1
Iron	<0.40		0.40	0.20	mg/L		10/31/21 08:28	11/01/21 12:30	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/28/21 08:18	10/28/21 21:38	1
<b>Manganese</b>	<b>0.013</b>	<b>J</b>	0.025	0.010	mg/L		10/28/21 08:18	10/28/21 21:38	1
Nickel	<0.025		0.025	0.010	mg/L		10/28/21 08:18	10/28/21 21:38	1
Selenium	<0.050		0.050	0.020	mg/L		10/28/21 08:18	10/28/21 21:38	1
Silver	<0.025		0.025	0.010	mg/L		10/31/21 08:28	11/01/21 12:30	1
Zinc	<0.50		0.50	0.020	mg/L		10/28/21 08:18	10/28/21 21:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/28/21 08:18	10/29/21 12:26	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/28/21 08:18	10/29/21 12:26	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/29/21 09:35	11/01/21 10:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<b>0.042</b>		0.017	0.0057	mg/Kg	☼	10/28/21 14:10	10/29/21 07:42	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	<b>8.2</b>		0.2	0.2	SU			10/25/21 18:15	1

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

**Client Sample ID: 2674V2-02-B01 (0-5)**

**Lab Sample ID: 500-207164-5**

Date Collected: 10/20/21 09:47

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 90.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.022		0.022	0.0094	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
Benzene	<0.0022		0.0022	0.00055	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
Bromodichloromethane	<0.0022		0.0022	0.00044	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
Bromoform	<0.0022		0.0022	0.00063	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
Bromomethane	<0.0054		0.0054	0.0020	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
2-Butanone (MEK)	<0.0054		0.0054	0.0024	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
Carbon disulfide	<0.0054		0.0054	0.0011	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
Carbon tetrachloride	<0.0022		0.0022	0.00062	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
Chlorobenzene	<0.0022		0.0022	0.00079	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
Chloroethane	<0.0054		0.0054	0.0016	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
Chloroform	<0.0022		0.0022	0.00075	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
Chloromethane	<0.0054		0.0054	0.0022	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
cis-1,2-Dichloroethene	<0.0022		0.0022	0.00060	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
cis-1,3-Dichloropropene	<0.0022		0.0022	0.00065	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
Dibromochloromethane	<0.0022		0.0022	0.00070	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
1,1-Dichloroethane	<0.0022		0.0022	0.00074	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
1,2-Dichloroethane	<0.0054		0.0054	0.0017	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
1,1-Dichloroethene	<0.0022		0.0022	0.00074	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
1,2-Dichloropropene	<0.0022		0.0022	0.00056	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
1,3-Dichloropropene, Total	<0.0022		0.0022	0.00075	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
Ethylbenzene	<0.0022		0.0022	0.0010	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
2-Hexanone	<0.0054		0.0054	0.0017	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
Methylene Chloride	<0.0054		0.0054	0.0021	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
4-Methyl-2-pentanone (MIBK)	<0.0054		0.0054	0.0016	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
Methyl tert-butyl ether	<0.0022		0.0022	0.00063	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
Styrene	<0.0022		0.0022	0.00065	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
1,1,2,2-Tetrachloroethane	<0.0022		0.0022	0.00069	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
Tetrachloroethene	<0.0022		0.0022	0.00073	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
Toluene	<0.0022		0.0022	0.00054	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
trans-1,2-Dichloroethene	<0.0022		0.0022	0.00095	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
trans-1,3-Dichloropropene	<0.0022		0.0022	0.00075	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
1,1,1-Trichloroethane	<0.0022		0.0022	0.00072	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
1,1,2-Trichloroethane	<0.0022		0.0022	0.00092	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
Trichloroethene	<0.0022		0.0022	0.00073	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
Vinyl acetate	<0.0054		0.0054	0.0019	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
Vinyl chloride	<0.0022		0.0022	0.00095	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1
Xylenes, Total	<0.0043		0.0043	0.00069	mg/Kg	☼	10/20/21 18:07	10/30/21 19:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		75 - 131	10/20/21 18:07	10/30/21 19:06	1
Dibromofluoromethane	112		75 - 126	10/20/21 18:07	10/30/21 19:06	1
1,2-Dichloroethane-d4 (Surr)	111		70 - 134	10/20/21 18:07	10/30/21 19:06	1
Toluene-d8 (Surr)	107		75 - 124	10/20/21 18:07	10/30/21 19:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18	F1	0.18	0.078	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
Bis(2-chloroethyl)ether	<0.18	*+ F1	0.18	0.052	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
1,3-Dichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
1,4-Dichlorobenzene	<0.18		0.18	0.045	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

**Client Sample ID: 2674V2-02-B01 (0-5)**

**Lab Sample ID: 500-207164-5**

**Date Collected: 10/20/21 09:47**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

**Percent Solids: 90.1**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.042	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
2-Methylphenol	<0.18	F1	0.18	0.056	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
2,2'-oxybis[1-chloropropane]	<0.18	*+ F1	0.18	0.041	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
N-Nitrosodi-n-propylamine	<0.071	*+ F1	0.071	0.043	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
Hexachloroethane	<0.18		0.18	0.053	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
2-Chlorophenol	<0.18	*+ F1	0.18	0.060	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
Nitrobenzene	<0.035	F1	0.035	0.0087	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
Bis(2-chloroethoxy)methane	<0.18	*+ F1	0.18	0.036	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
Isophorone	<0.18	*+ F1	0.18	0.039	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
2,4-Dimethylphenol	<0.35	*+ F1	0.35	0.13	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
Hexachlorobutadiene	<0.18		0.18	0.055	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
Naphthalene	<0.035		0.035	0.0054	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
2,4-Dichlorophenol	<0.35		0.35	0.083	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
4-Chloroaniline	<0.71		0.71	0.16	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
2,4,5-Trichlorophenol	<0.35		0.35	0.080	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
Hexachlorocyclopentadiene	<0.71		0.71	0.20	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
2-Methylnaphthalene	<0.071		0.071	0.0064	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
2-Nitroaniline	<0.18		0.18	0.047	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
2,6-Dinitrotoluene	<0.18		0.18	0.069	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
2-Nitrophenol	<0.35		0.35	0.083	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
Dimethyl phthalate	<0.18		0.18	0.046	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
2,4-Dinitrophenol	<0.71		0.71	0.62	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
Acenaphthylene	<0.035		0.035	0.0046	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
2,4-Dinitrotoluene	<0.18		0.18	0.056	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
Acenaphthene	<0.035		0.035	0.0063	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
Dibenzofuran	<0.18		0.18	0.041	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
4-Nitrophenol	<0.71		0.71	0.33	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
Fluorene	<0.035		0.035	0.0049	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.046	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
Hexachlorobenzene	<0.071		0.071	0.0081	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
Diethyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.041	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
Pentachlorophenol	<0.71		0.71	0.56	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
N-Nitrosodiphenylamine	<0.18		0.18	0.041	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
4,6-Dinitro-2-methylphenol	<0.71		0.71	0.28	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
Phenanthrene	<0.035		0.035	0.0049	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
Anthracene	<0.035		0.035	0.0058	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
Carbazole	<0.18		0.18	0.087	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
Di-n-butyl phthalate	<0.18		0.18	0.053	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
Fluoranthene	<0.035		0.035	0.0065	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
Pyrene	<0.035		0.035	0.0070	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
Butyl benzyl phthalate	<0.18		0.18	0.067	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
Benzo[a]anthracene	<0.035		0.035	0.0047	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

**Client Sample ID: 2674V2-02-B01 (0-5)**

**Lab Sample ID: 500-207164-5**

Date Collected: 10/20/21 09:47

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 90.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.035		0.035	0.0095	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.049	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.064	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
Di-n-octyl phthalate	<0.18		0.18	0.057	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
Benzo[b]fluoranthene	<0.035		0.035	0.0076	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
Benzo[k]fluoranthene	<0.035	F1	0.035	0.010	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
Benzo[a]pyrene	<0.035		0.035	0.0068	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
Indeno[1,2,3-cd]pyrene	<0.035	F1	0.035	0.0091	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
Dibenz(a,h)anthracene	<0.035		0.035	0.0068	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
Benzo[g,h,i]perylene	<0.035	F1	0.035	0.011	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1
3 & 4 Methylphenol	<0.18	*+ F1	0.18	0.058	mg/Kg	☼	10/26/21 13:52	10/28/21 20:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	127		31 - 166	10/26/21 13:52	10/28/21 20:05	1
Phenol-d5	113		30 - 153	10/26/21 13:52	10/28/21 20:05	1
Nitrobenzene-d5 (Surr)	108		37 - 147	10/26/21 13:52	10/28/21 20:05	1
2-Fluorobiphenyl (Surr)	97		43 - 145	10/26/21 13:52	10/28/21 20:05	1
2,4,6-Tribromophenol	80		31 - 143	10/26/21 13:52	10/28/21 20:05	1
Terphenyl-d14 (Surr)	98		42 - 157	10/26/21 13:52	10/28/21 20:05	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	0.21	mg/Kg	☼	11/02/21 10:30	11/03/21 12:42	1
<b>Arsenic</b>	<b>6.0</b>		0.55	0.19	mg/Kg	☼	11/02/21 10:30	11/03/21 12:42	1
<b>Barium</b>	<b>44</b>		0.55	0.062	mg/Kg	☼	11/02/21 10:30	11/03/21 12:42	1
<b>Beryllium</b>	<b>0.57</b>		0.22	0.051	mg/Kg	☼	11/02/21 10:30	11/03/21 12:42	1
<b>Boron</b>	<b>9.6</b>		2.7	0.25	mg/Kg	☼	11/02/21 10:30	11/03/21 12:42	1
Cadmium	<0.11		0.11	0.020	mg/Kg	☼	11/02/21 10:30	11/03/21 12:42	1
<b>Calcium</b>	<b>82000</b>	<b>B</b>	55	9.2	mg/Kg	☼	11/02/21 10:30	11/03/21 15:26	5
<b>Chromium</b>	<b>16</b>		0.55	0.27	mg/Kg	☼	11/02/21 10:30	11/03/21 12:42	1
<b>Cobalt</b>	<b>11</b>		0.27	0.071	mg/Kg	☼	11/02/21 10:30	11/03/21 12:42	1
<b>Copper</b>	<b>20</b>		0.55	0.15	mg/Kg	☼	11/02/21 10:30	11/03/21 12:42	1
<b>Iron</b>	<b>19000</b>	<b>B</b>	55	28	mg/Kg	☼	11/02/21 10:30	11/03/21 15:26	5
<b>Lead</b>	<b>12</b>		1.4	0.63	mg/Kg	☼	11/02/21 10:30	11/03/21 15:26	5
<b>Magnesium</b>	<b>40000</b>		27	14	mg/Kg	☼	11/02/21 10:30	11/03/21 15:26	5
<b>Manganese</b>	<b>440</b>	<b>B</b>	0.55	0.079	mg/Kg	☼	11/02/21 10:30	11/03/21 12:42	1
<b>Nickel</b>	<b>28</b>		0.55	0.16	mg/Kg	☼	11/02/21 10:30	11/03/21 12:42	1
<b>Potassium</b>	<b>2300</b>		27	9.7	mg/Kg	☼	11/02/21 10:30	11/03/21 12:42	1
Selenium	<0.55		0.55	0.32	mg/Kg	☼	11/02/21 10:30	11/03/21 12:42	1
<b>Silver</b>	<b>0.12</b>	<b>J</b>	0.27	0.070	mg/Kg	☼	11/02/21 10:30	11/03/21 12:42	1
<b>Sodium</b>	<b>190</b>		55	8.1	mg/Kg	☼	11/02/21 10:30	11/03/21 12:42	1
Thallium	<0.55		0.55	0.27	mg/Kg	☼	11/02/21 10:30	11/03/21 12:42	1
<b>Vanadium</b>	<b>20</b>		0.27	0.064	mg/Kg	☼	11/02/21 10:30	11/03/21 12:42	1
<b>Zinc</b>	<b>54</b>		1.1	0.48	mg/Kg	☼	11/02/21 10:30	11/03/21 12:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>0.35</b>	<b>J</b>	0.50	0.050	mg/L		10/28/21 08:18	10/28/21 21:41	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/28/21 08:18	10/28/21 21:41	1
<b>Boron</b>	<b>0.059</b>	<b>J</b>	0.50	0.050	mg/L		10/28/21 08:18	10/28/21 21:41	1

Eurofins TestAmerica, Chicago



# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

**Client Sample ID: 2674V2-02-B01 (0-5)**

**Lab Sample ID: 500-207164-5**

Date Collected: 10/20/21 09:47

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 90.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/28/21 08:18	10/28/21 21:41	1
Chromium	<0.025		0.025	0.010	mg/L		10/28/21 08:18	10/28/21 21:41	1
<b>Cobalt</b>	<b>0.050</b>		0.025	0.010	mg/L		10/28/21 08:18	10/28/21 21:41	1
Iron	<0.40		0.40	0.20	mg/L		10/31/21 08:28	11/01/21 12:33	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/28/21 08:18	10/28/21 21:41	1
<b>Manganese</b>	<b>0.34</b>		0.025	0.010	mg/L		10/28/21 08:18	10/28/21 21:41	1
Nickel	<0.025		0.025	0.010	mg/L		10/28/21 08:18	10/28/21 21:41	1
Selenium	<0.050		0.050	0.020	mg/L		10/28/21 08:18	10/28/21 21:41	1
Silver	<0.025		0.025	0.010	mg/L		10/31/21 08:28	11/01/21 12:33	1
Zinc	<0.50		0.50	0.020	mg/L		10/28/21 08:18	10/28/21 21:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>0.33</b>		0.025	0.010	mg/L		10/28/21 08:23	10/29/21 14:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/28/21 08:18	10/29/21 12:27	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/28/21 08:18	10/29/21 12:27	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/29/21 09:35	11/01/21 10:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.022</b>		0.016	0.0055	mg/Kg	☆	10/28/21 14:10	10/29/21 07:44	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>8.7</b>		0.2	0.2	SU			10/25/21 18:20	1

# Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

## 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 and/or LCSD is outside acceptance limits, high biased.
*3	ISTD response or retention time outside acceptable limits.
E	Result exceeded calibration range.
F1	MS and/or MSD recovery 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
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## 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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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)
TNTC	Too Numerous To Count

# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

## GC/MS VOA

### Prep Batch: 625104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207164-1	2674V2-02-B04 (0-5)	Total/NA	Solid	5035	
500-207164-2	2674V2-02-B04 (0-5)D	Total/NA	Solid	5035	
500-207164-3	2674V2-02-B03 (0-5)	Total/NA	Solid	5035	
500-207164-4	2674V2-02-B02 (0-5)	Total/NA	Solid	5035	
500-207164-5	2674V2-02-B01 (0-5)	Total/NA	Solid	5035	

### Analysis Batch: 626261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207164-1	2674V2-02-B04 (0-5)	Total/NA	Solid	8260B	625104
500-207164-2	2674V2-02-B04 (0-5)D	Total/NA	Solid	8260B	625104
500-207164-3	2674V2-02-B03 (0-5)	Total/NA	Solid	8260B	625104
500-207164-4	2674V2-02-B02 (0-5)	Total/NA	Solid	8260B	625104
500-207164-5	2674V2-02-B01 (0-5)	Total/NA	Solid	8260B	625104
MB 500-626261/7	Method Blank	Total/NA	Solid	8260B	
LCS 500-626261/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-626261/5	Lab Control Sample Dup	Total/NA	Solid	8260B	

## GC/MS Semi VOA

### Prep Batch: 625508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207164-1	2674V2-02-B04 (0-5)	Total/NA	Solid	3541	
500-207164-2	2674V2-02-B04 (0-5)D	Total/NA	Solid	3541	
500-207164-3	2674V2-02-B03 (0-5)	Total/NA	Solid	3541	
500-207164-4	2674V2-02-B02 (0-5)	Total/NA	Solid	3541	
500-207164-5	2674V2-02-B01 (0-5)	Total/NA	Solid	3541	
MB 500-625508/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-625508/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-207164-5 MS	2674V2-02-B01 (0-5)	Total/NA	Solid	3541	
500-207164-5 MSD	2674V2-02-B01 (0-5)	Total/NA	Solid	3541	

### Analysis Batch: 625679

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-625508/1-A	Method Blank	Total/NA	Solid	8270D	625508
LCS 500-625508/2-A	Lab Control Sample	Total/NA	Solid	8270D	625508

### Analysis Batch: 625988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207164-1	2674V2-02-B04 (0-5)	Total/NA	Solid	8270D	625508
500-207164-2	2674V2-02-B04 (0-5)D	Total/NA	Solid	8270D	625508
500-207164-3	2674V2-02-B03 (0-5)	Total/NA	Solid	8270D	625508
500-207164-4	2674V2-02-B02 (0-5)	Total/NA	Solid	8270D	625508
500-207164-5	2674V2-02-B01 (0-5)	Total/NA	Solid	8270D	625508
500-207164-5 MS	2674V2-02-B01 (0-5)	Total/NA	Solid	8270D	625508
500-207164-5 MSD	2674V2-02-B01 (0-5)	Total/NA	Solid	8270D	625508

## Metals

### Leach Batch: 625523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207164-1	2674V2-02-B04 (0-5)	TCLP	Solid	1311	
500-207164-2	2674V2-02-B04 (0-5)D	TCLP	Solid	1311	

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# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

## Metals (Continued)

### Leach Batch: 625523 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207164-3	2674V2-02-B03 (0-5)	TCLP	Solid	1311	
500-207164-4	2674V2-02-B02 (0-5)	TCLP	Solid	1311	
500-207164-5	2674V2-02-B01 (0-5)	TCLP	Solid	1311	
LB 500-625523/1-B	Method Blank	TCLP	Solid	1311	
LB 500-625523/2-B	Method Blank	TCLP	Solid	1311	
LB 500-625523/2-C	Method Blank	TCLP	Solid	1311	

### Leach Batch: 625527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207164-1	2674V2-02-B04 (0-5)	SPLP East	Solid	1312	
500-207164-2	2674V2-02-B04 (0-5)D	SPLP East	Solid	1312	
500-207164-5	2674V2-02-B01 (0-5)	SPLP East	Solid	1312	
LB 500-625527/1-B	Method Blank	SPLP East	Solid	1312	
500-207164-1 MS	2674V2-02-B04 (0-5)	SPLP East	Solid	1312	
500-207164-1 DU	2674V2-02-B04 (0-5)	SPLP East	Solid	1312	

### Prep Batch: 625871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207164-1	2674V2-02-B04 (0-5)	TCLP	Solid	3010A	625523
500-207164-2	2674V2-02-B04 (0-5)D	TCLP	Solid	3010A	625523
500-207164-3	2674V2-02-B03 (0-5)	TCLP	Solid	3010A	625523
500-207164-4	2674V2-02-B02 (0-5)	TCLP	Solid	3010A	625523
500-207164-5	2674V2-02-B01 (0-5)	TCLP	Solid	3010A	625523
LB 500-625523/2-B	Method Blank	TCLP	Solid	3010A	625523
LCS 500-625871/2-A	Lab Control Sample	Total/NA	Solid	3010A	

### Prep Batch: 625873

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207164-1	2674V2-02-B04 (0-5)	SPLP East	Solid	3010A	625527
500-207164-2	2674V2-02-B04 (0-5)D	SPLP East	Solid	3010A	625527
500-207164-5	2674V2-02-B01 (0-5)	SPLP East	Solid	3010A	625527
LB 500-625527/1-B	Method Blank	SPLP East	Solid	3010A	625527
LCS 500-625873/2-A	Lab Control Sample	Total/NA	Solid	3010A	
500-207164-1 MS	2674V2-02-B04 (0-5)	SPLP East	Solid	3010A	625527
500-207164-1 DU	2674V2-02-B04 (0-5)	SPLP East	Solid	3010A	625527

### Prep Batch: 625919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207164-1	2674V2-02-B04 (0-5)	Total/NA	Solid	7471B	
500-207164-2	2674V2-02-B04 (0-5)D	Total/NA	Solid	7471B	
500-207164-3	2674V2-02-B03 (0-5)	Total/NA	Solid	7471B	
500-207164-4	2674V2-02-B02 (0-5)	Total/NA	Solid	7471B	
500-207164-5	2674V2-02-B01 (0-5)	Total/NA	Solid	7471B	
MB 500-625919/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-625919/13-A	Lab Control Sample	Total/NA	Solid	7471B	

### Analysis Batch: 626087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207164-1	2674V2-02-B04 (0-5)	TCLP	Solid	6010B	625871
500-207164-2	2674V2-02-B04 (0-5)D	TCLP	Solid	6010B	625871
500-207164-3	2674V2-02-B03 (0-5)	TCLP	Solid	6010B	625871

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# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

## Metals (Continued)

### Analysis Batch: 626087 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207164-4	2674V2-02-B02 (0-5)	TCLP	Solid	6010B	625871
500-207164-5	2674V2-02-B01 (0-5)	TCLP	Solid	6010B	625871
LB 500-625523/2-B	Method Blank	TCLP	Solid	6010B	625871
LCS 500-625871/2-A	Lab Control Sample	Total/NA	Solid	6010B	625871

### Prep Batch: 626108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207164-1	2674V2-02-B04 (0-5)	TCLP	Solid	7470A	625523
500-207164-2	2674V2-02-B04 (0-5)D	TCLP	Solid	7470A	625523
500-207164-3	2674V2-02-B03 (0-5)	TCLP	Solid	7470A	625523
500-207164-4	2674V2-02-B02 (0-5)	TCLP	Solid	7470A	625523
500-207164-5	2674V2-02-B01 (0-5)	TCLP	Solid	7470A	625523
LB 500-625523/2-C	Method Blank	TCLP	Solid	7470A	625523
MB 500-626108/12-A	Method Blank	Total/NA	Solid	7470A	
LCS 500-626108/14-A	Lab Control Sample	Total/NA	Solid	7470A	

### Analysis Batch: 626118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207164-1	2674V2-02-B04 (0-5)	Total/NA	Solid	7471B	625919
500-207164-2	2674V2-02-B04 (0-5)D	Total/NA	Solid	7471B	625919
500-207164-3	2674V2-02-B03 (0-5)	Total/NA	Solid	7471B	625919
500-207164-4	2674V2-02-B02 (0-5)	Total/NA	Solid	7471B	625919
500-207164-5	2674V2-02-B01 (0-5)	Total/NA	Solid	7471B	625919
MB 500-625919/12-A	Method Blank	Total/NA	Solid	7471B	625919
LCS 500-625919/13-A	Lab Control Sample	Total/NA	Solid	7471B	625919

### Analysis Batch: 626196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207164-1	2674V2-02-B04 (0-5)	TCLP	Solid	6020A	625871
500-207164-2	2674V2-02-B04 (0-5)D	TCLP	Solid	6020A	625871
500-207164-3	2674V2-02-B03 (0-5)	TCLP	Solid	6020A	625871
500-207164-4	2674V2-02-B02 (0-5)	TCLP	Solid	6020A	625871
500-207164-5	2674V2-02-B01 (0-5)	TCLP	Solid	6020A	625871
LB 500-625523/2-B	Method Blank	TCLP	Solid	6020A	625871
LCS 500-625871/2-A	Lab Control Sample	Total/NA	Solid	6020A	625871

### Prep Batch: 626362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207164-1	2674V2-02-B04 (0-5)	TCLP	Solid	3010A	625523
500-207164-2	2674V2-02-B04 (0-5)D	TCLP	Solid	3010A	625523
500-207164-3	2674V2-02-B03 (0-5)	TCLP	Solid	3010A	625523
500-207164-4	2674V2-02-B02 (0-5)	TCLP	Solid	3010A	625523
500-207164-5	2674V2-02-B01 (0-5)	TCLP	Solid	3010A	625523
LB 500-625523/1-B	Method Blank	TCLP	Solid	3010A	625523
LCS 500-626362/2-A	Lab Control Sample	Total/NA	Solid	3010A	
LCSD 500-626362/3-A	Lab Control Sample Dup	Total/NA	Solid	3010A	

### Analysis Batch: 626431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207164-1	2674V2-02-B04 (0-5)	SPLP East	Solid	6010B	625873
500-207164-2	2674V2-02-B04 (0-5)D	SPLP East	Solid	6010B	625873

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# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

## Metals (Continued)

### Analysis Batch: 626431 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207164-5	2674V2-02-B01 (0-5)	SPLP East	Solid	6010B	625873
LB 500-625527/1-B	Method Blank	SPLP East	Solid	6010B	625873
LCS 500-625873/2-A	Lab Control Sample	Total/NA	Solid	6010B	625873
500-207164-1 MS	2674V2-02-B04 (0-5)	SPLP East	Solid	6010B	625873
500-207164-1 DU	2674V2-02-B04 (0-5)	SPLP East	Solid	6010B	625873

### Analysis Batch: 626523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207164-1	2674V2-02-B04 (0-5)	TCLP	Solid	7470A	626108
500-207164-2	2674V2-02-B04 (0-5)D	TCLP	Solid	7470A	626108
500-207164-3	2674V2-02-B03 (0-5)	TCLP	Solid	7470A	626108
500-207164-4	2674V2-02-B02 (0-5)	TCLP	Solid	7470A	626108
500-207164-5	2674V2-02-B01 (0-5)	TCLP	Solid	7470A	626108
LB 500-625523/2-C	Method Blank	TCLP	Solid	7470A	626108
MB 500-626108/12-A	Method Blank	Total/NA	Solid	7470A	626108
LCS 500-626108/14-A	Lab Control Sample	Total/NA	Solid	7470A	626108

### Analysis Batch: 626686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207164-1	2674V2-02-B04 (0-5)	TCLP	Solid	6010B	626362
500-207164-2	2674V2-02-B04 (0-5)D	TCLP	Solid	6010B	626362
500-207164-3	2674V2-02-B03 (0-5)	TCLP	Solid	6010B	626362
500-207164-4	2674V2-02-B02 (0-5)	TCLP	Solid	6010B	626362
500-207164-5	2674V2-02-B01 (0-5)	TCLP	Solid	6010B	626362
LB 500-625523/1-B	Method Blank	TCLP	Solid	6010B	626362
LCS 500-626362/2-A	Lab Control Sample	Total/NA	Solid	6010B	626362
LCSD 500-626362/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	626362

### Prep Batch: 626752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207164-1	2674V2-02-B04 (0-5)	Total/NA	Solid	3050B	
500-207164-2	2674V2-02-B04 (0-5)D	Total/NA	Solid	3050B	
500-207164-3	2674V2-02-B03 (0-5)	Total/NA	Solid	3050B	
500-207164-4	2674V2-02-B02 (0-5)	Total/NA	Solid	3050B	
500-207164-5	2674V2-02-B01 (0-5)	Total/NA	Solid	3050B	
MB 500-626752/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-626752/2-A	Lab Control Sample	Total/NA	Solid	3050B	

### Analysis Batch: 627041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207164-1	2674V2-02-B04 (0-5)	Total/NA	Solid	6010B	626752
500-207164-2	2674V2-02-B04 (0-5)D	Total/NA	Solid	6010B	626752
500-207164-3	2674V2-02-B03 (0-5)	Total/NA	Solid	6010B	626752
500-207164-4	2674V2-02-B02 (0-5)	Total/NA	Solid	6010B	626752
500-207164-5	2674V2-02-B01 (0-5)	Total/NA	Solid	6010B	626752
MB 500-626752/1-A	Method Blank	Total/NA	Solid	6010B	626752
LCS 500-626752/2-A	Lab Control Sample	Total/NA	Solid	6010B	626752

### Analysis Batch: 627087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207164-2	2674V2-02-B04 (0-5)D	Total/NA	Solid	6010B	626752

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# QC Association Summary

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

## Metals (Continued)

### Analysis Batch: 627087 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207164-3	2674V2-02-B03 (0-5)	Total/NA	Solid	6010B	626752
500-207164-5	2674V2-02-B01 (0-5)	Total/NA	Solid	6010B	626752

## General Chemistry

### Analysis Batch: 625259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207164-1	2674V2-02-B04 (0-5)	Total/NA	Solid	Moisture	
500-207164-2	2674V2-02-B04 (0-5)D	Total/NA	Solid	Moisture	
500-207164-3	2674V2-02-B03 (0-5)	Total/NA	Solid	Moisture	
500-207164-4	2674V2-02-B02 (0-5)	Total/NA	Solid	Moisture	
500-207164-5	2674V2-02-B01 (0-5)	Total/NA	Solid	Moisture	
500-207164-2 DU	2674V2-02-B04 (0-5)D	Total/NA	Solid	Moisture	

### Analysis Batch: 625321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207164-1	2674V2-02-B04 (0-5)	Total/NA	Solid	9045D	
500-207164-2	2674V2-02-B04 (0-5)D	Total/NA	Solid	9045D	
500-207164-3	2674V2-02-B03 (0-5)	Total/NA	Solid	9045D	
500-207164-4	2674V2-02-B02 (0-5)	Total/NA	Solid	9045D	
500-207164-5	2674V2-02-B01 (0-5)	Total/NA	Solid	9045D	
LCS 500-625321/2	Lab Control Sample	Total/NA	Solid	9045D	
LCSD 500-625321/3	Lab Control Sample Dup	Total/NA	Solid	9045D	
500-207164-4 DU	2674V2-02-B02 (0-5)	Total/NA	Solid	9045D	

# Surrogate Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

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

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	DBFM	DCA	TOL
		(75-131)	(75-126)	(70-134)	(75-124)
500-207164-1	2674V2-02-B04 (0-5)	110	109	107	111
500-207164-2	2674V2-02-B04 (0-5)D	114	108	106	108
500-207164-3	2674V2-02-B03 (0-5)	113	110	111	111
500-207164-4	2674V2-02-B02 (0-5)	113	110	111	109
500-207164-5	2674V2-02-B01 (0-5)	111	112	111	107
LCS 500-626261/4	Lab Control Sample	104	101	96	112
LCSD 500-626261/5	Lab Control Sample Dup	105	101	97	110
MB 500-626261/7	Method Blank	108	101	99	109

#### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane  
DCA = 1,2-Dichloroethane-d4 (Surr)  
TOL = Toluene-d8 (Surr)

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

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	2FP	PHL	NBZ	FBP	TBP	TPHL
		(31-166)	(30-153)	(37-147)	(43-145)	(31-143)	(42-157)
500-207164-1	2674V2-02-B04 (0-5)	129	116	106	99	90	96
500-207164-2	2674V2-02-B04 (0-5)D	142	126	116	108	95	100
500-207164-3	2674V2-02-B03 (0-5)	129	118	105	99	94	102
500-207164-4	2674V2-02-B02 (0-5)	127	119	106	98	79	100
500-207164-5	2674V2-02-B01 (0-5)	127	113	108	97	80	98
500-207164-5 MS	2674V2-02-B01 (0-5)	142	123	113	103	84	102
500-207164-5 MSD	2674V2-02-B01 (0-5)	140	124	113	103	87	103
LCS 500-625508/2-A	Lab Control Sample	140	125	113	100	81	98
MB 500-625508/1-A	Method Blank	137	124	110	98	72	93

#### Surrogate Legend

2FP = 2-Fluorophenol  
PHL = Phenol-d5  
NBZ = Nitrobenzene-d5 (Surr)  
FBP = 2-Fluorobiphenyl (Surr)  
TBP = 2,4,6-Tribromophenol  
TPHL = Terphenyl-d14 (Surr)



# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

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

**Lab Sample ID: MB 500-626261/7**  
**Matrix: Solid**  
**Analysis Batch: 626261**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	<0.020		0.020	0.0087	mg/Kg			10/30/21 10:47	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg			10/30/21 10:47	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg			10/30/21 10:47	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg			10/30/21 10:47	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg			10/30/21 10:47	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg			10/30/21 10:47	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg			10/30/21 10:47	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg			10/30/21 10:47	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg			10/30/21 10:47	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg			10/30/21 10:47	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg			10/30/21 10:47	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg			10/30/21 10:47	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg			10/30/21 10:47	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg			10/30/21 10:47	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg			10/30/21 10:47	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg			10/30/21 10:47	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg			10/30/21 10:47	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg			10/30/21 10:47	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg			10/30/21 10:47	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00070	mg/Kg			10/30/21 10:47	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg			10/30/21 10:47	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			10/30/21 10:47	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg			10/30/21 10:47	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg			10/30/21 10:47	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg			10/30/21 10:47	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg			10/30/21 10:47	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg			10/30/21 10:47	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/30/21 10:47	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg			10/30/21 10:47	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg			10/30/21 10:47	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg			10/30/21 10:47	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg			10/30/21 10:47	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg			10/30/21 10:47	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/30/21 10:47	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg			10/30/21 10:47	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg			10/30/21 10:47	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg			10/30/21 10:47	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	108		75 - 131		10/30/21 10:47	1
Dibromofluoromethane	101		75 - 126		10/30/21 10:47	1
1,2-Dichloroethane-d4 (Surr)	99		70 - 134		10/30/21 10:47	1
Toluene-d8 (Surr)	109		75 - 124		10/30/21 10:47	1

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

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

**Lab Sample ID: LCS 500-626261/4**  
**Matrix: Solid**  
**Analysis Batch: 626261**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0500	0.0513		mg/Kg		103	40 - 150
Benzene	0.0500	0.0464		mg/Kg		93	70 - 125
Bromodichloromethane	0.0500	0.0458		mg/Kg		92	67 - 129
Bromoform	0.0500	0.0503		mg/Kg		101	68 - 136
Bromomethane	0.0500	0.0488		mg/Kg		98	70 - 130
2-Butanone (MEK)	0.0500	0.0457		mg/Kg		91	47 - 138
Carbon disulfide	0.0500	0.0482		mg/Kg		96	70 - 129
Carbon tetrachloride	0.0500	0.0447		mg/Kg		89	75 - 125
Chlorobenzene	0.0500	0.0461		mg/Kg		92	50 - 150
Chloroethane	0.0500	0.0471		mg/Kg		94	75 - 125
Chloroform	0.0500	0.0454		mg/Kg		91	57 - 135
Chloromethane	0.0500	0.0460		mg/Kg		92	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0457		mg/Kg		91	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0478		mg/Kg		96	70 - 125
Dibromochloromethane	0.0500	0.0468		mg/Kg		94	69 - 125
1,1-Dichloroethane	0.0500	0.0430		mg/Kg		86	70 - 125
1,2-Dichloroethane	0.0500	0.0433		mg/Kg		87	70 - 130
1,1-Dichloroethene	0.0500	0.0467		mg/Kg		93	70 - 120
1,2-Dichloropropane	0.0500	0.0438		mg/Kg		88	70 - 125
Ethylbenzene	0.0500	0.0462		mg/Kg		92	61 - 136
2-Hexanone	0.0500	0.0459		mg/Kg		92	48 - 146
Methylene Chloride	0.0500	0.0456		mg/Kg		91	70 - 126
4-Methyl-2-pentanone (MIBK)	0.0500	0.0454		mg/Kg		91	50 - 148
Methyl tert-butyl ether	0.0500	0.0442		mg/Kg		88	50 - 140
Styrene	0.0500	0.0467		mg/Kg		93	70 - 125
1,1,2,2-Tetrachloroethane	0.0500	0.0467		mg/Kg		93	70 - 122
Tetrachloroethene	0.0500	0.0512		mg/Kg		102	70 - 124
Toluene	0.0500	0.0484		mg/Kg		97	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0465		mg/Kg		93	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0471		mg/Kg		94	70 - 125
1,1,1-Trichloroethane	0.0500	0.0463		mg/Kg		93	70 - 128
1,1,2-Trichloroethane	0.0500	0.0497		mg/Kg		99	70 - 125
Trichloroethene	0.0500	0.0470		mg/Kg		94	70 - 125
Vinyl acetate	0.0500	0.0470		mg/Kg		94	40 - 153
Vinyl chloride	0.0500	0.0451		mg/Kg		90	70 - 125
Xylenes, Total	0.100	0.0963		mg/Kg		96	53 - 147

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	104		75 - 131
Dibromofluoromethane	101		75 - 126
1,2-Dichloroethane-d4 (Surr)	96		70 - 134
Toluene-d8 (Surr)	112		75 - 124

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

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

**Lab Sample ID: LCSD 500-626261/5**  
**Matrix: Solid**  
**Analysis Batch: 626261**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.0500	0.0521		mg/Kg		104	40 - 150	2	30
Benzene	0.0500	0.0459		mg/Kg		92	70 - 125	1	30
Bromodichloromethane	0.0500	0.0473		mg/Kg		95	67 - 129	3	30
Bromoform	0.0500	0.0509		mg/Kg		102	68 - 136	1	30
Bromomethane	0.0500	0.0453		mg/Kg		91	70 - 130	7	30
2-Butanone (MEK)	0.0500	0.0474		mg/Kg		95	47 - 138	4	30
Carbon disulfide	0.0500	0.0472		mg/Kg		94	70 - 129	2	30
Carbon tetrachloride	0.0500	0.0439		mg/Kg		88	75 - 125	2	30
Chlorobenzene	0.0500	0.0458		mg/Kg		92	50 - 150	1	30
Chloroethane	0.0500	0.0462		mg/Kg		92	75 - 125	2	30
Chloroform	0.0500	0.0454		mg/Kg		91	57 - 135	0	30
Chloromethane	0.0500	0.0448		mg/Kg		90	70 - 125	3	30
cis-1,2-Dichloroethene	0.0500	0.0459		mg/Kg		92	70 - 125	0	30
cis-1,3-Dichloropropene	0.0500	0.0474		mg/Kg		95	70 - 125	1	30
Dibromochloromethane	0.0500	0.0472		mg/Kg		94	69 - 125	1	30
1,1-Dichloroethane	0.0500	0.0429		mg/Kg		86	70 - 125	0	30
1,2-Dichloroethane	0.0500	0.0439		mg/Kg		88	70 - 130	1	30
1,1-Dichloroethene	0.0500	0.0472		mg/Kg		94	70 - 120	1	30
1,2-Dichloropropane	0.0500	0.0455		mg/Kg		91	70 - 125	4	30
Ethylbenzene	0.0500	0.0465		mg/Kg		93	61 - 136	1	30
2-Hexanone	0.0500	0.0496		mg/Kg		99	48 - 146	8	30
Methylene Chloride	0.0500	0.0454		mg/Kg		91	70 - 126	1	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0459		mg/Kg		92	50 - 148	1	30
Methyl tert-butyl ether	0.0500	0.0448		mg/Kg		90	50 - 140	1	30
Styrene	0.0500	0.0469		mg/Kg		94	70 - 125	0	30
1,1,2,2-Tetrachloroethane	0.0500	0.0486		mg/Kg		97	70 - 122	4	30
Tetrachloroethene	0.0500	0.0498		mg/Kg		100	70 - 124	3	30
Toluene	0.0500	0.0474		mg/Kg		95	70 - 125	2	30
trans-1,2-Dichloroethene	0.0500	0.0454		mg/Kg		91	70 - 125	2	30
trans-1,3-Dichloropropene	0.0500	0.0479		mg/Kg		96	70 - 125	2	30
1,1,1-Trichloroethane	0.0500	0.0456		mg/Kg		91	70 - 128	2	30
1,1,2-Trichloroethane	0.0500	0.0502		mg/Kg		100	70 - 125	1	30
Trichloroethene	0.0500	0.0463		mg/Kg		93	70 - 125	2	30
Vinyl acetate	0.0500	0.0468		mg/Kg		94	40 - 153	0	30
Vinyl chloride	0.0500	0.0434		mg/Kg		87	70 - 125	4	30
Xylenes, Total	0.100	0.0952		mg/Kg		95	53 - 147	1	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	105		75 - 131
Dibromofluoromethane	101		75 - 126
1,2-Dichloroethane-d4 (Surr)	97		70 - 134
Toluene-d8 (Surr)	110		75 - 124

# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

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

**Lab Sample ID: MB 500-625508/1-A**  
**Matrix: Solid**  
**Analysis Batch: 625679**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 625508**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	<0.17		0.17	0.074	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.050	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
1,3-Dichlorobenzene	<0.17		0.17	0.037	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
1,4-Dichlorobenzene	<0.17		0.17	0.043	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
1,2-Dichlorobenzene	<0.17		0.17	0.040	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
2-Methylphenol	<0.17		0.17	0.053	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.039	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
N-Nitrosodi-n-propylamine	<0.067		0.067	0.041	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Hexachloroethane	<0.17		0.17	0.051	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
2-Chlorophenol	<0.17		0.17	0.057	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Nitrobenzene	<0.033		0.033	0.0083	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.034	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.036	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Isophorone	<0.17		0.17	0.037	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
2,4-Dimethylphenol	<0.33		0.33	0.13	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Hexachlorobutadiene	<0.17		0.17	0.052	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Naphthalene	<0.033		0.033	0.0051	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
2,4-Dichlorophenol	<0.33		0.33	0.079	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
4-Chloroaniline	<0.67		0.67	0.16	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
2,4,6-Trichlorophenol	<0.33		0.33	0.11	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
2,4,5-Trichlorophenol	<0.33		0.33	0.076	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Hexachlorocyclopentadiene	<0.67		0.67	0.19	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
2-Methylnaphthalene	<0.067		0.067	0.0061	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
2-Nitroaniline	<0.17		0.17	0.045	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
2-Chloronaphthalene	<0.17		0.17	0.037	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
4-Chloro-3-methylphenol	<0.33		0.33	0.11	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
2,6-Dinitrotoluene	<0.17		0.17	0.065	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
2-Nitrophenol	<0.33		0.33	0.079	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
3-Nitroaniline	<0.33		0.33	0.10	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Dimethyl phthalate	<0.17		0.17	0.043	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
2,4-Dinitrophenol	<0.67		0.67	0.59	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Acenaphthylene	<0.033		0.033	0.0044	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
2,4-Dinitrotoluene	<0.17		0.17	0.053	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Acenaphthene	<0.033		0.033	0.0060	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Dibenzofuran	<0.17		0.17	0.039	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
4-Nitrophenol	<0.67		0.67	0.32	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Fluorene	<0.033		0.033	0.0047	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
4-Nitroaniline	<0.33		0.33	0.14	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.044	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Hexachlorobenzene	<0.067		0.067	0.0077	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Diethyl phthalate	<0.17		0.17	0.056	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.039	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Pentachlorophenol	<0.67		0.67	0.53	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
N-Nitrosodiphenylamine	<0.17		0.17	0.039	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
4,6-Dinitro-2-methylphenol	<0.67		0.67	0.27	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Phenanthrene	<0.033		0.033	0.0046	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Anthracene	<0.033		0.033	0.0056	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Carbazole	<0.17		0.17	0.083	mg/Kg		10/26/21 13:52	10/27/21 12:20	1

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

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

**Lab Sample ID: MB 500-625508/1-A**  
**Matrix: Solid**  
**Analysis Batch: 625679**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 625508**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	<0.17		0.17	0.051	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Fluoranthene	<0.033		0.033	0.0062	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Pyrene	<0.033		0.033	0.0066	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Butyl benzyl phthalate	<0.17		0.17	0.063	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Benzo[a]anthracene	<0.033		0.033	0.0045	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Chrysene	<0.033		0.033	0.0091	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.047	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.061	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Di-n-octyl phthalate	<0.17		0.17	0.054	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Benzo[b]fluoranthene	<0.033		0.033	0.0072	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Benzo[k]fluoranthene	<0.033		0.033	0.0098	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Benzo[a]pyrene	<0.033		0.033	0.0064	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Indeno[1,2,3-cd]pyrene	<0.033		0.033	0.0086	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Dibenz(a,h)anthracene	<0.033		0.033	0.0064	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Benzo[g,h,i]perylene	<0.033		0.033	0.011	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
3 & 4 Methylphenol	<0.17		0.17	0.055	mg/Kg		10/26/21 13:52	10/27/21 12:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	137		31 - 166	10/26/21 13:52	10/27/21 12:20	1
Phenol-d5	124		30 - 153	10/26/21 13:52	10/27/21 12:20	1
Nitrobenzene-d5 (Surr)	110		37 - 147	10/26/21 13:52	10/27/21 12:20	1
2-Fluorobiphenyl (Surr)	98		43 - 145	10/26/21 13:52	10/27/21 12:20	1
2,4,6-Tribromophenol	72		31 - 143	10/26/21 13:52	10/27/21 12:20	1
Terphenyl-d14 (Surr)	93		42 - 157	10/26/21 13:52	10/27/21 12:20	1

**Lab Sample ID: LCS 500-625508/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625679**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625508**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Phenol	1.33	1.63		mg/Kg		122	56 - 122
Bis(2-chloroethyl)ether	1.33	1.74	*+	mg/Kg		131	55 - 111
1,3-Dichlorobenzene	1.33	1.27		mg/Kg		95	65 - 124
1,4-Dichlorobenzene	1.33	1.32		mg/Kg		99	61 - 110
1,2-Dichlorobenzene	1.33	1.37		mg/Kg		103	62 - 110
2-Methylphenol	1.33	1.44		mg/Kg		108	60 - 120
2,2'-oxybis[1-chloropropane]	1.33	5.60	E *+	mg/Kg		420	40 - 124
N-Nitrosodi-n-propylamine	1.33	1.66	*+	mg/Kg		125	56 - 118
Hexachloroethane	1.33	1.39		mg/Kg		104	60 - 114
2-Chlorophenol	1.33	1.51	*+	mg/Kg		114	64 - 110
Nitrobenzene	1.33	1.53		mg/Kg		115	60 - 116
Bis(2-chloroethoxy)methane	1.33	1.53	*+	mg/Kg		115	60 - 112
1,2,4-Trichlorobenzene	1.33	1.26		mg/Kg		94	66 - 117
Isophorone	1.33	1.56	*+	mg/Kg		117	55 - 110
2,4-Dimethylphenol	1.33	1.52	*+	mg/Kg		114	60 - 110
Hexachlorobutadiene	1.33	1.19		mg/Kg		89	56 - 120
Naphthalene	1.33	1.37		mg/Kg		103	63 - 110
2,4-Dichlorophenol	1.33	1.36		mg/Kg		102	58 - 120

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

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

**Lab Sample ID: LCS 500-625508/2-A**

**Matrix: Solid**

**Analysis Batch: 625679**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 625508**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chloroaniline	1.33	1.31		mg/Kg		98	30 - 150
2,4,6-Trichlorophenol	1.33	1.23		mg/Kg		92	57 - 120
2,4,5-Trichlorophenol	1.33	1.20		mg/Kg		90	50 - 120
Hexachlorocyclopentadiene	1.33	0.411	J	mg/Kg		31	10 - 133
2-Methylnaphthalene	1.33	1.33		mg/Kg		100	69 - 112
2-Nitroaniline	1.33	1.37		mg/Kg		103	57 - 124
2-Chloronaphthalene	1.33	1.37		mg/Kg		103	69 - 114
4-Chloro-3-methylphenol	1.33	1.56		mg/Kg		117	65 - 122
2,6-Dinitrotoluene	1.33	1.38		mg/Kg		103	70 - 123
2-Nitrophenol	1.33	1.37		mg/Kg		103	60 - 120
3-Nitroaniline	1.33	1.03		mg/Kg		78	40 - 122
Dimethyl phthalate	1.33	1.35		mg/Kg		101	69 - 116
2,4-Dinitrophenol	2.67	0.752		mg/Kg		28	10 - 100
Acenaphthylene	1.33	1.38		mg/Kg		104	68 - 120
2,4-Dinitrotoluene	1.33	1.39		mg/Kg		104	69 - 124
Acenaphthene	1.33	1.41		mg/Kg		106	65 - 124
Dibenzofuran	1.33	1.36		mg/Kg		102	66 - 115
4-Nitrophenol	2.67	2.66		mg/Kg		100	30 - 122
Fluorene	1.33	1.38		mg/Kg		104	62 - 120
4-Nitroaniline	1.33	1.41		mg/Kg		106	60 - 160
4-Bromophenyl phenyl ether	1.33	1.23		mg/Kg		92	68 - 118
Hexachlorobenzene	1.33	1.28		mg/Kg		96	63 - 124
Diethyl phthalate	1.33	1.42		mg/Kg		107	58 - 120
4-Chlorophenyl phenyl ether	1.33	1.30		mg/Kg		97	62 - 119
Pentachlorophenol	2.67	1.19		mg/Kg		45	13 - 112
N-Nitrosodiphenylamine	1.33	1.45		mg/Kg		108	65 - 112
4,6-Dinitro-2-methylphenol	2.67	1.62		mg/Kg		61	10 - 110
Phenanthrene	1.33	1.42		mg/Kg		106	62 - 120
Anthracene	1.33	1.43		mg/Kg		107	70 - 114
Carbazole	1.33	1.71		mg/Kg		128	65 - 142
Di-n-butyl phthalate	1.33	1.51		mg/Kg		113	65 - 120
Fluoranthene	1.33	1.39		mg/Kg		104	62 - 120
Pyrene	1.33	1.47		mg/Kg		110	61 - 128
Butyl benzyl phthalate	1.33	1.59		mg/Kg		120	71 - 129
Benzo[a]anthracene	1.33	1.39		mg/Kg		105	67 - 122
Chrysene	1.33	1.43		mg/Kg		107	63 - 120
3,3'-Dichlorobenzidine	1.33	0.999		mg/Kg		75	35 - 128
Bis(2-ethylhexyl) phthalate	1.33	1.60		mg/Kg		120	72 - 131
Di-n-octyl phthalate	1.33	1.58		mg/Kg		118	68 - 134
Benzo[b]fluoranthene	1.33	1.41		mg/Kg		106	69 - 129
Benzo[k]fluoranthene	1.33	1.43		mg/Kg		108	68 - 127
Benzo[a]pyrene	1.33	1.44		mg/Kg		108	65 - 133
Indeno[1,2,3-cd]pyrene	1.33	1.43		mg/Kg		108	68 - 130
Dibenz(a,h)anthracene	1.33	1.41		mg/Kg		105	64 - 131
Benzo[g,h,i]perylene	1.33	1.46		mg/Kg		110	72 - 131
3 & 4 Methylphenol	1.33	1.62	*+	mg/Kg		121	57 - 120

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

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

**Lab Sample ID: LCS 500-625508/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625679**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625508**

<i>Surrogate</i>	<i>LCS %Recovery</i>	<i>LCS Qualifier</i>	<i>Limits</i>
2-Fluorophenol	140		31 - 166
Phenol-d5	125		30 - 153
Nitrobenzene-d5 (Surr)	113		37 - 147
2-Fluorobiphenyl (Surr)	100		43 - 145
2,4,6-Tribromophenol	81		31 - 143
Terphenyl-d14 (Surr)	98		42 - 157

**Lab Sample ID: 500-207164-5 MS**  
**Matrix: Solid**  
**Analysis Batch: 625988**

**Client Sample ID: 2674V2-02-B01 (0-5)**  
**Prep Type: Total/NA**  
**Prep Batch: 625508**

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qualifier</i>	<i>Spike Added</i>	<i>MS Result</i>	<i>MS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>Limits</i>
Phenol	<0.18	F1	1.46	1.81	F1	mg/Kg	☼	124	56 - 122
Bis(2-chloroethyl)ether	<0.18	*+ F1	1.46	1.88	F1	mg/Kg	☼	129	55 - 111
1,3-Dichlorobenzene	<0.18		1.46	1.41		mg/Kg	☼	96	60 - 110
1,4-Dichlorobenzene	<0.18		1.46	1.40		mg/Kg	☼	96	61 - 110
1,2-Dichlorobenzene	<0.18		1.46	1.49		mg/Kg	☼	102	62 - 110
2-Methylphenol	<0.18	F1	1.46	1.75		mg/Kg	☼	120	60 - 120
2,2'-oxybis[1-chloropropane]	<0.18	*+ F1	1.46	5.09	E F1	mg/Kg	☼	348	40 - 124
N-Nitrosodi-n-propylamine	<0.071	*+ F1	1.46	1.81	F1	mg/Kg	☼	124	56 - 118
Hexachloroethane	<0.18		1.46	1.47		mg/Kg	☼	101	60 - 114
2-Chlorophenol	<0.18	*+ F1	1.46	1.74	F1	mg/Kg	☼	119	64 - 110
Nitrobenzene	<0.035	F1	1.46	1.67		mg/Kg	☼	114	60 - 116
Bis(2-chloroethoxy)methane	<0.18	*+ F1	1.46	1.70	F1	mg/Kg	☼	116	60 - 112
1,2,4-Trichlorobenzene	<0.18		1.46	1.42		mg/Kg	☼	97	66 - 117
Isophorone	<0.18	*+ F1	1.46	1.69	F1	mg/Kg	☼	116	55 - 110
2,4-Dimethylphenol	<0.35	*+ F1	1.46	1.67	F1	mg/Kg	☼	114	60 - 110
Hexachlorobutadiene	<0.18		1.46	1.36		mg/Kg	☼	93	56 - 120
Naphthalene	<0.035		1.46	1.52		mg/Kg	☼	104	63 - 110
2,4-Dichlorophenol	<0.35		1.46	1.56		mg/Kg	☼	107	58 - 120
4-Chloroaniline	<0.71		1.46	1.46		mg/Kg	☼	100	30 - 150
2,4,6-Trichlorophenol	<0.35		1.46	1.43		mg/Kg	☼	98	57 - 120
2,4,5-Trichlorophenol	<0.35		1.46	1.47		mg/Kg	☼	100	50 - 120
Hexachlorocyclopentadiene	<0.71		1.46	0.422	J	mg/Kg	☼	29	10 - 133
2-Methylnaphthalene	<0.071		1.46	1.53		mg/Kg	☼	104	69 - 112
2-Nitroaniline	<0.18		1.46	1.50		mg/Kg	☼	102	57 - 124
2-Chloronaphthalene	<0.18		1.46	1.53		mg/Kg	☼	105	69 - 114
4-Chloro-3-methylphenol	<0.35		1.46	1.76		mg/Kg	☼	120	65 - 122
2,6-Dinitrotoluene	<0.18		1.46	1.57		mg/Kg	☼	107	70 - 123
2-Nitrophenol	<0.35		1.46	1.60		mg/Kg	☼	110	60 - 120
3-Nitroaniline	<0.35		1.46	1.28		mg/Kg	☼	88	40 - 122
Dimethyl phthalate	<0.18		1.46	1.54		mg/Kg	☼	105	69 - 116
2,4-Dinitrophenol	<0.71		2.93	0.904		mg/Kg	☼	31	10 - 100
Acenaphthylene	<0.035		1.46	1.53		mg/Kg	☼	105	68 - 120
2,4-Dinitrotoluene	<0.18		1.46	1.59		mg/Kg	☼	109	69 - 124
Acenaphthene	<0.035		1.46	1.59		mg/Kg	☼	109	65 - 124
Dibenzofuran	<0.18		1.46	1.51		mg/Kg	☼	103	66 - 115
4-Nitrophenol	<0.71		2.93	3.28		mg/Kg	☼	112	30 - 122

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

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

**Lab Sample ID: 500-207164-5 MS**  
**Matrix: Solid**  
**Analysis Batch: 625988**

**Client Sample ID: 2674V2-02-B01 (0-5)**  
**Prep Type: Total/NA**  
**Prep Batch: 625508**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluorene	<0.035		1.46	1.57		mg/Kg	☼	107	62 - 120
4-Nitroaniline	<0.35		1.46	1.60		mg/Kg	☼	110	60 - 160
4-Bromophenyl phenyl ether	<0.18		1.46	1.39		mg/Kg	☼	95	68 - 118
Hexachlorobenzene	<0.071		1.46	1.43		mg/Kg	☼	98	63 - 124
Diethyl phthalate	<0.18		1.46	1.62		mg/Kg	☼	110	58 - 120
4-Chlorophenyl phenyl ether	<0.18		1.46	1.48		mg/Kg	☼	101	62 - 119
Pentachlorophenol	<0.71		2.93	1.25		mg/Kg	☼	43	13 - 112
N-Nitrosodiphenylamine	<0.18		1.46	1.57		mg/Kg	☼	108	65 - 112
4,6-Dinitro-2-methylphenol	<0.71		2.93	1.82		mg/Kg	☼	62	10 - 110
Phenanthrene	<0.035		1.46	1.59		mg/Kg	☼	109	62 - 120
Anthracene	<0.035		1.46	1.61		mg/Kg	☼	110	70 - 114
Carbazole	<0.18		1.46	1.99		mg/Kg	☼	136	65 - 142
Di-n-butyl phthalate	<0.18		1.46	1.71		mg/Kg	☼	117	65 - 120
Fluoranthene	<0.035		1.46	1.59		mg/Kg	☼	108	62 - 120
Pyrene	<0.035		1.46	1.69		mg/Kg	☼	116	61 - 128
Butyl benzyl phthalate	<0.18		1.46	1.80		mg/Kg	☼	123	71 - 129
Benzo[a]anthracene	<0.035		1.46	1.60		mg/Kg	☼	109	67 - 122
Chrysene	<0.035		1.46	1.63		mg/Kg	☼	111	63 - 120
3,3'-Dichlorobenzidine	<0.18		1.46	1.06		mg/Kg	☼	72	35 - 128
Bis(2-ethylhexyl) phthalate	<0.18		1.46	1.83		mg/Kg	☼	125	72 - 131
Di-n-octyl phthalate	<0.18		1.46	1.72		mg/Kg	☼	118	68 - 134
Benzo[b]fluoranthene	<0.035		1.46	1.81		mg/Kg	☼	124	69 - 129
Benzo[k]fluoranthene	<0.035	F1	1.46	1.87	F1	mg/Kg	☼	128	68 - 127
Benzo[a]pyrene	<0.035		1.46	1.67		mg/Kg	☼	114	65 - 133
Indeno[1,2,3-cd]pyrene	<0.035	F1	1.46	0.985	F1	mg/Kg	☼	67	68 - 130
Dibenz(a,h)anthracene	<0.035		1.46	1.01		mg/Kg	☼	69	64 - 131
Benzo[g,h,i]perylene	<0.035	F1	1.46	0.837	F1	mg/Kg	☼	57	72 - 131
3 & 4 Methylphenol	<0.18	*+ F1	1.46	1.82	F1	mg/Kg	☼	125	57 - 120

Surrogate	MS %Recovery	MS Qualifier	MS Limits
2-Fluorophenol	142		31 - 166
Phenol-d5	123		30 - 153
Nitrobenzene-d5 (Surr)	113		37 - 147
2-Fluorobiphenyl (Surr)	103		43 - 145
2,4,6-Tribromophenol	84		31 - 143
Terphenyl-d14 (Surr)	102		42 - 157

**Lab Sample ID: 500-207164-5 MSD**  
**Matrix: Solid**  
**Analysis Batch: 625988**

**Client Sample ID: 2674V2-02-B01 (0-5)**  
**Prep Type: Total/NA**  
**Prep Batch: 625508**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	<0.18	F1	1.43	1.73		mg/Kg	☼	121	56 - 122	4	30
Bis(2-chloroethyl)ether	<0.18	*+ F1	1.43	1.75	F1	mg/Kg	☼	122	55 - 111	7	30
1,3-Dichlorobenzene	<0.18		1.43	1.40		mg/Kg	☼	98	60 - 110	0	30
1,4-Dichlorobenzene	<0.18		1.43	1.44		mg/Kg	☼	101	61 - 110	3	30
1,2-Dichlorobenzene	<0.18		1.43	1.46		mg/Kg	☼	102	62 - 110	2	30
2-Methylphenol	<0.18	F1	1.43	1.87	F1	mg/Kg	☼	131	60 - 120	7	30

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

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

Lab Sample ID: 500-207164-5 MSD

Matrix: Solid

Analysis Batch: 625988

Client Sample ID: 2674V2-02-B01 (0-5)

Prep Type: Total/NA

Prep Batch: 625508

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
2,2'-oxybis[1-chloropropane]	<0.18	*+ F1	1.43	4.97	E F1	mg/Kg	☼	347	40 - 124	3	30
N-Nitrosodi-n-propylamine	<0.071	*+ F1	1.43	1.78	F1	mg/Kg	☼	124	56 - 118	2	30
Hexachloroethane	<0.18		1.43	1.50		mg/Kg	☼	105	60 - 114	2	30
2-Chlorophenol	<0.18	*+ F1	1.43	1.71	F1	mg/Kg	☼	120	64 - 110	1	30
Nitrobenzene	<0.035	F1	1.43	1.70	F1	mg/Kg	☼	119	60 - 116	2	30
Bis(2-chloroethoxy)methane	<0.18	*+ F1	1.43	1.68	F1	mg/Kg	☼	117	60 - 112	1	30
1,2,4-Trichlorobenzene	<0.18		1.43	1.40		mg/Kg	☼	97	66 - 117	2	30
Isophorone	<0.18	*+ F1	1.43	1.69	F1	mg/Kg	☼	118	55 - 110	0	30
2,4-Dimethylphenol	<0.35	*+ F1	1.43	1.64	F1	mg/Kg	☼	114	60 - 110	2	30
Hexachlorobutadiene	<0.18		1.43	1.31		mg/Kg	☼	91	56 - 120	4	30
Naphthalene	<0.035		1.43	1.50		mg/Kg	☼	105	63 - 110	1	30
2,4-Dichlorophenol	<0.35		1.43	1.52		mg/Kg	☼	106	58 - 120	2	30
4-Chloroaniline	<0.71		1.43	1.43		mg/Kg	☼	100	30 - 150	2	30
2,4,6-Trichlorophenol	<0.35		1.43	1.47		mg/Kg	☼	102	57 - 120	3	30
2,4,5-Trichlorophenol	<0.35		1.43	1.46		mg/Kg	☼	102	50 - 120	0	30
Hexachlorocyclopentadiene	<0.71		1.43	0.416	J	mg/Kg	☼	29	10 - 133	1	30
2-Methylnaphthalene	<0.071		1.43	1.53		mg/Kg	☼	107	69 - 112	0	30
2-Nitroaniline	<0.18		1.43	1.49		mg/Kg	☼	104	57 - 124	0	30
2-Chloronaphthalene	<0.18		1.43	1.53		mg/Kg	☼	107	69 - 114	0	30
4-Chloro-3-methylphenol	<0.35		1.43	1.75		mg/Kg	☼	122	65 - 122	1	30
2,6-Dinitrotoluene	<0.18		1.43	1.60		mg/Kg	☼	111	70 - 123	2	30
2-Nitrophenol	<0.35		1.43	1.58		mg/Kg	☼	110	60 - 120	2	30
3-Nitroaniline	<0.35		1.43	1.28		mg/Kg	☼	89	40 - 122	1	30
Dimethyl phthalate	<0.18		1.43	1.58		mg/Kg	☼	111	69 - 116	3	30
2,4-Dinitrophenol	<0.71		2.86	0.898		mg/Kg	☼	31	10 - 100	1	30
Acenaphthylene	<0.035		1.43	1.51		mg/Kg	☼	106	68 - 120	1	30
2,4-Dinitrotoluene	<0.18		1.43	1.61		mg/Kg	☼	113	69 - 124	2	30
Acenaphthene	<0.035		1.43	1.59		mg/Kg	☼	111	65 - 124	0	30
Dibenzofuran	<0.18		1.43	1.55		mg/Kg	☼	108	66 - 115	2	30
4-Nitrophenol	<0.71		2.86	3.26		mg/Kg	☼	114	30 - 122	0	30
Fluorene	<0.035		1.43	1.54		mg/Kg	☼	108	62 - 120	1	30
4-Nitroaniline	<0.35		1.43	1.47		mg/Kg	☼	103	60 - 160	8	30
4-Bromophenyl phenyl ether	<0.18		1.43	1.33		mg/Kg	☼	93	68 - 118	5	30
Hexachlorobenzene	<0.071		1.43	1.41		mg/Kg	☼	98	63 - 124	2	30
Diethyl phthalate	<0.18		1.43	1.63		mg/Kg	☼	114	58 - 120	1	30
4-Chlorophenyl phenyl ether	<0.18		1.43	1.49		mg/Kg	☼	104	62 - 119	1	30
Pentachlorophenol	<0.71		2.86	1.08		mg/Kg	☼	38	13 - 112	14	30
N-Nitrosodiphenylamine	<0.18		1.43	1.51		mg/Kg	☼	105	65 - 112	4	30
4,6-Dinitro-2-methylphenol	<0.71		2.86	1.76		mg/Kg	☼	62	10 - 110	3	30
Phenanthrene	<0.035		1.43	1.57		mg/Kg	☼	110	62 - 120	2	30
Anthracene	<0.035		1.43	1.55		mg/Kg	☼	108	70 - 114	4	30
Carbazole	<0.18		1.43	1.89		mg/Kg	☼	132	65 - 142	5	30
Di-n-butyl phthalate	<0.18		1.43	1.64		mg/Kg	☼	115	65 - 120	4	30
Fluoranthene	<0.035		1.43	1.52		mg/Kg	☼	106	62 - 120	4	30
Pyrene	<0.035		1.43	1.71		mg/Kg	☼	120	61 - 128	1	30
Butyl benzyl phthalate	<0.18		1.43	1.81		mg/Kg	☼	126	71 - 129	1	30
Benzo[a]anthracene	<0.035		1.43	1.60		mg/Kg	☼	111	67 - 122	0	30
Chrysene	<0.035		1.43	1.64		mg/Kg	☼	115	63 - 120	1	30
3,3'-Dichlorobenzidine	<0.18		1.43	1.11		mg/Kg	☼	77	35 - 128	5	30

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

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

Lab Sample ID: 500-207164-5 MSD

Matrix: Solid

Analysis Batch: 625988

Client Sample ID: 2674V2-02-B01 (0-5)

Prep Type: Total/NA

Prep Batch: 625508

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Bis(2-ethylhexyl) phthalate	<0.18		1.43	1.81		mg/Kg	☼	126	72 - 131	1	30
Di-n-octyl phthalate	<0.18		1.43	1.68		mg/Kg	☼	117	68 - 134	3	30
Benzo[b]fluoranthene	<0.035		1.43	1.79		mg/Kg	☼	125	69 - 129	1	30
Benzo[k]fluoranthene	<0.035	F1	1.43	1.87	F1	mg/Kg	☼	131	68 - 127	0	30
Benzo[a]pyrene	<0.035		1.43	1.68		mg/Kg	☼	117	65 - 133	0	30
Indeno[1,2,3-cd]pyrene	<0.035	F1	1.43	0.984		mg/Kg	☼	69	68 - 130	0	30
Dibenz(a,h)anthracene	<0.035		1.43	1.03		mg/Kg	☼	72	64 - 131	1	30
Benzo[g,h,i]perylene	<0.035	F1	1.43	0.842	F1	mg/Kg	☼	59	72 - 131	1	30
3 & 4 Methylphenol	<0.18	*+ F1	1.43	1.79	F1	mg/Kg	☼	125	57 - 120	2	30
<b>Surrogate</b>	<b>MSD</b>	<b>MSD</b>	<b>Limits</b>								
	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>								
2-Fluorophenol	140		31 - 166								
Phenol-d5	124		30 - 153								
Nitrobenzene-d5 (Surr)	113		37 - 147								
2-Fluorobiphenyl (Surr)	103		43 - 145								
2,4,6-Tribromophenol	87		31 - 143								
Terphenyl-d14 (Surr)	103		42 - 157								

## Method: 6010B - Metals (ICP)

Lab Sample ID: LCS 500-625871/2-A

Matrix: Solid

Analysis Batch: 626087

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 625871

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
		Result	Qualifier					
Barium	0.500	0.506		mg/L		101	80 - 120	
Beryllium	0.0500	0.0466		mg/L		93	80 - 120	
Boron	1.00	0.877		mg/L		88	80 - 120	
Cadmium	0.0500	0.0498		mg/L		100	80 - 120	
Chromium	0.200	0.202		mg/L		101	80 - 120	
Cobalt	0.500	0.533		mg/L		107	80 - 120	
Lead	0.100	0.0990		mg/L		99	80 - 120	
Manganese	0.500	0.482		mg/L		96	80 - 120	
Nickel	0.500	0.530		mg/L		106	80 - 120	
Selenium	0.100	0.111		mg/L		111	80 - 120	
Zinc	0.500	0.591		mg/L		118	80 - 120	

Lab Sample ID: LCS 500-625873/2-A

Matrix: Solid

Analysis Batch: 626431

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 625873

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
		Result	Qualifier					
Manganese	0.500	0.497		mg/L		99	80 - 120	

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

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

**Lab Sample ID: LCS 500-626362/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626686**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626362**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	1.00	0.864		mg/L		86	80 - 120
Silver	0.0500	0.0503		mg/L		101	80 - 120

**Lab Sample ID: LCSD 500-626362/3-A**  
**Matrix: Solid**  
**Analysis Batch: 626686**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 626362**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	1.00	1.00		mg/L		100	80 - 120	15	20
Silver	0.0500	0.0506		mg/L		101	80 - 120	0	20

**Lab Sample ID: MB 500-626752/1-A**  
**Matrix: Solid**  
**Analysis Batch: 627041**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 626752**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.0		2.0	0.39	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Arsenic	<1.0		1.0	0.34	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Barium	<1.0		1.0	0.11	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Beryllium	<0.40		0.40	0.093	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Boron	<5.0		5.0	0.47	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Cadmium	<0.20		0.20	0.036	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Calcium	7.97	J	20	3.4	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Chromium	<1.0		1.0	0.50	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Cobalt	<0.50		0.50	0.13	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Copper	<1.0		1.0	0.28	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Iron	31.1		20	10	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Lead	<0.50		0.50	0.23	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Magnesium	<10		10	5.0	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Manganese	0.377	J	1.0	0.15	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Nickel	<1.0		1.0	0.29	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Potassium	<50		50	18	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Selenium	<1.0		1.0	0.59	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Silver	<0.50		0.50	0.13	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Sodium	<100		100	15	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Thallium	<1.0		1.0	0.50	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Vanadium	<0.50		0.50	0.12	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Zinc	<2.0		2.0	0.88	mg/Kg		11/02/21 10:30	11/03/21 12:10	1

**Lab Sample ID: LCS 500-626752/2-A**  
**Matrix: Solid**  
**Analysis Batch: 627041**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626752**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	50.0	46.8		mg/Kg		94	80 - 120
Arsenic	10.0	9.04		mg/Kg		90	80 - 120
Barium	200	196		mg/Kg		98	80 - 120
Beryllium	5.00	4.62		mg/Kg		92	80 - 120
Boron	100	82.6		mg/Kg		83	80 - 120

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# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

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

**Lab Sample ID: LCS 500-626752/2-A**  
**Matrix: Solid**  
**Analysis Batch: 627041**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626752**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	5.00	4.39		mg/Kg		88	80 - 120
Calcium	1000	943		mg/Kg		94	80 - 120
Chromium	20.0	18.6		mg/Kg		93	80 - 120
Cobalt	50.0	46.3		mg/Kg		93	80 - 120
Copper	25.0	23.2		mg/Kg		93	80 - 120
Iron	100	118		mg/Kg		118	80 - 120
Lead	10.0	9.05		mg/Kg		90	80 - 120
Magnesium	1000	893		mg/Kg		89	80 - 120
Manganese	50.0	46.2		mg/Kg		92	80 - 120
Nickel	50.0	47.1		mg/Kg		94	80 - 120
Potassium	1000	955		mg/Kg		96	80 - 120
Selenium	10.0	8.54		mg/Kg		85	80 - 120
Silver	5.00	4.44		mg/Kg		89	80 - 120
Sodium	1000	1070		mg/Kg		107	80 - 120
Thallium	10.0	8.92		mg/Kg		89	80 - 120
Vanadium	50.0	47.5		mg/Kg		95	80 - 120
Zinc	50.0	46.7		mg/Kg		93	80 - 120

**Lab Sample ID: LB 500-625523/2-B**  
**Matrix: Solid**  
**Analysis Batch: 626087**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 625871**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.50		0.50	0.050	mg/L		10/28/21 08:18	10/28/21 20:19	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/28/21 08:18	10/28/21 20:19	1
Boron	<0.50		0.50	0.050	mg/L		10/28/21 08:18	10/28/21 20:19	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/28/21 08:18	10/28/21 20:19	1
Chromium	<0.025		0.025	0.010	mg/L		10/28/21 08:18	10/28/21 20:19	1
Cobalt	<0.025		0.025	0.010	mg/L		10/28/21 08:18	10/28/21 20:19	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/28/21 08:18	10/28/21 20:19	1
Manganese	<0.025		0.025	0.010	mg/L		10/28/21 08:18	10/28/21 20:19	1
Nickel	<0.025		0.025	0.010	mg/L		10/28/21 08:18	10/28/21 20:19	1
Selenium	<0.050		0.050	0.020	mg/L		10/28/21 08:18	10/28/21 20:19	1
Zinc	<0.50		0.50	0.020	mg/L		10/28/21 08:18	10/28/21 20:19	1

**Lab Sample ID: LB 500-625523/1-B**  
**Matrix: Solid**  
**Analysis Batch: 626686**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 626362**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.40		0.40	0.20	mg/L		10/31/21 08:28	11/01/21 11:25	1
Silver	<0.025		0.025	0.010	mg/L		10/31/21 08:28	11/01/21 11:25	1

**Lab Sample ID: LB 500-625527/1-B**  
**Matrix: Solid**  
**Analysis Batch: 626431**

**Client Sample ID: Method Blank**  
**Prep Type: SPLP East**  
**Prep Batch: 625873**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	<0.025		0.025	0.010	mg/L		10/28/21 08:23	10/29/21 14:02	1

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

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

Lab Sample ID: 500-207164-1 MS  
Matrix: Solid  
Analysis Batch: 626431

Client Sample ID: 2674V2-02-B04 (0-5)  
Prep Type: SPLP East  
Prep Batch: 625873

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Manganese	0.69		0.500	1.17		mg/L		96	75 - 125

Lab Sample ID: 500-207164-1 DU  
Matrix: Solid  
Analysis Batch: 626431

Client Sample ID: 2674V2-02-B04 (0-5)  
Prep Type: SPLP East  
Prep Batch: 625873

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Manganese	0.69		0.676		mg/L		2	20

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

Lab Sample ID: LCS 500-625871/2-A  
Matrix: Solid  
Analysis Batch: 626196

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 625871

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.500	0.505		mg/L		101	80 - 120
Thallium	0.100	0.107		mg/L		107	80 - 120

Lab Sample ID: LB 500-625523/2-B  
Matrix: Solid  
Analysis Batch: 626196

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 625871

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/28/21 08:18	10/29/21 12:20	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/28/21 08:18	10/29/21 12:20	1

## Method: 7470A - TCLP Mercury

Lab Sample ID: MB 500-626108/12-A  
Matrix: Solid  
Analysis Batch: 626523

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 626108

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/29/21 09:35	11/01/21 09:42	1

Lab Sample ID: LCS 500-626108/14-A  
Matrix: Solid  
Analysis Batch: 626523

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 626108

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00200	0.00193		mg/L		97	80 - 120

Lab Sample ID: LB 500-625523/2-C  
Matrix: Solid  
Analysis Batch: 626523

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 626108

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/29/21 09:35	11/01/21 09:44	1

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# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

## Method: 7471B - Mercury (CVAA)

**Lab Sample ID: MB 500-625919/12-A**  
**Matrix: Solid**  
**Analysis Batch: 626118**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 625919**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0056	mg/Kg		10/28/21 14:10	10/29/21 07:21	1

**Lab Sample ID: LCS 500-625919/13-A**  
**Matrix: Solid**  
**Analysis Batch: 626118**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625919**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.167	0.181		mg/Kg		108	80 - 120

## Method: 9045D - pH

**Lab Sample ID: 500-207164-4 DU**  
**Matrix: Solid**  
**Analysis Batch: 625321**

**Client Sample ID: 2674V2-02-B02 (0-5)**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	8.2		8.0		SU		3	

# Lab Chronicle

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

**Client Sample ID: 2674V2-02-B04 (0-5)**

**Lab Sample ID: 500-207164-1**

**Date Collected: 10/20/21 09:14**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			625527	10/26/21 13:11	EA	TAL CHI
SPLP East	Prep	3010A			625873	10/28/21 08:23	BDE	TAL CHI
SPLP East	Analysis	6010B		1	626431	10/29/21 14:08	JJB	TAL CHI
TCLP	Leach	1311			625523	10/26/21 13:11	EA	TAL CHI
TCLP	Prep	3010A			625871	10/28/21 08:18	BDE	TAL CHI
TCLP	Analysis	6010B		1	626087	10/28/21 21:21	DAJ	TAL CHI
TCLP	Leach	1311			625523	10/26/21 13:11	EA	TAL CHI
TCLP	Prep	3010A			626362	10/31/21 08:28	BDE	TAL CHI
TCLP	Analysis	6010B		1	626686	11/01/21 11:45	JJB	TAL CHI
TCLP	Leach	1311			625523	10/26/21 13:11	EA	TAL CHI
TCLP	Prep	3010A			625871	10/28/21 08:18	BDE	TAL CHI
TCLP	Analysis	6020A		1	626196	10/29/21 12:22	FXG	TAL CHI
TCLP	Leach	1311			625523	10/26/21 13:11	EA	TAL CHI
TCLP	Prep	7470A			626108	10/29/21 09:35	MJG	TAL CHI
TCLP	Analysis	7470A		1	626523	11/01/21 10:11	MJG	TAL CHI
Total/NA	Analysis	9045D		1	625321	10/25/21 18:06	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	625259	10/25/21 12:34	LWN	TAL CHI

**Client Sample ID: 2674V2-02-B04 (0-5)**

**Lab Sample ID: 500-207164-1**

**Date Collected: 10/20/21 09:14**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

**Percent Solids: 72.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			625104	10/20/21 18:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	626261	10/30/21 17:24	PMF	TAL CHI
Total/NA	Prep	3541			625508	10/26/21 13:52	SB	TAL CHI
Total/NA	Analysis	8270D		1	625988	10/28/21 18:41	EMA	TAL CHI
Total/NA	Prep	3050B			626752	11/02/21 10:30	BDE	TAL CHI
Total/NA	Analysis	6010B		1	627041	11/03/21 12:30	JJB	TAL CHI
Total/NA	Prep	7471B			625919	10/28/21 14:10	MJG	TAL CHI
Total/NA	Analysis	7471B		1	626118	10/29/21 07:25	MJG	TAL CHI

**Client Sample ID: 2674V2-02-B04 (0-5)D**

**Lab Sample ID: 500-207164-2**

**Date Collected: 10/20/21 09:18**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			625527	10/26/21 13:11	EA	TAL CHI
SPLP East	Prep	3010A			625873	10/28/21 08:23	BDE	TAL CHI
SPLP East	Analysis	6010B		1	626431	10/29/21 14:20	JJB	TAL CHI
TCLP	Leach	1311			625523	10/26/21 13:11	EA	TAL CHI
TCLP	Prep	3010A			625871	10/28/21 08:18	BDE	TAL CHI
TCLP	Analysis	6010B		1	626087	10/28/21 21:25	DAJ	TAL CHI
TCLP	Leach	1311			625523	10/26/21 13:11	EA	TAL CHI
TCLP	Prep	3010A			626362	10/31/21 08:28	BDE	TAL CHI
TCLP	Analysis	6010B		1	626686	11/01/21 12:24	JJB	TAL CHI

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# Lab Chronicle

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

**Client Sample ID: 2674V2-02-B04 (0-5)D**

**Lab Sample ID: 500-207164-2**

**Date Collected: 10/20/21 09:18**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			625523	10/26/21 13:11	EA	TAL CHI
TCLP	Prep	3010A			625871	10/28/21 08:18	BDE	TAL CHI
TCLP	Analysis	6020A		1	626196	10/29/21 12:23	FXG	TAL CHI
TCLP	Leach	1311			625523	10/26/21 13:11	EA	TAL CHI
TCLP	Prep	7470A			626108	10/29/21 09:35	MJG	TAL CHI
TCLP	Analysis	7470A		1	626523	11/01/21 10:14	MJG	TAL CHI
Total/NA	Analysis	9045D		1	625321	10/25/21 18:08	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	625259	10/25/21 12:34	LWN	TAL CHI

**Client Sample ID: 2674V2-02-B04 (0-5)D**

**Lab Sample ID: 500-207164-2**

**Date Collected: 10/20/21 09:18**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

**Percent Solids: 85.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			625104	10/20/21 18:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	626261	10/30/21 17:49	PMF	TAL CHI
Total/NA	Prep	3541			625508	10/26/21 13:52	SB	TAL CHI
Total/NA	Analysis	8270D		1	625988	10/28/21 19:02	EMA	TAL CHI
Total/NA	Prep	3050B			626752	11/02/21 10:30	BDE	TAL CHI
Total/NA	Analysis	6010B		1	627041	11/03/21 12:33	JJB	TAL CHI
Total/NA	Prep	3050B			626752	11/02/21 10:30	BDE	TAL CHI
Total/NA	Analysis	6010B		2	627087	11/03/21 15:16	JJB	TAL CHI
Total/NA	Prep	7471B			625919	10/28/21 14:10	MJG	TAL CHI
Total/NA	Analysis	7471B		1	626118	10/29/21 07:27	MJG	TAL CHI

**Client Sample ID: 2674V2-02-B03 (0-5)**

**Lab Sample ID: 500-207164-3**

**Date Collected: 10/20/21 09:28**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			625523	10/26/21 13:11	EA	TAL CHI
TCLP	Prep	3010A			625871	10/28/21 08:18	BDE	TAL CHI
TCLP	Analysis	6010B		1	626087	10/28/21 21:28	DAJ	TAL CHI
TCLP	Leach	1311			625523	10/26/21 13:11	EA	TAL CHI
TCLP	Prep	3010A			626362	10/31/21 08:28	BDE	TAL CHI
TCLP	Analysis	6010B		1	626686	11/01/21 12:27	JJB	TAL CHI
TCLP	Leach	1311			625523	10/26/21 13:11	EA	TAL CHI
TCLP	Prep	3010A			625871	10/28/21 08:18	BDE	TAL CHI
TCLP	Analysis	6020A		1	626196	10/29/21 12:25	FXG	TAL CHI
TCLP	Leach	1311			625523	10/26/21 13:11	EA	TAL CHI
TCLP	Prep	7470A			626108	10/29/21 09:35	MJG	TAL CHI
TCLP	Analysis	7470A		1	626523	11/01/21 10:16	MJG	TAL CHI
Total/NA	Analysis	9045D		1	625321	10/25/21 18:13	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	625259	10/25/21 12:34	LWN	TAL CHI



# Lab Chronicle

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

## Client Sample ID: 2674V2-02-B03 (0-5)

## Lab Sample ID: 500-207164-3

Date Collected: 10/20/21 09:28

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 83.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			625104	10/20/21 18:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	626261	10/30/21 18:15	PMF	TAL CHI
Total/NA	Prep	3541			625508	10/26/21 13:52	SB	TAL CHI
Total/NA	Analysis	8270D		1	625988	10/28/21 19:23	EMA	TAL CHI
Total/NA	Prep	3050B			626752	11/02/21 10:30	BDE	TAL CHI
Total/NA	Analysis	6010B		1	627041	11/03/21 12:36	JJB	TAL CHI
Total/NA	Prep	3050B			626752	11/02/21 10:30	BDE	TAL CHI
Total/NA	Analysis	6010B		2	627087	11/03/21 15:19	JJB	TAL CHI
Total/NA	Prep	7471B			625919	10/28/21 14:10	MJG	TAL CHI
Total/NA	Analysis	7471B		1	626118	10/29/21 07:41	MJG	TAL CHI

## Client Sample ID: 2674V2-02-B02 (0-5)

## Lab Sample ID: 500-207164-4

Date Collected: 10/20/21 09:36

Matrix: Solid

Date Received: 10/20/21 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			625523	10/26/21 13:11	EA	TAL CHI
TCLP	Prep	3010A			625871	10/28/21 08:18	BDE	TAL CHI
TCLP	Analysis	6010B		1	626087	10/28/21 21:38	DAJ	TAL CHI
TCLP	Leach	1311			625523	10/26/21 13:11	EA	TAL CHI
TCLP	Prep	3010A			626362	10/31/21 08:28	BDE	TAL CHI
TCLP	Analysis	6010B		1	626686	11/01/21 12:30	JJB	TAL CHI
TCLP	Leach	1311			625523	10/26/21 13:11	EA	TAL CHI
TCLP	Prep	3010A			625871	10/28/21 08:18	BDE	TAL CHI
TCLP	Analysis	6020A		1	626196	10/29/21 12:26	FXG	TAL CHI
TCLP	Leach	1311			625523	10/26/21 13:11	EA	TAL CHI
TCLP	Prep	7470A			626108	10/29/21 09:35	MJG	TAL CHI
TCLP	Analysis	7470A		1	626523	11/01/21 10:18	MJG	TAL CHI
Total/NA	Analysis	9045D		1	625321	10/25/21 18:15	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	625259	10/25/21 12:34	LWN	TAL CHI

## Client Sample ID: 2674V2-02-B02 (0-5)

## Lab Sample ID: 500-207164-4

Date Collected: 10/20/21 09:36

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 86.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			625104	10/20/21 18:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	626261	10/30/21 18:40	PMF	TAL CHI
Total/NA	Prep	3541			625508	10/26/21 13:52	SB	TAL CHI
Total/NA	Analysis	8270D		1	625988	10/28/21 19:44	EMA	TAL CHI
Total/NA	Prep	3050B			626752	11/02/21 10:30	BDE	TAL CHI
Total/NA	Analysis	6010B		1	627041	11/03/21 12:39	JJB	TAL CHI
Total/NA	Prep	7471B			625919	10/28/21 14:10	MJG	TAL CHI
Total/NA	Analysis	7471B		1	626118	10/29/21 07:42	MJG	TAL CHI

# Lab Chronicle

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

**Client Sample ID: 2674V2-02-B01 (0-5)**

**Lab Sample ID: 500-207164-5**

**Date Collected: 10/20/21 09:47**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			625527	10/26/21 13:11	EA	TAL CHI
SPLP East	Prep	3010A			625873	10/28/21 08:23	BDE	TAL CHI
SPLP East	Analysis	6010B		1	626431	10/29/21 14:30	JJB	TAL CHI
TCLP	Leach	1311			625523	10/26/21 13:11	EA	TAL CHI
TCLP	Prep	3010A			625871	10/28/21 08:18	BDE	TAL CHI
TCLP	Analysis	6010B		1	626087	10/28/21 21:41	DAJ	TAL CHI
TCLP	Leach	1311			625523	10/26/21 13:11	EA	TAL CHI
TCLP	Prep	3010A			626362	10/31/21 08:28	BDE	TAL CHI
TCLP	Analysis	6010B		1	626686	11/01/21 12:33	JJB	TAL CHI
TCLP	Leach	1311			625523	10/26/21 13:11	EA	TAL CHI
TCLP	Prep	3010A			625871	10/28/21 08:18	BDE	TAL CHI
TCLP	Analysis	6020A		1	626196	10/29/21 12:27	FXG	TAL CHI
TCLP	Leach	1311			625523	10/26/21 13:11	EA	TAL CHI
TCLP	Prep	7470A			626108	10/29/21 09:35	MJG	TAL CHI
TCLP	Analysis	7470A		1	626523	11/01/21 10:20	MJG	TAL CHI
Total/NA	Analysis	9045D		1	625321	10/25/21 18:20	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	625259	10/25/21 12:34	LWN	TAL CHI

**Client Sample ID: 2674V2-02-B01 (0-5)**

**Lab Sample ID: 500-207164-5**

**Date Collected: 10/20/21 09:47**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

**Percent Solids: 90.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			625104	10/20/21 18:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	626261	10/30/21 19:06	PMF	TAL CHI
Total/NA	Prep	3541			625508	10/26/21 13:52	SB	TAL CHI
Total/NA	Analysis	8270D		1	625988	10/28/21 20:05	EMA	TAL CHI
Total/NA	Prep	3050B			626752	11/02/21 10:30	BDE	TAL CHI
Total/NA	Analysis	6010B		1	627041	11/03/21 12:42	JJB	TAL CHI
Total/NA	Prep	3050B			626752	11/02/21 10:30	BDE	TAL CHI
Total/NA	Analysis	6010B		5	627087	11/03/21 15:26	JJB	TAL CHI
Total/NA	Prep	7471B			625919	10/28/21 14:10	MJG	TAL CHI
Total/NA	Analysis	7471B		1	626118	10/29/21 07:44	MJG	TAL CHI

**Laboratory References:**

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Accreditation/Certification Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207164-1

## Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

# Chain of Custody Record

546556



Environment Testing  
TestAmerica

Address \_\_\_\_\_

Regulatory Program:  DW  NPDES  RCRA  Other

TAL-8210

<b>Client Contact</b> Company Name <u>WSP</u> Address _____ City/State/Zip <u>Chicago IL</u> Phone _____ Fax _____ Project Name <u>100T WOOD</u> Site <u>Vake Villa IL</u> P O # _____		<b>Project Manager</b> <u>D Tiebout</u> Tel/Email _____ <b>Analysis Turnaround Time</b> <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		<b>Site Contact</b> <u>A Happel</u> Lab Contact <u>R Wright</u> Date <u>10/20/2021</u> Carrier _____		COC No _____ _____ of <u>4</u> COCs <b>For Lab Use Only</b> Walk-in Client _____ Lab Sampling _____ Job / SDG No <u>500-207164</u>									
<b>Sample Identification</b>		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VOCs	PAH	SVOCs	% Moisture	Total Metals	TCLP Metals*	Sample Specific Notes
1	2674VZ-02-B04(0-5)	10/20/21	0914	C	S	2			X	X	X	X	X	X	
2	2674VZ-02-B04(0-5)-DUP	10/20/21	0918	C	S	2			X	X	X	X	X	X	
3	2674VZ-02-B03(0-5)	10/20/21	0928	C	S	2			X	X	X	X	X	X	
4	2674VZ-02-B02(0-5)	10/20/21	0936	C	S	2			X	X	X	X	X	X	
5	2674VZ-02-B01(0-5)	10/20/21	0947	C	S	2			X	X	X	X	X	X	
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____															
<b>Possible Hazard Identification:</b> Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample <input type="checkbox"/> Non Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown								<b>Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)</b> <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months							
<b>Special Instructions/QC Requirements &amp; Comments:</b> <u>* SPLP analysis is based on TCLP results</u>															
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No _____		Cooler Temp (°C) Obs'd <u>12.0</u> Corr'd <u>12.1</u>		Therm ID No _____									
Relinquished by <u>[Signature]</u>		Company <u>WSP</u>		Date/Time <u>10/20/21 1250</u>		Received by <u>[Signature]</u>		Company <u>ETA</u>		Date/Time <u>10/20/21 1300</u>					
Relinquished by <u>[Signature]</u>		Company <u>ETA (S30)</u>		Date/Time <u>10/20/21</u>		Received by _____		Company _____		Date/Time _____					
Relinquished by _____		Company _____		Date/Time _____		Received in Laboratory by <u>[Signature]</u>		Company <u>ETA-CHT</u>		Date/Time <u>10/20/21 1530</u>					

## Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 500-207164-1

**Login Number: 207164**

**List Source: Eurofins TestAmerica, Chicago**

**List Number: 1**

**Creator: Scott, Sherri L**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	12.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# Illinois Environmental Protection Agency

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

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

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

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

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

### I. Source Location Information

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

Project Name: FAP 541 (Illinois Route 132) Office Phone Number, if available: \_\_\_\_\_

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

185 W. Grand Avenue (ISGS #2674V2-4)

City: Lake Villa State: IL Zip Code: 60046

County: Lake Township: Lake Villa

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

Latitude: 42.41526 Longitude: - 88.08692

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

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

Approximate Start Date (mm/dd/yyyy): \_\_\_\_\_ Approximate End Date (mm/dd/yyyy): \_\_\_\_\_

Estimated Volume of debris (cu. Yd.): 81

### 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 2674V2-04-B01 and -B02 were sampled within the construction zone adjacent to ISGS #2674V2-4 (American Classic Muscle Cars). Refer to PSI Report for ISGS #2674V2-4 (American Classic Muscle Cars) including Table 4-4, and Figures 4-2 and 4-4.

- 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]:

See attached data summary table and associated laboratory data package J207165-1.

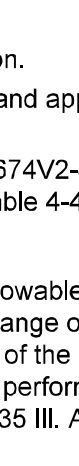
**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Tom Campbell (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: WSP USA  
Street Address: 115 W Washington St., Suite 1270S  
City: Indianapolis State: IN Zip Code: 46204  
Phone: (317) 972-1706

Tom Campbell  
Printed Name:

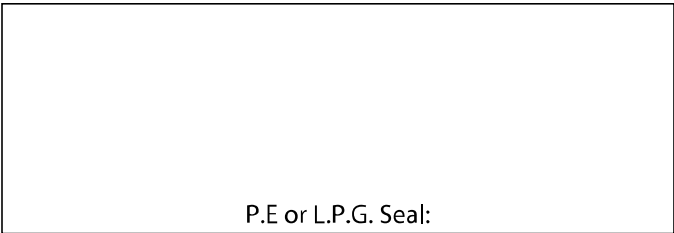
  
Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

02/03/2022

Date:



Expires 11/30/2023





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

**Analytical Data Summary**  
**PTB #196-002; Work Order 04 - IDOT Job # P-91-583-12**

**Key to Data Tables**

- MAC = Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- TACO = Tiered Approach to Corrective Action Objectives
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers and Shading**

- # = pH is less than 6.25 or greater than 9.0 standard units.
- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- r = Concentration exceeds a TACO Tier 1 RO for the Residential Soil Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds applicable comparison criteria.



PTB #196-002; Work Order 04 - IDOT Job # P-91-583-12

CONTAMINANTS OF CONCERN

SITE	ISGS #2674V2-4 (American Classic Muscle Cars)		Comparison Criteria					
	2674V2-04-B01	2674V2-04-B02	MACs			TACO		
BORING								
SAMPLE	2674V2-04-B01 (0-4)	2674V2-04-B02 (0-2)						
MATRIX	Soil	Soil						
DEPTH (feet)	0-4	0-2						
pH	8.2	8.4						
PID (meter units)	--	--	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
<b>VOCs (mg/kg)</b>								
2-Butanone (MEK)	0.0055	0.010	--	--	--	--	--	--
Acetone	0.048	0.059	25	--	--	70,000	100,000	--
<b>SVOCs (mg/kg)</b>								
Benzo(a)anthracene	0.011 J	0.010 J	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.016 J	0.016 J	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	0.017 J	0.012 J	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.026 J	0.034 J	--	--	--	--	--	--
Benzo(k)fluoranthene	0.018 J	ND U	9	--	--	9	1,700	--
Chrysene	0.018 J	0.013 J	88	--	--	88	17,000	--
Dibenz(a,h)anthracene	0.013 J	0.020 J	0.09	0.42	0.2	0.42	17	--
Fluoranthene	0.033 J	0.022 J	3,100	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	0.021 J	0.025 J	0.9	1.6	0.9	1.6	170	--
Phenanthrene	0.017 J	0.020 J	--	--	--	--	--	--
Pyrene	0.025 J	0.021 J	2,300	--	--	2,300	61,000	--
<b>Inorganics (mg/kg)</b>								
Antimony	0.42 J	0.44 J	5	--	--	31	82	--
Arsenic	6.2	5.3	11.3	13	--	13	61	--
Barium	55	71	1,500	--	--	5,500	14,000	--
Beryllium	0.50	0.51	22	--	--	160	410	--
Boron	9.6	4.8	40	--	--	16,000	41,000	--
Cadmium	0.022 J	0.16	5.2	--	--	78	200	--
Calcium	35,000	9,900	--	--	--	--	--	--
Chromium	19	16	21	--	--	230	690	--
Cobalt	13	12	20	--	--	4,700	12,000	--
Copper	23	19	2,900	--	--	2,900	8,200	--
Iron	19,000 †m	16,000 †m	15,000	15,900	--	--	--	--
Lead	16	39	107	--	--	400	700	--
Magnesium	21,000	7,000	325,000	--	--	--	730,000	--
Manganese	340	540	630	636	--	1,600	4,100	--
Mercury	0.042	0.084	0.89	--	--	10	0.1	--
Nickel	34	23	100	--	--	1,600	4,100	--
Potassium	2,800	1,600	--	--	--	--	--	--
Selenium	0.45 J	0.73	1.3	--	--	390	1,000	--
Silver	0.19 J	0.20 J	4.4	--	--	390	1,000	--
Sodium	610	410	--	--	--	--	--	--
Thallium	ND U	ND U	2.6	--	--	6.3	160	--
Vanadium	24	23	550	--	--	550	1,400	--
Zinc	69	100	5,100	--	--	23,000	61,000	--
<b>TCLP Metals (mg/L)</b>								
Barium	0.66	0.32 J	--	--	--	--	--	2
Boron	0.10 J	0.34 J	--	--	--	--	--	2
Cobalt	0.015 J	ND U	--	--	--	--	--	1
Iron	ND U	ND U	--	--	--	--	--	5
Manganese	11 L	1.4 L	--	--	--	--	--	0.15
Nickel	0.022 J	ND U	--	--	--	--	--	0.1
Selenium	0.020 J	ND U	--	--	--	--	--	0.05
Zinc	0.051 J	0.046 J	--	--	--	--	--	5
<b>SPLP Metals (mg/L)</b>								
Manganese	1.7 L	1.4 L	--	--	--	--	--	0.15

## ANALYTICAL REPORT

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

Laboratory Job ID: 500-207165-1

Client Project/Site: IDOT - 196-002-WO04 Lake Villa

**For:**

WSP USA Inc.  
30 North LaSalle Street  
Chicago, Illinois 60602

Attn: Dean Tiebot



Authorized for release by:  
11/4/2021 11:24:50 AM

Richard Wright, Senior Project Manager  
(708)746-0045  
[Richard.Wright@Eurofinset.com](mailto:Richard.Wright@Eurofinset.com)

### LINKS

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*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

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

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

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# Case Narrative

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207165-1

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## Job ID: 500-207165-1

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### Laboratory: Eurofins TestAmerica, Chicago

#### Narrative

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#### Job Narrative 500-207165-1

#### Receipt

The samples were received on 10/20/2021 3:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 12.1° C.

#### GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### GC/MS Semi VOA

Method 8270D: The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when utilizing this list of analytes. The LCS associated with preparation batch 500-625596 and analytical batch 500-626154 had 2 analytes above the control limits and had associated sample detections: Phenanthrene and Indeno[1,2,3-cd]pyrene. The following analytes recovered above the control limits and had no associated detections: Bis(2-chloroethyl)ether, 2-Methylphenol, 2-Chlorophenol, 2,6-Dinitrotoluene and N-Nitrosodiphenylamine. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

Method 6010B: The method blank for preparation batch 500-626752 and analytical batch 500-627041 contained Iron above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207165-1

**Client Sample ID: 2674V2-04-B02 (0-2)**

**Lab Sample ID: 500-207165-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.059		0.023	0.010	mg/Kg	1	✳	8260B	Total/NA
2-Butanone (MEK)	0.010		0.0058	0.0026	mg/Kg	1	✳	8260B	Total/NA
Phenanthrene	0.020	J**	0.041	0.0057	mg/Kg	1	✳	8270D	Total/NA
Fluoranthene	0.022	J	0.041	0.0076	mg/Kg	1	✳	8270D	Total/NA
Pyrene	0.021	J	0.041	0.0081	mg/Kg	1	✳	8270D	Total/NA
Benzo[a]anthracene	0.010	J	0.041	0.0055	mg/Kg	1	✳	8270D	Total/NA
Chrysene	0.013	J	0.041	0.011	mg/Kg	1	✳	8270D	Total/NA
Benzo[b]fluoranthene	0.012	J	0.041	0.0088	mg/Kg	1	✳	8270D	Total/NA
Benzo[a]pyrene	0.016	J	0.041	0.0079	mg/Kg	1	✳	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.025	J**	0.041	0.011	mg/Kg	1	✳	8270D	Total/NA
Dibenz(a,h)anthracene	0.020	J	0.041	0.0079	mg/Kg	1	✳	8270D	Total/NA
Benzo[g,h,i]perylene	0.034	J	0.041	0.013	mg/Kg	1	✳	8270D	Total/NA
Antimony	0.44	J	1.2	0.24	mg/Kg	1	✳	6010B	Total/NA
Arsenic	5.3		0.61	0.21	mg/Kg	1	✳	6010B	Total/NA
Barium	71		0.61	0.069	mg/Kg	1	✳	6010B	Total/NA
Beryllium	0.51		0.24	0.057	mg/Kg	1	✳	6010B	Total/NA
Boron	4.8		3.0	0.28	mg/Kg	1	✳	6010B	Total/NA
Cadmium	0.16		0.12	0.022	mg/Kg	1	✳	6010B	Total/NA
Calcium	9900	B	12	2.1	mg/Kg	1	✳	6010B	Total/NA
Chromium	16		0.61	0.30	mg/Kg	1	✳	6010B	Total/NA
Cobalt	12		0.30	0.080	mg/Kg	1	✳	6010B	Total/NA
Copper	19		0.61	0.17	mg/Kg	1	✳	6010B	Total/NA
Iron	16000	B	12	6.3	mg/Kg	1	✳	6010B	Total/NA
Lead	39		0.30	0.14	mg/Kg	1	✳	6010B	Total/NA
Magnesium	7000		6.1	3.0	mg/Kg	1	✳	6010B	Total/NA
Manganese	540	B	0.61	0.088	mg/Kg	1	✳	6010B	Total/NA
Nickel	23		0.61	0.18	mg/Kg	1	✳	6010B	Total/NA
Potassium	1600		30	11	mg/Kg	1	✳	6010B	Total/NA
Selenium	0.73		0.61	0.36	mg/Kg	1	✳	6010B	Total/NA
Silver	0.20	J	0.30	0.078	mg/Kg	1	✳	6010B	Total/NA
Sodium	410		61	9.0	mg/Kg	1	✳	6010B	Total/NA
Vanadium	23		0.30	0.072	mg/Kg	1	✳	6010B	Total/NA
Zinc	100		1.2	0.53	mg/Kg	1	✳	6010B	Total/NA
Barium	0.32	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.34	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	1.4		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.046	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	1.4		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.084		0.020	0.0066	mg/Kg	1	✳	7471B	Total/NA
pH	8.4		0.2	0.2	SU	1		9045D	Total/NA

**Client Sample ID: 2674V2-04-B01 (0-4)**

**Lab Sample ID: 500-207165-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.048		0.020	0.0088	mg/Kg	1	✳	8260B	Total/NA
2-Butanone (MEK)	0.0055		0.0051	0.0023	mg/Kg	1	✳	8260B	Total/NA
Phenanthrene	0.017	J**	0.040	0.0057	mg/Kg	1	✳	8270D	Total/NA
Fluoranthene	0.033	J	0.040	0.0075	mg/Kg	1	✳	8270D	Total/NA
Pyrene	0.025	J	0.040	0.0081	mg/Kg	1	✳	8270D	Total/NA
Benzo[a]anthracene	0.011	J	0.040	0.0055	mg/Kg	1	✳	8270D	Total/NA
Chrysene	0.018	J	0.040	0.011	mg/Kg	1	✳	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Detection Summary

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207165-1

**Client Sample ID: 2674V2-04-B01 (0-4) (Continued)**

**Lab Sample ID: 500-207165-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	0.017	J	0.040	0.0088	mg/Kg	1	✳	8270D	Total/NA
Benzo[k]fluoranthene	0.018	J	0.040	0.012	mg/Kg	1	✳	8270D	Total/NA
Benzo[a]pyrene	0.016	J	0.040	0.0079	mg/Kg	1	✳	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.021	J*+	0.040	0.011	mg/Kg	1	✳	8270D	Total/NA
Dibenz(a,h)anthracene	0.013	J	0.040	0.0078	mg/Kg	1	✳	8270D	Total/NA
Benzo[g,h,i]perylene	0.026	J	0.040	0.013	mg/Kg	1	✳	8270D	Total/NA
Antimony	0.42	J	1.2	0.23	mg/Kg	1	✳	6010B	Total/NA
Arsenic	6.2		0.60	0.20	mg/Kg	1	✳	6010B	Total/NA
Barium	55		0.60	0.068	mg/Kg	1	✳	6010B	Total/NA
Beryllium	0.50		0.24	0.056	mg/Kg	1	✳	6010B	Total/NA
Boron	9.6		3.0	0.28	mg/Kg	1	✳	6010B	Total/NA
Cadmium	0.022	J	0.12	0.021	mg/Kg	1	✳	6010B	Total/NA
Calcium	35000	B	12	2.0	mg/Kg	1	✳	6010B	Total/NA
Chromium	19		0.60	0.30	mg/Kg	1	✳	6010B	Total/NA
Cobalt	13		0.30	0.078	mg/Kg	1	✳	6010B	Total/NA
Copper	23		0.60	0.17	mg/Kg	1	✳	6010B	Total/NA
Iron	19000	B	12	6.2	mg/Kg	1	✳	6010B	Total/NA
Lead	16		0.30	0.14	mg/Kg	1	✳	6010B	Total/NA
Magnesium	21000		6.0	3.0	mg/Kg	1	✳	6010B	Total/NA
Manganese	340	B	0.60	0.086	mg/Kg	1	✳	6010B	Total/NA
Nickel	34		0.60	0.17	mg/Kg	1	✳	6010B	Total/NA
Potassium	2800		30	11	mg/Kg	1	✳	6010B	Total/NA
Selenium	0.45	J	0.60	0.35	mg/Kg	1	✳	6010B	Total/NA
Silver	0.19	J	0.30	0.077	mg/Kg	1	✳	6010B	Total/NA
Sodium	610		60	8.8	mg/Kg	1	✳	6010B	Total/NA
Vanadium	24		0.30	0.070	mg/Kg	1	✳	6010B	Total/NA
Zinc	69		1.2	0.52	mg/Kg	1	✳	6010B	Total/NA
Barium	0.66		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.10	J	0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.015	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	11		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.022	J	0.025	0.010	mg/L	1		6010B	TCLP
Selenium	0.020	J	0.050	0.020	mg/L	1		6010B	TCLP
Zinc	0.051	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	1.7		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.042		0.018	0.0059	mg/Kg	1	✳	7471B	Total/NA
pH	8.2		0.2	0.2	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Method Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207165-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CHI
6010B	Metals (ICP)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
7470A	TCLP Mercury	SW846	TAL CHI
7471B	Mercury (CVAA)	SW846	TAL CHI
9045D	pH	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
1311	TCLP Extraction	SW846	TAL CHI
1312	SPLP Extraction	SW846	TAL CHI
3010A	Preparation, Total Metals	SW846	TAL CHI
3050B	Preparation, Metals	SW846	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI
5035	Closed System Purge and Trap	SW846	TAL CHI
7470A	Preparation, Mercury	SW846	TAL CHI
7471B	Preparation, Mercury	SW846	TAL CHI

#### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Sample Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207165-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-207165-1	2674V2-04-B02 (0-2)	Solid	10/20/21 10:03	10/20/21 15:30
500-207165-2	2674V2-04-B01 (0-4)	Solid	10/20/21 10:26	10/20/21 15:30

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# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207165-1

Client Sample ID: 2674V2-04-B02 (0-2)

Lab Sample ID: 500-207165-1

Date Collected: 10/20/21 10:03

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 79.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.059		0.023	0.010	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
Benzene	<0.0023		0.0023	0.00059	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
Bromodichloromethane	<0.0023		0.0023	0.00047	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
Bromoform	<0.0023		0.0023	0.00068	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
Bromomethane	<0.0058		0.0058	0.0022	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
2-Butanone (MEK)	0.010		0.0058	0.0026	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
Carbon disulfide	<0.0058		0.0058	0.0012	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
Carbon tetrachloride	<0.0023		0.0023	0.00067	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
Chlorobenzene	<0.0023		0.0023	0.00086	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
Chloroethane	<0.0058		0.0058	0.0017	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
Chloroform	<0.0023		0.0023	0.00081	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
Chloromethane	<0.0058		0.0058	0.0023	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
cis-1,2-Dichloroethene	<0.0023		0.0023	0.00065	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
cis-1,3-Dichloropropene	<0.0023		0.0023	0.00070	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
Dibromochloromethane	<0.0023		0.0023	0.00076	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
1,1-Dichloroethane	<0.0023		0.0023	0.00080	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
1,2-Dichloroethane	<0.0058		0.0058	0.0018	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
1,1-Dichloroethene	<0.0023		0.0023	0.00080	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
1,2-Dichloropropene	<0.0023		0.0023	0.00060	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
1,3-Dichloropropene, Total	<0.0023		0.0023	0.00082	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
Ethylbenzene	<0.0023		0.0023	0.0011	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
2-Hexanone	<0.0058		0.0058	0.0018	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
Methylene Chloride	<0.0058		0.0058	0.0023	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
4-Methyl-2-pentanone (MIBK)	<0.0058		0.0058	0.0017	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
Methyl tert-butyl ether	<0.0023		0.0023	0.00068	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
Styrene	<0.0023		0.0023	0.00070	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
1,1,2,2-Tetrachloroethane	<0.0023		0.0023	0.00074	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
Tetrachloroethene	<0.0023		0.0023	0.00079	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
Toluene	<0.0023		0.0023	0.00059	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
trans-1,2-Dichloroethene	<0.0023		0.0023	0.0010	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
trans-1,3-Dichloropropene	<0.0023		0.0023	0.00082	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
1,1,1-Trichloroethane	<0.0023		0.0023	0.00078	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
1,1,2-Trichloroethane	<0.0023		0.0023	0.0010	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
Trichloroethene	<0.0023		0.0023	0.00078	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
Vinyl acetate	<0.0058		0.0058	0.0020	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
Vinyl chloride	<0.0023		0.0023	0.0010	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1
Xylenes, Total	<0.0046		0.0046	0.00074	mg/Kg	✳	10/20/21 18:07	10/29/21 15:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		75 - 131	10/20/21 18:07	10/29/21 15:28	1
Dibromofluoromethane	99		75 - 126	10/20/21 18:07	10/29/21 15:28	1
1,2-Dichloroethane-d4 (Surr)	100		70 - 134	10/20/21 18:07	10/29/21 15:28	1
Toluene-d8 (Surr)	96		75 - 124	10/20/21 18:07	10/29/21 15:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.21		0.21	0.091	mg/Kg	✳	10/27/21 06:34	10/29/21 18:08	1
Bis(2-chloroethyl)ether	<0.21	*+	0.21	0.061	mg/Kg	✳	10/27/21 06:34	10/29/21 18:08	1
1,3-Dichlorobenzene	<0.21		0.21	0.046	mg/Kg	✳	10/27/21 06:34	10/29/21 18:08	1
1,4-Dichlorobenzene	<0.21		0.21	0.053	mg/Kg	✳	10/27/21 06:34	10/29/21 18:08	1

Eurofins TestAmerica, Chicago



# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207165-1

Client Sample ID: 2674V2-04-B02 (0-2)

Lab Sample ID: 500-207165-1

Date Collected: 10/20/21 10:03

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 79.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chrysene</b>	<b>0.013</b>	<b>J</b>	0.041	0.011	mg/Kg	☼	10/27/21 06:34	10/29/21 18:08	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.057	mg/Kg	☼	10/27/21 06:34	10/29/21 18:08	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.075	mg/Kg	☼	10/27/21 06:34	10/29/21 18:08	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	10/27/21 06:34	10/29/21 18:08	1
<b>Benzo[b]fluoranthene</b>	<b>0.012</b>	<b>J</b>	0.041	0.0088	mg/Kg	☼	10/27/21 06:34	10/29/21 18:08	1
Benzo[k]fluoranthene	<0.041		0.041	0.012	mg/Kg	☼	10/27/21 06:34	10/29/21 18:08	1
<b>Benzo[a]pyrene</b>	<b>0.016</b>	<b>J</b>	0.041	0.0079	mg/Kg	☼	10/27/21 06:34	10/29/21 18:08	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.025</b>	<b>J**</b>	0.041	0.011	mg/Kg	☼	10/27/21 06:34	10/29/21 18:08	1
<b>Dibenz(a,h)anthracene</b>	<b>0.020</b>	<b>J</b>	0.041	0.0079	mg/Kg	☼	10/27/21 06:34	10/29/21 18:08	1
<b>Benzo[g,h,i]perylene</b>	<b>0.034</b>	<b>J</b>	0.041	0.013	mg/Kg	☼	10/27/21 06:34	10/29/21 18:08	1
3 & 4 Methylphenol	<0.21		0.21	0.068	mg/Kg	☼	10/27/21 06:34	10/29/21 18:08	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorophenol	127		31 - 166				10/27/21 06:34	10/29/21 18:08	1
Phenol-d5	103		30 - 153				10/27/21 06:34	10/29/21 18:08	1
Nitrobenzene-d5 (Surr)	99		37 - 147				10/27/21 06:34	10/29/21 18:08	1
2-Fluorobiphenyl (Surr)	106		43 - 145				10/27/21 06:34	10/29/21 18:08	1
2,4,6-Tribromophenol	91		31 - 143				10/27/21 06:34	10/29/21 18:08	1
Terphenyl-d14 (Surr)	121		42 - 157				10/27/21 06:34	10/29/21 18:08	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.44</b>	<b>J</b>	1.2	0.24	mg/Kg	☼	11/02/21 10:30	11/03/21 12:56	1
<b>Arsenic</b>	<b>5.3</b>		0.61	0.21	mg/Kg	☼	11/02/21 10:30	11/03/21 12:56	1
<b>Barium</b>	<b>71</b>		0.61	0.069	mg/Kg	☼	11/02/21 10:30	11/03/21 12:56	1
<b>Beryllium</b>	<b>0.51</b>		0.24	0.057	mg/Kg	☼	11/02/21 10:30	11/03/21 12:56	1
<b>Boron</b>	<b>4.8</b>		3.0	0.28	mg/Kg	☼	11/02/21 10:30	11/03/21 12:56	1
<b>Cadmium</b>	<b>0.16</b>		0.12	0.022	mg/Kg	☼	11/02/21 10:30	11/03/21 12:56	1
<b>Calcium</b>	<b>9900</b>	<b>B</b>	12	2.1	mg/Kg	☼	11/02/21 10:30	11/03/21 12:56	1
<b>Chromium</b>	<b>16</b>		0.61	0.30	mg/Kg	☼	11/02/21 10:30	11/03/21 12:56	1
<b>Cobalt</b>	<b>12</b>		0.30	0.080	mg/Kg	☼	11/02/21 10:30	11/03/21 12:56	1
<b>Copper</b>	<b>19</b>		0.61	0.17	mg/Kg	☼	11/02/21 10:30	11/03/21 12:56	1
<b>Iron</b>	<b>16000</b>	<b>B</b>	12	6.3	mg/Kg	☼	11/02/21 10:30	11/03/21 12:56	1
<b>Lead</b>	<b>39</b>		0.30	0.14	mg/Kg	☼	11/02/21 10:30	11/03/21 12:56	1
<b>Magnesium</b>	<b>7000</b>		6.1	3.0	mg/Kg	☼	11/02/21 10:30	11/03/21 12:56	1
<b>Manganese</b>	<b>540</b>	<b>B</b>	0.61	0.088	mg/Kg	☼	11/02/21 10:30	11/03/21 12:56	1
<b>Nickel</b>	<b>23</b>		0.61	0.18	mg/Kg	☼	11/02/21 10:30	11/03/21 12:56	1
<b>Potassium</b>	<b>1600</b>		30	11	mg/Kg	☼	11/02/21 10:30	11/03/21 12:56	1
<b>Selenium</b>	<b>0.73</b>		0.61	0.36	mg/Kg	☼	11/02/21 10:30	11/03/21 12:56	1
<b>Silver</b>	<b>0.20</b>	<b>J</b>	0.30	0.078	mg/Kg	☼	11/02/21 10:30	11/03/21 12:56	1
<b>Sodium</b>	<b>410</b>		61	9.0	mg/Kg	☼	11/02/21 10:30	11/03/21 12:56	1
Thallium	<0.61		0.61	0.30	mg/Kg	☼	11/02/21 10:30	11/03/21 12:56	1
<b>Vanadium</b>	<b>23</b>		0.30	0.072	mg/Kg	☼	11/02/21 10:30	11/03/21 12:56	1
<b>Zinc</b>	<b>100</b>		1.2	0.53	mg/Kg	☼	11/02/21 10:30	11/03/21 12:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>0.32</b>	<b>J</b>	0.50	0.050	mg/L		10/28/21 08:18	10/28/21 21:44	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/28/21 08:18	10/28/21 21:44	1
<b>Boron</b>	<b>0.34</b>	<b>J</b>	0.50	0.050	mg/L		10/28/21 08:18	10/28/21 21:44	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207165-1

**Client Sample ID: 2674V2-04-B02 (0-2)**

**Lab Sample ID: 500-207165-1**

Date Collected: 10/20/21 10:03

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 79.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/28/21 08:18	10/28/21 21:44	1
Chromium	<0.025		0.025	0.010	mg/L		10/28/21 08:18	10/28/21 21:44	1
Cobalt	<0.025		0.025	0.010	mg/L		10/28/21 08:18	10/28/21 21:44	1
Iron	<0.40		0.40	0.20	mg/L		10/31/21 08:28	11/01/21 11:38	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/28/21 08:18	10/28/21 21:44	1
<b>Manganese</b>	<b>1.4</b>		0.025	0.010	mg/L		10/28/21 08:18	10/28/21 21:44	1
Nickel	<0.025		0.025	0.010	mg/L		10/28/21 08:18	10/28/21 21:44	1
Selenium	<0.050		0.050	0.020	mg/L		10/28/21 08:18	10/28/21 21:44	1
Silver	<0.025		0.025	0.010	mg/L		10/31/21 08:28	11/01/21 11:38	1
<b>Zinc</b>	<b>0.046</b>	<b>J</b>	0.50	0.020	mg/L		10/28/21 08:18	10/28/21 21:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>1.4</b>		0.025	0.010	mg/L		10/28/21 08:23	10/29/21 14:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/28/21 08:18	10/29/21 12:28	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/28/21 08:18	10/29/21 12:28	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/29/21 09:35	11/01/21 10:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.084</b>		0.020	0.0066	mg/Kg	☼	10/28/21 14:10	10/29/21 07:46	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>8.4</b>		0.2	0.2	SU			10/25/21 18:23	1





# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207165-1

Client Sample ID: 2674V2-04-B01 (0-4)

Lab Sample ID: 500-207165-2

Date Collected: 10/20/21 10:26

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 81.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.018	J	0.040	0.011	mg/Kg	☼	10/27/21 06:34	10/29/21 18:32	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	10/27/21 06:34	10/29/21 18:32	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	10/27/21 06:34	10/29/21 18:32	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	10/27/21 06:34	10/29/21 18:32	1
Benzo[b]fluoranthene	0.017	J	0.040	0.0088	mg/Kg	☼	10/27/21 06:34	10/29/21 18:32	1
Benzo[k]fluoranthene	0.018	J	0.040	0.012	mg/Kg	☼	10/27/21 06:34	10/29/21 18:32	1
Benzo[a]pyrene	0.016	J	0.040	0.0079	mg/Kg	☼	10/27/21 06:34	10/29/21 18:32	1
Indeno[1,2,3-cd]pyrene	0.021	J **	0.040	0.011	mg/Kg	☼	10/27/21 06:34	10/29/21 18:32	1
Dibenz(a,h)anthracene	0.013	J	0.040	0.0078	mg/Kg	☼	10/27/21 06:34	10/29/21 18:32	1
Benzo[g,h,i]perylene	0.026	J	0.040	0.013	mg/Kg	☼	10/27/21 06:34	10/29/21 18:32	1
3 & 4 Methylphenol	<0.20		0.20	0.068	mg/Kg	☼	10/27/21 06:34	10/29/21 18:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	147		31 - 166				10/27/21 06:34	10/29/21 18:32	1
Phenol-d5	122		30 - 153				10/27/21 06:34	10/29/21 18:32	1
Nitrobenzene-d5 (Surr)	103		37 - 147				10/27/21 06:34	10/29/21 18:32	1
2-Fluorobiphenyl (Surr)	113		43 - 145				10/27/21 06:34	10/29/21 18:32	1
2,4,6-Tribromophenol	92		31 - 143				10/27/21 06:34	10/29/21 18:32	1
Terphenyl-d14 (Surr)	120		42 - 157				10/27/21 06:34	10/29/21 18:32	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.42	J	1.2	0.23	mg/Kg	☼	11/02/21 10:30	11/03/21 13:06	1
Arsenic	6.2		0.60	0.20	mg/Kg	☼	11/02/21 10:30	11/03/21 13:06	1
Barium	55		0.60	0.068	mg/Kg	☼	11/02/21 10:30	11/03/21 13:06	1
Beryllium	0.50		0.24	0.056	mg/Kg	☼	11/02/21 10:30	11/03/21 13:06	1
Boron	9.6		3.0	0.28	mg/Kg	☼	11/02/21 10:30	11/03/21 13:06	1
Cadmium	0.022	J	0.12	0.021	mg/Kg	☼	11/02/21 10:30	11/03/21 13:06	1
Calcium	35000	B	12	2.0	mg/Kg	☼	11/02/21 10:30	11/03/21 13:06	1
Chromium	19		0.60	0.30	mg/Kg	☼	11/02/21 10:30	11/03/21 13:06	1
Cobalt	13		0.30	0.078	mg/Kg	☼	11/02/21 10:30	11/03/21 13:06	1
Copper	23		0.60	0.17	mg/Kg	☼	11/02/21 10:30	11/03/21 13:06	1
Iron	19000	B	12	6.2	mg/Kg	☼	11/02/21 10:30	11/03/21 13:06	1
Lead	16		0.30	0.14	mg/Kg	☼	11/02/21 10:30	11/03/21 13:06	1
Magnesium	21000		6.0	3.0	mg/Kg	☼	11/02/21 10:30	11/03/21 13:06	1
Manganese	340	B	0.60	0.086	mg/Kg	☼	11/02/21 10:30	11/03/21 13:06	1
Nickel	34		0.60	0.17	mg/Kg	☼	11/02/21 10:30	11/03/21 13:06	1
Potassium	2800		30	11	mg/Kg	☼	11/02/21 10:30	11/03/21 13:06	1
Selenium	0.45	J	0.60	0.35	mg/Kg	☼	11/02/21 10:30	11/03/21 13:06	1
Silver	0.19	J	0.30	0.077	mg/Kg	☼	11/02/21 10:30	11/03/21 13:06	1
Sodium	610		60	8.8	mg/Kg	☼	11/02/21 10:30	11/03/21 13:06	1
Thallium	<0.60		0.60	0.30	mg/Kg	☼	11/02/21 10:30	11/03/21 13:06	1
Vanadium	24		0.30	0.070	mg/Kg	☼	11/02/21 10:30	11/03/21 13:06	1
Zinc	69		1.2	0.52	mg/Kg	☼	11/02/21 10:30	11/03/21 13:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.66		0.50	0.050	mg/L		10/28/21 08:18	10/28/21 21:47	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/28/21 08:18	10/28/21 21:47	1
Boron	0.10	J	0.50	0.050	mg/L		10/28/21 08:18	10/28/21 21:47	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207165-1

**Client Sample ID: 2674V2-04-B01 (0-4)**

**Lab Sample ID: 500-207165-2**

Date Collected: 10/20/21 10:26

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 81.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/28/21 08:18	10/28/21 21:47	1
Chromium	<0.025		0.025	0.010	mg/L		10/28/21 08:18	10/28/21 21:47	1
<b>Cobalt</b>	<b>0.015</b>	<b>J</b>	0.025	0.010	mg/L		10/28/21 08:18	10/28/21 21:47	1
Iron	<0.40		0.40	0.20	mg/L		10/31/21 08:28	11/01/21 11:41	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/28/21 08:18	10/28/21 21:47	1
<b>Manganese</b>	<b>11</b>		0.025	0.010	mg/L		10/28/21 08:18	10/28/21 21:47	1
<b>Nickel</b>	<b>0.022</b>	<b>J</b>	0.025	0.010	mg/L		10/28/21 08:18	10/28/21 21:47	1
<b>Selenium</b>	<b>0.020</b>	<b>J</b>	0.050	0.020	mg/L		10/28/21 08:18	10/28/21 21:47	1
Silver	<0.025		0.025	0.010	mg/L		10/31/21 08:28	11/01/21 11:41	1
<b>Zinc</b>	<b>0.051</b>	<b>J</b>	0.50	0.020	mg/L		10/28/21 08:18	10/28/21 21:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>1.7</b>		0.025	0.010	mg/L		10/28/21 08:23	10/29/21 14:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/28/21 08:18	10/29/21 12:29	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/28/21 08:18	10/29/21 12:29	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/29/21 09:35	11/01/21 10:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.042</b>		0.018	0.0059	mg/Kg	☼	10/28/21 14:10	10/29/21 07:48	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>8.2</b>		0.2	0.2	SU			10/25/21 18:25	1



# Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207165-1

## Qualifiers

### GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
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
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## 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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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)
TNTC	Too Numerous To Count

# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207165-1

## GC/MS VOA

### Prep Batch: 625104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207165-1	2674V2-04-B02 (0-2)	Total/NA	Solid	5035	
500-207165-2	2674V2-04-B01 (0-4)	Total/NA	Solid	5035	

### Analysis Batch: 626027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207165-1	2674V2-04-B02 (0-2)	Total/NA	Solid	8260B	625104
500-207165-2	2674V2-04-B01 (0-4)	Total/NA	Solid	8260B	625104
MB 500-626027/7	Method Blank	Total/NA	Solid	8260B	
LCS 500-626027/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-626027/5	Lab Control Sample Dup	Total/NA	Solid	8260B	

## GC/MS Semi VOA

### Prep Batch: 625596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207165-1	2674V2-04-B02 (0-2)	Total/NA	Solid	3541	
500-207165-2	2674V2-04-B01 (0-4)	Total/NA	Solid	3541	
MB 500-625596/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-625596/2-A	Lab Control Sample	Total/NA	Solid	3541	

### Analysis Batch: 626112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207165-1	2674V2-04-B02 (0-2)	Total/NA	Solid	8270D	625596
500-207165-2	2674V2-04-B01 (0-4)	Total/NA	Solid	8270D	625596

### Analysis Batch: 626154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-625596/1-A	Method Blank	Total/NA	Solid	8270D	625596
LCS 500-625596/2-A	Lab Control Sample	Total/NA	Solid	8270D	625596

## Metals

### Leach Batch: 625523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207165-1	2674V2-04-B02 (0-2)	TCLP	Solid	1311	
500-207165-2	2674V2-04-B01 (0-4)	TCLP	Solid	1311	
LB 500-625523/1-B	Method Blank	TCLP	Solid	1311	
LB 500-625523/2-B	Method Blank	TCLP	Solid	1311	
LB 500-625523/2-C	Method Blank	TCLP	Solid	1311	

### Leach Batch: 625527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207165-1	2674V2-04-B02 (0-2)	SPLP East	Solid	1312	
500-207165-2	2674V2-04-B01 (0-4)	SPLP East	Solid	1312	
LB 500-625527/1-B	Method Blank	SPLP East	Solid	1312	

### Prep Batch: 625871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207165-1	2674V2-04-B02 (0-2)	TCLP	Solid	3010A	625523
500-207165-2	2674V2-04-B01 (0-4)	TCLP	Solid	3010A	625523
LB 500-625523/2-B	Method Blank	TCLP	Solid	3010A	625523
LCS 500-625871/2-A	Lab Control Sample	Total/NA	Solid	3010A	

Eurofins TestAmerica, Chicago

# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207165-1

## Metals

### Prep Batch: 625873

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207165-1	2674V2-04-B02 (0-2)	SPLP East	Solid	3010A	625527
500-207165-2	2674V2-04-B01 (0-4)	SPLP East	Solid	3010A	625527
LB 500-625527/1-B	Method Blank	SPLP East	Solid	3010A	625527
LCS 500-625873/2-A	Lab Control Sample	Total/NA	Solid	3010A	

### Prep Batch: 625919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207165-1	2674V2-04-B02 (0-2)	Total/NA	Solid	7471B	
500-207165-2	2674V2-04-B01 (0-4)	Total/NA	Solid	7471B	
MB 500-625919/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-625919/13-A	Lab Control Sample	Total/NA	Solid	7471B	

### Analysis Batch: 626087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207165-1	2674V2-04-B02 (0-2)	TCLP	Solid	6010B	625871
500-207165-2	2674V2-04-B01 (0-4)	TCLP	Solid	6010B	625871
LB 500-625523/2-B	Method Blank	TCLP	Solid	6010B	625871
LCS 500-625871/2-A	Lab Control Sample	Total/NA	Solid	6010B	625871

### Prep Batch: 626108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207165-1	2674V2-04-B02 (0-2)	TCLP	Solid	7470A	625523
500-207165-2	2674V2-04-B01 (0-4)	TCLP	Solid	7470A	625523
LB 500-625523/2-C	Method Blank	TCLP	Solid	7470A	625523
MB 500-626108/12-A	Method Blank	Total/NA	Solid	7470A	
LCS 500-626108/14-A	Lab Control Sample	Total/NA	Solid	7470A	

### Analysis Batch: 626118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207165-1	2674V2-04-B02 (0-2)	Total/NA	Solid	7471B	625919
500-207165-2	2674V2-04-B01 (0-4)	Total/NA	Solid	7471B	625919
MB 500-625919/12-A	Method Blank	Total/NA	Solid	7471B	625919
LCS 500-625919/13-A	Lab Control Sample	Total/NA	Solid	7471B	625919

### Analysis Batch: 626196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207165-1	2674V2-04-B02 (0-2)	TCLP	Solid	6020A	625871
500-207165-2	2674V2-04-B01 (0-4)	TCLP	Solid	6020A	625871
LB 500-625523/2-B	Method Blank	TCLP	Solid	6020A	625871
LCS 500-625871/2-A	Lab Control Sample	Total/NA	Solid	6020A	625871

### Prep Batch: 626362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207165-1	2674V2-04-B02 (0-2)	TCLP	Solid	3010A	625523
500-207165-2	2674V2-04-B01 (0-4)	TCLP	Solid	3010A	625523
LB 500-625523/1-B	Method Blank	TCLP	Solid	3010A	625523
LCS 500-626362/2-A	Lab Control Sample	Total/NA	Solid	3010A	
LCSD 500-626362/3-A	Lab Control Sample Dup	Total/NA	Solid	3010A	

# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207165-1

## Metals

### Analysis Batch: 626431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207165-1	2674V2-04-B02 (0-2)	SPLP East	Solid	6010B	625873
500-207165-2	2674V2-04-B01 (0-4)	SPLP East	Solid	6010B	625873
LB 500-625527/1-B	Method Blank	SPLP East	Solid	6010B	625873
LCS 500-625873/2-A	Lab Control Sample	Total/NA	Solid	6010B	625873

### Analysis Batch: 626523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207165-1	2674V2-04-B02 (0-2)	TCLP	Solid	7470A	626108
500-207165-2	2674V2-04-B01 (0-4)	TCLP	Solid	7470A	626108
LB 500-625523/2-C	Method Blank	TCLP	Solid	7470A	626108
MB 500-626108/12-A	Method Blank	Total/NA	Solid	7470A	626108
LCS 500-626108/14-A	Lab Control Sample	Total/NA	Solid	7470A	626108

### Analysis Batch: 626550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207165-1	2674V2-04-B02 (0-2)	TCLP	Solid	6010B	626362
500-207165-2	2674V2-04-B01 (0-4)	TCLP	Solid	6010B	626362
LB 500-625523/1-B	Method Blank	TCLP	Solid	6010B	626362
LCS 500-626362/2-A	Lab Control Sample	Total/NA	Solid	6010B	626362
LCSD 500-626362/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	626362

### Prep Batch: 626752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207165-1	2674V2-04-B02 (0-2)	Total/NA	Solid	3050B	
500-207165-2	2674V2-04-B01 (0-4)	Total/NA	Solid	3050B	
MB 500-626752/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-626752/2-A	Lab Control Sample	Total/NA	Solid	3050B	

### Analysis Batch: 627041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207165-1	2674V2-04-B02 (0-2)	Total/NA	Solid	6010B	626752
500-207165-2	2674V2-04-B01 (0-4)	Total/NA	Solid	6010B	626752
MB 500-626752/1-A	Method Blank	Total/NA	Solid	6010B	626752
LCS 500-626752/2-A	Lab Control Sample	Total/NA	Solid	6010B	626752

## General Chemistry

### Analysis Batch: 625259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207165-1	2674V2-04-B02 (0-2)	Total/NA	Solid	Moisture	
500-207165-2	2674V2-04-B01 (0-4)	Total/NA	Solid	Moisture	

### Analysis Batch: 625321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207165-1	2674V2-04-B02 (0-2)	Total/NA	Solid	9045D	
500-207165-2	2674V2-04-B01 (0-4)	Total/NA	Solid	9045D	
LCS 500-625321/2	Lab Control Sample	Total/NA	Solid	9045D	
LCSD 500-625321/3	Lab Control Sample Dup	Total/NA	Solid	9045D	

# Surrogate Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207165-1

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

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (75-131)	DBFM (75-126)	DCA (70-134)	TOL (75-124)
500-207165-1	2674V2-04-B02 (0-2)	91	99	100	96
500-207165-2	2674V2-04-B01 (0-4)	89	97	101	93
LCS 500-626027/4	Lab Control Sample	84	90	91	96
LCS 500-626027/5	Lab Control Sample Dup	83	91	89	97
MB 500-626027/7	Method Blank	88	97	92	94

#### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane  
DCA = 1,2-Dichloroethane-d4 (Surr)  
TOL = Toluene-d8 (Surr)

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

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	2FP (31-166)	PHL (30-153)	NBZ (37-147)	FBP (43-145)	TBP (31-143)	TPHL (42-157)
500-207165-1	2674V2-04-B02 (0-2)	127	103	99	106	91	121
500-207165-2	2674V2-04-B01 (0-4)	147	122	103	113	92	120
LCS 500-625596/2-A	Lab Control Sample	112	126	106	108	94	118
MB 500-625596/1-A	Method Blank	110	119	97	105	80	112

#### Surrogate Legend

2FP = 2-Fluorophenol  
PHL = Phenol-d5  
NBZ = Nitrobenzene-d5 (Surr)  
FBP = 2-Fluorobiphenyl (Surr)  
TBP = 2,4,6-Tribromophenol  
TPHL = Terphenyl-d14 (Surr)

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207165-1

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

**Lab Sample ID: MB 500-626027/7**  
**Matrix: Solid**  
**Analysis Batch: 626027**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	<0.020		0.020	0.0087	mg/Kg			10/29/21 08:09	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg			10/29/21 08:09	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg			10/29/21 08:09	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg			10/29/21 08:09	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg			10/29/21 08:09	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg			10/29/21 08:09	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg			10/29/21 08:09	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg			10/29/21 08:09	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg			10/29/21 08:09	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg			10/29/21 08:09	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg			10/29/21 08:09	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg			10/29/21 08:09	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg			10/29/21 08:09	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg			10/29/21 08:09	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg			10/29/21 08:09	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg			10/29/21 08:09	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg			10/29/21 08:09	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg			10/29/21 08:09	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg			10/29/21 08:09	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00070	mg/Kg			10/29/21 08:09	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg			10/29/21 08:09	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			10/29/21 08:09	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg			10/29/21 08:09	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg			10/29/21 08:09	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg			10/29/21 08:09	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg			10/29/21 08:09	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg			10/29/21 08:09	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/29/21 08:09	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg			10/29/21 08:09	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg			10/29/21 08:09	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg			10/29/21 08:09	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg			10/29/21 08:09	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg			10/29/21 08:09	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/29/21 08:09	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg			10/29/21 08:09	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg			10/29/21 08:09	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg			10/29/21 08:09	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	88		75 - 131		10/29/21 08:09	1
Dibromofluoromethane	97		75 - 126		10/29/21 08:09	1
1,2-Dichloroethane-d4 (Surr)	92		70 - 134		10/29/21 08:09	1
Toluene-d8 (Surr)	94		75 - 124		10/29/21 08:09	1

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207165-1

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

Lab Sample ID: LCS 500-626027/4

Matrix: Solid

Analysis Batch: 626027

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0500	0.0313		mg/Kg		63	40 - 150
Benzene	0.0500	0.0557		mg/Kg		111	70 - 125
Bromodichloromethane	0.0500	0.0555		mg/Kg		111	67 - 129
Bromoform	0.0500	0.0550		mg/Kg		110	68 - 136
Bromomethane	0.0500	0.0549		mg/Kg		110	70 - 130
2-Butanone (MEK)	0.0500	0.0465		mg/Kg		93	47 - 138
Carbon disulfide	0.0500	0.0496		mg/Kg		99	70 - 129
Carbon tetrachloride	0.0500	0.0491		mg/Kg		98	75 - 125
Chlorobenzene	0.0500	0.0528		mg/Kg		106	50 - 150
Chloroethane	0.0500	0.0550		mg/Kg		110	75 - 125
Chloroform	0.0500	0.0528		mg/Kg		106	57 - 135
Chloromethane	0.0500	0.0419		mg/Kg		84	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0515		mg/Kg		103	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0558		mg/Kg		112	70 - 125
Dibromochloromethane	0.0500	0.0563		mg/Kg		113	69 - 125
1,1-Dichloroethane	0.0500	0.0496		mg/Kg		99	70 - 125
1,2-Dichloroethane	0.0500	0.0532		mg/Kg		106	70 - 130
1,1-Dichloroethene	0.0500	0.0496		mg/Kg		99	70 - 120
1,2-Dichloropropane	0.0500	0.0548		mg/Kg		110	70 - 125
Ethylbenzene	0.0500	0.0565		mg/Kg		113	61 - 136
2-Hexanone	0.0500	0.0558		mg/Kg		112	48 - 146
Methylene Chloride	0.0500	0.0499		mg/Kg		100	70 - 126
4-Methyl-2-pentanone (MIBK)	0.0500	0.0538		mg/Kg		108	50 - 148
Methyl tert-butyl ether	0.0500	0.0487		mg/Kg		97	50 - 140
Styrene	0.0500	0.0559		mg/Kg		112	70 - 125
1,1,2,2-Tetrachloroethane	0.0500	0.0605		mg/Kg		121	70 - 122
Tetrachloroethene	0.0500	0.0555		mg/Kg		111	70 - 124
Toluene	0.0500	0.0559		mg/Kg		112	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0514		mg/Kg		103	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0544		mg/Kg		109	70 - 125
1,1,1-Trichloroethane	0.0500	0.0484		mg/Kg		97	70 - 128
1,1,2-Trichloroethane	0.0500	0.0592		mg/Kg		118	70 - 125
Trichloroethene	0.0500	0.0544		mg/Kg		109	70 - 125
Vinyl acetate	0.0500	0.0647		mg/Kg		129	40 - 153
Vinyl chloride	0.0500	0.0471		mg/Kg		94	70 - 125
Xylenes, Total	0.100	0.105		mg/Kg		105	53 - 147

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	84		75 - 131
Dibromofluoromethane	90		75 - 126
1,2-Dichloroethane-d4 (Surr)	91		70 - 134
Toluene-d8 (Surr)	96		75 - 124

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207165-1

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

**Lab Sample ID: LCSD 500-626027/5**  
**Matrix: Solid**  
**Analysis Batch: 626027**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.0500	0.0309		mg/Kg		62	40 - 150	1	30
Benzene	0.0500	0.0551		mg/Kg		110	70 - 125	1	30
Bromodichloromethane	0.0500	0.0536		mg/Kg		107	67 - 129	3	30
Bromoform	0.0500	0.0501		mg/Kg		100	68 - 136	9	30
Bromomethane	0.0500	0.0603		mg/Kg		121	70 - 130	9	30
2-Butanone (MEK)	0.0500	0.0359		mg/Kg		72	47 - 138	26	30
Carbon disulfide	0.0500	0.0498		mg/Kg		100	70 - 129	0	30
Carbon tetrachloride	0.0500	0.0487		mg/Kg		97	75 - 125	1	30
Chlorobenzene	0.0500	0.0513		mg/Kg		103	50 - 150	3	30
Chloroethane	0.0500	0.0611		mg/Kg		122	75 - 125	10	30
Chloroform	0.0500	0.0517		mg/Kg		103	57 - 135	2	30
Chloromethane	0.0500	0.0455		mg/Kg		91	70 - 125	8	30
cis-1,2-Dichloroethene	0.0500	0.0517		mg/Kg		103	70 - 125	0	30
cis-1,3-Dichloropropene	0.0500	0.0538		mg/Kg		108	70 - 125	4	30
Dibromochloromethane	0.0500	0.0539		mg/Kg		108	69 - 125	4	30
1,1-Dichloroethane	0.0500	0.0501		mg/Kg		100	70 - 125	1	30
1,2-Dichloroethane	0.0500	0.0515		mg/Kg		103	70 - 130	3	30
1,1-Dichloroethene	0.0500	0.0499		mg/Kg		100	70 - 120	1	30
1,2-Dichloropropane	0.0500	0.0548		mg/Kg		110	70 - 125	0	30
Ethylbenzene	0.0500	0.0548		mg/Kg		110	61 - 136	3	30
2-Hexanone	0.0500	0.0472		mg/Kg		94	48 - 146	17	30
Methylene Chloride	0.0500	0.0488		mg/Kg		98	70 - 126	2	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0457		mg/Kg		91	50 - 148	16	30
Methyl tert-butyl ether	0.0500	0.0454		mg/Kg		91	50 - 140	7	30
Styrene	0.0500	0.0543		mg/Kg		109	70 - 125	3	30
1,1,2,2-Tetrachloroethane	0.0500	0.0525		mg/Kg		105	70 - 122	14	30
Tetrachloroethene	0.0500	0.0542		mg/Kg		108	70 - 124	2	30
Toluene	0.0500	0.0539		mg/Kg		108	70 - 125	4	30
trans-1,2-Dichloroethene	0.0500	0.0512		mg/Kg		102	70 - 125	0	30
trans-1,3-Dichloropropene	0.0500	0.0511		mg/Kg		102	70 - 125	6	30
1,1,1-Trichloroethane	0.0500	0.0478		mg/Kg		96	70 - 128	1	30
1,1,2-Trichloroethane	0.0500	0.0553		mg/Kg		111	70 - 125	7	30
Trichloroethene	0.0500	0.0546		mg/Kg		109	70 - 125	0	30
Vinyl acetate	0.0500	0.0602		mg/Kg		120	40 - 153	7	30
Vinyl chloride	0.0500	0.0518		mg/Kg		104	70 - 125	10	30
Xylenes, Total	0.100	0.102		mg/Kg		102	53 - 147	3	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	83		75 - 131
Dibromofluoromethane	91		75 - 126
1,2-Dichloroethane-d4 (Surr)	89		70 - 134
Toluene-d8 (Surr)	97		75 - 124



# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207165-1

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

**Lab Sample ID: MB 500-625596/1-A**  
**Matrix: Solid**  
**Analysis Batch: 626154**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 625596**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	<0.17		0.17	0.074	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.050	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
1,3-Dichlorobenzene	<0.17		0.17	0.037	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
1,4-Dichlorobenzene	<0.17		0.17	0.043	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
1,2-Dichlorobenzene	<0.17		0.17	0.040	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
2-Methylphenol	<0.17		0.17	0.053	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.039	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
N-Nitrosodi-n-propylamine	<0.067		0.067	0.041	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
Hexachloroethane	<0.17		0.17	0.051	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
2-Chlorophenol	<0.17		0.17	0.057	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
Nitrobenzene	<0.033		0.033	0.0083	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.034	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.036	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
Isophorone	<0.17		0.17	0.037	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
2,4-Dimethylphenol	<0.33		0.33	0.13	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
Hexachlorobutadiene	<0.17		0.17	0.052	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
Naphthalene	<0.033		0.033	0.0051	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
2,4-Dichlorophenol	<0.33		0.33	0.079	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
4-Chloroaniline	<0.67		0.67	0.16	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
2,4,6-Trichlorophenol	<0.33		0.33	0.11	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
2,4,5-Trichlorophenol	<0.33		0.33	0.076	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
Hexachlorocyclopentadiene	<0.67		0.67	0.19	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
2-Methylnaphthalene	<0.067		0.067	0.0061	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
2-Nitroaniline	<0.17		0.17	0.045	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
2-Chloronaphthalene	<0.17		0.17	0.037	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
4-Chloro-3-methylphenol	<0.33		0.33	0.11	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
2,6-Dinitrotoluene	<0.17		0.17	0.065	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
2-Nitrophenol	<0.33		0.33	0.079	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
3-Nitroaniline	<0.33		0.33	0.10	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
Dimethyl phthalate	<0.17		0.17	0.043	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
2,4-Dinitrophenol	<0.67		0.67	0.59	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
Acenaphthylene	<0.033		0.033	0.0044	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
2,4-Dinitrotoluene	<0.17		0.17	0.053	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
Acenaphthene	<0.033		0.033	0.0060	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
Dibenzofuran	<0.17		0.17	0.039	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
4-Nitrophenol	<0.67		0.67	0.32	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
Fluorene	<0.033		0.033	0.0047	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
4-Nitroaniline	<0.33		0.33	0.14	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.044	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
Hexachlorobenzene	<0.067		0.067	0.0077	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
Diethyl phthalate	<0.17		0.17	0.056	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.039	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
Pentachlorophenol	<0.67		0.67	0.53	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
N-Nitrosodiphenylamine	<0.17		0.17	0.039	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
4,6-Dinitro-2-methylphenol	<0.67		0.67	0.27	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
Phenanthrene	<0.033		0.033	0.0046	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
Anthracene	<0.033		0.033	0.0056	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
Carbazole	<0.17		0.17	0.083	mg/Kg		10/27/21 06:34	10/29/21 13:43	1

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207165-1

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

**Lab Sample ID: MB 500-625596/1-A**  
**Matrix: Solid**  
**Analysis Batch: 626154**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 625596**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	<0.17		0.17	0.051	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
Fluoranthene	<0.033		0.033	0.0062	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
Pyrene	<0.033		0.033	0.0066	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
Butyl benzyl phthalate	<0.17		0.17	0.063	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
Benzo[a]anthracene	<0.033		0.033	0.0045	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
Chrysene	<0.033		0.033	0.0091	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.047	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.061	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
Di-n-octyl phthalate	<0.17		0.17	0.054	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
Benzo[b]fluoranthene	<0.033		0.033	0.0072	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
Benzo[k]fluoranthene	<0.033		0.033	0.0098	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
Benzo[a]pyrene	<0.033		0.033	0.0064	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
Indeno[1,2,3-cd]pyrene	<0.033		0.033	0.0086	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
Dibenz(a,h)anthracene	<0.033		0.033	0.0064	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
Benzo[g,h,i]perylene	<0.033		0.033	0.011	mg/Kg		10/27/21 06:34	10/29/21 13:43	1
3 & 4 Methylphenol	<0.17		0.17	0.055	mg/Kg		10/27/21 06:34	10/29/21 13:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	110		31 - 166	10/27/21 06:34	10/29/21 13:43	1
Phenol-d5	119		30 - 153	10/27/21 06:34	10/29/21 13:43	1
Nitrobenzene-d5 (Surr)	97		37 - 147	10/27/21 06:34	10/29/21 13:43	1
2-Fluorobiphenyl (Surr)	105		43 - 145	10/27/21 06:34	10/29/21 13:43	1
2,4,6-Tribromophenol	80		31 - 143	10/27/21 06:34	10/29/21 13:43	1
Terphenyl-d14 (Surr)	112		42 - 157	10/27/21 06:34	10/29/21 13:43	1

**Lab Sample ID: LCS 500-625596/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626154**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625596**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Phenol	1.33	1.54		mg/Kg		116	56 - 122
Bis(2-chloroethyl)ether	1.33	1.50	*+	mg/Kg		113	55 - 111
1,3-Dichlorobenzene	1.33	1.43		mg/Kg		107	65 - 124
1,4-Dichlorobenzene	1.33	1.42		mg/Kg		107	61 - 110
1,2-Dichlorobenzene	1.33	1.41		mg/Kg		106	62 - 110
2-Methylphenol	1.33	1.65	*+	mg/Kg		124	60 - 120
2,2'-oxybis[1-chloropropane]	1.33	1.39		mg/Kg		104	40 - 124
N-Nitrosodi-n-propylamine	1.33	1.43		mg/Kg		107	56 - 118
Hexachloroethane	1.33	1.41		mg/Kg		106	60 - 114
2-Chlorophenol	1.33	1.50	*+	mg/Kg		112	64 - 110
Nitrobenzene	1.33	1.44		mg/Kg		108	60 - 116
Bis(2-chloroethoxy)methane	1.33	1.43		mg/Kg		107	60 - 112
1,2,4-Trichlorobenzene	1.33	1.40		mg/Kg		105	66 - 117
Isophorone	1.33	1.42		mg/Kg		106	55 - 110
2,4-Dimethylphenol	1.33	1.40		mg/Kg		105	60 - 110
Hexachlorobutadiene	1.33	1.45		mg/Kg		108	56 - 120
Naphthalene	1.33	1.41		mg/Kg		106	63 - 110
2,4-Dichlorophenol	1.33	1.40		mg/Kg		105	58 - 120

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207165-1

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

**Lab Sample ID: LCS 500-625596/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626154**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625596**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chloroaniline	1.33	0.749		mg/Kg		56	30 - 150
2,4,6-Trichlorophenol	1.33	1.46		mg/Kg		109	57 - 120
2,4,5-Trichlorophenol	1.33	1.34		mg/Kg		100	50 - 120
Hexachlorocyclopentadiene	1.33	0.308	J	mg/Kg		23	10 - 133
2-Methylnaphthalene	1.33	1.45		mg/Kg		108	69 - 112
2-Nitroaniline	1.33	1.52		mg/Kg		114	57 - 124
2-Chloronaphthalene	1.33	1.44		mg/Kg		108	69 - 114
4-Chloro-3-methylphenol	1.33	1.48		mg/Kg		111	65 - 122
2,6-Dinitrotoluene	1.33	1.66	*+	mg/Kg		125	70 - 123
2-Nitrophenol	1.33	1.42		mg/Kg		107	60 - 120
3-Nitroaniline	1.33	1.18		mg/Kg		89	40 - 122
Dimethyl phthalate	1.33	1.50		mg/Kg		112	69 - 116
2,4-Dinitrophenol	2.67	<0.67		mg/Kg		14	10 - 100
Acenaphthylene	1.33	1.45		mg/Kg		109	68 - 120
2,4-Dinitrotoluene	1.33	1.62		mg/Kg		122	69 - 124
Acenaphthene	1.33	1.46		mg/Kg		110	65 - 124
Dibenzofuran	1.33	1.52		mg/Kg		114	66 - 115
4-Nitrophenol	2.67	2.63		mg/Kg		98	30 - 122
Fluorene	1.33	1.51		mg/Kg		114	62 - 120
4-Nitroaniline	1.33	1.46		mg/Kg		110	60 - 160
4-Bromophenyl phenyl ether	1.33	1.47		mg/Kg		111	68 - 118
Hexachlorobenzene	1.33	1.60		mg/Kg		120	63 - 124
Diethyl phthalate	1.33	1.50		mg/Kg		112	58 - 120
4-Chlorophenyl phenyl ether	1.33	1.48		mg/Kg		111	62 - 119
Pentachlorophenol	2.67	0.900		mg/Kg		34	13 - 112
N-Nitrosodiphenylamine	1.33	1.58	*+	mg/Kg		119	65 - 112
4,6-Dinitro-2-methylphenol	2.67	0.844		mg/Kg		32	10 - 110
Phenanthrene	1.33	1.68	*+	mg/Kg		126	62 - 120
Anthracene	1.33	1.41		mg/Kg		106	70 - 114
Carbazole	1.33	1.72		mg/Kg		129	65 - 142
Di-n-butyl phthalate	1.33	1.60		mg/Kg		120	65 - 120
Fluoranthene	1.33	1.51		mg/Kg		113	62 - 120
Pyrene	1.33	1.59		mg/Kg		119	61 - 128
Butyl benzyl phthalate	1.33	1.57		mg/Kg		117	71 - 129
Benzo[a]anthracene	1.33	1.63		mg/Kg		122	67 - 122
Chrysene	1.33	1.47		mg/Kg		110	63 - 120
3,3'-Dichlorobenzidine	1.33	1.14		mg/Kg		85	35 - 128
Bis(2-ethylhexyl) phthalate	1.33	1.59		mg/Kg		119	72 - 131
Di-n-octyl phthalate	1.33	1.58		mg/Kg		119	68 - 134
Benzo[b]fluoranthene	1.33	1.57		mg/Kg		118	69 - 129
Benzo[k]fluoranthene	1.33	1.46		mg/Kg		109	68 - 127
Benzo[a]pyrene	1.33	1.44		mg/Kg		108	65 - 133
Indeno[1,2,3-cd]pyrene	1.33	1.78	*+	mg/Kg		134	68 - 130
Dibenz(a,h)anthracene	1.33	1.74		mg/Kg		130	64 - 131
Benzo[g,h,i]perylene	1.33	1.61		mg/Kg		121	72 - 131
3 & 4 Methylphenol	1.33	1.55		mg/Kg		116	57 - 120

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207165-1

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

**Lab Sample ID: LCS 500-625596/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626154**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625596**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol	112		31 - 166
Phenol-d5	126		30 - 153
Nitrobenzene-d5 (Surr)	106		37 - 147
2-Fluorobiphenyl (Surr)	108		43 - 145
2,4,6-Tribromophenol	94		31 - 143
Terphenyl-d14 (Surr)	118		42 - 157

## Method: 6010B - Metals (ICP)

**Lab Sample ID: LCS 500-625871/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626087**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625871**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Barium	0.500	0.506		mg/L		101	80 - 120
Beryllium	0.0500	0.0466		mg/L		93	80 - 120
Boron	1.00	0.877		mg/L		88	80 - 120
Cadmium	0.0500	0.0498		mg/L		100	80 - 120
Chromium	0.200	0.202		mg/L		101	80 - 120
Cobalt	0.500	0.533		mg/L		107	80 - 120
Lead	0.100	0.0990		mg/L		99	80 - 120
Manganese	0.500	0.482		mg/L		96	80 - 120
Nickel	0.500	0.530		mg/L		106	80 - 120
Selenium	0.100	0.111		mg/L		111	80 - 120
Zinc	0.500	0.591		mg/L		118	80 - 120

**Lab Sample ID: LCS 500-625873/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626431**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625873**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Manganese	0.500	0.497		mg/L		99	80 - 120

**Lab Sample ID: LCS 500-626362/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626550**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626362**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Iron	1.00	0.864		mg/L		86	80 - 120
Silver	0.0500	0.0503		mg/L		101	80 - 120

**Lab Sample ID: LCSD 500-626362/3-A**  
**Matrix: Solid**  
**Analysis Batch: 626550**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 626362**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Iron	1.00	1.00		mg/L		100	80 - 120	15	20
Silver	0.0500	0.0506		mg/L		101	80 - 120	0	20

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207165-1

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

**Lab Sample ID: MB 500-626752/1-A**  
**Matrix: Solid**  
**Analysis Batch: 627041**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 626752**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<2.0		2.0	0.39	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Arsenic	<1.0		1.0	0.34	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Barium	<1.0		1.0	0.11	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Beryllium	<0.40		0.40	0.093	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Boron	<5.0		5.0	0.47	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Cadmium	<0.20		0.20	0.036	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Calcium	7.97	J	20	3.4	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Chromium	<1.0		1.0	0.50	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Cobalt	<0.50		0.50	0.13	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Copper	<1.0		1.0	0.28	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Iron	31.1		20	10	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Lead	<0.50		0.50	0.23	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Magnesium	<10		10	5.0	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Manganese	0.377	J	1.0	0.15	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Nickel	<1.0		1.0	0.29	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Potassium	<50		50	18	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Selenium	<1.0		1.0	0.59	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Silver	<0.50		0.50	0.13	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Sodium	<100		100	15	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Thallium	<1.0		1.0	0.50	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Vanadium	<0.50		0.50	0.12	mg/Kg		11/02/21 10:30	11/03/21 12:10	1
Zinc	<2.0		2.0	0.88	mg/Kg		11/02/21 10:30	11/03/21 12:10	1

**Lab Sample ID: LCS 500-626752/2-A**  
**Matrix: Solid**  
**Analysis Batch: 627041**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626752**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	10.0	9.04		mg/Kg		90	80 - 120
Barium	200	196		mg/Kg		98	80 - 120
Beryllium	5.00	4.62		mg/Kg		92	80 - 120
Boron	100	82.6		mg/Kg		83	80 - 120
Cadmium	5.00	4.39		mg/Kg		88	80 - 120
Calcium	1000	943		mg/Kg		94	80 - 120
Chromium	20.0	18.6		mg/Kg		93	80 - 120
Cobalt	50.0	46.3		mg/Kg		93	80 - 120
Copper	25.0	23.2		mg/Kg		93	80 - 120
Iron	100	118		mg/Kg		118	80 - 120
Lead	10.0	9.05		mg/Kg		90	80 - 120
Magnesium	1000	893		mg/Kg		89	80 - 120
Manganese	50.0	46.2		mg/Kg		92	80 - 120
Nickel	50.0	47.1		mg/Kg		94	80 - 120
Potassium	1000	955		mg/Kg		96	80 - 120
Selenium	10.0	8.54		mg/Kg		85	80 - 120
Silver	5.00	4.44		mg/Kg		89	80 - 120
Sodium	1000	1070		mg/Kg		107	80 - 120
Thallium	10.0	8.92		mg/Kg		89	80 - 120
Vanadium	50.0	47.5		mg/Kg		95	80 - 120

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207165-1

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

**Lab Sample ID: LCS 500-626752/2-A**  
**Matrix: Solid**  
**Analysis Batch: 627041**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626752**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	50.0	46.7		mg/Kg		93	80 - 120

**Lab Sample ID: LB 500-625523/2-B**  
**Matrix: Solid**  
**Analysis Batch: 626087**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 625871**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.50		0.50	0.050	mg/L		10/28/21 08:18	10/28/21 20:19	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/28/21 08:18	10/28/21 20:19	1
Boron	<0.50		0.50	0.050	mg/L		10/28/21 08:18	10/28/21 20:19	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/28/21 08:18	10/28/21 20:19	1
Chromium	<0.025		0.025	0.010	mg/L		10/28/21 08:18	10/28/21 20:19	1
Cobalt	<0.025		0.025	0.010	mg/L		10/28/21 08:18	10/28/21 20:19	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/28/21 08:18	10/28/21 20:19	1
Manganese	<0.025		0.025	0.010	mg/L		10/28/21 08:18	10/28/21 20:19	1
Nickel	<0.025		0.025	0.010	mg/L		10/28/21 08:18	10/28/21 20:19	1
Selenium	<0.050		0.050	0.020	mg/L		10/28/21 08:18	10/28/21 20:19	1
Zinc	<0.50		0.50	0.020	mg/L		10/28/21 08:18	10/28/21 20:19	1

**Lab Sample ID: LB 500-625523/1-B**  
**Matrix: Solid**  
**Analysis Batch: 626550**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 626362**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.40		0.40	0.20	mg/L		10/31/21 08:28	11/01/21 11:25	1
Silver	<0.025		0.025	0.010	mg/L		10/31/21 08:28	11/01/21 11:25	1

**Lab Sample ID: LB 500-625527/1-B**  
**Matrix: Solid**  
**Analysis Batch: 626431**

**Client Sample ID: Method Blank**  
**Prep Type: SPLP East**  
**Prep Batch: 625873**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	<0.025		0.025	0.010	mg/L		10/28/21 08:23	10/29/21 14:02	1

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

**Lab Sample ID: LCS 500-625871/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626196**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625871**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.505		mg/L		101	80 - 120
Thallium	0.100	0.107		mg/L		107	80 - 120

**Lab Sample ID: LB 500-625523/2-B**  
**Matrix: Solid**  
**Analysis Batch: 626196**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 625871**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/28/21 08:18	10/29/21 12:20	1

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# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207165-1

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

**Lab Sample ID: LB 500-625523/2-B**  
**Matrix: Solid**  
**Analysis Batch: 626196**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 625871**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020	0.0020	mg/L		10/28/21 08:18	10/29/21 12:20	1

## Method: 7470A - TCLP Mercury

**Lab Sample ID: MB 500-626108/12-A**  
**Matrix: Solid**  
**Analysis Batch: 626523**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 626108**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/29/21 09:35	11/01/21 09:42	1

**Lab Sample ID: LCS 500-626108/14-A**  
**Matrix: Solid**  
**Analysis Batch: 626523**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626108**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00193		mg/L		97	80 - 120

**Lab Sample ID: LB 500-625523/2-C**  
**Matrix: Solid**  
**Analysis Batch: 626523**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 626108**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/29/21 09:35	11/01/21 09:44	1

## Method: 7471B - Mercury (CVAA)

**Lab Sample ID: MB 500-625919/12-A**  
**Matrix: Solid**  
**Analysis Batch: 626118**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 625919**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0056	mg/Kg		10/28/21 14:10	10/29/21 07:21	1

**Lab Sample ID: LCS 500-625919/13-A**  
**Matrix: Solid**  
**Analysis Batch: 626118**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625919**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.167	0.181		mg/Kg		108	80 - 120

# Lab Chronicle

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207165-1

**Client Sample ID: 2674V2-04-B02 (0-2)**

**Lab Sample ID: 500-207165-1**

**Date Collected: 10/20/21 10:03**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			625527	10/26/21 13:11	EA	TAL CHI
SPLP East	Prep	3010A			625873	10/28/21 08:23	BDE	TAL CHI
SPLP East	Analysis	6010B		1	626431	10/29/21 14:39	JJB	TAL CHI
TCLP	Leach	1311			625523	10/26/21 13:11	EA	TAL CHI
TCLP	Prep	3010A			625871	10/28/21 08:18	BDE	TAL CHI
TCLP	Analysis	6010B		1	626087	10/28/21 21:44	DAJ	TAL CHI
TCLP	Leach	1311			625523	10/26/21 13:11	EA	TAL CHI
TCLP	Prep	3010A			626362	10/31/21 08:28	BDE	TAL CHI
TCLP	Analysis	6010B		1	626550	11/01/21 11:38	JJB	TAL CHI
TCLP	Leach	1311			625523	10/26/21 13:11	EA	TAL CHI
TCLP	Prep	3010A			625871	10/28/21 08:18	BDE	TAL CHI
TCLP	Analysis	6020A		1	626196	10/29/21 12:28	FXG	TAL CHI
TCLP	Leach	1311			625523	10/26/21 13:11	EA	TAL CHI
TCLP	Prep	7470A			626108	10/29/21 09:35	MJG	TAL CHI
TCLP	Analysis	7470A		1	626523	11/01/21 10:22	MJG	TAL CHI
Total/NA	Analysis	9045D		1	625321	10/25/21 18:23	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	625259	10/25/21 12:34	LWN	TAL CHI

**Client Sample ID: 2674V2-04-B02 (0-2)**

**Lab Sample ID: 500-207165-1**

**Date Collected: 10/20/21 10:03**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

**Percent Solids: 79.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			625104	10/20/21 18:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	626027	10/29/21 15:28	PMF	TAL CHI
Total/NA	Prep	3541			625596	10/27/21 06:34	SB	TAL CHI
Total/NA	Analysis	8270D		1	626112	10/29/21 18:08	LEG	TAL CHI
Total/NA	Prep	3050B			626752	11/02/21 10:30	BDE	TAL CHI
Total/NA	Analysis	6010B		1	627041	11/03/21 12:56	JJB	TAL CHI
Total/NA	Prep	7471B			625919	10/28/21 14:10	MJG	TAL CHI
Total/NA	Analysis	7471B		1	626118	10/29/21 07:46	MJG	TAL CHI

**Client Sample ID: 2674V2-04-B01 (0-4)**

**Lab Sample ID: 500-207165-2**

**Date Collected: 10/20/21 10:26**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			625527	10/26/21 13:11	EA	TAL CHI
SPLP East	Prep	3010A			625873	10/28/21 08:23	BDE	TAL CHI
SPLP East	Analysis	6010B		1	626431	10/29/21 14:42	JJB	TAL CHI
TCLP	Leach	1311			625523	10/26/21 13:11	EA	TAL CHI
TCLP	Prep	3010A			625871	10/28/21 08:18	BDE	TAL CHI
TCLP	Analysis	6010B		1	626087	10/28/21 21:47	DAJ	TAL CHI
TCLP	Leach	1311			625523	10/26/21 13:11	EA	TAL CHI
TCLP	Prep	3010A			626362	10/31/21 08:28	BDE	TAL CHI
TCLP	Analysis	6010B		1	626550	11/01/21 11:41	JJB	TAL CHI

Eurofins TestAmerica, Chicago



# Lab Chronicle

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207165-1

**Client Sample ID: 2674V2-04-B01 (0-4)**

**Lab Sample ID: 500-207165-2**

**Date Collected: 10/20/21 10:26**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			625523	10/26/21 13:11	EA	TAL CHI
TCLP	Prep	3010A			625871	10/28/21 08:18	BDE	TAL CHI
TCLP	Analysis	6020A		1	626196	10/29/21 12:29	FXG	TAL CHI
TCLP	Leach	1311			625523	10/26/21 13:11	EA	TAL CHI
TCLP	Prep	7470A			626108	10/29/21 09:35	MJG	TAL CHI
TCLP	Analysis	7470A		1	626523	11/01/21 10:29	MJG	TAL CHI
Total/NA	Analysis	9045D		1	625321	10/25/21 18:25	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	625259	10/25/21 12:34	LWN	TAL CHI

**Client Sample ID: 2674V2-04-B01 (0-4)**

**Lab Sample ID: 500-207165-2**

**Date Collected: 10/20/21 10:26**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

**Percent Solids: 81.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			625104	10/20/21 18:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	626027	10/29/21 15:53	PMF	TAL CHI
Total/NA	Prep	3541			625596	10/27/21 06:34	SB	TAL CHI
Total/NA	Analysis	8270D		1	626112	10/29/21 18:32	LEG	TAL CHI
Total/NA	Prep	3050B			626752	11/02/21 10:30	BDE	TAL CHI
Total/NA	Analysis	6010B		1	627041	11/03/21 13:06	JJB	TAL CHI
Total/NA	Prep	7471B			625919	10/28/21 14:10	MJG	TAL CHI
Total/NA	Analysis	7471B		1	626118	10/29/21 07:48	MJG	TAL CHI

**Laboratory References:**

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Accreditation/Certification Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207165-1

## Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

1

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# Chain of Custody Record

546557



Environment Testing  
TestAmerica

TAL-8210

Address \_\_\_\_\_

Regulatory Program:  DW  NPDES  RCRA  Other

<b>Client Contact</b> Company Name <u>WSP</u> Address _____ City/State/Zip <u>Chicago IL</u> Phone _____ Fax _____ Project Name <u>1007 W004</u> Site <u>Lake Villa</u> P O # _____		<b>Project Manager:</b> <u>D. Fiebert</u> <b>Tel/Email:</b> _____ <b>Analysis Turnaround Time</b> <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		<b>Site Contact:</b> <u>A. Happe</u> <b>Lab Contact:</b> <u>R. Wright</u> <b>Date:</b> <u>10/20/2021</u> <b>Carrier:</b> _____		<b>COC No:</b> <u>2</u> <b>2</b> of <b>4</b> COCs <b>Sampler:</b> _____ <b>For Lab Use Only.</b> Walk-in Client <input type="checkbox"/> Lab Sampling <input type="checkbox"/> <b>Job / SDG No</b> <u>500-207165</u>									
<b>Sample Identification</b>		<b>Sample Date</b>	<b>Sample Time</b>	<b>Sample Type</b> (C=Comp, G=Grab)	<b>Matrix</b>	<b># of Cont.</b>	<b>Filtered Sample (Y/N)</b>	<b>Perform MS / MSD (Y/N)</b>	<b>VOCS</b>	<b>PH</b>	<b>SVOCs</b>	<b>1. Inorganic</b>	<b>TDW metals</b>	<b>TCLP metals*</b>	<b>Sample Specific Notes</b>
1 2674U2-04-B02 (0-2)		10/20/21	1003	C	S	2			X	X	X	X	X	X	
2 2674U2-04-B01 (0-4)		10/20/21	1026	C	S	2			X	X	X	X	X	X	
<b>Preservation Used:</b> 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____															
<b>Possible Hazard Identification</b> Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample <input type="checkbox"/> Non Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown								<b>Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)</b> <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months							
<b>Special Instructions/QC Requirements &amp; Comments.</b> <u>* SPLP analysis based on TCLP results</u>															
<b>Custody Seals Intact</b> <input type="checkbox"/> Yes <input type="checkbox"/> No				<b>Custody Seal No</b> _____				<b>Cooler Temp (°C) Obs'd</b> <u>12.0</u> <b>Cor'd</b> <u>12.1</u>				<b>Therm ID No</b> _____			
Relinquished by <u>[Signature]</u>				Company <u>WSP</u>				Date/Time <u>10/20/21 1550</u>				Received by <u>[Signature]</u>			
Relinquished by <u>[Signature]</u>				Company <u>ETA</u>				Date/Time <u>10/20/21</u>				Received by _____			
Relinquished by _____				Company _____				Date/Time _____				Received in Laboratory by <u>[Signature]</u>			
												Company <u>ETA-CHE</u>			
												Date/Time <u>10/20/21 1530</u>			

## Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 500-207165-1

**Login Number: 207165**

**List Source: Eurofins TestAmerica, Chicago**

**List Number: 1**

**Creator: Scott, Sherri L**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	12.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# Illinois Environmental Protection Agency

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

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

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

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

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

### I. Source Location Information

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

Project Name: FAP 541 (Illinois Route 132) Office Phone Number, if available: \_\_\_\_\_

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

161 W. Grand Avenue and 18 Oak Knoll Drive (ISGS #2674V2-5)

City: Lake Villa State: IL Zip Code: 60046

County: Lake Township: Lake Villa

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

Latitude: 42.41519 Longitude: - 88.08599  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

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

Approximate Start Date (mm/dd/yyyy): \_\_\_\_\_ Approximate End Date (mm/dd/yyyy): \_\_\_\_\_

Estimated Volume of debris (cu. Yd.): 773

### 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 2674V2-05-B01 through -B03 were sampled within the construction zone adjacent to ISGS #2674V2-5 (Residences). Refer to PSI Report for ISGS #2674V2-5 (Residences) including Table 4-4, and Figures 4-2 and 4-4.

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]:

See attached data summary table and associated laboratory data package J207062-1.

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

I, Tom Campbell (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: WSP USA  
Street Address: 115 W Washington St., Suite 1270S  
City: Indianapolis State: IN Zip Code: 46204  
Phone: (317) 972-1706

Tom Campbell  
Printed Name:

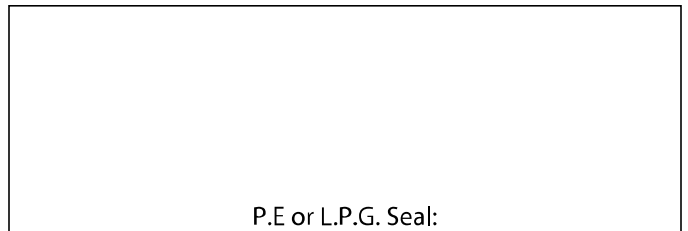


02/03/2022

Date:

Expires 11/30/2023

Licensed Professional Engineer or  
Licensed Professional Geologist Signature:





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

**Analytical Data Summary**  
**PTB #196-002; Work Order 04 - IDOT Job # P-91-583-12**

**Key to Data Tables**

- MAC = Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- TACO = Tiered Approach to Corrective Action Objectives
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers and Shading**

- # = pH is less than 6.25 or greater than 9.0 standard units.
- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- r = Concentration exceeds a TACO Tier 1 RO for the Residential Soil Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds applicable comparison criteria.

**PTB #196-002; Work Order 04 - IDOT Job # P-91-583-12  
CONTAMINANTS OF CONCERN**

SITE	ISGS #2674V2-5 (Residences)			Comparison Criteria					
	2674V2-05-B01	2674V2-05-B02	2674V2-05-B03	MACs			TACO		
SAMPLE	2674V2-05-B01 (0-2)	2674V2-05-B02 (0-4)	2674V2-05-B03 (0-4)	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
MATRIX	Soil	Soil	Soil						
DEPTH (feet)	0-2	0-4	0-4						
pH	9.0	8.1	7.8						
PID (meter units)	--	--	--						
<b>VOCs (mg/kg)</b>									
1,1,1-Trichloroethane	ND U	0.0010 J	ND U	2	--	--	1,200	1,200	--
2-Butanone (MEK)	ND U	0.0061	ND U	--	--	--	--	--	--
Acetone	ND U	0.035	ND U	25	--	--	70,000	100,000	--
<b>SVOCs (mg/kg)</b>									
2-Methylnaphthalene	ND U	0.0077 J	ND U	--	--	--	--	--	--
Anthracene	0.015 J	0.0073 J	ND U	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	0.059	0.019 J	0.0068 J	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.067 J	0.018 J	ND U	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	0.11 J	0.023 J	ND U	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.041 J	0.016 J	ND U	--	--	--	--	--	--
Benzo(k)fluoranthene	0.044 J	0.018 J	ND U	9	--	--	9	1,700	--
Chrysene	0.087	0.033 J	0.017 J	88	--	--	88	17,000	--
Dibenz(a,h)anthracene	0.0086 J	ND U	ND U	0.09	0.42	0.2	0.42	17	--
Fluoranthene	0.12	0.032 J	0.0099 J	3,100	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	0.031 J	ND U	ND U	0.9	1.6	0.9	1.6	170	--
Naphthalene	0.011 J	ND U	ND U	1.8	--	--	170	1.8	--
Phenanthrene	0.066 J	0.032 J	0.0079 J	--	--	--	--	--	--
Pyrene	0.097	0.035 J	0.012 J	2,300	--	--	2,300	61,000	--
<b>Inorganics (mg/kg)</b>									
Antimony	0.34 J	0.47 J	0.54 J	5	--	--	31	82	--
Arsenic	6.5	5.4	6.2	11.3	13	--	13	61	--
Barium	55	69	61	1,500	--	--	5,500	14,000	--
Beryllium	0.60	0.83	0.93	22	--	--	160	410	--
Boron	7.0	9.7	12	40	--	--	16,000	41,000	--
Calcium	77,000	56,000	61,000	--	--	--	--	--	--
Chromium	12	16	18	21	--	--	230	690	--
Cobalt	9.5	13	12	20	--	--	4,700	12,000	--
Copper	19	22	24	2,900	--	--	2,900	8,200	--
Iron	15,000	19,000 †m	21,000 †m	15,000	15,900	--	--	--	--
Lead	64	31	47	107	--	--	400	700	--
Magnesium	29,000	23,000	26,000	325,000	--	--	--	730,000	--
Manganese	560	630	450	630	636	--	1,600	4,100	--
Mercury	0.061	0.11 c	0.025	0.89	--	--	10	0.1	--
Nickel	18	28	28	100	--	--	1,600	4,100	--
Potassium	1,500	2,200	2,700	--	--	--	--	--	--
Silver	0.11 J	0.21 J	0.31	4.4	--	--	390	1,000	--
Sodium	540	670	470	--	--	--	--	--	--
Thallium	0.36 J	0.42 J	0.39 J	2.6	--	--	6.3	160	--
Vanadium	20	25	25	550	--	--	550	1,400	--
Zinc	77	69	76	5,100	--	--	23,000	61,000	--
<b>TCLP Metals (mg/L)</b>									
Barium	0.33 J	0.77	0.54	--	--	--	--	--	2
Boron	ND U	0.060 J	ND U	--	--	--	--	--	2
Cobalt	ND U	0.034	ND U	--	--	--	--	--	1
Iron	ND U	0.23 J	ND U	--	--	--	--	--	5
Lead	ND U	0.016 L	ND U	--	--	--	--	--	0.0075
Manganese	0.39 L	9.2 L	1.9 L	--	--	--	--	--	0.15
Nickel	ND U	0.033	0.015 J	--	--	--	--	--	0.1
Zinc	0.044 J	0.12 J	ND U	--	--	--	--	--	5
<b>SPLP Metals (mg/L)</b>									
Lead	NA	0.017 L	NA	--	--	--	--	--	0.0075
Manganese	1.1 L	0.12	0.15	--	--	--	--	--	0.15



## ANALYTICAL REPORT

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

Laboratory Job ID: 500-207062-1

Client Project/Site: IDOT - 196-002-WO04 Lake Villa

**For:**

WSP USA Inc.  
30 North LaSalle Street  
Chicago, Illinois 60602

Attn: Dean Tiebot



Authorized for release by:  
11/5/2021 11:19:00 AM

Richard Wright, Senior Project Manager  
(708)746-0045  
[Richard.Wright@Eurofinset.com](mailto:Richard.Wright@Eurofinset.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

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

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

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# Case Narrative

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

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## Job ID: 500-207062-1

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Laboratory: Eurofins TestAmerica, Chicago

### Narrative

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#### Job Narrative 500-207062-1

#### Receipt

The samples were received on 10/19/2021 11:15 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.1° C.

#### GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### GC/MS Semi VOA

Method 8270D: The continuing calibration verification (CCV) analyzed in batch 500-626713 was outside the method criteria for the following analyte(s): 2,2'-oxybis[1-chloropropane] and Pentachlorophenol. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270D: Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when utilizing this list of analytes. The LCS associated with preparation batch 500-625120 and analytical batch 500-626461 had 2 analytes outside control limits: 2-Methylnaphthalene and Isophorone. These results have been reported and qualified.

Method 8270D: Perylene-d12 Internal standard (ISTD) response for the following sample was outside of acceptance limits: 2674V2-05-B01 (0-2) (500-207062-1). The sample was previously analyzed at a dilution with acceptable ISTD recoveries. The undiluted analysis was reported to obtain lower reporting limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

**Client Sample ID: 2674V2-05-B01 (0-2)**

**Lab Sample ID: 500-207062-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.011	J	0.036	0.0055	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.059		0.036	0.0048	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.087		0.036	0.0098	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.11	*3	0.036	0.0078	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.044	*3	0.036	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.067	*3	0.036	0.0070	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.031	J *3	0.036	0.0093	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.0086	J *3	0.036	0.0070	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.041	*3	0.036	0.012	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene - DL	0.066	J	0.071	0.010	mg/Kg	2	☼	8270D	Total/NA
Anthracene - DL	0.015	J	0.071	0.012	mg/Kg	2	☼	8270D	Total/NA
Fluoranthene - DL	0.12		0.071	0.013	mg/Kg	2	☼	8270D	Total/NA
Pyrene - DL	0.097		0.071	0.014	mg/Kg	2	☼	8270D	Total/NA
Antimony	0.34	J	1.0	0.20	mg/Kg	1	☼	6010B	Total/NA
Arsenic	6.5		0.52	0.18	mg/Kg	1	☼	6010B	Total/NA
Barium	55		0.52	0.059	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.60		0.21	0.049	mg/Kg	1	☼	6010B	Total/NA
Boron	7.0		2.6	0.24	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.19	B	0.10	0.019	mg/Kg	1	☼	6010B	Total/NA
Calcium	77000	B	52	8.8	mg/Kg	5	☼	6010B	Total/NA
Chromium	12		0.52	0.26	mg/Kg	1	☼	6010B	Total/NA
Cobalt	9.5		1.3	0.34	mg/Kg	5	☼	6010B	Total/NA
Copper	19	B	0.52	0.15	mg/Kg	1	☼	6010B	Total/NA
Iron	15000		10	5.4	mg/Kg	1	☼	6010B	Total/NA
Lead	64		0.26	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	29000	B	5.2	2.6	mg/Kg	1	☼	6010B	Total/NA
Manganese	560	B	0.52	0.076	mg/Kg	1	☼	6010B	Total/NA
Nickel	18		0.52	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	1500		26	9.2	mg/Kg	1	☼	6010B	Total/NA
Silver	0.11	J	0.26	0.067	mg/Kg	1	☼	6010B	Total/NA
Sodium	540		52	7.7	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.36	J	0.52	0.26	mg/Kg	1	☼	6010B	Total/NA
Vanadium	20		0.26	0.062	mg/Kg	1	☼	6010B	Total/NA
Zinc	77		1.0	0.46	mg/Kg	1	☼	6010B	Total/NA
Barium	0.33	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.39		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.044	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	1.1		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.061		0.017	0.0055	mg/Kg	1	☼	7471B	Total/NA
pH	9.0		0.2	0.2	SU	1		9045D	Total/NA

**Client Sample ID: 2674V2-05-B02 (0-4)**

**Lab Sample ID: 500-207062-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.035		0.018	0.0077	mg/Kg	1	☼	8260B	Total/NA
2-Butanone (MEK)	0.0061		0.0044	0.0020	mg/Kg	1	☼	8260B	Total/NA
1,1,1-Trichloroethane	0.0010	J	0.0018	0.00059	mg/Kg	1	☼	8260B	Total/NA
2-Methylnaphthalene	0.0077	J *+	0.078	0.0072	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.032	J	0.039	0.0054	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.0073	J	0.039	0.0065	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.032	J	0.039	0.0072	mg/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Detection Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

**Client Sample ID: 2674V2-05-B02 (0-4) (Continued)**

**Lab Sample ID: 500-207062-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pyrene	0.035	J	0.039	0.0077	mg/Kg	1	✳	8270D	Total/NA
Benzo[a]anthracene	0.019	J	0.039	0.0052	mg/Kg	1	✳	8270D	Total/NA
Chrysene	0.033	J	0.039	0.011	mg/Kg	1	✳	8270D	Total/NA
Benzo[b]fluoranthene	0.023	J	0.039	0.0084	mg/Kg	1	✳	8270D	Total/NA
Benzo[k]fluoranthene	0.018	J	0.039	0.011	mg/Kg	1	✳	8270D	Total/NA
Benzo[a]pyrene	0.018	J	0.039	0.0075	mg/Kg	1	✳	8270D	Total/NA
Benzo[g,h,i]perylene	0.016	J	0.039	0.013	mg/Kg	1	✳	8270D	Total/NA
Antimony	0.47	J	1.2	0.23	mg/Kg	1	✳	6010B	Total/NA
Arsenic	5.4		0.59	0.20	mg/Kg	1	✳	6010B	Total/NA
Barium	69		0.59	0.067	mg/Kg	1	✳	6010B	Total/NA
Beryllium	0.83		0.23	0.055	mg/Kg	1	✳	6010B	Total/NA
Boron	9.7		2.9	0.27	mg/Kg	1	✳	6010B	Total/NA
Cadmium	0.055	J B	0.12	0.021	mg/Kg	1	✳	6010B	Total/NA
Calcium	56000	B	59	10	mg/Kg	5	✳	6010B	Total/NA
Chromium	16		0.59	0.29	mg/Kg	1	✳	6010B	Total/NA
Cobalt	13		1.5	0.38	mg/Kg	5	✳	6010B	Total/NA
Copper	22	B	0.59	0.16	mg/Kg	1	✳	6010B	Total/NA
Iron	19000		12	6.1	mg/Kg	1	✳	6010B	Total/NA
Lead	31		0.29	0.14	mg/Kg	1	✳	6010B	Total/NA
Magnesium	23000	B	5.9	2.9	mg/Kg	1	✳	6010B	Total/NA
Manganese	630	B	0.59	0.085	mg/Kg	1	✳	6010B	Total/NA
Nickel	28		0.59	0.17	mg/Kg	1	✳	6010B	Total/NA
Potassium	2200		29	10	mg/Kg	1	✳	6010B	Total/NA
Silver	0.21	J	0.29	0.076	mg/Kg	1	✳	6010B	Total/NA
Sodium	670		59	8.7	mg/Kg	1	✳	6010B	Total/NA
Thallium	0.42	J	0.59	0.29	mg/Kg	1	✳	6010B	Total/NA
Vanadium	25		0.29	0.069	mg/Kg	1	✳	6010B	Total/NA
Zinc	69		1.2	0.52	mg/Kg	1	✳	6010B	Total/NA
Barium	0.77		0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.060	J	0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.034		0.025	0.010	mg/L	1		6010B	TCLP
Iron	0.23	J	0.40	0.20	mg/L	1		6010B	TCLP
Lead	0.016		0.0075	0.0075	mg/L	1		6010B	TCLP
Manganese	9.2		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.033		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.12	J	0.50	0.020	mg/L	1		6010B	TCLP
Lead	0.017		0.0075	0.0075	mg/L	1		6010B	SPLP East
Manganese	0.12		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.11		0.019	0.0064	mg/Kg	1	✳	7471B	Total/NA
pH	8.1		0.2	0.2	SU	1		9045D	Total/NA

**Client Sample ID: 2674V2-05-B03 (0-4)**

**Lab Sample ID: 500-207062-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.0079	J	0.038	0.0053	mg/Kg	1	✳	8270D	Total/NA
Fluoranthene	0.0099	J	0.038	0.0071	mg/Kg	1	✳	8270D	Total/NA
Pyrene	0.012	J	0.038	0.0076	mg/Kg	1	✳	8270D	Total/NA
Benzo[a]anthracene	0.0068	J	0.038	0.0052	mg/Kg	1	✳	8270D	Total/NA
Chrysene	0.017	J	0.038	0.010	mg/Kg	1	✳	8270D	Total/NA
Antimony	0.54	J	1.2	0.23	mg/Kg	1	✳	6010B	Total/NA
Arsenic	6.2		0.58	0.20	mg/Kg	1	✳	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Detection Summary

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

**Client Sample ID: 2674V2-05-B03 (0-4) (Continued)**

**Lab Sample ID: 500-207062-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	61		0.58	0.067	mg/Kg	1	✳	6010B	Total/NA
Beryllium	0.93		0.23	0.055	mg/Kg	1	✳	6010B	Total/NA
Boron	12		2.9	0.27	mg/Kg	1	✳	6010B	Total/NA
Cadmium	0.036	J B	0.12	0.021	mg/Kg	1	✳	6010B	Total/NA
Calcium	61000	B	58	9.9	mg/Kg	5	✳	6010B	Total/NA
Chromium	18		0.58	0.29	mg/Kg	1	✳	6010B	Total/NA
Cobalt	12		1.5	0.38	mg/Kg	5	✳	6010B	Total/NA
Copper	24	B	0.58	0.16	mg/Kg	1	✳	6010B	Total/NA
Iron	21000		12	6.1	mg/Kg	1	✳	6010B	Total/NA
Lead	47		0.29	0.14	mg/Kg	1	✳	6010B	Total/NA
Magnesium	26000	B	5.8	2.9	mg/Kg	1	✳	6010B	Total/NA
Manganese	450	B	0.58	0.085	mg/Kg	1	✳	6010B	Total/NA
Nickel	28		0.58	0.17	mg/Kg	1	✳	6010B	Total/NA
Potassium	2700		29	10	mg/Kg	1	✳	6010B	Total/NA
Silver	0.31		0.29	0.075	mg/Kg	1	✳	6010B	Total/NA
Sodium	470		58	8.7	mg/Kg	1	✳	6010B	Total/NA
Thallium	0.39	J	0.58	0.29	mg/Kg	1	✳	6010B	Total/NA
Vanadium	25		0.29	0.069	mg/Kg	1	✳	6010B	Total/NA
Zinc	76		1.2	0.51	mg/Kg	1	✳	6010B	Total/NA
Barium	0.54		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	1.9		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.015	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.15		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.025		0.018	0.0061	mg/Kg	1	✳	7471B	Total/NA
pH	7.8		0.2	0.2	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Method Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CHI
6010B	Metals (ICP)	SW846	TAL CHI
6010B	SPLP Metals	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
7470A	TCLP Mercury	SW846	TAL CHI
7471B	Mercury (CVAA)	SW846	TAL CHI
9045D	pH	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
1311	TCLP Extraction	SW846	TAL CHI
1312	SPLP Extraction	SW846	TAL CHI
3010A	Preparation, Total Metals	SW846	TAL CHI
3050B	Preparation, Metals	SW846	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI
5035	Closed System Purge and Trap	SW846	TAL CHI
7470A	Preparation, Mercury	SW846	TAL CHI
7471B	Preparation, Mercury	SW846	TAL CHI

#### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Sample Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-207062-1	2674V2-05-B01 (0-2)	Solid	10/18/21 14:52	10/19/21 11:15
500-207062-2	2674V2-05-B02 (0-4)	Solid	10/18/21 15:05	10/19/21 11:15
500-207062-3	2674V2-05-B03 (0-4)	Solid	10/18/21 15:15	10/19/21 11:15

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# Client Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

Client Sample ID: 2674V2-05-B01 (0-2)

Lab Sample ID: 500-207062-1

Date Collected: 10/18/21 14:52

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 88.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0074	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
Carbon disulfide	<0.0043		0.0043	0.00088	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
Carbon tetrachloride	<0.0017		0.0017	0.00049	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
Chlorobenzene	<0.0017		0.0017	0.00063	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
Chloroform	<0.0017		0.0017	0.00059	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00051	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
1,1-Dichloroethane	<0.0017		0.0017	0.00058	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
1,1-Dichloroethene	<0.0017		0.0017	0.00058	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
1,2-Dichloropropene	<0.0017		0.0017	0.00044	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00060	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
Ethylbenzene	<0.0017		0.0017	0.00081	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
Styrene	<0.0017		0.0017	0.00051	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00054	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00075	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00057	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00073	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
Trichloroethene	<0.0017		0.0017	0.00057	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
Vinyl acetate	<0.0043		0.0043	0.0015	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
Vinyl chloride	<0.0017		0.0017	0.00075	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1
Xylenes, Total	<0.0034		0.0034	0.00054	mg/Kg	✳	10/19/21 18:28	10/27/21 15:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		75 - 131	10/19/21 18:28	10/27/21 15:50	1
Dibromofluoromethane	107		75 - 126	10/19/21 18:28	10/27/21 15:50	1
1,2-Dichloroethane-d4 (Surr)	108		70 - 134	10/19/21 18:28	10/27/21 15:50	1
Toluene-d8 (Surr)	112		75 - 124	10/19/21 18:28	10/27/21 15:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.080	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.054	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
1,4-Dichlorobenzene	<0.18		0.18	0.046	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

**Client Sample ID: 2674V2-05-B01 (0-2)**

**Lab Sample ID: 500-207062-1**

Date Collected: 10/18/21 14:52

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 88.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.043	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
2-Methylphenol	<0.18		0.18	0.058	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
N-Nitrosodi-n-propylamine	<0.073		0.073	0.044	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
Hexachloroethane	<0.18		0.18	0.055	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
2-Chlorophenol	<0.18		0.18	0.061	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
Nitrobenzene	<0.036		0.036	0.0090	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
Isophorone	<0.18	+	0.18	0.040	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
<b>Naphthalene</b>	<b>0.011</b>	<b>J</b>	0.036	0.0055	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
2,4-Dichlorophenol	<0.36		0.36	0.085	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
4-Chloroaniline	<0.73		0.73	0.17	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
2,4,5-Trichlorophenol	<0.36		0.36	0.082	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
Hexachlorocyclopentadiene	<0.73		0.73	0.21	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
2-Methylnaphthalene	<0.073	+	0.073	0.0066	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
2-Nitroaniline	<0.18		0.18	0.048	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
2,6-Dinitrotoluene	<0.18		0.18	0.071	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
2-Nitrophenol	<0.36		0.36	0.085	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
2,4-Dinitrophenol	<0.73		0.73	0.63	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
Acenaphthylene	<0.036		0.036	0.0047	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
2,4-Dinitrotoluene	<0.18		0.18	0.057	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
Acenaphthene	<0.036		0.036	0.0065	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
4-Nitrophenol	<0.73		0.73	0.34	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
Fluorene	<0.036		0.036	0.0051	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.047	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
Hexachlorobenzene	<0.073		0.073	0.0083	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
Diethyl phthalate	<0.18		0.18	0.061	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
Pentachlorophenol	<0.73		0.73	0.58	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
N-Nitrosodiphenylamine	<0.18		0.18	0.042	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
4,6-Dinitro-2-methylphenol	<0.73		0.73	0.29	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
Carbazole	<0.18		0.18	0.090	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
Di-n-butyl phthalate	<0.18		0.18	0.055	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
Butyl benzyl phthalate	<0.18		0.18	0.068	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
<b>Benzo[a]anthracene</b>	<b>0.059</b>		0.036	0.0048	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
<b>Chrysene</b>	<b>0.087</b>		0.036	0.0098	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.050	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.066	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1
Di-n-octyl phthalate	<0.18		0.18	0.059	mg/Kg	✳	10/25/21 06:38	11/04/21 14:55	1

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

Client Sample ID: 2674V2-05-B01 (0-2)

Lab Sample ID: 500-207062-1

Date Collected: 10/18/21 14:52

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 88.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	0.11	*3	0.036	0.0078	mg/Kg	☼	10/25/21 06:38	11/04/21 14:55	1
Benzo[k]fluoranthene	0.044	*3	0.036	0.011	mg/Kg	☼	10/25/21 06:38	11/04/21 14:55	1
Benzo[a]pyrene	0.067	*3	0.036	0.0070	mg/Kg	☼	10/25/21 06:38	11/04/21 14:55	1
Indeno[1,2,3-cd]pyrene	0.031	J*3	0.036	0.0093	mg/Kg	☼	10/25/21 06:38	11/04/21 14:55	1
Dibenz(a,h)anthracene	0.0086	J*3	0.036	0.0070	mg/Kg	☼	10/25/21 06:38	11/04/21 14:55	1
Benzo[g,h,i]perylene	0.041	*3	0.036	0.012	mg/Kg	☼	10/25/21 06:38	11/04/21 14:55	1
3 & 4 Methylphenol	<0.18		0.18	0.060	mg/Kg	☼	10/25/21 06:38	11/04/21 14:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	78		31 - 166	10/25/21 06:38	11/04/21 14:55	1
Phenol-d5	81		30 - 153	10/25/21 06:38	11/04/21 14:55	1
Nitrobenzene-d5 (Surr)	62		37 - 147	10/25/21 06:38	11/04/21 14:55	1
2-Fluorobiphenyl (Surr)	93		43 - 145	10/25/21 06:38	11/04/21 14:55	1
2,4,6-Tribromophenol	115		31 - 143	10/25/21 06:38	11/04/21 14:55	1
Terphenyl-d14 (Surr)	102		42 - 157	10/25/21 06:38	11/04/21 14:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	0.066	J	0.071	0.010	mg/Kg	☼	10/25/21 06:38	11/02/21 21:21	2
Anthracene	0.015	J	0.071	0.012	mg/Kg	☼	10/25/21 06:38	11/02/21 21:21	2
Fluoranthene	0.12		0.071	0.013	mg/Kg	☼	10/25/21 06:38	11/02/21 21:21	2
Pyrene	0.097		0.071	0.014	mg/Kg	☼	10/25/21 06:38	11/02/21 21:21	2

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.34	J	1.0	0.20	mg/Kg	☼	11/01/21 10:16	11/02/21 14:14	1
Arsenic	6.5		0.52	0.18	mg/Kg	☼	11/01/21 10:16	11/02/21 14:14	1
Barium	55		0.52	0.059	mg/Kg	☼	11/01/21 10:16	11/02/21 14:14	1
Beryllium	0.60		0.21	0.049	mg/Kg	☼	11/01/21 10:16	11/02/21 14:14	1
Boron	7.0		2.6	0.24	mg/Kg	☼	11/01/21 10:16	11/02/21 14:14	1
Cadmium	0.19	B	0.10	0.019	mg/Kg	☼	11/01/21 10:16	11/02/21 14:14	1
Calcium	77000	B	52	8.8	mg/Kg	☼	11/01/21 10:16	11/02/21 14:51	5
Chromium	12		0.52	0.26	mg/Kg	☼	11/01/21 10:16	11/02/21 14:14	1
Cobalt	9.5		1.3	0.34	mg/Kg	☼	11/01/21 10:16	11/02/21 14:51	5
Copper	19	B	0.52	0.15	mg/Kg	☼	11/01/21 10:16	11/02/21 14:14	1
Iron	15000		10	5.4	mg/Kg	☼	11/01/21 10:16	11/02/21 14:14	1
Lead	64		0.26	0.12	mg/Kg	☼	11/01/21 10:16	11/02/21 14:14	1
Magnesium	29000	B	5.2	2.6	mg/Kg	☼	11/01/21 10:16	11/02/21 14:14	1
Manganese	560	B	0.52	0.076	mg/Kg	☼	11/01/21 10:16	11/02/21 14:14	1
Nickel	18		0.52	0.15	mg/Kg	☼	11/01/21 10:16	11/02/21 14:14	1
Potassium	1500		26	9.2	mg/Kg	☼	11/01/21 10:16	11/02/21 14:14	1
Selenium	<0.52		0.52	0.31	mg/Kg	☼	11/01/21 10:16	11/02/21 14:14	1
Silver	0.11	J	0.26	0.067	mg/Kg	☼	11/01/21 10:16	11/02/21 14:14	1
Sodium	540		52	7.7	mg/Kg	☼	11/01/21 10:16	11/02/21 14:14	1
Thallium	0.36	J	0.52	0.26	mg/Kg	☼	11/01/21 10:16	11/02/21 14:14	1
Vanadium	20		0.26	0.062	mg/Kg	☼	11/01/21 10:16	11/02/21 14:14	1
Zinc	77		1.0	0.46	mg/Kg	☼	11/01/21 10:16	11/02/21 14:14	1

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# Client Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

**Client Sample ID: 2674V2-05-B01 (0-2)**

**Lab Sample ID: 500-207062-1**

Date Collected: 10/18/21 14:52

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 88.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>0.33</b>	<b>J</b>	0.50	0.050	mg/L		10/26/21 07:49	10/26/21 19:49	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/26/21 07:49	10/26/21 19:49	1
Boron	<0.50		0.50	0.050	mg/L		10/26/21 07:49	10/26/21 19:49	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/26/21 07:49	10/26/21 19:49	1
Chromium	<0.025		0.025	0.010	mg/L		10/26/21 07:49	10/26/21 19:49	1
Cobalt	<0.025		0.025	0.010	mg/L		10/26/21 07:49	10/26/21 19:49	1
Iron	<0.40		0.40	0.20	mg/L		10/26/21 07:49	10/26/21 19:49	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/26/21 07:49	10/26/21 19:49	1
<b>Manganese</b>	<b>0.39</b>		0.025	0.010	mg/L		10/26/21 07:49	10/26/21 19:49	1
Nickel	<0.025		0.025	0.010	mg/L		10/26/21 07:49	10/26/21 19:49	1
Selenium	<0.050		0.050	0.020	mg/L		10/26/21 07:49	10/26/21 19:49	1
Silver	<0.025		0.025	0.010	mg/L		10/26/21 07:49	10/26/21 19:49	1
<b>Zinc</b>	<b>0.044</b>	<b>J</b>	0.50	0.020	mg/L		10/26/21 07:49	10/26/21 19:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>1.1</b>		0.025	0.010	mg/L		10/26/21 07:51	10/26/21 20:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/26/21 07:49	10/28/21 14:48	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/26/21 07:49	10/28/21 14:48	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 09:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.061</b>		0.017	0.0055	mg/Kg	☼	10/27/21 14:15	10/28/21 08:16	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>9.0</b>		0.2	0.2	SU			10/21/21 18:05	1

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

Client Sample ID: 2674V2-05-B02 (0-4)

Lab Sample ID: 500-207062-2

Date Collected: 10/18/21 15:05

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 82.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>0.035</b>		0.018	0.0077	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
Benzene	<0.0018		0.0018	0.00045	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
Bromoform	<0.0018		0.0018	0.00052	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
Bromomethane	<0.0044		0.0044	0.0017	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
<b>2-Butanone (MEK)</b>	<b>0.0061</b>		0.0044	0.0020	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
Carbon disulfide	<0.0044		0.0044	0.00092	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
Carbon tetrachloride	<0.0018		0.0018	0.00051	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
Chlorobenzene	<0.0018		0.0018	0.00065	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
Chloroform	<0.0018		0.0018	0.00061	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
Chloromethane	<0.0044		0.0044	0.0018	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00049	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00053	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
Dibromochloromethane	<0.0018		0.0018	0.00058	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
1,1-Dichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
1,1-Dichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
1,2-Dichloropropene	<0.0018		0.0018	0.00046	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00062	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
Ethylbenzene	<0.0018		0.0018	0.00085	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00052	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
Styrene	<0.0018		0.0018	0.00053	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00057	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
Tetrachloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00078	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00062	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
<b>1,1,1-Trichloroethane</b>	<b>0.0010 J</b>		0.0018	0.00059	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00076	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
Trichloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
Vinyl acetate	<0.0044		0.0044	0.0015	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
Vinyl chloride	<0.0018		0.0018	0.00078	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1
Xylenes, Total	<0.0035		0.0035	0.00057	mg/Kg	☼	10/19/21 18:28	10/27/21 16:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		75 - 131	10/19/21 18:28	10/27/21 16:15	1
Dibromofluoromethane	101		75 - 126	10/19/21 18:28	10/27/21 16:15	1
1,2-Dichloroethane-d4 (Surr)	104		70 - 134	10/19/21 18:28	10/27/21 16:15	1
Toluene-d8 (Surr)	113		75 - 124	10/19/21 18:28	10/27/21 16:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.086	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.058	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

**Client Sample ID: 2674V2-05-B02 (0-4)**

**Lab Sample ID: 500-207062-2**

Date Collected: 10/18/21 15:05

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 82.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
2-Methylphenol	<0.20		0.20	0.062	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.048	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
2-Chlorophenol	<0.20		0.20	0.066	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
Isophorone	<0.20	*+	0.20	0.044	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
2,4-Dichlorophenol	<0.39		0.39	0.092	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
<b>2-Methylnaphthalene</b>	<b>0.0077</b>	<b>J**</b>	0.078	0.0072	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
2-Nitroaniline	<0.20		0.20	0.052	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
2,6-Dinitrotoluene	<0.20		0.20	0.076	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
Hexachlorobenzene	<0.078		0.078	0.0090	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.045	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
<b>Phenanthrene</b>	<b>0.032</b>	<b>J</b>	0.039	0.0054	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
<b>Anthracene</b>	<b>0.0073</b>	<b>J</b>	0.039	0.0065	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
Carbazole	<0.20		0.20	0.097	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
<b>Fluoranthene</b>	<b>0.032</b>	<b>J</b>	0.039	0.0072	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
<b>Pyrene</b>	<b>0.035</b>	<b>J</b>	0.039	0.0077	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
<b>Benzo[a]anthracene</b>	<b>0.019</b>	<b>J</b>	0.039	0.0052	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

Client Sample ID: 2674V2-05-B02 (0-4)

Lab Sample ID: 500-207062-2

Date Collected: 10/18/21 15:05

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 82.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chrysene</b>	<b>0.033</b>	<b>J</b>	0.039	0.011	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.054	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
Di-n-octyl phthalate	<0.20		0.20	0.063	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
<b>Benzo[b]fluoranthene</b>	<b>0.023</b>	<b>J</b>	0.039	0.0084	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
<b>Benzo[k]fluoranthene</b>	<b>0.018</b>	<b>J</b>	0.039	0.011	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
<b>Benzo[a]pyrene</b>	<b>0.018</b>	<b>J</b>	0.039	0.0075	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0075	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
<b>Benzo[g,h,i]perylene</b>	<b>0.016</b>	<b>J</b>	0.039	0.013	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	10/25/21 06:38	11/02/21 21:45	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorophenol	103		31 - 166				10/25/21 06:38	11/02/21 21:45	1
Phenol-d5	86		30 - 153				10/25/21 06:38	11/02/21 21:45	1
Nitrobenzene-d5 (Surr)	86		37 - 147				10/25/21 06:38	11/02/21 21:45	1
2-Fluorobiphenyl (Surr)	92		43 - 145				10/25/21 06:38	11/02/21 21:45	1
2,4,6-Tribromophenol	98		31 - 143				10/25/21 06:38	11/02/21 21:45	1
Terphenyl-d14 (Surr)	119		42 - 157				10/25/21 06:38	11/02/21 21:45	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>	1.2	0.23	mg/Kg	☼	11/01/21 10:16	11/02/21 14:17	1
<b>Arsenic</b>	<b>5.4</b>		0.59	0.20	mg/Kg	☼	11/01/21 10:16	11/02/21 14:17	1
<b>Barium</b>	<b>69</b>		0.59	0.067	mg/Kg	☼	11/01/21 10:16	11/02/21 14:17	1
<b>Beryllium</b>	<b>0.83</b>		0.23	0.055	mg/Kg	☼	11/01/21 10:16	11/02/21 14:17	1
<b>Boron</b>	<b>9.7</b>		2.9	0.27	mg/Kg	☼	11/01/21 10:16	11/02/21 14:17	1
<b>Cadmium</b>	<b>0.055</b>	<b>J B</b>	0.12	0.021	mg/Kg	☼	11/01/21 10:16	11/02/21 14:17	1
<b>Calcium</b>	<b>56000</b>	<b>B</b>	59	10	mg/Kg	☼	11/01/21 10:16	11/02/21 15:01	5
<b>Chromium</b>	<b>16</b>		0.59	0.29	mg/Kg	☼	11/01/21 10:16	11/02/21 14:17	1
<b>Cobalt</b>	<b>13</b>		1.5	0.38	mg/Kg	☼	11/01/21 10:16	11/02/21 15:01	5
<b>Copper</b>	<b>22</b>	<b>B</b>	0.59	0.16	mg/Kg	☼	11/01/21 10:16	11/02/21 14:17	1
<b>Iron</b>	<b>19000</b>		12	6.1	mg/Kg	☼	11/01/21 10:16	11/02/21 14:17	1
<b>Lead</b>	<b>31</b>		0.29	0.14	mg/Kg	☼	11/01/21 10:16	11/02/21 14:17	1
<b>Magnesium</b>	<b>23000</b>	<b>B</b>	5.9	2.9	mg/Kg	☼	11/01/21 10:16	11/02/21 14:17	1
<b>Manganese</b>	<b>630</b>	<b>B</b>	0.59	0.085	mg/Kg	☼	11/01/21 10:16	11/02/21 14:17	1
<b>Nickel</b>	<b>28</b>		0.59	0.17	mg/Kg	☼	11/01/21 10:16	11/02/21 14:17	1
<b>Potassium</b>	<b>2200</b>		29	10	mg/Kg	☼	11/01/21 10:16	11/02/21 14:17	1
Selenium	<0.59		0.59	0.35	mg/Kg	☼	11/01/21 10:16	11/02/21 14:17	1
<b>Silver</b>	<b>0.21</b>	<b>J</b>	0.29	0.076	mg/Kg	☼	11/01/21 10:16	11/02/21 14:17	1
<b>Sodium</b>	<b>670</b>		59	8.7	mg/Kg	☼	11/01/21 10:16	11/02/21 14:17	1
<b>Thallium</b>	<b>0.42</b>	<b>J</b>	0.59	0.29	mg/Kg	☼	11/01/21 10:16	11/02/21 14:17	1
<b>Vanadium</b>	<b>25</b>		0.29	0.069	mg/Kg	☼	11/01/21 10:16	11/02/21 14:17	1
<b>Zinc</b>	<b>69</b>		1.2	0.52	mg/Kg	☼	11/01/21 10:16	11/02/21 14:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>0.77</b>		0.50	0.050	mg/L		10/26/21 07:49	10/26/21 20:02	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/26/21 07:49	10/26/21 20:02	1
<b>Boron</b>	<b>0.060</b>	<b>J</b>	0.50	0.050	mg/L		10/26/21 07:49	10/26/21 20:02	1

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# Client Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

**Client Sample ID: 2674V2-05-B02 (0-4)**

**Lab Sample ID: 500-207062-2**

Date Collected: 10/18/21 15:05

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 82.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/26/21 07:49	10/26/21 20:02	1
Chromium	<0.025		0.025	0.010	mg/L		10/26/21 07:49	10/26/21 20:02	1
<b>Cobalt</b>	<b>0.034</b>		0.025	0.010	mg/L		10/26/21 07:49	10/26/21 20:02	1
<b>Iron</b>	<b>0.23</b>	<b>J</b>	0.40	0.20	mg/L		10/26/21 07:49	10/26/21 20:02	1
<b>Lead</b>	<b>0.016</b>		0.0075	0.0075	mg/L		10/26/21 07:49	10/26/21 20:02	1
<b>Manganese</b>	<b>9.2</b>		0.025	0.010	mg/L		10/26/21 07:49	10/26/21 20:02	1
<b>Nickel</b>	<b>0.033</b>		0.025	0.010	mg/L		10/26/21 07:49	10/26/21 20:02	1
Selenium	<0.050		0.050	0.020	mg/L		10/26/21 07:49	10/26/21 20:02	1
Silver	<0.025		0.025	0.010	mg/L		10/26/21 07:49	10/26/21 20:02	1
<b>Zinc</b>	<b>0.12</b>	<b>J</b>	0.50	0.020	mg/L		10/26/21 07:49	10/26/21 20:02	1

**Method: 6010B - SPLP Metals - SPLP East**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Lead</b>	<b>0.017</b>		0.0075	0.0075	mg/L		10/26/21 07:51	10/26/21 20:46	1
<b>Manganese</b>	<b>0.12</b>		0.025	0.010	mg/L		10/26/21 07:51	10/26/21 20:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/26/21 07:49	10/28/21 14:52	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/26/21 07:49	10/28/21 14:52	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 09:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.11</b>		0.019	0.0064	mg/Kg	☼	10/27/21 14:15	10/28/21 08:18	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>8.1</b>		0.2	0.2	SU			10/21/21 18:10	1



Client Sample Results

Client: WSP USA Inc.
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

Client Sample ID: 2674V2-05-B03 (0-4)

Lab Sample ID: 500-207062-3

Date Collected: 10/18/21 15:15

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 85.3

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

Table with 11 columns: Analyte, Result, Qualifier, RL, MDL, Unit, D, Prepared, Analyzed, Dil Fac. Lists various compounds like Acetone, Benzene, Bromodichloromethane, etc.

Table with 7 columns: Surrogate, %Recovery, Qualifier, Limits, Prepared, Analyzed, Dil Fac. Lists surrogates like 4-Bromofluorobenzene (Surr), Dibromofluoromethane, etc.

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

Table with 11 columns: Analyte, Result, Qualifier, RL, MDL, Unit, D, Prepared, Analyzed, Dil Fac. Lists compounds like Phenol, Bis(2-chloroethyl)ether, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene.

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# Client Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

**Client Sample ID: 2674V2-05-B03 (0-4)**

**Lab Sample ID: 500-207062-3**

Date Collected: 10/18/21 15:15

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 85.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/26/21 07:49	10/26/21 20:05	1
Chromium	<0.025		0.025	0.010	mg/L		10/26/21 07:49	10/26/21 20:05	1
Cobalt	<0.025		0.025	0.010	mg/L		10/26/21 07:49	10/26/21 20:05	1
Iron	<0.40		0.40	0.20	mg/L		10/26/21 07:49	10/26/21 20:05	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/26/21 07:49	10/26/21 20:05	1
<b>Manganese</b>	<b>1.9</b>		0.025	0.010	mg/L		10/26/21 07:49	10/26/21 20:05	1
<b>Nickel</b>	<b>0.015</b>	<b>J</b>	0.025	0.010	mg/L		10/26/21 07:49	10/26/21 20:05	1
Selenium	<0.050		0.050	0.020	mg/L		10/26/21 07:49	10/26/21 20:05	1
Silver	<0.025		0.025	0.010	mg/L		10/26/21 07:49	10/26/21 20:05	1
Zinc	<0.50		0.50	0.020	mg/L		10/26/21 07:49	10/26/21 20:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>0.15</b>		0.025	0.010	mg/L		10/26/21 07:51	10/26/21 20:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/26/21 07:49	10/28/21 14:53	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/26/21 07:49	10/28/21 14:53	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 09:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.025</b>		0.018	0.0061	mg/Kg	☼	10/27/21 14:15	10/28/21 08:20	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>7.8</b>		0.2	0.2	SU			10/21/21 18:15	1

# Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

## 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 and/or LCSD is outside acceptance limits, high biased.
*3	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.

### 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.
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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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)
TNTC	Too Numerous To Count

# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

## GC/MS VOA

### Prep Batch: 624911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207062-1	2674V2-05-B01 (0-2)	Total/NA	Solid	5035	
500-207062-2	2674V2-05-B02 (0-4)	Total/NA	Solid	5035	
500-207062-3	2674V2-05-B03 (0-4)	Total/NA	Solid	5035	

### Analysis Batch: 625626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207062-1	2674V2-05-B01 (0-2)	Total/NA	Solid	8260B	624911
500-207062-2	2674V2-05-B02 (0-4)	Total/NA	Solid	8260B	624911
500-207062-3	2674V2-05-B03 (0-4)	Total/NA	Solid	8260B	624911
MB 500-625626/7	Method Blank	Total/NA	Solid	8260B	
LCS 500-625626/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-625626/5	Lab Control Sample Dup	Total/NA	Solid	8260B	

## GC/MS Semi VOA

### Prep Batch: 625120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207062-1	2674V2-05-B01 (0-2)	Total/NA	Solid	3541	
500-207062-1 - DL	2674V2-05-B01 (0-2)	Total/NA	Solid	3541	
500-207062-2	2674V2-05-B02 (0-4)	Total/NA	Solid	3541	
500-207062-3	2674V2-05-B03 (0-4)	Total/NA	Solid	3541	
MB 500-625120/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-625120/2-A	Lab Control Sample	Total/NA	Solid	3541	

### Analysis Batch: 626461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-625120/2-A	Lab Control Sample	Total/NA	Solid	8270D	625120

### Analysis Batch: 626713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207062-1 - DL	2674V2-05-B01 (0-2)	Total/NA	Solid	8270D	625120
500-207062-2	2674V2-05-B02 (0-4)	Total/NA	Solid	8270D	625120
500-207062-3	2674V2-05-B03 (0-4)	Total/NA	Solid	8270D	625120
MB 500-625120/1-A	Method Blank	Total/NA	Solid	8270D	625120

### Analysis Batch: 627209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207062-1	2674V2-05-B01 (0-2)	Total/NA	Solid	8270D	625120

## Metals

### Leach Batch: 625123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207062-1	2674V2-05-B01 (0-2)	TCLP	Solid	1311	
500-207062-2	2674V2-05-B02 (0-4)	TCLP	Solid	1311	
500-207062-3	2674V2-05-B03 (0-4)	TCLP	Solid	1311	
LB 500-625123/1-B	Method Blank	TCLP	Solid	1311	
LB 500-625123/2-C	Method Blank	TCLP	Solid	1311	
500-207062-1 MS	2674V2-05-B01 (0-2)	TCLP	Solid	1311	
500-207062-1 DU	2674V2-05-B01 (0-2)	TCLP	Solid	1311	

# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

## Metals

### Leach Batch: 625125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207062-1	2674V2-05-B01 (0-2)	SPLP East	Solid	1312	
500-207062-2	2674V2-05-B02 (0-4)	SPLP East	Solid	1312	
500-207062-3	2674V2-05-B03 (0-4)	SPLP East	Solid	1312	
LB 500-625125/1-B	Method Blank	SPLP East	Solid	1312	
500-207062-1 MS	2674V2-05-B01 (0-2)	SPLP East	Solid	1312	
500-207062-1 DU	2674V2-05-B01 (0-2)	SPLP East	Solid	1312	

### Prep Batch: 625355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207062-1	2674V2-05-B01 (0-2)	TCLP	Solid	3010A	625123
500-207062-2	2674V2-05-B02 (0-4)	TCLP	Solid	3010A	625123
500-207062-3	2674V2-05-B03 (0-4)	TCLP	Solid	3010A	625123
LB 500-625123/1-B	Method Blank	TCLP	Solid	3010A	625123
LCS 500-625355/2-A	Lab Control Sample	Total/NA	Solid	3010A	
500-207062-1 MS	2674V2-05-B01 (0-2)	TCLP	Solid	3010A	625123
500-207062-1 DU	2674V2-05-B01 (0-2)	TCLP	Solid	3010A	625123

### Prep Batch: 625357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207062-1	2674V2-05-B01 (0-2)	SPLP East	Solid	3010A	625125
500-207062-2	2674V2-05-B02 (0-4)	SPLP East	Solid	3010A	625125
500-207062-3	2674V2-05-B03 (0-4)	SPLP East	Solid	3010A	625125
LB 500-625125/1-B	Method Blank	SPLP East	Solid	3010A	625125
LCS 500-625357/2-A	Lab Control Sample	Total/NA	Solid	3010A	
500-207062-1 MS	2674V2-05-B01 (0-2)	SPLP East	Solid	3010A	625125
500-207062-1 DU	2674V2-05-B01 (0-2)	SPLP East	Solid	3010A	625125

### Prep Batch: 625462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207062-1	2674V2-05-B01 (0-2)	TCLP	Solid	7470A	625123
500-207062-2	2674V2-05-B02 (0-4)	TCLP	Solid	7470A	625123
500-207062-3	2674V2-05-B03 (0-4)	TCLP	Solid	7470A	625123
LB 500-625123/2-C	Method Blank	TCLP	Solid	7470A	625123
MB 500-625462/12-A	Method Blank	Total/NA	Solid	7470A	
LCS 500-625462/14-A	Lab Control Sample	Total/NA	Solid	7470A	

### Analysis Batch: 625619

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207062-1	2674V2-05-B01 (0-2)	SPLP East	Solid	6010B	625357
500-207062-2	2674V2-05-B02 (0-4)	SPLP East	Solid	6010B	625357
500-207062-3	2674V2-05-B03 (0-4)	SPLP East	Solid	6010B	625357
LB 500-625125/1-B	Method Blank	SPLP East	Solid	6010B	625357
LCS 500-625357/2-A	Lab Control Sample	Total/NA	Solid	6010B	625357
MRL 500-625619/15	Lab Control Sample	Total/NA	Solid	6010B	
500-207062-1 MS	2674V2-05-B01 (0-2)	SPLP East	Solid	6010B	625357
500-207062-1 DU	2674V2-05-B01 (0-2)	SPLP East	Solid	6010B	625357

### Analysis Batch: 625645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207062-1	2674V2-05-B01 (0-2)	TCLP	Solid	6010B	625355
500-207062-2	2674V2-05-B02 (0-4)	TCLP	Solid	6010B	625355

Eurofins TestAmerica, Chicago

# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

## Metals (Continued)

### Analysis Batch: 625645 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207062-3	2674V2-05-B03 (0-4)	TCLP	Solid	6010B	625355
LB 500-625123/1-B	Method Blank	TCLP	Solid	6010B	625355
LCS 500-625355/2-A	Lab Control Sample	Total/NA	Solid	6010B	625355
500-207062-1 MS	2674V2-05-B01 (0-2)	TCLP	Solid	6010B	625355
500-207062-1 DU	2674V2-05-B01 (0-2)	TCLP	Solid	6010B	625355

### Analysis Batch: 625700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207062-1	2674V2-05-B01 (0-2)	TCLP	Solid	7470A	625462
500-207062-2	2674V2-05-B02 (0-4)	TCLP	Solid	7470A	625462
500-207062-3	2674V2-05-B03 (0-4)	TCLP	Solid	7470A	625462
LB 500-625123/2-C	Method Blank	TCLP	Solid	7470A	625462
MB 500-625462/12-A	Method Blank	Total/NA	Solid	7470A	625462
LCS 500-625462/14-A	Lab Control Sample	Total/NA	Solid	7470A	625462

### Prep Batch: 625718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207062-1	2674V2-05-B01 (0-2)	Total/NA	Solid	7471B	
500-207062-2	2674V2-05-B02 (0-4)	Total/NA	Solid	7471B	
500-207062-3	2674V2-05-B03 (0-4)	Total/NA	Solid	7471B	
MB 500-625718/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-625718/13-A	Lab Control Sample	Total/NA	Solid	7471B	

### Analysis Batch: 625923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207062-1	2674V2-05-B01 (0-2)	Total/NA	Solid	7471B	625718
500-207062-2	2674V2-05-B02 (0-4)	Total/NA	Solid	7471B	625718
500-207062-3	2674V2-05-B03 (0-4)	Total/NA	Solid	7471B	625718
MB 500-625718/12-A	Method Blank	Total/NA	Solid	7471B	625718
LCS 500-625718/13-A	Lab Control Sample	Total/NA	Solid	7471B	625718

### Analysis Batch: 626005

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207062-1	2674V2-05-B01 (0-2)	TCLP	Solid	6020A	625355
500-207062-2	2674V2-05-B02 (0-4)	TCLP	Solid	6020A	625355
500-207062-3	2674V2-05-B03 (0-4)	TCLP	Solid	6020A	625355
LB 500-625123/1-B	Method Blank	TCLP	Solid	6020A	625355
LCS 500-625355/2-A	Lab Control Sample	Total/NA	Solid	6020A	625355
500-207062-1 MS	2674V2-05-B01 (0-2)	TCLP	Solid	6020A	625355
500-207062-1 DU	2674V2-05-B01 (0-2)	TCLP	Solid	6020A	625355

### Prep Batch: 626513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207062-1	2674V2-05-B01 (0-2)	Total/NA	Solid	3050B	
500-207062-2	2674V2-05-B02 (0-4)	Total/NA	Solid	3050B	
500-207062-3	2674V2-05-B03 (0-4)	Total/NA	Solid	3050B	
MB 500-626513/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-626513/2-A	Lab Control Sample	Total/NA	Solid	3050B	



# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

## Metals

### Analysis Batch: 626836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207062-1	2674V2-05-B01 (0-2)	Total/NA	Solid	6010B	626513
500-207062-2	2674V2-05-B02 (0-4)	Total/NA	Solid	6010B	626513
500-207062-3	2674V2-05-B03 (0-4)	Total/NA	Solid	6010B	626513
MB 500-626513/1-A	Method Blank	Total/NA	Solid	6010B	626513
LCS 500-626513/2-A	Lab Control Sample	Total/NA	Solid	6010B	626513

### Analysis Batch: 626854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207062-1	2674V2-05-B01 (0-2)	Total/NA	Solid	6010B	626513
500-207062-2	2674V2-05-B02 (0-4)	Total/NA	Solid	6010B	626513
500-207062-3	2674V2-05-B03 (0-4)	Total/NA	Solid	6010B	626513

## General Chemistry

### Analysis Batch: 624769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207062-1	2674V2-05-B01 (0-2)	Total/NA	Solid	Moisture	
500-207062-2	2674V2-05-B02 (0-4)	Total/NA	Solid	Moisture	
500-207062-3	2674V2-05-B03 (0-4)	Total/NA	Solid	Moisture	

### Analysis Batch: 624833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207062-1	2674V2-05-B01 (0-2)	Total/NA	Solid	9045D	
500-207062-2	2674V2-05-B02 (0-4)	Total/NA	Solid	9045D	
500-207062-3	2674V2-05-B03 (0-4)	Total/NA	Solid	9045D	
LCS 500-624833/2	Lab Control Sample	Total/NA	Solid	9045D	
LCSD 500-624833/3	Lab Control Sample Dup	Total/NA	Solid	9045D	
500-207062-2 DU	2674V2-05-B02 (0-4)	Total/NA	Solid	9045D	

# Surrogate Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

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

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	DBFM	DCA	TOL
		(75-131)	(75-126)	(70-134)	(75-124)
500-207062-1	2674V2-05-B01 (0-2)	118	107	108	112
500-207062-2	2674V2-05-B02 (0-4)	117	101	104	113
500-207062-3	2674V2-05-B03 (0-4)	122	104	102	113
LCS 500-625626/4	Lab Control Sample	102	103	101	112
LCSD 500-625626/5	Lab Control Sample Dup	103	105	101	111
MB 500-625626/7	Method Blank	108	104	102	111

#### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane  
DCA = 1,2-Dichloroethane-d4 (Surr)  
TOL = Toluene-d8 (Surr)

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

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	2FP	PHL	NBZ	FBP	TBP	TPHL
		(31-166)	(30-153)	(37-147)	(43-145)	(31-143)	(42-157)
500-207062-1	2674V2-05-B01 (0-2)	78	81	62	93	115	102
500-207062-2	2674V2-05-B02 (0-4)	103	86	86	92	98	119
500-207062-3	2674V2-05-B03 (0-4)	107	86	86	86	90	113
LCS 500-625120/2-A	Lab Control Sample	121	105	118	112	99	116
MB 500-625120/1-A	Method Blank	102	68	90	92	61	101

#### Surrogate Legend

2FP = 2-Fluorophenol  
PHL = Phenol-d5  
NBZ = Nitrobenzene-d5 (Surr)  
FBP = 2-Fluorobiphenyl (Surr)  
TBP = 2,4,6-Tribromophenol  
TPHL = Terphenyl-d14 (Surr)

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

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

**Lab Sample ID: MB 500-625626/7**  
**Matrix: Solid**  
**Analysis Batch: 625626**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	<0.020		0.020	0.0087	mg/Kg			10/27/21 11:06	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg			10/27/21 11:06	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg			10/27/21 11:06	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg			10/27/21 11:06	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg			10/27/21 11:06	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg			10/27/21 11:06	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg			10/27/21 11:06	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg			10/27/21 11:06	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg			10/27/21 11:06	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg			10/27/21 11:06	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg			10/27/21 11:06	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg			10/27/21 11:06	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg			10/27/21 11:06	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg			10/27/21 11:06	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg			10/27/21 11:06	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg			10/27/21 11:06	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg			10/27/21 11:06	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg			10/27/21 11:06	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg			10/27/21 11:06	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00070	mg/Kg			10/27/21 11:06	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg			10/27/21 11:06	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			10/27/21 11:06	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg			10/27/21 11:06	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg			10/27/21 11:06	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg			10/27/21 11:06	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg			10/27/21 11:06	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg			10/27/21 11:06	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/27/21 11:06	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg			10/27/21 11:06	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg			10/27/21 11:06	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg			10/27/21 11:06	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg			10/27/21 11:06	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg			10/27/21 11:06	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/27/21 11:06	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg			10/27/21 11:06	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg			10/27/21 11:06	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg			10/27/21 11:06	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	108		75 - 131		10/27/21 11:06	1
Dibromofluoromethane	104		75 - 126		10/27/21 11:06	1
1,2-Dichloroethane-d4 (Surr)	102		70 - 134		10/27/21 11:06	1
Toluene-d8 (Surr)	111		75 - 124		10/27/21 11:06	1

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

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

**Lab Sample ID: LCS 500-625626/4**  
**Matrix: Solid**  
**Analysis Batch: 625626**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0500	0.0453		mg/Kg		91	40 - 150
Benzene	0.0500	0.0450		mg/Kg		90	70 - 125
Bromodichloromethane	0.0500	0.0468		mg/Kg		94	67 - 129
Bromoform	0.0500	0.0519		mg/Kg		104	68 - 136
Bromomethane	0.0500	0.0484		mg/Kg		97	70 - 130
2-Butanone (MEK)	0.0500	0.0512		mg/Kg		102	47 - 138
Carbon disulfide	0.0500	0.0455		mg/Kg		91	70 - 129
Carbon tetrachloride	0.0500	0.0448		mg/Kg		90	75 - 125
Chlorobenzene	0.0500	0.0463		mg/Kg		93	50 - 150
Chloroethane	0.0500	0.0442		mg/Kg		88	75 - 125
Chloroform	0.0500	0.0441		mg/Kg		88	57 - 135
Chloromethane	0.0500	0.0444		mg/Kg		89	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0426		mg/Kg		85	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0487		mg/Kg		97	70 - 125
Dibromochloromethane	0.0500	0.0486		mg/Kg		97	69 - 125
1,1-Dichloroethane	0.0500	0.0425		mg/Kg		85	70 - 125
1,2-Dichloroethane	0.0500	0.0454		mg/Kg		91	70 - 130
1,1-Dichloroethene	0.0500	0.0458		mg/Kg		92	70 - 120
1,2-Dichloropropane	0.0500	0.0445		mg/Kg		89	70 - 125
Ethylbenzene	0.0500	0.0464		mg/Kg		93	61 - 136
2-Hexanone	0.0500	0.0512		mg/Kg		102	48 - 146
Methylene Chloride	0.0500	0.0431		mg/Kg		86	70 - 126
4-Methyl-2-pentanone (MIBK)	0.0500	0.0508		mg/Kg		102	50 - 148
Methyl tert-butyl ether	0.0500	0.0452		mg/Kg		90	50 - 140
Styrene	0.0500	0.0462		mg/Kg		92	70 - 125
1,1,2,2-Tetrachloroethane	0.0500	0.0475		mg/Kg		95	70 - 122
Tetrachloroethene	0.0500	0.0509		mg/Kg		102	70 - 124
Toluene	0.0500	0.0476		mg/Kg		95	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0446		mg/Kg		89	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0505		mg/Kg		101	70 - 125
1,1,1-Trichloroethane	0.0500	0.0456		mg/Kg		91	70 - 128
1,1,2-Trichloroethane	0.0500	0.0507		mg/Kg		101	70 - 125
Trichloroethene	0.0500	0.0461		mg/Kg		92	70 - 125
Vinyl acetate	0.0500	0.0565		mg/Kg		113	40 - 153
Vinyl chloride	0.0500	0.0444		mg/Kg		89	70 - 125
Xylenes, Total	0.100	0.0938		mg/Kg		94	53 - 147

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		75 - 131
Dibromofluoromethane	103		75 - 126
1,2-Dichloroethane-d4 (Surr)	101		70 - 134
Toluene-d8 (Surr)	112		75 - 124

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

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

**Lab Sample ID: LCSD 500-625626/5**  
**Matrix: Solid**  
**Analysis Batch: 625626**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.0500	0.0435		mg/Kg		87	40 - 150	4	30
Benzene	0.0500	0.0444		mg/Kg		89	70 - 125	1	30
Bromodichloromethane	0.0500	0.0454		mg/Kg		91	67 - 129	3	30
Bromoform	0.0500	0.0498		mg/Kg		100	68 - 136	4	30
Bromomethane	0.0500	0.0507		mg/Kg		101	70 - 130	5	30
2-Butanone (MEK)	0.0500	0.0464		mg/Kg		93	47 - 138	10	30
Carbon disulfide	0.0500	0.0464		mg/Kg		93	70 - 129	2	30
Carbon tetrachloride	0.0500	0.0445		mg/Kg		89	75 - 125	1	30
Chlorobenzene	0.0500	0.0447		mg/Kg		89	50 - 150	4	30
Chloroethane	0.0500	0.0470		mg/Kg		94	75 - 125	6	30
Chloroform	0.0500	0.0444		mg/Kg		89	57 - 135	1	30
Chloromethane	0.0500	0.0475		mg/Kg		95	70 - 125	7	30
cis-1,2-Dichloroethene	0.0500	0.0439		mg/Kg		88	70 - 125	3	30
cis-1,3-Dichloropropene	0.0500	0.0450		mg/Kg		90	70 - 125	8	30
Dibromochloromethane	0.0500	0.0464		mg/Kg		93	69 - 125	5	30
1,1-Dichloroethane	0.0500	0.0427		mg/Kg		85	70 - 125	0	30
1,2-Dichloroethane	0.0500	0.0445		mg/Kg		89	70 - 130	2	30
1,1-Dichloroethene	0.0500	0.0459		mg/Kg		92	70 - 120	0	30
1,2-Dichloropropane	0.0500	0.0441		mg/Kg		88	70 - 125	1	30
Ethylbenzene	0.0500	0.0440		mg/Kg		88	61 - 136	5	30
2-Hexanone	0.0500	0.0450		mg/Kg		90	48 - 146	13	30
Methylene Chloride	0.0500	0.0432		mg/Kg		86	70 - 126	0	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0453		mg/Kg		91	50 - 148	11	30
Methyl tert-butyl ether	0.0500	0.0438		mg/Kg		88	50 - 140	3	30
Styrene	0.0500	0.0449		mg/Kg		90	70 - 125	3	30
1,1,2,2-Tetrachloroethane	0.0500	0.0444		mg/Kg		89	70 - 122	7	30
Tetrachloroethene	0.0500	0.0486		mg/Kg		97	70 - 124	5	30
Toluene	0.0500	0.0452		mg/Kg		90	70 - 125	5	30
trans-1,2-Dichloroethene	0.0500	0.0436		mg/Kg		87	70 - 125	2	30
trans-1,3-Dichloropropene	0.0500	0.0467		mg/Kg		93	70 - 125	8	30
1,1,1-Trichloroethane	0.0500	0.0458		mg/Kg		92	70 - 128	1	30
1,1,2-Trichloroethane	0.0500	0.0476		mg/Kg		95	70 - 125	6	30
Trichloroethene	0.0500	0.0449		mg/Kg		90	70 - 125	3	30
Vinyl acetate	0.0500	0.0546		mg/Kg		109	40 - 153	3	30
Vinyl chloride	0.0500	0.0469		mg/Kg		94	70 - 125	6	30
Xylenes, Total	0.100	0.0906		mg/Kg		91	53 - 147	3	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	103		75 - 131
Dibromofluoromethane	105		75 - 126
1,2-Dichloroethane-d4 (Surr)	101		70 - 134
Toluene-d8 (Surr)	111		75 - 124



# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

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

**Lab Sample ID: MB 500-625120/1-A**  
**Matrix: Solid**  
**Analysis Batch: 626713**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 625120**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Di-n-butyl phthalate	<0.17		0.17	0.051	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Fluoranthene	<0.033		0.033	0.0062	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Pyrene	<0.033		0.033	0.0066	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Butyl benzyl phthalate	<0.17		0.17	0.063	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Benzo[a]anthracene	<0.033		0.033	0.0045	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Chrysene	<0.033		0.033	0.0091	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.047	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.061	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Di-n-octyl phthalate	<0.17		0.17	0.054	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Benzo[b]fluoranthene	<0.033		0.033	0.0072	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Benzo[k]fluoranthene	<0.033		0.033	0.0098	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Benzo[a]pyrene	<0.033		0.033	0.0064	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Indeno[1,2,3-cd]pyrene	<0.033		0.033	0.0086	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Dibenz(a,h)anthracene	<0.033		0.033	0.0064	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Benzo[g,h,i]perylene	<0.033		0.033	0.011	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
3 & 4 Methylphenol	<0.17		0.17	0.055	mg/Kg		10/25/21 06:38	11/02/21 18:34	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorophenol	102		31 - 166	10/25/21 06:38	11/02/21 18:34	1
Phenol-d5	68		30 - 153	10/25/21 06:38	11/02/21 18:34	1
Nitrobenzene-d5 (Surr)	90		37 - 147	10/25/21 06:38	11/02/21 18:34	1
2-Fluorobiphenyl (Surr)	92		43 - 145	10/25/21 06:38	11/02/21 18:34	1
2,4,6-Tribromophenol	61		31 - 143	10/25/21 06:38	11/02/21 18:34	1
Terphenyl-d14 (Surr)	101		42 - 157	10/25/21 06:38	11/02/21 18:34	1

**Lab Sample ID: LCS 500-625120/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626461**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625120**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Bis(2-chloroethyl)ether	1.33	1.21		mg/Kg		91	55 - 111
1,3-Dichlorobenzene	1.33	1.25		mg/Kg		94	65 - 124
1,4-Dichlorobenzene	1.33	1.26		mg/Kg		94	61 - 110
1,2-Dichlorobenzene	1.33	1.33		mg/Kg		100	62 - 110
2-Methylphenol	1.33	1.45		mg/Kg		109	60 - 120
2,2'-oxybis[1-chloropropane]	1.33	0.808		mg/Kg		61	40 - 124
N-Nitrosodi-n-propylamine	1.33	1.52		mg/Kg		114	56 - 118
Hexachloroethane	1.33	1.14		mg/Kg		85	60 - 114
2-Chlorophenol	1.33	1.35		mg/Kg		101	64 - 110
Nitrobenzene	1.33	1.39		mg/Kg		104	60 - 116
Bis(2-chloroethoxy)methane	1.33	1.43		mg/Kg		107	60 - 112
1,2,4-Trichlorobenzene	1.33	1.37		mg/Kg		103	66 - 117
Isophorone	1.33	1.51	*+	mg/Kg		114	55 - 110
2,4-Dimethylphenol	1.33	1.25		mg/Kg		94	60 - 110
Hexachlorobutadiene	1.33	1.53		mg/Kg		114	56 - 120
Naphthalene	1.33	1.39		mg/Kg		104	63 - 110
2,4-Dichlorophenol	1.33	1.31		mg/Kg		99	58 - 120

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

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

**Lab Sample ID: LCS 500-625120/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626461**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625120**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chloroaniline	1.33	0.919		mg/Kg		69	30 - 150
2,4,6-Trichlorophenol	1.33	1.29		mg/Kg		97	57 - 120
2,4,5-Trichlorophenol	1.33	1.28		mg/Kg		96	50 - 120
Hexachlorocyclopentadiene	1.33	0.426	J	mg/Kg		32	10 - 133
2-Methylnaphthalene	1.33	1.55	*+	mg/Kg		116	69 - 112
2-Nitroaniline	1.33	1.44		mg/Kg		108	57 - 124
2-Chloronaphthalene	1.33	1.36		mg/Kg		102	69 - 114
4-Chloro-3-methylphenol	1.33	1.28		mg/Kg		96	65 - 122
2,6-Dinitrotoluene	1.33	1.49		mg/Kg		112	70 - 123
2-Nitrophenol	1.33	1.34		mg/Kg		101	60 - 120
3-Nitroaniline	1.33	0.701		mg/Kg		53	40 - 122
Dimethyl phthalate	1.33	1.53		mg/Kg		115	69 - 116
2,4-Dinitrophenol	2.67	<0.67		mg/Kg		11	10 - 100
Acenaphthylene	1.33	1.42		mg/Kg		107	68 - 120
2,4-Dinitrotoluene	1.33	1.49		mg/Kg		112	69 - 124
Acenaphthene	1.33	1.39		mg/Kg		104	65 - 124
Dibenzofuran	1.33	1.40		mg/Kg		105	66 - 115
4-Nitrophenol	2.67	2.62		mg/Kg		98	30 - 122
Fluorene	1.33	1.43		mg/Kg		107	62 - 120
4-Nitroaniline	1.33	1.16		mg/Kg		87	60 - 160
4-Bromophenyl phenyl ether	1.33	1.53		mg/Kg		115	68 - 118
Hexachlorobenzene	1.33	1.58		mg/Kg		118	63 - 124
Diethyl phthalate	1.33	1.52		mg/Kg		114	58 - 120
4-Chlorophenyl phenyl ether	1.33	1.43		mg/Kg		107	62 - 119
Pentachlorophenol	2.67	1.18		mg/Kg		44	13 - 112
N-Nitrosodiphenylamine	1.33	1.43		mg/Kg		107	65 - 112
4,6-Dinitro-2-methylphenol	2.67	0.642	J	mg/Kg		24	10 - 110
Phenanthrene	1.33	1.45		mg/Kg		109	62 - 120
Anthracene	1.33	1.48		mg/Kg		111	70 - 114
Carbazole	1.33	1.50		mg/Kg		112	65 - 142
Di-n-butyl phthalate	1.33	1.47		mg/Kg		110	65 - 120
Fluoranthene	1.33	1.50		mg/Kg		112	62 - 120
Pyrene	1.33	1.42		mg/Kg		106	61 - 128
Butyl benzyl phthalate	1.33	1.35		mg/Kg		101	71 - 129
Benzo[a]anthracene	1.33	1.46		mg/Kg		109	67 - 122
Chrysene	1.33	1.42		mg/Kg		107	63 - 120
3,3'-Dichlorobenzidine	1.33	1.24		mg/Kg		93	35 - 128
Bis(2-ethylhexyl) phthalate	1.33	1.42		mg/Kg		107	72 - 131
Di-n-octyl phthalate	1.33	1.33		mg/Kg		100	68 - 134
Benzo[b]fluoranthene	1.33	1.32		mg/Kg		99	69 - 129
Benzo[k]fluoranthene	1.33	1.40		mg/Kg		105	68 - 127
Benzo[a]pyrene	1.33	1.43		mg/Kg		108	65 - 133
Indeno[1,2,3-cd]pyrene	1.33	1.37		mg/Kg		103	68 - 130
Dibenz(a,h)anthracene	1.33	1.39		mg/Kg		104	64 - 131
Benzo[g,h,i]perylene	1.33	1.38		mg/Kg		103	72 - 131
3 & 4 Methylphenol	1.33	1.46		mg/Kg		109	57 - 120



# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

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

**Lab Sample ID: LCS 500-625120/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626461**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625120**

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorophenol	121		31 - 166
Phenol-d5	105		30 - 153
Nitrobenzene-d5 (Surr)	118		37 - 147
2-Fluorobiphenyl (Surr)	112		43 - 145
2,4,6-Tribromophenol	99		31 - 143
Terphenyl-d14 (Surr)	116		42 - 157

## Method: 6010B - Metals (ICP)

**Lab Sample ID: LCS 500-625355/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625645**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625355**

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec.	Limits
		Result	Qualifier					
Barium	0.500	0.496	J	mg/L		99		80 - 120
Beryllium	0.0500	0.0481		mg/L		96		80 - 120
Boron	1.00	0.875		mg/L		87		80 - 120
Cadmium	0.0500	0.0498		mg/L		100		80 - 120
Chromium	0.200	0.205		mg/L		102		80 - 120
Cobalt	0.500	0.529		mg/L		106		80 - 120
Iron	1.00	0.972		mg/L		97		80 - 120
Lead	0.100	0.0992		mg/L		99		80 - 120
Manganese	0.500	0.480		mg/L		96		80 - 120
Nickel	0.500	0.534		mg/L		107		80 - 120
Selenium	0.100	0.110		mg/L		110		80 - 120
Silver	0.0500	0.0508		mg/L		102		80 - 120
Zinc	0.500	0.595		mg/L		119		80 - 120

**Lab Sample ID: LCS 500-625357/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625619**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625357**

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec.	Limits
		Result	Qualifier					
Lead	0.100	0.0935		mg/L		94		80 - 120
Manganese	0.500	0.482		mg/L		96		80 - 120

**Lab Sample ID: MRL 500-625619/15**  
**Matrix: Solid**  
**Analysis Batch: 625619**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	MRL MRL		Unit	D	%Rec	%Rec.	Limits
		Result	Qualifier					
Lead	0.00500	<0.0050		mg/L		99		70 - 130
Manganese	0.0100	0.0108		mg/L		108		70 - 130

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

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

**Lab Sample ID: MB 500-626513/1-A**  
**Matrix: Solid**  
**Analysis Batch: 626836**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 626513**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.0		2.0	0.39	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Arsenic	<1.0		1.0	0.34	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Barium	<1.0		1.0	0.11	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Beryllium	<0.40		0.40	0.093	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Boron	<5.0		5.0	0.47	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Cadmium	0.0859	J	0.20	0.036	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Calcium	11.6	J	20	3.4	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Chromium	<1.0		1.0	0.50	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Cobalt	<0.50		0.50	0.13	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Copper	0.463	J	1.0	0.28	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Iron	<20		20	10	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Lead	<0.50		0.50	0.23	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Magnesium	5.47	J	10	5.0	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Manganese	0.191	J	1.0	0.15	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Nickel	<1.0		1.0	0.29	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Potassium	<50		50	18	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Selenium	<1.0		1.0	0.59	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Silver	<0.50		0.50	0.13	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Sodium	<100		100	15	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Thallium	<1.0		1.0	0.50	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Vanadium	<0.50		0.50	0.12	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Zinc	<2.0		2.0	0.88	mg/Kg		11/01/21 10:16	11/02/21 13:12	1

**Lab Sample ID: LCS 500-626513/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626836**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626513**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	50.0	47.0		mg/Kg		94	80 - 120
Arsenic	10.0	8.83		mg/Kg		88	80 - 120
Barium	200	210		mg/Kg		105	80 - 120
Beryllium	5.00	4.74		mg/Kg		95	80 - 120
Boron	100	86.7		mg/Kg		87	80 - 120
Cadmium	5.00	4.52		mg/Kg		90	80 - 120
Calcium	1000	982		mg/Kg		98	80 - 120
Chromium	20.0	19.3		mg/Kg		96	80 - 120
Cobalt	50.0	47.4		mg/Kg		95	80 - 120
Copper	25.0	24.2		mg/Kg		97	80 - 120
Iron	100	116		mg/Kg		116	80 - 120
Lead	10.0	9.19		mg/Kg		92	80 - 120
Magnesium	1000	975		mg/Kg		97	80 - 120
Manganese	50.0	48.2		mg/Kg		96	80 - 120
Nickel	50.0	48.6		mg/Kg		97	80 - 120
Potassium	1000	997		mg/Kg		100	80 - 120
Selenium	10.0	8.07		mg/Kg		81	80 - 120
Silver	5.00	4.71		mg/Kg		94	80 - 120
Sodium	1000	1030		mg/Kg		103	80 - 120
Thallium	10.0	9.01		mg/Kg		90	80 - 120
Vanadium	50.0	46.7		mg/Kg		93	80 - 120

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

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

**Lab Sample ID: LCS 500-626513/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626836**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626513**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	50.0	47.5		mg/Kg		95	80 - 120

**Lab Sample ID: LB 500-625123/1-B**  
**Matrix: Solid**  
**Analysis Batch: 625645**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 625355**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.50		0.50	0.050	mg/L		10/26/21 07:49	10/26/21 19:42	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/26/21 07:49	10/26/21 19:42	1
Boron	<0.50		0.50	0.050	mg/L		10/26/21 07:49	10/26/21 19:42	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/26/21 07:49	10/26/21 19:42	1
Chromium	<0.025		0.025	0.010	mg/L		10/26/21 07:49	10/26/21 19:42	1
Cobalt	<0.025		0.025	0.010	mg/L		10/26/21 07:49	10/26/21 19:42	1
Iron	<0.40		0.40	0.20	mg/L		10/26/21 07:49	10/26/21 19:42	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/26/21 07:49	10/26/21 19:42	1
Manganese	<0.025		0.025	0.010	mg/L		10/26/21 07:49	10/26/21 19:42	1
Nickel	<0.025		0.025	0.010	mg/L		10/26/21 07:49	10/26/21 19:42	1
Selenium	<0.050		0.050	0.020	mg/L		10/26/21 07:49	10/26/21 19:42	1
Silver	<0.025		0.025	0.010	mg/L		10/26/21 07:49	10/26/21 19:42	1
Zinc	<0.50		0.50	0.020	mg/L		10/26/21 07:49	10/26/21 19:42	1

**Lab Sample ID: 500-207062-1 MS**  
**Matrix: Solid**  
**Analysis Batch: 625645**

**Client Sample ID: 2674V2-05-B01 (0-2)**  
**Prep Type: TCLP**  
**Prep Batch: 625355**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.33	J	0.500	0.804		mg/L		95	75 - 125
Beryllium	<0.0040		0.0500	0.0464		mg/L		93	75 - 125
Boron	<0.50		1.00	0.877		mg/L		88	75 - 125
Cadmium	<0.0050		0.0500	0.0498		mg/L		100	75 - 125
Chromium	<0.025		0.200	0.189		mg/L		94	75 - 125
Cobalt	<0.025		0.500	0.506		mg/L		101	75 - 125
Iron	<0.40		1.00	1.08		mg/L		108	75 - 125
Lead	<0.0075		0.100	0.102		mg/L		102	75 - 125
Manganese	0.39		0.500	0.834		mg/L		88	75 - 125
Nickel	<0.025		0.500	0.510		mg/L		102	75 - 125
Selenium	<0.050		0.100	0.107		mg/L		107	75 - 125
Silver	<0.025		0.0500	0.0482		mg/L		96	75 - 125
Zinc	0.044	J	0.500	0.583		mg/L		108	75 - 125

**Lab Sample ID: 500-207062-1 DU**  
**Matrix: Solid**  
**Analysis Batch: 625645**

**Client Sample ID: 2674V2-05-B01 (0-2)**  
**Prep Type: TCLP**  
**Prep Batch: 625355**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Barium	0.33	J	0.336	J	mg/L		2	20
Beryllium	<0.0040		<0.0040		mg/L		NC	20
Boron	<0.50		<0.50		mg/L		NC	20
Cadmium	<0.0050		<0.0050		mg/L		NC	20

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

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

**Lab Sample ID: 500-207062-1 DU**  
**Matrix: Solid**  
**Analysis Batch: 625645**

**Client Sample ID: 2674V2-05-B01 (0-2)**  
**Prep Type: TCLP**  
**Prep Batch: 625355**

Analyte	Sample	Sample	DU		Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Chromium	<0.025		<0.025		mg/L		NC	20
Cobalt	<0.025		<0.025		mg/L		NC	20
Iron	<0.40		<0.40		mg/L		NC	20
Lead	<0.0075		<0.0075		mg/L		NC	20
Manganese	0.39		0.394		mg/L		0.7	20
Nickel	<0.025		<0.025		mg/L		NC	20
Selenium	<0.050		<0.050		mg/L		NC	20
Silver	<0.025		<0.025		mg/L		NC	20
Zinc	0.044	J	0.0431	J	mg/L		2	20

**Lab Sample ID: LB 500-625125/1-B**  
**Matrix: Solid**  
**Analysis Batch: 625619**

**Client Sample ID: Method Blank**  
**Prep Type: SPLP East**  
**Prep Batch: 625357**

Analyte	LB	LB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Lead	<0.0075		0.0075	0.0075	mg/L		10/26/21 07:51	10/26/21 20:14	1
Manganese	<0.025		0.025	0.010	mg/L		10/26/21 07:51	10/26/21 20:14	1

**Lab Sample ID: 500-207062-1 MS**  
**Matrix: Solid**  
**Analysis Batch: 625619**

**Client Sample ID: 2674V2-05-B01 (0-2)**  
**Prep Type: SPLP East**  
**Prep Batch: 625357**

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	%Rec. Limits
	Result	Qualifier		Result	Qualifier				
Lead	0.41		0.100	0.486	4	mg/L		78	75 - 125
Manganese	1.1		0.500	1.54		mg/L		98	75 - 125

**Lab Sample ID: 500-207062-1 DU**  
**Matrix: Solid**  
**Analysis Batch: 625619**

**Client Sample ID: 2674V2-05-B01 (0-2)**  
**Prep Type: SPLP East**  
**Prep Batch: 625357**

Analyte	Sample	Sample	DU		Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Lead	0.41		0.406		mg/L		0.4	20
Manganese	1.1		1.06		mg/L		0.9	20

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

**Lab Sample ID: LCS 500-625355/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626005**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625355**

Analyte	Spike	LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Antimony	0.500	0.501		mg/L		100	80 - 120
Thallium	0.100	0.0960		mg/L		96	80 - 120

**Lab Sample ID: LB 500-625123/1-B**  
**Matrix: Solid**  
**Analysis Batch: 626005**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 625355**

Analyte	LB	LB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.0060		0.0060	0.0060	mg/L		10/26/21 07:49	10/28/21 14:46	1

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

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

Lab Sample ID: LB 500-625123/1-B  
Matrix: Solid  
Analysis Batch: 626005

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 625355

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020	0.0020	mg/L		10/26/21 07:49	10/28/21 14:46	1

Lab Sample ID: 500-207062-1 MS  
Matrix: Solid  
Analysis Batch: 626005

Client Sample ID: 2674V2-05-B01 (0-2)  
Prep Type: TCLP  
Prep Batch: 625355

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.0060		0.500	0.473		mg/L		95	75 - 125
Thallium	<0.0020		0.100	0.0949		mg/L		95	75 - 125

Lab Sample ID: 500-207062-1 DU  
Matrix: Solid  
Analysis Batch: 626005

Client Sample ID: 2674V2-05-B01 (0-2)  
Prep Type: TCLP  
Prep Batch: 625355

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Antimony	<0.0060		<0.0060		mg/L		NC	20
Thallium	<0.0020		<0.0020		mg/L		NC	20

## Method: 7470A - TCLP Mercury

Lab Sample ID: MB 500-625462/12-A  
Matrix: Solid  
Analysis Batch: 625700

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 625462

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 08:13	1

Lab Sample ID: LCS 500-625462/14-A  
Matrix: Solid  
Analysis Batch: 625700

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 625462

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00200	0.00183		mg/L		91	80 - 120

Lab Sample ID: LB 500-625123/2-C  
Matrix: Solid  
Analysis Batch: 625700

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 625462

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 09:00	1

## Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 500-625718/12-A  
Matrix: Solid  
Analysis Batch: 625923

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 625718

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0056	mg/Kg		10/27/21 14:15	10/28/21 07:34	1

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

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

**Lab Sample ID: LCS 500-625718/13-A**  
**Matrix: Solid**  
**Analysis Batch: 625923**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625718**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.167	0.176		mg/Kg		106	80 - 120

## Method: 9045D - pH

**Lab Sample ID: 500-207062-2 DU**  
**Matrix: Solid**  
**Analysis Batch: 624833**

**Client Sample ID: 2674V2-05-B02 (0-4)**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	8.1		7.9		SU		3	



# Lab Chronicle

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

**Client Sample ID: 2674V2-05-B01 (0-2)**

**Lab Sample ID: 500-207062-1**

**Date Collected: 10/18/21 14:52**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			625125	10/22/21 17:31	EA	TAL CHI
SPLP East	Prep	3010A			625357	10/26/21 07:51	BDE	TAL CHI
SPLP East	Analysis	6010B		1	625619	10/26/21 20:33	JJB	TAL CHI
TCLP	Leach	1311			625123	10/22/21 17:31	EA	TAL CHI
TCLP	Prep	3010A			625355	10/26/21 07:49	BDE	TAL CHI
TCLP	Analysis	6010B		1	625645	10/26/21 19:49	JJB	TAL CHI
TCLP	Leach	1311			625123	10/22/21 17:31	EA	TAL CHI
TCLP	Prep	3010A			625355	10/26/21 07:49	BDE	TAL CHI
TCLP	Analysis	6020A		1	626005	10/28/21 14:48	FXG	TAL CHI
TCLP	Leach	1311			625123	10/22/21 17:31	EA	TAL CHI
TCLP	Prep	7470A			625462	10/26/21 09:55	MJG	TAL CHI
TCLP	Analysis	7470A		1	625700	10/27/21 09:02	MJG	TAL CHI
Total/NA	Analysis	9045D		1	624833	10/21/21 18:05	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	624769	10/21/21 14:05	LWN	TAL CHI

**Client Sample ID: 2674V2-05-B01 (0-2)**

**Lab Sample ID: 500-207062-1**

**Date Collected: 10/18/21 14:52**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 88.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624911	10/19/21 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625626	10/27/21 15:50	PMF	TAL CHI
Total/NA	Prep	3541			625120	10/25/21 06:38	SB	TAL CHI
Total/NA	Analysis	8270D		1	627209	11/04/21 14:55	GLR	TAL CHI
Total/NA	Prep	3541	DL		625120	10/25/21 06:38	SB	TAL CHI
Total/NA	Analysis	8270D	DL	2	626713	11/02/21 21:21	EMA	TAL CHI
Total/NA	Prep	3050B			626513	11/01/21 10:16	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626836	11/02/21 14:14	JJB	TAL CHI
Total/NA	Prep	3050B			626513	11/01/21 10:16	BDE	TAL CHI
Total/NA	Analysis	6010B		5	626854	11/02/21 14:51	JJB	TAL CHI
Total/NA	Prep	7471B			625718	10/27/21 14:15	MJG	TAL CHI
Total/NA	Analysis	7471B		1	625923	10/28/21 08:16	MJG	TAL CHI

**Client Sample ID: 2674V2-05-B02 (0-4)**

**Lab Sample ID: 500-207062-2**

**Date Collected: 10/18/21 15:05**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			625125	10/22/21 17:31	EA	TAL CHI
SPLP East	Prep	3010A			625357	10/26/21 07:51	BDE	TAL CHI
SPLP East	Analysis	6010B		1	625619	10/26/21 20:46	JJB	TAL CHI
TCLP	Leach	1311			625123	10/22/21 17:31	EA	TAL CHI
TCLP	Prep	3010A			625355	10/26/21 07:49	BDE	TAL CHI
TCLP	Analysis	6010B		1	625645	10/26/21 20:02	JJB	TAL CHI

# Lab Chronicle

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

**Client Sample ID: 2674V2-05-B02 (0-4)**

**Lab Sample ID: 500-207062-2**

**Date Collected: 10/18/21 15:05**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			625123	10/22/21 17:31	EA	TAL CHI
TCLP	Prep	3010A			625355	10/26/21 07:49	BDE	TAL CHI
TCLP	Analysis	6020A		1	626005	10/28/21 14:52	FXG	TAL CHI
TCLP	Leach	1311			625123	10/22/21 17:31	EA	TAL CHI
TCLP	Prep	7470A			625462	10/26/21 09:55	MJG	TAL CHI
TCLP	Analysis	7470A		1	625700	10/27/21 09:05	MJG	TAL CHI
Total/NA	Analysis	9045D		1	624833	10/21/21 18:10	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	624769	10/21/21 14:05	LWN	TAL CHI

**Client Sample ID: 2674V2-05-B02 (0-4)**

**Lab Sample ID: 500-207062-2**

**Date Collected: 10/18/21 15:05**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 82.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624911	10/19/21 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625626	10/27/21 16:15	PMF	TAL CHI
Total/NA	Prep	3541			625120	10/25/21 06:38	SB	TAL CHI
Total/NA	Analysis	8270D		1	626713	11/02/21 21:45	EMA	TAL CHI
Total/NA	Prep	3050B			626513	11/01/21 10:16	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626836	11/02/21 14:17	JJB	TAL CHI
Total/NA	Prep	3050B			626513	11/01/21 10:16	BDE	TAL CHI
Total/NA	Analysis	6010B		5	626854	11/02/21 15:01	JJB	TAL CHI
Total/NA	Prep	7471B			625718	10/27/21 14:15	MJG	TAL CHI
Total/NA	Analysis	7471B		1	625923	10/28/21 08:18	MJG	TAL CHI

**Client Sample ID: 2674V2-05-B03 (0-4)**

**Lab Sample ID: 500-207062-3**

**Date Collected: 10/18/21 15:15**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			625125	10/22/21 17:31	EA	TAL CHI
SPLP East	Prep	3010A			625357	10/26/21 07:51	BDE	TAL CHI
SPLP East	Analysis	6010B		1	625619	10/26/21 20:49	JJB	TAL CHI
TCLP	Leach	1311			625123	10/22/21 17:31	EA	TAL CHI
TCLP	Prep	3010A			625355	10/26/21 07:49	BDE	TAL CHI
TCLP	Analysis	6010B		1	625645	10/26/21 20:05	JJB	TAL CHI
TCLP	Leach	1311			625123	10/22/21 17:31	EA	TAL CHI
TCLP	Prep	3010A			625355	10/26/21 07:49	BDE	TAL CHI
TCLP	Analysis	6020A		1	626005	10/28/21 14:53	FXG	TAL CHI
TCLP	Leach	1311			625123	10/22/21 17:31	EA	TAL CHI
TCLP	Prep	7470A			625462	10/26/21 09:55	MJG	TAL CHI
TCLP	Analysis	7470A		1	625700	10/27/21 09:07	MJG	TAL CHI
Total/NA	Analysis	9045D		1	624833	10/21/21 18:15	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	624769	10/21/21 14:05	LWN	TAL CHI



# Lab Chronicle

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

**Client Sample ID: 2674V2-05-B03 (0-4)**

**Lab Sample ID: 500-207062-3**

**Date Collected: 10/18/21 15:15**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 85.3**

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	5035			624911	10/19/21 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625626	10/27/21 16:41	PMF	TAL CHI
Total/NA	Prep	3541			625120	10/25/21 06:38	SB	TAL CHI
Total/NA	Analysis	8270D		1	626713	11/02/21 22:09	EMA	TAL CHI
Total/NA	Prep	3050B			626513	11/01/21 10:16	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626836	11/02/21 14:34	JJB	TAL CHI
Total/NA	Prep	3050B			626513	11/01/21 10:16	BDE	TAL CHI
Total/NA	Analysis	6010B		5	626854	11/02/21 15:04	JJB	TAL CHI
Total/NA	Prep	7471B			625718	10/27/21 14:15	MJG	TAL CHI
Total/NA	Analysis	7471B		1	625923	10/28/21 08:20	MJG	TAL CHI

**Laboratory References:**

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Accreditation/Certification Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207062-1

## Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

# Chain of Custody Record

546550



Environment Testing  
TestAmerica

TAL-8210

Address \_\_\_\_\_

Regulatory Program:  DW  NPDES  RCRA  Other

<b>Client Contact</b>		<b>Project Manager:</b> D Trebov		<b>Site Contact</b> A Haged		<b>Date:</b> 10/18/2021		<b>COC No</b> 11	
Company Name <i>WSP</i>		Tel/Email:		<b>Lab Contact</b> R Wright		<b>Carrier</b>		11 of 11 COCs	
Address		<b>Analysis Turnaround Time</b>							
City/State/Zip <i>Chicago IL</i>		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____							
Phone		<input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day							
Fax		Filtered Sample (Y/N) Perform MS/MSD (Y/N)							
Project Name <i>107 W004</i>									
Site <i>Lake Villa IL</i>									
P O # <i>500-207062 COC</i>									
For Lab Use Only Walk-in Client <input type="checkbox"/> Lab Sampling <input type="checkbox"/>		Job / SDG No		500-207062					



1  
2  
3

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	VOCs	PH	SVOCs	% moisture	Total metals	TECP metals	Sample Specific Notes
267402-05-B01 (0-4) BM	10/13/21	1452	C	S	2			X	X	X	X	X	X	
267402-05-B02 (0-4)	10/18/21	1505	C	S	2			X	X	X	X	X	X	
267402-05-B03 (0-4)	10/18/21	1515	C	S	2			X	X	X	X	X	X	

Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

Non Hazard  Flammable  Skin Irritant  Poison B  Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return to Client  Disposal by Lab  Archive for \_\_\_\_\_ Months

Special Instructions/QC Requirements & Comments:  
*\*SPLP analysis based on TECP results*

Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temp (°C) Obs'd <i>5.2</i> Corr'd <i>5.1</i>		Therm ID No	
Relinquished by <i>[Signature]</i>	Company <i>WSP</i>	Date/Time <i>10/18/21 1615</i>	Received by <i>[Signature]</i>	Company <i>EVA</i>	Date/Time <i>10/19/21 0920</i>		
Relinquished by <i>[Signature]</i>	Company <i>EVA</i>	Date/Time <i>10/19/21 1115</i>	Received by	Company	Date/Time		
Relinquished by	Company	Date/Time	Received in Laboratory by <i>[Signature]</i>	Company <i>EVA-EVA</i>	Date/Time <i>10/19/21 1115</i>		

# Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 500-207062-1

**Login Number: 207062**

**List Source: Eurofins TestAmerica, Chicago**

**List Number: 1**

**Creator: Scott, Sherri L**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





# Illinois Environmental Protection Agency

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

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

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

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

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

### I. Source Location Information

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

Project Name: FAP 541 (Illinois Route 132) Office Phone Number, if available: \_\_\_\_\_

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

0-200 blocks of W. Grand Avenue (ISGS #2674V2-6)

City: Lake Villa State: IL Zip Code: 60046

County: Lake Township: Lake Villa

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

Latitude: 42.41586 Longitude: - 88.08465

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

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

Approximate Start Date (mm/dd/yyyy): \_\_\_\_\_ Approximate End Date (mm/dd/yyyy): \_\_\_\_\_

Estimated Volume of debris (cu. Yd.): 6,871

### 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 2674V2-06-B01 through -B14 were sampled within the construction zone adjacent to ISGS #2674V2-6 (Agricultural Land). Refer to PSI Report for ISGS #2674V2-6 (Agricultural Land) including Table 4-4, and Figures 4-2, 4-3, 4-4, and 4-6.

- 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]:

See attached data summary table and associated laboratory data package J207092-1.

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

I, Tom Campbell (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: WSP USA  
 Street Address: 115 W Washington St., Suite 1270S  
 City: Indianapolis State: IN Zip Code: 46204  
 Phone: (317) 972-1706

Tom Campbell  
 Printed Name:



Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

02/03/2022

Date:



Expires 11/30/2023



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

**Analytical Data Summary**  
**PTB #196-002; Work Order 04 - IDOT Job # P-91-583-12**

**Key to Data Tables**

- MAC = Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- TACO = Tiered Approach to Corrective Action Objectives
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers and Shading**

- # = pH is less than 6.25 or greater than 9.0 standard units.
- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- r = Concentration exceeds a TACO Tier 1 RO for the Residential Soil Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds applicable comparison criteria.

PTB #196-002; Work Order 04 - IDOT Job # P-91-583-12  
CONTAMINANTS OF CONCERN

SITE	ISGS #2674V2-6 (Agricultural Land)				Comparison Criteria					
	2674V2-06-B01	2674V2-06-B02	2674V2-06-B03	2674V2-06-B04	MACs			TACO		
BORING	2674V2-06-B01	2674V2-06-B02	2674V2-06-B03	2674V2-06-B04	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
SAMPLE	2674V2-06-B01 (0-6)	2674V2-06-B02 (0-7)	2674V2-06-B03 (0-7)	2674V2-06-B04 (0-7)						
MATRIX	Soil	Soil	Soil	Soil						
DEPTH (feet)	0-6	0-7	0-7	0-7						
pH	8.1	8.0	7.4	8.0						
PID (meter units)	--	--	--	--						
<b>VOCs (mg/kg)</b>										
1,1,1-Trichloroethane	ND U	ND U	ND U	0.0013 J	2	--	--	1,200	1,200	--
2-Butanone (MEK)	ND U	0.060 J	0.0059 J	ND U	--	--	--	--	--	--
Acetone	ND U	0.26	0.042	ND U	25	--	--	70,000	100,000	--
Carbon disulfide	ND U	0.0030 J	ND U	ND U	9	--	--	720	9	--
<b>SVOCs (mg/kg)</b>										
Acenaphthylene	0.016 J	ND U	ND U	ND U	--	--	--	--	--	--
Anthracene	0.011 J	ND U	ND U	ND U	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	0.028 J	ND U	ND U	0.0068 J	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.036 J	ND U	ND U	0.0079 J	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	0.055	ND U	ND U	0.017 J	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.015 J	ND U	ND U	ND U	--	--	--	--	--	--
Benzo(k)fluoranthene	0.022 J	ND U	ND U	ND U	9	--	--	9	1,700	--
Butyl benzyl phthalate	ND U	ND U	ND U	ND U	930	--	--	930	930	--
Chrysene	0.027 J	ND U	ND U	0.015 J	88	--	--	88	17,000	--
Dibenz(a,h)anthracene	ND U	ND U	ND U	ND U	0.09	0.42	0.2	0.42	17	--
Fluoranthene	0.047	ND U	ND U	0.018 J	3,100	--	--	3,100	82,000	--
Fluorene	ND U	ND U	ND U	ND U	560	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	0.020 J	ND U	ND U	ND U	0.9	1.6	0.9	1.6	170	--
Naphthalene	ND U	ND U	ND U	ND U	1.8	--	--	170	1.8	--
Phenanthrene	0.030 J	ND U	ND U	0.0072 J	--	--	--	--	--	--
Pyrene	0.053	ND U	ND U	0.015 J	2,300	--	--	2,300	61,000	--
<b>Inorganics (mg/kg)</b>										
Arsenic	5.3	2.9	2.4	4.3	11.3	13	--	13	61	--
Barium	39	43	54	43	1,500	--	--	5,500	14,000	--
Beryllium	0.60	0.59	0.78	0.64	22	--	--	160	410	--
Boron	6.4	8.0	6.5	6.7	40	--	--	16,000	41,000	--
Calcium	32,000	43,000	18,000	27,000	--	--	--	--	--	--
Chromium	14	13	17	15	21	--	--	230	690	--
Cobalt	8.1	8.4	11	9.0	20	--	--	4,700	12,000	--
Copper	23	27	30	21	2,900	--	--	2,900	8,200	--
Iron	15,000	11,000	16,000 †m	16,000 †m	15,000	15,900	--	--	--	--
Lead	96	12	12	45	107	--	--	400	700	--
Magnesium	19,000	20,000	12,000	17,000	325,000	--	--	--	730,000	--
Manganese	260	200	110	180	630	636	--	1,600	4,100	--
Mercury	0.038	0.037	0.031	0.047	0.89	--	--	10	0.1	--
Nickel	21	24	28	24	100	--	--	1,600	4,100	--
Potassium	1,400	1,700	1,700	1,700	--	--	--	--	--	--
Selenium	0.39 J	1.0	1.0	ND U	1.3	--	--	390	1,000	--
Silver	0.29 J	0.26 J	0.30 J	0.29	4.4	--	--	390	1,000	--
Sodium	280	730	500	190	--	--	--	--	--	--
Thallium	ND U	ND U	0.39 J	ND U	2.6	--	--	6.3	160	--
Vanadium	19	18	22	19	550	--	--	550	1,400	--
Zinc	83	53	64	75	5,100	--	--	23,000	61,000	--
<b>TCLP Metals (mg/L)</b>										
Barium	0.29 J	0.37 J	0.34 J	0.34 J	--	--	--	--	--	2
Boron	0.062 J	0.067 J	0.068 J	0.078 J	--	--	--	--	--	2
Cadmium	ND U	ND U	ND U	ND U	--	--	--	--	--	0.005
Chromium	ND U	ND U	ND U	ND U	--	--	--	--	--	0.1
Cobalt	ND U	ND U	0.013 J	ND U	--	--	--	--	--	1
Iron	ND U	0.21 J	ND U	ND U	--	--	--	--	--	5
Lead	0.0077 L	ND U	ND U	ND U	--	--	--	--	--	0.0075
Manganese	0.044	0.68 L	0.97 L	0.093	--	--	--	--	--	0.15
Nickel	ND U	ND U	0.012 J	0.012 J	--	--	--	--	--	0.1
Selenium	ND U	ND U	ND U	ND U	--	--	--	--	--	0.05
<b>SPLP Metals (mg/L)</b>										
Iron	NA	NA	NA	NA	--	--	--	--	--	5
Lead	0.22 L	NA	NA	NA	--	--	--	--	--	0.0075
Manganese	NA	0.12	0.20 L	NA	--	--	--	--	--	0.15



PTB #196-002; Work Order 04 - IDOT Job # P-91-583-12

CONTAMINANTS OF CONCERN

SITE	ISGS #2674V2-6 (Agricultural Land)				Comparison Criteria						
	2674V2-06-B05		2674V2-06-B06	2674V2-06-B07	MACs			TACO			
BORING	2674V2-06-B05 (0-7)		2674V2-06-B05 (0-7)D	2674V2-06-B06 (0-7)	2674V2-06-B07 (0-7)	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
SAMPLE	Soil	Soil	Soil	Soil							
MATRIX	Soil	Soil	Soil	Soil							
DEPTH (feet)	0-7	0-7	0-7	0-7							
pH	7.8	7.9	6.9	7.4							
PID (meter units)	--	--	--	--							
<b>VOCs (mg/kg)</b>											
1,1,1-Trichloroethane	ND U	ND U	ND U	ND U	2	--	--	1,200	1,200	--	
2-Butanone (MEK)	ND U	ND U	0.15	ND U	--	--	--	--	--	--	
Acetone	ND U	ND U	ND U	0.033 J	25	--	--	70,000	100,000	--	
Carbon disulfide	ND U	ND U	0.012	ND U	9	--	--	720	9	--	
<b>SVOCs (mg/kg)</b>											
Acenaphthylene	ND U	ND U	ND U	ND U	--	--	--	--	--	--	
Anthracene	0.0079 J	0.0071 J	ND U	ND U	12,000	--	--	23,000	610,000	--	
Benzo(a)anthracene	0.051	0.036 J	ND U	ND U	0.9	1.8	1.1	1.8	170	--	
Benzo(a)pyrene	0.069	0.047	ND U	ND U	0.09	2.1	1.3	2.1	17	--	
Benzo(b)fluoranthene	0.090	0.068	ND U	ND U	0.9	2.1	1.5	2.1	170	--	
Benzo(g,h,i)perylene	0.033 J	0.023 J	ND U	ND U	--	--	--	--	--	--	
Benzo(k)fluoranthene	0.081	0.046	ND U	ND U	9	--	--	9	1,700	--	
Butyl benzyl phthalate	ND U	ND U	ND U	ND U	930	--	--	930	930	--	
Chrysene	0.077	0.053	ND U	ND U	88	--	--	88	17,000	--	
Dibenz(a,h)anthracene	0.0085 J	ND U	ND U	ND U	0.09	0.42	0.2	0.42	17	--	
Fluoranthene	0.12	0.095	ND U	0.0095 J	3,100	--	--	3,100	82,000	--	
Fluorene	ND U	ND U	ND U	ND U	560	--	--	3,100	82,000	--	
Indeno(1,2,3-cd)pyrene	0.030 J	0.023 J	ND U	ND U	0.9	1.6	0.9	1.6	170	--	
Naphthalene	ND U	ND U	ND U	ND U	1.8	--	--	170	1.8	--	
Phenanthrene	0.030 J	0.027 J	ND U	ND U	--	--	--	--	--	--	
Pyrene	0.089	0.069	ND U	ND U	2,300	--	--	2,300	61,000	--	
<b>Inorganics (mg/kg)</b>											
Arsenic	3.8	3.8	10	4.4	11.3	13	--	13	61	--	
Barium	42	44	72	40	1,500	--	--	5,500	14,000	--	
Beryllium	0.57	0.54	0.96	0.68	22	--	--	160	410	--	
Boron	7.1	5.6	11	7.9	40	--	--	16,000	41,000	--	
Calcium	27,000	22,000	11,000	66,000	--	--	--	--	--	--	
Chromium	13	13	20	14	21	--	--	230	690	--	
Cobalt	6.6	5.7	13	11	20	--	--	4,700	12,000	--	
Copper	18	16	36	23	2,900	--	--	2,900	8,200	--	
Iron	14,000	13,000	28,000 †m	17,000 †m	15,000	15,900	--	--	--	--	
Lead	34	22	14	15	107	--	--	400	700	--	
Magnesium	16,000	12,000	7,300	29,000	325,000	--	--	--	730,000	--	
Manganese	180	130	160	280	630	636	--	1,600	4,100	--	
Mercury	0.048	0.049	0.051	0.034	0.89	--	--	10	0.1	--	
Nickel	18	16	45	29	100	--	--	1,600	4,100	--	
Potassium	1,600	1,200	2,400	1,900	--	--	--	--	--	--	
Selenium	ND U	ND U	1.4 †	0.61 J	1.3	--	--	390	1,000	--	
Silver	0.26 J	0.24 J	0.39 J	0.24 J	4.4	--	--	390	1,000	--	
Sodium	180	180	710	260	--	--	--	--	--	--	
Thallium	0.30 J	ND U	ND U	ND U	2.6	--	--	6.3	160	--	
Vanadium	18	20	29	20	550	--	--	550	1,400	--	
Zinc	85	63	98	66	5,100	--	--	23,000	61,000	--	
<b>TCLP Metals (mg/L)</b>											
Barium	0.30 J	0.28 J	0.32 J	0.25 J	--	--	--	--	--	2	
Boron	0.12 J	0.072 J	0.17 J	0.097 J	--	--	--	--	--	2	
Cadmium	ND U	ND U	ND U	ND U	--	--	--	--	--	0.005	
Chromium	ND U	ND U	0.012 J	ND U	--	--	--	--	--	0.1	
Cobalt	ND U	ND U	0.011 J	ND U	--	--	--	--	--	1	
Iron	0.62	2.9	6.3 L	0.72	--	--	--	--	--	5	
Lead	ND U	ND U	ND U	ND U	--	--	--	--	--	0.0075	
Manganese	0.60 L	0.52 L	0.34 L	0.69 L	--	--	--	--	--	0.15	
Nickel	ND U	ND U	0.019 J	0.018 J	--	--	--	--	--	0.1	
Selenium	ND U	ND U	ND U	ND U	--	--	--	--	--	0.05	
<b>SPLP Metals (mg/L)</b>											
Iron	NA	NA	4.4	NA	--	--	--	--	--	5	
Lead	NA	NA	NA	NA	--	--	--	--	--	0.0075	
Manganese	0.15	0.13	0.026	0.37 L	--	--	--	--	--	0.15	

PTB #196-002; Work Order 04 - IDOT Job # P-91-583-12  
CONTAMINANTS OF CONCERN

SITE	ISGS #2674V2-6 (Agricultural Land)				Comparison Criteria					
	2674V2-06-B08	2674V2-06-B09	2674V2-06-B10	2674V2-06-B11	MACs			TACO		
BORING	2674V2-06-B08	2674V2-06-B09	2674V2-06-B10	2674V2-06-B11	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
SAMPLE	2674V2-06-B08 (0-7)	2674V2-06-B09 (0-7)	2674V2-06-B10 (0-7)	2674V2-06-B11 (0-7)						
MATRIX	Soil	Soil	Soil	Soil						
DEPTH (feet)	0-7	0-7	0-7	0-7						
pH	7.2	8.0	8.2	7.7						
PID (meter units)	--	--	--	--						
<b>VOCs (mg/kg)</b>										
1,1,1-Trichloroethane	ND U	ND U	ND U	0.0010 J	2	--	--	1,200	1,200	--
2-Butanone (MEK)	ND U	ND U	ND U	ND U	--	--	--	--	--	--
Acetone	ND U	0.18	ND U	ND U	25	--	--	70,000	100,000	--
Carbon disulfide	ND U	ND U	ND U	ND U	9	--	--	720	9	--
<b>SVOCs (mg/kg)</b>										
Acenaphthylene	ND U	ND U	ND U	0.0060 J	--	--	--	--	--	--
Anthracene	0.030 J	ND U	ND U	0.039	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	0.11	0.0079 J	ND U	0.30	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.12 †	0.0093 J	ND U	0.35 †	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	0.15	ND U	ND U	0.39	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.050 J	ND U	ND U	0.17	--	--	--	--	--	--
Benzo(k)fluoranthene	0.13	0.012 J	ND U	0.36	9	--	--	9	1,700	--
Butyl benzyl phthalate	ND U	ND U	ND U	0.36	930	--	--	930	930	--
Chrysene	0.14	0.012 J	ND U	0.36	88	--	--	88	17,000	--
Dibenz(a,h)anthracene	0.015 J	ND U	ND U	0.044	0.09	0.42	0.2	0.42	17	--
Fluoranthene	0.31	0.016 J	0.0096 J	0.73	3,100	--	--	3,100	82,000	--
Fluorene	0.0095 J	ND U	ND U	0.0071 J	560	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	0.048 J	ND U	ND U	0.16	0.9	1.6	0.9	1.6	170	--
Naphthalene	ND U	ND U	ND U	0.0064 J	1.8	--	--	170	1.8	--
Phenanthrene	0.14	0.0085 J	0.0052 J	0.19	--	--	--	--	--	--
Pyrene	0.22	0.014 J	0.0086 J	0.52	2,300	--	--	2,300	61,000	--
<b>Inorganics (mg/kg)</b>										
Arsenic	3.9	5.3	6.8	6.2	11.3	13	--	13	61	--
Barium	34	74	51	52	1,500	--	--	5,500	14,000	--
Beryllium	0.42	0.81	0.75	0.70	22	--	--	160	410	--
Boron	7.6	6.7	8.2	6.8	40	--	--	16,000	41,000	--
Calcium	77,000	31,000	57,000	54,000	--	--	--	--	--	--
Chromium	8.1	16	15	16	21	--	--	230	690	--
Cobalt	4.5	10	12	9.5	20	--	--	4,700	12,000	--
Copper	14	22	21	25	2,900	--	--	2,900	8,200	--
Iron	9,400	17,000 †m	19,000 †m	16,000 †m	15,000	15,900	--	--	--	--
Lead	16	27	29	120 †	107	--	--	400	700	--
Magnesium	35,000	18,000	24,000	22,000	325,000	--	--	--	730,000	--
Manganese	260	450	490	350	630	636	--	1,600	4,100	--
Mercury	0.042	0.054	0.034	0.062	0.89	--	--	10	0.1	--
Nickel	13	25	27	21	100	--	--	1,600	4,100	--
Potassium	1,100	1,600	2,000	1,600	--	--	--	--	--	--
Selenium	0.59 J	0.71	ND U	ND U	1.3	--	--	390	1,000	--
Silver	0.14 J	0.26 J	0.25 J	0.25 J	4.4	--	--	390	1,000	--
Sodium	430	480	280	400	--	--	--	--	--	--
Thallium	ND U	ND U	ND U	ND U	2.6	--	--	6.3	160	--
Vanadium	13	22	21	20	550	--	--	550	1,400	--
Zinc	42	69	61	130	5,100	--	--	23,000	61,000	--
<b>TCLP Metals (mg/L)</b>										
Barium	0.22 J	0.44 J	0.37 J	0.37 J	--	--	--	--	--	2
Boron	0.26 J	0.17 J	0.076 J	0.080 J	--	--	--	--	--	2
Cadmium	ND U	ND U	ND U	0.0021 J	--	--	--	--	--	0.005
Chromium	ND U	0.012 J	ND U	ND U	--	--	--	--	--	0.1
Cobalt	ND U	ND U	ND U	ND U	--	--	--	--	--	1
Iron	1.5	ND U	0.85	ND U	--	--	--	--	--	5
Lead	ND U	ND U	ND U	ND U	--	--	--	--	--	0.0075
Manganese	0.72 L	3.4 L	0.045	0.13	--	--	--	--	--	0.15
Nickel	ND U	0.016 J	ND U	ND U	--	--	--	--	--	0.1
Selenium	ND U	ND U	ND U	ND U	--	--	--	--	--	0.05
<b>SPLP Metals (mg/L)</b>										
Iron	NA	NA	NA	NA	--	--	--	--	--	5
Lead	NA	NA	NA	NA	--	--	--	--	--	0.0075
Manganese	0.090	0.66 L	NA	NA	--	--	--	--	--	0.15

PTB #196-002; Work Order 04 - IDOT Job # P-91-583-12

CONTAMINANTS OF CONCERN

SITE	ISGS #2674V2-6 (Agricultural Land)			Comparison Criteria					
	2674V2-06-B12	2674V2-06-B13	2674V2-06-B14	MACs			TACO		
BORING	2674V2-06-B12 (0-7)	2674V2-06-B13 (0-7)	2674V2-06-B14 (0-7)	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
SAMPLE	Soil	Soil	Soil						
MATRIX	0-7	0-7	0-7						
DEPTH (feet)	8.0	8.2	8.8						
pH	--	--	--						
PID (meter units)									
<b>VOCs (mg/kg)</b>									
1,1,1-Trichloroethane	ND U	0.00076 J	0.00077 J	2	--	--	1,200	1,200	--
2-Butanone (MEK)	ND U	ND U	ND U	--	--	--	--	--	--
Acetone	ND U	ND U	ND U	25	--	--	70,000	100,000	--
Carbon disulfide	ND U	ND U	ND U	9	--	--	720	9	--
<b>SVOCs (mg/kg)</b>									
Acenaphthylene	0.0063 J	ND U	ND U	--	--	--	--	--	--
Anthracene	0.023 J	ND U	ND U	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	0.035 J	ND U	ND U	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.041	ND U	ND U	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	0.064	0.0086 J	ND U	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.021 J	ND UJ	ND U	--	--	--	--	--	--
Benzo(k)fluoranthene	0.052	ND U	ND U	9	--	--	9	1,700	--
Butyl benzyl phthalate	ND U	ND U	ND U	930	--	--	930	930	--
Chrysene	0.064	0.010 J	ND U	88	--	--	88	17,000	--
Dibenz(a,h)anthracene	ND U	ND UJ	ND U	0.09	0.42	0.2	0.42	17	--
Fluoranthene	0.069	0.010 J	ND U	3,100	--	--	3,100	82,000	--
Fluorene	ND U	ND U	ND U	560	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	0.018 J	ND UJ	ND U	0.9	1.6	0.9	1.6	170	--
Naphthalene	ND U	ND U	ND U	1.8	--	--	170	1.8	--
Phenanthrene	0.039 J	ND U	ND U	--	--	--	--	--	--
Pyrene	0.056	0.0076 J	ND U	2,300	--	--	2,300	61,000	--
<b>Inorganics (mg/kg)</b>									
Arsenic	6.9	2.6	4.9	11.3	13	--	13	61	--
Barium	71	36	40	1,500	--	--	5,500	14,000	--
Beryllium	0.93	0.48	0.61	22	--	--	160	410	--
Boron	8.5	6.1	7.0	40	--	--	16,000	41,000	--
Calcium	53,000	100,000	78,000	--	--	--	--	--	--
Chromium	16	9.5	13	21	--	--	230	690	--
Cobalt	11	5.4	12	20	--	--	4,700	12,000	--
Copper	26	18	21	2,900	--	--	2,900	8,200	--
Iron	18,000 †m	12,000	16,000 †m	15,000	15,900	--	--	--	--
Lead	71	15	11	107	--	--	400	700	--
Magnesium	19,000	55,000	31,000	325,000	--	--	--	730,000	--
Manganese	450	280	400	630	636	--	1,600	4,100	--
Mercury	0.081	0.032	0.026	0.89	--	--	10	0.1	--
Nickel	26	16	27	100	--	--	1,600	4,100	--
Potassium	1,900	1,100	1,700	--	--	--	--	--	--
Selenium	0.72	ND U	ND U	1.3	--	--	390	1,000	--
Silver	0.27 J	0.19 J	0.20 J	4.4	--	--	390	1,000	--
Sodium	520	270	650	--	--	--	--	--	--
Thallium	ND U	ND U	ND U	2.6	--	--	6.3	160	--
Vanadium	21	15	21	550	--	--	550	1,400	--
Zinc	89	41	58	5,100	--	--	23,000	61,000	--
<b>TCLP Metals (mg/L)</b>									
Barium	0.36 J	0.27 J	0.48 J	--	--	--	--	--	2
Boron	0.22 J	0.078 J	0.054 J	--	--	--	--	--	2
Cadmium	ND U	ND U	ND U	--	--	--	--	--	0.005
Chromium	ND U	ND U	ND U	--	--	--	--	--	0.1
Cobalt	ND U	ND U	0.019 J	--	--	--	--	--	1
Iron	ND U	ND U	ND U	--	--	--	--	--	5
Lead	ND U	ND U	ND U	--	--	--	--	--	0.0075
Manganese	0.061	0.50 L	1.5 J L	--	--	--	--	--	0.15
Nickel	ND U	ND U	0.013 J	--	--	--	--	--	0.1
Selenium	ND U	ND U	ND U	--	--	--	--	--	0.05
<b>SPLP Metals (mg/L)</b>									
Iron	NA	NA	NA	--	--	--	--	--	5
Lead	NA	NA	NA	--	--	--	--	--	0.0075
Manganese	NA	0.27 L	0.85 L	--	--	--	--	--	0.15

## ANALYTICAL REPORT

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

Laboratory Job ID: 500-207092-1

Client Project/Site: IDOT - 196-002-WO04 Lake Villa

**For:**

WSP USA Inc.  
30 North LaSalle Street  
Chicago, Illinois 60602

Attn: Dean Tiebot



Authorized for release by:  
11/5/2021 4:07:48 PM

Richard Wright, Senior Project Manager  
(708)746-0045  
[Richard.Wright@Eurofinset.com](mailto:Richard.Wright@Eurofinset.com)

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

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



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# Case Narrative

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

## Job ID: 500-207092-1

### Laboratory: Eurofins TestAmerica, Chicago

#### Narrative

#### Job Narrative 500-207092-1

#### Receipt

The samples were received on 10/19/2021 5:45 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 5.2° C, 5.5° C and 5.7° C.

#### GC/MS VOA

Method 8260B: The following sample was diluted to bring the concentration of target analytes within the calibration range: 2674V2-06-B06 (0-7) (500-207092-10). The low level run had Acetone overrange. A 1/50 high level dilution was performed, and Acetone was not detected. Elevated reporting limit provided for Acetone.

Method 8260B: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for 625821 recovered outside control limits for the following analytes: Bromethane and Chloroethane. These analytes were biased high in the LCS/LCSD and were not detected in the associated samples; therefore, the data have been reported. 2674V2-06-B09 (0-7) (500-207092-7) and 2674V2-06-B06 (0-7) (500-207092-10)

Method 8260B: The following analyte(s) recovered outside control limits for the LCS/LCSD associated with 625028: 2-Butanone (MEK, Vinyl Acetate, and Chloroethane). This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported. 2674V2-06-B14 (0-7) (500-207092-1), 2674V2-06-B15 (0-7) (500-207092-2), 2674V2-06-B13 (0-7) (500-207092-3), 2674V2-06-B12 (0-7) (500-207092-4), 2674V2-06-B11 (0-7) (500-207092-5), 2674V2-06-B10 (0-7) (500-207092-6), 2674V2-06-B08 (0-7) (500-207092-8), 2674V2-06-B07 (0-7) (500-207092-9), 2674V2-06-B05 (0-7) (500-207092-11), 2674V2-06-B04 (0-7) (500-207092-12), 2674V2-06-B05 (0-7)D (500-207092-13), 2674V2-06-B03 (0-7) (500-207092-14), 2674V2-06-B02 (0-7) (500-207092-15) and 2674V2-06-B01 (0-6) (500-207092-16)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC/MS Semi VOA

Method 8270D: The continuing calibration verification (CCV) analyzed in batch 500-626982 was outside the method criteria for the following analyte(s): 2,2'-oxybis[1-chloropropane], Hexachlorocyclopentadiene, Pentachlorophenol, Phenol and 2-Fluorophenol. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 500-625282 and analytical batch 500-626982 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recoveries was within acceptance limits.

Method 8270D: Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when utilizing this list of analytes. The LCS associated with preparation batch 500-625282 and analytical batch 500-626154 had 1 analyte outside control limits: Hexachloroethane. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

Method 6010B: The laboratory control sample (LCS) for preparation batch 500-625341 and 500-625652 and analytical batch 500-625818 recovered outside control limits for the following analytes: Zinc. These analytes were biased high in the LCS and were below the reporting limit (RL) in the associated samples; therefore, the data have been reported.

Method 6010B: The continuing calibration verification (CCV) associated with batch 500-625818 recovered above the upper control limit for Zinc. The samples associated with this CCV were below the reporting limit (RL) for the affected analytes; therefore, the data have been reported. The associated samples are impacted: 2674V2-06-B14 (0-7) (500-207092-1), 2674V2-06-B15 (0-7) (500-207092-2), 2674V2-06-B13 (0-7) (500-207092-3), 2674V2-06-B12 (0-7) (500-207092-4), 2674V2-06-B11 (0-7) (500-207092-5), 2674V2-06-B10 (0-7)

# Case Narrative

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

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## Job ID: 500-207092-1 (Continued)

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### Laboratory: Eurofins TestAmerica, Chicago (Continued)

(500-207092-6), 2674V2-06-B09 (0-7) (500-207092-7), 2674V2-06-B08 (0-7) (500-207092-8), 2674V2-06-B07 (0-7) (500-207092-9), 2674V2-06-B06 (0-7) (500-207092-10), 2674V2-06-B05 (0-7) (500-207092-11), 2674V2-06-B04 (0-7) (500-207092-12), 2674V2-06-B05 (0-7)D (500-207092-13), 2674V2-06-B03 (0-7) (500-207092-14), 2674V2-06-B02 (0-7) (500-207092-15) and 2674V2-06-B01 (0-6) (500-207092-16).

Method 6010B: The method blank for preparation batch 500-626365 and analytical batch 500-626573 contained Iron above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



# Detection Summary

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B14 (0-7)**

**Lab Sample ID: 500-207092-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.00077	J	0.0019	0.00064	mg/Kg	1	✳		8260B	Total/NA
Antimony	0.45	J B	1.2	0.24	mg/Kg	1	✳		6010B	Total/NA
Arsenic	4.9		0.62	0.21	mg/Kg	1	✳		6010B	Total/NA
Barium	40		0.62	0.070	mg/Kg	1	✳		6010B	Total/NA
Beryllium	0.61		0.25	0.058	mg/Kg	1	✳		6010B	Total/NA
Boron	7.0		3.1	0.29	mg/Kg	1	✳		6010B	Total/NA
Cadmium	0.16	B	0.12	0.022	mg/Kg	1	✳		6010B	Total/NA
Calcium	78000	B	62	10	mg/Kg	5	✳		6010B	Total/NA
Chromium	13		0.62	0.30	mg/Kg	1	✳		6010B	Total/NA
Cobalt	12		0.31	0.081	mg/Kg	1	✳		6010B	Total/NA
Copper	21		0.62	0.17	mg/Kg	1	✳		6010B	Total/NA
Iron	16000	B	12	6.4	mg/Kg	1	✳		6010B	Total/NA
Lead	11		0.31	0.14	mg/Kg	1	✳		6010B	Total/NA
Magnesium	31000	B	6.2	3.1	mg/Kg	1	✳		6010B	Total/NA
Manganese	400	B	0.62	0.089	mg/Kg	1	✳		6010B	Total/NA
Nickel	27		0.62	0.18	mg/Kg	1	✳		6010B	Total/NA
Potassium	1700		31	11	mg/Kg	1	✳		6010B	Total/NA
Silver	0.20	J	0.31	0.079	mg/Kg	1	✳		6010B	Total/NA
Sodium	650		62	9.1	mg/Kg	1	✳		6010B	Total/NA
Vanadium	21		0.31	0.073	mg/Kg	1	✳		6010B	Total/NA
Zinc	58		1.2	0.54	mg/Kg	1	✳		6010B	Total/NA
Barium	0.48	J	0.50	0.050	mg/L	1			6010B	TCLP
Boron	0.054	J	0.50	0.050	mg/L	1			6010B	TCLP
Cobalt	0.019	J	0.025	0.010	mg/L	1			6010B	TCLP
Manganese	1.5	F1	0.025	0.010	mg/L	1			6010B	TCLP
Nickel	0.013	J	0.025	0.010	mg/L	1			6010B	TCLP
Manganese	0.85		0.025	0.010	mg/L	1			6010B	SPLP East
Mercury	0.026		0.019	0.0064	mg/Kg	1	✳		7471B	Total/NA
pH	8.8		0.2	0.2	SU	1			9045D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago



# Detection Summary

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

- 1
- 2
- 3
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- 14
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**Client Sample ID: 2674V2-06-B13 (0-7)**

**Lab Sample ID: 500-207092-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.00076	J	0.0021	0.00071	mg/Kg	1	✳	8260B	Total/NA
Fluoranthene	0.010	J	0.037	0.0069	mg/Kg	1	✳	8270D	Total/NA
Pyrene	0.0076	J	0.037	0.0074	mg/Kg	1	✳	8270D	Total/NA
Chrysene	0.010	J	0.037	0.010	mg/Kg	1	✳	8270D	Total/NA
Benzo[b]fluoranthene	0.0086	J	0.037	0.0080	mg/Kg	1	✳	8270D	Total/NA
Arsenic	2.6		0.54	0.18	mg/Kg	1	✳	6010B	Total/NA
Barium	36		0.54	0.061	mg/Kg	1	✳	6010B	Total/NA
Beryllium	0.48		0.21	0.050	mg/Kg	1	✳	6010B	Total/NA
Boron	6.1		2.7	0.25	mg/Kg	1	✳	6010B	Total/NA
Cadmium	0.25	B	0.11	0.019	mg/Kg	1	✳	6010B	Total/NA
Calcium	100000	B	54	9.1	mg/Kg	5	✳	6010B	Total/NA
Chromium	9.5		0.54	0.27	mg/Kg	1	✳	6010B	Total/NA
Cobalt	5.4		0.27	0.070	mg/Kg	1	✳	6010B	Total/NA
Copper	18		0.54	0.15	mg/Kg	1	✳	6010B	Total/NA
Iron	12000	B	54	28	mg/Kg	5	✳	6010B	Total/NA
Lead	15		0.27	0.12	mg/Kg	1	✳	6010B	Total/NA
Magnesium	55000	B	27	13	mg/Kg	5	✳	6010B	Total/NA
Manganese	280	B	0.54	0.078	mg/Kg	1	✳	6010B	Total/NA
Nickel	16		0.54	0.16	mg/Kg	1	✳	6010B	Total/NA
Potassium	1100		27	9.5	mg/Kg	1	✳	6010B	Total/NA
Silver	0.19	J	0.27	0.069	mg/Kg	1	✳	6010B	Total/NA
Sodium	270		54	7.9	mg/Kg	1	✳	6010B	Total/NA
Vanadium	15		0.27	0.063	mg/Kg	1	✳	6010B	Total/NA
Zinc	41		1.1	0.47	mg/Kg	1	✳	6010B	Total/NA
Barium	0.27	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.078	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.50		0.025	0.010	mg/L	1		6010B	TCLP

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Detection Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

## Client Sample ID: 2674V2-06-B13 (0-7) (Continued)

## Lab Sample ID: 500-207092-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	0.027	J B ** ^+	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.27		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.032		0.019	0.0062	mg/Kg	1	*	7471B	Total/NA
pH	8.2		0.2	0.2	SU	1		9045D	Total/NA

## Client Sample ID: 2674V2-06-B12 (0-7)

## Lab Sample ID: 500-207092-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.0063	J	0.041	0.0054	mg/Kg	1	*	8270D	Total/NA
Phenanthrene	0.039	J	0.041	0.0057	mg/Kg	1	*	8270D	Total/NA
Anthracene	0.023	J	0.041	0.0068	mg/Kg	1	*	8270D	Total/NA
Fluoranthene	0.069		0.041	0.0076	mg/Kg	1	*	8270D	Total/NA
Pyrene	0.056		0.041	0.0081	mg/Kg	1	*	8270D	Total/NA
Benzo[a]anthracene	0.035	J	0.041	0.0055	mg/Kg	1	*	8270D	Total/NA
Chrysene	0.064		0.041	0.011	mg/Kg	1	*	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	0.083	J B	0.21	0.075	mg/Kg	1	*	8270D	Total/NA
Benzo[b]fluoranthene	0.064		0.041	0.0088	mg/Kg	1	*	8270D	Total/NA
Benzo[k]fluoranthene	0.052		0.041	0.012	mg/Kg	1	*	8270D	Total/NA
Benzo[a]pyrene	0.041		0.041	0.0079	mg/Kg	1	*	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.018	J	0.041	0.011	mg/Kg	1	*	8270D	Total/NA
Benzo[g,h,i]perylene	0.021	J	0.041	0.013	mg/Kg	1	*	8270D	Total/NA
Antimony	0.42	J B	1.2	0.24	mg/Kg	1	*	6010B	Total/NA
Arsenic	6.9		0.61	0.21	mg/Kg	1	*	6010B	Total/NA
Barium	71		0.61	0.070	mg/Kg	1	*	6010B	Total/NA
Beryllium	0.93		0.25	0.057	mg/Kg	1	*	6010B	Total/NA
Boron	8.5		3.1	0.29	mg/Kg	1	*	6010B	Total/NA
Cadmium	0.35	B	0.12	0.022	mg/Kg	1	*	6010B	Total/NA
Calcium	53000	B	61	10	mg/Kg	5	*	6010B	Total/NA
Chromium	16		0.61	0.30	mg/Kg	1	*	6010B	Total/NA
Cobalt	11		0.31	0.081	mg/Kg	1	*	6010B	Total/NA
Copper	26		0.61	0.17	mg/Kg	1	*	6010B	Total/NA
Iron	18000	B	12	6.4	mg/Kg	1	*	6010B	Total/NA
Lead	71		0.31	0.14	mg/Kg	1	*	6010B	Total/NA
Magnesium	19000	B	6.1	3.1	mg/Kg	1	*	6010B	Total/NA
Manganese	450	B	0.61	0.089	mg/Kg	1	*	6010B	Total/NA
Nickel	26		0.61	0.18	mg/Kg	1	*	6010B	Total/NA
Potassium	1900		31	11	mg/Kg	1	*	6010B	Total/NA
Selenium	0.72		0.61	0.36	mg/Kg	1	*	6010B	Total/NA
Silver	0.27	J	0.31	0.079	mg/Kg	1	*	6010B	Total/NA
Sodium	520		61	9.1	mg/Kg	1	*	6010B	Total/NA
Vanadium	21		0.31	0.073	mg/Kg	1	*	6010B	Total/NA
Zinc	89		1.2	0.54	mg/Kg	1	*	6010B	Total/NA
Barium	0.36	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.22	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.061		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.028	J B ** ^+	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.081		0.020	0.0066	mg/Kg	1	*	7471B	Total/NA
pH	8.0		0.2	0.2	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Detection Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B11 (0-7)**

**Lab Sample ID: 500-207092-5**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.0010	J	0.0018	0.00061	mg/Kg	1	✳	8260B	Total/NA
Naphthalene	0.0064	J	0.039	0.0061	mg/Kg	1	✳	8270D	Total/NA
Acenaphthylene	0.0060	J	0.039	0.0052	mg/Kg	1	✳	8270D	Total/NA
Fluorene	0.0071	J	0.039	0.0055	mg/Kg	1	✳	8270D	Total/NA
Phenanthrene	0.19		0.039	0.0055	mg/Kg	1	✳	8270D	Total/NA
Anthracene	0.039		0.039	0.0066	mg/Kg	1	✳	8270D	Total/NA
Fluoranthene	0.73		0.039	0.0073	mg/Kg	1	✳	8270D	Total/NA
Pyrene	0.52		0.039	0.0078	mg/Kg	1	✳	8270D	Total/NA
Butyl benzyl phthalate	0.36		0.20	0.075	mg/Kg	1	✳	8270D	Total/NA
Benzo[a]anthracene	0.30		0.039	0.0053	mg/Kg	1	✳	8270D	Total/NA
Chrysene	0.36		0.039	0.011	mg/Kg	1	✳	8270D	Total/NA
Benzo[b]fluoranthene	0.39		0.039	0.0085	mg/Kg	1	✳	8270D	Total/NA
Benzo[k]fluoranthene	0.36		0.039	0.012	mg/Kg	1	✳	8270D	Total/NA
Benzo[a]pyrene	0.35		0.039	0.0076	mg/Kg	1	✳	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.16		0.039	0.010	mg/Kg	1	✳	8270D	Total/NA
Dibenz(a,h)anthracene	0.044		0.039	0.0076	mg/Kg	1	✳	8270D	Total/NA
Benzo[g,h,i]perylene	0.17		0.039	0.013	mg/Kg	1	✳	8270D	Total/NA
Antimony	0.62	J B	1.2	0.23	mg/Kg	1	✳	6010B	Total/NA
Arsenic	6.2		0.58	0.20	mg/Kg	1	✳	6010B	Total/NA
Barium	52		0.58	0.067	mg/Kg	1	✳	6010B	Total/NA
Beryllium	0.70		0.23	0.055	mg/Kg	1	✳	6010B	Total/NA
Boron	6.8		2.9	0.27	mg/Kg	1	✳	6010B	Total/NA
Cadmium	0.45	B	0.12	0.021	mg/Kg	1	✳	6010B	Total/NA
Calcium	54000	B	58	9.9	mg/Kg	5	✳	6010B	Total/NA
Chromium	16		0.58	0.29	mg/Kg	1	✳	6010B	Total/NA
Cobalt	9.5		0.29	0.076	mg/Kg	1	✳	6010B	Total/NA
Copper	25		0.58	0.16	mg/Kg	1	✳	6010B	Total/NA
Iron	16000	B	12	6.1	mg/Kg	1	✳	6010B	Total/NA
Lead	120		0.29	0.13	mg/Kg	1	✳	6010B	Total/NA
Magnesium	22000	B	5.8	2.9	mg/Kg	1	✳	6010B	Total/NA
Manganese	350	B	0.58	0.085	mg/Kg	1	✳	6010B	Total/NA
Nickel	21		0.58	0.17	mg/Kg	1	✳	6010B	Total/NA
Potassium	1600		29	10	mg/Kg	1	✳	6010B	Total/NA
Silver	0.25	J	0.29	0.075	mg/Kg	1	✳	6010B	Total/NA
Sodium	400		58	8.6	mg/Kg	1	✳	6010B	Total/NA
Vanadium	20		0.29	0.069	mg/Kg	1	✳	6010B	Total/NA
Zinc	130		1.2	0.51	mg/Kg	1	✳	6010B	Total/NA
Barium	0.37	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.080	J	0.50	0.050	mg/L	1		6010B	TCLP
Cadmium	0.0021	J	0.0050	0.0020	mg/L	1		6010B	TCLP
Manganese	0.13		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.086	J B ** ^+	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.062		0.018	0.0060	mg/Kg	1	✳	7471B	Total/NA
pH	7.7		0.2	0.2	SU	1		9045D	Total/NA

**Client Sample ID: 2674V2-06-B10 (0-7)**

**Lab Sample ID: 500-207092-6**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.0052	J	0.037	0.0052	mg/Kg	1	✳	8270D	Total/NA
Fluoranthene	0.0096	J	0.037	0.0069	mg/Kg	1	✳	8270D	Total/NA
Pyrene	0.0086	J	0.037	0.0074	mg/Kg	1	✳	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Detection Summary

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

## Client Sample ID: 2674V2-06-B10 (0-7) (Continued)

## Lab Sample ID: 500-207092-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.62	J B	1.1	0.22	mg/Kg	1	✳	6010B	Total/NA
Arsenic	6.8		0.56	0.19	mg/Kg	1	✳	6010B	Total/NA
Barium	51		0.56	0.063	mg/Kg	1	✳	6010B	Total/NA
Beryllium	0.75		0.22	0.052	mg/Kg	1	✳	6010B	Total/NA
Boron	8.2		2.8	0.26	mg/Kg	1	✳	6010B	Total/NA
Cadmium	0.041	J B	0.11	0.020	mg/Kg	1	✳	6010B	Total/NA
Calcium	57000	B	56	9.4	mg/Kg	5	✳	6010B	Total/NA
Chromium	15		0.56	0.28	mg/Kg	1	✳	6010B	Total/NA
Cobalt	12		0.28	0.073	mg/Kg	1	✳	6010B	Total/NA
Copper	21		0.56	0.16	mg/Kg	1	✳	6010B	Total/NA
Iron	19000	B	11	5.8	mg/Kg	1	✳	6010B	Total/NA
Lead	29		0.28	0.13	mg/Kg	1	✳	6010B	Total/NA
Magnesium	24000	B	5.6	2.8	mg/Kg	1	✳	6010B	Total/NA
Manganese	490	B	0.56	0.081	mg/Kg	1	✳	6010B	Total/NA
Nickel	27		0.56	0.16	mg/Kg	1	✳	6010B	Total/NA
Potassium	2000		28	9.9	mg/Kg	1	✳	6010B	Total/NA
Silver	0.25	J	0.28	0.072	mg/Kg	1	✳	6010B	Total/NA
Sodium	280		56	8.2	mg/Kg	1	✳	6010B	Total/NA
Vanadium	21		0.28	0.066	mg/Kg	1	✳	6010B	Total/NA
Zinc	61		1.1	0.49	mg/Kg	1	✳	6010B	Total/NA
Barium	0.37	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.076	J	0.50	0.050	mg/L	1		6010B	TCLP
Iron	0.85		0.40	0.20	mg/L	1		6010B	TCLP
Manganese	0.045		0.025	0.010	mg/L	1		6010B	TCLP
Mercury	0.034		0.018	0.0060	mg/Kg	1	✳	7471B	Total/NA
pH	8.2		0.2	0.2	SU	1		9045D	Total/NA

## Client Sample ID: 2674V2-06-B09 (0-7)

## Lab Sample ID: 500-207092-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.18		0.021	0.0093	mg/Kg	1	✳	8260B	Total/NA
Phenanthrene	0.0085	J	0.041	0.0057	mg/Kg	1	✳	8270D	Total/NA
Fluoranthene	0.016	J	0.041	0.0076	mg/Kg	1	✳	8270D	Total/NA
Pyrene	0.014	J	0.041	0.0082	mg/Kg	1	✳	8270D	Total/NA
Benzo[a]anthracene	0.0079	J	0.041	0.0055	mg/Kg	1	✳	8270D	Total/NA
Chrysene	0.012	J	0.041	0.011	mg/Kg	1	✳	8270D	Total/NA
Benzo[k]fluoranthene	0.012	J	0.041	0.012	mg/Kg	1	✳	8270D	Total/NA
Benzo[a]pyrene	0.0093	J	0.041	0.0079	mg/Kg	1	✳	8270D	Total/NA
Antimony	0.44	J B	1.3	0.24	mg/Kg	1	✳	6010B	Total/NA
Arsenic	5.3		0.63	0.21	mg/Kg	1	✳	6010B	Total/NA
Barium	74		0.63	0.071	mg/Kg	1	✳	6010B	Total/NA
Beryllium	0.81		0.25	0.058	mg/Kg	1	✳	6010B	Total/NA
Boron	6.7		3.1	0.29	mg/Kg	1	✳	6010B	Total/NA
Cadmium	0.23	B	0.13	0.023	mg/Kg	1	✳	6010B	Total/NA
Calcium	31000	B	13	2.1	mg/Kg	1	✳	6010B	Total/NA
Chromium	16		0.63	0.31	mg/Kg	1	✳	6010B	Total/NA
Cobalt	10		0.31	0.082	mg/Kg	1	✳	6010B	Total/NA
Copper	22		0.63	0.18	mg/Kg	1	✳	6010B	Total/NA
Iron	17000	B	13	6.5	mg/Kg	1	✳	6010B	Total/NA
Lead	27		0.31	0.14	mg/Kg	1	✳	6010B	Total/NA
Magnesium	18000	B	6.3	3.1	mg/Kg	1	✳	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Detection Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

## Client Sample ID: 2674V2-06-B09 (0-7) (Continued)

## Lab Sample ID: 500-207092-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	450	B	0.63	0.091	mg/Kg	1	☼	6010B	Total/NA
Nickel	25		0.63	0.18	mg/Kg	1	☼	6010B	Total/NA
Potassium	1600		31	11	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.71		0.63	0.37	mg/Kg	1	☼	6010B	Total/NA
Silver	0.26	J	0.31	0.081	mg/Kg	1	☼	6010B	Total/NA
Sodium	480		63	9.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	22		0.31	0.074	mg/Kg	1	☼	6010B	Total/NA
Zinc	69		1.3	0.55	mg/Kg	1	☼	6010B	Total/NA
Barium	0.44	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.17	J	0.50	0.050	mg/L	1		6010B	TCLP
Chromium	0.012	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	3.4		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.016	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.073	J B **	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.66		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.054		0.021	0.0069	mg/Kg	1	☼	7471B	Total/NA
pH	8.0		0.2	0.2	SU	1		9045D	Total/NA

## Client Sample ID: 2674V2-06-B08 (0-7)

## Lab Sample ID: 500-207092-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluorene	0.0095	J	0.052	0.0073	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.14		0.052	0.0073	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.030	J	0.052	0.0087	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.31		0.052	0.0097	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.22		0.052	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.11		0.052	0.0070	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.14		0.052	0.014	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.15		0.052	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.13		0.052	0.015	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.12		0.052	0.010	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.048	J	0.052	0.014	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.015	J	0.052	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.050	J	0.052	0.017	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.39	J B	1.5	0.28	mg/Kg	1	☼	6010B	Total/NA
Arsenic	3.9		0.73	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	34		0.73	0.083	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.42		0.29	0.068	mg/Kg	1	☼	6010B	Total/NA
Boron	7.6		3.7	0.34	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.27	B	0.15	0.026	mg/Kg	1	☼	6010B	Total/NA
Calcium	77000	B	73	12	mg/Kg	5	☼	6010B	Total/NA
Chromium	8.1		0.73	0.36	mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.5		0.37	0.096	mg/Kg	1	☼	6010B	Total/NA
Copper	14		0.73	0.20	mg/Kg	1	☼	6010B	Total/NA
Iron	9400	B	15	7.6	mg/Kg	1	☼	6010B	Total/NA
Lead	16		0.37	0.17	mg/Kg	1	☼	6010B	Total/NA
Magnesium	35000	B	7.3	3.6	mg/Kg	1	☼	6010B	Total/NA
Manganese	260	B	0.73	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	13		0.73	0.21	mg/Kg	1	☼	6010B	Total/NA
Potassium	1100		37	13	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.59	J	0.73	0.43	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Detection Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

## Client Sample ID: 2674V2-06-B08 (0-7) (Continued)

## Lab Sample ID: 500-207092-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Silver	0.14	J	0.37	0.094	mg/Kg	1	☼	6010B	Total/NA
Sodium	430		73	11	mg/Kg	1	☼	6010B	Total/NA
Vanadium	13		0.37	0.086	mg/Kg	1	☼	6010B	Total/NA
Zinc	42		1.5	0.64	mg/Kg	1	☼	6010B	Total/NA
Barium	0.22	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.26	J	0.50	0.050	mg/L	1		6010B	TCLP
Iron	1.5		0.40	0.20	mg/L	1		6010B	TCLP
Manganese	0.72		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.038	J B **	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.090		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.042		0.025	0.0084	mg/Kg	1	☼	7471B	Total/NA
pH	7.2		0.2	0.2	SU	1		9045D	Total/NA

## Client Sample ID: 2674V2-06-B07 (0-7)

## Lab Sample ID: 500-207092-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.033	J	0.037	0.016	mg/Kg	1	☼	8260B	Total/NA
Fluoranthene	0.0095	J	0.047	0.0087	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.41	J B	1.4	0.27	mg/Kg	1	☼	6010B	Total/NA
Arsenic	4.4		0.69	0.24	mg/Kg	1	☼	6010B	Total/NA
Barium	40		0.69	0.079	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.68		0.28	0.065	mg/Kg	1	☼	6010B	Total/NA
Boron	7.9		3.5	0.32	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.21	B	0.14	0.025	mg/Kg	1	☼	6010B	Total/NA
Calcium	66000	B	69	12	mg/Kg	5	☼	6010B	Total/NA
Chromium	14		0.69	0.34	mg/Kg	1	☼	6010B	Total/NA
Cobalt	11		0.35	0.091	mg/Kg	1	☼	6010B	Total/NA
Copper	23		0.69	0.19	mg/Kg	1	☼	6010B	Total/NA
Iron	17000	B	14	7.2	mg/Kg	1	☼	6010B	Total/NA
Lead	15		0.35	0.16	mg/Kg	1	☼	6010B	Total/NA
Magnesium	29000	B	6.9	3.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	280	B	0.69	0.10	mg/Kg	1	☼	6010B	Total/NA
Nickel	29		0.69	0.20	mg/Kg	1	☼	6010B	Total/NA
Potassium	1900		35	12	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.61	J	0.69	0.41	mg/Kg	1	☼	6010B	Total/NA
Silver	0.24	J	0.35	0.089	mg/Kg	1	☼	6010B	Total/NA
Sodium	260		69	10	mg/Kg	1	☼	6010B	Total/NA
Vanadium	20		0.35	0.082	mg/Kg	1	☼	6010B	Total/NA
Zinc	66		1.4	0.61	mg/Kg	1	☼	6010B	Total/NA
Barium	0.25	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.097	J	0.50	0.050	mg/L	1		6010B	TCLP
Iron	0.72		0.40	0.20	mg/L	1		6010B	TCLP
Manganese	0.69		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.018	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.041	J B **	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.37		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.034		0.022	0.0075	mg/Kg	1	☼	7471B	Total/NA
pH	7.4		0.2	0.2	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Detection Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B06 (0-7)**

**Lab Sample ID: 500-207092-10**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	0.15		0.011	0.0050	mg/Kg	1	✳	8260B	Total/NA
Carbon disulfide	0.012		0.011	0.0024	mg/Kg	1	✳	8260B	Total/NA
Antimony	0.90	J B	2.4	0.47	mg/Kg	1	✳	6010B	Total/NA
Arsenic	10		1.2	0.41	mg/Kg	1	✳	6010B	Total/NA
Barium	72		1.2	0.14	mg/Kg	1	✳	6010B	Total/NA
Beryllium	0.96		0.48	0.11	mg/Kg	1	✳	6010B	Total/NA
Boron	11		6.0	0.56	mg/Kg	1	✳	6010B	Total/NA
Cadmium	0.31	B	0.24	0.043	mg/Kg	1	✳	6010B	Total/NA
Calcium	11000	B	24	4.1	mg/Kg	1	✳	6010B	Total/NA
Chromium	20		1.2	0.60	mg/Kg	1	✳	6010B	Total/NA
Cobalt	13		0.60	0.16	mg/Kg	1	✳	6010B	Total/NA
Copper	36		1.2	0.34	mg/Kg	1	✳	6010B	Total/NA
Iron	28000	B	24	13	mg/Kg	1	✳	6010B	Total/NA
Lead	14		0.60	0.28	mg/Kg	1	✳	6010B	Total/NA
Magnesium	7300	B	12	6.0	mg/Kg	1	✳	6010B	Total/NA
Manganese	160	B	1.2	0.17	mg/Kg	1	✳	6010B	Total/NA
Nickel	45		1.2	0.35	mg/Kg	1	✳	6010B	Total/NA
Potassium	2400		60	21	mg/Kg	1	✳	6010B	Total/NA
Selenium	1.4		1.2	0.71	mg/Kg	1	✳	6010B	Total/NA
Silver	0.39	J	0.60	0.16	mg/Kg	1	✳	6010B	Total/NA
Sodium	710		120	18	mg/Kg	1	✳	6010B	Total/NA
Vanadium	29		0.60	0.14	mg/Kg	1	✳	6010B	Total/NA
Zinc	98		2.4	1.1	mg/Kg	1	✳	6010B	Total/NA
Barium	0.32	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.17	J	0.50	0.050	mg/L	1		6010B	TCLP
Chromium	0.012	J	0.025	0.010	mg/L	1		6010B	TCLP
Cobalt	0.011	J	0.025	0.010	mg/L	1		6010B	TCLP
Iron	6.3		0.40	0.20	mg/L	1		6010B	TCLP
Manganese	0.34		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.019	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.11	J B **	0.50	0.020	mg/L	1		6010B	TCLP
Iron	4.4		0.20	0.20	mg/L	1		6010B	SPLP East
Manganese	0.026		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.051		0.037	0.012	mg/Kg	1	✳	7471B	Total/NA
pH	6.9		0.2	0.2	SU	1		9045D	Total/NA

**Client Sample ID: 2674V2-06-B05 (0-7)**

**Lab Sample ID: 500-207092-11**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.030	J	0.039	0.0054	mg/Kg	1	✳	8270D	Total/NA
Anthracene	0.0079	J	0.039	0.0065	mg/Kg	1	✳	8270D	Total/NA
Fluoranthene	0.12		0.039	0.0072	mg/Kg	1	✳	8270D	Total/NA
Pyrene	0.089		0.039	0.0077	mg/Kg	1	✳	8270D	Total/NA
Benzo[a]anthracene	0.051		0.039	0.0052	mg/Kg	1	✳	8270D	Total/NA
Chrysene	0.077		0.039	0.011	mg/Kg	1	✳	8270D	Total/NA
Benzo[b]fluoranthene	0.090		0.039	0.0084	mg/Kg	1	✳	8270D	Total/NA
Benzo[k]fluoranthene	0.081		0.039	0.011	mg/Kg	1	✳	8270D	Total/NA
Benzo[a]pyrene	0.069		0.039	0.0075	mg/Kg	1	✳	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.030	J	0.039	0.010	mg/Kg	1	✳	8270D	Total/NA
Dibenz(a,h)anthracene	0.0085	J	0.039	0.0075	mg/Kg	1	✳	8270D	Total/NA
Benzo[g,h,i]perylene	0.033	J	0.039	0.013	mg/Kg	1	✳	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Detection Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B05 (0-7) (Continued)**

**Lab Sample ID: 500-207092-11**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.55	J B	1.2	0.23	mg/Kg	1	☒	6010B	Total/NA
Arsenic	3.8		0.59	0.20	mg/Kg	1	☒	6010B	Total/NA
Barium	42		0.59	0.067	mg/Kg	1	☒	6010B	Total/NA
Beryllium	0.57		0.24	0.055	mg/Kg	1	☒	6010B	Total/NA
Boron	7.1		3.0	0.28	mg/Kg	1	☒	6010B	Total/NA
Cadmium	0.19	B	0.12	0.021	mg/Kg	1	☒	6010B	Total/NA
Calcium	27000	B	12	2.0	mg/Kg	1	☒	6010B	Total/NA
Chromium	13		0.59	0.29	mg/Kg	1	☒	6010B	Total/NA
Cobalt	6.6		0.30	0.077	mg/Kg	1	☒	6010B	Total/NA
Copper	18		0.59	0.17	mg/Kg	1	☒	6010B	Total/NA
Iron	14000	B	12	6.1	mg/Kg	1	☒	6010B	Total/NA
Lead	34		0.30	0.14	mg/Kg	1	☒	6010B	Total/NA
Magnesium	16000	B	5.9	2.9	mg/Kg	1	☒	6010B	Total/NA
Manganese	180	B	0.59	0.086	mg/Kg	1	☒	6010B	Total/NA
Nickel	18		0.59	0.17	mg/Kg	1	☒	6010B	Total/NA
Potassium	1600		30	10	mg/Kg	1	☒	6010B	Total/NA
Silver	0.26	J	0.30	0.076	mg/Kg	1	☒	6010B	Total/NA
Sodium	180		59	8.7	mg/Kg	1	☒	6010B	Total/NA
Thallium	0.30	J	0.59	0.29	mg/Kg	1	☒	6010B	Total/NA
Vanadium	18		0.30	0.070	mg/Kg	1	☒	6010B	Total/NA
Zinc	85		1.2	0.52	mg/Kg	1	☒	6010B	Total/NA
Barium	0.30	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.12	J	0.50	0.050	mg/L	1		6010B	TCLP
Iron	0.62		0.40	0.20	mg/L	1		6010B	TCLP
Manganese	0.60		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.062	J B **	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.15		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.048		0.019	0.0065	mg/Kg	1	☒	7471B	Total/NA
pH	7.8		0.2	0.2	SU	1		9045D	Total/NA

**Client Sample ID: 2674V2-06-B04 (0-7)**

**Lab Sample ID: 500-207092-12**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.0013	J	0.0022	0.00074	mg/Kg	1	☒	8260B	Total/NA
Phenanthrene	0.0072	J	0.038	0.0054	mg/Kg	1	☒	8270D	Total/NA
Fluoranthene	0.018	J	0.038	0.0071	mg/Kg	1	☒	8270D	Total/NA
Pyrene	0.015	J	0.038	0.0076	mg/Kg	1	☒	8270D	Total/NA
Benzo[a]anthracene	0.0068	J	0.038	0.0052	mg/Kg	1	☒	8270D	Total/NA
Chrysene	0.015	J	0.038	0.010	mg/Kg	1	☒	8270D	Total/NA
Benzo[b]fluoranthene	0.017	J	0.038	0.0083	mg/Kg	1	☒	8270D	Total/NA
Benzo[a]pyrene	0.0079	J	0.038	0.0074	mg/Kg	1	☒	8270D	Total/NA
Antimony	0.41	J B	1.1	0.21	mg/Kg	1	☒	6010B	Total/NA
Arsenic	4.3		0.54	0.19	mg/Kg	1	☒	6010B	Total/NA
Barium	43		0.54	0.062	mg/Kg	1	☒	6010B	Total/NA
Beryllium	0.64		0.22	0.051	mg/Kg	1	☒	6010B	Total/NA
Boron	6.7		2.7	0.25	mg/Kg	1	☒	6010B	Total/NA
Cadmium	0.15	B	0.11	0.019	mg/Kg	1	☒	6010B	Total/NA
Calcium	27000	B	11	1.8	mg/Kg	1	☒	6010B	Total/NA
Chromium	15		0.54	0.27	mg/Kg	1	☒	6010B	Total/NA
Cobalt	9.0		0.27	0.071	mg/Kg	1	☒	6010B	Total/NA
Copper	21		0.54	0.15	mg/Kg	1	☒	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago



# Detection Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B04 (0-7) (Continued)**

**Lab Sample ID: 500-207092-12**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	16000	B	11	5.6	mg/Kg	1	☒	6010B	Total/NA
Lead	45		0.27	0.12	mg/Kg	1	☒	6010B	Total/NA
Magnesium	17000	B	5.4	2.7	mg/Kg	1	☒	6010B	Total/NA
Manganese	180	B	0.54	0.078	mg/Kg	1	☒	6010B	Total/NA
Nickel	24		0.54	0.16	mg/Kg	1	☒	6010B	Total/NA
Potassium	1700		27	9.6	mg/Kg	1	☒	6010B	Total/NA
Silver	0.29		0.27	0.070	mg/Kg	1	☒	6010B	Total/NA
Sodium	190		54	8.0	mg/Kg	1	☒	6010B	Total/NA
Vanadium	19		0.27	0.064	mg/Kg	1	☒	6010B	Total/NA
Zinc	75		1.1	0.47	mg/Kg	1	☒	6010B	Total/NA
Barium	0.34	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.078	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.093		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.012	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.028	J B **	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.047		0.019	0.0063	mg/Kg	1	☒	7471B	Total/NA
pH	8.0		0.2	0.2	SU	1		9045D	Total/NA

**Client Sample ID: 2674V2-06-B05 (0-7)D**

**Lab Sample ID: 500-207092-13**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.027	J	0.038	0.0053	mg/Kg	1	☒	8270D	Total/NA
Anthracene	0.0071	J	0.038	0.0064	mg/Kg	1	☒	8270D	Total/NA
Fluoranthene	0.095		0.038	0.0071	mg/Kg	1	☒	8270D	Total/NA
Pyrene	0.069		0.038	0.0076	mg/Kg	1	☒	8270D	Total/NA
Benzo[a]anthracene	0.036	J	0.038	0.0052	mg/Kg	1	☒	8270D	Total/NA
Chrysene	0.053		0.038	0.010	mg/Kg	1	☒	8270D	Total/NA
Benzo[b]fluoranthene	0.068		0.038	0.0083	mg/Kg	1	☒	8270D	Total/NA
Benzo[k]fluoranthene	0.046		0.038	0.011	mg/Kg	1	☒	8270D	Total/NA
Benzo[a]pyrene	0.047		0.038	0.0074	mg/Kg	1	☒	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.023	J	0.038	0.0099	mg/Kg	1	☒	8270D	Total/NA
Benzo[g,h,i]perylene	0.023	J	0.038	0.012	mg/Kg	1	☒	8270D	Total/NA
Antimony	0.46	J B	1.1	0.22	mg/Kg	1	☒	6010B	Total/NA
Arsenic	3.8		0.57	0.20	mg/Kg	1	☒	6010B	Total/NA
Barium	44		0.57	0.065	mg/Kg	1	☒	6010B	Total/NA
Beryllium	0.54		0.23	0.053	mg/Kg	1	☒	6010B	Total/NA
Boron	5.6		2.9	0.27	mg/Kg	1	☒	6010B	Total/NA
Cadmium	0.18	B	0.11	0.021	mg/Kg	1	☒	6010B	Total/NA
Calcium	22000	B	11	1.9	mg/Kg	1	☒	6010B	Total/NA
Chromium	13		0.57	0.28	mg/Kg	1	☒	6010B	Total/NA
Cobalt	5.7		0.29	0.075	mg/Kg	1	☒	6010B	Total/NA
Copper	16		0.57	0.16	mg/Kg	1	☒	6010B	Total/NA
Iron	13000	B	11	5.9	mg/Kg	1	☒	6010B	Total/NA
Lead	22		0.29	0.13	mg/Kg	1	☒	6010B	Total/NA
Magnesium	12000	B	5.7	2.8	mg/Kg	1	☒	6010B	Total/NA
Manganese	130	B	0.57	0.083	mg/Kg	1	☒	6010B	Total/NA
Nickel	16		0.57	0.17	mg/Kg	1	☒	6010B	Total/NA
Potassium	1200		29	10	mg/Kg	1	☒	6010B	Total/NA
Silver	0.24	J	0.29	0.074	mg/Kg	1	☒	6010B	Total/NA
Sodium	180		57	8.4	mg/Kg	1	☒	6010B	Total/NA
Vanadium	20		0.29	0.067	mg/Kg	1	☒	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Detection Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

## Client Sample ID: 2674V2-06-B05 (0-7)D (Continued)

## Lab Sample ID: 500-207092-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	63		1.1	0.50	mg/Kg	1	☼	6010B	Total/NA
Barium	0.28	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.072	J	0.50	0.050	mg/L	1		6010B	TCLP
Iron	2.9		0.40	0.20	mg/L	1		6010B	TCLP
Manganese	0.52		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.048	J B **	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.13		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.049		0.019	0.0064	mg/Kg	1	☼	7471B	Total/NA
pH	7.9		0.2	0.2	SU	1		9045D	Total/NA

## Client Sample ID: 2674V2-06-B03 (0-7)

## Lab Sample ID: 500-207092-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.042		0.020	0.0086	mg/Kg	1	☼	8260B	Total/NA
2-Butanone (MEK)	0.0059	*+	0.0049	0.0022	mg/Kg	1	☼	8260B	Total/NA
Antimony	0.31	J B	1.3	0.26	mg/Kg	1	☼	6010B	Total/NA
Arsenic	2.4		0.66	0.23	mg/Kg	1	☼	6010B	Total/NA
Barium	54		0.66	0.075	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.78		0.26	0.062	mg/Kg	1	☼	6010B	Total/NA
Boron	6.5		3.3	0.31	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.36	B	0.13	0.024	mg/Kg	1	☼	6010B	Total/NA
Calcium	18000	B	13	2.2	mg/Kg	1	☼	6010B	Total/NA
Chromium	17		0.66	0.33	mg/Kg	1	☼	6010B	Total/NA
Cobalt	11		0.33	0.087	mg/Kg	1	☼	6010B	Total/NA
Copper	30		0.66	0.19	mg/Kg	1	☼	6010B	Total/NA
Iron	16000	B	13	6.9	mg/Kg	1	☼	6010B	Total/NA
Lead	12		0.33	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	12000	B	6.6	3.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	110	B	0.66	0.096	mg/Kg	1	☼	6010B	Total/NA
Nickel	28		0.66	0.19	mg/Kg	1	☼	6010B	Total/NA
Potassium	1700		33	12	mg/Kg	1	☼	6010B	Total/NA
Selenium	1.0		0.66	0.39	mg/Kg	1	☼	6010B	Total/NA
Silver	0.30	J	0.33	0.085	mg/Kg	1	☼	6010B	Total/NA
Sodium	500		66	9.8	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.39	J	0.66	0.33	mg/Kg	1	☼	6010B	Total/NA
Vanadium	22		0.33	0.078	mg/Kg	1	☼	6010B	Total/NA
Zinc	64		1.3	0.58	mg/Kg	1	☼	6010B	Total/NA
Barium	0.34	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.068	J	0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.013	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.97		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.012	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.026	J B **	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.20		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.031		0.020	0.0067	mg/Kg	1	☼	7471B	Total/NA
pH	7.4		0.2	0.2	SU	1		9045D	Total/NA

## Client Sample ID: 2674V2-06-B02 (0-7)

## Lab Sample ID: 500-207092-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.26		0.029	0.013	mg/Kg	1	☼	8260B	Total/NA
2-Butanone (MEK)	0.060	*+	0.0073	0.0033	mg/Kg	1	☼	8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Detection Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

## Client Sample ID: 2674V2-06-B02 (0-7) (Continued)

## Lab Sample ID: 500-207092-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon disulfide	0.0030	J	0.0073	0.0015	mg/Kg	1	☼	8260B	Total/NA
Antimony	0.41	J B	1.5	0.29	mg/Kg	1	☼	6010B	Total/NA
Arsenic	2.9		0.74	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	43		0.74	0.084	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.59		0.29	0.069	mg/Kg	1	☼	6010B	Total/NA
Boron	8.0		3.7	0.34	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.31	B	0.15	0.026	mg/Kg	1	☼	6010B	Total/NA
Calcium	43000	B	15	2.5	mg/Kg	1	☼	6010B	Total/NA
Chromium	13		0.74	0.36	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.4		0.37	0.096	mg/Kg	1	☼	6010B	Total/NA
Copper	27		0.74	0.21	mg/Kg	1	☼	6010B	Total/NA
Iron	11000	B	15	7.7	mg/Kg	1	☼	6010B	Total/NA
Lead	12		0.37	0.17	mg/Kg	1	☼	6010B	Total/NA
Magnesium	20000	B	7.4	3.6	mg/Kg	1	☼	6010B	Total/NA
Manganese	200	B	0.74	0.11	mg/Kg	1	☼	6010B	Total/NA
Nickel	24		0.74	0.21	mg/Kg	1	☼	6010B	Total/NA
Potassium	1700		37	13	mg/Kg	1	☼	6010B	Total/NA
Selenium	1.0		0.74	0.43	mg/Kg	1	☼	6010B	Total/NA
Silver	0.26	J	0.37	0.095	mg/Kg	1	☼	6010B	Total/NA
Sodium	730		74	11	mg/Kg	1	☼	6010B	Total/NA
Vanadium	18		0.37	0.087	mg/Kg	1	☼	6010B	Total/NA
Zinc	53		1.5	0.65	mg/Kg	1	☼	6010B	Total/NA
Barium	0.37	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.067	J	0.50	0.050	mg/L	1		6010B	TCLP
Iron	0.21	J	0.40	0.20	mg/L	1		6010B	TCLP
Manganese	0.68		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.031	J B **	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.12		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.037		0.026	0.0086	mg/Kg	1	☼	7471B	Total/NA
pH	8.0		0.2	0.2	SU	1		9045D	Total/NA

## Client Sample ID: 2674V2-06-B01 (0-6)

## Lab Sample ID: 500-207092-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.016	J	0.040	0.0053	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.030	J	0.040	0.0056	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.011	J	0.040	0.0068	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.047		0.040	0.0075	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.053		0.040	0.0080	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.028	J	0.040	0.0054	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.027	J	0.040	0.011	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.055		0.040	0.0087	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.022	J	0.040	0.012	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.036	J	0.040	0.0078	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.020	J	0.040	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.015	J	0.040	0.013	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.45	J B	1.2	0.23	mg/Kg	1	☼	6010B	Total/NA
Arsenic	5.3		0.60	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	39		0.60	0.068	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.60		0.24	0.056	mg/Kg	1	☼	6010B	Total/NA
Boron	6.4		3.0	0.28	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Detection Summary

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B01 (0-6) (Continued)**

**Lab Sample ID: 500-207092-16**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	0.25	B	0.12	0.021	mg/Kg	1	✳	6010B	Total/NA
Calcium	32000	B	12	2.0	mg/Kg	1	✳	6010B	Total/NA
Chromium	14		0.60	0.30	mg/Kg	1	✳	6010B	Total/NA
Cobalt	8.1		0.30	0.078	mg/Kg	1	✳	6010B	Total/NA
Copper	23		0.60	0.17	mg/Kg	1	✳	6010B	Total/NA
Iron	15000	B	12	6.2	mg/Kg	1	✳	6010B	Total/NA
Lead	96		0.30	0.14	mg/Kg	1	✳	6010B	Total/NA
Magnesium	19000	B	6.0	3.0	mg/Kg	1	✳	6010B	Total/NA
Manganese	260	B	0.60	0.086	mg/Kg	1	✳	6010B	Total/NA
Nickel	21		0.60	0.17	mg/Kg	1	✳	6010B	Total/NA
Potassium	1400		30	11	mg/Kg	1	✳	6010B	Total/NA
Selenium	0.39	J	0.60	0.35	mg/Kg	1	✳	6010B	Total/NA
Silver	0.29	J	0.30	0.077	mg/Kg	1	✳	6010B	Total/NA
Sodium	280		60	8.8	mg/Kg	1	✳	6010B	Total/NA
Vanadium	19		0.30	0.070	mg/Kg	1	✳	6010B	Total/NA
Zinc	83		1.2	0.52	mg/Kg	1	✳	6010B	Total/NA
Barium	0.29	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.062	J	0.50	0.050	mg/L	1		6010B	TCLP
Lead	0.0077		0.0075	0.0075	mg/L	1		6010B	TCLP
Manganese	0.044		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.033	J B **	0.50	0.020	mg/L	1		6010B	TCLP
Lead	0.22		0.0075	0.0075	mg/L	1		6010B	SPLP East
Mercury	0.038		0.019	0.0063	mg/Kg	1	✳	7471B	Total/NA
pH	8.1		0.2	0.2	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Method Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CHI
6010B	Metals (ICP)	SW846	TAL CHI
6010B	SPLP Metals	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
7470A	TCLP Mercury	SW846	TAL CHI
7471B	Mercury (CVAA)	SW846	TAL CHI
9045D	pH	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
1311	TCLP Extraction	SW846	TAL CHI
1312	SPLP Extraction	SW846	TAL CHI
3010A	Preparation, Total Metals	SW846	TAL CHI
3050B	Preparation, Metals	SW846	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI
5035	Closed System Purge and Trap	SW846	TAL CHI
7470A	Preparation, Mercury	SW846	TAL CHI
7471B	Preparation, Mercury	SW846	TAL CHI

#### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Sample Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-207092-1	2674V2-06-B14 (0-7)	Solid	10/19/21 09:45	10/19/21 17:45
500-207092-3	2674V2-06-B13 (0-7)	Solid	10/19/21 10:35	10/19/21 17:45
500-207092-4	2674V2-06-B12 (0-7)	Solid	10/19/21 10:57	10/19/21 17:45
500-207092-5	2674V2-06-B11 (0-7)	Solid	10/19/21 11:15	10/19/21 17:45
500-207092-6	2674V2-06-B10 (0-7)	Solid	10/19/21 11:30	10/19/21 17:45
500-207092-7	2674V2-06-B09 (0-7)	Solid	10/19/21 11:55	10/19/21 17:45
500-207092-8	2674V2-06-B08 (0-7)	Solid	10/19/21 12:15	10/19/21 17:45
500-207092-9	2674V2-06-B07 (0-7)	Solid	10/19/21 12:30	10/19/21 17:45
500-207092-10	2674V2-06-B06 (0-7)	Solid	10/19/21 12:49	10/19/21 17:45
500-207092-11	2674V2-06-B05 (0-7)	Solid	10/19/21 13:10	10/19/21 17:45
500-207092-12	2674V2-06-B04 (0-7)	Solid	10/19/21 13:23	10/19/21 17:45
500-207092-13	2674V2-06-B05 (0-7)D	Solid	10/19/21 13:13	10/19/21 17:45
500-207092-14	2674V2-06-B03 (0-7)	Solid	10/19/21 13:37	10/19/21 17:45
500-207092-15	2674V2-06-B02 (0-7)	Solid	10/19/21 13:58	10/19/21 17:45
500-207092-16	2674V2-06-B01 (0-6)	Solid	10/19/21 14:15	10/19/21 17:45



# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B14 (0-7)**

**Lab Sample ID: 500-207092-1**

Date Collected: 10/19/21 09:45

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 79.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0083	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
Benzene	<0.0019		0.0019	0.00049	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
Bromodichloromethane	<0.0019		0.0019	0.00039	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
Bromoform	<0.0019		0.0019	0.00056	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
Bromomethane	<0.0048		0.0048	0.0018	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
2-Butanone (MEK)	<0.0048	*+	0.0048	0.0021	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
Carbon disulfide	<0.0048		0.0048	0.00099	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
Carbon tetrachloride	<0.0019		0.0019	0.00055	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
Chlorobenzene	<0.0019		0.0019	0.00070	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
Chloroethane	<0.0048	*+	0.0048	0.0014	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
Chloroform	<0.0019		0.0019	0.00066	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
Chloromethane	<0.0048		0.0048	0.0019	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00053	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00057	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
Dibromochloromethane	<0.0019		0.0019	0.00062	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
1,1-Dichloroethane	<0.0019		0.0019	0.00065	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
1,2-Dichloroethane	<0.0048		0.0048	0.0015	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
1,1-Dichloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
1,2-Dichloropropane	<0.0019		0.0019	0.00049	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
1,3-Dichloropropane, Total	<0.0019		0.0019	0.00067	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
Ethylbenzene	<0.0019		0.0019	0.00091	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
Methylene Chloride	<0.0048		0.0048	0.0019	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.0014	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00056	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
Styrene	<0.0019		0.0019	0.00058	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00061	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
Tetrachloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
Toluene	<0.0019		0.0019	0.00048	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00084	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00067	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
<b>1,1,1-Trichloroethane</b>	<b>0.00077</b>	<b>J</b>	0.0019	0.00064	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00082	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
Trichloroethene	<0.0019		0.0019	0.00064	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
Vinyl acetate	<0.0048	*+	0.0048	0.0017	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
Vinyl chloride	<0.0019		0.0019	0.00084	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1
Xylenes, Total	<0.0038		0.0038	0.00061	mg/Kg	☼	10/20/21 18:07	10/27/21 12:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		75 - 131	10/20/21 18:07	10/27/21 12:20	1
Dibromofluoromethane	97		75 - 126	10/20/21 18:07	10/27/21 12:20	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 134	10/20/21 18:07	10/27/21 12:20	1
Toluene-d8 (Surr)	95		75 - 124	10/20/21 18:07	10/27/21 12:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.21		0.21	0.091	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.061	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
1,3-Dichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
1,4-Dichlorobenzene	<0.21		0.21	0.052	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B14 (0-7)**

**Lab Sample ID: 500-207092-1**

Date Collected: 10/19/21 09:45

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 79.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.21		0.21	0.049	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
2-Methylphenol	<0.21		0.21	0.066	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.047	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.050	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
Hexachloroethane	<0.21		0.21	0.062	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
2-Chlorophenol	<0.21		0.21	0.070	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
1,2,4-Trichlorobenzene	<0.21		0.21	0.044	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
Isophorone	<0.21		0.21	0.046	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
Hexachlorobutadiene	<0.21		0.21	0.064	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
Naphthalene	<0.041		0.041	0.0063	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
2,4-Dichlorophenol	<0.41		0.41	0.097	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
2,4,5-Trichlorophenol	<0.41		0.41	0.093	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
Hexachlorocyclopentadiene	<0.82		0.82	0.24	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
2-Methylnaphthalene	<0.082		0.082	0.0075	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
2-Nitroaniline	<0.21		0.21	0.055	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
2-Chloronaphthalene	<0.21		0.21	0.045	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
2,6-Dinitrotoluene	<0.21		0.21	0.080	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
2-Nitrophenol	<0.41		0.41	0.097	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
Dimethyl phthalate	<0.21		0.21	0.053	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
2,4-Dinitrophenol	<0.82		0.82	0.72	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
Acenaphthylene	<0.041		0.041	0.0054	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
2,4-Dinitrotoluene	<0.21		0.21	0.065	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
Acenaphthene	<0.041		0.041	0.0074	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
Dibenzofuran	<0.21		0.21	0.048	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
4-Nitrophenol	<0.82		0.82	0.39	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
Fluorene	<0.041		0.041	0.0057	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
Hexachlorobenzene	<0.082	+	0.082	0.0095	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
Diethyl phthalate	<0.21		0.21	0.069	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
Pentachlorophenol	<0.82		0.82	0.66	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
N-Nitrosodiphenylamine	<0.21		0.21	0.048	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
Phenanthrene	<0.041		0.041	0.0057	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
Anthracene	<0.041		0.041	0.0068	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
Di-n-butyl phthalate	<0.21		0.21	0.062	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
Fluoranthene	<0.041		0.041	0.0076	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
Pyrene	<0.041		0.041	0.0081	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
Butyl benzyl phthalate	<0.21		0.21	0.078	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1
Benzo[a]anthracene	<0.041		0.041	0.0055	mg/Kg	☼	10/25/21 14:39	11/03/21 16:44	1

Euofins TestAmerica, Chicago



Client Sample Results

Client: WSP USA Inc.
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

Client Sample ID: 2674V2-06-B14 (0-7)

Lab Sample ID: 500-207092-1

Date Collected: 10/19/21 09:45

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 79.5

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

Table with columns: Analyte, Result, Qualifier, RL, MDL, Unit, D, Prepared, Analyzed, Dil Fac. Rows include Chrysene, 3,3'-Dichlorobenzidine, Bis(2-ethylhexyl) phthalate, Di-n-octyl phthalate, Benzo[b]fluoranthene, Benzo[k]fluoranthene, Benzo[a]pyrene, Indeno[1,2,3-cd]pyrene, Dibenz(a,h)anthracene, Benzo[g,h,i]perylene, 3 & 4 Methylphenol, and various Surrogate compounds like 2-Fluorophenol, Phenol-d5, Nitrobenzene-d5 (Surr), 2-Fluorobiphenyl (Surr), 2,4,6-Tribromophenol, Terphenyl-d14 (Surr).

Method: 6010B - Metals (ICP)

Table with columns: Analyte, Result, Qualifier, RL, MDL, Unit, D, Prepared, Analyzed, Dil Fac. Rows include Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc.

Method: 6010B - Metals (ICP) - TCLP

Table with columns: Analyte, Result, Qualifier, RL, MDL, Unit, D, Prepared, Analyzed, Dil Fac. Rows include Barium, Beryllium, Boron.

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B14 (0-7)**

**Lab Sample ID: 500-207092-1**

Date Collected: 10/19/21 09:45

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 79.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/27/21 08:00	10/27/21 18:21	1
Chromium	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 18:21	1
<b>Cobalt</b>	<b>0.019</b>	<b>J</b>	0.025	0.010	mg/L		10/27/21 08:00	10/27/21 18:21	1
Iron	<0.40		0.40	0.20	mg/L		10/27/21 08:00	10/27/21 18:21	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/27/21 08:00	10/27/21 18:21	1
<b>Manganese</b>	<b>1.5</b>	<b>F1</b>	0.025	0.010	mg/L		10/27/21 08:00	10/27/21 18:21	1
<b>Nickel</b>	<b>0.013</b>	<b>J</b>	0.025	0.010	mg/L		10/27/21 08:00	10/27/21 18:21	1
Selenium	<0.050		0.050	0.020	mg/L		10/27/21 08:00	10/27/21 18:21	1
Silver	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 18:21	1
Zinc	<0.50	*+ ^+	0.50	0.020	mg/L		10/27/21 08:00	10/27/21 18:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>0.85</b>		0.025	0.010	mg/L		10/27/21 08:07	10/28/21 14:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/27/21 08:00	10/28/21 13:55	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/27/21 08:00	10/28/21 13:55	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/27/21 09:40	10/28/21 09:25	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	☼	10/28/21 14:10	10/29/21 06:29	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>8.8</b>		0.2	0.2	SU			10/25/21 17:03	1





# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B13 (0-7)**

**Lab Sample ID: 500-207092-3**

Date Collected: 10/19/21 10:35

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 85.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chrysene</b>	<b>0.010</b>	<b>J</b>	0.037	0.010	mg/Kg	☼	10/25/21 14:39	11/03/21 17:32	1
3,3'-Dichlorobenzidine	<0.19	F1	0.19	0.052	mg/Kg	☼	10/25/21 14:39	11/03/21 17:32	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	10/25/21 14:39	11/03/21 17:32	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	10/25/21 14:39	11/03/21 17:32	1
<b>Benzo[b]fluoranthene</b>	<b>0.0086</b>	<b>J</b>	0.037	0.0080	mg/Kg	☼	10/25/21 14:39	11/03/21 17:32	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	10/25/21 14:39	11/03/21 17:32	1
Benzo[a]pyrene	<0.037		0.037	0.0072	mg/Kg	☼	10/25/21 14:39	11/03/21 17:32	1
Indeno[1,2,3-cd]pyrene	<0.037	F1	0.037	0.0097	mg/Kg	☼	10/25/21 14:39	11/03/21 17:32	1
Dibenz(a,h)anthracene	<0.037	F1	0.037	0.0072	mg/Kg	☼	10/25/21 14:39	11/03/21 17:32	1
Benzo[g,h,i]perylene	<0.037	F1	0.037	0.012	mg/Kg	☼	10/25/21 14:39	11/03/21 17:32	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	10/25/21 14:39	11/03/21 17:32	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorophenol	113		31 - 166				10/25/21 14:39	11/03/21 17:32	1
Phenol-d5	96		30 - 153				10/25/21 14:39	11/03/21 17:32	1
Nitrobenzene-d5 (Surr)	86		37 - 147				10/25/21 14:39	11/03/21 17:32	1
2-Fluorobiphenyl (Surr)	90		43 - 145				10/25/21 14:39	11/03/21 17:32	1
2,4,6-Tribromophenol	87		31 - 143				10/25/21 14:39	11/03/21 17:32	1
Terphenyl-d14 (Surr)	93		42 - 157				10/25/21 14:39	11/03/21 17:32	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	☼	10/31/21 08:55	11/01/21 12:41	1
<b>Arsenic</b>	<b>2.6</b>		0.54	0.18	mg/Kg	☼	10/31/21 08:55	11/01/21 12:41	1
<b>Barium</b>	<b>36</b>		0.54	0.061	mg/Kg	☼	10/31/21 08:55	11/01/21 12:41	1
<b>Beryllium</b>	<b>0.48</b>		0.21	0.050	mg/Kg	☼	10/31/21 08:55	11/01/21 12:41	1
<b>Boron</b>	<b>6.1</b>		2.7	0.25	mg/Kg	☼	10/31/21 08:55	11/01/21 12:41	1
<b>Cadmium</b>	<b>0.25</b>	<b>B</b>	0.11	0.019	mg/Kg	☼	10/31/21 08:55	11/01/21 12:41	1
<b>Calcium</b>	<b>100000</b>	<b>B</b>	54	9.1	mg/Kg	☼	10/31/21 08:55	11/01/21 14:02	5
<b>Chromium</b>	<b>9.5</b>		0.54	0.27	mg/Kg	☼	10/31/21 08:55	11/01/21 12:41	1
<b>Cobalt</b>	<b>5.4</b>		0.27	0.070	mg/Kg	☼	10/31/21 08:55	11/01/21 12:41	1
<b>Copper</b>	<b>18</b>		0.54	0.15	mg/Kg	☼	10/31/21 08:55	11/01/21 12:41	1
<b>Iron</b>	<b>12000</b>	<b>B</b>	54	28	mg/Kg	☼	10/31/21 08:55	11/01/21 14:02	5
<b>Lead</b>	<b>15</b>		0.27	0.12	mg/Kg	☼	10/31/21 08:55	11/01/21 12:41	1
<b>Magnesium</b>	<b>55000</b>	<b>B</b>	27	13	mg/Kg	☼	10/31/21 08:55	11/01/21 14:02	5
<b>Manganese</b>	<b>280</b>	<b>B</b>	0.54	0.078	mg/Kg	☼	10/31/21 08:55	11/01/21 12:41	1
<b>Nickel</b>	<b>16</b>		0.54	0.16	mg/Kg	☼	10/31/21 08:55	11/01/21 12:41	1
<b>Potassium</b>	<b>1100</b>		27	9.5	mg/Kg	☼	10/31/21 08:55	11/01/21 12:41	1
Selenium	<0.54		0.54	0.32	mg/Kg	☼	10/31/21 08:55	11/01/21 12:41	1
<b>Silver</b>	<b>0.19</b>	<b>J</b>	0.27	0.069	mg/Kg	☼	10/31/21 08:55	11/01/21 12:41	1
<b>Sodium</b>	<b>270</b>		54	7.9	mg/Kg	☼	10/31/21 08:55	11/01/21 12:41	1
Thallium	<0.54		0.54	0.27	mg/Kg	☼	10/31/21 08:55	11/01/21 12:41	1
<b>Vanadium</b>	<b>15</b>		0.27	0.063	mg/Kg	☼	10/31/21 08:55	11/01/21 12:41	1
<b>Zinc</b>	<b>41</b>		1.1	0.47	mg/Kg	☼	10/31/21 08:55	11/01/21 12:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>0.27</b>	<b>J</b>	0.50	0.050	mg/L		10/27/21 08:00	10/27/21 18:38	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/27/21 08:00	10/27/21 18:38	1
<b>Boron</b>	<b>0.078</b>	<b>J</b>	0.50	0.050	mg/L		10/27/21 08:00	10/27/21 18:38	1

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# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B13 (0-7)**

**Lab Sample ID: 500-207092-3**

Date Collected: 10/19/21 10:35

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 85.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/27/21 08:00	10/27/21 18:38	1
Chromium	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 18:38	1
Cobalt	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 18:38	1
Iron	<0.40		0.40	0.20	mg/L		10/27/21 08:00	10/27/21 18:38	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/27/21 08:00	10/27/21 18:38	1
<b>Manganese</b>	<b>0.50</b>		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 18:38	1
Nickel	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 18:38	1
Selenium	<0.050		0.050	0.020	mg/L		10/27/21 08:00	10/27/21 18:38	1
Silver	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 18:38	1
<b>Zinc</b>	<b>0.027</b>	<b>J B *+ ^+</b>	0.50	0.020	mg/L		10/27/21 08:00	10/27/21 18:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>0.27</b>		0.025	0.010	mg/L		10/27/21 08:07	10/28/21 14:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/27/21 08:00	10/28/21 14:00	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/27/21 08:00	10/28/21 14:00	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/27/21 09:40	10/28/21 09:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.032</b>		0.019	0.0062	mg/Kg	☼	10/28/21 14:10	10/29/21 06:33	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>8.2</b>		0.2	0.2	SU			10/25/21 17:08	1







# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

Client Sample ID: 2674V2-06-B12 (0-7)

Lab Sample ID: 500-207092-4

Date Collected: 10/19/21 10:57

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 78.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chrysene</b>	<b>0.064</b>		0.041	0.011	mg/Kg	☼	10/25/21 14:39	11/03/21 18:43	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.057	mg/Kg	☼	10/25/21 14:39	11/03/21 18:43	1
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.083</b>	<b>J B</b>	0.21	0.075	mg/Kg	☼	10/25/21 14:39	11/03/21 18:43	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	10/25/21 14:39	11/03/21 18:43	1
<b>Benzo[b]fluoranthene</b>	<b>0.064</b>		0.041	0.0088	mg/Kg	☼	10/25/21 14:39	11/03/21 18:43	1
<b>Benzo[k]fluoranthene</b>	<b>0.052</b>		0.041	0.012	mg/Kg	☼	10/25/21 14:39	11/03/21 18:43	1
<b>Benzo[a]pyrene</b>	<b>0.041</b>		0.041	0.0079	mg/Kg	☼	10/25/21 14:39	11/03/21 18:43	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.018</b>	<b>J</b>	0.041	0.011	mg/Kg	☼	10/25/21 14:39	11/03/21 18:43	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0079	mg/Kg	☼	10/25/21 14:39	11/03/21 18:43	1
<b>Benzo[g,h,i]perylene</b>	<b>0.021</b>	<b>J</b>	0.041	0.013	mg/Kg	☼	10/25/21 14:39	11/03/21 18:43	1
3 & 4 Methylphenol	<0.21		0.21	0.068	mg/Kg	☼	10/25/21 14:39	11/03/21 18:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	91		31 - 166	10/25/21 14:39	11/03/21 18:43	1
Phenol-d5	78		30 - 153	10/25/21 14:39	11/03/21 18:43	1
Nitrobenzene-d5 (Surr)	79		37 - 147	10/25/21 14:39	11/03/21 18:43	1
2-Fluorobiphenyl (Surr)	82		43 - 145	10/25/21 14:39	11/03/21 18:43	1
2,4,6-Tribromophenol	86		31 - 143	10/25/21 14:39	11/03/21 18:43	1
Terphenyl-d14 (Surr)	88		42 - 157	10/25/21 14:39	11/03/21 18:43	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</b>	1.2	0.24	mg/Kg	☼	10/31/21 08:55	11/01/21 12:44	1
<b>Arsenic</b>	<b>6.9</b>		0.61	0.21	mg/Kg	☼	10/31/21 08:55	11/01/21 12:44	1
<b>Barium</b>	<b>71</b>		0.61	0.070	mg/Kg	☼	10/31/21 08:55	11/01/21 12:44	1
<b>Beryllium</b>	<b>0.93</b>		0.25	0.057	mg/Kg	☼	10/31/21 08:55	11/01/21 12:44	1
<b>Boron</b>	<b>8.5</b>		3.1	0.29	mg/Kg	☼	10/31/21 08:55	11/01/21 12:44	1
<b>Cadmium</b>	<b>0.35</b>	<b>B</b>	0.12	0.022	mg/Kg	☼	10/31/21 08:55	11/01/21 12:44	1
<b>Calcium</b>	<b>53000</b>	<b>B</b>	61	10	mg/Kg	☼	10/31/21 08:55	11/01/21 14:12	5
<b>Chromium</b>	<b>16</b>		0.61	0.30	mg/Kg	☼	10/31/21 08:55	11/01/21 12:44	1
<b>Cobalt</b>	<b>11</b>		0.31	0.081	mg/Kg	☼	10/31/21 08:55	11/01/21 12:44	1
<b>Copper</b>	<b>26</b>		0.61	0.17	mg/Kg	☼	10/31/21 08:55	11/01/21 12:44	1
<b>Iron</b>	<b>18000</b>	<b>B</b>	12	6.4	mg/Kg	☼	10/31/21 08:55	11/01/21 12:44	1
<b>Lead</b>	<b>71</b>		0.31	0.14	mg/Kg	☼	10/31/21 08:55	11/01/21 12:44	1
<b>Magnesium</b>	<b>19000</b>	<b>B</b>	6.1	3.1	mg/Kg	☼	10/31/21 08:55	11/01/21 12:44	1
<b>Manganese</b>	<b>450</b>	<b>B</b>	0.61	0.089	mg/Kg	☼	10/31/21 08:55	11/01/21 12:44	1
<b>Nickel</b>	<b>26</b>		0.61	0.18	mg/Kg	☼	10/31/21 08:55	11/01/21 12:44	1
<b>Potassium</b>	<b>1900</b>		31	11	mg/Kg	☼	10/31/21 08:55	11/01/21 12:44	1
<b>Selenium</b>	<b>0.72</b>		0.61	0.36	mg/Kg	☼	10/31/21 08:55	11/01/21 12:44	1
<b>Silver</b>	<b>0.27</b>	<b>J</b>	0.31	0.079	mg/Kg	☼	10/31/21 08:55	11/01/21 12:44	1
<b>Sodium</b>	<b>520</b>		61	9.1	mg/Kg	☼	10/31/21 08:55	11/01/21 12:44	1
Thallium	<0.61		0.61	0.31	mg/Kg	☼	10/31/21 08:55	11/01/21 12:44	1
<b>Vanadium</b>	<b>21</b>		0.31	0.073	mg/Kg	☼	10/31/21 08:55	11/01/21 12:44	1
<b>Zinc</b>	<b>89</b>		1.2	0.54	mg/Kg	☼	10/31/21 08:55	11/01/21 12:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>0.36</b>	<b>J</b>	0.50	0.050	mg/L		10/27/21 08:00	10/27/21 18:41	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/27/21 08:00	10/27/21 18:41	1
<b>Boron</b>	<b>0.22</b>	<b>J</b>	0.50	0.050	mg/L		10/27/21 08:00	10/27/21 18:41	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B12 (0-7)**

**Lab Sample ID: 500-207092-4**

Date Collected: 10/19/21 10:57

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 78.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/27/21 08:00	10/27/21 18:41	1
Chromium	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 18:41	1
Cobalt	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 18:41	1
Iron	<0.40		0.40	0.20	mg/L		10/27/21 08:00	10/27/21 18:41	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/27/21 08:00	10/27/21 18:41	1
<b>Manganese</b>	<b>0.061</b>		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 18:41	1
Nickel	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 18:41	1
Selenium	<0.050		0.050	0.020	mg/L		10/27/21 08:00	10/27/21 18:41	1
Silver	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 18:41	1
<b>Zinc</b>	<b>0.028</b>	<b>J B *+ ^+</b>	0.50	0.020	mg/L		10/27/21 08:00	10/27/21 18:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/27/21 08:00	10/28/21 14:01	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/27/21 08:00	10/28/21 14:01	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/27/21 09:40	10/28/21 09:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.081</b>		0.020	0.0066	mg/Kg	☼	10/28/21 14:10	10/29/21 06:35	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>8.0</b>		0.2	0.2	SU			10/25/21 17:10	1

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B11 (0-7)**

**Lab Sample ID: 500-207092-5**

Date Collected: 10/19/21 11:15

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 82.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0079	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
Benzene	<0.0018		0.0018	0.00046	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
Bromoform	<0.0018		0.0018	0.00053	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
Bromomethane	<0.0045		0.0045	0.0017	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
2-Butanone (MEK)	<0.0045	*+	0.0045	0.0020	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
Carbon disulfide	<0.0045		0.0045	0.00094	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
Carbon tetrachloride	<0.0018		0.0018	0.00052	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
Chlorobenzene	<0.0018		0.0018	0.00067	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
Chloroethane	<0.0045	*+	0.0045	0.0013	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
Chloroform	<0.0018		0.0018	0.00063	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
Chloromethane	<0.0045		0.0045	0.0018	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00051	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00055	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
Dibromochloromethane	<0.0018		0.0018	0.00059	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
1,1-Dichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
1,2-Dichloroethane	<0.0045		0.0045	0.0014	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
1,1-Dichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
1,2-Dichloropropene	<0.0018		0.0018	0.00047	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00063	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
Ethylbenzene	<0.0018		0.0018	0.00087	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
Methylene Chloride	<0.0045		0.0045	0.0018	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.0013	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00053	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
Styrene	<0.0018		0.0018	0.00055	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00058	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
Tetrachloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
Toluene	<0.0018		0.0018	0.00046	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00080	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00063	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
<b>1,1,1-Trichloroethane</b>	<b>0.0010</b>	<b>J</b>	0.0018	0.00061	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00078	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
Trichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
Vinyl acetate	<0.0045	*+	0.0045	0.0016	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
Vinyl chloride	<0.0018		0.0018	0.00080	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1
Xylenes, Total	<0.0036		0.0036	0.00058	mg/Kg	☼	10/20/21 18:07	10/27/21 14:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		75 - 131	10/20/21 18:07	10/27/21 14:03	1
Dibromofluoromethane	98		75 - 126	10/20/21 18:07	10/27/21 14:03	1
1,2-Dichloroethane-d4 (Surr)	106		70 - 134	10/20/21 18:07	10/27/21 14:03	1
Toluene-d8 (Surr)	94		75 - 124	10/20/21 18:07	10/27/21 14:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.087	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B11 (0-7)**

**Lab Sample ID: 500-207092-5**

**Date Collected: 10/19/21 11:15**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

**Percent Solids: 82.3**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
<b>Naphthalene</b>	<b>0.0064</b>	<b>J</b>	0.039	0.0061	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
2-Methylnaphthalene	<0.079		0.079	0.0072	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
<b>Acenaphthylene</b>	<b>0.0060</b>	<b>J</b>	0.039	0.0052	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
<b>Fluorene</b>	<b>0.0071</b>	<b>J</b>	0.039	0.0055	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
Hexachlorobenzene	<0.079	*+	0.079	0.0091	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.32	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
<b>Phenanthrene</b>	<b>0.19</b>		0.039	0.0055	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
<b>Anthracene</b>	<b>0.039</b>		0.039	0.0066	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
<b>Fluoranthene</b>	<b>0.73</b>		0.039	0.0073	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
<b>Pyrene</b>	<b>0.52</b>		0.039	0.0078	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
<b>Butyl benzyl phthalate</b>	<b>0.36</b>		0.20	0.075	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1
<b>Benzo[a]anthracene</b>	<b>0.30</b>		0.039	0.0053	mg/Kg	☼	10/25/21 14:39	11/03/21 19:07	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B11 (0-7)**

**Lab Sample ID: 500-207092-5**

Date Collected: 10/19/21 11:15

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 82.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chrysene</b>	<b>0.36</b>		0.039	0.011	mg/Kg	☆	10/25/21 14:39	11/03/21 19:07	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☆	10/25/21 14:39	11/03/21 19:07	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☆	10/25/21 14:39	11/03/21 19:07	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☆	10/25/21 14:39	11/03/21 19:07	1
<b>Benzo[b]fluoranthene</b>	<b>0.39</b>		0.039	0.0085	mg/Kg	☆	10/25/21 14:39	11/03/21 19:07	1
<b>Benzo[k]fluoranthene</b>	<b>0.36</b>		0.039	0.012	mg/Kg	☆	10/25/21 14:39	11/03/21 19:07	1
<b>Benzo[a]pyrene</b>	<b>0.35</b>		0.039	0.0076	mg/Kg	☆	10/25/21 14:39	11/03/21 19:07	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.16</b>		0.039	0.010	mg/Kg	☆	10/25/21 14:39	11/03/21 19:07	1
<b>Dibenz(a,h)anthracene</b>	<b>0.044</b>		0.039	0.0076	mg/Kg	☆	10/25/21 14:39	11/03/21 19:07	1
<b>Benzo[g,h,i]perylene</b>	<b>0.17</b>		0.039	0.013	mg/Kg	☆	10/25/21 14:39	11/03/21 19:07	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☆	10/25/21 14:39	11/03/21 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-Fluorophenol	95		31 - 166				10/25/21 14:39	11/03/21 19:07	1
Phenol-d5	87		30 - 153				10/25/21 14:39	11/03/21 19:07	1
Nitrobenzene-d5 (Surr)	78		37 - 147				10/25/21 14:39	11/03/21 19:07	1
2-Fluorobiphenyl (Surr)	84		43 - 145				10/25/21 14:39	11/03/21 19:07	1
2,4,6-Tribromophenol	91		31 - 143				10/25/21 14:39	11/03/21 19:07	1
Terphenyl-d14 (Surr)	97		42 - 157				10/25/21 14:39	11/03/21 19:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.62</b>	<b>J B</b>	1.2	0.23	mg/Kg	☆	10/31/21 08:55	11/01/21 12:48	1
<b>Arsenic</b>	<b>6.2</b>		0.58	0.20	mg/Kg	☆	10/31/21 08:55	11/01/21 12:48	1
<b>Barium</b>	<b>52</b>		0.58	0.067	mg/Kg	☆	10/31/21 08:55	11/01/21 12:48	1
<b>Beryllium</b>	<b>0.70</b>		0.23	0.055	mg/Kg	☆	10/31/21 08:55	11/01/21 12:48	1
<b>Boron</b>	<b>6.8</b>		2.9	0.27	mg/Kg	☆	10/31/21 08:55	11/01/21 12:48	1
<b>Cadmium</b>	<b>0.45</b>	<b>B</b>	0.12	0.021	mg/Kg	☆	10/31/21 08:55	11/01/21 12:48	1
<b>Calcium</b>	<b>54000</b>	<b>B</b>	58	9.9	mg/Kg	☆	10/31/21 08:55	11/01/21 14:42	5
<b>Chromium</b>	<b>16</b>		0.58	0.29	mg/Kg	☆	10/31/21 08:55	11/01/21 12:48	1
<b>Cobalt</b>	<b>9.5</b>		0.29	0.076	mg/Kg	☆	10/31/21 08:55	11/01/21 12:48	1
<b>Copper</b>	<b>25</b>		0.58	0.16	mg/Kg	☆	10/31/21 08:55	11/01/21 12:48	1
<b>Iron</b>	<b>16000</b>	<b>B</b>	12	6.1	mg/Kg	☆	10/31/21 08:55	11/01/21 12:48	1
<b>Lead</b>	<b>120</b>		0.29	0.13	mg/Kg	☆	10/31/21 08:55	11/01/21 12:48	1
<b>Magnesium</b>	<b>22000</b>	<b>B</b>	5.8	2.9	mg/Kg	☆	10/31/21 08:55	11/01/21 12:48	1
<b>Manganese</b>	<b>350</b>	<b>B</b>	0.58	0.085	mg/Kg	☆	10/31/21 08:55	11/01/21 12:48	1
<b>Nickel</b>	<b>21</b>		0.58	0.17	mg/Kg	☆	10/31/21 08:55	11/01/21 12:48	1
<b>Potassium</b>	<b>1600</b>		29	10	mg/Kg	☆	10/31/21 08:55	11/01/21 12:48	1
Selenium	<0.58		0.58	0.34	mg/Kg	☆	10/31/21 08:55	11/01/21 12:48	1
<b>Silver</b>	<b>0.25</b>	<b>J</b>	0.29	0.075	mg/Kg	☆	10/31/21 08:55	11/01/21 12:48	1
<b>Sodium</b>	<b>400</b>		58	8.6	mg/Kg	☆	10/31/21 08:55	11/01/21 12:48	1
Thallium	<0.58		0.58	0.29	mg/Kg	☆	10/31/21 08:55	11/01/21 12:48	1
<b>Vanadium</b>	<b>20</b>		0.29	0.069	mg/Kg	☆	10/31/21 08:55	11/01/21 12:48	1
<b>Zinc</b>	<b>130</b>		1.2	0.51	mg/Kg	☆	10/31/21 08:55	11/01/21 12:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>0.37</b>	<b>J</b>	0.50	0.050	mg/L		10/27/21 08:00	10/27/21 18:44	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/27/21 08:00	10/27/21 18:44	1
<b>Boron</b>	<b>0.080</b>	<b>J</b>	0.50	0.050	mg/L		10/27/21 08:00	10/27/21 18:44	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B11 (0-7)**

**Lab Sample ID: 500-207092-5**

Date Collected: 10/19/21 11:15

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 82.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Cadmium</b>	<b>0.0021</b>	<b>J</b>	0.0050	0.0020	mg/L		10/27/21 08:00	10/27/21 18:44	1
Chromium	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 18:44	1
Cobalt	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 18:44	1
Iron	<0.40		0.40	0.20	mg/L		10/27/21 08:00	10/27/21 18:44	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/27/21 08:00	10/27/21 18:44	1
<b>Manganese</b>	<b>0.13</b>		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 18:44	1
Nickel	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 18:44	1
Selenium	<0.050		0.050	0.020	mg/L		10/27/21 08:00	10/27/21 18:44	1
Silver	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 18:44	1
<b>Zinc</b>	<b>0.086</b>	<b>J B *+ ^+</b>	0.50	0.020	mg/L		10/27/21 08:00	10/27/21 18:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/27/21 08:00	10/28/21 14:02	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/27/21 08:00	10/28/21 14:02	1

### Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/27/21 09:40	10/28/21 09:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.062</b>		0.018	0.0060	mg/Kg	☼	10/28/21 14:10	10/29/21 06:37	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>7.7</b>		0.2	0.2	SU			10/25/21 17:13	1

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B10 (0-7)**

**Lab Sample ID: 500-207092-6**

**Date Collected: 10/19/21 11:30**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

**Percent Solids: 84.9**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0087	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
Bromoform	<0.0020		0.0020	0.00059	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
2-Butanone (MEK)	<0.0050	*+	0.0050	0.0022	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
Chloroethane	<0.0050	*+	0.0050	0.0015	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
Chloroform	<0.0020		0.0020	0.00070	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
Dibromochloromethane	<0.0020		0.0020	0.00066	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
1,2-Dichloropropene	<0.0020		0.0020	0.00052	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00070	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
Styrene	<0.0020		0.0020	0.00061	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
Vinyl acetate	<0.0050	*+	0.0050	0.0017	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg	☼	10/20/21 18:07	10/27/21 14:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		75 - 131	10/20/21 18:07	10/27/21 14:29	1
Dibromofluoromethane	99		75 - 126	10/20/21 18:07	10/27/21 14:29	1
1,2-Dichloroethane-d4 (Surr)	108		70 - 134	10/20/21 18:07	10/27/21 14:29	1
Toluene-d8 (Surr)	95		75 - 124	10/20/21 18:07	10/27/21 14:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.082	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.055	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
1,4-Dichlorobenzene	<0.19		0.19	0.047	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B10 (0-7)**

**Lab Sample ID: 500-207092-6**

**Date Collected: 10/19/21 11:30**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

**Percent Solids: 84.9**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
2-Methylphenol	<0.19		0.19	0.059	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.045	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
Hexachloroethane	<0.19		0.19	0.056	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
2-Chlorophenol	<0.19		0.19	0.063	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
Nitrobenzene	<0.037		0.037	0.0092	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
Hexachlorobutadiene	<0.19		0.19	0.058	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
2,4-Dichlorophenol	<0.37		0.37	0.088	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
4-Chloroaniline	<0.75		0.75	0.17	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
2,4,5-Trichlorophenol	<0.37		0.37	0.084	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
2-Methylnaphthalene	<0.075		0.075	0.0068	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
2-Nitrophenol	<0.37		0.37	0.087	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
3-Nitroaniline	<0.37		0.37	0.11	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
Dimethyl phthalate	<0.19		0.19	0.048	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
2,4-Dinitrophenol	<0.75		0.75	0.65	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
Dibenzofuran	<0.19		0.19	0.043	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
4-Nitrophenol	<0.75		0.75	0.35	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
4-Nitroaniline	<0.37		0.37	0.15	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
Hexachlorobenzene	<0.075	+	0.075	0.0086	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
Pentachlorophenol	<0.75		0.75	0.59	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.30	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
<b>Phenanthrene</b>	<b>0.0052</b>	<b>J</b>	0.037	0.0052	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
Anthracene	<0.037		0.037	0.0062	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
Carbazole	<0.19		0.19	0.092	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
Di-n-butyl phthalate	<0.19		0.19	0.056	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
<b>Fluoranthene</b>	<b>0.0096</b>	<b>J</b>	0.037	0.0069	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
<b>Pyrene</b>	<b>0.0086</b>	<b>J</b>	0.037	0.0074	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
Butyl benzyl phthalate	<0.19		0.19	0.070	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1
Benzo[a]anthracene	<0.037		0.037	0.0050	mg/Kg	☼	10/25/21 14:39	11/03/21 19:31	1

Eurofins TestAmerica, Chicago



# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B10 (0-7)**

**Lab Sample ID: 500-207092-6**

Date Collected: 10/19/21 11:30

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 84.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.037		0.037	0.010	mg/Kg	☆	10/25/21 14:39	11/03/21 19:31	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☆	10/25/21 14:39	11/03/21 19:31	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☆	10/25/21 14:39	11/03/21 19:31	1
Di-n-octyl phthalate	<0.19		0.19	0.060	mg/Kg	☆	10/25/21 14:39	11/03/21 19:31	1
Benzo[b]fluoranthene	<0.037		0.037	0.0080	mg/Kg	☆	10/25/21 14:39	11/03/21 19:31	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☆	10/25/21 14:39	11/03/21 19:31	1
Benzo[a]pyrene	<0.037		0.037	0.0072	mg/Kg	☆	10/25/21 14:39	11/03/21 19:31	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0096	mg/Kg	☆	10/25/21 14:39	11/03/21 19:31	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0072	mg/Kg	☆	10/25/21 14:39	11/03/21 19:31	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☆	10/25/21 14:39	11/03/21 19:31	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☆	10/25/21 14:39	11/03/21 19:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	111		31 - 166	10/25/21 14:39	11/03/21 19:31	1
Phenol-d5	102		30 - 153	10/25/21 14:39	11/03/21 19:31	1
Nitrobenzene-d5 (Surr)	78		37 - 147	10/25/21 14:39	11/03/21 19:31	1
2-Fluorobiphenyl (Surr)	79		43 - 145	10/25/21 14:39	11/03/21 19:31	1
2,4,6-Tribromophenol	84		31 - 143	10/25/21 14:39	11/03/21 19:31	1
Terphenyl-d14 (Surr)	102		42 - 157	10/25/21 14:39	11/03/21 19:31	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.62</b>	<b>J B</b>	1.1	0.22	mg/Kg	☆	10/31/21 08:55	11/01/21 12:57	1
<b>Arsenic</b>	<b>6.8</b>		0.56	0.19	mg/Kg	☆	10/31/21 08:55	11/01/21 12:57	1
<b>Barium</b>	<b>51</b>		0.56	0.063	mg/Kg	☆	10/31/21 08:55	11/01/21 12:57	1
<b>Beryllium</b>	<b>0.75</b>		0.22	0.052	mg/Kg	☆	10/31/21 08:55	11/01/21 12:57	1
<b>Boron</b>	<b>8.2</b>		2.8	0.26	mg/Kg	☆	10/31/21 08:55	11/01/21 12:57	1
<b>Cadmium</b>	<b>0.041</b>	<b>J B</b>	0.11	0.020	mg/Kg	☆	10/31/21 08:55	11/01/21 12:57	1
<b>Calcium</b>	<b>57000</b>	<b>B</b>	56	9.4	mg/Kg	☆	10/31/21 08:55	11/01/21 15:32	5
<b>Chromium</b>	<b>15</b>		0.56	0.28	mg/Kg	☆	10/31/21 08:55	11/01/21 12:57	1
<b>Cobalt</b>	<b>12</b>		0.28	0.073	mg/Kg	☆	10/31/21 08:55	11/01/21 12:57	1
<b>Copper</b>	<b>21</b>		0.56	0.16	mg/Kg	☆	10/31/21 08:55	11/01/21 12:57	1
<b>Iron</b>	<b>19000</b>	<b>B</b>	11	5.8	mg/Kg	☆	10/31/21 08:55	11/01/21 12:57	1
<b>Lead</b>	<b>29</b>		0.28	0.13	mg/Kg	☆	10/31/21 08:55	11/01/21 12:57	1
<b>Magnesium</b>	<b>24000</b>	<b>B</b>	5.6	2.8	mg/Kg	☆	10/31/21 08:55	11/01/21 12:57	1
<b>Manganese</b>	<b>490</b>	<b>B</b>	0.56	0.081	mg/Kg	☆	10/31/21 08:55	11/01/21 12:57	1
<b>Nickel</b>	<b>27</b>		0.56	0.16	mg/Kg	☆	10/31/21 08:55	11/01/21 12:57	1
<b>Potassium</b>	<b>2000</b>		28	9.9	mg/Kg	☆	10/31/21 08:55	11/01/21 12:57	1
Selenium	<0.56		0.56	0.33	mg/Kg	☆	10/31/21 08:55	11/01/21 12:57	1
<b>Silver</b>	<b>0.25</b>	<b>J</b>	0.28	0.072	mg/Kg	☆	10/31/21 08:55	11/01/21 12:57	1
<b>Sodium</b>	<b>280</b>		56	8.2	mg/Kg	☆	10/31/21 08:55	11/01/21 12:57	1
Thallium	<0.56		0.56	0.28	mg/Kg	☆	10/31/21 08:55	11/01/21 12:57	1
<b>Vanadium</b>	<b>21</b>		0.28	0.066	mg/Kg	☆	10/31/21 08:55	11/01/21 12:57	1
<b>Zinc</b>	<b>61</b>		1.1	0.49	mg/Kg	☆	10/31/21 08:55	11/01/21 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>0.37</b>	<b>J</b>	0.50	0.050	mg/L		10/27/21 08:00	10/27/21 18:47	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/27/21 08:00	10/27/21 18:47	1
<b>Boron</b>	<b>0.076</b>	<b>J</b>	0.50	0.050	mg/L		10/27/21 08:00	10/27/21 18:47	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B10 (0-7)**

**Lab Sample ID: 500-207092-6**

Date Collected: 10/19/21 11:30

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 84.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/27/21 08:00	10/27/21 18:47	1
Chromium	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 18:47	1
Cobalt	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 18:47	1
<b>Iron</b>	<b>0.85</b>		0.40	0.20	mg/L		10/27/21 08:00	10/27/21 18:47	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/27/21 08:00	10/27/21 18:47	1
<b>Manganese</b>	<b>0.045</b>		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 18:47	1
Nickel	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 18:47	1
Selenium	<0.050		0.050	0.020	mg/L		10/27/21 08:00	10/27/21 18:47	1
Silver	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 18:47	1
Zinc	<0.50	*+ ^+	0.50	0.020	mg/L		10/27/21 08:00	10/27/21 18:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/27/21 08:00	10/28/21 14:32	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/27/21 08:00	10/28/21 14:32	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/27/21 09:40	10/28/21 09:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<b>0.034</b>		0.018	0.0060	mg/Kg	☼	10/28/21 14:10	10/29/21 06:39	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	<b>8.2</b>		0.2	0.2	SU			10/25/21 17:15	1



# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B09 (0-7)**

**Lab Sample ID: 500-207092-7**

**Date Collected: 10/19/21 11:55**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

**Percent Solids: 77.1**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.21		0.21	0.049	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
2-Methylphenol	<0.21		0.21	0.066	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.048	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
N-Nitrosodi-n-propylamine	<0.083		0.083	0.050	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
Hexachloroethane	<0.21		0.21	0.062	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
2-Chlorophenol	<0.21		0.21	0.070	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
1,2,4-Trichlorobenzene	<0.21		0.21	0.044	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
Isophorone	<0.21		0.21	0.046	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
Hexachlorobutadiene	<0.21		0.21	0.064	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
Naphthalene	<0.041		0.041	0.0063	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
2,4-Dichlorophenol	<0.41		0.41	0.097	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
4-Chloroaniline	<0.83		0.83	0.19	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
2,4,5-Trichlorophenol	<0.41		0.41	0.094	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
Hexachlorocyclopentadiene	<0.83		0.83	0.24	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
2-Methylnaphthalene	<0.083		0.083	0.0075	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
2-Nitroaniline	<0.21		0.21	0.055	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
2-Chloronaphthalene	<0.21		0.21	0.045	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
2,6-Dinitrotoluene	<0.21		0.21	0.081	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
2-Nitrophenol	<0.41		0.41	0.097	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
Dimethyl phthalate	<0.21		0.21	0.054	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
2,4-Dinitrophenol	<0.83		0.83	0.72	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
Acenaphthylene	<0.041		0.041	0.0054	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
2,4-Dinitrotoluene	<0.21		0.21	0.065	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
Acenaphthene	<0.041		0.041	0.0074	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
Dibenzofuran	<0.21		0.21	0.048	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
4-Nitrophenol	<0.83		0.83	0.39	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
Fluorene	<0.041		0.041	0.0058	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
Hexachlorobenzene	<0.083	+	0.083	0.0095	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
Diethyl phthalate	<0.21		0.21	0.070	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
Pentachlorophenol	<0.83		0.83	0.66	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
N-Nitrosodiphenylamine	<0.21		0.21	0.048	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
4,6-Dinitro-2-methylphenol	<0.83		0.83	0.33	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
<b>Phenanthrene</b>	<b>0.0085</b>	<b>J</b>	0.041	0.0057	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
Anthracene	<0.041		0.041	0.0069	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
Di-n-butyl phthalate	<0.21		0.21	0.063	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
<b>Fluoranthene</b>	<b>0.016</b>	<b>J</b>	0.041	0.0076	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
<b>Pyrene</b>	<b>0.014</b>	<b>J</b>	0.041	0.0082	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
Butyl benzyl phthalate	<0.21		0.21	0.078	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
<b>Benzo[a]anthracene</b>	<b>0.0079</b>	<b>J</b>	0.041	0.0055	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B09 (0-7)**

**Lab Sample ID: 500-207092-7**

Date Collected: 10/19/21 11:55

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 77.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chrysene</b>	0.012	J	0.041	0.011	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.057	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.075	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
Benzo[b]fluoranthene	<0.041		0.041	0.0089	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
<b>Benzo[k]fluoranthene</b>	0.012	J	0.041	0.012	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
<b>Benzo[a]pyrene</b>	0.0093	J	0.041	0.0079	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
Indeno[1,2,3-cd]pyrene	<0.041		0.041	0.011	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0079	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
Benzo[g,h,i]perylene	<0.041		0.041	0.013	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
3 & 4 Methylphenol	<0.21		0.21	0.068	mg/Kg	☼	10/25/21 14:39	11/03/21 19:55	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorophenol	99		31 - 166				10/25/21 14:39	11/03/21 19:55	1
Phenol-d5	84		30 - 153				10/25/21 14:39	11/03/21 19:55	1
Nitrobenzene-d5 (Surr)	71		37 - 147				10/25/21 14:39	11/03/21 19:55	1
2-Fluorobiphenyl (Surr)	71		43 - 145				10/25/21 14:39	11/03/21 19:55	1
2,4,6-Tribromophenol	84		31 - 143				10/25/21 14:39	11/03/21 19:55	1
Terphenyl-d14 (Surr)	91		42 - 157				10/25/21 14:39	11/03/21 19:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	0.44	J B	1.3	0.24	mg/Kg	☼	10/31/21 08:55	11/01/21 13:00	1
<b>Arsenic</b>	5.3		0.63	0.21	mg/Kg	☼	10/31/21 08:55	11/01/21 13:00	1
<b>Barium</b>	74		0.63	0.071	mg/Kg	☼	10/31/21 08:55	11/01/21 13:00	1
<b>Beryllium</b>	0.81		0.25	0.058	mg/Kg	☼	10/31/21 08:55	11/01/21 13:00	1
<b>Boron</b>	6.7		3.1	0.29	mg/Kg	☼	10/31/21 08:55	11/01/21 13:00	1
<b>Cadmium</b>	0.23	B	0.13	0.023	mg/Kg	☼	10/31/21 08:55	11/01/21 13:00	1
<b>Calcium</b>	31000	B	13	2.1	mg/Kg	☼	10/31/21 08:55	11/01/21 13:00	1
<b>Chromium</b>	16		0.63	0.31	mg/Kg	☼	10/31/21 08:55	11/01/21 13:00	1
<b>Cobalt</b>	10		0.31	0.082	mg/Kg	☼	10/31/21 08:55	11/01/21 13:00	1
<b>Copper</b>	22		0.63	0.18	mg/Kg	☼	10/31/21 08:55	11/01/21 13:00	1
<b>Iron</b>	17000	B	13	6.5	mg/Kg	☼	10/31/21 08:55	11/01/21 13:00	1
<b>Lead</b>	27		0.31	0.14	mg/Kg	☼	10/31/21 08:55	11/01/21 13:00	1
<b>Magnesium</b>	18000	B	6.3	3.1	mg/Kg	☼	10/31/21 08:55	11/01/21 13:00	1
<b>Manganese</b>	450	B	0.63	0.091	mg/Kg	☼	10/31/21 08:55	11/01/21 13:00	1
<b>Nickel</b>	25		0.63	0.18	mg/Kg	☼	10/31/21 08:55	11/01/21 13:00	1
<b>Potassium</b>	1600		31	11	mg/Kg	☼	10/31/21 08:55	11/01/21 13:00	1
<b>Selenium</b>	0.71		0.63	0.37	mg/Kg	☼	10/31/21 08:55	11/01/21 13:00	1
<b>Silver</b>	0.26	J	0.31	0.081	mg/Kg	☼	10/31/21 08:55	11/01/21 13:00	1
<b>Sodium</b>	480		63	9.3	mg/Kg	☼	10/31/21 08:55	11/01/21 13:00	1
Thallium	<0.63		0.63	0.31	mg/Kg	☼	10/31/21 08:55	11/01/21 13:00	1
<b>Vanadium</b>	22		0.31	0.074	mg/Kg	☼	10/31/21 08:55	11/01/21 13:00	1
<b>Zinc</b>	69		1.3	0.55	mg/Kg	☼	10/31/21 08:55	11/01/21 13:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	0.44	J	0.50	0.050	mg/L		10/27/21 08:00	10/27/21 18:57	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/27/21 08:00	10/27/21 18:57	1
<b>Boron</b>	0.17	J	0.50	0.050	mg/L		10/27/21 08:00	10/27/21 18:57	1

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# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B09 (0-7)**

**Lab Sample ID: 500-207092-7**

Date Collected: 10/19/21 11:55

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 77.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/27/21 08:00	10/27/21 18:57	1
<b>Chromium</b>	<b>0.012</b>	<b>J</b>	0.025	0.010	mg/L		10/27/21 08:00	10/27/21 18:57	1
Cobalt	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 18:57	1
Iron	<0.40		0.40	0.20	mg/L		10/27/21 08:00	10/27/21 18:57	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/27/21 08:00	10/27/21 18:57	1
<b>Manganese</b>	<b>3.4</b>		0.025	0.010	mg/L		10/27/21 08:00	10/28/21 13:05	1
<b>Nickel</b>	<b>0.016</b>	<b>J</b>	0.025	0.010	mg/L		10/27/21 08:00	10/27/21 18:57	1
Selenium	<0.050		0.050	0.020	mg/L		10/27/21 08:00	10/27/21 18:57	1
Silver	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 18:57	1
<b>Zinc</b>	<b>0.073</b>	<b>J B ++</b>	0.50	0.020	mg/L		10/27/21 08:00	10/27/21 18:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>0.66</b>		0.025	0.010	mg/L		10/27/21 08:07	10/28/21 14:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/27/21 08:00	10/28/21 14:33	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/27/21 08:00	10/28/21 14:33	1

## Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/27/21 09:40	10/28/21 09:42	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.054</b>		0.021	0.0069	mg/Kg	☼	10/28/21 14:10	10/29/21 06:41	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>8.0</b>		0.2	0.2	SU			10/25/21 17:19	1

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B08 (0-7)**

**Lab Sample ID: 500-207092-8**

**Date Collected: 10/19/21 12:15**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

**Percent Solids: 62.8**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.042		0.042	0.019	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
Benzene	<0.0042		0.0042	0.0011	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
Bromodichloromethane	<0.0042		0.0042	0.00086	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
Bromoform	<0.0042		0.0042	0.0012	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
Bromomethane	<0.011		0.011	0.0040	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
2-Butanone (MEK)	<0.011	*+	0.011	0.0047	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
Carbon disulfide	<0.011		0.011	0.0022	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
Carbon tetrachloride	<0.0042		0.0042	0.0012	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
Chlorobenzene	<0.0042		0.0042	0.0016	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
Chloroethane	<0.011	*+	0.011	0.0031	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
Chloroform	<0.0042		0.0042	0.0015	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
Chloromethane	<0.011		0.011	0.0043	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
cis-1,2-Dichloroethene	<0.0042		0.0042	0.0012	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
cis-1,3-Dichloropropene	<0.0042		0.0042	0.0013	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
Dibromochloromethane	<0.0042		0.0042	0.0014	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
1,1-Dichloroethane	<0.0042		0.0042	0.0015	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
1,2-Dichloroethane	<0.011		0.011	0.0033	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
1,1-Dichloroethene	<0.0042		0.0042	0.0015	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
1,2-Dichloropropene	<0.0042		0.0042	0.0011	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
1,3-Dichloropropene, Total	<0.0042		0.0042	0.0015	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
Ethylbenzene	<0.0042		0.0042	0.0020	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
2-Hexanone	<0.011		0.011	0.0033	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
Methylene Chloride	<0.011		0.011	0.0042	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
4-Methyl-2-pentanone (MIBK)	<0.011		0.011	0.0031	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
Methyl tert-butyl ether	<0.0042		0.0042	0.0012	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
Styrene	<0.0042		0.0042	0.0013	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
1,1,2,2-Tetrachloroethane	<0.0042		0.0042	0.0014	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
Tetrachloroethene	<0.0042		0.0042	0.0014	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
Toluene	<0.0042		0.0042	0.0011	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
trans-1,2-Dichloroethene	<0.0042		0.0042	0.0019	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
trans-1,3-Dichloropropene	<0.0042		0.0042	0.0015	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
1,1,1-Trichloroethane	<0.0042		0.0042	0.0014	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
1,1,2-Trichloroethane	<0.0042		0.0042	0.0018	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
Trichloroethene	<0.0042		0.0042	0.0014	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
Vinyl acetate	<0.011	*+	0.011	0.0037	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
Vinyl chloride	<0.0042		0.0042	0.0019	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1
Xylenes, Total	<0.0085		0.0085	0.0014	mg/Kg	☼	10/20/21 18:07	10/27/21 15:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		75 - 131	10/20/21 18:07	10/27/21 15:26	1
Dibromofluoromethane	105		75 - 126	10/20/21 18:07	10/27/21 15:26	1
1,2-Dichloroethane-d4 (Surr)	113		70 - 134	10/20/21 18:07	10/27/21 15:26	1
Toluene-d8 (Surr)	98		75 - 124	10/20/21 18:07	10/27/21 15:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.26		0.26	0.12	mg/Kg	☼	10/25/21 14:39	11/03/21 20:19	1
Bis(2-chloroethyl)ether	<0.26		0.26	0.078	mg/Kg	☼	10/25/21 14:39	11/03/21 20:19	1
1,3-Dichlorobenzene	<0.26		0.26	0.059	mg/Kg	☼	10/25/21 14:39	11/03/21 20:19	1
1,4-Dichlorobenzene	<0.26		0.26	0.067	mg/Kg	☼	10/25/21 14:39	11/03/21 20:19	1

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# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B08 (0-7)**

**Lab Sample ID: 500-207092-8**

Date Collected: 10/19/21 12:15

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 62.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chrysene</b>	<b>0.14</b>		0.052	0.014	mg/Kg	☼	10/25/21 14:39	11/03/21 20:19	1
3,3'-Dichlorobenzidine	<0.26		0.26	0.073	mg/Kg	☼	10/25/21 14:39	11/03/21 20:19	1
Bis(2-ethylhexyl) phthalate	<0.26		0.26	0.095	mg/Kg	☼	10/25/21 14:39	11/03/21 20:19	1
Di-n-octyl phthalate	<0.26		0.26	0.085	mg/Kg	☼	10/25/21 14:39	11/03/21 20:19	1
<b>Benzo[b]fluoranthene</b>	<b>0.15</b>		0.052	0.011	mg/Kg	☼	10/25/21 14:39	11/03/21 20:19	1
<b>Benzo[k]fluoranthene</b>	<b>0.13</b>		0.052	0.015	mg/Kg	☼	10/25/21 14:39	11/03/21 20:19	1
<b>Benzo[a]pyrene</b>	<b>0.12</b>		0.052	0.010	mg/Kg	☼	10/25/21 14:39	11/03/21 20:19	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.048 J</b>		0.052	0.014	mg/Kg	☼	10/25/21 14:39	11/03/21 20:19	1
<b>Dibenz(a,h)anthracene</b>	<b>0.015 J</b>		0.052	0.010	mg/Kg	☼	10/25/21 14:39	11/03/21 20:19	1
<b>Benzo[g,h,i]perylene</b>	<b>0.050 J</b>		0.052	0.017	mg/Kg	☼	10/25/21 14:39	11/03/21 20:19	1
3 & 4 Methylphenol	<0.26		0.26	0.087	mg/Kg	☼	10/25/21 14:39	11/03/21 20:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	112		31 - 166				10/25/21 14:39	11/03/21 20:19	1
Phenol-d5	96		30 - 153				10/25/21 14:39	11/03/21 20:19	1
Nitrobenzene-d5 (Surr)	87		37 - 147				10/25/21 14:39	11/03/21 20:19	1
2-Fluorobiphenyl (Surr)	92		43 - 145				10/25/21 14:39	11/03/21 20:19	1
2,4,6-Tribromophenol	93		31 - 143				10/25/21 14:39	11/03/21 20:19	1
Terphenyl-d14 (Surr)	99		42 - 157				10/25/21 14:39	11/03/21 20:19	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.39 J B</b>		1.5	0.28	mg/Kg	☼	10/31/21 08:55	11/01/21 13:03	1
<b>Arsenic</b>	<b>3.9</b>		0.73	0.25	mg/Kg	☼	10/31/21 08:55	11/01/21 13:03	1
<b>Barium</b>	<b>34</b>		0.73	0.083	mg/Kg	☼	10/31/21 08:55	11/01/21 13:03	1
<b>Beryllium</b>	<b>0.42</b>		0.29	0.068	mg/Kg	☼	10/31/21 08:55	11/01/21 13:03	1
<b>Boron</b>	<b>7.6</b>		3.7	0.34	mg/Kg	☼	10/31/21 08:55	11/01/21 13:03	1
<b>Cadmium</b>	<b>0.27 B</b>		0.15	0.026	mg/Kg	☼	10/31/21 08:55	11/01/21 13:03	1
<b>Calcium</b>	<b>77000 B</b>		73	12	mg/Kg	☼	10/31/21 08:55	11/01/21 15:39	5
<b>Chromium</b>	<b>8.1</b>		0.73	0.36	mg/Kg	☼	10/31/21 08:55	11/01/21 13:03	1
<b>Cobalt</b>	<b>4.5</b>		0.37	0.096	mg/Kg	☼	10/31/21 08:55	11/01/21 13:03	1
<b>Copper</b>	<b>14</b>		0.73	0.20	mg/Kg	☼	10/31/21 08:55	11/01/21 13:03	1
<b>Iron</b>	<b>9400 B</b>		15	7.6	mg/Kg	☼	10/31/21 08:55	11/01/21 13:03	1
<b>Lead</b>	<b>16</b>		0.37	0.17	mg/Kg	☼	10/31/21 08:55	11/01/21 13:03	1
<b>Magnesium</b>	<b>35000 B</b>		7.3	3.6	mg/Kg	☼	10/31/21 08:55	11/01/21 13:03	1
<b>Manganese</b>	<b>260 B</b>		0.73	0.11	mg/Kg	☼	10/31/21 08:55	11/01/21 13:03	1
<b>Nickel</b>	<b>13</b>		0.73	0.21	mg/Kg	☼	10/31/21 08:55	11/01/21 13:03	1
<b>Potassium</b>	<b>1100</b>		37	13	mg/Kg	☼	10/31/21 08:55	11/01/21 13:03	1
<b>Selenium</b>	<b>0.59 J</b>		0.73	0.43	mg/Kg	☼	10/31/21 08:55	11/01/21 13:03	1
<b>Silver</b>	<b>0.14 J</b>		0.37	0.094	mg/Kg	☼	10/31/21 08:55	11/01/21 13:03	1
<b>Sodium</b>	<b>430</b>		73	11	mg/Kg	☼	10/31/21 08:55	11/01/21 13:03	1
Thallium	<0.73		0.73	0.36	mg/Kg	☼	10/31/21 08:55	11/01/21 13:03	1
<b>Vanadium</b>	<b>13</b>		0.37	0.086	mg/Kg	☼	10/31/21 08:55	11/01/21 13:03	1
<b>Zinc</b>	<b>42</b>		1.5	0.64	mg/Kg	☼	10/31/21 08:55	11/01/21 13:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>0.22 J</b>		0.50	0.050	mg/L		10/27/21 08:00	10/27/21 19:00	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/27/21 08:00	10/27/21 19:00	1
<b>Boron</b>	<b>0.26 J</b>		0.50	0.050	mg/L		10/27/21 08:00	10/27/21 19:00	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B08 (0-7)**

**Lab Sample ID: 500-207092-8**

Date Collected: 10/19/21 12:15

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 62.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/27/21 08:00	10/27/21 19:00	1
Chromium	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:00	1
Cobalt	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:00	1
<b>Iron</b>	<b>1.5</b>		0.40	0.20	mg/L		10/27/21 08:00	10/27/21 19:00	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/27/21 08:00	10/27/21 19:00	1
<b>Manganese</b>	<b>0.72</b>		0.025	0.010	mg/L		10/27/21 08:00	10/28/21 13:09	1
Nickel	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:00	1
Selenium	<0.050		0.050	0.020	mg/L		10/27/21 08:00	10/27/21 19:00	1
Silver	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:00	1
<b>Zinc</b>	<b>0.038</b>	<b>J B **</b>	0.50	0.020	mg/L		10/27/21 08:00	10/27/21 19:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>0.090</b>		0.025	0.010	mg/L		10/27/21 08:07	10/28/21 14:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/27/21 08:00	10/28/21 14:34	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/27/21 08:00	10/28/21 14:34	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/27/21 09:40	10/28/21 09:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.042</b>		0.025	0.0084	mg/Kg	☼	10/28/21 14:10	10/29/21 06:47	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>7.2</b>		0.2	0.2	SU			10/25/21 17:24	1

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

Client Sample ID: 2674V2-06-B07 (0-7)

Lab Sample ID: 500-207092-9

Date Collected: 10/19/21 12:30

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 68.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.033	J	0.037	0.016	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
Benzene	<0.0037		0.0037	0.00093	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
Bromodichloromethane	<0.0037		0.0037	0.00074	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
Bromoform	<0.0037		0.0037	0.0011	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
Bromomethane	<0.0092		0.0092	0.0035	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
2-Butanone (MEK)	<0.0092	*+	0.0092	0.0041	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
Carbon disulfide	<0.0092		0.0092	0.0019	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
Carbon tetrachloride	<0.0037		0.0037	0.0011	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
Chlorobenzene	<0.0037		0.0037	0.0014	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
Chloroethane	<0.0092	*+	0.0092	0.0027	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
Chloroform	<0.0037		0.0037	0.0013	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
Chloromethane	<0.0092		0.0092	0.0037	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
cis-1,2-Dichloroethene	<0.0037		0.0037	0.0010	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
cis-1,3-Dichloropropene	<0.0037		0.0037	0.0011	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
Dibromochloromethane	<0.0037		0.0037	0.0012	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
1,1-Dichloroethane	<0.0037		0.0037	0.0013	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
1,2-Dichloroethane	<0.0092		0.0092	0.0029	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
1,1-Dichloroethene	<0.0037		0.0037	0.0013	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
1,2-Dichloropropene	<0.0037		0.0037	0.00095	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
1,3-Dichloropropene, Total	<0.0037		0.0037	0.0013	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
Ethylbenzene	<0.0037		0.0037	0.0018	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
2-Hexanone	<0.0092		0.0092	0.0029	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
Methylene Chloride	<0.0092		0.0092	0.0036	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
4-Methyl-2-pentanone (MIBK)	<0.0092		0.0092	0.0027	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
Methyl tert-butyl ether	<0.0037		0.0037	0.0011	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
Styrene	<0.0037		0.0037	0.0011	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
1,1,2,2-Tetrachloroethane	<0.0037		0.0037	0.0012	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
Tetrachloroethene	<0.0037		0.0037	0.0012	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
Toluene	<0.0037		0.0037	0.00092	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
trans-1,2-Dichloroethene	<0.0037		0.0037	0.0016	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
trans-1,3-Dichloropropene	<0.0037		0.0037	0.0013	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
1,1,1-Trichloroethane	<0.0037		0.0037	0.0012	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
1,1,2-Trichloroethane	<0.0037		0.0037	0.0016	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
Trichloroethene	<0.0037		0.0037	0.0012	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
Vinyl acetate	<0.0092	*+	0.0092	0.0032	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
Vinyl chloride	<0.0037		0.0037	0.0016	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1
Xylenes, Total	<0.0073		0.0073	0.0012	mg/Kg	☼	10/20/21 18:07	10/27/21 15:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		75 - 131	10/20/21 18:07	10/27/21 15:52	1
Dibromofluoromethane	100		75 - 126	10/20/21 18:07	10/27/21 15:52	1
1,2-Dichloroethane-d4 (Surr)	106		70 - 134	10/20/21 18:07	10/27/21 15:52	1
Toluene-d8 (Surr)	95		75 - 124	10/20/21 18:07	10/27/21 15:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.24		0.24	0.10	mg/Kg	☼	10/25/21 14:39	11/03/21 20:43	1
Bis(2-chloroethyl)ether	<0.24		0.24	0.071	mg/Kg	☼	10/25/21 14:39	11/03/21 20:43	1
1,3-Dichlorobenzene	<0.24		0.24	0.053	mg/Kg	☼	10/25/21 14:39	11/03/21 20:43	1
1,4-Dichlorobenzene	<0.24		0.24	0.060	mg/Kg	☼	10/25/21 14:39	11/03/21 20:43	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B07 (0-7)**

**Lab Sample ID: 500-207092-9**

Date Collected: 10/19/21 12:30

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 68.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.24		0.24	0.056	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
2-Methylphenol	<0.24		0.24	0.076	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
2,2'-oxybis[1-chloropropane]	<0.24		0.24	0.055	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
N-Nitrosodi-n-propylamine	<0.095		0.095	0.058	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
Hexachloroethane	<0.24		0.24	0.072	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
2-Chlorophenol	<0.24		0.24	0.080	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
Nitrobenzene	<0.047		0.047	0.012	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
Bis(2-chloroethoxy)methane	<0.24		0.24	0.048	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
1,2,4-Trichlorobenzene	<0.24		0.24	0.051	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
Isophorone	<0.24		0.24	0.053	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
2,4-Dimethylphenol	<0.47		0.47	0.18	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
Hexachlorobutadiene	<0.24		0.24	0.074	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
Naphthalene	<0.047		0.047	0.0073	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
2,4-Dichlorophenol	<0.47		0.47	0.11	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
4-Chloroaniline	<0.95		0.95	0.22	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
2,4,6-Trichlorophenol	<0.47		0.47	0.16	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
2,4,5-Trichlorophenol	<0.47		0.47	0.11	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
Hexachlorocyclopentadiene	<0.95		0.95	0.27	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
2-Methylnaphthalene	<0.095		0.095	0.0087	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
2-Nitroaniline	<0.24		0.24	0.063	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
2-Chloronaphthalene	<0.24		0.24	0.052	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
4-Chloro-3-methylphenol	<0.47		0.47	0.16	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
2,6-Dinitrotoluene	<0.24		0.24	0.093	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
2-Nitrophenol	<0.47		0.47	0.11	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
3-Nitroaniline	<0.47		0.47	0.15	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
Dimethyl phthalate	<0.24		0.24	0.062	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
2,4-Dinitrophenol	<0.95		0.95	0.83	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
Acenaphthylene	<0.047		0.047	0.0062	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
2,4-Dinitrotoluene	<0.24		0.24	0.075	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
Acenaphthene	<0.047		0.047	0.0085	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
Dibenzofuran	<0.24		0.24	0.055	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
4-Nitrophenol	<0.95		0.95	0.45	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
Fluorene	<0.047		0.047	0.0066	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
4-Nitroaniline	<0.47		0.47	0.20	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
4-Bromophenyl phenyl ether	<0.24		0.24	0.062	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
Hexachlorobenzene	<0.095	*+	0.095	0.011	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
Diethyl phthalate	<0.24		0.24	0.080	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
4-Chlorophenyl phenyl ether	<0.24		0.24	0.055	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
Pentachlorophenol	<0.95		0.95	0.76	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
N-Nitrosodiphenylamine	<0.24		0.24	0.056	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
4,6-Dinitro-2-methylphenol	<0.95		0.95	0.38	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
Phenanthrene	<0.047		0.047	0.0066	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
Anthracene	<0.047		0.047	0.0079	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
Carbazole	<0.24		0.24	0.12	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
Di-n-butyl phthalate	<0.24		0.24	0.072	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
<b>Fluoranthene</b>	<b>0.0095</b>	<b>J</b>	0.047	0.0087	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
Pyrene	<0.047		0.047	0.0094	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
Butyl benzyl phthalate	<0.24		0.24	0.090	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
Benzo[a]anthracene	<0.047		0.047	0.0063	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B07 (0-7)**

**Lab Sample ID: 500-207092-9**

Date Collected: 10/19/21 12:30

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 68.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.047		0.047	0.013	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
3,3'-Dichlorobenzidine	<0.24		0.24	0.066	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
Bis(2-ethylhexyl) phthalate	<0.24		0.24	0.086	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
Di-n-octyl phthalate	<0.24		0.24	0.077	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
Benzo[b]fluoranthene	<0.047		0.047	0.010	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
Benzo[k]fluoranthene	<0.047		0.047	0.014	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
Benzo[a]pyrene	<0.047		0.047	0.0091	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
Indeno[1,2,3-cd]pyrene	<0.047		0.047	0.012	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
Dibenz(a,h)anthracene	<0.047		0.047	0.0091	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
Benzo[g,h,i]perylene	<0.047		0.047	0.015	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
3 & 4 Methylphenol	<0.24		0.24	0.079	mg/Kg	✳	10/25/21 14:39	11/03/21 20:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	112		31 - 166				10/25/21 14:39	11/03/21 20:43	1
Phenol-d5	100		30 - 153				10/25/21 14:39	11/03/21 20:43	1
Nitrobenzene-d5 (Surr)	76		37 - 147				10/25/21 14:39	11/03/21 20:43	1
2-Fluorobiphenyl (Surr)	76		43 - 145				10/25/21 14:39	11/03/21 20:43	1
2,4,6-Tribromophenol	90		31 - 143				10/25/21 14:39	11/03/21 20:43	1
Terphenyl-d14 (Surr)	108		42 - 157				10/25/21 14:39	11/03/21 20:43	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.41	J B	1.4	0.27	mg/Kg	✳	10/31/21 08:55	11/01/21 13:06	1
Arsenic	4.4		0.69	0.24	mg/Kg	✳	10/31/21 08:55	11/01/21 13:06	1
Barium	40		0.69	0.079	mg/Kg	✳	10/31/21 08:55	11/01/21 13:06	1
Beryllium	0.68		0.28	0.065	mg/Kg	✳	10/31/21 08:55	11/01/21 13:06	1
Boron	7.9		3.5	0.32	mg/Kg	✳	10/31/21 08:55	11/01/21 13:06	1
Cadmium	0.21	B	0.14	0.025	mg/Kg	✳	10/31/21 08:55	11/01/21 13:06	1
Calcium	66000	B	69	12	mg/Kg	✳	10/31/21 08:55	11/01/21 17:07	5
Chromium	14		0.69	0.34	mg/Kg	✳	10/31/21 08:55	11/01/21 13:06	1
Cobalt	11		0.35	0.091	mg/Kg	✳	10/31/21 08:55	11/01/21 13:06	1
Copper	23		0.69	0.19	mg/Kg	✳	10/31/21 08:55	11/01/21 13:06	1
Iron	17000	B	14	7.2	mg/Kg	✳	10/31/21 08:55	11/01/21 13:06	1
Lead	15		0.35	0.16	mg/Kg	✳	10/31/21 08:55	11/01/21 13:06	1
Magnesium	29000	B	6.9	3.4	mg/Kg	✳	10/31/21 08:55	11/01/21 13:06	1
Manganese	280	B	0.69	0.10	mg/Kg	✳	10/31/21 08:55	11/01/21 13:06	1
Nickel	29		0.69	0.20	mg/Kg	✳	10/31/21 08:55	11/01/21 13:06	1
Potassium	1900		35	12	mg/Kg	✳	10/31/21 08:55	11/01/21 13:06	1
Selenium	0.61	J	0.69	0.41	mg/Kg	✳	10/31/21 08:55	11/01/21 13:06	1
Silver	0.24	J	0.35	0.089	mg/Kg	✳	10/31/21 08:55	11/01/21 13:06	1
Sodium	260		69	10	mg/Kg	✳	10/31/21 08:55	11/01/21 13:06	1
Thallium	<0.69		0.69	0.35	mg/Kg	✳	10/31/21 08:55	11/01/21 13:06	1
Vanadium	20		0.35	0.082	mg/Kg	✳	10/31/21 08:55	11/01/21 13:06	1
Zinc	66		1.4	0.61	mg/Kg	✳	10/31/21 08:55	11/01/21 13:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.25	J	0.50	0.050	mg/L		10/27/21 08:00	10/27/21 19:04	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/27/21 08:00	10/27/21 19:04	1
Boron	0.097	J	0.50	0.050	mg/L		10/27/21 08:00	10/27/21 19:04	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B07 (0-7)**

**Lab Sample ID: 500-207092-9**

Date Collected: 10/19/21 12:30

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 68.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/27/21 08:00	10/27/21 19:04	1
Chromium	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:04	1
Cobalt	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:04	1
<b>Iron</b>	<b>0.72</b>		0.40	0.20	mg/L		10/27/21 08:00	10/27/21 19:04	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/27/21 08:00	10/27/21 19:04	1
<b>Manganese</b>	<b>0.69</b>		0.025	0.010	mg/L		10/27/21 08:00	10/28/21 13:12	1
<b>Nickel</b>	<b>0.018</b>	<b>J</b>	0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:04	1
Selenium	<0.050		0.050	0.020	mg/L		10/27/21 08:00	10/27/21 19:04	1
Silver	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:04	1
<b>Zinc</b>	<b>0.041</b>	<b>J B **</b>	0.50	0.020	mg/L		10/27/21 08:00	10/27/21 19:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>0.37</b>		0.025	0.010	mg/L		10/27/21 08:07	10/28/21 15:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/27/21 08:00	10/28/21 14:35	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/27/21 08:00	10/28/21 14:35	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/27/21 09:40	10/28/21 09:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.034</b>		0.022	0.0075	mg/Kg	☼	10/28/21 14:10	10/29/21 06:49	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>7.4</b>		0.2	0.2	SU			10/25/21 17:27	1

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B06 (0-7)**

**Lab Sample ID: 500-207092-10**

Date Collected: 10/19/21 12:49

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 40.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0045		0.0045	0.0012	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
Bromodichloromethane	<0.0045		0.0045	0.00092	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
Bromoform	<0.0045		0.0045	0.0013	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
Bromomethane	<0.011	*+	0.011	0.0043	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
<b>2-Butanone (MEK)</b>	<b>0.15</b>		0.011	0.0050	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
<b>Carbon disulfide</b>	<b>0.012</b>		0.011	0.0024	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
Carbon tetrachloride	<0.0045		0.0045	0.0013	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
Chlorobenzene	<0.0045		0.0045	0.0017	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
Chloroethane	<0.011	*+	0.011	0.0033	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
Chloroform	<0.0045		0.0045	0.0016	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
Chloromethane	<0.011		0.011	0.0045	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
cis-1,2-Dichloroethene	<0.0045		0.0045	0.0013	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
cis-1,3-Dichloropropene	<0.0045		0.0045	0.0014	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
Dibromochloromethane	<0.0045		0.0045	0.0015	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
1,1-Dichloroethane	<0.0045		0.0045	0.0015	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
1,2-Dichloroethane	<0.011		0.011	0.0035	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
1,1-Dichloroethene	<0.0045		0.0045	0.0016	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
1,2-Dichloropropane	<0.0045		0.0045	0.0012	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
1,3-Dichloropropene, Total	<0.0045		0.0045	0.0016	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
Ethylbenzene	<0.0045		0.0045	0.0022	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
2-Hexanone	<0.011		0.011	0.0035	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
Methylene Chloride	<0.011		0.011	0.0045	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
4-Methyl-2-pentanone (MIBK)	<0.011		0.011	0.0033	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
Methyl tert-butyl ether	<0.0045		0.0045	0.0013	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
Styrene	<0.0045		0.0045	0.0014	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
1,1,2,2-Tetrachloroethane	<0.0045		0.0045	0.0014	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
Tetrachloroethene	<0.0045		0.0045	0.0015	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
Toluene	<0.0045		0.0045	0.0011	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
trans-1,2-Dichloroethene	<0.0045		0.0045	0.0020	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
trans-1,3-Dichloropropene	<0.0045		0.0045	0.0016	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
1,1,1-Trichloroethane	<0.0045		0.0045	0.0015	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
1,1,2-Trichloroethane	<0.0045		0.0045	0.0019	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
Trichloroethene	<0.0045		0.0045	0.0015	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
Vinyl acetate	<0.011		0.011	0.0039	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
Vinyl chloride	<0.0045		0.0045	0.0020	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1
Xylenes, Total	<0.0090		0.0090	0.0014	mg/Kg	✳	10/20/21 18:07	10/28/21 19:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		75 - 131	10/20/21 18:07	10/28/21 19:02	1
Dibromofluoromethane	100		75 - 126	10/20/21 18:07	10/28/21 19:02	1
1,2-Dichloroethane-d4 (Surr)	104		70 - 134	10/20/21 18:07	10/28/21 19:02	1
Toluene-d8 (Surr)	96		75 - 124	10/20/21 18:07	10/28/21 19:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<2.0		2.0	0.35	mg/Kg	✳	10/19/21 12:49	10/29/21 17:32	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		72 - 124	10/19/21 12:49	10/29/21 17:32	50
Dibromofluoromethane	97		75 - 120	10/19/21 12:49	10/29/21 17:32	50

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B06 (0-7)**

**Lab Sample ID: 500-207092-10**

Date Collected: 10/19/21 12:49

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 40.9

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		75 - 126	10/19/21 12:49	10/29/21 17:32	50
Toluene-d8 (Surr)	100		75 - 120	10/19/21 12:49	10/29/21 17:32	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.39		0.39	0.17	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
Bis(2-chloroethyl)ether	<0.39		0.39	0.12	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
1,3-Dichlorobenzene	<0.39		0.39	0.088	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
1,4-Dichlorobenzene	<0.39		0.39	0.10	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
1,2-Dichlorobenzene	<0.39		0.39	0.094	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
2-Methylphenol	<0.39		0.39	0.13	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
2,2'-oxybis[1-chloropropane]	<0.39		0.39	0.091	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
N-Nitrosodi-n-propylamine	<0.16		0.16	0.096	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
Hexachloroethane	<0.39		0.39	0.12	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
2-Chlorophenol	<0.39		0.39	0.13	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
Nitrobenzene	<0.078		0.078	0.020	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
Bis(2-chloroethoxy)methane	<0.39		0.39	0.080	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
1,2,4-Trichlorobenzene	<0.39		0.39	0.085	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
Isophorone	<0.39		0.39	0.088	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
2,4-Dimethylphenol	<0.78		0.78	0.30	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
Hexachlorobutadiene	<0.39		0.39	0.12	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
Naphthalene	<0.078		0.078	0.012	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
2,4-Dichlorophenol	<0.78		0.78	0.19	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
4-Chloroaniline	<1.6		1.6	0.37	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
2,4,6-Trichlorophenol	<0.78		0.78	0.27	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
2,4,5-Trichlorophenol	<0.78		0.78	0.18	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
Hexachlorocyclopentadiene	<1.6		1.6	0.45	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
2-Methylnaphthalene	<0.16		0.16	0.014	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
2-Nitroaniline	<0.39		0.39	0.11	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
2-Chloronaphthalene	<0.39		0.39	0.087	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
4-Chloro-3-methylphenol	<0.78		0.78	0.27	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
2,6-Dinitrotoluene	<0.39		0.39	0.15	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
2-Nitrophenol	<0.78		0.78	0.19	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
3-Nitroaniline	<0.78		0.78	0.24	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
Dimethyl phthalate	<0.39		0.39	0.10	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
2,4-Dinitrophenol	<1.6		1.6	1.4	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
Acenaphthylene	<0.078		0.078	0.010	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
2,4-Dinitrotoluene	<0.39		0.39	0.12	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
Acenaphthene	<0.078		0.078	0.014	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
Dibenzofuran	<0.39		0.39	0.092	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
4-Nitrophenol	<1.6		1.6	0.75	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
Fluorene	<0.078		0.078	0.011	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
4-Nitroaniline	<0.78		0.78	0.33	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
4-Bromophenyl phenyl ether	<0.39		0.39	0.10	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
Hexachlorobenzene	<0.16	+	0.16	0.018	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
Diethyl phthalate	<0.39		0.39	0.13	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
4-Chlorophenyl phenyl ether	<0.39		0.39	0.092	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
Pentachlorophenol	<1.6		1.6	1.3	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
N-Nitrosodiphenylamine	<0.39		0.39	0.093	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1

Eurofins TestAmerica, Chicago



# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B06 (0-7)**

**Lab Sample ID: 500-207092-10**

**Date Collected: 10/19/21 12:49**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

**Percent Solids: 40.9**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,6-Dinitro-2-methylphenol	<1.6		1.6	0.63	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
Phenanthrene	<0.078		0.078	0.011	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
Anthracene	<0.078		0.078	0.013	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
Carbazole	<0.39		0.39	0.20	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
Di-n-butyl phthalate	<0.39		0.39	0.12	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
Fluoranthene	<0.078		0.078	0.015	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
Pyrene	<0.078		0.078	0.016	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
Butyl benzyl phthalate	<0.39		0.39	0.15	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
Benzo[a]anthracene	<0.078		0.078	0.011	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
Chrysene	<0.078		0.078	0.021	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
3,3'-Dichlorobenzidine	<0.39		0.39	0.11	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
Bis(2-ethylhexyl) phthalate	<0.39		0.39	0.14	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
Di-n-octyl phthalate	<0.39		0.39	0.13	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
Benzo[b]fluoranthene	<0.078		0.078	0.017	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
Benzo[k]fluoranthene	<0.078		0.078	0.023	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
Benzo[a]pyrene	<0.078		0.078	0.015	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
Indeno[1,2,3-cd]pyrene	<0.078		0.078	0.020	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
Dibenz(a,h)anthracene	<0.078		0.078	0.015	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
Benzo[g,h,i]perylene	<0.078		0.078	0.025	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1
3 & 4 Methylphenol	<0.39		0.39	0.13	mg/Kg	☆	10/25/21 14:39	11/05/21 11:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	114		31 - 166	10/25/21 14:39	11/05/21 11:36	1
Phenol-d5	99		30 - 153	10/25/21 14:39	11/05/21 11:36	1
Nitrobenzene-d5 (Surr)	77		37 - 147	10/25/21 14:39	11/05/21 11:36	1
2-Fluorobiphenyl (Surr)	96		43 - 145	10/25/21 14:39	11/05/21 11:36	1
2,4,6-Tribromophenol	91		31 - 143	10/25/21 14:39	11/05/21 11:36	1
Terphenyl-d14 (Surr)	105		42 - 157	10/25/21 14:39	11/05/21 11:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.90	J B	2.4	0.47	mg/Kg	☆	10/31/21 08:55	11/01/21 13:09	1
Arsenic	10		1.2	0.41	mg/Kg	☆	10/31/21 08:55	11/01/21 13:09	1
Barium	72		1.2	0.14	mg/Kg	☆	10/31/21 08:55	11/01/21 13:09	1
Beryllium	0.96		0.48	0.11	mg/Kg	☆	10/31/21 08:55	11/01/21 13:09	1
Boron	11		6.0	0.56	mg/Kg	☆	10/31/21 08:55	11/01/21 13:09	1
Cadmium	0.31	B	0.24	0.043	mg/Kg	☆	10/31/21 08:55	11/01/21 13:09	1
Calcium	11000	B	24	4.1	mg/Kg	☆	10/31/21 08:55	11/01/21 13:09	1
Chromium	20		1.2	0.60	mg/Kg	☆	10/31/21 08:55	11/01/21 13:09	1
Cobalt	13		0.60	0.16	mg/Kg	☆	10/31/21 08:55	11/01/21 13:09	1
Copper	36		1.2	0.34	mg/Kg	☆	10/31/21 08:55	11/01/21 13:09	1
Iron	28000	B	24	13	mg/Kg	☆	10/31/21 08:55	11/01/21 13:09	1
Lead	14		0.60	0.28	mg/Kg	☆	10/31/21 08:55	11/01/21 13:09	1
Magnesium	7300	B	12	6.0	mg/Kg	☆	10/31/21 08:55	11/01/21 13:09	1
Manganese	160	B	1.2	0.17	mg/Kg	☆	10/31/21 08:55	11/01/21 13:09	1
Nickel	45		1.2	0.35	mg/Kg	☆	10/31/21 08:55	11/01/21 13:09	1
Potassium	2400		60	21	mg/Kg	☆	10/31/21 08:55	11/01/21 13:09	1
Selenium	1.4		1.2	0.71	mg/Kg	☆	10/31/21 08:55	11/01/21 13:09	1
Silver	0.39	J	0.60	0.16	mg/Kg	☆	10/31/21 08:55	11/01/21 13:09	1
Sodium	710		120	18	mg/Kg	☆	10/31/21 08:55	11/01/21 13:09	1

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# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B06 (0-7)**

**Lab Sample ID: 500-207092-10**

Date Collected: 10/19/21 12:49

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 40.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<1.2		1.2	0.60	mg/Kg	☼	10/31/21 08:55	11/01/21 13:09	1
<b>Vanadium</b>	<b>29</b>		0.60	0.14	mg/Kg	☼	10/31/21 08:55	11/01/21 13:09	1
<b>Zinc</b>	<b>98</b>		2.4	1.1	mg/Kg	☼	10/31/21 08:55	11/01/21 13:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>0.32</b>	<b>J</b>	0.50	0.050	mg/L		10/27/21 08:00	10/27/21 19:07	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/27/21 08:00	10/27/21 19:07	1
<b>Boron</b>	<b>0.17</b>	<b>J</b>	0.50	0.050	mg/L		10/27/21 08:00	10/27/21 19:07	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/27/21 08:00	10/27/21 19:07	1
<b>Chromium</b>	<b>0.012</b>	<b>J</b>	0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:07	1
<b>Cobalt</b>	<b>0.011</b>	<b>J</b>	0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:07	1
<b>Iron</b>	<b>6.3</b>		0.40	0.20	mg/L		10/27/21 08:00	10/27/21 19:07	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/27/21 08:00	10/27/21 19:07	1
<b>Manganese</b>	<b>0.34</b>		0.025	0.010	mg/L		10/27/21 08:00	10/28/21 13:21	1
<b>Nickel</b>	<b>0.019</b>	<b>J</b>	0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:07	1
Selenium	<0.050		0.050	0.020	mg/L		10/27/21 08:00	10/27/21 19:07	1
Silver	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:07	1
<b>Zinc</b>	<b>0.11</b>	<b>J B *+</b>	0.50	0.020	mg/L		10/27/21 08:00	10/27/21 19:07	1

### Method: 6010B - SPLP Metals - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Iron</b>	<b>4.4</b>		0.20	0.20	mg/L		10/27/21 08:07	10/28/21 15:06	1
<b>Manganese</b>	<b>0.026</b>		0.025	0.010	mg/L		10/27/21 08:07	10/28/21 15:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/27/21 08:00	10/28/21 14:36	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/27/21 08:00	10/28/21 14:36	1

### Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/27/21 09:40	10/28/21 09:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.051</b>		0.037	0.012	mg/Kg	☼	10/28/21 14:10	10/29/21 06:51	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>6.9</b>		0.2	0.2	SU			10/25/21 17:29	1

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

Client Sample ID: 2674V2-06-B05 (0-7)

Lab Sample ID: 500-207092-11

Date Collected: 10/19/21 13:10

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 82.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.023		0.023	0.0099	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
Benzene	<0.0023		0.0023	0.00058	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
Bromodichloromethane	<0.0023		0.0023	0.00046	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
Bromoform	<0.0023		0.0023	0.00066	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
Bromomethane	<0.0057		0.0057	0.0022	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
2-Butanone (MEK)	<0.0057	*+	0.0057	0.0025	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
Carbon disulfide	<0.0057		0.0057	0.0012	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
Carbon tetrachloride	<0.0023		0.0023	0.00066	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
Chlorobenzene	<0.0023		0.0023	0.00084	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
Chloroethane	<0.0057	*+	0.0057	0.0017	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
Chloroform	<0.0023		0.0023	0.00079	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
Chloromethane	<0.0057		0.0057	0.0023	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
cis-1,2-Dichloroethene	<0.0023		0.0023	0.00064	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
cis-1,3-Dichloropropene	<0.0023		0.0023	0.00069	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
Dibromochloromethane	<0.0023		0.0023	0.00074	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
1,1-Dichloroethane	<0.0023		0.0023	0.00078	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
1,2-Dichloroethane	<0.0057		0.0057	0.0018	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
1,1-Dichloroethene	<0.0023		0.0023	0.00078	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
1,2-Dichloropropene	<0.0023		0.0023	0.00059	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
1,3-Dichloropropene, Total	<0.0023		0.0023	0.00080	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
Ethylbenzene	<0.0023		0.0023	0.0011	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
2-Hexanone	<0.0057		0.0057	0.0018	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
Methylene Chloride	<0.0057		0.0057	0.0022	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
4-Methyl-2-pentanone (MIBK)	<0.0057		0.0057	0.0017	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
Methyl tert-butyl ether	<0.0023		0.0023	0.00067	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
Styrene	<0.0023		0.0023	0.00069	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
1,1,2,2-Tetrachloroethane	<0.0023		0.0023	0.00073	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
Tetrachloroethene	<0.0023		0.0023	0.00078	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
Toluene	<0.0023		0.0023	0.00057	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
trans-1,2-Dichloroethene	<0.0023		0.0023	0.0010	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
trans-1,3-Dichloropropene	<0.0023		0.0023	0.00080	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
1,1,1-Trichloroethane	<0.0023		0.0023	0.00076	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
1,1,2-Trichloroethane	<0.0023		0.0023	0.00098	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
Trichloroethene	<0.0023		0.0023	0.00077	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
Vinyl acetate	<0.0057	*+	0.0057	0.0020	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
Vinyl chloride	<0.0023		0.0023	0.0010	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1
Xylenes, Total	<0.0046		0.0046	0.00073	mg/Kg	☼	10/20/21 18:07	10/27/21 16:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		75 - 131	10/20/21 18:07	10/27/21 16:43	1
Dibromofluoromethane	101		75 - 126	10/20/21 18:07	10/27/21 16:43	1
1,2-Dichloroethane-d4 (Surr)	105		70 - 134	10/20/21 18:07	10/27/21 16:43	1
Toluene-d8 (Surr)	97		75 - 124	10/20/21 18:07	10/27/21 16:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.086	mg/Kg	☼	10/25/21 14:39	11/03/21 21:30	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.058	mg/Kg	☼	10/25/21 14:39	11/03/21 21:30	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	10/25/21 14:39	11/03/21 21:30	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	10/25/21 14:39	11/03/21 21:30	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B05 (0-7)**

**Lab Sample ID: 500-207092-11**

Date Collected: 10/19/21 13:10

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 82.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
2-Methylphenol	<0.20		0.20	0.062	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.048	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
2-Chlorophenol	<0.20		0.20	0.066	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
Isophorone	<0.20		0.20	0.044	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
2,4-Dichlorophenol	<0.39		0.39	0.092	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
2-Methylnaphthalene	<0.078		0.078	0.0072	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
2-Nitroaniline	<0.20		0.20	0.052	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
2,6-Dinitrotoluene	<0.20		0.20	0.076	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
2,4-Dinitrophenol	<0.78		0.78	0.69	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
Hexachlorobenzene	<0.078	+	0.078	0.0090	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.045	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
<b>Phenanthrene</b>	<b>0.030</b>	<b>J</b>	0.039	0.0054	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
<b>Anthracene</b>	<b>0.0079</b>	<b>J</b>	0.039	0.0065	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
Carbazole	<0.20		0.20	0.097	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
<b>Fluoranthene</b>	<b>0.12</b>		0.039	0.0072	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
<b>Pyrene</b>	<b>0.089</b>		0.039	0.0077	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1
<b>Benzo[a]anthracene</b>	<b>0.051</b>		0.039	0.0052	mg/Kg	✳	10/25/21 14:39	11/03/21 21:30	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B05 (0-7)**

**Lab Sample ID: 500-207092-11**

**Date Collected: 10/19/21 13:10**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

**Percent Solids: 82.9**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chrysene</b>	<b>0.077</b>		0.039	0.011	mg/Kg	✱	10/25/21 14:39	11/03/21 21:30	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.054	mg/Kg	✱	10/25/21 14:39	11/03/21 21:30	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	✱	10/25/21 14:39	11/03/21 21:30	1
Di-n-octyl phthalate	<0.20		0.20	0.063	mg/Kg	✱	10/25/21 14:39	11/03/21 21:30	1
<b>Benzo[b]fluoranthene</b>	<b>0.090</b>		0.039	0.0084	mg/Kg	✱	10/25/21 14:39	11/03/21 21:30	1
<b>Benzo[k]fluoranthene</b>	<b>0.081</b>		0.039	0.011	mg/Kg	✱	10/25/21 14:39	11/03/21 21:30	1
<b>Benzo[a]pyrene</b>	<b>0.069</b>		0.039	0.0075	mg/Kg	✱	10/25/21 14:39	11/03/21 21:30	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.030</b>	<b>J</b>	0.039	0.010	mg/Kg	✱	10/25/21 14:39	11/03/21 21:30	1
<b>Dibenz(a,h)anthracene</b>	<b>0.0085</b>	<b>J</b>	0.039	0.0075	mg/Kg	✱	10/25/21 14:39	11/03/21 21:30	1
<b>Benzo[g,h,i]perylene</b>	<b>0.033</b>	<b>J</b>	0.039	0.013	mg/Kg	✱	10/25/21 14:39	11/03/21 21:30	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	✱	10/25/21 14:39	11/03/21 21:30	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorophenol	93		31 - 166				10/25/21 14:39	11/03/21 21:30	1
Phenol-d5	81		30 - 153				10/25/21 14:39	11/03/21 21:30	1
Nitrobenzene-d5 (Surr)	77		37 - 147				10/25/21 14:39	11/03/21 21:30	1
2-Fluorobiphenyl (Surr)	83		43 - 145				10/25/21 14:39	11/03/21 21:30	1
2,4,6-Tribromophenol	85		31 - 143				10/25/21 14:39	11/03/21 21:30	1
Terphenyl-d14 (Surr)	95		42 - 157				10/25/21 14:39	11/03/21 21:30	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	✱	10/31/21 08:55	11/01/21 13:12	1
<b>Arsenic</b>	<b>3.8</b>		0.59	0.20	mg/Kg	✱	10/31/21 08:55	11/01/21 13:12	1
<b>Barium</b>	<b>42</b>		0.59	0.067	mg/Kg	✱	10/31/21 08:55	11/01/21 13:12	1
<b>Beryllium</b>	<b>0.57</b>		0.24	0.055	mg/Kg	✱	10/31/21 08:55	11/01/21 13:12	1
<b>Boron</b>	<b>7.1</b>		3.0	0.28	mg/Kg	✱	10/31/21 08:55	11/01/21 13:12	1
<b>Cadmium</b>	<b>0.19</b>	<b>B</b>	0.12	0.021	mg/Kg	✱	10/31/21 08:55	11/01/21 13:12	1
<b>Calcium</b>	<b>27000</b>	<b>B</b>	12	2.0	mg/Kg	✱	10/31/21 08:55	11/01/21 13:12	1
<b>Chromium</b>	<b>13</b>		0.59	0.29	mg/Kg	✱	10/31/21 08:55	11/01/21 13:12	1
<b>Cobalt</b>	<b>6.6</b>		0.30	0.077	mg/Kg	✱	10/31/21 08:55	11/01/21 13:12	1
<b>Copper</b>	<b>18</b>		0.59	0.17	mg/Kg	✱	10/31/21 08:55	11/01/21 13:12	1
<b>Iron</b>	<b>14000</b>	<b>B</b>	12	6.1	mg/Kg	✱	10/31/21 08:55	11/01/21 13:12	1
<b>Lead</b>	<b>34</b>		0.30	0.14	mg/Kg	✱	10/31/21 08:55	11/01/21 13:12	1
<b>Magnesium</b>	<b>16000</b>	<b>B</b>	5.9	2.9	mg/Kg	✱	10/31/21 08:55	11/01/21 13:12	1
<b>Manganese</b>	<b>180</b>	<b>B</b>	0.59	0.086	mg/Kg	✱	10/31/21 08:55	11/01/21 13:12	1
<b>Nickel</b>	<b>18</b>		0.59	0.17	mg/Kg	✱	10/31/21 08:55	11/01/21 13:12	1
<b>Potassium</b>	<b>1600</b>		30	10	mg/Kg	✱	10/31/21 08:55	11/01/21 13:12	1
Selenium	<0.59		0.59	0.35	mg/Kg	✱	10/31/21 08:55	11/01/21 13:12	1
<b>Silver</b>	<b>0.26</b>	<b>J</b>	0.30	0.076	mg/Kg	✱	10/31/21 08:55	11/01/21 13:12	1
<b>Sodium</b>	<b>180</b>		59	8.7	mg/Kg	✱	10/31/21 08:55	11/01/21 13:12	1
<b>Thallium</b>	<b>0.30</b>	<b>J</b>	0.59	0.29	mg/Kg	✱	10/31/21 08:55	11/01/21 13:12	1
<b>Vanadium</b>	<b>18</b>		0.30	0.070	mg/Kg	✱	10/31/21 08:55	11/01/21 13:12	1
<b>Zinc</b>	<b>85</b>		1.2	0.52	mg/Kg	✱	10/31/21 08:55	11/01/21 13:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>0.30</b>	<b>J</b>	0.50	0.050	mg/L		10/27/21 08:00	10/27/21 19:10	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/27/21 08:00	10/27/21 19:10	1
<b>Boron</b>	<b>0.12</b>	<b>J</b>	0.50	0.050	mg/L		10/27/21 08:00	10/27/21 19:10	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B05 (0-7)**

**Lab Sample ID: 500-207092-11**

Date Collected: 10/19/21 13:10

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 82.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/27/21 08:00	10/27/21 19:10	1
Chromium	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:10	1
Cobalt	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:10	1
<b>Iron</b>	<b>0.62</b>		0.40	0.20	mg/L		10/27/21 08:00	10/27/21 19:10	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/27/21 08:00	10/27/21 19:10	1
<b>Manganese</b>	<b>0.60</b>		0.025	0.010	mg/L		10/27/21 08:00	10/28/21 13:25	1
Nickel	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:10	1
Selenium	<0.050		0.050	0.020	mg/L		10/27/21 08:00	10/27/21 19:10	1
Silver	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:10	1
<b>Zinc</b>	<b>0.062</b>	<b>J B **</b>	0.50	0.020	mg/L		10/27/21 08:00	10/27/21 19:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>0.15</b>		0.025	0.010	mg/L		10/27/21 08:07	10/28/21 15:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/27/21 08:00	10/28/21 14:37	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/27/21 08:00	10/28/21 14:37	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/27/21 09:40	10/28/21 09:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.048</b>		0.019	0.0065	mg/Kg	☼	10/28/21 14:10	10/29/21 06:58	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>7.8</b>		0.2	0.2	SU			10/25/21 17:32	1

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B04 (0-7)**

**Lab Sample ID: 500-207092-12**

Date Collected: 10/19/21 13:23

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 85.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.022		0.022	0.0096	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
Benzene	<0.0022		0.0022	0.00056	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
Bromodichloromethane	<0.0022		0.0022	0.00045	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
Bromoform	<0.0022		0.0022	0.00064	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
Bromomethane	<0.0055		0.0055	0.0021	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
2-Butanone (MEK)	<0.0055	*+	0.0055	0.0024	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
Carbon disulfide	<0.0055		0.0055	0.0011	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
Carbon tetrachloride	<0.0022		0.0022	0.00064	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
Chlorobenzene	<0.0022		0.0022	0.00081	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
Chloroethane	<0.0055	*+	0.0055	0.0016	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
Chloroform	<0.0022		0.0022	0.00076	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
Chloromethane	<0.0055		0.0055	0.0022	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
cis-1,2-Dichloroethene	<0.0022		0.0022	0.00062	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
cis-1,3-Dichloropropene	<0.0022		0.0022	0.00066	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
Dibromochloromethane	<0.0022		0.0022	0.00072	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
1,1-Dichloroethane	<0.0022		0.0022	0.00075	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
1,2-Dichloroethane	<0.0055		0.0055	0.0017	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
1,1-Dichloroethene	<0.0022		0.0022	0.00076	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
1,2-Dichloropropane	<0.0022		0.0022	0.00057	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
1,3-Dichloropropane, Total	<0.0022		0.0022	0.00077	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
Ethylbenzene	<0.0022		0.0022	0.0011	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
2-Hexanone	<0.0055		0.0055	0.0017	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
Methylene Chloride	<0.0055		0.0055	0.0022	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
4-Methyl-2-pentanone (MIBK)	<0.0055		0.0055	0.0016	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
Methyl tert-butyl ether	<0.0022		0.0022	0.00065	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
Styrene	<0.0022		0.0022	0.00067	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
1,1,2,2-Tetrachloroethane	<0.0022		0.0022	0.00070	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
Tetrachloroethene	<0.0022		0.0022	0.00075	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
Toluene	<0.0022		0.0022	0.00056	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
trans-1,2-Dichloroethene	<0.0022		0.0022	0.00098	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
trans-1,3-Dichloropropene	<0.0022		0.0022	0.00077	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
<b>1,1,1-Trichloroethane</b>	<b>0.0013</b>	<b>J</b>	0.0022	0.00074	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
1,1,2-Trichloroethane	<0.0022		0.0022	0.00095	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
Trichloroethene	<0.0022		0.0022	0.00074	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
Vinyl acetate	<0.0055	*+	0.0055	0.0019	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
Vinyl chloride	<0.0022		0.0022	0.00098	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1
Xylenes, Total	<0.0044		0.0044	0.00071	mg/Kg	✳	10/20/21 18:07	10/27/21 17:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		75 - 131	10/20/21 18:07	10/27/21 17:09	1
Dibromofluoromethane	100		75 - 126	10/20/21 18:07	10/27/21 17:09	1
1,2-Dichloroethane-d4 (Surr)	107		70 - 134	10/20/21 18:07	10/27/21 17:09	1
Toluene-d8 (Surr)	95		75 - 124	10/20/21 18:07	10/27/21 17:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	✳	10/25/21 14:39	11/03/21 21:54	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	✳	10/25/21 14:39	11/03/21 21:54	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	✳	10/25/21 14:39	11/03/21 21:54	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	✳	10/25/21 14:39	11/03/21 21:54	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B04 (0-7)**

**Lab Sample ID: 500-207092-12**

**Date Collected: 10/19/21 13:23**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

**Percent Solids: 85.4**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
2-Methylnaphthalene	<0.078		0.078	0.0071	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
Hexachlorobenzene	<0.078	*+	0.078	0.0089	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
<b>Phenanthrene</b>	<b>0.0072</b>	<b>J</b>	0.038	0.0054	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
Anthracene	<0.038		0.038	0.0064	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
<b>Fluoranthene</b>	<b>0.018</b>	<b>J</b>	0.038	0.0071	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
<b>Pyrene</b>	<b>0.015</b>	<b>J</b>	0.038	0.0076	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1
<b>Benzo[a]anthracene</b>	<b>0.0068</b>	<b>J</b>	0.038	0.0052	mg/Kg	☆	10/25/21 14:39	11/03/21 21:54	1

Euofins TestAmerica, Chicago





# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B04 (0-7)**

**Lab Sample ID: 500-207092-12**

Date Collected: 10/19/21 13:23

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 85.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/27/21 08:00	10/27/21 19:13	1
Chromium	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:13	1
Cobalt	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:13	1
Iron	<0.40		0.40	0.20	mg/L		10/27/21 08:00	10/27/21 19:13	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/27/21 08:00	10/27/21 19:13	1
<b>Manganese</b>	<b>0.093</b>		0.025	0.010	mg/L		10/27/21 08:00	10/28/21 13:28	1
<b>Nickel</b>	<b>0.012</b>	<b>J</b>	0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:13	1
Selenium	<0.050		0.050	0.020	mg/L		10/27/21 08:00	10/27/21 19:13	1
Silver	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:13	1
<b>Zinc</b>	<b>0.028</b>	<b>J B ++</b>	0.50	0.020	mg/L		10/27/21 08:00	10/27/21 19:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/27/21 08:00	10/28/21 14:39	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/27/21 08:00	10/28/21 14:39	1

## Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/27/21 09:40	10/28/21 09:57	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.047</b>		0.019	0.0063	mg/Kg	☼	10/28/21 14:10	10/29/21 07:01	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>8.0</b>		0.2	0.2	SU			10/25/21 17:34	1







# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B05 (0-7)D**

**Lab Sample ID: 500-207092-13**

Date Collected: 10/19/21 13:13

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 84.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/27/21 08:00	10/27/21 19:17	1
Chromium	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:17	1
Cobalt	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:17	1
<b>Iron</b>	<b>2.9</b>		0.40	0.20	mg/L		10/27/21 08:00	10/27/21 19:17	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/27/21 08:00	10/27/21 19:17	1
<b>Manganese</b>	<b>0.52</b>		0.025	0.010	mg/L		10/27/21 08:00	10/28/21 13:31	1
Nickel	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:17	1
Selenium	<0.050		0.050	0.020	mg/L		10/27/21 08:00	10/27/21 19:17	1
Silver	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:17	1
<b>Zinc</b>	<b>0.048</b>	<b>J B **</b>	0.50	0.020	mg/L		10/27/21 08:00	10/27/21 19:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>0.13</b>		0.025	0.010	mg/L		10/27/21 08:07	10/28/21 15:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/27/21 08:00	10/28/21 14:40	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/27/21 08:00	10/28/21 14:40	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/27/21 09:40	10/28/21 09:59	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	0.0064	mg/Kg	☼	10/28/21 14:10	10/29/21 07:03	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>7.9</b>		0.2	0.2	SU			10/25/21 17:37	1







# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B03 (0-7)**

**Lab Sample ID: 500-207092-14**

Date Collected: 10/19/21 13:37

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 72.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.044		0.044	0.012	mg/Kg	☼	10/25/21 14:39	11/03/21 22:42	1
3,3'-Dichlorobenzidine	<0.22		0.22	0.061	mg/Kg	☼	10/25/21 14:39	11/03/21 22:42	1
Bis(2-ethylhexyl) phthalate	<0.22		0.22	0.080	mg/Kg	☼	10/25/21 14:39	11/03/21 22:42	1
Di-n-octyl phthalate	<0.22		0.22	0.072	mg/Kg	☼	10/25/21 14:39	11/03/21 22:42	1
Benzo[b]fluoranthene	<0.044		0.044	0.0095	mg/Kg	☼	10/25/21 14:39	11/03/21 22:42	1
Benzo[k]fluoranthene	<0.044		0.044	0.013	mg/Kg	☼	10/25/21 14:39	11/03/21 22:42	1
Benzo[a]pyrene	<0.044		0.044	0.0085	mg/Kg	☼	10/25/21 14:39	11/03/21 22:42	1
Indeno[1,2,3-cd]pyrene	<0.044		0.044	0.011	mg/Kg	☼	10/25/21 14:39	11/03/21 22:42	1
Dibenz(a,h)anthracene	<0.044		0.044	0.0085	mg/Kg	☼	10/25/21 14:39	11/03/21 22:42	1
Benzo[g,h,i]perylene	<0.044		0.044	0.014	mg/Kg	☼	10/25/21 14:39	11/03/21 22:42	1
3 & 4 Methylphenol	<0.22		0.22	0.073	mg/Kg	☼	10/25/21 14:39	11/03/21 22:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	94		31 - 166				10/25/21 14:39	11/03/21 22:42	1
Phenol-d5	81		30 - 153				10/25/21 14:39	11/03/21 22:42	1
Nitrobenzene-d5 (Surr)	74		37 - 147				10/25/21 14:39	11/03/21 22:42	1
2-Fluorobiphenyl (Surr)	81		43 - 145				10/25/21 14:39	11/03/21 22:42	1
2,4,6-Tribromophenol	91		31 - 143				10/25/21 14:39	11/03/21 22:42	1
Terphenyl-d14 (Surr)	112		42 - 157				10/25/21 14:39	11/03/21 22:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.31	J B	1.3	0.26	mg/Kg	☼	10/31/21 08:55	11/01/21 13:22	1
Arsenic	2.4		0.66	0.23	mg/Kg	☼	10/31/21 08:55	11/01/21 13:22	1
Barium	54		0.66	0.075	mg/Kg	☼	10/31/21 08:55	11/01/21 13:22	1
Beryllium	0.78		0.26	0.062	mg/Kg	☼	10/31/21 08:55	11/01/21 13:22	1
Boron	6.5		3.3	0.31	mg/Kg	☼	10/31/21 08:55	11/01/21 13:22	1
Cadmium	0.36	B	0.13	0.024	mg/Kg	☼	10/31/21 08:55	11/01/21 13:22	1
Calcium	18000	B	13	2.2	mg/Kg	☼	10/31/21 08:55	11/01/21 13:22	1
Chromium	17		0.66	0.33	mg/Kg	☼	10/31/21 08:55	11/01/21 13:22	1
Cobalt	11		0.33	0.087	mg/Kg	☼	10/31/21 08:55	11/01/21 13:22	1
Copper	30		0.66	0.19	mg/Kg	☼	10/31/21 08:55	11/01/21 13:22	1
Iron	16000	B	13	6.9	mg/Kg	☼	10/31/21 08:55	11/01/21 13:22	1
Lead	12		0.33	0.15	mg/Kg	☼	10/31/21 08:55	11/01/21 13:22	1
Magnesium	12000	B	6.6	3.3	mg/Kg	☼	10/31/21 08:55	11/01/21 13:22	1
Manganese	110	B	0.66	0.096	mg/Kg	☼	10/31/21 08:55	11/01/21 13:22	1
Nickel	28		0.66	0.19	mg/Kg	☼	10/31/21 08:55	11/01/21 13:22	1
Potassium	1700		33	12	mg/Kg	☼	10/31/21 08:55	11/01/21 13:22	1
Selenium	1.0		0.66	0.39	mg/Kg	☼	10/31/21 08:55	11/01/21 13:22	1
Silver	0.30	J	0.33	0.085	mg/Kg	☼	10/31/21 08:55	11/01/21 13:22	1
Sodium	500		66	9.8	mg/Kg	☼	10/31/21 08:55	11/01/21 13:22	1
Thallium	0.39	J	0.66	0.33	mg/Kg	☼	10/31/21 08:55	11/01/21 13:22	1
Vanadium	22		0.33	0.078	mg/Kg	☼	10/31/21 08:55	11/01/21 13:22	1
Zinc	64		1.3	0.58	mg/Kg	☼	10/31/21 08:55	11/01/21 13:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.34	J	0.50	0.050	mg/L		10/27/21 08:00	10/27/21 19:20	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/27/21 08:00	10/27/21 19:20	1
Boron	0.068	J	0.50	0.050	mg/L		10/27/21 08:00	10/27/21 19:20	1

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B03 (0-7)**

**Lab Sample ID: 500-207092-14**

Date Collected: 10/19/21 13:37

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 72.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/27/21 08:00	10/27/21 19:20	1
Chromium	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:20	1
<b>Cobalt</b>	<b>0.013</b>	<b>J</b>	0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:20	1
Iron	<0.40		0.40	0.20	mg/L		10/27/21 08:00	10/27/21 19:20	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/27/21 08:00	10/27/21 19:20	1
<b>Manganese</b>	<b>0.97</b>		0.025	0.010	mg/L		10/27/21 08:00	10/28/21 13:34	1
<b>Nickel</b>	<b>0.012</b>	<b>J</b>	0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:20	1
Selenium	<0.050		0.050	0.020	mg/L		10/27/21 08:00	10/27/21 19:20	1
Silver	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:20	1
<b>Zinc</b>	<b>0.026</b>	<b>J B **</b>	0.50	0.020	mg/L		10/27/21 08:00	10/27/21 19:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>0.20</b>		0.025	0.010	mg/L		10/27/21 08:07	10/28/21 15:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/27/21 08:00	10/28/21 14:41	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/27/21 08:00	10/28/21 14:41	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/27/21 09:40	10/28/21 10:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.031</b>		0.020	0.0067	mg/Kg	☼	10/28/21 14:10	10/29/21 07:05	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>7.4</b>		0.2	0.2	SU			10/25/21 17:39	1





# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

Client Sample ID: 2674V2-06-B02 (0-7)

Lab Sample ID: 500-207092-15

Date Collected: 10/19/21 13:58

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 62.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.051		0.051	0.014	mg/Kg	✖	10/25/21 14:39	11/04/21 23:00	1
3,3'-Dichlorobenzidine	<0.26		0.26	0.071	mg/Kg	✖	10/25/21 14:39	11/04/21 23:00	1
Bis(2-ethylhexyl) phthalate	<0.26		0.26	0.093	mg/Kg	✖	10/25/21 14:39	11/04/21 23:00	1
Di-n-octyl phthalate	<0.26		0.26	0.083	mg/Kg	✖	10/25/21 14:39	11/04/21 23:00	1
Benzo[b]fluoranthene	<0.051		0.051	0.011	mg/Kg	✖	10/25/21 14:39	11/04/21 23:00	1
Benzo[k]fluoranthene	<0.051		0.051	0.015	mg/Kg	✖	10/25/21 14:39	11/04/21 23:00	1
Benzo[a]pyrene	<0.051		0.051	0.0098	mg/Kg	✖	10/25/21 14:39	11/04/21 23:00	1
Indeno[1,2,3-cd]pyrene	<0.051		0.051	0.013	mg/Kg	✖	10/25/21 14:39	11/04/21 23:00	1
Dibenz(a,h)anthracene	<0.051		0.051	0.0098	mg/Kg	✖	10/25/21 14:39	11/04/21 23:00	1
Benzo[g,h,i]perylene	<0.051		0.051	0.016	mg/Kg	✖	10/25/21 14:39	11/04/21 23:00	1
3 & 4 Methylphenol	<0.26		0.26	0.085	mg/Kg	✖	10/25/21 14:39	11/04/21 23:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	86		31 - 166	10/25/21 14:39	11/04/21 23:00	1
Phenol-d5	79		30 - 153	10/25/21 14:39	11/04/21 23:00	1
Nitrobenzene-d5 (Surr)	49		37 - 147	10/25/21 14:39	11/04/21 23:00	1
2-Fluorobiphenyl (Surr)	65		43 - 145	10/25/21 14:39	11/04/21 23:00	1
2,4,6-Tribromophenol	59		31 - 143	10/25/21 14:39	11/04/21 23:00	1
Terphenyl-d14 (Surr)	90		42 - 157	10/25/21 14:39	11/04/21 23:00	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.41	J B	1.5	0.29	mg/Kg	✖	10/31/21 08:55	11/01/21 13:25	1
Arsenic	2.9		0.74	0.25	mg/Kg	✖	10/31/21 08:55	11/01/21 13:25	1
Barium	43		0.74	0.084	mg/Kg	✖	10/31/21 08:55	11/01/21 13:25	1
Beryllium	0.59		0.29	0.069	mg/Kg	✖	10/31/21 08:55	11/01/21 13:25	1
Boron	8.0		3.7	0.34	mg/Kg	✖	10/31/21 08:55	11/01/21 13:25	1
Cadmium	0.31	B	0.15	0.026	mg/Kg	✖	10/31/21 08:55	11/01/21 13:25	1
Calcium	43000	B	15	2.5	mg/Kg	✖	10/31/21 08:55	11/01/21 13:25	1
Chromium	13		0.74	0.36	mg/Kg	✖	10/31/21 08:55	11/01/21 13:25	1
Cobalt	8.4		0.37	0.096	mg/Kg	✖	10/31/21 08:55	11/01/21 13:25	1
Copper	27		0.74	0.21	mg/Kg	✖	10/31/21 08:55	11/01/21 13:25	1
Iron	11000	B	15	7.7	mg/Kg	✖	10/31/21 08:55	11/01/21 13:25	1
Lead	12		0.37	0.17	mg/Kg	✖	10/31/21 08:55	11/01/21 13:25	1
Magnesium	20000	B	7.4	3.6	mg/Kg	✖	10/31/21 08:55	11/01/21 13:25	1
Manganese	200	B	0.74	0.11	mg/Kg	✖	10/31/21 08:55	11/01/21 13:25	1
Nickel	24		0.74	0.21	mg/Kg	✖	10/31/21 08:55	11/01/21 13:25	1
Potassium	1700		37	13	mg/Kg	✖	10/31/21 08:55	11/01/21 13:25	1
Selenium	1.0		0.74	0.43	mg/Kg	✖	10/31/21 08:55	11/01/21 13:25	1
Silver	0.26	J	0.37	0.095	mg/Kg	✖	10/31/21 08:55	11/01/21 13:25	1
Sodium	730		74	11	mg/Kg	✖	10/31/21 08:55	11/01/21 13:25	1
Thallium	<0.74		0.74	0.37	mg/Kg	✖	10/31/21 08:55	11/01/21 13:25	1
Vanadium	18		0.37	0.087	mg/Kg	✖	10/31/21 08:55	11/01/21 13:25	1
Zinc	53		1.5	0.65	mg/Kg	✖	10/31/21 08:55	11/01/21 13:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.37	J	0.50	0.050	mg/L		10/27/21 08:00	10/27/21 19:23	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/27/21 08:00	10/27/21 19:23	1
Boron	0.067	J	0.50	0.050	mg/L		10/27/21 08:00	10/27/21 19:23	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B02 (0-7)**

**Lab Sample ID: 500-207092-15**

Date Collected: 10/19/21 13:58

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 62.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/27/21 08:00	10/27/21 19:23	1
Chromium	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:23	1
Cobalt	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:23	1
<b>Iron</b>	<b>0.21</b>	<b>J</b>	0.40	0.20	mg/L		10/27/21 08:00	10/27/21 19:23	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/27/21 08:00	10/27/21 19:23	1
<b>Manganese</b>	<b>0.68</b>		0.025	0.010	mg/L		10/27/21 08:00	10/28/21 13:38	1
Nickel	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:23	1
Selenium	<0.050		0.050	0.020	mg/L		10/27/21 08:00	10/27/21 19:23	1
Silver	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:23	1
<b>Zinc</b>	<b>0.031</b>	<b>J B *+</b>	0.50	0.020	mg/L		10/27/21 08:00	10/27/21 19:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>0.12</b>		0.025	0.010	mg/L		10/27/21 08:07	10/28/21 16:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/27/21 08:00	10/28/21 14:42	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/27/21 08:00	10/28/21 14:42	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/27/21 09:40	10/28/21 10:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.037</b>		0.026	0.0086	mg/Kg	☼	10/28/21 14:10	10/29/21 07:11	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>8.0</b>		0.2	0.2	SU			10/25/21 17:41	1







# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B01 (0-6)**

**Lab Sample ID: 500-207092-16**

Date Collected: 10/19/21 14:15

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 78.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chrysene</b>	<b>0.027</b>	<b>J</b>	0.040	0.011	mg/Kg	☼	10/25/21 14:39	11/04/21 23:23	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	10/25/21 14:39	11/04/21 23:23	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	10/25/21 14:39	11/04/21 23:23	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	10/25/21 14:39	11/04/21 23:23	1
<b>Benzo[b]fluoranthene</b>	<b>0.055</b>		0.040	0.0087	mg/Kg	☼	10/25/21 14:39	11/04/21 23:23	1
<b>Benzo[k]fluoranthene</b>	<b>0.022</b>	<b>J</b>	0.040	0.012	mg/Kg	☼	10/25/21 14:39	11/04/21 23:23	1
<b>Benzo[a]pyrene</b>	<b>0.036</b>	<b>J</b>	0.040	0.0078	mg/Kg	☼	10/25/21 14:39	11/04/21 23:23	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.020</b>	<b>J</b>	0.040	0.010	mg/Kg	☼	10/25/21 14:39	11/04/21 23:23	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	10/25/21 14:39	11/04/21 23:23	1
<b>Benzo[g,h,i]perylene</b>	<b>0.015</b>	<b>J</b>	0.040	0.013	mg/Kg	☼	10/25/21 14:39	11/04/21 23:23	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	10/25/21 14:39	11/04/21 23:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	98		31 - 166	10/25/21 14:39	11/04/21 23:23	1
Phenol-d5	89		30 - 153	10/25/21 14:39	11/04/21 23:23	1
Nitrobenzene-d5 (Surr)	57		37 - 147	10/25/21 14:39	11/04/21 23:23	1
2-Fluorobiphenyl (Surr)	77		43 - 145	10/25/21 14:39	11/04/21 23:23	1
2,4,6-Tribromophenol	74		31 - 143	10/25/21 14:39	11/04/21 23:23	1
Terphenyl-d14 (Surr)	106		42 - 157	10/25/21 14:39	11/04/21 23:23	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</b>	1.2	0.23	mg/Kg	☼	10/31/21 08:55	11/01/21 13:34	1
<b>Arsenic</b>	<b>5.3</b>		0.60	0.20	mg/Kg	☼	10/31/21 08:55	11/01/21 13:34	1
<b>Barium</b>	<b>39</b>		0.60	0.068	mg/Kg	☼	10/31/21 08:55	11/01/21 13:34	1
<b>Beryllium</b>	<b>0.60</b>		0.24	0.056	mg/Kg	☼	10/31/21 08:55	11/01/21 13:34	1
<b>Boron</b>	<b>6.4</b>		3.0	0.28	mg/Kg	☼	10/31/21 08:55	11/01/21 13:34	1
<b>Cadmium</b>	<b>0.25</b>	<b>B</b>	0.12	0.021	mg/Kg	☼	10/31/21 08:55	11/01/21 13:34	1
<b>Calcium</b>	<b>32000</b>	<b>B</b>	12	2.0	mg/Kg	☼	10/31/21 08:55	11/01/21 13:34	1
<b>Chromium</b>	<b>14</b>		0.60	0.30	mg/Kg	☼	10/31/21 08:55	11/01/21 13:34	1
<b>Cobalt</b>	<b>8.1</b>		0.30	0.078	mg/Kg	☼	10/31/21 08:55	11/01/21 13:34	1
<b>Copper</b>	<b>23</b>		0.60	0.17	mg/Kg	☼	10/31/21 08:55	11/01/21 13:34	1
<b>Iron</b>	<b>15000</b>	<b>B</b>	12	6.2	mg/Kg	☼	10/31/21 08:55	11/01/21 13:34	1
<b>Lead</b>	<b>96</b>		0.30	0.14	mg/Kg	☼	10/31/21 08:55	11/01/21 13:34	1
<b>Magnesium</b>	<b>19000</b>	<b>B</b>	6.0	3.0	mg/Kg	☼	10/31/21 08:55	11/01/21 13:34	1
<b>Manganese</b>	<b>260</b>	<b>B</b>	0.60	0.086	mg/Kg	☼	10/31/21 08:55	11/01/21 13:34	1
<b>Nickel</b>	<b>21</b>		0.60	0.17	mg/Kg	☼	10/31/21 08:55	11/01/21 13:34	1
<b>Potassium</b>	<b>1400</b>		30	11	mg/Kg	☼	10/31/21 08:55	11/01/21 13:34	1
<b>Selenium</b>	<b>0.39</b>	<b>J</b>	0.60	0.35	mg/Kg	☼	10/31/21 08:55	11/01/21 13:34	1
<b>Silver</b>	<b>0.29</b>	<b>J</b>	0.30	0.077	mg/Kg	☼	10/31/21 08:55	11/01/21 13:34	1
<b>Sodium</b>	<b>280</b>		60	8.8	mg/Kg	☼	10/31/21 08:55	11/01/21 13:34	1
Thallium	<0.60		0.60	0.30	mg/Kg	☼	10/31/21 08:55	11/01/21 13:34	1
<b>Vanadium</b>	<b>19</b>		0.30	0.070	mg/Kg	☼	10/31/21 08:55	11/01/21 13:34	1
<b>Zinc</b>	<b>83</b>		1.2	0.52	mg/Kg	☼	10/31/21 08:55	11/01/21 13:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>0.29</b>	<b>J</b>	0.50	0.050	mg/L		10/27/21 08:00	10/27/21 19:27	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/27/21 08:00	10/27/21 19:27	1
<b>Boron</b>	<b>0.062</b>	<b>J</b>	0.50	0.050	mg/L		10/27/21 08:00	10/27/21 19:27	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B01 (0-6)**

**Lab Sample ID: 500-207092-16**

Date Collected: 10/19/21 14:15

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 78.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/27/21 08:00	10/27/21 19:27	1
Chromium	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:27	1
Cobalt	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:27	1
Iron	<0.40		0.40	0.20	mg/L		10/27/21 08:00	10/27/21 19:27	1
<b>Lead</b>	<b>0.0077</b>		0.0075	0.0075	mg/L		10/27/21 08:00	10/27/21 19:27	1
<b>Manganese</b>	<b>0.044</b>		0.025	0.010	mg/L		10/27/21 08:00	10/28/21 13:41	1
Nickel	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:27	1
Selenium	<0.050		0.050	0.020	mg/L		10/27/21 08:00	10/27/21 19:27	1
Silver	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 19:27	1
<b>Zinc</b>	<b>0.033</b>	<b>J B **</b>	0.50	0.020	mg/L		10/27/21 08:00	10/27/21 19:27	1

**Method: 6010B - SPLP Metals - SPLP East**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Lead</b>	<b>0.22</b>		0.0075	0.0075	mg/L		10/27/21 08:07	10/28/21 16:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/27/21 08:00	10/28/21 14:45	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/27/21 08:00	10/28/21 14:45	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/27/21 09:40	10/28/21 10:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.038</b>		0.019	0.0063	mg/Kg	☼	10/28/21 14:10	10/29/21 07:12	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>8.1</b>		0.2	0.2	SU			10/25/21 17:46	1

# Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
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 and/or LCSD is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control 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
*+	LCS and/or LCSD is outside acceptance limits, high biased.
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery 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.

## 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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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)

# Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

## Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TNTC	Too Numerous To Count

1

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# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

## GC/MS VOA

### Prep Batch: 624590

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207092-10 - DL	2674V2-06-B06 (0-7)	Total/NA	Solid	5035	

### Prep Batch: 624638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207092-1	2674V2-06-B14 (0-7)	Total/NA	Solid	5035	
500-207092-2	2674V2-06-B15 (0-7)	Total/NA	Solid	5035	
500-207092-3	2674V2-06-B13 (0-7)	Total/NA	Solid	5035	
500-207092-4	2674V2-06-B12 (0-7)	Total/NA	Solid	5035	
500-207092-5	2674V2-06-B11 (0-7)	Total/NA	Solid	5035	
500-207092-6	2674V2-06-B10 (0-7)	Total/NA	Solid	5035	
500-207092-7	2674V2-06-B09 (0-7)	Total/NA	Solid	5035	
500-207092-8	2674V2-06-B08 (0-7)	Total/NA	Solid	5035	
500-207092-9	2674V2-06-B07 (0-7)	Total/NA	Solid	5035	
500-207092-10	2674V2-06-B06 (0-7)	Total/NA	Solid	5035	
500-207092-11	2674V2-06-B05 (0-7)	Total/NA	Solid	5035	
500-207092-12	2674V2-06-B04 (0-7)	Total/NA	Solid	5035	
500-207092-13	2674V2-06-B05 (0-7)D	Total/NA	Solid	5035	
500-207092-14	2674V2-06-B03 (0-7)	Total/NA	Solid	5035	
500-207092-15	2674V2-06-B02 (0-7)	Total/NA	Solid	5035	
500-207092-16	2674V2-06-B01 (0-6)	Total/NA	Solid	5035	

### Analysis Batch: 625628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207092-1	2674V2-06-B14 (0-7)	Total/NA	Solid	8260B	624638
500-207092-2	2674V2-06-B15 (0-7)	Total/NA	Solid	8260B	624638
500-207092-3	2674V2-06-B13 (0-7)	Total/NA	Solid	8260B	624638
500-207092-4	2674V2-06-B12 (0-7)	Total/NA	Solid	8260B	624638
500-207092-5	2674V2-06-B11 (0-7)	Total/NA	Solid	8260B	624638
500-207092-6	2674V2-06-B10 (0-7)	Total/NA	Solid	8260B	624638
500-207092-8	2674V2-06-B08 (0-7)	Total/NA	Solid	8260B	624638
500-207092-9	2674V2-06-B07 (0-7)	Total/NA	Solid	8260B	624638
500-207092-11	2674V2-06-B05 (0-7)	Total/NA	Solid	8260B	624638
500-207092-12	2674V2-06-B04 (0-7)	Total/NA	Solid	8260B	624638
500-207092-13	2674V2-06-B05 (0-7)D	Total/NA	Solid	8260B	624638
500-207092-14	2674V2-06-B03 (0-7)	Total/NA	Solid	8260B	624638
500-207092-15	2674V2-06-B02 (0-7)	Total/NA	Solid	8260B	624638
500-207092-16	2674V2-06-B01 (0-6)	Total/NA	Solid	8260B	624638
MB 500-625628/7	Method Blank	Total/NA	Solid	8260B	
LCS 500-625628/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-625628/5	Lab Control Sample Dup	Total/NA	Solid	8260B	

### Analysis Batch: 625821

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207092-7	2674V2-06-B09 (0-7)	Total/NA	Solid	8260B	624638
500-207092-10	2674V2-06-B06 (0-7)	Total/NA	Solid	8260B	624638
MB 500-625821/7	Method Blank	Total/NA	Solid	8260B	
LCS 500-625821/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-625821/5	Lab Control Sample Dup	Total/NA	Solid	8260B	

# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

## GC/MS VOA

### Analysis Batch: 626080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207092-10 - DL	2674V2-06-B06 (0-7)	Total/NA	Solid	8260B	624590
MB 500-626080/7	Method Blank	Total/NA	Solid	8260B	
LCS 500-626080/5	Lab Control Sample	Total/NA	Solid	8260B	

## GC/MS Semi VOA

### Prep Batch: 625282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207092-1	2674V2-06-B14 (0-7)	Total/NA	Solid	3541	
500-207092-2	2674V2-06-B15 (0-7)	Total/NA	Solid	3541	
500-207092-3	2674V2-06-B13 (0-7)	Total/NA	Solid	3541	
500-207092-4	2674V2-06-B12 (0-7)	Total/NA	Solid	3541	
500-207092-5	2674V2-06-B11 (0-7)	Total/NA	Solid	3541	
500-207092-6	2674V2-06-B10 (0-7)	Total/NA	Solid	3541	
500-207092-7	2674V2-06-B09 (0-7)	Total/NA	Solid	3541	
500-207092-8	2674V2-06-B08 (0-7)	Total/NA	Solid	3541	
500-207092-9	2674V2-06-B07 (0-7)	Total/NA	Solid	3541	
500-207092-10	2674V2-06-B06 (0-7)	Total/NA	Solid	3541	
500-207092-11	2674V2-06-B05 (0-7)	Total/NA	Solid	3541	
500-207092-12	2674V2-06-B04 (0-7)	Total/NA	Solid	3541	
500-207092-13	2674V2-06-B05 (0-7)D	Total/NA	Solid	3541	
500-207092-14	2674V2-06-B03 (0-7)	Total/NA	Solid	3541	
500-207092-15	2674V2-06-B02 (0-7)	Total/NA	Solid	3541	
500-207092-16	2674V2-06-B01 (0-6)	Total/NA	Solid	3541	
MB 500-625282/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-625282/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-207092-3 MS	2674V2-06-B13 (0-7)	Total/NA	Solid	3541	
500-207092-3 MSD	2674V2-06-B13 (0-7)	Total/NA	Solid	3541	

### Analysis Batch: 626154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-625282/1-A	Method Blank	Total/NA	Solid	8270D	625282
LCS 500-625282/2-A	Lab Control Sample	Total/NA	Solid	8270D	625282

### Analysis Batch: 626982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207092-1	2674V2-06-B14 (0-7)	Total/NA	Solid	8270D	625282
500-207092-2	2674V2-06-B15 (0-7)	Total/NA	Solid	8270D	625282
500-207092-3	2674V2-06-B13 (0-7)	Total/NA	Solid	8270D	625282
500-207092-4	2674V2-06-B12 (0-7)	Total/NA	Solid	8270D	625282
500-207092-5	2674V2-06-B11 (0-7)	Total/NA	Solid	8270D	625282
500-207092-6	2674V2-06-B10 (0-7)	Total/NA	Solid	8270D	625282
500-207092-7	2674V2-06-B09 (0-7)	Total/NA	Solid	8270D	625282
500-207092-8	2674V2-06-B08 (0-7)	Total/NA	Solid	8270D	625282
500-207092-9	2674V2-06-B07 (0-7)	Total/NA	Solid	8270D	625282
500-207092-11	2674V2-06-B05 (0-7)	Total/NA	Solid	8270D	625282
500-207092-12	2674V2-06-B04 (0-7)	Total/NA	Solid	8270D	625282
500-207092-13	2674V2-06-B05 (0-7)D	Total/NA	Solid	8270D	625282
500-207092-14	2674V2-06-B03 (0-7)	Total/NA	Solid	8270D	625282
500-207092-3 MS	2674V2-06-B13 (0-7)	Total/NA	Solid	8270D	625282
500-207092-3 MSD	2674V2-06-B13 (0-7)	Total/NA	Solid	8270D	625282

Eurofins TestAmerica, Chicago

# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

## GC/MS Semi VOA

### Analysis Batch: 627299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207092-15	2674V2-06-B02 (0-7)	Total/NA	Solid	8270D	625282
500-207092-16	2674V2-06-B01 (0-6)	Total/NA	Solid	8270D	625282

### Analysis Batch: 627393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207092-10	2674V2-06-B06 (0-7)	Total/NA	Solid	8270D	625282

## Metals

### Leach Batch: 625341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207092-1	2674V2-06-B14 (0-7)	TCLP	Solid	1311	
500-207092-2	2674V2-06-B15 (0-7)	TCLP	Solid	1311	
500-207092-3	2674V2-06-B13 (0-7)	TCLP	Solid	1311	
500-207092-4	2674V2-06-B12 (0-7)	TCLP	Solid	1311	
500-207092-5	2674V2-06-B11 (0-7)	TCLP	Solid	1311	
500-207092-6	2674V2-06-B10 (0-7)	TCLP	Solid	1311	
500-207092-7	2674V2-06-B09 (0-7)	TCLP	Solid	1311	
500-207092-8	2674V2-06-B08 (0-7)	TCLP	Solid	1311	
500-207092-9	2674V2-06-B07 (0-7)	TCLP	Solid	1311	
500-207092-10	2674V2-06-B06 (0-7)	TCLP	Solid	1311	
500-207092-11	2674V2-06-B05 (0-7)	TCLP	Solid	1311	
500-207092-12	2674V2-06-B04 (0-7)	TCLP	Solid	1311	
500-207092-13	2674V2-06-B05 (0-7)D	TCLP	Solid	1311	
500-207092-14	2674V2-06-B03 (0-7)	TCLP	Solid	1311	
500-207092-15	2674V2-06-B02 (0-7)	TCLP	Solid	1311	
500-207092-16	2674V2-06-B01 (0-6)	TCLP	Solid	1311	
LB 500-625341/1-C	Method Blank	TCLP	Solid	1311	
LB 500-625341/1-D	Method Blank	TCLP	Solid	1311	
500-207092-1 MS	2674V2-06-B14 (0-7)	TCLP	Solid	1311	
500-207092-1 DU	2674V2-06-B14 (0-7)	TCLP	Solid	1311	

### Leach Batch: 625344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207092-1	2674V2-06-B14 (0-7)	SPLP East	Solid	1312	
500-207092-2	2674V2-06-B15 (0-7)	SPLP East	Solid	1312	
500-207092-3	2674V2-06-B13 (0-7)	SPLP East	Solid	1312	
500-207092-7	2674V2-06-B09 (0-7)	SPLP East	Solid	1312	
500-207092-8	2674V2-06-B08 (0-7)	SPLP East	Solid	1312	
500-207092-9	2674V2-06-B07 (0-7)	SPLP East	Solid	1312	
500-207092-10	2674V2-06-B06 (0-7)	SPLP East	Solid	1312	
500-207092-11	2674V2-06-B05 (0-7)	SPLP East	Solid	1312	
500-207092-13	2674V2-06-B05 (0-7)D	SPLP East	Solid	1312	
500-207092-14	2674V2-06-B03 (0-7)	SPLP East	Solid	1312	
500-207092-15	2674V2-06-B02 (0-7)	SPLP East	Solid	1312	
500-207092-16	2674V2-06-B01 (0-6)	SPLP East	Solid	1312	
LB 500-625344/1-B	Method Blank	SPLP East	Solid	1312	

### Prep Batch: 625652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207092-1	2674V2-06-B14 (0-7)	TCLP	Solid	3010A	625341

Eurofins TestAmerica, Chicago

# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

## Metals (Continued)

### Prep Batch: 625652 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207092-2	2674V2-06-B15 (0-7)	TCLP	Solid	3010A	625341
500-207092-3	2674V2-06-B13 (0-7)	TCLP	Solid	3010A	625341
500-207092-4	2674V2-06-B12 (0-7)	TCLP	Solid	3010A	625341
500-207092-5	2674V2-06-B11 (0-7)	TCLP	Solid	3010A	625341
500-207092-6	2674V2-06-B10 (0-7)	TCLP	Solid	3010A	625341
500-207092-7	2674V2-06-B09 (0-7)	TCLP	Solid	3010A	625341
500-207092-8	2674V2-06-B08 (0-7)	TCLP	Solid	3010A	625341
500-207092-9	2674V2-06-B07 (0-7)	TCLP	Solid	3010A	625341
500-207092-10	2674V2-06-B06 (0-7)	TCLP	Solid	3010A	625341
500-207092-11	2674V2-06-B05 (0-7)	TCLP	Solid	3010A	625341
500-207092-12	2674V2-06-B04 (0-7)	TCLP	Solid	3010A	625341
500-207092-13	2674V2-06-B05 (0-7)D	TCLP	Solid	3010A	625341
500-207092-14	2674V2-06-B03 (0-7)	TCLP	Solid	3010A	625341
500-207092-15	2674V2-06-B02 (0-7)	TCLP	Solid	3010A	625341
500-207092-16	2674V2-06-B01 (0-6)	TCLP	Solid	3010A	625341
LB 500-625341/1-C	Method Blank	TCLP	Solid	3010A	625341
LCS 500-625652/2-A	Lab Control Sample	Total/NA	Solid	3010A	
500-207092-1 MS	2674V2-06-B14 (0-7)	TCLP	Solid	3010A	625341
500-207092-1 DU	2674V2-06-B14 (0-7)	TCLP	Solid	3010A	625341

### Prep Batch: 625655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207092-1	2674V2-06-B14 (0-7)	SPLP East	Solid	3010A	625344
500-207092-2	2674V2-06-B15 (0-7)	SPLP East	Solid	3010A	625344
500-207092-3	2674V2-06-B13 (0-7)	SPLP East	Solid	3010A	625344
500-207092-7	2674V2-06-B09 (0-7)	SPLP East	Solid	3010A	625344
500-207092-8	2674V2-06-B08 (0-7)	SPLP East	Solid	3010A	625344
500-207092-9	2674V2-06-B07 (0-7)	SPLP East	Solid	3010A	625344
500-207092-10	2674V2-06-B06 (0-7)	SPLP East	Solid	3010A	625344
500-207092-11	2674V2-06-B05 (0-7)	SPLP East	Solid	3010A	625344
500-207092-13	2674V2-06-B05 (0-7)D	SPLP East	Solid	3010A	625344
500-207092-14	2674V2-06-B03 (0-7)	SPLP East	Solid	3010A	625344
500-207092-15	2674V2-06-B02 (0-7)	SPLP East	Solid	3010A	625344
500-207092-16	2674V2-06-B01 (0-6)	SPLP East	Solid	3010A	625344
LB 500-625344/1-B	Method Blank	SPLP East	Solid	3010A	625344
LCS 500-625655/2-A	Lab Control Sample	Total/NA	Solid	3010A	

### Prep Batch: 625689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207092-1	2674V2-06-B14 (0-7)	TCLP	Solid	7470A	625341
500-207092-2	2674V2-06-B15 (0-7)	TCLP	Solid	7470A	625341
500-207092-3	2674V2-06-B13 (0-7)	TCLP	Solid	7470A	625341
500-207092-4	2674V2-06-B12 (0-7)	TCLP	Solid	7470A	625341
500-207092-5	2674V2-06-B11 (0-7)	TCLP	Solid	7470A	625341
500-207092-6	2674V2-06-B10 (0-7)	TCLP	Solid	7470A	625341
500-207092-7	2674V2-06-B09 (0-7)	TCLP	Solid	7470A	625341
500-207092-8	2674V2-06-B08 (0-7)	TCLP	Solid	7470A	625341
500-207092-9	2674V2-06-B07 (0-7)	TCLP	Solid	7470A	625341
500-207092-10	2674V2-06-B06 (0-7)	TCLP	Solid	7470A	625341
500-207092-11	2674V2-06-B05 (0-7)	TCLP	Solid	7470A	625341
500-207092-12	2674V2-06-B04 (0-7)	TCLP	Solid	7470A	625341

Eurofins TestAmerica, Chicago



# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

## Metals (Continued)

### Prep Batch: 625689 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207092-13	2674V2-06-B05 (0-7)D	TCLP	Solid	7470A	625341
500-207092-14	2674V2-06-B03 (0-7)	TCLP	Solid	7470A	625341
500-207092-15	2674V2-06-B02 (0-7)	TCLP	Solid	7470A	625341
500-207092-16	2674V2-06-B01 (0-6)	TCLP	Solid	7470A	625341
LB 500-625341/1-D	Method Blank	TCLP	Solid	7470A	625341
MB 500-625689/12-A	Method Blank	Total/NA	Solid	7470A	
LCS 500-625689/14-A	Lab Control Sample	Total/NA	Solid	7470A	
500-207092-1 MS	2674V2-06-B14 (0-7)	TCLP	Solid	7470A	625341
500-207092-1 DU	2674V2-06-B14 (0-7)	TCLP	Solid	7470A	625341

### Analysis Batch: 625818

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207092-1	2674V2-06-B14 (0-7)	TCLP	Solid	6010B	625652
500-207092-2	2674V2-06-B15 (0-7)	TCLP	Solid	6010B	625652
500-207092-3	2674V2-06-B13 (0-7)	TCLP	Solid	6010B	625652
500-207092-4	2674V2-06-B12 (0-7)	TCLP	Solid	6010B	625652
500-207092-5	2674V2-06-B11 (0-7)	TCLP	Solid	6010B	625652
500-207092-6	2674V2-06-B10 (0-7)	TCLP	Solid	6010B	625652
500-207092-7	2674V2-06-B09 (0-7)	TCLP	Solid	6010B	625652
500-207092-8	2674V2-06-B08 (0-7)	TCLP	Solid	6010B	625652
500-207092-9	2674V2-06-B07 (0-7)	TCLP	Solid	6010B	625652
500-207092-10	2674V2-06-B06 (0-7)	TCLP	Solid	6010B	625652
500-207092-11	2674V2-06-B05 (0-7)	TCLP	Solid	6010B	625652
500-207092-12	2674V2-06-B04 (0-7)	TCLP	Solid	6010B	625652
500-207092-13	2674V2-06-B05 (0-7)D	TCLP	Solid	6010B	625652
500-207092-14	2674V2-06-B03 (0-7)	TCLP	Solid	6010B	625652
500-207092-15	2674V2-06-B02 (0-7)	TCLP	Solid	6010B	625652
500-207092-16	2674V2-06-B01 (0-6)	TCLP	Solid	6010B	625652
LB 500-625341/1-C	Method Blank	TCLP	Solid	6010B	625652
LCS 500-625652/2-A	Lab Control Sample	Total/NA	Solid	6010B	625652
500-207092-1 MS	2674V2-06-B14 (0-7)	TCLP	Solid	6010B	625652
500-207092-1 DU	2674V2-06-B14 (0-7)	TCLP	Solid	6010B	625652

### Prep Batch: 625918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207092-1	2674V2-06-B14 (0-7)	Total/NA	Solid	7471B	
500-207092-2	2674V2-06-B15 (0-7)	Total/NA	Solid	7471B	
500-207092-3	2674V2-06-B13 (0-7)	Total/NA	Solid	7471B	
500-207092-4	2674V2-06-B12 (0-7)	Total/NA	Solid	7471B	
500-207092-5	2674V2-06-B11 (0-7)	Total/NA	Solid	7471B	
500-207092-6	2674V2-06-B10 (0-7)	Total/NA	Solid	7471B	
500-207092-7	2674V2-06-B09 (0-7)	Total/NA	Solid	7471B	
500-207092-8	2674V2-06-B08 (0-7)	Total/NA	Solid	7471B	
500-207092-9	2674V2-06-B07 (0-7)	Total/NA	Solid	7471B	
500-207092-10	2674V2-06-B06 (0-7)	Total/NA	Solid	7471B	
500-207092-11	2674V2-06-B05 (0-7)	Total/NA	Solid	7471B	
500-207092-12	2674V2-06-B04 (0-7)	Total/NA	Solid	7471B	
500-207092-13	2674V2-06-B05 (0-7)D	Total/NA	Solid	7471B	
500-207092-14	2674V2-06-B03 (0-7)	Total/NA	Solid	7471B	
500-207092-15	2674V2-06-B02 (0-7)	Total/NA	Solid	7471B	
500-207092-16	2674V2-06-B01 (0-6)	Total/NA	Solid	7471B	

Eurofins TestAmerica, Chicago

# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

## Metals (Continued)

### Prep Batch: 625918 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-625918/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-625918/13-A	Lab Control Sample	Total/NA	Solid	7471B	
500-207092-10 MS	2674V2-06-B06 (0-7)	Total/NA	Solid	7471B	
500-207092-10 MSD	2674V2-06-B06 (0-7)	Total/NA	Solid	7471B	
500-207092-10 DU	2674V2-06-B06 (0-7)	Total/NA	Solid	7471B	

### Analysis Batch: 625925

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207092-1	2674V2-06-B14 (0-7)	TCLP	Solid	7470A	625689
500-207092-2	2674V2-06-B15 (0-7)	TCLP	Solid	7470A	625689
500-207092-3	2674V2-06-B13 (0-7)	TCLP	Solid	7470A	625689
500-207092-4	2674V2-06-B12 (0-7)	TCLP	Solid	7470A	625689
500-207092-5	2674V2-06-B11 (0-7)	TCLP	Solid	7470A	625689
500-207092-6	2674V2-06-B10 (0-7)	TCLP	Solid	7470A	625689
500-207092-7	2674V2-06-B09 (0-7)	TCLP	Solid	7470A	625689
500-207092-8	2674V2-06-B08 (0-7)	TCLP	Solid	7470A	625689
500-207092-9	2674V2-06-B07 (0-7)	TCLP	Solid	7470A	625689
500-207092-10	2674V2-06-B06 (0-7)	TCLP	Solid	7470A	625689
500-207092-11	2674V2-06-B05 (0-7)	TCLP	Solid	7470A	625689
500-207092-12	2674V2-06-B04 (0-7)	TCLP	Solid	7470A	625689
500-207092-13	2674V2-06-B05 (0-7)D	TCLP	Solid	7470A	625689
500-207092-14	2674V2-06-B03 (0-7)	TCLP	Solid	7470A	625689
500-207092-15	2674V2-06-B02 (0-7)	TCLP	Solid	7470A	625689
500-207092-16	2674V2-06-B01 (0-6)	TCLP	Solid	7470A	625689
LB 500-625341/1-D	Method Blank	TCLP	Solid	7470A	625689
MB 500-625689/12-A	Method Blank	Total/NA	Solid	7470A	625689
LCS 500-625689/14-A	Lab Control Sample	Total/NA	Solid	7470A	625689
500-207092-1 MS	2674V2-06-B14 (0-7)	TCLP	Solid	7470A	625689
500-207092-1 DU	2674V2-06-B14 (0-7)	TCLP	Solid	7470A	625689

### Analysis Batch: 625974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207092-7	2674V2-06-B09 (0-7)	TCLP	Solid	6010B	625652
500-207092-8	2674V2-06-B08 (0-7)	TCLP	Solid	6010B	625652
500-207092-9	2674V2-06-B07 (0-7)	TCLP	Solid	6010B	625652
500-207092-10	2674V2-06-B06 (0-7)	TCLP	Solid	6010B	625652
500-207092-11	2674V2-06-B05 (0-7)	TCLP	Solid	6010B	625652
500-207092-12	2674V2-06-B04 (0-7)	TCLP	Solid	6010B	625652
500-207092-13	2674V2-06-B05 (0-7)D	TCLP	Solid	6010B	625652
500-207092-14	2674V2-06-B03 (0-7)	TCLP	Solid	6010B	625652
500-207092-15	2674V2-06-B02 (0-7)	TCLP	Solid	6010B	625652
500-207092-16	2674V2-06-B01 (0-6)	TCLP	Solid	6010B	625652

### Analysis Batch: 625997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207092-1	2674V2-06-B14 (0-7)	SPLP East	Solid	6010B	625655
500-207092-2	2674V2-06-B15 (0-7)	SPLP East	Solid	6010B	625655
500-207092-3	2674V2-06-B13 (0-7)	SPLP East	Solid	6010B	625655
500-207092-7	2674V2-06-B09 (0-7)	SPLP East	Solid	6010B	625655
500-207092-8	2674V2-06-B08 (0-7)	SPLP East	Solid	6010B	625655
500-207092-9	2674V2-06-B07 (0-7)	SPLP East	Solid	6010B	625655

Eurofins TestAmerica, Chicago

# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

## Metals (Continued)

### Analysis Batch: 625997 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207092-10	2674V2-06-B06 (0-7)	SPLP East	Solid	6010B	625655
500-207092-11	2674V2-06-B05 (0-7)	SPLP East	Solid	6010B	625655
500-207092-13	2674V2-06-B05 (0-7)D	SPLP East	Solid	6010B	625655
500-207092-14	2674V2-06-B03 (0-7)	SPLP East	Solid	6010B	625655
500-207092-15	2674V2-06-B02 (0-7)	SPLP East	Solid	6010B	625655
500-207092-16	2674V2-06-B01 (0-6)	SPLP East	Solid	6010B	625655
LB 500-625344/1-B	Method Blank	SPLP East	Solid	6010B	625655
LCS 500-625655/2-A	Lab Control Sample	Total/NA	Solid	6010B	625655

### Analysis Batch: 626005

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207092-1	2674V2-06-B14 (0-7)	TCLP	Solid	6020A	625652
500-207092-2	2674V2-06-B15 (0-7)	TCLP	Solid	6020A	625652
500-207092-3	2674V2-06-B13 (0-7)	TCLP	Solid	6020A	625652
500-207092-4	2674V2-06-B12 (0-7)	TCLP	Solid	6020A	625652
500-207092-5	2674V2-06-B11 (0-7)	TCLP	Solid	6020A	625652
500-207092-6	2674V2-06-B10 (0-7)	TCLP	Solid	6020A	625652
500-207092-7	2674V2-06-B09 (0-7)	TCLP	Solid	6020A	625652
500-207092-8	2674V2-06-B08 (0-7)	TCLP	Solid	6020A	625652
500-207092-9	2674V2-06-B07 (0-7)	TCLP	Solid	6020A	625652
500-207092-10	2674V2-06-B06 (0-7)	TCLP	Solid	6020A	625652
500-207092-11	2674V2-06-B05 (0-7)	TCLP	Solid	6020A	625652
500-207092-12	2674V2-06-B04 (0-7)	TCLP	Solid	6020A	625652
500-207092-13	2674V2-06-B05 (0-7)D	TCLP	Solid	6020A	625652
500-207092-14	2674V2-06-B03 (0-7)	TCLP	Solid	6020A	625652
500-207092-15	2674V2-06-B02 (0-7)	TCLP	Solid	6020A	625652
500-207092-16	2674V2-06-B01 (0-6)	TCLP	Solid	6020A	625652
LB 500-625341/1-C	Method Blank	TCLP	Solid	6020A	625652
LCS 500-625652/2-A	Lab Control Sample	Total/NA	Solid	6020A	625652
500-207092-1 MS	2674V2-06-B14 (0-7)	TCLP	Solid	6020A	625652
500-207092-1 DU	2674V2-06-B14 (0-7)	TCLP	Solid	6020A	625652

### Analysis Batch: 626118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207092-1	2674V2-06-B14 (0-7)	Total/NA	Solid	7471B	625918
500-207092-2	2674V2-06-B15 (0-7)	Total/NA	Solid	7471B	625918
500-207092-3	2674V2-06-B13 (0-7)	Total/NA	Solid	7471B	625918
500-207092-4	2674V2-06-B12 (0-7)	Total/NA	Solid	7471B	625918
500-207092-5	2674V2-06-B11 (0-7)	Total/NA	Solid	7471B	625918
500-207092-6	2674V2-06-B10 (0-7)	Total/NA	Solid	7471B	625918
500-207092-7	2674V2-06-B09 (0-7)	Total/NA	Solid	7471B	625918
500-207092-8	2674V2-06-B08 (0-7)	Total/NA	Solid	7471B	625918
500-207092-9	2674V2-06-B07 (0-7)	Total/NA	Solid	7471B	625918
500-207092-10	2674V2-06-B06 (0-7)	Total/NA	Solid	7471B	625918
500-207092-11	2674V2-06-B05 (0-7)	Total/NA	Solid	7471B	625918
500-207092-12	2674V2-06-B04 (0-7)	Total/NA	Solid	7471B	625918
500-207092-13	2674V2-06-B05 (0-7)D	Total/NA	Solid	7471B	625918
500-207092-14	2674V2-06-B03 (0-7)	Total/NA	Solid	7471B	625918
500-207092-15	2674V2-06-B02 (0-7)	Total/NA	Solid	7471B	625918
500-207092-16	2674V2-06-B01 (0-6)	Total/NA	Solid	7471B	625918
MB 500-625918/12-A	Method Blank	Total/NA	Solid	7471B	625918

Eurofins TestAmerica, Chicago

# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

## Metals (Continued)

### Analysis Batch: 626118 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-625918/13-A	Lab Control Sample	Total/NA	Solid	7471B	625918
500-207092-10 MS	2674V2-06-B06 (0-7)	Total/NA	Solid	7471B	625918
500-207092-10 MSD	2674V2-06-B06 (0-7)	Total/NA	Solid	7471B	625918
500-207092-10 DU	2674V2-06-B06 (0-7)	Total/NA	Solid	7471B	625918

### Prep Batch: 626365

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207092-1	2674V2-06-B14 (0-7)	Total/NA	Solid	3050B	
500-207092-2	2674V2-06-B15 (0-7)	Total/NA	Solid	3050B	
500-207092-3	2674V2-06-B13 (0-7)	Total/NA	Solid	3050B	
500-207092-4	2674V2-06-B12 (0-7)	Total/NA	Solid	3050B	
500-207092-5	2674V2-06-B11 (0-7)	Total/NA	Solid	3050B	
500-207092-6	2674V2-06-B10 (0-7)	Total/NA	Solid	3050B	
500-207092-7	2674V2-06-B09 (0-7)	Total/NA	Solid	3050B	
500-207092-8	2674V2-06-B08 (0-7)	Total/NA	Solid	3050B	
500-207092-9	2674V2-06-B07 (0-7)	Total/NA	Solid	3050B	
500-207092-10	2674V2-06-B06 (0-7)	Total/NA	Solid	3050B	
500-207092-11	2674V2-06-B05 (0-7)	Total/NA	Solid	3050B	
500-207092-12	2674V2-06-B04 (0-7)	Total/NA	Solid	3050B	
500-207092-13	2674V2-06-B05 (0-7)D	Total/NA	Solid	3050B	
500-207092-14	2674V2-06-B03 (0-7)	Total/NA	Solid	3050B	
500-207092-15	2674V2-06-B02 (0-7)	Total/NA	Solid	3050B	
500-207092-16	2674V2-06-B01 (0-6)	Total/NA	Solid	3050B	
MB 500-626365/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-626365/2-A	Lab Control Sample	Total/NA	Solid	3050B	

### Analysis Batch: 626573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207092-1	2674V2-06-B14 (0-7)	Total/NA	Solid	6010B	626365
500-207092-1	2674V2-06-B14 (0-7)	Total/NA	Solid	6010B	626365
500-207092-2	2674V2-06-B15 (0-7)	Total/NA	Solid	6010B	626365
500-207092-2	2674V2-06-B15 (0-7)	Total/NA	Solid	6010B	626365
500-207092-3	2674V2-06-B13 (0-7)	Total/NA	Solid	6010B	626365
500-207092-3	2674V2-06-B13 (0-7)	Total/NA	Solid	6010B	626365
500-207092-4	2674V2-06-B12 (0-7)	Total/NA	Solid	6010B	626365
500-207092-5	2674V2-06-B11 (0-7)	Total/NA	Solid	6010B	626365
500-207092-6	2674V2-06-B10 (0-7)	Total/NA	Solid	6010B	626365
500-207092-7	2674V2-06-B09 (0-7)	Total/NA	Solid	6010B	626365
500-207092-8	2674V2-06-B08 (0-7)	Total/NA	Solid	6010B	626365
500-207092-9	2674V2-06-B07 (0-7)	Total/NA	Solid	6010B	626365
500-207092-10	2674V2-06-B06 (0-7)	Total/NA	Solid	6010B	626365
500-207092-11	2674V2-06-B05 (0-7)	Total/NA	Solid	6010B	626365
500-207092-12	2674V2-06-B04 (0-7)	Total/NA	Solid	6010B	626365
500-207092-13	2674V2-06-B05 (0-7)D	Total/NA	Solid	6010B	626365
500-207092-14	2674V2-06-B03 (0-7)	Total/NA	Solid	6010B	626365
500-207092-15	2674V2-06-B02 (0-7)	Total/NA	Solid	6010B	626365
500-207092-16	2674V2-06-B01 (0-6)	Total/NA	Solid	6010B	626365
MB 500-626365/1-A	Method Blank	Total/NA	Solid	6010B	626365
LCS 500-626365/2-A	Lab Control Sample	Total/NA	Solid	6010B	626365

# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

## Metals

### Analysis Batch: 626663

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207092-4	2674V2-06-B12 (0-7)	Total/NA	Solid	6010B	626365
500-207092-5	2674V2-06-B11 (0-7)	Total/NA	Solid	6010B	626365
500-207092-6	2674V2-06-B10 (0-7)	Total/NA	Solid	6010B	626365
500-207092-8	2674V2-06-B08 (0-7)	Total/NA	Solid	6010B	626365
500-207092-9	2674V2-06-B07 (0-7)	Total/NA	Solid	6010B	626365

## General Chemistry

### Analysis Batch: 625119

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207092-1	2674V2-06-B14 (0-7)	Total/NA	Solid	Moisture	
500-207092-2	2674V2-06-B15 (0-7)	Total/NA	Solid	Moisture	
500-207092-3	2674V2-06-B13 (0-7)	Total/NA	Solid	Moisture	
500-207092-4	2674V2-06-B12 (0-7)	Total/NA	Solid	Moisture	
500-207092-5	2674V2-06-B11 (0-7)	Total/NA	Solid	Moisture	
500-207092-6	2674V2-06-B10 (0-7)	Total/NA	Solid	Moisture	
500-207092-7	2674V2-06-B09 (0-7)	Total/NA	Solid	Moisture	
500-207092-8	2674V2-06-B08 (0-7)	Total/NA	Solid	Moisture	
500-207092-9	2674V2-06-B07 (0-7)	Total/NA	Solid	Moisture	
500-207092-10	2674V2-06-B06 (0-7)	Total/NA	Solid	Moisture	
500-207092-11	2674V2-06-B05 (0-7)	Total/NA	Solid	Moisture	
500-207092-12	2674V2-06-B04 (0-7)	Total/NA	Solid	Moisture	
500-207092-13	2674V2-06-B05 (0-7)D	Total/NA	Solid	Moisture	
500-207092-14	2674V2-06-B03 (0-7)	Total/NA	Solid	Moisture	
500-207092-15	2674V2-06-B02 (0-7)	Total/NA	Solid	Moisture	
500-207092-16	2674V2-06-B01 (0-6)	Total/NA	Solid	Moisture	
500-207092-3 DU	2674V2-06-B13 (0-7)	Total/NA	Solid	Moisture	

### Analysis Batch: 625321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207092-1	2674V2-06-B14 (0-7)	Total/NA	Solid	9045D	
500-207092-2	2674V2-06-B15 (0-7)	Total/NA	Solid	9045D	
500-207092-3	2674V2-06-B13 (0-7)	Total/NA	Solid	9045D	
500-207092-4	2674V2-06-B12 (0-7)	Total/NA	Solid	9045D	
500-207092-5	2674V2-06-B11 (0-7)	Total/NA	Solid	9045D	
500-207092-6	2674V2-06-B10 (0-7)	Total/NA	Solid	9045D	
500-207092-7	2674V2-06-B09 (0-7)	Total/NA	Solid	9045D	
500-207092-8	2674V2-06-B08 (0-7)	Total/NA	Solid	9045D	
500-207092-9	2674V2-06-B07 (0-7)	Total/NA	Solid	9045D	
500-207092-10	2674V2-06-B06 (0-7)	Total/NA	Solid	9045D	
500-207092-11	2674V2-06-B05 (0-7)	Total/NA	Solid	9045D	
500-207092-12	2674V2-06-B04 (0-7)	Total/NA	Solid	9045D	
500-207092-13	2674V2-06-B05 (0-7)D	Total/NA	Solid	9045D	
500-207092-14	2674V2-06-B03 (0-7)	Total/NA	Solid	9045D	
500-207092-15	2674V2-06-B02 (0-7)	Total/NA	Solid	9045D	
500-207092-16	2674V2-06-B01 (0-6)	Total/NA	Solid	9045D	
LCS 500-625321/2	Lab Control Sample	Total/NA	Solid	9045D	
LCSD 500-625321/3	Lab Control Sample Dup	Total/NA	Solid	9045D	
500-207092-7 DU	2674V2-06-B09 (0-7)	Total/NA	Solid	9045D	

# Surrogate Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (75-131)	DBFM (75-126)	DCA (70-134)	TOL (75-124)
500-207092-1	2674V2-06-B14 (0-7)	90	97	103	95
500-207092-2	2674V2-06-B15 (0-7)	92	99	109	96
500-207092-3	2674V2-06-B13 (0-7)	90	98	107	96
500-207092-4	2674V2-06-B12 (0-7)	91	97	104	95
500-207092-5	2674V2-06-B11 (0-7)	92	98	106	94
500-207092-6	2674V2-06-B10 (0-7)	90	99	108	95
500-207092-7	2674V2-06-B09 (0-7)	94	97	102	96
500-207092-8	2674V2-06-B08 (0-7)	96	105	113	98
500-207092-9	2674V2-06-B07 (0-7)	90	100	106	95
500-207092-10	2674V2-06-B06 (0-7)	99	100	104	96
500-207092-11	2674V2-06-B05 (0-7)	96	101	105	97
500-207092-12	2674V2-06-B04 (0-7)	94	100	107	95
500-207092-13	2674V2-06-B05 (0-7)D	89	99	106	94
500-207092-14	2674V2-06-B03 (0-7)	92	100	104	94
500-207092-15	2674V2-06-B02 (0-7)	97	99	105	95
500-207092-16	2674V2-06-B01 (0-6)	93	99	105	96
LCS 500-625628/4	Lab Control Sample	87	88	89	97
LCS 500-625821/4	Lab Control Sample	86	89	88	98
LCS 500-625628/5	Lab Control Sample Dup	86	90	93	96
LCS 500-625821/5	Lab Control Sample Dup	86	89	86	97
MB 500-625628/7	Method Blank	89	93	95	95
MB 500-625821/7	Method Blank	87	92	90	95

### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane  
DCA = 1,2-Dichloroethane-d4 (Surr)  
TOL = Toluene-d8 (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (72-124)	DBFM (75-120)	DCA (75-126)	TOL (75-120)
500-207092-10 - DL	2674V2-06-B06 (0-7)	100	97	100	100
LCS 500-626080/5	Lab Control Sample	95	98	101	100
MB 500-626080/7	Method Blank	103	103	111	97

### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane  
DCA = 1,2-Dichloroethane-d4 (Surr)  
TOL = Toluene-d8 (Surr)

# Surrogate Summary

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

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

**Matrix: Solid**

**Prep Type: Total/NA**

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		2FP (31-166)	PHL (30-153)	NBZ (37-147)	FBP (43-145)	TBP (31-143)	TPHL (42-157)
500-207092-1	2674V2-06-B14 (0-7)	117	95	90	92	93	102
500-207092-2	2674V2-06-B15 (0-7)	107	89	69	62	79	95
500-207092-3	2674V2-06-B13 (0-7)	113	96	86	90	87	93
500-207092-3 MS	2674V2-06-B13 (0-7)	103	92	89	94	93	95
500-207092-3 MSD	2674V2-06-B13 (0-7)	88	77	81	85	89	87
500-207092-4	2674V2-06-B12 (0-7)	91	78	79	82	86	88
500-207092-5	2674V2-06-B11 (0-7)	95	87	78	84	91	97
500-207092-6	2674V2-06-B10 (0-7)	111	102	78	79	84	102
500-207092-7	2674V2-06-B09 (0-7)	99	84	71	71	84	91
500-207092-8	2674V2-06-B08 (0-7)	112	96	87	92	93	99
500-207092-9	2674V2-06-B07 (0-7)	112	100	76	76	90	108
500-207092-10	2674V2-06-B06 (0-7)	114	99	77	96	91	105
500-207092-11	2674V2-06-B05 (0-7)	93	81	77	83	85	95
500-207092-12	2674V2-06-B04 (0-7)	94	81	79	82	86	99
500-207092-13	2674V2-06-B05 (0-7)D	91	79	74	80	88	97
500-207092-14	2674V2-06-B03 (0-7)	94	81	74	81	91	112
500-207092-15	2674V2-06-B02 (0-7)	86	79	49	65	59	90
500-207092-16	2674V2-06-B01 (0-6)	98	89	57	77	74	106
LCS 500-625282/2-A	Lab Control Sample	107	116	106	111	101	117
MB 500-625282/1-A	Method Blank	111	115	99	108	90	121

**Surrogate Legend**

- 2FP = 2-Fluorophenol
- PHL = Phenol-d5
- NBZ = Nitrobenzene-d5 (Surr)
- FBP = 2-Fluorobiphenyl (Surr)
- TBP = 2,4,6-Tribromophenol
- TPHL = Terphenyl-d14 (Surr)

# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

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

**Lab Sample ID: MB 500-625628/7**  
**Matrix: Solid**  
**Analysis Batch: 625628**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0087	mg/Kg			10/27/21 11:03	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg			10/27/21 11:03	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg			10/27/21 11:03	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg			10/27/21 11:03	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg			10/27/21 11:03	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg			10/27/21 11:03	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg			10/27/21 11:03	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg			10/27/21 11:03	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg			10/27/21 11:03	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg			10/27/21 11:03	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg			10/27/21 11:03	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg			10/27/21 11:03	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg			10/27/21 11:03	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg			10/27/21 11:03	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg			10/27/21 11:03	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg			10/27/21 11:03	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg			10/27/21 11:03	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg			10/27/21 11:03	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg			10/27/21 11:03	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00070	mg/Kg			10/27/21 11:03	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg			10/27/21 11:03	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			10/27/21 11:03	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg			10/27/21 11:03	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg			10/27/21 11:03	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg			10/27/21 11:03	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg			10/27/21 11:03	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg			10/27/21 11:03	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/27/21 11:03	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg			10/27/21 11:03	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg			10/27/21 11:03	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg			10/27/21 11:03	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg			10/27/21 11:03	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg			10/27/21 11:03	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/27/21 11:03	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg			10/27/21 11:03	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg			10/27/21 11:03	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg			10/27/21 11:03	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		75 - 131		10/27/21 11:03	1
Dibromofluoromethane	93		75 - 126		10/27/21 11:03	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 134		10/27/21 11:03	1
Toluene-d8 (Surr)	95		75 - 124		10/27/21 11:03	1



# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

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

**Lab Sample ID: LCS 500-625628/4**  
**Matrix: Solid**  
**Analysis Batch: 625628**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0500	0.0572		mg/Kg		114	40 - 150
Benzene	0.0500	0.0525		mg/Kg		105	70 - 125
Bromodichloromethane	0.0500	0.0499		mg/Kg		100	67 - 129
Bromoform	0.0500	0.0479		mg/Kg		96	68 - 136
Bromomethane	0.0500	0.0642		mg/Kg		128	70 - 130
2-Butanone (MEK)	0.0500	0.0613		mg/Kg		123	47 - 138
Carbon disulfide	0.0500	0.0494		mg/Kg		99	70 - 129
Carbon tetrachloride	0.0500	0.0452		mg/Kg		90	75 - 125
Chlorobenzene	0.0500	0.0491		mg/Kg		98	50 - 150
Chloroethane	0.0500	0.0641	*+	mg/Kg		128	75 - 125
Chloroform	0.0500	0.0500		mg/Kg		100	57 - 135
Chloromethane	0.0500	0.0423		mg/Kg		85	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0482		mg/Kg		96	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0511		mg/Kg		102	70 - 125
Dibromochloromethane	0.0500	0.0501		mg/Kg		100	69 - 125
1,1-Dichloroethane	0.0500	0.0487		mg/Kg		97	70 - 125
1,2-Dichloroethane	0.0500	0.0491		mg/Kg		98	70 - 130
1,1-Dichloroethene	0.0500	0.0485		mg/Kg		97	70 - 120
1,2-Dichloropropane	0.0500	0.0523		mg/Kg		105	70 - 125
Ethylbenzene	0.0500	0.0536		mg/Kg		107	61 - 136
2-Hexanone	0.0500	0.0537		mg/Kg		107	48 - 146
Methylene Chloride	0.0500	0.0465		mg/Kg		93	70 - 126
4-Methyl-2-pentanone (MIBK)	0.0500	0.0538		mg/Kg		108	50 - 148
Methyl tert-butyl ether	0.0500	0.0428		mg/Kg		86	50 - 140
Styrene	0.0500	0.0523		mg/Kg		105	70 - 125
1,1,2,2-Tetrachloroethane	0.0500	0.0521		mg/Kg		104	70 - 122
Tetrachloroethene	0.0500	0.0525		mg/Kg		105	70 - 124
Toluene	0.0500	0.0533		mg/Kg		107	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0494		mg/Kg		99	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0486		mg/Kg		97	70 - 125
1,1,1-Trichloroethane	0.0500	0.0456		mg/Kg		91	70 - 128
1,1,2-Trichloroethane	0.0500	0.0530		mg/Kg		106	70 - 125
Trichloroethene	0.0500	0.0509		mg/Kg		102	70 - 125
Vinyl acetate	0.0500	0.0721		mg/Kg		144	40 - 153
Vinyl chloride	0.0500	0.0446		mg/Kg		89	70 - 125
Xylenes, Total	0.100	0.0996		mg/Kg		100	53 - 147

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	87		75 - 131
Dibromofluoromethane	88		75 - 126
1,2-Dichloroethane-d4 (Surr)	89		70 - 134
Toluene-d8 (Surr)	97		75 - 124

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

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

**Lab Sample ID: LCSD 500-625628/5**  
**Matrix: Solid**  
**Analysis Batch: 625628**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.0500	0.0694		mg/Kg		139	40 - 150	19	30
Benzene	0.0500	0.0536		mg/Kg		107	70 - 125	2	30
Bromodichloromethane	0.0500	0.0524		mg/Kg		105	67 - 129	5	30
Bromoform	0.0500	0.0520		mg/Kg		104	68 - 136	8	30
Bromomethane	0.0500	0.0601		mg/Kg		120	70 - 130	7	30
2-Butanone (MEK)	0.0500	0.0706	*+	mg/Kg		141	47 - 138	14	30
Carbon disulfide	0.0500	0.0498		mg/Kg		100	70 - 129	1	30
Carbon tetrachloride	0.0500	0.0461		mg/Kg		92	75 - 125	2	30
Chlorobenzene	0.0500	0.0497		mg/Kg		99	50 - 150	1	30
Chloroethane	0.0500	0.0603		mg/Kg		121	75 - 125	6	30
Chloroform	0.0500	0.0508		mg/Kg		102	57 - 135	2	30
Chloromethane	0.0500	0.0408		mg/Kg		82	70 - 125	4	30
cis-1,2-Dichloroethene	0.0500	0.0499		mg/Kg		100	70 - 125	3	30
cis-1,3-Dichloropropene	0.0500	0.0535		mg/Kg		107	70 - 125	5	30
Dibromochloromethane	0.0500	0.0528		mg/Kg		106	69 - 125	5	30
1,1-Dichloroethane	0.0500	0.0498		mg/Kg		100	70 - 125	2	30
1,2-Dichloroethane	0.0500	0.0523		mg/Kg		105	70 - 130	6	30
1,1-Dichloroethene	0.0500	0.0490		mg/Kg		98	70 - 120	1	30
1,2-Dichloropropane	0.0500	0.0541		mg/Kg		108	70 - 125	3	30
Ethylbenzene	0.0500	0.0533		mg/Kg		107	61 - 136	0	30
2-Hexanone	0.0500	0.0644		mg/Kg		129	48 - 146	18	30
Methylene Chloride	0.0500	0.0490		mg/Kg		98	70 - 126	5	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0639		mg/Kg		128	50 - 148	17	30
Methyl tert-butyl ether	0.0500	0.0474		mg/Kg		95	50 - 140	10	30
Styrene	0.0500	0.0536		mg/Kg		107	70 - 125	2	30
1,1,2,2-Tetrachloroethane	0.0500	0.0568		mg/Kg		114	70 - 122	9	30
Tetrachloroethene	0.0500	0.0518		mg/Kg		104	70 - 124	1	30
Toluene	0.0500	0.0533		mg/Kg		107	70 - 125	0	30
trans-1,2-Dichloroethene	0.0500	0.0501		mg/Kg		100	70 - 125	1	30
trans-1,3-Dichloropropene	0.0500	0.0523		mg/Kg		105	70 - 125	7	30
1,1,1-Trichloroethane	0.0500	0.0455		mg/Kg		91	70 - 128	0	30
1,1,2-Trichloroethane	0.0500	0.0561		mg/Kg		112	70 - 125	6	30
Trichloroethene	0.0500	0.0524		mg/Kg		105	70 - 125	3	30
Vinyl acetate	0.0500	0.0773	*+	mg/Kg		155	40 - 153	7	30
Vinyl chloride	0.0500	0.0428		mg/Kg		86	70 - 125	4	30
Xylenes, Total	0.100	0.100		mg/Kg		100	53 - 147	1	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	86		75 - 131
Dibromofluoromethane	90		75 - 126
1,2-Dichloroethane-d4 (Surr)	93		70 - 134
Toluene-d8 (Surr)	96		75 - 124

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

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

**Lab Sample ID: MB 500-625821/7**  
**Matrix: Solid**  
**Analysis Batch: 625821**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	<0.020		0.020	0.0087	mg/Kg			10/28/21 10:50	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg			10/28/21 10:50	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg			10/28/21 10:50	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg			10/28/21 10:50	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg			10/28/21 10:50	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg			10/28/21 10:50	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg			10/28/21 10:50	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg			10/28/21 10:50	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg			10/28/21 10:50	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg			10/28/21 10:50	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg			10/28/21 10:50	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg			10/28/21 10:50	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg			10/28/21 10:50	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg			10/28/21 10:50	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg			10/28/21 10:50	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg			10/28/21 10:50	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg			10/28/21 10:50	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg			10/28/21 10:50	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg			10/28/21 10:50	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00070	mg/Kg			10/28/21 10:50	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg			10/28/21 10:50	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			10/28/21 10:50	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg			10/28/21 10:50	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg			10/28/21 10:50	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg			10/28/21 10:50	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg			10/28/21 10:50	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg			10/28/21 10:50	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/28/21 10:50	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg			10/28/21 10:50	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg			10/28/21 10:50	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg			10/28/21 10:50	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg			10/28/21 10:50	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg			10/28/21 10:50	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/28/21 10:50	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg			10/28/21 10:50	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg			10/28/21 10:50	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg			10/28/21 10:50	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	87		75 - 131		10/28/21 10:50	1
Dibromofluoromethane	92		75 - 126		10/28/21 10:50	1
1,2-Dichloroethane-d4 (Surr)	90		70 - 134		10/28/21 10:50	1
Toluene-d8 (Surr)	95		75 - 124		10/28/21 10:50	1

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

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

**Lab Sample ID: LCS 500-625821/4**  
**Matrix: Solid**  
**Analysis Batch: 625821**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0500	0.0659		mg/Kg		132	40 - 150
Benzene	0.0500	0.0538		mg/Kg		108	70 - 125
Bromodichloromethane	0.0500	0.0505		mg/Kg		101	67 - 129
Bromoform	0.0500	0.0466		mg/Kg		93	68 - 136
Bromomethane	0.0500	0.0644		mg/Kg		129	70 - 130
2-Butanone (MEK)	0.0500	0.0583		mg/Kg		117	47 - 138
Carbon disulfide	0.0500	0.0500		mg/Kg		100	70 - 129
Carbon tetrachloride	0.0500	0.0462		mg/Kg		92	75 - 125
Chlorobenzene	0.0500	0.0497		mg/Kg		99	50 - 150
Chloroethane	0.0500	0.0697	*+	mg/Kg		139	75 - 125
Chloroform	0.0500	0.0497		mg/Kg		99	57 - 135
Chloromethane	0.0500	0.0426		mg/Kg		85	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0492		mg/Kg		98	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0518		mg/Kg		104	70 - 125
Dibromochloromethane	0.0500	0.0506		mg/Kg		101	69 - 125
1,1-Dichloroethane	0.0500	0.0488		mg/Kg		98	70 - 125
1,2-Dichloroethane	0.0500	0.0489		mg/Kg		98	70 - 130
1,1-Dichloroethene	0.0500	0.0490		mg/Kg		98	70 - 120
1,2-Dichloropropane	0.0500	0.0528		mg/Kg		106	70 - 125
Ethylbenzene	0.0500	0.0538		mg/Kg		108	61 - 136
2-Hexanone	0.0500	0.0551		mg/Kg		110	48 - 146
Methylene Chloride	0.0500	0.0478		mg/Kg		96	70 - 126
4-Methyl-2-pentanone (MIBK)	0.0500	0.0555		mg/Kg		111	50 - 148
Methyl tert-butyl ether	0.0500	0.0432		mg/Kg		86	50 - 140
Styrene	0.0500	0.0526		mg/Kg		105	70 - 125
1,1,2,2-Tetrachloroethane	0.0500	0.0520		mg/Kg		104	70 - 122
Tetrachloroethene	0.0500	0.0536		mg/Kg		107	70 - 124
Toluene	0.0500	0.0535		mg/Kg		107	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0506		mg/Kg		101	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0491		mg/Kg		98	70 - 125
1,1,1-Trichloroethane	0.0500	0.0451		mg/Kg		90	70 - 128
1,1,2-Trichloroethane	0.0500	0.0531		mg/Kg		106	70 - 125
Trichloroethene	0.0500	0.0526		mg/Kg		105	70 - 125
Vinyl acetate	0.0500	0.0668		mg/Kg		134	40 - 153
Vinyl chloride	0.0500	0.0454		mg/Kg		91	70 - 125
Xylenes, Total	0.100	0.0993		mg/Kg		99	53 - 147

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	86		75 - 131
Dibromofluoromethane	89		75 - 126
1,2-Dichloroethane-d4 (Surr)	88		70 - 134
Toluene-d8 (Surr)	98		75 - 124

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

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

**Lab Sample ID: LCSD 500-625821/5**  
**Matrix: Solid**  
**Analysis Batch: 625821**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.0500	0.0654		mg/Kg		131	40 - 150	1	30
Benzene	0.0500	0.0540		mg/Kg		108	70 - 125	0	30
Bromodichloromethane	0.0500	0.0515		mg/Kg		103	67 - 129	2	30
Bromoform	0.0500	0.0497		mg/Kg		99	68 - 136	6	30
Bromomethane	0.0500	0.0663	*+	mg/Kg		133	70 - 130	3	30
2-Butanone (MEK)	0.0500	0.0645		mg/Kg		129	47 - 138	10	30
Carbon disulfide	0.0500	0.0505		mg/Kg		101	70 - 129	1	30
Carbon tetrachloride	0.0500	0.0465		mg/Kg		93	75 - 125	1	30
Chlorobenzene	0.0500	0.0509		mg/Kg		102	50 - 150	2	30
Chloroethane	0.0500	0.0718	*+	mg/Kg		144	75 - 125	3	30
Chloroform	0.0500	0.0510		mg/Kg		102	57 - 135	3	30
Chloromethane	0.0500	0.0432		mg/Kg		86	70 - 125	2	30
cis-1,2-Dichloroethene	0.0500	0.0497		mg/Kg		99	70 - 125	1	30
cis-1,3-Dichloropropene	0.0500	0.0535		mg/Kg		107	70 - 125	3	30
Dibromochloromethane	0.0500	0.0516		mg/Kg		103	69 - 125	2	30
1,1-Dichloroethane	0.0500	0.0489		mg/Kg		98	70 - 125	0	30
1,2-Dichloroethane	0.0500	0.0502		mg/Kg		100	70 - 130	3	30
1,1-Dichloroethene	0.0500	0.0494		mg/Kg		99	70 - 120	1	30
1,2-Dichloropropane	0.0500	0.0532		mg/Kg		106	70 - 125	1	30
Ethylbenzene	0.0500	0.0542		mg/Kg		108	61 - 136	1	30
2-Hexanone	0.0500	0.0576		mg/Kg		115	48 - 146	4	30
Methylene Chloride	0.0500	0.0489		mg/Kg		98	70 - 126	2	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0565		mg/Kg		113	50 - 148	2	30
Methyl tert-butyl ether	0.0500	0.0449		mg/Kg		90	50 - 140	4	30
Styrene	0.0500	0.0536		mg/Kg		107	70 - 125	2	30
1,1,2,2-Tetrachloroethane	0.0500	0.0543		mg/Kg		109	70 - 122	4	30
Tetrachloroethene	0.0500	0.0543		mg/Kg		109	70 - 124	1	30
Toluene	0.0500	0.0538		mg/Kg		108	70 - 125	1	30
trans-1,2-Dichloroethene	0.0500	0.0495		mg/Kg		99	70 - 125	2	30
trans-1,3-Dichloropropene	0.0500	0.0504		mg/Kg		101	70 - 125	3	30
1,1,1-Trichloroethane	0.0500	0.0460		mg/Kg		92	70 - 128	2	30
1,1,2-Trichloroethane	0.0500	0.0553		mg/Kg		111	70 - 125	4	30
Trichloroethene	0.0500	0.0530		mg/Kg		106	70 - 125	1	30
Vinyl acetate	0.0500	0.0651		mg/Kg		130	40 - 153	3	30
Vinyl chloride	0.0500	0.0474		mg/Kg		95	70 - 125	4	30
Xylenes, Total	0.100	0.101		mg/Kg		101	53 - 147	2	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	86		75 - 131
Dibromofluoromethane	89		75 - 126
1,2-Dichloroethane-d4 (Surr)	86		70 - 134
Toluene-d8 (Surr)	97		75 - 124

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

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

**Lab Sample ID: MB 500-626080/7**  
**Matrix: Solid**  
**Analysis Batch: 626080**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.010		0.010	0.0017	mg/Kg			10/29/21 12:01	1
Benzene	<0.00025		0.00025	0.00015	mg/Kg			10/29/21 12:01	1
Bromodichloromethane	<0.0010		0.0010	0.00037	mg/Kg			10/29/21 12:01	1
Bromoform	<0.0010		0.0010	0.00048	mg/Kg			10/29/21 12:01	1
Bromomethane	<0.0030		0.0030	0.00080	mg/Kg			10/29/21 12:01	1
2-Butanone (MEK)	<0.0050		0.0050	0.0021	mg/Kg			10/29/21 12:01	1
Carbon disulfide	<0.0020		0.0020	0.00080	mg/Kg			10/29/21 12:01	1
Carbon tetrachloride	<0.0010		0.0010	0.00038	mg/Kg			10/29/21 12:01	1
Chlorobenzene	<0.0010		0.0010	0.00039	mg/Kg			10/29/21 12:01	1
Chloroethane	<0.0010		0.0010	0.00050	mg/Kg			10/29/21 12:01	1
Chloroform	<0.0020		0.0020	0.00037	mg/Kg			10/29/21 12:01	1
Chloromethane	<0.0010		0.0010	0.00032	mg/Kg			10/29/21 12:01	1
cis-1,2-Dichloroethene	<0.0010		0.0010	0.00041	mg/Kg			10/29/21 12:01	1
cis-1,3-Dichloropropene	<0.0010		0.0010	0.00042	mg/Kg			10/29/21 12:01	1
Dibromochloromethane	<0.0010		0.0010	0.00049	mg/Kg			10/29/21 12:01	1
1,1-Dichloroethane	<0.0010		0.0010	0.00041	mg/Kg			10/29/21 12:01	1
1,2-Dichloroethane	<0.0010		0.0010	0.00039	mg/Kg			10/29/21 12:01	1
1,1-Dichloroethene	<0.0010		0.0010	0.00039	mg/Kg			10/29/21 12:01	1
1,2-Dichloropropane	<0.0010		0.0010	0.00043	mg/Kg			10/29/21 12:01	1
1,3-Dichloropropene, Total	<0.0010		0.0010	0.00042	mg/Kg			10/29/21 12:01	1
Ethylbenzene	<0.00025		0.00025	0.00018	mg/Kg			10/29/21 12:01	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			10/29/21 12:01	1
Methylene Chloride	<0.0050		0.0050	0.0016	mg/Kg			10/29/21 12:01	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0022	mg/Kg			10/29/21 12:01	1
Methyl tert-butyl ether	<0.0010		0.0010	0.00039	mg/Kg			10/29/21 12:01	1
Styrene	<0.0010		0.0010	0.00039	mg/Kg			10/29/21 12:01	1
1,1,2,2-Tetrachloroethane	<0.0010		0.0010	0.00040	mg/Kg			10/29/21 12:01	1
Tetrachloroethene	<0.0010		0.0010	0.00037	mg/Kg			10/29/21 12:01	1
Toluene	<0.00025		0.00025	0.00015	mg/Kg			10/29/21 12:01	1
trans-1,2-Dichloroethene	<0.0010		0.0010	0.00035	mg/Kg			10/29/21 12:01	1
trans-1,3-Dichloropropene	<0.0010		0.0010	0.00036	mg/Kg			10/29/21 12:01	1
1,1,1-Trichloroethane	<0.0010		0.0010	0.00038	mg/Kg			10/29/21 12:01	1
1,1,2-Trichloroethane	<0.0010		0.0010	0.00035	mg/Kg			10/29/21 12:01	1
Trichloroethene	<0.00050		0.00050	0.00016	mg/Kg			10/29/21 12:01	1
Vinyl acetate	<0.0020		0.0020	0.00090	mg/Kg			10/29/21 12:01	1
Vinyl chloride	<0.0010		0.0010	0.00026	mg/Kg			10/29/21 12:01	1
Xylenes, Total	<0.00050		0.00050	0.00022	mg/Kg			10/29/21 12:01	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		72 - 124		10/29/21 12:01	1
Dibromofluoromethane	103		75 - 120		10/29/21 12:01	1
1,2-Dichloroethane-d4 (Surr)	111		75 - 126		10/29/21 12:01	1
Toluene-d8 (Surr)	97		75 - 120		10/29/21 12:01	1

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

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

**Lab Sample ID: LCS 500-626080/5**  
**Matrix: Solid**  
**Analysis Batch: 626080**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0500	0.0519		mg/Kg		104	40 - 143
Benzene	0.0500	0.0527		mg/Kg		105	70 - 120
Bromodichloromethane	0.0500	0.0522		mg/Kg		104	69 - 120
Bromoform	0.0500	0.0494		mg/Kg		99	56 - 132
Bromomethane	0.0500	0.0683		mg/Kg		137	40 - 152
2-Butanone (MEK)	0.0500	0.0458		mg/Kg		92	46 - 144
Carbon disulfide	0.0500	0.0561		mg/Kg		112	66 - 120
Carbon tetrachloride	0.0500	0.0548		mg/Kg		110	59 - 133
Chlorobenzene	0.0500	0.0534		mg/Kg		107	70 - 120
Chloroethane	0.0500	0.0494		mg/Kg		99	48 - 136
Chloroform	0.0500	0.0497		mg/Kg		99	70 - 120
Chloromethane	0.0500	0.0397		mg/Kg		79	56 - 152
cis-1,2-Dichloroethene	0.0500	0.0523		mg/Kg		105	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0546		mg/Kg		109	64 - 127
Dibromochloromethane	0.0500	0.0561		mg/Kg		112	68 - 125
1,1-Dichloroethane	0.0500	0.0532		mg/Kg		106	70 - 125
1,2-Dichloroethane	0.0500	0.0520		mg/Kg		104	68 - 127
1,1-Dichloroethene	0.0500	0.0550		mg/Kg		110	67 - 122
1,2-Dichloropropane	0.0500	0.0534		mg/Kg		107	67 - 130
Ethylbenzene	0.0500	0.0547		mg/Kg		109	70 - 123
2-Hexanone	0.0500	0.0492		mg/Kg		98	54 - 146
Methylene Chloride	0.0500	0.0500		mg/Kg		100	69 - 125
4-Methyl-2-pentanone (MIBK)	0.0500	0.0445		mg/Kg		89	55 - 139
Methyl tert-butyl ether	0.0500	0.0518		mg/Kg		104	55 - 123
Styrene	0.0500	0.0565		mg/Kg		113	70 - 120
1,1,2,2-Tetrachloroethane	0.0500	0.0516		mg/Kg		103	62 - 140
Tetrachloroethene	0.0500	0.0540		mg/Kg		108	70 - 128
Toluene	0.0500	0.0572		mg/Kg		114	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0536		mg/Kg		107	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0549		mg/Kg		110	62 - 128
1,1,1-Trichloroethane	0.0500	0.0549		mg/Kg		110	70 - 125
1,1,2-Trichloroethane	0.0500	0.0539		mg/Kg		108	71 - 130
Trichloroethene	0.0500	0.0533		mg/Kg		107	70 - 125
Vinyl acetate	0.0500	0.0470		mg/Kg		94	43 - 133
Vinyl chloride	0.0500	0.0466		mg/Kg		93	64 - 126
Xylenes, Total	0.100	0.110		mg/Kg		110	70 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	95		72 - 124
Dibromofluoromethane	98		75 - 120
1,2-Dichloroethane-d4 (Surr)	101		75 - 126
Toluene-d8 (Surr)	100		75 - 120

# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

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

**Lab Sample ID: MB 500-625282/1-A**

**Matrix: Solid**

**Analysis Batch: 626154**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 625282**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	<0.17		0.17	0.074	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.050	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
1,3-Dichlorobenzene	<0.17		0.17	0.037	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
1,4-Dichlorobenzene	<0.17		0.17	0.043	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
1,2-Dichlorobenzene	<0.17		0.17	0.040	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
2-Methylphenol	<0.17		0.17	0.053	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.039	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
N-Nitrosodi-n-propylamine	<0.067		0.067	0.041	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
Hexachloroethane	<0.17		0.17	0.051	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
2-Chlorophenol	<0.17		0.17	0.057	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
Nitrobenzene	<0.033		0.033	0.0083	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.034	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.036	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
Isophorone	<0.17		0.17	0.037	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
2,4-Dimethylphenol	<0.33		0.33	0.13	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
Hexachlorobutadiene	<0.17		0.17	0.052	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
Naphthalene	<0.033		0.033	0.0051	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
2,4-Dichlorophenol	<0.33		0.33	0.079	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
4-Chloroaniline	<0.67		0.67	0.16	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
2,4,6-Trichlorophenol	<0.33		0.33	0.11	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
2,4,5-Trichlorophenol	<0.33		0.33	0.076	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
Hexachlorocyclopentadiene	<0.67		0.67	0.19	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
2-Methylnaphthalene	<0.067		0.067	0.0061	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
2-Nitroaniline	<0.17		0.17	0.045	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
2-Chloronaphthalene	<0.17		0.17	0.037	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
4-Chloro-3-methylphenol	<0.33		0.33	0.11	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
2,6-Dinitrotoluene	<0.17		0.17	0.065	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
2-Nitrophenol	<0.33		0.33	0.079	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
3-Nitroaniline	<0.33		0.33	0.10	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
Dimethyl phthalate	<0.17		0.17	0.043	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
2,4-Dinitrophenol	<0.67		0.67	0.59	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
Acenaphthylene	<0.033		0.033	0.0044	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
2,4-Dinitrotoluene	<0.17		0.17	0.053	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
Acenaphthene	<0.033		0.033	0.0060	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
Dibenzofuran	<0.17		0.17	0.039	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
4-Nitrophenol	<0.67		0.67	0.32	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
Fluorene	<0.033		0.033	0.0047	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
4-Nitroaniline	<0.33		0.33	0.14	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.044	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
Hexachlorobenzene	<0.067		0.067	0.0077	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
Diethyl phthalate	<0.17		0.17	0.056	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.039	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
Pentachlorophenol	<0.67		0.67	0.53	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
N-Nitrosodiphenylamine	<0.17		0.17	0.039	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
4,6-Dinitro-2-methylphenol	<0.67		0.67	0.27	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
Phenanthrene	<0.033		0.033	0.0046	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
Anthracene	<0.033		0.033	0.0056	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
Carbazole	<0.17		0.17	0.083	mg/Kg		10/25/21 14:39	10/29/21 13:20	1

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

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

**Lab Sample ID: MB 500-625282/1-A**  
**Matrix: Solid**  
**Analysis Batch: 626154**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 625282**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Di-n-butyl phthalate	<0.17		0.17	0.051	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
Fluoranthene	<0.033		0.033	0.0062	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
Pyrene	<0.033		0.033	0.0066	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
Butyl benzyl phthalate	<0.17		0.17	0.063	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
Benzo[a]anthracene	<0.033		0.033	0.0045	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
Chrysene	<0.033		0.033	0.0091	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.047	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
Bis(2-ethylhexyl) phthalate	0.0919	J	0.17	0.061	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
Di-n-octyl phthalate	<0.17		0.17	0.054	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
Benzo[b]fluoranthene	<0.033		0.033	0.0072	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
Benzo[k]fluoranthene	<0.033		0.033	0.0098	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
Benzo[a]pyrene	<0.033		0.033	0.0064	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
Indeno[1,2,3-cd]pyrene	<0.033		0.033	0.0086	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
Dibenz(a,h)anthracene	<0.033		0.033	0.0064	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
Benzo[g,h,i]perylene	<0.033		0.033	0.011	mg/Kg		10/25/21 14:39	10/29/21 13:20	1
3 & 4 Methylphenol	<0.17		0.17	0.055	mg/Kg		10/25/21 14:39	10/29/21 13:20	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorophenol	111		31 - 166	10/25/21 14:39	10/29/21 13:20	1
Phenol-d5	115		30 - 153	10/25/21 14:39	10/29/21 13:20	1
Nitrobenzene-d5 (Surr)	99		37 - 147	10/25/21 14:39	10/29/21 13:20	1
2-Fluorobiphenyl (Surr)	108		43 - 145	10/25/21 14:39	10/29/21 13:20	1
2,4,6-Tribromophenol	90		31 - 143	10/25/21 14:39	10/29/21 13:20	1
Terphenyl-d14 (Surr)	121		42 - 157	10/25/21 14:39	10/29/21 13:20	1

**Lab Sample ID: LCS 500-625282/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626154**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625282**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Phenol	1.33	1.40		mg/Kg		105	56 - 122
Bis(2-chloroethyl)ether	1.33	1.40		mg/Kg		105	55 - 111
1,3-Dichlorobenzene	1.33	1.30		mg/Kg		98	65 - 124
1,4-Dichlorobenzene	1.33	1.30		mg/Kg		97	61 - 110
1,2-Dichlorobenzene	1.33	1.28		mg/Kg		96	62 - 110
2-Methylphenol	1.33	1.41		mg/Kg		106	60 - 120
2,2'-oxybis[1-chloropropane]	1.33	1.30		mg/Kg		98	40 - 124
N-Nitrosodi-n-propylamine	1.33	1.29		mg/Kg		97	56 - 118
Hexachloroethane	1.33	1.28		mg/Kg		96	60 - 114
2-Chlorophenol	1.33	1.38		mg/Kg		104	64 - 110
Nitrobenzene	1.33	1.38		mg/Kg		103	60 - 116
Bis(2-chloroethoxy)methane	1.33	1.36		mg/Kg		102	60 - 112
1,2,4-Trichlorobenzene	1.33	1.30		mg/Kg		98	66 - 117
Isophorone	1.33	1.34		mg/Kg		101	55 - 110
2,4-Dimethylphenol	1.33	1.29		mg/Kg		97	60 - 110
Hexachlorobutadiene	1.33	1.34		mg/Kg		100	56 - 120
Naphthalene	1.33	1.33		mg/Kg		100	63 - 110
2,4-Dichlorophenol	1.33	1.23		mg/Kg		92	58 - 120

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

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

**Lab Sample ID: LCS 500-625282/2-A**

**Matrix: Solid**

**Analysis Batch: 626154**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 625282**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chloroaniline	1.33	0.702		mg/Kg		53	30 - 150
2,4,6-Trichlorophenol	1.33	1.42		mg/Kg		106	57 - 120
2,4,5-Trichlorophenol	1.33	1.29		mg/Kg		97	50 - 120
Hexachlorocyclopentadiene	1.33	0.195	J	mg/Kg		15	10 - 133
2-Methylnaphthalene	1.33	1.35		mg/Kg		101	69 - 112
2-Nitroaniline	1.33	1.49		mg/Kg		112	57 - 124
2-Chloronaphthalene	1.33	1.40		mg/Kg		105	69 - 114
4-Chloro-3-methylphenol	1.33	1.39		mg/Kg		104	65 - 122
2,6-Dinitrotoluene	1.33	1.57		mg/Kg		118	70 - 123
2-Nitrophenol	1.33	1.35		mg/Kg		101	60 - 120
3-Nitroaniline	1.33	1.11		mg/Kg		83	40 - 122
Dimethyl phthalate	1.33	1.41		mg/Kg		106	69 - 116
2,4-Dinitrophenol	2.67	<0.67		mg/Kg		20	10 - 100
Acenaphthylene	1.33	1.40		mg/Kg		105	68 - 120
2,4-Dinitrotoluene	1.33	1.44		mg/Kg		108	69 - 124
Acenaphthene	1.33	1.45		mg/Kg		109	65 - 124
Dibenzofuran	1.33	1.47		mg/Kg		111	66 - 115
4-Nitrophenol	2.67	2.38		mg/Kg		89	30 - 122
Fluorene	1.33	1.46		mg/Kg		110	62 - 120
4-Nitroaniline	1.33	1.23		mg/Kg		92	60 - 160
4-Bromophenyl phenyl ether	1.33	1.48		mg/Kg		111	68 - 118
Hexachlorobenzene	1.33	1.67	*+	mg/Kg		125	63 - 124
Diethyl phthalate	1.33	1.45		mg/Kg		109	58 - 120
4-Chlorophenyl phenyl ether	1.33	1.42		mg/Kg		106	62 - 119
Pentachlorophenol	2.67	0.891		mg/Kg		33	13 - 112
N-Nitrosodiphenylamine	1.33	1.42		mg/Kg		107	65 - 112
4,6-Dinitro-2-methylphenol	2.67	1.16		mg/Kg		43	10 - 110
Phenanthrene	1.33	1.26		mg/Kg		95	62 - 120
Anthracene	1.33	1.41		mg/Kg		105	70 - 114
Carbazole	1.33	1.52		mg/Kg		114	65 - 142
Di-n-butyl phthalate	1.33	1.46		mg/Kg		109	65 - 120
Fluoranthene	1.33	1.47		mg/Kg		111	62 - 120
Pyrene	1.33	1.40		mg/Kg		105	61 - 128
Butyl benzyl phthalate	1.33	1.55		mg/Kg		116	71 - 129
Benzo[a]anthracene	1.33	1.57		mg/Kg		118	67 - 122
Chrysene	1.33	1.42		mg/Kg		106	63 - 120
3,3'-Dichlorobenzidine	1.33	1.13		mg/Kg		85	35 - 128
Bis(2-ethylhexyl) phthalate	1.33	1.68		mg/Kg		126	72 - 131
Di-n-octyl phthalate	1.33	1.61		mg/Kg		121	68 - 134
Benzo[b]fluoranthene	1.33	1.48		mg/Kg		111	69 - 129
Benzo[k]fluoranthene	1.33	1.46		mg/Kg		109	68 - 127
Benzo[a]pyrene	1.33	1.34		mg/Kg		100	65 - 133
Indeno[1,2,3-cd]pyrene	1.33	1.71		mg/Kg		128	68 - 130
Dibenz(a,h)anthracene	1.33	1.71		mg/Kg		128	64 - 131
Benzo[g,h,i]perylene	1.33	1.57		mg/Kg		118	72 - 131
3 & 4 Methylphenol	1.33	1.44		mg/Kg		108	57 - 120

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

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

**Lab Sample ID: LCS 500-625282/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626154**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625282**

<i>Surrogate</i>	<i>LCS %Recovery</i>	<i>LCS Qualifier</i>	<i>Limits</i>
2-Fluorophenol	107		31 - 166
Phenol-d5	116		30 - 153
Nitrobenzene-d5 (Surr)	106		37 - 147
2-Fluorobiphenyl (Surr)	111		43 - 145
2,4,6-Tribromophenol	101		31 - 143
Terphenyl-d14 (Surr)	117		42 - 157

**Lab Sample ID: 500-207092-3 MS**  
**Matrix: Solid**  
**Analysis Batch: 626982**

**Client Sample ID: 2674V2-06-B13 (0-7)**  
**Prep Type: Total/NA**  
**Prep Batch: 625282**

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qualifier</i>	<i>Spike Added</i>	<i>MS Result</i>	<i>MS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>Limits</i>
Phenol	<0.19		1.51	1.03		mg/Kg	☼	69	56 - 122
Bis(2-chloroethyl)ether	<0.19		1.51	1.10		mg/Kg	☼	73	55 - 111
1,3-Dichlorobenzene	<0.19		1.51	1.11		mg/Kg	☼	74	60 - 110
1,4-Dichlorobenzene	<0.19		1.51	1.16		mg/Kg	☼	77	61 - 110
1,2-Dichlorobenzene	<0.19		1.51	1.23		mg/Kg	☼	81	62 - 110
2-Methylphenol	<0.19		1.51	1.43		mg/Kg	☼	95	60 - 120
2,2'-oxybis[1-chloropropane]	<0.19	F1	1.51	0.623		mg/Kg	☼	41	40 - 124
N-Nitrosodi-n-propylamine	<0.075		1.51	1.29		mg/Kg	☼	86	56 - 118
Hexachloroethane	<0.19	F1	1.51	0.888	F1	mg/Kg	☼	59	60 - 114
2-Chlorophenol	<0.19		1.51	1.35		mg/Kg	☼	89	64 - 110
Nitrobenzene	<0.037		1.51	1.22		mg/Kg	☼	81	60 - 116
Bis(2-chloroethoxy)methane	<0.19		1.51	1.26		mg/Kg	☼	84	60 - 112
1,2,4-Trichlorobenzene	<0.19		1.51	1.27		mg/Kg	☼	84	66 - 117
Isophorone	<0.19		1.51	1.31		mg/Kg	☼	87	55 - 110
2,4-Dimethylphenol	<0.37		1.51	1.20		mg/Kg	☼	80	60 - 110
Hexachlorobutadiene	<0.19		1.51	1.38		mg/Kg	☼	91	56 - 120
Naphthalene	<0.037		1.51	1.27		mg/Kg	☼	85	63 - 110
2,4-Dichlorophenol	<0.37		1.51	1.31		mg/Kg	☼	87	58 - 120
4-Chloroaniline	<0.75	F2	1.51	0.612	J	mg/Kg	☼	41	30 - 150
2,4,6-Trichlorophenol	<0.37		1.51	1.26		mg/Kg	☼	84	57 - 120
2,4,5-Trichlorophenol	<0.37		1.51	1.26		mg/Kg	☼	84	50 - 120
Hexachlorocyclopentadiene	<0.75	F1	1.51	0.322	J	mg/Kg	☼	21	10 - 133
2-Methylnaphthalene	<0.075		1.51	1.52		mg/Kg	☼	101	69 - 112
2-Nitroaniline	<0.19		1.51	1.30		mg/Kg	☼	87	57 - 124
2-Chloronaphthalene	<0.19		1.51	1.27		mg/Kg	☼	84	69 - 114
4-Chloro-3-methylphenol	<0.37		1.51	1.33		mg/Kg	☼	89	65 - 122
2,6-Dinitrotoluene	<0.19		1.51	1.35		mg/Kg	☼	90	70 - 123
2-Nitrophenol	<0.37		1.51	1.23		mg/Kg	☼	82	60 - 120
3-Nitroaniline	<0.37		1.51	0.806		mg/Kg	☼	53	40 - 122
Dimethyl phthalate	<0.19		1.51	1.46		mg/Kg	☼	97	69 - 116
2,4-Dinitrophenol	<0.75	F1	3.01	<0.76	F1	mg/Kg	☼	0	10 - 100
Acenaphthylene	<0.037		1.51	1.37		mg/Kg	☼	91	68 - 120
2,4-Dinitrotoluene	<0.19		1.51	1.32		mg/Kg	☼	88	69 - 124
Acenaphthene	<0.037		1.51	1.33		mg/Kg	☼	88	65 - 124
Dibenzofuran	<0.19		1.51	1.34		mg/Kg	☼	89	66 - 115
4-Nitrophenol	<0.75		3.01	2.62		mg/Kg	☼	87	30 - 122

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

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

Lab Sample ID: 500-207092-3 MS

Matrix: Solid

Analysis Batch: 626982

Client Sample ID: 2674V2-06-B13 (0-7)

Prep Type: Total/NA

Prep Batch: 625282

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluorene	<0.037		1.51	1.34		mg/Kg	☼	89	62 - 120
4-Nitroaniline	<0.37		1.51	0.917		mg/Kg	☼	61	60 - 160
4-Bromophenyl phenyl ether	<0.19		1.51	1.42		mg/Kg	☼	94	68 - 118
Hexachlorobenzene	<0.075	*+	1.51	1.47		mg/Kg	☼	97	63 - 124
Diethyl phthalate	<0.19		1.51	1.50		mg/Kg	☼	99	58 - 120
4-Chlorophenyl phenyl ether	<0.19		1.51	1.34		mg/Kg	☼	89	62 - 119
Pentachlorophenol	<0.75		3.01	2.04		mg/Kg	☼	68	13 - 112
N-Nitrosodiphenylamine	<0.19		1.51	1.30		mg/Kg	☼	86	65 - 112
4,6-Dinitro-2-methylphenol	<0.75		3.01	0.794		mg/Kg	☼	26	10 - 110
Phenanthrene	<0.037		1.51	1.38		mg/Kg	☼	91	62 - 120
Anthracene	<0.037		1.51	1.38		mg/Kg	☼	92	70 - 114
Carbazole	<0.19		1.51	1.52		mg/Kg	☼	101	65 - 142
Di-n-butyl phthalate	<0.19		1.51	1.37		mg/Kg	☼	91	65 - 120
Fluoranthene	0.010	J	1.51	1.48		mg/Kg	☼	97	62 - 120
Pyrene	0.0076	J	1.51	1.33		mg/Kg	☼	88	61 - 128
Butyl benzyl phthalate	<0.19		1.51	1.26		mg/Kg	☼	84	71 - 129
Benzo[a]anthracene	<0.037		1.51	1.39		mg/Kg	☼	92	67 - 122
Chrysene	0.010	J	1.51	1.38		mg/Kg	☼	91	63 - 120
3,3'-Dichlorobenzidine	<0.19	F1	1.51	0.244	F1	mg/Kg	☼	16	35 - 128
Bis(2-ethylhexyl) phthalate	<0.19		1.51	1.35		mg/Kg	☼	90	72 - 131
Di-n-octyl phthalate	<0.19		1.51	1.42		mg/Kg	☼	94	68 - 134
Benzo[b]fluoranthene	0.0086	J	1.51	1.34		mg/Kg	☼	88	69 - 129
Benzo[k]fluoranthene	<0.037		1.51	1.44		mg/Kg	☼	95	68 - 127
Benzo[a]pyrene	<0.037		1.51	1.30		mg/Kg	☼	86	65 - 133
Indeno[1,2,3-cd]pyrene	<0.037	F1	1.51	0.930	F1	mg/Kg	☼	62	68 - 130
Dibenz(a,h)anthracene	<0.037	F1	1.51	0.964		mg/Kg	☼	64	64 - 131
Benzo[g,h,i]perylene	<0.037	F1	1.51	0.842	F1	mg/Kg	☼	56	72 - 131
3 & 4 Methylphenol	<0.19		1.51	1.26		mg/Kg	☼	84	57 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorophenol	103		31 - 166
Phenol-d5	92		30 - 153
Nitrobenzene-d5 (Surr)	89		37 - 147
2-Fluorobiphenyl (Surr)	94		43 - 145
2,4,6-Tribromophenol	93		31 - 143
Terphenyl-d14 (Surr)	95		42 - 157

Lab Sample ID: 500-207092-3 MSD

Matrix: Solid

Analysis Batch: 626982

Client Sample ID: 2674V2-06-B13 (0-7)

Prep Type: Total/NA

Prep Batch: 625282

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	<0.19		1.53	0.957		mg/Kg	☼	63	56 - 122	8	30
Bis(2-chloroethyl)ether	<0.19		1.53	0.956		mg/Kg	☼	62	55 - 111	14	30
1,3-Dichlorobenzene	<0.19		1.53	1.01		mg/Kg	☼	66	60 - 110	9	30
1,4-Dichlorobenzene	<0.19		1.53	1.03		mg/Kg	☼	67	61 - 110	12	30
1,2-Dichlorobenzene	<0.19		1.53	1.07		mg/Kg	☼	70	62 - 110	14	30
2-Methylphenol	<0.19		1.53	1.20		mg/Kg	☼	79	60 - 120	18	30

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

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

**Lab Sample ID: 500-207092-3 MSD**

**Matrix: Solid**

**Analysis Batch: 626982**

**Client Sample ID: 2674V2-06-B13 (0-7)**

**Prep Type: Total/NA**

**Prep Batch: 625282**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
2,2'-oxybis[1-chloropropane]	<0.19	F1	1.53	0.536	F1	mg/Kg	☼	35	40 - 124	15	30
N-Nitrosodi-n-propylamine	<0.075		1.53	1.11		mg/Kg	☼	73	56 - 118	15	30
Hexachloroethane	<0.19	F1	1.53	0.780	F1	mg/Kg	☼	51	60 - 114	13	30
2-Chlorophenol	<0.19		1.53	1.19		mg/Kg	☼	78	64 - 110	12	30
Nitrobenzene	<0.037		1.53	1.14		mg/Kg	☼	75	60 - 116	7	30
Bis(2-chloroethoxy)methane	<0.19		1.53	1.20		mg/Kg	☼	78	60 - 112	5	30
1,2,4-Trichlorobenzene	<0.19		1.53	1.21		mg/Kg	☼	79	66 - 117	4	30
Isophorone	<0.19		1.53	1.22		mg/Kg	☼	80	55 - 110	7	30
2,4-Dimethylphenol	<0.37		1.53	1.19		mg/Kg	☼	78	60 - 110	1	30
Hexachlorobutadiene	<0.19		1.53	1.28		mg/Kg	☼	83	56 - 120	8	30
Naphthalene	<0.037		1.53	1.18		mg/Kg	☼	77	63 - 110	7	30
2,4-Dichlorophenol	<0.37		1.53	1.28		mg/Kg	☼	84	58 - 120	2	30
4-Chloroaniline	<0.75	F2	1.53	0.853	F2	mg/Kg	☼	56	30 - 150	33	30
2,4,6-Trichlorophenol	<0.37		1.53	1.25		mg/Kg	☼	82	57 - 120	1	30
2,4,5-Trichlorophenol	<0.37		1.53	1.17		mg/Kg	☼	76	50 - 120	8	30
Hexachlorocyclopentadiene	<0.75	F1	1.53	<0.77	F1	mg/Kg	☼	0	10 - 133	NC	30
2-Methylnaphthalene	<0.075		1.53	1.41		mg/Kg	☼	92	69 - 112	7	30
2-Nitroaniline	<0.19		1.53	1.23		mg/Kg	☼	80	57 - 124	6	30
2-Chloronaphthalene	<0.19		1.53	1.21		mg/Kg	☼	79	69 - 114	5	30
4-Chloro-3-methylphenol	<0.37		1.53	1.22		mg/Kg	☼	80	65 - 122	9	30
2,6-Dinitrotoluene	<0.19		1.53	1.33		mg/Kg	☼	87	70 - 123	2	30
2-Nitrophenol	<0.37		1.53	1.18		mg/Kg	☼	77	60 - 120	4	30
3-Nitroaniline	<0.37		1.53	0.965		mg/Kg	☼	63	40 - 122	18	30
Dimethyl phthalate	<0.19		1.53	1.41		mg/Kg	☼	92	69 - 116	3	30
2,4-Dinitrophenol	<0.75	F1	3.06	<0.77	F1	mg/Kg	☼	0	10 - 100	NC	30
Acenaphthylene	<0.037		1.53	1.31		mg/Kg	☼	85	68 - 120	5	30
2,4-Dinitrotoluene	<0.19		1.53	1.27		mg/Kg	☼	83	69 - 124	4	30
Acenaphthene	<0.037		1.53	1.27		mg/Kg	☼	83	65 - 124	4	30
Dibenzofuran	<0.19		1.53	1.29		mg/Kg	☼	84	66 - 115	4	30
4-Nitrophenol	<0.75		3.06	2.56		mg/Kg	☼	84	30 - 122	2	30
Fluorene	<0.037		1.53	1.30		mg/Kg	☼	85	62 - 120	3	30
4-Nitroaniline	<0.37		1.53	1.08		mg/Kg	☼	71	60 - 160	16	30
4-Bromophenyl phenyl ether	<0.19		1.53	1.38		mg/Kg	☼	90	68 - 118	3	30
Hexachlorobenzene	<0.075	*+	1.53	1.41		mg/Kg	☼	92	63 - 124	4	30
Diethyl phthalate	<0.19		1.53	1.42		mg/Kg	☼	93	58 - 120	5	30
4-Chlorophenyl phenyl ether	<0.19		1.53	1.28		mg/Kg	☼	84	62 - 119	5	30
Pentachlorophenol	<0.75		3.06	1.91		mg/Kg	☼	62	13 - 112	7	30
N-Nitrosodiphenylamine	<0.19		1.53	1.25		mg/Kg	☼	81	65 - 112	4	30
4,6-Dinitro-2-methylphenol	<0.75		3.06	0.723	J	mg/Kg	☼	24	10 - 110	9	30
Phenanthrene	<0.037		1.53	1.33		mg/Kg	☼	87	62 - 120	3	30
Anthracene	<0.037		1.53	1.36		mg/Kg	☼	89	70 - 114	2	30
Carbazole	<0.19		1.53	1.50		mg/Kg	☼	98	65 - 142	1	30
Di-n-butyl phthalate	<0.19		1.53	1.32		mg/Kg	☼	87	65 - 120	3	30
Fluoranthene	0.010	J	1.53	1.44		mg/Kg	☼	93	62 - 120	3	30
Pyrene	0.0076	J	1.53	1.25		mg/Kg	☼	81	61 - 128	7	30
Butyl benzyl phthalate	<0.19		1.53	1.22		mg/Kg	☼	80	71 - 129	3	30
Benzo[a]anthracene	<0.037		1.53	1.33		mg/Kg	☼	87	67 - 122	4	30
Chrysene	0.010	J	1.53	1.32		mg/Kg	☼	85	63 - 120	4	30
3,3'-Dichlorobenzidine	<0.19	F1	1.53	0.217	F1	mg/Kg	☼	14	35 - 128	12	30

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

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

Lab Sample ID: 500-207092-3 MSD

Matrix: Solid

Analysis Batch: 626982

Client Sample ID: 2674V2-06-B13 (0-7)

Prep Type: Total/NA

Prep Batch: 625282

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bis(2-ethylhexyl) phthalate	<0.19		1.53	1.31		mg/Kg	⊛	86	72 - 131	3	30
Di-n-octyl phthalate	<0.19		1.53	1.40		mg/Kg	⊛	92	68 - 134	1	30
Benzo[b]fluoranthene	0.0086	J	1.53	1.39		mg/Kg	⊛	90	69 - 129	3	30
Benzo[k]fluoranthene	<0.037		1.53	1.39		mg/Kg	⊛	91	68 - 127	4	30
Benzo[a]pyrene	<0.037		1.53	1.28		mg/Kg	⊛	83	65 - 133	2	30
Indeno[1,2,3-cd]pyrene	<0.037	F1	1.53	0.855	F1	mg/Kg	⊛	56	68 - 130	8	30
Dibenz(a,h)anthracene	<0.037	F1	1.53	0.877	F1	mg/Kg	⊛	57	64 - 131	9	30
Benzo[g,h,i]perylene	<0.037	F1	1.53	0.757	F1	mg/Kg	⊛	49	72 - 131	11	30
3 & 4 Methylphenol	<0.19		1.53	1.17		mg/Kg	⊛	77	57 - 120	7	30

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
2-Fluorophenol	88		31 - 166
Phenol-d5	77		30 - 153
Nitrobenzene-d5 (Surr)	81		37 - 147
2-Fluorobiphenyl (Surr)	85		43 - 145
2,4,6-Tribromophenol	89		31 - 143
Terphenyl-d14 (Surr)	87		42 - 157

## Method: 6010B - Metals (ICP)

Lab Sample ID: LCS 500-625652/2-A

Matrix: Solid

Analysis Batch: 625818

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 625652

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.500	0.516		mg/L		103	80 - 120
Beryllium	0.0500	0.0469		mg/L		94	80 - 120
Boron	1.00	0.922		mg/L		92	80 - 120
Cadmium	0.0500	0.0504		mg/L		101	80 - 120
Chromium	0.200	0.204		mg/L		102	80 - 120
Cobalt	0.500	0.538		mg/L		108	80 - 120
Iron	1.00	0.931		mg/L		93	80 - 120
Lead	0.100	0.100		mg/L		100	80 - 120
Manganese	0.500	0.466		mg/L		93	80 - 120
Nickel	0.500	0.541		mg/L		108	80 - 120
Selenium	0.100	0.107		mg/L		107	80 - 120
Silver	0.0500	0.0522		mg/L		104	80 - 120
Zinc	0.500	0.637	*+ ^+	mg/L		127	80 - 120

Lab Sample ID: LCS 500-625655/2-A

Matrix: Solid

Analysis Batch: 625997

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 625655

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	1.00	0.978		mg/L		98	80 - 120
Lead	0.100	0.0970		mg/L		97	80 - 120
Manganese	0.500	0.470		mg/L		94	80 - 120

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

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

**Lab Sample ID: MB 500-626365/1-A**  
**Matrix: Solid**  
**Analysis Batch: 626573**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 626365**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	0.447	J	2.0	0.39	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Arsenic	<1.0		1.0	0.34	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Barium	<1.0		1.0	0.11	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Beryllium	<0.40		0.40	0.093	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Boron	<5.0		5.0	0.47	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Cadmium	0.0726	J	0.20	0.036	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Calcium	8.98	J	20	3.4	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Chromium	<1.0		1.0	0.50	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Cobalt	<0.50		0.50	0.13	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Copper	<1.0		1.0	0.28	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Iron	25.9		20	10	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Lead	<0.50		0.50	0.23	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Magnesium	5.49	J	10	5.0	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Manganese	0.389	J	1.0	0.15	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Nickel	<1.0		1.0	0.29	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Potassium	<50		50	18	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Selenium	<1.0		1.0	0.59	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Silver	<0.50		0.50	0.13	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Sodium	<100		100	15	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Thallium	<1.0		1.0	0.50	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Vanadium	<0.50		0.50	0.12	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Zinc	<2.0		2.0	0.88	mg/Kg		10/31/21 08:55	11/01/21 11:57	1

**Lab Sample ID: LCS 500-626365/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626573**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626365**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
Antimony	50.0	48.1		mg/Kg		96	80 - 120
Arsenic	10.0	8.67		mg/Kg		87	80 - 120
Barium	200	198		mg/Kg		99	80 - 120
Beryllium	5.00	4.65		mg/Kg		93	80 - 120
Boron	100	81.4		mg/Kg		81	80 - 120
Cadmium	5.00	4.54		mg/Kg		91	80 - 120
Calcium	1000	930		mg/Kg		93	80 - 120
Chromium	20.0	18.8		mg/Kg		94	80 - 120
Cobalt	50.0	46.5		mg/Kg		93	80 - 120
Copper	25.0	24.2		mg/Kg		97	80 - 120
Iron	100	105		mg/Kg		105	80 - 120
Lead	10.0	8.87		mg/Kg		89	80 - 120
Magnesium	1000	941		mg/Kg		94	80 - 120
Manganese	50.0	46.2		mg/Kg		92	80 - 120
Nickel	50.0	47.1		mg/Kg		94	80 - 120
Potassium	1000	936		mg/Kg		94	80 - 120
Selenium	10.0	8.26		mg/Kg		83	80 - 120
Silver	5.00	4.53		mg/Kg		91	80 - 120
Sodium	1000	987		mg/Kg		99	80 - 120
Thallium	10.0	8.52		mg/Kg		85	80 - 120
Vanadium	50.0	47.0		mg/Kg		94	80 - 120

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

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

**Lab Sample ID: LCS 500-626365/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626573**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626365**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	50.0	46.0		mg/Kg		92	80 - 120

**Lab Sample ID: LB 500-625341/1-C**  
**Matrix: Solid**  
**Analysis Batch: 625818**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 625652**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.50		0.50	0.050	mg/L		10/27/21 08:00	10/27/21 17:55	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/27/21 08:00	10/27/21 17:55	1
Boron	<0.50		0.50	0.050	mg/L		10/27/21 08:00	10/27/21 17:55	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/27/21 08:00	10/27/21 17:55	1
Chromium	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 17:55	1
Cobalt	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 17:55	1
Iron	<0.40		0.40	0.20	mg/L		10/27/21 08:00	10/27/21 17:55	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/27/21 08:00	10/27/21 17:55	1
Manganese	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 17:55	1
Nickel	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 17:55	1
Selenium	<0.050		0.050	0.020	mg/L		10/27/21 08:00	10/27/21 17:55	1
Silver	<0.025		0.025	0.010	mg/L		10/27/21 08:00	10/27/21 17:55	1
Zinc	0.0427	J ^+	0.50	0.020	mg/L		10/27/21 08:00	10/27/21 17:55	1

**Lab Sample ID: 500-207092-1 MS**  
**Matrix: Solid**  
**Analysis Batch: 625818**

**Client Sample ID: 2674V2-06-B14 (0-7)**  
**Prep Type: TCLP**  
**Prep Batch: 625652**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.48	J	0.500	0.932		mg/L		90	75 - 125
Beryllium	<0.0040		0.0500	0.0453		mg/L		91	75 - 125
Boron	0.054	J	1.00	0.946		mg/L		89	75 - 125
Cadmium	<0.0050		0.0500	0.0514		mg/L		103	75 - 125
Chromium	<0.025		0.200	0.194		mg/L		97	75 - 125
Cobalt	0.019	J	0.500	0.542		mg/L		105	75 - 125
Iron	<0.40		1.00	0.991		mg/L		99	75 - 125
Lead	<0.0075		0.100	0.0997		mg/L		100	75 - 125
Manganese	1.5	F1	0.500	1.81	F1	mg/L		54	75 - 125
Nickel	0.013	J	0.500	0.534		mg/L		104	75 - 125
Selenium	<0.050		0.100	0.102		mg/L		102	75 - 125
Silver	<0.025		0.0500	0.0504		mg/L		101	75 - 125
Zinc	<0.50	*+ ^+	0.500	0.573	^+	mg/L		115	75 - 125

**Lab Sample ID: 500-207092-1 DU**  
**Matrix: Solid**  
**Analysis Batch: 625818**

**Client Sample ID: 2674V2-06-B14 (0-7)**  
**Prep Type: TCLP**  
**Prep Batch: 625652**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Barium	0.48	J	0.476	J	mg/L		0.7	20
Beryllium	<0.0040		<0.0040		mg/L		NC	20
Boron	0.054	J	0.0541	J	mg/L		0.2	20
Cadmium	<0.0050		<0.0050		mg/L		NC	20

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

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

Lab Sample ID: 500-207092-1 DU  
Matrix: Solid  
Analysis Batch: 625818

Client Sample ID: 2674V2-06-B14 (0-7)  
Prep Type: TCLP  
Prep Batch: 625652

Analyte	Sample	Sample	DU		Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Chromium	<0.025		<0.025		mg/L		NC	20
Cobalt	0.019	J	0.0192	J	mg/L		0.4	20
Iron	<0.40		<0.40		mg/L		NC	20
Lead	<0.0075		<0.0075		mg/L		NC	20
Manganese	1.5	F1	1.52		mg/L		1	20
Nickel	0.013	J	0.0131	J	mg/L		2	20
Selenium	<0.050		<0.050		mg/L		NC	20
Silver	<0.025		<0.025		mg/L		NC	20
Zinc	<0.50	*+ ^+	<0.50	*+ ^+	mg/L		NC	20

Lab Sample ID: LB 500-625344/1-B  
Matrix: Solid  
Analysis Batch: 625997

Client Sample ID: Method Blank  
Prep Type: SPLP East  
Prep Batch: 625655

Analyte	LB	LB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Iron	<0.20		0.20	0.20	mg/L		10/27/21 08:07	10/28/21 13:56	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/27/21 08:07	10/28/21 13:56	1
Manganese	<0.025		0.025	0.010	mg/L		10/27/21 08:07	10/28/21 13:56	1

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

Lab Sample ID: LCS 500-625652/2-A  
Matrix: Solid  
Analysis Batch: 626005

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 625652

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Antimony	0.500	0.491		mg/L		98	80 - 120
Thallium	0.100	0.0943		mg/L		94	80 - 120

Lab Sample ID: LB 500-625341/1-C  
Matrix: Solid  
Analysis Batch: 626005

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 625652

Analyte	LB	LB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.0060		0.0060	0.0060	mg/L		10/27/21 08:00	10/28/21 13:53	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/27/21 08:00	10/28/21 13:53	1

Lab Sample ID: 500-207092-1 MS  
Matrix: Solid  
Analysis Batch: 626005

Client Sample ID: 2674V2-06-B14 (0-7)  
Prep Type: TCLP  
Prep Batch: 625652

Analyte	Sample	Sample	Spike Added	MS		Unit	D	%Rec	%Rec. Limits
	Result	Qualifier		Result	Qualifier				
Antimony	<0.0060		0.500	0.466		mg/L		93	75 - 125
Thallium	<0.0020		0.100	0.0908		mg/L		91	75 - 125

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

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

Lab Sample ID: 500-207092-1 DU  
Matrix: Solid  
Analysis Batch: 626005

Client Sample ID: 2674V2-06-B14 (0-7)  
Prep Type: TCLP  
Prep Batch: 625652

Analyte	Sample	Sample	DU		Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Antimony	<0.0060		<0.0060		mg/L		NC	20
Thallium	<0.0020		<0.0020		mg/L		NC	20

## Method: 7470A - TCLP Mercury

Lab Sample ID: MB 500-625689/12-A  
Matrix: Solid  
Analysis Batch: 625925

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 625689

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.00020		0.00020	0.00020	mg/L		10/27/21 09:40	10/28/21 09:10	1

Lab Sample ID: LCS 500-625689/14-A  
Matrix: Solid  
Analysis Batch: 625925

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 625689

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Mercury	0.00200	0.00188		mg/L		94	80 - 120

Lab Sample ID: LB 500-625341/1-D  
Matrix: Solid  
Analysis Batch: 625925

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 625689

Analyte	LB	LB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.00020		0.00020	0.00020	mg/L		10/27/21 09:40	10/28/21 09:12	1

Lab Sample ID: 500-207092-1 MS  
Matrix: Solid  
Analysis Batch: 625925

Client Sample ID: 2674V2-06-B14 (0-7)  
Prep Type: TCLP  
Prep Batch: 625689

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier		Result	Qualifier				
Mercury	<0.00020		0.00100	0.000980		mg/L		98	75 - 125

Lab Sample ID: 500-207092-1 DU  
Matrix: Solid  
Analysis Batch: 625925

Client Sample ID: 2674V2-06-B14 (0-7)  
Prep Type: TCLP  
Prep Batch: 625689

Analyte	Sample	Sample	DU		Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Mercury	<0.00020		<0.00020		mg/L		NC	20

## Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 500-625918/12-A  
Matrix: Solid  
Analysis Batch: 626118

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 625918

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.017		0.017	0.0056	mg/Kg		10/28/21 14:10	10/29/21 06:26	1

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# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

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

**Lab Sample ID: LCS 500-625918/13-A**  
**Matrix: Solid**  
**Analysis Batch: 626118**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625918**  
 %Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.167	0.181		mg/Kg		108	80 - 120

**Lab Sample ID: 500-207092-10 MS**  
**Matrix: Solid**  
**Analysis Batch: 626118**

**Client Sample ID: 2674V2-06-B06 (0-7)**  
**Prep Type: Total/NA**  
**Prep Batch: 625918**  
 %Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.051		0.187	0.268		mg/Kg	✱	116	75 - 125

**Lab Sample ID: 500-207092-10 MSD**  
**Matrix: Solid**  
**Analysis Batch: 626118**

**Client Sample ID: 2674V2-06-B06 (0-7)**  
**Prep Type: Total/NA**  
**Prep Batch: 625918**  
 %Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.051		0.189	0.256		mg/Kg	✱	109	75 - 125	5	20

**Lab Sample ID: 500-207092-10 DU**  
**Matrix: Solid**  
**Analysis Batch: 626118**

**Client Sample ID: 2674V2-06-B06 (0-7)**  
**Prep Type: Total/NA**  
**Prep Batch: 625918**  
 %Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	DU Result	DU Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.051			0.0518		mg/Kg	✱			1	20

## Method: 9045D - pH

**Lab Sample ID: 500-207092-7 DU**  
**Matrix: Solid**  
**Analysis Batch: 625321**

**Client Sample ID: 2674V2-06-B09 (0-7)**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	DU Result	DU Qualifier	Unit	D	%Rec	Limits	RPD	Limit
pH	8.0			8.1		SU				0.6	

# Lab Chronicle

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B14 (0-7)**

**Lab Sample ID: 500-207092-1**

**Date Collected: 10/19/21 09:45**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			625344	10/25/21 12:50	EA	TAL CHI
SPLP East	Prep	3010A			625655	10/27/21 08:07	BDE	TAL CHI
SPLP East	Analysis	6010B		1	625997	10/28/21 14:38	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6010B		1	625818	10/27/21 18:21	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6020A		1	626005	10/28/21 13:55	FXG	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	7470A			625689	10/27/21 09:40	MJG	TAL CHI
TCLP	Analysis	7470A		1	625925	10/28/21 09:25	MJG	TAL CHI
Total/NA	Analysis	9045D		1	625321	10/25/21 17:03	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	625119	10/25/21 07:14	LWN	TAL CHI

**Client Sample ID: 2674V2-06-B14 (0-7)**

**Lab Sample ID: 500-207092-1**

**Date Collected: 10/19/21 09:45**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

**Percent Solids: 79.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624638	10/20/21 18:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625628	10/27/21 12:20	PMF	TAL CHI
Total/NA	Prep	3541			625282	10/25/21 14:39	SB	TAL CHI
Total/NA	Analysis	8270D		1	626982	11/03/21 16:44	EMA	TAL CHI
Total/NA	Prep	3050B			626365	10/31/21 08:55	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626573	11/01/21 12:35	JJB	TAL CHI
Total/NA	Prep	3050B			626365	10/31/21 08:55	BDE	TAL CHI
Total/NA	Analysis	6010B		5	626573	11/01/21 13:56	JJB	TAL CHI
Total/NA	Prep	7471B			625918	10/28/21 14:10	MJG	TAL CHI
Total/NA	Analysis	7471B		1	626118	10/29/21 06:29	MJG	TAL CHI

**Client Sample ID: 2674V2-06-B15 (0-7)**

**Lab Sample ID: 500-207092-2**

**Date Collected: 10/19/21 09:57**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			625344	10/25/21 12:50	EA	TAL CHI
SPLP East	Prep	3010A			625655	10/27/21 08:07	BDE	TAL CHI
SPLP East	Analysis	6010B		1	625997	10/28/21 14:41	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6010B		1	625818	10/27/21 18:34	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6020A		1	626005	10/28/21 13:59	FXG	TAL CHI

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# Lab Chronicle

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B15 (0-7)**

**Lab Sample ID: 500-207092-2**

**Date Collected: 10/19/21 09:57**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	7470A			625689	10/27/21 09:40	MJG	TAL CHI
TCLP	Analysis	7470A		1	625925	10/28/21 09:32	MJG	TAL CHI
Total/NA	Analysis	9045D		1	625321	10/25/21 17:05	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	625119	10/25/21 07:14	LWN	TAL CHI

**Client Sample ID: 2674V2-06-B15 (0-7)**

**Lab Sample ID: 500-207092-2**

**Date Collected: 10/19/21 09:57**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

**Percent Solids: 80.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624638	10/20/21 18:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625628	10/27/21 12:46	PMF	TAL CHI
Total/NA	Prep	3541			625282	10/25/21 14:39	SB	TAL CHI
Total/NA	Analysis	8270D		1	626982	11/03/21 17:08	EMA	TAL CHI
Total/NA	Prep	3050B			626365	10/31/21 08:55	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626573	11/01/21 12:38	JJB	TAL CHI
Total/NA	Prep	3050B			626365	10/31/21 08:55	BDE	TAL CHI
Total/NA	Analysis	6010B		5	626573	11/01/21 13:59	JJB	TAL CHI
Total/NA	Prep	7471B			625918	10/28/21 14:10	MJG	TAL CHI
Total/NA	Analysis	7471B		1	626118	10/29/21 06:31	MJG	TAL CHI

**Client Sample ID: 2674V2-06-B13 (0-7)**

**Lab Sample ID: 500-207092-3**

**Date Collected: 10/19/21 10:35**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			625344	10/25/21 12:50	EA	TAL CHI
SPLP East	Prep	3010A			625655	10/27/21 08:07	BDE	TAL CHI
SPLP East	Analysis	6010B		1	625997	10/28/21 14:44	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6010B		1	625818	10/27/21 18:38	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6020A		1	626005	10/28/21 14:00	FXG	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	7470A			625689	10/27/21 09:40	MJG	TAL CHI
TCLP	Analysis	7470A		1	625925	10/28/21 09:34	MJG	TAL CHI
Total/NA	Analysis	9045D		1	625321	10/25/21 17:08	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	625119	10/25/21 07:14	LWN	TAL CHI

# Lab Chronicle

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B13 (0-7)**

**Lab Sample ID: 500-207092-3**

**Date Collected: 10/19/21 10:35**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

**Percent Solids: 85.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624638	10/20/21 18:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625628	10/27/21 13:12	PMF	TAL CHI
Total/NA	Prep	3541			625282	10/25/21 14:39	SB	TAL CHI
Total/NA	Analysis	8270D		1	626982	11/03/21 17:32	EMA	TAL CHI
Total/NA	Prep	3050B			626365	10/31/21 08:55	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626573	11/01/21 12:41	JJB	TAL CHI
Total/NA	Prep	3050B			626365	10/31/21 08:55	BDE	TAL CHI
Total/NA	Analysis	6010B		5	626573	11/01/21 14:02	JJB	TAL CHI
Total/NA	Prep	7471B			625918	10/28/21 14:10	MJG	TAL CHI
Total/NA	Analysis	7471B		1	626118	10/29/21 06:33	MJG	TAL CHI

**Client Sample ID: 2674V2-06-B12 (0-7)**

**Lab Sample ID: 500-207092-4**

**Date Collected: 10/19/21 10:57**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6010B		1	625818	10/27/21 18:41	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6020A		1	626005	10/28/21 14:01	FXG	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	7470A			625689	10/27/21 09:40	MJG	TAL CHI
TCLP	Analysis	7470A		1	625925	10/28/21 09:36	MJG	TAL CHI
Total/NA	Analysis	9045D		1	625321	10/25/21 17:10	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	625119	10/25/21 07:14	LWN	TAL CHI

**Client Sample ID: 2674V2-06-B12 (0-7)**

**Lab Sample ID: 500-207092-4**

**Date Collected: 10/19/21 10:57**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

**Percent Solids: 78.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624638	10/20/21 18:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625628	10/27/21 13:38	PMF	TAL CHI
Total/NA	Prep	3541			625282	10/25/21 14:39	SB	TAL CHI
Total/NA	Analysis	8270D		1	626982	11/03/21 18:43	EMA	TAL CHI
Total/NA	Prep	3050B			626365	10/31/21 08:55	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626573	11/01/21 12:44	JJB	TAL CHI
Total/NA	Prep	3050B			626365	10/31/21 08:55	BDE	TAL CHI
Total/NA	Analysis	6010B		5	626663	11/01/21 14:12	JJB	TAL CHI
Total/NA	Prep	7471B			625918	10/28/21 14:10	MJG	TAL CHI
Total/NA	Analysis	7471B		1	626118	10/29/21 06:35	MJG	TAL CHI

# Lab Chronicle

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B11 (0-7)**

**Lab Sample ID: 500-207092-5**

**Date Collected: 10/19/21 11:15**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6010B		1	625818	10/27/21 18:44	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6020A		1	626005	10/28/21 14:02	FXG	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	7470A			625689	10/27/21 09:40	MJG	TAL CHI
TCLP	Analysis	7470A		1	625925	10/28/21 09:38	MJG	TAL CHI
Total/NA	Analysis	9045D		1	625321	10/25/21 17:13	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	625119	10/25/21 07:14	LWN	TAL CHI

**Client Sample ID: 2674V2-06-B11 (0-7)**

**Lab Sample ID: 500-207092-5**

**Date Collected: 10/19/21 11:15**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

**Percent Solids: 82.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624638	10/20/21 18:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625628	10/27/21 14:03	PMF	TAL CHI
Total/NA	Prep	3541			625282	10/25/21 14:39	SB	TAL CHI
Total/NA	Analysis	8270D		1	626982	11/03/21 19:07	EMA	TAL CHI
Total/NA	Prep	3050B			626365	10/31/21 08:55	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626573	11/01/21 12:48	JJB	TAL CHI
Total/NA	Prep	3050B			626365	10/31/21 08:55	BDE	TAL CHI
Total/NA	Analysis	6010B		5	626663	11/01/21 14:42	JJB	TAL CHI
Total/NA	Prep	7471B			625918	10/28/21 14:10	MJG	TAL CHI
Total/NA	Analysis	7471B		1	626118	10/29/21 06:37	MJG	TAL CHI

**Client Sample ID: 2674V2-06-B10 (0-7)**

**Lab Sample ID: 500-207092-6**

**Date Collected: 10/19/21 11:30**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6010B		1	625818	10/27/21 18:47	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6020A		1	626005	10/28/21 14:32	FXG	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	7470A			625689	10/27/21 09:40	MJG	TAL CHI
TCLP	Analysis	7470A		1	625925	10/28/21 09:40	MJG	TAL CHI
Total/NA	Analysis	9045D		1	625321	10/25/21 17:15	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	625119	10/25/21 07:14	LWN	TAL CHI

# Lab Chronicle

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B10 (0-7)**

**Lab Sample ID: 500-207092-6**

**Date Collected: 10/19/21 11:30**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

**Percent Solids: 84.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624638	10/20/21 18:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625628	10/27/21 14:29	PMF	TAL CHI
Total/NA	Prep	3541			625282	10/25/21 14:39	SB	TAL CHI
Total/NA	Analysis	8270D		1	626982	11/03/21 19:31	EMA	TAL CHI
Total/NA	Prep	3050B			626365	10/31/21 08:55	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626573	11/01/21 12:57	JJB	TAL CHI
Total/NA	Prep	3050B			626365	10/31/21 08:55	BDE	TAL CHI
Total/NA	Analysis	6010B		5	626663	11/01/21 15:32	JJB	TAL CHI
Total/NA	Prep	7471B			625918	10/28/21 14:10	MJG	TAL CHI
Total/NA	Analysis	7471B		1	626118	10/29/21 06:39	MJG	TAL CHI

**Client Sample ID: 2674V2-06-B09 (0-7)**

**Lab Sample ID: 500-207092-7**

**Date Collected: 10/19/21 11:55**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			625344	10/25/21 12:50	EA	TAL CHI
SPLP East	Prep	3010A			625655	10/27/21 08:07	BDE	TAL CHI
SPLP East	Analysis	6010B		1	625997	10/28/21 14:56	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6010B		1	625818	10/27/21 18:57	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6010B		1	625974	10/28/21 13:05	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6020A		1	626005	10/28/21 14:33	FXG	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	7470A			625689	10/27/21 09:40	MJG	TAL CHI
TCLP	Analysis	7470A		1	625925	10/28/21 09:42	MJG	TAL CHI
Total/NA	Analysis	9045D		1	625321	10/25/21 17:19	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	625119	10/25/21 07:14	LWN	TAL CHI

**Client Sample ID: 2674V2-06-B09 (0-7)**

**Lab Sample ID: 500-207092-7**

**Date Collected: 10/19/21 11:55**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

**Percent Solids: 77.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624638	10/20/21 18:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625821	10/28/21 18:37	PMF	TAL CHI
Total/NA	Prep	3541			625282	10/25/21 14:39	SB	TAL CHI
Total/NA	Analysis	8270D		1	626982	11/03/21 19:55	EMA	TAL CHI
Total/NA	Prep	3050B			626365	10/31/21 08:55	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626573	11/01/21 13:00	JJB	TAL CHI

Eurofins TestAmerica, Chicago



# Lab Chronicle

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B09 (0-7)**

**Lab Sample ID: 500-207092-7**

**Date Collected: 10/19/21 11:55**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

**Percent Solids: 77.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471B			625918	10/28/21 14:10	MJG	TAL CHI
Total/NA	Analysis	7471B		1	626118	10/29/21 06:41	MJG	TAL CHI

**Client Sample ID: 2674V2-06-B08 (0-7)**

**Lab Sample ID: 500-207092-8**

**Date Collected: 10/19/21 12:15**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			625344	10/25/21 12:50	EA	TAL CHI
SPLP East	Prep	3010A			625655	10/27/21 08:07	BDE	TAL CHI
SPLP East	Analysis	6010B		1	625997	10/28/21 14:59	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6010B		1	625818	10/27/21 19:00	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6010B		1	625974	10/28/21 13:09	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6020A		1	626005	10/28/21 14:34	FXG	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	7470A			625689	10/27/21 09:40	MJG	TAL CHI
TCLP	Analysis	7470A		1	625925	10/28/21 09:49	MJG	TAL CHI
Total/NA	Analysis	9045D		1	625321	10/25/21 17:24	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	625119	10/25/21 07:14	LWN	TAL CHI

**Client Sample ID: 2674V2-06-B08 (0-7)**

**Lab Sample ID: 500-207092-8**

**Date Collected: 10/19/21 12:15**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

**Percent Solids: 62.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624638	10/20/21 18:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625628	10/27/21 15:26	PMF	TAL CHI
Total/NA	Prep	3541			625282	10/25/21 14:39	SB	TAL CHI
Total/NA	Analysis	8270D		1	626982	11/03/21 20:19	EMA	TAL CHI
Total/NA	Prep	3050B			626365	10/31/21 08:55	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626573	11/01/21 13:03	JJB	TAL CHI
Total/NA	Prep	3050B			626365	10/31/21 08:55	BDE	TAL CHI
Total/NA	Analysis	6010B		5	626663	11/01/21 15:39	JJB	TAL CHI
Total/NA	Prep	7471B			625918	10/28/21 14:10	MJG	TAL CHI
Total/NA	Analysis	7471B		1	626118	10/29/21 06:47	MJG	TAL CHI

# Lab Chronicle

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B07 (0-7)**

**Lab Sample ID: 500-207092-9**

**Date Collected: 10/19/21 12:30**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			625344	10/25/21 12:50	EA	TAL CHI
SPLP East	Prep	3010A			625655	10/27/21 08:07	BDE	TAL CHI
SPLP East	Analysis	6010B		1	625997	10/28/21 15:02	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6010B		1	625818	10/27/21 19:04	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6010B		1	625974	10/28/21 13:12	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6020A		1	626005	10/28/21 14:35	FXG	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	7470A			625689	10/27/21 09:40	MJG	TAL CHI
TCLP	Analysis	7470A		1	625925	10/28/21 09:51	MJG	TAL CHI
Total/NA	Analysis	9045D		1	625321	10/25/21 17:27	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	625119	10/25/21 07:14	LWN	TAL CHI

**Client Sample ID: 2674V2-06-B07 (0-7)**

**Lab Sample ID: 500-207092-9**

**Date Collected: 10/19/21 12:30**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

**Percent Solids: 68.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624638	10/20/21 18:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625628	10/27/21 15:52	PMF	TAL CHI
Total/NA	Prep	3541			625282	10/25/21 14:39	SB	TAL CHI
Total/NA	Analysis	8270D		1	626982	11/03/21 20:43	EMA	TAL CHI
Total/NA	Prep	3050B			626365	10/31/21 08:55	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626573	11/01/21 13:06	JJB	TAL CHI
Total/NA	Prep	3050B			626365	10/31/21 08:55	BDE	TAL CHI
Total/NA	Analysis	6010B		5	626663	11/01/21 17:07	JJB	TAL CHI
Total/NA	Prep	7471B			625918	10/28/21 14:10	MJG	TAL CHI
Total/NA	Analysis	7471B		1	626118	10/29/21 06:49	MJG	TAL CHI

**Client Sample ID: 2674V2-06-B06 (0-7)**

**Lab Sample ID: 500-207092-10**

**Date Collected: 10/19/21 12:49**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			625344	10/25/21 12:50	EA	TAL CHI
SPLP East	Prep	3010A			625655	10/27/21 08:07	BDE	TAL CHI
SPLP East	Analysis	6010B		1	625997	10/28/21 15:06	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6010B		1	625818	10/27/21 19:07	JJB	TAL CHI

Eurofins TestAmerica, Chicago

# Lab Chronicle

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B06 (0-7)**

**Lab Sample ID: 500-207092-10**

**Date Collected: 10/19/21 12:49**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6010B		1	625974	10/28/21 13:21	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6020A		1	626005	10/28/21 14:36	FXG	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	7470A			625689	10/27/21 09:40	MJG	TAL CHI
TCLP	Analysis	7470A		1	625925	10/28/21 09:53	MJG	TAL CHI
Total/NA	Analysis	9045D		1	625321	10/25/21 17:29	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	625119	10/25/21 07:14	LWN	TAL CHI

**Client Sample ID: 2674V2-06-B06 (0-7)**

**Lab Sample ID: 500-207092-10**

**Date Collected: 10/19/21 12:49**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

**Percent Solids: 40.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624638	10/20/21 18:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625821	10/28/21 19:02	PMF	TAL CHI
Total/NA	Prep	5035	DL		624590	10/19/21 12:49	WRE	TAL CHI
Total/NA	Analysis	8260B	DL	50	626080	10/29/21 17:32	PMF	TAL CHI
Total/NA	Prep	3541			625282	10/25/21 14:39	SB	TAL CHI
Total/NA	Analysis	8270D		1	627393	11/05/21 11:36	GLR	TAL CHI
Total/NA	Prep	3050B			626365	10/31/21 08:55	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626573	11/01/21 13:09	JJB	TAL CHI
Total/NA	Prep	7471B			625918	10/28/21 14:10	MJG	TAL CHI
Total/NA	Analysis	7471B		1	626118	10/29/21 06:51	MJG	TAL CHI

**Client Sample ID: 2674V2-06-B05 (0-7)**

**Lab Sample ID: 500-207092-11**

**Date Collected: 10/19/21 13:10**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			625344	10/25/21 12:50	EA	TAL CHI
SPLP East	Prep	3010A			625655	10/27/21 08:07	BDE	TAL CHI
SPLP East	Analysis	6010B		1	625997	10/28/21 15:15	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6010B		1	625818	10/27/21 19:10	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6010B		1	625974	10/28/21 13:25	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6020A		1	626005	10/28/21 14:37	FXG	TAL CHI

# Lab Chronicle

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B05 (0-7)**

**Lab Sample ID: 500-207092-11**

**Date Collected: 10/19/21 13:10**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	7470A			625689	10/27/21 09:40	MJG	TAL CHI
TCLP	Analysis	7470A		1	625925	10/28/21 09:55	MJG	TAL CHI
Total/NA	Analysis	9045D		1	625321	10/25/21 17:32	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	625119	10/25/21 07:14	LWN	TAL CHI

**Client Sample ID: 2674V2-06-B05 (0-7)**

**Lab Sample ID: 500-207092-11**

**Date Collected: 10/19/21 13:10**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

**Percent Solids: 82.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624638	10/20/21 18:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625628	10/27/21 16:43	PMF	TAL CHI
Total/NA	Prep	3541			625282	10/25/21 14:39	SB	TAL CHI
Total/NA	Analysis	8270D		1	626982	11/03/21 21:30	EMA	TAL CHI
Total/NA	Prep	3050B			626365	10/31/21 08:55	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626573	11/01/21 13:12	JJB	TAL CHI
Total/NA	Prep	7471B			625918	10/28/21 14:10	MJG	TAL CHI
Total/NA	Analysis	7471B		1	626118	10/29/21 06:58	MJG	TAL CHI

**Client Sample ID: 2674V2-06-B04 (0-7)**

**Lab Sample ID: 500-207092-12**

**Date Collected: 10/19/21 13:23**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6010B		1	625818	10/27/21 19:13	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6010B		1	625974	10/28/21 13:28	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6020A		1	626005	10/28/21 14:39	FXG	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	7470A			625689	10/27/21 09:40	MJG	TAL CHI
TCLP	Analysis	7470A		1	625925	10/28/21 09:57	MJG	TAL CHI
Total/NA	Analysis	9045D		1	625321	10/25/21 17:34	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	625119	10/25/21 07:14	LWN	TAL CHI

# Lab Chronicle

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B04 (0-7)**

**Lab Sample ID: 500-207092-12**

**Date Collected: 10/19/21 13:23**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

**Percent Solids: 85.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624638	10/20/21 18:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625628	10/27/21 17:09	PMF	TAL CHI
Total/NA	Prep	3541			625282	10/25/21 14:39	SB	TAL CHI
Total/NA	Analysis	8270D		1	626982	11/03/21 21:54	EMA	TAL CHI
Total/NA	Prep	3050B			626365	10/31/21 08:55	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626573	11/01/21 13:16	JJB	TAL CHI
Total/NA	Prep	7471B			625918	10/28/21 14:10	MJG	TAL CHI
Total/NA	Analysis	7471B		1	626118	10/29/21 07:01	MJG	TAL CHI

**Client Sample ID: 2674V2-06-B05 (0-7)D**

**Lab Sample ID: 500-207092-13**

**Date Collected: 10/19/21 13:13**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			625344	10/25/21 12:50	EA	TAL CHI
SPLP East	Prep	3010A			625655	10/27/21 08:07	BDE	TAL CHI
SPLP East	Analysis	6010B		1	625997	10/28/21 15:48	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6010B		1	625818	10/27/21 19:17	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6010B		1	625974	10/28/21 13:31	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6020A		1	626005	10/28/21 14:40	FXG	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	7470A			625689	10/27/21 09:40	MJG	TAL CHI
TCLP	Analysis	7470A		1	625925	10/28/21 09:59	MJG	TAL CHI
Total/NA	Analysis	9045D		1	625321	10/25/21 17:37	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	625119	10/25/21 07:14	LWN	TAL CHI

**Client Sample ID: 2674V2-06-B05 (0-7)D**

**Lab Sample ID: 500-207092-13**

**Date Collected: 10/19/21 13:13**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

**Percent Solids: 84.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624638	10/20/21 18:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625628	10/27/21 17:34	PMF	TAL CHI
Total/NA	Prep	3541			625282	10/25/21 14:39	SB	TAL CHI
Total/NA	Analysis	8270D		1	626982	11/03/21 22:18	EMA	TAL CHI
Total/NA	Prep	3050B			626365	10/31/21 08:55	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626573	11/01/21 13:19	JJB	TAL CHI
Total/NA	Prep	7471B			625918	10/28/21 14:10	MJG	TAL CHI
Total/NA	Analysis	7471B		1	626118	10/29/21 07:03	MJG	TAL CHI

Eurofins TestAmerica, Chicago

# Lab Chronicle

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B03 (0-7)**

**Lab Sample ID: 500-207092-14**

**Date Collected: 10/19/21 13:37**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			625344	10/25/21 12:50	EA	TAL CHI
SPLP East	Prep	3010A			625655	10/27/21 08:07	BDE	TAL CHI
SPLP East	Analysis	6010B		1	625997	10/28/21 15:51	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6010B		1	625818	10/27/21 19:20	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6010B		1	625974	10/28/21 13:34	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6020A		1	626005	10/28/21 14:41	FXG	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	7470A			625689	10/27/21 09:40	MJG	TAL CHI
TCLP	Analysis	7470A		1	625925	10/28/21 10:01	MJG	TAL CHI
Total/NA	Analysis	9045D		1	625321	10/25/21 17:39	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	625119	10/25/21 07:14	LWN	TAL CHI

**Client Sample ID: 2674V2-06-B03 (0-7)**

**Lab Sample ID: 500-207092-14**

**Date Collected: 10/19/21 13:37**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

**Percent Solids: 72.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624638	10/20/21 18:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625628	10/27/21 18:00	PMF	TAL CHI
Total/NA	Prep	3541			625282	10/25/21 14:39	SB	TAL CHI
Total/NA	Analysis	8270D		1	626982	11/03/21 22:42	EMA	TAL CHI
Total/NA	Prep	3050B			626365	10/31/21 08:55	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626573	11/01/21 13:22	JJB	TAL CHI
Total/NA	Prep	7471B			625918	10/28/21 14:10	MJG	TAL CHI
Total/NA	Analysis	7471B		1	626118	10/29/21 07:05	MJG	TAL CHI

**Client Sample ID: 2674V2-06-B02 (0-7)**

**Lab Sample ID: 500-207092-15**

**Date Collected: 10/19/21 13:58**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			625344	10/25/21 12:50	EA	TAL CHI
SPLP East	Prep	3010A			625655	10/27/21 08:07	BDE	TAL CHI
SPLP East	Analysis	6010B		1	625997	10/28/21 16:02	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6010B		1	625818	10/27/21 19:23	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6010B		1	625974	10/28/21 13:38	JJB	TAL CHI

Euofins TestAmerica, Chicago

# Lab Chronicle

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B02 (0-7)**

**Lab Sample ID: 500-207092-15**

**Date Collected: 10/19/21 13:58**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6020A		1	626005	10/28/21 14:42	FXG	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	7470A			625689	10/27/21 09:40	MJG	TAL CHI
TCLP	Analysis	7470A		1	625925	10/28/21 10:04	MJG	TAL CHI
Total/NA	Analysis	9045D		1	625321	10/25/21 17:41	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	625119	10/25/21 07:14	LWN	TAL CHI

**Client Sample ID: 2674V2-06-B02 (0-7)**

**Lab Sample ID: 500-207092-15**

**Date Collected: 10/19/21 13:58**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

**Percent Solids: 62.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624638	10/20/21 18:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625628	10/27/21 18:25	PMF	TAL CHI
Total/NA	Prep	3541			625282	10/25/21 14:39	SB	TAL CHI
Total/NA	Analysis	8270D		1	627299	11/04/21 23:00	SS	TAL CHI
Total/NA	Prep	3050B			626365	10/31/21 08:55	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626573	11/01/21 13:25	JJB	TAL CHI
Total/NA	Prep	7471B			625918	10/28/21 14:10	MJG	TAL CHI
Total/NA	Analysis	7471B		1	626118	10/29/21 07:11	MJG	TAL CHI

**Client Sample ID: 2674V2-06-B01 (0-6)**

**Lab Sample ID: 500-207092-16**

**Date Collected: 10/19/21 14:15**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			625344	10/25/21 12:50	EA	TAL CHI
SPLP East	Prep	3010A			625655	10/27/21 08:07	BDE	TAL CHI
SPLP East	Analysis	6010B		1	625997	10/28/21 16:05	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6010B		1	625818	10/27/21 19:27	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6010B		1	625974	10/28/21 13:41	JJB	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	3010A			625652	10/27/21 08:00	BDE	TAL CHI
TCLP	Analysis	6020A		1	626005	10/28/21 14:45	FXG	TAL CHI
TCLP	Leach	1311			625341	10/25/21 12:50	EA	TAL CHI
TCLP	Prep	7470A			625689	10/27/21 09:40	MJG	TAL CHI
TCLP	Analysis	7470A		1	625925	10/28/21 10:06	MJG	TAL CHI
Total/NA	Analysis	9045D		1	625321	10/25/21 17:46	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	625119	10/25/21 07:14	LWN	TAL CHI

Eurofins TestAmerica, Chicago

# Lab Chronicle

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

**Client Sample ID: 2674V2-06-B01 (0-6)**

**Lab Sample ID: 500-207092-16**

**Date Collected: 10/19/21 14:15**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

**Percent Solids: 78.3**

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	5035			624638	10/20/21 18:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625628	10/27/21 18:52	PMF	TAL CHI
Total/NA	Prep	3541			625282	10/25/21 14:39	SB	TAL CHI
Total/NA	Analysis	8270D		1	627299	11/04/21 23:23	SS	TAL CHI
Total/NA	Prep	3050B			626365	10/31/21 08:55	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626573	11/01/21 13:34	JJB	TAL CHI
Total/NA	Prep	7471B			625918	10/28/21 14:10	MJG	TAL CHI
Total/NA	Analysis	7471B		1	626118	10/29/21 07:12	MJG	TAL CHI

#### Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



# Accreditation/Certification Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207092-1

## Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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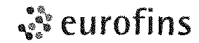
13

14

15

# Chain of Custody Record

546552



Environment Testing  
TestAmerica

TAL-8210

Address \_\_\_\_\_



Regulatory Program:  DW  NPDES  RCRA  Other

Client Contact Company Name <b>WSP</b> 500-207092 COC		Project Manager <b>A Tiebout</b>	Site Contact <b>A Happe</b>	Date <b>10/19/21</b>	COC No _____ of _____ COCs
Address _____		Tel/Email _____	Lab Contact <b>R Wright</b>	Carrier _____	Sampler _____
City/State/Zip <b>Chicago IL</b>		Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS			For Lab Use Only Walk-in Client <input type="checkbox"/>
Phone _____		TAT if different from Below _____			Lab Sampling <input type="checkbox"/>
Fax _____		<input type="checkbox"/> 2 weeks			Job / SDG No <b>500-207092</b>
Project Name <b>DOT WOOD</b>		<input type="checkbox"/> 1 week			
Site <b>Lake Villa IL</b>		<input type="checkbox"/> 2 days			
P O # _____		<input type="checkbox"/> 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VOCs	PL	SVOCs	% Moisture	Total Metals	TCLP Metals	Sample Specific Notes
1 2674VZ-06-B14(0-7)	10/19/21	0945	C	S	2			X	X	X	X	X	X	
2 2674VZ-06-B15(0-7)	10/19/21	0957	C	S	2			X	X	X	X	X	X	
3 2674VZ-06-B13(0-7)	10/19/21	1035	C	S	2			X	X	X	X	X	X	
4 2674VZ-06-B12(0-7)	10/19/21	1057	C	S	2			X	X	X	X	X	X	
5 2674VZ-06-B11(0-7)	10/19/21	1115	C	S	2			X	X	X	X	X	X	
6 2674VZ-06-B10(0-7)	10/19/21	1130	C	S	2			X	X	X	X	X	X	
7 2674VZ-06-B09(0-7)	10/19/21	1155	C	S	2			X	X	X	X	X	X	
8 2674VZ-06-B08(0-7)	10/19/21	1215	C	S	2			X	X	X	X	X	X	
9 2674VZ-06-B07(0-7)	10/19/21	1230	C	S	2			X	X	X	X	X	X	
10 2674VZ-06-B06(0-7)	10/19/21	1249	C	S	2			X	X	X	X	X	X	
11 2674VZ-06-B05(0-7)	10/19/21	1310	C	S	2			X	X	X	X	X	X	
12 2674VZ-06-B04(0-7)	10/19/21	1323	C	S	2			X	X	X	X	X	X	

Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

Non Hazard  Flammable  Skin Irritant  Poison B  Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return to Client  Disposal by Lab  Archive for \_\_\_\_\_ Months

Special Instructions/QC Requirements & Comments:  
 \* SPLP analysis based on TCLP results  
 5.18-75.7, 5.3-75.2, 5.6-75.5

Custody Seals Intact. <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No _____	Chlor Temp (°C) Obs'd _____	Corr'd _____	Therm ID No _____
Relinquished by	Company <b>WSP</b>	Date/Time <b>10/19/21 1530</b>	Received by	Company <b>ETA</b>
Relinquished by	Company <b>ETA</b>	Date/Time <b>10/19/21 1545</b>	Received by	Company <b>ETA</b>
Relinquished by	Company _____	Date/Time _____	Received in Laboratory by <b>Shirley Scott</b>	Company <b>ETA-CHI</b>
				Date/Time <b>10/20/21 0700</b>

# Chain of Custody Record

546553



Environment Testing  
TestAmerica

Address \_\_\_\_\_

Regulatory Program:  DW  NPDES  RCRA  Other

TAL-8210

Client Contact		Project Manager <i>D Tiebout</i>		Site Contact <i>A Happe!</i>		Date <i>10/19/2021</i>		COC No			
Company Name <i>WSP</i>		Tel/Email:		Lab Contact <i>R Wright</i>		Carrier		_____ of _____ COCs			
Address		<b>Analysis Turnaround Time</b> <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Filtered Sample (Y/N) Perform MS / MSD (Y/N)		<i>VOCs</i> <i>Ph</i> <i>SUDCS</i> <i>i. measure</i> <i>Total metals</i> <i>TCLP metals*</i>				Sampler	
City/State/Zip <i>Chicago IL</i>										For Lab Use Only.	
Phone										Walk-in Client	
Fax										Lab Sampling	
Project Name <i>DOT W004</i>										Job / SDG No	
Site <i>Lake U.lla IL</i>								<i>500-202092</i>			
P O #											
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Sample Specific Notes		
<i>13</i>	<i>2674V2-06-B05(0-7)-DUP</i>	<i>10/19/21</i>	<i>1313</i>	<i>C</i>	<i>S</i>	<i>2</i>	<i>X</i>	<i>X</i>			
<i>14</i>	<i>2674V2-06-B03(0-7)</i>	<i>10/19/21</i>	<i>1337</i>	<i>C</i>	<i>S</i>	<i>2</i>	<i>X</i>	<i>X</i>			
<i>15</i>	<i>2674V2-06-B02(0-7)</i>	<i>10/19/21</i>	<i>1358</i>	<i>C</i>	<i>S</i>	<i>2</i>	<i>X</i>	<i>X</i>			
<i>16</i>	<i>2674V2-06-B01(0-6)</i>	<i>10/19/21</i>	<i>1415</i>	<i>C</i>	<i>S</i>	<i>2</i>	<i>X</i>	<i>X</i>			
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____											
Possible Hazard Identification Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample					Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)						
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown					<input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months						
Special Instructions/QC Requirements & Comments: <i>* SPLP analysis based on TCLP results</i>											
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Pop. Temp (°C) Obs'd _____ Corr'd _____		Therm ID No _____					
Relinquished by <i>[Signature]</i>		Company <i>WSP</i>		Date/Time <i>10/19/21 1530</i>		Received by <i>[Signature]</i>		Company <i>ETA</i>			
Relinquished by <i>[Signature]</i>		Company <i>ETA</i>		Date/Time <i>10/19/21</i>		Received by		Company			
Relinquished by		Company		Date/Time		Received in Laboratory by <i>[Signature]</i>		Company <i>ETA/CHI</i>			
								Date/Time <i>10/20/21 0700</i>			

# Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 500-207092-1

**Login Number: 207092**

**List Source: Eurofins TestAmerica, Chicago**

**List Number: 1**

**Creator: Scott, Sherri L**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.7,5.2,5.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





# Illinois Environmental Protection Agency

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

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

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

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

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

### I. Source Location Information

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

Project Name: FAP 541 (Illinois Route 132) Office Phone Number, if available: \_\_\_\_\_

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

95 W. Grand Avenue (ISGS #2674V2-7)

City: Lake Villa State: IL Zip Code: 60046

County: Lake Township: Lake Villa

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

Latitude: 42.41511 Longitude: - 88.08502

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

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

Approximate Start Date (mm/dd/yyyy): \_\_\_\_\_ Approximate End Date (mm/dd/yyyy): \_\_\_\_\_

Estimated Volume of debris (cu. Yd.): 694

### 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 2674V2-07-B01 and -B03 were sampled within the construction zone adjacent to ISGS #2674V2-7 (Cedar View Professional Plaza). Refer to PSI Report for ISGS #2674V2-7 (Cedar View Professional Plaza) including Table 4-4, and Figures 4-2 and 4-5.

- 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]:

See attached data summary table and associated laboratory data package J207166-1.


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

I, Tom Campbell (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: WSP USA  
 Street Address: 115 W Washington St., Suite 1270S  
 City: Indianapolis State: IN Zip Code: 46204  
 Phone: (317) 972-1706

Tom Campbell  
 Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

02/03/2022

Date:



Expires 11/30/2023



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

**Analytical Data Summary**  
**PTB #196-002; Work Order 04 - IDOT Job # P-91-583-12**

**Key to Data Tables**

- MAC = Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- TACO = Tiered Approach to Corrective Action Objectives
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers and Shading**

- # = pH is less than 6.25 or greater than 9.0 standard units.
- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- r = Concentration exceeds a TACO Tier 1 RO for the Residential Soil Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds applicable comparison criteria.

## PTB #196-002; Work Order 04 - IDOT Job # P-91-583-12

## CONTAMINANTS OF CONCERN

SITE	ISGS #2674V2-7 (View Professional Plaza)		Comparison Criteria					
	2674V2-07-B01	2674V2-07-B03	MACs			TACO		
BORING	2674V2-07-B01	2674V2-07-B03						
SAMPLE	2674V2-07-B01 (0-2)	2674V2-07-B03 (0-2)						
MATRIX	Soil	Soil						
DEPTH (feet)	0-2	0-2						
pH	8.7	8.2						
PID (meter units)	--	--	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
<b>VOCs (None Detected)</b>								
<b>SVOCs (mg/kg)</b>								
2-Methylnaphthalene	0.014 J	ND U	--	--	--	--	--	--
Acenaphthene	ND U	0.030 J	570	--	--	4,700	120,000	--
Acenaphthylene	ND U	0.014 J	--	--	--	--	--	--
Anthracene	ND U	0.14	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	0.023 J	0.88	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.025 J	1.0 †	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	0.030 J	1.2 †	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.030 J	0.38	--	--	--	--	--	--
Benzo(k)fluoranthene	0.027 J	0.97	9	--	--	9	1,700	--
Bis(2-ethylhexyl) phthalate	ND U	0.20	46	--	--	46	4,100	--
Carbazole	ND U	0.14 J	0.6	--	--	32	6,200	--
Chrysene	0.032 J	1.1	88	--	--	88	17,000	--
Dibenz(a,h)anthracene	ND U	0.11 †	0.09	0.42	0.2	0.42	17	--
Fluoranthene	0.044	2.5	3,100	--	--	3,100	82,000	--
Fluorene	ND U	0.040	560	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	0.018 J	0.40	0.9	1.6	0.9	1.6	170	--
Naphthalene	0.0076 J	0.0063 J	1.8	--	--	170	1.8	--
Phenanthrene	0.020 J	0.94	--	--	--	--	--	--
Pyrene	0.037 J	1.8	2,300	--	--	2,300	61,000	--
<b>Inorganics (mg/kg)</b>								
Arsenic	6.5	5.4	11.3	13	--	13	61	--
Barium	60	61	1,500	--	--	5,500	14,000	--
Beryllium	0.88	0.66	22	--	--	160	410	--
Boron	8.3 J	7.7	40	--	--	16,000	41,000	--
Calcium	33,000	57,000	--	--	--	--	--	--
Chromium	18	14	21	--	--	230	690	--
Cobalt	11	8.5	20	--	--	4,700	12,000	--
Copper	26 J	20	2,900	--	--	2,900	8,200	--
Iron	20,000 †m	16,000 †m	15,000	15,900	--	--	--	--
Lead	54	35	107	--	--	400	700	--
Magnesium	21,000	24,000	325,000	--	--	--	730,000	--
Manganese	370	600	630	636	--	1,600	4,100	--
Mercury	0.11 c	0.065	0.89	--	--	10	0.1	--
Nickel	26	20	100	--	--	1,600	4,100	--
Potassium	2,000 J	1,600	--	--	--	--	--	--
Selenium	0.59 J	0.69	1.3	--	--	390	1,000	--
Silver	0.29	0.23 J	4.4	--	--	390	1,000	--
Sodium	710	130	--	--	--	--	--	--
Vanadium	25	21	550	--	--	550	1,400	--
Zinc	91 J	93	5,100	--	--	23,000	61,000	--
<b>TCLP Metals (mg/L)</b>								
Barium	0.36 J	0.42 J	--	--	--	--	--	2
Boron	ND U	0.059 J	--	--	--	--	--	2
Iron	ND U	ND U	--	--	--	--	--	5
Manganese	0.24 L	0.14	--	--	--	--	--	0.15
Zinc	0.032 J	0.055 J	--	--	--	--	--	5
<b>SPLP Metals (mg/L)</b>								
Manganese	1.6 L	NA	--	--	--	--	--	0.15



## ANALYTICAL REPORT

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

Laboratory Job ID: 500-207166-1

Client Project/Site: IDOT - 196-002-WO04 Lake Villa

**For:**

WSP USA Inc.  
30 North LaSalle Street  
Chicago, Illinois 60602

Attn: Dean Tiebot



Authorized for release by:  
11/5/2021 1:48:28 PM

Richard Wright, Senior Project Manager  
(708)746-0045  
[Richard.Wright@Eurofinset.com](mailto:Richard.Wright@Eurofinset.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

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

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

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# Case Narrative

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

## Job ID: 500-207166-1

### Laboratory: Eurofins TestAmerica, Chicago

#### Narrative

#### Job Narrative 500-207166-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 10/20/2021 3:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 13.9° C.

#### GC/MS VOA

Method 8260B: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for 625821 recovered outside control limits for the following analytes: Bromomethane and Chloroethane. These analytes were biased high in the LCS/LCSD and were not detected in the associated samples; therefore, the data have been reported.2674V2-07-B01 (0-2) (500-207166-1)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC/MS Semi VOA

Method 8270D: The continuing calibration verification (CCV) analyzed in batch 500-626297 was outside the method criteria for the following analyte(s): bis (2-chloroisopropyl) ether, Hexachlorobutadiene, Isophorone and N-Nitrosodi-n-propylamine. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270D: The laboratory control sample (LCS) for preparation batch 500-625339 and analytical batch 500-626297 recovered outside control limits for the following analytes: 2-Methylnaphthalene, Dimethyl phthalate, Hexachlorobenzene, Isophorone and N-Nitrosodi-n-propylamine. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 500-625339 and analytical batch 500-626297 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recoveries was within acceptance limits.

Method 8270D: 1,4-Dichlorobenzene-d4 Internal standard (ISTD) response for the following sample was outside of acceptance limits: 2674V2-07-B03 (0-2) (500-207166-3). Analytes associated to this internal standard were non-detect; therefore, re-analysis was not performed.

Method 8270D: The continuing calibration verification (CCV) analyzed in batch 500-627221 was outside the method criteria for the following analyte(s): 2,2'-oxybis[1-chloropropane], Bis(2-chloroethoxy)methane, Hexachlorocyclopentadiene, Pentachlorophenol, Phenol and 2-Fluorophenol. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

Method 6010B: The method blank for preparation batch 500-626753 and analytical batch 500-627085 contained Calcium and Magnesium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Organic Prep

# Case Narrative

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

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## Job ID: 500-207166-1 (Continued)

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### Laboratory: Eurofins TestAmerica, Chicago (Continued)

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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# Detection Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

**Client Sample ID: 2674V2-07-B01 (0-2)**

**Lab Sample ID: 500-207166-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.0076	J	0.039	0.0060	mg/Kg	1	✳	8270D	Total/NA
2-Methylnaphthalene	0.014	J**	0.079	0.0072	mg/Kg	1	✳	8270D	Total/NA
Phenanthrene	0.020	J	0.039	0.0055	mg/Kg	1	✳	8270D	Total/NA
Fluoranthene	0.044		0.039	0.0073	mg/Kg	1	✳	8270D	Total/NA
Pyrene	0.037	J	0.039	0.0078	mg/Kg	1	✳	8270D	Total/NA
Benzo[a]anthracene	0.023	J	0.039	0.0053	mg/Kg	1	✳	8270D	Total/NA
Chrysene	0.032	J	0.039	0.011	mg/Kg	1	✳	8270D	Total/NA
Benzo[b]fluoranthene	0.030	J	0.039	0.0085	mg/Kg	1	✳	8270D	Total/NA
Benzo[k]fluoranthene	0.027	J	0.039	0.012	mg/Kg	1	✳	8270D	Total/NA
Benzo[a]pyrene	0.025	J	0.039	0.0076	mg/Kg	1	✳	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.018	J	0.039	0.010	mg/Kg	1	✳	8270D	Total/NA
Benzo[g,h,i]perylene	0.030	J	0.039	0.013	mg/Kg	1	✳	8270D	Total/NA
Antimony	0.51	J B F1	1.2	0.23	mg/Kg	1	✳	6010B	Total/NA
Arsenic	6.5		0.58	0.20	mg/Kg	1	✳	6010B	Total/NA
Barium	60		0.58	0.067	mg/Kg	1	✳	6010B	Total/NA
Beryllium	0.88		0.23	0.054	mg/Kg	1	✳	6010B	Total/NA
Boron	8.3	B F1	2.9	0.27	mg/Kg	1	✳	6010B	Total/NA
Cadmium	0.077	J B	0.12	0.021	mg/Kg	1	✳	6010B	Total/NA
Calcium	33000	B F2	12	2.0	mg/Kg	1	✳	6010B	Total/NA
Chromium	18		0.58	0.29	mg/Kg	1	✳	6010B	Total/NA
Cobalt	11		0.29	0.076	mg/Kg	1	✳	6010B	Total/NA
Copper	26	F1	0.58	0.16	mg/Kg	1	✳	6010B	Total/NA
Iron	20000	B	12	6.1	mg/Kg	1	✳	6010B	Total/NA
Lead	54	F2	0.29	0.13	mg/Kg	1	✳	6010B	Total/NA
Magnesium	21000	B F2	5.8	2.9	mg/Kg	1	✳	6010B	Total/NA
Manganese	370	B F2	0.58	0.085	mg/Kg	1	✳	6010B	Total/NA
Nickel	26		0.58	0.17	mg/Kg	1	✳	6010B	Total/NA
Potassium	2000	F1	29	10	mg/Kg	1	✳	6010B	Total/NA
Selenium	0.59	F1	0.58	0.34	mg/Kg	1	✳	6010B	Total/NA
Silver	0.29		0.29	0.075	mg/Kg	1	✳	6010B	Total/NA
Sodium	710		58	8.6	mg/Kg	1	✳	6010B	Total/NA
Vanadium	25		0.29	0.069	mg/Kg	1	✳	6010B	Total/NA
Zinc	91	F1	1.2	0.51	mg/Kg	1	✳	6010B	Total/NA
Barium	0.36	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.24		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.032	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	1.6		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.11		0.018	0.0058	mg/Kg	1	✳	7471B	Total/NA
pH	8.7		0.2	0.2	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Detection Summary

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1



**Client Sample ID: 2674V2-07-B03 (0-2)**

**Lab Sample ID: 500-207166-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Naphthalene	0.0063	J	0.039	0.0061	mg/Kg	1	✳		8270D	Total/NA
Acenaphthylene	0.014	J	0.039	0.0052	mg/Kg	1	✳		8270D	Total/NA
Acenaphthene	0.030	J	0.039	0.0071	mg/Kg	1	✳		8270D	Total/NA
Fluorene	0.040		0.039	0.0055	mg/Kg	1	✳		8270D	Total/NA
Phenanthrene	0.94		0.039	0.0055	mg/Kg	1	✳		8270D	Total/NA
Anthracene	0.14		0.039	0.0066	mg/Kg	1	✳		8270D	Total/NA
Carbazole	0.14	J	0.20	0.098	mg/Kg	1	✳		8270D	Total/NA
Pyrene	1.8		0.039	0.0078	mg/Kg	1	✳		8270D	Total/NA
Benzo[a]anthracene	0.88		0.039	0.0053	mg/Kg	1	✳		8270D	Total/NA
Chrysene	1.1		0.039	0.011	mg/Kg	1	✳		8270D	Total/NA
Bis(2-ethylhexyl) phthalate	0.20		0.20	0.072	mg/Kg	1	✳		8270D	Total/NA
Benzo[b]fluoranthene	1.2		0.039	0.0085	mg/Kg	1	✳		8270D	Total/NA
Benzo[k]fluoranthene	0.97		0.039	0.012	mg/Kg	1	✳		8270D	Total/NA
Benzo[a]pyrene	1.0		0.039	0.0076	mg/Kg	1	✳		8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.40		0.039	0.010	mg/Kg	1	✳		8270D	Total/NA
Dibenz(a,h)anthracene	0.11		0.039	0.0076	mg/Kg	1	✳		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Detection Summary

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

**Client Sample ID: 2674V2-07-B03 (0-2) (Continued)**

**Lab Sample ID: 500-207166-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[g,h,i]perylene	0.38		0.039	0.013	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene - DL	2.5		0.20	0.037	mg/Kg	5	☼	8270D	Total/NA
Antimony	0.46	J B	1.2	0.24	mg/Kg	1	☼	6010B	Total/NA
Arsenic	5.4		0.61	0.21	mg/Kg	1	☼	6010B	Total/NA
Barium	61		0.61	0.069	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.66		0.24	0.057	mg/Kg	1	☼	6010B	Total/NA
Boron	7.7	B	3.0	0.28	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.20	B	0.12	0.022	mg/Kg	1	☼	6010B	Total/NA
Calcium	57000	B	61	10	mg/Kg	5	☼	6010B	Total/NA
Chromium	14		0.61	0.30	mg/Kg	1	☼	6010B	Total/NA
Cobalt	8.5		0.30	0.079	mg/Kg	1	☼	6010B	Total/NA
Copper	20		0.61	0.17	mg/Kg	1	☼	6010B	Total/NA
Iron	16000	B	12	6.3	mg/Kg	1	☼	6010B	Total/NA
Lead	35		0.30	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	24000	B	6.1	3.0	mg/Kg	1	☼	6010B	Total/NA
Manganese	600	B	0.61	0.088	mg/Kg	1	☼	6010B	Total/NA
Nickel	20		0.61	0.18	mg/Kg	1	☼	6010B	Total/NA
Potassium	1600		30	11	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.69		0.61	0.36	mg/Kg	1	☼	6010B	Total/NA
Silver	0.23	J	0.30	0.078	mg/Kg	1	☼	6010B	Total/NA
Sodium	130		61	9.0	mg/Kg	1	☼	6010B	Total/NA
Vanadium	21		0.30	0.071	mg/Kg	1	☼	6010B	Total/NA
Zinc	93		1.2	0.53	mg/Kg	1	☼	6010B	Total/NA
Barium	0.42	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.059	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.14		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.055	J	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.065		0.020	0.0066	mg/Kg	1	☼	7471B	Total/NA
pH	8.2		0.2	0.2	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Method Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CHI
6010B	Metals (ICP)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
7470A	TCLP Mercury	SW846	TAL CHI
7471B	Mercury (CVAA)	SW846	TAL CHI
9045D	pH	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
1311	TCLP Extraction	SW846	TAL CHI
1312	SPLP Extraction	SW846	TAL CHI
3010A	Preparation, Total Metals	SW846	TAL CHI
3050B	Preparation, Metals	SW846	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI
5035	Closed System Purge and Trap	SW846	TAL CHI
7470A	Preparation, Mercury	SW846	TAL CHI
7471B	Preparation, Mercury	SW846	TAL CHI

#### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



# Sample Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-207166-1	2674V2-07-B01 (0-2)	Solid	10/20/21 10:48	10/20/21 15:30
500-207166-3	2674V2-07-B03 (0-2)	Solid	10/20/21 11:10	10/20/21 15:30

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# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

**Client Sample ID: 2674V2-07-B01 (0-2)**

**Lab Sample ID: 500-207166-1**

Date Collected: 10/20/21 10:48

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 83.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0086	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
Benzene	<0.0020		0.0020	0.00050	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
Bromodichloromethane	<0.0020		0.0020	0.00040	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
Bromoform	<0.0020		0.0020	0.00057	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
Bromomethane	<0.0049	+	0.0049	0.0019	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
2-Butanone (MEK)	<0.0049		0.0049	0.0022	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
Carbon disulfide	<0.0049		0.0049	0.0010	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
Carbon tetrachloride	<0.0020		0.0020	0.00057	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
Chlorobenzene	<0.0020		0.0020	0.00073	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
Chloroethane	<0.0049	+	0.0049	0.0015	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
Chloroform	<0.0020		0.0020	0.00068	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
Chloromethane	<0.0049		0.0049	0.0020	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00055	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00059	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
Dibromochloromethane	<0.0020		0.0020	0.00064	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
1,1-Dichloroethane	<0.0020		0.0020	0.00067	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
1,2-Dichloroethane	<0.0049		0.0049	0.0015	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
1,1-Dichloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
1,2-Dichloropropane	<0.0020		0.0020	0.00051	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00069	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
Ethylbenzene	<0.0020		0.0020	0.00094	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
2-Hexanone	<0.0049		0.0049	0.0015	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
Methylene Chloride	<0.0049		0.0049	0.0019	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
4-Methyl-2-pentanone (MIBK)	<0.0049		0.0049	0.0015	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00058	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
Styrene	<0.0020		0.0020	0.00059	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00063	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
Tetrachloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
Toluene	<0.0020		0.0020	0.00050	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00087	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00069	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00066	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00084	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
Trichloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
Vinyl acetate	<0.0049		0.0049	0.0017	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
Vinyl chloride	<0.0020		0.0020	0.00087	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1
Xylenes, Total	<0.0039		0.0039	0.00063	mg/Kg	☼	10/20/21 18:07	10/28/21 19:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		75 - 131	10/20/21 18:07	10/28/21 19:28	1
Dibromofluoromethane	97		75 - 126	10/20/21 18:07	10/28/21 19:28	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 134	10/20/21 18:07	10/28/21 19:28	1
Toluene-d8 (Surr)	93		75 - 124	10/20/21 18:07	10/28/21 19:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.087	mg/Kg	☼	10/26/21 06:50	10/30/21 16:19	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	10/26/21 06:50	10/30/21 16:19	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	10/26/21 06:50	10/30/21 16:19	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	10/26/21 06:50	10/30/21 16:19	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

Client Sample ID: 2674V2-07-B01 (0-2)

Lab Sample ID: 500-207166-1

Date Collected: 10/20/21 10:48

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 83.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
N-Nitrosodi-n-propylamine	<0.079	+	0.079	0.048	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
Isophorone	<0.20	+	0.20	0.044	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
Naphthalene	<b>0.0076</b>	<b>J</b>	0.039	0.0060	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
2-Methylnaphthalene	<b>0.014</b>	<b>J++</b>	0.079	0.0072	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
Dimethyl phthalate	<0.20	+	0.20	0.051	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
Hexachlorobenzene	<0.079	+	0.079	0.0091	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.32	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
Phenanthrene	<b>0.020</b>	<b>J</b>	0.039	0.0055	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
Fluoranthene	<b>0.044</b>		0.039	0.0073	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
Pyrene	<b>0.037</b>	<b>J</b>	0.039	0.0078	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1
Benzo[a]anthracene	<b>0.023</b>	<b>J</b>	0.039	0.0053	mg/Kg	☆	10/26/21 06:50	10/30/21 16:19	1

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# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

Client Sample ID: 2674V2-07-B01 (0-2)

Lab Sample ID: 500-207166-1

Date Collected: 10/20/21 10:48

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 83.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chrysene</b>	<b>0.032</b>	<b>J</b>	0.039	0.011	mg/Kg	✱	10/26/21 06:50	10/30/21 16:19	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	✱	10/26/21 06:50	10/30/21 16:19	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	✱	10/26/21 06:50	10/30/21 16:19	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	✱	10/26/21 06:50	10/30/21 16:19	1
<b>Benzo[b]fluoranthene</b>	<b>0.030</b>	<b>J</b>	0.039	0.0085	mg/Kg	✱	10/26/21 06:50	10/30/21 16:19	1
<b>Benzo[k]fluoranthene</b>	<b>0.027</b>	<b>J</b>	0.039	0.012	mg/Kg	✱	10/26/21 06:50	10/30/21 16:19	1
<b>Benzo[a]pyrene</b>	<b>0.025</b>	<b>J</b>	0.039	0.0076	mg/Kg	✱	10/26/21 06:50	10/30/21 16:19	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.018</b>	<b>J</b>	0.039	0.010	mg/Kg	✱	10/26/21 06:50	10/30/21 16:19	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	✱	10/26/21 06:50	10/30/21 16:19	1
<b>Benzo[g,h,i]perylene</b>	<b>0.030</b>	<b>J</b>	0.039	0.013	mg/Kg	✱	10/26/21 06:50	10/30/21 16:19	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	✱	10/26/21 06:50	10/30/21 16:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	107		31 - 166	10/26/21 06:50	10/30/21 16:19	1
Phenol-d5	97		30 - 153	10/26/21 06:50	10/30/21 16:19	1
Nitrobenzene-d5 (Surr)	95		37 - 147	10/26/21 06:50	10/30/21 16:19	1
2-Fluorobiphenyl (Surr)	91		43 - 145	10/26/21 06:50	10/30/21 16:19	1
2,4,6-Tribromophenol	84		31 - 143	10/26/21 06:50	10/30/21 16:19	1
Terphenyl-d14 (Surr)	95		42 - 157	10/26/21 06:50	10/30/21 16:19	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.51</b>	<b>J B F1</b>	1.2	0.23	mg/Kg	✱	11/02/21 10:34	11/03/21 14:42	1
<b>Arsenic</b>	<b>6.5</b>		0.58	0.20	mg/Kg	✱	11/02/21 10:34	11/03/21 14:42	1
<b>Barium</b>	<b>60</b>		0.58	0.067	mg/Kg	✱	11/02/21 10:34	11/03/21 14:42	1
<b>Beryllium</b>	<b>0.88</b>		0.23	0.054	mg/Kg	✱	11/02/21 10:34	11/03/21 14:42	1
<b>Boron</b>	<b>8.3</b>	<b>B F1</b>	2.9	0.27	mg/Kg	✱	11/02/21 10:34	11/03/21 17:21	1
<b>Cadmium</b>	<b>0.077</b>	<b>J B</b>	0.12	0.021	mg/Kg	✱	11/02/21 10:34	11/03/21 14:42	1
<b>Calcium</b>	<b>33000</b>	<b>B F2</b>	12	2.0	mg/Kg	✱	11/02/21 10:34	11/03/21 17:21	1
<b>Chromium</b>	<b>18</b>		0.58	0.29	mg/Kg	✱	11/02/21 10:34	11/03/21 14:42	1
<b>Cobalt</b>	<b>11</b>		0.29	0.076	mg/Kg	✱	11/02/21 10:34	11/03/21 14:42	1
<b>Copper</b>	<b>26</b>	<b>F1</b>	0.58	0.16	mg/Kg	✱	11/02/21 10:34	11/03/21 14:42	1
<b>Iron</b>	<b>20000</b>	<b>B</b>	12	6.1	mg/Kg	✱	11/02/21 10:34	11/03/21 14:42	1
<b>Lead</b>	<b>54</b>	<b>F2</b>	0.29	0.13	mg/Kg	✱	11/02/21 10:34	11/03/21 14:42	1
<b>Magnesium</b>	<b>21000</b>	<b>B F2</b>	5.8	2.9	mg/Kg	✱	11/02/21 10:34	11/03/21 14:42	1
<b>Manganese</b>	<b>370</b>	<b>B F2</b>	0.58	0.085	mg/Kg	✱	11/02/21 10:34	11/03/21 14:42	1
<b>Nickel</b>	<b>26</b>		0.58	0.17	mg/Kg	✱	11/02/21 10:34	11/03/21 14:42	1
<b>Potassium</b>	<b>2000</b>	<b>F1</b>	29	10	mg/Kg	✱	11/02/21 10:34	11/03/21 14:42	1
<b>Selenium</b>	<b>0.59</b>	<b>F1</b>	0.58	0.34	mg/Kg	✱	11/02/21 10:34	11/03/21 14:42	1
<b>Silver</b>	<b>0.29</b>		0.29	0.075	mg/Kg	✱	11/02/21 10:34	11/03/21 14:42	1
<b>Sodium</b>	<b>710</b>		58	8.6	mg/Kg	✱	11/02/21 10:34	11/03/21 14:42	1
Thallium	<0.58		0.58	0.29	mg/Kg	✱	11/02/21 10:34	11/03/21 14:42	1
<b>Vanadium</b>	<b>25</b>		0.29	0.069	mg/Kg	✱	11/02/21 10:34	11/03/21 14:42	1
<b>Zinc</b>	<b>91</b>	<b>F1</b>	1.2	0.51	mg/Kg	✱	11/02/21 10:34	11/03/21 17:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>0.36</b>	<b>J</b>	0.50	0.050	mg/L		10/28/21 08:20	10/28/21 22:27	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/31/21 08:26	11/02/21 14:03	1
Boron	<0.50		0.50	0.050	mg/L		10/28/21 08:20	10/28/21 22:27	1

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# Client Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

**Client Sample ID: 2674V2-07-B01 (0-2)**

**Lab Sample ID: 500-207166-1**

Date Collected: 10/20/21 10:48

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 83.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/28/21 08:20	10/28/21 22:27	1
Chromium	<0.025		0.025	0.010	mg/L		10/28/21 08:20	10/28/21 22:27	1
Cobalt	<0.025		0.025	0.010	mg/L		10/28/21 08:20	10/28/21 22:27	1
Iron	<0.40		0.40	0.20	mg/L		10/31/21 08:26	11/01/21 13:48	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/28/21 08:20	10/28/21 22:27	1
<b>Manganese</b>	<b>0.24</b>		0.025	0.010	mg/L		10/28/21 08:20	10/28/21 22:27	1
Nickel	<0.025		0.025	0.010	mg/L		10/28/21 08:20	10/28/21 22:27	1
Selenium	<0.050		0.050	0.020	mg/L		10/28/21 08:20	10/28/21 22:27	1
Silver	<0.025		0.025	0.010	mg/L		10/31/21 08:26	11/01/21 13:48	1
<b>Zinc</b>	<b>0.032</b>	<b>J</b>	0.50	0.020	mg/L		10/28/21 08:20	10/28/21 22:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>1.6</b>		0.025	0.010	mg/L		10/28/21 08:23	10/29/21 14:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/28/21 08:20	10/29/21 12:35	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/28/21 08:20	10/29/21 12:35	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/29/21 09:35	11/01/21 07:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.11</b>		0.018	0.0058	mg/Kg	☼	10/28/21 14:10	10/29/21 07:50	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>8.7</b>		0.2	0.2	SU			10/25/21 18:28	1

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

**Client Sample ID: 2674V2-07-B03 (0-2)**

**Lab Sample ID: 500-207166-3**

**Date Collected: 10/20/21 11:10**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

**Percent Solids: 80.9**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.026		0.026	0.011	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
Benzene	<0.0026		0.0026	0.00066	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
Bromodichloromethane	<0.0026		0.0026	0.00053	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
Bromoform	<0.0026		0.0026	0.00076	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
Bromomethane	<0.0065		0.0065	0.0025	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
2-Butanone (MEK)	<0.0065		0.0065	0.0029	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
Carbon disulfide	<0.0065		0.0065	0.0014	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
Carbon tetrachloride	<0.0026		0.0026	0.00075	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
Chlorobenzene	<0.0026		0.0026	0.00096	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
Chloroethane	<0.0065		0.0065	0.0019	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
Chloroform	<0.0026		0.0026	0.00090	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
Chloromethane	<0.0065		0.0065	0.0026	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
cis-1,2-Dichloroethene	<0.0026		0.0026	0.00073	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
cis-1,3-Dichloropropene	<0.0026		0.0026	0.00078	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
Dibromochloromethane	<0.0026		0.0026	0.00085	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
1,1-Dichloroethane	<0.0026		0.0026	0.00089	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
1,2-Dichloroethane	<0.0065		0.0065	0.0020	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
1,1-Dichloroethene	<0.0026		0.0026	0.00089	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
1,2-Dichloropropene	<0.0026		0.0026	0.00067	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
1,3-Dichloropropene, Total	<0.0026		0.0026	0.00091	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
Ethylbenzene	<0.0026		0.0026	0.0012	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
2-Hexanone	<0.0065		0.0065	0.0020	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
Methylene Chloride	<0.0065		0.0065	0.0026	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
4-Methyl-2-pentanone (MIBK)	<0.0065		0.0065	0.0019	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
Methyl tert-butyl ether	<0.0026		0.0026	0.00076	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
Styrene	<0.0026		0.0026	0.00079	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
1,1,2,2-Tetrachloroethane	<0.0026		0.0026	0.00083	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
Tetrachloroethene	<0.0026		0.0026	0.00089	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
Toluene	<0.0026		0.0026	0.00066	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
trans-1,2-Dichloroethene	<0.0026		0.0026	0.0012	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
trans-1,3-Dichloropropene	<0.0026		0.0026	0.00091	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
1,1,1-Trichloroethane	<0.0026		0.0026	0.00087	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
1,1,2-Trichloroethane	<0.0026		0.0026	0.0011	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
Trichloroethene	<0.0026		0.0026	0.00088	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
Vinyl acetate	<0.0065		0.0065	0.0023	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
Vinyl chloride	<0.0026		0.0026	0.0012	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1
Xylenes, Total	<0.0052		0.0052	0.00083	mg/Kg	☼	10/20/21 18:07	10/30/21 16:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		75 - 131	10/20/21 18:07	10/30/21 16:33	1
Dibromofluoromethane	108		75 - 126	10/20/21 18:07	10/30/21 16:33	1
1,2-Dichloroethane-d4 (Surr)	106		70 - 134	10/20/21 18:07	10/30/21 16:33	1
Toluene-d8 (Surr)	109		75 - 124	10/20/21 18:07	10/30/21 16:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.088	mg/Kg	☼	10/26/21 06:50	10/30/21 17:07	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	10/26/21 06:50	10/30/21 17:07	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	10/26/21 06:50	10/30/21 17:07	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	10/26/21 06:50	10/30/21 17:07	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

Client Sample ID: 2674V2-07-B03 (0-2)

Lab Sample ID: 500-207166-3

Date Collected: 10/20/21 11:10

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 80.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
N-Nitrosodi-n-propylamine	<0.080	+	0.080	0.048	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
Isophorone	<0.20	+	0.20	0.044	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
<b>Naphthalene</b>	<b>0.0063</b>	<b>J</b>	0.039	0.0061	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
2-Methylnaphthalene	<0.080	+	0.080	0.0073	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
Dimethyl phthalate	<0.20	+	0.20	0.051	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
2,4-Dinitrophenol	<0.80		0.80	0.69	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
<b>Acenaphthylene</b>	<b>0.014</b>	<b>J</b>	0.039	0.0052	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
<b>Acenaphthene</b>	<b>0.030</b>	<b>J</b>	0.039	0.0071	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
4-Nitrophenol	<0.80		0.80	0.37	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
<b>Fluorene</b>	<b>0.040</b>		0.039	0.0055	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
Hexachlorobenzene	<0.080	+	0.080	0.0091	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
Pentachlorophenol	<0.80		0.80	0.63	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
<b>Phenanthrene</b>	<b>0.94</b>		0.039	0.0055	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
<b>Anthracene</b>	<b>0.14</b>		0.039	0.0066	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
<b>Carbazole</b>	<b>0.14</b>	<b>J</b>	0.20	0.098	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
<b>Pyrene</b>	<b>1.8</b>		0.039	0.0078	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
<b>Benzo[a]anthracene</b>	<b>0.88</b>		0.039	0.0053	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1
<b>Chrysene</b>	<b>1.1</b>		0.039	0.011	mg/Kg	*	10/26/21 06:50	10/30/21 17:07	1

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# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

**Client Sample ID: 2674V2-07-B03 (0-2)**

**Lab Sample ID: 500-207166-3**

Date Collected: 10/20/21 11:10

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 80.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	10/26/21 06:50	10/30/21 17:07	1
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.20</b>		0.20	0.072	mg/Kg	☼	10/26/21 06:50	10/30/21 17:07	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	10/26/21 06:50	10/30/21 17:07	1
<b>Benzo[b]fluoranthene</b>	<b>1.2</b>		0.039	0.0085	mg/Kg	☼	10/26/21 06:50	10/30/21 17:07	1
<b>Benzo[k]fluoranthene</b>	<b>0.97</b>		0.039	0.012	mg/Kg	☼	10/26/21 06:50	10/30/21 17:07	1
<b>Benzo[a]pyrene</b>	<b>1.0</b>		0.039	0.0076	mg/Kg	☼	10/26/21 06:50	10/30/21 17:07	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.40</b>		0.039	0.010	mg/Kg	☼	10/26/21 06:50	10/30/21 17:07	1
<b>Dibenz(a,h)anthracene</b>	<b>0.11</b>		0.039	0.0076	mg/Kg	☼	10/26/21 06:50	10/30/21 17:07	1
<b>Benzo[g,h,i]perylene</b>	<b>0.38</b>		0.039	0.013	mg/Kg	☼	10/26/21 06:50	10/30/21 17:07	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	10/26/21 06:50	10/30/21 17:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	104		31 - 166				10/26/21 06:50	10/30/21 17:07	1
Phenol-d5	93		30 - 153				10/26/21 06:50	10/30/21 17:07	1
Nitrobenzene-d5 (Surr)	102		37 - 147				10/26/21 06:50	10/30/21 17:07	1
2-Fluorobiphenyl (Surr)	98		43 - 145				10/26/21 06:50	10/30/21 17:07	1
2,4,6-Tribromophenol	90		31 - 143				10/26/21 06:50	10/30/21 17:07	1
Terphenyl-d14 (Surr)	95		42 - 157				10/26/21 06:50	10/30/21 17:07	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>		0.20	0.037	mg/Kg	☼	10/26/21 06:50	11/04/21 17:19	5

## 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</b>	1.2	0.24	mg/Kg	☼	11/02/21 10:34	11/03/21 15:01	1
<b>Arsenic</b>	<b>5.4</b>		0.61	0.21	mg/Kg	☼	11/02/21 10:34	11/03/21 15:01	1
<b>Barium</b>	<b>61</b>		0.61	0.069	mg/Kg	☼	11/02/21 10:34	11/03/21 15:01	1
<b>Beryllium</b>	<b>0.66</b>		0.24	0.057	mg/Kg	☼	11/02/21 10:34	11/03/21 15:01	1
<b>Boron</b>	<b>7.7</b>	<b>B</b>	3.0	0.28	mg/Kg	☼	11/02/21 10:34	11/03/21 18:06	1
<b>Cadmium</b>	<b>0.20</b>	<b>B</b>	0.12	0.022	mg/Kg	☼	11/02/21 10:34	11/03/21 15:01	1
<b>Calcium</b>	<b>57000</b>	<b>B</b>	61	10	mg/Kg	☼	11/02/21 10:34	11/03/21 18:09	5
<b>Chromium</b>	<b>14</b>		0.61	0.30	mg/Kg	☼	11/02/21 10:34	11/03/21 15:01	1
<b>Cobalt</b>	<b>8.5</b>		0.30	0.079	mg/Kg	☼	11/02/21 10:34	11/03/21 15:01	1
<b>Copper</b>	<b>20</b>		0.61	0.17	mg/Kg	☼	11/02/21 10:34	11/03/21 15:01	1
<b>Iron</b>	<b>16000</b>	<b>B</b>	12	6.3	mg/Kg	☼	11/02/21 10:34	11/03/21 15:01	1
<b>Lead</b>	<b>35</b>		0.30	0.14	mg/Kg	☼	11/02/21 10:34	11/03/21 15:01	1
<b>Magnesium</b>	<b>24000</b>	<b>B</b>	6.1	3.0	mg/Kg	☼	11/02/21 10:34	11/03/21 15:01	1
<b>Manganese</b>	<b>600</b>	<b>B</b>	0.61	0.088	mg/Kg	☼	11/02/21 10:34	11/03/21 15:01	1
<b>Nickel</b>	<b>20</b>		0.61	0.18	mg/Kg	☼	11/02/21 10:34	11/03/21 15:01	1
<b>Potassium</b>	<b>1600</b>		30	11	mg/Kg	☼	11/02/21 10:34	11/03/21 15:01	1
<b>Selenium</b>	<b>0.69</b>		0.61	0.36	mg/Kg	☼	11/02/21 10:34	11/03/21 15:01	1
<b>Silver</b>	<b>0.23</b>	<b>J</b>	0.30	0.078	mg/Kg	☼	11/02/21 10:34	11/03/21 15:01	1
<b>Sodium</b>	<b>130</b>		61	9.0	mg/Kg	☼	11/02/21 10:34	11/03/21 15:01	1
Thallium	<0.61		0.61	0.30	mg/Kg	☼	11/02/21 10:34	11/03/21 15:01	1
<b>Vanadium</b>	<b>21</b>		0.30	0.071	mg/Kg	☼	11/02/21 10:34	11/03/21 15:01	1
<b>Zinc</b>	<b>93</b>		1.2	0.53	mg/Kg	☼	11/02/21 10:34	11/03/21 18:06	1

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# Client Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

**Client Sample ID: 2674V2-07-B03 (0-2)**

**Lab Sample ID: 500-207166-3**

Date Collected: 10/20/21 11:10

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 80.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>0.42</b>	<b>J</b>	0.50	0.050	mg/L	-	10/28/21 08:20	10/28/21 22:44	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	-	10/31/21 08:26	11/02/21 14:09	1
<b>Boron</b>	<b>0.059</b>	<b>J</b>	0.50	0.050	mg/L	-	10/28/21 08:20	10/28/21 22:44	1
Cadmium	<0.0050		0.0050	0.0020	mg/L	-	10/28/21 08:20	10/28/21 22:44	1
Chromium	<0.025		0.025	0.010	mg/L	-	10/28/21 08:20	10/28/21 22:44	1
Cobalt	<0.025		0.025	0.010	mg/L	-	10/28/21 08:20	10/28/21 22:44	1
Iron	<0.40		0.40	0.20	mg/L	-	10/31/21 08:26	11/01/21 13:54	1
Lead	<0.0075		0.0075	0.0075	mg/L	-	10/28/21 08:20	10/28/21 22:44	1
<b>Manganese</b>	<b>0.14</b>		0.025	0.010	mg/L	-	10/28/21 08:20	10/28/21 22:44	1
Nickel	<0.025		0.025	0.010	mg/L	-	10/28/21 08:20	10/28/21 22:44	1
Selenium	<0.050		0.050	0.020	mg/L	-	10/28/21 08:20	10/28/21 22:44	1
Silver	<0.025		0.025	0.010	mg/L	-	10/31/21 08:26	11/01/21 13:54	1
<b>Zinc</b>	<b>0.055</b>	<b>J</b>	0.50	0.020	mg/L	-	10/28/21 08:20	10/28/21 22:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L	-	10/28/21 08:20	10/29/21 12:40	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	10/28/21 08:20	10/29/21 12:40	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L	-	10/29/21 09:35	11/01/21 08:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.065</b>		0.020	0.0066	mg/Kg	⊛	10/28/21 14:10	10/29/21 07:54	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>8.2</b>		0.2	0.2	SU	-		10/25/21 18:33	1

# Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.

### GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control 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
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
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 exceeds control 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, and the absolute difference between results is < the upper reporting limits for both.
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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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

# Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

## Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

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# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

## GC/MS VOA

### Prep Batch: 625104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207166-1	2674V2-07-B01 (0-2)	Total/NA	Solid	5035	
500-207166-2	2674V2-07-B02 (0-2)	Total/NA	Solid	5035	
500-207166-3	2674V2-07-B03 (0-2)	Total/NA	Solid	5035	

### Analysis Batch: 625821

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207166-1	2674V2-07-B01 (0-2)	Total/NA	Solid	8260B	625104
MB 500-625821/7	Method Blank	Total/NA	Solid	8260B	
LCS 500-625821/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-625821/5	Lab Control Sample Dup	Total/NA	Solid	8260B	

### Analysis Batch: 626261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207166-2	2674V2-07-B02 (0-2)	Total/NA	Solid	8260B	625104
500-207166-3	2674V2-07-B03 (0-2)	Total/NA	Solid	8260B	625104
MB 500-626261/7	Method Blank	Total/NA	Solid	8260B	
LCS 500-626261/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-626261/5	Lab Control Sample Dup	Total/NA	Solid	8260B	

## GC/MS Semi VOA

### Prep Batch: 625339

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207166-1	2674V2-07-B01 (0-2)	Total/NA	Solid	3541	
500-207166-2	2674V2-07-B02 (0-2)	Total/NA	Solid	3541	
500-207166-3	2674V2-07-B03 (0-2)	Total/NA	Solid	3541	
500-207166-3 - DL	2674V2-07-B03 (0-2)	Total/NA	Solid	3541	
MB 500-625339/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-625339/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-207166-2 MS	2674V2-07-B02 (0-2)	Total/NA	Solid	3541	
500-207166-2 MSD	2674V2-07-B02 (0-2)	Total/NA	Solid	3541	

### Analysis Batch: 626297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207166-1	2674V2-07-B01 (0-2)	Total/NA	Solid	8270D	625339
500-207166-2	2674V2-07-B02 (0-2)	Total/NA	Solid	8270D	625339
500-207166-3	2674V2-07-B03 (0-2)	Total/NA	Solid	8270D	625339
MB 500-625339/1-A	Method Blank	Total/NA	Solid	8270D	625339
LCS 500-625339/2-A	Lab Control Sample	Total/NA	Solid	8270D	625339
500-207166-2 MS	2674V2-07-B02 (0-2)	Total/NA	Solid	8270D	625339
500-207166-2 MSD	2674V2-07-B02 (0-2)	Total/NA	Solid	8270D	625339

### Analysis Batch: 627221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207166-3 - DL	2674V2-07-B03 (0-2)	Total/NA	Solid	8270D	625339

## Metals

### Leach Batch: 625524

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207166-1	2674V2-07-B01 (0-2)	TCLP	Solid	1311	
500-207166-2	2674V2-07-B02 (0-2)	TCLP	Solid	1311	

Eurofins TestAmerica, Chicago

# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

## Metals (Continued)

### Leach Batch: 625524 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207166-3	2674V2-07-B03 (0-2)	TCLP	Solid	1311	
LB 500-625524/1-C	Method Blank	TCLP	Solid	1311	
LB 500-625524/2-B	Method Blank	TCLP	Solid	1311	
LB 500-625524/2-C	Method Blank	TCLP	Solid	1311	
500-207166-1 MS	2674V2-07-B01 (0-2)	TCLP	Solid	1311	
500-207166-1 MSD	2674V2-07-B01 (0-2)	TCLP	Solid	1311	
500-207166-1 DU	2674V2-07-B01 (0-2)	TCLP	Solid	1311	

### Leach Batch: 625527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207166-1	2674V2-07-B01 (0-2)	SPLP East	Solid	1312	
500-207166-2	2674V2-07-B02 (0-2)	SPLP East	Solid	1312	
LB 500-625527/1-B	Method Blank	SPLP East	Solid	1312	

### Prep Batch: 625872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207166-1	2674V2-07-B01 (0-2)	TCLP	Solid	3010A	625524
500-207166-2	2674V2-07-B02 (0-2)	TCLP	Solid	3010A	625524
500-207166-3	2674V2-07-B03 (0-2)	TCLP	Solid	3010A	625524
LB 500-625524/1-C	Method Blank	TCLP	Solid	3010A	625524
LCS 500-625872/2-A	Lab Control Sample	Total/NA	Solid	3010A	
500-207166-1 MS	2674V2-07-B01 (0-2)	TCLP	Solid	3010A	625524
500-207166-1 DU	2674V2-07-B01 (0-2)	TCLP	Solid	3010A	625524

### Prep Batch: 625873

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207166-1	2674V2-07-B01 (0-2)	SPLP East	Solid	3010A	625527
500-207166-2	2674V2-07-B02 (0-2)	SPLP East	Solid	3010A	625527
LB 500-625527/1-B	Method Blank	SPLP East	Solid	3010A	625527
LCS 500-625873/2-A	Lab Control Sample	Total/NA	Solid	3010A	

### Prep Batch: 625919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207166-1	2674V2-07-B01 (0-2)	Total/NA	Solid	7471B	
500-207166-2	2674V2-07-B02 (0-2)	Total/NA	Solid	7471B	
500-207166-3	2674V2-07-B03 (0-2)	Total/NA	Solid	7471B	
MB 500-625919/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-625919/13-A	Lab Control Sample	Total/NA	Solid	7471B	
500-207166-3 MS	2674V2-07-B03 (0-2)	Total/NA	Solid	7471B	
500-207166-3 MSD	2674V2-07-B03 (0-2)	Total/NA	Solid	7471B	
500-207166-3 DU	2674V2-07-B03 (0-2)	Total/NA	Solid	7471B	

### Analysis Batch: 626087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207166-1	2674V2-07-B01 (0-2)	TCLP	Solid	6010B	625872
500-207166-2	2674V2-07-B02 (0-2)	TCLP	Solid	6010B	625872
500-207166-3	2674V2-07-B03 (0-2)	TCLP	Solid	6010B	625872
LB 500-625524/1-C	Method Blank	TCLP	Solid	6010B	625872
LCS 500-625872/2-A	Lab Control Sample	Total/NA	Solid	6010B	625872
500-207166-1 MS	2674V2-07-B01 (0-2)	TCLP	Solid	6010B	625872
500-207166-1 DU	2674V2-07-B01 (0-2)	TCLP	Solid	6010B	625872

Eurofins TestAmerica, Chicago

# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

## Metals

### Prep Batch: 626110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207166-1	2674V2-07-B01 (0-2)	TCLP	Solid	7470A	625524
500-207166-2	2674V2-07-B02 (0-2)	TCLP	Solid	7470A	625524
500-207166-3	2674V2-07-B03 (0-2)	TCLP	Solid	7470A	625524
LB 500-625524/2-B	Method Blank	TCLP	Solid	7470A	625524
MB 500-626110/12-A	Method Blank	Total/NA	Solid	7470A	
LCS 500-626110/15-A	Lab Control Sample	Total/NA	Solid	7470A	
500-207166-1 MS	2674V2-07-B01 (0-2)	TCLP	Solid	7470A	625524
500-207166-1 MSD	2674V2-07-B01 (0-2)	TCLP	Solid	7470A	625524
500-207166-1 DU	2674V2-07-B01 (0-2)	TCLP	Solid	7470A	625524

### Analysis Batch: 626118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207166-1	2674V2-07-B01 (0-2)	Total/NA	Solid	7471B	625919
500-207166-2	2674V2-07-B02 (0-2)	Total/NA	Solid	7471B	625919
500-207166-3	2674V2-07-B03 (0-2)	Total/NA	Solid	7471B	625919
MB 500-625919/12-A	Method Blank	Total/NA	Solid	7471B	625919
LCS 500-625919/13-A	Lab Control Sample	Total/NA	Solid	7471B	625919
500-207166-3 MS	2674V2-07-B03 (0-2)	Total/NA	Solid	7471B	625919
500-207166-3 MSD	2674V2-07-B03 (0-2)	Total/NA	Solid	7471B	625919
500-207166-3 DU	2674V2-07-B03 (0-2)	Total/NA	Solid	7471B	625919

### Analysis Batch: 626196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207166-1	2674V2-07-B01 (0-2)	TCLP	Solid	6020A	625872
500-207166-2	2674V2-07-B02 (0-2)	TCLP	Solid	6020A	625872
500-207166-3	2674V2-07-B03 (0-2)	TCLP	Solid	6020A	625872
LB 500-625524/1-C	Method Blank	TCLP	Solid	6020A	625872
LCS 500-625872/2-A	Lab Control Sample	Total/NA	Solid	6020A	625872
500-207166-1 MS	2674V2-07-B01 (0-2)	TCLP	Solid	6020A	625872
500-207166-1 DU	2674V2-07-B01 (0-2)	TCLP	Solid	6020A	625872

### Prep Batch: 626361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207166-1	2674V2-07-B01 (0-2)	TCLP	Solid	3010A	625524
500-207166-2	2674V2-07-B02 (0-2)	TCLP	Solid	3010A	625524
500-207166-3	2674V2-07-B03 (0-2)	TCLP	Solid	3010A	625524
LB 500-625524/2-C	Method Blank	TCLP	Solid	3010A	625524
LCS 500-626361/2-A	Lab Control Sample	Total/NA	Solid	3010A	
LCSD 500-626361/3-A	Lab Control Sample Dup	Total/NA	Solid	3010A	

### Analysis Batch: 626431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207166-1	2674V2-07-B01 (0-2)	SPLP East	Solid	6010B	625873
500-207166-2	2674V2-07-B02 (0-2)	SPLP East	Solid	6010B	625873
LB 500-625527/1-B	Method Blank	SPLP East	Solid	6010B	625873
LCS 500-625873/2-A	Lab Control Sample	Total/NA	Solid	6010B	625873

### Analysis Batch: 626523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207166-1	2674V2-07-B01 (0-2)	TCLP	Solid	7470A	626110
500-207166-2	2674V2-07-B02 (0-2)	TCLP	Solid	7470A	626110

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# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

## Metals (Continued)

### Analysis Batch: 626523 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207166-3	2674V2-07-B03 (0-2)	TCLP	Solid	7470A	626110
LB 500-625524/2-B	Method Blank	TCLP	Solid	7470A	626110
MB 500-626110/12-A	Method Blank	Total/NA	Solid	7470A	626110
LCS 500-626110/15-A	Lab Control Sample	Total/NA	Solid	7470A	626110
500-207166-1 MS	2674V2-07-B01 (0-2)	TCLP	Solid	7470A	626110
500-207166-1 MSD	2674V2-07-B01 (0-2)	TCLP	Solid	7470A	626110
500-207166-1 DU	2674V2-07-B01 (0-2)	TCLP	Solid	7470A	626110

### Analysis Batch: 626686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207166-1	2674V2-07-B01 (0-2)	TCLP	Solid	6010B	626361
500-207166-2	2674V2-07-B02 (0-2)	TCLP	Solid	6010B	626361
500-207166-3	2674V2-07-B03 (0-2)	TCLP	Solid	6010B	626361
LB 500-625524/2-C	Method Blank	TCLP	Solid	6010B	626361
LCS 500-626361/2-A	Lab Control Sample	Total/NA	Solid	6010B	626361
LCSD 500-626361/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	626361

### Prep Batch: 626753

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207166-1	2674V2-07-B01 (0-2)	Total/NA	Solid	3050B	
500-207166-2	2674V2-07-B02 (0-2)	Total/NA	Solid	3050B	
500-207166-3	2674V2-07-B03 (0-2)	Total/NA	Solid	3050B	
MB 500-626753/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-626753/2-A	Lab Control Sample	Total/NA	Solid	3050B	
500-207166-1 MS	2674V2-07-B01 (0-2)	Total/NA	Solid	3050B	
500-207166-1 MSD	2674V2-07-B01 (0-2)	Total/NA	Solid	3050B	
500-207166-1 DU	2674V2-07-B01 (0-2)	Total/NA	Solid	3050B	

### Analysis Batch: 626854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207166-1	2674V2-07-B01 (0-2)	TCLP	Solid	6010B	626361
500-207166-2	2674V2-07-B02 (0-2)	TCLP	Solid	6010B	626361
500-207166-3	2674V2-07-B03 (0-2)	TCLP	Solid	6010B	626361
LB 500-625524/2-C	Method Blank	TCLP	Solid	6010B	626361
LCS 500-626361/2-A	Lab Control Sample	Total/NA	Solid	6010B	626361
LCSD 500-626361/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	626361

### Analysis Batch: 627085

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207166-1	2674V2-07-B01 (0-2)	Total/NA	Solid	6010B	626753
500-207166-2	2674V2-07-B02 (0-2)	Total/NA	Solid	6010B	626753
500-207166-3	2674V2-07-B03 (0-2)	Total/NA	Solid	6010B	626753
MB 500-626753/1-A	Method Blank	Total/NA	Solid	6010B	626753
LCS 500-626753/2-A	Lab Control Sample	Total/NA	Solid	6010B	626753
500-207166-1 MS	2674V2-07-B01 (0-2)	Total/NA	Solid	6010B	626753
500-207166-1 MSD	2674V2-07-B01 (0-2)	Total/NA	Solid	6010B	626753
500-207166-1 DU	2674V2-07-B01 (0-2)	Total/NA	Solid	6010B	626753

### Analysis Batch: 627178

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207166-1	2674V2-07-B01 (0-2)	Total/NA	Solid	6010B	626753

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# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

## Metals (Continued)

### Analysis Batch: 627178 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207166-2	2674V2-07-B02 (0-2)	Total/NA	Solid	6010B	626753
500-207166-2	2674V2-07-B02 (0-2)	Total/NA	Solid	6010B	626753
500-207166-3	2674V2-07-B03 (0-2)	Total/NA	Solid	6010B	626753
500-207166-3	2674V2-07-B03 (0-2)	Total/NA	Solid	6010B	626753
MB 500-626753/1-A	Method Blank	Total/NA	Solid	6010B	626753
LCS 500-626753/2-A	Lab Control Sample	Total/NA	Solid	6010B	626753
500-207166-1 MS	2674V2-07-B01 (0-2)	Total/NA	Solid	6010B	626753
500-207166-1 MSD	2674V2-07-B01 (0-2)	Total/NA	Solid	6010B	626753
500-207166-1 DU	2674V2-07-B01 (0-2)	Total/NA	Solid	6010B	626753

## General Chemistry

### Analysis Batch: 625259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207166-1	2674V2-07-B01 (0-2)	Total/NA	Solid	Moisture	
500-207166-2	2674V2-07-B02 (0-2)	Total/NA	Solid	Moisture	
500-207166-3	2674V2-07-B03 (0-2)	Total/NA	Solid	Moisture	

### Analysis Batch: 625321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207166-1	2674V2-07-B01 (0-2)	Total/NA	Solid	9045D	
500-207166-2	2674V2-07-B02 (0-2)	Total/NA	Solid	9045D	
500-207166-3	2674V2-07-B03 (0-2)	Total/NA	Solid	9045D	
LCS 500-625321/2	Lab Control Sample	Total/NA	Solid	9045D	
LCSD 500-625321/3	Lab Control Sample Dup	Total/NA	Solid	9045D	



# Surrogate Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

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

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	DBFM	DCA	TOL
		(75-131)	(75-126)	(70-134)	(75-124)
500-207166-1	2674V2-07-B01 (0-2)	88	97	103	93
500-207166-2	2674V2-07-B02 (0-2)	115	106	105	110
500-207166-3	2674V2-07-B03 (0-2)	116	108	106	109
LCS 500-625821/4	Lab Control Sample	86	89	88	98
LCS 500-626261/4	Lab Control Sample	104	101	96	112
LCSD 500-625821/5	Lab Control Sample Dup	86	89	86	97
LCSD 500-626261/5	Lab Control Sample Dup	105	101	97	110
MB 500-625821/7	Method Blank	87	92	90	95
MB 500-626261/7	Method Blank	108	101	99	109

#### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane  
DCA = 1,2-Dichloroethane-d4 (Surr)  
TOL = Toluene-d8 (Surr)

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

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	2FP	PHL	NBZ	FBP	TBP	TPHL
		(31-166)	(30-153)	(37-147)	(43-145)	(31-143)	(42-157)
500-207166-1	2674V2-07-B01 (0-2)	107	97	95	91	84	95
500-207166-2	2674V2-07-B02 (0-2)	101	89	99	95	76	90
500-207166-2 MS	2674V2-07-B02 (0-2)	105	93	97	95	91	92
500-207166-2 MSD	2674V2-07-B02 (0-2)	114	102	104	100	98	103
500-207166-3	2674V2-07-B03 (0-2)	104	93	102	98	90	95
LCS 500-625339/2-A	Lab Control Sample	126	113	124	116	101	118
MB 500-625339/1-A	Method Blank	115	90	109	101	75	110

#### Surrogate Legend

2FP = 2-Fluorophenol  
PHL = Phenol-d5  
NBZ = Nitrobenzene-d5 (Surr)  
FBP = 2-Fluorobiphenyl (Surr)  
TBP = 2,4,6-Tribromophenol  
TPHL = Terphenyl-d14 (Surr)

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

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

**Lab Sample ID: MB 500-625821/7**  
**Matrix: Solid**  
**Analysis Batch: 625821**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	<0.020		0.020	0.0087	mg/Kg			10/28/21 10:50	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg			10/28/21 10:50	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg			10/28/21 10:50	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg			10/28/21 10:50	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg			10/28/21 10:50	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg			10/28/21 10:50	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg			10/28/21 10:50	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg			10/28/21 10:50	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg			10/28/21 10:50	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg			10/28/21 10:50	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg			10/28/21 10:50	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg			10/28/21 10:50	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg			10/28/21 10:50	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg			10/28/21 10:50	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg			10/28/21 10:50	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg			10/28/21 10:50	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg			10/28/21 10:50	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg			10/28/21 10:50	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg			10/28/21 10:50	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00070	mg/Kg			10/28/21 10:50	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg			10/28/21 10:50	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			10/28/21 10:50	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg			10/28/21 10:50	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg			10/28/21 10:50	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg			10/28/21 10:50	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg			10/28/21 10:50	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg			10/28/21 10:50	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/28/21 10:50	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg			10/28/21 10:50	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg			10/28/21 10:50	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg			10/28/21 10:50	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg			10/28/21 10:50	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg			10/28/21 10:50	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/28/21 10:50	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg			10/28/21 10:50	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg			10/28/21 10:50	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg			10/28/21 10:50	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	87		75 - 131		10/28/21 10:50	1
Dibromofluoromethane	92		75 - 126		10/28/21 10:50	1
1,2-Dichloroethane-d4 (Surr)	90		70 - 134		10/28/21 10:50	1
Toluene-d8 (Surr)	95		75 - 124		10/28/21 10:50	1

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

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

**Lab Sample ID: LCS 500-625821/4**  
**Matrix: Solid**  
**Analysis Batch: 625821**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0500	0.0659		mg/Kg		132	40 - 150
Benzene	0.0500	0.0538		mg/Kg		108	70 - 125
Bromodichloromethane	0.0500	0.0505		mg/Kg		101	67 - 129
Bromoform	0.0500	0.0466		mg/Kg		93	68 - 136
Bromomethane	0.0500	0.0644		mg/Kg		129	70 - 130
2-Butanone (MEK)	0.0500	0.0583		mg/Kg		117	47 - 138
Carbon disulfide	0.0500	0.0500		mg/Kg		100	70 - 129
Carbon tetrachloride	0.0500	0.0462		mg/Kg		92	75 - 125
Chlorobenzene	0.0500	0.0497		mg/Kg		99	50 - 150
Chloroethane	0.0500	0.0697	*+	mg/Kg		139	75 - 125
Chloroform	0.0500	0.0497		mg/Kg		99	57 - 135
Chloromethane	0.0500	0.0426		mg/Kg		85	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0492		mg/Kg		98	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0518		mg/Kg		104	70 - 125
Dibromochloromethane	0.0500	0.0506		mg/Kg		101	69 - 125
1,1-Dichloroethane	0.0500	0.0488		mg/Kg		98	70 - 125
1,2-Dichloroethane	0.0500	0.0489		mg/Kg		98	70 - 130
1,1-Dichloroethene	0.0500	0.0490		mg/Kg		98	70 - 120
1,2-Dichloropropane	0.0500	0.0528		mg/Kg		106	70 - 125
Ethylbenzene	0.0500	0.0538		mg/Kg		108	61 - 136
2-Hexanone	0.0500	0.0551		mg/Kg		110	48 - 146
Methylene Chloride	0.0500	0.0478		mg/Kg		96	70 - 126
4-Methyl-2-pentanone (MIBK)	0.0500	0.0555		mg/Kg		111	50 - 148
Methyl tert-butyl ether	0.0500	0.0432		mg/Kg		86	50 - 140
Styrene	0.0500	0.0526		mg/Kg		105	70 - 125
1,1,2,2-Tetrachloroethane	0.0500	0.0520		mg/Kg		104	70 - 122
Tetrachloroethene	0.0500	0.0536		mg/Kg		107	70 - 124
Toluene	0.0500	0.0535		mg/Kg		107	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0506		mg/Kg		101	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0491		mg/Kg		98	70 - 125
1,1,1-Trichloroethane	0.0500	0.0451		mg/Kg		90	70 - 128
1,1,2-Trichloroethane	0.0500	0.0531		mg/Kg		106	70 - 125
Trichloroethene	0.0500	0.0526		mg/Kg		105	70 - 125
Vinyl acetate	0.0500	0.0668		mg/Kg		134	40 - 153
Vinyl chloride	0.0500	0.0454		mg/Kg		91	70 - 125
Xylenes, Total	0.100	0.0993		mg/Kg		99	53 - 147

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	86		75 - 131
Dibromofluoromethane	89		75 - 126
1,2-Dichloroethane-d4 (Surr)	88		70 - 134
Toluene-d8 (Surr)	98		75 - 124

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

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

**Lab Sample ID: LCSD 500-625821/5**  
**Matrix: Solid**  
**Analysis Batch: 625821**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.0500	0.0654		mg/Kg		131	40 - 150	1	30
Benzene	0.0500	0.0540		mg/Kg		108	70 - 125	0	30
Bromodichloromethane	0.0500	0.0515		mg/Kg		103	67 - 129	2	30
Bromoform	0.0500	0.0497		mg/Kg		99	68 - 136	6	30
Bromomethane	0.0500	0.0663	*+	mg/Kg		133	70 - 130	3	30
2-Butanone (MEK)	0.0500	0.0645		mg/Kg		129	47 - 138	10	30
Carbon disulfide	0.0500	0.0505		mg/Kg		101	70 - 129	1	30
Carbon tetrachloride	0.0500	0.0465		mg/Kg		93	75 - 125	1	30
Chlorobenzene	0.0500	0.0509		mg/Kg		102	50 - 150	2	30
Chloroethane	0.0500	0.0718	*+	mg/Kg		144	75 - 125	3	30
Chloroform	0.0500	0.0510		mg/Kg		102	57 - 135	3	30
Chloromethane	0.0500	0.0432		mg/Kg		86	70 - 125	2	30
cis-1,2-Dichloroethene	0.0500	0.0497		mg/Kg		99	70 - 125	1	30
cis-1,3-Dichloropropene	0.0500	0.0535		mg/Kg		107	70 - 125	3	30
Dibromochloromethane	0.0500	0.0516		mg/Kg		103	69 - 125	2	30
1,1-Dichloroethane	0.0500	0.0489		mg/Kg		98	70 - 125	0	30
1,2-Dichloroethane	0.0500	0.0502		mg/Kg		100	70 - 130	3	30
1,1-Dichloroethene	0.0500	0.0494		mg/Kg		99	70 - 120	1	30
1,2-Dichloropropane	0.0500	0.0532		mg/Kg		106	70 - 125	1	30
Ethylbenzene	0.0500	0.0542		mg/Kg		108	61 - 136	1	30
2-Hexanone	0.0500	0.0576		mg/Kg		115	48 - 146	4	30
Methylene Chloride	0.0500	0.0489		mg/Kg		98	70 - 126	2	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0565		mg/Kg		113	50 - 148	2	30
Methyl tert-butyl ether	0.0500	0.0449		mg/Kg		90	50 - 140	4	30
Styrene	0.0500	0.0536		mg/Kg		107	70 - 125	2	30
1,1,2,2-Tetrachloroethane	0.0500	0.0543		mg/Kg		109	70 - 122	4	30
Tetrachloroethene	0.0500	0.0543		mg/Kg		109	70 - 124	1	30
Toluene	0.0500	0.0538		mg/Kg		108	70 - 125	1	30
trans-1,2-Dichloroethene	0.0500	0.0495		mg/Kg		99	70 - 125	2	30
trans-1,3-Dichloropropene	0.0500	0.0504		mg/Kg		101	70 - 125	3	30
1,1,1-Trichloroethane	0.0500	0.0460		mg/Kg		92	70 - 128	2	30
1,1,2-Trichloroethane	0.0500	0.0553		mg/Kg		111	70 - 125	4	30
Trichloroethene	0.0500	0.0530		mg/Kg		106	70 - 125	1	30
Vinyl acetate	0.0500	0.0651		mg/Kg		130	40 - 153	3	30
Vinyl chloride	0.0500	0.0474		mg/Kg		95	70 - 125	4	30
Xylenes, Total	0.100	0.101		mg/Kg		101	53 - 147	2	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	86		75 - 131
Dibromofluoromethane	89		75 - 126
1,2-Dichloroethane-d4 (Surr)	86		70 - 134
Toluene-d8 (Surr)	97		75 - 124

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

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

**Lab Sample ID: MB 500-626261/7**  
**Matrix: Solid**  
**Analysis Batch: 626261**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	<0.020		0.020	0.0087	mg/Kg			10/30/21 10:47	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg			10/30/21 10:47	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg			10/30/21 10:47	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg			10/30/21 10:47	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg			10/30/21 10:47	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg			10/30/21 10:47	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg			10/30/21 10:47	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg			10/30/21 10:47	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg			10/30/21 10:47	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg			10/30/21 10:47	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg			10/30/21 10:47	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg			10/30/21 10:47	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg			10/30/21 10:47	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg			10/30/21 10:47	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg			10/30/21 10:47	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg			10/30/21 10:47	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg			10/30/21 10:47	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg			10/30/21 10:47	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg			10/30/21 10:47	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00070	mg/Kg			10/30/21 10:47	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg			10/30/21 10:47	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			10/30/21 10:47	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg			10/30/21 10:47	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg			10/30/21 10:47	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg			10/30/21 10:47	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg			10/30/21 10:47	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg			10/30/21 10:47	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/30/21 10:47	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg			10/30/21 10:47	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg			10/30/21 10:47	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg			10/30/21 10:47	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg			10/30/21 10:47	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg			10/30/21 10:47	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/30/21 10:47	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg			10/30/21 10:47	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg			10/30/21 10:47	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg			10/30/21 10:47	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	108		75 - 131		10/30/21 10:47	1
Dibromofluoromethane	101		75 - 126		10/30/21 10:47	1
1,2-Dichloroethane-d4 (Surr)	99		70 - 134		10/30/21 10:47	1
Toluene-d8 (Surr)	109		75 - 124		10/30/21 10:47	1

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

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

**Lab Sample ID: LCS 500-626261/4**  
**Matrix: Solid**  
**Analysis Batch: 626261**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0500	0.0513		mg/Kg		103	40 - 150
Benzene	0.0500	0.0464		mg/Kg		93	70 - 125
Bromodichloromethane	0.0500	0.0458		mg/Kg		92	67 - 129
Bromoform	0.0500	0.0503		mg/Kg		101	68 - 136
Bromomethane	0.0500	0.0488		mg/Kg		98	70 - 130
2-Butanone (MEK)	0.0500	0.0457		mg/Kg		91	47 - 138
Carbon disulfide	0.0500	0.0482		mg/Kg		96	70 - 129
Carbon tetrachloride	0.0500	0.0447		mg/Kg		89	75 - 125
Chlorobenzene	0.0500	0.0461		mg/Kg		92	50 - 150
Chloroethane	0.0500	0.0471		mg/Kg		94	75 - 125
Chloroform	0.0500	0.0454		mg/Kg		91	57 - 135
Chloromethane	0.0500	0.0460		mg/Kg		92	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0457		mg/Kg		91	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0478		mg/Kg		96	70 - 125
Dibromochloromethane	0.0500	0.0468		mg/Kg		94	69 - 125
1,1-Dichloroethane	0.0500	0.0430		mg/Kg		86	70 - 125
1,2-Dichloroethane	0.0500	0.0433		mg/Kg		87	70 - 130
1,1-Dichloroethene	0.0500	0.0467		mg/Kg		93	70 - 120
1,2-Dichloropropane	0.0500	0.0438		mg/Kg		88	70 - 125
Ethylbenzene	0.0500	0.0462		mg/Kg		92	61 - 136
2-Hexanone	0.0500	0.0459		mg/Kg		92	48 - 146
Methylene Chloride	0.0500	0.0456		mg/Kg		91	70 - 126
4-Methyl-2-pentanone (MIBK)	0.0500	0.0454		mg/Kg		91	50 - 148
Methyl tert-butyl ether	0.0500	0.0442		mg/Kg		88	50 - 140
Styrene	0.0500	0.0467		mg/Kg		93	70 - 125
1,1,2,2-Tetrachloroethane	0.0500	0.0467		mg/Kg		93	70 - 122
Tetrachloroethene	0.0500	0.0512		mg/Kg		102	70 - 124
Toluene	0.0500	0.0484		mg/Kg		97	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0465		mg/Kg		93	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0471		mg/Kg		94	70 - 125
1,1,1-Trichloroethane	0.0500	0.0463		mg/Kg		93	70 - 128
1,1,2-Trichloroethane	0.0500	0.0497		mg/Kg		99	70 - 125
Trichloroethene	0.0500	0.0470		mg/Kg		94	70 - 125
Vinyl acetate	0.0500	0.0470		mg/Kg		94	40 - 153
Vinyl chloride	0.0500	0.0451		mg/Kg		90	70 - 125
Xylenes, Total	0.100	0.0963		mg/Kg		96	53 - 147

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	104		75 - 131
Dibromofluoromethane	101		75 - 126
1,2-Dichloroethane-d4 (Surr)	96		70 - 134
Toluene-d8 (Surr)	112		75 - 124

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

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

**Lab Sample ID: LCSD 500-626261/5**  
**Matrix: Solid**  
**Analysis Batch: 626261**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.0500	0.0521		mg/Kg		104	40 - 150	2	30
Benzene	0.0500	0.0459		mg/Kg		92	70 - 125	1	30
Bromodichloromethane	0.0500	0.0473		mg/Kg		95	67 - 129	3	30
Bromoform	0.0500	0.0509		mg/Kg		102	68 - 136	1	30
Bromomethane	0.0500	0.0453		mg/Kg		91	70 - 130	7	30
2-Butanone (MEK)	0.0500	0.0474		mg/Kg		95	47 - 138	4	30
Carbon disulfide	0.0500	0.0472		mg/Kg		94	70 - 129	2	30
Carbon tetrachloride	0.0500	0.0439		mg/Kg		88	75 - 125	2	30
Chlorobenzene	0.0500	0.0458		mg/Kg		92	50 - 150	1	30
Chloroethane	0.0500	0.0462		mg/Kg		92	75 - 125	2	30
Chloroform	0.0500	0.0454		mg/Kg		91	57 - 135	0	30
Chloromethane	0.0500	0.0448		mg/Kg		90	70 - 125	3	30
cis-1,2-Dichloroethene	0.0500	0.0459		mg/Kg		92	70 - 125	0	30
cis-1,3-Dichloropropene	0.0500	0.0474		mg/Kg		95	70 - 125	1	30
Dibromochloromethane	0.0500	0.0472		mg/Kg		94	69 - 125	1	30
1,1-Dichloroethane	0.0500	0.0429		mg/Kg		86	70 - 125	0	30
1,2-Dichloroethane	0.0500	0.0439		mg/Kg		88	70 - 130	1	30
1,1-Dichloroethene	0.0500	0.0472		mg/Kg		94	70 - 120	1	30
1,2-Dichloropropane	0.0500	0.0455		mg/Kg		91	70 - 125	4	30
Ethylbenzene	0.0500	0.0465		mg/Kg		93	61 - 136	1	30
2-Hexanone	0.0500	0.0496		mg/Kg		99	48 - 146	8	30
Methylene Chloride	0.0500	0.0454		mg/Kg		91	70 - 126	1	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0459		mg/Kg		92	50 - 148	1	30
Methyl tert-butyl ether	0.0500	0.0448		mg/Kg		90	50 - 140	1	30
Styrene	0.0500	0.0469		mg/Kg		94	70 - 125	0	30
1,1,2,2-Tetrachloroethane	0.0500	0.0486		mg/Kg		97	70 - 122	4	30
Tetrachloroethene	0.0500	0.0498		mg/Kg		100	70 - 124	3	30
Toluene	0.0500	0.0474		mg/Kg		95	70 - 125	2	30
trans-1,2-Dichloroethene	0.0500	0.0454		mg/Kg		91	70 - 125	2	30
trans-1,3-Dichloropropene	0.0500	0.0479		mg/Kg		96	70 - 125	2	30
1,1,1-Trichloroethane	0.0500	0.0456		mg/Kg		91	70 - 128	2	30
1,1,2-Trichloroethane	0.0500	0.0502		mg/Kg		100	70 - 125	1	30
Trichloroethene	0.0500	0.0463		mg/Kg		93	70 - 125	2	30
Vinyl acetate	0.0500	0.0468		mg/Kg		94	40 - 153	0	30
Vinyl chloride	0.0500	0.0434		mg/Kg		87	70 - 125	4	30
Xylenes, Total	0.100	0.0952		mg/Kg		95	53 - 147	1	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	105		75 - 131
Dibromofluoromethane	101		75 - 126
1,2-Dichloroethane-d4 (Surr)	97		70 - 134
Toluene-d8 (Surr)	110		75 - 124

# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

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

**Lab Sample ID: MB 500-625339/1-A**  
**Matrix: Solid**  
**Analysis Batch: 626297**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 625339**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	<0.17		0.17	0.074	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.050	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
1,3-Dichlorobenzene	<0.17		0.17	0.037	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
1,4-Dichlorobenzene	<0.17		0.17	0.043	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
1,2-Dichlorobenzene	<0.17		0.17	0.040	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
2-Methylphenol	<0.17		0.17	0.053	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.039	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
N-Nitrosodi-n-propylamine	<0.067		0.067	0.041	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
Hexachloroethane	<0.17		0.17	0.051	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
2-Chlorophenol	<0.17		0.17	0.057	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
Nitrobenzene	<0.033		0.033	0.0083	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.034	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.036	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
Isophorone	<0.17		0.17	0.037	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
2,4-Dimethylphenol	<0.33		0.33	0.13	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
Hexachlorobutadiene	<0.17		0.17	0.052	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
Naphthalene	<0.033		0.033	0.0051	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
2,4-Dichlorophenol	<0.33		0.33	0.079	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
4-Chloroaniline	<0.67		0.67	0.16	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
2,4,6-Trichlorophenol	<0.33		0.33	0.11	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
2,4,5-Trichlorophenol	<0.33		0.33	0.076	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
Hexachlorocyclopentadiene	<0.67		0.67	0.19	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
2-Methylnaphthalene	<0.067		0.067	0.0061	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
2-Nitroaniline	<0.17		0.17	0.045	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
2-Chloronaphthalene	<0.17		0.17	0.037	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
4-Chloro-3-methylphenol	<0.33		0.33	0.11	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
2,6-Dinitrotoluene	<0.17		0.17	0.065	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
2-Nitrophenol	<0.33		0.33	0.079	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
3-Nitroaniline	<0.33		0.33	0.10	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
Dimethyl phthalate	<0.17		0.17	0.043	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
2,4-Dinitrophenol	<0.67		0.67	0.59	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
Acenaphthylene	<0.033		0.033	0.0044	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
2,4-Dinitrotoluene	<0.17		0.17	0.053	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
Acenaphthene	<0.033		0.033	0.0060	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
Dibenzofuran	<0.17		0.17	0.039	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
4-Nitrophenol	<0.67		0.67	0.32	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
Fluorene	<0.033		0.033	0.0047	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
4-Nitroaniline	<0.33		0.33	0.14	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.044	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
Hexachlorobenzene	<0.067		0.067	0.0077	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
Diethyl phthalate	<0.17		0.17	0.056	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.039	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
Pentachlorophenol	<0.67		0.67	0.53	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
N-Nitrosodiphenylamine	<0.17		0.17	0.039	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
4,6-Dinitro-2-methylphenol	<0.67		0.67	0.27	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
Phenanthrene	<0.033		0.033	0.0046	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
Anthracene	<0.033		0.033	0.0056	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
Carbazole	<0.17		0.17	0.083	mg/Kg		10/26/21 06:50	10/30/21 15:32	1

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

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

**Lab Sample ID: MB 500-625339/1-A**  
**Matrix: Solid**  
**Analysis Batch: 626297**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 625339**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	<0.17		0.17	0.051	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
Fluoranthene	<0.033		0.033	0.0062	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
Pyrene	<0.033		0.033	0.0066	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
Butyl benzyl phthalate	<0.17		0.17	0.063	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
Benzo[a]anthracene	<0.033		0.033	0.0045	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
Chrysene	<0.033		0.033	0.0091	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.047	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.061	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
Di-n-octyl phthalate	<0.17		0.17	0.054	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
Benzo[b]fluoranthene	<0.033		0.033	0.0072	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
Benzo[k]fluoranthene	<0.033		0.033	0.0098	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
Benzo[a]pyrene	<0.033		0.033	0.0064	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
Indeno[1,2,3-cd]pyrene	<0.033		0.033	0.0086	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
Dibenz(a,h)anthracene	<0.033		0.033	0.0064	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
Benzo[g,h,i]perylene	<0.033		0.033	0.011	mg/Kg		10/26/21 06:50	10/30/21 15:32	1
3 & 4 Methylphenol	<0.17		0.17	0.055	mg/Kg		10/26/21 06:50	10/30/21 15:32	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	115		31 - 166	10/26/21 06:50	10/30/21 15:32	1
Phenol-d5	90		30 - 153	10/26/21 06:50	10/30/21 15:32	1
Nitrobenzene-d5 (Surr)	109		37 - 147	10/26/21 06:50	10/30/21 15:32	1
2-Fluorobiphenyl (Surr)	101		43 - 145	10/26/21 06:50	10/30/21 15:32	1
2,4,6-Tribromophenol	75		31 - 143	10/26/21 06:50	10/30/21 15:32	1
Terphenyl-d14 (Surr)	110		42 - 157	10/26/21 06:50	10/30/21 15:32	1

**Lab Sample ID: LCS 500-625339/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626297**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625339**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Phenol	1.33	1.22		mg/Kg		91	56 - 122
Bis(2-chloroethyl)ether	1.33	1.25		mg/Kg		94	55 - 111
1,3-Dichlorobenzene	1.33	1.30		mg/Kg		97	65 - 124
1,4-Dichlorobenzene	1.33	1.31		mg/Kg		98	61 - 110
1,2-Dichlorobenzene	1.33	1.42		mg/Kg		107	62 - 110
2-Methylphenol	1.33	1.33		mg/Kg		100	60 - 120
2,2'-oxybis[1-chloropropane]	1.33	0.935		mg/Kg		70	40 - 124
N-Nitrosodi-n-propylamine	1.33	1.62	*+	mg/Kg		122	56 - 118
Hexachloroethane	1.33	1.18		mg/Kg		88	60 - 114
2-Chlorophenol	1.33	1.41		mg/Kg		106	64 - 110
Nitrobenzene	1.33	1.52		mg/Kg		114	60 - 116
Bis(2-chloroethoxy)methane	1.33	1.46		mg/Kg		109	60 - 112
1,2,4-Trichlorobenzene	1.33	1.44		mg/Kg		108	66 - 117
Isophorone	1.33	1.61	*+	mg/Kg		120	55 - 110
2,4-Dimethylphenol	1.33	1.26		mg/Kg		95	60 - 110
Hexachlorobutadiene	1.33	1.60		mg/Kg		120	56 - 120
Naphthalene	1.33	1.44		mg/Kg		108	63 - 110
2,4-Dichlorophenol	1.33	1.41		mg/Kg		106	58 - 120

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

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

**Lab Sample ID: LCS 500-625339/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626297**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625339**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chloroaniline	1.33	1.22		mg/Kg		92	30 - 150
2,4,6-Trichlorophenol	1.33	1.41		mg/Kg		105	57 - 120
2,4,5-Trichlorophenol	1.33	1.28		mg/Kg		96	50 - 120
Hexachlorocyclopentadiene	1.33	0.688		mg/Kg		52	10 - 133
2-Methylnaphthalene	1.33	1.56	*+	mg/Kg		117	69 - 112
2-Nitroaniline	1.33	1.55		mg/Kg		116	57 - 124
2-Chloronaphthalene	1.33	1.43		mg/Kg		107	69 - 114
4-Chloro-3-methylphenol	1.33	1.49		mg/Kg		112	65 - 122
2,6-Dinitrotoluene	1.33	1.59		mg/Kg		119	70 - 123
2-Nitrophenol	1.33	1.42		mg/Kg		106	60 - 120
3-Nitroaniline	1.33	0.883		mg/Kg		66	40 - 122
Dimethyl phthalate	1.33	1.57	*+	mg/Kg		118	69 - 116
2,4-Dinitrophenol	2.67	0.706		mg/Kg		26	10 - 100
Acenaphthylene	1.33	1.48		mg/Kg		111	68 - 120
2,4-Dinitrotoluene	1.33	1.56		mg/Kg		117	69 - 124
Acenaphthene	1.33	1.48		mg/Kg		111	65 - 124
Dibenzofuran	1.33	1.47		mg/Kg		110	66 - 115
4-Nitrophenol	2.67	2.64		mg/Kg		99	30 - 122
Fluorene	1.33	1.51		mg/Kg		113	62 - 120
4-Nitroaniline	1.33	1.19		mg/Kg		89	60 - 160
4-Bromophenyl phenyl ether	1.33	1.57		mg/Kg		118	68 - 118
Hexachlorobenzene	1.33	1.66	*+	mg/Kg		125	63 - 124
Diethyl phthalate	1.33	1.54		mg/Kg		116	58 - 120
4-Chlorophenyl phenyl ether	1.33	1.49		mg/Kg		112	62 - 119
Pentachlorophenol	2.67	1.72		mg/Kg		64	13 - 112
N-Nitrosodiphenylamine	1.33	1.45		mg/Kg		108	65 - 112
4,6-Dinitro-2-methylphenol	2.67	1.47		mg/Kg		55	10 - 110
Phenanthrene	1.33	1.50		mg/Kg		113	62 - 120
Anthracene	1.33	1.52		mg/Kg		114	70 - 114
Carbazole	1.33	1.46		mg/Kg		110	65 - 142
Di-n-butyl phthalate	1.33	1.45		mg/Kg		109	65 - 120
Fluoranthene	1.33	1.49		mg/Kg		112	62 - 120
Pyrene	1.33	1.54		mg/Kg		115	61 - 128
Butyl benzyl phthalate	1.33	1.42		mg/Kg		106	71 - 129
Benzo[a]anthracene	1.33	1.50		mg/Kg		113	67 - 122
Chrysene	1.33	1.47		mg/Kg		110	63 - 120
3,3'-Dichlorobenzidine	1.33	1.07		mg/Kg		81	35 - 128
Bis(2-ethylhexyl) phthalate	1.33	1.47		mg/Kg		110	72 - 131
Di-n-octyl phthalate	1.33	1.28		mg/Kg		96	68 - 134
Benzo[b]fluoranthene	1.33	1.48		mg/Kg		111	69 - 129
Benzo[k]fluoranthene	1.33	1.43		mg/Kg		107	68 - 127
Benzo[a]pyrene	1.33	1.45		mg/Kg		109	65 - 133
Indeno[1,2,3-cd]pyrene	1.33	1.41		mg/Kg		106	68 - 130
Dibenz(a,h)anthracene	1.33	1.40		mg/Kg		105	64 - 131
Benzo[g,h,i]perylene	1.33	1.45		mg/Kg		109	72 - 131
3 & 4 Methylphenol	1.33	1.39		mg/Kg		104	57 - 120

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

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

**Lab Sample ID: LCS 500-625339/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626297**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625339**

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorophenol	126		31 - 166
Phenol-d5	113		30 - 153
Nitrobenzene-d5 (Surr)	124		37 - 147
2-Fluorobiphenyl (Surr)	116		43 - 145
2,4,6-Tribromophenol	101		31 - 143
Terphenyl-d14 (Surr)	118		42 - 157

**Lab Sample ID: 500-207166-2 MS**  
**Matrix: Solid**  
**Analysis Batch: 626297**

**Client Sample ID: 2674V2-07-B02 (0-2)**  
**Prep Type: Total/NA**  
**Prep Batch: 625339**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	Limits
				Result	Qualifier				
Phenol	<0.18		1.47	1.15		mg/Kg	☼	79	56 - 122
Bis(2-chloroethyl)ether	<0.18		1.47	1.18		mg/Kg	☼	80	55 - 111
1,3-Dichlorobenzene	<0.18		1.47	1.14		mg/Kg	☼	78	60 - 110
1,4-Dichlorobenzene	<0.18		1.47	1.15		mg/Kg	☼	78	61 - 110
1,2-Dichlorobenzene	<0.18		1.47	1.19		mg/Kg	☼	81	62 - 110
2-Methylphenol	<0.18		1.47	1.34		mg/Kg	☼	92	60 - 120
2,2'-oxybis[1-chloropropane]	<0.18		1.47	0.817		mg/Kg	☼	56	40 - 124
N-Nitrosodi-n-propylamine	<0.073	*+	1.47	1.52		mg/Kg	☼	104	56 - 118
Hexachloroethane	<0.18	F1	1.47	0.888		mg/Kg	☼	61	60 - 114
2-Chlorophenol	<0.18		1.47	1.37		mg/Kg	☼	93	64 - 110
Nitrobenzene	<0.036		1.47	1.32		mg/Kg	☼	90	60 - 116
Bis(2-chloroethoxy)methane	<0.18		1.47	1.36		mg/Kg	☼	93	60 - 112
1,2,4-Trichlorobenzene	<0.18		1.47	1.21		mg/Kg	☼	83	66 - 117
Isophorone	<0.18	*+	1.47	1.40		mg/Kg	☼	95	55 - 110
2,4-Dimethylphenol	<0.36		1.47	1.12		mg/Kg	☼	76	60 - 110
Hexachlorobutadiene	<0.18		1.47	1.33		mg/Kg	☼	91	56 - 120
Naphthalene	0.0082	J	1.47	1.27		mg/Kg	☼	86	63 - 110
2,4-Dichlorophenol	<0.36		1.47	1.31		mg/Kg	☼	89	58 - 120
4-Chloroaniline	<0.73		1.47	0.817		mg/Kg	☼	56	30 - 150
2,4,6-Trichlorophenol	<0.36		1.47	1.30		mg/Kg	☼	88	57 - 120
2,4,5-Trichlorophenol	<0.36		1.47	1.23		mg/Kg	☼	84	50 - 120
Hexachlorocyclopentadiene	<0.73	F1	1.47	<0.74	F1	mg/Kg	☼	0	10 - 133
2-Methylnaphthalene	0.016	J *+	1.47	1.48		mg/Kg	☼	100	69 - 112
2-Nitroaniline	<0.18		1.47	1.45		mg/Kg	☼	99	57 - 124
2-Chloronaphthalene	<0.18		1.47	1.28		mg/Kg	☼	88	69 - 114
4-Chloro-3-methylphenol	<0.36		1.47	1.41		mg/Kg	☼	96	65 - 122
2,6-Dinitrotoluene	<0.18		1.47	1.45		mg/Kg	☼	99	70 - 123
2-Nitrophenol	<0.36		1.47	1.27		mg/Kg	☼	87	60 - 120
3-Nitroaniline	<0.36		1.47	0.945		mg/Kg	☼	64	40 - 122
Dimethyl phthalate	<0.18	*+	1.47	1.50		mg/Kg	☼	102	69 - 116
2,4-Dinitrophenol	<0.73		2.93	1.56		mg/Kg	☼	53	10 - 100
Acenaphthylene	<0.036		1.47	1.37		mg/Kg	☼	93	68 - 120
2,4-Dinitrotoluene	<0.18		1.47	1.45		mg/Kg	☼	99	69 - 124
Acenaphthene	<0.036		1.47	1.35		mg/Kg	☼	92	65 - 124
Dibenzofuran	<0.18		1.47	1.36		mg/Kg	☼	93	66 - 115
4-Nitrophenol	<0.73		2.93	2.69		mg/Kg	☼	92	30 - 122

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

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

**Lab Sample ID: 500-207166-2 MS**  
**Matrix: Solid**  
**Analysis Batch: 626297**

**Client Sample ID: 2674V2-07-B02 (0-2)**  
**Prep Type: Total/NA**  
**Prep Batch: 625339**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluorene	<0.036		1.47	1.37		mg/Kg	☼	94	62 - 120
4-Nitroaniline	<0.36		1.47	1.11		mg/Kg	☼	76	60 - 160
4-Bromophenyl phenyl ether	<0.18		1.47	1.37		mg/Kg	☼	94	68 - 118
Hexachlorobenzene	<0.073	*+	1.47	1.39		mg/Kg	☼	95	63 - 124
Diethyl phthalate	<0.18		1.47	1.48		mg/Kg	☼	101	58 - 120
4-Chlorophenyl phenyl ether	<0.18		1.47	1.39		mg/Kg	☼	95	62 - 119
Pentachlorophenol	<0.73	F2	2.93	1.13		mg/Kg	☼	39	13 - 112
N-Nitrosodiphenylamine	<0.18		1.47	1.21		mg/Kg	☼	82	65 - 112
4,6-Dinitro-2-methylphenol	<0.73		2.93	1.84		mg/Kg	☼	63	10 - 110
Phenanthrene	0.029	J	1.47	1.36		mg/Kg	☼	91	62 - 120
Anthracene	<0.036		1.47	1.36		mg/Kg	☼	93	70 - 114
Carbazole	<0.18		1.47	1.50		mg/Kg	☼	103	65 - 142
Di-n-butyl phthalate	<0.18		1.47	1.35		mg/Kg	☼	92	65 - 120
Fluoranthene	0.035	J	1.47	1.51		mg/Kg	☼	100	62 - 120
Pyrene	0.028	J	1.47	1.32		mg/Kg	☼	88	61 - 128
Butyl benzyl phthalate	<0.18		1.47	1.28		mg/Kg	☼	87	71 - 129
Benzo[a]anthracene	0.017	J	1.47	1.39		mg/Kg	☼	94	67 - 122
Chrysene	0.025	J	1.47	1.38		mg/Kg	☼	92	63 - 120
3,3'-Dichlorobenzidine	<0.18	F1	1.47	0.468	F1	mg/Kg	☼	32	35 - 128
Bis(2-ethylhexyl) phthalate	<0.18		1.47	1.34		mg/Kg	☼	92	72 - 131
Di-n-octyl phthalate	<0.18		1.47	1.47		mg/Kg	☼	100	68 - 134
Benzo[b]fluoranthene	0.021	J	1.47	1.45		mg/Kg	☼	98	69 - 129
Benzo[k]fluoranthene	0.018	J	1.47	1.61		mg/Kg	☼	109	68 - 127
Benzo[a]pyrene	0.017	J	1.47	1.32		mg/Kg	☼	89	65 - 133
Indeno[1,2,3-cd]pyrene	0.0095	J F1	1.47	0.683	F1	mg/Kg	☼	46	68 - 130
Dibenz(a,h)anthracene	<0.036	F1	1.47	0.728	F1	mg/Kg	☼	50	64 - 131
Benzo[g,h,i]perylene	0.015	J F1	1.47	0.547	F1	mg/Kg	☼	36	72 - 131
3 & 4 Methylphenol	<0.18		1.47	1.27		mg/Kg	☼	86	57 - 120

Surrogate	MS %Recovery	MS Qualifier	MS Limits
2-Fluorophenol	105		31 - 166
Phenol-d5	93		30 - 153
Nitrobenzene-d5 (Surr)	97		37 - 147
2-Fluorobiphenyl (Surr)	95		43 - 145
2,4,6-Tribromophenol	91		31 - 143
Terphenyl-d14 (Surr)	92		42 - 157

**Lab Sample ID: 500-207166-2 MSD**  
**Matrix: Solid**  
**Analysis Batch: 626297**

**Client Sample ID: 2674V2-07-B02 (0-2)**  
**Prep Type: Total/NA**  
**Prep Batch: 625339**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	<0.18		1.48	1.24		mg/Kg	☼	83	56 - 122	7	30
Bis(2-chloroethyl)ether	<0.18		1.48	1.27		mg/Kg	☼	86	55 - 111	7	30
1,3-Dichlorobenzene	<0.18		1.48	1.16		mg/Kg	☼	78	60 - 110	2	30
1,4-Dichlorobenzene	<0.18		1.48	1.19		mg/Kg	☼	80	61 - 110	3	30
1,2-Dichlorobenzene	<0.18		1.48	1.25		mg/Kg	☼	85	62 - 110	5	30
2-Methylphenol	<0.18		1.48	1.55		mg/Kg	☼	104	60 - 120	14	30

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

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

**Lab Sample ID: 500-207166-2 MSD**

**Matrix: Solid**

**Analysis Batch: 626297**

**Client Sample ID: 2674V2-07-B02 (0-2)**

**Prep Type: Total/NA**

**Prep Batch: 625339**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier						
2,2'-oxybis[1-chloropropane]	<0.18		1.48	0.867		mg/Kg	*	59	40 - 124	6	30
N-Nitrosodi-n-propylamine	<0.073	*+	1.48	1.66		mg/Kg	*	112	56 - 118	9	30
Hexachloroethane	<0.18	F1	1.48	0.866	F1	mg/Kg	*	58	60 - 114	3	30
2-Chlorophenol	<0.18		1.48	1.49		mg/Kg	*	100	64 - 110	8	30
Nitrobenzene	<0.036		1.48	1.41		mg/Kg	*	95	60 - 116	7	30
Bis(2-chloroethoxy)methane	<0.18		1.48	1.42		mg/Kg	*	96	60 - 112	5	30
1,2,4-Trichlorobenzene	<0.18		1.48	1.32		mg/Kg	*	89	66 - 117	8	30
Isophorone	<0.18	*+	1.48	1.53		mg/Kg	*	104	55 - 110	9	30
2,4-Dimethylphenol	<0.36		1.48	1.28		mg/Kg	*	87	60 - 110	14	30
Hexachlorobutadiene	<0.18		1.48	1.39		mg/Kg	*	93	56 - 120	4	30
Naphthalene	0.0082	J	1.48	1.39		mg/Kg	*	93	63 - 110	9	30
2,4-Dichlorophenol	<0.36		1.48	1.41		mg/Kg	*	95	58 - 120	8	30
4-Chloroaniline	<0.73		1.48	0.814		mg/Kg	*	55	30 - 150	0	30
2,4,6-Trichlorophenol	<0.36		1.48	1.39		mg/Kg	*	94	57 - 120	7	30
2,4,5-Trichlorophenol	<0.36		1.48	1.37		mg/Kg	*	93	50 - 120	11	30
Hexachlorocyclopentadiene	<0.73	F1	1.48	<0.74	F1	mg/Kg	*	0	10 - 133	NC	30
2-Methylnaphthalene	0.016	J*+	1.48	1.51		mg/Kg	*	101	69 - 112	2	30
2-Nitroaniline	<0.18		1.48	1.49		mg/Kg	*	101	57 - 124	3	30
2-Chloronaphthalene	<0.18		1.48	1.35		mg/Kg	*	91	69 - 114	5	30
4-Chloro-3-methylphenol	<0.36		1.48	1.49		mg/Kg	*	101	65 - 122	6	30
2,6-Dinitrotoluene	<0.18		1.48	1.47		mg/Kg	*	99	70 - 123	1	30
2-Nitrophenol	<0.36		1.48	1.35		mg/Kg	*	91	60 - 120	6	30
3-Nitroaniline	<0.36		1.48	0.945		mg/Kg	*	64	40 - 122	0	30
Dimethyl phthalate	<0.18	*+	1.48	1.54		mg/Kg	*	104	69 - 116	3	30
2,4-Dinitrophenol	<0.73		2.96	1.51		mg/Kg	*	51	10 - 100	3	30
Acenaphthylene	<0.036		1.48	1.42		mg/Kg	*	96	68 - 120	4	30
2,4-Dinitrotoluene	<0.18		1.48	1.52		mg/Kg	*	103	69 - 124	5	30
Acenaphthene	<0.036		1.48	1.41		mg/Kg	*	95	65 - 124	4	30
Dibenzofuran	<0.18		1.48	1.42		mg/Kg	*	96	66 - 115	4	30
4-Nitrophenol	<0.73		2.96	2.94		mg/Kg	*	99	30 - 122	9	30
Fluorene	<0.036		1.48	1.46		mg/Kg	*	99	62 - 120	6	30
4-Nitroaniline	<0.36		1.48	1.20		mg/Kg	*	81	60 - 160	8	30
4-Bromophenyl phenyl ether	<0.18		1.48	1.47		mg/Kg	*	99	68 - 118	7	30
Hexachlorobenzene	<0.073	*+	1.48	1.50		mg/Kg	*	101	63 - 124	7	30
Diethyl phthalate	<0.18		1.48	1.58		mg/Kg	*	107	58 - 120	6	30
4-Chlorophenyl phenyl ether	<0.18		1.48	1.45		mg/Kg	*	98	62 - 119	5	30
Pentachlorophenol	<0.73	F2	2.96	2.23	F2	mg/Kg	*	75	13 - 112	65	30
N-Nitrosodiphenylamine	<0.18		1.48	1.29		mg/Kg	*	87	65 - 112	7	30
4,6-Dinitro-2-methylphenol	<0.73		2.96	1.77		mg/Kg	*	60	10 - 110	4	30
Phenanthrene	0.029	J	1.48	1.49		mg/Kg	*	98	62 - 120	9	30
Anthracene	<0.036		1.48	1.48		mg/Kg	*	100	70 - 114	8	30
Carbazole	<0.18		1.48	1.57		mg/Kg	*	106	65 - 142	4	30
Di-n-butyl phthalate	<0.18		1.48	1.46		mg/Kg	*	99	65 - 120	8	30
Fluoranthene	0.035	J	1.48	1.64		mg/Kg	*	108	62 - 120	8	30
Pyrene	0.028	J	1.48	1.48		mg/Kg	*	98	61 - 128	12	30
Butyl benzyl phthalate	<0.18		1.48	1.45		mg/Kg	*	98	71 - 129	13	30
Benzo[a]anthracene	0.017	J	1.48	1.51		mg/Kg	*	101	67 - 122	8	30
Chrysene	0.025	J	1.48	1.46		mg/Kg	*	97	63 - 120	5	30
3,3'-Dichlorobenzidine	<0.18	F1	1.48	0.542		mg/Kg	*	37	35 - 128	15	30

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

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

Lab Sample ID: 500-207166-2 MSD

Matrix: Solid

Analysis Batch: 626297

Client Sample ID: 2674V2-07-B02 (0-2)

Prep Type: Total/NA

Prep Batch: 625339

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Bis(2-ethylhexyl) phthalate	<0.18		1.48	1.53		mg/Kg	☼	103	72 - 131	13	30
Di-n-octyl phthalate	<0.18		1.48	1.58		mg/Kg	☼	106	68 - 134	7	30
Benzo[b]fluoranthene	0.021	J	1.48	1.77		mg/Kg	☼	118	69 - 129	20	30
Benzo[k]fluoranthene	0.018	J	1.48	1.79		mg/Kg	☼	119	68 - 127	11	30
Benzo[a]pyrene	0.017	J	1.48	1.44		mg/Kg	☼	96	65 - 133	9	30
Indeno[1,2,3-cd]pyrene	0.0095	J F1	1.48	0.635	F1	mg/Kg	☼	42	68 - 130	7	30
Dibenz(a,h)anthracene	<0.036	F1	1.48	0.682	F1	mg/Kg	☼	46	64 - 131	7	30
Benzo[g,h,i]perylene	0.015	J F1	1.48	0.505	F1	mg/Kg	☼	33	72 - 131	8	30
3 & 4 Methylphenol	<0.18		1.48	1.49		mg/Kg	☼	100	57 - 120	16	30
<b>MSD MSD</b>											
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>								
2-Fluorophenol	114		31 - 166								
Phenol-d5	102		30 - 153								
Nitrobenzene-d5 (Surr)	104		37 - 147								
2-Fluorobiphenyl (Surr)	100		43 - 145								
2,4,6-Tribromophenol	98		31 - 143								
Terphenyl-d14 (Surr)	103		42 - 157								

## Method: 6010B - Metals (ICP)

Lab Sample ID: LCS 500-625872/2-A

Matrix: Solid

Analysis Batch: 626087

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 625872

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
Barium	0.500	0.522		mg/L		104		80 - 120
Boron	1.00	0.870		mg/L		87		80 - 120
Cadmium	0.0500	0.0490		mg/L		98		80 - 120
Chromium	0.200	0.199		mg/L		100		80 - 120
Cobalt	0.500	0.529		mg/L		106		80 - 120
Lead	0.100	0.0996		mg/L		100		80 - 120
Manganese	0.500	0.414		mg/L		83		80 - 120
Nickel	0.500	0.532		mg/L		106		80 - 120
Selenium	0.100	0.112		mg/L		112		80 - 120
Zinc	0.500	0.591		mg/L		118		80 - 120

Lab Sample ID: LCS 500-625873/2-A

Matrix: Solid

Analysis Batch: 626431

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 625873

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
Manganese	0.500	0.497		mg/L		99		80 - 120

Lab Sample ID: LCS 500-626361/2-A

Matrix: Solid

Analysis Batch: 626686

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 626361

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
Iron	1.00	0.952		mg/L		95		80 - 120

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# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

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

**Lab Sample ID: LCS 500-626361/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626686**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626361**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	0.0500	0.0498		mg/L		100	80 - 120

**Lab Sample ID: LCS 500-626361/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626854**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626361**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	0.0500	0.0484		mg/L		97	80 - 120

**Lab Sample ID: LCSD 500-626361/3-A**  
**Matrix: Solid**  
**Analysis Batch: 626686**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 626361**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	1.00	0.795		mg/L		80	80 - 120	18	20
Silver	0.0500	0.0501		mg/L		100	80 - 120	1	20

**Lab Sample ID: LCSD 500-626361/3-A**  
**Matrix: Solid**  
**Analysis Batch: 626854**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 626361**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	0.0500	0.0476		mg/L		95	80 - 120	2	20

**Lab Sample ID: MB 500-626753/1-A**  
**Matrix: Solid**  
**Analysis Batch: 627085**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 626753**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.483	J	2.0	0.39	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Arsenic	<1.0		1.0	0.34	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Barium	<1.0		1.0	0.11	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Beryllium	<0.40		0.40	0.093	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Boron	<5.0		5.0	0.47	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Cadmium	0.0459	J	0.20	0.036	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Calcium	25.3		20	3.4	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Chromium	<1.0		1.0	0.50	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Cobalt	<0.50		0.50	0.13	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Copper	<1.0		1.0	0.28	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Iron	17.0	J	20	10	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Lead	<0.50		0.50	0.23	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Magnesium	10.8		10	5.0	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Manganese	0.197	J	1.0	0.15	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Nickel	<1.0		1.0	0.29	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Potassium	<50		50	18	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Selenium	<1.0		1.0	0.59	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Silver	<0.50		0.50	0.13	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Sodium	<100		100	15	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Thallium	<1.0		1.0	0.50	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Vanadium	<0.50		0.50	0.12	mg/Kg		11/02/21 10:34	11/03/21 12:02	1

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 500-626753/1-A**  
**Matrix: Solid**  
**Analysis Batch: 627178**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 626753**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<2.0		2.0	0.39	mg/Kg		11/02/21 10:34	11/03/21 17:14	1
Arsenic	<1.0		1.0	0.34	mg/Kg		11/02/21 10:34	11/03/21 17:14	1
Barium	0.113	J	1.0	0.11	mg/Kg		11/02/21 10:34	11/03/21 17:14	1
Beryllium	<0.40		0.40	0.093	mg/Kg		11/02/21 10:34	11/03/21 17:14	1
Boron	0.800	J	5.0	0.47	mg/Kg		11/02/21 10:34	11/03/21 17:14	1
Cadmium	<0.20		0.20	0.036	mg/Kg		11/02/21 10:34	11/03/21 17:14	1
Calcium	11.2	J ^3+	20	3.4	mg/Kg		11/02/21 10:34	11/03/21 17:14	1
Chromium	<1.0		1.0	0.50	mg/Kg		11/02/21 10:34	11/03/21 17:14	1
Cobalt	<0.50		0.50	0.13	mg/Kg		11/02/21 10:34	11/03/21 17:14	1
Copper	<1.0		1.0	0.28	mg/Kg		11/02/21 10:34	11/03/21 17:14	1
Lead	<0.50		0.50	0.23	mg/Kg		11/02/21 10:34	11/03/21 17:14	1
Magnesium	<10	^3+	10	5.0	mg/Kg		11/02/21 10:34	11/03/21 17:14	1
Manganese	0.211	J	1.0	0.15	mg/Kg		11/02/21 10:34	11/03/21 17:14	1
Nickel	<1.0		1.0	0.29	mg/Kg		11/02/21 10:34	11/03/21 17:14	1
Potassium	<50		50	18	mg/Kg		11/02/21 10:34	11/03/21 17:14	1
Selenium	<1.0		1.0	0.59	mg/Kg		11/02/21 10:34	11/03/21 17:14	1
Silver	<0.50		0.50	0.13	mg/Kg		11/02/21 10:34	11/03/21 17:14	1
Sodium	<100		100	15	mg/Kg		11/02/21 10:34	11/03/21 17:14	1
Thallium	<1.0		1.0	0.50	mg/Kg		11/02/21 10:34	11/03/21 17:14	1
Vanadium	<0.50		0.50	0.12	mg/Kg		11/02/21 10:34	11/03/21 17:14	1
Zinc	<2.0		2.0	0.88	mg/Kg		11/02/21 10:34	11/03/21 17:14	1

**Lab Sample ID: LCS 500-626753/2-A**  
**Matrix: Solid**  
**Analysis Batch: 627085**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626753**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	10.0	8.65		mg/Kg		86	80 - 120
Barium	200	194		mg/Kg		97	80 - 120
Beryllium	5.00	4.73		mg/Kg		95	80 - 120
Cadmium	5.00	4.30		mg/Kg		86	80 - 120
Calcium	1000	982		mg/Kg		98	80 - 120
Chromium	20.0	18.9		mg/Kg		95	80 - 120
Cobalt	50.0	46.3		mg/Kg		93	80 - 120
Copper	25.0	23.1		mg/Kg		92	80 - 120
Iron	100	110		mg/Kg		110	80 - 120
Lead	10.0	8.93		mg/Kg		89	80 - 120
Magnesium	1000	931		mg/Kg		93	80 - 120
Manganese	50.0	48.4		mg/Kg		97	80 - 120
Nickel	50.0	47.6		mg/Kg		95	80 - 120
Potassium	1000	873		mg/Kg		87	80 - 120
Selenium	10.0	7.96		mg/Kg		80	80 - 120
Silver	5.00	4.72		mg/Kg		94	80 - 120
Sodium	1000	912		mg/Kg		91	80 - 120
Thallium	10.0	8.68		mg/Kg		87	80 - 120
Vanadium	50.0	46.4		mg/Kg		93	80 - 120



# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

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

**Lab Sample ID: LCS 500-626753/2-A**  
**Matrix: Solid**  
**Analysis Batch: 627178**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626753**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	50.0	47.2		mg/Kg		94	80 - 120
Arsenic	10.0	9.25		mg/Kg		92	80 - 120
Barium	200	191		mg/Kg		96	80 - 120
Beryllium	5.00	4.62		mg/Kg		92	80 - 120
Boron	100	83.1		mg/Kg		83	80 - 120
Cadmium	5.00	4.43		mg/Kg		89	80 - 120
Calcium	1000	962	^3+	mg/Kg		96	80 - 120
Chromium	20.0	18.8		mg/Kg		94	80 - 120
Cobalt	50.0	47.4		mg/Kg		95	80 - 120
Copper	25.0	23.5		mg/Kg		94	80 - 120
Iron	100	94.1		mg/Kg		94	80 - 120
Lead	10.0	9.29		mg/Kg		93	80 - 120
Magnesium	1000	935	^3+	mg/Kg		94	80 - 120
Manganese	50.0	47.1		mg/Kg		94	80 - 120
Nickel	50.0	47.9		mg/Kg		96	80 - 120
Potassium	1000	880		mg/Kg		88	80 - 120
Selenium	10.0	8.44		mg/Kg		84	80 - 120
Silver	5.00	4.52		mg/Kg		90	80 - 120
Sodium	1000	893		mg/Kg		89	80 - 120
Thallium	10.0	9.24		mg/Kg		92	80 - 120
Vanadium	50.0	47.6		mg/Kg		95	80 - 120
Zinc	50.0	48.0		mg/Kg		96	80 - 120

**Lab Sample ID: 500-207166-1 MS**  
**Matrix: Solid**  
**Analysis Batch: 627085**

**Client Sample ID: 2674V2-07-B01 (0-2)**  
**Prep Type: Total/NA**  
**Prep Batch: 626753**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	0.51	J B F1	28.3	5.34	F1	mg/Kg	⊛	17	75 - 125
Arsenic	6.5		5.66	10.8		mg/Kg	⊛	76	75 - 125
Barium	60		113	159		mg/Kg	⊛	87	75 - 125
Beryllium	0.88		2.83	3.43		mg/Kg	⊛	90	75 - 125
Cadmium	0.077	J B	2.83	2.32		mg/Kg	⊛	79	75 - 125
Chromium	18		11.3	29.1		mg/Kg	⊛	101	75 - 125
Cobalt	11		28.3	40.5		mg/Kg	⊛	103	75 - 125
Copper	26	F1	14.2	36.8		mg/Kg	⊛	79	75 - 125
Iron	20000	B	56.6	20200	4	mg/Kg	⊛	312	75 - 125
Lead	54	F2	5.66	73.7	4	mg/Kg	⊛	348	75 - 125
Magnesium	21000	B F2	566	25400	4	mg/Kg	⊛	740	75 - 125
Manganese	370	B F2	28.3	537	4	mg/Kg	⊛	581	75 - 125
Nickel	26		28.3	56.8		mg/Kg	⊛	108	75 - 125
Potassium	2000	F1	566	3630	F1	mg/Kg	⊛	286	75 - 125
Selenium	0.59	F1	5.66	4.07	F1	mg/Kg	⊛	62	75 - 125
Silver	0.29		2.83	2.96		mg/Kg	⊛	94	75 - 125
Sodium	710		566	1190		mg/Kg	⊛	86	75 - 125
Thallium	<0.58		5.66	4.79		mg/Kg	⊛	85	75 - 125
Vanadium	25		28.3	50.9		mg/Kg	⊛	91	75 - 125

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

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

**Lab Sample ID: 500-207166-1 MS**  
**Matrix: Solid**  
**Analysis Batch: 627178**

**Client Sample ID: 2674V2-07-B01 (0-2)**  
**Prep Type: Total/NA**  
**Prep Batch: 626753**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier		Result	Qualifier				
Boron	8.3	B F1	56.6	49.1	F1	mg/Kg	☼	72	75 - 125
Calcium	33000	B F2	566	38500	4	mg/Kg	☼	952	75 - 125
Zinc	91	F1	28.3	121		mg/Kg	☼	107	75 - 125

**Lab Sample ID: 500-207166-1 MSD**  
**Matrix: Solid**  
**Analysis Batch: 627085**

**Client Sample ID: 2674V2-07-B01 (0-2)**  
**Prep Type: Total/NA**  
**Prep Batch: 626753**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Antimony	0.51	J B F1	27.6	5.38	F1	mg/Kg	☼	18	75 - 125	1	20
Arsenic	6.5		5.51	10.6		mg/Kg	☼	75	75 - 125	2	20
Barium	60		110	157		mg/Kg	☼	88	75 - 125	1	20
Beryllium	0.88		2.76	3.30		mg/Kg	☼	88	75 - 125	4	20
Cadmium	0.077	J B	2.76	2.24		mg/Kg	☼	78	75 - 125	4	20
Chromium	18		11.0	28.1		mg/Kg	☼	94	75 - 125	3	20
Cobalt	11		27.6	37.9		mg/Kg	☼	96	75 - 125	6	20
Copper	26	F1	13.8	33.2	F1	mg/Kg	☼	55	75 - 125	10	20
Iron	20000	B	55.1	19600	4	mg/Kg	☼	-738	75 - 125	3	20
Lead	54	F2	5.51	35.8	4 F2	mg/Kg	☼	-331	75 - 125	69	20
Magnesium	21000	B F2	551	15700	4 F2	mg/Kg	☼	-989	75 - 125	47	20
Manganese	370	B F2	27.6	374	4 F2	mg/Kg	☼	7	75 - 125	36	20
Nickel	26		27.6	52.2		mg/Kg	☼	94	75 - 125	8	20
Potassium	2000	F1	551	3300	F1	mg/Kg	☼	235	75 - 125	9	20
Selenium	0.59	F1	5.51	4.16	F1	mg/Kg	☼	65	75 - 125	2	20
Silver	0.29		2.76	2.77		mg/Kg	☼	90	75 - 125	6	20
Sodium	710		551	1270		mg/Kg	☼	102	75 - 125	6	20
Thallium	<0.58		5.51	4.86		mg/Kg	☼	88	75 - 125	1	20
Vanadium	25		27.6	50.2		mg/Kg	☼	91	75 - 125	1	20

**Lab Sample ID: 500-207166-1 MSD**  
**Matrix: Solid**  
**Analysis Batch: 627178**

**Client Sample ID: 2674V2-07-B01 (0-2)**  
**Prep Type: Total/NA**  
**Prep Batch: 626753**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Boron	8.3	B F1	55.1	47.4	F1	mg/Kg	☼	71	75 - 125	4	20
Calcium	33000	B F2	551	22300	4 F2	mg/Kg	☼	-1949	75 - 125	53	20
Zinc	91	F1	27.6	98.9	F1	mg/Kg	☼	28	75 - 125	20	20

**Lab Sample ID: 500-207166-1 DU**  
**Matrix: Solid**  
**Analysis Batch: 627085**

**Client Sample ID: 2674V2-07-B01 (0-2)**  
**Prep Type: Total/NA**  
**Prep Batch: 626753**

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier		Result				
Antimony	0.51	J B F1	0.603	J	mg/Kg	☼	16	20
Arsenic	6.5		5.61		mg/Kg	☼	14	20
Barium	60		54.3		mg/Kg	☼	9	20
Beryllium	0.88		0.746		mg/Kg	☼	16	20
Cadmium	0.077	J B	0.128	F5	mg/Kg	☼	49	20
Chromium	18		16.3		mg/Kg	☼	8	20

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

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

**Lab Sample ID: 500-207166-1 DU**  
**Matrix: Solid**  
**Analysis Batch: 627085**

**Client Sample ID: 2674V2-07-B01 (0-2)**  
**Prep Type: Total/NA**  
**Prep Batch: 626753**

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Cobalt	11		10.4		mg/Kg	⊛	9	20
Copper	26	F1	23.1		mg/Kg	⊛	10	20
Iron	20000	B	17600		mg/Kg	⊛	13	20
Lead	54	F2	61.8		mg/Kg	⊛	13	20
Magnesium	21000	B F2	23800		mg/Kg	⊛	12	20
Manganese	370	B F2	470	F3	mg/Kg	⊛	23	20
Nickel	26		23.4		mg/Kg	⊛	12	20
Potassium	2000	F1	1830		mg/Kg	⊛	9	20
Selenium	0.59	F1	0.489	J	mg/Kg	⊛	19	20
Silver	0.29		0.269	J	mg/Kg	⊛	7	20
Sodium	710		613		mg/Kg	⊛	14	20
Thallium	<0.58		<0.56		mg/Kg	⊛	NC	20
Vanadium	25		22.5		mg/Kg	⊛	11	20

**Lab Sample ID: 500-207166-1 DU**  
**Matrix: Solid**  
**Analysis Batch: 627178**

**Client Sample ID: 2674V2-07-B01 (0-2)**  
**Prep Type: Total/NA**  
**Prep Batch: 626753**

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Boron	8.3	B F1	7.93		mg/Kg	⊛	5	20
Calcium	33000	B F2	37200		mg/Kg	⊛	12	20
Zinc	91	F1	90.7		mg/Kg	⊛	0.5	20

**Lab Sample ID: LB 500-625524/1-C**  
**Matrix: Solid**  
**Analysis Batch: 626087**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 625872**

Analyte	LB	LB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Barium	<0.50		0.50	0.050	mg/L		10/28/21 08:20	10/28/21 22:01	1
Boron	<0.50		0.50	0.050	mg/L		10/28/21 08:20	10/28/21 22:01	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/28/21 08:20	10/28/21 22:01	1
Chromium	<0.025		0.025	0.010	mg/L		10/28/21 08:20	10/28/21 22:01	1
Cobalt	<0.025		0.025	0.010	mg/L		10/28/21 08:20	10/28/21 22:01	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/28/21 08:20	10/28/21 22:01	1
Manganese	<0.025		0.025	0.010	mg/L		10/28/21 08:20	10/28/21 22:01	1
Nickel	<0.025		0.025	0.010	mg/L		10/28/21 08:20	10/28/21 22:01	1
Selenium	<0.050		0.050	0.020	mg/L		10/28/21 08:20	10/28/21 22:01	1
Zinc	<0.50		0.50	0.020	mg/L		10/28/21 08:20	10/28/21 22:01	1

**Lab Sample ID: 500-207166-1 MS**  
**Matrix: Solid**  
**Analysis Batch: 626087**

**Client Sample ID: 2674V2-07-B01 (0-2)**  
**Prep Type: TCLP**  
**Prep Batch: 625872**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
Barium	0.36	J	0.500	0.859		mg/L		99	75 - 125
Boron	<0.50		1.00	0.867		mg/L		87	75 - 125
Cadmium	<0.0050		0.0500	0.0496		mg/L		99	75 - 125
Chromium	<0.025		0.200	0.190		mg/L		95	75 - 125
Cobalt	<0.025		0.500	0.512		mg/L		102	75 - 125

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

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

**Lab Sample ID: 500-207166-1 MS**  
**Matrix: Solid**  
**Analysis Batch: 626087**

**Client Sample ID: 2674V2-07-B01 (0-2)**  
**Prep Type: TCLP**  
**Prep Batch: 625872**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	<0.0075		0.100	0.0978		mg/L		98	75 - 125
Manganese	0.24		0.500	0.644		mg/L		80	75 - 125
Nickel	<0.025		0.500	0.516		mg/L		103	75 - 125
Selenium	<0.050		0.100	0.101		mg/L		101	75 - 125
Zinc	0.032	J	0.500	0.576		mg/L		109	75 - 125

**Lab Sample ID: 500-207166-1 DU**  
**Matrix: Solid**  
**Analysis Batch: 626087**

**Client Sample ID: 2674V2-07-B01 (0-2)**  
**Prep Type: TCLP**  
**Prep Batch: 625872**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Barium	0.36	J	0.366	J	mg/L		0.7	20
Boron	<0.50		<0.50		mg/L		NC	20
Cadmium	<0.0050		<0.0050		mg/L		NC	20
Chromium	<0.025		<0.025		mg/L		NC	20
Cobalt	<0.025		<0.025		mg/L		NC	20
Lead	<0.0075		<0.0075		mg/L		NC	20
Manganese	0.24		0.244		mg/L		0.8	20
Nickel	<0.025		<0.025		mg/L		NC	20
Selenium	<0.050		<0.050		mg/L		NC	20
Zinc	0.032	J	0.0324	J	mg/L		3	20

**Lab Sample ID: LB 500-625524/2-C**  
**Matrix: Solid**  
**Analysis Batch: 626686**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 626361**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.40		0.40	0.20	mg/L		10/31/21 08:26	11/01/21 13:32	1
Silver	<0.025		0.025	0.010	mg/L		10/31/21 08:26	11/01/21 13:32	1

**Lab Sample ID: LB 500-625524/2-C**  
**Matrix: Solid**  
**Analysis Batch: 626854**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 626361**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/31/21 08:26	11/02/21 13:53	1

**Lab Sample ID: LB 500-625527/1-B**  
**Matrix: Solid**  
**Analysis Batch: 626431**

**Client Sample ID: Method Blank**  
**Prep Type: SPLP East**  
**Prep Batch: 625873**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	<0.025		0.025	0.010	mg/L		10/28/21 08:23	10/29/21 14:02	1

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

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

**Lab Sample ID: LCS 500-625872/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626196**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625872**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.500	0.498		mg/L		100	80 - 120
Thallium	0.100	0.114		mg/L		114	80 - 120

**Lab Sample ID: LB 500-625524/1-C**  
**Matrix: Solid**  
**Analysis Batch: 626196**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 625872**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/28/21 08:20	10/29/21 12:30	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/28/21 08:20	10/29/21 12:30	1

**Lab Sample ID: 500-207166-1 MS**  
**Matrix: Solid**  
**Analysis Batch: 626196**

**Client Sample ID: 2674V2-07-B01 (0-2)**  
**Prep Type: TCLP**  
**Prep Batch: 625872**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	<0.0060		0.500	0.487		mg/L		97	75 - 125
Thallium	<0.0020		0.100	0.125		mg/L		125	75 - 125

**Lab Sample ID: 500-207166-1 DU**  
**Matrix: Solid**  
**Analysis Batch: 626196**

**Client Sample ID: 2674V2-07-B01 (0-2)**  
**Prep Type: TCLP**  
**Prep Batch: 625872**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Antimony	<0.0060		<0.0060		mg/L		NC	20
Thallium	<0.0020		<0.0020		mg/L		NC	20

## Method: 7470A - TCLP Mercury

**Lab Sample ID: MB 500-626110/12-A**  
**Matrix: Solid**  
**Analysis Batch: 626523**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 626110**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/29/21 09:35	11/01/21 07:30	1

**Lab Sample ID: LCS 500-626110/15-A**  
**Matrix: Solid**  
**Analysis Batch: 626523**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626110**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00200	0.00195		mg/L		97	80 - 120

**Lab Sample ID: LB 500-625524/2-B**  
**Matrix: Solid**  
**Analysis Batch: 626523**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 626110**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/29/21 09:35	11/01/21 07:38	1

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

## Method: 7470A - TCLP Mercury (Continued)

**Lab Sample ID: 500-207166-1 MS**  
**Matrix: Solid**  
**Analysis Batch: 626523**

**Client Sample ID: 2674V2-07-B01 (0-2)**  
**Prep Type: TCLP**  
**Prep Batch: 626110**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.00020		0.00100	0.00101		mg/L		101	75 - 125

**Lab Sample ID: 500-207166-1 MSD**  
**Matrix: Solid**  
**Analysis Batch: 626523**

**Client Sample ID: 2674V2-07-B01 (0-2)**  
**Prep Type: TCLP**  
**Prep Batch: 626110**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.00020		0.00100	0.000922		mg/L		92	75 - 125	9	20

**Lab Sample ID: 500-207166-1 DU**  
**Matrix: Solid**  
**Analysis Batch: 626523**

**Client Sample ID: 2674V2-07-B01 (0-2)**  
**Prep Type: TCLP**  
**Prep Batch: 626110**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Mercury	<0.00020		<0.00020		mg/L		NC	20

## Method: 7471B - Mercury (CVAA)

**Lab Sample ID: MB 500-625919/12-A**  
**Matrix: Solid**  
**Analysis Batch: 626118**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 625919**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0056	mg/Kg		10/28/21 14:10	10/29/21 07:21	1

**Lab Sample ID: LCS 500-625919/13-A**  
**Matrix: Solid**  
**Analysis Batch: 626118**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625919**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.167	0.181		mg/Kg		108	80 - 120

**Lab Sample ID: 500-207166-3 MS**  
**Matrix: Solid**  
**Analysis Batch: 626118**

**Client Sample ID: 2674V2-07-B03 (0-2)**  
**Prep Type: Total/NA**  
**Prep Batch: 625919**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.065		0.0987	0.168		mg/Kg	⊛	104	75 - 125

**Lab Sample ID: 500-207166-3 MSD**  
**Matrix: Solid**  
**Analysis Batch: 626118**

**Client Sample ID: 2674V2-07-B03 (0-2)**  
**Prep Type: Total/NA**  
**Prep Batch: 625919**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.065		0.0985	0.180		mg/Kg	⊛	116	75 - 125	7	20

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

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

Lab Sample ID: 500-207166-3 DU  
Matrix: Solid  
Analysis Batch: 626118

Client Sample ID: 2674V2-07-B03 (0-2)  
Prep Type: Total/NA  
Prep Batch: 625919

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.065		0.0608		mg/Kg	*	7	20

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

# Lab Chronicle

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

**Client Sample ID: 2674V2-07-B01 (0-2)**

**Lab Sample ID: 500-207166-1**

**Date Collected: 10/20/21 10:48**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			625527	10/26/21 13:11	EA	TAL CHI
SPLP East	Prep	3010A			625873	10/28/21 08:23	BDE	TAL CHI
SPLP East	Analysis	6010B		1	626431	10/29/21 14:45	JJB	TAL CHI
TCLP	Leach	1311			625524	10/26/21 16:31	EA	TAL CHI
TCLP	Prep	3010A			625872	10/28/21 08:20	BDE	TAL CHI
TCLP	Analysis	6010B		1	626087	10/28/21 22:27	DAJ	TAL CHI
TCLP	Leach	1311			625524	10/26/21 16:31	EA	TAL CHI
TCLP	Prep	3010A			626361	10/31/21 08:26	BDE	TAL CHI
TCLP	Analysis	6010B		1	626686	11/01/21 13:48	JJB	TAL CHI
TCLP	Leach	1311			625524	10/26/21 16:31	EA	TAL CHI
TCLP	Prep	3010A			626361	10/31/21 08:26	BDE	TAL CHI
TCLP	Analysis	6010B		1	626854	11/02/21 14:03	JJB	TAL CHI
TCLP	Leach	1311			625524	10/26/21 16:31	EA	TAL CHI
TCLP	Prep	3010A			625872	10/28/21 08:20	BDE	TAL CHI
TCLP	Analysis	6020A		1	626196	10/29/21 12:35	FXG	TAL CHI
TCLP	Leach	1311			625524	10/26/21 16:31	EA	TAL CHI
TCLP	Prep	7470A			626110	10/29/21 09:35	MJG	TAL CHI
TCLP	Analysis	7470A		1	626523	11/01/21 07:43	MJG	TAL CHI
Total/NA	Analysis	9045D		1	625321	10/25/21 18:28	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	625259	10/25/21 12:34	LWN	TAL CHI

**Client Sample ID: 2674V2-07-B01 (0-2)**

**Lab Sample ID: 500-207166-1**

**Date Collected: 10/20/21 10:48**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

**Percent Solids: 83.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			625104	10/20/21 18:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625821	10/28/21 19:28	PMF	TAL CHI
Total/NA	Prep	3541			625339	10/26/21 06:50	SB	TAL CHI
Total/NA	Analysis	8270D		1	626297	10/30/21 16:19	EMA	TAL CHI
Total/NA	Prep	3050B			626753	11/02/21 10:34	BDE	TAL CHI
Total/NA	Analysis	6010B		1	627085	11/03/21 14:42	JJB	TAL CHI
Total/NA	Prep	3050B			626753	11/02/21 10:34	BDE	TAL CHI
Total/NA	Analysis	6010B		1	627178	11/03/21 17:21	JJB	TAL CHI
Total/NA	Prep	7471B			625919	10/28/21 14:10	MJG	TAL CHI
Total/NA	Analysis	7471B		1	626118	10/29/21 07:50	MJG	TAL CHI

**Client Sample ID: 2674V2-07-B02 (0-2)**

**Lab Sample ID: 500-207166-2**

**Date Collected: 10/20/21 11:00**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			625527	10/26/21 13:11	EA	TAL CHI
SPLP East	Prep	3010A			625873	10/28/21 08:23	BDE	TAL CHI
SPLP East	Analysis	6010B		1	626431	10/29/21 14:48	JJB	TAL CHI



# Lab Chronicle

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

**Client Sample ID: 2674V2-07-B02 (0-2)**

**Lab Sample ID: 500-207166-2**

**Date Collected: 10/20/21 11:00**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			625524	10/26/21 16:31	EA	TAL CHI
TCLP	Prep	3010A			625872	10/28/21 08:20	BDE	TAL CHI
TCLP	Analysis	6010B		1	626087	10/28/21 22:40	DAJ	TAL CHI
TCLP	Leach	1311			625524	10/26/21 16:31	EA	TAL CHI
TCLP	Prep	3010A			626361	10/31/21 08:26	BDE	TAL CHI
TCLP	Analysis	6010B		1	626686	11/01/21 13:51	JJB	TAL CHI
TCLP	Leach	1311			625524	10/26/21 16:31	EA	TAL CHI
TCLP	Prep	3010A			626361	10/31/21 08:26	BDE	TAL CHI
TCLP	Analysis	6010B		1	626854	11/02/21 14:06	JJB	TAL CHI
TCLP	Leach	1311			625524	10/26/21 16:31	EA	TAL CHI
TCLP	Prep	3010A			625872	10/28/21 08:20	BDE	TAL CHI
TCLP	Analysis	6020A		1	626196	10/29/21 12:39	FXG	TAL CHI
TCLP	Leach	1311			625524	10/26/21 16:31	EA	TAL CHI
TCLP	Prep	7470A			626110	10/29/21 09:35	MJG	TAL CHI
TCLP	Analysis	7470A		1	626523	11/01/21 08:34	MJG	TAL CHI
Total/NA	Analysis	9045D		1	625321	10/25/21 18:30	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	625259	10/25/21 12:34	LWN	TAL CHI

**Client Sample ID: 2674V2-07-B02 (0-2)**

**Lab Sample ID: 500-207166-2**

**Date Collected: 10/20/21 11:00**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

**Percent Solids: 89.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			625104	10/20/21 18:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	626261	10/30/21 16:07	PMF	TAL CHI
Total/NA	Prep	3541			625339	10/26/21 06:50	SB	TAL CHI
Total/NA	Analysis	8270D		1	626297	10/30/21 16:43	EMA	TAL CHI
Total/NA	Prep	3050B			626753	11/02/21 10:34	BDE	TAL CHI
Total/NA	Analysis	6010B		1	627085	11/03/21 14:58	JJB	TAL CHI
Total/NA	Prep	3050B			626753	11/02/21 10:34	BDE	TAL CHI
Total/NA	Analysis	6010B		1	627178	11/03/21 17:59	JJB	TAL CHI
Total/NA	Prep	3050B			626753	11/02/21 10:34	BDE	TAL CHI
Total/NA	Analysis	6010B		5	627178	11/03/21 18:03	JJB	TAL CHI
Total/NA	Prep	7471B			625919	10/28/21 14:10	MJG	TAL CHI
Total/NA	Analysis	7471B		1	626118	10/29/21 07:52	MJG	TAL CHI

**Client Sample ID: 2674V2-07-B03 (0-2)**

**Lab Sample ID: 500-207166-3**

**Date Collected: 10/20/21 11:10**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			625524	10/26/21 16:31	EA	TAL CHI
TCLP	Prep	3010A			625872	10/28/21 08:20	BDE	TAL CHI
TCLP	Analysis	6010B		1	626087	10/28/21 22:44	DAJ	TAL CHI

# Lab Chronicle

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

**Client Sample ID: 2674V2-07-B03 (0-2)**

**Lab Sample ID: 500-207166-3**

**Date Collected: 10/20/21 11:10**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			625524	10/26/21 16:31	EA	TAL CHI
TCLP	Prep	3010A			626361	10/31/21 08:26	BDE	TAL CHI
TCLP	Analysis	6010B		1	626686	11/01/21 13:54	JJB	TAL CHI
TCLP	Leach	1311			625524	10/26/21 16:31	EA	TAL CHI
TCLP	Prep	3010A			626361	10/31/21 08:26	BDE	TAL CHI
TCLP	Analysis	6010B		1	626854	11/02/21 14:09	JJB	TAL CHI
TCLP	Leach	1311			625524	10/26/21 16:31	EA	TAL CHI
TCLP	Prep	3010A			625872	10/28/21 08:20	BDE	TAL CHI
TCLP	Analysis	6020A		1	626196	10/29/21 12:40	FXG	TAL CHI
TCLP	Leach	1311			625524	10/26/21 16:31	EA	TAL CHI
TCLP	Prep	7470A			626110	10/29/21 09:35	MJG	TAL CHI
TCLP	Analysis	7470A		1	626523	11/01/21 08:36	MJG	TAL CHI
Total/NA	Analysis	9045D		1	625321	10/25/21 18:33	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	625259	10/25/21 12:34	LWN	TAL CHI

**Client Sample ID: 2674V2-07-B03 (0-2)**

**Lab Sample ID: 500-207166-3**

**Date Collected: 10/20/21 11:10**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

**Percent Solids: 80.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			625104	10/20/21 18:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	626261	10/30/21 16:33	PMF	TAL CHI
Total/NA	Prep	3541			625339	10/26/21 06:50	SB	TAL CHI
Total/NA	Analysis	8270D		1	626297	10/30/21 17:07	EMA	TAL CHI
Total/NA	Prep	3541	DL		625339	10/26/21 06:50	SB	TAL CHI
Total/NA	Analysis	8270D	DL	5	627221	11/04/21 17:19	GLR	TAL CHI
Total/NA	Prep	3050B			626753	11/02/21 10:34	BDE	TAL CHI
Total/NA	Analysis	6010B		1	627085	11/03/21 15:01	JJB	TAL CHI
Total/NA	Prep	3050B			626753	11/02/21 10:34	BDE	TAL CHI
Total/NA	Analysis	6010B		1	627178	11/03/21 18:06	JJB	TAL CHI
Total/NA	Prep	3050B			626753	11/02/21 10:34	BDE	TAL CHI
Total/NA	Analysis	6010B		5	627178	11/03/21 18:09	JJB	TAL CHI
Total/NA	Prep	7471B			625919	10/28/21 14:10	MJG	TAL CHI
Total/NA	Analysis	7471B		1	626118	10/29/21 07:54	MJG	TAL CHI

**Laboratory References:**

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Accreditation/Certification Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207166-1

## Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

# Chain of Custody Record

545097



Environment Testing  
TestAmerica

Address \_\_\_\_\_

Regulatory Program:  DW  NPDES  RCRA  Other

TAL-8210

Client Contact		Project Manager: <u>D Tiebout</u>		Site Contact: <u>A Happel</u>		Date: <u>10/20/21</u>		COC No <u>3</u>	
Company Name: <u>WSP</u>		Tel/Email:		Lab Contact: <u>R Wright</u>		Carrier:		3 of 4 COCs	
Address		Analysis Turnaround Time		Filtered Sample (Y/N) Perform MS/MSD (Y/N)		VOCs PH SVOCs % moisture Total metals TCLP metals*		Sampler	
City/State/Zip: <u>Chicago IL</u>		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS						For Lab Use Only	
Phone		TAT if different from Below _____						Walk-in Client	
Fax		<input type="checkbox"/> 2 weeks						Lab Sampling	
Project Name: <u>DOT WOOD</u>		<input type="checkbox"/> 1 week		Job / SDG No		500-207166			
Site: <u>Lake Villa</u>		<input type="checkbox"/> 2 days							
P O #		<input type="checkbox"/> 1 day							
500-207166 COC									
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.			Sample Specific Notes
1 2 3		2674V2-07-B01(0-2)	10/20/21 1048	C	S	2	X	X	X
		2674V2-07-B02(0-2)	10/20/21 1100	C	S	2	X	X	X
		2674V2-07-B03(0-2)	10/20/21 1110	C	S	2	X	X	X
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____									
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample					Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)				
<input type="checkbox"/> Non Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown					<input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months				
Special Instructions/QC Requirements & Comments: <u>* <del>TCLP</del> <sup>BM</sup> SPLP analysis based on TCLP results</u>									
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooling Temp (°C) Obs'd <u>13.8</u> Corr'd <u>13.9</u>		Therm ID No _____			
Relinquished by: <u>[Signature]</u>		Company: <u>WSP</u>		Date/Time: <u>10/20/21 1250</u>		Received by: <u>[Signature]</u>		Company: <u>ETA</u>	
Relinquished by: <u>[Signature]</u>		Company: <u>ETA</u>		Date/Time: <u>10/20/21 1530</u>		Received by: <u>[Signature]</u>		Company: <u>ETA</u>	
Relinquished by: <u>[Signature]</u>		Company: _____		Date/Time: _____		Received in Laboratory by: <u>Shirley Scott</u>		Company: <u>ETA-CLT</u>	
								Date/Time: <u>10/20/21 1530</u>	

# Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 500-207166-1

**Login Number: 207166**

**List Source: Eurofins TestAmerica, Chicago**

**List Number: 1**

**Creator: Scott, Sherri L**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	13.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# Illinois Environmental Protection Agency

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

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

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

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

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

### I. Source Location Information

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

Project Name: FAP 541 (Illinois Route 132) Office Phone Number, if available: \_\_\_\_\_

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

75 W. Grand Avenue (ISGS #2674V2-8)

City: Lake Villa State: IL Zip Code: 60046

County: Lake Township: Lake Villa

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

Latitude: 42.41499 Longitude: - 88.08449

(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: 0970840002 BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

Approximate Start Date (mm/dd/yyyy): \_\_\_\_\_ Approximate End Date (mm/dd/yyyy): \_\_\_\_\_

Estimated Volume of debris (cu. Yd.): 144

### 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 2674V2-08-B02 and -B03 were sampled within the construction zone adjacent to ISGS #2674V2-8 (Lakeland Auto Body Incorporated). Refer to PSI Report for ISGS #2674V2-8 (Lakeland Auto Body Incorporated) including Table 4-4, and Figures 4-2 and 4-5.

- 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]:

See attached data summary table and associated laboratory data package J207167-1.

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

I, Tom Campbell (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: WSP USA  
 Street Address: 115 W Washington St., Suite 1270S  
 City: Indianapolis State: IN Zip Code: 46204  
 Phone: (317) 972-1706

Tom Campbell  
Printed Name:



\_\_\_\_\_  
Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

02/03/2022  
Date:



Expires 11/30/2023



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

**Analytical Data Summary**  
**PTB #196-002; Work Order 04 - IDOT Job # P-91-583-12**

**Key to Data Tables**

- MAC = Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- TACO = Tiered Approach to Corrective Action Objectives
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers and Shading**

- # = pH is less than 6.25 or greater than 9.0 standard units.
- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- r = Concentration exceeds a TACO Tier 1 RO for the Residential Soil Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds applicable comparison criteria.



PTB #196-002; Work Order 04 - IDOT Job # P-91-583-12

CONTAMINANTS OF CONCERN

SITE	ISGS #2674V2-8 (Lakeland Auto Body Incorporated)		Comparison Criteria						
	2674V2-08-B02	2674V2-08-B03	MACs			TACO			
BORING	2674V2-08-B02	2674V2-08-B03	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER	
SAMPLE	2674V2-08-B02 (0-2)	2674V2-08-B03 (0-2)							
MATRIX	Soil	Soil							
DEPTH (feet)	0-2	0-2							
pH	8.4	8.5							
PID (meter units)	--	--							
<b>VOCs (None Detected)</b>									
<b>SVOCs (mg/kg)</b>									
Anthracene	ND U	0.032 J	12,000	--	--	23,000	610,000	--	
Benzo(a)anthracene	ND U	0.19	0.9	1.8	1.1	1.8	170	--	
Benzo(a)pyrene	ND UJ	0.24 †	0.09	2.1	1.3	2.1	17	--	
Benzo(b)fluoranthene	ND UJ	0.40	0.9	2.1	1.5	2.1	170	--	
Benzo(g,h,i)perylene	ND UJ	0.11	--	--	--	--	--	--	
Benzo(k)fluoranthene	ND UJ	0.15	9	--	--	9	1,700	--	
Bis(2-ethylhexyl) phthalate	ND U	0.075 J	46	--	--	46	4,100	--	
Chrysene	ND U	0.28	88	--	--	88	17,000	--	
Dibenz(a,h)anthracene	ND UJ	0.027 J	0.09	0.42	0.2	0.42	17	--	
Fluoranthene	0.0075 J	0.58	3,100	--	--	3,100	82,000	--	
Fluorene	ND U	0.0074 J	560	--	--	3,100	82,000	--	
Indeno(1,2,3-cd)pyrene	ND UJ	0.11	0.9	1.6	0.9	1.6	170	--	
Phenanthrene	0.0069 J	0.20	--	--	--	--	--	--	
Pyrene	0.0078 J	0.46	2,300	--	--	2,300	61,000	--	
<b>Inorganics (mg/kg)</b>									
Arsenic	4.3	4.8	11.3	13	--	13	61	--	
Barium	19	57	1,500	--	--	5,500	14,000	--	
Beryllium	0.26	0.43	22	--	--	160	410	--	
Boron	ND U	5.1	40	--	--	16,000	41,000	--	
Calcium	87,000	98,000	--	--	--	--	--	--	
Chromium	5.6	9.1	21	--	--	230	690	--	
Cobalt	5.1	6.3	20	--	--	4,700	12,000	--	
Copper	16	15	2,900	--	--	2,900	8,200	--	
Iron	12,000	14,000	15,000	15,900	--	--	--	--	
Lead	21	66	107	--	--	400	700	--	
Magnesium	48,000	54,000	325,000	--	--	--	730,000	--	
Manganese	280	490	630	636	--	1,600	4,100	--	
Mercury	0.020	0.039	0.89	--	--	10	0.1	--	
Nickel	11	14	100	--	--	1,600	4,100	--	
Potassium	430	970	--	--	--	--	--	--	
Selenium	ND U	0.61	1.3	--	--	390	1,000	--	
Silver	0.084 J	0.10 J	4.4	--	--	390	1,000	--	
Sodium	140	130	--	--	--	--	--	--	
Vanadium	12	16	550	--	--	550	1,400	--	
Zinc	41	60	5,100	--	--	23,000	61,000	--	
<b>TCLP Metals (mg/L)</b>									
Barium	0.29 J	0.60	--	--	--	--	--	2	
Manganese	0.93 L	0.18 L	--	--	--	--	--	0.15	
Zinc	0.020 J	0.032 J	--	--	--	--	--	5	
<b>SPLP Metals (mg/L)</b>									
Manganese	0.033	0.37 L	--	--	--	--	--	0.15	

## ANALYTICAL REPORT

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

Laboratory Job ID: 500-207167-1  
Client Project/Site: IDOT - 196-002-WO04 Lake Villa  
Revision: 1

For:  
WSP USA Inc.  
30 North LaSalle Street  
Chicago, Illinois 60602

Attn: Dean Tiebot



Authorized for release by:  
12/10/2021 12:59:20 PM

Richard Wright, Senior Project Manager  
(708)746-0045  
[Richard.Wright@Eurofinset.com](mailto:Richard.Wright@Eurofinset.com)

### LINKS

Review your project  
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*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

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

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



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# Case Narrative

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

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## Job ID: 500-207167-1

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Laboratory: Eurofins TestAmerica, Chicago

### Narrative

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#### Job Narrative 500-207167-1

#### Revision

The report being provided is a revision of the original report sent on 11/5/2021. The report (revision 1) is being revised due to: The original report was missing parameters.

#### Receipt

The samples were received on 10/20/2021 3:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 13.9° C.

#### GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### GC/MS Semi VOA

Method 8270D: The laboratory control sample (LCS) for preparation batch 500-625508 and analytical batch 500-625679 recovered outside control limits for the following analytes: 2,2'-oxybis[1-chloropropane], 2,4-Dimethylphenol, 3 & 4 Methylphenol, 2-Chlorophenol, N-Nitrosodi-n-propylamine, Isophorone, Bis(2-chloroethyl)ether and Bis(2-chloroethoxy)methane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8270D: Perylene-d12 Internal standard (ISTD) response for the following samples was outside of acceptance limits: 2674V2-08-B02 (0-2) (500-207167-2). Analytes associated to this internal standard were non-detect; therefore, re-analysis was not performed.

Method 8270D: The continuing calibration verification (CCV) analyzed in batch 500-627209 was outside the method criteria for the following analyte(s): 2,2'-oxybis[1-chloropropane], Bis(2-chloroethyl)ether and 2,4,6-Tribromophenol. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

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**Client Sample ID: 2674V2-08-B02 (0-2)**

**Lab Sample ID: 500-207167-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.0069	J	0.034	0.0047	mg/Kg	1	✳	8270D	Total/NA
Fluoranthene	0.0075	J	0.034	0.0063	mg/Kg	1	✳	8270D	Total/NA
Pyrene	0.0078	J	0.034	0.0067	mg/Kg	1	✳	8270D	Total/NA
Antimony	0.30	J B	0.99	0.19	mg/Kg	1	✳	6010B	Total/NA
Arsenic	4.3		0.50	0.17	mg/Kg	1	✳	6010B	Total/NA
Barium	19		0.50	0.057	mg/Kg	1	✳	6010B	Total/NA
Beryllium	0.26		0.20	0.046	mg/Kg	1	✳	6010B	Total/NA
Boron	3.9	B	2.5	0.23	mg/Kg	1	✳	6010B	Total/NA
Cadmium	0.030	J B	0.099	0.018	mg/Kg	1	✳	6010B	Total/NA
Calcium	87000	B	50	8.4	mg/Kg	5	✳	6010B	Total/NA
Chromium	5.6		0.50	0.25	mg/Kg	1	✳	6010B	Total/NA
Cobalt	5.1		0.25	0.065	mg/Kg	1	✳	6010B	Total/NA
Copper	16		0.50	0.14	mg/Kg	1	✳	6010B	Total/NA
Iron	12000		50	26	mg/Kg	5	✳	6010B	Total/NA
Lead	21		0.25	0.11	mg/Kg	1	✳	6010B	Total/NA
Magnesium	48000		25	12	mg/Kg	5	✳	6010B	Total/NA
Manganese	280	B	0.50	0.072	mg/Kg	1	✳	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Detection Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

## Client Sample ID: 2674V2-08-B02 (0-2) (Continued)

## Lab Sample ID: 500-207167-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	11		0.50	0.14	mg/Kg	1	☼	6010B	Total/NA
Potassium	430		25	8.8	mg/Kg	1	☼	6010B	Total/NA
Silver	0.084	J	0.25	0.064	mg/Kg	1	☼	6010B	Total/NA
Sodium	140		50	7.3	mg/Kg	1	☼	6010B	Total/NA
Vanadium	12		0.25	0.059	mg/Kg	1	☼	6010B	Total/NA
Zinc	41		0.99	0.44	mg/Kg	1	☼	6010B	Total/NA
Barium	0.29	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.93		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.020	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.033		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.020		0.017	0.0057	mg/Kg	1	☼	7471B	Total/NA
pH	8.4		0.2	0.2	SU	1		9045D	Total/NA

## Client Sample ID: 2674V2-08-B03 (0-2)

## Lab Sample ID: 500-207167-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluorene	0.0074	J	0.035	0.0050	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.20		0.035	0.0049	mg/Kg	1	☼	8270D	Total/NA
Anthracene	0.032	J	0.035	0.0059	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.58		0.035	0.0065	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.46		0.035	0.0070	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.19		0.035	0.0047	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.28		0.035	0.0096	mg/Kg	1	☼	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	0.075	J	0.18	0.064	mg/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.40		0.035	0.0076	mg/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	0.15		0.035	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	0.24		0.035	0.0068	mg/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.11		0.035	0.0091	mg/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.027	J	0.035	0.0068	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.11		0.035	0.011	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.38	J B	1.0	0.20	mg/Kg	1	☼	6010B	Total/NA
Arsenic	4.8		0.51	0.18	mg/Kg	1	☼	6010B	Total/NA
Barium	57		0.51	0.059	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.43		0.21	0.048	mg/Kg	1	☼	6010B	Total/NA
Boron	5.1	B	2.6	0.24	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.17	B	0.10	0.019	mg/Kg	1	☼	6010B	Total/NA
Calcium	98000	B	51	8.7	mg/Kg	5	☼	6010B	Total/NA
Chromium	9.1		0.51	0.25	mg/Kg	1	☼	6010B	Total/NA
Cobalt	6.3		0.26	0.067	mg/Kg	1	☼	6010B	Total/NA
Copper	15		0.51	0.14	mg/Kg	1	☼	6010B	Total/NA
Iron	14000		51	27	mg/Kg	5	☼	6010B	Total/NA
Lead	66		0.26	0.12	mg/Kg	1	☼	6010B	Total/NA
Magnesium	54000		26	13	mg/Kg	5	☼	6010B	Total/NA
Manganese	490	B	0.51	0.075	mg/Kg	1	☼	6010B	Total/NA
Nickel	14		0.51	0.15	mg/Kg	1	☼	6010B	Total/NA
Potassium	970		26	9.1	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.61		0.51	0.30	mg/Kg	1	☼	6010B	Total/NA
Silver	0.10	J	0.26	0.066	mg/Kg	1	☼	6010B	Total/NA
Sodium	130		51	7.6	mg/Kg	1	☼	6010B	Total/NA
Vanadium	16		0.26	0.061	mg/Kg	1	☼	6010B	Total/NA
Zinc	60		1.0	0.45	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Detection Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

Client Sample ID: 2674V2-08-B03 (0-2) (Continued)

Lab Sample ID: 500-207167-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.60		0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.18		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.032	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.37		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.039		0.017	0.0057	mg/Kg	1	*	7471B	Total/NA
pH	8.5		0.2	0.2	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Method Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CHI
6010B	Metals (ICP)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
7470A	TCLP Mercury	SW846	TAL CHI
7471B	Mercury (CVAA)	SW846	TAL CHI
9045D	pH	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
1311	TCLP Extraction	SW846	TAL CHI
1312	SPLP Extraction	SW846	TAL CHI
3010A	Preparation, Total Metals	SW846	TAL CHI
3050B	Preparation, Metals	SW846	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI
5035	Closed System Purge and Trap	SW846	TAL CHI
7470A	Preparation, Mercury	SW846	TAL CHI
7471B	Preparation, Mercury	SW846	TAL CHI

#### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



# Sample Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-207167-2	2674V2-08-B02 (0-2)	Solid	10/20/21 11:26	10/20/21 15:30
500-207167-3	2674V2-08-B03 (0-2)	Solid	10/20/21 11:35	10/20/21 15:30

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# Client Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

**Client Sample ID: 2674V2-08-B02 (0-2)**

**Lab Sample ID: 500-207167-2**

**Date Collected: 10/20/21 11:26**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

**Percent Solids: 94.3**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0080	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
Benzene	<0.0018		0.0018	0.00047	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
Bromoform	<0.0018		0.0018	0.00053	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
2-Butanone (MEK)	<0.0046		0.0046	0.0020	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
Carbon disulfide	<0.0046		0.0046	0.00095	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
Carbon tetrachloride	<0.0018		0.0018	0.00053	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
Chlorobenzene	<0.0018		0.0018	0.00068	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
Chloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
Chloroform	<0.0018		0.0018	0.00064	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
Chloromethane	<0.0046		0.0046	0.0018	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00051	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00055	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
Dibromochloromethane	<0.0018		0.0018	0.00060	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
1,1-Dichloroethane	<0.0018		0.0018	0.00063	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
1,2-Dichloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
1,1-Dichloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
1,2-Dichloropropene	<0.0018		0.0018	0.00047	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00064	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
Ethylbenzene	<0.0018		0.0018	0.00088	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
Methylene Chloride	<0.0046		0.0046	0.0018	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.0014	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00054	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
Styrene	<0.0018		0.0018	0.00055	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00058	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
Tetrachloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
Toluene	<0.0018		0.0018	0.00046	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00081	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00064	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00079	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
Trichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
Vinyl acetate	<0.0046		0.0046	0.0016	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
Vinyl chloride	<0.0018		0.0018	0.00081	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1
Xylenes, Total	<0.0037		0.0037	0.00059	mg/Kg	☼	10/20/21 18:07	10/29/21 14:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		75 - 131	10/20/21 18:07	10/29/21 14:37	1
Dibromofluoromethane	97		75 - 126	10/20/21 18:07	10/29/21 14:37	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 134	10/20/21 18:07	10/29/21 14:37	1
Toluene-d8 (Surr)	95		75 - 124	10/20/21 18:07	10/29/21 14:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.17		0.17	0.075	mg/Kg	☼	10/26/21 13:52	10/28/21 21:29	1
Bis(2-chloroethyl)ether	<0.17	*+	0.17	0.051	mg/Kg	☼	10/26/21 13:52	10/28/21 21:29	1
1,3-Dichlorobenzene	<0.17		0.17	0.038	mg/Kg	☼	10/26/21 13:52	10/28/21 21:29	1
1,4-Dichlorobenzene	<0.17		0.17	0.043	mg/Kg	☼	10/26/21 13:52	10/28/21 21:29	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

Client Sample ID: 2674V2-08-B02 (0-2)

Lab Sample ID: 500-207167-2

Date Collected: 10/20/21 11:26

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 94.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.17		0.17	0.040	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
2-Methylphenol	<0.17		0.17	0.054	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
2,2'-oxybis[1-chloropropane]	<0.17	++	0.17	0.039	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
N-Nitrosodi-n-propylamine	<0.068	++	0.068	0.041	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
Hexachloroethane	<0.17		0.17	0.051	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
2-Chlorophenol	<0.17	++	0.17	0.058	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
Nitrobenzene	<0.034		0.034	0.0084	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
Bis(2-chloroethoxy)methane	<0.17	++	0.17	0.034	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.036	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
Isophorone	<0.17	++	0.17	0.038	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
2,4-Dimethylphenol	<0.34	++	0.34	0.13	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
Hexachlorobutadiene	<0.17		0.17	0.053	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
Naphthalene	<0.034		0.034	0.0052	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
2,4-Dichlorophenol	<0.34		0.34	0.080	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
4-Chloroaniline	<0.68		0.68	0.16	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
2,4,6-Trichlorophenol	<0.34		0.34	0.12	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
2,4,5-Trichlorophenol	<0.34		0.34	0.077	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
Hexachlorocyclopentadiene	<0.68		0.68	0.19	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
2-Methylnaphthalene	<0.068		0.068	0.0062	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
2-Nitroaniline	<0.17		0.17	0.045	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
2-Chloronaphthalene	<0.17		0.17	0.037	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
4-Chloro-3-methylphenol	<0.34		0.34	0.11	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
2,6-Dinitrotoluene	<0.17		0.17	0.066	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
2-Nitrophenol	<0.34		0.34	0.080	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
3-Nitroaniline	<0.34		0.34	0.10	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
Dimethyl phthalate	<0.17		0.17	0.044	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
2,4-Dinitrophenol	<0.68		0.68	0.59	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
Acenaphthylene	<0.034		0.034	0.0044	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
2,4-Dinitrotoluene	<0.17		0.17	0.054	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
Acenaphthene	<0.034		0.034	0.0061	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
Dibenzofuran	<0.17		0.17	0.039	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
4-Nitrophenol	<0.68		0.68	0.32	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
Fluorene	<0.034		0.034	0.0047	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
4-Nitroaniline	<0.34		0.34	0.14	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.044	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
Hexachlorobenzene	<0.068		0.068	0.0078	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
Diethyl phthalate	<0.17		0.17	0.057	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.039	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
Pentachlorophenol	<0.68		0.68	0.54	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
N-Nitrosodiphenylamine	<0.17		0.17	0.040	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
4,6-Dinitro-2-methylphenol	<0.68		0.68	0.27	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
Phenanthrene	<b>0.0069</b>	<b>J</b>	0.034	0.0047	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
Anthracene	<0.034		0.034	0.0056	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
Carbazole	<0.17		0.17	0.084	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
Di-n-butyl phthalate	<0.17		0.17	0.051	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
Fluoranthene	<b>0.0075</b>	<b>J</b>	0.034	0.0063	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
Pyrene	<b>0.0078</b>	<b>J</b>	0.034	0.0067	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
Butyl benzyl phthalate	<0.17		0.17	0.064	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1
Benzo[a]anthracene	<0.034		0.034	0.0045	mg/Kg	☆	10/26/21 13:52	10/28/21 21:29	1

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# Client Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

**Client Sample ID: 2674V2-08-B02 (0-2)**

**Lab Sample ID: 500-207167-2**

Date Collected: 10/20/21 11:26

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 94.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.034		0.034	0.0092	mg/Kg	☼	10/26/21 13:52	10/28/21 21:29	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.047	mg/Kg	☼	10/26/21 13:52	10/28/21 21:29	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.062	mg/Kg	☼	10/26/21 13:52	10/28/21 21:29	1
Di-n-octyl phthalate	<0.17		0.17	0.055	mg/Kg	☼	10/26/21 13:52	10/28/21 21:29	1
Benzo[b]fluoranthene	<0.034	*3	0.034	0.0073	mg/Kg	☼	10/26/21 13:52	10/28/21 21:29	1
Benzo[k]fluoranthene	<0.034	*3	0.034	0.0099	mg/Kg	☼	10/26/21 13:52	10/28/21 21:29	1
Benzo[a]pyrene	<0.034	*3	0.034	0.0065	mg/Kg	☼	10/26/21 13:52	10/28/21 21:29	1
Indeno[1,2,3-cd]pyrene	<0.034	*3	0.034	0.0087	mg/Kg	☼	10/26/21 13:52	10/28/21 21:29	1
Dibenz(a,h)anthracene	<0.034	*3	0.034	0.0065	mg/Kg	☼	10/26/21 13:52	10/28/21 21:29	1
Benzo[g,h,i]perylene	<0.034	*3	0.034	0.011	mg/Kg	☼	10/26/21 13:52	10/28/21 21:29	1
3 & 4 Methylphenol	<0.17	*+	0.17	0.056	mg/Kg	☼	10/26/21 13:52	10/28/21 21:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	133		31 - 166				10/26/21 13:52	10/28/21 21:29	1
Phenol-d5	121		30 - 153				10/26/21 13:52	10/28/21 21:29	1
Nitrobenzene-d5 (Surr)	111		37 - 147				10/26/21 13:52	10/28/21 21:29	1
2-Fluorobiphenyl (Surr)	103		43 - 145				10/26/21 13:52	10/28/21 21:29	1
2,4,6-Tribromophenol	87		31 - 143				10/26/21 13:52	10/28/21 21:29	1
Terphenyl-d14 (Surr)	109		42 - 157				10/26/21 13:52	10/28/21 21:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.30	J B	0.99	0.19	mg/Kg	☼	11/02/21 10:34	11/03/21 14:24	1
Arsenic	4.3		0.50	0.17	mg/Kg	☼	11/02/21 10:34	11/03/21 14:24	1
Barium	19		0.50	0.057	mg/Kg	☼	11/02/21 10:34	11/03/21 14:24	1
Beryllium	0.26		0.20	0.046	mg/Kg	☼	11/02/21 10:34	11/03/21 14:24	1
Boron	3.9	B	2.5	0.23	mg/Kg	☼	11/02/21 10:34	11/03/21 18:22	1
Cadmium	0.030	J B	0.099	0.018	mg/Kg	☼	11/02/21 10:34	11/03/21 14:24	1
Calcium	87000	B	50	8.4	mg/Kg	☼	11/02/21 10:34	11/03/21 18:32	5
Chromium	5.6		0.50	0.25	mg/Kg	☼	11/02/21 10:34	11/03/21 14:24	1
Cobalt	5.1		0.25	0.065	mg/Kg	☼	11/02/21 10:34	11/03/21 14:24	1
Copper	16		0.50	0.14	mg/Kg	☼	11/02/21 10:34	11/03/21 14:24	1
Iron	12000		50	26	mg/Kg	☼	11/02/21 10:34	11/03/21 18:32	5
Lead	21		0.25	0.11	mg/Kg	☼	11/02/21 10:34	11/03/21 14:24	1
Magnesium	48000		25	12	mg/Kg	☼	11/02/21 10:34	11/03/21 18:32	5
Manganese	280	B	0.50	0.072	mg/Kg	☼	11/02/21 10:34	11/03/21 14:24	1
Nickel	11		0.50	0.14	mg/Kg	☼	11/02/21 10:34	11/03/21 14:24	1
Potassium	430		25	8.8	mg/Kg	☼	11/02/21 10:34	11/03/21 14:24	1
Selenium	<0.50		0.50	0.29	mg/Kg	☼	11/02/21 10:34	11/03/21 14:24	1
Silver	0.084	J	0.25	0.064	mg/Kg	☼	11/02/21 10:34	11/03/21 14:24	1
Sodium	140		50	7.3	mg/Kg	☼	11/02/21 10:34	11/03/21 14:24	1
Thallium	<0.50		0.50	0.25	mg/Kg	☼	11/02/21 10:34	11/03/21 14:24	1
Vanadium	12		0.25	0.059	mg/Kg	☼	11/02/21 10:34	11/03/21 14:24	1
Zinc	41		0.99	0.44	mg/Kg	☼	11/02/21 10:34	11/03/21 18:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.29	J	0.50	0.050	mg/L		10/28/21 08:20	10/28/21 23:00	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/31/21 08:26	11/02/21 14:22	1
Boron	<0.50		0.50	0.050	mg/L		10/28/21 08:20	10/28/21 23:00	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

**Client Sample ID: 2674V2-08-B02 (0-2)**

**Lab Sample ID: 500-207167-2**

Date Collected: 10/20/21 11:26

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 94.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/28/21 08:20	10/28/21 23:00	1
Chromium	<0.025		0.025	0.010	mg/L		10/28/21 08:20	10/28/21 23:00	1
Cobalt	<0.025		0.025	0.010	mg/L		10/28/21 08:20	10/28/21 23:00	1
Iron	<0.40		0.40	0.20	mg/L		10/31/21 08:26	11/02/21 14:22	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/28/21 08:20	10/28/21 23:00	1
<b>Manganese</b>	<b>0.93</b>		0.025	0.010	mg/L		10/28/21 08:20	10/28/21 23:00	1
Nickel	<0.025		0.025	0.010	mg/L		10/28/21 08:20	10/28/21 23:00	1
Selenium	<0.050		0.050	0.020	mg/L		10/28/21 08:20	10/28/21 23:00	1
Silver	<0.025		0.025	0.010	mg/L		10/31/21 08:26	11/01/21 14:01	1
<b>Zinc</b>	<b>0.020</b>	<b>J</b>	0.50	0.020	mg/L		10/28/21 08:20	10/28/21 23:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>0.033</b>		0.025	0.010	mg/L		10/28/21 08:23	10/29/21 15:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/28/21 08:20	10/29/21 12:42	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/28/21 08:20	10/29/21 12:42	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/29/21 09:35	11/01/21 08:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.020</b>		0.017	0.0057	mg/Kg	☼	10/28/21 14:10	10/29/21 08:08	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>8.4</b>		0.2	0.2	SU			10/25/21 18:40	1

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

Client Sample ID: 2674V2-08-B03 (0-2)

Lab Sample ID: 500-207167-3

Date Collected: 10/20/21 11:35

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 89.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0084	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
Benzene	<0.0019		0.0019	0.00049	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
Bromodichloromethane	<0.0019		0.0019	0.00039	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
Bromoform	<0.0019		0.0019	0.00057	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
Bromomethane	<0.0048		0.0048	0.0018	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
2-Butanone (MEK)	<0.0048		0.0048	0.0021	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
Carbon disulfide	<0.0048		0.0048	0.0010	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
Carbon tetrachloride	<0.0019		0.0019	0.00056	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
Chlorobenzene	<0.0019		0.0019	0.00071	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
Chloroethane	<0.0048		0.0048	0.0014	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
Chloroform	<0.0019		0.0019	0.00067	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
Chloromethane	<0.0048		0.0048	0.0019	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00054	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00058	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
Dibromochloromethane	<0.0019		0.0019	0.00063	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
1,1-Dichloroethane	<0.0019		0.0019	0.00066	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
1,2-Dichloroethane	<0.0048		0.0048	0.0015	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
1,1-Dichloroethene	<0.0019		0.0019	0.00067	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
1,2-Dichloropropane	<0.0019		0.0019	0.00050	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
1,3-Dichloropropane, Total	<0.0019		0.0019	0.00068	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
Ethylbenzene	<0.0019		0.0019	0.00093	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
Methylene Chloride	<0.0048		0.0048	0.0019	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.0014	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00057	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
Styrene	<0.0019		0.0019	0.00058	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00062	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
Tetrachloroethene	<0.0019		0.0019	0.00066	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
Toluene	<0.0019		0.0019	0.00049	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00086	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00068	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
1,1,1-Trichloroethane	<0.0019		0.0019	0.00065	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00083	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
Trichloroethene	<0.0019		0.0019	0.00065	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
Vinyl acetate	<0.0048		0.0048	0.0017	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
Vinyl chloride	<0.0019		0.0019	0.00086	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1
Xylenes, Total	<0.0039		0.0039	0.00062	mg/Kg	✳	10/20/21 18:07	10/29/21 15:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		75 - 131	10/20/21 18:07	10/29/21 15:02	1
Dibromofluoromethane	98		75 - 126	10/20/21 18:07	10/29/21 15:02	1
1,2-Dichloroethane-d4 (Surr)	102		70 - 134	10/20/21 18:07	10/29/21 15:02	1
Toluene-d8 (Surr)	94		75 - 124	10/20/21 18:07	10/29/21 15:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.078	mg/Kg	✳	10/26/21 13:52	11/04/21 14:31	1
Bis(2-chloroethyl)ether	<0.18	+	0.18	0.053	mg/Kg	✳	10/26/21 13:52	11/04/21 14:31	1
1,3-Dichlorobenzene	<0.18		0.18	0.040	mg/Kg	✳	10/26/21 13:52	11/04/21 14:31	1
1,4-Dichlorobenzene	<0.18		0.18	0.045	mg/Kg	✳	10/26/21 13:52	11/04/21 14:31	1

Euofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

**Client Sample ID: 2674V2-08-B03 (0-2)**

**Lab Sample ID: 500-207167-3**

Date Collected: 10/20/21 11:35

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 89.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.042	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
2-Methylphenol	<0.18		0.18	0.057	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
2,2'-oxybis[1-chloropropane]	<0.18	+	0.18	0.041	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
N-Nitrosodi-n-propylamine	<0.071	+	0.071	0.043	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
Hexachloroethane	<0.18		0.18	0.054	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
2-Chlorophenol	<0.18	+	0.18	0.060	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
Nitrobenzene	<0.035		0.035	0.0088	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
Bis(2-chloroethoxy)methane	<0.18	+	0.18	0.036	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.038	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
Isophorone	<0.18	+	0.18	0.040	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
2,4-Dimethylphenol	<0.35	+	0.35	0.13	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
Hexachlorobutadiene	<0.18		0.18	0.055	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
Naphthalene	<0.035		0.035	0.0054	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
2,4-Dichlorophenol	<0.35		0.35	0.084	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
4-Chloroaniline	<0.71		0.71	0.17	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
2,4,6-Trichlorophenol	<0.35		0.35	0.12	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
2,4,5-Trichlorophenol	<0.35		0.35	0.080	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
Hexachlorocyclopentadiene	<0.71		0.71	0.20	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
2-Methylnaphthalene	<0.071		0.071	0.0065	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
2-Nitroaniline	<0.18		0.18	0.047	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
2-Chloronaphthalene	<0.18		0.18	0.039	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
4-Chloro-3-methylphenol	<0.35		0.35	0.12	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
2,6-Dinitrotoluene	<0.18		0.18	0.069	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
2-Nitrophenol	<0.35		0.35	0.083	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
3-Nitroaniline	<0.35		0.35	0.11	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
Dimethyl phthalate	<0.18		0.18	0.046	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
2,4-Dinitrophenol	<0.71		0.71	0.62	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
Acenaphthylene	<0.035		0.035	0.0046	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
2,4-Dinitrotoluene	<0.18		0.18	0.056	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
Acenaphthene	<0.035		0.035	0.0063	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
Dibenzofuran	<0.18		0.18	0.041	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
4-Nitrophenol	<0.71		0.71	0.34	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
<b>Fluorene</b>	<b>0.0074</b>	<b>J</b>	0.035	0.0050	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
4-Nitroaniline	<0.35		0.35	0.15	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.046	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
Hexachlorobenzene	<0.071		0.071	0.0082	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
Diethyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.041	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
Pentachlorophenol	<0.71		0.71	0.57	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
N-Nitrosodiphenylamine	<0.18		0.18	0.042	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
4,6-Dinitro-2-methylphenol	<0.71		0.71	0.28	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
<b>Phenanthrene</b>	<b>0.20</b>		0.035	0.0049	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
<b>Anthracene</b>	<b>0.032</b>	<b>J</b>	0.035	0.0059	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
Carbazole	<0.18		0.18	0.088	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
Di-n-butyl phthalate	<0.18		0.18	0.054	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
<b>Fluoranthene</b>	<b>0.58</b>		0.035	0.0065	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
<b>Pyrene</b>	<b>0.46</b>		0.035	0.0070	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
Butyl benzyl phthalate	<0.18		0.18	0.067	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1
<b>Benzo[a]anthracene</b>	<b>0.19</b>		0.035	0.0047	mg/Kg	☼	10/26/21 13:52	11/04/21 14:31	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

Client Sample ID: 2674V2-08-B03 (0-2)

Lab Sample ID: 500-207167-3

Date Collected: 10/20/21 11:35

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 89.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chrysene</b>	<b>0.28</b>		0.035	0.0096	mg/Kg	✳	10/26/21 13:52	11/04/21 14:31	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.049	mg/Kg	✳	10/26/21 13:52	11/04/21 14:31	1
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.075</b>	<b>J</b>	0.18	0.064	mg/Kg	✳	10/26/21 13:52	11/04/21 14:31	1
Di-n-octyl phthalate	<0.18		0.18	0.058	mg/Kg	✳	10/26/21 13:52	11/04/21 14:31	1
<b>Benzo[b]fluoranthene</b>	<b>0.40</b>		0.035	0.0076	mg/Kg	✳	10/26/21 13:52	11/04/21 14:31	1
<b>Benzo[k]fluoranthene</b>	<b>0.15</b>		0.035	0.010	mg/Kg	✳	10/26/21 13:52	11/04/21 14:31	1
<b>Benzo[a]pyrene</b>	<b>0.24</b>		0.035	0.0068	mg/Kg	✳	10/26/21 13:52	11/04/21 14:31	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.11</b>		0.035	0.0091	mg/Kg	✳	10/26/21 13:52	11/04/21 14:31	1
<b>Dibenz(a,h)anthracene</b>	<b>0.027</b>	<b>J</b>	0.035	0.0068	mg/Kg	✳	10/26/21 13:52	11/04/21 14:31	1
<b>Benzo[g,h,i]perylene</b>	<b>0.11</b>		0.035	0.011	mg/Kg	✳	10/26/21 13:52	11/04/21 14:31	1
3 & 4 Methylphenol	<0.18	*+	0.18	0.059	mg/Kg	✳	10/26/21 13:52	11/04/21 14:31	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorophenol	115		31 - 166				10/26/21 13:52	11/04/21 14:31	1
Phenol-d5	111		30 - 153				10/26/21 13:52	11/04/21 14:31	1
Nitrobenzene-d5 (Surr)	92		37 - 147				10/26/21 13:52	11/04/21 14:31	1
2-Fluorobiphenyl (Surr)	127		43 - 145				10/26/21 13:52	11/04/21 14:31	1
2,4,6-Tribromophenol	134		31 - 143				10/26/21 13:52	11/04/21 14:31	1
Terphenyl-d14 (Surr)	130		42 - 157				10/26/21 13:52	11/04/21 14:31	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.38</b>	<b>J B</b>	1.0	0.20	mg/Kg	✳	11/02/21 10:34	11/03/21 14:27	1
<b>Arsenic</b>	<b>4.8</b>		0.51	0.18	mg/Kg	✳	11/02/21 10:34	11/03/21 14:27	1
<b>Barium</b>	<b>57</b>		0.51	0.059	mg/Kg	✳	11/02/21 10:34	11/03/21 14:27	1
<b>Beryllium</b>	<b>0.43</b>		0.21	0.048	mg/Kg	✳	11/02/21 10:34	11/03/21 14:27	1
<b>Boron</b>	<b>5.1</b>	<b>B</b>	2.6	0.24	mg/Kg	✳	11/02/21 10:34	11/03/21 18:35	1
<b>Cadmium</b>	<b>0.17</b>	<b>B</b>	0.10	0.019	mg/Kg	✳	11/02/21 10:34	11/03/21 14:27	1
<b>Calcium</b>	<b>98000</b>	<b>B</b>	51	8.7	mg/Kg	✳	11/02/21 10:34	11/03/21 18:38	5
<b>Chromium</b>	<b>9.1</b>		0.51	0.25	mg/Kg	✳	11/02/21 10:34	11/03/21 14:27	1
<b>Cobalt</b>	<b>6.3</b>		0.26	0.067	mg/Kg	✳	11/02/21 10:34	11/03/21 14:27	1
<b>Copper</b>	<b>15</b>		0.51	0.14	mg/Kg	✳	11/02/21 10:34	11/03/21 14:27	1
<b>Iron</b>	<b>14000</b>		51	27	mg/Kg	✳	11/02/21 10:34	11/03/21 18:38	5
<b>Lead</b>	<b>66</b>		0.26	0.12	mg/Kg	✳	11/02/21 10:34	11/03/21 14:27	1
<b>Magnesium</b>	<b>54000</b>		26	13	mg/Kg	✳	11/02/21 10:34	11/03/21 18:38	5
<b>Manganese</b>	<b>490</b>	<b>B</b>	0.51	0.075	mg/Kg	✳	11/02/21 10:34	11/03/21 14:27	1
<b>Nickel</b>	<b>14</b>		0.51	0.15	mg/Kg	✳	11/02/21 10:34	11/03/21 14:27	1
<b>Potassium</b>	<b>970</b>		26	9.1	mg/Kg	✳	11/02/21 10:34	11/03/21 14:27	1
<b>Selenium</b>	<b>0.61</b>		0.51	0.30	mg/Kg	✳	11/02/21 10:34	11/03/21 14:27	1
<b>Silver</b>	<b>0.10</b>	<b>J</b>	0.26	0.066	mg/Kg	✳	11/02/21 10:34	11/03/21 14:27	1
<b>Sodium</b>	<b>130</b>		51	7.6	mg/Kg	✳	11/02/21 10:34	11/03/21 14:27	1
Thallium	<0.51		0.51	0.26	mg/Kg	✳	11/02/21 10:34	11/03/21 14:27	1
<b>Vanadium</b>	<b>16</b>		0.26	0.061	mg/Kg	✳	11/02/21 10:34	11/03/21 14:27	1
<b>Zinc</b>	<b>60</b>		1.0	0.45	mg/Kg	✳	11/02/21 10:34	11/03/21 18:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>0.60</b>		0.50	0.050	mg/L		10/28/21 08:20	10/28/21 23:03	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/31/21 08:26	11/02/21 14:26	1
Boron	<0.50		0.50	0.050	mg/L		10/28/21 08:20	10/28/21 23:03	1

Euofins TestAmerica, Chicago



# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

**Client Sample ID: 2674V2-08-B03 (0-2)**

**Lab Sample ID: 500-207167-3**

Date Collected: 10/20/21 11:35

Matrix: Solid

Date Received: 10/20/21 15:30

Percent Solids: 89.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/28/21 08:20	10/28/21 23:03	1
Chromium	<0.025		0.025	0.010	mg/L		10/28/21 08:20	10/28/21 23:03	1
Cobalt	<0.025		0.025	0.010	mg/L		10/28/21 08:20	10/28/21 23:03	1
Iron	<0.40		0.40	0.20	mg/L		10/31/21 08:26	11/01/21 14:04	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/28/21 08:20	10/28/21 23:03	1
<b>Manganese</b>	<b>0.18</b>		0.025	0.010	mg/L		10/28/21 08:20	10/28/21 23:03	1
Nickel	<0.025		0.025	0.010	mg/L		10/28/21 08:20	10/28/21 23:03	1
Selenium	<0.050		0.050	0.020	mg/L		10/28/21 08:20	10/28/21 23:03	1
Silver	<0.025		0.025	0.010	mg/L		10/31/21 08:26	11/01/21 14:04	1
<b>Zinc</b>	<b>0.032</b>	<b>J</b>	0.50	0.020	mg/L		10/28/21 08:20	10/28/21 23:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>0.37</b>		0.025	0.010	mg/L		10/28/21 08:23	10/29/21 15:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/28/21 08:20	10/29/21 12:43	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/28/21 08:20	10/29/21 12:43	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/29/21 09:35	11/01/21 08:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.039</b>		0.017	0.0057	mg/Kg	☆	10/28/21 14:10	10/29/21 08:10	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>8.5</b>		0.2	0.2	SU			10/25/21 18:42	1

# Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

## Qualifiers

### GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*3	ISTD response or retention time outside acceptable 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.

### Metals

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

## 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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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)
TNTC	Too Numerous To Count

# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

## GC/MS VOA

### Prep Batch: 625104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207167-1	2674V2-08-B01 (0-2)	Total/NA	Solid	5035	
500-207167-2	2674V2-08-B02 (0-2)	Total/NA	Solid	5035	
500-207167-3	2674V2-08-B03 (0-2)	Total/NA	Solid	5035	

### Analysis Batch: 626027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207167-1	2674V2-08-B01 (0-2)	Total/NA	Solid	8260B	625104
500-207167-2	2674V2-08-B02 (0-2)	Total/NA	Solid	8260B	625104
500-207167-3	2674V2-08-B03 (0-2)	Total/NA	Solid	8260B	625104
MB 500-626027/7	Method Blank	Total/NA	Solid	8260B	
LCS 500-626027/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-626027/5	Lab Control Sample Dup	Total/NA	Solid	8260B	

## GC/MS Semi VOA

### Prep Batch: 625508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207167-1	2674V2-08-B01 (0-2)	Total/NA	Solid	3541	
500-207167-2	2674V2-08-B02 (0-2)	Total/NA	Solid	3541	
500-207167-3	2674V2-08-B03 (0-2)	Total/NA	Solid	3541	
MB 500-625508/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-625508/2-A	Lab Control Sample	Total/NA	Solid	3541	

### Analysis Batch: 625679

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-625508/1-A	Method Blank	Total/NA	Solid	8270D	625508
LCS 500-625508/2-A	Lab Control Sample	Total/NA	Solid	8270D	625508

### Analysis Batch: 625988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207167-1	2674V2-08-B01 (0-2)	Total/NA	Solid	8270D	625508
500-207167-2	2674V2-08-B02 (0-2)	Total/NA	Solid	8270D	625508

### Analysis Batch: 627209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207167-3	2674V2-08-B03 (0-2)	Total/NA	Solid	8270D	625508

## Metals

### Leach Batch: 625524

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207167-1	2674V2-08-B01 (0-2)	TCLP	Solid	1311	
500-207167-2	2674V2-08-B02 (0-2)	TCLP	Solid	1311	
500-207167-3	2674V2-08-B03 (0-2)	TCLP	Solid	1311	
LB 500-625524/1-C	Method Blank	TCLP	Solid	1311	
LB 500-625524/2-B	Method Blank	TCLP	Solid	1311	
LB 500-625524/2-C	Method Blank	TCLP	Solid	1311	

### Leach Batch: 625527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207167-1	2674V2-08-B01 (0-2)	SPLP East	Solid	1312	
500-207167-2	2674V2-08-B02 (0-2)	SPLP East	Solid	1312	

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# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

## Metals (Continued)

### Leach Batch: 625527 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207167-3	2674V2-08-B03 (0-2)	SPLP East	Solid	1312	
LB 500-625527/1-B	Method Blank	SPLP East	Solid	1312	

### Prep Batch: 625872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207167-1	2674V2-08-B01 (0-2)	TCLP	Solid	3010A	625524
500-207167-2	2674V2-08-B02 (0-2)	TCLP	Solid	3010A	625524
500-207167-3	2674V2-08-B03 (0-2)	TCLP	Solid	3010A	625524
LB 500-625524/1-C	Method Blank	TCLP	Solid	3010A	625524
LCS 500-625872/2-A	Lab Control Sample	Total/NA	Solid	3010A	

### Prep Batch: 625873

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207167-1	2674V2-08-B01 (0-2)	SPLP East	Solid	3010A	625527
500-207167-2	2674V2-08-B02 (0-2)	SPLP East	Solid	3010A	625527
500-207167-3	2674V2-08-B03 (0-2)	SPLP East	Solid	3010A	625527
LB 500-625527/1-B	Method Blank	SPLP East	Solid	3010A	625527
LCS 500-625873/2-A	Lab Control Sample	Total/NA	Solid	3010A	

### Prep Batch: 625919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207167-1	2674V2-08-B01 (0-2)	Total/NA	Solid	7471B	
500-207167-2	2674V2-08-B02 (0-2)	Total/NA	Solid	7471B	
500-207167-3	2674V2-08-B03 (0-2)	Total/NA	Solid	7471B	
MB 500-625919/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-625919/13-A	Lab Control Sample	Total/NA	Solid	7471B	

### Analysis Batch: 626087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207167-1	2674V2-08-B01 (0-2)	TCLP	Solid	6010B	625872
500-207167-2	2674V2-08-B02 (0-2)	TCLP	Solid	6010B	625872
500-207167-3	2674V2-08-B03 (0-2)	TCLP	Solid	6010B	625872
LB 500-625524/1-C	Method Blank	TCLP	Solid	6010B	625872
LCS 500-625872/2-A	Lab Control Sample	Total/NA	Solid	6010B	625872

### Prep Batch: 626110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207167-1	2674V2-08-B01 (0-2)	TCLP	Solid	7470A	625524
500-207167-2	2674V2-08-B02 (0-2)	TCLP	Solid	7470A	625524
500-207167-3	2674V2-08-B03 (0-2)	TCLP	Solid	7470A	625524
LB 500-625524/2-B	Method Blank	TCLP	Solid	7470A	625524
MB 500-626110/12-A	Method Blank	Total/NA	Solid	7470A	
LCS 500-626110/15-A	Lab Control Sample	Total/NA	Solid	7470A	

### Analysis Batch: 626118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207167-1	2674V2-08-B01 (0-2)	Total/NA	Solid	7471B	625919
500-207167-2	2674V2-08-B02 (0-2)	Total/NA	Solid	7471B	625919
500-207167-3	2674V2-08-B03 (0-2)	Total/NA	Solid	7471B	625919
MB 500-625919/12-A	Method Blank	Total/NA	Solid	7471B	625919
LCS 500-625919/13-A	Lab Control Sample	Total/NA	Solid	7471B	625919

Eurofins TestAmerica, Chicago

# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

## Metals

### Analysis Batch: 626196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207167-1	2674V2-08-B01 (0-2)	TCLP	Solid	6020A	625872
500-207167-2	2674V2-08-B02 (0-2)	TCLP	Solid	6020A	625872
500-207167-3	2674V2-08-B03 (0-2)	TCLP	Solid	6020A	625872
LB 500-625524/1-C	Method Blank	TCLP	Solid	6020A	625872
LCS 500-625872/2-A	Lab Control Sample	Total/NA	Solid	6020A	625872

### Prep Batch: 626361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207167-1	2674V2-08-B01 (0-2)	TCLP	Solid	3010A	625524
500-207167-2	2674V2-08-B02 (0-2)	TCLP	Solid	3010A	625524
500-207167-3	2674V2-08-B03 (0-2)	TCLP	Solid	3010A	625524
LB 500-625524/2-C	Method Blank	TCLP	Solid	3010A	625524
LCS 500-626361/2-A	Lab Control Sample	Total/NA	Solid	3010A	625524
LCSD 500-626361/3-A	Lab Control Sample Dup	Total/NA	Solid	3010A	625524

### Analysis Batch: 626431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207167-1	2674V2-08-B01 (0-2)	SPLP East	Solid	6010B	625873
500-207167-2	2674V2-08-B02 (0-2)	SPLP East	Solid	6010B	625873
500-207167-3	2674V2-08-B03 (0-2)	SPLP East	Solid	6010B	625873
LB 500-625527/1-B	Method Blank	SPLP East	Solid	6010B	625873
LCS 500-625873/2-A	Lab Control Sample	Total/NA	Solid	6010B	625873

### Analysis Batch: 626523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207167-1	2674V2-08-B01 (0-2)	TCLP	Solid	7470A	626110
500-207167-2	2674V2-08-B02 (0-2)	TCLP	Solid	7470A	626110
500-207167-3	2674V2-08-B03 (0-2)	TCLP	Solid	7470A	626110
LB 500-625524/2-B	Method Blank	TCLP	Solid	7470A	626110
MB 500-626110/12-A	Method Blank	Total/NA	Solid	7470A	626110
LCS 500-626110/15-A	Lab Control Sample	Total/NA	Solid	7470A	626110

### Analysis Batch: 626686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207167-1	2674V2-08-B01 (0-2)	TCLP	Solid	6010B	626361
500-207167-2	2674V2-08-B02 (0-2)	TCLP	Solid	6010B	626361
500-207167-3	2674V2-08-B03 (0-2)	TCLP	Solid	6010B	626361
LB 500-625524/2-C	Method Blank	TCLP	Solid	6010B	626361
LCS 500-626361/2-A	Lab Control Sample	Total/NA	Solid	6010B	626361
LCSD 500-626361/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	626361

### Prep Batch: 626753

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207167-1	2674V2-08-B01 (0-2)	Total/NA	Solid	3050B	
500-207167-2	2674V2-08-B02 (0-2)	Total/NA	Solid	3050B	
500-207167-3	2674V2-08-B03 (0-2)	Total/NA	Solid	3050B	
MB 500-626753/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-626753/2-A	Lab Control Sample	Total/NA	Solid	3050B	

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# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

## Metals

### Analysis Batch: 626854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207167-1	2674V2-08-B01 (0-2)	TCLP	Solid	6010B	626361
500-207167-2	2674V2-08-B02 (0-2)	TCLP	Solid	6010B	626361
500-207167-3	2674V2-08-B03 (0-2)	TCLP	Solid	6010B	626361
LB 500-625524/2-C	Method Blank	TCLP	Solid	6010B	626361
LCS 500-626361/2-A	Lab Control Sample	Total/NA	Solid	6010B	626361
LCSD 500-626361/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	626361

### Analysis Batch: 627061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207167-1	2674V2-08-B01 (0-2)	Total/NA	Solid	6010B	626753
500-207167-2	2674V2-08-B02 (0-2)	Total/NA	Solid	6010B	626753
500-207167-3	2674V2-08-B03 (0-2)	Total/NA	Solid	6010B	626753
MB 500-626753/1-A	Method Blank	Total/NA	Solid	6010B	626753
LCS 500-626753/2-A	Lab Control Sample	Total/NA	Solid	6010B	626753

### Analysis Batch: 627178

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207167-1	2674V2-08-B01 (0-2)	Total/NA	Solid	6010B	626753
500-207167-1	2674V2-08-B01 (0-2)	Total/NA	Solid	6010B	626753
500-207167-2	2674V2-08-B02 (0-2)	Total/NA	Solid	6010B	626753
500-207167-2	2674V2-08-B02 (0-2)	Total/NA	Solid	6010B	626753
500-207167-3	2674V2-08-B03 (0-2)	Total/NA	Solid	6010B	626753
500-207167-3	2674V2-08-B03 (0-2)	Total/NA	Solid	6010B	626753
MB 500-626753/1-A	Method Blank	Total/NA	Solid	6010B	626753
LCS 500-626753/2-A	Lab Control Sample	Total/NA	Solid	6010B	626753

## General Chemistry

### Analysis Batch: 625259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207167-1	2674V2-08-B01 (0-2)	Total/NA	Solid	Moisture	
500-207167-2	2674V2-08-B02 (0-2)	Total/NA	Solid	Moisture	
500-207167-3	2674V2-08-B03 (0-2)	Total/NA	Solid	Moisture	

### Analysis Batch: 625321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207167-1	2674V2-08-B01 (0-2)	Total/NA	Solid	9045D	
500-207167-2	2674V2-08-B02 (0-2)	Total/NA	Solid	9045D	
500-207167-3	2674V2-08-B03 (0-2)	Total/NA	Solid	9045D	
LCS 500-625321/2	Lab Control Sample	Total/NA	Solid	9045D	
LCSD 500-625321/3	Lab Control Sample Dup	Total/NA	Solid	9045D	

# Surrogate Summary

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

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

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	DBFM	DCA	TOL
		(75-131)	(75-126)	(70-134)	(75-124)
500-207167-1	2674V2-08-B01 (0-2)	87	99	100	93
500-207167-2	2674V2-08-B02 (0-2)	104	97	97	95
500-207167-3	2674V2-08-B03 (0-2)	90	98	102	94
LCS 500-626027/4	Lab Control Sample	84	90	91	96
LCSD 500-626027/5	Lab Control Sample Dup	83	91	89	97
MB 500-626027/7	Method Blank	88	97	92	94

#### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)  
 DBFM = Dibromofluoromethane  
 DCA = 1,2-Dichloroethane-d4 (Surr)  
 TOL = Toluene-d8 (Surr)

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

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	2FP	PHL	NBZ	FBP	TBP	TPHL
		(31-166)	(30-153)	(37-147)	(43-145)	(31-143)	(42-157)
500-207167-1	2674V2-08-B01 (0-2)	131	120	105	99	91	104
500-207167-2	2674V2-08-B02 (0-2)	133	121	111	103	87	109
500-207167-3	2674V2-08-B03 (0-2)	115	111	92	127	134	130
LCS 500-625508/2-A	Lab Control Sample	140	125	113	100	81	98
MB 500-625508/1-A	Method Blank	137	124	110	98	72	93

#### Surrogate Legend

2FP = 2-Fluorophenol  
 PHL = Phenol-d5  
 NBZ = Nitrobenzene-d5 (Surr)  
 FBP = 2-Fluorobiphenyl (Surr)  
 TBP = 2,4,6-Tribromophenol  
 TPHL = Terphenyl-d14 (Surr)

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

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

**Lab Sample ID: MB 500-626027/7**  
**Matrix: Solid**  
**Analysis Batch: 626027**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	<0.020		0.020	0.0087	mg/Kg			10/29/21 08:09	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg			10/29/21 08:09	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg			10/29/21 08:09	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg			10/29/21 08:09	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg			10/29/21 08:09	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg			10/29/21 08:09	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg			10/29/21 08:09	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg			10/29/21 08:09	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg			10/29/21 08:09	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg			10/29/21 08:09	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg			10/29/21 08:09	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg			10/29/21 08:09	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg			10/29/21 08:09	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg			10/29/21 08:09	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg			10/29/21 08:09	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg			10/29/21 08:09	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg			10/29/21 08:09	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg			10/29/21 08:09	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg			10/29/21 08:09	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00070	mg/Kg			10/29/21 08:09	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg			10/29/21 08:09	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			10/29/21 08:09	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg			10/29/21 08:09	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg			10/29/21 08:09	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg			10/29/21 08:09	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg			10/29/21 08:09	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg			10/29/21 08:09	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/29/21 08:09	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg			10/29/21 08:09	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg			10/29/21 08:09	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg			10/29/21 08:09	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg			10/29/21 08:09	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg			10/29/21 08:09	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/29/21 08:09	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg			10/29/21 08:09	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg			10/29/21 08:09	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg			10/29/21 08:09	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	88		75 - 131		10/29/21 08:09	1
Dibromofluoromethane	97		75 - 126		10/29/21 08:09	1
1,2-Dichloroethane-d4 (Surr)	92		70 - 134		10/29/21 08:09	1
Toluene-d8 (Surr)	94		75 - 124		10/29/21 08:09	1



# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

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

**Lab Sample ID: LCS 500-626027/4**  
**Matrix: Solid**  
**Analysis Batch: 626027**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0500	0.0313		mg/Kg		63	40 - 150
Benzene	0.0500	0.0557		mg/Kg		111	70 - 125
Bromodichloromethane	0.0500	0.0555		mg/Kg		111	67 - 129
Bromoform	0.0500	0.0550		mg/Kg		110	68 - 136
Bromomethane	0.0500	0.0549		mg/Kg		110	70 - 130
2-Butanone (MEK)	0.0500	0.0465		mg/Kg		93	47 - 138
Carbon disulfide	0.0500	0.0496		mg/Kg		99	70 - 129
Carbon tetrachloride	0.0500	0.0491		mg/Kg		98	75 - 125
Chlorobenzene	0.0500	0.0528		mg/Kg		106	50 - 150
Chloroethane	0.0500	0.0550		mg/Kg		110	75 - 125
Chloroform	0.0500	0.0528		mg/Kg		106	57 - 135
Chloromethane	0.0500	0.0419		mg/Kg		84	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0515		mg/Kg		103	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0558		mg/Kg		112	70 - 125
Dibromochloromethane	0.0500	0.0563		mg/Kg		113	69 - 125
1,1-Dichloroethane	0.0500	0.0496		mg/Kg		99	70 - 125
1,2-Dichloroethane	0.0500	0.0532		mg/Kg		106	70 - 130
1,1-Dichloroethene	0.0500	0.0496		mg/Kg		99	70 - 120
1,2-Dichloropropane	0.0500	0.0548		mg/Kg		110	70 - 125
Ethylbenzene	0.0500	0.0565		mg/Kg		113	61 - 136
2-Hexanone	0.0500	0.0558		mg/Kg		112	48 - 146
Methylene Chloride	0.0500	0.0499		mg/Kg		100	70 - 126
4-Methyl-2-pentanone (MIBK)	0.0500	0.0538		mg/Kg		108	50 - 148
Methyl tert-butyl ether	0.0500	0.0487		mg/Kg		97	50 - 140
Styrene	0.0500	0.0559		mg/Kg		112	70 - 125
1,1,2,2-Tetrachloroethane	0.0500	0.0605		mg/Kg		121	70 - 122
Tetrachloroethene	0.0500	0.0555		mg/Kg		111	70 - 124
Toluene	0.0500	0.0559		mg/Kg		112	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0514		mg/Kg		103	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0544		mg/Kg		109	70 - 125
1,1,1-Trichloroethane	0.0500	0.0484		mg/Kg		97	70 - 128
1,1,2-Trichloroethane	0.0500	0.0592		mg/Kg		118	70 - 125
Trichloroethene	0.0500	0.0544		mg/Kg		109	70 - 125
Vinyl acetate	0.0500	0.0647		mg/Kg		129	40 - 153
Vinyl chloride	0.0500	0.0471		mg/Kg		94	70 - 125
Xylenes, Total	0.100	0.105		mg/Kg		105	53 - 147

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	84		75 - 131
Dibromofluoromethane	90		75 - 126
1,2-Dichloroethane-d4 (Surr)	91		70 - 134
Toluene-d8 (Surr)	96		75 - 124

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

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

**Lab Sample ID: LCSD 500-626027/5**  
**Matrix: Solid**  
**Analysis Batch: 626027**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.0500	0.0309		mg/Kg		62	40 - 150	1	30
Benzene	0.0500	0.0551		mg/Kg		110	70 - 125	1	30
Bromodichloromethane	0.0500	0.0536		mg/Kg		107	67 - 129	3	30
Bromoform	0.0500	0.0501		mg/Kg		100	68 - 136	9	30
Bromomethane	0.0500	0.0603		mg/Kg		121	70 - 130	9	30
2-Butanone (MEK)	0.0500	0.0359		mg/Kg		72	47 - 138	26	30
Carbon disulfide	0.0500	0.0498		mg/Kg		100	70 - 129	0	30
Carbon tetrachloride	0.0500	0.0487		mg/Kg		97	75 - 125	1	30
Chlorobenzene	0.0500	0.0513		mg/Kg		103	50 - 150	3	30
Chloroethane	0.0500	0.0611		mg/Kg		122	75 - 125	10	30
Chloroform	0.0500	0.0517		mg/Kg		103	57 - 135	2	30
Chloromethane	0.0500	0.0455		mg/Kg		91	70 - 125	8	30
cis-1,2-Dichloroethene	0.0500	0.0517		mg/Kg		103	70 - 125	0	30
cis-1,3-Dichloropropene	0.0500	0.0538		mg/Kg		108	70 - 125	4	30
Dibromochloromethane	0.0500	0.0539		mg/Kg		108	69 - 125	4	30
1,1-Dichloroethane	0.0500	0.0501		mg/Kg		100	70 - 125	1	30
1,2-Dichloroethane	0.0500	0.0515		mg/Kg		103	70 - 130	3	30
1,1-Dichloroethene	0.0500	0.0499		mg/Kg		100	70 - 120	1	30
1,2-Dichloropropane	0.0500	0.0548		mg/Kg		110	70 - 125	0	30
Ethylbenzene	0.0500	0.0548		mg/Kg		110	61 - 136	3	30
2-Hexanone	0.0500	0.0472		mg/Kg		94	48 - 146	17	30
Methylene Chloride	0.0500	0.0488		mg/Kg		98	70 - 126	2	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0457		mg/Kg		91	50 - 148	16	30
Methyl tert-butyl ether	0.0500	0.0454		mg/Kg		91	50 - 140	7	30
Styrene	0.0500	0.0543		mg/Kg		109	70 - 125	3	30
1,1,2,2-Tetrachloroethane	0.0500	0.0525		mg/Kg		105	70 - 122	14	30
Tetrachloroethene	0.0500	0.0542		mg/Kg		108	70 - 124	2	30
Toluene	0.0500	0.0539		mg/Kg		108	70 - 125	4	30
trans-1,2-Dichloroethene	0.0500	0.0512		mg/Kg		102	70 - 125	0	30
trans-1,3-Dichloropropene	0.0500	0.0511		mg/Kg		102	70 - 125	6	30
1,1,1-Trichloroethane	0.0500	0.0478		mg/Kg		96	70 - 128	1	30
1,1,2-Trichloroethane	0.0500	0.0553		mg/Kg		111	70 - 125	7	30
Trichloroethene	0.0500	0.0546		mg/Kg		109	70 - 125	0	30
Vinyl acetate	0.0500	0.0602		mg/Kg		120	40 - 153	7	30
Vinyl chloride	0.0500	0.0518		mg/Kg		104	70 - 125	10	30
Xylenes, Total	0.100	0.102		mg/Kg		102	53 - 147	3	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	83		75 - 131
Dibromofluoromethane	91		75 - 126
1,2-Dichloroethane-d4 (Surr)	89		70 - 134
Toluene-d8 (Surr)	97		75 - 124

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

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

**Lab Sample ID: MB 500-625508/1-A**  
**Matrix: Solid**  
**Analysis Batch: 625679**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 625508**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	<0.17		0.17	0.074	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.050	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
1,3-Dichlorobenzene	<0.17		0.17	0.037	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
1,4-Dichlorobenzene	<0.17		0.17	0.043	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
1,2-Dichlorobenzene	<0.17		0.17	0.040	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
2-Methylphenol	<0.17		0.17	0.053	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.039	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
N-Nitrosodi-n-propylamine	<0.067		0.067	0.041	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Hexachloroethane	<0.17		0.17	0.051	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
2-Chlorophenol	<0.17		0.17	0.057	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Nitrobenzene	<0.033		0.033	0.0083	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.034	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.036	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Isophorone	<0.17		0.17	0.037	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
2,4-Dimethylphenol	<0.33		0.33	0.13	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Hexachlorobutadiene	<0.17		0.17	0.052	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Naphthalene	<0.033		0.033	0.0051	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
2,4-Dichlorophenol	<0.33		0.33	0.079	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
4-Chloroaniline	<0.67		0.67	0.16	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
2,4,6-Trichlorophenol	<0.33		0.33	0.11	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
2,4,5-Trichlorophenol	<0.33		0.33	0.076	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Hexachlorocyclopentadiene	<0.67		0.67	0.19	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
2-Methylnaphthalene	<0.067		0.067	0.0061	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
2-Nitroaniline	<0.17		0.17	0.045	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
2-Chloronaphthalene	<0.17		0.17	0.037	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
4-Chloro-3-methylphenol	<0.33		0.33	0.11	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
2,6-Dinitrotoluene	<0.17		0.17	0.065	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
2-Nitrophenol	<0.33		0.33	0.079	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
3-Nitroaniline	<0.33		0.33	0.10	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Dimethyl phthalate	<0.17		0.17	0.043	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
2,4-Dinitrophenol	<0.67		0.67	0.59	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Acenaphthylene	<0.033		0.033	0.0044	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
2,4-Dinitrotoluene	<0.17		0.17	0.053	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Acenaphthene	<0.033		0.033	0.0060	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Dibenzofuran	<0.17		0.17	0.039	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
4-Nitrophenol	<0.67		0.67	0.32	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Fluorene	<0.033		0.033	0.0047	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
4-Nitroaniline	<0.33		0.33	0.14	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.044	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Hexachlorobenzene	<0.067		0.067	0.0077	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Diethyl phthalate	<0.17		0.17	0.056	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.039	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Pentachlorophenol	<0.67		0.67	0.53	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
N-Nitrosodiphenylamine	<0.17		0.17	0.039	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
4,6-Dinitro-2-methylphenol	<0.67		0.67	0.27	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Phenanthrene	<0.033		0.033	0.0046	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Anthracene	<0.033		0.033	0.0056	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Carbazole	<0.17		0.17	0.083	mg/Kg		10/26/21 13:52	10/27/21 12:20	1

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

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

**Lab Sample ID: MB 500-625508/1-A**  
**Matrix: Solid**  
**Analysis Batch: 625679**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 625508**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	<0.17		0.17	0.051	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Fluoranthene	<0.033		0.033	0.0062	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Pyrene	<0.033		0.033	0.0066	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Butyl benzyl phthalate	<0.17		0.17	0.063	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Benzo[a]anthracene	<0.033		0.033	0.0045	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Chrysene	<0.033		0.033	0.0091	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.047	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.061	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Di-n-octyl phthalate	<0.17		0.17	0.054	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Benzo[b]fluoranthene	<0.033		0.033	0.0072	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Benzo[k]fluoranthene	<0.033		0.033	0.0098	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Benzo[a]pyrene	<0.033		0.033	0.0064	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Indeno[1,2,3-cd]pyrene	<0.033		0.033	0.0086	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Dibenz(a,h)anthracene	<0.033		0.033	0.0064	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
Benzo[g,h,i]perylene	<0.033		0.033	0.011	mg/Kg		10/26/21 13:52	10/27/21 12:20	1
3 & 4 Methylphenol	<0.17		0.17	0.055	mg/Kg		10/26/21 13:52	10/27/21 12:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	137		31 - 166	10/26/21 13:52	10/27/21 12:20	1
Phenol-d5	124		30 - 153	10/26/21 13:52	10/27/21 12:20	1
Nitrobenzene-d5 (Surr)	110		37 - 147	10/26/21 13:52	10/27/21 12:20	1
2-Fluorobiphenyl (Surr)	98		43 - 145	10/26/21 13:52	10/27/21 12:20	1
2,4,6-Tribromophenol	72		31 - 143	10/26/21 13:52	10/27/21 12:20	1
Terphenyl-d14 (Surr)	93		42 - 157	10/26/21 13:52	10/27/21 12:20	1

**Lab Sample ID: LCS 500-625508/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625679**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625508**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Phenol	1.33	1.63		mg/Kg		122	56 - 122
Bis(2-chloroethyl)ether	1.33	1.74	*+	mg/Kg		131	55 - 111
1,3-Dichlorobenzene	1.33	1.27		mg/Kg		95	65 - 124
1,4-Dichlorobenzene	1.33	1.32		mg/Kg		99	61 - 110
1,2-Dichlorobenzene	1.33	1.37		mg/Kg		103	62 - 110
2-Methylphenol	1.33	1.44		mg/Kg		108	60 - 120
2,2'-oxybis[1-chloropropane]	1.33	5.60	E *+	mg/Kg		420	40 - 124
N-Nitrosodi-n-propylamine	1.33	1.66	*+	mg/Kg		125	56 - 118
Hexachloroethane	1.33	1.39		mg/Kg		104	60 - 114
2-Chlorophenol	1.33	1.51	*+	mg/Kg		114	64 - 110
Nitrobenzene	1.33	1.53		mg/Kg		115	60 - 116
Bis(2-chloroethoxy)methane	1.33	1.53	*+	mg/Kg		115	60 - 112
1,2,4-Trichlorobenzene	1.33	1.26		mg/Kg		94	66 - 117
Isophorone	1.33	1.56	*+	mg/Kg		117	55 - 110
2,4-Dimethylphenol	1.33	1.52	*+	mg/Kg		114	60 - 110
Hexachlorobutadiene	1.33	1.19		mg/Kg		89	56 - 120
Naphthalene	1.33	1.37		mg/Kg		103	63 - 110
2,4-Dichlorophenol	1.33	1.36		mg/Kg		102	58 - 120

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

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

Lab Sample ID: LCS 500-625508/2-A

Matrix: Solid

Analysis Batch: 625679

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 625508

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chloroaniline	1.33	1.31		mg/Kg		98	30 - 150
2,4,6-Trichlorophenol	1.33	1.23		mg/Kg		92	57 - 120
2,4,5-Trichlorophenol	1.33	1.20		mg/Kg		90	50 - 120
Hexachlorocyclopentadiene	1.33	0.411	J	mg/Kg		31	10 - 133
2-Methylnaphthalene	1.33	1.33		mg/Kg		100	69 - 112
2-Nitroaniline	1.33	1.37		mg/Kg		103	57 - 124
2-Chloronaphthalene	1.33	1.37		mg/Kg		103	69 - 114
4-Chloro-3-methylphenol	1.33	1.56		mg/Kg		117	65 - 122
2,6-Dinitrotoluene	1.33	1.38		mg/Kg		103	70 - 123
2-Nitrophenol	1.33	1.37		mg/Kg		103	60 - 120
3-Nitroaniline	1.33	1.03		mg/Kg		78	40 - 122
Dimethyl phthalate	1.33	1.35		mg/Kg		101	69 - 116
2,4-Dinitrophenol	2.67	0.752		mg/Kg		28	10 - 100
Acenaphthylene	1.33	1.38		mg/Kg		104	68 - 120
2,4-Dinitrotoluene	1.33	1.39		mg/Kg		104	69 - 124
Acenaphthene	1.33	1.41		mg/Kg		106	65 - 124
Dibenzofuran	1.33	1.36		mg/Kg		102	66 - 115
4-Nitrophenol	2.67	2.66		mg/Kg		100	30 - 122
Fluorene	1.33	1.38		mg/Kg		104	62 - 120
4-Nitroaniline	1.33	1.41		mg/Kg		106	60 - 160
4-Bromophenyl phenyl ether	1.33	1.23		mg/Kg		92	68 - 118
Hexachlorobenzene	1.33	1.28		mg/Kg		96	63 - 124
Diethyl phthalate	1.33	1.42		mg/Kg		107	58 - 120
4-Chlorophenyl phenyl ether	1.33	1.30		mg/Kg		97	62 - 119
Pentachlorophenol	2.67	1.19		mg/Kg		45	13 - 112
N-Nitrosodiphenylamine	1.33	1.45		mg/Kg		108	65 - 112
4,6-Dinitro-2-methylphenol	2.67	1.62		mg/Kg		61	10 - 110
Phenanthrene	1.33	1.42		mg/Kg		106	62 - 120
Anthracene	1.33	1.43		mg/Kg		107	70 - 114
Carbazole	1.33	1.71		mg/Kg		128	65 - 142
Di-n-butyl phthalate	1.33	1.51		mg/Kg		113	65 - 120
Fluoranthene	1.33	1.39		mg/Kg		104	62 - 120
Pyrene	1.33	1.47		mg/Kg		110	61 - 128
Butyl benzyl phthalate	1.33	1.59		mg/Kg		120	71 - 129
Benzo[a]anthracene	1.33	1.39		mg/Kg		105	67 - 122
Chrysene	1.33	1.43		mg/Kg		107	63 - 120
3,3'-Dichlorobenzidine	1.33	0.999		mg/Kg		75	35 - 128
Bis(2-ethylhexyl) phthalate	1.33	1.60		mg/Kg		120	72 - 131
Di-n-octyl phthalate	1.33	1.58		mg/Kg		118	68 - 134
Benzo[b]fluoranthene	1.33	1.41		mg/Kg		106	69 - 129
Benzo[k]fluoranthene	1.33	1.43		mg/Kg		108	68 - 127
Benzo[a]pyrene	1.33	1.44		mg/Kg		108	65 - 133
Indeno[1,2,3-cd]pyrene	1.33	1.43		mg/Kg		108	68 - 130
Dibenz(a,h)anthracene	1.33	1.41		mg/Kg		105	64 - 131
Benzo[g,h,i]perylene	1.33	1.46		mg/Kg		110	72 - 131
3 & 4 Methylphenol	1.33	1.62	*+	mg/Kg		121	57 - 120

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

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

**Lab Sample ID: LCS 500-625508/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625679**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625508**

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorophenol	140		31 - 166
Phenol-d5	125		30 - 153
Nitrobenzene-d5 (Surr)	113		37 - 147
2-Fluorobiphenyl (Surr)	100		43 - 145
2,4,6-Tribromophenol	81		31 - 143
Terphenyl-d14 (Surr)	98		42 - 157

## Method: 6010B - Metals (ICP)

**Lab Sample ID: LCS 500-625872/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626087**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625872**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
Boron	1.00	0.870		mg/L		87	80 - 120	
Cadmium	0.0500	0.0490		mg/L		98	80 - 120	
Chromium	0.200	0.199		mg/L		100	80 - 120	
Cobalt	0.500	0.529		mg/L		106	80 - 120	
Lead	0.100	0.0996		mg/L		100	80 - 120	
Manganese	0.500	0.414		mg/L		83	80 - 120	
Nickel	0.500	0.532		mg/L		106	80 - 120	
Selenium	0.100	0.112		mg/L		112	80 - 120	
Zinc	0.500	0.591		mg/L		118	80 - 120	

**Lab Sample ID: LCS 500-625873/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626431**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625873**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits

**Lab Sample ID: LCS 500-626361/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626686**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626361**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
Silver	0.0500	0.0498		mg/L		100	80 - 120	

**Lab Sample ID: LCS 500-626361/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626854**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626361**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

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

**Lab Sample ID: LCSD 500-626361/3-A**  
**Matrix: Solid**  
**Analysis Batch: 626686**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 626361**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	1.00	0.795		mg/L		80	80 - 120	18	20
Silver	0.0500	0.0501		mg/L		100	80 - 120	1	20

**Lab Sample ID: LCSD 500-626361/3-A**  
**Matrix: Solid**  
**Analysis Batch: 626854**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 626361**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	0.0500	0.0476		mg/L		95	80 - 120	2	20

**Lab Sample ID: MB 500-626753/1-A**  
**Matrix: Solid**  
**Analysis Batch: 627061**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 626753**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	0.483	J	2.0	0.39	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Arsenic	<1.0		1.0	0.34	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Barium	<1.0		1.0	0.11	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Beryllium	<0.40		0.40	0.093	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Cadmium	0.0459	J	0.20	0.036	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Chromium	<1.0		1.0	0.50	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Cobalt	<0.50		0.50	0.13	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Copper	<1.0		1.0	0.28	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Lead	<0.50		0.50	0.23	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Manganese	0.197	J	1.0	0.15	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Nickel	<1.0		1.0	0.29	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Potassium	<50		50	18	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Selenium	<1.0		1.0	0.59	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Silver	<0.50		0.50	0.13	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Sodium	<100		100	15	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Thallium	<1.0		1.0	0.50	mg/Kg		11/02/21 10:34	11/03/21 12:02	1
Vanadium	<0.50		0.50	0.12	mg/Kg		11/02/21 10:34	11/03/21 12:02	1

**Lab Sample ID: MB 500-626753/1-A**  
**Matrix: Solid**  
**Analysis Batch: 627178**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 626753**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Boron	0.800	J	5.0	0.47	mg/Kg		11/02/21 10:34	11/03/21 17:14	1
Calcium	11.2	J	20	3.4	mg/Kg		11/02/21 10:34	11/03/21 17:14	1
Iron	<20		20	10	mg/Kg		11/02/21 10:34	11/03/21 17:14	1
Magnesium	<10		10	5.0	mg/Kg		11/02/21 10:34	11/03/21 17:14	1
Zinc	<2.0		2.0	0.88	mg/Kg		11/02/21 10:34	11/03/21 17:14	1

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

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

**Lab Sample ID: LCS 500-626753/2-A**  
**Matrix: Solid**  
**Analysis Batch: 627061**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626753**  
**%Rec.**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	50.0	44.4		mg/Kg		89	80 - 120
Arsenic	10.0	8.65		mg/Kg		86	80 - 120
Barium	200	194		mg/Kg		97	80 - 120
Beryllium	5.00	4.73		mg/Kg		95	80 - 120
Cadmium	5.00	4.30		mg/Kg		86	80 - 120
Chromium	20.0	18.9		mg/Kg		95	80 - 120
Cobalt	50.0	46.3		mg/Kg		93	80 - 120
Copper	25.0	23.1		mg/Kg		92	80 - 120
Lead	10.0	8.93		mg/Kg		89	80 - 120
Manganese	50.0	48.4		mg/Kg		97	80 - 120
Nickel	50.0	47.6		mg/Kg		95	80 - 120
Potassium	1000	873		mg/Kg		87	80 - 120
Selenium	10.0	7.96		mg/Kg		80	80 - 120
Silver	5.00	4.72		mg/Kg		94	80 - 120
Sodium	1000	912		mg/Kg		91	80 - 120
Thallium	10.0	8.68		mg/Kg		87	80 - 120
Vanadium	50.0	46.4		mg/Kg		93	80 - 120

**Lab Sample ID: LCS 500-626753/2-A**  
**Matrix: Solid**  
**Analysis Batch: 627178**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626753**  
**%Rec.**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Boron	100	83.1		mg/Kg		83	80 - 120
Calcium	1000	962		mg/Kg		96	80 - 120
Iron	100	94.1		mg/Kg		94	80 - 120
Magnesium	1000	935		mg/Kg		94	80 - 120
Zinc	50.0	48.0		mg/Kg		96	80 - 120

**Lab Sample ID: LB 500-625524/1-C**  
**Matrix: Solid**  
**Analysis Batch: 626087**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 625872**

Analyte	LB LB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Barium	<0.50		0.50	0.050	mg/L		10/28/21 08:20	10/28/21 22:01	1
Boron	<0.50		0.50	0.050	mg/L		10/28/21 08:20	10/28/21 22:01	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/28/21 08:20	10/28/21 22:01	1
Chromium	<0.025		0.025	0.010	mg/L		10/28/21 08:20	10/28/21 22:01	1
Cobalt	<0.025		0.025	0.010	mg/L		10/28/21 08:20	10/28/21 22:01	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/28/21 08:20	10/28/21 22:01	1
Manganese	<0.025		0.025	0.010	mg/L		10/28/21 08:20	10/28/21 22:01	1
Nickel	<0.025		0.025	0.010	mg/L		10/28/21 08:20	10/28/21 22:01	1
Selenium	<0.050		0.050	0.020	mg/L		10/28/21 08:20	10/28/21 22:01	1
Zinc	<0.50		0.50	0.020	mg/L		10/28/21 08:20	10/28/21 22:01	1



# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

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

Lab Sample ID: LB 500-625524/2-C  
Matrix: Solid  
Analysis Batch: 626686

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 626361

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.40		0.40	0.20	mg/L		10/31/21 08:26	11/01/21 13:32	1
Silver	<0.025		0.025	0.010	mg/L		10/31/21 08:26	11/01/21 13:32	1

Lab Sample ID: LB 500-625524/2-C  
Matrix: Solid  
Analysis Batch: 626854

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 626361

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/31/21 08:26	11/02/21 13:53	1

Lab Sample ID: LB 500-625527/1-B  
Matrix: Solid  
Analysis Batch: 626431

Client Sample ID: Method Blank  
Prep Type: SPLP East  
Prep Batch: 625873

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	<0.025		0.025	0.010	mg/L		10/28/21 08:23	10/29/21 14:02	1

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

Lab Sample ID: LCS 500-625872/2-A  
Matrix: Solid  
Analysis Batch: 626196

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 625872

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.498		mg/L		100	80 - 120
Thallium	0.100	0.114		mg/L		114	80 - 120

Lab Sample ID: LB 500-625524/1-C  
Matrix: Solid  
Analysis Batch: 626196

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 625872

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/28/21 08:20	10/29/21 12:30	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/28/21 08:20	10/29/21 12:30	1

## Method: 7470A - TCLP Mercury

Lab Sample ID: MB 500-626110/12-A  
Matrix: Solid  
Analysis Batch: 626523

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 626110

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/29/21 09:35	11/01/21 07:30	1

Lab Sample ID: LCS 500-626110/15-A  
Matrix: Solid  
Analysis Batch: 626523

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 626110

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00195		mg/L		97	80 - 120

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# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

## Method: 7470A - TCLP Mercury (Continued)

**Lab Sample ID: LB 500-625524/2-B**  
**Matrix: Solid**  
**Analysis Batch: 626523**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 626110**

Analyte	LB LB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.00020		0.00020	0.00020	mg/L		10/29/21 09:35	11/01/21 07:38	1

## Method: 7471B - Mercury (CVAA)

**Lab Sample ID: MB 500-625919/12-A**  
**Matrix: Solid**  
**Analysis Batch: 626118**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 625919**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.017		0.017	0.0056	mg/Kg		10/28/21 14:10	10/29/21 07:21	1

**Lab Sample ID: LCS 500-625919/13-A**  
**Matrix: Solid**  
**Analysis Batch: 626118**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625919**

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Mercury	0.167	0.181		mg/Kg		108	80 - 120

# Lab Chronicle

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

**Client Sample ID: 2674V2-08-B01 (0-2)**

**Lab Sample ID: 500-207167-1**

**Date Collected: 10/20/21 11:18**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			625527	10/26/21 13:11	EA	TAL CHI
SPLP East	Prep	3010A			625873	10/28/21 08:23	BDE	TAL CHI
SPLP East	Analysis	6010B		1	626431	10/29/21 15:03	JJB	TAL CHI
TCLP	Leach	1311			625524	10/26/21 16:31	EA	TAL CHI
TCLP	Prep	3010A			625872	10/28/21 08:20	BDE	TAL CHI
TCLP	Analysis	6010B		1	626087	10/28/21 22:47	DAJ	TAL CHI
TCLP	Leach	1311			625524	10/26/21 16:31	EA	TAL CHI
TCLP	Prep	3010A			626361	10/31/21 08:26	BDE	TAL CHI
TCLP	Analysis	6010B		1	626686	11/01/21 13:58	JJB	TAL CHI
TCLP	Leach	1311			625524	10/26/21 16:31	EA	TAL CHI
TCLP	Prep	3010A			626361	10/31/21 08:26	BDE	TAL CHI
TCLP	Analysis	6010B		1	626854	11/02/21 14:13	JJB	TAL CHI
TCLP	Leach	1311			625524	10/26/21 16:31	EA	TAL CHI
TCLP	Prep	3010A			625872	10/28/21 08:20	BDE	TAL CHI
TCLP	Analysis	6020A		1	626196	10/29/21 12:41	FXG	TAL CHI
TCLP	Leach	1311			625524	10/26/21 16:31	EA	TAL CHI
TCLP	Prep	7470A			626110	10/29/21 09:35	MJG	TAL CHI
TCLP	Analysis	7470A		1	626523	11/01/21 08:38	MJG	TAL CHI
Total/NA	Analysis	9045D		1	625321	10/25/21 18:35	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	625259	10/25/21 12:34	LWN	TAL CHI

**Client Sample ID: 2674V2-08-B01 (0-2)**

**Lab Sample ID: 500-207167-1**

**Date Collected: 10/20/21 11:18**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

**Percent Solids: 89.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			625104	10/20/21 18:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	626027	10/29/21 14:11	PMF	TAL CHI
Total/NA	Prep	3541			625508	10/26/21 13:52	SB	TAL CHI
Total/NA	Analysis	8270D		1	625988	10/28/21 21:08	EMA	TAL CHI
Total/NA	Prep	3050B			626753	11/02/21 10:34	BDE	TAL CHI
Total/NA	Analysis	6010B		1	627061	11/03/21 14:20	JJB	TAL CHI
Total/NA	Prep	3050B			626753	11/02/21 10:34	BDE	TAL CHI
Total/NA	Analysis	6010B		1	627178	11/03/21 18:15	JJB	TAL CHI
Total/NA	Prep	3050B			626753	11/02/21 10:34	BDE	TAL CHI
Total/NA	Analysis	6010B		5	627178	11/03/21 18:18	JJB	TAL CHI
Total/NA	Prep	7471B			625919	10/28/21 14:10	MJG	TAL CHI
Total/NA	Analysis	7471B		1	626118	10/29/21 08:06	MJG	TAL CHI

# Lab Chronicle

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

**Client Sample ID: 2674V2-08-B02 (0-2)**

**Lab Sample ID: 500-207167-2**

**Date Collected: 10/20/21 11:26**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			625527	10/26/21 13:11	EA	TAL CHI
SPLP East	Prep	3010A			625873	10/28/21 08:23	BDE	TAL CHI
SPLP East	Analysis	6010B		1	626431	10/29/21 15:06	JJB	TAL CHI
TCLP	Leach	1311			625524	10/26/21 16:31	EA	TAL CHI
TCLP	Prep	3010A			625872	10/28/21 08:20	BDE	TAL CHI
TCLP	Analysis	6010B		1	626087	10/28/21 23:00	DAJ	TAL CHI
TCLP	Leach	1311			625524	10/26/21 16:31	EA	TAL CHI
TCLP	Prep	3010A			626361	10/31/21 08:26	BDE	TAL CHI
TCLP	Analysis	6010B		1	626686	11/01/21 14:01	JJB	TAL CHI
TCLP	Leach	1311			625524	10/26/21 16:31	EA	TAL CHI
TCLP	Prep	3010A			626361	10/31/21 08:26	BDE	TAL CHI
TCLP	Analysis	6010B		1	626854	11/02/21 14:22	JJB	TAL CHI
TCLP	Leach	1311			625524	10/26/21 16:31	EA	TAL CHI
TCLP	Prep	3010A			625872	10/28/21 08:20	BDE	TAL CHI
TCLP	Analysis	6020A		1	626196	10/29/21 12:42	FXG	TAL CHI
TCLP	Leach	1311			625524	10/26/21 16:31	EA	TAL CHI
TCLP	Prep	7470A			626110	10/29/21 09:35	MJG	TAL CHI
TCLP	Analysis	7470A		1	626523	11/01/21 08:44	MJG	TAL CHI
Total/NA	Analysis	9045D		1	625321	10/25/21 18:40	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	625259	10/25/21 12:34	LWN	TAL CHI

**Client Sample ID: 2674V2-08-B02 (0-2)**

**Lab Sample ID: 500-207167-2**

**Date Collected: 10/20/21 11:26**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

**Percent Solids: 94.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			625104	10/20/21 18:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	626027	10/29/21 14:37	PMF	TAL CHI
Total/NA	Prep	3541			625508	10/26/21 13:52	SB	TAL CHI
Total/NA	Analysis	8270D		1	625988	10/28/21 21:29	EMA	TAL CHI
Total/NA	Prep	3050B			626753	11/02/21 10:34	BDE	TAL CHI
Total/NA	Analysis	6010B		1	627061	11/03/21 14:24	JJB	TAL CHI
Total/NA	Prep	3050B			626753	11/02/21 10:34	BDE	TAL CHI
Total/NA	Analysis	6010B		1	627178	11/03/21 18:22	JJB	TAL CHI
Total/NA	Prep	3050B			626753	11/02/21 10:34	BDE	TAL CHI
Total/NA	Analysis	6010B		5	627178	11/03/21 18:32	JJB	TAL CHI
Total/NA	Prep	7471B			625919	10/28/21 14:10	MJG	TAL CHI
Total/NA	Analysis	7471B		1	626118	10/29/21 08:08	MJG	TAL CHI

# Lab Chronicle

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

**Client Sample ID: 2674V2-08-B03 (0-2)**

**Lab Sample ID: 500-207167-3**

**Date Collected: 10/20/21 11:35**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			625527	10/26/21 13:11	EA	TAL CHI
SPLP East	Prep	3010A			625873	10/28/21 08:23	BDE	TAL CHI
SPLP East	Analysis	6010B		1	626431	10/29/21 15:09	JJB	TAL CHI
TCLP	Leach	1311			625524	10/26/21 16:31	EA	TAL CHI
TCLP	Prep	3010A			625872	10/28/21 08:20	BDE	TAL CHI
TCLP	Analysis	6010B		1	626087	10/28/21 23:03	DAJ	TAL CHI
TCLP	Leach	1311			625524	10/26/21 16:31	EA	TAL CHI
TCLP	Prep	3010A			626361	10/31/21 08:26	BDE	TAL CHI
TCLP	Analysis	6010B		1	626686	11/01/21 14:04	JJB	TAL CHI
TCLP	Leach	1311			625524	10/26/21 16:31	EA	TAL CHI
TCLP	Prep	3010A			626361	10/31/21 08:26	BDE	TAL CHI
TCLP	Analysis	6010B		1	626854	11/02/21 14:26	JJB	TAL CHI
TCLP	Leach	1311			625524	10/26/21 16:31	EA	TAL CHI
TCLP	Prep	3010A			625872	10/28/21 08:20	BDE	TAL CHI
TCLP	Analysis	6020A		1	626196	10/29/21 12:43	FXG	TAL CHI
TCLP	Leach	1311			625524	10/26/21 16:31	EA	TAL CHI
TCLP	Prep	7470A			626110	10/29/21 09:35	MJG	TAL CHI
TCLP	Analysis	7470A		1	626523	11/01/21 08:46	MJG	TAL CHI
Total/NA	Analysis	9045D		1	625321	10/25/21 18:42	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	625259	10/25/21 12:34	LWN	TAL CHI

**Client Sample ID: 2674V2-08-B03 (0-2)**

**Lab Sample ID: 500-207167-3**

**Date Collected: 10/20/21 11:35**

**Matrix: Solid**

**Date Received: 10/20/21 15:30**

**Percent Solids: 89.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			625104	10/20/21 18:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	626027	10/29/21 15:02	PMF	TAL CHI
Total/NA	Prep	3541			625508	10/26/21 13:52	SB	TAL CHI
Total/NA	Analysis	8270D		1	627209	11/04/21 14:31	GLR	TAL CHI
Total/NA	Prep	3050B			626753	11/02/21 10:34	BDE	TAL CHI
Total/NA	Analysis	6010B		1	627061	11/03/21 14:27	JJB	TAL CHI
Total/NA	Prep	3050B			626753	11/02/21 10:34	BDE	TAL CHI
Total/NA	Analysis	6010B		1	627178	11/03/21 18:35	JJB	TAL CHI
Total/NA	Prep	3050B			626753	11/02/21 10:34	BDE	TAL CHI
Total/NA	Analysis	6010B		5	627178	11/03/21 18:38	JJB	TAL CHI
Total/NA	Prep	7471B			625919	10/28/21 14:10	MJG	TAL CHI
Total/NA	Analysis	7471B		1	626118	10/29/21 08:10	MJG	TAL CHI

**Laboratory References:**

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Accreditation/Certification Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207167-1

## Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

# Chain of Custody Record

545098



Environment Testing  
TestAmerica

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Address \_\_\_\_\_

**Regulatory Program:**  DW  NPDES  RCRA  Other

TAL-8210

<b>Client Contact</b>		<b>Project Manager:</b> <u>A Tiebow</u>		<b>Site Contact:</b> <u>A Happel</u>		<b>Date:</b> <u>10/20/2021</u>		<b>COC No:</b> <u>4</u>	
Company Name <u>WSP</u>		Tel/Email:		Lab Contact: <u>R Wright</u>		Carrier		<u>4</u> of <u>4</u> COCs	
Address		<b>Analysis Turnaround Time</b>							
City/State/Zip <u>Chicago IL</u>		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____							
Phone		<input type="checkbox"/> 2 weeks		<input type="checkbox"/> 1 week		<input type="checkbox"/> 2 days		<input type="checkbox"/> 1 day	
Fax		Filtered Sample (Y/N)   Perform MS / MSD (Y/N)   VOCs   Ph   SVOCs   1/6 metals   TOTAL METALS   TCLP METALS *							
Project Name <u>100T WOOD</u>									
Site <u>Lake Villa IL</u>									
P O #									
500-207167 COC		<b>Sample Identification</b>		Sample Date	Sample Time	Sample Type (C=Comp G=Grab)	Matrix	# of Cont.	Sample Specific Notes
1	<u>2674V2-08-B01(0-2)</u>	<u>10/20/21</u>	<u>1118</u>	<u>C</u>	<u>S</u>	<u>2</u>			
2	<u>2674V2-08-B02(0-2)</u>	<u>10/20/21</u>	<u>1126</u>	<u>C</u>	<u>S</u>	<u>2</u>			
3	<u>2674V2-08-B03(0-2)</u>	<u>10/20/21</u>	<u>1135</u>	<u>C</u>	<u>S</u>	<u>2</u>			
<b>Preservation Used:</b> 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3, 5=NaOH, 6= Other _____									
<b>Possible Hazard Identification:</b> Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample <input type="checkbox"/> Non Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown					<b>Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)</b> <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months				
<b>Special Instructions/QC Requirements &amp; Comments:</b> <u>* SPLP analysis based on TCLP results</u>									
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temp (°C) Obs'd <u>13.8</u> Cor'd <u>13.9</u>		Therm ID No _____			
Relinquished by <u>[Signature]</u>		Company <u>WSP</u>		Date/Time <u>10/20/21 1150</u>		Received by <u>[Signature]</u>		Company <u>STACAT</u>	
Relinquished by <u>[Signature]</u>		Company <u>E-TA</u>		Date/Time <u>10/20/21 1530</u>		Received by <u>[Signature]</u>		Company <u>STACAT</u>	
Relinquished by _____		Company _____		Date/Time _____		Received in Laboratory by <u>[Signature]</u>		Company <u>STACAT</u>	

## Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 500-207167-1

**Login Number: 207167**

**List Source: Eurofins TestAmerica, Chicago**

**List Number: 1**

**Creator: Scott, Sherri L**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	13.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





# Illinois Environmental Protection Agency

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

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

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

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

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

### I. Source Location Information

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

Project Name: FAP 541 (Illinois Route 132) Office Phone Number, if available: \_\_\_\_\_

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

65 W. Grand Avenue (ISGS #2674V2-9)

City: Lake Villa State: IL Zip Code: 60046

County: Lake Township: Lake Villa

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

Latitude: 42.41502 Longitude: - 88.08385  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

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

Approximate Start Date (mm/dd/yyyy): \_\_\_\_\_ Approximate End Date (mm/dd/yyyy): \_\_\_\_\_

Estimated Volume of debris (cu. Yd.): 197

### 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 2674V2-09-B01 and -B02 were sampled within the construction zone adjacent to ISGS #2674V2-9 (Nutties Sports Bar & Games). Refer to PSI Report for ISGS #2674V2-9 (Nutties Sports Bar & Games) including Table 4-4, and Figures 4-2, 4-3, 4-5, and 4-6.

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]:

See attached data summary table and associated laboratory data package J207093-1.

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

I, Tom Campbell (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: WSP USA
Street Address: 115 W Washington St., Suite 1270S
City: Indianapolis State: IN Zip Code: 46204
Phone: (317) 972-1706

Tom Campbell
Printed Name:

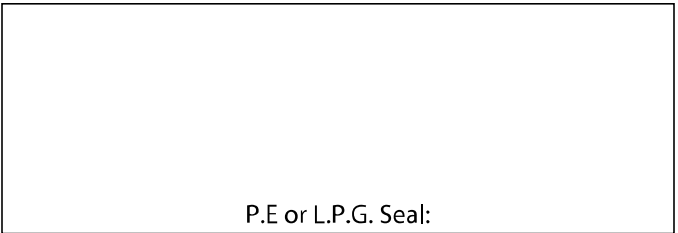
Handwritten signature of Tom Campbell

Licensed Professional Engineer or
Licensed Professional Geologist Signature:

02/03/2022
Date:



Expires 11/30/2023





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

**Analytical Data Summary**  
**PTB #196-002; Work Order 04 - IDOT Job # P-91-583-12**

**Key to Data Tables**

- MAC = Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- TACO = Tiered Approach to Corrective Action Objectives
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers and Shading**

- # = pH is less than 6.25 or greater than 9.0 standard units.
- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- r = Concentration exceeds a TACO Tier 1 RO for the Residential Soil Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds applicable comparison criteria.

CONTAMINANTS OF CONCERN

SITE	ISGS #2674V2-9 (Nutties Sports Bar & Games)		Comparison Criteria					
	2674V2-09-B01	2674V2-09-B02	MACs			TACO		
SAMPLE	2674V2-09-B01 (0-6)	2674V2-09-B02 (0-6)	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
MATRIX	Soil	Soil						
DEPTH (feet)	0-6	0-6						
pH	8.4	8.2						
PID (meter units)	--	--						
<b>VOCs (mg/kg)</b>								
2-Butanone (MEK)	0.0027 J	ND U	--	--	--	--	--	--
Acetone	0.016	ND U	25	--	--	70,000	100,000	--
<b>SVOCs (mg/kg)</b>								
2-Methylnaphthalene	ND U	0.073 J	--	--	--	--	--	--
Acenaphthene	ND U	0.10	570	--	--	4,700	120,000	--
Acenaphthylene	ND U	0.15	--	--	--	--	--	--
Anthracene	0.14 J	0.35	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	0.80	0.84	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.91 †	0.77 †	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	0.93 †	0.64	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.65	0.24	--	--	--	--	--	--
Benzo(k)fluoranthene	0.96	0.70 J	9	--	--	9	1,700	--
Carbazole	ND U	0.27	0.6	--	--	32	6,200	--
Chrysene	1.1	0.82	88	--	--	88	17,000	--
Dibenz(a,h)anthracene	0.17 J †	0.077	0.09	0.42	0.2	0.42	17	--
Dibenzofuran	ND U	0.14 J	--	--	--	--	--	--
Fluoranthene	2.5	2.1	3,100	--	--	3,100	82,000	--
Fluorene	ND U	0.18	560	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	0.57	0.27	0.9	1.6	0.9	1.6	170	--
Naphthalene	ND U	0.11	1.8	--	--	170	1.8	--
Phenanthrene	0.94	2.1	--	--	--	--	--	--
Pyrene	1.8	1.7	2,300	--	--	2,300	61,000	--
<b>Inorganics (mg/kg)</b>								
Antimony	0.26 J	0.40 J	5	--	--	31	82	--
Arsenic	3.8	6.3	11.3	13	--	13	61	--
Barium	27	54	1,500	--	--	5,500	14,000	--
Beryllium	0.40	0.89	22	--	--	160	410	--
Boron	7.2	13	40	--	--	16,000	41,000	--
Calcium	82,000	11,000	--	--	--	--	--	--
Chromium	8.9	18	21	--	--	230	690	--
Cobalt	5.6	10	20	--	--	4,700	12,000	--
Copper	13	20	2,900	--	--	2,900	8,200	--
Iron	12,000	19,000 †m	15,000	15,900	--	--	--	--
Lead	17	31	107	--	--	400	700	--
Magnesium	44,000	7,800	325,000	--	--	--	730,000	--
Manganese	300	340	630	636	--	1,600	4,100	--
Mercury	0.013 J	0.055	0.89	--	--	10	0.1	--
Nickel	13	29	100	--	--	1,600	4,100	--
Potassium	1,300	2,900	--	--	--	--	--	--
Silver	0.16 J	0.31 J	4.4	--	--	390	1,000	--
Sodium	190	720	--	--	--	--	--	--
Thallium	ND U	0.43 J	2.6	--	--	6.3	160	--
Vanadium	15	23	550	--	--	550	1,400	--
Zinc	42	52	5,100	--	--	23,000	61,000	--
<b>TCLP Metals (mg/L)</b>								
Barium	0.30 J	0.27 J	--	--	--	--	--	2
Boron	0.17 J	0.11 J	--	--	--	--	--	2
Cobalt	0.017 J	ND U	--	--	--	--	--	1
Iron	ND U	ND U	--	--	--	--	--	5
Manganese	2.9 L	2.0 L	--	--	--	--	--	0.15
Nickel	0.012 J	ND U	--	--	--	--	--	0.1
Zinc	0.048 J	0.030 J	--	--	--	--	--	5
<b>SPLP Metals (mg/L)</b>								
Manganese	0.43 L	0.89 L	--	--	--	--	--	0.15

## ANALYTICAL REPORT

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

Laboratory Job ID: 500-207093-1  
Client Project/Site: IDOT - 196-002-WO04 Lake Villa

For:  
WSP USA Inc.  
30 North LaSalle Street  
Chicago, Illinois 60602

Attn: Dean Tiebot



Authorized for release by:  
11/3/2021 5:16:26 PM

Richard Wright, Senior Project Manager  
(708)746-0045  
[Richard.Wright@Eurofinset.com](mailto:Richard.Wright@Eurofinset.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

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

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

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# Case Narrative

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207093-1

## Job ID: 500-207093-1

### Laboratory: Eurofins TestAmerica, Chicago

#### Narrative

#### Job Narrative 500-207093-1

#### Receipt

The samples were received on 10/19/2021 5:45 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.2° C.

#### GC/MS VOA

Method 8260B: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for 625628 recovered outside control limits for the following analytes: Vinyl acetate, Chloroethane, and 2-Butanone (MEK). These analytes were biased high in the LCS/LCSD and were not detected above the reporting limit in the associated samples; therefore, the data have been reported. 2674V2-09-B02 (0-6) (500-207093-1) and 2674V2-09-B01 (0-6) (500-207093-2)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC/MS Semi VOA

Method 8270D: The continuing calibration verification (CCV) analyzed in batch 500-626461 was outside the method criteria for the following analyte(s): bis (2-chloroisopropyl) ether, 4-Bromophenyl phenyl ether, Benzo[k]fluoranthene, Hexachlorobenzene, Hexachlorobutadiene, N-Nitrosodi-n-propylamine, Pentachlorophenol and 2-Methylnaphthalene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270D: The continuing calibration verification (CCV) analyzed in batch 500-626713 was outside the method criteria for the following analyte(s): 2,2'-oxybis[1-chloropropane] and Pentachlorophenol. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270D: The following sample was diluted due to the nature of the sample matrix: 2674V2-09-B01 (0-6) (500-207093-2). Elevated reporting limits (RLs) are provided.

Method 8270D: Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when utilizing this list of analytes. The LCS associated with preparation batch 500-625120 and analytical batch 500-626461 had 2 analytes outside control limits: 2-Methylnaphthalene and Isophorone. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207093-1

**Client Sample ID: 2674V2-09-B02 (0-6)**

**Lab Sample ID: 500-207093-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.11		0.043	0.0067	mg/Kg	1	✳	8270D	Total/NA
2-Methylnaphthalene	0.073	J**	0.088	0.0080	mg/Kg	1	✳	8270D	Total/NA
Acenaphthylene	0.15		0.043	0.0057	mg/Kg	1	✳	8270D	Total/NA
Acenaphthene	0.10		0.043	0.0078	mg/Kg	1	✳	8270D	Total/NA
Dibenzofuran	0.14	J	0.22	0.051	mg/Kg	1	✳	8270D	Total/NA
Fluorene	0.18		0.043	0.0061	mg/Kg	1	✳	8270D	Total/NA
Phenanthrene	2.1		0.043	0.0061	mg/Kg	1	✳	8270D	Total/NA
Anthracene	0.35		0.043	0.0073	mg/Kg	1	✳	8270D	Total/NA
Carbazole	0.27		0.22	0.11	mg/Kg	1	✳	8270D	Total/NA
Fluoranthene	2.1		0.043	0.0081	mg/Kg	1	✳	8270D	Total/NA
Pyrene	1.7		0.043	0.0086	mg/Kg	1	✳	8270D	Total/NA
Benzo[a]anthracene	0.84		0.043	0.0058	mg/Kg	1	✳	8270D	Total/NA
Chrysene	0.82		0.043	0.012	mg/Kg	1	✳	8270D	Total/NA
Benzo[b]fluoranthene	0.64		0.043	0.0094	mg/Kg	1	✳	8270D	Total/NA
Benzo[k]fluoranthene	0.70		0.043	0.013	mg/Kg	1	✳	8270D	Total/NA
Benzo[a]pyrene	0.77		0.043	0.0084	mg/Kg	1	✳	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.27		0.043	0.011	mg/Kg	1	✳	8270D	Total/NA
Dibenz(a,h)anthracene	0.077		0.043	0.0084	mg/Kg	1	✳	8270D	Total/NA
Benzo[g,h,i]perylene	0.24		0.043	0.014	mg/Kg	1	✳	8270D	Total/NA
Antimony	0.40	J	1.3	0.25	mg/Kg	1	✳	6010B	Total/NA
Arsenic	6.3		0.65	0.22	mg/Kg	1	✳	6010B	Total/NA
Barium	54		0.65	0.074	mg/Kg	1	✳	6010B	Total/NA
Beryllium	0.89		0.26	0.061	mg/Kg	1	✳	6010B	Total/NA
Boron	13		3.2	0.30	mg/Kg	1	✳	6010B	Total/NA
Calcium	11000	B	13	2.2	mg/Kg	1	✳	6010B	Total/NA
Chromium	18		0.65	0.32	mg/Kg	1	✳	6010B	Total/NA
Cobalt	10		0.32	0.085	mg/Kg	1	✳	6010B	Total/NA
Copper	20	B	0.65	0.18	mg/Kg	1	✳	6010B	Total/NA
Iron	19000		13	6.7	mg/Kg	1	✳	6010B	Total/NA
Lead	31		0.32	0.15	mg/Kg	1	✳	6010B	Total/NA
Magnesium	7800	B	6.5	3.2	mg/Kg	1	✳	6010B	Total/NA
Manganese	340	B	0.65	0.094	mg/Kg	1	✳	6010B	Total/NA
Nickel	29		0.65	0.19	mg/Kg	1	✳	6010B	Total/NA
Potassium	2900		32	11	mg/Kg	1	✳	6010B	Total/NA
Silver	0.31	J	0.32	0.084	mg/Kg	1	✳	6010B	Total/NA
Sodium	720		65	9.6	mg/Kg	1	✳	6010B	Total/NA
Thallium	0.43	J	0.65	0.32	mg/Kg	1	✳	6010B	Total/NA
Vanadium	23		0.32	0.076	mg/Kg	1	✳	6010B	Total/NA
Zinc	52		1.3	0.57	mg/Kg	1	✳	6010B	Total/NA
Barium	0.27	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.11	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	2.0		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.030	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.89		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.055		0.021	0.0071	mg/Kg	1	✳	7471B	Total/NA
pH	8.2		0.2	0.2	SU	1		9045D	Total/NA

**Client Sample ID: 2674V2-09-B01 (0-6)**

**Lab Sample ID: 500-207093-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.016		0.016	0.0068	mg/Kg	1	✳	8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago



# Detection Summary

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207093-1

**Client Sample ID: 2674V2-09-B01 (0-6) (Continued)**

**Lab Sample ID: 500-207093-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	0.0027	J**	0.0039	0.0017	mg/Kg	1	✳	8260B	Total/NA
Phenanthrene	0.94		0.38	0.054	mg/Kg	10	✳	8270D	Total/NA
Anthracene	0.14	J	0.38	0.064	mg/Kg	10	✳	8270D	Total/NA
Fluoranthene	2.5		0.38	0.071	mg/Kg	10	✳	8270D	Total/NA
Pyrene	1.8		0.38	0.076	mg/Kg	10	✳	8270D	Total/NA
Benzo[a]anthracene	0.80		0.38	0.052	mg/Kg	10	✳	8270D	Total/NA
Chrysene	1.1		0.38	0.10	mg/Kg	10	✳	8270D	Total/NA
Benzo[b]fluoranthene	0.93		0.38	0.083	mg/Kg	10	✳	8270D	Total/NA
Benzo[k]fluoranthene	0.96		0.38	0.11	mg/Kg	10	✳	8270D	Total/NA
Benzo[a]pyrene	0.91		0.38	0.074	mg/Kg	10	✳	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.57		0.38	0.10	mg/Kg	10	✳	8270D	Total/NA
Dibenz(a,h)anthracene	0.17	J	0.38	0.074	mg/Kg	10	✳	8270D	Total/NA
Benzo[g,h,i]perylene	0.65		0.38	0.12	mg/Kg	10	✳	8270D	Total/NA
Antimony	0.26	J	1.1	0.22	mg/Kg	1	✳	6010B	Total/NA
Arsenic	3.8		0.55	0.19	mg/Kg	1	✳	6010B	Total/NA
Barium	27		0.55	0.063	mg/Kg	1	✳	6010B	Total/NA
Beryllium	0.40		0.22	0.052	mg/Kg	1	✳	6010B	Total/NA
Boron	7.2		2.8	0.26	mg/Kg	1	✳	6010B	Total/NA
Cadmium	0.11	B	0.11	0.020	mg/Kg	1	✳	6010B	Total/NA
Calcium	82000	B	55	9.4	mg/Kg	5	✳	6010B	Total/NA
Chromium	8.9		0.55	0.27	mg/Kg	1	✳	6010B	Total/NA
Cobalt	5.6		1.4	0.36	mg/Kg	5	✳	6010B	Total/NA
Copper	13	B	0.55	0.15	mg/Kg	1	✳	6010B	Total/NA
Iron	12000		55	29	mg/Kg	5	✳	6010B	Total/NA
Lead	17		0.28	0.13	mg/Kg	1	✳	6010B	Total/NA
Magnesium	44000	B	28	14	mg/Kg	5	✳	6010B	Total/NA
Manganese	300	B	0.55	0.080	mg/Kg	1	✳	6010B	Total/NA
Nickel	13		0.55	0.16	mg/Kg	1	✳	6010B	Total/NA
Potassium	1300		28	9.8	mg/Kg	1	✳	6010B	Total/NA
Silver	0.16	J	0.28	0.071	mg/Kg	1	✳	6010B	Total/NA
Sodium	190		55	8.2	mg/Kg	1	✳	6010B	Total/NA
Vanadium	15		0.28	0.065	mg/Kg	1	✳	6010B	Total/NA
Zinc	42		1.1	0.49	mg/Kg	1	✳	6010B	Total/NA
Barium	0.30	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.17	J	0.50	0.050	mg/L	1		6010B	TCLP
Cobalt	0.017	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	2.9		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.012	J	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.048	J	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.43		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.013	J	0.018	0.0061	mg/Kg	1	✳	7471B	Total/NA
pH	8.4		0.2	0.2	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Method Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207093-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CHI
6010B	Metals (ICP)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
7470A	TCLP Mercury	SW846	TAL CHI
7471B	Mercury (CVAA)	SW846	TAL CHI
9045D	pH	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
1311	TCLP Extraction	SW846	TAL CHI
1312	SPLP Extraction	SW846	TAL CHI
3010A	Preparation, Total Metals	SW846	TAL CHI
3050B	Preparation, Metals	SW846	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI
5035	Closed System Purge and Trap	SW846	TAL CHI
7470A	Preparation, Mercury	SW846	TAL CHI
7471B	Preparation, Mercury	SW846	TAL CHI

#### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Sample Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207093-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-207093-1	2674V2-09-B02 (0-6)	Solid	10/19/21 09:12	10/19/21 17:45
500-207093-2	2674V2-09-B01 (0-6)	Solid	10/19/21 09:21	10/19/21 17:45

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# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207093-1

**Client Sample ID: 2674V2-09-B02 (0-6)**

**Lab Sample ID: 500-207093-1**

Date Collected: 10/19/21 09:12

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 75.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0086	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
Benzene	<0.0020		0.0020	0.00050	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
Bromodichloromethane	<0.0020		0.0020	0.00040	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
Bromomethane	<0.0049		0.0049	0.0019	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
2-Butanone (MEK)	<0.0049	*+	0.0049	0.0022	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
Carbon disulfide	<0.0049		0.0049	0.0010	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
Carbon tetrachloride	<0.0020		0.0020	0.00057	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
Chlorobenzene	<0.0020		0.0020	0.00073	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
Chloroethane	<0.0049	*+	0.0049	0.0015	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
Chloromethane	<0.0049		0.0049	0.0020	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00055	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
1,1-Dichloroethane	<0.0020		0.0020	0.00068	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
1,2-Dichloroethane	<0.0049		0.0049	0.0015	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
1,1-Dichloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
1,2-Dichloropropane	<0.0020		0.0020	0.00051	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00069	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
Ethylbenzene	<0.0020		0.0020	0.00095	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
2-Hexanone	<0.0049		0.0049	0.0015	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
Methylene Chloride	<0.0049		0.0049	0.0019	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
4-Methyl-2-pentanone (MIBK)	<0.0049		0.0049	0.0015	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00058	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00063	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
Tetrachloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
Toluene	<0.0020		0.0020	0.00050	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00088	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00069	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00066	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00085	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
Trichloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
Vinyl acetate	<0.0049	*+	0.0049	0.0017	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
Vinyl chloride	<0.0020		0.0020	0.00088	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1
Xylenes, Total	<0.0040		0.0040	0.00063	mg/Kg	☼	10/20/21 18:07	10/27/21 19:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		75 - 131	10/20/21 18:07	10/27/21 19:18	1
Dibromofluoromethane	97		75 - 126	10/20/21 18:07	10/27/21 19:18	1
1,2-Dichloroethane-d4 (Surr)	102		70 - 134	10/20/21 18:07	10/27/21 19:18	1
Toluene-d8 (Surr)	93		75 - 124	10/20/21 18:07	10/27/21 19:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.22		0.22	0.097	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
Bis(2-chloroethyl)ether	<0.22		0.22	0.065	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
1,3-Dichlorobenzene	<0.22		0.22	0.049	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
1,4-Dichlorobenzene	<0.22		0.22	0.056	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207093-1

**Client Sample ID: 2674V2-09-B02 (0-6)**

**Lab Sample ID: 500-207093-1**

Date Collected: 10/19/21 09:12

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 75.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.22		0.22	0.052	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
2-Methylphenol	<0.22		0.22	0.070	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
2,2'-oxybis[1-chloropropane]	<0.22		0.22	0.050	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
N-Nitrosodi-n-propylamine	<0.088		0.088	0.053	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
Hexachloroethane	<0.22		0.22	0.066	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
2-Chlorophenol	<0.22		0.22	0.074	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
Nitrobenzene	<0.043		0.043	0.011	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
Bis(2-chloroethoxy)methane	<0.22		0.22	0.044	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
1,2,4-Trichlorobenzene	<0.22		0.22	0.047	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
Isophorone	<0.22	*+	0.22	0.049	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
2,4-Dimethylphenol	<0.43		0.43	0.16	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
Hexachlorobutadiene	<0.22		0.22	0.068	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
<b>Naphthalene</b>	<b>0.11</b>		0.043	0.0067	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
2,4-Dichlorophenol	<0.43		0.43	0.10	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
4-Chloroaniline	<0.88		0.88	0.20	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
2,4,6-Trichlorophenol	<0.43		0.43	0.15	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
2,4,5-Trichlorophenol	<0.43		0.43	0.099	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
Hexachlorocyclopentadiene	<0.88		0.88	0.25	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
<b>2-Methylnaphthalene</b>	<b>0.073</b>	J**	0.088	0.0080	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
2-Nitroaniline	<0.22		0.22	0.058	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
2-Chloronaphthalene	<0.22		0.22	0.048	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
4-Chloro-3-methylphenol	<0.43		0.43	0.15	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
2,6-Dinitrotoluene	<0.22		0.22	0.085	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
2-Nitrophenol	<0.43		0.43	0.10	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
3-Nitroaniline	<0.43		0.43	0.13	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
Dimethyl phthalate	<0.22		0.22	0.057	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
2,4-Dinitrophenol	<0.88		0.88	0.77	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
<b>Acenaphthylene</b>	<b>0.15</b>		0.043	0.0057	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
2,4-Dinitrotoluene	<0.22		0.22	0.069	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
<b>Acenaphthene</b>	<b>0.10</b>		0.043	0.0078	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
<b>Dibenzofuran</b>	<b>0.14</b>	J	0.22	0.051	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
4-Nitrophenol	<0.88		0.88	0.41	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
<b>Fluorene</b>	<b>0.18</b>		0.043	0.0061	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
4-Nitroaniline	<0.43		0.43	0.18	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
4-Bromophenyl phenyl ether	<0.22		0.22	0.057	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
Hexachlorobenzene	<0.088		0.088	0.010	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
Diethyl phthalate	<0.22		0.22	0.074	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
4-Chlorophenyl phenyl ether	<0.22		0.22	0.051	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
Pentachlorophenol	<0.88		0.88	0.70	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
N-Nitrosodiphenylamine	<0.22		0.22	0.051	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
4,6-Dinitro-2-methylphenol	<0.88		0.88	0.35	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
<b>Phenanthrene</b>	<b>2.1</b>		0.043	0.0061	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
<b>Anthracene</b>	<b>0.35</b>		0.043	0.0073	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
<b>Carbazole</b>	<b>0.27</b>		0.22	0.11	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
Di-n-butyl phthalate	<0.22		0.22	0.066	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
<b>Fluoranthene</b>	<b>2.1</b>		0.043	0.0081	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
<b>Pyrene</b>	<b>1.7</b>		0.043	0.0086	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
Butyl benzyl phthalate	<0.22		0.22	0.083	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1
<b>Benzo[a]anthracene</b>	<b>0.84</b>		0.043	0.0058	mg/Kg	☼	10/25/21 06:38	11/01/21 19:42	1

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# Client Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207093-1

**Client Sample ID: 2674V2-09-B02 (0-6)**

**Lab Sample ID: 500-207093-1**

Date Collected: 10/19/21 09:12

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 75.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/26/21 07:49	10/26/21 20:12	1
Chromium	<0.025		0.025	0.010	mg/L		10/26/21 07:49	10/26/21 20:12	1
Cobalt	<0.025		0.025	0.010	mg/L		10/26/21 07:49	10/26/21 20:12	1
Iron	<0.40		0.40	0.20	mg/L		10/26/21 07:49	10/26/21 20:12	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/26/21 07:49	10/26/21 20:12	1
<b>Manganese</b>	<b>2.0</b>		0.025	0.010	mg/L		10/26/21 07:49	10/26/21 20:12	1
Nickel	<0.025		0.025	0.010	mg/L		10/26/21 07:49	10/26/21 20:12	1
Selenium	<0.050		0.050	0.020	mg/L		10/26/21 07:49	10/26/21 20:12	1
Silver	<0.025		0.025	0.010	mg/L		10/26/21 07:49	10/26/21 20:12	1
<b>Zinc</b>	<b>0.030</b>	<b>J</b>	0.50	0.020	mg/L		10/26/21 07:49	10/26/21 20:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>0.89</b>		0.025	0.010	mg/L		10/26/21 07:51	10/27/21 16:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/26/21 07:49	10/28/21 14:58	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/26/21 07:49	10/28/21 14:58	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 09:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.055</b>		0.021	0.0071	mg/Kg	☼	10/28/21 14:10	10/29/21 07:14	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>8.2</b>		0.2	0.2	SU			10/21/21 18:36	1





# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207093-1

**Client Sample ID: 2674V2-09-B01 (0-6)**

**Lab Sample ID: 500-207093-2**

Date Collected: 10/19/21 09:21

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 84.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<1.9		1.9	0.46	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
2-Methylphenol	<1.9		1.9	0.62	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
2,2'-oxybis[1-chloropropane]	<1.9		1.9	0.45	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
N-Nitrosodi-n-propylamine	<0.78		0.78	0.47	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
Hexachloroethane	<1.9		1.9	0.58	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
2-Chlorophenol	<1.9		1.9	0.66	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
Nitrobenzene	<0.38		0.38	0.096	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
Bis(2-chloroethoxy)methane	<1.9		1.9	0.39	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
1,2,4-Trichlorobenzene	<1.9		1.9	0.41	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
Isophorone	<1.9	+	1.9	0.43	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
2,4-Dimethylphenol	<3.8		3.8	1.5	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
Hexachlorobutadiene	<1.9		1.9	0.60	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
Naphthalene	<0.38		0.38	0.059	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
2,4-Dichlorophenol	<3.8		3.8	0.91	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
4-Chloroaniline	<7.8		7.8	1.8	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
2,4,6-Trichlorophenol	<3.8		3.8	1.3	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
2,4,5-Trichlorophenol	<3.8		3.8	0.88	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
Hexachlorocyclopentadiene	<7.8		7.8	2.2	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
2-Methylnaphthalene	<0.78	+	0.78	0.071	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
2-Nitroaniline	<1.9		1.9	0.52	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
2-Chloronaphthalene	<1.9		1.9	0.42	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
4-Chloro-3-methylphenol	<3.8		3.8	1.3	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
2,6-Dinitrotoluene	<1.9		1.9	0.76	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
2-Nitrophenol	<3.8		3.8	0.91	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
3-Nitroaniline	<3.8		3.8	1.2	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
Dimethyl phthalate	<1.9		1.9	0.50	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
2,4-Dinitrophenol	<7.8		7.8	6.8	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
Acenaphthylene	<0.38		0.38	0.051	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
2,4-Dinitrotoluene	<1.9		1.9	0.61	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
Acenaphthene	<0.38		0.38	0.069	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
Dibenzofuran	<1.9		1.9	0.45	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
4-Nitrophenol	<7.8		7.8	3.7	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
Fluorene	<0.38		0.38	0.054	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
4-Nitroaniline	<3.8		3.8	1.6	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
4-Bromophenyl phenyl ether	<1.9		1.9	0.51	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
Hexachlorobenzene	<0.78		0.78	0.089	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
Diethyl phthalate	<1.9		1.9	0.65	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
4-Chlorophenyl phenyl ether	<1.9		1.9	0.45	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
Pentachlorophenol	<7.8		7.8	6.2	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
N-Nitrosodiphenylamine	<1.9		1.9	0.45	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
4,6-Dinitro-2-methylphenol	<7.8		7.8	3.1	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
Phenanthrene	0.94		0.38	0.054	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
Anthracene	0.14	J	0.38	0.064	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
Carbazole	<1.9		1.9	0.96	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
Di-n-butyl phthalate	<1.9		1.9	0.59	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
Fluoranthene	2.5		0.38	0.071	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
Pyrene	1.8		0.38	0.076	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
Butyl benzyl phthalate	<1.9		1.9	0.73	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10
Benzo[a]anthracene	0.80		0.38	0.052	mg/Kg	*	10/25/21 06:38	11/02/21 18:58	10

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# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207093-1

Client Sample ID: 2674V2-09-B01 (0-6)

Lab Sample ID: 500-207093-2

Date Collected: 10/19/21 09:21

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 84.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chrysene</b>	<b>1.1</b>		0.38	0.10	mg/Kg	☼	10/25/21 06:38	11/02/21 18:58	10
3,3'-Dichlorobenzidine	<1.9		1.9	0.54	mg/Kg	☼	10/25/21 06:38	11/02/21 18:58	10
Bis(2-ethylhexyl) phthalate	<1.9		1.9	0.70	mg/Kg	☼	10/25/21 06:38	11/02/21 18:58	10
Di-n-octyl phthalate	<1.9		1.9	0.63	mg/Kg	☼	10/25/21 06:38	11/02/21 18:58	10
<b>Benzo[b]fluoranthene</b>	<b>0.93</b>		0.38	0.083	mg/Kg	☼	10/25/21 06:38	11/02/21 18:58	10
<b>Benzo[k]fluoranthene</b>	<b>0.96</b>		0.38	0.11	mg/Kg	☼	10/25/21 06:38	11/02/21 18:58	10
<b>Benzo[a]pyrene</b>	<b>0.91</b>		0.38	0.074	mg/Kg	☼	10/25/21 06:38	11/02/21 18:58	10
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.57</b>		0.38	0.10	mg/Kg	☼	10/25/21 06:38	11/02/21 18:58	10
<b>Dibenz(a,h)anthracene</b>	<b>0.17 J</b>		0.38	0.074	mg/Kg	☼	10/25/21 06:38	11/02/21 18:58	10
<b>Benzo[g,h,i]perylene</b>	<b>0.65</b>		0.38	0.12	mg/Kg	☼	10/25/21 06:38	11/02/21 18:58	10
3 & 4 Methylphenol	<1.9		1.9	0.64	mg/Kg	☼	10/25/21 06:38	11/02/21 18:58	10

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
2-Fluorophenol	72		31 - 166		10/25/21 06:38	11/02/21 18:58	10
Phenol-d5	59		30 - 153		10/25/21 06:38	11/02/21 18:58	10
Nitrobenzene-d5 (Surr)	93		37 - 147		10/25/21 06:38	11/02/21 18:58	10
2-Fluorobiphenyl (Surr)	95		43 - 145		10/25/21 06:38	11/02/21 18:58	10
2,4,6-Tribromophenol	66		31 - 143		10/25/21 06:38	11/02/21 18:58	10
Terphenyl-d14 (Surr)	115		42 - 157		10/25/21 06:38	11/02/21 18:58	10

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.26 J</b>		1.1	0.22	mg/Kg	☼	11/01/21 10:16	11/02/21 14:50	1
<b>Arsenic</b>	<b>3.8</b>		0.55	0.19	mg/Kg	☼	11/01/21 10:16	11/02/21 14:50	1
<b>Barium</b>	<b>27</b>		0.55	0.063	mg/Kg	☼	11/01/21 10:16	11/02/21 14:50	1
<b>Beryllium</b>	<b>0.40</b>		0.22	0.052	mg/Kg	☼	11/01/21 10:16	11/02/21 14:50	1
<b>Boron</b>	<b>7.2</b>		2.8	0.26	mg/Kg	☼	11/01/21 10:16	11/02/21 14:50	1
<b>Cadmium</b>	<b>0.11 B</b>		0.11	0.020	mg/Kg	☼	11/01/21 10:16	11/02/21 14:50	1
<b>Calcium</b>	<b>82000 B</b>		55	9.4	mg/Kg	☼	11/01/21 10:16	11/02/21 15:17	5
<b>Chromium</b>	<b>8.9</b>		0.55	0.27	mg/Kg	☼	11/01/21 10:16	11/02/21 14:50	1
<b>Cobalt</b>	<b>5.6</b>		1.4	0.36	mg/Kg	☼	11/01/21 10:16	11/02/21 15:17	5
<b>Copper</b>	<b>13 B</b>		0.55	0.15	mg/Kg	☼	11/01/21 10:16	11/02/21 14:50	1
<b>Iron</b>	<b>12000</b>		55	29	mg/Kg	☼	11/01/21 10:16	11/02/21 15:17	5
<b>Lead</b>	<b>17</b>		0.28	0.13	mg/Kg	☼	11/01/21 10:16	11/02/21 14:50	1
<b>Magnesium</b>	<b>44000 B</b>		28	14	mg/Kg	☼	11/01/21 10:16	11/02/21 15:17	5
<b>Manganese</b>	<b>300 B</b>		0.55	0.080	mg/Kg	☼	11/01/21 10:16	11/02/21 14:50	1
<b>Nickel</b>	<b>13</b>		0.55	0.16	mg/Kg	☼	11/01/21 10:16	11/02/21 14:50	1
<b>Potassium</b>	<b>1300</b>		28	9.8	mg/Kg	☼	11/01/21 10:16	11/02/21 14:50	1
Selenium	<0.55		0.55	0.33	mg/Kg	☼	11/01/21 10:16	11/02/21 14:50	1
<b>Silver</b>	<b>0.16 J</b>		0.28	0.071	mg/Kg	☼	11/01/21 10:16	11/02/21 14:50	1
<b>Sodium</b>	<b>190</b>		55	8.2	mg/Kg	☼	11/01/21 10:16	11/02/21 14:50	1
Thallium	<0.55		0.55	0.28	mg/Kg	☼	11/01/21 10:16	11/02/21 14:50	1
<b>Vanadium</b>	<b>15</b>		0.28	0.065	mg/Kg	☼	11/01/21 10:16	11/02/21 14:50	1
<b>Zinc</b>	<b>42</b>		1.1	0.49	mg/Kg	☼	11/01/21 10:16	11/02/21 14:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>0.30 J</b>		0.50	0.050	mg/L		10/26/21 07:49	10/26/21 20:21	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/26/21 07:49	10/26/21 20:21	1
<b>Boron</b>	<b>0.17 J</b>		0.50	0.050	mg/L		10/26/21 07:49	10/26/21 20:21	1

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# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207093-1

**Client Sample ID: 2674V2-09-B01 (0-6)**

**Lab Sample ID: 500-207093-2**

Date Collected: 10/19/21 09:21

Matrix: Solid

Date Received: 10/19/21 17:45

Percent Solids: 84.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/26/21 07:49	10/26/21 20:21	1
Chromium	<0.025		0.025	0.010	mg/L		10/26/21 07:49	10/26/21 20:21	1
<b>Cobalt</b>	<b>0.017</b>	<b>J</b>	0.025	0.010	mg/L		10/26/21 07:49	10/26/21 20:21	1
Iron	<0.40		0.40	0.20	mg/L		10/26/21 07:49	10/26/21 20:21	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/26/21 07:49	10/26/21 20:21	1
<b>Manganese</b>	<b>2.9</b>		0.025	0.010	mg/L		10/26/21 07:49	10/26/21 20:21	1
<b>Nickel</b>	<b>0.012</b>	<b>J</b>	0.025	0.010	mg/L		10/26/21 07:49	10/26/21 20:21	1
Selenium	<0.050		0.050	0.020	mg/L		10/26/21 07:49	10/26/21 20:21	1
Silver	<0.025		0.025	0.010	mg/L		10/26/21 07:49	10/26/21 20:21	1
<b>Zinc</b>	<b>0.048</b>	<b>J</b>	0.50	0.020	mg/L		10/26/21 07:49	10/26/21 20:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>0.43</b>		0.025	0.010	mg/L		10/26/21 07:51	10/27/21 16:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/26/21 07:49	10/28/21 14:59	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/26/21 07:49	10/28/21 14:59	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 09:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.013</b>	<b>J</b>	0.018	0.0061	mg/Kg	☼	10/28/21 14:10	10/29/21 07:16	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>8.4</b>		0.2	0.2	SU			10/21/21 18:39	1

# Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207093-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
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 and/or LCSD is outside acceptance limits, high biased.
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
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## 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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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)
TNTC	Too Numerous To Count

# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207093-1

## GC/MS VOA

### Prep Batch: 624638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207093-1	2674V2-09-B02 (0-6)	Total/NA	Solid	5035	
500-207093-2	2674V2-09-B01 (0-6)	Total/NA	Solid	5035	

### Analysis Batch: 625628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207093-1	2674V2-09-B02 (0-6)	Total/NA	Solid	8260B	624638
500-207093-2	2674V2-09-B01 (0-6)	Total/NA	Solid	8260B	624638
MB 500-625628/7	Method Blank	Total/NA	Solid	8260B	
LCS 500-625628/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-625628/5	Lab Control Sample Dup	Total/NA	Solid	8260B	

## GC/MS Semi VOA

### Prep Batch: 625120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207093-1	2674V2-09-B02 (0-6)	Total/NA	Solid	3541	
500-207093-2	2674V2-09-B01 (0-6)	Total/NA	Solid	3541	
MB 500-625120/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-625120/2-A	Lab Control Sample	Total/NA	Solid	3541	

### Analysis Batch: 626461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207093-1	2674V2-09-B02 (0-6)	Total/NA	Solid	8270D	625120
LCS 500-625120/2-A	Lab Control Sample	Total/NA	Solid	8270D	625120

### Analysis Batch: 626713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207093-2	2674V2-09-B01 (0-6)	Total/NA	Solid	8270D	625120
MB 500-625120/1-A	Method Blank	Total/NA	Solid	8270D	625120

## Metals

### Leach Batch: 625123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207093-1	2674V2-09-B02 (0-6)	TCLP	Solid	1311	
500-207093-2	2674V2-09-B01 (0-6)	TCLP	Solid	1311	
LB 500-625123/1-B	Method Blank	TCLP	Solid	1311	
LB 500-625123/2-C	Method Blank	TCLP	Solid	1311	

### Leach Batch: 625125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207093-1	2674V2-09-B02 (0-6)	SPLP East	Solid	1312	
500-207093-2	2674V2-09-B01 (0-6)	SPLP East	Solid	1312	
LB 500-625125/1-B	Method Blank	SPLP East	Solid	1312	

### Prep Batch: 625355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207093-1	2674V2-09-B02 (0-6)	TCLP	Solid	3010A	625123
500-207093-2	2674V2-09-B01 (0-6)	TCLP	Solid	3010A	625123
LB 500-625123/1-B	Method Blank	TCLP	Solid	3010A	625123
LCS 500-625355/2-A	Lab Control Sample	Total/NA	Solid	3010A	

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# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207093-1

## Metals

### Prep Batch: 625357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207093-1	2674V2-09-B02 (0-6)	SPLP East	Solid	3010A	625125
500-207093-2	2674V2-09-B01 (0-6)	SPLP East	Solid	3010A	625125
LB 500-625125/1-B	Method Blank	SPLP East	Solid	3010A	625125
LCS 500-625357/2-A	Lab Control Sample	Total/NA	Solid	3010A	

### Prep Batch: 625462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207093-1	2674V2-09-B02 (0-6)	TCLP	Solid	7470A	625123
500-207093-2	2674V2-09-B01 (0-6)	TCLP	Solid	7470A	625123
LB 500-625123/2-C	Method Blank	TCLP	Solid	7470A	625123
MB 500-625462/12-A	Method Blank	Total/NA	Solid	7470A	
LCS 500-625462/14-A	Lab Control Sample	Total/NA	Solid	7470A	

### Analysis Batch: 625645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207093-1	2674V2-09-B02 (0-6)	TCLP	Solid	6010B	625355
500-207093-2	2674V2-09-B01 (0-6)	TCLP	Solid	6010B	625355
LB 500-625123/1-B	Method Blank	TCLP	Solid	6010B	625355
LCS 500-625355/2-A	Lab Control Sample	Total/NA	Solid	6010B	625355

### Analysis Batch: 625700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207093-1	2674V2-09-B02 (0-6)	TCLP	Solid	7470A	625462
500-207093-2	2674V2-09-B01 (0-6)	TCLP	Solid	7470A	625462
LB 500-625123/2-C	Method Blank	TCLP	Solid	7470A	625462
MB 500-625462/12-A	Method Blank	Total/NA	Solid	7470A	625462
LCS 500-625462/14-A	Lab Control Sample	Total/NA	Solid	7470A	625462

### Analysis Batch: 625836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207093-1	2674V2-09-B02 (0-6)	SPLP East	Solid	6010B	625357
500-207093-2	2674V2-09-B01 (0-6)	SPLP East	Solid	6010B	625357
LB 500-625125/1-B	Method Blank	SPLP East	Solid	6010B	625357
LCS 500-625357/2-A	Lab Control Sample	Total/NA	Solid	6010B	625357

### Prep Batch: 625918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207093-1	2674V2-09-B02 (0-6)	Total/NA	Solid	7471B	
500-207093-2	2674V2-09-B01 (0-6)	Total/NA	Solid	7471B	
MB 500-625918/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-625918/13-A	Lab Control Sample	Total/NA	Solid	7471B	

### Analysis Batch: 626005

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207093-1	2674V2-09-B02 (0-6)	TCLP	Solid	6020A	625355
500-207093-2	2674V2-09-B01 (0-6)	TCLP	Solid	6020A	625355
LB 500-625123/1-B	Method Blank	TCLP	Solid	6020A	625355
LCS 500-625355/2-A	Lab Control Sample	Total/NA	Solid	6020A	625355

# QC Association Summary

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207093-1

## Metals

### Analysis Batch: 626118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207093-1	2674V2-09-B02 (0-6)	Total/NA	Solid	7471B	625918
500-207093-2	2674V2-09-B01 (0-6)	Total/NA	Solid	7471B	625918
MB 500-625918/12-A	Method Blank	Total/NA	Solid	7471B	625918
LCS 500-625918/13-A	Lab Control Sample	Total/NA	Solid	7471B	625918

### Prep Batch: 626513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207093-1	2674V2-09-B02 (0-6)	Total/NA	Solid	3050B	
500-207093-2	2674V2-09-B01 (0-6)	Total/NA	Solid	3050B	
MB 500-626513/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-626513/2-A	Lab Control Sample	Total/NA	Solid	3050B	

### Analysis Batch: 626836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207093-1	2674V2-09-B02 (0-6)	Total/NA	Solid	6010B	626513
500-207093-2	2674V2-09-B01 (0-6)	Total/NA	Solid	6010B	626513
MB 500-626513/1-A	Method Blank	Total/NA	Solid	6010B	626513
LCS 500-626513/2-A	Lab Control Sample	Total/NA	Solid	6010B	626513

### Analysis Batch: 626854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207093-2	2674V2-09-B01 (0-6)	Total/NA	Solid	6010B	626513

## General Chemistry

### Analysis Batch: 624769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207093-1	2674V2-09-B02 (0-6)	Total/NA	Solid	Moisture	
500-207093-2	2674V2-09-B01 (0-6)	Total/NA	Solid	Moisture	

### Analysis Batch: 624833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207093-1	2674V2-09-B02 (0-6)	Total/NA	Solid	9045D	
500-207093-2	2674V2-09-B01 (0-6)	Total/NA	Solid	9045D	
LCS 500-624833/2	Lab Control Sample	Total/NA	Solid	9045D	
LCSD 500-624833/3	Lab Control Sample Dup	Total/NA	Solid	9045D	

# Surrogate Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207093-1

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

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (75-131)	DBFM (75-126)	DCA (70-134)	TOL (75-124)
500-207093-1	2674V2-09-B02 (0-6)	88	97	102	93
500-207093-2	2674V2-09-B01 (0-6)	90	100	106	94
LCS 500-625628/4	Lab Control Sample	87	88	89	97
LCS 500-625628/5	Lab Control Sample Dup	86	90	93	96
MB 500-625628/7	Method Blank	89	93	95	95

#### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane  
DCA = 1,2-Dichloroethane-d4 (Surr)  
TOL = Toluene-d8 (Surr)

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

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	2FP (31-166)	PHL (30-153)	NBZ (37-147)	FBP (43-145)	TBP (31-143)	TPHL (42-157)
500-207093-1	2674V2-09-B02 (0-6)	131	113	100	100	91	103
500-207093-2	2674V2-09-B01 (0-6)	72	59	93	95	66	115
LCS 500-625120/2-A	Lab Control Sample	121	105	118	112	99	116
MB 500-625120/1-A	Method Blank	102	68	90	92	61	101

#### Surrogate Legend

2FP = 2-Fluorophenol  
PHL = Phenol-d5  
NBZ = Nitrobenzene-d5 (Surr)  
FBP = 2-Fluorobiphenyl (Surr)  
TBP = 2,4,6-Tribromophenol  
TPHL = Terphenyl-d14 (Surr)



# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207093-1

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

**Lab Sample ID: MB 500-625628/7**  
**Matrix: Solid**  
**Analysis Batch: 625628**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	<0.020		0.020	0.0087	mg/Kg			10/27/21 11:03	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg			10/27/21 11:03	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg			10/27/21 11:03	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg			10/27/21 11:03	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg			10/27/21 11:03	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg			10/27/21 11:03	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg			10/27/21 11:03	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg			10/27/21 11:03	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg			10/27/21 11:03	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg			10/27/21 11:03	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg			10/27/21 11:03	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg			10/27/21 11:03	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg			10/27/21 11:03	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg			10/27/21 11:03	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg			10/27/21 11:03	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg			10/27/21 11:03	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg			10/27/21 11:03	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg			10/27/21 11:03	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg			10/27/21 11:03	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00070	mg/Kg			10/27/21 11:03	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg			10/27/21 11:03	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			10/27/21 11:03	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg			10/27/21 11:03	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg			10/27/21 11:03	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg			10/27/21 11:03	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg			10/27/21 11:03	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg			10/27/21 11:03	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/27/21 11:03	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg			10/27/21 11:03	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg			10/27/21 11:03	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg			10/27/21 11:03	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg			10/27/21 11:03	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg			10/27/21 11:03	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/27/21 11:03	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg			10/27/21 11:03	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg			10/27/21 11:03	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg			10/27/21 11:03	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	89		75 - 131		10/27/21 11:03	1
Dibromofluoromethane	93		75 - 126		10/27/21 11:03	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 134		10/27/21 11:03	1
Toluene-d8 (Surr)	95		75 - 124		10/27/21 11:03	1

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207093-1

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

**Lab Sample ID: LCS 500-625628/4**  
**Matrix: Solid**  
**Analysis Batch: 625628**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0500	0.0572		mg/Kg		114	40 - 150
Benzene	0.0500	0.0525		mg/Kg		105	70 - 125
Bromodichloromethane	0.0500	0.0499		mg/Kg		100	67 - 129
Bromoform	0.0500	0.0479		mg/Kg		96	68 - 136
Bromomethane	0.0500	0.0642		mg/Kg		128	70 - 130
2-Butanone (MEK)	0.0500	0.0613		mg/Kg		123	47 - 138
Carbon disulfide	0.0500	0.0494		mg/Kg		99	70 - 129
Carbon tetrachloride	0.0500	0.0452		mg/Kg		90	75 - 125
Chlorobenzene	0.0500	0.0491		mg/Kg		98	50 - 150
Chloroethane	0.0500	0.0641	*+	mg/Kg		128	75 - 125
Chloroform	0.0500	0.0500		mg/Kg		100	57 - 135
Chloromethane	0.0500	0.0423		mg/Kg		85	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0482		mg/Kg		96	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0511		mg/Kg		102	70 - 125
Dibromochloromethane	0.0500	0.0501		mg/Kg		100	69 - 125
1,1-Dichloroethane	0.0500	0.0487		mg/Kg		97	70 - 125
1,2-Dichloroethane	0.0500	0.0491		mg/Kg		98	70 - 130
1,1-Dichloroethene	0.0500	0.0485		mg/Kg		97	70 - 120
1,2-Dichloropropane	0.0500	0.0523		mg/Kg		105	70 - 125
Ethylbenzene	0.0500	0.0536		mg/Kg		107	61 - 136
2-Hexanone	0.0500	0.0537		mg/Kg		107	48 - 146
Methylene Chloride	0.0500	0.0465		mg/Kg		93	70 - 126
4-Methyl-2-pentanone (MIBK)	0.0500	0.0538		mg/Kg		108	50 - 148
Methyl tert-butyl ether	0.0500	0.0428		mg/Kg		86	50 - 140
Styrene	0.0500	0.0523		mg/Kg		105	70 - 125
1,1,2,2-Tetrachloroethane	0.0500	0.0521		mg/Kg		104	70 - 122
Tetrachloroethene	0.0500	0.0525		mg/Kg		105	70 - 124
Toluene	0.0500	0.0533		mg/Kg		107	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0494		mg/Kg		99	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0486		mg/Kg		97	70 - 125
1,1,1-Trichloroethane	0.0500	0.0456		mg/Kg		91	70 - 128
1,1,2-Trichloroethane	0.0500	0.0530		mg/Kg		106	70 - 125
Trichloroethene	0.0500	0.0509		mg/Kg		102	70 - 125
Vinyl acetate	0.0500	0.0721		mg/Kg		144	40 - 153
Vinyl chloride	0.0500	0.0446		mg/Kg		89	70 - 125
Xylenes, Total	0.100	0.0996		mg/Kg		100	53 - 147

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	87		75 - 131
Dibromofluoromethane	88		75 - 126
1,2-Dichloroethane-d4 (Surr)	89		70 - 134
Toluene-d8 (Surr)	97		75 - 124

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207093-1

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

**Lab Sample ID: LCSD 500-625628/5**  
**Matrix: Solid**  
**Analysis Batch: 625628**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.0500	0.0694		mg/Kg		139	40 - 150	19	30
Benzene	0.0500	0.0536		mg/Kg		107	70 - 125	2	30
Bromodichloromethane	0.0500	0.0524		mg/Kg		105	67 - 129	5	30
Bromoform	0.0500	0.0520		mg/Kg		104	68 - 136	8	30
Bromomethane	0.0500	0.0601		mg/Kg		120	70 - 130	7	30
2-Butanone (MEK)	0.0500	0.0706	*+	mg/Kg		141	47 - 138	14	30
Carbon disulfide	0.0500	0.0498		mg/Kg		100	70 - 129	1	30
Carbon tetrachloride	0.0500	0.0461		mg/Kg		92	75 - 125	2	30
Chlorobenzene	0.0500	0.0497		mg/Kg		99	50 - 150	1	30
Chloroethane	0.0500	0.0603		mg/Kg		121	75 - 125	6	30
Chloroform	0.0500	0.0508		mg/Kg		102	57 - 135	2	30
Chloromethane	0.0500	0.0408		mg/Kg		82	70 - 125	4	30
cis-1,2-Dichloroethene	0.0500	0.0499		mg/Kg		100	70 - 125	3	30
cis-1,3-Dichloropropene	0.0500	0.0535		mg/Kg		107	70 - 125	5	30
Dibromochloromethane	0.0500	0.0528		mg/Kg		106	69 - 125	5	30
1,1-Dichloroethane	0.0500	0.0498		mg/Kg		100	70 - 125	2	30
1,2-Dichloroethane	0.0500	0.0523		mg/Kg		105	70 - 130	6	30
1,1-Dichloroethene	0.0500	0.0490		mg/Kg		98	70 - 120	1	30
1,2-Dichloropropane	0.0500	0.0541		mg/Kg		108	70 - 125	3	30
Ethylbenzene	0.0500	0.0533		mg/Kg		107	61 - 136	0	30
2-Hexanone	0.0500	0.0644		mg/Kg		129	48 - 146	18	30
Methylene Chloride	0.0500	0.0490		mg/Kg		98	70 - 126	5	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0639		mg/Kg		128	50 - 148	17	30
Methyl tert-butyl ether	0.0500	0.0474		mg/Kg		95	50 - 140	10	30
Styrene	0.0500	0.0536		mg/Kg		107	70 - 125	2	30
1,1,2,2-Tetrachloroethane	0.0500	0.0568		mg/Kg		114	70 - 122	9	30
Tetrachloroethene	0.0500	0.0518		mg/Kg		104	70 - 124	1	30
Toluene	0.0500	0.0533		mg/Kg		107	70 - 125	0	30
trans-1,2-Dichloroethene	0.0500	0.0501		mg/Kg		100	70 - 125	1	30
trans-1,3-Dichloropropene	0.0500	0.0523		mg/Kg		105	70 - 125	7	30
1,1,1-Trichloroethane	0.0500	0.0455		mg/Kg		91	70 - 128	0	30
1,1,2-Trichloroethane	0.0500	0.0561		mg/Kg		112	70 - 125	6	30
Trichloroethene	0.0500	0.0524		mg/Kg		105	70 - 125	3	30
Vinyl acetate	0.0500	0.0773	*+	mg/Kg		155	40 - 153	7	30
Vinyl chloride	0.0500	0.0428		mg/Kg		86	70 - 125	4	30
Xylenes, Total	0.100	0.100		mg/Kg		100	53 - 147	1	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	86		75 - 131
Dibromofluoromethane	90		75 - 126
1,2-Dichloroethane-d4 (Surr)	93		70 - 134
Toluene-d8 (Surr)	96		75 - 124

# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207093-1

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

**Lab Sample ID: MB 500-625120/1-A**  
**Matrix: Solid**  
**Analysis Batch: 626713**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 625120**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	<0.17		0.17	0.074	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.050	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
1,3-Dichlorobenzene	<0.17		0.17	0.037	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
1,4-Dichlorobenzene	<0.17		0.17	0.043	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
1,2-Dichlorobenzene	<0.17		0.17	0.040	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2-Methylphenol	<0.17		0.17	0.053	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.039	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
N-Nitrosodi-n-propylamine	<0.067		0.067	0.041	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Hexachloroethane	<0.17		0.17	0.051	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2-Chlorophenol	<0.17		0.17	0.057	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Nitrobenzene	<0.033		0.033	0.0083	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.034	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.036	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Isophorone	<0.17		0.17	0.037	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,4-Dimethylphenol	<0.33		0.33	0.13	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Hexachlorobutadiene	<0.17		0.17	0.052	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Naphthalene	<0.033		0.033	0.0051	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,4-Dichlorophenol	<0.33		0.33	0.079	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4-Chloroaniline	<0.67		0.67	0.16	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,4,6-Trichlorophenol	<0.33		0.33	0.11	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,4,5-Trichlorophenol	<0.33		0.33	0.076	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Hexachlorocyclopentadiene	<0.67		0.67	0.19	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2-Methylnaphthalene	<0.067		0.067	0.0061	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2-Nitroaniline	<0.17		0.17	0.045	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2-Chloronaphthalene	<0.17		0.17	0.037	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4-Chloro-3-methylphenol	<0.33		0.33	0.11	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,6-Dinitrotoluene	<0.17		0.17	0.065	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2-Nitrophenol	<0.33		0.33	0.079	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
3-Nitroaniline	<0.33		0.33	0.10	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Dimethyl phthalate	<0.17		0.17	0.043	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,4-Dinitrophenol	<0.67		0.67	0.59	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Acenaphthylene	<0.033		0.033	0.0044	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,4-Dinitrotoluene	<0.17		0.17	0.053	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Acenaphthene	<0.033		0.033	0.0060	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Dibenzofuran	<0.17		0.17	0.039	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4-Nitrophenol	<0.67		0.67	0.32	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Fluorene	<0.033		0.033	0.0047	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4-Nitroaniline	<0.33		0.33	0.14	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.044	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Hexachlorobenzene	<0.067		0.067	0.0077	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Diethyl phthalate	<0.17		0.17	0.056	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.039	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Pentachlorophenol	<0.67		0.67	0.53	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
N-Nitrosodiphenylamine	<0.17		0.17	0.039	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4,6-Dinitro-2-methylphenol	<0.67		0.67	0.27	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Phenanthrene	<0.033		0.033	0.0046	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Anthracene	<0.033		0.033	0.0056	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Carbazole	<0.17		0.17	0.083	mg/Kg		10/25/21 06:38	11/02/21 18:34	1

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207093-1

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

**Lab Sample ID: MB 500-625120/1-A**  
**Matrix: Solid**  
**Analysis Batch: 626713**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 625120**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	<0.17		0.17	0.051	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Fluoranthene	<0.033		0.033	0.0062	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Pyrene	<0.033		0.033	0.0066	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Butyl benzyl phthalate	<0.17		0.17	0.063	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Benzo[a]anthracene	<0.033		0.033	0.0045	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Chrysene	<0.033		0.033	0.0091	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.047	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.061	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Di-n-octyl phthalate	<0.17		0.17	0.054	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Benzo[b]fluoranthene	<0.033		0.033	0.0072	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Benzo[k]fluoranthene	<0.033		0.033	0.0098	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Benzo[a]pyrene	<0.033		0.033	0.0064	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Indeno[1,2,3-cd]pyrene	<0.033		0.033	0.0086	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Dibenz(a,h)anthracene	<0.033		0.033	0.0064	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Benzo[g,h,i]perylene	<0.033		0.033	0.011	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
3 & 4 Methylphenol	<0.17		0.17	0.055	mg/Kg		10/25/21 06:38	11/02/21 18:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	102		31 - 166	10/25/21 06:38	11/02/21 18:34	1
Phenol-d5	68		30 - 153	10/25/21 06:38	11/02/21 18:34	1
Nitrobenzene-d5 (Surr)	90		37 - 147	10/25/21 06:38	11/02/21 18:34	1
2-Fluorobiphenyl (Surr)	92		43 - 145	10/25/21 06:38	11/02/21 18:34	1
2,4,6-Tribromophenol	61		31 - 143	10/25/21 06:38	11/02/21 18:34	1
Terphenyl-d14 (Surr)	101		42 - 157	10/25/21 06:38	11/02/21 18:34	1

**Lab Sample ID: LCS 500-625120/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626461**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625120**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Phenol	1.33	1.13		mg/Kg		85	56 - 122
Bis(2-chloroethyl)ether	1.33	1.21		mg/Kg		91	55 - 111
1,3-Dichlorobenzene	1.33	1.25		mg/Kg		94	65 - 124
1,4-Dichlorobenzene	1.33	1.26		mg/Kg		94	61 - 110
1,2-Dichlorobenzene	1.33	1.33		mg/Kg		100	62 - 110
2-Methylphenol	1.33	1.45		mg/Kg		109	60 - 120
2,2'-oxybis[1-chloropropane]	1.33	0.808		mg/Kg		61	40 - 124
N-Nitrosodi-n-propylamine	1.33	1.52		mg/Kg		114	56 - 118
Hexachloroethane	1.33	1.14		mg/Kg		85	60 - 114
2-Chlorophenol	1.33	1.35		mg/Kg		101	64 - 110
Nitrobenzene	1.33	1.39		mg/Kg		104	60 - 116
Bis(2-chloroethoxy)methane	1.33	1.43		mg/Kg		107	60 - 112
1,2,4-Trichlorobenzene	1.33	1.37		mg/Kg		103	66 - 117
Isophorone	1.33	1.51	*+	mg/Kg		114	55 - 110
2,4-Dimethylphenol	1.33	1.25		mg/Kg		94	60 - 110
Hexachlorobutadiene	1.33	1.53		mg/Kg		114	56 - 120
Naphthalene	1.33	1.39		mg/Kg		104	63 - 110
2,4-Dichlorophenol	1.33	1.31		mg/Kg		99	58 - 120

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207093-1

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

Lab Sample ID: LCS 500-625120/2-A

Matrix: Solid

Analysis Batch: 626461

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 625120

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chloroaniline	1.33	0.919		mg/Kg		69	30 - 150
2,4,6-Trichlorophenol	1.33	1.29		mg/Kg		97	57 - 120
2,4,5-Trichlorophenol	1.33	1.28		mg/Kg		96	50 - 120
Hexachlorocyclopentadiene	1.33	0.426	J	mg/Kg		32	10 - 133
2-Methylnaphthalene	1.33	1.55	*+	mg/Kg		116	69 - 112
2-Nitroaniline	1.33	1.44		mg/Kg		108	57 - 124
2-Chloronaphthalene	1.33	1.36		mg/Kg		102	69 - 114
4-Chloro-3-methylphenol	1.33	1.28		mg/Kg		96	65 - 122
2,6-Dinitrotoluene	1.33	1.49		mg/Kg		112	70 - 123
2-Nitrophenol	1.33	1.34		mg/Kg		101	60 - 120
3-Nitroaniline	1.33	0.701		mg/Kg		53	40 - 122
Dimethyl phthalate	1.33	1.53		mg/Kg		115	69 - 116
2,4-Dinitrophenol	2.67	<0.67		mg/Kg		11	10 - 100
Acenaphthylene	1.33	1.42		mg/Kg		107	68 - 120
2,4-Dinitrotoluene	1.33	1.49		mg/Kg		112	69 - 124
Acenaphthene	1.33	1.39		mg/Kg		104	65 - 124
Dibenzofuran	1.33	1.40		mg/Kg		105	66 - 115
4-Nitrophenol	2.67	2.62		mg/Kg		98	30 - 122
Fluorene	1.33	1.43		mg/Kg		107	62 - 120
4-Nitroaniline	1.33	1.16		mg/Kg		87	60 - 160
4-Bromophenyl phenyl ether	1.33	1.53		mg/Kg		115	68 - 118
Hexachlorobenzene	1.33	1.58		mg/Kg		118	63 - 124
Diethyl phthalate	1.33	1.52		mg/Kg		114	58 - 120
4-Chlorophenyl phenyl ether	1.33	1.43		mg/Kg		107	62 - 119
Pentachlorophenol	2.67	1.18		mg/Kg		44	13 - 112
N-Nitrosodiphenylamine	1.33	1.43		mg/Kg		107	65 - 112
4,6-Dinitro-2-methylphenol	2.67	0.642	J	mg/Kg		24	10 - 110
Phenanthrene	1.33	1.45		mg/Kg		109	62 - 120
Anthracene	1.33	1.48		mg/Kg		111	70 - 114
Carbazole	1.33	1.50		mg/Kg		112	65 - 142
Di-n-butyl phthalate	1.33	1.47		mg/Kg		110	65 - 120
Fluoranthene	1.33	1.50		mg/Kg		112	62 - 120
Pyrene	1.33	1.42		mg/Kg		106	61 - 128
Butyl benzyl phthalate	1.33	1.35		mg/Kg		101	71 - 129
Benzo[a]anthracene	1.33	1.46		mg/Kg		109	67 - 122
Chrysene	1.33	1.42		mg/Kg		107	63 - 120
3,3'-Dichlorobenzidine	1.33	1.24		mg/Kg		93	35 - 128
Bis(2-ethylhexyl) phthalate	1.33	1.42		mg/Kg		107	72 - 131
Di-n-octyl phthalate	1.33	1.33		mg/Kg		100	68 - 134
Benzo[b]fluoranthene	1.33	1.32		mg/Kg		99	69 - 129
Benzo[k]fluoranthene	1.33	1.40		mg/Kg		105	68 - 127
Benzo[a]pyrene	1.33	1.43		mg/Kg		108	65 - 133
Indeno[1,2,3-cd]pyrene	1.33	1.37		mg/Kg		103	68 - 130
Dibenz(a,h)anthracene	1.33	1.39		mg/Kg		104	64 - 131
Benzo[g,h,i]perylene	1.33	1.38		mg/Kg		103	72 - 131
3 & 4 Methylphenol	1.33	1.46		mg/Kg		109	57 - 120

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207093-1

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

**Lab Sample ID:** LCS 500-625120/2-A  
**Matrix:** Solid  
**Analysis Batch:** 626461

**Client Sample ID:** Lab Control Sample  
**Prep Type:** Total/NA  
**Prep Batch:** 625120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorophenol	121		31 - 166
Phenol-d5	105		30 - 153
Nitrobenzene-d5 (Surr)	118		37 - 147
2-Fluorobiphenyl (Surr)	112		43 - 145
2,4,6-Tribromophenol	99		31 - 143
Terphenyl-d14 (Surr)	116		42 - 157

## Method: 6010B - Metals (ICP)

**Lab Sample ID:** LCS 500-625355/2-A  
**Matrix:** Solid  
**Analysis Batch:** 625645

**Client Sample ID:** Lab Control Sample  
**Prep Type:** Total/NA  
**Prep Batch:** 625355

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Barium	0.500	0.496	J	mg/L		99	80 - 120
Beryllium	0.0500	0.0481		mg/L		96	80 - 120
Boron	1.00	0.875		mg/L		87	80 - 120
Cadmium	0.0500	0.0498		mg/L		100	80 - 120
Chromium	0.200	0.205		mg/L		102	80 - 120
Cobalt	0.500	0.529		mg/L		106	80 - 120
Iron	1.00	0.972		mg/L		97	80 - 120
Lead	0.100	0.0992		mg/L		99	80 - 120
Manganese	0.500	0.480		mg/L		96	80 - 120
Nickel	0.500	0.534		mg/L		107	80 - 120
Selenium	0.100	0.110		mg/L		110	80 - 120
Silver	0.0500	0.0508		mg/L		102	80 - 120
Zinc	0.500	0.595		mg/L		119	80 - 120

**Lab Sample ID:** LCS 500-625357/2-A  
**Matrix:** Solid  
**Analysis Batch:** 625836

**Client Sample ID:** Lab Control Sample  
**Prep Type:** Total/NA  
**Prep Batch:** 625357

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Manganese	0.500	0.479		mg/L		96	80 - 120

**Lab Sample ID:** MB 500-626513/1-A  
**Matrix:** Solid  
**Analysis Batch:** 626836

**Client Sample ID:** Method Blank  
**Prep Type:** Total/NA  
**Prep Batch:** 626513

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<2.0		2.0	0.39	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Arsenic	<1.0		1.0	0.34	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Barium	<1.0		1.0	0.11	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Beryllium	<0.40		0.40	0.093	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Boron	<5.0		5.0	0.47	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Cadmium	0.0859	J	0.20	0.036	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Calcium	11.6	J	20	3.4	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Chromium	<1.0		1.0	0.50	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Cobalt	<0.50		0.50	0.13	mg/Kg		11/01/21 10:16	11/02/21 13:12	1

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207093-1

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

**Lab Sample ID: MB 500-626513/1-A**  
**Matrix: Solid**  
**Analysis Batch: 626836**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 626513**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	0.463	J	1.0	0.28	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Iron	<20		20	10	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Lead	<0.50		0.50	0.23	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Magnesium	5.47	J	10	5.0	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Manganese	0.191	J	1.0	0.15	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Nickel	<1.0		1.0	0.29	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Potassium	<50		50	18	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Selenium	<1.0		1.0	0.59	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Silver	<0.50		0.50	0.13	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Sodium	<100		100	15	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Thallium	<1.0		1.0	0.50	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Vanadium	<0.50		0.50	0.12	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Zinc	<2.0		2.0	0.88	mg/Kg		11/01/21 10:16	11/02/21 13:12	1

**Lab Sample ID: LCS 500-626513/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626836**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626513**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	50.0	47.0		mg/Kg		94	80 - 120
Arsenic	10.0	8.83		mg/Kg		88	80 - 120
Barium	200	210		mg/Kg		105	80 - 120
Beryllium	5.00	4.74		mg/Kg		95	80 - 120
Boron	100	86.7		mg/Kg		87	80 - 120
Cadmium	5.00	4.52		mg/Kg		90	80 - 120
Calcium	1000	982		mg/Kg		98	80 - 120
Chromium	20.0	19.3		mg/Kg		96	80 - 120
Cobalt	50.0	47.4		mg/Kg		95	80 - 120
Copper	25.0	24.2		mg/Kg		97	80 - 120
Iron	100	116		mg/Kg		116	80 - 120
Lead	10.0	9.19		mg/Kg		92	80 - 120
Magnesium	1000	975		mg/Kg		97	80 - 120
Manganese	50.0	48.2		mg/Kg		96	80 - 120
Nickel	50.0	48.6		mg/Kg		97	80 - 120
Potassium	1000	997		mg/Kg		100	80 - 120
Selenium	10.0	8.07		mg/Kg		81	80 - 120
Silver	5.00	4.71		mg/Kg		94	80 - 120
Sodium	1000	1030		mg/Kg		103	80 - 120
Thallium	10.0	9.01		mg/Kg		90	80 - 120
Vanadium	50.0	46.7		mg/Kg		93	80 - 120
Zinc	50.0	47.5		mg/Kg		95	80 - 120

**Lab Sample ID: LB 500-625123/1-B**  
**Matrix: Solid**  
**Analysis Batch: 625645**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 625355**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.50		0.50	0.050	mg/L		10/26/21 07:49	10/26/21 19:42	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/26/21 07:49	10/26/21 19:42	1

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207093-1

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

**Lab Sample ID: LB 500-625123/1-B**  
**Matrix: Solid**  
**Analysis Batch: 625645**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 625355**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.50		0.50	0.050	mg/L		10/26/21 07:49	10/26/21 19:42	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/26/21 07:49	10/26/21 19:42	1
Chromium	<0.025		0.025	0.010	mg/L		10/26/21 07:49	10/26/21 19:42	1
Cobalt	<0.025		0.025	0.010	mg/L		10/26/21 07:49	10/26/21 19:42	1
Iron	<0.40		0.40	0.20	mg/L		10/26/21 07:49	10/26/21 19:42	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/26/21 07:49	10/26/21 19:42	1
Manganese	<0.025		0.025	0.010	mg/L		10/26/21 07:49	10/26/21 19:42	1
Nickel	<0.025		0.025	0.010	mg/L		10/26/21 07:49	10/26/21 19:42	1
Selenium	<0.050		0.050	0.020	mg/L		10/26/21 07:49	10/26/21 19:42	1
Silver	<0.025		0.025	0.010	mg/L		10/26/21 07:49	10/26/21 19:42	1
Zinc	<0.50		0.50	0.020	mg/L		10/26/21 07:49	10/26/21 19:42	1

**Lab Sample ID: LB 500-625125/1-B**  
**Matrix: Solid**  
**Analysis Batch: 625836**

**Client Sample ID: Method Blank**  
**Prep Type: SPLP East**  
**Prep Batch: 625357**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	<0.025		0.025	0.010	mg/L		10/26/21 07:51	10/27/21 15:54	1

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

**Lab Sample ID: LCS 500-625355/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626005**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625355**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.501		mg/L		100	80 - 120
Thallium	0.100	0.0960		mg/L		96	80 - 120

**Lab Sample ID: LB 500-625123/1-B**  
**Matrix: Solid**  
**Analysis Batch: 626005**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 625355**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/26/21 07:49	10/28/21 14:46	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/26/21 07:49	10/28/21 14:46	1

## Method: 7470A - TCLP Mercury

**Lab Sample ID: MB 500-625462/12-A**  
**Matrix: Solid**  
**Analysis Batch: 625700**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 625462**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 08:13	1

# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207093-1

## Method: 7470A - TCLP Mercury (Continued)

**Lab Sample ID: LCS 500-625462/14-A**  
**Matrix: Solid**  
**Analysis Batch: 625700**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625462**  
**%Rec.**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00200	0.00183		mg/L		91	80 - 120

**Lab Sample ID: LB 500-625123/2-C**  
**Matrix: Solid**  
**Analysis Batch: 625700**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 625462**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 09:00	1

## Method: 7471B - Mercury (CVAA)

**Lab Sample ID: MB 500-625918/12-A**  
**Matrix: Solid**  
**Analysis Batch: 626118**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 625918**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0056	mg/Kg		10/28/21 14:10	10/29/21 06:26	1

**Lab Sample ID: LCS 500-625918/13-A**  
**Matrix: Solid**  
**Analysis Batch: 626118**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625918**  
**%Rec.**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.167	0.181		mg/Kg		108	80 - 120

# Lab Chronicle

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207093-1

**Client Sample ID: 2674V2-09-B02 (0-6)**

**Lab Sample ID: 500-207093-1**

**Date Collected: 10/19/21 09:12**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			625125	10/22/21 17:31	EA	TAL CHI
SPLP East	Prep	3010A			625357	10/26/21 07:51	BDE	TAL CHI
SPLP East	Analysis	6010B		1	625836	10/27/21 16:20	JJB	TAL CHI
TCLP	Leach	1311			625123	10/22/21 17:31	EA	TAL CHI
TCLP	Prep	3010A			625355	10/26/21 07:49	BDE	TAL CHI
TCLP	Analysis	6010B		1	625645	10/26/21 20:12	JJB	TAL CHI
TCLP	Leach	1311			625123	10/22/21 17:31	EA	TAL CHI
TCLP	Prep	3010A			625355	10/26/21 07:49	BDE	TAL CHI
TCLP	Analysis	6020A		1	626005	10/28/21 14:58	FXG	TAL CHI
TCLP	Leach	1311			625123	10/22/21 17:31	EA	TAL CHI
TCLP	Prep	7470A			625462	10/26/21 09:55	MJG	TAL CHI
TCLP	Analysis	7470A		1	625700	10/27/21 09:11	MJG	TAL CHI
Total/NA	Analysis	9045D		1	624833	10/21/21 18:36	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	624769	10/21/21 14:05	LWN	TAL CHI

**Client Sample ID: 2674V2-09-B02 (0-6)**

**Lab Sample ID: 500-207093-1**

**Date Collected: 10/19/21 09:12**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

**Percent Solids: 75.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624638	10/20/21 18:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625628	10/27/21 19:18	PMF	TAL CHI
Total/NA	Prep	3541			625120	10/25/21 06:38	SB	TAL CHI
Total/NA	Analysis	8270D		1	626461	11/01/21 19:42	GLR	TAL CHI
Total/NA	Prep	3050B			626513	11/01/21 10:16	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626836	11/02/21 14:47	JJB	TAL CHI
Total/NA	Prep	7471B			625918	10/28/21 14:10	MJG	TAL CHI
Total/NA	Analysis	7471B		1	626118	10/29/21 07:14	MJG	TAL CHI

**Client Sample ID: 2674V2-09-B01 (0-6)**

**Lab Sample ID: 500-207093-2**

**Date Collected: 10/19/21 09:21**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			625125	10/22/21 17:31	EA	TAL CHI
SPLP East	Prep	3010A			625357	10/26/21 07:51	BDE	TAL CHI
SPLP East	Analysis	6010B		1	625836	10/27/21 16:23	JJB	TAL CHI
TCLP	Leach	1311			625123	10/22/21 17:31	EA	TAL CHI
TCLP	Prep	3010A			625355	10/26/21 07:49	BDE	TAL CHI
TCLP	Analysis	6010B		1	625645	10/26/21 20:21	JJB	TAL CHI
TCLP	Leach	1311			625123	10/22/21 17:31	EA	TAL CHI
TCLP	Prep	3010A			625355	10/26/21 07:49	BDE	TAL CHI
TCLP	Analysis	6020A		1	626005	10/28/21 14:59	FXG	TAL CHI
TCLP	Leach	1311			625123	10/22/21 17:31	EA	TAL CHI
TCLP	Prep	7470A			625462	10/26/21 09:55	MJG	TAL CHI
TCLP	Analysis	7470A		1	625700	10/27/21 09:17	MJG	TAL CHI

Eurofins TestAmerica, Chicago

# Lab Chronicle

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207093-1

**Client Sample ID: 2674V2-09-B01 (0-6)**

**Lab Sample ID: 500-207093-2**

**Date Collected: 10/19/21 09:21**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045D		1	624833	10/21/21 18:39	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	624769	10/21/21 14:05	LWN	TAL CHI

**Client Sample ID: 2674V2-09-B01 (0-6)**

**Lab Sample ID: 500-207093-2**

**Date Collected: 10/19/21 09:21**

**Matrix: Solid**

**Date Received: 10/19/21 17:45**

**Percent Solids: 84.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624638	10/20/21 18:07	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625628	10/27/21 19:44	PMF	TAL CHI
Total/NA	Prep	3541			625120	10/25/21 06:38	SB	TAL CHI
Total/NA	Analysis	8270D		10	626713	11/02/21 18:58	EMA	TAL CHI
Total/NA	Prep	3050B			626513	11/01/21 10:16	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626836	11/02/21 14:50	JJB	TAL CHI
Total/NA	Prep	3050B			626513	11/01/21 10:16	BDE	TAL CHI
Total/NA	Analysis	6010B		5	626854	11/02/21 15:17	JJB	TAL CHI
Total/NA	Prep	7471B			625918	10/28/21 14:10	MJG	TAL CHI
Total/NA	Analysis	7471B		1	626118	10/29/21 07:16	MJG	TAL CHI

**Laboratory References:**

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Accreditation/Certification Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207093-1

## Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

1

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12

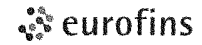
13

14

15

Chain of Custody Record

546551



Environment Testing  
TestAmerica

TAL-8210

Address \_\_\_\_\_



500-207093 COC

Regulatory Program:  DW  NPDES  RCRA  Other

Client Contact		Project Manager <u>Triebout</u>	Site Contact <u>A Hoppel</u>	Date: <u>10/19/21</u>	COC No _____ of _____ COCs
Company Name <u>WSP</u>		Tel/Email _____	Lab Contact <u>R Wright</u>	Carrier _____	
Address _____		Analysis Turnaround Time			Sampler: _____
City/State/Zip <u>Chicago IL</u>		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____			For Lab Use Only
Phone _____		<input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day			Walk-in Client <input type="checkbox"/>
Fax _____					Lab Sampling <input type="checkbox"/>
Project Name <u>IDOT W009</u>					Job / SDG No
Site <u>Lake Villa IL</u>					<u>500-207093</u>
P O # _____					

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Other	Sample Specific Notes
<u>267402-09-BO2(0-6)</u>	<u>10/19/21</u>	<u>0912</u>	<u>C</u>	<u>S</u>	<u>2</u>		<u>X</u>	<u>X</u>	
<u>267402-09-BO1(0-6)</u>	<u>10/19/21</u>	<u>0921</u>	<u>C</u>	<u>S</u>	<u>2</u>		<u>X</u>	<u>X</u>	

Preservation Used: 1=Ice, 2=HCl; 3=H2SO4; 4=HNO3; 5=NaOH; 6=Other

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return to Client  Disposal by Lab  Archive for \_\_\_\_\_ Months

Special Instructions/QC Requirements & Comments:  
\* SPLP analysis based on TCLP results

Custody Seals Intact  Yes  No

Custody Seal No \_\_\_\_\_

Cooler Temp (°C) Obs'd \_\_\_\_\_ Corr'd \_\_\_\_\_ Therm ID No \_\_\_\_\_

Relinquished by <u>[Signature]</u>	Company <u>WSP</u>	Date/Time <u>10/19/21 1530</u>	Received by <u>[Signature]</u>	Company <u>ETA</u>	Date/Time <u>10/19/21 1530</u>
Relinquished by <u>[Signature]</u>	Company <u>ETA</u>	Date/Time <u>10/19/21</u>	Received by <u>[Signature]</u>	Company _____	Date/Time _____
Relinquished by <u>[Signature]</u>	Company _____	Date/Time _____	Received in Laboratory by <u>[Signature]</u>	Company <u>ETA-CAE</u>	Date/Time <u>10/20/21 0700</u>



# Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 500-207093-1

**Login Number: 207093**

**List Source: Eurofins TestAmerica, Chicago**

**List Number: 1**

**Creator: Scott, Sherri L**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





# Illinois Environmental Protection Agency

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

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

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

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

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

### I. Source Location Information

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

Project Name: FAP 541 (Illinois Route 132) Office Phone Number, if available: \_\_\_\_\_

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

17-45 W. Grand Avenue (ISGS #2674V2-10)

City: Lake Villa State: IL Zip Code: 60046

County: Lake Township: Lake Villa

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

Latitude: 42.41503 Longitude: - 88.08312  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

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

Approximate Start Date (mm/dd/yyyy): \_\_\_\_\_ Approximate End Date (mm/dd/yyyy): \_\_\_\_\_

Estimated Volume of debris (cu. Yd.): 988

### 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 2674V2-10-B01 through -B04 were sampled within the construction zone adjacent to ISGS #2674V2-10 (Residential Buildings and Vacant Lot). Refer to PSI Report for ISGS #2674V2-10 (Residential Buildings and Vacant Lot) including Table 4-4, and Figures 4-3 and 4-6.

- 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]:

See attached data summary table and associated laboratory data package J207060-1.

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

I, Tom Campbell (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: WSP USA

Street Address: 115 W Washington St., Suite 1270S

City: Indianapolis State: IN Zip Code: 46204

Phone: (317) 972-1706

Tom Campbell  
Printed Name:



Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

02/03/2022

Date:



Expires 11/30/2023



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

**Analytical Data Summary**  
**PTB #196-002; Work Order 04 - IDOT Job # P-91-583-12**

**Key to Data Tables**

- MAC = Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- TACO = Tiered Approach to Corrective Action Objectives
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers and Shading**

- # = pH is less than 6.25 or greater than 9.0 standard units.
- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- r = Concentration exceeds a TACO Tier 1 RO for the Residential Soil Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds applicable comparison criteria.

**PTB #196-002; Work Order 04 - IDOT Job # P-91-583-12  
CONTAMINANTS OF CONCERN**

SITE	ISGS #2674V2-10 (Residential Buildings and Vacant Lot)				Comparison Criteria					
	2674V2-10-B01	2674V2-10-B02	2674V2-10-B03	2674V2-10-B04	MACs			TACO		
BORING	2674V2-10-B01 (0-5)	2674V2-10-B02 (0-5)	2674V2-10-B03 (0-5)	2674V2-10-B04 (0-5)	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
SAMPLE										
MATRIX	Soil	Soil	Soil	Soil						
DEPTH (feet)	0-5	0-5	0-5	0-5						
pH	8.6	9.0	8.6	8.0						
PID (meter units)	--	--	--	--						
<b>VOCs (mg/kg)</b>										
Chloroform	ND U	0.0037	0.00069 J	ND U	0.3	--	--	0.3	0.76	--
<b>SVOCs (mg/kg)</b>										
2-Methylnaphthalene	ND U	ND U	0.016 J	ND U	--	--	--	--	--	--
Acenaphthylene	ND U	ND U	0.0057 J	ND U	--	--	--	--	--	--
Anthracene	0.0071 J	ND U	0.015 J	ND U	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	0.054	ND U	0.061	ND U	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.070	ND UJ	0.071 J	ND UJ	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	0.11	ND UJ	0.13 J	ND UJ	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.029 J	ND UJ	0.035 J	ND UJ	--	--	--	--	--	--
Benzo(k)fluoranthene	0.042	ND UJ	0.042 J	ND UJ	9	--	--	9	1,700	--
Chrysene	0.066	ND U	0.089	ND U	88	--	--	88	17,000	--
Dibenz(a,h)anthracene	ND U	ND UJ	0.012 J	ND UJ	0.09	0.42	0.2	0.42	17	--
Fluoranthene	0.13	ND U	0.12	ND U	3,100	--	--	3,100	82,000	--
Fluorene	ND U	ND U	0.0057 J	ND U	560	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	0.030 J	ND UJ	0.029 J	ND UJ	0.9	1.6	0.9	1.6	170	--
Naphthalene	ND U	ND U	0.0077 J	ND U	1.8	--	--	170	1.8	--
Phenanthrene	0.037 J	ND U	0.081	0.0089 J	--	--	--	--	--	--
Pyrene	0.12	ND U	0.14	0.0078 J	2,300	--	--	2,300	61,000	--
<b>Inorganics (mg/kg)</b>										
Arsenic	5.1	6.0	10	4.9	11.3	13	--	13	61	--
Barium	72	75	51	81	1,500	--	--	5,500	14,000	--
Beryllium	0.75	0.88	0.96	1.0	22	--	--	160	410	--
Boron	8.4	6.3	6.4	4.9	40	--	--	16,000	41,000	--
Calcium	37,000	53,000	49,000	3,300	--	--	--	--	--	--
Chromium	13	14	16	21	21	--	--	230	690	--
Cobalt	8.8	8.9	16	11	20	--	--	4,700	12,000	--
Copper	21	28	24	18	2,900	--	--	2,900	8,200	--
Iron	16,000 †m	15,000	38,000 †m	22,000 †m	15,000	15,900	--	--	--	--
Lead	47	33	19	14	107	--	--	400	700	--
Magnesium	18,000	22,000	25,000	4,800	325,000	--	--	--	730,000	--
Manganese	340	290	320	250	630	636	--	1,600	4,100	--
Mercury	0.092	0.060	0.030	0.035	0.89	--	--	10	0.1	--
Nickel	21	24	38	31	100	--	--	1,600	4,100	--
Potassium	1,700	1,400	1,800	1,800	--	--	--	--	--	--
Silver	0.27 J	0.34	0.30	0.40	4.4	--	--	390	1,000	--
Sodium	760	1,200	670	800	--	--	--	--	--	--
Thallium	0.60	0.41 J	ND U	0.55 J	2.6	--	--	6.3	160	--
Vanadium	19	20	29	24	550	--	--	550	1,400	--
Zinc	100	81	63	67	5,100	--	--	23,000	61,000	--
<b>TCLP Metals (mg/L)</b>										
Barium	0.33 J	0.49 J	0.40 J	0.17 J	--	--	--	--	--	2
Boron	0.083 J	0.082 J	ND U	0.11 J	--	--	--	--	--	2
Iron	ND U	ND U	ND U	0.98	--	--	--	--	--	5
Manganese	0.19 L	0.25 L	0.56 L	0.016 J	--	--	--	--	--	0.15
Zinc	0.061 J	0.030 J	ND UJ	ND UJ	--	--	--	--	--	5
<b>SPLP Metals (mg/L)</b>										
Manganese	0.94 L	1.0 L	1.2 L	NA	--	--	--	--	--	0.15

## ANALYTICAL REPORT

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

Laboratory Job ID: 500-207060-1

Client Project/Site: IDOT - 196-002-WO04 Lake Villa

**For:**

WSP USA Inc.  
30 North LaSalle Street  
Chicago, Illinois 60602

Attn: Dean Tiebot



Authorized for release by:  
11/4/2021 3:41:07 PM

Richard Wright, Senior Project Manager  
(708)746-0045  
[Richard.Wright@Eurofinset.com](mailto:Richard.Wright@Eurofinset.com)

### LINKS

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results through  
**TotalAccess**

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[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

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

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



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# Case Narrative

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

## Job ID: 500-207060-1

### Laboratory: Eurofins TestAmerica, Chicago

#### Narrative

#### Job Narrative 500-207060-1

#### Receipt

The samples were received on 10/19/2021 11:15 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 5.1° C and 5.3° C.

#### GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### GC/MS Semi VOA

Method 8270D: The continuing calibration verification (CCV) analyzed in batch 500-626713 was outside the method criteria for the following analyte(s): 2,2'-oxybis[1-chloropropane] and Pentachlorophenol. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270D: The following samples were diluted due to the nature of the sample matrix: 2674V2-10-B01 (0-5) (500-207060-1), 2674V2-10-B02 (0-5) (500-207060-2), 2674V2-10-B03 (0-5) (500-207060-3) and 2674V2-10-B04 (0-5) (500-207060-4). Elevated reporting limits (RLs) are provided.

Method 8270D: Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when utilizing this list of analytes. The LCS associated with preparation batch 500-625120 and analytical batch 500-626461 had 2 analytes outside control limits: 2-Methylnaphthalene and Isophorone. These results have been reported and qualified.

Method 8270D: Perylene-d12 Internal standard (ISTD) response for the following samples was outside of acceptance limits: 2674V2-10-B02 (0-5) (500-207060-2) and 2674V2-10-B04 (0-5) (500-207060-4). Analytes associated to this internal standard were non-detect; therefore, re-analysis was not performed.

Method 8270D: Perylene-d12 Internal standard (ISTD) response for the following sample was outside of acceptance limits: 2674V2-10-B03 (0-5) (500-207060-3). The sample was previously analyzed at a dilution with acceptable ISTD recoveries. The undiluted analysis was reported to obtain lower reporting limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

Method 6010B: The continuing calibration verification (CCV) associated with batch 500-625354 recovered above the upper control limit for Zinc. The samples associated with this CCV were below the reporting limit for the affected analytes; therefore, the data have been reported. The associated samples are impacted: 2674V2-10-B01 (0-5) (500-207060-1), 2674V2-10-B02 (0-5) (500-207060-2), 2674V2-10-B03 (0-5) (500-207060-3) and 2674V2-10-B04 (0-5) (500-207060-4).

Method 6010B: The continuing calibration blanks (CCB) contained Iron above the reporting limit (RL). The sample 2674V2-10-B01 (0-5) (500-207060-1), 2674V2-10-B02 (0-5) (500-207060-2) and 2674V2-10-B03 (0-5) (500-207060-3) associated with this CCB was below the reporting limit for the target compound; therefore, re-analysis of samples was not performed.

2674V2-10-B01 (0-5) (500-207060-1), 2674V2-10-B02 (0-5) (500-207060-2) and 2674V2-10-B03 (0-5) (500-207060-3)

Method 6010B: The method blank for preparation batch 500-626511 and analytical batch 500-626836 contained Calcium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method 6010B: The method blank for preparation batch 500-626511 and analytical batch 500-626854 contained Calcium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

# Case Narrative

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

---

## Job ID: 500-207060-1 (Continued)

---

### Laboratory: Eurofins TestAmerica, Chicago (Continued)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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# Detection Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

**Client Sample ID: 2674V2-10-B01 (0-5)**

**Lab Sample ID: 500-207060-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.037	J	0.038	0.0053	mg/Kg	1	✳	8270D	Total/NA
Anthracene	0.0071	J	0.038	0.0064	mg/Kg	1	✳	8270D	Total/NA
Fluoranthene	0.13		0.038	0.0071	mg/Kg	1	✳	8270D	Total/NA
Pyrene	0.12		0.038	0.0076	mg/Kg	1	✳	8270D	Total/NA
Benzo[a]anthracene	0.054		0.038	0.0051	mg/Kg	1	✳	8270D	Total/NA
Chrysene	0.066		0.038	0.010	mg/Kg	1	✳	8270D	Total/NA
Benzo[b]fluoranthene	0.11		0.038	0.0082	mg/Kg	1	✳	8270D	Total/NA
Benzo[k]fluoranthene	0.042		0.038	0.011	mg/Kg	1	✳	8270D	Total/NA
Benzo[a]pyrene	0.070		0.038	0.0074	mg/Kg	1	✳	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.030	J	0.038	0.0099	mg/Kg	1	✳	8270D	Total/NA
Benzo[g,h,i]perylene	0.029	J	0.038	0.012	mg/Kg	1	✳	8270D	Total/NA
Antimony	0.25	J B	1.1	0.22	mg/Kg	1	✳	6010B	Total/NA
Arsenic	5.1		0.55	0.19	mg/Kg	1	✳	6010B	Total/NA
Barium	72	B	0.55	0.063	mg/Kg	1	✳	6010B	Total/NA
Beryllium	0.75		0.22	0.052	mg/Kg	1	✳	6010B	Total/NA
Boron	8.4		2.8	0.26	mg/Kg	1	✳	6010B	Total/NA
Cadmium	0.22	B	0.11	0.020	mg/Kg	1	✳	6010B	Total/NA
Calcium	37000	B	55	9.4	mg/Kg	5	✳	6010B	Total/NA
Chromium	13		0.55	0.27	mg/Kg	1	✳	6010B	Total/NA
Cobalt	8.8		0.28	0.072	mg/Kg	1	✳	6010B	Total/NA
Copper	21	B	0.55	0.15	mg/Kg	1	✳	6010B	Total/NA
Iron	16000	B	11	5.7	mg/Kg	1	✳	6010B	Total/NA
Lead	47		0.28	0.13	mg/Kg	1	✳	6010B	Total/NA
Magnesium	18000	B	5.5	2.7	mg/Kg	1	✳	6010B	Total/NA
Manganese	340		0.55	0.080	mg/Kg	1	✳	6010B	Total/NA
Nickel	21		0.55	0.16	mg/Kg	1	✳	6010B	Total/NA
Potassium	1700		28	9.8	mg/Kg	1	✳	6010B	Total/NA
Silver	0.27	J	0.28	0.071	mg/Kg	1	✳	6010B	Total/NA
Sodium	760		55	8.2	mg/Kg	1	✳	6010B	Total/NA
Thallium	0.60		0.55	0.28	mg/Kg	1	✳	6010B	Total/NA
Vanadium	19		0.28	0.065	mg/Kg	1	✳	6010B	Total/NA
Zinc	100	B	1.1	0.49	mg/Kg	1	✳	6010B	Total/NA
Barium	0.33	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.083	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.19		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.061	J ^+	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	0.94		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.092		0.019	0.0064	mg/Kg	1	✳	7471B	Total/NA
pH	8.6		0.2	0.2	SU	1		9045D	Total/NA

**Client Sample ID: 2674V2-10-B02 (0-5)**

**Lab Sample ID: 500-207060-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.0037		0.0020	0.00070	mg/Kg	1	✳	8260B	Total/NA
Antimony	0.45	J B	1.1	0.22	mg/Kg	1	✳	6010B	Total/NA
Arsenic	6.0		0.57	0.20	mg/Kg	1	✳	6010B	Total/NA
Barium	75	B	0.57	0.065	mg/Kg	1	✳	6010B	Total/NA
Beryllium	0.88		0.23	0.054	mg/Kg	1	✳	6010B	Total/NA
Boron	6.3		2.9	0.27	mg/Kg	1	✳	6010B	Total/NA
Cadmium	0.27	B	0.11	0.021	mg/Kg	1	✳	6010B	Total/NA
Calcium	53000	B	57	9.7	mg/Kg	5	✳	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago



# Detection Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

## Client Sample ID: 2674V2-10-B02 (0-5) (Continued)

## Lab Sample ID: 500-207060-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	14		0.57	0.28	mg/Kg	1	☒	6010B	Total/NA
Cobalt	8.9		0.29	0.075	mg/Kg	1	☒	6010B	Total/NA
Copper	28	B	0.57	0.16	mg/Kg	1	☒	6010B	Total/NA
Iron	15000	B	11	6.0	mg/Kg	1	☒	6010B	Total/NA
Lead	33		0.29	0.13	mg/Kg	1	☒	6010B	Total/NA
Magnesium	22000	B	5.7	2.8	mg/Kg	1	☒	6010B	Total/NA
Manganese	290		0.57	0.083	mg/Kg	1	☒	6010B	Total/NA
Nickel	24		0.57	0.17	mg/Kg	1	☒	6010B	Total/NA
Potassium	1400		29	10	mg/Kg	1	☒	6010B	Total/NA
Silver	0.34		0.29	0.074	mg/Kg	1	☒	6010B	Total/NA
Sodium	1200		57	8.5	mg/Kg	1	☒	6010B	Total/NA
Thallium	0.41	J	0.57	0.29	mg/Kg	1	☒	6010B	Total/NA
Vanadium	20		0.29	0.068	mg/Kg	1	☒	6010B	Total/NA
Zinc	81	B	1.1	0.50	mg/Kg	1	☒	6010B	Total/NA
Barium	0.49	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.082	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.25		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.030	J ^+	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	1.0		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.060		0.020	0.0065	mg/Kg	1	☒	7471B	Total/NA
pH	9.0		0.2	0.2	SU	1		9045D	Total/NA

## Client Sample ID: 2674V2-10-B03 (0-5)

## Lab Sample ID: 500-207060-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.00069	J	0.0019	0.00066	mg/Kg	1	☒	8260B	Total/NA
Naphthalene	0.0077	J	0.040	0.0062	mg/Kg	1	☒	8270D	Total/NA
2-Methylnaphthalene	0.016	J *+	0.081	0.0074	mg/Kg	1	☒	8270D	Total/NA
Acenaphthylene	0.0057	J	0.040	0.0053	mg/Kg	1	☒	8270D	Total/NA
Fluorene	0.0057	J	0.040	0.0056	mg/Kg	1	☒	8270D	Total/NA
Phenanthrene	0.081		0.040	0.0056	mg/Kg	1	☒	8270D	Total/NA
Anthracene	0.015	J	0.040	0.0067	mg/Kg	1	☒	8270D	Total/NA
Fluoranthene	0.12		0.040	0.0074	mg/Kg	1	☒	8270D	Total/NA
Pyrene	0.14		0.040	0.0080	mg/Kg	1	☒	8270D	Total/NA
Benzo[a]anthracene	0.061		0.040	0.0054	mg/Kg	1	☒	8270D	Total/NA
Chrysene	0.089		0.040	0.011	mg/Kg	1	☒	8270D	Total/NA
Benzo[b]fluoranthene	0.13	*3	0.040	0.0087	mg/Kg	1	☒	8270D	Total/NA
Benzo[k]fluoranthene	0.042	*3	0.040	0.012	mg/Kg	1	☒	8270D	Total/NA
Benzo[a]pyrene	0.071	*3	0.040	0.0078	mg/Kg	1	☒	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.029	J *3	0.040	0.010	mg/Kg	1	☒	8270D	Total/NA
Dibenz(a,h)anthracene	0.012	J *3	0.040	0.0077	mg/Kg	1	☒	8270D	Total/NA
Benzo[g,h,i]perylene	0.035	J *3	0.040	0.013	mg/Kg	1	☒	8270D	Total/NA
Antimony	0.94	J B	1.2	0.23	mg/Kg	1	☒	6010B	Total/NA
Arsenic	10		2.9	0.99	mg/Kg	5	☒	6010B	Total/NA
Barium	51	B	0.58	0.066	mg/Kg	1	☒	6010B	Total/NA
Beryllium	0.96		0.23	0.054	mg/Kg	1	☒	6010B	Total/NA
Boron	6.4		2.9	0.27	mg/Kg	1	☒	6010B	Total/NA
Calcium	49000	B	58	9.8	mg/Kg	5	☒	6010B	Total/NA
Chromium	16		0.58	0.29	mg/Kg	1	☒	6010B	Total/NA
Cobalt	16		0.29	0.076	mg/Kg	1	☒	6010B	Total/NA
Copper	24	B	2.9	0.81	mg/Kg	5	☒	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Detection Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

## Client Sample ID: 2674V2-10-B03 (0-5) (Continued)

## Lab Sample ID: 500-207060-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	38000	B	58	30	mg/Kg	5	✳	6010B	Total/NA
Lead	19		1.5	0.67	mg/Kg	5	✳	6010B	Total/NA
Magnesium	25000	B	5.8	2.9	mg/Kg	1	✳	6010B	Total/NA
Manganese	320		0.58	0.084	mg/Kg	1	✳	6010B	Total/NA
Nickel	38		2.9	0.85	mg/Kg	5	✳	6010B	Total/NA
Potassium	1800		29	10	mg/Kg	1	✳	6010B	Total/NA
Silver	0.30		0.29	0.075	mg/Kg	1	✳	6010B	Total/NA
Sodium	670		58	8.6	mg/Kg	1	✳	6010B	Total/NA
Vanadium	29		1.5	0.34	mg/Kg	5	✳	6010B	Total/NA
Zinc	63	B	1.2	0.51	mg/Kg	1	✳	6010B	Total/NA
Barium	0.40	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.56		0.025	0.010	mg/L	1		6010B	TCLP
Manganese	1.2		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.030		0.019	0.0063	mg/Kg	1	✳	7471B	Total/NA
pH	8.6		0.2	0.2	SU	1		9045D	Total/NA

## Client Sample ID: 2674V2-10-B04 (0-5)

## Lab Sample ID: 500-207060-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.0089	J	0.036	0.0051	mg/Kg	1	✳	8270D	Total/NA
Pyrene	0.0078	J	0.036	0.0073	mg/Kg	1	✳	8270D	Total/NA
Antimony	0.32	J B	1.1	0.22	mg/Kg	1	✳	6010B	Total/NA
Arsenic	4.9		0.56	0.19	mg/Kg	1	✳	6010B	Total/NA
Barium	81	B	0.56	0.064	mg/Kg	1	✳	6010B	Total/NA
Beryllium	1.0		0.22	0.052	mg/Kg	1	✳	6010B	Total/NA
Boron	4.9		2.8	0.26	mg/Kg	1	✳	6010B	Total/NA
Calcium	3300	B	11	1.9	mg/Kg	1	✳	6010B	Total/NA
Chromium	21		0.56	0.28	mg/Kg	1	✳	6010B	Total/NA
Cobalt	11		0.28	0.074	mg/Kg	1	✳	6010B	Total/NA
Copper	18	B	0.56	0.16	mg/Kg	1	✳	6010B	Total/NA
Iron	22000	B	11	5.8	mg/Kg	1	✳	6010B	Total/NA
Lead	14		0.28	0.13	mg/Kg	1	✳	6010B	Total/NA
Magnesium	4800	B	5.6	2.8	mg/Kg	1	✳	6010B	Total/NA
Manganese	250		0.56	0.081	mg/Kg	1	✳	6010B	Total/NA
Nickel	31		0.56	0.16	mg/Kg	1	✳	6010B	Total/NA
Potassium	1800		28	9.9	mg/Kg	1	✳	6010B	Total/NA
Silver	0.40		0.28	0.072	mg/Kg	1	✳	6010B	Total/NA
Sodium	800		56	8.3	mg/Kg	1	✳	6010B	Total/NA
Thallium	0.55	J	0.56	0.28	mg/Kg	1	✳	6010B	Total/NA
Vanadium	24		0.28	0.066	mg/Kg	1	✳	6010B	Total/NA
Zinc	67	B	1.1	0.49	mg/Kg	1	✳	6010B	Total/NA
Barium	0.17	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.11	J	0.50	0.050	mg/L	1		6010B	TCLP
Iron	0.98		0.40	0.20	mg/L	1		6010B	TCLP
Manganese	0.016	J	0.025	0.010	mg/L	1		6010B	TCLP
Mercury	0.035		0.018	0.0059	mg/Kg	1	✳	7471B	Total/NA
pH	8.0		0.2	0.2	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Method Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CHI
6010B	Metals (ICP)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
7470A	TCLP Mercury	SW846	TAL CHI
7471B	Mercury (CVAA)	SW846	TAL CHI
9045D	pH	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
1311	TCLP Extraction	SW846	TAL CHI
1312	SPLP Extraction	SW846	TAL CHI
3010A	Preparation, Total Metals	SW846	TAL CHI
3050B	Preparation, Metals	SW846	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI
5035	Closed System Purge and Trap	SW846	TAL CHI
7470A	Preparation, Mercury	SW846	TAL CHI
7471B	Preparation, Mercury	SW846	TAL CHI

#### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Sample Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-207060-1	2674V2-10-B01 (0-5)	Solid	10/18/21 13:52	10/19/21 11:15
500-207060-2	2674V2-10-B02 (0-5)	Solid	10/18/21 14:00	10/19/21 11:15
500-207060-3	2674V2-10-B03 (0-5)	Solid	10/18/21 14:13	10/19/21 11:15
500-207060-4	2674V2-10-B04 (0-5)	Solid	10/18/21 14:21	10/19/21 11:15

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# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

**Client Sample ID: 2674V2-10-B01 (0-5)**

**Lab Sample ID: 500-207060-1**

**Date Collected: 10/18/21 13:52**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 82.8**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.021		0.021	0.0091	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
Benzene	<0.0021		0.0021	0.00053	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
Bromodichloromethane	<0.0021		0.0021	0.00043	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
Bromoform	<0.0021		0.0021	0.00061	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
Bromomethane	<0.0052		0.0052	0.0020	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
2-Butanone (MEK)	<0.0052		0.0052	0.0023	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
Carbon disulfide	<0.0052		0.0052	0.0011	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
Carbon tetrachloride	<0.0021		0.0021	0.00061	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
Chlorobenzene	<0.0021		0.0021	0.00077	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
Chloroethane	<0.0052		0.0052	0.0015	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
Chloroform	<0.0021		0.0021	0.00072	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
Chloromethane	<0.0052		0.0052	0.0021	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
cis-1,2-Dichloroethene	<0.0021		0.0021	0.00058	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
cis-1,3-Dichloropropene	<0.0021		0.0021	0.00063	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
Dibromochloromethane	<0.0021		0.0021	0.00068	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
1,1-Dichloroethane	<0.0021		0.0021	0.00072	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
1,2-Dichloroethane	<0.0052		0.0052	0.0016	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
1,1-Dichloroethene	<0.0021		0.0021	0.00072	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
1,2-Dichloropropene	<0.0021		0.0021	0.00054	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
1,3-Dichloropropene, Total	<0.0021		0.0021	0.00073	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
Ethylbenzene	<0.0021		0.0021	0.0010	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
2-Hexanone	<0.0052		0.0052	0.0016	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
Methylene Chloride	<0.0052		0.0052	0.0021	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
4-Methyl-2-pentanone (MIBK)	<0.0052		0.0052	0.0015	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
Methyl tert-butyl ether	<0.0021		0.0021	0.00061	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
Styrene	<0.0021		0.0021	0.00063	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
1,1,2,2-Tetrachloroethane	<0.0021		0.0021	0.00067	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
Tetrachloroethene	<0.0021		0.0021	0.00071	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
Toluene	<0.0021		0.0021	0.00053	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
trans-1,2-Dichloroethene	<0.0021		0.0021	0.00093	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
trans-1,3-Dichloropropene	<0.0021		0.0021	0.00073	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
1,1,1-Trichloroethane	<0.0021		0.0021	0.00070	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
1,1,2-Trichloroethane	<0.0021		0.0021	0.00090	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
Trichloroethene	<0.0021		0.0021	0.00071	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
Vinyl acetate	<0.0052		0.0052	0.0018	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
Vinyl chloride	<0.0021		0.0021	0.00092	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1
Xylenes, Total	<0.0042		0.0042	0.00067	mg/Kg	☼	10/19/21 18:28	10/26/21 18:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		75 - 131	10/19/21 18:28	10/26/21 18:04	1
Dibromofluoromethane	106		75 - 126	10/19/21 18:28	10/26/21 18:04	1
1,2-Dichloroethane-d4 (Surr)	110		70 - 134	10/19/21 18:28	10/26/21 18:04	1
Toluene-d8 (Surr)	113		75 - 124	10/19/21 18:28	10/26/21 18:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.085	mg/Kg	☼	10/25/21 06:38	11/03/21 22:40	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	10/25/21 06:38	11/03/21 22:40	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	10/25/21 06:38	11/03/21 22:40	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	10/25/21 06:38	11/03/21 22:40	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

**Client Sample ID: 2674V2-10-B01 (0-5)**

**Lab Sample ID: 500-207060-1**

**Date Collected: 10/18/21 13:52**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 82.8**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.047	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
Isophorone	<0.19	+	0.19	0.043	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
2-Methylnaphthalene	<0.077	+	0.077	0.0070	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
Hexachlorobenzene	<0.077		0.077	0.0089	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
<b>Phenanthrene</b>	<b>0.037</b>	<b>J</b>	0.038	0.0053	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
<b>Anthracene</b>	<b>0.0071</b>	<b>J</b>	0.038	0.0064	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
Carbazole	<0.19		0.19	0.095	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
<b>Fluoranthene</b>	<b>0.13</b>		0.038	0.0071	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
<b>Pyrene</b>	<b>0.12</b>		0.038	0.0076	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1
<b>Benzo[a]anthracene</b>	<b>0.054</b>		0.038	0.0051	mg/Kg	✱	10/25/21 06:38	11/03/21 22:40	1

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# Client Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

**Client Sample ID: 2674V2-10-B01 (0-5)**

**Lab Sample ID: 500-207060-1**

Date Collected: 10/18/21 13:52

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 82.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chrysene</b>	<b>0.066</b>		0.038	0.010	mg/Kg	☼	10/25/21 06:38	11/03/21 22:40	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	10/25/21 06:38	11/03/21 22:40	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	10/25/21 06:38	11/03/21 22:40	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	10/25/21 06:38	11/03/21 22:40	1
<b>Benzo[b]fluoranthene</b>	<b>0.11</b>		0.038	0.0082	mg/Kg	☼	10/25/21 06:38	11/03/21 22:40	1
<b>Benzo[k]fluoranthene</b>	<b>0.042</b>		0.038	0.011	mg/Kg	☼	10/25/21 06:38	11/03/21 22:40	1
<b>Benzo[a]pyrene</b>	<b>0.070</b>		0.038	0.0074	mg/Kg	☼	10/25/21 06:38	11/03/21 22:40	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.030</b>	<b>J</b>	0.038	0.0099	mg/Kg	☼	10/25/21 06:38	11/03/21 22:40	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	10/25/21 06:38	11/03/21 22:40	1
<b>Benzo[g,h,i]perylene</b>	<b>0.029</b>	<b>J</b>	0.038	0.012	mg/Kg	☼	10/25/21 06:38	11/03/21 22:40	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	10/25/21 06:38	11/03/21 22:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	104		31 - 166	10/25/21 06:38	11/03/21 22:40	1
Phenol-d5	85		30 - 153	10/25/21 06:38	11/03/21 22:40	1
Nitrobenzene-d5 (Surr)	72		37 - 147	10/25/21 06:38	11/03/21 22:40	1
2-Fluorobiphenyl (Surr)	83		43 - 145	10/25/21 06:38	11/03/21 22:40	1
2,4,6-Tribromophenol	83		31 - 143	10/25/21 06:38	11/03/21 22:40	1
Terphenyl-d14 (Surr)	104		42 - 157	10/25/21 06:38	11/03/21 22:40	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.25</b>	<b>J B</b>	1.1	0.22	mg/Kg	☼	11/01/21 10:13	11/02/21 11:46	1
<b>Arsenic</b>	<b>5.1</b>		0.55	0.19	mg/Kg	☼	11/01/21 10:13	11/02/21 11:46	1
<b>Barium</b>	<b>72</b>	<b>B</b>	0.55	0.063	mg/Kg	☼	11/01/21 10:13	11/02/21 11:46	1
<b>Beryllium</b>	<b>0.75</b>		0.22	0.052	mg/Kg	☼	11/01/21 10:13	11/02/21 11:46	1
<b>Boron</b>	<b>8.4</b>		2.8	0.26	mg/Kg	☼	11/01/21 10:13	11/02/21 11:46	1
<b>Cadmium</b>	<b>0.22</b>	<b>B</b>	0.11	0.020	mg/Kg	☼	11/01/21 10:13	11/02/21 11:46	1
<b>Calcium</b>	<b>37000</b>	<b>B</b>	55	9.4	mg/Kg	☼	11/01/21 10:13	11/02/21 12:53	5
<b>Chromium</b>	<b>13</b>		0.55	0.27	mg/Kg	☼	11/01/21 10:13	11/02/21 11:46	1
<b>Cobalt</b>	<b>8.8</b>		0.28	0.072	mg/Kg	☼	11/01/21 10:13	11/02/21 11:46	1
<b>Copper</b>	<b>21</b>	<b>B</b>	0.55	0.15	mg/Kg	☼	11/01/21 10:13	11/02/21 11:46	1
<b>Iron</b>	<b>16000</b>	<b>B</b>	11	5.7	mg/Kg	☼	11/01/21 10:13	11/02/21 11:46	1
<b>Lead</b>	<b>47</b>		0.28	0.13	mg/Kg	☼	11/01/21 10:13	11/02/21 11:46	1
<b>Magnesium</b>	<b>18000</b>	<b>B</b>	5.5	2.7	mg/Kg	☼	11/01/21 10:13	11/02/21 11:46	1
<b>Manganese</b>	<b>340</b>		0.55	0.080	mg/Kg	☼	11/01/21 10:13	11/02/21 11:46	1
<b>Nickel</b>	<b>21</b>		0.55	0.16	mg/Kg	☼	11/01/21 10:13	11/02/21 11:46	1
<b>Potassium</b>	<b>1700</b>		28	9.8	mg/Kg	☼	11/01/21 10:13	11/02/21 11:46	1
Selenium	<0.55		0.55	0.33	mg/Kg	☼	11/01/21 10:13	11/02/21 11:46	1
<b>Silver</b>	<b>0.27</b>	<b>J</b>	0.28	0.071	mg/Kg	☼	11/01/21 10:13	11/02/21 11:46	1
<b>Sodium</b>	<b>760</b>		55	8.2	mg/Kg	☼	11/01/21 10:13	11/02/21 11:46	1
<b>Thallium</b>	<b>0.60</b>		0.55	0.28	mg/Kg	☼	11/01/21 10:13	11/02/21 11:46	1
<b>Vanadium</b>	<b>19</b>		0.28	0.065	mg/Kg	☼	11/01/21 10:13	11/02/21 11:46	1
<b>Zinc</b>	<b>100</b>	<b>B</b>	1.1	0.49	mg/Kg	☼	11/01/21 10:13	11/02/21 11:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>0.33</b>	<b>J</b>	0.50	0.050	mg/L		10/25/21 08:30	10/25/21 17:01	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/25/21 08:30	10/25/21 17:01	1
<b>Boron</b>	<b>0.083</b>	<b>J</b>	0.50	0.050	mg/L		10/25/21 08:30	10/25/21 17:01	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

**Client Sample ID: 2674V2-10-B01 (0-5)**

**Lab Sample ID: 500-207060-1**

Date Collected: 10/18/21 13:52

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 82.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/25/21 08:30	10/25/21 17:01	1
Chromium	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 17:01	1
Cobalt	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 17:01	1
Iron	<0.40		0.40	0.20	mg/L		10/25/21 08:30	10/25/21 17:01	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/25/21 08:30	10/25/21 17:01	1
<b>Manganese</b>	<b>0.19</b>		0.025	0.010	mg/L		10/25/21 08:30	10/26/21 15:08	1
Nickel	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 17:01	1
Selenium	<0.050		0.050	0.020	mg/L		10/25/21 08:30	10/25/21 17:01	1
Silver	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 17:01	1
<b>Zinc</b>	<b>0.061</b>	<b>J ^+</b>	0.50	0.020	mg/L		10/25/21 08:30	10/25/21 17:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>0.94</b>		0.025	0.010	mg/L		10/25/21 08:33	10/26/21 18:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/25/21 08:30	10/26/21 15:21	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/25/21 08:30	10/26/21 15:21	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 08:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.092</b>		0.019	0.0064	mg/Kg	☼	10/27/21 14:15	10/28/21 07:25	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>8.6</b>		0.2	0.2	SU			10/21/21 17:55	1



# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

**Client Sample ID: 2674V2-10-B02 (0-5)**

**Lab Sample ID: 500-207060-2**

**Date Collected: 10/18/21 14:00**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 82.9**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0088	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
Bromoform	<0.0020		0.0020	0.00059	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
<b>Chloroform</b>	<b>0.0037</b>		0.0020	0.00070	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00061	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
Dibromochloromethane	<0.0020		0.0020	0.00066	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
1,2-Dichloropropene	<0.0020		0.0020	0.00052	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00071	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
Styrene	<0.0020		0.0020	0.00061	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
Tetrachloroethene	<0.0020		0.0020	0.00069	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00071	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00068	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
Vinyl acetate	<0.0050		0.0050	0.0018	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg	☼	10/19/21 18:28	10/26/21 18:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		75 - 131	10/19/21 18:28	10/26/21 18:30	1
Dibromofluoromethane	108		75 - 126	10/19/21 18:28	10/26/21 18:30	1
1,2-Dichloroethane-d4 (Surr)	110		70 - 134	10/19/21 18:28	10/26/21 18:30	1
Toluene-d8 (Surr)	112		75 - 124	10/19/21 18:28	10/26/21 18:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.087	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

**Client Sample ID: 2674V2-10-B02 (0-5)**

**Lab Sample ID: 500-207060-2**

**Date Collected: 10/18/21 14:00**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 82.9**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
Isophorone	<0.20	*+	0.20	0.044	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
2-Methylnaphthalene	<0.079	*+	0.079	0.0072	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.32	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
Phenanthrene	<0.039		0.039	0.0055	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
Fluoranthene	<0.039		0.039	0.0073	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
Pyrene	<0.039		0.039	0.0078	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1

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# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

**Client Sample ID: 2674V2-10-B02 (0-5)**

**Lab Sample ID: 500-207060-2**

Date Collected: 10/18/21 14:00

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 82.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
Benzo[b]fluoranthene	<0.039	*3	0.039	0.0085	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
Benzo[k]fluoranthene	<0.039	*3	0.039	0.012	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
Benzo[a]pyrene	<0.039	*3	0.039	0.0076	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
Indeno[1,2,3-cd]pyrene	<0.039	*3	0.039	0.010	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
Dibenz(a,h)anthracene	<0.039	*3	0.039	0.0076	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
Benzo[g,h,i]perylene	<0.039	*3	0.039	0.013	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	10/25/21 06:38	11/03/21 23:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	97		31 - 166	10/25/21 06:38	11/03/21 23:03	1
Phenol-d5	97		30 - 153	10/25/21 06:38	11/03/21 23:03	1
Nitrobenzene-d5 (Surr)	62		37 - 147	10/25/21 06:38	11/03/21 23:03	1
2-Fluorobiphenyl (Surr)	72		43 - 145	10/25/21 06:38	11/03/21 23:03	1
2,4,6-Tribromophenol	81		31 - 143	10/25/21 06:38	11/03/21 23:03	1
Terphenyl-d14 (Surr)	116		42 - 157	10/25/21 06:38	11/03/21 23:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.45	J B	1.1	0.22	mg/Kg	☼	11/01/21 10:13	11/02/21 11:49	1
Arsenic	6.0		0.57	0.20	mg/Kg	☼	11/01/21 10:13	11/02/21 11:49	1
Barium	75	B	0.57	0.065	mg/Kg	☼	11/01/21 10:13	11/02/21 11:49	1
Beryllium	0.88		0.23	0.054	mg/Kg	☼	11/01/21 10:13	11/02/21 11:49	1
Boron	6.3		2.9	0.27	mg/Kg	☼	11/01/21 10:13	11/02/21 11:49	1
Cadmium	0.27	B	0.11	0.021	mg/Kg	☼	11/01/21 10:13	11/02/21 11:49	1
Calcium	53000	B	57	9.7	mg/Kg	☼	11/01/21 10:13	11/02/21 13:47	5
Chromium	14		0.57	0.28	mg/Kg	☼	11/01/21 10:13	11/02/21 11:49	1
Cobalt	8.9		0.29	0.075	mg/Kg	☼	11/01/21 10:13	11/02/21 11:49	1
Copper	28	B	0.57	0.16	mg/Kg	☼	11/01/21 10:13	11/02/21 11:49	1
Iron	15000	B	11	6.0	mg/Kg	☼	11/01/21 10:13	11/02/21 11:49	1
Lead	33		0.29	0.13	mg/Kg	☼	11/01/21 10:13	11/02/21 11:49	1
Magnesium	22000	B	5.7	2.8	mg/Kg	☼	11/01/21 10:13	11/02/21 11:49	1
Manganese	290		0.57	0.083	mg/Kg	☼	11/01/21 10:13	11/02/21 11:49	1
Nickel	24		0.57	0.17	mg/Kg	☼	11/01/21 10:13	11/02/21 11:49	1
Potassium	1400		29	10	mg/Kg	☼	11/01/21 10:13	11/02/21 11:49	1
Selenium	<0.57		0.57	0.34	mg/Kg	☼	11/01/21 10:13	11/02/21 11:49	1
Silver	0.34		0.29	0.074	mg/Kg	☼	11/01/21 10:13	11/02/21 11:49	1
Sodium	1200		57	8.5	mg/Kg	☼	11/01/21 10:13	11/02/21 11:49	1
Thallium	0.41	J	0.57	0.29	mg/Kg	☼	11/01/21 10:13	11/02/21 11:49	1
Vanadium	20		0.29	0.068	mg/Kg	☼	11/01/21 10:13	11/02/21 11:49	1
Zinc	81	B	1.1	0.50	mg/Kg	☼	11/01/21 10:13	11/02/21 11:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.49	J	0.50	0.050	mg/L		10/25/21 08:30	10/25/21 17:04	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/25/21 08:30	10/25/21 17:04	1
Boron	0.082	J	0.50	0.050	mg/L		10/25/21 08:30	10/25/21 17:04	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

**Client Sample ID: 2674V2-10-B02 (0-5)**

**Lab Sample ID: 500-207060-2**

Date Collected: 10/18/21 14:00

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 82.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/25/21 08:30	10/25/21 17:04	1
Chromium	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 17:04	1
Cobalt	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 17:04	1
Iron	<0.40		0.40	0.20	mg/L		10/25/21 08:30	10/25/21 17:04	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/25/21 08:30	10/25/21 17:04	1
<b>Manganese</b>	<b>0.25</b>		0.025	0.010	mg/L		10/25/21 08:30	10/26/21 15:21	1
Nickel	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 17:04	1
Selenium	<0.050		0.050	0.020	mg/L		10/25/21 08:30	10/25/21 17:04	1
Silver	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 17:04	1
<b>Zinc</b>	<b>0.030</b>	<b>J ^+</b>	0.50	0.020	mg/L		10/25/21 08:30	10/25/21 17:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>1.0</b>		0.025	0.010	mg/L		10/25/21 08:33	10/26/21 18:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/25/21 08:30	10/26/21 15:22	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/25/21 08:30	10/26/21 15:22	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 08:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.060</b>		0.020	0.0065	mg/Kg	☆	10/27/21 14:15	10/28/21 07:28	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>9.0</b>		0.2	0.2	SU			10/21/21 17:58	1

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

**Client Sample ID: 2674V2-10-B03 (0-5)**

**Lab Sample ID: 500-207060-3**

**Date Collected: 10/18/21 14:13**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 80.6**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0082	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
Benzene	<0.0019		0.0019	0.00048	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
Bromodichloromethane	<0.0019		0.0019	0.00038	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
Bromoform	<0.0019		0.0019	0.00055	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
Bromomethane	<0.0047		0.0047	0.0018	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
2-Butanone (MEK)	<0.0047		0.0047	0.0021	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
Carbon disulfide	<0.0047		0.0047	0.00098	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
Carbon tetrachloride	<0.0019		0.0019	0.00055	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
Chlorobenzene	<0.0019		0.0019	0.00070	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
Chloroethane	<0.0047		0.0047	0.0014	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
<b>Chloroform</b>	<b>0.00069</b>	<b>J</b>	0.0019	0.00066	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
Chloromethane	<0.0047		0.0047	0.0019	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00053	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00057	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
Dibromochloromethane	<0.0019		0.0019	0.00062	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
1,1-Dichloroethane	<0.0019		0.0019	0.00065	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
1,2-Dichloroethane	<0.0047		0.0047	0.0015	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
1,1-Dichloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
1,2-Dichloropropene	<0.0019		0.0019	0.00049	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
1,3-Dichloropropene, Total	<0.0019		0.0019	0.00066	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
Ethylbenzene	<0.0019		0.0019	0.00090	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
2-Hexanone	<0.0047		0.0047	0.0015	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
Methylene Chloride	<0.0047		0.0047	0.0019	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
4-Methyl-2-pentanone (MIBK)	<0.0047		0.0047	0.0014	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00055	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
Styrene	<0.0019		0.0019	0.00057	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00060	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
Tetrachloroethene	<0.0019		0.0019	0.00064	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
Toluene	<0.0019		0.0019	0.00048	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00084	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00066	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
1,1,1-Trichloroethane	<0.0019		0.0019	0.00063	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00081	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
Trichloroethene	<0.0019		0.0019	0.00064	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
Vinyl acetate	<0.0047		0.0047	0.0016	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
Vinyl chloride	<0.0019		0.0019	0.00084	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1
Xylenes, Total	<0.0038		0.0038	0.00060	mg/Kg	☼	10/19/21 18:28	10/26/21 18:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		75 - 131	10/19/21 18:28	10/26/21 18:56	1
Dibromofluoromethane	108		75 - 126	10/19/21 18:28	10/26/21 18:56	1
1,2-Dichloroethane-d4 (Surr)	110		70 - 134	10/19/21 18:28	10/26/21 18:56	1
Toluene-d8 (Surr)	111		75 - 124	10/19/21 18:28	10/26/21 18:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.089	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

**Client Sample ID: 2674V2-10-B03 (0-5)**

**Lab Sample ID: 500-207060-3**

**Date Collected: 10/18/21 14:13**

**Matrix: Solid**

**Date Received: 10/19/21 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
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
Isophorone	<0.20	*+	0.20	0.045	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
<b>Naphthalene</b>	<b>0.0077</b>	<b>J</b>	0.040	0.0062	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
2,4,5-Trichlorophenol	<0.40		0.40	0.091	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
<b>2-Methylnaphthalene</b>	<b>0.016</b>	<b>J**</b>	0.081	0.0074	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
2,4-Dinitrophenol	<0.81		0.81	0.71	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
<b>Acenaphthylene</b>	<b>0.0057</b>	<b>J</b>	0.040	0.0053	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
<b>Fluorene</b>	<b>0.0057</b>	<b>J</b>	0.040	0.0056	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
Pentachlorophenol	<0.81		0.81	0.64	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
<b>Phenanthrene</b>	<b>0.081</b>		0.040	0.0056	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
<b>Anthracene</b>	<b>0.015</b>	<b>J</b>	0.040	0.0067	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
<b>Fluoranthene</b>	<b>0.12</b>		0.040	0.0074	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
<b>Pyrene</b>	<b>0.14</b>		0.040	0.0080	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
<b>Benzo[a]anthracene</b>	<b>0.061</b>		0.040	0.0054	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1

Euofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

**Client Sample ID: 2674V2-10-B03 (0-5)**

**Lab Sample ID: 500-207060-3**

Date Collected: 10/18/21 14:13

Matrix: Solid

Date Received: 10/19/21 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>Chrysene</b>	<b>0.089</b>		0.040	0.011	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
<b>Benzo[b]fluoranthene</b>	<b>0.13</b>	<b>*3</b>	0.040	0.0087	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
<b>Benzo[k]fluoranthene</b>	<b>0.042</b>	<b>*3</b>	0.040	0.012	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
<b>Benzo[a]pyrene</b>	<b>0.071</b>	<b>*3</b>	0.040	0.0078	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.029</b>	<b>J *3</b>	0.040	0.010	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
<b>Dibenz(a,h)anthracene</b>	<b>0.012</b>	<b>J *3</b>	0.040	0.0077	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
<b>Benzo[g,h,i]perylene</b>	<b>0.035</b>	<b>J *3</b>	0.040	0.013	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	10/25/21 06:38	11/03/21 23:26	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorophenol	97		31 - 166				10/25/21 06:38	11/03/21 23:26	1
Phenol-d5	93		30 - 153				10/25/21 06:38	11/03/21 23:26	1
Nitrobenzene-d5 (Surr)	59		37 - 147				10/25/21 06:38	11/03/21 23:26	1
2-Fluorobiphenyl (Surr)	82		43 - 145				10/25/21 06:38	11/03/21 23:26	1
2,4,6-Tribromophenol	86		31 - 143				10/25/21 06:38	11/03/21 23:26	1
Terphenyl-d14 (Surr)	108		42 - 157				10/25/21 06:38	11/03/21 23:26	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.94</b>	<b>J B</b>	1.2	0.23	mg/Kg	☼	11/01/21 10:13	11/02/21 11:52	1
<b>Arsenic</b>	<b>10</b>		2.9	0.99	mg/Kg	☼	11/01/21 10:13	11/02/21 13:50	5
<b>Barium</b>	<b>51</b>	<b>B</b>	0.58	0.066	mg/Kg	☼	11/01/21 10:13	11/02/21 11:52	1
<b>Beryllium</b>	<b>0.96</b>		0.23	0.054	mg/Kg	☼	11/01/21 10:13	11/02/21 11:52	1
<b>Boron</b>	<b>6.4</b>		2.9	0.27	mg/Kg	☼	11/01/21 10:13	11/02/21 11:52	1
Cadmium	<0.12		0.12	0.021	mg/Kg	☼	11/01/21 10:13	11/02/21 11:52	1
<b>Calcium</b>	<b>49000</b>	<b>B</b>	58	9.8	mg/Kg	☼	11/01/21 10:13	11/02/21 13:50	5
<b>Chromium</b>	<b>16</b>		0.58	0.29	mg/Kg	☼	11/01/21 10:13	11/02/21 11:52	1
<b>Cobalt</b>	<b>16</b>		0.29	0.076	mg/Kg	☼	11/01/21 10:13	11/02/21 11:52	1
<b>Copper</b>	<b>24</b>	<b>B</b>	2.9	0.81	mg/Kg	☼	11/01/21 10:13	11/02/21 13:50	5
<b>Iron</b>	<b>38000</b>	<b>B</b>	58	30	mg/Kg	☼	11/01/21 10:13	11/02/21 13:50	5
<b>Lead</b>	<b>19</b>		1.5	0.67	mg/Kg	☼	11/01/21 10:13	11/02/21 13:50	5
<b>Magnesium</b>	<b>25000</b>	<b>B</b>	5.8	2.9	mg/Kg	☼	11/01/21 10:13	11/02/21 11:52	1
<b>Manganese</b>	<b>320</b>		0.58	0.084	mg/Kg	☼	11/01/21 10:13	11/02/21 11:52	1
<b>Nickel</b>	<b>38</b>		2.9	0.85	mg/Kg	☼	11/01/21 10:13	11/02/21 13:50	5
<b>Potassium</b>	<b>1800</b>		29	10	mg/Kg	☼	11/01/21 10:13	11/02/21 11:52	1
Selenium	<0.58		0.58	0.34	mg/Kg	☼	11/01/21 10:13	11/02/21 11:52	1
<b>Silver</b>	<b>0.30</b>		0.29	0.075	mg/Kg	☼	11/01/21 10:13	11/02/21 11:52	1
<b>Sodium</b>	<b>670</b>		58	8.6	mg/Kg	☼	11/01/21 10:13	11/02/21 11:52	1
Thallium	<2.9		2.9	1.4	mg/Kg	☼	11/01/21 10:13	11/02/21 13:50	5
<b>Vanadium</b>	<b>29</b>		1.5	0.34	mg/Kg	☼	11/01/21 10:13	11/02/21 13:50	5
<b>Zinc</b>	<b>63</b>	<b>B</b>	1.2	0.51	mg/Kg	☼	11/01/21 10:13	11/02/21 11:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>0.40</b>	<b>J</b>	0.50	0.050	mg/L		10/25/21 08:30	10/25/21 17:08	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/25/21 08:30	10/25/21 17:08	1
Boron	<0.50		0.50	0.050	mg/L		10/25/21 08:30	10/25/21 17:08	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

**Client Sample ID: 2674V2-10-B03 (0-5)**

**Lab Sample ID: 500-207060-3**

Date Collected: 10/18/21 14:13

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 80.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/25/21 08:30	10/25/21 17:08	1
Chromium	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 17:08	1
Cobalt	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 17:08	1
Iron	<0.40		0.40	0.20	mg/L		10/25/21 08:30	10/25/21 17:08	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/25/21 08:30	10/25/21 17:08	1
<b>Manganese</b>	<b>0.56</b>		0.025	0.010	mg/L		10/25/21 08:30	10/26/21 15:24	1
Nickel	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 17:08	1
Selenium	<0.050		0.050	0.020	mg/L		10/25/21 08:30	10/25/21 17:08	1
Silver	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 17:08	1
Zinc	<0.50	^+	0.50	0.020	mg/L		10/25/21 08:30	10/25/21 17:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>1.2</b>		0.025	0.010	mg/L		10/25/21 08:33	10/26/21 18:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/25/21 08:30	10/26/21 15:23	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/25/21 08:30	10/26/21 15:23	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 08:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.030</b>		0.019	0.0063	mg/Kg	☼	10/27/21 14:15	10/28/21 07:30	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>8.6</b>		0.2	0.2	SU			10/21/21 18:00	1



# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

**Client Sample ID: 2674V2-10-B04 (0-5)**

**Lab Sample ID: 500-207060-4**

Date Collected: 10/18/21 14:21

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 88.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0076	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
Bromoform	<0.0017		0.0017	0.00051	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
Carbon disulfide	<0.0043		0.0043	0.00090	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
Chlorobenzene	<0.0017		0.0017	0.00064	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
Chloroform	<0.0017		0.0017	0.00060	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
Dibromochloromethane	<0.0017		0.0017	0.00057	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
1,1-Dichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
1,2-Dichloroethane	<0.0043		0.0043	0.0014	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
1,1-Dichloroethene	<0.0017		0.0017	0.00060	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
1,2-Dichloropropane	<0.0017		0.0017	0.00045	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
1,3-Dichloropropane, Total	<0.0017		0.0017	0.00061	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
Ethylbenzene	<0.0017		0.0017	0.00083	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
2-Hexanone	<0.0043		0.0043	0.0014	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00051	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
Tetrachloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
Toluene	<0.0017		0.0017	0.00044	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00077	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00061	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00074	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
Trichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
Vinyl acetate	<0.0043		0.0043	0.0015	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
Vinyl chloride	<0.0017		0.0017	0.00077	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1
Xylenes, Total	<0.0035		0.0035	0.00056	mg/Kg	☼	10/19/21 18:28	10/26/21 19:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		75 - 131	10/19/21 18:28	10/26/21 19:22	1
Dibromofluoromethane	108		75 - 126	10/19/21 18:28	10/26/21 19:22	1
1,2-Dichloroethane-d4 (Surr)	111		70 - 134	10/19/21 18:28	10/26/21 19:22	1
Toluene-d8 (Surr)	110		75 - 124	10/19/21 18:28	10/26/21 19:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.18		0.18	0.081	mg/Kg	☼	10/25/21 06:38	11/03/21 23:49	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.055	mg/Kg	☼	10/25/21 06:38	11/03/21 23:49	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	10/25/21 06:38	11/03/21 23:49	1
1,4-Dichlorobenzene	<0.18		0.18	0.047	mg/Kg	☼	10/25/21 06:38	11/03/21 23:49	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

**Client Sample ID: 2674V2-10-B04 (0-5)**

**Lab Sample ID: 500-207060-4**

**Date Collected: 10/18/21 14:21**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 88.3**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.18		0.18	0.044	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
2-Methylphenol	<0.18		0.18	0.059	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
N-Nitrosodi-n-propylamine	<0.074		0.074	0.045	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
Hexachloroethane	<0.18		0.18	0.056	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
2-Chlorophenol	<0.18		0.18	0.063	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
Nitrobenzene	<0.036		0.036	0.0091	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
Isophorone	<0.18	*+	0.18	0.041	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
Hexachlorobutadiene	<0.18		0.18	0.058	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
Naphthalene	<0.036		0.036	0.0056	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
2,4-Dichlorophenol	<0.36		0.36	0.087	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
4-Chloroaniline	<0.74		0.74	0.17	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
2,4,6-Trichlorophenol	<0.36		0.36	0.13	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
2,4,5-Trichlorophenol	<0.36		0.36	0.084	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
Hexachlorocyclopentadiene	<0.74		0.74	0.21	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
2-Methylnaphthalene	<0.074	*+	0.074	0.0067	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
2,6-Dinitrotoluene	<0.18		0.18	0.072	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
2-Nitrophenol	<0.36		0.36	0.087	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
Dimethyl phthalate	<0.18		0.18	0.048	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
2,4-Dinitrophenol	<0.74		0.74	0.65	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
Acenaphthylene	<0.036		0.036	0.0048	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
2,4-Dinitrotoluene	<0.18		0.18	0.058	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
Acenaphthene	<0.036		0.036	0.0066	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
Dibenzofuran	<0.18		0.18	0.043	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
4-Nitrophenol	<0.74		0.74	0.35	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
Fluorene	<0.036		0.036	0.0052	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
Hexachlorobenzene	<0.074		0.074	0.0085	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
Diethyl phthalate	<0.18		0.18	0.062	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.043	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
Pentachlorophenol	<0.74		0.74	0.59	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
4,6-Dinitro-2-methylphenol	<0.74		0.74	0.29	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
<b>Phenanthrene</b>	<b>0.0089</b>	<b>J</b>	0.036	0.0051	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
Anthracene	<0.036		0.036	0.0061	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
Carbazole	<0.18		0.18	0.092	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
Di-n-butyl phthalate	<0.18		0.18	0.056	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
Fluoranthene	<0.036		0.036	0.0068	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
<b>Pyrene</b>	<b>0.0078</b>	<b>J</b>	0.036	0.0073	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
Butyl benzyl phthalate	<0.18		0.18	0.070	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1
Benzo[a]anthracene	<0.036		0.036	0.0049	mg/Kg	✳	10/25/21 06:38	11/03/21 23:49	1

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# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

**Client Sample ID: 2674V2-10-B04 (0-5)**

**Lab Sample ID: 500-207060-4**

Date Collected: 10/18/21 14:21

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 88.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.036		0.036	0.010	mg/Kg	☼	10/25/21 06:38	11/03/21 23:49	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	10/25/21 06:38	11/03/21 23:49	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.067	mg/Kg	☼	10/25/21 06:38	11/03/21 23:49	1
Di-n-octyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	10/25/21 06:38	11/03/21 23:49	1
Benzo[b]fluoranthene	<0.036	*3	0.036	0.0079	mg/Kg	☼	10/25/21 06:38	11/03/21 23:49	1
Benzo[k]fluoranthene	<0.036	*3	0.036	0.011	mg/Kg	☼	10/25/21 06:38	11/03/21 23:49	1
Benzo[a]pyrene	<0.036	*3	0.036	0.0071	mg/Kg	☼	10/25/21 06:38	11/03/21 23:49	1
Indeno[1,2,3-cd]pyrene	<0.036	*3	0.036	0.0095	mg/Kg	☼	10/25/21 06:38	11/03/21 23:49	1
Dibenz(a,h)anthracene	<0.036	*3	0.036	0.0071	mg/Kg	☼	10/25/21 06:38	11/03/21 23:49	1
Benzo[g,h,i]perylene	<0.036	*3	0.036	0.012	mg/Kg	☼	10/25/21 06:38	11/03/21 23:49	1
3 & 4 Methylphenol	<0.18		0.18	0.061	mg/Kg	☼	10/25/21 06:38	11/03/21 23:49	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorophenol	101		31 - 166				10/25/21 06:38	11/03/21 23:49	1
Phenol-d5	80		30 - 153				10/25/21 06:38	11/03/21 23:49	1
Nitrobenzene-d5 (Surr)	60		37 - 147				10/25/21 06:38	11/03/21 23:49	1
2-Fluorobiphenyl (Surr)	71		43 - 145				10/25/21 06:38	11/03/21 23:49	1
2,4,6-Tribromophenol	73		31 - 143				10/25/21 06:38	11/03/21 23:49	1
Terphenyl-d14 (Surr)	112		42 - 157				10/25/21 06:38	11/03/21 23:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.32</b>	<b>J B</b>	1.1	0.22	mg/Kg	☼	11/01/21 10:13	11/02/21 11:55	1
<b>Arsenic</b>	<b>4.9</b>		0.56	0.19	mg/Kg	☼	11/01/21 10:13	11/02/21 11:55	1
<b>Barium</b>	<b>81</b>	<b>B</b>	0.56	0.064	mg/Kg	☼	11/01/21 10:13	11/02/21 11:55	1
<b>Beryllium</b>	<b>1.0</b>		0.22	0.052	mg/Kg	☼	11/01/21 10:13	11/02/21 11:55	1
<b>Boron</b>	<b>4.9</b>		2.8	0.26	mg/Kg	☼	11/01/21 10:13	11/02/21 11:55	1
Cadmium	<0.11		0.11	0.020	mg/Kg	☼	11/01/21 10:13	11/02/21 11:55	1
<b>Calcium</b>	<b>3300</b>	<b>B</b>	11	1.9	mg/Kg	☼	11/01/21 10:13	11/02/21 11:55	1
<b>Chromium</b>	<b>21</b>		0.56	0.28	mg/Kg	☼	11/01/21 10:13	11/02/21 11:55	1
<b>Cobalt</b>	<b>11</b>		0.28	0.074	mg/Kg	☼	11/01/21 10:13	11/02/21 11:55	1
<b>Copper</b>	<b>18</b>	<b>B</b>	0.56	0.16	mg/Kg	☼	11/01/21 10:13	11/02/21 11:55	1
<b>Iron</b>	<b>22000</b>	<b>B</b>	11	5.8	mg/Kg	☼	11/01/21 10:13	11/02/21 11:55	1
<b>Lead</b>	<b>14</b>		0.28	0.13	mg/Kg	☼	11/01/21 10:13	11/02/21 11:55	1
<b>Magnesium</b>	<b>4800</b>	<b>B</b>	5.6	2.8	mg/Kg	☼	11/01/21 10:13	11/02/21 11:55	1
<b>Manganese</b>	<b>250</b>		0.56	0.081	mg/Kg	☼	11/01/21 10:13	11/02/21 11:55	1
<b>Nickel</b>	<b>31</b>		0.56	0.16	mg/Kg	☼	11/01/21 10:13	11/02/21 11:55	1
<b>Potassium</b>	<b>1800</b>		28	9.9	mg/Kg	☼	11/01/21 10:13	11/02/21 11:55	1
Selenium	<0.56		0.56	0.33	mg/Kg	☼	11/01/21 10:13	11/02/21 11:55	1
<b>Silver</b>	<b>0.40</b>		0.28	0.072	mg/Kg	☼	11/01/21 10:13	11/02/21 11:55	1
<b>Sodium</b>	<b>800</b>		56	8.3	mg/Kg	☼	11/01/21 10:13	11/02/21 11:55	1
<b>Thallium</b>	<b>0.55</b>	<b>J</b>	0.56	0.28	mg/Kg	☼	11/01/21 10:13	11/02/21 11:55	1
<b>Vanadium</b>	<b>24</b>		0.28	0.066	mg/Kg	☼	11/01/21 10:13	11/02/21 11:55	1
<b>Zinc</b>	<b>67</b>	<b>B</b>	1.1	0.49	mg/Kg	☼	11/01/21 10:13	11/02/21 11:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>0.17</b>	<b>J</b>	0.50	0.050	mg/L		10/25/21 08:30	10/25/21 17:11	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/25/21 08:30	10/25/21 17:11	1
<b>Boron</b>	<b>0.11</b>	<b>J</b>	0.50	0.050	mg/L		10/25/21 08:30	10/25/21 17:11	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

**Client Sample ID: 2674V2-10-B04 (0-5)**

**Lab Sample ID: 500-207060-4**

Date Collected: 10/18/21 14:21

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 88.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/25/21 08:30	10/25/21 17:11	1
Chromium	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 17:11	1
Cobalt	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 17:11	1
<b>Iron</b>	<b>0.98</b>		0.40	0.20	mg/L		10/25/21 08:30	10/26/21 15:28	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/25/21 08:30	10/25/21 17:11	1
<b>Manganese</b>	<b>0.016</b>	<b>J</b>	0.025	0.010	mg/L		10/25/21 08:30	10/26/21 15:28	1
Nickel	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 17:11	1
Selenium	<0.050		0.050	0.020	mg/L		10/25/21 08:30	10/25/21 17:11	1
Silver	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 17:11	1
Zinc	<0.50	^+	0.50	0.020	mg/L		10/25/21 08:30	10/25/21 17:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/25/21 08:30	10/26/21 15:24	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/25/21 08:30	10/26/21 15:24	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 08:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<b>0.035</b>		0.018	0.0059	mg/Kg	☼	10/27/21 14:15	10/28/21 07:32	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	<b>8.0</b>		0.2	0.2	SU			10/21/21 18:03	1

# Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

## 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 and/or LCSD is outside acceptance limits, high biased.
*3	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.

### Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## 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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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)
TNTC	Too Numerous To Count

# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

## GC/MS VOA

### Prep Batch: 624911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207060-1	2674V2-10-B01 (0-5)	Total/NA	Solid	5035	
500-207060-2	2674V2-10-B02 (0-5)	Total/NA	Solid	5035	
500-207060-3	2674V2-10-B03 (0-5)	Total/NA	Solid	5035	
500-207060-4	2674V2-10-B04 (0-5)	Total/NA	Solid	5035	

### Analysis Batch: 625352

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207060-1	2674V2-10-B01 (0-5)	Total/NA	Solid	8260B	624911
500-207060-2	2674V2-10-B02 (0-5)	Total/NA	Solid	8260B	624911
500-207060-3	2674V2-10-B03 (0-5)	Total/NA	Solid	8260B	624911
500-207060-4	2674V2-10-B04 (0-5)	Total/NA	Solid	8260B	624911
MB 500-625352/7	Method Blank	Total/NA	Solid	8260B	
LCS 500-625352/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-625352/5	Lab Control Sample Dup	Total/NA	Solid	8260B	

## GC/MS Semi VOA

### Prep Batch: 625120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207060-1	2674V2-10-B01 (0-5)	Total/NA	Solid	3541	
500-207060-2	2674V2-10-B02 (0-5)	Total/NA	Solid	3541	
500-207060-3	2674V2-10-B03 (0-5)	Total/NA	Solid	3541	
500-207060-4	2674V2-10-B04 (0-5)	Total/NA	Solid	3541	
MB 500-625120/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-625120/2-A	Lab Control Sample	Total/NA	Solid	3541	

### Analysis Batch: 626461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-625120/2-A	Lab Control Sample	Total/NA	Solid	8270D	625120

### Analysis Batch: 626713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-625120/1-A	Method Blank	Total/NA	Solid	8270D	625120

### Analysis Batch: 627092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207060-1	2674V2-10-B01 (0-5)	Total/NA	Solid	8270D	625120
500-207060-2	2674V2-10-B02 (0-5)	Total/NA	Solid	8270D	625120
500-207060-3	2674V2-10-B03 (0-5)	Total/NA	Solid	8270D	625120
500-207060-4	2674V2-10-B04 (0-5)	Total/NA	Solid	8270D	625120

## Metals

### Leach Batch: 624872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207060-1	2674V2-10-B01 (0-5)	TCLP	Solid	1311	
500-207060-2	2674V2-10-B02 (0-5)	TCLP	Solid	1311	
500-207060-3	2674V2-10-B03 (0-5)	TCLP	Solid	1311	
500-207060-4	2674V2-10-B04 (0-5)	TCLP	Solid	1311	
LB 500-624872/1-B	Method Blank	TCLP	Solid	1311	
LB 500-624872/1-C	Method Blank	TCLP	Solid	1311	

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# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

## Metals

### Leach Batch: 624891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207060-1	2674V2-10-B01 (0-5)	SPLP East	Solid	1312	
500-207060-2	2674V2-10-B02 (0-5)	SPLP East	Solid	1312	
500-207060-3	2674V2-10-B03 (0-5)	SPLP East	Solid	1312	
LB 500-624891/21-B	Method Blank	SPLP East	Solid	1312	

### Prep Batch: 625181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207060-1	2674V2-10-B01 (0-5)	TCLP	Solid	3010A	624872
500-207060-2	2674V2-10-B02 (0-5)	TCLP	Solid	3010A	624872
500-207060-3	2674V2-10-B03 (0-5)	TCLP	Solid	3010A	624872
500-207060-4	2674V2-10-B04 (0-5)	TCLP	Solid	3010A	624872
LB 500-624872/1-B	Method Blank	TCLP	Solid	3010A	624872
LCS 500-625181/2-A	Lab Control Sample	Total/NA	Solid	3010A	

### Prep Batch: 625182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207060-1	2674V2-10-B01 (0-5)	SPLP East	Solid	3010A	624891
500-207060-2	2674V2-10-B02 (0-5)	SPLP East	Solid	3010A	624891
500-207060-3	2674V2-10-B03 (0-5)	SPLP East	Solid	3010A	624891
LB 500-624891/21-B	Method Blank	SPLP East	Solid	3010A	624891
LCS 500-625182/2-A	Lab Control Sample	Total/NA	Solid	3010A	

### Analysis Batch: 625354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207060-1	2674V2-10-B01 (0-5)	TCLP	Solid	6010B	625181
500-207060-2	2674V2-10-B02 (0-5)	TCLP	Solid	6010B	625181
500-207060-3	2674V2-10-B03 (0-5)	TCLP	Solid	6010B	625181
500-207060-4	2674V2-10-B04 (0-5)	TCLP	Solid	6010B	625181
LB 500-624872/1-B	Method Blank	TCLP	Solid	6010B	625181
LCS 500-625181/2-A	Lab Control Sample	Total/NA	Solid	6010B	625181

### Prep Batch: 625462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207060-1	2674V2-10-B01 (0-5)	TCLP	Solid	7470A	624872
500-207060-2	2674V2-10-B02 (0-5)	TCLP	Solid	7470A	624872
500-207060-3	2674V2-10-B03 (0-5)	TCLP	Solid	7470A	624872
500-207060-4	2674V2-10-B04 (0-5)	TCLP	Solid	7470A	624872
LB 500-624872/1-C	Method Blank	TCLP	Solid	7470A	624872
MB 500-625462/12-A	Method Blank	Total/NA	Solid	7470A	
LCS 500-625462/14-A	Lab Control Sample	Total/NA	Solid	7470A	

### Analysis Batch: 625619

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207060-1	2674V2-10-B01 (0-5)	SPLP East	Solid	6010B	625182
500-207060-2	2674V2-10-B02 (0-5)	SPLP East	Solid	6010B	625182
500-207060-3	2674V2-10-B03 (0-5)	SPLP East	Solid	6010B	625182
LB 500-624891/21-B	Method Blank	SPLP East	Solid	6010B	625182
LCS 500-625182/2-A	Lab Control Sample	Total/NA	Solid	6010B	625182
MRL 500-625619/15	Lab Control Sample	Total/NA	Solid	6010B	

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# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

## Metals

### Analysis Batch: 625638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207060-1	2674V2-10-B01 (0-5)	TCLP	Solid	6010B	625181
500-207060-2	2674V2-10-B02 (0-5)	TCLP	Solid	6010B	625181
500-207060-3	2674V2-10-B03 (0-5)	TCLP	Solid	6010B	625181
500-207060-4	2674V2-10-B04 (0-5)	TCLP	Solid	6010B	625181
LB 500-624872/1-B	Method Blank	TCLP	Solid	6010B	625181
LCS 500-625181/2-A	Lab Control Sample	Total/NA	Solid	6010B	625181

### Analysis Batch: 625693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207060-1	2674V2-10-B01 (0-5)	TCLP	Solid	6020A	625181
500-207060-2	2674V2-10-B02 (0-5)	TCLP	Solid	6020A	625181
500-207060-3	2674V2-10-B03 (0-5)	TCLP	Solid	6020A	625181
500-207060-4	2674V2-10-B04 (0-5)	TCLP	Solid	6020A	625181
LB 500-624872/1-B	Method Blank	TCLP	Solid	6020A	625181
LCS 500-625181/2-A	Lab Control Sample	Total/NA	Solid	6020A	625181

### Prep Batch: 625696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207060-1	2674V2-10-B01 (0-5)	Total/NA	Solid	7471B	
500-207060-2	2674V2-10-B02 (0-5)	Total/NA	Solid	7471B	
500-207060-3	2674V2-10-B03 (0-5)	Total/NA	Solid	7471B	
500-207060-4	2674V2-10-B04 (0-5)	Total/NA	Solid	7471B	
MB 500-625696/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-625696/13-A	Lab Control Sample	Total/NA	Solid	7471B	

### Analysis Batch: 625700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207060-1	2674V2-10-B01 (0-5)	TCLP	Solid	7470A	625462
500-207060-2	2674V2-10-B02 (0-5)	TCLP	Solid	7470A	625462
500-207060-3	2674V2-10-B03 (0-5)	TCLP	Solid	7470A	625462
500-207060-4	2674V2-10-B04 (0-5)	TCLP	Solid	7470A	625462
LB 500-624872/1-C	Method Blank	TCLP	Solid	7470A	625462
MB 500-625462/12-A	Method Blank	Total/NA	Solid	7470A	625462
LCS 500-625462/14-A	Lab Control Sample	Total/NA	Solid	7470A	625462

### Analysis Batch: 625923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207060-1	2674V2-10-B01 (0-5)	Total/NA	Solid	7471B	625696
500-207060-2	2674V2-10-B02 (0-5)	Total/NA	Solid	7471B	625696
500-207060-3	2674V2-10-B03 (0-5)	Total/NA	Solid	7471B	625696
500-207060-4	2674V2-10-B04 (0-5)	Total/NA	Solid	7471B	625696
MB 500-625696/12-A	Method Blank	Total/NA	Solid	7471B	625696
LCS 500-625696/13-A	Lab Control Sample	Total/NA	Solid	7471B	625696

### Prep Batch: 626511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207060-1	2674V2-10-B01 (0-5)	Total/NA	Solid	3050B	
500-207060-2	2674V2-10-B02 (0-5)	Total/NA	Solid	3050B	
500-207060-3	2674V2-10-B03 (0-5)	Total/NA	Solid	3050B	
500-207060-4	2674V2-10-B04 (0-5)	Total/NA	Solid	3050B	
MB 500-626511/1-A	Method Blank	Total/NA	Solid	3050B	

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# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

## Metals (Continued)

### Prep Batch: 626511 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-626511/2-A	Lab Control Sample	Total/NA	Solid	3050B	

### Analysis Batch: 626836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207060-1	2674V2-10-B01 (0-5)	Total/NA	Solid	6010B	626511
500-207060-2	2674V2-10-B02 (0-5)	Total/NA	Solid	6010B	626511
500-207060-3	2674V2-10-B03 (0-5)	Total/NA	Solid	6010B	626511
500-207060-4	2674V2-10-B04 (0-5)	Total/NA	Solid	6010B	626511
MB 500-626511/1-A	Method Blank	Total/NA	Solid	6010B	626511
LCS 500-626511/2-A	Lab Control Sample	Total/NA	Solid	6010B	626511

### Analysis Batch: 626854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207060-1	2674V2-10-B01 (0-5)	Total/NA	Solid	6010B	626511
500-207060-2	2674V2-10-B02 (0-5)	Total/NA	Solid	6010B	626511
500-207060-3	2674V2-10-B03 (0-5)	Total/NA	Solid	6010B	626511

## General Chemistry

### Analysis Batch: 624697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207060-1	2674V2-10-B01 (0-5)	Total/NA	Solid	Moisture	
500-207060-2	2674V2-10-B02 (0-5)	Total/NA	Solid	Moisture	
500-207060-3	2674V2-10-B03 (0-5)	Total/NA	Solid	Moisture	
500-207060-4	2674V2-10-B04 (0-5)	Total/NA	Solid	Moisture	

### Analysis Batch: 624833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207060-1	2674V2-10-B01 (0-5)	Total/NA	Solid	9045D	
500-207060-2	2674V2-10-B02 (0-5)	Total/NA	Solid	9045D	
500-207060-3	2674V2-10-B03 (0-5)	Total/NA	Solid	9045D	
500-207060-4	2674V2-10-B04 (0-5)	Total/NA	Solid	9045D	
LCS 500-624833/2	Lab Control Sample	Total/NA	Solid	9045D	
LCSD 500-624833/3	Lab Control Sample Dup	Total/NA	Solid	9045D	

# Surrogate Summary

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (75-131)	DBFM (75-126)	DCA (70-134)	TOL (75-124)
500-207060-1	2674V2-10-B01 (0-5)	118	106	110	113
500-207060-2	2674V2-10-B02 (0-5)	117	108	110	112
500-207060-3	2674V2-10-B03 (0-5)	114	108	110	111
500-207060-4	2674V2-10-B04 (0-5)	113	108	111	110
LCS 500-625352/4	Lab Control Sample	104	101	100	112
LCS 500-625352/5	Lab Control Sample Dup	106	100	101	113
MB 500-625352/7	Method Blank	107	101	103	110

### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)  
 DBFM = Dibromofluoromethane  
 DCA = 1,2-Dichloroethane-d4 (Surr)  
 TOL = Toluene-d8 (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		2FP (31-166)	PHL (30-153)	NBZ (37-147)	FBP (43-145)	TBP (31-143)	TPHL (42-157)
500-207060-1	2674V2-10-B01 (0-5)	104	85	72	83	83	104
500-207060-2	2674V2-10-B02 (0-5)	97	97	62	72	81	116
500-207060-3	2674V2-10-B03 (0-5)	97	93	59	82	86	108
500-207060-4	2674V2-10-B04 (0-5)	101	80	60	71	73	112
LCS 500-625120/2-A	Lab Control Sample	121	105	118	112	99	116
MB 500-625120/1-A	Method Blank	102	68	90	92	61	101

### Surrogate Legend

2FP = 2-Fluorophenol  
 PHL = Phenol-d5  
 NBZ = Nitrobenzene-d5 (Surr)  
 FBP = 2-Fluorobiphenyl (Surr)  
 TBP = 2,4,6-Tribromophenol  
 TPHL = Terphenyl-d14 (Surr)

# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

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

**Lab Sample ID: MB 500-625352/7**  
**Matrix: Solid**  
**Analysis Batch: 625352**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	<0.020		0.020	0.0087	mg/Kg			10/26/21 11:36	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg			10/26/21 11:36	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg			10/26/21 11:36	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg			10/26/21 11:36	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg			10/26/21 11:36	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg			10/26/21 11:36	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg			10/26/21 11:36	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg			10/26/21 11:36	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg			10/26/21 11:36	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg			10/26/21 11:36	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg			10/26/21 11:36	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg			10/26/21 11:36	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg			10/26/21 11:36	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg			10/26/21 11:36	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg			10/26/21 11:36	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg			10/26/21 11:36	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg			10/26/21 11:36	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg			10/26/21 11:36	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg			10/26/21 11:36	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00070	mg/Kg			10/26/21 11:36	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg			10/26/21 11:36	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			10/26/21 11:36	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg			10/26/21 11:36	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg			10/26/21 11:36	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg			10/26/21 11:36	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg			10/26/21 11:36	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg			10/26/21 11:36	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/26/21 11:36	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg			10/26/21 11:36	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg			10/26/21 11:36	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg			10/26/21 11:36	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg			10/26/21 11:36	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg			10/26/21 11:36	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/26/21 11:36	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg			10/26/21 11:36	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg			10/26/21 11:36	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg			10/26/21 11:36	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	107		75 - 131		10/26/21 11:36	1
Dibromofluoromethane	101		75 - 126		10/26/21 11:36	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 134		10/26/21 11:36	1
Toluene-d8 (Surr)	110		75 - 124		10/26/21 11:36	1

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

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

**Lab Sample ID: LCS 500-625352/4**  
**Matrix: Solid**  
**Analysis Batch: 625352**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0500	0.0378		mg/Kg		76	40 - 150
Benzene	0.0500	0.0475		mg/Kg		95	70 - 125
Bromodichloromethane	0.0500	0.0497		mg/Kg		99	67 - 129
Bromoform	0.0500	0.0574		mg/Kg		115	68 - 136
Bromomethane	0.0500	0.0509		mg/Kg		102	70 - 130
2-Butanone (MEK)	0.0500	0.0484		mg/Kg		97	47 - 138
Carbon disulfide	0.0500	0.0482		mg/Kg		96	70 - 129
Carbon tetrachloride	0.0500	0.0472		mg/Kg		94	75 - 125
Chlorobenzene	0.0500	0.0494		mg/Kg		99	50 - 150
Chloroethane	0.0500	0.0465		mg/Kg		93	75 - 125
Chloroform	0.0500	0.0465		mg/Kg		93	57 - 135
Chloromethane	0.0500	0.0479		mg/Kg		96	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0460		mg/Kg		92	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0517		mg/Kg		103	70 - 125
Dibromochloromethane	0.0500	0.0524		mg/Kg		105	69 - 125
1,1-Dichloroethane	0.0500	0.0447		mg/Kg		89	70 - 125
1,2-Dichloroethane	0.0500	0.0470		mg/Kg		94	70 - 130
1,1-Dichloroethene	0.0500	0.0480		mg/Kg		96	70 - 120
1,2-Dichloropropane	0.0500	0.0475		mg/Kg		95	70 - 125
Ethylbenzene	0.0500	0.0490		mg/Kg		98	61 - 136
2-Hexanone	0.0500	0.0538		mg/Kg		108	48 - 146
Methylene Chloride	0.0500	0.0468		mg/Kg		94	70 - 126
4-Methyl-2-pentanone (MIBK)	0.0500	0.0528		mg/Kg		106	50 - 148
Methyl tert-butyl ether	0.0500	0.0482		mg/Kg		96	50 - 140
Styrene	0.0500	0.0503		mg/Kg		101	70 - 125
1,1,2,2-Tetrachloroethane	0.0500	0.0537		mg/Kg		107	70 - 122
Tetrachloroethene	0.0500	0.0531		mg/Kg		106	70 - 124
Toluene	0.0500	0.0508		mg/Kg		102	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0457		mg/Kg		91	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0531		mg/Kg		106	70 - 125
1,1,1-Trichloroethane	0.0500	0.0482		mg/Kg		96	70 - 128
1,1,2-Trichloroethane	0.0500	0.0553		mg/Kg		111	70 - 125
Trichloroethene	0.0500	0.0487		mg/Kg		97	70 - 125
Vinyl acetate	0.0500	0.0424		mg/Kg		85	40 - 153
Vinyl chloride	0.0500	0.0469		mg/Kg		94	70 - 125
Xylenes, Total	0.100	0.101		mg/Kg		101	53 - 147

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	104		75 - 131
Dibromofluoromethane	101		75 - 126
1,2-Dichloroethane-d4 (Surr)	100		70 - 134
Toluene-d8 (Surr)	112		75 - 124

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

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

**Lab Sample ID: LCSD 500-625352/5**  
**Matrix: Solid**  
**Analysis Batch: 625352**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.0500	0.0405		mg/Kg		81	40 - 150	7	30
Benzene	0.0500	0.0464		mg/Kg		93	70 - 125	2	30
Bromodichloromethane	0.0500	0.0483		mg/Kg		97	67 - 129	3	30
Bromoform	0.0500	0.0554		mg/Kg		111	68 - 136	3	30
Bromomethane	0.0500	0.0468		mg/Kg		94	70 - 130	8	30
2-Butanone (MEK)	0.0500	0.0461		mg/Kg		92	47 - 138	5	30
Carbon disulfide	0.0500	0.0479		mg/Kg		96	70 - 129	1	30
Carbon tetrachloride	0.0500	0.0469		mg/Kg		94	75 - 125	1	30
Chlorobenzene	0.0500	0.0481		mg/Kg		96	50 - 150	3	30
Chloroethane	0.0500	0.0443		mg/Kg		89	75 - 125	5	30
Chloroform	0.0500	0.0453		mg/Kg		91	57 - 135	3	30
Chloromethane	0.0500	0.0452		mg/Kg		90	70 - 125	6	30
cis-1,2-Dichloroethene	0.0500	0.0456		mg/Kg		91	70 - 125	1	30
cis-1,3-Dichloropropene	0.0500	0.0503		mg/Kg		101	70 - 125	3	30
Dibromochloromethane	0.0500	0.0506		mg/Kg		101	69 - 125	4	30
1,1-Dichloroethane	0.0500	0.0441		mg/Kg		88	70 - 125	2	30
1,2-Dichloroethane	0.0500	0.0465		mg/Kg		93	70 - 130	1	30
1,1-Dichloroethene	0.0500	0.0468		mg/Kg		94	70 - 120	3	30
1,2-Dichloropropane	0.0500	0.0469		mg/Kg		94	70 - 125	1	30
Ethylbenzene	0.0500	0.0479		mg/Kg		96	61 - 136	2	30
2-Hexanone	0.0500	0.0525		mg/Kg		105	48 - 146	3	30
Methylene Chloride	0.0500	0.0445		mg/Kg		89	70 - 126	5	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0501		mg/Kg		100	50 - 148	5	30
Methyl tert-butyl ether	0.0500	0.0474		mg/Kg		95	50 - 140	2	30
Styrene	0.0500	0.0481		mg/Kg		96	70 - 125	5	30
1,1,2,2-Tetrachloroethane	0.0500	0.0516		mg/Kg		103	70 - 122	4	30
Tetrachloroethene	0.0500	0.0520		mg/Kg		104	70 - 124	2	30
Toluene	0.0500	0.0489		mg/Kg		98	70 - 125	4	30
trans-1,2-Dichloroethene	0.0500	0.0458		mg/Kg		92	70 - 125	0	30
trans-1,3-Dichloropropene	0.0500	0.0526		mg/Kg		105	70 - 125	1	30
1,1,1-Trichloroethane	0.0500	0.0479		mg/Kg		96	70 - 128	1	30
1,1,2-Trichloroethane	0.0500	0.0527		mg/Kg		105	70 - 125	5	30
Trichloroethene	0.0500	0.0467		mg/Kg		93	70 - 125	4	30
Vinyl acetate	0.0500	0.0423		mg/Kg		85	40 - 153	0	30
Vinyl chloride	0.0500	0.0447		mg/Kg		89	70 - 125	5	30
Xylenes, Total	0.100	0.0976		mg/Kg		98	53 - 147	3	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	106		75 - 131
Dibromofluoromethane	100		75 - 126
1,2-Dichloroethane-d4 (Surr)	101		70 - 134
Toluene-d8 (Surr)	113		75 - 124

# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

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

**Lab Sample ID: MB 500-625120/1-A**  
**Matrix: Solid**  
**Analysis Batch: 626713**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 625120**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	<0.17		0.17	0.074	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.050	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
1,3-Dichlorobenzene	<0.17		0.17	0.037	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
1,4-Dichlorobenzene	<0.17		0.17	0.043	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
1,2-Dichlorobenzene	<0.17		0.17	0.040	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2-Methylphenol	<0.17		0.17	0.053	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.039	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
N-Nitrosodi-n-propylamine	<0.067		0.067	0.041	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Hexachloroethane	<0.17		0.17	0.051	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2-Chlorophenol	<0.17		0.17	0.057	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Nitrobenzene	<0.033		0.033	0.0083	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.034	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.036	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Isophorone	<0.17		0.17	0.037	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,4-Dimethylphenol	<0.33		0.33	0.13	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Hexachlorobutadiene	<0.17		0.17	0.052	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Naphthalene	<0.033		0.033	0.0051	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,4-Dichlorophenol	<0.33		0.33	0.079	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4-Chloroaniline	<0.67		0.67	0.16	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,4,6-Trichlorophenol	<0.33		0.33	0.11	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,4,5-Trichlorophenol	<0.33		0.33	0.076	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Hexachlorocyclopentadiene	<0.67		0.67	0.19	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2-Methylnaphthalene	<0.067		0.067	0.0061	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2-Nitroaniline	<0.17		0.17	0.045	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2-Chloronaphthalene	<0.17		0.17	0.037	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4-Chloro-3-methylphenol	<0.33		0.33	0.11	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,6-Dinitrotoluene	<0.17		0.17	0.065	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2-Nitrophenol	<0.33		0.33	0.079	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
3-Nitroaniline	<0.33		0.33	0.10	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Dimethyl phthalate	<0.17		0.17	0.043	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,4-Dinitrophenol	<0.67		0.67	0.59	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Acenaphthylene	<0.033		0.033	0.0044	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,4-Dinitrotoluene	<0.17		0.17	0.053	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Acenaphthene	<0.033		0.033	0.0060	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Dibenzofuran	<0.17		0.17	0.039	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4-Nitrophenol	<0.67		0.67	0.32	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Fluorene	<0.033		0.033	0.0047	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4-Nitroaniline	<0.33		0.33	0.14	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.044	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Hexachlorobenzene	<0.067		0.067	0.0077	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Diethyl phthalate	<0.17		0.17	0.056	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.039	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Pentachlorophenol	<0.67		0.67	0.53	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
N-Nitrosodiphenylamine	<0.17		0.17	0.039	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4,6-Dinitro-2-methylphenol	<0.67		0.67	0.27	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Phenanthrene	<0.033		0.033	0.0046	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Anthracene	<0.033		0.033	0.0056	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Carbazole	<0.17		0.17	0.083	mg/Kg		10/25/21 06:38	11/02/21 18:34	1

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

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

**Lab Sample ID: MB 500-625120/1-A**  
**Matrix: Solid**  
**Analysis Batch: 626713**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 625120**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	<0.17		0.17	0.051	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Fluoranthene	<0.033		0.033	0.0062	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Pyrene	<0.033		0.033	0.0066	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Butyl benzyl phthalate	<0.17		0.17	0.063	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Benzo[a]anthracene	<0.033		0.033	0.0045	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Chrysene	<0.033		0.033	0.0091	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.047	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.061	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Di-n-octyl phthalate	<0.17		0.17	0.054	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Benzo[b]fluoranthene	<0.033		0.033	0.0072	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Benzo[k]fluoranthene	<0.033		0.033	0.0098	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Benzo[a]pyrene	<0.033		0.033	0.0064	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Indeno[1,2,3-cd]pyrene	<0.033		0.033	0.0086	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Dibenz(a,h)anthracene	<0.033		0.033	0.0064	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Benzo[g,h,i]perylene	<0.033		0.033	0.011	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
3 & 4 Methylphenol	<0.17		0.17	0.055	mg/Kg		10/25/21 06:38	11/02/21 18:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	102		31 - 166	10/25/21 06:38	11/02/21 18:34	1
Phenol-d5	68		30 - 153	10/25/21 06:38	11/02/21 18:34	1
Nitrobenzene-d5 (Surr)	90		37 - 147	10/25/21 06:38	11/02/21 18:34	1
2-Fluorobiphenyl (Surr)	92		43 - 145	10/25/21 06:38	11/02/21 18:34	1
2,4,6-Tribromophenol	61		31 - 143	10/25/21 06:38	11/02/21 18:34	1
Terphenyl-d14 (Surr)	101		42 - 157	10/25/21 06:38	11/02/21 18:34	1

**Lab Sample ID: LCS 500-625120/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626461**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625120**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Phenol	1.33	1.13		mg/Kg		85	56 - 122
Bis(2-chloroethyl)ether	1.33	1.21		mg/Kg		91	55 - 111
1,3-Dichlorobenzene	1.33	1.25		mg/Kg		94	65 - 124
1,4-Dichlorobenzene	1.33	1.26		mg/Kg		94	61 - 110
1,2-Dichlorobenzene	1.33	1.33		mg/Kg		100	62 - 110
2-Methylphenol	1.33	1.45		mg/Kg		109	60 - 120
2,2'-oxybis[1-chloropropane]	1.33	0.808		mg/Kg		61	40 - 124
N-Nitrosodi-n-propylamine	1.33	1.52		mg/Kg		114	56 - 118
Hexachloroethane	1.33	1.14		mg/Kg		85	60 - 114
2-Chlorophenol	1.33	1.35		mg/Kg		101	64 - 110
Nitrobenzene	1.33	1.39		mg/Kg		104	60 - 116
Bis(2-chloroethoxy)methane	1.33	1.43		mg/Kg		107	60 - 112
1,2,4-Trichlorobenzene	1.33	1.37		mg/Kg		103	66 - 117
Isophorone	1.33	1.51	*+	mg/Kg		114	55 - 110
2,4-Dimethylphenol	1.33	1.25		mg/Kg		94	60 - 110
Hexachlorobutadiene	1.33	1.53		mg/Kg		114	56 - 120
Naphthalene	1.33	1.39		mg/Kg		104	63 - 110
2,4-Dichlorophenol	1.33	1.31		mg/Kg		99	58 - 120

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

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

**Lab Sample ID: LCS 500-625120/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626461**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625120**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chloroaniline	1.33	0.919		mg/Kg		69	30 - 150
2,4,6-Trichlorophenol	1.33	1.29		mg/Kg		97	57 - 120
2,4,5-Trichlorophenol	1.33	1.28		mg/Kg		96	50 - 120
Hexachlorocyclopentadiene	1.33	0.426	J	mg/Kg		32	10 - 133
2-Methylnaphthalene	1.33	1.55	*+	mg/Kg		116	69 - 112
2-Nitroaniline	1.33	1.44		mg/Kg		108	57 - 124
2-Chloronaphthalene	1.33	1.36		mg/Kg		102	69 - 114
4-Chloro-3-methylphenol	1.33	1.28		mg/Kg		96	65 - 122
2,6-Dinitrotoluene	1.33	1.49		mg/Kg		112	70 - 123
2-Nitrophenol	1.33	1.34		mg/Kg		101	60 - 120
3-Nitroaniline	1.33	0.701		mg/Kg		53	40 - 122
Dimethyl phthalate	1.33	1.53		mg/Kg		115	69 - 116
2,4-Dinitrophenol	2.67	<0.67		mg/Kg		11	10 - 100
Acenaphthylene	1.33	1.42		mg/Kg		107	68 - 120
2,4-Dinitrotoluene	1.33	1.49		mg/Kg		112	69 - 124
Acenaphthene	1.33	1.39		mg/Kg		104	65 - 124
Dibenzofuran	1.33	1.40		mg/Kg		105	66 - 115
4-Nitrophenol	2.67	2.62		mg/Kg		98	30 - 122
Fluorene	1.33	1.43		mg/Kg		107	62 - 120
4-Nitroaniline	1.33	1.16		mg/Kg		87	60 - 160
4-Bromophenyl phenyl ether	1.33	1.53		mg/Kg		115	68 - 118
Hexachlorobenzene	1.33	1.58		mg/Kg		118	63 - 124
Diethyl phthalate	1.33	1.52		mg/Kg		114	58 - 120
4-Chlorophenyl phenyl ether	1.33	1.43		mg/Kg		107	62 - 119
Pentachlorophenol	2.67	1.18		mg/Kg		44	13 - 112
N-Nitrosodiphenylamine	1.33	1.43		mg/Kg		107	65 - 112
4,6-Dinitro-2-methylphenol	2.67	0.642	J	mg/Kg		24	10 - 110
Phenanthrene	1.33	1.45		mg/Kg		109	62 - 120
Anthracene	1.33	1.48		mg/Kg		111	70 - 114
Carbazole	1.33	1.50		mg/Kg		112	65 - 142
Di-n-butyl phthalate	1.33	1.47		mg/Kg		110	65 - 120
Fluoranthene	1.33	1.50		mg/Kg		112	62 - 120
Pyrene	1.33	1.42		mg/Kg		106	61 - 128
Butyl benzyl phthalate	1.33	1.35		mg/Kg		101	71 - 129
Benzo[a]anthracene	1.33	1.46		mg/Kg		109	67 - 122
Chrysene	1.33	1.42		mg/Kg		107	63 - 120
3,3'-Dichlorobenzidine	1.33	1.24		mg/Kg		93	35 - 128
Bis(2-ethylhexyl) phthalate	1.33	1.42		mg/Kg		107	72 - 131
Di-n-octyl phthalate	1.33	1.33		mg/Kg		100	68 - 134
Benzo[b]fluoranthene	1.33	1.32		mg/Kg		99	69 - 129
Benzo[k]fluoranthene	1.33	1.40		mg/Kg		105	68 - 127
Benzo[a]pyrene	1.33	1.43		mg/Kg		108	65 - 133
Indeno[1,2,3-cd]pyrene	1.33	1.37		mg/Kg		103	68 - 130
Dibenz(a,h)anthracene	1.33	1.39		mg/Kg		104	64 - 131
Benzo[g,h,i]perylene	1.33	1.38		mg/Kg		103	72 - 131
3 & 4 Methylphenol	1.33	1.46		mg/Kg		109	57 - 120



# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

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

**Lab Sample ID: LCS 500-625120/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626461**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625120**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol	121		31 - 166
Phenol-d5	105		30 - 153
Nitrobenzene-d5 (Surr)	118		37 - 147
2-Fluorobiphenyl (Surr)	112		43 - 145
2,4,6-Tribromophenol	99		31 - 143
Terphenyl-d14 (Surr)	116		42 - 157

## Method: 6010B - Metals (ICP)

**Lab Sample ID: LCS 500-625181/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625354**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625181**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Barium	0.500	0.518		mg/L		104	80 - 120
Beryllium	0.0500	0.0481		mg/L		96	80 - 120
Boron	1.00	0.812		mg/L		81	80 - 120
Cadmium	0.0500	0.0465		mg/L		93	80 - 120
Chromium	0.200	0.195		mg/L		98	80 - 120
Cobalt	0.500	0.503		mg/L		101	80 - 120
Iron	1.00	1.03		mg/L		103	80 - 120
Lead	0.100	0.0955		mg/L		95	80 - 120
Manganese	0.500	0.468		mg/L		94	80 - 120
Nickel	0.500	0.509		mg/L		102	80 - 120
Selenium	0.100	0.102		mg/L		102	80 - 120
Silver	0.0500	0.0483		mg/L		97	80 - 120
Zinc	0.500	0.583	^+	mg/L		117	80 - 120

**Lab Sample ID: LCS 500-625181/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625638**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625181**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Manganese	0.500	0.471		mg/L		94	80 - 120

**Lab Sample ID: LCS 500-625182/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625619**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625182**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Manganese	0.500	0.485		mg/L		97	80 - 120

**Lab Sample ID: MRL 500-625619/15**  
**Matrix: Solid**  
**Analysis Batch: 625619**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	Limits
Manganese	0.0100	0.0108		mg/L		108	70 - 130

# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

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

**Lab Sample ID: MB 500-626511/1-A**  
**Matrix: Solid**  
**Analysis Batch: 626836**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 626511**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	0.414	J	2.0	0.39	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Arsenic	<1.0		1.0	0.34	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Barium	0.553	J	1.0	0.11	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Beryllium	<0.40		0.40	0.093	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Boron	<5.0		5.0	0.47	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Cadmium	0.0880	J	0.20	0.036	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Calcium	22.3		20	3.4	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Chromium	<1.0		1.0	0.50	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Cobalt	<0.50		0.50	0.13	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Copper	0.345	J	1.0	0.28	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Iron	13.2	J	20	10	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Lead	<0.50		0.50	0.23	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Magnesium	6.68	J	10	5.0	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Manganese	<1.0		1.0	0.15	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Nickel	<1.0		1.0	0.29	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Potassium	<50		50	18	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Selenium	<1.0		1.0	0.59	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Silver	<0.50		0.50	0.13	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Sodium	<100		100	15	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Thallium	<1.0		1.0	0.50	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Vanadium	<0.50		0.50	0.12	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Zinc	0.970	J	2.0	0.88	mg/Kg		11/01/21 10:13	11/02/21 11:09	1

**Lab Sample ID: LCS 500-626511/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626836**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626511**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	10.0	9.18		mg/Kg		92	80 - 120
Barium	200	202		mg/Kg		101	80 - 120
Beryllium	5.00	4.81		mg/Kg		96	80 - 120
Boron	100	84.4		mg/Kg		84	80 - 120
Cadmium	5.00	4.66		mg/Kg		93	80 - 120
Calcium	1000	907		mg/Kg		91	80 - 120
Chromium	20.0	18.6		mg/Kg		93	80 - 120
Cobalt	50.0	46.5		mg/Kg		93	80 - 120
Copper	25.0	24.0		mg/Kg		96	80 - 120
Iron	100	107		mg/Kg		107	80 - 120
Lead	10.0	9.24		mg/Kg		92	80 - 120
Magnesium	1000	961		mg/Kg		96	80 - 120
Manganese	50.0	45.7		mg/Kg		91	80 - 120
Nickel	50.0	47.2		mg/Kg		94	80 - 120
Potassium	1000	992		mg/Kg		99	80 - 120
Selenium	10.0	8.00		mg/Kg		80	80 - 120
Silver	5.00	4.67		mg/Kg		93	80 - 120
Sodium	1000	1020		mg/Kg		102	80 - 120
Thallium	10.0	8.99		mg/Kg		90	80 - 120
Vanadium	50.0	46.3		mg/Kg		93	80 - 120

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

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

**Lab Sample ID: LCS 500-626511/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626836**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626511**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	50.0	46.0		mg/Kg		92	80 - 120

**Lab Sample ID: LB 500-624872/1-B**  
**Matrix: Solid**  
**Analysis Batch: 625354**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 625181**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.50		0.50	0.050	mg/L		10/25/21 08:30	10/25/21 16:12	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/25/21 08:30	10/25/21 16:12	1
Boron	<0.50		0.50	0.050	mg/L		10/25/21 08:30	10/25/21 16:12	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/25/21 08:30	10/25/21 16:12	1
Chromium	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:12	1
Cobalt	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:12	1
Iron	<0.40		0.40	0.20	mg/L		10/25/21 08:30	10/25/21 16:12	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/25/21 08:30	10/25/21 16:12	1
Manganese	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:12	1
Nickel	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:12	1
Selenium	<0.050		0.050	0.020	mg/L		10/25/21 08:30	10/25/21 16:12	1
Silver	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:12	1
Zinc	<0.50	^+	0.50	0.020	mg/L		10/25/21 08:30	10/25/21 16:12	1

**Lab Sample ID: LB 500-624872/1-B**  
**Matrix: Solid**  
**Analysis Batch: 625638**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 625181**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/26/21 14:45	1

**Lab Sample ID: LB 500-624891/21-B**  
**Matrix: Solid**  
**Analysis Batch: 625619**

**Client Sample ID: Method Blank**  
**Prep Type: SPLP East**  
**Prep Batch: 625182**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	<0.025		0.025	0.010	mg/L		10/25/21 08:33	10/26/21 17:15	1

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

**Lab Sample ID: LCS 500-625181/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625693**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625181**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.500		mg/L		100	80 - 120
Thallium	0.100	0.116		mg/L		116	80 - 120

# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

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

Lab Sample ID: LB 500-624872/1-B  
 Matrix: Solid  
 Analysis Batch: 625693

Client Sample ID: Method Blank  
 Prep Type: TCLP  
 Prep Batch: 625181

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/25/21 08:30	10/26/21 15:05	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/25/21 08:30	10/26/21 15:05	1

## Method: 7470A - TCLP Mercury

Lab Sample ID: MB 500-625462/12-A  
 Matrix: Solid  
 Analysis Batch: 625700

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 625462

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 08:13	1

Lab Sample ID: LCS 500-625462/14-A  
 Matrix: Solid  
 Analysis Batch: 625700

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 625462

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00183		mg/L		91	80 - 120

Lab Sample ID: LB 500-624872/1-C  
 Matrix: Solid  
 Analysis Batch: 625700

Client Sample ID: Method Blank  
 Prep Type: TCLP  
 Prep Batch: 625462

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 08:16	1

## Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 500-625696/12-A  
 Matrix: Solid  
 Analysis Batch: 625923

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 625696

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0056	mg/Kg		10/27/21 14:15	10/28/21 06:34	1

Lab Sample ID: LCS 500-625696/13-A  
 Matrix: Solid  
 Analysis Batch: 625923

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 625696

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.167	0.175		mg/Kg		105	80 - 120

# Lab Chronicle

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

**Client Sample ID: 2674V2-10-B01 (0-5)**  
**Date Collected: 10/18/21 13:52**  
**Date Received: 10/19/21 11:15**

**Lab Sample ID: 500-207060-1**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			624891	10/21/21 15:30	OAJ	TAL CHI
SPLP East	Prep	3010A			625182	10/25/21 08:33	BDE	TAL CHI
SPLP East	Analysis	6010B		1	625619	10/26/21 18:34	JJB	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6010B		1	625354	10/25/21 17:01	JJB	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6010B		1	625638	10/26/21 15:08	JJB	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6020A		1	625693	10/26/21 15:21	FXG	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	7470A			625462	10/26/21 09:55	MJG	TAL CHI
TCLP	Analysis	7470A		1	625700	10/27/21 08:45	MJG	TAL CHI
Total/NA	Analysis	9045D		1	624833	10/21/21 17:55	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	624697	10/21/21 08:57	LWN	TAL CHI

**Client Sample ID: 2674V2-10-B01 (0-5)**  
**Date Collected: 10/18/21 13:52**  
**Date Received: 10/19/21 11:15**

**Lab Sample ID: 500-207060-1**  
**Matrix: Solid**  
**Percent Solids: 82.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624911	10/19/21 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625352	10/26/21 18:04	PMF	TAL CHI
Total/NA	Prep	3541			625120	10/25/21 06:38	SB	TAL CHI
Total/NA	Analysis	8270D		1	627092	11/03/21 22:40	GLR	TAL CHI
Total/NA	Prep	3050B			626511	11/01/21 10:13	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626836	11/02/21 11:46	JJB	TAL CHI
Total/NA	Prep	3050B			626511	11/01/21 10:13	BDE	TAL CHI
Total/NA	Analysis	6010B		5	626854	11/02/21 12:53	JJB	TAL CHI
Total/NA	Prep	7471B			625696	10/27/21 14:15	MJG	TAL CHI
Total/NA	Analysis	7471B		1	625923	10/28/21 07:25	MJG	TAL CHI

**Client Sample ID: 2674V2-10-B02 (0-5)**  
**Date Collected: 10/18/21 14:00**  
**Date Received: 10/19/21 11:15**

**Lab Sample ID: 500-207060-2**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			624891	10/21/21 15:30	OAJ	TAL CHI
SPLP East	Prep	3010A			625182	10/25/21 08:33	BDE	TAL CHI
SPLP East	Analysis	6010B		1	625619	10/26/21 18:37	JJB	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6010B		1	625354	10/25/21 17:04	JJB	TAL CHI

# Lab Chronicle

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

**Client Sample ID: 2674V2-10-B02 (0-5)**

**Lab Sample ID: 500-207060-2**

**Date Collected: 10/18/21 14:00**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6010B		1	625638	10/26/21 15:21	JJB	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6020A		1	625693	10/26/21 15:22	FXG	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	7470A			625462	10/26/21 09:55	MJG	TAL CHI
TCLP	Analysis	7470A		1	625700	10/27/21 08:52	MJG	TAL CHI
Total/NA	Analysis	9045D		1	624833	10/21/21 17:58	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	624697	10/21/21 08:57	LWN	TAL CHI

**Client Sample ID: 2674V2-10-B02 (0-5)**

**Lab Sample ID: 500-207060-2**

**Date Collected: 10/18/21 14:00**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 82.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624911	10/19/21 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625352	10/26/21 18:30	PMF	TAL CHI
Total/NA	Prep	3541			625120	10/25/21 06:38	SB	TAL CHI
Total/NA	Analysis	8270D		1	627092	11/03/21 23:03	GLR	TAL CHI
Total/NA	Prep	3050B			626511	11/01/21 10:13	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626836	11/02/21 11:49	JJB	TAL CHI
Total/NA	Prep	3050B			626511	11/01/21 10:13	BDE	TAL CHI
Total/NA	Analysis	6010B		5	626854	11/02/21 13:47	JJB	TAL CHI
Total/NA	Prep	7471B			625696	10/27/21 14:15	MJG	TAL CHI
Total/NA	Analysis	7471B		1	625923	10/28/21 07:28	MJG	TAL CHI

**Client Sample ID: 2674V2-10-B03 (0-5)**

**Lab Sample ID: 500-207060-3**

**Date Collected: 10/18/21 14:13**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			624891	10/21/21 15:30	OAJ	TAL CHI
SPLP East	Prep	3010A			625182	10/25/21 08:33	BDE	TAL CHI
SPLP East	Analysis	6010B		1	625619	10/26/21 18:40	JJB	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6010B		1	625354	10/25/21 17:08	JJB	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6010B		1	625638	10/26/21 15:24	JJB	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6020A		1	625693	10/26/21 15:23	FXG	TAL CHI

Eurofins TestAmerica, Chicago

# Lab Chronicle

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

**Client Sample ID: 2674V2-10-B03 (0-5)**  
**Date Collected: 10/18/21 14:13**  
**Date Received: 10/19/21 11:15**

**Lab Sample ID: 500-207060-3**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	7470A			625462	10/26/21 09:55	MJG	TAL CHI
TCLP	Analysis	7470A		1	625700	10/27/21 08:54	MJG	TAL CHI
Total/NA	Analysis	9045D		1	624833	10/21/21 18:00	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	624697	10/21/21 08:57	LWN	TAL CHI

**Client Sample ID: 2674V2-10-B03 (0-5)**  
**Date Collected: 10/18/21 14:13**  
**Date Received: 10/19/21 11:15**

**Lab Sample ID: 500-207060-3**  
**Matrix: Solid**  
**Percent Solids: 80.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624911	10/19/21 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625352	10/26/21 18:56	PMF	TAL CHI
Total/NA	Prep	3541			625120	10/25/21 06:38	SB	TAL CHI
Total/NA	Analysis	8270D		1	627092	11/03/21 23:26	GLR	TAL CHI
Total/NA	Prep	3050B			626511	11/01/21 10:13	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626836	11/02/21 11:52	JJB	TAL CHI
Total/NA	Prep	3050B			626511	11/01/21 10:13	BDE	TAL CHI
Total/NA	Analysis	6010B		5	626854	11/02/21 13:50	JJB	TAL CHI
Total/NA	Prep	7471B			625696	10/27/21 14:15	MJG	TAL CHI
Total/NA	Analysis	7471B		1	625923	10/28/21 07:30	MJG	TAL CHI

**Client Sample ID: 2674V2-10-B04 (0-5)**  
**Date Collected: 10/18/21 14:21**  
**Date Received: 10/19/21 11:15**

**Lab Sample ID: 500-207060-4**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6010B		1	625354	10/25/21 17:11	JJB	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6010B		1	625638	10/26/21 15:28	JJB	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6020A		1	625693	10/26/21 15:24	FXG	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	7470A			625462	10/26/21 09:55	MJG	TAL CHI
TCLP	Analysis	7470A		1	625700	10/27/21 08:56	MJG	TAL CHI
Total/NA	Analysis	9045D		1	624833	10/21/21 18:03	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	624697	10/21/21 08:57	LWN	TAL CHI

# Lab Chronicle

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

**Client Sample ID: 2674V2-10-B04 (0-5)**

**Lab Sample ID: 500-207060-4**

**Date Collected: 10/18/21 14:21**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 88.3**

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	5035			624911	10/19/21 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625352	10/26/21 19:22	PMF	TAL CHI
Total/NA	Prep	3541			625120	10/25/21 06:38	SB	TAL CHI
Total/NA	Analysis	8270D		1	627092	11/03/21 23:49	GLR	TAL CHI
Total/NA	Prep	3050B			626511	11/01/21 10:13	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626836	11/02/21 11:55	JJB	TAL CHI
Total/NA	Prep	7471B			625696	10/27/21 14:15	MJG	TAL CHI
Total/NA	Analysis	7471B		1	625923	10/28/21 07:32	MJG	TAL CHI

### Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



# Accreditation/Certification Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207060-1

## Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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# Chain of Custody Record

546548



Environment Testing  
TestAmerica

TAL-8210

Address \_\_\_\_\_

Regulatory Program:  DW  NPDES  RCRA  Other

Client Contact		Project Manager <u>D. Tiebout</u>		Site Contact <u>R Wright</u>		Date: <u>10/18/21</u>		COC No <u>9</u>							
Company Name <u>WSP</u>		Tel/Email		Lab Contact		Carrier		<u>9</u> of <u>11</u> COCs							
Address		Analysis Turnaround Time		Filtered Sample (Y/N) Perform MS / MSD (Y/N) PH % moisture VOCs SVOCs Total Metabolites TCLP analysis *				Sampler							
City/State/Zip <u>Chicago, IL</u>		<input checked="" type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS						For Lab Use Only							
Phone		TAT if different from Below _____						Walk-in Client							
Fax		<input checked="" type="checkbox"/> 2 weeks						Lab Sampling							
Project Name <u>FOOT WOOD</u>		<input type="checkbox"/> 1 week						Job / SDG No							
Site <u>Lake Villa, IL</u>		<input type="checkbox"/> 2 days		<u>500-207060</u>											
P O #		<input type="checkbox"/> 1 day													
500-207060 COC								Sample Specific Notes							
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.									
<u>2674V2-10-B01(0-5)</u>		<u>10/18/21</u>	<u>1352</u>	<u>C</u>	<u>S</u>	<u>2</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	
<u>2674V2-10-B02(0-5)</u>		<u>10/18/21</u>	<u>1400</u>	<u>C</u>	<u>S</u>	<u>2</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	
<u>2674V2-10-B03(0-5)</u>		<u>10/18/21</u>	<u>1413</u>	<u>C</u>	<u>S</u>	<u>2</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	
<u>2674V2-10-B04(0-5)</u>		<u>10/18/21</u>	<u>1421</u>	<u>C</u>	<u>S</u>	<u>2</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other															
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample					Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)										
<input type="checkbox"/> Non Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown					<input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months										
Special Instructions/QC Requirements & Comments: <u>*SPLP analysis based on TCLP results</u>															
Custody Seals Intact. <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temp (°C) Obs'd <u>5.4-5.3, 5.2-5.1</u>		Corr'd <u>1</u>		Therm ID No							
Relinquished by <u>[Signature]</u>		Company <u>WSP</u>		Date/Time <u>10/18/21 1015</u>		Received by <u>[Signature]</u>		Company <u>EA</u>							
Relinquished by <u>[Signature]</u>		Company <u>EA</u>		Date/Time <u>10/19/21 1115</u>		Received by		Company							
Relinquished by		Company		Date/Time		Received by Laboratory by <u>[Signature]</u>		Company <u>EA-CRT</u>							
								Date/Time <u>10/19/21 1115</u>							

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# Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 500-207060-1

**Login Number: 207060**

**List Source: Eurofins TestAmerica, Chicago**

**List Number: 1**

**Creator: Scott, Sherri L**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.3.5.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





# Illinois Environmental Protection Agency

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

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

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

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

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

### I. Source Location Information

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

Project Name: FAP 541 (Illinois Route 132) Office Phone Number, if available: \_\_\_\_\_

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

10 W. Grand Avenue (ISGS #2674V2-11)

City: Lake Villa State: IL Zip Code: 60046

County: Lake Township: Lake Villa

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

Latitude: 42.41579 Longitude: - 88.08256  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

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

Approximate Start Date (mm/dd/yyyy): \_\_\_\_\_ Approximate End Date (mm/dd/yyyy): \_\_\_\_\_

Estimated Volume of debris (cu. Yd.): 67

### 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):

Location 2674V2-11-B01 was sampled within the construction zone adjacent to ISGS #2674V2-11 (Timothy O'Toole's Pub). Refer to PSI Report for ISGS #2674V2-11 (Timothy O'Toole's Pub) including Table 4-4, and Figures 4-3 and 4-6.

- 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]:

See attached data summary table and associated laboratory data package J207061-1.

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

I, Tom Campbell (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: WSP USA

Street Address: 115 W Washington St., Suite 1270S

City: Indianapolis State: IN Zip Code: 46204

Phone: (317) 972-1706

Tom Campbell  
Printed Name:



02/03/2022  
Date:

Expires 11/30/2023

*Tom Campbell*  
Licensed Professional Engineer or  
Licensed Professional Geologist Signature:



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

**Analytical Data Summary**  
**PTB #196-002; Work Order 04 - IDOT Job # P-91-583-12**

**Key to Data Tables**

- MAC = Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- TACO = Tiered Approach to Corrective Action Objectives
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers and Shading**

- # = pH is less than 6.25 or greater than 9.0 standard units.
- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- r = Concentration exceeds a TACO Tier 1 RO for the Residential Soil Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds applicable comparison criteria.

## PTB #196-002; Work Order 04 - IDOT Job # P-91-583-12

## CONTAMINANTS OF CONCERN

SITE	ISGS #2674V2-11 (Timothy O'Toole's Pub)	Comparison Criteria					
		MACs			TACO		
BORING	2674V2-11-B01	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
SAMPLE	2674V2-11-B01 (0-2)						
MATRIX	Soil						
DEPTH (feet)	0-2						
pH	7.7						
PID (meter units)	--						
<b>VOCs (mg/kg)</b>							
<b>SVOCs (mg/kg)</b>							
Anthracene	0.013 J	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	0.088	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.12 †	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	0.14	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.080	--	--	--	--	--	--
Benzo(k)fluoranthene	0.14	9	--	--	9	1,700	--
Chrysene	0.13	88	--	--	88	17,000	--
Dibenz(a,h)anthracene	0.021 J	0.09	0.42	0.2	0.42	17	--
Fluoranthene	0.21	3,100	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	0.075	0.9	1.6	0.9	1.6	170	--
Phenanthrene	0.052	--	--	--	--	--	--
Pyrene	0.15	2,300	--	--	2,300	61,000	--
<b>Inorganics (mg/kg)</b>							
Antimony	0.52 J	5	--	--	31	82	--
Arsenic	7.8	11.3	13	--	13	61	--
Barium	97	1,500	--	--	5,500	14,000	--
Beryllium	1.0	22	--	--	160	410	--
Boron	7.5	40	--	--	16,000	41,000	--
Calcium	4,400	--	--	--	--	--	--
Chromium	23 †	21	--	--	230	690	--
Cobalt	15	20	--	--	4,700	12,000	--
Copper	23	2,900	--	--	2,900	8,200	--
Iron	24,000 †m	15,000	15,900	--	--	--	--
Lead	36	107	--	--	400	700	--
Magnesium	4,900	325,000	--	--	--	730,000	--
Manganese	750 †m	630	636	--	1,600	4,100	--
Mercury	0.055	0.89	--	--	10	0.1	--
Nickel	33	100	--	--	1,600	4,100	--
Potassium	2,300	--	--	--	--	--	--
Silver	0.35	4.4	--	--	390	1,000	--
Sodium	460	--	--	--	--	--	--
Thallium	0.68	2.6	--	--	6.3	160	--
Vanadium	29	550	--	--	550	1,400	--
Zinc	95	5,100	--	--	23,000	61,000	--
<b>TCLP Metals (mg/L)</b>							
Barium	0.27 J	--	--	--	--	--	2
Boron	0.052 J	--	--	--	--	--	2
Chromium	ND U	--	--	--	--	--	0.1
Iron	ND U	--	--	--	--	--	5
Manganese	0.042	--	--	--	--	--	0.15
Zinc	0.027 J	--	--	--	--	--	5
<b>SPLP Metals (Not Analyzed)</b>							

## ANALYTICAL REPORT

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

Laboratory Job ID: 500-207061-1

Client Project/Site: IDOT - 196-002-WO04 Lake Villa

**For:**

WSP USA Inc.  
30 North LaSalle Street  
Chicago, Illinois 60602

Attn: Dean Tiebot



Authorized for release by:  
11/3/2021 5:20:10 PM

Richard Wright, Senior Project Manager  
(708)746-0045  
[Richard.Wright@Eurofinset.com](mailto:Richard.Wright@Eurofinset.com)

### LINKS

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*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

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

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



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# Case Narrative

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207061-1

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## Job ID: 500-207061-1

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Laboratory: Eurofins TestAmerica, Chicago

### Narrative

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#### Job Narrative 500-207061-1

#### Receipt

The sample was received on 10/19/2021 11:15 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.3° C.

#### GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### GC/MS Semi VOA

Method 8270D: The continuing calibration verification (CCV) analyzed in batch 500-626713 was outside the method criteria for the following analyte(s): 2,2'-oxybis[1-chloropropane] and Pentachlorophenol. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270D: Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when utilizing this list of analytes. The LCS associated with preparation batch 500-625120 and analytical batch 500-626461 had 2 analytes outside control limits: 2-Methylnaphthalene and Isophorone. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

Method 6010B: The continuing calibration blanks (CCB) contained Iron above the reporting limit (RL). The sample 2674V2-11-B01 (0-2) (500-207061-1) associated with this CCB was below the reporting limit for the target compound; therefore, re-analysis of samples was not performed.

2674V2-11-B01 (0-2) (500-207061-1)

Method 6010B: The continuing calibration verification (CCV) associated with batch 500-625354 recovered above the upper control limit for Zinc. The samples associated with this CCV were below the reporting limit for the affected analytes; therefore, the data have been reported. The associated sample is impacted: 2674V2-11-B01 (0-2) (500-207061-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207061-1

**Client Sample ID: 2674V2-11-B01 (0-2)**

**Lab Sample ID: 500-207061-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.052		0.039	0.0055	mg/Kg	1	✳	8270D	Total/NA
Anthracene	0.013	J	0.039	0.0066	mg/Kg	1	✳	8270D	Total/NA
Fluoranthene	0.21		0.039	0.0073	mg/Kg	1	✳	8270D	Total/NA
Pyrene	0.15		0.039	0.0078	mg/Kg	1	✳	8270D	Total/NA
Benzo[a]anthracene	0.088		0.039	0.0053	mg/Kg	1	✳	8270D	Total/NA
Chrysene	0.13		0.039	0.011	mg/Kg	1	✳	8270D	Total/NA
Benzo[b]fluoranthene	0.14		0.039	0.0085	mg/Kg	1	✳	8270D	Total/NA
Benzo[k]fluoranthene	0.14		0.039	0.012	mg/Kg	1	✳	8270D	Total/NA
Benzo[a]pyrene	0.12		0.039	0.0076	mg/Kg	1	✳	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.075		0.039	0.010	mg/Kg	1	✳	8270D	Total/NA
Dibenz(a,h)anthracene	0.021	J	0.039	0.0076	mg/Kg	1	✳	8270D	Total/NA
Benzo[g,h,i]perylene	0.080		0.039	0.013	mg/Kg	1	✳	8270D	Total/NA
Antimony	0.52	J	1.2	0.23	mg/Kg	1	✳	6010B	Total/NA
Arsenic	7.8		0.59	0.20	mg/Kg	1	✳	6010B	Total/NA
Barium	97		0.59	0.067	mg/Kg	1	✳	6010B	Total/NA
Beryllium	1.0		0.23	0.055	mg/Kg	1	✳	6010B	Total/NA
Boron	7.5		2.9	0.27	mg/Kg	1	✳	6010B	Total/NA
Cadmium	0.095	J B	0.12	0.021	mg/Kg	1	✳	6010B	Total/NA
Calcium	4400	B	12	2.0	mg/Kg	1	✳	6010B	Total/NA
Chromium	23		0.59	0.29	mg/Kg	1	✳	6010B	Total/NA
Cobalt	15		0.29	0.077	mg/Kg	1	✳	6010B	Total/NA
Copper	23	B	0.59	0.16	mg/Kg	1	✳	6010B	Total/NA
Iron	24000		12	6.1	mg/Kg	1	✳	6010B	Total/NA
Lead	36		0.29	0.14	mg/Kg	1	✳	6010B	Total/NA
Magnesium	4900	B	5.9	2.9	mg/Kg	1	✳	6010B	Total/NA
Manganese	750	B	0.59	0.085	mg/Kg	1	✳	6010B	Total/NA
Nickel	33		0.59	0.17	mg/Kg	1	✳	6010B	Total/NA
Potassium	2300		29	10	mg/Kg	1	✳	6010B	Total/NA
Silver	0.35		0.29	0.076	mg/Kg	1	✳	6010B	Total/NA
Sodium	460		59	8.7	mg/Kg	1	✳	6010B	Total/NA
Thallium	0.68		0.59	0.29	mg/Kg	1	✳	6010B	Total/NA
Vanadium	29		0.29	0.069	mg/Kg	1	✳	6010B	Total/NA
Zinc	95		1.2	0.52	mg/Kg	1	✳	6010B	Total/NA
Barium	0.27	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.052	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.042		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.027	J ^+	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.055		0.019	0.0064	mg/Kg	1	✳	7471B	Total/NA
pH	7.7		0.2	0.2	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Method Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207061-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CHI
6010B	Metals (ICP)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
7470A	TCLP Mercury	SW846	TAL CHI
7471B	Mercury (CVAA)	SW846	TAL CHI
9045D	pH	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
1311	TCLP Extraction	SW846	TAL CHI
3010A	Preparation, Total Metals	SW846	TAL CHI
3050B	Preparation, Metals	SW846	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI
5035	Closed System Purge and Trap	SW846	TAL CHI
7470A	Preparation, Mercury	SW846	TAL CHI
7471B	Preparation, Mercury	SW846	TAL CHI

#### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Sample Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207061-1

---

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-207061-1	2674V2-11-B01 (0-2)	Solid	10/18/21 13:15	10/19/21 11:15

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207061-1

**Client Sample ID: 2674V2-11-B01 (0-2)**

**Lab Sample ID: 500-207061-1**

**Date Collected: 10/18/21 13:15**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 81.4**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0088	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
Bromoform	<0.0020		0.0020	0.00059	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
Carbon tetrachloride	<0.0020		0.0020	0.00059	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
Chloroform	<0.0020		0.0020	0.00070	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00061	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
Dibromochloromethane	<0.0020		0.0020	0.00066	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00071	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
Ethylbenzene	<0.0020		0.0020	0.00097	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
Styrene	<0.0020		0.0020	0.00061	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
Tetrachloroethene	<0.0020		0.0020	0.00069	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00071	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00068	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00087	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
Vinyl acetate	<0.0050		0.0050	0.0018	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1
Xylenes, Total	<0.0040		0.0040	0.00065	mg/Kg	☼	10/19/21 18:28	10/27/21 14:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		75 - 131	10/19/21 18:28	10/27/21 14:59	1
Dibromofluoromethane	103		75 - 126	10/19/21 18:28	10/27/21 14:59	1
1,2-Dichloroethane-d4 (Surr)	104		70 - 134	10/19/21 18:28	10/27/21 14:59	1
Toluene-d8 (Surr)	113		75 - 124	10/19/21 18:28	10/27/21 14:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.088	mg/Kg	☼	10/25/21 06:38	11/02/21 20:57	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	10/25/21 06:38	11/02/21 20:57	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	10/25/21 06:38	11/02/21 20:57	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	10/25/21 06:38	11/02/21 20:57	1

Eurolins TestAmerica, Chicago

## Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207061-1

Client Sample ID: 2674V2-11-B01 (0-2)

Lab Sample ID: 500-207061-1

Date Collected: 10/18/21 13:15

Matrix: Solid

Date Received: 10/19/21 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
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.048	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
Isophorone	<0.20	*+	0.20	0.044	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
2-Methylnaphthalene	<0.080	*+	0.080	0.0073	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
4-Nitroaniline	<0.39		0.39	0.17	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
Hexachlorobenzene	<0.080		0.080	0.0091	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
Pentachlorophenol	<0.80		0.80	0.63	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
<b>Phenanthrene</b>	<b>0.052</b>		0.039	0.0055	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
<b>Anthracene</b>	<b>0.013 J</b>		0.039	0.0066	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
Carbazole	<0.20		0.20	0.099	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
<b>Fluoranthene</b>	<b>0.21</b>		0.039	0.0073	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
<b>Pyrene</b>	<b>0.15</b>		0.039	0.0078	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1
<b>Benzo[a]anthracene</b>	<b>0.088</b>		0.039	0.0053	mg/Kg	✧	10/25/21 06:38	11/02/21 20:57	1

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# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207061-1

**Client Sample ID: 2674V2-11-B01 (0-2)**  
Date Collected: 10/18/21 13:15  
Date Received: 10/19/21 11:15

**Lab Sample ID: 500-207061-1**  
**Matrix: Solid**  
**Percent Solids: 81.4**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chrysene</b>	0.13		0.039	0.011	mg/Kg	✳	10/25/21 06:38	11/02/21 20:57	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	✳	10/25/21 06:38	11/02/21 20:57	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	✳	10/25/21 06:38	11/02/21 20:57	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	✳	10/25/21 06:38	11/02/21 20:57	1
<b>Benzo[b]fluoranthene</b>	0.14		0.039	0.0085	mg/Kg	✳	10/25/21 06:38	11/02/21 20:57	1
<b>Benzo[k]fluoranthene</b>	0.14		0.039	0.012	mg/Kg	✳	10/25/21 06:38	11/02/21 20:57	1
<b>Benzo[a]pyrene</b>	0.12		0.039	0.0076	mg/Kg	✳	10/25/21 06:38	11/02/21 20:57	1
<b>Indeno[1,2,3-cd]pyrene</b>	0.075		0.039	0.010	mg/Kg	✳	10/25/21 06:38	11/02/21 20:57	1
<b>Dibenz(a,h)anthracene</b>	0.021	J	0.039	0.0076	mg/Kg	✳	10/25/21 06:38	11/02/21 20:57	1
<b>Benzo[g,h,i]perylene</b>	0.080		0.039	0.013	mg/Kg	✳	10/25/21 06:38	11/02/21 20:57	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	✳	10/25/21 06:38	11/02/21 20:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	103		31 - 166				10/25/21 06:38	11/02/21 20:57	1
Phenol-d5	85		30 - 153				10/25/21 06:38	11/02/21 20:57	1
Nitrobenzene-d5 (Surr)	95		37 - 147				10/25/21 06:38	11/02/21 20:57	1
2-Fluorobiphenyl (Surr)	94		43 - 145				10/25/21 06:38	11/02/21 20:57	1
2,4,6-Tribromophenol	97		31 - 143				10/25/21 06:38	11/02/21 20:57	1
Terphenyl-d14 (Surr)	112		42 - 157				10/25/21 06:38	11/02/21 20:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	0.52	J	1.2	0.23	mg/Kg	✳	11/01/21 10:16	11/02/21 14:11	1
<b>Arsenic</b>	7.8		0.59	0.20	mg/Kg	✳	11/01/21 10:16	11/02/21 14:11	1
<b>Barium</b>	97		0.59	0.067	mg/Kg	✳	11/01/21 10:16	11/02/21 14:11	1
<b>Beryllium</b>	1.0		0.23	0.055	mg/Kg	✳	11/01/21 10:16	11/02/21 14:11	1
<b>Boron</b>	7.5		2.9	0.27	mg/Kg	✳	11/01/21 10:16	11/02/21 14:11	1
<b>Cadmium</b>	0.095	J B	0.12	0.021	mg/Kg	✳	11/01/21 10:16	11/02/21 14:11	1
<b>Calcium</b>	4400	B	12	2.0	mg/Kg	✳	11/01/21 10:16	11/02/21 14:11	1
<b>Chromium</b>	23		0.59	0.29	mg/Kg	✳	11/01/21 10:16	11/02/21 14:11	1
<b>Cobalt</b>	15		0.29	0.077	mg/Kg	✳	11/01/21 10:16	11/02/21 14:11	1
<b>Copper</b>	23	B	0.59	0.16	mg/Kg	✳	11/01/21 10:16	11/02/21 14:11	1
<b>Iron</b>	24000		12	6.1	mg/Kg	✳	11/01/21 10:16	11/02/21 14:11	1
<b>Lead</b>	36		0.29	0.14	mg/Kg	✳	11/01/21 10:16	11/02/21 14:11	1
<b>Magnesium</b>	4900	B	5.9	2.9	mg/Kg	✳	11/01/21 10:16	11/02/21 14:11	1
<b>Manganese</b>	750	B	0.59	0.085	mg/Kg	✳	11/01/21 10:16	11/02/21 14:11	1
<b>Nickel</b>	33		0.59	0.17	mg/Kg	✳	11/01/21 10:16	11/02/21 14:11	1
<b>Potassium</b>	2300		29	10	mg/Kg	✳	11/01/21 10:16	11/02/21 14:11	1
Selenium	<0.59		0.59	0.35	mg/Kg	✳	11/01/21 10:16	11/02/21 14:11	1
<b>Silver</b>	0.35		0.29	0.076	mg/Kg	✳	11/01/21 10:16	11/02/21 14:11	1
<b>Sodium</b>	460		59	8.7	mg/Kg	✳	11/01/21 10:16	11/02/21 14:11	1
<b>Thallium</b>	0.68		0.59	0.29	mg/Kg	✳	11/01/21 10:16	11/02/21 14:11	1
<b>Vanadium</b>	29		0.29	0.069	mg/Kg	✳	11/01/21 10:16	11/02/21 14:11	1
<b>Zinc</b>	95		1.2	0.52	mg/Kg	✳	11/01/21 10:16	11/02/21 14:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	0.27	J	0.50	0.050	mg/L	✳	10/25/21 08:30	10/25/21 17:14	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	✳	10/25/21 08:30	10/25/21 17:14	1
<b>Boron</b>	0.052	J	0.50	0.050	mg/L	✳	10/25/21 08:30	10/25/21 17:14	1

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# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207061-1

**Client Sample ID: 2674V2-11-B01 (0-2)**

**Lab Sample ID: 500-207061-1**

Date Collected: 10/18/21 13:15

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 81.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/25/21 08:30	10/25/21 17:14	1
Chromium	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 17:14	1
Cobalt	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 17:14	1
Iron	<0.40		0.40	0.20	mg/L		10/25/21 08:30	10/25/21 17:14	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/25/21 08:30	10/25/21 17:14	1
<b>Manganese</b>	<b>0.042</b>		0.025	0.010	mg/L		10/25/21 08:30	10/26/21 15:31	1
Nickel	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 17:14	1
Selenium	<0.050		0.050	0.020	mg/L		10/25/21 08:30	10/25/21 17:14	1
Silver	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 17:14	1
<b>Zinc</b>	<b>0.027</b>	<b>J ^+</b>	0.50	0.020	mg/L		10/25/21 08:30	10/25/21 17:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/25/21 08:30	10/26/21 15:25	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/25/21 08:30	10/26/21 15:25	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 08:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<b>0.055</b>		0.019	0.0064	mg/Kg	☼	10/27/21 14:15	10/28/21 08:08	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	<b>7.7</b>		0.2	0.2	SU			10/21/21 17:53	1

# Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207061-1

## Qualifiers

### GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
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
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## 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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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)
TNTC	Too Numerous To Count

# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207061-1

## GC/MS VOA

### Prep Batch: 624911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207061-1	2674V2-11-B01 (0-2)	Total/NA	Solid	5035	

### Analysis Batch: 625626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207061-1	2674V2-11-B01 (0-2)	Total/NA	Solid	8260B	624911
MB 500-625626/7	Method Blank	Total/NA	Solid	8260B	
LCS 500-625626/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-625626/5	Lab Control Sample Dup	Total/NA	Solid	8260B	

## GC/MS Semi VOA

### Prep Batch: 625120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207061-1	2674V2-11-B01 (0-2)	Total/NA	Solid	3541	
MB 500-625120/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-625120/2-A	Lab Control Sample	Total/NA	Solid	3541	

### Analysis Batch: 626461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-625120/2-A	Lab Control Sample	Total/NA	Solid	8270D	625120

### Analysis Batch: 626713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207061-1	2674V2-11-B01 (0-2)	Total/NA	Solid	8270D	625120
MB 500-625120/1-A	Method Blank	Total/NA	Solid	8270D	625120

## Metals

### Leach Batch: 624872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207061-1	2674V2-11-B01 (0-2)	TCLP	Solid	1311	
LB 500-624872/1-B	Method Blank	TCLP	Solid	1311	
LB 500-624872/1-C	Method Blank	TCLP	Solid	1311	

### Prep Batch: 625181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207061-1	2674V2-11-B01 (0-2)	TCLP	Solid	3010A	624872
LB 500-624872/1-B	Method Blank	TCLP	Solid	3010A	624872
LCS 500-625181/2-A	Lab Control Sample	Total/NA	Solid	3010A	

### Analysis Batch: 625354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207061-1	2674V2-11-B01 (0-2)	TCLP	Solid	6010B	625181
LB 500-624872/1-B	Method Blank	TCLP	Solid	6010B	625181
LCS 500-625181/2-A	Lab Control Sample	Total/NA	Solid	6010B	625181

### Prep Batch: 625462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207061-1	2674V2-11-B01 (0-2)	TCLP	Solid	7470A	624872
LB 500-624872/1-C	Method Blank	TCLP	Solid	7470A	624872
MB 500-625462/12-A	Method Blank	Total/NA	Solid	7470A	
LCS 500-625462/14-A	Lab Control Sample	Total/NA	Solid	7470A	

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# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207061-1

## Metals

### Analysis Batch: 625638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207061-1	2674V2-11-B01 (0-2)	TCLP	Solid	6010B	625181
LB 500-624872/1-B	Method Blank	TCLP	Solid	6010B	625181
LCS 500-625181/2-A	Lab Control Sample	Total/NA	Solid	6010B	625181

### Analysis Batch: 625693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207061-1	2674V2-11-B01 (0-2)	TCLP	Solid	6020A	625181
LB 500-624872/1-B	Method Blank	TCLP	Solid	6020A	625181
LCS 500-625181/2-A	Lab Control Sample	Total/NA	Solid	6020A	625181

### Analysis Batch: 625700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207061-1	2674V2-11-B01 (0-2)	TCLP	Solid	7470A	625462
LB 500-624872/1-C	Method Blank	TCLP	Solid	7470A	625462
MB 500-625462/12-A	Method Blank	Total/NA	Solid	7470A	625462
LCS 500-625462/14-A	Lab Control Sample	Total/NA	Solid	7470A	625462

### Prep Batch: 625718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207061-1	2674V2-11-B01 (0-2)	Total/NA	Solid	7471B	
MB 500-625718/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-625718/13-A	Lab Control Sample	Total/NA	Solid	7471B	

### Analysis Batch: 625923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207061-1	2674V2-11-B01 (0-2)	Total/NA	Solid	7471B	625718
MB 500-625718/12-A	Method Blank	Total/NA	Solid	7471B	625718
LCS 500-625718/13-A	Lab Control Sample	Total/NA	Solid	7471B	625718

### Prep Batch: 626513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207061-1	2674V2-11-B01 (0-2)	Total/NA	Solid	3050B	
MB 500-626513/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-626513/2-A	Lab Control Sample	Total/NA	Solid	3050B	

### Analysis Batch: 626836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207061-1	2674V2-11-B01 (0-2)	Total/NA	Solid	6010B	626513
MB 500-626513/1-A	Method Blank	Total/NA	Solid	6010B	626513
LCS 500-626513/2-A	Lab Control Sample	Total/NA	Solid	6010B	626513

## General Chemistry

### Analysis Batch: 624697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207061-1	2674V2-11-B01 (0-2)	Total/NA	Solid	Moisture	

### Analysis Batch: 624833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207061-1	2674V2-11-B01 (0-2)	Total/NA	Solid	9045D	
LCS 500-624833/2	Lab Control Sample	Total/NA	Solid	9045D	

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# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207061-1

## General Chemistry (Continued)

### Analysis Batch: 624833 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 500-624833/3	Lab Control Sample Dup	Total/NA	Solid	9045D	

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

# Surrogate Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207061-1

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

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (75-131)	DBFM (75-126)	DCA (70-134)	TOL (75-124)
500-207061-1	2674V2-11-B01 (0-2)	116	103	104	113
LCS 500-625626/4	Lab Control Sample	102	103	101	112
LCSD 500-625626/5	Lab Control Sample Dup	103	105	101	111
MB 500-625626/7	Method Blank	108	104	102	111

#### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

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

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	2FP (31-166)	PHL (30-153)	NBZ (37-147)	FBP (43-145)	TBP (31-143)	TPHL (42-157)
500-207061-1	2674V2-11-B01 (0-2)	103	85	95	94	97	112
LCS 500-625120/2-A	Lab Control Sample	121	105	118	112	99	116
MB 500-625120/1-A	Method Blank	102	68	90	92	61	101

#### Surrogate Legend

2FP = 2-Fluorophenol

PHL = Phenol-d5

NBZ = Nitrobenzene-d5 (Surr)

FBP = 2-Fluorobiphenyl (Surr)

TBP = 2,4,6-Tribromophenol

TPHL = Terphenyl-d14 (Surr)

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207061-1

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

**Lab Sample ID: MB 500-625626/7**  
**Matrix: Solid**  
**Analysis Batch: 625626**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	<0.020		0.020	0.0087	mg/Kg			10/27/21 11:06	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg			10/27/21 11:06	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg			10/27/21 11:06	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg			10/27/21 11:06	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg			10/27/21 11:06	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg			10/27/21 11:06	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg			10/27/21 11:06	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg			10/27/21 11:06	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg			10/27/21 11:06	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg			10/27/21 11:06	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg			10/27/21 11:06	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg			10/27/21 11:06	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg			10/27/21 11:06	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg			10/27/21 11:06	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg			10/27/21 11:06	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg			10/27/21 11:06	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg			10/27/21 11:06	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg			10/27/21 11:06	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg			10/27/21 11:06	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00070	mg/Kg			10/27/21 11:06	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg			10/27/21 11:06	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			10/27/21 11:06	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg			10/27/21 11:06	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg			10/27/21 11:06	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg			10/27/21 11:06	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg			10/27/21 11:06	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg			10/27/21 11:06	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/27/21 11:06	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg			10/27/21 11:06	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg			10/27/21 11:06	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg			10/27/21 11:06	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg			10/27/21 11:06	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg			10/27/21 11:06	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/27/21 11:06	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg			10/27/21 11:06	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg			10/27/21 11:06	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg			10/27/21 11:06	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	108		75 - 131		10/27/21 11:06	1
Dibromofluoromethane	104		75 - 126		10/27/21 11:06	1
1,2-Dichloroethane-d4 (Surr)	102		70 - 134		10/27/21 11:06	1
Toluene-d8 (Surr)	111		75 - 124		10/27/21 11:06	1

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207061-1

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

**Lab Sample ID: LCS 500-625626/4**  
**Matrix: Solid**  
**Analysis Batch: 625626**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0500	0.0453		mg/Kg		91	40 - 150
Benzene	0.0500	0.0450		mg/Kg		90	70 - 125
Bromodichloromethane	0.0500	0.0468		mg/Kg		94	67 - 129
Bromoform	0.0500	0.0519		mg/Kg		104	68 - 136
Bromomethane	0.0500	0.0484		mg/Kg		97	70 - 130
2-Butanone (MEK)	0.0500	0.0512		mg/Kg		102	47 - 138
Carbon disulfide	0.0500	0.0455		mg/Kg		91	70 - 129
Carbon tetrachloride	0.0500	0.0448		mg/Kg		90	75 - 125
Chlorobenzene	0.0500	0.0463		mg/Kg		93	50 - 150
Chloroethane	0.0500	0.0442		mg/Kg		88	75 - 125
Chloroform	0.0500	0.0441		mg/Kg		88	57 - 135
Chloromethane	0.0500	0.0444		mg/Kg		89	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0426		mg/Kg		85	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0487		mg/Kg		97	70 - 125
Dibromochloromethane	0.0500	0.0486		mg/Kg		97	69 - 125
1,1-Dichloroethane	0.0500	0.0425		mg/Kg		85	70 - 125
1,2-Dichloroethane	0.0500	0.0454		mg/Kg		91	70 - 130
1,1-Dichloroethene	0.0500	0.0458		mg/Kg		92	70 - 120
1,2-Dichloropropane	0.0500	0.0445		mg/Kg		89	70 - 125
Ethylbenzene	0.0500	0.0464		mg/Kg		93	61 - 136
2-Hexanone	0.0500	0.0512		mg/Kg		102	48 - 146
Methylene Chloride	0.0500	0.0431		mg/Kg		86	70 - 126
4-Methyl-2-pentanone (MIBK)	0.0500	0.0508		mg/Kg		102	50 - 148
Methyl tert-butyl ether	0.0500	0.0452		mg/Kg		90	50 - 140
Styrene	0.0500	0.0462		mg/Kg		92	70 - 125
1,1,2,2-Tetrachloroethane	0.0500	0.0475		mg/Kg		95	70 - 122
Tetrachloroethene	0.0500	0.0509		mg/Kg		102	70 - 124
Toluene	0.0500	0.0476		mg/Kg		95	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0446		mg/Kg		89	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0505		mg/Kg		101	70 - 125
1,1,1-Trichloroethane	0.0500	0.0456		mg/Kg		91	70 - 128
1,1,2-Trichloroethane	0.0500	0.0507		mg/Kg		101	70 - 125
Trichloroethene	0.0500	0.0461		mg/Kg		92	70 - 125
Vinyl acetate	0.0500	0.0565		mg/Kg		113	40 - 153
Vinyl chloride	0.0500	0.0444		mg/Kg		89	70 - 125
Xylenes, Total	0.100	0.0938		mg/Kg		94	53 - 147

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	102		75 - 131
Dibromofluoromethane	103		75 - 126
1,2-Dichloroethane-d4 (Surr)	101		70 - 134
Toluene-d8 (Surr)	112		75 - 124



# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207061-1

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

**Lab Sample ID: LCSD 500-625626/5**  
**Matrix: Solid**  
**Analysis Batch: 625626**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.0500	0.0435		mg/Kg		87	40 - 150	4	30
Benzene	0.0500	0.0444		mg/Kg		89	70 - 125	1	30
Bromodichloromethane	0.0500	0.0454		mg/Kg		91	67 - 129	3	30
Bromoform	0.0500	0.0498		mg/Kg		100	68 - 136	4	30
Bromomethane	0.0500	0.0507		mg/Kg		101	70 - 130	5	30
2-Butanone (MEK)	0.0500	0.0464		mg/Kg		93	47 - 138	10	30
Carbon disulfide	0.0500	0.0464		mg/Kg		93	70 - 129	2	30
Carbon tetrachloride	0.0500	0.0445		mg/Kg		89	75 - 125	1	30
Chlorobenzene	0.0500	0.0447		mg/Kg		89	50 - 150	4	30
Chloroethane	0.0500	0.0470		mg/Kg		94	75 - 125	6	30
Chloroform	0.0500	0.0444		mg/Kg		89	57 - 135	1	30
Chloromethane	0.0500	0.0475		mg/Kg		95	70 - 125	7	30
cis-1,2-Dichloroethene	0.0500	0.0439		mg/Kg		88	70 - 125	3	30
cis-1,3-Dichloropropene	0.0500	0.0450		mg/Kg		90	70 - 125	8	30
Dibromochloromethane	0.0500	0.0464		mg/Kg		93	69 - 125	5	30
1,1-Dichloroethane	0.0500	0.0427		mg/Kg		85	70 - 125	0	30
1,2-Dichloroethane	0.0500	0.0445		mg/Kg		89	70 - 130	2	30
1,1-Dichloroethene	0.0500	0.0459		mg/Kg		92	70 - 120	0	30
1,2-Dichloropropane	0.0500	0.0441		mg/Kg		88	70 - 125	1	30
Ethylbenzene	0.0500	0.0440		mg/Kg		88	61 - 136	5	30
2-Hexanone	0.0500	0.0450		mg/Kg		90	48 - 146	13	30
Methylene Chloride	0.0500	0.0432		mg/Kg		86	70 - 126	0	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0453		mg/Kg		91	50 - 148	11	30
Methyl tert-butyl ether	0.0500	0.0438		mg/Kg		88	50 - 140	3	30
Styrene	0.0500	0.0449		mg/Kg		90	70 - 125	3	30
1,1,2,2-Tetrachloroethane	0.0500	0.0444		mg/Kg		89	70 - 122	7	30
Tetrachloroethene	0.0500	0.0486		mg/Kg		97	70 - 124	5	30
Toluene	0.0500	0.0452		mg/Kg		90	70 - 125	5	30
trans-1,2-Dichloroethene	0.0500	0.0436		mg/Kg		87	70 - 125	2	30
trans-1,3-Dichloropropene	0.0500	0.0467		mg/Kg		93	70 - 125	8	30
1,1,1-Trichloroethane	0.0500	0.0458		mg/Kg		92	70 - 128	1	30
1,1,2-Trichloroethane	0.0500	0.0476		mg/Kg		95	70 - 125	6	30
Trichloroethene	0.0500	0.0449		mg/Kg		90	70 - 125	3	30
Vinyl acetate	0.0500	0.0546		mg/Kg		109	40 - 153	3	30
Vinyl chloride	0.0500	0.0469		mg/Kg		94	70 - 125	6	30
Xylenes, Total	0.100	0.0906		mg/Kg		91	53 - 147	3	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	103		75 - 131
Dibromofluoromethane	105		75 - 126
1,2-Dichloroethane-d4 (Surr)	101		70 - 134
Toluene-d8 (Surr)	111		75 - 124

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207061-1

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

**Lab Sample ID: MB 500-625120/1-A**  
**Matrix: Solid**  
**Analysis Batch: 626713**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 625120**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	<0.17		0.17	0.074	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.050	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
1,3-Dichlorobenzene	<0.17		0.17	0.037	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
1,4-Dichlorobenzene	<0.17		0.17	0.043	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
1,2-Dichlorobenzene	<0.17		0.17	0.040	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2-Methylphenol	<0.17		0.17	0.053	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.039	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
N-Nitrosodi-n-propylamine	<0.067		0.067	0.041	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Hexachloroethane	<0.17		0.17	0.051	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2-Chlorophenol	<0.17		0.17	0.057	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Nitrobenzene	<0.033		0.033	0.0083	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.034	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.036	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Isophorone	<0.17		0.17	0.037	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,4-Dimethylphenol	<0.33		0.33	0.13	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Hexachlorobutadiene	<0.17		0.17	0.052	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Naphthalene	<0.033		0.033	0.0051	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,4-Dichlorophenol	<0.33		0.33	0.079	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4-Chloroaniline	<0.67		0.67	0.16	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,4,6-Trichlorophenol	<0.33		0.33	0.11	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,4,5-Trichlorophenol	<0.33		0.33	0.076	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Hexachlorocyclopentadiene	<0.67		0.67	0.19	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2-Methylnaphthalene	<0.067		0.067	0.0061	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2-Nitroaniline	<0.17		0.17	0.045	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2-Chloronaphthalene	<0.17		0.17	0.037	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4-Chloro-3-methylphenol	<0.33		0.33	0.11	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,6-Dinitrotoluene	<0.17		0.17	0.065	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2-Nitrophenol	<0.33		0.33	0.079	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
3-Nitroaniline	<0.33		0.33	0.10	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Dimethyl phthalate	<0.17		0.17	0.043	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,4-Dinitrophenol	<0.67		0.67	0.59	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Acenaphthylene	<0.033		0.033	0.0044	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,4-Dinitrotoluene	<0.17		0.17	0.053	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Acenaphthene	<0.033		0.033	0.0060	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Dibenzofuran	<0.17		0.17	0.039	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4-Nitrophenol	<0.67		0.67	0.32	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Fluorene	<0.033		0.033	0.0047	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4-Nitroaniline	<0.33		0.33	0.14	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.044	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Hexachlorobenzene	<0.067		0.067	0.0077	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Diethyl phthalate	<0.17		0.17	0.056	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.039	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Pentachlorophenol	<0.67		0.67	0.53	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
N-Nitrosodiphenylamine	<0.17		0.17	0.039	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4,6-Dinitro-2-methylphenol	<0.67		0.67	0.27	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Phenanthrene	<0.033		0.033	0.0046	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Anthracene	<0.033		0.033	0.0056	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Carbazole	<0.17		0.17	0.083	mg/Kg		10/25/21 06:38	11/02/21 18:34	1

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207061-1

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

**Lab Sample ID: MB 500-625120/1-A**  
**Matrix: Solid**  
**Analysis Batch: 626713**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 625120**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	<0.17		0.17	0.051	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Fluoranthene	<0.033		0.033	0.0062	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Pyrene	<0.033		0.033	0.0066	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Butyl benzyl phthalate	<0.17		0.17	0.063	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Benzo[a]anthracene	<0.033		0.033	0.0045	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Chrysene	<0.033		0.033	0.0091	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.047	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.061	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Di-n-octyl phthalate	<0.17		0.17	0.054	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Benzo[b]fluoranthene	<0.033		0.033	0.0072	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Benzo[k]fluoranthene	<0.033		0.033	0.0098	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Benzo[a]pyrene	<0.033		0.033	0.0064	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Indeno[1,2,3-cd]pyrene	<0.033		0.033	0.0086	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Dibenz(a,h)anthracene	<0.033		0.033	0.0064	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Benzo[g,h,i]perylene	<0.033		0.033	0.011	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
3 & 4 Methylphenol	<0.17		0.17	0.055	mg/Kg		10/25/21 06:38	11/02/21 18:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	102		31 - 166	10/25/21 06:38	11/02/21 18:34	1
Phenol-d5	68		30 - 153	10/25/21 06:38	11/02/21 18:34	1
Nitrobenzene-d5 (Surr)	90		37 - 147	10/25/21 06:38	11/02/21 18:34	1
2-Fluorobiphenyl (Surr)	92		43 - 145	10/25/21 06:38	11/02/21 18:34	1
2,4,6-Tribromophenol	61		31 - 143	10/25/21 06:38	11/02/21 18:34	1
Terphenyl-d14 (Surr)	101		42 - 157	10/25/21 06:38	11/02/21 18:34	1

**Lab Sample ID: LCS 500-625120/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626461**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625120**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Phenol	1.33	1.13		mg/Kg		85	56 - 122
Bis(2-chloroethyl)ether	1.33	1.21		mg/Kg		91	55 - 111
1,3-Dichlorobenzene	1.33	1.25		mg/Kg		94	65 - 124
1,4-Dichlorobenzene	1.33	1.26		mg/Kg		94	61 - 110
1,2-Dichlorobenzene	1.33	1.33		mg/Kg		100	62 - 110
2-Methylphenol	1.33	1.45		mg/Kg		109	60 - 120
2,2'-oxybis[1-chloropropane]	1.33	0.808		mg/Kg		61	40 - 124
N-Nitrosodi-n-propylamine	1.33	1.52		mg/Kg		114	56 - 118
Hexachloroethane	1.33	1.14		mg/Kg		85	60 - 114
2-Chlorophenol	1.33	1.35		mg/Kg		101	64 - 110
Nitrobenzene	1.33	1.39		mg/Kg		104	60 - 116
Bis(2-chloroethoxy)methane	1.33	1.43		mg/Kg		107	60 - 112
1,2,4-Trichlorobenzene	1.33	1.37		mg/Kg		103	66 - 117
Isophorone	1.33	1.51	*+	mg/Kg		114	55 - 110
2,4-Dimethylphenol	1.33	1.25		mg/Kg		94	60 - 110
Hexachlorobutadiene	1.33	1.53		mg/Kg		114	56 - 120
Naphthalene	1.33	1.39		mg/Kg		104	63 - 110
2,4-Dichlorophenol	1.33	1.31		mg/Kg		99	58 - 120

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207061-1

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

**Lab Sample ID: LCS 500-625120/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626461**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625120**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chloroaniline	1.33	0.919		mg/Kg		69	30 - 150
2,4,6-Trichlorophenol	1.33	1.29		mg/Kg		97	57 - 120
2,4,5-Trichlorophenol	1.33	1.28		mg/Kg		96	50 - 120
Hexachlorocyclopentadiene	1.33	0.426	J	mg/Kg		32	10 - 133
2-Methylnaphthalene	1.33	1.55	*+	mg/Kg		116	69 - 112
2-Nitroaniline	1.33	1.44		mg/Kg		108	57 - 124
2-Chloronaphthalene	1.33	1.36		mg/Kg		102	69 - 114
4-Chloro-3-methylphenol	1.33	1.28		mg/Kg		96	65 - 122
2,6-Dinitrotoluene	1.33	1.49		mg/Kg		112	70 - 123
2-Nitrophenol	1.33	1.34		mg/Kg		101	60 - 120
3-Nitroaniline	1.33	0.701		mg/Kg		53	40 - 122
Dimethyl phthalate	1.33	1.53		mg/Kg		115	69 - 116
2,4-Dinitrophenol	2.67	<0.67		mg/Kg		11	10 - 100
Acenaphthylene	1.33	1.42		mg/Kg		107	68 - 120
2,4-Dinitrotoluene	1.33	1.49		mg/Kg		112	69 - 124
Acenaphthene	1.33	1.39		mg/Kg		104	65 - 124
Dibenzofuran	1.33	1.40		mg/Kg		105	66 - 115
4-Nitrophenol	2.67	2.62		mg/Kg		98	30 - 122
Fluorene	1.33	1.43		mg/Kg		107	62 - 120
4-Nitroaniline	1.33	1.16		mg/Kg		87	60 - 160
4-Bromophenyl phenyl ether	1.33	1.53		mg/Kg		115	68 - 118
Hexachlorobenzene	1.33	1.58		mg/Kg		118	63 - 124
Diethyl phthalate	1.33	1.52		mg/Kg		114	58 - 120
4-Chlorophenyl phenyl ether	1.33	1.43		mg/Kg		107	62 - 119
Pentachlorophenol	2.67	1.18		mg/Kg		44	13 - 112
N-Nitrosodiphenylamine	1.33	1.43		mg/Kg		107	65 - 112
4,6-Dinitro-2-methylphenol	2.67	0.642	J	mg/Kg		24	10 - 110
Phenanthrene	1.33	1.45		mg/Kg		109	62 - 120
Anthracene	1.33	1.48		mg/Kg		111	70 - 114
Carbazole	1.33	1.50		mg/Kg		112	65 - 142
Di-n-butyl phthalate	1.33	1.47		mg/Kg		110	65 - 120
Fluoranthene	1.33	1.50		mg/Kg		112	62 - 120
Pyrene	1.33	1.42		mg/Kg		106	61 - 128
Butyl benzyl phthalate	1.33	1.35		mg/Kg		101	71 - 129
Benzo[a]anthracene	1.33	1.46		mg/Kg		109	67 - 122
Chrysene	1.33	1.42		mg/Kg		107	63 - 120
3,3'-Dichlorobenzidine	1.33	1.24		mg/Kg		93	35 - 128
Bis(2-ethylhexyl) phthalate	1.33	1.42		mg/Kg		107	72 - 131
Di-n-octyl phthalate	1.33	1.33		mg/Kg		100	68 - 134
Benzo[b]fluoranthene	1.33	1.32		mg/Kg		99	69 - 129
Benzo[k]fluoranthene	1.33	1.40		mg/Kg		105	68 - 127
Benzo[a]pyrene	1.33	1.43		mg/Kg		108	65 - 133
Indeno[1,2,3-cd]pyrene	1.33	1.37		mg/Kg		103	68 - 130
Dibenz(a,h)anthracene	1.33	1.39		mg/Kg		104	64 - 131
Benzo[g,h,i]perylene	1.33	1.38		mg/Kg		103	72 - 131
3 & 4 Methylphenol	1.33	1.46		mg/Kg		109	57 - 120

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207061-1

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

**Lab Sample ID: LCS 500-625120/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626461**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625120**

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorophenol	121		31 - 166
Phenol-d5	105		30 - 153
Nitrobenzene-d5 (Surr)	118		37 - 147
2-Fluorobiphenyl (Surr)	112		43 - 145
2,4,6-Tribromophenol	99		31 - 143
Terphenyl-d14 (Surr)	116		42 - 157

## Method: 6010B - Metals (ICP)

**Lab Sample ID: LCS 500-625181/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625354**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625181**

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Barium	0.500	0.518		mg/L		104	80 - 120
Beryllium	0.0500	0.0481		mg/L		96	80 - 120
Boron	1.00	0.812		mg/L		81	80 - 120
Cadmium	0.0500	0.0465		mg/L		93	80 - 120
Chromium	0.200	0.195		mg/L		98	80 - 120
Cobalt	0.500	0.503		mg/L		101	80 - 120
Iron	1.00	1.03		mg/L		103	80 - 120
Lead	0.100	0.0955		mg/L		95	80 - 120
Nickel	0.500	0.509		mg/L		102	80 - 120
Selenium	0.100	0.102		mg/L		102	80 - 120
Silver	0.0500	0.0483		mg/L		97	80 - 120
Zinc	0.500	0.583	^+	mg/L		117	80 - 120

**Lab Sample ID: LCS 500-625181/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625638**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625181**

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Manganese	0.500	0.471		mg/L		94	80 - 120

**Lab Sample ID: MB 500-626513/1-A**  
**Matrix: Solid**  
**Analysis Batch: 626836**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 626513**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<2.0		2.0	0.39	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Arsenic	<1.0		1.0	0.34	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Barium	<1.0		1.0	0.11	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Beryllium	<0.40		0.40	0.093	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Boron	<5.0		5.0	0.47	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Cadmium	0.0859	J	0.20	0.036	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Calcium	11.6	J	20	3.4	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Chromium	<1.0		1.0	0.50	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Cobalt	<0.50		0.50	0.13	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Copper	0.463	J	1.0	0.28	mg/Kg		11/01/21 10:16	11/02/21 13:12	1

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207061-1

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

**Lab Sample ID: MB 500-626513/1-A**  
**Matrix: Solid**  
**Analysis Batch: 626836**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 626513**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<20		20	10	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Lead	<0.50		0.50	0.23	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Magnesium	5.47	J	10	5.0	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Manganese	0.191	J	1.0	0.15	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Nickel	<1.0		1.0	0.29	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Potassium	<50		50	18	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Selenium	<1.0		1.0	0.59	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Silver	<0.50		0.50	0.13	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Sodium	<100		100	15	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Thallium	<1.0		1.0	0.50	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Vanadium	<0.50		0.50	0.12	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Zinc	<2.0		2.0	0.88	mg/Kg		11/01/21 10:16	11/02/21 13:12	1

**Lab Sample ID: LCS 500-626513/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626836**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626513**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	50.0	47.0		mg/Kg		94	80 - 120
Arsenic	10.0	8.83		mg/Kg		88	80 - 120
Barium	200	210		mg/Kg		105	80 - 120
Beryllium	5.00	4.74		mg/Kg		95	80 - 120
Boron	100	86.7		mg/Kg		87	80 - 120
Cadmium	5.00	4.52		mg/Kg		90	80 - 120
Calcium	1000	982		mg/Kg		98	80 - 120
Chromium	20.0	19.3		mg/Kg		96	80 - 120
Cobalt	50.0	47.4		mg/Kg		95	80 - 120
Copper	25.0	24.2		mg/Kg		97	80 - 120
Iron	100	116		mg/Kg		116	80 - 120
Lead	10.0	9.19		mg/Kg		92	80 - 120
Magnesium	1000	975		mg/Kg		97	80 - 120
Manganese	50.0	48.2		mg/Kg		96	80 - 120
Nickel	50.0	48.6		mg/Kg		97	80 - 120
Potassium	1000	997		mg/Kg		100	80 - 120
Selenium	10.0	8.07		mg/Kg		81	80 - 120
Silver	5.00	4.71		mg/Kg		94	80 - 120
Sodium	1000	1030		mg/Kg		103	80 - 120
Thallium	10.0	9.01		mg/Kg		90	80 - 120
Vanadium	50.0	46.7		mg/Kg		93	80 - 120
Zinc	50.0	47.5		mg/Kg		95	80 - 120

**Lab Sample ID: LB 500-624872/1-B**  
**Matrix: Solid**  
**Analysis Batch: 625354**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 625181**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.50		0.50	0.050	mg/L		10/25/21 08:30	10/25/21 16:12	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/25/21 08:30	10/25/21 16:12	1
Boron	<0.50		0.50	0.050	mg/L		10/25/21 08:30	10/25/21 16:12	1

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207061-1

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

Lab Sample ID: LB 500-624872/1-B  
Matrix: Solid  
Analysis Batch: 625354

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 625181

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/25/21 08:30	10/25/21 16:12	1
Chromium	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:12	1
Cobalt	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:12	1
Iron	<0.40		0.40	0.20	mg/L		10/25/21 08:30	10/25/21 16:12	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/25/21 08:30	10/25/21 16:12	1
Nickel	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:12	1
Selenium	<0.050		0.050	0.020	mg/L		10/25/21 08:30	10/25/21 16:12	1
Silver	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:12	1
Zinc	<0.50	^+	0.50	0.020	mg/L		10/25/21 08:30	10/25/21 16:12	1

Lab Sample ID: LB 500-624872/1-B  
Matrix: Solid  
Analysis Batch: 625638

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 625181

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/26/21 14:45	1

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

Lab Sample ID: LCS 500-625181/2-A  
Matrix: Solid  
Analysis Batch: 625693

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 625181

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.500		mg/L		100	80 - 120
Thallium	0.100	0.116		mg/L		116	80 - 120

Lab Sample ID: LB 500-624872/1-B  
Matrix: Solid  
Analysis Batch: 625693

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 625181

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/25/21 08:30	10/26/21 15:05	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/25/21 08:30	10/26/21 15:05	1

## Method: 7470A - TCLP Mercury

Lab Sample ID: MB 500-625462/12-A  
Matrix: Solid  
Analysis Batch: 625700

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 625462

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 08:13	1

Lab Sample ID: LCS 500-625462/14-A  
Matrix: Solid  
Analysis Batch: 625700

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 625462

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00183		mg/L		91	80 - 120

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# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207061-1

## Method: 7470A - TCLP Mercury (Continued)

**Lab Sample ID: LB 500-624872/1-C**  
**Matrix: Solid**  
**Analysis Batch: 625700**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 625462**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 08:16	1

## Method: 7471B - Mercury (CVAA)

**Lab Sample ID: MB 500-625718/12-A**  
**Matrix: Solid**  
**Analysis Batch: 625923**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 625718**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0056	mg/Kg		10/27/21 14:15	10/28/21 07:34	1

**Lab Sample ID: LCS 500-625718/13-A**  
**Matrix: Solid**  
**Analysis Batch: 625923**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625718**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.167	0.176		mg/Kg		106	80 - 120



# Lab Chronicle

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207061-1

**Client Sample ID: 2674V2-11-B01 (0-2)**

**Lab Sample ID: 500-207061-1**

**Date Collected: 10/18/21 13:15**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6010B		1	625354	10/25/21 17:14	JJB	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6010B		1	625638	10/26/21 15:31	JJB	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6020A		1	625693	10/26/21 15:25	FXG	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	7470A			625462	10/26/21 09:55	MJG	TAL CHI
TCLP	Analysis	7470A		1	625700	10/27/21 08:58	MJG	TAL CHI
Total/NA	Analysis	9045D		1	624833	10/21/21 17:53	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	624697	10/21/21 08:57	LWN	TAL CHI

**Client Sample ID: 2674V2-11-B01 (0-2)**

**Lab Sample ID: 500-207061-1**

**Date Collected: 10/18/21 13:15**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 81.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624911	10/19/21 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625626	10/27/21 14:59	PMF	TAL CHI
Total/NA	Prep	3541			625120	10/25/21 06:38	SB	TAL CHI
Total/NA	Analysis	8270D		1	626713	11/02/21 20:57	EMA	TAL CHI
Total/NA	Prep	3050B			626513	11/01/21 10:16	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626836	11/02/21 14:11	JJB	TAL CHI
Total/NA	Prep	7471B			625718	10/27/21 14:15	MJG	TAL CHI
Total/NA	Analysis	7471B		1	625923	10/28/21 08:08	MJG	TAL CHI

**Laboratory References:**

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Accreditation/Certification Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207061-1

## Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

# Chain of Custody Record

546549




Environment Testing  
TestAmerica

Address \_\_\_\_\_

Regulatory Program:  DW  NPDES  RCRA  Other

TAL-8210

<b>Client Contact</b> Company Name <u>WSP</u> Address _____ City/State/Zip <u>Chicago IL</u> Phone _____ Fax _____ Project Name <u>DOT WOOL</u> Site <u>Lake Villa IL</u> P O # _____		<b>Project Manager:</b> <u>D Tiebout</u> Tel/Email: _____		<b>Site Contact</b> <u>A Happe</u> Lab Contact <u>R Wright</u>		Date: <u>10/18/2021</u> Carrier: _____		COC No <u>10</u> _____ of <u>11</u> COCs			
500-207061 COC 		<b>Analysis Turnaround Time</b> <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day				Filtered Sample (Y/N) _____ Perform MS/MSD (Y/N) _____ VOLs _____ Ph _____ SOES _____ / moisture _____ Total metals _____ TCLP metals _____		Sampler _____ For Lab Use Only Walk-in Client <input type="checkbox"/> Lab Sampling <input type="checkbox"/>		Job / SDG No <u>500-207061</u>	
		<b>Sample Identification</b>		Sample Date Sample Time Sample Type (C=Comp, G=Grab) Matrix # of Cont.				Sample Specific Notes			
1   <u>267402-11-B01(0-2)</u>		<u>10/12/21</u> <u>1315</u>		<u>C</u> <u>S</u> <u>2</u>		X X X X X X					
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other _____											
<b>Possible Hazard Identification.</b> Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample <input type="checkbox"/> Non Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown					<b>Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)</b> <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months						
<b>Special Instructions/QC Requirements &amp; Comments:</b> <u>* SPLP analysis based on TCLP results</u>											
Custody Seals Intact. <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No _____		Cooler Temp (°C) Obs'd <u>50.4</u> Corr'd <u>53</u>		Therm ID No _____					
Relinquished by <u>Bryan V</u>		Company <u>WSP</u>		Date/Time <u>10/18/21 1015</u>		Received by <u>P. Neal</u>		Company <u>EVA</u>			
Relinquished by <u>P. Neal</u>		Company <u>EVA</u>		Date/Time <u>10/19/21 1115</u>		Received by _____		Company _____			
Relinquished by _____		Company _____		Date/Time _____		Received in Laboratory by <u>Phm. Laots</u>		Company <u>ETA/EPT</u>			
						Date/Time <u>10/19/21</u>		_____ <u>1115</u>			

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# Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 500-207061-1

**Login Number: 207061**

**List Source: Eurofins TestAmerica, Chicago**

**List Number: 1**

**Creator: Scott, Sherri L**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





# Illinois Environmental Protection Agency

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

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

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

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

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

### I. Source Location Information

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

Project Name: FAP 541 (Illinois Route 132) Office Phone Number, if available: \_\_\_\_\_

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

0-100 block of E. Grand Avenue (ISGS #2674V2-13)

City: Lake Villa State: IL Zip Code: 60046

County: Lake Township: Lake Villa

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

Latitude: 42.4152 Longitude: - 88.08201

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

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

Approximate Start Date (mm/dd/yyyy): \_\_\_\_\_ Approximate End Date (mm/dd/yyyy): \_\_\_\_\_

Estimated Volume of debris (cu. Yd.): 468

### 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 2674V2-13-B01 through -B03 were sampled within the construction zone adjacent to ISGS #2674V2-13 (Vacant Land). Refer to PSI Report for ISGS #2674V2-13 (Vacant Land) including Table 4-4, and Figures 4-3 and 4-6.

- 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]:

See attached data summary table and associated laboratory data package J207059-1.

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

I, Tom Campbell (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: WSP USA

Street Address: 115 W Washington St., Suite 1270S

City: Indianapolis State: IN Zip Code: 46204

Phone: (317) 972-1706

Tom Campbell  
Printed Name:



02/03/2022  
Date:

Expires 11/30/2023

*Tom Campbell*  
Licensed Professional Engineer or  
Licensed Professional Geologist Signature:



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

**Analytical Data Summary**  
**PTB #196-002; Work Order 04 - IDOT Job # P-91-583-12**

**Key to Data Tables**

- MAC = Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- TACO = Tiered Approach to Corrective Action Objectives
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers and Shading**

- # = pH is less than 6.25 or greater than 9.0 standard units.
- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- r = Concentration exceeds a TACO Tier 1 RO for the Residential Soil Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds applicable comparison criteria.

PTB #196-002; Work Order 04 - IDOT Job # P-91-583-12

CONTAMINANTS OF CONCERN

SITE	ISGS #2674V2-13 (Vacant Land)			Comparison Criteria					
	2674V2-13-B01	2674V2-13-B02	2674V2-13-B03	MACs			TACO		
BORING	2674V2-13-B01	2674V2-13-B02	2674V2-13-B03	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
SAMPLE	2674V2-13-B01 (0-5)	2674V2-13-B02 (0-5)	2674V2-13-B03 (0-2)						
MATRIX	Soil	Soil	Soil						
DEPTH (feet)	0-5	0-5	0-2						
pH	7.7	8.5	7.3						
PID (meter units)	--	--	--						
<b>VOCs (None Detected)</b>									
<b>SVOCs (mg/kg)</b>									
Benzo(a)anthracene	ND U	0.0053 J	ND U	0.9	1.8	1.1	1.8	170	--
Benzo(g,h,i)perylene	ND U	0.016 J	ND U	--	--	--	--	--	--
Chrysene	ND U	0.010 J	ND UJ	88	--	--	88	17,000	--
Phenanthrene	ND U	0.012 J	ND U	--	--	--	--	--	--
Pyrene	ND U	0.010 J	ND U	2,300	--	--	2,300	61,000	--
<b>Inorganics (mg/kg)</b>									
Antimony	0.42 J	0.47 J	0.59 J	5	--	--	31	82	--
Arsenic	8.4	6.4	7.3	11.3	13	--	13	61	--
Barium	100	71	75	1,500	--	--	5,500	14,000	--
Beryllium	1.2	0.96	1.1	22	--	--	160	410	--
Boron	9.2	7.6	7.6	40	--	--	16,000	41,000	--
Calcium	3,100	12,000	1,600	--	--	--	--	--	--
Chromium	25 †	19	26 †	21	--	--	230	690	--
Cobalt	16	15	15	20	--	--	4,700	12,000	--
Copper	24	22	23	2,900	--	--	2,900	8,200	--
Iron	26,000 †m	21,000 †m	27,000 †m	15,000	15,900	--	--	--	--
Lead	17	24	17	107	--	--	400	700	--
Magnesium	5,300	9,300	4,600	325,000	--	--	--	730,000	--
Manganese	650 †m	490	400	630	636	--	1,600	4,100	--
Mercury	0.045	0.040	0.043	0.89	--	--	10	0.1	--
Nickel	45	45	30	100	--	--	1,600	4,100	--
Potassium	2,900	2,100	2,300	--	--	--	--	--	--
Silver	0.55	0.51	0.39	4.4	--	--	390	1,000	--
Sodium	100	490	1,100	--	--	--	--	--	--
Thallium	0.65	0.69	0.57 J	2.6	--	--	6.3	160	--
Vanadium	32	26	34	550	--	--	550	1,400	--
Zinc	89	76	74	5,100	--	--	23,000	61,000	--
<b>TCLP Metals (mg/L)</b>									
Barium	0.24 J	0.43 J	0.18 J	--	--	--	--	--	2
Chromium	ND U	ND U	ND U	--	--	--	--	--	0.1
Iron	ND U	ND U	ND U	--	--	--	--	--	5
Manganese	ND U	0.49 L	0.047	--	--	--	--	--	0.15
Nickel	ND U	0.013 J	ND U	--	--	--	--	--	0.1
Zinc	ND UJ	ND UJ	0.021 J	--	--	--	--	--	5
<b>SPLP Metals (mg/L)</b>									
Manganese	NA	1.3 L	NA	--	--	--	--	--	0.15



## ANALYTICAL REPORT

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

Laboratory Job ID: 500-207059-1

Client Project/Site: IDOT - 196-002-WO04 Lake Villa

**For:**

WSP USA Inc.  
30 North LaSalle Street  
Chicago, Illinois 60602

Attn: Dean Tiebot



Authorized for release by:  
11/3/2021 5:22:01 PM

Richard Wright, Senior Project Manager  
(708)746-0045  
[Richard.Wright@Eurofinset.com](mailto:Richard.Wright@Eurofinset.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

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

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



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# Case Narrative

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

## Job ID: 500-207059-1

### Laboratory: Eurofins TestAmerica, Chicago

#### Narrative

#### Job Narrative 500-207059-1

#### Receipt

The samples were received on 10/19/2021 11:15 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.3° C.

#### GC/MS VOA

Method 8260B: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for 625243 recovered outside control limits for the following analytes: Bromomethane and Chloroethane. These analytes were biased high in the LCS/LCSD and were not detected in the associated samples; therefore, the data have been reported. 2674V2-13-B03 (0-2) (500-207059-1), 2674V2-13-B02 (0-5) (500-207059-2) and 2674V2-13-B01 (0-5) (500-207059-3)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC/MS Semi VOA

Method 8270D: The continuing calibration verification (CCV) analyzed in batch 500-626713 was outside the method criteria for the following analyte(s): 2,2'-oxybis[1-chloropropane] and Pentachlorophenol. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 500-625120 and analytical batch 500-626713 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8270D: Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when utilizing this list of analytes. The LCS associated with preparation batch 500-625120 and analytical batch 500-626461 had 2 analytes outside control limits: 2-Methylnaphthalene and Isophorone. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

Method 6010B: The continuing calibration verification (CCV) associated with batch 500-625354 recovered above the upper control limit for Zinc. The samples associated with this CCV were below the reporting limit for the affected analytes; therefore, the data have been reported. The associated samples are impacted: 2674V2-13-B03 (0-2) (500-207059-1), 2674V2-13-B02 (0-5) (500-207059-2) and 2674V2-13-B01 (0-5) (500-207059-3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

**Client Sample ID: 2674V2-13-B03 (0-2)**

**Lab Sample ID: 500-207059-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.59	J	1.2	0.23	mg/Kg	1	☼	6010B	Total/NA
Arsenic	7.3		0.59	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	75		0.59	0.067	mg/Kg	1	☼	6010B	Total/NA
Beryllium	1.1		0.24	0.055	mg/Kg	1	☼	6010B	Total/NA
Boron	7.6		3.0	0.28	mg/Kg	1	☼	6010B	Total/NA
Calcium	1600	B	12	2.0	mg/Kg	1	☼	6010B	Total/NA
Chromium	26		0.59	0.29	mg/Kg	1	☼	6010B	Total/NA
Cobalt	15		1.5	0.39	mg/Kg	5	☼	6010B	Total/NA
Copper	23	B	0.59	0.17	mg/Kg	1	☼	6010B	Total/NA
Iron	27000		12	6.2	mg/Kg	1	☼	6010B	Total/NA
Lead	17		0.30	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	4600	B	5.9	2.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	400	B	0.59	0.086	mg/Kg	1	☼	6010B	Total/NA
Nickel	30		0.59	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	2300		30	10	mg/Kg	1	☼	6010B	Total/NA
Silver	0.39		0.30	0.076	mg/Kg	1	☼	6010B	Total/NA
Sodium	1100		59	8.8	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.57	J	0.59	0.30	mg/Kg	1	☼	6010B	Total/NA
Vanadium	34		0.30	0.070	mg/Kg	1	☼	6010B	Total/NA
Zinc	74		1.2	0.52	mg/Kg	1	☼	6010B	Total/NA
Barium	0.18	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.047		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.021	J ^+	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.043		0.018	0.0059	mg/Kg	1	☼	7471B	Total/NA
pH	7.3		0.2	0.2	SU	1		9045D	Total/NA

**Client Sample ID: 2674V2-13-B02 (0-5)**

**Lab Sample ID: 500-207059-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.012	J	0.038	0.0053	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.010	J	0.038	0.0075	mg/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	0.0053	J	0.038	0.0051	mg/Kg	1	☼	8270D	Total/NA
Chrysene	0.010	J	0.038	0.010	mg/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.016	J	0.038	0.012	mg/Kg	1	☼	8270D	Total/NA
Antimony	0.47	J	1.1	0.22	mg/Kg	1	☼	6010B	Total/NA
Arsenic	6.4		0.57	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	71		0.57	0.065	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.96		0.23	0.053	mg/Kg	1	☼	6010B	Total/NA
Boron	7.6		2.9	0.27	mg/Kg	1	☼	6010B	Total/NA
Calcium	12000	B	11	1.9	mg/Kg	1	☼	6010B	Total/NA
Chromium	19		0.57	0.28	mg/Kg	1	☼	6010B	Total/NA
Cobalt	15		0.29	0.075	mg/Kg	1	☼	6010B	Total/NA
Copper	22	B	0.57	0.16	mg/Kg	1	☼	6010B	Total/NA
Iron	21000		11	5.9	mg/Kg	1	☼	6010B	Total/NA
Lead	24		0.29	0.13	mg/Kg	1	☼	6010B	Total/NA
Magnesium	9300	B	5.7	2.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	490	B	0.57	0.083	mg/Kg	1	☼	6010B	Total/NA
Nickel	45		0.57	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	2100		29	10	mg/Kg	1	☼	6010B	Total/NA
Silver	0.51		0.29	0.074	mg/Kg	1	☼	6010B	Total/NA
Sodium	490		57	8.5	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Detection Summary

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

## Client Sample ID: 2674V2-13-B02 (0-5) (Continued)

## Lab Sample ID: 500-207059-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Thallium	0.69		0.57	0.29	mg/Kg	1	☼	6010B	Total/NA
Vanadium	26		0.29	0.067	mg/Kg	1	☼	6010B	Total/NA
Zinc	76		1.1	0.50	mg/Kg	1	☼	6010B	Total/NA
Barium	0.43	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.49		0.025	0.010	mg/L	1		6010B	TCLP
Nickel	0.013	J	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	1.3		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.040		0.018	0.0061	mg/Kg	1	☼	7471B	Total/NA
pH	8.5		0.2	0.2	SU	1		9045D	Total/NA

## Client Sample ID: 2674V2-13-B01 (0-5)

## Lab Sample ID: 500-207059-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.42	J	1.2	0.23	mg/Kg	1	☼	6010B	Total/NA
Arsenic	8.4		0.60	0.20	mg/Kg	1	☼	6010B	Total/NA
Barium	100		0.60	0.068	mg/Kg	1	☼	6010B	Total/NA
Beryllium	1.2		0.24	0.056	mg/Kg	1	☼	6010B	Total/NA
Boron	9.2		3.0	0.28	mg/Kg	1	☼	6010B	Total/NA
Calcium	3100	B	12	2.0	mg/Kg	1	☼	6010B	Total/NA
Chromium	25		0.60	0.30	mg/Kg	1	☼	6010B	Total/NA
Cobalt	16		0.30	0.078	mg/Kg	1	☼	6010B	Total/NA
Copper	24	B	0.60	0.17	mg/Kg	1	☼	6010B	Total/NA
Iron	26000		12	6.2	mg/Kg	1	☼	6010B	Total/NA
Lead	17		0.30	0.14	mg/Kg	1	☼	6010B	Total/NA
Magnesium	5300	B	6.0	3.0	mg/Kg	1	☼	6010B	Total/NA
Manganese	650	B	0.60	0.087	mg/Kg	1	☼	6010B	Total/NA
Nickel	45		0.60	0.17	mg/Kg	1	☼	6010B	Total/NA
Potassium	2900		30	11	mg/Kg	1	☼	6010B	Total/NA
Silver	0.55		0.30	0.077	mg/Kg	1	☼	6010B	Total/NA
Sodium	100		60	8.8	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.65		0.60	0.30	mg/Kg	1	☼	6010B	Total/NA
Vanadium	32		0.30	0.070	mg/Kg	1	☼	6010B	Total/NA
Zinc	89		1.2	0.52	mg/Kg	1	☼	6010B	Total/NA
Barium	0.24	J	0.50	0.050	mg/L	1		6010B	TCLP
Mercury	0.045		0.019	0.0064	mg/Kg	1	☼	7471B	Total/NA
pH	7.7		0.2	0.2	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Method Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CHI
6010B	Metals (ICP)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
7470A	TCLP Mercury	SW846	TAL CHI
7471B	Mercury (CVAA)	SW846	TAL CHI
9045D	pH	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
1311	TCLP Extraction	SW846	TAL CHI
1312	SPLP Extraction	SW846	TAL CHI
3010A	Preparation, Total Metals	SW846	TAL CHI
3050B	Preparation, Metals	SW846	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI
5035	Closed System Purge and Trap	SW846	TAL CHI
7470A	Preparation, Mercury	SW846	TAL CHI
7471B	Preparation, Mercury	SW846	TAL CHI

#### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Sample Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-207059-1	2674V2-13-B03 (0-2)	Solid	10/18/21 12:40	10/19/21 11:15
500-207059-2	2674V2-13-B02 (0-5)	Solid	10/18/21 12:50	10/19/21 11:15
500-207059-3	2674V2-13-B01 (0-5)	Solid	10/18/21 13:06	10/19/21 11:15

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# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

**Client Sample ID: 2674V2-13-B03 (0-2)**

**Lab Sample ID: 500-207059-1**

**Date Collected: 10/18/21 12:40**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 82.7**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.023		0.023	0.0099	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
Benzene	<0.0023		0.0023	0.00058	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
Bromodichloromethane	<0.0023		0.0023	0.00046	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
Bromoform	<0.0023		0.0023	0.00067	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
Bromomethane	<0.0057	*+	0.0057	0.0022	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
2-Butanone (MEK)	<0.0057		0.0057	0.0025	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
Carbon disulfide	<0.0057		0.0057	0.0012	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
Carbon tetrachloride	<0.0023		0.0023	0.00066	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
Chlorobenzene	<0.0023		0.0023	0.00084	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
Chloroethane	<0.0057	*+	0.0057	0.0017	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
Chloroform	<0.0023		0.0023	0.00079	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
Chloromethane	<0.0057		0.0057	0.0023	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
cis-1,2-Dichloroethene	<0.0023		0.0023	0.00064	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
cis-1,3-Dichloropropene	<0.0023		0.0023	0.00069	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
Dibromochloromethane	<0.0023		0.0023	0.00075	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
1,1-Dichloroethane	<0.0023		0.0023	0.00078	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
1,2-Dichloroethane	<0.0057		0.0057	0.0018	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
1,1-Dichloroethene	<0.0023		0.0023	0.00078	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
1,2-Dichloropropane	<0.0023		0.0023	0.00059	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
1,3-Dichloropropane, Total	<0.0023		0.0023	0.00080	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
Ethylbenzene	<0.0023		0.0023	0.0011	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
2-Hexanone	<0.0057		0.0057	0.0018	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
Methylene Chloride	<0.0057		0.0057	0.0022	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
4-Methyl-2-pentanone (MIBK)	<0.0057		0.0057	0.0017	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
Methyl tert-butyl ether	<0.0023		0.0023	0.00067	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
Styrene	<0.0023		0.0023	0.00069	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
1,1,2,2-Tetrachloroethane	<0.0023		0.0023	0.00073	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
Tetrachloroethene	<0.0023		0.0023	0.00078	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
Toluene	<0.0023		0.0023	0.00058	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
trans-1,2-Dichloroethene	<0.0023		0.0023	0.0010	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
trans-1,3-Dichloropropene	<0.0023		0.0023	0.00080	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
1,1,1-Trichloroethane	<0.0023		0.0023	0.00076	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
1,1,2-Trichloroethane	<0.0023		0.0023	0.00098	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
Trichloroethene	<0.0023		0.0023	0.00077	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
Vinyl acetate	<0.0057		0.0057	0.0020	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
Vinyl chloride	<0.0023		0.0023	0.0010	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1
Xylenes, Total	<0.0046		0.0046	0.00073	mg/Kg	☼	10/19/21 18:28	10/25/21 21:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		75 - 131	10/19/21 18:28	10/25/21 21:17	1
Dibromofluoromethane	99		75 - 126	10/19/21 18:28	10/25/21 21:17	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 134	10/19/21 18:28	10/25/21 21:17	1
Toluene-d8 (Surr)	94		75 - 124	10/19/21 18:28	10/25/21 21:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.084	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1

Eurofins TestAmerica, Chicago



# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

**Client Sample ID: 2674V2-13-B03 (0-2)**

**Lab Sample ID: 500-207059-1**

**Date Collected: 10/18/21 12:40**

**Matrix: Solid**

**Date Received: 10/19/21 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
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.046	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
Hexachloroethane	<0.19	F1	0.19	0.058	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
Isophorone	<0.19	*+	0.19	0.043	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
Naphthalene	<0.038		0.038	0.0058	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
2-Methylnaphthalene	<0.077	F1 *+	0.077	0.0070	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
Fluorene	<0.038		0.038	0.0053	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
Hexachlorobenzene	<0.077		0.077	0.0088	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
Phenanthrene	<0.038		0.038	0.0053	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
Anthracene	<0.038		0.038	0.0063	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
Fluoranthene	<0.038		0.038	0.0070	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
Pyrene	<0.038		0.038	0.0075	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
Benzo[a]anthracene	<0.038		0.038	0.0051	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

**Client Sample ID: 2674V2-13-B03 (0-2)**

**Lab Sample ID: 500-207059-1**

Date Collected: 10/18/21 12:40

Matrix: Solid

Date Received: 10/19/21 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
Chrysene	<0.038	F2	0.038	0.010	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
Benzo[b]fluoranthene	<0.038		0.038	0.0082	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
Benzo[a]pyrene	<0.038		0.038	0.0074	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.0098	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0073	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	10/25/21 06:38	11/02/21 15:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	97		31 - 166	10/25/21 06:38	11/02/21 15:13	1
Phenol-d5	87		30 - 153	10/25/21 06:38	11/02/21 15:13	1
Nitrobenzene-d5 (Surr)	78		37 - 147	10/25/21 06:38	11/02/21 15:13	1
2-Fluorobiphenyl (Surr)	76		43 - 145	10/25/21 06:38	11/02/21 15:13	1
2,4,6-Tribromophenol	96		31 - 143	10/25/21 06:38	11/02/21 15:13	1
Terphenyl-d14 (Surr)	113		42 - 157	10/25/21 06:38	11/02/21 15:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.59</b>	<b>J</b>	1.2	0.23	mg/Kg	☼	11/01/21 10:16	11/02/21 14:02	1
<b>Arsenic</b>	<b>7.3</b>		0.59	0.20	mg/Kg	☼	11/01/21 10:16	11/02/21 14:02	1
<b>Barium</b>	<b>75</b>		0.59	0.067	mg/Kg	☼	11/01/21 10:16	11/02/21 14:02	1
<b>Beryllium</b>	<b>1.1</b>		0.24	0.055	mg/Kg	☼	11/01/21 10:16	11/02/21 14:02	1
<b>Boron</b>	<b>7.6</b>		3.0	0.28	mg/Kg	☼	11/01/21 10:16	11/02/21 14:02	1
Cadmium	<0.12		0.12	0.021	mg/Kg	☼	11/01/21 10:16	11/02/21 14:02	1
<b>Calcium</b>	<b>1600</b>	<b>B</b>	12	2.0	mg/Kg	☼	11/01/21 10:16	11/02/21 14:02	1
<b>Chromium</b>	<b>26</b>		0.59	0.29	mg/Kg	☼	11/01/21 10:16	11/02/21 14:02	1
<b>Cobalt</b>	<b>15</b>		1.5	0.39	mg/Kg	☼	11/01/21 10:16	11/02/21 14:48	5
<b>Copper</b>	<b>23</b>	<b>B</b>	0.59	0.17	mg/Kg	☼	11/01/21 10:16	11/02/21 14:02	1
<b>Iron</b>	<b>27000</b>		12	6.2	mg/Kg	☼	11/01/21 10:16	11/02/21 14:02	1
<b>Lead</b>	<b>17</b>		0.30	0.14	mg/Kg	☼	11/01/21 10:16	11/02/21 14:02	1
<b>Magnesium</b>	<b>4600</b>	<b>B</b>	5.9	2.9	mg/Kg	☼	11/01/21 10:16	11/02/21 14:02	1
<b>Manganese</b>	<b>400</b>	<b>B</b>	0.59	0.086	mg/Kg	☼	11/01/21 10:16	11/02/21 14:02	1
<b>Nickel</b>	<b>30</b>		0.59	0.17	mg/Kg	☼	11/01/21 10:16	11/02/21 14:02	1
<b>Potassium</b>	<b>2300</b>		30	10	mg/Kg	☼	11/01/21 10:16	11/02/21 14:02	1
Selenium	<0.59		0.59	0.35	mg/Kg	☼	11/01/21 10:16	11/02/21 14:02	1
<b>Silver</b>	<b>0.39</b>		0.30	0.076	mg/Kg	☼	11/01/21 10:16	11/02/21 14:02	1
<b>Sodium</b>	<b>1100</b>		59	8.8	mg/Kg	☼	11/01/21 10:16	11/02/21 14:02	1
<b>Thallium</b>	<b>0.57</b>	<b>J</b>	0.59	0.30	mg/Kg	☼	11/01/21 10:16	11/02/21 14:02	1
<b>Vanadium</b>	<b>34</b>		0.30	0.070	mg/Kg	☼	11/01/21 10:16	11/02/21 14:02	1
<b>Zinc</b>	<b>74</b>		1.2	0.52	mg/Kg	☼	11/01/21 10:16	11/02/21 14:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>0.18</b>	<b>J</b>	0.50	0.050	mg/L		10/25/21 08:30	10/25/21 16:51	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/25/21 08:30	10/25/21 16:51	1
Boron	<0.50		0.50	0.050	mg/L		10/25/21 08:30	10/25/21 16:51	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

**Client Sample ID: 2674V2-13-B03 (0-2)**

**Lab Sample ID: 500-207059-1**

Date Collected: 10/18/21 12:40

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 82.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/25/21 08:30	10/25/21 16:51	1
Chromium	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:51	1
Cobalt	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:51	1
Iron	<0.40		0.40	0.20	mg/L		10/25/21 08:30	10/25/21 16:51	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/25/21 08:30	10/25/21 16:51	1
<b>Manganese</b>	<b>0.047</b>		0.025	0.010	mg/L		10/25/21 08:30	10/26/21 14:58	1
Nickel	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:51	1
Selenium	<0.050		0.050	0.020	mg/L		10/25/21 08:30	10/25/21 16:51	1
Silver	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:51	1
<b>Zinc</b>	<b>0.021</b>	<b>J ^+</b>	0.50	0.020	mg/L		10/25/21 08:30	10/25/21 16:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/25/21 08:30	10/26/21 15:18	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/25/21 08:30	10/26/21 15:18	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 08:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.043</b>		0.018	0.0059	mg/Kg	☼	10/27/21 14:15	10/28/21 07:15	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>7.3</b>		0.2	0.2	SU			10/21/21 17:45	1

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

**Client Sample ID: 2674V2-13-B02 (0-5)**

**Lab Sample ID: 500-207059-2**

**Date Collected: 10/18/21 12:50**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 85.8**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0084	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
Benzene	<0.0019		0.0019	0.00049	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
Bromodichloromethane	<0.0019		0.0019	0.00039	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
Bromoform	<0.0019		0.0019	0.00056	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
Bromomethane	<0.0048	+	0.0048	0.0018	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
2-Butanone (MEK)	<0.0048		0.0048	0.0021	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
Carbon disulfide	<0.0048		0.0048	0.0010	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
Carbon tetrachloride	<0.0019		0.0019	0.00056	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
Chlorobenzene	<0.0019		0.0019	0.00071	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
Chloroethane	<0.0048	+	0.0048	0.0014	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
Chloroform	<0.0019		0.0019	0.00067	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
Chloromethane	<0.0048		0.0048	0.0019	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00054	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00058	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
Dibromochloromethane	<0.0019		0.0019	0.00063	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
1,1-Dichloroethane	<0.0019		0.0019	0.00066	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
1,2-Dichloroethane	<0.0048		0.0048	0.0015	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
1,1-Dichloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
1,2-Dichloropropane	<0.0019		0.0019	0.00050	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
1,3-Dichloropropane, Total	<0.0019		0.0019	0.00068	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
Ethylbenzene	<0.0019		0.0019	0.00092	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
Methylene Chloride	<0.0048		0.0048	0.0019	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.0014	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00057	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
Styrene	<0.0019		0.0019	0.00058	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00062	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
Tetrachloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
Toluene	<0.0019		0.0019	0.00049	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00086	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00068	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
1,1,1-Trichloroethane	<0.0019		0.0019	0.00065	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00083	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
Trichloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
Vinyl acetate	<0.0048		0.0048	0.0017	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
Vinyl chloride	<0.0019		0.0019	0.00086	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1
Xylenes, Total	<0.0039		0.0039	0.00062	mg/Kg	☼	10/19/21 18:28	10/25/21 21:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		75 - 131	10/19/21 18:28	10/25/21 21:43	1
Dibromofluoromethane	99		75 - 126	10/19/21 18:28	10/25/21 21:43	1
1,2-Dichloroethane-d4 (Surr)	107		70 - 134	10/19/21 18:28	10/25/21 21:43	1
Toluene-d8 (Surr)	94		75 - 124	10/19/21 18:28	10/25/21 21:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.084	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

**Client Sample ID: 2674V2-13-B02 (0-5)**

**Lab Sample ID: 500-207059-2**

**Date Collected: 10/18/21 12:50**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 85.8**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
Nitrobenzene	<0.038		0.038	0.0094	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
Isophorone	<0.19	+	0.19	0.043	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
Naphthalene	<0.038		0.038	0.0058	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
2,4,5-Trichlorophenol	<0.38		0.38	0.086	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
2-Methylnaphthalene	<0.076	+	0.076	0.0070	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
2-Nitrophenol	<0.38		0.38	0.089	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
2,4-Dinitrophenol	<0.76		0.76	0.67	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
Fluorene	<0.038		0.038	0.0053	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
Hexachlorobenzene	<0.076		0.076	0.0088	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
Pentachlorophenol	<0.76		0.76	0.61	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
<b>Phenanthrene</b>	<b>0.012</b>	<b>J</b>	0.038	0.0053	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
Anthracene	<0.038		0.038	0.0063	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
Fluoranthene	<0.038		0.038	0.0070	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
<b>Pyrene</b>	<b>0.010</b>	<b>J</b>	0.038	0.0075	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
<b>Benzo[a]anthracene</b>	<b>0.0053</b>	<b>J</b>	0.038	0.0051	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

**Client Sample ID: 2674V2-13-B02 (0-5)**

**Lab Sample ID: 500-207059-2**

Date Collected: 10/18/21 12:50

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 85.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chrysene</b>	<b>0.010</b>	<b>J</b>	0.038	0.010	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
Benzo[b]fluoranthene	<0.038		0.038	0.0082	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
Benzo[a]pyrene	<0.038		0.038	0.0073	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.0098	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0073	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
<b>Benzo[g,h,i]perylene</b>	<b>0.016</b>	<b>J</b>	0.038	0.012	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	10/25/21 06:38	11/02/21 16:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	102		31 - 166	10/25/21 06:38	11/02/21 16:25	1
Phenol-d5	71		30 - 153	10/25/21 06:38	11/02/21 16:25	1
Nitrobenzene-d5 (Surr)	100		37 - 147	10/25/21 06:38	11/02/21 16:25	1
2-Fluorobiphenyl (Surr)	97		43 - 145	10/25/21 06:38	11/02/21 16:25	1
2,4,6-Tribromophenol	92		31 - 143	10/25/21 06:38	11/02/21 16:25	1
Terphenyl-d14 (Surr)	114		42 - 157	10/25/21 06:38	11/02/21 16:25	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	☼	11/01/21 10:16	11/02/21 14:05	1
<b>Arsenic</b>	<b>6.4</b>		0.57	0.20	mg/Kg	☼	11/01/21 10:16	11/02/21 14:05	1
<b>Barium</b>	<b>71</b>		0.57	0.065	mg/Kg	☼	11/01/21 10:16	11/02/21 14:05	1
<b>Beryllium</b>	<b>0.96</b>		0.23	0.053	mg/Kg	☼	11/01/21 10:16	11/02/21 14:05	1
<b>Boron</b>	<b>7.6</b>		2.9	0.27	mg/Kg	☼	11/01/21 10:16	11/02/21 14:05	1
Cadmium	<0.11		0.11	0.021	mg/Kg	☼	11/01/21 10:16	11/02/21 14:05	1
<b>Calcium</b>	<b>12000</b>	<b>B</b>	11	1.9	mg/Kg	☼	11/01/21 10:16	11/02/21 14:05	1
<b>Chromium</b>	<b>19</b>		0.57	0.28	mg/Kg	☼	11/01/21 10:16	11/02/21 14:05	1
<b>Cobalt</b>	<b>15</b>		0.29	0.075	mg/Kg	☼	11/01/21 10:16	11/02/21 14:05	1
<b>Copper</b>	<b>22</b>	<b>B</b>	0.57	0.16	mg/Kg	☼	11/01/21 10:16	11/02/21 14:05	1
<b>Iron</b>	<b>21000</b>		11	5.9	mg/Kg	☼	11/01/21 10:16	11/02/21 14:05	1
<b>Lead</b>	<b>24</b>		0.29	0.13	mg/Kg	☼	11/01/21 10:16	11/02/21 14:05	1
<b>Magnesium</b>	<b>9300</b>	<b>B</b>	5.7	2.8	mg/Kg	☼	11/01/21 10:16	11/02/21 14:05	1
<b>Manganese</b>	<b>490</b>	<b>B</b>	0.57	0.083	mg/Kg	☼	11/01/21 10:16	11/02/21 14:05	1
<b>Nickel</b>	<b>45</b>		0.57	0.17	mg/Kg	☼	11/01/21 10:16	11/02/21 14:05	1
<b>Potassium</b>	<b>2100</b>		29	10	mg/Kg	☼	11/01/21 10:16	11/02/21 14:05	1
Selenium	<0.57		0.57	0.34	mg/Kg	☼	11/01/21 10:16	11/02/21 14:05	1
<b>Silver</b>	<b>0.51</b>		0.29	0.074	mg/Kg	☼	11/01/21 10:16	11/02/21 14:05	1
<b>Sodium</b>	<b>490</b>		57	8.5	mg/Kg	☼	11/01/21 10:16	11/02/21 14:05	1
<b>Thallium</b>	<b>0.69</b>		0.57	0.29	mg/Kg	☼	11/01/21 10:16	11/02/21 14:05	1
<b>Vanadium</b>	<b>26</b>		0.29	0.067	mg/Kg	☼	11/01/21 10:16	11/02/21 14:05	1
<b>Zinc</b>	<b>76</b>		1.1	0.50	mg/Kg	☼	11/01/21 10:16	11/02/21 14:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>0.43</b>	<b>J</b>	0.50	0.050	mg/L		10/25/21 08:30	10/25/21 16:54	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/25/21 08:30	10/25/21 16:54	1
Boron	<0.50		0.50	0.050	mg/L		10/25/21 08:30	10/25/21 16:54	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

**Client Sample ID: 2674V2-13-B02 (0-5)**

**Lab Sample ID: 500-207059-2**

Date Collected: 10/18/21 12:50

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 85.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/25/21 08:30	10/25/21 16:54	1
Chromium	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:54	1
Cobalt	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:54	1
Iron	<0.40		0.40	0.20	mg/L		10/25/21 08:30	10/25/21 16:54	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/25/21 08:30	10/25/21 16:54	1
<b>Manganese</b>	<b>0.49</b>		0.025	0.010	mg/L		10/25/21 08:30	10/26/21 15:01	1
<b>Nickel</b>	<b>0.013</b>	<b>J</b>	0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:54	1
Selenium	<0.050		0.050	0.020	mg/L		10/25/21 08:30	10/25/21 16:54	1
Silver	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:54	1
Zinc	<0.50	^+	0.50	0.020	mg/L		10/25/21 08:30	10/25/21 16:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>1.3</b>		0.025	0.010	mg/L		10/25/21 08:33	10/26/21 18:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/25/21 08:30	10/26/21 15:19	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/25/21 08:30	10/26/21 15:19	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 08:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.040</b>		0.018	0.0061	mg/Kg	☼	10/27/21 14:15	10/28/21 07:22	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>8.5</b>		0.2	0.2	SU			10/21/21 17:48	1

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

**Client Sample ID: 2674V2-13-B01 (0-5)**

**Lab Sample ID: 500-207059-3**

Date Collected: 10/18/21 13:06

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 78.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.020		0.020	0.0089	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
Benzene	<0.0020		0.0020	0.00052	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
Bromodichloromethane	<0.0020		0.0020	0.00042	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
Bromoform	<0.0020		0.0020	0.00060	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
Bromomethane	<0.0051	*+	0.0051	0.0019	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
2-Butanone (MEK)	<0.0051		0.0051	0.0023	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
Carbon disulfide	<0.0051		0.0051	0.0011	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
Carbon tetrachloride	<0.0020		0.0020	0.00059	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
Chlorobenzene	<0.0020		0.0020	0.00075	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
Chloroethane	<0.0051	*+	0.0051	0.0015	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
Chloroform	<0.0020		0.0020	0.00071	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
Chloromethane	<0.0051		0.0051	0.0021	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00057	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00062	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
Dibromochloromethane	<0.0020		0.0020	0.00067	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
1,1-Dichloroethane	<0.0020		0.0020	0.00070	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
1,2-Dichloroethane	<0.0051		0.0051	0.0016	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
1,1-Dichloroethene	<0.0020		0.0020	0.00070	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
1,2-Dichloropropene	<0.0020		0.0020	0.00053	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00072	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
Ethylbenzene	<0.0020		0.0020	0.00098	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
2-Hexanone	<0.0051		0.0051	0.0016	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
Methylene Chloride	<0.0051		0.0051	0.0020	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
4-Methyl-2-pentanone (MIBK)	<0.0051		0.0051	0.0015	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00060	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
Styrene	<0.0020		0.0020	0.00062	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00065	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
Tetrachloroethene	<0.0020		0.0020	0.00070	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
Toluene	<0.0020		0.0020	0.00052	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00091	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00072	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00069	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00088	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
Trichloroethene	<0.0020		0.0020	0.00069	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
Vinyl acetate	<0.0051		0.0051	0.0018	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
Vinyl chloride	<0.0020		0.0020	0.00090	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1
Xylenes, Total	<0.0041		0.0041	0.00065	mg/Kg	☼	10/19/21 18:28	10/25/21 22:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		75 - 131	10/19/21 18:28	10/25/21 22:08	1
Dibromofluoromethane	99		75 - 126	10/19/21 18:28	10/25/21 22:08	1
1,2-Dichloroethane-d4 (Surr)	102		70 - 134	10/19/21 18:28	10/25/21 22:08	1
Toluene-d8 (Surr)	94		75 - 124	10/19/21 18:28	10/25/21 22:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.090	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1

Eurofins TestAmerica, Chicago



# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

**Client Sample ID: 2674V2-13-B01 (0-5)**

**Lab Sample ID: 500-207059-3**

**Date Collected: 10/18/21 13:06**

**Matrix: Solid**

**Date Received: 10/19/21 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
1,2-Dichlorobenzene	<0.20		0.20	0.049	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.050	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
Hexachloroethane	<0.20		0.20	0.062	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
Isophorone	<0.20	*+	0.20	0.046	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
2,4,5-Trichlorophenol	<0.40		0.40	0.093	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
2-Methylnaphthalene	<0.082	*+	0.082	0.0075	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
2-Nitroaniline	<0.20		0.20	0.055	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
2,6-Dinitrotoluene	<0.20		0.20	0.080	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
2,4-Dinitrophenol	<0.82		0.82	0.71	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
Acenaphthylene	<0.040		0.040	0.0054	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
2,4-Dinitrotoluene	<0.20		0.20	0.065	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
Acenaphthene	<0.040		0.040	0.0073	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
Dibenzofuran	<0.20		0.20	0.048	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
4-Nitrophenol	<0.82		0.82	0.39	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.054	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
Diethyl phthalate	<0.20		0.20	0.069	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
Phenanthrene	<0.040		0.040	0.0057	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
Anthracene	<0.040		0.040	0.0068	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
Fluoranthene	<0.040		0.040	0.0075	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
Pyrene	<0.040		0.040	0.0081	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
Benzo[a]anthracene	<0.040		0.040	0.0055	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

**Client Sample ID: 2674V2-13-B01 (0-5)**

**Lab Sample ID: 500-207059-3**

Date Collected: 10/18/21 13:06

Matrix: Solid

Date Received: 10/19/21 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
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
Benzo[b]fluoranthene	<0.040		0.040	0.0088	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
Benzo[a]pyrene	<0.040		0.040	0.0079	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.011	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
Dibenz[a,h]anthracene	<0.040		0.040	0.0078	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
3 & 4 Methylphenol	<0.20		0.20	0.068	mg/Kg	☼	10/25/21 06:38	11/02/21 16:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	86		31 - 166				10/25/21 06:38	11/02/21 16:49	1
Phenol-d5	66		30 - 153				10/25/21 06:38	11/02/21 16:49	1
Nitrobenzene-d5 (Surr)	94		37 - 147				10/25/21 06:38	11/02/21 16:49	1
2-Fluorobiphenyl (Surr)	86		43 - 145				10/25/21 06:38	11/02/21 16:49	1
2,4,6-Tribromophenol	79		31 - 143				10/25/21 06:38	11/02/21 16:49	1
Terphenyl-d14 (Surr)	111		42 - 157				10/25/21 06:38	11/02/21 16:49	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>	1.2	0.23	mg/Kg	☼	11/01/21 10:16	11/02/21 14:08	1
<b>Arsenic</b>	<b>8.4</b>		0.60	0.20	mg/Kg	☼	11/01/21 10:16	11/02/21 14:08	1
<b>Barium</b>	<b>100</b>		0.60	0.068	mg/Kg	☼	11/01/21 10:16	11/02/21 14:08	1
<b>Beryllium</b>	<b>1.2</b>		0.24	0.056	mg/Kg	☼	11/01/21 10:16	11/02/21 14:08	1
<b>Boron</b>	<b>9.2</b>		3.0	0.28	mg/Kg	☼	11/01/21 10:16	11/02/21 14:08	1
Cadmium	<0.12		0.12	0.021	mg/Kg	☼	11/01/21 10:16	11/02/21 14:08	1
<b>Calcium</b>	<b>3100</b>	<b>B</b>	12	2.0	mg/Kg	☼	11/01/21 10:16	11/02/21 14:08	1
<b>Chromium</b>	<b>25</b>		0.60	0.30	mg/Kg	☼	11/01/21 10:16	11/02/21 14:08	1
<b>Cobalt</b>	<b>16</b>		0.30	0.078	mg/Kg	☼	11/01/21 10:16	11/02/21 14:08	1
<b>Copper</b>	<b>24</b>	<b>B</b>	0.60	0.17	mg/Kg	☼	11/01/21 10:16	11/02/21 14:08	1
<b>Iron</b>	<b>26000</b>		12	6.2	mg/Kg	☼	11/01/21 10:16	11/02/21 14:08	1
<b>Lead</b>	<b>17</b>		0.30	0.14	mg/Kg	☼	11/01/21 10:16	11/02/21 14:08	1
<b>Magnesium</b>	<b>5300</b>	<b>B</b>	6.0	3.0	mg/Kg	☼	11/01/21 10:16	11/02/21 14:08	1
<b>Manganese</b>	<b>650</b>	<b>B</b>	0.60	0.087	mg/Kg	☼	11/01/21 10:16	11/02/21 14:08	1
<b>Nickel</b>	<b>45</b>		0.60	0.17	mg/Kg	☼	11/01/21 10:16	11/02/21 14:08	1
<b>Potassium</b>	<b>2900</b>		30	11	mg/Kg	☼	11/01/21 10:16	11/02/21 14:08	1
Selenium	<0.60		0.60	0.35	mg/Kg	☼	11/01/21 10:16	11/02/21 14:08	1
<b>Silver</b>	<b>0.55</b>		0.30	0.077	mg/Kg	☼	11/01/21 10:16	11/02/21 14:08	1
<b>Sodium</b>	<b>100</b>		60	8.8	mg/Kg	☼	11/01/21 10:16	11/02/21 14:08	1
<b>Thallium</b>	<b>0.65</b>		0.60	0.30	mg/Kg	☼	11/01/21 10:16	11/02/21 14:08	1
<b>Vanadium</b>	<b>32</b>		0.30	0.070	mg/Kg	☼	11/01/21 10:16	11/02/21 14:08	1
<b>Zinc</b>	<b>89</b>		1.2	0.52	mg/Kg	☼	11/01/21 10:16	11/02/21 14:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>0.24</b>	<b>J</b>	0.50	0.050	mg/L		10/25/21 08:30	10/25/21 16:58	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/25/21 08:30	10/25/21 16:58	1
Boron	<0.50		0.50	0.050	mg/L		10/25/21 08:30	10/25/21 16:58	1

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# Client Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

**Client Sample ID: 2674V2-13-B01 (0-5)**

**Lab Sample ID: 500-207059-3**

Date Collected: 10/18/21 13:06

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 78.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/25/21 08:30	10/25/21 16:58	1
Chromium	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:58	1
Cobalt	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:58	1
Iron	<0.40		0.40	0.20	mg/L		10/25/21 08:30	10/25/21 16:58	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/25/21 08:30	10/25/21 16:58	1
Manganese	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/26/21 15:04	1
Nickel	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:58	1
Selenium	<0.050		0.050	0.020	mg/L		10/25/21 08:30	10/25/21 16:58	1
Silver	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:58	1
Zinc	<0.50	^+	0.50	0.020	mg/L		10/25/21 08:30	10/25/21 16:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/25/21 08:30	10/26/21 15:20	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/25/21 08:30	10/26/21 15:20	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 08:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.045		0.019	0.0064	mg/Kg	☼	10/27/21 14:15	10/28/21 07:23	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.7		0.2	0.2	SU			10/21/21 17:50	1

# Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.

### GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control 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
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## 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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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)
TNTC	Too Numerous To Count

# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

## GC/MS VOA

### Prep Batch: 624911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207059-1	2674V2-13-B03 (0-2)	Total/NA	Solid	5035	
500-207059-2	2674V2-13-B02 (0-5)	Total/NA	Solid	5035	
500-207059-3	2674V2-13-B01 (0-5)	Total/NA	Solid	5035	

### Analysis Batch: 625243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207059-1	2674V2-13-B03 (0-2)	Total/NA	Solid	8260B	624911
500-207059-2	2674V2-13-B02 (0-5)	Total/NA	Solid	8260B	624911
500-207059-3	2674V2-13-B01 (0-5)	Total/NA	Solid	8260B	624911
MB 500-625243/7	Method Blank	Total/NA	Solid	8260B	
LCS 500-625243/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-625243/5	Lab Control Sample Dup	Total/NA	Solid	8260B	

## GC/MS Semi VOA

### Prep Batch: 625120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207059-1	2674V2-13-B03 (0-2)	Total/NA	Solid	3541	
500-207059-2	2674V2-13-B02 (0-5)	Total/NA	Solid	3541	
500-207059-3	2674V2-13-B01 (0-5)	Total/NA	Solid	3541	
MB 500-625120/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-625120/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-207059-1 MS	2674V2-13-B03 (0-2)	Total/NA	Solid	3541	
500-207059-1 MSD	2674V2-13-B03 (0-2)	Total/NA	Solid	3541	

### Analysis Batch: 626461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-625120/2-A	Lab Control Sample	Total/NA	Solid	8270D	625120

### Analysis Batch: 626713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207059-1	2674V2-13-B03 (0-2)	Total/NA	Solid	8270D	625120
500-207059-2	2674V2-13-B02 (0-5)	Total/NA	Solid	8270D	625120
500-207059-3	2674V2-13-B01 (0-5)	Total/NA	Solid	8270D	625120
MB 500-625120/1-A	Method Blank	Total/NA	Solid	8270D	625120
500-207059-1 MS	2674V2-13-B03 (0-2)	Total/NA	Solid	8270D	625120
500-207059-1 MSD	2674V2-13-B03 (0-2)	Total/NA	Solid	8270D	625120

## Metals

### Leach Batch: 624872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207059-1	2674V2-13-B03 (0-2)	TCLP	Solid	1311	
500-207059-2	2674V2-13-B02 (0-5)	TCLP	Solid	1311	
500-207059-3	2674V2-13-B01 (0-5)	TCLP	Solid	1311	
LB 500-624872/1-B	Method Blank	TCLP	Solid	1311	
LB 500-624872/1-C	Method Blank	TCLP	Solid	1311	

### Leach Batch: 624891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207059-2	2674V2-13-B02 (0-5)	SPLP East	Solid	1312	
LB 500-624891/21-B	Method Blank	SPLP East	Solid	1312	

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# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

## Metals

### Prep Batch: 625181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207059-1	2674V2-13-B03 (0-2)	TCLP	Solid	3010A	624872
500-207059-2	2674V2-13-B02 (0-5)	TCLP	Solid	3010A	624872
500-207059-3	2674V2-13-B01 (0-5)	TCLP	Solid	3010A	624872
LB 500-624872/1-B	Method Blank	TCLP	Solid	3010A	624872
LCS 500-625181/2-A	Lab Control Sample	Total/NA	Solid	3010A	

### Prep Batch: 625182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207059-2	2674V2-13-B02 (0-5)	SPLP East	Solid	3010A	624891
LB 500-624891/21-B	Method Blank	SPLP East	Solid	3010A	624891
LCS 500-625182/2-A	Lab Control Sample	Total/NA	Solid	3010A	

### Analysis Batch: 625354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207059-1	2674V2-13-B03 (0-2)	TCLP	Solid	6010B	625181
500-207059-2	2674V2-13-B02 (0-5)	TCLP	Solid	6010B	625181
500-207059-3	2674V2-13-B01 (0-5)	TCLP	Solid	6010B	625181
LB 500-624872/1-B	Method Blank	TCLP	Solid	6010B	625181
LCS 500-625181/2-A	Lab Control Sample	Total/NA	Solid	6010B	625181

### Prep Batch: 625462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207059-1	2674V2-13-B03 (0-2)	TCLP	Solid	7470A	624872
500-207059-2	2674V2-13-B02 (0-5)	TCLP	Solid	7470A	624872
500-207059-3	2674V2-13-B01 (0-5)	TCLP	Solid	7470A	624872
LB 500-624872/1-C	Method Blank	TCLP	Solid	7470A	624872
MB 500-625462/12-A	Method Blank	Total/NA	Solid	7470A	
LCS 500-625462/14-A	Lab Control Sample	Total/NA	Solid	7470A	

### Analysis Batch: 625539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207059-1	2674V2-13-B03 (0-2)	TCLP	Solid	6010B	625181
500-207059-2	2674V2-13-B02 (0-5)	TCLP	Solid	6010B	625181
500-207059-3	2674V2-13-B01 (0-5)	TCLP	Solid	6010B	625181
LB 500-624872/1-B	Method Blank	TCLP	Solid	6010B	625181
LCS 500-625181/2-A	Lab Control Sample	Total/NA	Solid	6010B	625181

### Analysis Batch: 625619

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207059-2	2674V2-13-B02 (0-5)	SPLP East	Solid	6010B	625182
LB 500-624891/21-B	Method Blank	SPLP East	Solid	6010B	625182
LCS 500-625182/2-A	Lab Control Sample	Total/NA	Solid	6010B	625182

### Analysis Batch: 625693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207059-1	2674V2-13-B03 (0-2)	TCLP	Solid	6020A	625181
500-207059-2	2674V2-13-B02 (0-5)	TCLP	Solid	6020A	625181
500-207059-3	2674V2-13-B01 (0-5)	TCLP	Solid	6020A	625181
LB 500-624872/1-B	Method Blank	TCLP	Solid	6020A	625181
LCS 500-625181/2-A	Lab Control Sample	Total/NA	Solid	6020A	625181

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# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

## Metals

### Prep Batch: 625696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207059-1	2674V2-13-B03 (0-2)	Total/NA	Solid	7471B	
500-207059-2	2674V2-13-B02 (0-5)	Total/NA	Solid	7471B	
500-207059-3	2674V2-13-B01 (0-5)	Total/NA	Solid	7471B	
MB 500-625696/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-625696/13-A	Lab Control Sample	Total/NA	Solid	7471B	

### Analysis Batch: 625700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207059-1	2674V2-13-B03 (0-2)	TCLP	Solid	7470A	625462
500-207059-2	2674V2-13-B02 (0-5)	TCLP	Solid	7470A	625462
500-207059-3	2674V2-13-B01 (0-5)	TCLP	Solid	7470A	625462
LB 500-624872/1-C	Method Blank	TCLP	Solid	7470A	625462
MB 500-625462/12-A	Method Blank	Total/NA	Solid	7470A	625462
LCS 500-625462/14-A	Lab Control Sample	Total/NA	Solid	7470A	625462

### Analysis Batch: 625923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207059-1	2674V2-13-B03 (0-2)	Total/NA	Solid	7471B	625696
500-207059-2	2674V2-13-B02 (0-5)	Total/NA	Solid	7471B	625696
500-207059-3	2674V2-13-B01 (0-5)	Total/NA	Solid	7471B	625696
MB 500-625696/12-A	Method Blank	Total/NA	Solid	7471B	625696
LCS 500-625696/13-A	Lab Control Sample	Total/NA	Solid	7471B	625696

### Prep Batch: 626513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207059-1	2674V2-13-B03 (0-2)	Total/NA	Solid	3050B	
500-207059-2	2674V2-13-B02 (0-5)	Total/NA	Solid	3050B	
500-207059-3	2674V2-13-B01 (0-5)	Total/NA	Solid	3050B	
MB 500-626513/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-626513/2-A	Lab Control Sample	Total/NA	Solid	3050B	

### Analysis Batch: 626836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207059-1	2674V2-13-B03 (0-2)	Total/NA	Solid	6010B	626513
500-207059-2	2674V2-13-B02 (0-5)	Total/NA	Solid	6010B	626513
500-207059-3	2674V2-13-B01 (0-5)	Total/NA	Solid	6010B	626513
MB 500-626513/1-A	Method Blank	Total/NA	Solid	6010B	626513
LCS 500-626513/2-A	Lab Control Sample	Total/NA	Solid	6010B	626513

### Analysis Batch: 626854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207059-1	2674V2-13-B03 (0-2)	Total/NA	Solid	6010B	626513

## General Chemistry

### Analysis Batch: 624697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207059-1	2674V2-13-B03 (0-2)	Total/NA	Solid	Moisture	
500-207059-2	2674V2-13-B02 (0-5)	Total/NA	Solid	Moisture	
500-207059-3	2674V2-13-B01 (0-5)	Total/NA	Solid	Moisture	

# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

## General Chemistry

### Analysis Batch: 624833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207059-1	2674V2-13-B03 (0-2)	Total/NA	Solid	9045D	
500-207059-2	2674V2-13-B02 (0-5)	Total/NA	Solid	9045D	
500-207059-3	2674V2-13-B01 (0-5)	Total/NA	Solid	9045D	
LCS 500-624833/2	Lab Control Sample	Total/NA	Solid	9045D	
LCSD 500-624833/3	Lab Control Sample Dup	Total/NA	Solid	9045D	

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# Surrogate Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

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

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	DBFM	DCA	TOL
		(75-131)	(75-126)	(70-134)	(75-124)
500-207059-1	2674V2-13-B03 (0-2)	87	99	103	94
500-207059-2	2674V2-13-B02 (0-5)	87	99	107	94
500-207059-3	2674V2-13-B01 (0-5)	88	99	102	94
LCS 500-625243/4	Lab Control Sample	82	91	92	97
LCSD 500-625243/5	Lab Control Sample Dup	84	91	93	97
MB 500-625243/7	Method Blank	88	93	96	96

#### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane  
DCA = 1,2-Dichloroethane-d4 (Surr)  
TOL = Toluene-d8 (Surr)

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

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	2FP	PHL	NBZ	FBP	TBP	TPHL
		(31-166)	(30-153)	(37-147)	(43-145)	(31-143)	(42-157)
500-207059-1	2674V2-13-B03 (0-2)	97	87	78	76	96	113
500-207059-1 MS	2674V2-13-B03 (0-2)	99	82	91	92	101	106
500-207059-1 MSD	2674V2-13-B03 (0-2)	107	84	98	104	96	103
500-207059-2	2674V2-13-B02 (0-5)	102	71	100	97	92	114
500-207059-3	2674V2-13-B01 (0-5)	86	66	94	86	79	111
LCS 500-625120/2-A	Lab Control Sample	121	105	118	112	99	116
MB 500-625120/1-A	Method Blank	102	68	90	92	61	101

#### Surrogate Legend

2FP = 2-Fluorophenol  
PHL = Phenol-d5  
NBZ = Nitrobenzene-d5 (Surr)  
FBP = 2-Fluorobiphenyl (Surr)  
TBP = 2,4,6-Tribromophenol  
TPHL = Terphenyl-d14 (Surr)

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

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

**Lab Sample ID: MB 500-625243/7**  
**Matrix: Solid**  
**Analysis Batch: 625243**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	<0.020		0.020	0.0087	mg/Kg			10/25/21 13:35	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg			10/25/21 13:35	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg			10/25/21 13:35	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg			10/25/21 13:35	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg			10/25/21 13:35	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg			10/25/21 13:35	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg			10/25/21 13:35	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg			10/25/21 13:35	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg			10/25/21 13:35	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg			10/25/21 13:35	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg			10/25/21 13:35	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg			10/25/21 13:35	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg			10/25/21 13:35	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg			10/25/21 13:35	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg			10/25/21 13:35	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg			10/25/21 13:35	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg			10/25/21 13:35	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg			10/25/21 13:35	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg			10/25/21 13:35	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00070	mg/Kg			10/25/21 13:35	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg			10/25/21 13:35	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			10/25/21 13:35	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg			10/25/21 13:35	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg			10/25/21 13:35	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg			10/25/21 13:35	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg			10/25/21 13:35	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg			10/25/21 13:35	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/25/21 13:35	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg			10/25/21 13:35	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg			10/25/21 13:35	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg			10/25/21 13:35	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg			10/25/21 13:35	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg			10/25/21 13:35	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/25/21 13:35	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg			10/25/21 13:35	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg			10/25/21 13:35	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg			10/25/21 13:35	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	88		75 - 131		10/25/21 13:35	1
Dibromofluoromethane	93		75 - 126		10/25/21 13:35	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 134		10/25/21 13:35	1
Toluene-d8 (Surr)	96		75 - 124		10/25/21 13:35	1

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

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

**Lab Sample ID: LCS 500-625243/4**  
**Matrix: Solid**  
**Analysis Batch: 625243**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0500	0.0538		mg/Kg		108	40 - 150
Benzene	0.0500	0.0499		mg/Kg		100	70 - 125
Bromodichloromethane	0.0500	0.0511		mg/Kg		102	67 - 129
Bromoform	0.0500	0.0510		mg/Kg		102	68 - 136
Bromomethane	0.0500	0.0704	*+	mg/Kg		141	70 - 130
2-Butanone (MEK)	0.0500	0.0613		mg/Kg		123	47 - 138
Carbon disulfide	0.0500	0.0437		mg/Kg		87	70 - 129
Carbon tetrachloride	0.0500	0.0446		mg/Kg		89	75 - 125
Chlorobenzene	0.0500	0.0497		mg/Kg		99	50 - 150
Chloroethane	0.0500	0.0756	*+	mg/Kg		151	75 - 125
Chloroform	0.0500	0.0490		mg/Kg		98	57 - 135
Chloromethane	0.0500	0.0431		mg/Kg		86	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0476		mg/Kg		95	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0517		mg/Kg		103	70 - 125
Dibromochloromethane	0.0500	0.0533		mg/Kg		107	69 - 125
1,1-Dichloroethane	0.0500	0.0462		mg/Kg		92	70 - 125
1,2-Dichloroethane	0.0500	0.0501		mg/Kg		100	70 - 130
1,1-Dichloroethene	0.0500	0.0444		mg/Kg		89	70 - 120
1,2-Dichloropropane	0.0500	0.0512		mg/Kg		102	70 - 125
Ethylbenzene	0.0500	0.0535		mg/Kg		107	61 - 136
2-Hexanone	0.0500	0.0652		mg/Kg		130	48 - 146
Methylene Chloride	0.0500	0.0453		mg/Kg		91	70 - 126
4-Methyl-2-pentanone (MIBK)	0.0500	0.0631		mg/Kg		126	50 - 148
Methyl tert-butyl ether	0.0500	0.0432		mg/Kg		86	50 - 140
Styrene	0.0500	0.0536		mg/Kg		107	70 - 125
1,1,2,2-Tetrachloroethane	0.0500	0.0547		mg/Kg		109	70 - 122
Tetrachloroethene	0.0500	0.0517		mg/Kg		103	70 - 124
Toluene	0.0500	0.0524		mg/Kg		105	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0461		mg/Kg		92	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0495		mg/Kg		99	70 - 125
1,1,1-Trichloroethane	0.0500	0.0433		mg/Kg		87	70 - 128
1,1,2-Trichloroethane	0.0500	0.0554		mg/Kg		111	70 - 125
Trichloroethene	0.0500	0.0510		mg/Kg		102	70 - 125
Vinyl acetate	0.0500	0.0584		mg/Kg		117	40 - 153
Vinyl chloride	0.0500	0.0458		mg/Kg		92	70 - 125
Xylenes, Total	0.100	0.100		mg/Kg		100	53 - 147

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	82		75 - 131
Dibromofluoromethane	91		75 - 126
1,2-Dichloroethane-d4 (Surr)	92		70 - 134
Toluene-d8 (Surr)	97		75 - 124

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

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

**Lab Sample ID: LCSD 500-625243/5**  
**Matrix: Solid**  
**Analysis Batch: 625243**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.0500	0.0509		mg/Kg		102	40 - 150	5	30
Benzene	0.0500	0.0485		mg/Kg		97	70 - 125	3	30
Bromodichloromethane	0.0500	0.0492		mg/Kg		98	67 - 129	4	30
Bromoform	0.0500	0.0494		mg/Kg		99	68 - 136	3	30
Bromomethane	0.0500	0.0692	*+	mg/Kg		138	70 - 130	2	30
2-Butanone (MEK)	0.0500	0.0568		mg/Kg		114	47 - 138	8	30
Carbon disulfide	0.0500	0.0420		mg/Kg		84	70 - 129	4	30
Carbon tetrachloride	0.0500	0.0434		mg/Kg		87	75 - 125	3	30
Chlorobenzene	0.0500	0.0480		mg/Kg		96	50 - 150	3	30
Chloroethane	0.0500	0.0736	*+	mg/Kg		147	75 - 125	3	30
Chloroform	0.0500	0.0465		mg/Kg		93	57 - 135	5	30
Chloromethane	0.0500	0.0418		mg/Kg		84	70 - 125	3	30
cis-1,2-Dichloroethene	0.0500	0.0448		mg/Kg		90	70 - 125	6	30
cis-1,3-Dichloropropene	0.0500	0.0496		mg/Kg		99	70 - 125	4	30
Dibromochloromethane	0.0500	0.0507		mg/Kg		101	69 - 125	5	30
1,1-Dichloroethane	0.0500	0.0441		mg/Kg		88	70 - 125	5	30
1,2-Dichloroethane	0.0500	0.0480		mg/Kg		96	70 - 130	4	30
1,1-Dichloroethene	0.0500	0.0427		mg/Kg		85	70 - 120	4	30
1,2-Dichloropropane	0.0500	0.0484		mg/Kg		97	70 - 125	5	30
Ethylbenzene	0.0500	0.0519		mg/Kg		104	61 - 136	3	30
2-Hexanone	0.0500	0.0634		mg/Kg		127	48 - 146	3	30
Methylene Chloride	0.0500	0.0429		mg/Kg		86	70 - 126	5	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0597		mg/Kg		119	50 - 148	6	30
Methyl tert-butyl ether	0.0500	0.0419		mg/Kg		84	50 - 140	3	30
Styrene	0.0500	0.0518		mg/Kg		104	70 - 125	3	30
1,1,2,2-Tetrachloroethane	0.0500	0.0535		mg/Kg		107	70 - 122	2	30
Tetrachloroethene	0.0500	0.0498		mg/Kg		100	70 - 124	4	30
Toluene	0.0500	0.0500		mg/Kg		100	70 - 125	5	30
trans-1,2-Dichloroethene	0.0500	0.0445		mg/Kg		89	70 - 125	4	30
trans-1,3-Dichloropropene	0.0500	0.0486		mg/Kg		97	70 - 125	2	30
1,1,1-Trichloroethane	0.0500	0.0423		mg/Kg		85	70 - 128	2	30
1,1,2-Trichloroethane	0.0500	0.0546		mg/Kg		109	70 - 125	1	30
Trichloroethene	0.0500	0.0485		mg/Kg		97	70 - 125	5	30
Vinyl acetate	0.0500	0.0554		mg/Kg		111	40 - 153	5	30
Vinyl chloride	0.0500	0.0452		mg/Kg		90	70 - 125	1	30
Xylenes, Total	0.100	0.0967		mg/Kg		97	53 - 147	3	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	84		75 - 131
Dibromofluoromethane	91		75 - 126
1,2-Dichloroethane-d4 (Surr)	93		70 - 134
Toluene-d8 (Surr)	97		75 - 124

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

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

**Lab Sample ID: MB 500-625120/1-A**  
**Matrix: Solid**  
**Analysis Batch: 626713**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 625120**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	<0.17		0.17	0.074	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.050	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
1,3-Dichlorobenzene	<0.17		0.17	0.037	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
1,4-Dichlorobenzene	<0.17		0.17	0.043	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
1,2-Dichlorobenzene	<0.17		0.17	0.040	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2-Methylphenol	<0.17		0.17	0.053	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.039	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
N-Nitrosodi-n-propylamine	<0.067		0.067	0.041	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Hexachloroethane	<0.17		0.17	0.051	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2-Chlorophenol	<0.17		0.17	0.057	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Nitrobenzene	<0.033		0.033	0.0083	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.034	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.036	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Isophorone	<0.17		0.17	0.037	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,4-Dimethylphenol	<0.33		0.33	0.13	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Hexachlorobutadiene	<0.17		0.17	0.052	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Naphthalene	<0.033		0.033	0.0051	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,4-Dichlorophenol	<0.33		0.33	0.079	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4-Chloroaniline	<0.67		0.67	0.16	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,4,6-Trichlorophenol	<0.33		0.33	0.11	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,4,5-Trichlorophenol	<0.33		0.33	0.076	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Hexachlorocyclopentadiene	<0.67		0.67	0.19	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2-Methylnaphthalene	<0.067		0.067	0.0061	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2-Nitroaniline	<0.17		0.17	0.045	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2-Chloronaphthalene	<0.17		0.17	0.037	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4-Chloro-3-methylphenol	<0.33		0.33	0.11	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,6-Dinitrotoluene	<0.17		0.17	0.065	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2-Nitrophenol	<0.33		0.33	0.079	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
3-Nitroaniline	<0.33		0.33	0.10	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Dimethyl phthalate	<0.17		0.17	0.043	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,4-Dinitrophenol	<0.67		0.67	0.59	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Acenaphthylene	<0.033		0.033	0.0044	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,4-Dinitrotoluene	<0.17		0.17	0.053	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Acenaphthene	<0.033		0.033	0.0060	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Dibenzofuran	<0.17		0.17	0.039	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4-Nitrophenol	<0.67		0.67	0.32	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Fluorene	<0.033		0.033	0.0047	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4-Nitroaniline	<0.33		0.33	0.14	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.044	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Hexachlorobenzene	<0.067		0.067	0.0077	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Diethyl phthalate	<0.17		0.17	0.056	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.039	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Pentachlorophenol	<0.67		0.67	0.53	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
N-Nitrosodiphenylamine	<0.17		0.17	0.039	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4,6-Dinitro-2-methylphenol	<0.67		0.67	0.27	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Phenanthrene	<0.033		0.033	0.0046	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Anthracene	<0.033		0.033	0.0056	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Carbazole	<0.17		0.17	0.083	mg/Kg		10/25/21 06:38	11/02/21 18:34	1

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

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

**Lab Sample ID: MB 500-625120/1-A**  
**Matrix: Solid**  
**Analysis Batch: 626713**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 625120**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	<0.17		0.17	0.051	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Fluoranthene	<0.033		0.033	0.0062	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Pyrene	<0.033		0.033	0.0066	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Butyl benzyl phthalate	<0.17		0.17	0.063	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Benzo[a]anthracene	<0.033		0.033	0.0045	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Chrysene	<0.033		0.033	0.0091	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.047	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.061	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Di-n-octyl phthalate	<0.17		0.17	0.054	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Benzo[b]fluoranthene	<0.033		0.033	0.0072	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Benzo[k]fluoranthene	<0.033		0.033	0.0098	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Benzo[a]pyrene	<0.033		0.033	0.0064	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Indeno[1,2,3-cd]pyrene	<0.033		0.033	0.0086	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Dibenz(a,h)anthracene	<0.033		0.033	0.0064	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Benzo[g,h,i]perylene	<0.033		0.033	0.011	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
3 & 4 Methylphenol	<0.17		0.17	0.055	mg/Kg		10/25/21 06:38	11/02/21 18:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	102		31 - 166	10/25/21 06:38	11/02/21 18:34	1
Phenol-d5	68		30 - 153	10/25/21 06:38	11/02/21 18:34	1
Nitrobenzene-d5 (Surr)	90		37 - 147	10/25/21 06:38	11/02/21 18:34	1
2-Fluorobiphenyl (Surr)	92		43 - 145	10/25/21 06:38	11/02/21 18:34	1
2,4,6-Tribromophenol	61		31 - 143	10/25/21 06:38	11/02/21 18:34	1
Terphenyl-d14 (Surr)	101		42 - 157	10/25/21 06:38	11/02/21 18:34	1

**Lab Sample ID: LCS 500-625120/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626461**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625120**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Phenol	1.33	1.13		mg/Kg		85	56 - 122
Bis(2-chloroethyl)ether	1.33	1.21		mg/Kg		91	55 - 111
1,3-Dichlorobenzene	1.33	1.25		mg/Kg		94	65 - 124
1,4-Dichlorobenzene	1.33	1.26		mg/Kg		94	61 - 110
1,2-Dichlorobenzene	1.33	1.33		mg/Kg		100	62 - 110
2-Methylphenol	1.33	1.45		mg/Kg		109	60 - 120
2,2'-oxybis[1-chloropropane]	1.33	0.808		mg/Kg		61	40 - 124
N-Nitrosodi-n-propylamine	1.33	1.52		mg/Kg		114	56 - 118
Hexachloroethane	1.33	1.14		mg/Kg		85	60 - 114
2-Chlorophenol	1.33	1.35		mg/Kg		101	64 - 110
Nitrobenzene	1.33	1.39		mg/Kg		104	60 - 116
Bis(2-chloroethoxy)methane	1.33	1.43		mg/Kg		107	60 - 112
1,2,4-Trichlorobenzene	1.33	1.37		mg/Kg		103	66 - 117
Isophorone	1.33	1.51	*+	mg/Kg		114	55 - 110
2,4-Dimethylphenol	1.33	1.25		mg/Kg		94	60 - 110
Hexachlorobutadiene	1.33	1.53		mg/Kg		114	56 - 120
Naphthalene	1.33	1.39		mg/Kg		104	63 - 110
2,4-Dichlorophenol	1.33	1.31		mg/Kg		99	58 - 120

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

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

**Lab Sample ID: LCS 500-625120/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626461**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625120**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chloroaniline	1.33	0.919		mg/Kg		69	30 - 150
2,4,6-Trichlorophenol	1.33	1.29		mg/Kg		97	57 - 120
2,4,5-Trichlorophenol	1.33	1.28		mg/Kg		96	50 - 120
Hexachlorocyclopentadiene	1.33	0.426	J	mg/Kg		32	10 - 133
2-Methylnaphthalene	1.33	1.55	*+	mg/Kg		116	69 - 112
2-Nitroaniline	1.33	1.44		mg/Kg		108	57 - 124
2-Chloronaphthalene	1.33	1.36		mg/Kg		102	69 - 114
4-Chloro-3-methylphenol	1.33	1.28		mg/Kg		96	65 - 122
2,6-Dinitrotoluene	1.33	1.49		mg/Kg		112	70 - 123
2-Nitrophenol	1.33	1.34		mg/Kg		101	60 - 120
3-Nitroaniline	1.33	0.701		mg/Kg		53	40 - 122
Dimethyl phthalate	1.33	1.53		mg/Kg		115	69 - 116
2,4-Dinitrophenol	2.67	<0.67		mg/Kg		11	10 - 100
Acenaphthylene	1.33	1.42		mg/Kg		107	68 - 120
2,4-Dinitrotoluene	1.33	1.49		mg/Kg		112	69 - 124
Acenaphthene	1.33	1.39		mg/Kg		104	65 - 124
Dibenzofuran	1.33	1.40		mg/Kg		105	66 - 115
4-Nitrophenol	2.67	2.62		mg/Kg		98	30 - 122
Fluorene	1.33	1.43		mg/Kg		107	62 - 120
4-Nitroaniline	1.33	1.16		mg/Kg		87	60 - 160
4-Bromophenyl phenyl ether	1.33	1.53		mg/Kg		115	68 - 118
Hexachlorobenzene	1.33	1.58		mg/Kg		118	63 - 124
Diethyl phthalate	1.33	1.52		mg/Kg		114	58 - 120
4-Chlorophenyl phenyl ether	1.33	1.43		mg/Kg		107	62 - 119
Pentachlorophenol	2.67	1.18		mg/Kg		44	13 - 112
N-Nitrosodiphenylamine	1.33	1.43		mg/Kg		107	65 - 112
4,6-Dinitro-2-methylphenol	2.67	0.642	J	mg/Kg		24	10 - 110
Phenanthrene	1.33	1.45		mg/Kg		109	62 - 120
Anthracene	1.33	1.48		mg/Kg		111	70 - 114
Carbazole	1.33	1.50		mg/Kg		112	65 - 142
Di-n-butyl phthalate	1.33	1.47		mg/Kg		110	65 - 120
Fluoranthene	1.33	1.50		mg/Kg		112	62 - 120
Pyrene	1.33	1.42		mg/Kg		106	61 - 128
Butyl benzyl phthalate	1.33	1.35		mg/Kg		101	71 - 129
Benzo[a]anthracene	1.33	1.46		mg/Kg		109	67 - 122
Chrysene	1.33	1.42		mg/Kg		107	63 - 120
3,3'-Dichlorobenzidine	1.33	1.24		mg/Kg		93	35 - 128
Bis(2-ethylhexyl) phthalate	1.33	1.42		mg/Kg		107	72 - 131
Di-n-octyl phthalate	1.33	1.33		mg/Kg		100	68 - 134
Benzo[b]fluoranthene	1.33	1.32		mg/Kg		99	69 - 129
Benzo[k]fluoranthene	1.33	1.40		mg/Kg		105	68 - 127
Benzo[a]pyrene	1.33	1.43		mg/Kg		108	65 - 133
Indeno[1,2,3-cd]pyrene	1.33	1.37		mg/Kg		103	68 - 130
Dibenz(a,h)anthracene	1.33	1.39		mg/Kg		104	64 - 131
Benzo[g,h,i]perylene	1.33	1.38		mg/Kg		103	72 - 131
3 & 4 Methylphenol	1.33	1.46		mg/Kg		109	57 - 120

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

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

**Lab Sample ID: LCS 500-625120/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626461**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625120**

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorophenol	121		31 - 166
Phenol-d5	105		30 - 153
Nitrobenzene-d5 (Surr)	118		37 - 147
2-Fluorobiphenyl (Surr)	112		43 - 145
2,4,6-Tribromophenol	99		31 - 143
Terphenyl-d14 (Surr)	116		42 - 157

**Lab Sample ID: 500-207059-1 MS**  
**Matrix: Solid**  
**Analysis Batch: 626713**

**Client Sample ID: 2674V2-13-B03 (0-2)**  
**Prep Type: Total/NA**  
**Prep Batch: 625120**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	Limits
				Result	Qualifier				
Phenol	<0.19		1.53	1.02		mg/Kg	☼	67	56 - 122
Bis(2-chloroethyl)ether	<0.19		1.53	1.16		mg/Kg	☼	76	55 - 111
1,3-Dichlorobenzene	<0.19		1.53	1.06		mg/Kg	☼	69	60 - 110
1,4-Dichlorobenzene	<0.19		1.53	1.06		mg/Kg	☼	69	61 - 110
1,2-Dichlorobenzene	<0.19		1.53	1.12		mg/Kg	☼	73	62 - 110
2-Methylphenol	<0.19		1.53	1.41		mg/Kg	☼	92	60 - 120
2,2'-oxybis[1-chloropropane]	<0.19		1.53	0.679		mg/Kg	☼	44	40 - 124
N-Nitrosodi-n-propylamine	<0.077		1.53	1.39		mg/Kg	☼	91	56 - 118
Hexachloroethane	<0.19	F1	1.53	0.928		mg/Kg	☼	61	60 - 114
2-Chlorophenol	<0.19		1.53	1.40		mg/Kg	☼	91	64 - 110
Nitrobenzene	<0.038		1.53	1.37		mg/Kg	☼	90	60 - 116
Bis(2-chloroethoxy)methane	<0.19		1.53	1.46		mg/Kg	☼	95	60 - 112
1,2,4-Trichlorobenzene	<0.19		1.53	1.34		mg/Kg	☼	87	66 - 117
Isophorone	<0.19	*+	1.53	1.46		mg/Kg	☼	95	55 - 110
2,4-Dimethylphenol	<0.38		1.53	1.31		mg/Kg	☼	85	60 - 110
Hexachlorobutadiene	<0.19		1.53	1.36		mg/Kg	☼	89	56 - 120
Naphthalene	<0.038		1.53	1.34		mg/Kg	☼	87	63 - 110
2,4-Dichlorophenol	<0.38		1.53	1.50		mg/Kg	☼	98	58 - 120
4-Chloroaniline	<0.77		1.53	1.29		mg/Kg	☼	84	30 - 150
2,4,6-Trichlorophenol	<0.38		1.53	1.32		mg/Kg	☼	86	57 - 120
2,4,5-Trichlorophenol	<0.38		1.53	1.44		mg/Kg	☼	94	50 - 120
Hexachlorocyclopentadiene	<0.77		1.53	0.527	J	mg/Kg	☼	34	10 - 133
2-Methylnaphthalene	<0.077	F1 *+	1.53	1.88	F1	mg/Kg	☼	123	69 - 112
2-Nitroaniline	<0.19		1.53	1.49		mg/Kg	☼	97	57 - 124
2-Chloronaphthalene	<0.19		1.53	1.40		mg/Kg	☼	91	69 - 114
4-Chloro-3-methylphenol	<0.38		1.53	1.37		mg/Kg	☼	90	65 - 122
2,6-Dinitrotoluene	<0.19		1.53	1.59		mg/Kg	☼	104	70 - 123
2-Nitrophenol	<0.38		1.53	1.42		mg/Kg	☼	92	60 - 120
3-Nitroaniline	<0.38		1.53	1.22		mg/Kg	☼	80	40 - 122
Dimethyl phthalate	<0.19		1.53	1.64		mg/Kg	☼	107	69 - 116
2,4-Dinitrophenol	<0.77		3.07	1.37		mg/Kg	☼	45	10 - 100
Acenaphthylene	<0.038		1.53	1.51		mg/Kg	☼	99	68 - 120
2,4-Dinitrotoluene	<0.19		1.53	1.63		mg/Kg	☼	107	69 - 124
Acenaphthene	<0.038		1.53	1.48		mg/Kg	☼	96	65 - 124
Dibenzofuran	<0.19		1.53	1.49		mg/Kg	☼	97	66 - 115
4-Nitrophenol	<0.77		3.07	2.87		mg/Kg	☼	93	30 - 122

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

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

**Lab Sample ID: 500-207059-1 MS**  
**Matrix: Solid**  
**Analysis Batch: 626713**

**Client Sample ID: 2674V2-13-B03 (0-2)**  
**Prep Type: Total/NA**  
**Prep Batch: 625120**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluorene	<0.038		1.53	1.56		mg/Kg	☼	102	62 - 120
4-Nitroaniline	<0.38		1.53	1.44		mg/Kg	☼	94	60 - 160
4-Bromophenyl phenyl ether	<0.19		1.53	1.61		mg/Kg	☼	105	68 - 118
Hexachlorobenzene	<0.077		1.53	1.66		mg/Kg	☼	108	63 - 124
Diethyl phthalate	<0.19		1.53	1.70		mg/Kg	☼	111	58 - 120
4-Chlorophenyl phenyl ether	<0.19		1.53	1.54		mg/Kg	☼	101	62 - 119
Pentachlorophenol	<0.77		3.07	2.16		mg/Kg	☼	71	13 - 112
N-Nitrosodiphenylamine	<0.19		1.53	1.49		mg/Kg	☼	97	65 - 112
4,6-Dinitro-2-methylphenol	<0.77		3.07	1.83		mg/Kg	☼	60	10 - 110
Phenanthrene	<0.038		1.53	1.56		mg/Kg	☼	102	62 - 120
Anthracene	<0.038		1.53	1.59		mg/Kg	☼	104	70 - 114
Carbazole	<0.19		1.53	1.66		mg/Kg	☼	108	65 - 142
Di-n-butyl phthalate	<0.19		1.53	1.57		mg/Kg	☼	102	65 - 120
Fluoranthene	<0.038		1.53	1.62		mg/Kg	☼	106	62 - 120
Pyrene	<0.038		1.53	1.50		mg/Kg	☼	98	61 - 128
Butyl benzyl phthalate	<0.19		1.53	1.59		mg/Kg	☼	104	71 - 129
Benzo[a]anthracene	<0.038		1.53	1.61		mg/Kg	☼	105	67 - 122
Chrysene	<0.038	F2	1.53	1.55		mg/Kg	☼	101	63 - 120
3,3'-Dichlorobenzidine	<0.19		1.53	1.21		mg/Kg	☼	79	35 - 128
Bis(2-ethylhexyl) phthalate	<0.19		1.53	1.50		mg/Kg	☼	98	72 - 131
Di-n-octyl phthalate	<0.19		1.53	1.50		mg/Kg	☼	98	68 - 134
Benzo[b]fluoranthene	<0.038		1.53	1.73		mg/Kg	☼	113	69 - 129
Benzo[k]fluoranthene	<0.038		1.53	1.39		mg/Kg	☼	91	68 - 127
Benzo[a]pyrene	<0.038		1.53	1.54		mg/Kg	☼	101	65 - 133
Indeno[1,2,3-cd]pyrene	<0.038		1.53	1.39		mg/Kg	☼	91	68 - 130
Dibenz(a,h)anthracene	<0.038		1.53	1.42		mg/Kg	☼	92	64 - 131
Benzo[g,h,i]perylene	<0.038		1.53	1.32		mg/Kg	☼	86	72 - 131
3 & 4 Methylphenol	<0.19		1.53	1.45		mg/Kg	☼	95	57 - 120

Surrogate	MS %Recovery	MS Qualifier	MS Limits
2-Fluorophenol	99		31 - 166
Phenol-d5	82		30 - 153
Nitrobenzene-d5 (Surr)	91		37 - 147
2-Fluorobiphenyl (Surr)	92		43 - 145
2,4,6-Tribromophenol	101		31 - 143
Terphenyl-d14 (Surr)	106		42 - 157

**Lab Sample ID: 500-207059-1 MSD**  
**Matrix: Solid**  
**Analysis Batch: 626713**

**Client Sample ID: 2674V2-13-B03 (0-2)**  
**Prep Type: Total/NA**  
**Prep Batch: 625120**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	<0.19		1.53	1.06		mg/Kg	☼	70	56 - 122	4	30
Bis(2-chloroethyl)ether	<0.19		1.53	1.17		mg/Kg	☼	77	55 - 111	1	30
1,3-Dichlorobenzene	<0.19		1.53	0.959		mg/Kg	☼	63	60 - 110	10	30
1,4-Dichlorobenzene	<0.19		1.53	0.991		mg/Kg	☼	65	61 - 110	7	30
1,2-Dichlorobenzene	<0.19		1.53	1.07		mg/Kg	☼	70	62 - 110	5	30
2-Methylphenol	<0.19		1.53	1.39		mg/Kg	☼	91	60 - 120	2	30

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

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

**Lab Sample ID: 500-207059-1 MSD**

**Matrix: Solid**

**Analysis Batch: 626713**

**Client Sample ID: 2674V2-13-B03 (0-2)**

**Prep Type: Total/NA**

**Prep Batch: 625120**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		
2,2'-oxybis[1-chloropropane]	<0.19		1.53	0.681		mg/Kg	☼	45	40 - 124	0	30
N-Nitrosodi-n-propylamine	<0.077		1.53	1.41		mg/Kg	☼	92	56 - 118	1	30
Hexachloroethane	<0.19	F1	1.53	0.839	F1	mg/Kg	☼	55	60 - 114	10	30
2-Chlorophenol	<0.19		1.53	1.41		mg/Kg	☼	93	64 - 110	1	30
Nitrobenzene	<0.038		1.53	1.35		mg/Kg	☼	89	60 - 116	1	30
Bis(2-chloroethoxy)methane	<0.19		1.53	1.43		mg/Kg	☼	94	60 - 112	2	30
1,2,4-Trichlorobenzene	<0.19		1.53	1.28		mg/Kg	☼	84	66 - 117	4	30
Isophorone	<0.19	*+	1.53	1.45		mg/Kg	☼	95	55 - 110	1	30
2,4-Dimethylphenol	<0.38		1.53	1.05		mg/Kg	☼	69	60 - 110	22	30
Hexachlorobutadiene	<0.19		1.53	1.25		mg/Kg	☼	82	56 - 120	8	30
Naphthalene	<0.038		1.53	1.28		mg/Kg	☼	84	63 - 110	4	30
2,4-Dichlorophenol	<0.38		1.53	1.47		mg/Kg	☼	96	58 - 120	2	30
4-Chloroaniline	<0.77		1.53	1.30		mg/Kg	☼	85	30 - 150	1	30
2,4,6-Trichlorophenol	<0.38		1.53	1.29		mg/Kg	☼	85	57 - 120	2	30
2,4,5-Trichlorophenol	<0.38		1.53	1.49		mg/Kg	☼	98	50 - 120	4	30
Hexachlorocyclopentadiene	<0.77		1.53	0.492	J	mg/Kg	☼	32	10 - 133	7	30
2-Methylnaphthalene	<0.077	F1 *+	1.53	1.81	F1	mg/Kg	☼	118	69 - 112	4	30
2-Nitroaniline	<0.19		1.53	1.49		mg/Kg	☼	97	57 - 124	0	30
2-Chloronaphthalene	<0.19		1.53	1.40		mg/Kg	☼	92	69 - 114	0	30
4-Chloro-3-methylphenol	<0.38		1.53	1.28		mg/Kg	☼	84	65 - 122	7	30
2,6-Dinitrotoluene	<0.19		1.53	1.59		mg/Kg	☼	104	70 - 123	0	30
2-Nitrophenol	<0.38		1.53	1.39		mg/Kg	☼	91	60 - 120	2	30
3-Nitroaniline	<0.38		1.53	1.21		mg/Kg	☼	79	40 - 122	1	30
Dimethyl phthalate	<0.19		1.53	1.64		mg/Kg	☼	108	69 - 116	0	30
2,4-Dinitrophenol	<0.77		3.05	1.15		mg/Kg	☼	38	10 - 100	17	30
Acenaphthylene	<0.038		1.53	1.52		mg/Kg	☼	99	68 - 120	0	30
2,4-Dinitrotoluene	<0.19		1.53	1.65		mg/Kg	☼	108	69 - 124	1	30
Acenaphthene	<0.038		1.53	1.49		mg/Kg	☼	97	65 - 124	1	30
Dibenzofuran	<0.19		1.53	1.52		mg/Kg	☼	100	66 - 115	2	30
4-Nitrophenol	<0.77		3.05	2.41		mg/Kg	☼	79	30 - 122	17	30
Fluorene	<0.038		1.53	1.55		mg/Kg	☼	101	62 - 120	1	30
4-Nitroaniline	<0.38		1.53	1.39		mg/Kg	☼	91	60 - 160	3	30
4-Bromophenyl phenyl ether	<0.19		1.53	1.62		mg/Kg	☼	106	68 - 118	0	30
Hexachlorobenzene	<0.077		1.53	1.70		mg/Kg	☼	111	63 - 124	2	30
Diethyl phthalate	<0.19		1.53	1.68		mg/Kg	☼	110	58 - 120	1	30
4-Chlorophenyl phenyl ether	<0.19		1.53	1.52		mg/Kg	☼	99	62 - 119	2	30
Pentachlorophenol	<0.77		3.05	2.08		mg/Kg	☼	68	13 - 112	4	30
N-Nitrosodiphenylamine	<0.19		1.53	1.47		mg/Kg	☼	97	65 - 112	1	30
4,6-Dinitro-2-methylphenol	<0.77		3.05	1.69		mg/Kg	☼	55	10 - 110	8	30
Phenanthrene	<0.038		1.53	1.57		mg/Kg	☼	103	62 - 120	1	30
Anthracene	<0.038		1.53	1.56		mg/Kg	☼	102	70 - 114	2	30
Carbazole	<0.19		1.53	1.63		mg/Kg	☼	107	65 - 142	2	30
Di-n-butyl phthalate	<0.19		1.53	1.54		mg/Kg	☼	101	65 - 120	2	30
Fluoranthene	<0.038		1.53	1.60		mg/Kg	☼	105	62 - 120	1	30
Pyrene	<0.038		1.53	1.45		mg/Kg	☼	95	61 - 128	3	30
Butyl benzyl phthalate	<0.19		1.53	1.49		mg/Kg	☼	98	71 - 129	7	30
Benzo[a]anthracene	<0.038		1.53	1.53		mg/Kg	☼	100	67 - 122	5	30
Chrysene	<0.038	F2	1.53	1.07	F2	mg/Kg	☼	70	63 - 120	37	30
3,3'-Dichlorobenzidine	<0.19		1.53	1.13		mg/Kg	☼	74	35 - 128	7	30

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

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

**Lab Sample ID: 500-207059-1 MSD**  
**Matrix: Solid**  
**Analysis Batch: 626713**

**Client Sample ID: 2674V2-13-B03 (0-2)**  
**Prep Type: Total/NA**  
**Prep Batch: 625120**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Bis(2-ethylhexyl) phthalate	<0.19		1.53	1.45		mg/Kg	☼	95	72 - 131	4	30
Di-n-octyl phthalate	<0.19		1.53	1.47		mg/Kg	☼	96	68 - 134	2	30
Benzo[b]fluoranthene	<0.038		1.53	1.79		mg/Kg	☼	117	69 - 129	4	30
Benzo[k]fluoranthene	<0.038		1.53	1.22		mg/Kg	☼	80	68 - 127	13	30
Benzo[a]pyrene	<0.038		1.53	1.51		mg/Kg	☼	99	65 - 133	2	30
Indeno[1,2,3-cd]pyrene	<0.038		1.53	1.35		mg/Kg	☼	88	68 - 130	3	30
Dibenz(a,h)anthracene	<0.038		1.53	1.39		mg/Kg	☼	91	64 - 131	2	30
Benzo[g,h,i]perylene	<0.038		1.53	1.25		mg/Kg	☼	82	72 - 131	6	30
3 & 4 Methylphenol	<0.19		1.53	1.53		mg/Kg	☼	100	57 - 120	5	30
<b>Surrogate</b>	<b>MSD</b>	<b>MSD</b>	<b>Limits</b>								
	<b>%Recovery</b>	<b>Qualifier</b>									
2-Fluorophenol	107		31 - 166								
Phenol-d5	84		30 - 153								
Nitrobenzene-d5 (Surr)	98		37 - 147								
2-Fluorobiphenyl (Surr)	104		43 - 145								
2,4,6-Tribromophenol	96		31 - 143								
Terphenyl-d14 (Surr)	103		42 - 157								

## Method: 6010B - Metals (ICP)

**Lab Sample ID: LCS 500-625181/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625354**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625181**

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
		Result	Qualifier					
Barium	0.500	0.518		mg/L		104		80 - 120
Beryllium	0.0500	0.0481		mg/L		96		80 - 120
Boron	1.00	0.812		mg/L		81		80 - 120
Cadmium	0.0500	0.0465		mg/L		93		80 - 120
Chromium	0.200	0.195		mg/L		98		80 - 120
Cobalt	0.500	0.503		mg/L		101		80 - 120
Iron	1.00	1.03		mg/L		103		80 - 120
Lead	0.100	0.0955		mg/L		95		80 - 120
Nickel	0.500	0.509		mg/L		102		80 - 120
Selenium	0.100	0.102		mg/L		102		80 - 120
Silver	0.0500	0.0483		mg/L		97		80 - 120
Zinc	0.500	0.583	^+	mg/L		117		80 - 120

**Lab Sample ID: LCS 500-625181/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625539**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625181**

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
		Result	Qualifier					
Manganese	0.500	0.471		mg/L		94		80 - 120

# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

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

**Lab Sample ID: LCS 500-625182/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625619**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625182**  
**%Rec.**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Manganese	0.500	0.485		mg/L		97	80 - 120

**Lab Sample ID: MB 500-626513/1-A**  
**Matrix: Solid**  
**Analysis Batch: 626836**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 626513**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.0		2.0	0.39	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Arsenic	<1.0		1.0	0.34	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Barium	<1.0		1.0	0.11	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Beryllium	<0.40		0.40	0.093	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Boron	<5.0		5.0	0.47	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Cadmium	0.0859	J	0.20	0.036	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Calcium	11.6	J	20	3.4	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Chromium	<1.0		1.0	0.50	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Cobalt	<0.50		0.50	0.13	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Copper	0.463	J	1.0	0.28	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Iron	<20		20	10	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Lead	<0.50		0.50	0.23	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Magnesium	5.47	J	10	5.0	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Manganese	0.191	J	1.0	0.15	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Nickel	<1.0		1.0	0.29	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Potassium	<50		50	18	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Selenium	<1.0		1.0	0.59	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Silver	<0.50		0.50	0.13	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Sodium	<100		100	15	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Thallium	<1.0		1.0	0.50	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Vanadium	<0.50		0.50	0.12	mg/Kg		11/01/21 10:16	11/02/21 13:12	1
Zinc	<2.0		2.0	0.88	mg/Kg		11/01/21 10:16	11/02/21 13:12	1

**Lab Sample ID: LCS 500-626513/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626836**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626513**  
**%Rec.**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	50.0	47.0		mg/Kg		94	80 - 120
Arsenic	10.0	8.83		mg/Kg		88	80 - 120
Barium	200	210		mg/Kg		105	80 - 120
Beryllium	5.00	4.74		mg/Kg		95	80 - 120
Boron	100	86.7		mg/Kg		87	80 - 120
Cadmium	5.00	4.52		mg/Kg		90	80 - 120
Calcium	1000	982		mg/Kg		98	80 - 120
Chromium	20.0	19.3		mg/Kg		96	80 - 120
Cobalt	50.0	47.4		mg/Kg		95	80 - 120
Copper	25.0	24.2		mg/Kg		97	80 - 120
Iron	100	116		mg/Kg		116	80 - 120
Lead	10.0	9.19		mg/Kg		92	80 - 120
Magnesium	1000	975		mg/Kg		97	80 - 120
Manganese	50.0	48.2		mg/Kg		96	80 - 120

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

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

**Lab Sample ID: LCS 500-626513/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626836**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626513**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nickel	50.0	48.6		mg/Kg		97	80 - 120
Potassium	1000	997		mg/Kg		100	80 - 120
Selenium	10.0	8.07		mg/Kg		81	80 - 120
Silver	5.00	4.71		mg/Kg		94	80 - 120
Sodium	1000	1030		mg/Kg		103	80 - 120
Thallium	10.0	9.01		mg/Kg		90	80 - 120
Vanadium	50.0	46.7		mg/Kg		93	80 - 120
Zinc	50.0	47.5		mg/Kg		95	80 - 120

**Lab Sample ID: LB 500-624872/1-B**  
**Matrix: Solid**  
**Analysis Batch: 625354**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 625181**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.50		0.50	0.050	mg/L		10/25/21 08:30	10/25/21 16:12	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/25/21 08:30	10/25/21 16:12	1
Boron	<0.50		0.50	0.050	mg/L		10/25/21 08:30	10/25/21 16:12	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/25/21 08:30	10/25/21 16:12	1
Chromium	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:12	1
Cobalt	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:12	1
Iron	<0.40		0.40	0.20	mg/L		10/25/21 08:30	10/25/21 16:12	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/25/21 08:30	10/25/21 16:12	1
Nickel	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:12	1
Selenium	<0.050		0.050	0.020	mg/L		10/25/21 08:30	10/25/21 16:12	1
Silver	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:12	1
Zinc	<0.50	^+	0.50	0.020	mg/L		10/25/21 08:30	10/25/21 16:12	1

**Lab Sample ID: LB 500-624872/1-B**  
**Matrix: Solid**  
**Analysis Batch: 625539**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 625181**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/26/21 14:45	1

**Lab Sample ID: LB 500-624891/21-B**  
**Matrix: Solid**  
**Analysis Batch: 625619**

**Client Sample ID: Method Blank**  
**Prep Type: SPLP East**  
**Prep Batch: 625182**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	<0.025		0.025	0.010	mg/L		10/25/21 08:33	10/26/21 17:15	1

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

**Lab Sample ID: LCS 500-625181/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625693**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625181**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.500		mg/L		100	80 - 120
Thallium	0.100	0.116		mg/L		116	80 - 120

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# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

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

Lab Sample ID: LB 500-624872/1-B  
 Matrix: Solid  
 Analysis Batch: 625693

Client Sample ID: Method Blank  
 Prep Type: TCLP  
 Prep Batch: 625181

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/25/21 08:30	10/26/21 15:05	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/25/21 08:30	10/26/21 15:05	1

## Method: 7470A - TCLP Mercury

Lab Sample ID: MB 500-625462/12-A  
 Matrix: Solid  
 Analysis Batch: 625700

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 625462

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 08:13	1

Lab Sample ID: LCS 500-625462/14-A  
 Matrix: Solid  
 Analysis Batch: 625700

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 625462

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00183		mg/L		91	80 - 120

Lab Sample ID: LB 500-624872/1-C  
 Matrix: Solid  
 Analysis Batch: 625700

Client Sample ID: Method Blank  
 Prep Type: TCLP  
 Prep Batch: 625462

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 08:16	1

## Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 500-625696/12-A  
 Matrix: Solid  
 Analysis Batch: 625923

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 625696

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0056	mg/Kg		10/27/21 14:15	10/28/21 06:34	1

Lab Sample ID: LCS 500-625696/13-A  
 Matrix: Solid  
 Analysis Batch: 625923

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 625696

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.167	0.175		mg/Kg		105	80 - 120

# Lab Chronicle

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

**Client Sample ID: 2674V2-13-B03 (0-2)**

**Lab Sample ID: 500-207059-1**

**Date Collected: 10/18/21 12:40**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6010B		1	625354	10/25/21 16:51	JJB	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6010B		1	625539	10/26/21 14:58	JJB	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6020A		1	625693	10/26/21 15:18	FXG	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	7470A			625462	10/26/21 09:55	MJG	TAL CHI
TCLP	Analysis	7470A		1	625700	10/27/21 08:39	MJG	TAL CHI
Total/NA	Analysis	9045D		1	624833	10/21/21 17:45	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	624697	10/21/21 08:57	LWN	TAL CHI

**Client Sample ID: 2674V2-13-B03 (0-2)**

**Lab Sample ID: 500-207059-1**

**Date Collected: 10/18/21 12:40**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 82.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624911	10/19/21 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625243	10/25/21 21:17	PMF	TAL CHI
Total/NA	Prep	3541			625120	10/25/21 06:38	SB	TAL CHI
Total/NA	Analysis	8270D		1	626713	11/02/21 15:13	EMA	TAL CHI
Total/NA	Prep	3050B			626513	11/01/21 10:16	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626836	11/02/21 14:02	JJB	TAL CHI
Total/NA	Prep	3050B			626513	11/01/21 10:16	BDE	TAL CHI
Total/NA	Analysis	6010B		5	626854	11/02/21 14:48	JJB	TAL CHI
Total/NA	Prep	7471B			625696	10/27/21 14:15	MJG	TAL CHI
Total/NA	Analysis	7471B		1	625923	10/28/21 07:15	MJG	TAL CHI

**Client Sample ID: 2674V2-13-B02 (0-5)**

**Lab Sample ID: 500-207059-2**

**Date Collected: 10/18/21 12:50**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			624891	10/21/21 15:30	OAJ	TAL CHI
SPLP East	Prep	3010A			625182	10/25/21 08:33	BDE	TAL CHI
SPLP East	Analysis	6010B		1	625619	10/26/21 18:21	JJB	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6010B		1	625354	10/25/21 16:54	JJB	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6010B		1	625539	10/26/21 15:01	JJB	TAL CHI

Eurofins TestAmerica, Chicago

# Lab Chronicle

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

**Client Sample ID: 2674V2-13-B02 (0-5)**

**Lab Sample ID: 500-207059-2**

**Date Collected: 10/18/21 12:50**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6020A		1	625693	10/26/21 15:19	FXG	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	7470A			625462	10/26/21 09:55	MJG	TAL CHI
TCLP	Analysis	7470A		1	625700	10/27/21 08:41	MJG	TAL CHI
Total/NA	Analysis	9045D		1	624833	10/21/21 17:48	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	624697	10/21/21 08:57	LWN	TAL CHI

**Client Sample ID: 2674V2-13-B02 (0-5)**

**Lab Sample ID: 500-207059-2**

**Date Collected: 10/18/21 12:50**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 85.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624911	10/19/21 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625243	10/25/21 21:43	PMF	TAL CHI
Total/NA	Prep	3541			625120	10/25/21 06:38	SB	TAL CHI
Total/NA	Analysis	8270D		1	626713	11/02/21 16:25	EMA	TAL CHI
Total/NA	Prep	3050B			626513	11/01/21 10:16	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626836	11/02/21 14:05	JJB	TAL CHI
Total/NA	Prep	7471B			625696	10/27/21 14:15	MJG	TAL CHI
Total/NA	Analysis	7471B		1	625923	10/28/21 07:22	MJG	TAL CHI

**Client Sample ID: 2674V2-13-B01 (0-5)**

**Lab Sample ID: 500-207059-3**

**Date Collected: 10/18/21 13:06**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6010B		1	625354	10/25/21 16:58	JJB	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6010B		1	625539	10/26/21 15:04	JJB	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6020A		1	625693	10/26/21 15:20	FXG	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	7470A			625462	10/26/21 09:55	MJG	TAL CHI
TCLP	Analysis	7470A		1	625700	10/27/21 08:43	MJG	TAL CHI
Total/NA	Analysis	9045D		1	624833	10/21/21 17:50	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	624697	10/21/21 08:57	LWN	TAL CHI



# Lab Chronicle

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

**Client Sample ID: 2674V2-13-B01 (0-5)**

**Lab Sample ID: 500-207059-3**

**Date Collected: 10/18/21 13:06**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 78.8**

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	5035			624911	10/19/21 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625243	10/25/21 22:08	PMF	TAL CHI
Total/NA	Prep	3541			625120	10/25/21 06:38	SB	TAL CHI
Total/NA	Analysis	8270D		1	626713	11/02/21 16:49	EMA	TAL CHI
Total/NA	Prep	3050B			626513	11/01/21 10:16	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626836	11/02/21 14:08	JJB	TAL CHI
Total/NA	Prep	7471B			625696	10/27/21 14:15	MJG	TAL CHI
Total/NA	Analysis	7471B		1	625923	10/28/21 07:23	MJG	TAL CHI

### Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Accreditation/Certification Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207059-1

## Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

1

2

3

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10

11

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14

15

# Chain of Custody Record

546547



Environment Testing  
TestAmerica

Address \_\_\_\_\_

Regulatory Program:  DW  NPDES  RCRA  Other

TAL-8210

<b>Client Contact</b> Company Name <u>WSP</u> Address _____ City/State/Zip <u>Chicago IL</u> Phone _____ Fax _____ Project Name <u>LOT WOOD</u> 500-207059 COC Site <u>Lake Villa IL</u> P O # _____		<b>Project Manager:</b> <u>D Tielrodt</u> Tel/Email: _____ <b>Analysis Turnaround Time</b> <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		<b>Site Contact:</b> <u>A Happe</u> Lab Contact <u>R Wright</u> Date: <u>10/18/2021</u> Carrier: _____		COC No <u>8</u> <u>8</u> of <u>11</u> COCs Sampler _____ For Lab Use Only: Walk-in Client _____ Lab Sampling _____ Job / SDG No <u>500-207059</u>					
<b>Sample Identification</b>			Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N) Perform MS / MSD (Y/N)	VOCs PH SVOCs Y. moisture total metals TCLP metals*	Sample Specific Notes	
1 2 3 267402-13-B03 (0-2)			10/18/21	1240	C S	S	2	X X X X X X	X X X X X X		
267402-13-B02 (0-5)			10/18/21	1250	C S	S	2	X X X X X X	X X X X X X		
267402-13-B01 (0-5)			10/18/21	1306	C S	S	2	X X X X X X	X X X X X X		
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____											
<b>Possible Hazard Identification</b> Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown						<b>Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)</b> <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months					
<b>Special Instructions/QC Requirements &amp; Comments:</b> * SPLP analysis based on TCLP results											
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No			Custody Seal No _____			Cooler Temp (°C) Obs'd <u>5.4</u> Corr'd <u>5.3</u>			Therm ID No _____		
Relinquished by <u>[Signature]</u>		Company <u>WSP</u>		Date/Time <u>10/18/21 10:15</u>		Received by <u>[Signature]</u>		Company <u>EVA</u>		Date/Time <u>10/19/21 0920</u>	
Re-inquished by <u>[Signature]</u>		Company <u>EVA</u>		Date/Time <u>10/19/21/11:5</u>		Received by _____		Company _____		Date/Time _____	
e n s h e d by _____		Company _____		Date/Time _____		Received in Laboratory by <u>[Signature]</u>		Company <u>EVA-EHT</u>		Date/Time <u>10/19/21 11:15</u>	

# Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 500-207059-1

**Login Number: 207059**

**List Source: Eurofins TestAmerica, Chicago**

**List Number: 1**

**Creator: Scott, Sherri L**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





# Illinois Environmental Protection Agency

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

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

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

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

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

### I. Source Location Information

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

Project Name: FAP 541 (Illinois Route 132) Office Phone Number, if available: \_\_\_\_\_

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

31 Cedar Avenue (ISGS #2674V2-14)

City: Lake Villa State: IL Zip Code: 60046

County: Lake Township: Lake Villa

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

Latitude: 42.41577 Longitude: - 88.0816

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

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

Approximate Start Date (mm/dd/yyyy): \_\_\_\_\_ Approximate End Date (mm/dd/yyyy): \_\_\_\_\_

Estimated Volume of debris (cu. Yd.): 290

### 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 2674V2-14-B01 and -B02 were sampled within the construction zone adjacent to ISGS #2674V2-14 (Country Financial). Refer to PSI Report for ISGS #2674V2-14 (Country Financial) including Table 4-4, and Figures 4-3 and 4-6.

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]:

See attached data summary table and associated laboratory data package J207058-1.

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

I, Tom Campbell (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: WSP USA  
Street Address: 115 W Washington St., Suite 1270S  
City: Indianapolis State: IN Zip Code: 46204  
Phone: (317) 972-1706

Tom Campbell  
Printed Name:



*Tom Campbell*  
Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

02/03/2022  
Date:

Expires 11/30/2023



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

**Analytical Data Summary**  
**PTB #196-002; Work Order 04 - IDOT Job # P-91-583-12**

**Key to Data Tables**

- MAC = Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- TACO = Tiered Approach to Corrective Action Objectives
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers and Shading**

- # = pH is less than 6.25 or greater than 9.0 standard units.
- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- r = Concentration exceeds a TACO Tier 1 RO for the Residential Soil Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds applicable comparison criteria.

PTB #196-002; Work Order 04 - IDOT Job # P-91-583-12

CONTAMINANTS OF CONCERN

SITE	ISGS #2674V2-14 (Country Financial)		Comparison Criteria						
	2674V2-14-B01	2674V2-14-B02	MACs			TACO			
BORING	2674V2-14-B01	2674V2-14-B02							
SAMPLE	2674V2-14-B01 (0-5)	2674V2-14-B02 (0-2)							
MATRIX	Soil	Soil							
DEPTH (feet)	0-5	0-2							
pH	9.0	8.3							
PID (meter units)	--	--	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER	
<b>VOCs (None Detected)</b>									
<b>SVOCs (mg/kg)</b>									
2-Methylnaphthalene	ND U	0.018 J	--	--	--	--	--	--	--
Anthracene	0.017 J	ND U	12,000	--	--	23,000	610,000	--	--
Benzo(a)anthracene	0.074	0.0068 J	0.9	1.8	1.1	1.8	170	--	--
Benzo(a)pyrene	0.072	0.014 J	0.09	2.1	1.3	2.1	17	--	--
Benzo(b)fluoranthene	0.12	ND U	0.9	2.1	1.5	2.1	170	--	--
Benzo(g,h,i)perylene	0.033 J	ND U	--	--	--	--	--	--	--
Benzo(k)fluoranthene	0.044	ND U	9	--	--	9	1,700	--	--
Chrysene	0.087	ND U	88	--	--	88	17,000	--	--
Dibenz(a,h)anthracene	0.013 J	ND U	0.09	0.42	0.2	0.42	17	--	--
Fluoranthene	0.14	0.012 J	3,100	--	--	3,100	82,000	--	--
Indeno(1,2,3-cd)pyrene	0.043	ND U	0.9	1.6	0.9	1.6	170	--	--
Naphthalene	ND U	0.012 J	1.8	--	--	170	1.8	--	--
Phenanthrene	0.087	0.014 J	--	--	--	--	--	--	--
Pyrene	0.11	0.011 J	2,300	--	--	2,300	61,000	--	--
<b>Inorganics (mg/kg)</b>									
Arsenic	5.2	7.8	11.3	13	--	13	61	--	--
Barium	31	54	1,500	--	--	5,500	14,000	--	--
Beryllium	0.52	1.0	22	--	--	160	410	--	--
Boron	6.4	5.7	40	--	--	16,000	41,000	--	--
Calcium	63,000	1,600	--	--	--	--	--	--	--
Chromium	11	20	21	--	--	230	690	--	--
Cobalt	7.8	16	20	--	--	4,700	12,000	--	--
Copper	17	21	2,900	--	--	2,900	8,200	--	--
Iron	14,000	24,000 †m	15,000	15,900	--	--	--	--	--
Lead	17	29	107	--	--	400	700	--	--
Magnesium	27,000	3,200	325,000	--	--	--	730,000	--	--
Manganese	390	610	630	636	--	1,600	4,100	--	--
Mercury	0.022	0.056	0.89	--	--	10	0.1	--	--
Nickel	19	34	100	--	--	1,600	4,100	--	--
Potassium	1,500	2,100	--	--	--	--	--	--	--
Silver	0.22 J	0.47	4.4	--	--	390	1,000	--	--
Sodium	260	880	--	--	--	--	--	--	--
Thallium	0.38 J	0.69	2.6	--	--	6.3	160	--	--
Vanadium	17	28	550	--	--	550	1,400	--	--
Zinc	51	130	5,100	--	--	23,000	61,000	--	--
<b>TCLP Metals (mg/L)</b>									
Barium	0.30 J	0.18 J	--	--	--	--	--	--	2
Boron	ND U	0.082 J	--	--	--	--	--	--	2
Iron	ND U	1.6	--	--	--	--	--	--	5
Manganese	0.59 J L	0.081	--	--	--	--	--	--	0.15
Zinc	ND UJ	0.079 J	--	--	--	--	--	--	5
<b>SPLP Metals (mg/L)</b>									
Manganese	0.89 L	NA	--	--	--	--	--	--	0.15



## ANALYTICAL REPORT

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

Laboratory Job ID: 500-207058-1

Client Project/Site: IDOT - 196-002-WO04 Lake Villa

**For:**

WSP USA Inc.  
30 North LaSalle Street  
Chicago, Illinois 60602

Attn: Dean Tiebot



Authorized for release by:  
11/2/2021 5:47:37 PM

Richard Wright, Senior Project Manager  
(708)746-0045  
[Richard.Wright@Eurofinset.com](mailto:Richard.Wright@Eurofinset.com)

### LINKS

Review your project  
results through  
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*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

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

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



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# Case Narrative

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207058-1

## Job ID: 500-207058-1

### Laboratory: Eurofins TestAmerica, Chicago

#### Narrative

#### Job Narrative 500-207058-1

#### Receipt

The samples were received on 10/19/2021 11:15 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 5.3° C and 5.6° C.

#### GC/MS VOA

Method 8260B: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for 625243 recovered outside control limits for the following analytes: Bromomethane and Chloroethane. These analytes were biased high in the LCS/LCSD and were not detected in the associated samples; therefore, the data have been reported. 2674V2-14-B01 (0-5) (500-207058-1) and 2674V2-14-B02 (0-2) (500-207058-2)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC/MS Semi VOA

Method 8270D: Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when utilizing this list of analytes. The LCS associated with preparation batch 500-624996 and analytical batch 500-625890 had 3 analytes outside control limits: 2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol and Hexachlorocyclopentadiene. These results have been reported and qualified.

Method 8270D: The continuing calibration verification (CCV) analyzed in batch 500-625890 was outside the method criteria for the following analyte(s): 2,4-Dinitrophenol, 4-Nitrophenol, Di-n-octyl phthalate, Hexachlorocyclopentadiene and Pentachlorophenol. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

Method 6010B: The continuing calibration verification (CCV) associated with batch 500-625354 recovered above the upper control limit for Zinc. The samples associated with this CCV were below the reporting limit for the affected analytes; therefore, the data have been reported. The associated samples are impacted: 2674V2-14-B01 (0-5) (500-207058-1) and 2674V2-14-B02 (0-2) (500-207058-2).

Method 6010B: The continuing calibration blank (CCB) for 500-625354 contained Manganese above the reporting limit (RL). Associated sample 2674V2-14-B01 (0-5) (500-207058-1) was not re-analyzed because results were greater than 10X the value found in the CCB.

2674V2-14-B01 (0-5) (500-207058-1)

Method 6010B: The continuing calibration blanks (CCB) contained Iron above the reporting limit (RL). The sample 2674V2-14-B01 (0-5) (500-207058-1) associated with this CCB was below the reporting limit for the target compound; therefore, re-analysis of samples was not performed.

2674V2-14-B01 (0-5) (500-207058-1)

Method 6010B: The method blank for preparation batch 500-626511 and analytical batch 500-626836 contained Calcium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method 6010B: The method blank for preparation batch 500-626511 and analytical batch 500-626854 contained Calcium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### General Chemistry

# Case Narrative

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207058-1

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## Job ID: 500-207058-1 (Continued)

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### Laboratory: Eurofins TestAmerica, Chicago (Continued)

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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# Detection Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207058-1

**Client Sample ID: 2674V2-14-B01 (0-5)**

**Lab Sample ID: 500-207058-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.087		0.037	0.0052	mg/Kg	1	✳	8270D	Total/NA
Anthracene	0.017	J	0.037	0.0063	mg/Kg	1	✳	8270D	Total/NA
Fluoranthene	0.14		0.037	0.0069	mg/Kg	1	✳	8270D	Total/NA
Pyrene	0.11		0.037	0.0074	mg/Kg	1	✳	8270D	Total/NA
Benzo[a]anthracene	0.074		0.037	0.0050	mg/Kg	1	✳	8270D	Total/NA
Chrysene	0.087		0.037	0.010	mg/Kg	1	✳	8270D	Total/NA
Benzo[b]fluoranthene	0.12		0.037	0.0081	mg/Kg	1	✳	8270D	Total/NA
Benzo[k]fluoranthene	0.044		0.037	0.011	mg/Kg	1	✳	8270D	Total/NA
Benzo[a]pyrene	0.072		0.037	0.0072	mg/Kg	1	✳	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.043		0.037	0.0097	mg/Kg	1	✳	8270D	Total/NA
Dibenz(a,h)anthracene	0.013	J	0.037	0.0072	mg/Kg	1	✳	8270D	Total/NA
Benzo[g,h,i]perylene	0.033	J	0.037	0.012	mg/Kg	1	✳	8270D	Total/NA
Antimony	0.51	J B	1.1	0.21	mg/Kg	1	✳	6010B	Total/NA
Arsenic	5.2		0.55	0.19	mg/Kg	1	✳	6010B	Total/NA
Barium	31	B	0.55	0.062	mg/Kg	1	✳	6010B	Total/NA
Beryllium	0.52		0.22	0.051	mg/Kg	1	✳	6010B	Total/NA
Boron	6.4		2.7	0.25	mg/Kg	1	✳	6010B	Total/NA
Cadmium	0.092	J B	0.11	0.020	mg/Kg	1	✳	6010B	Total/NA
Calcium	63000	B	55	9.3	mg/Kg	5	✳	6010B	Total/NA
Chromium	11		0.55	0.27	mg/Kg	1	✳	6010B	Total/NA
Cobalt	7.8		0.27	0.072	mg/Kg	1	✳	6010B	Total/NA
Copper	17	B	0.55	0.15	mg/Kg	1	✳	6010B	Total/NA
Iron	14000	B	11	5.7	mg/Kg	1	✳	6010B	Total/NA
Lead	17		0.27	0.13	mg/Kg	1	✳	6010B	Total/NA
Magnesium	27000	B	5.5	2.7	mg/Kg	1	✳	6010B	Total/NA
Manganese	390		0.55	0.079	mg/Kg	1	✳	6010B	Total/NA
Nickel	19		0.55	0.16	mg/Kg	1	✳	6010B	Total/NA
Potassium	1500		27	9.7	mg/Kg	1	✳	6010B	Total/NA
Silver	0.22	J	0.27	0.071	mg/Kg	1	✳	6010B	Total/NA
Sodium	260		55	8.1	mg/Kg	1	✳	6010B	Total/NA
Thallium	0.38	J	0.55	0.27	mg/Kg	1	✳	6010B	Total/NA
Vanadium	17		0.27	0.064	mg/Kg	1	✳	6010B	Total/NA
Zinc	51	B	1.1	0.48	mg/Kg	1	✳	6010B	Total/NA
Barium	0.30	J	0.50	0.050	mg/L	1		6010B	TCLP
Manganese	0.59	^2	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	0.89		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.022		0.018	0.0059	mg/Kg	1	✳	7471B	Total/NA
pH	9.0		0.2	0.2	SU	1		9045D	Total/NA

**Client Sample ID: 2674V2-14-B02 (0-2)**

**Lab Sample ID: 500-207058-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.012	J	0.037	0.0058	mg/Kg	1	✳	8270D	Total/NA
2-Methylnaphthalene	0.018	J	0.076	0.0069	mg/Kg	1	✳	8270D	Total/NA
Phenanthrene	0.014	J	0.037	0.0052	mg/Kg	1	✳	8270D	Total/NA
Fluoranthene	0.012	J	0.037	0.0070	mg/Kg	1	✳	8270D	Total/NA
Pyrene	0.011	J	0.037	0.0075	mg/Kg	1	✳	8270D	Total/NA
Benzo[a]anthracene	0.0068	J	0.037	0.0050	mg/Kg	1	✳	8270D	Total/NA
Benzo[a]pyrene	0.014	J	0.037	0.0073	mg/Kg	1	✳	8270D	Total/NA
Antimony	0.41	J B	1.1	0.21	mg/Kg	1	✳	6010B	Total/NA
Arsenic	7.8		0.55	0.19	mg/Kg	1	✳	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Detection Summary

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207058-1

**Client Sample ID: 2674V2-14-B02 (0-2) (Continued)**

**Lab Sample ID: 500-207058-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	54	B	0.55	0.062	mg/Kg	1	✳	6010B	Total/NA
Beryllium	1.0		0.22	0.051	mg/Kg	1	✳	6010B	Total/NA
Boron	5.7		2.7	0.25	mg/Kg	1	✳	6010B	Total/NA
Calcium	1600	B	11	1.9	mg/Kg	1	✳	6010B	Total/NA
Chromium	20		0.55	0.27	mg/Kg	1	✳	6010B	Total/NA
Cobalt	16		0.27	0.072	mg/Kg	1	✳	6010B	Total/NA
Copper	21	B	0.55	0.15	mg/Kg	1	✳	6010B	Total/NA
Iron	24000	B	11	5.7	mg/Kg	1	✳	6010B	Total/NA
Lead	29		0.27	0.13	mg/Kg	1	✳	6010B	Total/NA
Magnesium	3200	B	5.5	2.7	mg/Kg	1	✳	6010B	Total/NA
Manganese	610		0.55	0.079	mg/Kg	1	✳	6010B	Total/NA
Nickel	34		0.55	0.16	mg/Kg	1	✳	6010B	Total/NA
Potassium	2100		27	9.7	mg/Kg	1	✳	6010B	Total/NA
Silver	0.47		0.27	0.071	mg/Kg	1	✳	6010B	Total/NA
Sodium	880		55	8.1	mg/Kg	1	✳	6010B	Total/NA
Thallium	0.69		0.55	0.27	mg/Kg	1	✳	6010B	Total/NA
Vanadium	28		0.27	0.064	mg/Kg	1	✳	6010B	Total/NA
Zinc	130	B	1.1	0.48	mg/Kg	1	✳	6010B	Total/NA
Barium	0.18	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.082	J	0.50	0.050	mg/L	1		6010B	TCLP
Iron	1.6		0.40	0.20	mg/L	1		6010B	TCLP
Manganese	0.081		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.079	J ^+	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.056		0.018	0.0061	mg/Kg	1	✳	7471B	Total/NA
pH	8.3		0.2	0.2	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Method Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207058-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CHI
6010B	Metals (ICP)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
7470A	TCLP Mercury	SW846	TAL CHI
7471B	Mercury (CVAA)	SW846	TAL CHI
9045D	pH	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
1311	TCLP Extraction	SW846	TAL CHI
1312	SPLP Extraction	SW846	TAL CHI
3010A	Preparation, Total Metals	SW846	TAL CHI
3050B	Preparation, Metals	SW846	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI
5035	Closed System Purge and Trap	SW846	TAL CHI
7470A	Preparation, Mercury	SW846	TAL CHI
7471B	Preparation, Mercury	SW846	TAL CHI

#### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Sample Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207058-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-207058-1	2674V2-14-B01 (0-5)	Solid	10/18/21 13:23	10/19/21 11:15
500-207058-2	2674V2-14-B02 (0-2)	Solid	10/18/21 12:30	10/19/21 11:15

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# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207058-1

**Client Sample ID: 2674V2-14-B01 (0-5)**

**Lab Sample ID: 500-207058-1**

Date Collected: 10/18/21 13:23

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 86.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.017		0.017	0.0075	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
Bromomethane	<0.0043	*+	0.0043	0.0016	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
Carbon disulfide	<0.0043		0.0043	0.00090	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
Chlorobenzene	<0.0017		0.0017	0.00064	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
Chloroethane	<0.0043	*+	0.0043	0.0013	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
Chloroform	<0.0017		0.0017	0.00060	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
1,1-Dichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
1,2-Dichloropropane	<0.0017		0.0017	0.00045	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00061	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
Ethylbenzene	<0.0017		0.0017	0.00083	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00051	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
Tetrachloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
Toluene	<0.0017		0.0017	0.00044	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00076	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00061	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
1,1,1-Trichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00074	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
Vinyl acetate	<0.0043		0.0043	0.0015	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
Vinyl chloride	<0.0017		0.0017	0.00076	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1
Xylenes, Total	<0.0035		0.0035	0.00055	mg/Kg	☼	10/19/21 18:28	10/25/21 20:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		75 - 131	10/19/21 18:28	10/25/21 20:27	1
Dibromofluoromethane	98		75 - 126	10/19/21 18:28	10/25/21 20:27	1
1,2-Dichloroethane-d4 (Surr)	102		70 - 134	10/19/21 18:28	10/25/21 20:27	1
Toluene-d8 (Surr)	95		75 - 124	10/19/21 18:28	10/25/21 20:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.083	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207058-1

**Client Sample ID: 2674V2-14-B01 (0-5)**

**Lab Sample ID: 500-207058-1**

**Date Collected: 10/18/21 13:23**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 86.9**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.046	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
Nitrobenzene	<0.037		0.037	0.0093	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
Naphthalene	<0.037		0.037	0.0058	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
4-Chloroaniline	<0.75		0.75	0.18	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
Hexachlorocyclopentadiene	<0.75	*	0.75	0.22	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
2-Methylnaphthalene	<0.075		0.075	0.0069	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
2,4-Dinitrophenol	<0.75	*	0.75	0.66	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
4-Nitrophenol	<0.75		0.75	0.36	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
Hexachlorobenzene	<0.075		0.075	0.0087	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
Pentachlorophenol	<0.75		0.75	0.60	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
4,6-Dinitro-2-methylphenol	<0.75	*	0.75	0.30	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
<b>Phenanthrene</b>	<b>0.087</b>		0.037	0.0052	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
<b>Anthracene</b>	<b>0.017</b>	J	0.037	0.0063	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
<b>Fluoranthene</b>	<b>0.14</b>		0.037	0.0069	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
<b>Pyrene</b>	<b>0.11</b>		0.037	0.0074	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
<b>Benzo[a]anthracene</b>	<b>0.074</b>		0.037	0.0050	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1

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# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207058-1

**Client Sample ID: 2674V2-14-B01 (0-5)**

**Lab Sample ID: 500-207058-1**

Date Collected: 10/18/21 13:23

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 86.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chrysene</b>	<b>0.087</b>		0.037	0.010	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
<b>Benzo[b]fluoranthene</b>	<b>0.12</b>		0.037	0.0081	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
<b>Benzo[k]fluoranthene</b>	<b>0.044</b>		0.037	0.011	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
<b>Benzo[a]pyrene</b>	<b>0.072</b>		0.037	0.0072	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.043</b>		0.037	0.0097	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
<b>Dibenz(a,h)anthracene</b>	<b>0.013</b>	<b>J</b>	0.037	0.0072	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
<b>Benzo[g,h,i]perylene</b>	<b>0.033</b>	<b>J</b>	0.037	0.012	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	10/22/21 17:35	10/28/21 16:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	114		31 - 166	10/22/21 17:35	10/28/21 16:43	1
Phenol-d5	121		30 - 153	10/22/21 17:35	10/28/21 16:43	1
Nitrobenzene-d5 (Surr)	91		37 - 147	10/22/21 17:35	10/28/21 16:43	1
2-Fluorobiphenyl (Surr)	103		43 - 145	10/22/21 17:35	10/28/21 16:43	1
2,4,6-Tribromophenol	86		31 - 143	10/22/21 17:35	10/28/21 16:43	1
Terphenyl-d14 (Surr)	104		42 - 157	10/22/21 17:35	10/28/21 16:43	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.51</b>	<b>J B</b>	1.1	0.21	mg/Kg	☼	11/01/21 10:13	11/02/21 11:40	1
<b>Arsenic</b>	<b>5.2</b>		0.55	0.19	mg/Kg	☼	11/01/21 10:13	11/02/21 11:40	1
<b>Barium</b>	<b>31</b>	<b>B</b>	0.55	0.062	mg/Kg	☼	11/01/21 10:13	11/02/21 11:40	1
<b>Beryllium</b>	<b>0.52</b>		0.22	0.051	mg/Kg	☼	11/01/21 10:13	11/02/21 11:40	1
<b>Boron</b>	<b>6.4</b>		2.7	0.25	mg/Kg	☼	11/01/21 10:13	11/02/21 11:40	1
<b>Cadmium</b>	<b>0.092</b>	<b>J B</b>	0.11	0.020	mg/Kg	☼	11/01/21 10:13	11/02/21 11:40	1
<b>Calcium</b>	<b>63000</b>	<b>B</b>	55	9.3	mg/Kg	☼	11/01/21 10:13	11/02/21 12:39	5
<b>Chromium</b>	<b>11</b>		0.55	0.27	mg/Kg	☼	11/01/21 10:13	11/02/21 11:40	1
<b>Cobalt</b>	<b>7.8</b>		0.27	0.072	mg/Kg	☼	11/01/21 10:13	11/02/21 11:40	1
<b>Copper</b>	<b>17</b>	<b>B</b>	0.55	0.15	mg/Kg	☼	11/01/21 10:13	11/02/21 11:40	1
<b>Iron</b>	<b>14000</b>	<b>B</b>	11	5.7	mg/Kg	☼	11/01/21 10:13	11/02/21 11:40	1
<b>Lead</b>	<b>17</b>		0.27	0.13	mg/Kg	☼	11/01/21 10:13	11/02/21 11:40	1
<b>Magnesium</b>	<b>27000</b>	<b>B</b>	5.5	2.7	mg/Kg	☼	11/01/21 10:13	11/02/21 11:40	1
<b>Manganese</b>	<b>390</b>		0.55	0.079	mg/Kg	☼	11/01/21 10:13	11/02/21 11:40	1
<b>Nickel</b>	<b>19</b>		0.55	0.16	mg/Kg	☼	11/01/21 10:13	11/02/21 11:40	1
<b>Potassium</b>	<b>1500</b>		27	9.7	mg/Kg	☼	11/01/21 10:13	11/02/21 11:40	1
Selenium	<0.55		0.55	0.32	mg/Kg	☼	11/01/21 10:13	11/02/21 11:40	1
<b>Silver</b>	<b>0.22</b>	<b>J</b>	0.27	0.071	mg/Kg	☼	11/01/21 10:13	11/02/21 11:40	1
<b>Sodium</b>	<b>260</b>		55	8.1	mg/Kg	☼	11/01/21 10:13	11/02/21 11:40	1
<b>Thallium</b>	<b>0.38</b>	<b>J</b>	0.55	0.27	mg/Kg	☼	11/01/21 10:13	11/02/21 11:40	1
<b>Vanadium</b>	<b>17</b>		0.27	0.064	mg/Kg	☼	11/01/21 10:13	11/02/21 11:40	1
<b>Zinc</b>	<b>51</b>	<b>B</b>	1.1	0.48	mg/Kg	☼	11/01/21 10:13	11/02/21 11:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>0.30</b>	<b>J</b>	0.50	0.050	mg/L		10/25/21 08:30	10/25/21 16:45	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/25/21 08:30	10/25/21 16:45	1
Boron	<0.50		0.50	0.050	mg/L		10/25/21 08:30	10/25/21 16:45	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207058-1

**Client Sample ID: 2674V2-14-B01 (0-5)**

**Lab Sample ID: 500-207058-1**

Date Collected: 10/18/21 13:23

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 86.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/25/21 08:30	10/25/21 16:45	1
Chromium	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:45	1
Cobalt	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:45	1
Iron	<0.40		0.40	0.20	mg/L		10/25/21 08:30	10/25/21 16:45	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/25/21 08:30	10/25/21 16:45	1
<b>Manganese</b>	<b>0.59</b>	<b>^2</b>	0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:45	1
Nickel	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:45	1
Selenium	<0.050		0.050	0.020	mg/L		10/25/21 08:30	10/25/21 16:45	1
Silver	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:45	1
Zinc	<0.50	^+	0.50	0.020	mg/L		10/25/21 08:30	10/25/21 16:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>0.89</b>		0.025	0.010	mg/L		10/25/21 08:33	10/26/21 18:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/25/21 08:30	10/26/21 15:14	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/25/21 08:30	10/26/21 15:14	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 08:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.022</b>		0.018	0.0059	mg/Kg	☼	10/27/21 14:15	10/28/21 07:11	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>9.0</b>		0.2	0.2	SU			10/21/21 17:38	1

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207058-1

**Client Sample ID: 2674V2-14-B02 (0-2)**

**Lab Sample ID: 500-207058-2**

Date Collected: 10/18/21 12:30

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 87.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.022		0.022	0.0094	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
Benzene	<0.0022		0.0022	0.00055	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
Bromodichloromethane	<0.0022		0.0022	0.00044	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
Bromoform	<0.0022		0.0022	0.00063	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
Bromomethane	<0.0054	*+	0.0054	0.0020	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
2-Butanone (MEK)	<0.0054		0.0054	0.0024	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
Carbon disulfide	<0.0054		0.0054	0.0011	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
Carbon tetrachloride	<0.0022		0.0022	0.00063	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
Chlorobenzene	<0.0022		0.0022	0.00080	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
Chloroethane	<0.0054	*+	0.0054	0.0016	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
Chloroform	<0.0022		0.0022	0.00075	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
Chloromethane	<0.0054		0.0054	0.0022	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
cis-1,2-Dichloroethene	<0.0022		0.0022	0.00060	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
cis-1,3-Dichloropropene	<0.0022		0.0022	0.00065	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
Dibromochloromethane	<0.0022		0.0022	0.00071	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
1,1-Dichloroethane	<0.0022		0.0022	0.00074	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
1,2-Dichloroethane	<0.0054		0.0054	0.0017	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
1,1-Dichloroethene	<0.0022		0.0022	0.00074	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
1,2-Dichloropropane	<0.0022		0.0022	0.00056	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
1,3-Dichloropropane, Total	<0.0022		0.0022	0.00076	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
Ethylbenzene	<0.0022		0.0022	0.0010	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
2-Hexanone	<0.0054		0.0054	0.0017	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
Methylene Chloride	<0.0054		0.0054	0.0021	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
4-Methyl-2-pentanone (MIBK)	<0.0054		0.0054	0.0016	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
Methyl tert-butyl ether	<0.0022		0.0022	0.00063	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
Styrene	<0.0022		0.0022	0.00065	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
1,1,2,2-Tetrachloroethane	<0.0022		0.0022	0.00069	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
Tetrachloroethene	<0.0022		0.0022	0.00074	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
Toluene	<0.0022		0.0022	0.00055	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
trans-1,2-Dichloroethene	<0.0022		0.0022	0.00096	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
trans-1,3-Dichloropropene	<0.0022		0.0022	0.00076	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
1,1,1-Trichloroethane	<0.0022		0.0022	0.00073	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
1,1,2-Trichloroethane	<0.0022		0.0022	0.00093	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
Trichloroethene	<0.0022		0.0022	0.00073	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
Vinyl acetate	<0.0054		0.0054	0.0019	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
Vinyl chloride	<0.0022		0.0022	0.00096	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1
Xylenes, Total	<0.0043		0.0043	0.00069	mg/Kg	☼	10/19/21 18:28	10/25/21 20:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		75 - 131	10/19/21 18:28	10/25/21 20:52	1
Dibromofluoromethane	97		75 - 126	10/19/21 18:28	10/25/21 20:52	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 134	10/19/21 18:28	10/25/21 20:52	1
Toluene-d8 (Surr)	94		75 - 124	10/19/21 18:28	10/25/21 20:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.083	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207058-1

**Client Sample ID: 2674V2-14-B02 (0-2)**

**Lab Sample ID: 500-207058-2**

Date Collected: 10/18/21 12:30

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 87.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
<b>Naphthalene</b>	<b>0.012</b>	<b>J</b>	0.037	0.0058	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
Hexachlorocyclopentadiene	<0.76	*	0.76	0.22	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
<b>2-Methylnaphthalene</b>	<b>0.018</b>	<b>J</b>	0.076	0.0069	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
2,4-Dinitrophenol	<0.76	*	0.76	0.66	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
Pentachlorophenol	<0.76		0.76	0.60	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
4,6-Dinitro-2-methylphenol	<0.76	*	0.76	0.30	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
<b>Phenanthrene</b>	<b>0.014</b>	<b>J</b>	0.037	0.0052	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
Anthracene	<0.037		0.037	0.0063	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
<b>Fluoranthene</b>	<b>0.012</b>	<b>J</b>	0.037	0.0070	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
<b>Pyrene</b>	<b>0.011</b>	<b>J</b>	0.037	0.0075	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
<b>Benzo[a]anthracene</b>	<b>0.0068</b>	<b>J</b>	0.037	0.0050	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207058-1

**Client Sample ID: 2674V2-14-B02 (0-2)**

**Lab Sample ID: 500-207058-2**

Date Collected: 10/18/21 12:30

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 87.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.037		0.037	0.010	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
Benzo[b]fluoranthene	<0.037		0.037	0.0081	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
<b>Benzo[a]pyrene</b>	<b>0.014</b>	<b>J</b>	0.037	0.0073	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0097	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0072	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	10/22/21 17:35	10/28/21 17:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	106		31 - 166	10/22/21 17:35	10/28/21 17:29	1
Phenol-d5	112		30 - 153	10/22/21 17:35	10/28/21 17:29	1
Nitrobenzene-d5 (Surr)	96		37 - 147	10/22/21 17:35	10/28/21 17:29	1
2-Fluorobiphenyl (Surr)	97		43 - 145	10/22/21 17:35	10/28/21 17:29	1
2,4,6-Tribromophenol	69		31 - 143	10/22/21 17:35	10/28/21 17:29	1
Terphenyl-d14 (Surr)	115		42 - 157	10/22/21 17:35	10/28/21 17:29	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</b>	1.1	0.21	mg/Kg	☼	11/01/21 10:13	11/02/21 11:43	1
<b>Arsenic</b>	<b>7.8</b>		0.55	0.19	mg/Kg	☼	11/01/21 10:13	11/02/21 11:43	1
<b>Barium</b>	<b>54</b>	<b>B</b>	0.55	0.062	mg/Kg	☼	11/01/21 10:13	11/02/21 11:43	1
<b>Beryllium</b>	<b>1.0</b>		0.22	0.051	mg/Kg	☼	11/01/21 10:13	11/02/21 11:43	1
<b>Boron</b>	<b>5.7</b>		2.7	0.25	mg/Kg	☼	11/01/21 10:13	11/02/21 11:43	1
Cadmium	<0.11		0.11	0.020	mg/Kg	☼	11/01/21 10:13	11/02/21 11:43	1
<b>Calcium</b>	<b>1600</b>	<b>B</b>	11	1.9	mg/Kg	☼	11/01/21 10:13	11/02/21 11:43	1
<b>Chromium</b>	<b>20</b>		0.55	0.27	mg/Kg	☼	11/01/21 10:13	11/02/21 11:43	1
<b>Cobalt</b>	<b>16</b>		0.27	0.072	mg/Kg	☼	11/01/21 10:13	11/02/21 11:43	1
<b>Copper</b>	<b>21</b>	<b>B</b>	0.55	0.15	mg/Kg	☼	11/01/21 10:13	11/02/21 11:43	1
<b>Iron</b>	<b>24000</b>	<b>B</b>	11	5.7	mg/Kg	☼	11/01/21 10:13	11/02/21 11:43	1
<b>Lead</b>	<b>29</b>		0.27	0.13	mg/Kg	☼	11/01/21 10:13	11/02/21 11:43	1
<b>Magnesium</b>	<b>3200</b>	<b>B</b>	5.5	2.7	mg/Kg	☼	11/01/21 10:13	11/02/21 11:43	1
<b>Manganese</b>	<b>610</b>		0.55	0.079	mg/Kg	☼	11/01/21 10:13	11/02/21 11:43	1
<b>Nickel</b>	<b>34</b>		0.55	0.16	mg/Kg	☼	11/01/21 10:13	11/02/21 11:43	1
<b>Potassium</b>	<b>2100</b>		27	9.7	mg/Kg	☼	11/01/21 10:13	11/02/21 11:43	1
Selenium	<0.55		0.55	0.32	mg/Kg	☼	11/01/21 10:13	11/02/21 11:43	1
<b>Silver</b>	<b>0.47</b>		0.27	0.071	mg/Kg	☼	11/01/21 10:13	11/02/21 11:43	1
<b>Sodium</b>	<b>880</b>		55	8.1	mg/Kg	☼	11/01/21 10:13	11/02/21 11:43	1
<b>Thallium</b>	<b>0.69</b>		0.55	0.27	mg/Kg	☼	11/01/21 10:13	11/02/21 11:43	1
<b>Vanadium</b>	<b>28</b>		0.27	0.064	mg/Kg	☼	11/01/21 10:13	11/02/21 11:43	1
<b>Zinc</b>	<b>130</b>	<b>B</b>	1.1	0.48	mg/Kg	☼	11/01/21 10:13	11/02/21 11:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>0.18</b>	<b>J</b>	0.50	0.050	mg/L		10/25/21 08:30	10/25/21 16:48	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/25/21 08:30	10/25/21 16:48	1
<b>Boron</b>	<b>0.082</b>	<b>J</b>	0.50	0.050	mg/L		10/25/21 08:30	10/25/21 16:48	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207058-1

**Client Sample ID: 2674V2-14-B02 (0-2)**

**Lab Sample ID: 500-207058-2**

Date Collected: 10/18/21 12:30

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 87.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/25/21 08:30	10/25/21 16:48	1
Chromium	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:48	1
Cobalt	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:48	1
<b>Iron</b>	<b>1.6</b>		0.40	0.20	mg/L		10/25/21 08:30	10/26/21 14:55	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/25/21 08:30	10/25/21 16:48	1
<b>Manganese</b>	<b>0.081</b>		0.025	0.010	mg/L		10/25/21 08:30	10/26/21 14:55	1
Nickel	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:48	1
Selenium	<0.050		0.050	0.020	mg/L		10/25/21 08:30	10/25/21 16:48	1
Silver	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:48	1
<b>Zinc</b>	<b>0.079</b>	<b>J ^+</b>	0.50	0.020	mg/L		10/25/21 08:30	10/25/21 16:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/25/21 08:30	10/26/21 15:17	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/25/21 08:30	10/26/21 15:17	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 08:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.056</b>		0.018	0.0061	mg/Kg	☼	10/27/21 14:15	10/28/21 07:13	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>8.3</b>		0.2	0.2	SU			10/21/21 17:43	1



# Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207058-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.

### GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
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
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## 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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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)
TNTC	Too Numerous To Count

# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207058-1

## GC/MS VOA

### Prep Batch: 624914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207058-1	2674V2-14-B01 (0-5)	Total/NA	Solid	5035	
500-207058-2	2674V2-14-B02 (0-2)	Total/NA	Solid	5035	

### Analysis Batch: 625243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207058-1	2674V2-14-B01 (0-5)	Total/NA	Solid	8260B	624914
500-207058-2	2674V2-14-B02 (0-2)	Total/NA	Solid	8260B	624914
MB 500-625243/7	Method Blank	Total/NA	Solid	8260B	
LCS 500-625243/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-625243/5	Lab Control Sample Dup	Total/NA	Solid	8260B	

## GC/MS Semi VOA

### Prep Batch: 624996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207058-1	2674V2-14-B01 (0-5)	Total/NA	Solid	3541	
500-207058-2	2674V2-14-B02 (0-2)	Total/NA	Solid	3541	
MB 500-624996/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-624996/2-A	Lab Control Sample	Total/NA	Solid	3541	

### Analysis Batch: 625890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207058-1	2674V2-14-B01 (0-5)	Total/NA	Solid	8270D	624996
500-207058-2	2674V2-14-B02 (0-2)	Total/NA	Solid	8270D	624996
MB 500-624996/1-A	Method Blank	Total/NA	Solid	8270D	624996
LCS 500-624996/2-A	Lab Control Sample	Total/NA	Solid	8270D	624996

## Metals

### Leach Batch: 624872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207058-1	2674V2-14-B01 (0-5)	TCLP	Solid	1311	
500-207058-2	2674V2-14-B02 (0-2)	TCLP	Solid	1311	
LB 500-624872/1-B	Method Blank	TCLP	Solid	1311	
LB 500-624872/1-C	Method Blank	TCLP	Solid	1311	

### Leach Batch: 624891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207058-1	2674V2-14-B01 (0-5)	SPLP East	Solid	1312	
LB 500-624891/21-B	Method Blank	SPLP East	Solid	1312	

### Prep Batch: 625181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207058-1	2674V2-14-B01 (0-5)	TCLP	Solid	3010A	624872
500-207058-2	2674V2-14-B02 (0-2)	TCLP	Solid	3010A	624872
LB 500-624872/1-B	Method Blank	TCLP	Solid	3010A	624872
LCS 500-625181/2-A	Lab Control Sample	Total/NA	Solid	3010A	

### Prep Batch: 625182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207058-1	2674V2-14-B01 (0-5)	SPLP East	Solid	3010A	624891
LB 500-624891/21-B	Method Blank	SPLP East	Solid	3010A	624891

Eurofins TestAmerica, Chicago

# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207058-1

## Metals (Continued)

### Prep Batch: 625182 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-625182/2-A	Lab Control Sample	Total/NA	Solid	3010A	

### Analysis Batch: 625354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207058-1	2674V2-14-B01 (0-5)	TCLP	Solid	6010B	625181
500-207058-2	2674V2-14-B02 (0-2)	TCLP	Solid	6010B	625181
LB 500-624872/1-B	Method Blank	TCLP	Solid	6010B	625181
LCS 500-625181/2-A	Lab Control Sample	Total/NA	Solid	6010B	625181

### Prep Batch: 625462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207058-1	2674V2-14-B01 (0-5)	TCLP	Solid	7470A	624872
500-207058-2	2674V2-14-B02 (0-2)	TCLP	Solid	7470A	624872
LB 500-624872/1-C	Method Blank	TCLP	Solid	7470A	624872
MB 500-625462/12-A	Method Blank	Total/NA	Solid	7470A	
LCS 500-625462/14-A	Lab Control Sample	Total/NA	Solid	7470A	

### Analysis Batch: 625539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207058-2	2674V2-14-B02 (0-2)	TCLP	Solid	6010B	625181

### Analysis Batch: 625619

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207058-1	2674V2-14-B01 (0-5)	SPLP East	Solid	6010B	625182
LB 500-624891/21-B	Method Blank	SPLP East	Solid	6010B	625182
LCS 500-625182/2-A	Lab Control Sample	Total/NA	Solid	6010B	625182

### Analysis Batch: 625693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207058-1	2674V2-14-B01 (0-5)	TCLP	Solid	6020A	625181
500-207058-2	2674V2-14-B02 (0-2)	TCLP	Solid	6020A	625181
LB 500-624872/1-B	Method Blank	TCLP	Solid	6020A	625181
LCS 500-625181/2-A	Lab Control Sample	Total/NA	Solid	6020A	625181

### Prep Batch: 625696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207058-1	2674V2-14-B01 (0-5)	Total/NA	Solid	7471B	
500-207058-2	2674V2-14-B02 (0-2)	Total/NA	Solid	7471B	
MB 500-625696/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-625696/13-A	Lab Control Sample	Total/NA	Solid	7471B	

### Analysis Batch: 625700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207058-1	2674V2-14-B01 (0-5)	TCLP	Solid	7470A	625462
500-207058-2	2674V2-14-B02 (0-2)	TCLP	Solid	7470A	625462
LB 500-624872/1-C	Method Blank	TCLP	Solid	7470A	625462
MB 500-625462/12-A	Method Blank	Total/NA	Solid	7470A	625462
LCS 500-625462/14-A	Lab Control Sample	Total/NA	Solid	7470A	625462

# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207058-1

## Metals

### Analysis Batch: 625923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207058-1	2674V2-14-B01 (0-5)	Total/NA	Solid	7471B	625696
500-207058-2	2674V2-14-B02 (0-2)	Total/NA	Solid	7471B	625696
MB 500-625696/12-A	Method Blank	Total/NA	Solid	7471B	625696
LCS 500-625696/13-A	Lab Control Sample	Total/NA	Solid	7471B	625696

### Prep Batch: 626511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207058-1	2674V2-14-B01 (0-5)	Total/NA	Solid	3050B	
500-207058-2	2674V2-14-B02 (0-2)	Total/NA	Solid	3050B	
MB 500-626511/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-626511/2-A	Lab Control Sample	Total/NA	Solid	3050B	

### Analysis Batch: 626836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207058-1	2674V2-14-B01 (0-5)	Total/NA	Solid	6010B	626511
500-207058-2	2674V2-14-B02 (0-2)	Total/NA	Solid	6010B	626511
MB 500-626511/1-A	Method Blank	Total/NA	Solid	6010B	626511
LCS 500-626511/2-A	Lab Control Sample	Total/NA	Solid	6010B	626511

### Analysis Batch: 626854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207058-1	2674V2-14-B01 (0-5)	Total/NA	Solid	6010B	626511

## General Chemistry

### Analysis Batch: 624697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207058-1	2674V2-14-B01 (0-5)	Total/NA	Solid	Moisture	
500-207058-2	2674V2-14-B02 (0-2)	Total/NA	Solid	Moisture	

### Analysis Batch: 624833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207058-1	2674V2-14-B01 (0-5)	Total/NA	Solid	9045D	
500-207058-2	2674V2-14-B02 (0-2)	Total/NA	Solid	9045D	
LCS 500-624833/2	Lab Control Sample	Total/NA	Solid	9045D	
LCSD 500-624833/3	Lab Control Sample Dup	Total/NA	Solid	9045D	

# Surrogate Summary

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207058-1

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

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	DBFM	DCA	TOL
		(75-131)	(75-126)	(70-134)	(75-124)
500-207058-1	2674V2-14-B01 (0-5)	90	98	102	95
500-207058-2	2674V2-14-B02 (0-2)	89	97	103	94
LCS 500-625243/4	Lab Control Sample	82	91	92	97
LCS 500-625243/5	Lab Control Sample Dup	84	91	93	97
MB 500-625243/7	Method Blank	88	93	96	96

#### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)  
 DBFM = Dibromofluoromethane  
 DCA = 1,2-Dichloroethane-d4 (Surr)  
 TOL = Toluene-d8 (Surr)

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

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	2FP	PHL	NBZ	FBP	TBP	TPHL
		(31-166)	(30-153)	(37-147)	(43-145)	(31-143)	(42-157)
500-207058-1	2674V2-14-B01 (0-5)	114	121	91	103	86	104
500-207058-2	2674V2-14-B02 (0-2)	106	112	96	97	69	115
LCS 500-624996/2-A	Lab Control Sample	107	113	98	105	95	105
MB 500-624996/1-A	Method Blank	111	115	96	108	74	120

#### Surrogate Legend

2FP = 2-Fluorophenol  
 PHL = Phenol-d5  
 NBZ = Nitrobenzene-d5 (Surr)  
 FBP = 2-Fluorobiphenyl (Surr)  
 TBP = 2,4,6-Tribromophenol  
 TPHL = Terphenyl-d14 (Surr)

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207058-1

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

**Lab Sample ID: MB 500-625243/7**  
**Matrix: Solid**  
**Analysis Batch: 625243**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	<0.020		0.020	0.0087	mg/Kg			10/25/21 13:35	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg			10/25/21 13:35	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg			10/25/21 13:35	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg			10/25/21 13:35	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg			10/25/21 13:35	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg			10/25/21 13:35	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg			10/25/21 13:35	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg			10/25/21 13:35	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg			10/25/21 13:35	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg			10/25/21 13:35	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg			10/25/21 13:35	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg			10/25/21 13:35	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg			10/25/21 13:35	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg			10/25/21 13:35	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg			10/25/21 13:35	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg			10/25/21 13:35	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg			10/25/21 13:35	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg			10/25/21 13:35	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg			10/25/21 13:35	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00070	mg/Kg			10/25/21 13:35	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg			10/25/21 13:35	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			10/25/21 13:35	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg			10/25/21 13:35	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg			10/25/21 13:35	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg			10/25/21 13:35	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg			10/25/21 13:35	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg			10/25/21 13:35	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/25/21 13:35	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg			10/25/21 13:35	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg			10/25/21 13:35	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg			10/25/21 13:35	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg			10/25/21 13:35	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg			10/25/21 13:35	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/25/21 13:35	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg			10/25/21 13:35	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg			10/25/21 13:35	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg			10/25/21 13:35	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	88		75 - 131		10/25/21 13:35	1
Dibromofluoromethane	93		75 - 126		10/25/21 13:35	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 134		10/25/21 13:35	1
Toluene-d8 (Surr)	96		75 - 124		10/25/21 13:35	1

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207058-1

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

**Lab Sample ID: LCS 500-625243/4**  
**Matrix: Solid**  
**Analysis Batch: 625243**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0500	0.0538		mg/Kg		108	40 - 150
Benzene	0.0500	0.0499		mg/Kg		100	70 - 125
Bromodichloromethane	0.0500	0.0511		mg/Kg		102	67 - 129
Bromoform	0.0500	0.0510		mg/Kg		102	68 - 136
Bromomethane	0.0500	0.0704	*+	mg/Kg		141	70 - 130
2-Butanone (MEK)	0.0500	0.0613		mg/Kg		123	47 - 138
Carbon disulfide	0.0500	0.0437		mg/Kg		87	70 - 129
Carbon tetrachloride	0.0500	0.0446		mg/Kg		89	75 - 125
Chlorobenzene	0.0500	0.0497		mg/Kg		99	50 - 150
Chloroethane	0.0500	0.0756	*+	mg/Kg		151	75 - 125
Chloroform	0.0500	0.0490		mg/Kg		98	57 - 135
Chloromethane	0.0500	0.0431		mg/Kg		86	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0476		mg/Kg		95	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0517		mg/Kg		103	70 - 125
Dibromochloromethane	0.0500	0.0533		mg/Kg		107	69 - 125
1,1-Dichloroethane	0.0500	0.0462		mg/Kg		92	70 - 125
1,2-Dichloroethane	0.0500	0.0501		mg/Kg		100	70 - 130
1,1-Dichloroethene	0.0500	0.0444		mg/Kg		89	70 - 120
1,2-Dichloropropane	0.0500	0.0512		mg/Kg		102	70 - 125
Ethylbenzene	0.0500	0.0535		mg/Kg		107	61 - 136
2-Hexanone	0.0500	0.0652		mg/Kg		130	48 - 146
Methylene Chloride	0.0500	0.0453		mg/Kg		91	70 - 126
4-Methyl-2-pentanone (MIBK)	0.0500	0.0631		mg/Kg		126	50 - 148
Methyl tert-butyl ether	0.0500	0.0432		mg/Kg		86	50 - 140
Styrene	0.0500	0.0536		mg/Kg		107	70 - 125
1,1,2,2-Tetrachloroethane	0.0500	0.0547		mg/Kg		109	70 - 122
Tetrachloroethene	0.0500	0.0517		mg/Kg		103	70 - 124
Toluene	0.0500	0.0524		mg/Kg		105	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0461		mg/Kg		92	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0495		mg/Kg		99	70 - 125
1,1,1-Trichloroethane	0.0500	0.0433		mg/Kg		87	70 - 128
1,1,2-Trichloroethane	0.0500	0.0554		mg/Kg		111	70 - 125
Trichloroethene	0.0500	0.0510		mg/Kg		102	70 - 125
Vinyl acetate	0.0500	0.0584		mg/Kg		117	40 - 153
Vinyl chloride	0.0500	0.0458		mg/Kg		92	70 - 125
Xylenes, Total	0.100	0.100		mg/Kg		100	53 - 147

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	82		75 - 131
Dibromofluoromethane	91		75 - 126
1,2-Dichloroethane-d4 (Surr)	92		70 - 134
Toluene-d8 (Surr)	97		75 - 124

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207058-1

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

**Lab Sample ID: LCSD 500-625243/5**  
**Matrix: Solid**  
**Analysis Batch: 625243**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.0500	0.0509		mg/Kg		102	40 - 150	5	30
Benzene	0.0500	0.0485		mg/Kg		97	70 - 125	3	30
Bromodichloromethane	0.0500	0.0492		mg/Kg		98	67 - 129	4	30
Bromoform	0.0500	0.0494		mg/Kg		99	68 - 136	3	30
Bromomethane	0.0500	0.0692	*+	mg/Kg		138	70 - 130	2	30
2-Butanone (MEK)	0.0500	0.0568		mg/Kg		114	47 - 138	8	30
Carbon disulfide	0.0500	0.0420		mg/Kg		84	70 - 129	4	30
Carbon tetrachloride	0.0500	0.0434		mg/Kg		87	75 - 125	3	30
Chlorobenzene	0.0500	0.0480		mg/Kg		96	50 - 150	3	30
Chloroethane	0.0500	0.0736	*+	mg/Kg		147	75 - 125	3	30
Chloroform	0.0500	0.0465		mg/Kg		93	57 - 135	5	30
Chloromethane	0.0500	0.0418		mg/Kg		84	70 - 125	3	30
cis-1,2-Dichloroethene	0.0500	0.0448		mg/Kg		90	70 - 125	6	30
cis-1,3-Dichloropropene	0.0500	0.0496		mg/Kg		99	70 - 125	4	30
Dibromochloromethane	0.0500	0.0507		mg/Kg		101	69 - 125	5	30
1,1-Dichloroethane	0.0500	0.0441		mg/Kg		88	70 - 125	5	30
1,2-Dichloroethane	0.0500	0.0480		mg/Kg		96	70 - 130	4	30
1,1-Dichloroethene	0.0500	0.0427		mg/Kg		85	70 - 120	4	30
1,2-Dichloropropane	0.0500	0.0484		mg/Kg		97	70 - 125	5	30
Ethylbenzene	0.0500	0.0519		mg/Kg		104	61 - 136	3	30
2-Hexanone	0.0500	0.0634		mg/Kg		127	48 - 146	3	30
Methylene Chloride	0.0500	0.0429		mg/Kg		86	70 - 126	5	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0597		mg/Kg		119	50 - 148	6	30
Methyl tert-butyl ether	0.0500	0.0419		mg/Kg		84	50 - 140	3	30
Styrene	0.0500	0.0518		mg/Kg		104	70 - 125	3	30
1,1,2,2-Tetrachloroethane	0.0500	0.0535		mg/Kg		107	70 - 122	2	30
Tetrachloroethene	0.0500	0.0498		mg/Kg		100	70 - 124	4	30
Toluene	0.0500	0.0500		mg/Kg		100	70 - 125	5	30
trans-1,2-Dichloroethene	0.0500	0.0445		mg/Kg		89	70 - 125	4	30
trans-1,3-Dichloropropene	0.0500	0.0486		mg/Kg		97	70 - 125	2	30
1,1,1-Trichloroethane	0.0500	0.0423		mg/Kg		85	70 - 128	2	30
1,1,2-Trichloroethane	0.0500	0.0546		mg/Kg		109	70 - 125	1	30
Trichloroethene	0.0500	0.0485		mg/Kg		97	70 - 125	5	30
Vinyl acetate	0.0500	0.0554		mg/Kg		111	40 - 153	5	30
Vinyl chloride	0.0500	0.0452		mg/Kg		90	70 - 125	1	30
Xylenes, Total	0.100	0.0967		mg/Kg		97	53 - 147	3	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	84		75 - 131
Dibromofluoromethane	91		75 - 126
1,2-Dichloroethane-d4 (Surr)	93		70 - 134
Toluene-d8 (Surr)	97		75 - 124



# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207058-1

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

**Lab Sample ID: MB 500-624996/1-A**  
**Matrix: Solid**  
**Analysis Batch: 625890**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 624996**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	<0.17		0.17	0.074	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.050	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
1,3-Dichlorobenzene	<0.17		0.17	0.037	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
1,4-Dichlorobenzene	<0.17		0.17	0.043	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
1,2-Dichlorobenzene	<0.17		0.17	0.040	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
2-Methylphenol	<0.17		0.17	0.053	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.039	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
N-Nitrosodi-n-propylamine	<0.067		0.067	0.041	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
Hexachloroethane	<0.17		0.17	0.051	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
2-Chlorophenol	<0.17		0.17	0.057	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
Nitrobenzene	<0.033		0.033	0.0083	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.034	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.036	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
Isophorone	<0.17		0.17	0.037	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
2,4-Dimethylphenol	<0.33		0.33	0.13	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
Hexachlorobutadiene	<0.17		0.17	0.052	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
Naphthalene	<0.033		0.033	0.0051	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
2,4-Dichlorophenol	<0.33		0.33	0.079	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
4-Chloroaniline	<0.67		0.67	0.16	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
2,4,6-Trichlorophenol	<0.33		0.33	0.11	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
2,4,5-Trichlorophenol	<0.33		0.33	0.076	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
Hexachlorocyclopentadiene	<0.67		0.67	0.19	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
2-Methylnaphthalene	<0.067		0.067	0.0061	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
2-Nitroaniline	<0.17		0.17	0.045	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
2-Chloronaphthalene	<0.17		0.17	0.037	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
4-Chloro-3-methylphenol	<0.33		0.33	0.11	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
2,6-Dinitrotoluene	<0.17		0.17	0.065	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
2-Nitrophenol	<0.33		0.33	0.079	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
3-Nitroaniline	<0.33		0.33	0.10	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
Dimethyl phthalate	<0.17		0.17	0.043	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
2,4-Dinitrophenol	<0.67		0.67	0.59	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
Acenaphthylene	<0.033		0.033	0.0044	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
2,4-Dinitrotoluene	<0.17		0.17	0.053	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
Acenaphthene	<0.033		0.033	0.0060	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
Dibenzofuran	<0.17		0.17	0.039	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
4-Nitrophenol	<0.67		0.67	0.32	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
Fluorene	<0.033		0.033	0.0047	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
4-Nitroaniline	<0.33		0.33	0.14	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.044	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
Hexachlorobenzene	<0.067		0.067	0.0077	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
Diethyl phthalate	<0.17		0.17	0.056	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.039	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
Pentachlorophenol	<0.67		0.67	0.53	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
N-Nitrosodiphenylamine	<0.17		0.17	0.039	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
4,6-Dinitro-2-methylphenol	<0.67		0.67	0.27	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
Phenanthrene	<0.033		0.033	0.0046	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
Anthracene	<0.033		0.033	0.0056	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
Carbazole	<0.17		0.17	0.083	mg/Kg		10/22/21 17:35	10/28/21 14:47	1

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207058-1

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

**Lab Sample ID: MB 500-624996/1-A**  
**Matrix: Solid**  
**Analysis Batch: 625890**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 624996**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	<0.17		0.17	0.051	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
Fluoranthene	<0.033		0.033	0.0062	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
Pyrene	<0.033		0.033	0.0066	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
Butyl benzyl phthalate	<0.17		0.17	0.063	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
Benzo[a]anthracene	<0.033		0.033	0.0045	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
Chrysene	<0.033		0.033	0.0091	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.047	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.061	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
Di-n-octyl phthalate	<0.17		0.17	0.054	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
Benzo[b]fluoranthene	<0.033		0.033	0.0072	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
Benzo[k]fluoranthene	<0.033		0.033	0.0098	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
Benzo[a]pyrene	<0.033		0.033	0.0064	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
Indeno[1,2,3-cd]pyrene	<0.033		0.033	0.0086	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
Dibenz(a,h)anthracene	<0.033		0.033	0.0064	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
Benzo[g,h,i]perylene	<0.033		0.033	0.011	mg/Kg		10/22/21 17:35	10/28/21 14:47	1
3 & 4 Methylphenol	<0.17		0.17	0.055	mg/Kg		10/22/21 17:35	10/28/21 14:47	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	111		31 - 166	10/22/21 17:35	10/28/21 14:47	1
Phenol-d5	115		30 - 153	10/22/21 17:35	10/28/21 14:47	1
Nitrobenzene-d5 (Surr)	96		37 - 147	10/22/21 17:35	10/28/21 14:47	1
2-Fluorobiphenyl (Surr)	108		43 - 145	10/22/21 17:35	10/28/21 14:47	1
2,4,6-Tribromophenol	74		31 - 143	10/22/21 17:35	10/28/21 14:47	1
Terphenyl-d14 (Surr)	120		42 - 157	10/22/21 17:35	10/28/21 14:47	1

**Lab Sample ID: LCS 500-624996/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625890**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 624996**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Phenol	1.33	1.32		mg/Kg		99	56 - 122
Bis(2-chloroethyl)ether	1.33	1.37		mg/Kg		103	55 - 111
1,3-Dichlorobenzene	1.33	1.28		mg/Kg		96	65 - 124
1,4-Dichlorobenzene	1.33	1.30		mg/Kg		98	61 - 110
1,2-Dichlorobenzene	1.33	1.23		mg/Kg		93	62 - 110
2-Methylphenol	1.33	1.26		mg/Kg		94	60 - 120
2,2'-oxybis[1-chloropropane]	1.33	1.23		mg/Kg		92	40 - 124
N-Nitrosodi-n-propylamine	1.33	1.18		mg/Kg		88	56 - 118
Hexachloroethane	1.33	1.26		mg/Kg		95	60 - 114
2-Chlorophenol	1.33	1.27		mg/Kg		95	64 - 110
Nitrobenzene	1.33	1.30		mg/Kg		98	60 - 116
Bis(2-chloroethoxy)methane	1.33	1.31		mg/Kg		98	60 - 112
1,2,4-Trichlorobenzene	1.33	1.30		mg/Kg		98	66 - 117
Isophorone	1.33	1.29		mg/Kg		96	55 - 110
2,4-Dimethylphenol	1.33	1.23		mg/Kg		92	60 - 110
Hexachlorobutadiene	1.33	1.27		mg/Kg		96	56 - 120
Naphthalene	1.33	1.28		mg/Kg		96	63 - 110
2,4-Dichlorophenol	1.33	1.22		mg/Kg		91	58 - 120

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207058-1

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

**Lab Sample ID: LCS 500-624996/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625890**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 624996**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chloroaniline	1.33	0.558	J	mg/Kg		42	30 - 150
2,4,6-Trichlorophenol	1.33	1.33		mg/Kg		100	57 - 120
2,4,5-Trichlorophenol	1.33	1.16		mg/Kg		87	50 - 120
Hexachlorocyclopentadiene	1.33	<0.67	*-	mg/Kg		9	10 - 133
2-Methylnaphthalene	1.33	1.28		mg/Kg		96	69 - 112
2-Nitroaniline	1.33	1.33		mg/Kg		99	57 - 124
2-Chloronaphthalene	1.33	1.33		mg/Kg		100	69 - 114
4-Chloro-3-methylphenol	1.33	1.27		mg/Kg		95	65 - 122
2,6-Dinitrotoluene	1.33	1.54		mg/Kg		116	70 - 123
2-Nitrophenol	1.33	1.27		mg/Kg		95	60 - 120
3-Nitroaniline	1.33	0.987		mg/Kg		74	40 - 122
Dimethyl phthalate	1.33	1.37		mg/Kg		103	69 - 116
2,4-Dinitrophenol	2.67	<0.67	*-	mg/Kg		3	10 - 100
Acenaphthylene	1.33	1.34		mg/Kg		101	68 - 120
2,4-Dinitrotoluene	1.33	1.52		mg/Kg		114	69 - 124
Acenaphthene	1.33	1.38		mg/Kg		103	65 - 124
Dibenzofuran	1.33	1.39		mg/Kg		105	66 - 115
4-Nitrophenol	2.67	1.80		mg/Kg		67	30 - 122
Fluorene	1.33	1.35		mg/Kg		101	62 - 120
4-Nitroaniline	1.33	1.10		mg/Kg		83	60 - 160
4-Bromophenyl phenyl ether	1.33	1.32		mg/Kg		99	68 - 118
Hexachlorobenzene	1.33	1.41		mg/Kg		106	63 - 124
Diethyl phthalate	1.33	1.35		mg/Kg		101	58 - 120
4-Chlorophenyl phenyl ether	1.33	1.30		mg/Kg		97	62 - 119
Pentachlorophenol	2.67	0.618	J	mg/Kg		23	13 - 112
N-Nitrosodiphenylamine	1.33	1.45		mg/Kg		109	65 - 112
4,6-Dinitro-2-methylphenol	2.67	<0.67	*-	mg/Kg		9	10 - 110
Phenanthrene	1.33	1.49		mg/Kg		112	62 - 120
Anthracene	1.33	1.28		mg/Kg		96	70 - 114
Carbazole	1.33	1.57		mg/Kg		117	65 - 142
Di-n-butyl phthalate	1.33	1.48		mg/Kg		111	65 - 120
Fluoranthene	1.33	1.46		mg/Kg		110	62 - 120
Pyrene	1.33	1.37		mg/Kg		103	61 - 128
Butyl benzyl phthalate	1.33	1.42		mg/Kg		107	71 - 129
Benzo[a]anthracene	1.33	1.46		mg/Kg		110	67 - 122
Chrysene	1.33	1.37		mg/Kg		102	63 - 120
3,3'-Dichlorobenzidine	1.33	1.19		mg/Kg		90	35 - 128
Bis(2-ethylhexyl) phthalate	1.33	1.43		mg/Kg		107	72 - 131
Di-n-octyl phthalate	1.33	1.57		mg/Kg		118	68 - 134
Benzo[b]fluoranthene	1.33	1.48		mg/Kg		111	69 - 129
Benzo[k]fluoranthene	1.33	1.54		mg/Kg		116	68 - 127
Benzo[a]pyrene	1.33	1.36		mg/Kg		102	65 - 133
Indeno[1,2,3-cd]pyrene	1.33	1.28		mg/Kg		96	68 - 130
Dibenz(a,h)anthracene	1.33	1.23		mg/Kg		92	64 - 131
Benzo[g,h,i]perylene	1.33	1.07		mg/Kg		80	72 - 131
3 & 4 Methylphenol	1.33	1.37		mg/Kg		102	57 - 120

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207058-1

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

**Lab Sample ID: LCS 500-624996/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625890**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 624996**

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorophenol	107		31 - 166
Phenol-d5	113		30 - 153
Nitrobenzene-d5 (Surr)	98		37 - 147
2-Fluorobiphenyl (Surr)	105		43 - 145
2,4,6-Tribromophenol	95		31 - 143
Terphenyl-d14 (Surr)	105		42 - 157

## Method: 6010B - Metals (ICP)

**Lab Sample ID: LCS 500-625181/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625354**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625181**

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Barium	0.500	0.518		mg/L		104	80 - 120
Beryllium	0.0500	0.0481		mg/L		96	80 - 120
Boron	1.00	0.812		mg/L		81	80 - 120
Cadmium	0.0500	0.0465		mg/L		93	80 - 120
Chromium	0.200	0.195		mg/L		98	80 - 120
Cobalt	0.500	0.503		mg/L		101	80 - 120
Iron	1.00	1.03		mg/L		103	80 - 120
Lead	0.100	0.0955		mg/L		95	80 - 120
Manganese	0.500	0.468		mg/L		94	80 - 120
Nickel	0.500	0.509		mg/L		102	80 - 120
Selenium	0.100	0.102		mg/L		102	80 - 120
Silver	0.0500	0.0483		mg/L		97	80 - 120
Zinc	0.500	0.583	^+	mg/L		117	80 - 120

**Lab Sample ID: LCS 500-625182/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625619**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625182**

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Manganese	0.500	0.485		mg/L		97	80 - 120

**Lab Sample ID: MB 500-626511/1-A**  
**Matrix: Solid**  
**Analysis Batch: 626836**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 626511**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	0.414	J	2.0	0.39	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Arsenic	<1.0		1.0	0.34	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Barium	0.553	J	1.0	0.11	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Beryllium	<0.40		0.40	0.093	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Boron	<5.0		5.0	0.47	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Cadmium	0.0880	J	0.20	0.036	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Calcium	22.3		20	3.4	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Chromium	<1.0		1.0	0.50	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Cobalt	<0.50		0.50	0.13	mg/Kg		11/01/21 10:13	11/02/21 11:09	1

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207058-1

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

**Lab Sample ID: MB 500-626511/1-A**  
**Matrix: Solid**  
**Analysis Batch: 626836**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 626511**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Copper	0.345	J	1.0	0.28	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Iron	13.2	J	20	10	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Lead	<0.50		0.50	0.23	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Magnesium	6.68	J	10	5.0	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Manganese	<1.0		1.0	0.15	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Nickel	<1.0		1.0	0.29	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Potassium	<50		50	18	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Selenium	<1.0		1.0	0.59	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Silver	<0.50		0.50	0.13	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Sodium	<100		100	15	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Thallium	<1.0		1.0	0.50	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Vanadium	<0.50		0.50	0.12	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Zinc	0.970	J	2.0	0.88	mg/Kg		11/01/21 10:13	11/02/21 11:09	1

**Lab Sample ID: LCS 500-626511/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626836**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626511**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	10.0	9.18		mg/Kg		92	80 - 120
Barium	200	202		mg/Kg		101	80 - 120
Beryllium	5.00	4.81		mg/Kg		96	80 - 120
Boron	100	84.4		mg/Kg		84	80 - 120
Cadmium	5.00	4.66		mg/Kg		93	80 - 120
Calcium	1000	907		mg/Kg		91	80 - 120
Chromium	20.0	18.6		mg/Kg		93	80 - 120
Cobalt	50.0	46.5		mg/Kg		93	80 - 120
Copper	25.0	24.0		mg/Kg		96	80 - 120
Iron	100	107		mg/Kg		107	80 - 120
Lead	10.0	9.24		mg/Kg		92	80 - 120
Magnesium	1000	961		mg/Kg		96	80 - 120
Manganese	50.0	45.7		mg/Kg		91	80 - 120
Nickel	50.0	47.2		mg/Kg		94	80 - 120
Potassium	1000	992		mg/Kg		99	80 - 120
Selenium	10.0	8.00		mg/Kg		80	80 - 120
Silver	5.00	4.67		mg/Kg		93	80 - 120
Sodium	1000	1020		mg/Kg		102	80 - 120
Thallium	10.0	8.99		mg/Kg		90	80 - 120
Vanadium	50.0	46.3		mg/Kg		93	80 - 120
Zinc	50.0	46.0		mg/Kg		92	80 - 120

**Lab Sample ID: LB 500-624872/1-B**  
**Matrix: Solid**  
**Analysis Batch: 625354**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 625181**

Analyte	LB LB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Barium	<0.50		0.50	0.050	mg/L		10/25/21 08:30	10/25/21 16:12	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/25/21 08:30	10/25/21 16:12	1

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207058-1

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

**Lab Sample ID: LB 500-624872/1-B**  
**Matrix: Solid**  
**Analysis Batch: 625354**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 625181**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.50		0.50	0.050	mg/L		10/25/21 08:30	10/25/21 16:12	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/25/21 08:30	10/25/21 16:12	1
Chromium	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:12	1
Cobalt	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:12	1
Iron	<0.40		0.40	0.20	mg/L		10/25/21 08:30	10/25/21 16:12	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/25/21 08:30	10/25/21 16:12	1
Manganese	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:12	1
Nickel	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:12	1
Selenium	<0.050		0.050	0.020	mg/L		10/25/21 08:30	10/25/21 16:12	1
Silver	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:12	1
Zinc	<0.50	^+	0.50	0.020	mg/L		10/25/21 08:30	10/25/21 16:12	1

**Lab Sample ID: LB 500-624891/21-B**  
**Matrix: Solid**  
**Analysis Batch: 625619**

**Client Sample ID: Method Blank**  
**Prep Type: SPLP East**  
**Prep Batch: 625182**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	<0.025		0.025	0.010	mg/L		10/25/21 08:33	10/26/21 17:15	1

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

**Lab Sample ID: LCS 500-625181/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625693**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625181**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.500	0.500		mg/L		100	80 - 120
Thallium	0.100	0.116		mg/L		116	80 - 120

**Lab Sample ID: LB 500-624872/1-B**  
**Matrix: Solid**  
**Analysis Batch: 625693**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 625181**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/25/21 08:30	10/26/21 15:05	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/25/21 08:30	10/26/21 15:05	1

## Method: 7470A - TCLP Mercury

**Lab Sample ID: MB 500-625462/12-A**  
**Matrix: Solid**  
**Analysis Batch: 625700**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 625462**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 08:13	1

# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207058-1

## Method: 7470A - TCLP Mercury (Continued)

**Lab Sample ID: LCS 500-625462/14-A**  
**Matrix: Solid**  
**Analysis Batch: 625700**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625462**  
**%Rec.**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00200	0.00183		mg/L		91	80 - 120

**Lab Sample ID: LB 500-624872/1-C**  
**Matrix: Solid**  
**Analysis Batch: 625700**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 625462**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 08:16	1

## Method: 7471B - Mercury (CVAA)

**Lab Sample ID: MB 500-625696/12-A**  
**Matrix: Solid**  
**Analysis Batch: 625923**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 625696**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0056	mg/Kg		10/27/21 14:15	10/28/21 06:34	1

**Lab Sample ID: LCS 500-625696/13-A**  
**Matrix: Solid**  
**Analysis Batch: 625923**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625696**  
**%Rec.**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.167	0.175		mg/Kg		105	80 - 120

# Lab Chronicle

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207058-1

**Client Sample ID: 2674V2-14-B01 (0-5)**

**Lab Sample ID: 500-207058-1**

**Date Collected: 10/18/21 13:23**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			624891	10/21/21 15:30	OAJ	TAL CHI
SPLP East	Prep	3010A			625182	10/25/21 08:33	BDE	TAL CHI
SPLP East	Analysis	6010B		1	625619	10/26/21 18:12	JJB	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6010B		1	625354	10/25/21 16:45	JJB	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6020A		1	625693	10/26/21 15:14	FXG	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	7470A			625462	10/26/21 09:55	MJG	TAL CHI
TCLP	Analysis	7470A		1	625700	10/27/21 08:35	MJG	TAL CHI
Total/NA	Analysis	9045D		1	624833	10/21/21 17:38	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	624697	10/21/21 08:57	LWN	TAL CHI

**Client Sample ID: 2674V2-14-B01 (0-5)**

**Lab Sample ID: 500-207058-1**

**Date Collected: 10/18/21 13:23**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 86.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624914	10/19/21 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625243	10/25/21 20:27	PMF	TAL CHI
Total/NA	Prep	3541			624996	10/22/21 17:35	JP1	TAL CHI
Total/NA	Analysis	8270D		1	625890	10/28/21 16:43	GLR	TAL CHI
Total/NA	Prep	3050B			626511	11/01/21 10:13	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626836	11/02/21 11:40	JJB	TAL CHI
Total/NA	Prep	3050B			626511	11/01/21 10:13	BDE	TAL CHI
Total/NA	Analysis	6010B		5	626854	11/02/21 12:39	JJB	TAL CHI
Total/NA	Prep	7471B			625696	10/27/21 14:15	MJG	TAL CHI
Total/NA	Analysis	7471B		1	625923	10/28/21 07:11	MJG	TAL CHI

**Client Sample ID: 2674V2-14-B02 (0-2)**

**Lab Sample ID: 500-207058-2**

**Date Collected: 10/18/21 12:30**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6010B		1	625354	10/25/21 16:48	JJB	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6010B		1	625539	10/26/21 14:55	JJB	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6020A		1	625693	10/26/21 15:17	FXG	TAL CHI



# Lab Chronicle

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207058-1

**Client Sample ID: 2674V2-14-B02 (0-2)**

**Lab Sample ID: 500-207058-2**

**Date Collected: 10/18/21 12:30**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	7470A			625462	10/26/21 09:55	MJG	TAL CHI
TCLP	Analysis	7470A		1	625700	10/27/21 08:37	MJG	TAL CHI
Total/NA	Analysis	9045D		1	624833	10/21/21 17:43	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	624697	10/21/21 08:57	LWN	TAL CHI

**Client Sample ID: 2674V2-14-B02 (0-2)**

**Lab Sample ID: 500-207058-2**

**Date Collected: 10/18/21 12:30**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 87.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624914	10/19/21 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625243	10/25/21 20:52	PMF	TAL CHI
Total/NA	Prep	3541			624996	10/22/21 17:35	JP1	TAL CHI
Total/NA	Analysis	8270D		1	625890	10/28/21 17:29	GLR	TAL CHI
Total/NA	Prep	3050B			626511	11/01/21 10:13	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626836	11/02/21 11:43	JJB	TAL CHI
Total/NA	Prep	7471B			625696	10/27/21 14:15	MJG	TAL CHI
Total/NA	Analysis	7471B		1	625923	10/28/21 07:13	MJG	TAL CHI

**Laboratory References:**

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Accreditation/Certification Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207058-1

## Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

1

2

3

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12

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14

15

# Chain of Custody Record

546546



Environment Testing  
TestAmerica

TAL-8210

Address \_\_\_\_\_

Regulatory Program:  DW  NPDES  RCRA  Other

<b>Client Contact</b> Company Name <u>WSP</u> Address _____ City/State/Zip <u>Chicago IL</u> Phone _____ Fax _____ Project Name <u>LOT W004</u> Site <u>Lake Villa, IL</u> P O # _____		<b>Project Manager</b> <u>D Tiebout</u> Tel/Email _____		<b>Site Contact</b> <u>A Happe</u> Lab Contact <u>R Wright</u>		Date: <u>10/18/2021</u> Carrier _____		COC No <u>7</u> of <u>11</u> COCs		
QR Code:		<b>Analysis Turnaround Time</b> <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____		Filtered Sample (Y/N) _____ Perform MS / MSD (Y/N) _____ <u>VOCs</u> <u>PH</u> <u>SVOCs</u> <u>1. Metals</u> <u>toxic metals</u> <u>trace metals</u>		Sampler _____ For Lab Use Only Walk-in Client. <input type="checkbox"/> Lab Sampling <input type="checkbox"/>		Job / SDG No <u>500-207058</u>		
		TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day				Sample Specific Notes				
<b>Sample Identification</b>		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.				
267402-14-B02 (0-5)		10/18/21	1323	C	S	2				
267402-14-B02 (0-2)		10/18/21	1230	C	S	2				
<hr/>										
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other										
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample					Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)					
<input type="checkbox"/> Non Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown					<input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months					
Special Instructions/QC Requirements & Comments: <u>* SPLP analysis when Tcup analysis results specify</u>										
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No _____		Cooler Temp (°C) Obs'd <u>5.7</u> <u>5.4</u>		Corr'd <u>5.6</u> <u>5.3</u>		Therm ID No _____		
Relinquished by <u>[Signature]</u>		Company <u>WSP</u>		Date/Time <u>10/18/21 11:15</u>		Received by <u>[Signature]</u>		Company <u>EVA</u>		Date/Time <u>10/19/21 0920</u>
Relinquished by <u>[Signature]</u>		Company <u>EVA</u>		Date/Time <u>10/19/21 11:15</u>		Received by _____		Company _____		Date/Time _____
Relinquished by _____		Company _____		Date/Time _____		Received in Laboratory by <u>[Signature]</u>		Company <u>EVA-CH</u>		Date/Time <u>10/19/21 11:15</u>



## Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 500-207058-1

**Login Number: 207058**

**List Source: Eurofins TestAmerica, Chicago**

**List Number: 1**

**Creator: Scott, Sherri L**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.6,5.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# Illinois Environmental Protection Agency

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

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

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

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

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

### I. Source Location Information

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

Project Name: FAP 541 (Illinois Route 132) Office Phone Number, if available: \_\_\_\_\_

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

68 E. Grand Avenue (ISGS #2674V2-17)

City: Lake Villa State: IL Zip Code: 60046

County: Lake Township: Lake Villa

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

Latitude: 42.41574 Longitude: - 88.08091

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

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

Approximate Start Date (mm/dd/yyyy): \_\_\_\_\_ Approximate End Date (mm/dd/yyyy): \_\_\_\_\_

Estimated Volume of debris (cu. Yd.): 69

### 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):

Location 2674V2-17-B01 was sampled within the construction zone adjacent to ISGS #2674V2-17 (Lake Villa Fire Department). Refer to PSI Report for ISGS #2674V2-17 (Lake Villa Fire Department) including Table 4-4, and Figures 4-3 and 4-6.

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]:

See attached data summary table and associated laboratory data package J207053-1.

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

I, Tom Campbell (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: WSP USA  
Street Address: 115 W Washington St., Suite 1270S  
City: Indianapolis State: IN Zip Code: 46204  
Phone: (317) 972-1706

Tom Campbell  
Printed Name:



02/03/2022  
Date:

Expires 11/30/2023

*Tom Campbell*  
Licensed Professional Engineer or  
Licensed Professional Geologist Signature:



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

**Analytical Data Summary**  
**PTB #196-002; Work Order 04 - IDOT Job # P-91-583-12**

**Key to Data Tables**

- MAC = Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- TACO = Tiered Approach to Corrective Action Objectives
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers and Shading**

- # = pH is less than 6.25 or greater than 9.0 standard units.
- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- r = Concentration exceeds a TACO Tier 1 RO for the Residential Soil Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds applicable comparison criteria.

PTB #196-002; Work Order 04 - IDOT Job # P-91-583-12

CONTAMINANTS OF CONCERN

SITE	ISGS #2674V2-17 (Lake Villa Fire Department)		Comparison Criteria					
	2674V2-17-B01		MACs			TACO		
BORING	2674V2-17-B01		Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
SAMPLE	2674V2-17-B01 (0-4)	2674V2-17-B01 (4-8)						
MATRIX	Soil	Soil						
DEPTH (feet)	0-4	4-8						
pH	7.9	7.5						
PID (meter units)	--	--						
<b>VOCs (mg/kg)</b>								
Acetone	0.018 J	0.0097 J	25	--	--	70,000	100,000	--
<b>SVOCs (None Detected)</b>								
<b>Inorganics (mg/kg)</b>								
Arsenic	7.7	7.7	11.3	13	--	13	61	--
Barium	120	75	1,500	--	--	5,500	14,000	--
Beryllium	1.3	1.1	22	--	--	160	410	--
Boron	9.7	7.5	40	--	--	16,000	41,000	--
Calcium	4,000	3,100	--	--	--	--	--	--
Chromium	25 †	24 †	21	--	--	230	690	--
Cobalt	13	13	20	--	--	4,700	12,000	--
Copper	28	30	2,900	--	--	2,900	8,200	--
Iron	26,000 †m	27,000 †m	15,000	15,900	--	--	--	--
Lead	25	17	107	--	--	400	700	--
Magnesium	4,500	6,200	325,000	--	--	--	730,000	--
Manganese	500	340	630	636	--	1,600	4,100	--
Mercury	0.066	0.043	0.89	--	--	10	0.1	--
Nickel	37	41	100	--	--	1,600	4,100	--
Potassium	3,000	2,500	--	--	--	--	--	--
Selenium	0.78	ND U	1.3	--	--	390	1,000	--
Silver	0.58	0.50	4.4	--	--	390	1,000	--
Sodium	5,900	3,300	--	--	--	--	--	--
Thallium	0.42 J	0.50 J	2.6	--	--	6.3	160	--
Vanadium	35	29	550	--	--	550	1,400	--
Zinc	97	92	5,100	--	--	23,000	61,000	--
<b>TCLP Metals (mg/L)</b>								
Barium	0.16 J	0.21 J	--	--	--	--	--	2
Boron	0.12 J	0.12 J	--	--	--	--	--	2
Chromium	ND U	ND U	--	--	--	--	--	0.1
Iron	0.79	1.5	--	--	--	--	--	5
Manganese	0.68 J L	0.70 J L	--	--	--	--	--	0.15
Zinc	ND UJ	0.034 J	--	--	--	--	--	5
<b>SPLP Metals (mg/L)</b>								
Manganese	1.4 L	1.6 L	--	--	--	--	--	0.15



## ANALYTICAL REPORT

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

Laboratory Job ID: 500-207053-1

Client Project/Site: IDOT - 196-002-WO04 Lake Villa

**For:**

WSP USA Inc.  
30 North LaSalle Street  
Chicago, Illinois 60602

Attn: Dean Tiebot



Authorized for release by:  
11/2/2021 5:45:05 PM

Richard Wright, Senior Project Manager  
(708)746-0045  
[Richard.Wright@Eurofinset.com](mailto:Richard.Wright@Eurofinset.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

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

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

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# Case Narrative

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

## Job ID: 500-207053-1

### Laboratory: Eurofins TestAmerica, Chicago

#### Narrative

#### Job Narrative 500-207053-1

#### Receipt

The samples were received on 10/19/2021 11:15 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.6° C.

#### GC/MS VOA

Method 8260B: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for 625358 recovered outside control limits for the following analytes: Bromomethane, Chloroethane, and 1,1,2,2-Tetrachloroethane. These analytes were biased high in the LCS/LCSD and were not detected in the associated samples; therefore, the data have been reported. 2674V2-17-B02 (0-4) (500-207053-1), 2674V2-17-B02 (4-8) (500-207053-2), 2674V2-17-B01 (0-4) (500-207053-3) and 2674V2-17-B01 (4-8) (500-207053-4)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC/MS Semi VOA

Method 8270D: The following sample contained one acid surrogate outside acceptance limits: 2674V2-17-B02 (0-4) (500-207053-1), 2674V2-17-B02 (4-8) (500-207053-2), 2674V2-17-B01 (4-8) (500-207053-4), (500-207053-E-1-B MS) and (500-207053-E-1-C MSD). The laboratory's SOP allows one acid and one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

Method 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 500-624401 and analytical batch 500-625884 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recoveries was within acceptance limits.

Method 8270D: Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when utilizing this list of analytes. The LCS associated with preparation batch 500-624401 and analytical batch 500-625875 had 1 analyte outside control limits: 2,2'-oxybis[1-chloropropane]. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

Method 6010B: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 500-624860 and 500-625180 and analytical batch 500-625354 recovered outside control limits for the following analytes: Zinc. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 6010B: The continuing calibration verification (CCV) associated with batch 500-625354 recovered above the upper control limit for Zinc. The samples associated with this CCV were below the reporting limit for the affected analytes; therefore, the data have been reported. The associated samples are impacted: 2674V2-17-B02 (0-4) (500-207053-1), 2674V2-17-B02 (4-8) (500-207053-2), 2674V2-17-B01 (0-4) (500-207053-3) and 2674V2-17-B01 (4-8) (500-207053-4).

Method 6010B: The continuing calibration blank (CCB) for 500-625354 contained Manganese above the reporting limit (RL). Associated sample 2674V2-17-B02 (0-4) (500-207053-1), 2674V2-17-B02 (4-8) (500-207053-2), 2674V2-17-B01 (0-4) (500-207053-3) and 2674V2-17-B01 (4-8) (500-207053-4) was not re-analyzed because results were greater than 10X the value found in the CCB.

2674V2-17-B02 (0-4) (500-207053-1), 2674V2-17-B02 (4-8) (500-207053-2), 2674V2-17-B01 (0-4) (500-207053-3) and 2674V2-17-B01 (4-8) (500-207053-4)

Method 6010B: The continuing calibration verification (CCV) associated with batch 500-625354 recovered above the upper control limit for Barium. The samples associated with this CCV were below the reporting limit for the affected analytes; therefore, the data have been reported. The associated samples are impacted: 2674V2-17-B02 (0-4) (500-207053-1), 2674V2-17-B02 (4-8) (500-207053-2), 2674V2-17-B01 (0-4) (500-207053-3) and 2674V2-17-B01 (4-8) (500-207053-4).

Method 6010B: The continuing calibration blanks (CCB) contained Beryllium above the reporting limit (RL). The sample 2674V2-17-B02

# Case Narrative

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

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## Job ID: 500-207053-1 (Continued)

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### Laboratory: Eurofins TestAmerica, Chicago (Continued)

(0-4) (500-207053-1), 2674V2-17-B02 (4-8) (500-207053-2), 2674V2-17-B01 (0-4) (500-207053-3) and 2674V2-17-B01 (4-8) (500-207053-4) associated with this CCB did not contain the target compound; therefore, re-analysis of samples was not performed.

2674V2-17-B02 (0-4) (500-207053-1), 2674V2-17-B02 (4-8) (500-207053-2), 2674V2-17-B01 (0-4) (500-207053-3) and 2674V2-17-B01 (4-8) (500-207053-4)

Method 6010B: The continuing calibration blanks (CCB) contained Beryllium above the reporting limit (RL). The sample 2674V2-17-B02 (0-4) (500-207053-1), 2674V2-17-B02 (4-8) (500-207053-2), 2674V2-17-B01 (0-4) (500-207053-3) and 2674V2-17-B01 (4-8) (500-207053-4) associated with this CCB did not contain the target compound; therefore, re-analysis of samples was not performed.

2674V2-17-B02 (0-4) (500-207053-1), 2674V2-17-B02 (4-8) (500-207053-2), 2674V2-17-B01 (0-4) (500-207053-3) and 2674V2-17-B01 (4-8) (500-207053-4)

Method 6010B: The method blank for preparation batch 500-626365 and analytical batch 500-626573 contained Iron above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

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**Client Sample ID: 2674V2-17-B01 (0-4)**

**Lab Sample ID: 500-207053-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.018	J	0.023	0.010	mg/Kg	1	✳	8260B	Total/NA
Antimony	0.61	J B	1.3	0.25	mg/Kg	1	✳	6010B	Total/NA
Arsenic	7.7		0.65	0.22	mg/Kg	1	✳	6010B	Total/NA
Barium	120		0.65	0.075	mg/Kg	1	✳	6010B	Total/NA
Beryllium	1.3		0.26	0.061	mg/Kg	1	✳	6010B	Total/NA
Boron	9.7		3.3	0.31	mg/Kg	1	✳	6010B	Total/NA
Cadmium	0.10	J B	0.13	0.024	mg/Kg	1	✳	6010B	Total/NA
Calcium	4000	B	13	2.2	mg/Kg	1	✳	6010B	Total/NA
Chromium	25		0.65	0.32	mg/Kg	1	✳	6010B	Total/NA
Cobalt	13		0.33	0.086	mg/Kg	1	✳	6010B	Total/NA
Copper	28		0.65	0.18	mg/Kg	1	✳	6010B	Total/NA
Iron	26000	B	13	6.8	mg/Kg	1	✳	6010B	Total/NA
Lead	25		0.33	0.15	mg/Kg	1	✳	6010B	Total/NA
Magnesium	4500	B	6.5	3.2	mg/Kg	1	✳	6010B	Total/NA
Manganese	500	B	0.65	0.095	mg/Kg	1	✳	6010B	Total/NA
Nickel	37		0.65	0.19	mg/Kg	1	✳	6010B	Total/NA
Potassium	3000		33	12	mg/Kg	1	✳	6010B	Total/NA
Selenium	0.78		0.65	0.39	mg/Kg	1	✳	6010B	Total/NA
Silver	0.58		0.33	0.084	mg/Kg	1	✳	6010B	Total/NA
Sodium	5900		65	9.7	mg/Kg	1	✳	6010B	Total/NA
Thallium	0.42	J	0.65	0.33	mg/Kg	1	✳	6010B	Total/NA
Vanadium	35		0.33	0.077	mg/Kg	1	✳	6010B	Total/NA
Zinc	97		1.3	0.57	mg/Kg	1	✳	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Detection Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

## Client Sample ID: 2674V2-17-B01 (0-4) (Continued)

## Lab Sample ID: 500-207053-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.16	J ^+	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.12	J	0.50	0.050	mg/L	1		6010B	TCLP
Iron	0.79		0.40	0.20	mg/L	1		6010B	TCLP
Manganese	0.68	^2	0.025	0.010	mg/L	1		6010B	TCLP
Manganese	1.4		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.066		0.021	0.0070	mg/Kg	1	✳	7471B	Total/NA
pH	7.9		0.2	0.2	SU	1		9045D	Total/NA

## Client Sample ID: 2674V2-17-B01 (4-8)

## Lab Sample ID: 500-207053-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.0097	J	0.019	0.0085	mg/Kg	1	✳	8260B	Total/NA
Antimony	0.69	J B	1.2	0.23	mg/Kg	1	✳	6010B	Total/NA
Arsenic	7.7		0.60	0.21	mg/Kg	1	✳	6010B	Total/NA
Barium	75		0.60	0.069	mg/Kg	1	✳	6010B	Total/NA
Beryllium	1.1		0.24	0.056	mg/Kg	1	✳	6010B	Total/NA
Boron	7.5		3.0	0.28	mg/Kg	1	✳	6010B	Total/NA
Cadmium	0.042	J B	0.12	0.022	mg/Kg	1	✳	6010B	Total/NA
Calcium	3100	B	12	2.0	mg/Kg	1	✳	6010B	Total/NA
Chromium	24		0.60	0.30	mg/Kg	1	✳	6010B	Total/NA
Cobalt	13		0.30	0.079	mg/Kg	1	✳	6010B	Total/NA
Copper	30		0.60	0.17	mg/Kg	1	✳	6010B	Total/NA
Iron	27000	B	12	6.3	mg/Kg	1	✳	6010B	Total/NA
Lead	17		0.30	0.14	mg/Kg	1	✳	6010B	Total/NA
Magnesium	6200	B	6.0	3.0	mg/Kg	1	✳	6010B	Total/NA
Manganese	340	B	0.60	0.087	mg/Kg	1	✳	6010B	Total/NA
Nickel	41		0.60	0.18	mg/Kg	1	✳	6010B	Total/NA
Potassium	2500		30	11	mg/Kg	1	✳	6010B	Total/NA
Silver	0.50		0.30	0.078	mg/Kg	1	✳	6010B	Total/NA
Sodium	3300		60	8.9	mg/Kg	1	✳	6010B	Total/NA
Thallium	0.50	J	0.60	0.30	mg/Kg	1	✳	6010B	Total/NA
Vanadium	29		0.30	0.071	mg/Kg	1	✳	6010B	Total/NA
Zinc	92		1.2	0.53	mg/Kg	1	✳	6010B	Total/NA
Barium	0.21	J ^+	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.12	J	0.50	0.050	mg/L	1		6010B	TCLP
Iron	1.5		0.40	0.20	mg/L	1		6010B	TCLP
Manganese	0.70	^2	0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.034	J *+ ^+	0.50	0.020	mg/L	1		6010B	TCLP
Manganese	1.6		0.025	0.010	mg/L	1		6010B	SPLP East
Mercury	0.043		0.020	0.0066	mg/Kg	1	✳	7471B	Total/NA
pH	7.5		0.2	0.2	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Method Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CHI
6010B	Metals (ICP)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
7470A	TCLP Mercury	SW846	TAL CHI
7471B	Mercury (CVAA)	SW846	TAL CHI
9045D	pH	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
1311	TCLP Extraction	SW846	TAL CHI
1312	SPLP Extraction	SW846	TAL CHI
3010A	Preparation, Total Metals	SW846	TAL CHI
3050B	Preparation, Metals	SW846	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI
5035	Closed System Purge and Trap	SW846	TAL CHI
7470A	Preparation, Mercury	SW846	TAL CHI
7471B	Preparation, Mercury	SW846	TAL CHI

#### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Sample Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-207053-3	2674V2-17-B01 (0-4)	Solid	10/18/21 10:55	10/19/21 11:15
500-207053-4	2674V2-17-B01 (4-8)	Solid	10/18/21 11:00	10/19/21 11:15

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# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

**Client Sample ID: 2674V2-17-B01 (0-4)**

**Lab Sample ID: 500-207053-3**

Date Collected: 10/18/21 10:55

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 74.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.018	J	0.023	0.010	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
Benzene	<0.0023		0.0023	0.00059	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
Bromodichloromethane	<0.0023		0.0023	0.00047	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
Bromoform	<0.0023		0.0023	0.00068	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
Bromomethane	<0.0058	*+	0.0058	0.0022	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
2-Butanone (MEK)	<0.0058		0.0058	0.0026	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
Carbon disulfide	<0.0058		0.0058	0.0012	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
Carbon tetrachloride	<0.0023		0.0023	0.00067	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
Chlorobenzene	<0.0023		0.0023	0.00086	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
Chloroethane	<0.0058	*+	0.0058	0.0017	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
Chloroform	<0.0023		0.0023	0.00081	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
Chloromethane	<0.0058		0.0058	0.0023	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
cis-1,2-Dichloroethene	<0.0023		0.0023	0.00065	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
cis-1,3-Dichloropropene	<0.0023		0.0023	0.00070	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
Dibromochloromethane	<0.0023		0.0023	0.00076	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
1,1-Dichloroethane	<0.0023		0.0023	0.00080	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
1,2-Dichloroethane	<0.0058		0.0058	0.0018	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
1,1-Dichloroethene	<0.0023		0.0023	0.00080	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
1,2-Dichloropropene	<0.0023		0.0023	0.00060	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
1,3-Dichloropropene, Total	<0.0023		0.0023	0.00081	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
Ethylbenzene	<0.0023		0.0023	0.0011	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
2-Hexanone	<0.0058		0.0058	0.0018	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
Methylene Chloride	<0.0058		0.0058	0.0023	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
4-Methyl-2-pentanone (MIBK)	<0.0058		0.0058	0.0017	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
Methyl tert-butyl ether	<0.0023		0.0023	0.00068	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
Styrene	<0.0023		0.0023	0.00070	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
1,1,2,2-Tetrachloroethane	<0.0023	*+	0.0023	0.00074	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
Tetrachloroethene	<0.0023		0.0023	0.00079	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
Toluene	<0.0023		0.0023	0.00059	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
trans-1,2-Dichloroethene	<0.0023		0.0023	0.0010	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
trans-1,3-Dichloropropene	<0.0023		0.0023	0.00081	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
1,1,1-Trichloroethane	<0.0023		0.0023	0.00078	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
1,1,2-Trichloroethane	<0.0023		0.0023	0.0010	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
Trichloroethene	<0.0023		0.0023	0.00078	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
Vinyl acetate	<0.0058		0.0058	0.0020	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
Vinyl chloride	<0.0023		0.0023	0.0010	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1
Xylenes, Total	<0.0046		0.0046	0.00074	mg/Kg	☼	10/19/21 18:28	10/26/21 18:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		75 - 131	10/19/21 18:28	10/26/21 18:03	1
Dibromofluoromethane	98		75 - 126	10/19/21 18:28	10/26/21 18:03	1
1,2-Dichloroethane-d4 (Surr)	105		70 - 134	10/19/21 18:28	10/26/21 18:03	1
Toluene-d8 (Surr)	94		75 - 124	10/19/21 18:28	10/26/21 18:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.22		0.22	0.098	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
Bis(2-chloroethyl)ether	<0.22		0.22	0.066	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
1,3-Dichlorobenzene	<0.22		0.22	0.050	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
1,4-Dichlorobenzene	<0.22		0.22	0.057	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

**Client Sample ID: 2674V2-17-B01 (0-4)**

**Lab Sample ID: 500-207053-3**

**Date Collected: 10/18/21 10:55**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 74.0**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.22		0.22	0.053	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
2-Methylphenol	<0.22		0.22	0.071	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
2,2'-oxybis[1-chloropropane]	<0.22	*	0.22	0.051	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
N-Nitrosodi-n-propylamine	<0.089		0.089	0.054	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
Hexachloroethane	<0.22		0.22	0.067	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
2-Chlorophenol	<0.22		0.22	0.076	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
Nitrobenzene	<0.044		0.044	0.011	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
Bis(2-chloroethoxy)methane	<0.22		0.22	0.045	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
1,2,4-Trichlorobenzene	<0.22		0.22	0.048	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
Isophorone	<0.22		0.22	0.050	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
2,4-Dimethylphenol	<0.44		0.44	0.17	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
Hexachlorobutadiene	<0.22		0.22	0.070	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
Naphthalene	<0.044		0.044	0.0068	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
2,4-Dichlorophenol	<0.44		0.44	0.11	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
4-Chloroaniline	<0.89		0.89	0.21	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
2,4,6-Trichlorophenol	<0.44		0.44	0.15	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
2,4,5-Trichlorophenol	<0.44		0.44	0.10	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
Hexachlorocyclopentadiene	<0.89		0.89	0.25	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
2-Methylnaphthalene	<0.089		0.089	0.0081	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
2-Nitroaniline	<0.22		0.22	0.060	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
2-Chloronaphthalene	<0.22		0.22	0.049	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
4-Chloro-3-methylphenol	<0.44		0.44	0.15	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
2,6-Dinitrotoluene	<0.22		0.22	0.087	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
2-Nitrophenol	<0.44		0.44	0.10	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
3-Nitroaniline	<0.44		0.44	0.14	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
Dimethyl phthalate	<0.22		0.22	0.058	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
2,4-Dinitrophenol	<0.89		0.89	0.78	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
Acenaphthylene	<0.044		0.044	0.0058	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
2,4-Dinitrotoluene	<0.22		0.22	0.070	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
Acenaphthene	<0.044		0.044	0.0080	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
Dibenzofuran	<0.22		0.22	0.052	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
4-Nitrophenol	<0.89		0.89	0.42	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
Fluorene	<0.044		0.044	0.0062	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
4-Nitroaniline	<0.44		0.44	0.19	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
4-Bromophenyl phenyl ether	<0.22		0.22	0.058	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
Hexachlorobenzene	<0.089		0.089	0.010	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
Diethyl phthalate	<0.22		0.22	0.075	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
4-Chlorophenyl phenyl ether	<0.22		0.22	0.052	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
Pentachlorophenol	<0.89		0.89	0.71	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
N-Nitrosodiphenylamine	<0.22		0.22	0.052	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
4,6-Dinitro-2-methylphenol	<0.89		0.89	0.36	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
Phenanthrene	<0.044		0.044	0.0062	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
Anthracene	<0.044		0.044	0.0074	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
Carbazole	<0.22		0.22	0.11	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
Di-n-butyl phthalate	<0.22		0.22	0.067	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
Fluoranthene	<0.044		0.044	0.0082	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
Pyrene	<0.044		0.044	0.0088	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
Butyl benzyl phthalate	<0.22		0.22	0.084	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
Benzo[a]anthracene	<0.044		0.044	0.0060	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

**Client Sample ID: 2674V2-17-B01 (0-4)**

**Lab Sample ID: 500-207053-3**

Date Collected: 10/18/21 10:55

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 74.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.044		0.044	0.012	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
3,3'-Dichlorobenzidine	<0.22		0.22	0.062	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
Bis(2-ethylhexyl) phthalate	<0.22		0.22	0.081	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
Di-n-octyl phthalate	<0.22		0.22	0.072	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
Benzo[b]fluoranthene	<0.044		0.044	0.0096	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
Benzo[k]fluoranthene	<0.044		0.044	0.013	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
Benzo[a]pyrene	<0.044		0.044	0.0086	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
Indeno[1,2,3-cd]pyrene	<0.044		0.044	0.011	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
Dibenz(a,h)anthracene	<0.044		0.044	0.0086	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
Benzo[g,h,i]perylene	<0.044		0.044	0.014	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1
3 & 4 Methylphenol	<0.22		0.22	0.074	mg/Kg	☼	10/20/21 06:58	10/28/21 16:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	104		31 - 166	10/20/21 06:58	10/28/21 16:07	1
Phenol-d5	83		30 - 153	10/20/21 06:58	10/28/21 16:07	1
Nitrobenzene-d5 (Surr)	76		37 - 147	10/20/21 06:58	10/28/21 16:07	1
2-Fluorobiphenyl (Surr)	104		43 - 145	10/20/21 06:58	10/28/21 16:07	1
2,4,6-Tribromophenol	142		31 - 143	10/20/21 06:58	10/28/21 16:07	1
Terphenyl-d14 (Surr)	83		42 - 157	10/20/21 06:58	10/28/21 16:07	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.61	J B	1.3	0.25	mg/Kg	☼	10/31/21 08:55	11/01/21 12:29	1
Arsenic	7.7		0.65	0.22	mg/Kg	☼	10/31/21 08:55	11/01/21 12:29	1
Barium	120		0.65	0.075	mg/Kg	☼	10/31/21 08:55	11/01/21 12:29	1
Beryllium	1.3		0.26	0.061	mg/Kg	☼	10/31/21 08:55	11/01/21 12:29	1
Boron	9.7		3.3	0.31	mg/Kg	☼	10/31/21 08:55	11/01/21 12:29	1
Cadmium	0.10	J B	0.13	0.024	mg/Kg	☼	10/31/21 08:55	11/01/21 12:29	1
Calcium	4000	B	13	2.2	mg/Kg	☼	10/31/21 08:55	11/01/21 12:29	1
Chromium	25		0.65	0.32	mg/Kg	☼	10/31/21 08:55	11/01/21 12:29	1
Cobalt	13		0.33	0.086	mg/Kg	☼	10/31/21 08:55	11/01/21 12:29	1
Copper	28		0.65	0.18	mg/Kg	☼	10/31/21 08:55	11/01/21 12:29	1
Iron	26000	B	13	6.8	mg/Kg	☼	10/31/21 08:55	11/01/21 12:29	1
Lead	25		0.33	0.15	mg/Kg	☼	10/31/21 08:55	11/01/21 12:29	1
Magnesium	4500	B	6.5	3.2	mg/Kg	☼	10/31/21 08:55	11/01/21 12:29	1
Manganese	500	B	0.65	0.095	mg/Kg	☼	10/31/21 08:55	11/01/21 12:29	1
Nickel	37		0.65	0.19	mg/Kg	☼	10/31/21 08:55	11/01/21 12:29	1
Potassium	3000		33	12	mg/Kg	☼	10/31/21 08:55	11/01/21 12:29	1
Selenium	0.78		0.65	0.39	mg/Kg	☼	10/31/21 08:55	11/01/21 12:29	1
Silver	0.58		0.33	0.084	mg/Kg	☼	10/31/21 08:55	11/01/21 12:29	1
Sodium	5900		65	9.7	mg/Kg	☼	10/31/21 08:55	11/01/21 12:29	1
Thallium	0.42	J	0.65	0.33	mg/Kg	☼	10/31/21 08:55	11/01/21 12:29	1
Vanadium	35		0.33	0.077	mg/Kg	☼	10/31/21 08:55	11/01/21 12:29	1
Zinc	97		1.3	0.57	mg/Kg	☼	10/31/21 08:55	11/01/21 12:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.16	J ^+	0.50	0.050	mg/L		10/25/21 08:27	10/25/21 18:24	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/25/21 08:27	10/25/21 18:24	1
Boron	0.12	J	0.50	0.050	mg/L		10/25/21 08:27	10/25/21 18:24	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

**Client Sample ID: 2674V2-17-B01 (0-4)**

**Lab Sample ID: 500-207053-3**

Date Collected: 10/18/21 10:55

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 74.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/25/21 08:27	10/25/21 18:24	1
Chromium	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 18:24	1
Cobalt	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 18:24	1
<b>Iron</b>	<b>0.79</b>		0.40	0.20	mg/L		10/25/21 08:27	10/26/21 16:16	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/25/21 08:27	10/25/21 18:24	1
<b>Manganese</b>	<b>0.68</b>	<b>^2</b>	0.025	0.010	mg/L		10/25/21 08:27	10/25/21 18:24	1
Nickel	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 18:24	1
Selenium	<0.050		0.050	0.020	mg/L		10/25/21 08:27	10/25/21 18:24	1
Silver	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 18:24	1
Zinc	<0.50	*+ ^+	0.50	0.020	mg/L		10/25/21 08:27	10/25/21 18:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>1.4</b>		0.025	0.010	mg/L		10/25/21 08:33	10/26/21 17:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/25/21 08:27	10/26/21 14:57	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/25/21 08:27	10/26/21 14:57	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 09:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.066</b>		0.021	0.0070	mg/Kg	☼	10/27/21 14:15	10/28/21 06:44	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>7.9</b>		0.2	0.2	SU			10/21/21 17:23	1

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

**Client Sample ID: 2674V2-17-B01 (4-8)**

**Lab Sample ID: 500-207053-4**

**Date Collected: 10/18/21 11:00**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 78.6**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0097	J	0.019	0.0085	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
Benzene	<0.0019		0.0019	0.00050	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
Bromodichloromethane	<0.0019		0.0019	0.00040	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
Bromoform	<0.0019		0.0019	0.00057	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
Bromomethane	<0.0049	*+	0.0049	0.0018	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
2-Butanone (MEK)	<0.0049		0.0049	0.0022	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
Carbon disulfide	<0.0049		0.0049	0.0010	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
Carbon tetrachloride	<0.0019		0.0019	0.00056	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
Chlorobenzene	<0.0019		0.0019	0.00072	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
Chloroethane	<0.0049	*+	0.0049	0.0014	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
Chloroform	<0.0019		0.0019	0.00067	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
Chloromethane	<0.0049		0.0049	0.0020	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00054	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00059	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
Dibromochloromethane	<0.0019		0.0019	0.00063	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
1,1-Dichloroethane	<0.0019		0.0019	0.00066	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
1,2-Dichloroethane	<0.0049		0.0049	0.0015	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
1,1-Dichloroethene	<0.0019		0.0019	0.00067	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
1,2-Dichloropropene	<0.0019		0.0019	0.00050	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
1,3-Dichloropropene, Total	<0.0019		0.0019	0.00068	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
Ethylbenzene	<0.0019		0.0019	0.00093	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
2-Hexanone	<0.0049		0.0049	0.0015	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
Methylene Chloride	<0.0049		0.0049	0.0019	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
4-Methyl-2-pentanone (MIBK)	<0.0049		0.0049	0.0014	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00057	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
Styrene	<0.0019		0.0019	0.00059	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
1,1,2,2-Tetrachloroethane	<0.0019	*+	0.0019	0.00062	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
Tetrachloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
Toluene	<0.0019		0.0019	0.00049	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00086	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00068	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
1,1,1-Trichloroethane	<0.0019		0.0019	0.00065	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00083	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
Trichloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
Vinyl acetate	<0.0049		0.0049	0.0017	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
Vinyl chloride	<0.0019		0.0019	0.00086	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1
Xylenes, Total	<0.0039		0.0039	0.00062	mg/Kg	☼	10/19/21 18:28	10/26/21 18:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		75 - 131	10/19/21 18:28	10/26/21 18:28	1
Dibromofluoromethane	101		75 - 126	10/19/21 18:28	10/26/21 18:28	1
1,2-Dichloroethane-d4 (Surr)	108		70 - 134	10/19/21 18:28	10/26/21 18:28	1
Toluene-d8 (Surr)	95		75 - 124	10/19/21 18:28	10/26/21 18:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.090	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

**Client Sample ID: 2674V2-17-B01 (4-8)**

**Lab Sample ID: 500-207053-4**

**Date Collected: 10/18/21 11:00**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 78.6**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
2,2'-oxybis[1-chloropropane]	<0.20	*	0.20	0.047	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.049	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
2,4,5-Trichlorophenol	<0.40		0.40	0.092	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
2-Methylnaphthalene	<0.082		0.082	0.0074	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
2,4-Dinitrophenol	<0.82		0.82	0.71	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
Acenaphthene	<0.040		0.040	0.0073	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
4-Nitrophenol	<0.82		0.82	0.38	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
Diethyl phthalate	<0.20		0.20	0.069	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
Phenanthrene	<0.040		0.040	0.0056	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
Anthracene	<0.040		0.040	0.0068	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
Fluoranthene	<0.040		0.040	0.0075	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
Pyrene	<0.040		0.040	0.0080	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

**Client Sample ID: 2674V2-17-B01 (4-8)**

**Lab Sample ID: 500-207053-4**

Date Collected: 10/18/21 11:00

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 78.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
Benzo[b]fluoranthene	<0.040		0.040	0.0087	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
Benzo[a]pyrene	<0.040		0.040	0.0078	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.010	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	10/20/21 06:58	10/28/21 16:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	131		31 - 166	10/20/21 06:58	10/28/21 16:31	1
Phenol-d5	125		30 - 153	10/20/21 06:58	10/28/21 16:31	1
Nitrobenzene-d5 (Surr)	80		37 - 147	10/20/21 06:58	10/28/21 16:31	1
2-Fluorobiphenyl (Surr)	111		43 - 145	10/20/21 06:58	10/28/21 16:31	1
2,4,6-Tribromophenol	157	S1+	31 - 143	10/20/21 06:58	10/28/21 16:31	1
Terphenyl-d14 (Surr)	98		42 - 157	10/20/21 06:58	10/28/21 16:31	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>	1.2	0.23	mg/Kg	☼	10/31/21 08:55	11/01/21 12:32	1
<b>Arsenic</b>	<b>7.7</b>		0.60	0.21	mg/Kg	☼	10/31/21 08:55	11/01/21 12:32	1
<b>Barium</b>	<b>75</b>		0.60	0.069	mg/Kg	☼	10/31/21 08:55	11/01/21 12:32	1
<b>Beryllium</b>	<b>1.1</b>		0.24	0.056	mg/Kg	☼	10/31/21 08:55	11/01/21 12:32	1
<b>Boron</b>	<b>7.5</b>		3.0	0.28	mg/Kg	☼	10/31/21 08:55	11/01/21 12:32	1
<b>Cadmium</b>	<b>0.042</b>	<b>J B</b>	0.12	0.022	mg/Kg	☼	10/31/21 08:55	11/01/21 12:32	1
<b>Calcium</b>	<b>3100</b>	<b>B</b>	12	2.0	mg/Kg	☼	10/31/21 08:55	11/01/21 12:32	1
<b>Chromium</b>	<b>24</b>		0.60	0.30	mg/Kg	☼	10/31/21 08:55	11/01/21 12:32	1
<b>Cobalt</b>	<b>13</b>		0.30	0.079	mg/Kg	☼	10/31/21 08:55	11/01/21 12:32	1
<b>Copper</b>	<b>30</b>		0.60	0.17	mg/Kg	☼	10/31/21 08:55	11/01/21 12:32	1
<b>Iron</b>	<b>27000</b>	<b>B</b>	12	6.3	mg/Kg	☼	10/31/21 08:55	11/01/21 12:32	1
<b>Lead</b>	<b>17</b>		0.30	0.14	mg/Kg	☼	10/31/21 08:55	11/01/21 12:32	1
<b>Magnesium</b>	<b>6200</b>	<b>B</b>	6.0	3.0	mg/Kg	☼	10/31/21 08:55	11/01/21 12:32	1
<b>Manganese</b>	<b>340</b>	<b>B</b>	0.60	0.087	mg/Kg	☼	10/31/21 08:55	11/01/21 12:32	1
<b>Nickel</b>	<b>41</b>		0.60	0.18	mg/Kg	☼	10/31/21 08:55	11/01/21 12:32	1
<b>Potassium</b>	<b>2500</b>		30	11	mg/Kg	☼	10/31/21 08:55	11/01/21 12:32	1
Selenium	<0.60		0.60	0.35	mg/Kg	☼	10/31/21 08:55	11/01/21 12:32	1
<b>Silver</b>	<b>0.50</b>		0.30	0.078	mg/Kg	☼	10/31/21 08:55	11/01/21 12:32	1
<b>Sodium</b>	<b>3300</b>		60	8.9	mg/Kg	☼	10/31/21 08:55	11/01/21 12:32	1
<b>Thallium</b>	<b>0.50</b>	<b>J</b>	0.60	0.30	mg/Kg	☼	10/31/21 08:55	11/01/21 12:32	1
<b>Vanadium</b>	<b>29</b>		0.30	0.071	mg/Kg	☼	10/31/21 08:55	11/01/21 12:32	1
<b>Zinc</b>	<b>92</b>		1.2	0.53	mg/Kg	☼	10/31/21 08:55	11/01/21 12:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>0.21</b>	<b>J ^+</b>	0.50	0.050	mg/L		10/25/21 08:27	10/25/21 18:27	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/25/21 08:27	10/25/21 18:27	1
<b>Boron</b>	<b>0.12</b>	<b>J</b>	0.50	0.050	mg/L		10/25/21 08:27	10/25/21 18:27	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

**Client Sample ID: 2674V2-17-B01 (4-8)**

**Lab Sample ID: 500-207053-4**

Date Collected: 10/18/21 11:00

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 78.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/25/21 08:27	10/25/21 18:27	1
Chromium	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 18:27	1
Cobalt	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 18:27	1
<b>Iron</b>	<b>1.5</b>		0.40	0.20	mg/L		10/25/21 08:27	10/26/21 16:33	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/25/21 08:27	10/25/21 18:27	1
<b>Manganese</b>	<b>0.70</b>	<b>^2</b>	0.025	0.010	mg/L		10/25/21 08:27	10/25/21 18:27	1
Nickel	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 18:27	1
Selenium	<0.050		0.050	0.020	mg/L		10/25/21 08:27	10/25/21 18:27	1
Silver	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 18:27	1
<b>Zinc</b>	<b>0.034</b>	<b>J** ^+</b>	0.50	0.020	mg/L		10/25/21 08:27	10/25/21 18:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>1.6</b>		0.025	0.010	mg/L		10/25/21 08:33	10/26/21 17:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/25/21 08:27	10/26/21 14:59	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/25/21 08:27	10/26/21 14:59	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 09:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.043</b>		0.020	0.0066	mg/Kg	☼	10/27/21 14:15	10/28/21 06:46	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>7.5</b>		0.2	0.2	SU			10/21/21 17:26	1



# Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
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 and/or LCSD is outside acceptance limits, low biased.
E	Result exceeded calibration range.
F1	MS and/or MSD recovery exceeds control 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.
S1+	Surrogate recovery exceeds control limits, high biased.

### Metals

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^2	Calibration Blank (ICB and/or CCB) 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 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.

## 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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control

# Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

## Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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)
TNTC	Too Numerous To Count

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# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

## GC/MS VOA

### Prep Batch: 624914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207053-1	2674V2-17-B02 (0-4)	Total/NA	Solid	5035	
500-207053-2	2674V2-17-B02 (4-8)	Total/NA	Solid	5035	
500-207053-3	2674V2-17-B01 (0-4)	Total/NA	Solid	5035	
500-207053-4	2674V2-17-B01 (4-8)	Total/NA	Solid	5035	

### Analysis Batch: 625358

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207053-1	2674V2-17-B02 (0-4)	Total/NA	Solid	8260B	624914
500-207053-2	2674V2-17-B02 (4-8)	Total/NA	Solid	8260B	624914
500-207053-3	2674V2-17-B01 (0-4)	Total/NA	Solid	8260B	624914
500-207053-4	2674V2-17-B01 (4-8)	Total/NA	Solid	8260B	624914
MB 500-625358/7	Method Blank	Total/NA	Solid	8260B	
LCS 500-625358/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-625358/5	Lab Control Sample Dup	Total/NA	Solid	8260B	

## GC/MS Semi VOA

### Prep Batch: 624401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207053-1	2674V2-17-B02 (0-4)	Total/NA	Solid	3541	
500-207053-2	2674V2-17-B02 (4-8)	Total/NA	Solid	3541	
500-207053-3	2674V2-17-B01 (0-4)	Total/NA	Solid	3541	
500-207053-4	2674V2-17-B01 (4-8)	Total/NA	Solid	3541	
MB 500-624401/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-624401/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-207053-1 MS	2674V2-17-B02 (0-4)	Total/NA	Solid	3541	
500-207053-1 MSD	2674V2-17-B02 (0-4)	Total/NA	Solid	3541	

### Analysis Batch: 625875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-624401/1-A	Method Blank	Total/NA	Solid	8270D	624401
LCS 500-624401/2-A	Lab Control Sample	Total/NA	Solid	8270D	624401

### Analysis Batch: 625884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207053-1	2674V2-17-B02 (0-4)	Total/NA	Solid	8270D	624401
500-207053-2	2674V2-17-B02 (4-8)	Total/NA	Solid	8270D	624401
500-207053-3	2674V2-17-B01 (0-4)	Total/NA	Solid	8270D	624401
500-207053-4	2674V2-17-B01 (4-8)	Total/NA	Solid	8270D	624401
500-207053-1 MS	2674V2-17-B02 (0-4)	Total/NA	Solid	8270D	624401
500-207053-1 MSD	2674V2-17-B02 (0-4)	Total/NA	Solid	8270D	624401

## Metals

### Leach Batch: 624860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207053-1	2674V2-17-B02 (0-4)	TCLP	Solid	1311	
500-207053-2	2674V2-17-B02 (4-8)	TCLP	Solid	1311	
500-207053-3	2674V2-17-B01 (0-4)	TCLP	Solid	1311	
500-207053-4	2674V2-17-B01 (4-8)	TCLP	Solid	1311	
LB 500-624860/1-B	Method Blank	TCLP	Solid	1311	
LB 500-624860/1-C	Method Blank	TCLP	Solid	1311	

Eurofins TestAmerica, Chicago

# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

## Metals (Continued)

### Leach Batch: 624860 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207053-4 MS	2674V2-17-B01 (4-8)	TCLP	Solid	1311	
500-207053-4 DU	2674V2-17-B01 (4-8)	TCLP	Solid	1311	

### Leach Batch: 624891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207053-1	2674V2-17-B02 (0-4)	SPLP East	Solid	1312	
500-207053-2	2674V2-17-B02 (4-8)	SPLP East	Solid	1312	
500-207053-3	2674V2-17-B01 (0-4)	SPLP East	Solid	1312	
500-207053-4	2674V2-17-B01 (4-8)	SPLP East	Solid	1312	
LB 500-624891/21-B	Method Blank	SPLP East	Solid	1312	

### Prep Batch: 625180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207053-1	2674V2-17-B02 (0-4)	TCLP	Solid	3010A	624860
500-207053-2	2674V2-17-B02 (4-8)	TCLP	Solid	3010A	624860
500-207053-3	2674V2-17-B01 (0-4)	TCLP	Solid	3010A	624860
500-207053-4	2674V2-17-B01 (4-8)	TCLP	Solid	3010A	624860
LB 500-624860/1-B	Method Blank	TCLP	Solid	3010A	624860
LCS 500-625180/2-A	Lab Control Sample	Total/NA	Solid	3010A	
LCS 500-625180/3-A	Lab Control Sample Dup	Total/NA	Solid	3010A	

### Prep Batch: 625182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207053-1	2674V2-17-B02 (0-4)	SPLP East	Solid	3010A	624891
500-207053-2	2674V2-17-B02 (4-8)	SPLP East	Solid	3010A	624891
500-207053-3	2674V2-17-B01 (0-4)	SPLP East	Solid	3010A	624891
500-207053-4	2674V2-17-B01 (4-8)	SPLP East	Solid	3010A	624891
LB 500-624891/21-B	Method Blank	SPLP East	Solid	3010A	624891
LCS 500-625182/2-A	Lab Control Sample	Total/NA	Solid	3010A	

### Analysis Batch: 625354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207053-1	2674V2-17-B02 (0-4)	TCLP	Solid	6010B	625180
500-207053-2	2674V2-17-B02 (4-8)	TCLP	Solid	6010B	625180
500-207053-3	2674V2-17-B01 (0-4)	TCLP	Solid	6010B	625180
500-207053-4	2674V2-17-B01 (4-8)	TCLP	Solid	6010B	625180
LB 500-624860/1-B	Method Blank	TCLP	Solid	6010B	625180
LCS 500-625180/2-A	Lab Control Sample	Total/NA	Solid	6010B	625180
LCS 500-625180/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	625180

### Prep Batch: 625464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207053-1	2674V2-17-B02 (0-4)	TCLP	Solid	7470A	624860
500-207053-2	2674V2-17-B02 (4-8)	TCLP	Solid	7470A	624860
500-207053-3	2674V2-17-B01 (0-4)	TCLP	Solid	7470A	624860
500-207053-4	2674V2-17-B01 (4-8)	TCLP	Solid	7470A	624860
LB 500-624860/1-C	Method Blank	TCLP	Solid	7470A	624860
MB 500-625464/12-A	Method Blank	Total/NA	Solid	7470A	
LCS 500-625464/14-A	Lab Control Sample	Total/NA	Solid	7470A	
500-207053-4 MS	2674V2-17-B01 (4-8)	TCLP	Solid	7470A	624860
500-207053-4 DU	2674V2-17-B01 (4-8)	TCLP	Solid	7470A	624860

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# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

## Metals

### Analysis Batch: 625619

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207053-1	2674V2-17-B02 (0-4)	SPLP East	Solid	6010B	625182
500-207053-2	2674V2-17-B02 (4-8)	SPLP East	Solid	6010B	625182
500-207053-3	2674V2-17-B01 (0-4)	SPLP East	Solid	6010B	625182
500-207053-4	2674V2-17-B01 (4-8)	SPLP East	Solid	6010B	625182
LB 500-624891/21-B	Method Blank	SPLP East	Solid	6010B	625182
LCS 500-625182/2-A	Lab Control Sample	Total/NA	Solid	6010B	625182

### Analysis Batch: 625638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207053-3	2674V2-17-B01 (0-4)	TCLP	Solid	6010B	625180
500-207053-4	2674V2-17-B01 (4-8)	TCLP	Solid	6010B	625180

### Analysis Batch: 625693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207053-1	2674V2-17-B02 (0-4)	TCLP	Solid	6020A	625180
500-207053-2	2674V2-17-B02 (4-8)	TCLP	Solid	6020A	625180
500-207053-3	2674V2-17-B01 (0-4)	TCLP	Solid	6020A	625180
500-207053-4	2674V2-17-B01 (4-8)	TCLP	Solid	6020A	625180
LB 500-624860/1-B	Method Blank	TCLP	Solid	6020A	625180
LCS 500-625180/2-A	Lab Control Sample	Total/NA	Solid	6020A	625180
LCSD 500-625180/3-A	Lab Control Sample Dup	Total/NA	Solid	6020A	625180

### Prep Batch: 625696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207053-1	2674V2-17-B02 (0-4)	Total/NA	Solid	7471B	
500-207053-2	2674V2-17-B02 (4-8)	Total/NA	Solid	7471B	
500-207053-3	2674V2-17-B01 (0-4)	Total/NA	Solid	7471B	
500-207053-4	2674V2-17-B01 (4-8)	Total/NA	Solid	7471B	
MB 500-625696/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-625696/13-A	Lab Control Sample	Total/NA	Solid	7471B	

### Analysis Batch: 625700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207053-1	2674V2-17-B02 (0-4)	TCLP	Solid	7470A	625464
500-207053-2	2674V2-17-B02 (4-8)	TCLP	Solid	7470A	625464
500-207053-3	2674V2-17-B01 (0-4)	TCLP	Solid	7470A	625464
500-207053-4	2674V2-17-B01 (4-8)	TCLP	Solid	7470A	625464
LB 500-624860/1-C	Method Blank	TCLP	Solid	7470A	625464
MB 500-625464/12-A	Method Blank	Total/NA	Solid	7470A	625464
LCS 500-625464/14-A	Lab Control Sample	Total/NA	Solid	7470A	625464
500-207053-4 MS	2674V2-17-B01 (4-8)	TCLP	Solid	7470A	625464
500-207053-4 DU	2674V2-17-B01 (4-8)	TCLP	Solid	7470A	625464

### Analysis Batch: 625923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207053-1	2674V2-17-B02 (0-4)	Total/NA	Solid	7471B	625696
500-207053-2	2674V2-17-B02 (4-8)	Total/NA	Solid	7471B	625696
500-207053-3	2674V2-17-B01 (0-4)	Total/NA	Solid	7471B	625696
500-207053-4	2674V2-17-B01 (4-8)	Total/NA	Solid	7471B	625696
MB 500-625696/12-A	Method Blank	Total/NA	Solid	7471B	625696
LCS 500-625696/13-A	Lab Control Sample	Total/NA	Solid	7471B	625696

Eurofins TestAmerica, Chicago

# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

## Metals

### Prep Batch: 626365

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207053-1	2674V2-17-B02 (0-4)	Total/NA	Solid	3050B	
500-207053-2	2674V2-17-B02 (4-8)	Total/NA	Solid	3050B	
500-207053-3	2674V2-17-B01 (0-4)	Total/NA	Solid	3050B	
500-207053-4	2674V2-17-B01 (4-8)	Total/NA	Solid	3050B	
MB 500-626365/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-626365/2-A	Lab Control Sample	Total/NA	Solid	3050B	
500-207053-1 MS	2674V2-17-B02 (0-4)	Total/NA	Solid	3050B	
500-207053-1 MSD	2674V2-17-B02 (0-4)	Total/NA	Solid	3050B	
500-207053-1 DU	2674V2-17-B02 (0-4)	Total/NA	Solid	3050B	

### Analysis Batch: 626573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207053-1	2674V2-17-B02 (0-4)	Total/NA	Solid	6010B	626365
500-207053-1	2674V2-17-B02 (0-4)	Total/NA	Solid	6010B	626365
500-207053-2	2674V2-17-B02 (4-8)	Total/NA	Solid	6010B	626365
500-207053-2	2674V2-17-B02 (4-8)	Total/NA	Solid	6010B	626365
500-207053-3	2674V2-17-B01 (0-4)	Total/NA	Solid	6010B	626365
500-207053-4	2674V2-17-B01 (4-8)	Total/NA	Solid	6010B	626365
MB 500-626365/1-A	Method Blank	Total/NA	Solid	6010B	626365
LCS 500-626365/2-A	Lab Control Sample	Total/NA	Solid	6010B	626365
500-207053-1 MS	2674V2-17-B02 (0-4)	Total/NA	Solid	6010B	626365
500-207053-1 MS	2674V2-17-B02 (0-4)	Total/NA	Solid	6010B	626365
500-207053-1 MSD	2674V2-17-B02 (0-4)	Total/NA	Solid	6010B	626365
500-207053-1 MSD	2674V2-17-B02 (0-4)	Total/NA	Solid	6010B	626365
500-207053-1 DU	2674V2-17-B02 (0-4)	Total/NA	Solid	6010B	626365
500-207053-1 DU	2674V2-17-B02 (0-4)	Total/NA	Solid	6010B	626365

## General Chemistry

### Analysis Batch: 624697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207053-1	2674V2-17-B02 (0-4)	Total/NA	Solid	Moisture	
500-207053-2	2674V2-17-B02 (4-8)	Total/NA	Solid	Moisture	
500-207053-3	2674V2-17-B01 (0-4)	Total/NA	Solid	Moisture	
500-207053-4	2674V2-17-B01 (4-8)	Total/NA	Solid	Moisture	
500-207053-1 DU	2674V2-17-B02 (0-4)	Total/NA	Solid	Moisture	

### Analysis Batch: 624833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207053-1	2674V2-17-B02 (0-4)	Total/NA	Solid	9045D	
500-207053-2	2674V2-17-B02 (4-8)	Total/NA	Solid	9045D	
500-207053-3	2674V2-17-B01 (0-4)	Total/NA	Solid	9045D	
500-207053-4	2674V2-17-B01 (4-8)	Total/NA	Solid	9045D	
LCS 500-624833/2	Lab Control Sample	Total/NA	Solid	9045D	
LCSD 500-624833/3	Lab Control Sample Dup	Total/NA	Solid	9045D	
500-207053-1 DU	2674V2-17-B02 (0-4)	Total/NA	Solid	9045D	

# Surrogate Summary

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (75-131)	DBFM (75-126)	DCA (70-134)	TOL (75-124)
500-207053-1	2674V2-17-B02 (0-4)	90	98	101	94
500-207053-2	2674V2-17-B02 (4-8)	89	98	102	94
500-207053-3	2674V2-17-B01 (0-4)	91	98	105	94
500-207053-4	2674V2-17-B01 (4-8)	89	101	108	95
LCS 500-625358/4	Lab Control Sample	85	88	92	97
LCS 500-625358/5	Lab Control Sample Dup	85	90	92	97
MB 500-625358/7	Method Blank	89	92	95	95

### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)  
 DBFM = Dibromofluoromethane  
 DCA = 1,2-Dichloroethane-d4 (Surr)  
 TOL = Toluene-d8 (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		2FP (31-166)	PHL (30-153)	NBZ (37-147)	FBP (43-145)	TBP (31-143)	TPHL (42-157)
500-207053-1	2674V2-17-B02 (0-4)	121	109	86	119	158 S1+	112
500-207053-1 MS	2674V2-17-B02 (0-4)	115	106	97	121	171 S1+	100
500-207053-1 MSD	2674V2-17-B02 (0-4)	126	119	109	134	182 S1+	106
500-207053-2	2674V2-17-B02 (4-8)	117	103	80	116	161 S1+	96
500-207053-3	2674V2-17-B01 (0-4)	104	83	76	104	142	83
500-207053-4	2674V2-17-B01 (4-8)	131	125	80	111	157 S1+	98
LCS 500-624401/2-A	Lab Control Sample	119	92	96	104	76	108
MB 500-624401/1-A	Method Blank	135	98	100	106	64	110

### Surrogate Legend

2FP = 2-Fluorophenol  
 PHL = Phenol-d5  
 NBZ = Nitrobenzene-d5 (Surr)  
 FBP = 2-Fluorobiphenyl (Surr)  
 TBP = 2,4,6-Tribromophenol  
 TPHL = Terphenyl-d14 (Surr)

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

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

**Lab Sample ID: MB 500-625358/7**  
**Matrix: Solid**  
**Analysis Batch: 625358**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	<0.020		0.020	0.0087	mg/Kg			10/26/21 11:37	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg			10/26/21 11:37	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg			10/26/21 11:37	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg			10/26/21 11:37	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg			10/26/21 11:37	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg			10/26/21 11:37	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg			10/26/21 11:37	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg			10/26/21 11:37	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg			10/26/21 11:37	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg			10/26/21 11:37	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg			10/26/21 11:37	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg			10/26/21 11:37	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg			10/26/21 11:37	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg			10/26/21 11:37	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg			10/26/21 11:37	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg			10/26/21 11:37	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg			10/26/21 11:37	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg			10/26/21 11:37	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg			10/26/21 11:37	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00070	mg/Kg			10/26/21 11:37	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg			10/26/21 11:37	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			10/26/21 11:37	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg			10/26/21 11:37	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg			10/26/21 11:37	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg			10/26/21 11:37	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg			10/26/21 11:37	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg			10/26/21 11:37	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/26/21 11:37	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg			10/26/21 11:37	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg			10/26/21 11:37	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg			10/26/21 11:37	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg			10/26/21 11:37	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg			10/26/21 11:37	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/26/21 11:37	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg			10/26/21 11:37	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg			10/26/21 11:37	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg			10/26/21 11:37	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	89		75 - 131		10/26/21 11:37	1
Dibromofluoromethane	92		75 - 126		10/26/21 11:37	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 134		10/26/21 11:37	1
Toluene-d8 (Surr)	95		75 - 124		10/26/21 11:37	1



# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

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

**Lab Sample ID: LCS 500-625358/4**  
**Matrix: Solid**  
**Analysis Batch: 625358**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0500	0.0535		mg/Kg		107	40 - 150
Benzene	0.0500	0.0575		mg/Kg		115	70 - 125
Bromodichloromethane	0.0500	0.0557		mg/Kg		111	67 - 129
Bromoform	0.0500	0.0549		mg/Kg		110	68 - 136
Bromomethane	0.0500	0.0683	*+	mg/Kg		137	70 - 130
2-Butanone (MEK)	0.0500	0.0590		mg/Kg		118	47 - 138
Carbon disulfide	0.0500	0.0535		mg/Kg		107	70 - 129
Carbon tetrachloride	0.0500	0.0502		mg/Kg		100	75 - 125
Chlorobenzene	0.0500	0.0550		mg/Kg		110	50 - 150
Chloroethane	0.0500	0.0726	*+	mg/Kg		145	75 - 125
Chloroform	0.0500	0.0541		mg/Kg		108	57 - 135
Chloromethane	0.0500	0.0447		mg/Kg		89	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0532		mg/Kg		106	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0577		mg/Kg		115	70 - 125
Dibromochloromethane	0.0500	0.0570		mg/Kg		114	69 - 125
1,1-Dichloroethane	0.0500	0.0527		mg/Kg		105	70 - 125
1,2-Dichloroethane	0.0500	0.0552		mg/Kg		110	70 - 130
1,1-Dichloroethene	0.0500	0.0524		mg/Kg		105	70 - 120
1,2-Dichloropropane	0.0500	0.0576		mg/Kg		115	70 - 125
Ethylbenzene	0.0500	0.0596		mg/Kg		119	61 - 136
2-Hexanone	0.0500	0.0621		mg/Kg		124	48 - 146
Methylene Chloride	0.0500	0.0521		mg/Kg		104	70 - 126
4-Methyl-2-pentanone (MIBK)	0.0500	0.0606		mg/Kg		121	50 - 148
Methyl tert-butyl ether	0.0500	0.0493		mg/Kg		99	50 - 140
Styrene	0.0500	0.0585		mg/Kg		117	70 - 125
1,1,2,2-Tetrachloroethane	0.0500	0.0592		mg/Kg		118	70 - 122
Tetrachloroethene	0.0500	0.0581		mg/Kg		116	70 - 124
Toluene	0.0500	0.0581		mg/Kg		116	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0541		mg/Kg		108	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0568		mg/Kg		114	70 - 125
1,1,1-Trichloroethane	0.0500	0.0496		mg/Kg		99	70 - 128
1,1,2-Trichloroethane	0.0500	0.0609		mg/Kg		122	70 - 125
Trichloroethene	0.0500	0.0560		mg/Kg		112	70 - 125
Vinyl acetate	0.0500	0.0601		mg/Kg		120	40 - 153
Vinyl chloride	0.0500	0.0478		mg/Kg		96	70 - 125
Xylenes, Total	0.100	0.110		mg/Kg		110	53 - 147

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	85		75 - 131
Dibromofluoromethane	88		75 - 126
1,2-Dichloroethane-d4 (Surr)	92		70 - 134
Toluene-d8 (Surr)	97		75 - 124

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

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

**Lab Sample ID: LCSD 500-625358/5**  
**Matrix: Solid**  
**Analysis Batch: 625358**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.0500	0.0569		mg/Kg		114	40 - 150	6	30
Benzene	0.0500	0.0569		mg/Kg		114	70 - 125	1	30
Bromodichloromethane	0.0500	0.0557		mg/Kg		111	67 - 129	0	30
Bromoform	0.0500	0.0567		mg/Kg		113	68 - 136	3	30
Bromomethane	0.0500	0.0685	*+	mg/Kg		137	70 - 130	0	30
2-Butanone (MEK)	0.0500	0.0640		mg/Kg		128	47 - 138	8	30
Carbon disulfide	0.0500	0.0534		mg/Kg		107	70 - 129	0	30
Carbon tetrachloride	0.0500	0.0496		mg/Kg		99	75 - 125	1	30
Chlorobenzene	0.0500	0.0547		mg/Kg		109	50 - 150	0	30
Chloroethane	0.0500	0.0691	*+	mg/Kg		138	75 - 125	5	30
Chloroform	0.0500	0.0540		mg/Kg		108	57 - 135	0	30
Chloromethane	0.0500	0.0456		mg/Kg		91	70 - 125	2	30
cis-1,2-Dichloroethene	0.0500	0.0536		mg/Kg		107	70 - 125	1	30
cis-1,3-Dichloropropene	0.0500	0.0583		mg/Kg		117	70 - 125	1	30
Dibromochloromethane	0.0500	0.0582		mg/Kg		116	69 - 125	2	30
1,1-Dichloroethane	0.0500	0.0534		mg/Kg		107	70 - 125	1	30
1,2-Dichloroethane	0.0500	0.0567		mg/Kg		113	70 - 130	3	30
1,1-Dichloroethene	0.0500	0.0525		mg/Kg		105	70 - 120	0	30
1,2-Dichloropropane	0.0500	0.0554		mg/Kg		111	70 - 125	4	30
Ethylbenzene	0.0500	0.0594		mg/Kg		119	61 - 136	0	30
2-Hexanone	0.0500	0.0689		mg/Kg		138	48 - 146	10	30
Methylene Chloride	0.0500	0.0526		mg/Kg		105	70 - 126	1	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0668		mg/Kg		134	50 - 148	10	30
Methyl tert-butyl ether	0.0500	0.0510		mg/Kg		102	50 - 140	3	30
Styrene	0.0500	0.0588		mg/Kg		118	70 - 125	0	30
1,1,2,2-Tetrachloroethane	0.0500	0.0615	*+	mg/Kg		123	70 - 122	4	30
Tetrachloroethene	0.0500	0.0565		mg/Kg		113	70 - 124	3	30
Toluene	0.0500	0.0581		mg/Kg		116	70 - 125	0	30
trans-1,2-Dichloroethene	0.0500	0.0530		mg/Kg		106	70 - 125	2	30
trans-1,3-Dichloropropene	0.0500	0.0569		mg/Kg		114	70 - 125	0	30
1,1,1-Trichloroethane	0.0500	0.0495		mg/Kg		99	70 - 128	0	30
1,1,2-Trichloroethane	0.0500	0.0620		mg/Kg		124	70 - 125	2	30
Trichloroethene	0.0500	0.0569		mg/Kg		114	70 - 125	2	30
Vinyl acetate	0.0500	0.0601		mg/Kg		120	40 - 153	0	30
Vinyl chloride	0.0500	0.0478		mg/Kg		96	70 - 125	0	30
Xylenes, Total	0.100	0.110		mg/Kg		110	53 - 147	0	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	85		75 - 131
Dibromofluoromethane	90		75 - 126
1,2-Dichloroethane-d4 (Surr)	92		70 - 134
Toluene-d8 (Surr)	97		75 - 124

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

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

**Lab Sample ID: MB 500-624401/1-A**  
**Matrix: Solid**  
**Analysis Batch: 625875**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 624401**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	<0.17		0.17	0.074	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.050	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
1,3-Dichlorobenzene	<0.17		0.17	0.037	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
1,4-Dichlorobenzene	<0.17		0.17	0.043	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
1,2-Dichlorobenzene	<0.17		0.17	0.040	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
2-Methylphenol	<0.17		0.17	0.053	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.039	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
N-Nitrosodi-n-propylamine	<0.067		0.067	0.041	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Hexachloroethane	<0.17		0.17	0.051	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
2-Chlorophenol	<0.17		0.17	0.057	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Nitrobenzene	<0.033		0.033	0.0083	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.034	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.036	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Isophorone	<0.17		0.17	0.037	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
2,4-Dimethylphenol	<0.33		0.33	0.13	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Hexachlorobutadiene	<0.17		0.17	0.052	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Naphthalene	<0.033		0.033	0.0051	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
2,4-Dichlorophenol	<0.33		0.33	0.079	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
4-Chloroaniline	<0.67		0.67	0.16	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
2,4,6-Trichlorophenol	<0.33		0.33	0.11	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
2,4,5-Trichlorophenol	<0.33		0.33	0.076	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Hexachlorocyclopentadiene	<0.67		0.67	0.19	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
2-Methylnaphthalene	<0.067		0.067	0.0061	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
2-Nitroaniline	<0.17		0.17	0.045	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
2-Chloronaphthalene	<0.17		0.17	0.037	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
4-Chloro-3-methylphenol	<0.33		0.33	0.11	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
2,6-Dinitrotoluene	<0.17		0.17	0.065	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
2-Nitrophenol	<0.33		0.33	0.079	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
3-Nitroaniline	<0.33		0.33	0.10	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Dimethyl phthalate	<0.17		0.17	0.043	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
2,4-Dinitrophenol	<0.67		0.67	0.59	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Acenaphthylene	<0.033		0.033	0.0044	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
2,4-Dinitrotoluene	<0.17		0.17	0.053	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Acenaphthene	<0.033		0.033	0.0060	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Dibenzofuran	<0.17		0.17	0.039	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
4-Nitrophenol	<0.67		0.67	0.32	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Fluorene	<0.033		0.033	0.0047	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
4-Nitroaniline	<0.33		0.33	0.14	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.044	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Hexachlorobenzene	<0.067		0.067	0.0077	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Diethyl phthalate	<0.17		0.17	0.056	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.039	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Pentachlorophenol	<0.67		0.67	0.53	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
N-Nitrosodiphenylamine	<0.17		0.17	0.039	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
4,6-Dinitro-2-methylphenol	<0.67		0.67	0.27	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Phenanthrene	<0.033		0.033	0.0046	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Anthracene	<0.033		0.033	0.0056	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Carbazole	<0.17		0.17	0.083	mg/Kg		10/20/21 06:58	10/28/21 16:04	1

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

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

**Lab Sample ID: MB 500-624401/1-A**  
**Matrix: Solid**  
**Analysis Batch: 625875**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 624401**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	<0.17		0.17	0.051	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Fluoranthene	<0.033		0.033	0.0062	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Pyrene	<0.033		0.033	0.0066	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Butyl benzyl phthalate	<0.17		0.17	0.063	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Benzo[a]anthracene	<0.033		0.033	0.0045	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Chrysene	<0.033		0.033	0.0091	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.047	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.061	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Di-n-octyl phthalate	<0.17		0.17	0.054	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Benzo[b]fluoranthene	<0.033		0.033	0.0072	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Benzo[k]fluoranthene	<0.033		0.033	0.0098	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Benzo[a]pyrene	<0.033		0.033	0.0064	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Indeno[1,2,3-cd]pyrene	<0.033		0.033	0.0086	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Dibenz(a,h)anthracene	<0.033		0.033	0.0064	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Benzo[g,h,i]perylene	<0.033		0.033	0.011	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
3 & 4 Methylphenol	<0.17		0.17	0.055	mg/Kg		10/20/21 06:58	10/28/21 16:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	135		31 - 166	10/20/21 06:58	10/28/21 16:04	1
Phenol-d5	98		30 - 153	10/20/21 06:58	10/28/21 16:04	1
Nitrobenzene-d5 (Surr)	100		37 - 147	10/20/21 06:58	10/28/21 16:04	1
2-Fluorobiphenyl (Surr)	106		43 - 145	10/20/21 06:58	10/28/21 16:04	1
2,4,6-Tribromophenol	64		31 - 143	10/20/21 06:58	10/28/21 16:04	1
Terphenyl-d14 (Surr)	110		42 - 157	10/20/21 06:58	10/28/21 16:04	1

**Lab Sample ID: LCS 500-624401/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625875**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 624401**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Phenol	1.33	1.08		mg/Kg		81	56 - 122
Bis(2-chloroethyl)ether	1.33	1.10		mg/Kg		82	55 - 111
1,3-Dichlorobenzene	1.33	1.12		mg/Kg		84	65 - 124
1,4-Dichlorobenzene	1.33	1.15		mg/Kg		86	61 - 110
1,2-Dichlorobenzene	1.33	1.25		mg/Kg		93	62 - 110
2-Methylphenol	1.33	1.22		mg/Kg		92	60 - 120
2,2'-oxybis[1-chloropropane]	1.33	0.516	*	mg/Kg		39	40 - 124
N-Nitrosodi-n-propylamine	1.33	1.29		mg/Kg		97	56 - 118
Hexachloroethane	1.33	1.03		mg/Kg		77	60 - 114
2-Chlorophenol	1.33	1.35		mg/Kg		101	64 - 110
Nitrobenzene	1.33	1.13		mg/Kg		85	60 - 116
Bis(2-chloroethoxy)methane	1.33	1.19		mg/Kg		89	60 - 112
1,2,4-Trichlorobenzene	1.33	1.12		mg/Kg		84	66 - 117
Isophorone	1.33	1.25		mg/Kg		94	55 - 110
2,4-Dimethylphenol	1.33	1.15		mg/Kg		87	60 - 110
Hexachlorobutadiene	1.33	1.24		mg/Kg		93	56 - 120
Naphthalene	1.33	1.25		mg/Kg		93	63 - 110
2,4-Dichlorophenol	1.33	1.11		mg/Kg		83	58 - 120

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

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

**Lab Sample ID: LCS 500-624401/2-A**

**Matrix: Solid**

**Analysis Batch: 625875**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 624401**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chloroaniline	1.33	0.952		mg/Kg		71	30 - 150
2,4,6-Trichlorophenol	1.33	1.22		mg/Kg		92	57 - 120
2,4,5-Trichlorophenol	1.33	1.20		mg/Kg		90	50 - 120
Hexachlorocyclopentadiene	1.33	0.759		mg/Kg		57	10 - 133
2-Methylnaphthalene	1.33	1.29		mg/Kg		96	69 - 112
2-Nitroaniline	1.33	1.31		mg/Kg		98	57 - 124
2-Chloronaphthalene	1.33	1.29		mg/Kg		96	69 - 114
4-Chloro-3-methylphenol	1.33	1.15		mg/Kg		86	65 - 122
2,6-Dinitrotoluene	1.33	1.40		mg/Kg		105	70 - 123
2-Nitrophenol	1.33	1.22		mg/Kg		91	60 - 120
3-Nitroaniline	1.33	0.777		mg/Kg		58	40 - 122
Dimethyl phthalate	1.33	1.40		mg/Kg		105	69 - 116
2,4-Dinitrophenol	2.67	<0.67		mg/Kg		17	10 - 100
Acenaphthylene	1.33	1.37		mg/Kg		103	68 - 120
2,4-Dinitrotoluene	1.33	1.31		mg/Kg		98	69 - 124
Acenaphthene	1.33	1.35		mg/Kg		101	65 - 124
Dibenzofuran	1.33	1.22		mg/Kg		92	66 - 115
4-Nitrophenol	2.67	2.12		mg/Kg		80	30 - 122
Fluorene	1.33	1.16		mg/Kg		87	62 - 120
4-Nitroaniline	1.33	0.926		mg/Kg		69	60 - 160
4-Bromophenyl phenyl ether	1.33	1.43		mg/Kg		107	68 - 118
Hexachlorobenzene	1.33	1.48		mg/Kg		111	63 - 124
Diethyl phthalate	1.33	1.27		mg/Kg		95	58 - 120
4-Chlorophenyl phenyl ether	1.33	1.15		mg/Kg		86	62 - 119
Pentachlorophenol	2.67	1.43		mg/Kg		54	13 - 112
N-Nitrosodiphenylamine	1.33	1.38		mg/Kg		103	65 - 112
4,6-Dinitro-2-methylphenol	2.67	1.02		mg/Kg		38	10 - 110
Phenanthrene	1.33	1.37		mg/Kg		103	62 - 120
Anthracene	1.33	1.40		mg/Kg		105	70 - 114
Carbazole	1.33	1.38		mg/Kg		103	65 - 142
Di-n-butyl phthalate	1.33	1.38		mg/Kg		104	65 - 120
Fluoranthene	1.33	1.41		mg/Kg		106	62 - 120
Pyrene	1.33	1.29		mg/Kg		97	61 - 128
Butyl benzyl phthalate	1.33	1.20		mg/Kg		90	71 - 129
Benzo[a]anthracene	1.33	1.38		mg/Kg		104	67 - 122
Chrysene	1.33	1.34		mg/Kg		100	63 - 120
3,3'-Dichlorobenzidine	1.33	1.10		mg/Kg		83	35 - 128
Bis(2-ethylhexyl) phthalate	1.33	1.24		mg/Kg		93	72 - 131
Di-n-octyl phthalate	1.33	1.24		mg/Kg		93	68 - 134
Benzo[b]fluoranthene	1.33	1.30		mg/Kg		98	69 - 129
Benzo[k]fluoranthene	1.33	1.32		mg/Kg		99	68 - 127
Benzo[a]pyrene	1.33	1.32		mg/Kg		99	65 - 133
Indeno[1,2,3-cd]pyrene	1.33	1.30		mg/Kg		97	68 - 130
Dibenz(a,h)anthracene	1.33	1.32		mg/Kg		99	64 - 131
Benzo[g,h,i]perylene	1.33	1.22		mg/Kg		92	72 - 131
3 & 4 Methylphenol	1.33	1.28		mg/Kg		96	57 - 120

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

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

**Lab Sample ID: LCS 500-624401/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625875**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 624401**

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorophenol	119		31 - 166
Phenol-d5	92		30 - 153
Nitrobenzene-d5 (Surr)	96		37 - 147
2-Fluorobiphenyl (Surr)	104		43 - 145
2,4,6-Tribromophenol	76		31 - 143
Terphenyl-d14 (Surr)	108		42 - 157

**Lab Sample ID: 500-207053-1 MS**  
**Matrix: Solid**  
**Analysis Batch: 625884**

**Client Sample ID: 2674V2-17-B02 (0-4)**  
**Prep Type: Total/NA**  
**Prep Batch: 624401**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Phenol	<0.17		1.37	1.38		mg/Kg	☼	101	56 - 122
Bis(2-chloroethyl)ether	<0.17		1.37	1.34		mg/Kg	☼	98	55 - 111
1,3-Dichlorobenzene	<0.17	F1	1.37	1.40		mg/Kg	☼	102	60 - 110
1,4-Dichlorobenzene	<0.17	F1	1.37	1.44		mg/Kg	☼	105	61 - 110
1,2-Dichlorobenzene	<0.17	F1	1.37	1.46		mg/Kg	☼	107	62 - 110
2-Methylphenol	<0.17		1.37	1.34		mg/Kg	☼	97	60 - 120
2,2'-oxybis[1-chloropropane]	<0.17	*-	1.37	1.38		mg/Kg	☼	101	40 - 124
N-Nitrosodi-n-propylamine	<0.066		1.37	1.17		mg/Kg	☼	85	56 - 118
Hexachloroethane	<0.17		1.37	1.30		mg/Kg	☼	95	60 - 114
2-Chlorophenol	<0.17	F1	1.37	1.50		mg/Kg	☼	109	64 - 110
Nitrobenzene	<0.033		1.37	1.31		mg/Kg	☼	95	60 - 116
Bis(2-chloroethoxy)methane	<0.17		1.37	1.25		mg/Kg	☼	91	60 - 112
1,2,4-Trichlorobenzene	<0.17	F1	1.37	1.58		mg/Kg	☼	116	66 - 117
Isophorone	<0.17		1.37	1.26		mg/Kg	☼	92	55 - 110
2,4-Dimethylphenol	<0.33	F1	1.37	1.45		mg/Kg	☼	105	60 - 110
Hexachlorobutadiene	<0.17	F1	1.37	1.62		mg/Kg	☼	118	56 - 120
Naphthalene	<0.033	F1	1.37	1.45		mg/Kg	☼	106	63 - 110
2,4-Dichlorophenol	<0.33	F1	1.37	1.52		mg/Kg	☼	111	58 - 120
4-Chloroaniline	<0.66		1.37	0.705		mg/Kg	☼	51	30 - 150
2,4,6-Trichlorophenol	<0.33		1.37	1.46		mg/Kg	☼	107	57 - 120
2,4,5-Trichlorophenol	<0.33	F1	1.37	1.55		mg/Kg	☼	113	50 - 120
Hexachlorocyclopentadiene	<0.66		1.37	0.736		mg/Kg	☼	54	10 - 133
2-Methylnaphthalene	<0.066	F1	1.37	1.45		mg/Kg	☼	106	69 - 112
2-Nitroaniline	<0.17		1.37	1.37		mg/Kg	☼	100	57 - 124
2-Chloronaphthalene	<0.17	F1	1.37	1.51		mg/Kg	☼	110	69 - 114
4-Chloro-3-methylphenol	<0.33		1.37	1.43		mg/Kg	☼	104	65 - 122
2,6-Dinitrotoluene	<0.17	F1	1.37	1.59		mg/Kg	☼	116	70 - 123
2-Nitrophenol	<0.33	F1	1.37	1.50		mg/Kg	☼	109	60 - 120
3-Nitroaniline	<0.33		1.37	1.01		mg/Kg	☼	74	40 - 122
Dimethyl phthalate	<0.17	F1	1.37	1.52		mg/Kg	☼	111	69 - 116
2,4-Dinitrophenol	<0.66	F2	2.74	1.58		mg/Kg	☼	58	10 - 100
Acenaphthylene	<0.033	F1	1.37	1.47		mg/Kg	☼	107	68 - 120
2,4-Dinitrotoluene	<0.17	F1	1.37	1.56		mg/Kg	☼	114	69 - 124
Acenaphthene	<0.033	F1	1.37	1.59		mg/Kg	☼	116	65 - 124
Dibenzofuran	<0.17	F1	1.37	1.52		mg/Kg	☼	111	66 - 115
4-Nitrophenol	<0.66	F1	2.74	3.07		mg/Kg	☼	112	30 - 122

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

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

**Lab Sample ID: 500-207053-1 MS**  
**Matrix: Solid**  
**Analysis Batch: 625884**

**Client Sample ID: 2674V2-17-B02 (0-4)**  
**Prep Type: Total/NA**  
**Prep Batch: 624401**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Fluorene	<0.033	F1	1.37	1.57		mg/Kg	☼	114	62 - 120
4-Nitroaniline	<0.33		1.37	1.63		mg/Kg	☼	118	60 - 160
4-Bromophenyl phenyl ether	<0.17	F1	1.37	1.73	F1	mg/Kg	☼	126	68 - 118
Hexachlorobenzene	<0.066	F1	1.37	2.09	F1	mg/Kg	☼	153	63 - 124
Diethyl phthalate	<0.17	F1	1.37	1.65		mg/Kg	☼	120	58 - 120
4-Chlorophenyl phenyl ether	<0.17	F1	1.37	1.52		mg/Kg	☼	111	62 - 119
Pentachlorophenol	<0.66		2.74	1.70		mg/Kg	☼	62	13 - 112
N-Nitrosodiphenylamine	<0.17	F1	1.37	1.56	F1	mg/Kg	☼	114	65 - 112
4,6-Dinitro-2-methylphenol	<0.66		2.74	2.07		mg/Kg	☼	76	10 - 110
Phenanthrene	0.021	J F1	1.37	1.49		mg/Kg	☼	107	62 - 120
Anthracene	<0.033	F1	1.37	1.50		mg/Kg	☼	109	70 - 114
Carbazole	<0.17	F1	1.37	2.27	F1	mg/Kg	☼	165	65 - 142
Di-n-butyl phthalate	<0.17	F1	1.37	1.61		mg/Kg	☼	118	65 - 120
Fluoranthene	0.10	F1	1.37	1.71		mg/Kg	☼	117	62 - 120
Pyrene	0.084		1.37	1.35		mg/Kg	☼	92	61 - 128
Butyl benzyl phthalate	<0.17		1.37	1.33		mg/Kg	☼	97	71 - 129
Benzo[a]anthracene	0.052		1.37	1.45		mg/Kg	☼	102	67 - 122
Chrysene	0.070		1.37	1.46		mg/Kg	☼	101	63 - 120
3,3'-Dichlorobenzidine	<0.17		1.37	1.51		mg/Kg	☼	110	35 - 128
Bis(2-ethylhexyl) phthalate	<0.17		1.37	1.39		mg/Kg	☼	101	72 - 131
Di-n-octyl phthalate	<0.17	F1	1.37	1.92	F1	mg/Kg	☼	140	68 - 134
Benzo[b]fluoranthene	0.096	F1	1.37	1.70		mg/Kg	☼	117	69 - 129
Benzo[k]fluoranthene	0.034		1.37	1.54		mg/Kg	☼	110	68 - 127
Benzo[a]pyrene	0.070	F1	1.37	1.67		mg/Kg	☼	117	65 - 133
Indeno[1,2,3-cd]pyrene	0.065		1.37	1.53		mg/Kg	☼	107	68 - 130
Dibenz(a,h)anthracene	0.016	J	1.37	1.49		mg/Kg	☼	107	64 - 131
Benzo[g,h,i]perylene	0.068		1.37	1.32		mg/Kg	☼	91	72 - 131
3 & 4 Methylphenol	<0.17		1.37	1.37		mg/Kg	☼	100	57 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorophenol	115		31 - 166
Phenol-d5	106		30 - 153
Nitrobenzene-d5 (Surr)	97		37 - 147
2-Fluorobiphenyl (Surr)	121		43 - 145
2,4,6-Tribromophenol	171	S1+	31 - 143
Terphenyl-d14 (Surr)	100		42 - 157

**Lab Sample ID: 500-207053-1 MSD**  
**Matrix: Solid**  
**Analysis Batch: 625884**

**Client Sample ID: 2674V2-17-B02 (0-4)**  
**Prep Type: Total/NA**  
**Prep Batch: 624401**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Phenol	<0.17		1.36	1.54		mg/Kg	☼	114	56 - 122	11	30
Bis(2-chloroethyl)ether	<0.17		1.36	1.40		mg/Kg	☼	103	55 - 111	4	30
1,3-Dichlorobenzene	<0.17	F1	1.36	1.63	F1	mg/Kg	☼	120	60 - 110	15	30
1,4-Dichlorobenzene	<0.17	F1	1.36	1.64	F1	mg/Kg	☼	121	61 - 110	13	30
1,2-Dichlorobenzene	<0.17	F1	1.36	1.66	F1	mg/Kg	☼	123	62 - 110	13	30
2-Methylphenol	<0.17		1.36	1.50		mg/Kg	☼	111	60 - 120	12	30

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

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

**Lab Sample ID: 500-207053-1 MSD**

**Matrix: Solid**

**Analysis Batch: 625884**

**Client Sample ID: 2674V2-17-B02 (0-4)**

**Prep Type: Total/NA**

**Prep Batch: 624401**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.		RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD		
2,2'-oxybis[1-chloropropane]	<0.17	*	1.36	1.56		mg/Kg	☼	115	40 - 124	12	30	
N-Nitrosodi-n-propylamine	<0.066		1.36	1.35		mg/Kg	☼	99	56 - 118	14	30	
Hexachloroethane	<0.17		1.36	1.52		mg/Kg	☼	112	60 - 114	15	30	
2-Chlorophenol	<0.17	F1	1.36	1.64	F1	mg/Kg	☼	121	64 - 110	9	30	
Nitrobenzene	<0.033		1.36	1.46		mg/Kg	☼	108	60 - 116	11	30	
Bis(2-chloroethoxy)methane	<0.17		1.36	1.40		mg/Kg	☼	103	60 - 112	11	30	
1,2,4-Trichlorobenzene	<0.17	F1	1.36	1.75	F1	mg/Kg	☼	129	66 - 117	10	30	
Isophorone	<0.17		1.36	1.40		mg/Kg	☼	103	55 - 110	10	30	
2,4-Dimethylphenol	<0.33	F1	1.36	1.61	F1	mg/Kg	☼	119	60 - 110	11	30	
Hexachlorobutadiene	<0.17	F1	1.36	1.82	F1	mg/Kg	☼	134	56 - 120	12	30	
Naphthalene	<0.033	F1	1.36	1.62	F1	mg/Kg	☼	120	63 - 110	11	30	
2,4-Dichlorophenol	<0.33	F1	1.36	1.71	F1	mg/Kg	☼	126	58 - 120	11	30	
4-Chloroaniline	<0.66		1.36	0.857		mg/Kg	☼	63	30 - 150	19	30	
2,4,6-Trichlorophenol	<0.33		1.36	1.63		mg/Kg	☼	120	57 - 120	11	30	
2,4,5-Trichlorophenol	<0.33	F1	1.36	1.71	F1	mg/Kg	☼	126	50 - 120	10	30	
Hexachlorocyclopentadiene	<0.66		1.36	0.851		mg/Kg	☼	63	10 - 133	15	30	
2-Methylnaphthalene	<0.066	F1	1.36	1.64	F1	mg/Kg	☼	121	69 - 112	12	30	
2-Nitroaniline	<0.17		1.36	1.58		mg/Kg	☼	117	57 - 124	15	30	
2-Chloronaphthalene	<0.17	F1	1.36	1.68	F1	mg/Kg	☼	124	69 - 114	11	30	
4-Chloro-3-methylphenol	<0.33		1.36	1.57		mg/Kg	☼	116	65 - 122	9	30	
2,6-Dinitrotoluene	<0.17	F1	1.36	1.75	F1	mg/Kg	☼	129	70 - 123	10	30	
2-Nitrophenol	<0.33	F1	1.36	1.69	F1	mg/Kg	☼	125	60 - 120	12	30	
3-Nitroaniline	<0.33		1.36	1.27		mg/Kg	☼	93	40 - 122	22	30	
Dimethyl phthalate	<0.17	F1	1.36	1.70	F1	mg/Kg	☼	125	69 - 116	11	30	
2,4-Dinitrophenol	<0.66	F2	2.71	2.22	F2	mg/Kg	☼	82	10 - 100	34	30	
Acenaphthylene	<0.033	F1	1.36	1.64	F1	mg/Kg	☼	121	68 - 120	10	30	
2,4-Dinitrotoluene	<0.17	F1	1.36	1.73	F1	mg/Kg	☼	128	69 - 124	10	30	
Acenaphthene	<0.033	F1	1.36	1.76	F1	mg/Kg	☼	130	65 - 124	10	30	
Dibenzofuran	<0.17	F1	1.36	1.68	F1	mg/Kg	☼	124	66 - 115	10	30	
4-Nitrophenol	<0.66	F1	2.71	3.32	F1	mg/Kg	☼	123	30 - 122	8	30	
Fluorene	<0.033	F1	1.36	1.75	F1	mg/Kg	☼	129	62 - 120	11	30	
4-Nitroaniline	<0.33		1.36	1.85		mg/Kg	☼	137	60 - 160	13	30	
4-Bromophenyl phenyl ether	<0.17	F1	1.36	1.94	F1	mg/Kg	☼	143	68 - 118	11	30	
Hexachlorobenzene	<0.066	F1	1.36	2.41	E F1	mg/Kg	☼	178	63 - 124	14	30	
Diethyl phthalate	<0.17	F1	1.36	1.81	F1	mg/Kg	☼	133	58 - 120	9	30	
4-Chlorophenyl phenyl ether	<0.17	F1	1.36	1.67	F1	mg/Kg	☼	123	62 - 119	10	30	
Pentachlorophenol	<0.66		2.71	1.91		mg/Kg	☼	70	13 - 112	12	30	
N-Nitrosodiphenylamine	<0.17	F1	1.36	1.76	F1	mg/Kg	☼	130	65 - 112	12	30	
4,6-Dinitro-2-methylphenol	<0.66		2.71	2.67		mg/Kg	☼	99	10 - 110	25	30	
Phenanthrene	0.021	J F1	1.36	1.76	F1	mg/Kg	☼	128	62 - 120	16	30	
Anthracene	<0.033	F1	1.36	1.70	F1	mg/Kg	☼	126	70 - 114	13	30	
Carbazole	<0.17	F1	1.36	2.60	E F1	mg/Kg	☼	192	65 - 142	14	30	
Di-n-butyl phthalate	<0.17	F1	1.36	1.83	F1	mg/Kg	☼	135	65 - 120	12	30	
Fluoranthene	0.10	F1	1.36	2.15	F1	mg/Kg	☼	151	62 - 120	23	30	
Pyrene	0.084		1.36	1.50		mg/Kg	☼	104	61 - 128	10	30	
Butyl benzyl phthalate	<0.17		1.36	1.37		mg/Kg	☼	101	71 - 129	3	30	
Benzo[a]anthracene	0.052		1.36	1.66		mg/Kg	☼	119	67 - 122	14	30	
Chrysene	0.070		1.36	1.70		mg/Kg	☼	120	63 - 120	15	30	
3,3'-Dichlorobenzidine	<0.17		1.36	1.61		mg/Kg	☼	119	35 - 128	6	30	

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

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

Lab Sample ID: 500-207053-1 MSD

Matrix: Solid

Analysis Batch: 625884

Client Sample ID: 2674V2-17-B02 (0-4)

Prep Type: Total/NA

Prep Batch: 624401

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Bis(2-ethylhexyl) phthalate	<0.17		1.36	1.52		mg/Kg	☼	112	72 - 131	9	30
Di-n-octyl phthalate	<0.17	F1	1.36	2.24	F1	mg/Kg	☼	165	68 - 134	15	30
Benzo[b]fluoranthene	0.096	F1	1.36	1.92	F1	mg/Kg	☼	134	69 - 129	12	30
Benzo[k]fluoranthene	0.034		1.36	1.74		mg/Kg	☼	126	68 - 127	12	30
Benzo[a]pyrene	0.070	F1	1.36	1.91	F1	mg/Kg	☼	136	65 - 133	13	30
Indeno[1,2,3-cd]pyrene	0.065		1.36	1.66		mg/Kg	☼	118	68 - 130	8	30
Dibenz(a,h)anthracene	0.016	J	1.36	1.59		mg/Kg	☼	116	64 - 131	7	30
Benzo[g,h,i]perylene	0.068		1.36	1.41		mg/Kg	☼	99	72 - 131	7	30
3 & 4 Methylphenol	<0.17		1.36	1.57		mg/Kg	☼	116	57 - 120	14	30
<b>Surrogate</b>	<b>MSD</b>	<b>MSD</b>	<b>Limits</b>								
	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>								
2-Fluorophenol	126		31 - 166								
Phenol-d5	119		30 - 153								
Nitrobenzene-d5 (Surr)	109		37 - 147								
2-Fluorobiphenyl (Surr)	134		43 - 145								
2,4,6-Tribromophenol	182	S1+	31 - 143								
Terphenyl-d14 (Surr)	106		42 - 157								

## Method: 6010B - Metals (ICP)

Lab Sample ID: LCS 500-625180/2-A

Matrix: Solid

Analysis Batch: 625354

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 625180

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	RPD	Limit
Barium	0.500	0.538	^+	mg/L		108	80 - 120		
Beryllium	0.0500	0.0499		mg/L		100	80 - 120		
Boron	1.00	0.841		mg/L		84	80 - 120		
Cadmium	0.0500	0.0479		mg/L		96	80 - 120		
Chromium	0.200	0.202		mg/L		101	80 - 120		
Cobalt	0.500	0.524		mg/L		105	80 - 120		
Iron	1.00	1.05		mg/L		105	80 - 120		
Lead	0.100	0.0984		mg/L		98	80 - 120		
Manganese	0.500	0.481		mg/L		96	80 - 120		
Nickel	0.500	0.532		mg/L		106	80 - 120		
Selenium	0.100	0.108		mg/L		108	80 - 120		
Silver	0.0500	0.0496		mg/L		99	80 - 120		
Zinc	0.500	0.617	*+ ^+	mg/L		123	80 - 120		

Lab Sample ID: LCSD 500-625180/3-A

Matrix: Solid

Analysis Batch: 625354

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 625180

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	Limit
Barium	0.500	0.540	^+	mg/L		108	80 - 120	0	20
Beryllium	0.0500	0.0498		mg/L		100	80 - 120	0	20
Boron	1.00	0.842		mg/L		84	80 - 120	0	20
Cadmium	0.0500	0.0480		mg/L		96	80 - 120	0	20
Chromium	0.200	0.205		mg/L		102	80 - 120	1	20

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

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

**Lab Sample ID: LCSD 500-625180/3-A**  
**Matrix: Solid**  
**Analysis Batch: 625354**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 625180**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cobalt	0.500	0.524		mg/L		105	80 - 120	0	20
Iron	1.00	1.05		mg/L		105	80 - 120	0	20
Lead	0.100	0.0955		mg/L		96	80 - 120	3	20
Manganese	0.500	0.482		mg/L		96	80 - 120	0	20
Nickel	0.500	0.530		mg/L		106	80 - 120	0	20
Selenium	0.100	0.104		mg/L		104	80 - 120	4	20
Silver	0.0500	0.0504		mg/L		101	80 - 120	2	20
Zinc	0.500	0.624	*+ ^+	mg/L		125	80 - 120	1	20

**Lab Sample ID: LCS 500-625182/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625619**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625182**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese	0.500	0.485		mg/L		97	80 - 120

**Lab Sample ID: MB 500-626365/1-A**  
**Matrix: Solid**  
**Analysis Batch: 626573**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 626365**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.447	J	2.0	0.39	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Arsenic	<1.0		1.0	0.34	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Barium	<1.0		1.0	0.11	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Beryllium	<0.40		0.40	0.093	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Boron	<5.0		5.0	0.47	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Cadmium	0.0726	J	0.20	0.036	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Calcium	8.98	J	20	3.4	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Chromium	<1.0		1.0	0.50	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Cobalt	<0.50		0.50	0.13	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Copper	<1.0		1.0	0.28	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Iron	25.9		20	10	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Lead	<0.50		0.50	0.23	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Magnesium	5.49	J	10	5.0	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Manganese	0.389	J	1.0	0.15	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Nickel	<1.0		1.0	0.29	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Potassium	<50		50	18	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Selenium	<1.0		1.0	0.59	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Silver	<0.50		0.50	0.13	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Sodium	<100		100	15	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Thallium	<1.0		1.0	0.50	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Vanadium	<0.50		0.50	0.12	mg/Kg		10/31/21 08:55	11/01/21 11:57	1
Zinc	<2.0		2.0	0.88	mg/Kg		10/31/21 08:55	11/01/21 11:57	1

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

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

**Lab Sample ID: LCS 500-626365/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626573**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626365**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	50.0	48.1		mg/Kg		96	80 - 120
Arsenic	10.0	8.67		mg/Kg		87	80 - 120
Barium	200	198		mg/Kg		99	80 - 120
Beryllium	5.00	4.65		mg/Kg		93	80 - 120
Boron	100	81.4		mg/Kg		81	80 - 120
Cadmium	5.00	4.54		mg/Kg		91	80 - 120
Calcium	1000	930		mg/Kg		93	80 - 120
Chromium	20.0	18.8		mg/Kg		94	80 - 120
Cobalt	50.0	46.5		mg/Kg		93	80 - 120
Copper	25.0	24.2		mg/Kg		97	80 - 120
Iron	100	105		mg/Kg		105	80 - 120
Lead	10.0	8.87		mg/Kg		89	80 - 120
Magnesium	1000	941		mg/Kg		94	80 - 120
Manganese	50.0	46.2		mg/Kg		92	80 - 120
Nickel	50.0	47.1		mg/Kg		94	80 - 120
Potassium	1000	936		mg/Kg		94	80 - 120
Selenium	10.0	8.26		mg/Kg		83	80 - 120
Silver	5.00	4.53		mg/Kg		91	80 - 120
Sodium	1000	987		mg/Kg		99	80 - 120
Thallium	10.0	8.52		mg/Kg		85	80 - 120
Vanadium	50.0	47.0		mg/Kg		94	80 - 120
Zinc	50.0	46.0		mg/Kg		92	80 - 120

**Lab Sample ID: 500-207053-1 MS**  
**Matrix: Solid**  
**Analysis Batch: 626573**

**Client Sample ID: 2674V2-17-B02 (0-4)**  
**Prep Type: Total/NA**  
**Prep Batch: 626365**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	0.48	J B F1	25.5	17.5	F1	mg/Kg	⊛	67	75 - 125
Arsenic	2.9		5.10	7.28		mg/Kg	⊛	86	75 - 125
Barium	8.1		102	97.3		mg/Kg	⊛	88	75 - 125
Beryllium	0.14	J	2.55	2.55		mg/Kg	⊛	95	75 - 125
Boron	3.3		51.0	43.7		mg/Kg	⊛	79	75 - 125
Cadmium	0.042	J B	2.55	2.50		mg/Kg	⊛	96	75 - 125
Chromium	3.4		10.2	12.1		mg/Kg	⊛	86	75 - 125
Cobalt	2.1		25.5	27.3		mg/Kg	⊛	99	75 - 125
Copper	7.7		12.7	20.0		mg/Kg	⊛	97	75 - 125
Iron	5500	B	51.0	5200	4	mg/Kg	⊛	-677	75 - 125
Lead	3.3		5.10	7.75		mg/Kg	⊛	87	75 - 125
Magnesium	30000	B	510	29400	4	mg/Kg	⊛	-135	75 - 125
Manganese	290	B	25.5	235	4	mg/Kg	⊛	-230	75 - 125
Nickel	6.0		25.5	29.9		mg/Kg	⊛	94	75 - 125
Potassium	310	F1	510	1130	F1	mg/Kg	⊛	161	75 - 125
Selenium	<0.51		5.10	4.24		mg/Kg	⊛	83	75 - 125
Silver	<0.25		2.55	2.56		mg/Kg	⊛	100	75 - 125
Sodium	200		510	750		mg/Kg	⊛	108	75 - 125
Thallium	<0.51		5.10	4.02		mg/Kg	⊛	79	75 - 125
Vanadium	7.6		25.5	30.0		mg/Kg	⊛	88	75 - 125
Zinc	23		25.5	44.3		mg/Kg	⊛	83	75 - 125

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

## Method: 6010B - Metals (ICP)

**Lab Sample ID: 500-207053-1 MS**  
**Matrix: Solid**  
**Analysis Batch: 626573**

**Client Sample ID: 2674V2-17-B02 (0-4)**  
**Prep Type: Total/NA**  
**Prep Batch: 626365**  
**%Rec.**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Calcium	71000	B	510	84500	4	mg/Kg	☼	2613	75 - 125

**Lab Sample ID: 500-207053-1 MSD**  
**Matrix: Solid**  
**Analysis Batch: 626573**

**Client Sample ID: 2674V2-17-B02 (0-4)**  
**Prep Type: Total/NA**  
**Prep Batch: 626365**  
**%Rec.**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	0.48	J B F1	25.7	18.2	F1	mg/Kg	☼	69	75 - 125	4	20
Arsenic	2.9		5.14	8.04		mg/Kg	☼	100	75 - 125	10	20
Barium	8.1		103	103		mg/Kg	☼	92	75 - 125	5	20
Beryllium	0.14	J	2.57	2.67		mg/Kg	☼	98	75 - 125	5	20
Boron	3.3		51.4	46.1		mg/Kg	☼	83	75 - 125	5	20
Cadmium	0.042	J B	2.57	2.55		mg/Kg	☼	97	75 - 125	2	20
Chromium	3.4		10.3	13.1		mg/Kg	☼	95	75 - 125	8	20
Cobalt	2.1		25.7	28.2		mg/Kg	☼	102	75 - 125	3	20
Copper	7.7		12.9	21.0		mg/Kg	☼	103	75 - 125	5	20
Iron	5500	B	51.4	6070	4	mg/Kg	☼	1021	75 - 125	15	20
Lead	3.3		5.14	8.44		mg/Kg	☼	100	75 - 125	9	20
Magnesium	30000	B	514	30000	4	mg/Kg	☼	-15	75 - 125	2	20
Manganese	290	B	25.7	218	4	mg/Kg	☼	-294	75 - 125	7	20
Nickel	6.0		25.7	31.7		mg/Kg	☼	100	75 - 125	6	20
Potassium	310	F1	514	1200	F1	mg/Kg	☼	174	75 - 125	6	20
Selenium	<0.51		5.14	4.50		mg/Kg	☼	88	75 - 125	6	20
Silver	<0.25		2.57	2.72		mg/Kg	☼	106	75 - 125	6	20
Sodium	200		514	795		mg/Kg	☼	116	75 - 125	6	20
Thallium	<0.51		5.14	4.49		mg/Kg	☼	87	75 - 125	11	20
Vanadium	7.6		25.7	31.0		mg/Kg	☼	91	75 - 125	3	20
Zinc	23		25.7	47.4		mg/Kg	☼	94	75 - 125	7	20

**Lab Sample ID: 500-207053-1 MSD**  
**Matrix: Solid**  
**Analysis Batch: 626573**

**Client Sample ID: 2674V2-17-B02 (0-4)**  
**Prep Type: Total/NA**  
**Prep Batch: 626365**  
**%Rec.**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Calcium	71000	B	514	75300	4	mg/Kg	☼	805	75 - 125	11	20

**Lab Sample ID: 500-207053-1 DU**  
**Matrix: Solid**  
**Analysis Batch: 626573**

**Client Sample ID: 2674V2-17-B02 (0-4)**  
**Prep Type: Total/NA**  
**Prep Batch: 626365**  
**%Rec.**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Antimony	0.48	J B F1	<0.95		mg/Kg	☼	NC	20
Arsenic	2.9		2.36		mg/Kg	☼	20	20
Barium	8.1		4.49	F3	mg/Kg	☼	57	20
Beryllium	0.14	J	0.142	J	mg/Kg	☼	2	20
Boron	3.3		3.35		mg/Kg	☼	1	20
Cadmium	0.042	J B	0.0345	J	mg/Kg	☼	20	20
Chromium	3.4		3.48		mg/Kg	☼	3	20
Cobalt	2.1		2.21		mg/Kg	☼	7	20

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

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

**Lab Sample ID: 500-207053-1 DU**  
**Matrix: Solid**  
**Analysis Batch: 626573**

**Client Sample ID: 2674V2-17-B02 (0-4)**  
**Prep Type: Total/NA**  
**Prep Batch: 626365**

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD	Limit
	Result	Qualifier	Result	Qualifier					
Copper	7.7		6.15	F3	mg/Kg	✖	23	20	
Iron	5500	B	5110		mg/Kg	✖	8	20	
Lead	3.3		3.00		mg/Kg	✖	10	20	
Magnesium	30000	B	30200	E	mg/Kg	✖	0.5	20	
Manganese	290	B	166	F3	mg/Kg	✖	55	20	
Nickel	6.0		4.99		mg/Kg	✖	18	20	
Potassium	310	F1	347		mg/Kg	✖	12	20	
Selenium	<0.51		<0.47		mg/Kg	✖	NC	20	
Silver	<0.25		<0.24		mg/Kg	✖	NC	20	
Sodium	200		196		mg/Kg	✖	1	20	
Thallium	<0.51		<0.47		mg/Kg	✖	NC	20	
Vanadium	7.6		8.15		mg/Kg	✖	6	20	
Zinc	23		19.3		mg/Kg	✖	18	20	

**Lab Sample ID: 500-207053-1 DU**  
**Matrix: Solid**  
**Analysis Batch: 626573**

**Client Sample ID: 2674V2-17-B02 (0-4)**  
**Prep Type: Total/NA**  
**Prep Batch: 626365**

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD	Limit
	Result	Qualifier	Result	Qualifier					
Calcium	71000	B	83400		mg/Kg	✖	16	20	

**Lab Sample ID: LB 500-624860/1-B**  
**Matrix: Solid**  
**Analysis Batch: 625354**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 625180**

Analyte	LB	LB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Barium	<0.50	^+	0.50	0.050	mg/L		10/25/21 08:27	10/25/21 17:27	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/25/21 08:27	10/25/21 17:27	1
Boron	<0.50		0.50	0.050	mg/L		10/25/21 08:27	10/25/21 17:27	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/25/21 08:27	10/25/21 17:27	1
Chromium	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 17:27	1
Cobalt	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 17:27	1
Iron	<0.40		0.40	0.20	mg/L		10/25/21 08:27	10/25/21 17:27	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/25/21 08:27	10/25/21 17:27	1
Manganese	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 17:27	1
Nickel	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 17:27	1
Selenium	<0.050		0.050	0.020	mg/L		10/25/21 08:27	10/25/21 17:27	1
Silver	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 17:27	1
Zinc	<0.50	^+	0.50	0.020	mg/L		10/25/21 08:27	10/25/21 17:27	1

**Lab Sample ID: LB 500-624891/21-B**  
**Matrix: Solid**  
**Analysis Batch: 625619**

**Client Sample ID: Method Blank**  
**Prep Type: SPLP East**  
**Prep Batch: 625182**

Analyte	LB	LB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Manganese	<0.025		0.025	0.010	mg/L		10/25/21 08:33	10/26/21 17:15	1

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

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

**Lab Sample ID: LCS 500-625180/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625693**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625180**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.500	0.489		mg/L		98	80 - 120
Thallium	0.100	0.112		mg/L		112	80 - 120

**Lab Sample ID: LCSD 500-625180/3-A**  
**Matrix: Solid**  
**Analysis Batch: 625693**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 625180**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	0.500	0.500		mg/L		100	80 - 120	2	20
Thallium	0.100	0.110		mg/L		110	80 - 120	2	20

**Lab Sample ID: LB 500-624860/1-B**  
**Matrix: Solid**  
**Analysis Batch: 625693**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 625180**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/25/21 08:27	10/26/21 14:51	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/25/21 08:27	10/26/21 14:51	1

## Method: 7470A - TCLP Mercury

**Lab Sample ID: MB 500-625464/12-A**  
**Matrix: Solid**  
**Analysis Batch: 625700**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 625464**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 09:20	1

**Lab Sample ID: LCS 500-625464/14-A**  
**Matrix: Solid**  
**Analysis Batch: 625700**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625464**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00200	0.00183		mg/L		92	80 - 120

**Lab Sample ID: LB 500-624860/1-C**  
**Matrix: Solid**  
**Analysis Batch: 625700**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 625464**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 09:22	1

**Lab Sample ID: 500-207053-4 MS**  
**Matrix: Solid**  
**Analysis Batch: 625700**

**Client Sample ID: 2674V2-17-B01 (4-8)**  
**Prep Type: TCLP**  
**Prep Batch: 625464**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.00020		0.00100	0.000934		mg/L		93	75 - 125

# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

## Method: 7470A - TCLP Mercury (Continued)

Lab Sample ID: 500-207053-4 DU  
 Matrix: Solid  
 Analysis Batch: 625700

Client Sample ID: 2674V2-17-B01 (4-8)  
 Prep Type: TCLP  
 Prep Batch: 625464

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Mercury	<0.00020		<0.00020		mg/L		NC	20

## Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 500-625696/12-A  
 Matrix: Solid  
 Analysis Batch: 625923

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 625696

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0056	mg/Kg		10/27/21 14:15	10/28/21 06:34	1

Lab Sample ID: LCS 500-625696/13-A  
 Matrix: Solid  
 Analysis Batch: 625923

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 625696

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.167	0.175		mg/Kg		105	80 - 120

## Method: 9045D - pH

Lab Sample ID: 500-207053-1 DU  
 Matrix: Solid  
 Analysis Batch: 624833

Client Sample ID: 2674V2-17-B02 (0-4)  
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
pH	9.0		9.1		SU		0.6	

# Lab Chronicle

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

**Client Sample ID: 2674V2-17-B02 (0-4)**

**Lab Sample ID: 500-207053-1**

**Date Collected: 10/18/21 10:30**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			624891	10/21/21 15:30	OAJ	TAL CHI
SPLP East	Prep	3010A			625182	10/25/21 08:33	BDE	TAL CHI
SPLP East	Analysis	6010B		1	625619	10/26/21 17:34	JJB	TAL CHI
TCLP	Leach	1311			624860	10/21/21 15:30	OAJ	TAL CHI
TCLP	Prep	3010A			625180	10/25/21 08:27	BDE	TAL CHI
TCLP	Analysis	6010B		1	625354	10/25/21 18:17	JJB	TAL CHI
TCLP	Leach	1311			624860	10/21/21 15:30	OAJ	TAL CHI
TCLP	Prep	3010A			625180	10/25/21 08:27	BDE	TAL CHI
TCLP	Analysis	6020A		1	625693	10/26/21 14:55	FXG	TAL CHI
TCLP	Leach	1311			624860	10/21/21 15:30	OAJ	TAL CHI
TCLP	Prep	7470A			625464	10/26/21 09:55	MJG	TAL CHI
TCLP	Analysis	7470A		1	625700	10/27/21 09:43	MJG	TAL CHI
Total/NA	Analysis	9045D		1	624833	10/21/21 17:16	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	624697	10/21/21 08:57	LWN	TAL CHI

**Client Sample ID: 2674V2-17-B02 (0-4)**

**Lab Sample ID: 500-207053-1**

**Date Collected: 10/18/21 10:30**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 96.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624914	10/19/21 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625358	10/26/21 17:12	PMF	TAL CHI
Total/NA	Prep	3541			624401	10/20/21 06:58	SB	TAL CHI
Total/NA	Analysis	8270D		1	625884	10/28/21 15:19	AK	TAL CHI
Total/NA	Prep	3050B			626365	10/31/21 08:55	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626573	11/01/21 12:03	JJB	TAL CHI
Total/NA	Prep	3050B			626365	10/31/21 08:55	BDE	TAL CHI
Total/NA	Analysis	6010B		5	626573	11/01/21 13:37	JJB	TAL CHI
Total/NA	Prep	7471B			625696	10/27/21 14:15	MJG	TAL CHI
Total/NA	Analysis	7471B		1	625923	10/28/21 06:40	MJG	TAL CHI

**Client Sample ID: 2674V2-17-B02 (4-8)**

**Lab Sample ID: 500-207053-2**

**Date Collected: 10/18/21 10:45**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			624891	10/21/21 15:30	OAJ	TAL CHI
SPLP East	Prep	3010A			625182	10/25/21 08:33	BDE	TAL CHI
SPLP East	Analysis	6010B		1	625619	10/26/21 17:37	JJB	TAL CHI
TCLP	Leach	1311			624860	10/21/21 15:30	OAJ	TAL CHI
TCLP	Prep	3010A			625180	10/25/21 08:27	BDE	TAL CHI
TCLP	Analysis	6010B		1	625354	10/25/21 18:21	JJB	TAL CHI
TCLP	Leach	1311			624860	10/21/21 15:30	OAJ	TAL CHI
TCLP	Prep	3010A			625180	10/25/21 08:27	BDE	TAL CHI
TCLP	Analysis	6020A		1	625693	10/26/21 14:56	FXG	TAL CHI



# Lab Chronicle

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

**Client Sample ID: 2674V2-17-B02 (4-8)**

**Lab Sample ID: 500-207053-2**

**Date Collected: 10/18/21 10:45**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			624860	10/21/21 15:30	OAJ	TAL CHI
TCLP	Prep	7470A			625464	10/26/21 09:55	MJG	TAL CHI
TCLP	Analysis	7470A		1	625700	10/27/21 09:45	MJG	TAL CHI
Total/NA	Analysis	9045D		1	624833	10/21/21 17:21	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	624697	10/21/21 08:57	LWN	TAL CHI

**Client Sample ID: 2674V2-17-B02 (4-8)**

**Lab Sample ID: 500-207053-2**

**Date Collected: 10/18/21 10:45**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 93.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624914	10/19/21 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625358	10/26/21 17:37	PMF	TAL CHI
Total/NA	Prep	3541			624401	10/20/21 06:58	SB	TAL CHI
Total/NA	Analysis	8270D		1	625884	10/28/21 15:43	AK	TAL CHI
Total/NA	Prep	3050B			626365	10/31/21 08:55	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626573	11/01/21 12:26	JJB	TAL CHI
Total/NA	Prep	3050B			626365	10/31/21 08:55	BDE	TAL CHI
Total/NA	Analysis	6010B		5	626573	11/01/21 13:53	JJB	TAL CHI
Total/NA	Prep	7471B			625696	10/27/21 14:15	MJG	TAL CHI
Total/NA	Analysis	7471B		1	625923	10/28/21 06:42	MJG	TAL CHI

**Client Sample ID: 2674V2-17-B01 (0-4)**

**Lab Sample ID: 500-207053-3**

**Date Collected: 10/18/21 10:55**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			624891	10/21/21 15:30	OAJ	TAL CHI
SPLP East	Prep	3010A			625182	10/25/21 08:33	BDE	TAL CHI
SPLP East	Analysis	6010B		1	625619	10/26/21 17:41	JJB	TAL CHI
TCLP	Leach	1311			624860	10/21/21 15:30	OAJ	TAL CHI
TCLP	Prep	3010A			625180	10/25/21 08:27	BDE	TAL CHI
TCLP	Analysis	6010B		1	625354	10/25/21 18:24	JJB	TAL CHI
TCLP	Leach	1311			624860	10/21/21 15:30	OAJ	TAL CHI
TCLP	Prep	3010A			625180	10/25/21 08:27	BDE	TAL CHI
TCLP	Analysis	6010B		1	625638	10/26/21 16:16	JJB	TAL CHI
TCLP	Leach	1311			624860	10/21/21 15:30	OAJ	TAL CHI
TCLP	Prep	3010A			625180	10/25/21 08:27	BDE	TAL CHI
TCLP	Analysis	6020A		1	625693	10/26/21 14:57	FXG	TAL CHI
TCLP	Leach	1311			624860	10/21/21 15:30	OAJ	TAL CHI
TCLP	Prep	7470A			625464	10/26/21 09:55	MJG	TAL CHI
TCLP	Analysis	7470A		1	625700	10/27/21 09:47	MJG	TAL CHI
Total/NA	Analysis	9045D		1	624833	10/21/21 17:23	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	624697	10/21/21 08:57	LWN	TAL CHI

# Lab Chronicle

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

**Client Sample ID: 2674V2-17-B01 (0-4)**

**Lab Sample ID: 500-207053-3**

**Date Collected: 10/18/21 10:55**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 74.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624914	10/19/21 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625358	10/26/21 18:03	PMF	TAL CHI
Total/NA	Prep	3541			624401	10/20/21 06:58	SB	TAL CHI
Total/NA	Analysis	8270D		1	625884	10/28/21 16:07	AK	TAL CHI
Total/NA	Prep	3050B			626365	10/31/21 08:55	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626573	11/01/21 12:29	JJB	TAL CHI
Total/NA	Prep	7471B			625696	10/27/21 14:15	MJG	TAL CHI
Total/NA	Analysis	7471B		1	625923	10/28/21 06:44	MJG	TAL CHI

**Client Sample ID: 2674V2-17-B01 (4-8)**

**Lab Sample ID: 500-207053-4**

**Date Collected: 10/18/21 11:00**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			624891	10/21/21 15:30	OAJ	TAL CHI
SPLP East	Prep	3010A			625182	10/25/21 08:33	BDE	TAL CHI
SPLP East	Analysis	6010B		1	625619	10/26/21 17:44	JJB	TAL CHI
TCLP	Leach	1311			624860	10/21/21 15:30	OAJ	TAL CHI
TCLP	Prep	3010A			625180	10/25/21 08:27	BDE	TAL CHI
TCLP	Analysis	6010B		1	625354	10/25/21 18:27	JJB	TAL CHI
TCLP	Leach	1311			624860	10/21/21 15:30	OAJ	TAL CHI
TCLP	Prep	3010A			625180	10/25/21 08:27	BDE	TAL CHI
TCLP	Analysis	6010B		1	625638	10/26/21 16:33	JJB	TAL CHI
TCLP	Leach	1311			624860	10/21/21 15:30	OAJ	TAL CHI
TCLP	Prep	3010A			625180	10/25/21 08:27	BDE	TAL CHI
TCLP	Analysis	6020A		1	625693	10/26/21 14:59	FXG	TAL CHI
TCLP	Leach	1311			624860	10/21/21 15:30	OAJ	TAL CHI
TCLP	Prep	7470A			625464	10/26/21 09:55	MJG	TAL CHI
TCLP	Analysis	7470A		1	625700	10/27/21 09:49	MJG	TAL CHI
Total/NA	Analysis	9045D		1	624833	10/21/21 17:26	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	624697	10/21/21 08:57	LWN	TAL CHI

**Client Sample ID: 2674V2-17-B01 (4-8)**

**Lab Sample ID: 500-207053-4**

**Date Collected: 10/18/21 11:00**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 78.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624914	10/19/21 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625358	10/26/21 18:28	PMF	TAL CHI
Total/NA	Prep	3541			624401	10/20/21 06:58	SB	TAL CHI
Total/NA	Analysis	8270D		1	625884	10/28/21 16:31	AK	TAL CHI
Total/NA	Prep	3050B			626365	10/31/21 08:55	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626573	11/01/21 12:32	JJB	TAL CHI
Total/NA	Prep	7471B			625696	10/27/21 14:15	MJG	TAL CHI
Total/NA	Analysis	7471B		1	625923	10/28/21 06:46	MJG	TAL CHI

Eurofins TestAmerica, Chicago

# Lab Chronicle

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

**Laboratory References:**

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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# Accreditation/Certification Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207053-1

## Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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# Chain of Custody Record

546541




Environment Testing  
TestAmerica

Address \_\_\_\_\_

Regulatory Program:  DW  NPDES  RCRA  Other

TAL-8210

Client Contact		Project Manager: <b>D Tiebout</b>		Site Contact: <b>A Happel</b>		Date: <b>10/18/2021</b>		COC No <b>2</b>					
Company Name <b>WSP</b>		Tel/Email:		Lab Contact: <b>R. Wright</b>		Carrier:		2 of 11 COCs					
Address		Analysis Turnaround Time		Filtered Sample (Y/N) Perform MS/MSD (Y/N) VOCs PAHs SVOCs % moisture Total metals TCLP metals				Sampler					
City/State/Zip <b>Chicago IL</b>		<input checked="" type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day						For Lab Use Only.		Walk-in Client		Lab Sampling	
Phone		QR Code: 						Job / SDG No		500-207053			
Fax		500-207053 COC						P O #					
Project Name <b>IDOT W004</b>													
Site <b>Lake Villa IL</b>													
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Sample Specific Notes						
1 267402-17-B02(0-4)		10/18/21	1030	C	S	2	X	X	X	X	X		
2 267402-17-B02(4-8)		10/18/21	1045	C	S	2	X	X	X	X	X		
3 267402-17-B01(0-4)		10/18/21	1055	C	S	2	X	X	X	X	X		
4 267402-17-B01(4-8)		10/18/21	1100	C	S	2	X	X	X	X	X		
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other _____													
Possible Hazard Identification. Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample					Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)								
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown					<input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months								
Special Instructions/QC Requirements & Comments: <b>* SPP analysis based on TCLP results</b>													
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temp (°C) Obs'd <b>5.7</b> Corr'd <b>5.6</b>		Therm ID No							
Relinquished by <b>[Signature]</b>		Company <b>WSP</b>		Date/Time <b>10/18/21 11:15</b>		Received by <b>[Signature]</b>		Company <b>EVA</b>					
Re-inquished by <b>[Signature]</b>		Company <b>EVA</b>		Date/Time <b>10/19/21 11:15</b>		Received by		Company					
Re-inquished by		Company		Date/Time		Received in Laboratory by <b>[Signature]</b>		Company <b>EVA-CHE</b>					
								Date/Time <b>10/19/21 11:15</b>					

# Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 500-207053-1

**Login Number: 207053**

**List Source: Eurofins TestAmerica, Chicago**

**List Number: 1**

**Creator: Scott, Sherri L**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





# Illinois Environmental Protection Agency

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

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

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

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

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

### I. Source Location Information

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

Project Name: FAP 541 (Illinois Route 132) Office Phone Number, if available: \_\_\_\_\_

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

49 E. Grand Avenue (ISGS #2674V2-18)

City: Lake Villa State: IL Zip Code: 60046

County: Lake Township: Lake Villa

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

Latitude: 42.41518 Longitude: - 88.08117

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

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

Approximate Start Date (mm/dd/yyyy): \_\_\_\_\_ Approximate End Date (mm/dd/yyyy): \_\_\_\_\_

Estimated Volume of debris (cu. Yd.): 34

### 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)]:

Location 2674V2-18-B02 was sampled within the construction zone adjacent to ISGS #2674V2-18 (Commercial Building). Refer to PSI Report for ISGS #2674V2-18 (Commercial Building) including Table 4-4, and Figures 4-3 and 4-6.

- 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]:

See attached data summary table and associated laboratory data package J207057-1.

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

I, Tom Campbell (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: WSP USA  
 Street Address: 115 W Washington St., Suite 1270S  
 City: Indianapolis State: IN Zip Code: 46204  
 Phone: (317) 972-1706

Tom Campbell  
Printed Name:



Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

02/03/2022

Date:



Expires 11/30/2023

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





**Analytical Data Summary**  
**PTB #196-002; Work Order 04 - IDOT Job # P-91-583-12**

**Key to Data Tables**

- MAC = Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- TACO = Tiered Approach to Corrective Action Objectives
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers and Shading**

- # = pH is less than 6.25 or greater than 9.0 standard units.
- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- r = Concentration exceeds a TACO Tier 1 RO for the Residential Soil Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds applicable comparison criteria.

PTB #196-002; Work Order 04 - IDOT Job # P-91-583-12

CONTAMINANTS OF CONCERN

SITE	ISGS #2674V2-18 (Commercial Buildings)	Comparison Criteria					
		MACs			TACO		
BORING	2674V2-18-B02	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
SAMPLE	2674V2-18-B02 (0-2)						
MATRIX	Soil						
DEPTH (feet)	0-2						
pH	8.1						
PID (meter units)	--						
<b>VOCs (None Detected)</b>							
<b>SVOCs (None Detected)</b>							
<b>Inorganics (mg/kg)</b>							
Antimony	0.93 J	5	--	--	31	82	--
Arsenic	6.7	11.3	13	--	13	61	--
Barium	75	1,500	--	--	5,500	14,000	--
Beryllium	0.79	22	--	--	160	410	--
Boron	5.2	40	--	--	16,000	41,000	--
Calcium	2,200	--	--	--	--	--	--
Chromium	24 †	21	--	--	230	690	--
Cobalt	15	20	--	--	4,700	12,000	--
Copper	20	2,900	--	--	2,900	8,200	--
Iron	24,000 †m	15,000	15,900	--	--	--	--
Lead	17	107	--	--	400	700	--
Magnesium	4,900	325,000	--	--	--	730,000	--
Manganese	500	630	636	--	1,600	4,100	--
Mercury	0.035	0.89	--	--	10	0.1	--
Nickel	29	100	--	--	1,600	4,100	--
Potassium	2,200	--	--	--	--	--	--
Selenium	0.97	1.3	--	--	390	1,000	--
Silver	0.19 J	4.4	--	--	390	1,000	--
Sodium	370	--	--	--	--	--	--
Thallium	ND U	2.6	--	--	6.3	160	--
Vanadium	32	550	--	--	550	1,400	--
Zinc	68	5,100	--	--	23,000	61,000	--
<b>TCLP Metals (mg/L)</b>							
Barium	0.16 J	--	--	--	--	--	2
Chromium	ND U	--	--	--	--	--	0.1
Iron	0.23 J	--	--	--	--	--	5
Manganese	0.021 J	--	--	--	--	--	0.15
<b>SPLP Metals (Not Analyzed)</b>							

## ANALYTICAL REPORT

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

Laboratory Job ID: 500-207057-1

Client Project/Site: IDOT - 196-002-WO04 Lake Villa

**For:**

WSP USA Inc.  
30 North LaSalle Street  
Chicago, Illinois 60602

Attn: Dean Tiebot



Authorized for release by:  
11/3/2021 5:27:11 PM

Richard Wright, Senior Project Manager  
(708)746-0045  
[Richard.Wright@Eurofinset.com](mailto:Richard.Wright@Eurofinset.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

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

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



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# Case Narrative

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207057-1

## Job ID: 500-207057-1

### Laboratory: Eurofins TestAmerica, Chicago

#### Narrative

#### Job Narrative 500-207057-1

#### Receipt

The samples were received on 10/19/2021 11:15 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.7° C.

#### GC/MS VOA

Method 8260B: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for 625243 recovered outside control limits for the following analytes: Bromomethane and Chloroethane. These analytes were biased high in the LCS/LCSD and were not detected in the associated samples; therefore, the data have been reported. 2674V2-18-B01 (0-7) (500-207057-1), 2674V2-18-B01 (0-7)D (500-207057-2) and 2674V2-18-B02 (0-2) (500-207057-3)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC/MS Semi VOA

Method 8270D: The continuing calibration verification (CCV) analyzed in batch 500-626713 was outside the method criteria for the following analyte(s): 2,2'-oxybis[1-chloropropane] and Pentachlorophenol. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270D: Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when utilizing this list of analytes. The LCS associated with preparation batch 500-625120 and analytical batch 500-626461 had 2 analytes outside control limits: 2-Methylnaphthalene and Isophorone. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

Method 6010B: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 500-624872 and 500-625181 and analytical batch 500-625354 recovered outside control limits for the following analytes: Zinc. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 6010B: The continuing calibration verification (CCV) associated with batch 500-625354 recovered above the upper control limit for Zinc. The samples associated with this CCV were below the reporting limit for the affected analytes; therefore, the data have been reported. The associated samples are impacted: 2674V2-18-B01 (0-7) (500-207057-1), 2674V2-18-B01 (0-7)D (500-207057-2) and 2674V2-18-B02 (0-2) (500-207057-3).

Method 6010B: The continuing calibration blanks (CCB) contained Iron above the reporting limit (RL). The sample 2674V2-18-B01 (0-7) (500-207057-1), 2674V2-18-B01 (0-7)D (500-207057-2) and 2674V2-18-B02 (0-2) (500-207057-3) associated with this CCB was below the reporting limit for the target compound; therefore, re-analysis of samples was not performed.

2674V2-18-B01 (0-7) (500-207057-1), 2674V2-18-B01 (0-7)D (500-207057-2) and 2674V2-18-B02 (0-2) (500-207057-3)

Method 6010B: The continuing calibration blank (CCB) for 500-625354 contained Manganese above the reporting limit (RL). Associated sample 2674V2-18-B01 (0-7) (500-207057-1) and 2674V2-18-B01 (0-7)D (500-207057-2) was not re-analyzed because results were greater than 10X the value found in the CCB.

2674V2-18-B01 (0-7) (500-207057-1) and 2674V2-18-B01 (0-7)D (500-207057-2)

Method 6010B:

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### General Chemistry

# Case Narrative

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207057-1

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## Job ID: 500-207057-1 (Continued)

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### Laboratory: Eurofins TestAmerica, Chicago (Continued)

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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# Detection Summary

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207057-1

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**Client Sample ID: 2674V2-18-B02 (0-2)**

**Lab Sample ID: 500-207057-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.93	J	1.1	0.21	mg/Kg	1	✳	6010B	Total/NA
Arsenic	6.7		0.53	0.18	mg/Kg	1	✳	6010B	Total/NA
Barium	75	B	0.53	0.061	mg/Kg	1	✳	6010B	Total/NA
Beryllium	0.79		0.21	0.050	mg/Kg	1	✳	6010B	Total/NA
Boron	5.2	B	2.7	0.25	mg/Kg	1	✳	6010B	Total/NA
Calcium	2200	B	11	1.8	mg/Kg	1	✳	6010B	Total/NA
Chromium	24		0.53	0.26	mg/Kg	1	✳	6010B	Total/NA
Cobalt	15		0.27	0.070	mg/Kg	1	✳	6010B	Total/NA
Copper	20		0.53	0.15	mg/Kg	1	✳	6010B	Total/NA
Iron	24000		11	5.6	mg/Kg	1	✳	6010B	Total/NA
Lead	17		0.27	0.12	mg/Kg	1	✳	6010B	Total/NA
Magnesium	4900		5.3	2.6	mg/Kg	1	✳	6010B	Total/NA
Manganese	500	B	0.53	0.077	mg/Kg	1	✳	6010B	Total/NA
Nickel	29		0.53	0.16	mg/Kg	1	✳	6010B	Total/NA
Potassium	2200		27	9.5	mg/Kg	1	✳	6010B	Total/NA
Selenium	0.97		0.53	0.31	mg/Kg	1	✳	6010B	Total/NA
Silver	0.19	J	0.27	0.069	mg/Kg	1	✳	6010B	Total/NA
Sodium	370		53	7.9	mg/Kg	1	✳	6010B	Total/NA
Vanadium	32		0.27	0.063	mg/Kg	1	✳	6010B	Total/NA
Zinc	68		1.1	0.47	mg/Kg	1	✳	6010B	Total/NA
Barium	0.16	J	0.50	0.050	mg/L	1		6010B	TCLP
Iron	0.23	J ^2	0.40	0.20	mg/L	1		6010B	TCLP
Manganese	0.021	J	0.025	0.010	mg/L	1		6010B	TCLP

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Detection Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207057-1

**Client Sample ID: 2674V2-18-B02 (0-2) (Continued)**

**Lab Sample ID: 500-207057-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.035		0.019	0.0062	mg/Kg	1	*	7471B	Total/NA
pH	8.1		0.2	0.2	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

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# Method Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207057-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CHI
6010B	Metals (ICP)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
7470A	TCLP Mercury	SW846	TAL CHI
7471B	Mercury (CVAA)	SW846	TAL CHI
9045D	pH	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
1311	TCLP Extraction	SW846	TAL CHI
1312	SPLP Extraction	SW846	TAL CHI
3010A	Preparation, Total Metals	SW846	TAL CHI
3050B	Preparation, Metals	SW846	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI
5035	Closed System Purge and Trap	SW846	TAL CHI
7470A	Preparation, Mercury	SW846	TAL CHI
7471B	Preparation, Mercury	SW846	TAL CHI

#### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Sample Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207057-1

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<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
500-207057-3	2674V2-18-B02 (0-2)	Solid	10/18/21 11:48	10/19/21 11:15

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# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207057-1

Client Sample ID: 2674V2-18-B02 (0-2)

Lab Sample ID: 500-207057-3

Date Collected: 10/18/21 11:48

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 85.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.018		0.018	0.0080	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
Benzene	<0.0018		0.0018	0.00047	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
Bromoform	<0.0018		0.0018	0.00053	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
Bromomethane	<0.0046	*+	0.0046	0.0017	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
2-Butanone (MEK)	<0.0046		0.0046	0.0020	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
Carbon disulfide	<0.0046		0.0046	0.00095	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
Carbon tetrachloride	<0.0018		0.0018	0.00053	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
Chlorobenzene	<0.0018		0.0018	0.00067	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
Chloroethane	<0.0046	*+	0.0046	0.0014	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
Chloroform	<0.0018		0.0018	0.00063	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
Chloromethane	<0.0046		0.0046	0.0018	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00051	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00055	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
Dibromochloromethane	<0.0018		0.0018	0.00060	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
1,1-Dichloroethane	<0.0018		0.0018	0.00063	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
1,2-Dichloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
1,1-Dichloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
1,2-Dichloropropene	<0.0018		0.0018	0.00047	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00064	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
Ethylbenzene	<0.0018		0.0018	0.00087	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
Methylene Chloride	<0.0046		0.0046	0.0018	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.0014	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00054	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
Styrene	<0.0018		0.0018	0.00055	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00058	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
Tetrachloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
Toluene	<0.0018		0.0018	0.00046	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00081	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00064	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
1,1,1-Trichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00078	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
Trichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
Vinyl acetate	<0.0046		0.0046	0.0016	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
Vinyl chloride	<0.0018		0.0018	0.00081	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1
Xylenes, Total	<0.0037		0.0037	0.00058	mg/Kg	☼	10/19/21 18:28	10/25/21 20:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		75 - 131	10/19/21 18:28	10/25/21 20:01	1
Dibromofluoromethane	99		75 - 126	10/19/21 18:28	10/25/21 20:01	1
1,2-Dichloroethane-d4 (Surr)	107		70 - 134	10/19/21 18:28	10/25/21 20:01	1
Toluene-d8 (Surr)	94		75 - 124	10/19/21 18:28	10/25/21 20:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.19		0.19	0.084	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207057-1

**Client Sample ID: 2674V2-18-B02 (0-2)**

**Lab Sample ID: 500-207057-3**

**Date Collected: 10/18/21 11:48**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 85.5**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.046	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
Isophorone	<0.19	*+	0.19	0.043	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
Naphthalene	<0.038		0.038	0.0058	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
2-Methylnaphthalene	<0.077	*+	0.077	0.0070	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
Fluorene	<0.038		0.038	0.0053	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
Hexachlorobenzene	<0.077		0.077	0.0088	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
Phenanthrene	<0.038		0.038	0.0053	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
Anthracene	<0.038		0.038	0.0064	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
Fluoranthene	<0.038		0.038	0.0070	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
Pyrene	<0.038		0.038	0.0076	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
Benzo[a]anthracene	<0.038		0.038	0.0051	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1

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# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207057-1

**Client Sample ID: 2674V2-18-B02 (0-2)**

**Lab Sample ID: 500-207057-3**

**Date Collected: 10/18/21 11:48**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 85.5**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.038		0.038	0.010	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
Benzo[b]fluoranthene	<0.038		0.038	0.0082	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
Benzo[a]pyrene	<0.038		0.038	0.0074	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.0099	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0073	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	10/25/21 06:38	11/02/21 14:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	86		31 - 166				10/25/21 06:38	11/02/21 14:49	1
Phenol-d5	70		30 - 153				10/25/21 06:38	11/02/21 14:49	1
Nitrobenzene-d5 (Surr)	76		37 - 147				10/25/21 06:38	11/02/21 14:49	1
2-Fluorobiphenyl (Surr)	71		43 - 145				10/25/21 06:38	11/02/21 14:49	1
2,4,6-Tribromophenol	79		31 - 143				10/25/21 06:38	11/02/21 14:49	1
Terphenyl-d14 (Surr)	96		42 - 157				10/25/21 06:38	11/02/21 14:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.93	J	1.1	0.21	mg/Kg	☼	11/01/21 10:06	11/02/21 12:36	1
Arsenic	6.7		0.53	0.18	mg/Kg	☼	11/01/21 10:06	11/02/21 12:36	1
Barium	75	B	0.53	0.061	mg/Kg	☼	11/01/21 10:06	11/02/21 12:36	1
Beryllium	0.79		0.21	0.050	mg/Kg	☼	11/01/21 10:06	11/02/21 12:36	1
Boron	5.2	B	2.7	0.25	mg/Kg	☼	11/01/21 10:06	11/02/21 12:36	1
Cadmium	<0.11		0.11	0.019	mg/Kg	☼	11/01/21 10:06	11/02/21 12:36	1
Calcium	2200	B	11	1.8	mg/Kg	☼	11/01/21 10:06	11/02/21 12:36	1
Chromium	24		0.53	0.26	mg/Kg	☼	11/01/21 10:06	11/02/21 12:36	1
Cobalt	15		0.27	0.070	mg/Kg	☼	11/01/21 10:06	11/02/21 12:36	1
Copper	20		0.53	0.15	mg/Kg	☼	11/01/21 10:06	11/02/21 12:36	1
Iron	24000		11	5.6	mg/Kg	☼	11/01/21 10:06	11/02/21 16:43	1
Lead	17		0.27	0.12	mg/Kg	☼	11/01/21 10:06	11/02/21 12:36	1
Magnesium	4900		5.3	2.6	mg/Kg	☼	11/01/21 10:06	11/02/21 12:36	1
Manganese	500	B	0.53	0.077	mg/Kg	☼	11/01/21 10:06	11/02/21 12:36	1
Nickel	29		0.53	0.16	mg/Kg	☼	11/01/21 10:06	11/02/21 12:36	1
Potassium	2200		27	9.5	mg/Kg	☼	11/01/21 10:06	11/02/21 12:36	1
Selenium	0.97		0.53	0.31	mg/Kg	☼	11/01/21 10:06	11/02/21 12:36	1
Silver	0.19	J	0.27	0.069	mg/Kg	☼	11/01/21 10:06	11/02/21 12:36	1
Sodium	370		53	7.9	mg/Kg	☼	11/01/21 10:06	11/02/21 12:36	1
Thallium	<0.53		0.53	0.27	mg/Kg	☼	11/01/21 10:06	11/02/21 12:36	1
Vanadium	32		0.27	0.063	mg/Kg	☼	11/01/21 10:06	11/02/21 12:36	1
Zinc	68		1.1	0.47	mg/Kg	☼	11/01/21 10:06	11/02/21 12:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.16	J	0.50	0.050	mg/L		10/25/21 08:30	10/25/21 16:35	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/25/21 08:30	10/25/21 16:35	1
Boron	<0.50		0.50	0.050	mg/L		10/25/21 08:30	10/25/21 16:35	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207057-1

**Client Sample ID: 2674V2-18-B02 (0-2)**

**Lab Sample ID: 500-207057-3**

Date Collected: 10/18/21 11:48

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 85.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/25/21 08:30	10/25/21 16:35	1
Chromium	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:35	1
Cobalt	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:35	1
<b>Iron</b>	<b>0.23</b>	<b>J ^2</b>	0.40	0.20	mg/L		10/25/21 08:30	10/25/21 16:35	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/25/21 08:30	10/25/21 16:35	1
<b>Manganese</b>	<b>0.021</b>	<b>J</b>	0.025	0.010	mg/L		10/25/21 08:30	10/26/21 14:51	1
Nickel	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:35	1
Selenium	<0.050		0.050	0.020	mg/L		10/25/21 08:30	10/25/21 16:35	1
Silver	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:35	1
Zinc	<0.50	^+	0.50	0.020	mg/L		10/25/21 08:30	10/25/21 16:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/25/21 08:30	10/26/21 15:13	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/25/21 08:30	10/26/21 15:13	1

## Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 08:33	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<b>0.035</b>		0.019	0.0062	mg/Kg	☼	10/27/21 14:15	10/28/21 07:09	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	<b>8.1</b>		0.2	0.2	SU			10/21/21 17:36	1

# Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207057-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
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 and/or LCSD is outside acceptance limits, high biased.
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
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^2	Calibration Blank (ICB and/or CCB) 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.
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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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)
TNTC	Too Numerous To Count

# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207057-1

## GC/MS VOA

### Prep Batch: 624914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207057-1	2674V2-18-B01 (0-7)	Total/NA	Solid	5035	
500-207057-2	2674V2-18-B01 (0-7)D	Total/NA	Solid	5035	
500-207057-3	2674V2-18-B02 (0-2)	Total/NA	Solid	5035	

### Analysis Batch: 625243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207057-1	2674V2-18-B01 (0-7)	Total/NA	Solid	8260B	624914
500-207057-2	2674V2-18-B01 (0-7)D	Total/NA	Solid	8260B	624914
500-207057-3	2674V2-18-B02 (0-2)	Total/NA	Solid	8260B	624914
MB 500-625243/7	Method Blank	Total/NA	Solid	8260B	
LCS 500-625243/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-625243/5	Lab Control Sample Dup	Total/NA	Solid	8260B	

## GC/MS Semi VOA

### Prep Batch: 625120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207057-1	2674V2-18-B01 (0-7)	Total/NA	Solid	3541	
500-207057-2	2674V2-18-B01 (0-7)D	Total/NA	Solid	3541	
500-207057-3	2674V2-18-B02 (0-2)	Total/NA	Solid	3541	
MB 500-625120/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-625120/2-A	Lab Control Sample	Total/NA	Solid	3541	

### Analysis Batch: 626461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-625120/2-A	Lab Control Sample	Total/NA	Solid	8270D	625120

### Analysis Batch: 626713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207057-1	2674V2-18-B01 (0-7)	Total/NA	Solid	8270D	625120
500-207057-2	2674V2-18-B01 (0-7)D	Total/NA	Solid	8270D	625120
500-207057-3	2674V2-18-B02 (0-2)	Total/NA	Solid	8270D	625120
MB 500-625120/1-A	Method Blank	Total/NA	Solid	8270D	625120

## Metals

### Leach Batch: 624872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207057-1	2674V2-18-B01 (0-7)	TCLP	Solid	1311	
500-207057-2	2674V2-18-B01 (0-7)D	TCLP	Solid	1311	
500-207057-3	2674V2-18-B02 (0-2)	TCLP	Solid	1311	
LB 500-624872/1-B	Method Blank	TCLP	Solid	1311	
LB 500-624872/1-C	Method Blank	TCLP	Solid	1311	
500-207057-1 MS	2674V2-18-B01 (0-7)	TCLP	Solid	1311	
500-207057-1 DU	2674V2-18-B01 (0-7)	TCLP	Solid	1311	

### Leach Batch: 624891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207057-1	2674V2-18-B01 (0-7)	SPLP East	Solid	1312	
500-207057-2	2674V2-18-B01 (0-7)D	SPLP East	Solid	1312	
LB 500-624891/21-B	Method Blank	SPLP East	Solid	1312	

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# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207057-1

## Metals

### Prep Batch: 625181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207057-1	2674V2-18-B01 (0-7)	TCLP	Solid	3010A	624872
500-207057-2	2674V2-18-B01 (0-7)D	TCLP	Solid	3010A	624872
500-207057-3	2674V2-18-B02 (0-2)	TCLP	Solid	3010A	624872
LB 500-624872/1-B	Method Blank	TCLP	Solid	3010A	624872
LCS 500-625181/2-A	Lab Control Sample	Total/NA	Solid	3010A	
500-207057-1 MS	2674V2-18-B01 (0-7)	TCLP	Solid	3010A	624872
500-207057-1 DU	2674V2-18-B01 (0-7)	TCLP	Solid	3010A	624872

### Prep Batch: 625182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207057-1	2674V2-18-B01 (0-7)	SPLP East	Solid	3010A	624891
500-207057-2	2674V2-18-B01 (0-7)D	SPLP East	Solid	3010A	624891
LB 500-624891/21-B	Method Blank	SPLP East	Solid	3010A	624891
LCS 500-625182/2-A	Lab Control Sample	Total/NA	Solid	3010A	

### Analysis Batch: 625354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207057-1	2674V2-18-B01 (0-7)	TCLP	Solid	6010B	625181
500-207057-2	2674V2-18-B01 (0-7)D	TCLP	Solid	6010B	625181
500-207057-3	2674V2-18-B02 (0-2)	TCLP	Solid	6010B	625181
LB 500-624872/1-B	Method Blank	TCLP	Solid	6010B	625181
LCS 500-625181/2-A	Lab Control Sample	Total/NA	Solid	6010B	625181
500-207057-1 MS	2674V2-18-B01 (0-7)	TCLP	Solid	6010B	625181
500-207057-1 DU	2674V2-18-B01 (0-7)	TCLP	Solid	6010B	625181

### Prep Batch: 625462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207057-1	2674V2-18-B01 (0-7)	TCLP	Solid	7470A	624872
500-207057-2	2674V2-18-B01 (0-7)D	TCLP	Solid	7470A	624872
500-207057-3	2674V2-18-B02 (0-2)	TCLP	Solid	7470A	624872
LB 500-624872/1-C	Method Blank	TCLP	Solid	7470A	624872
MB 500-625462/12-A	Method Blank	Total/NA	Solid	7470A	
LCS 500-625462/14-A	Lab Control Sample	Total/NA	Solid	7470A	
500-207057-1 MS	2674V2-18-B01 (0-7)	TCLP	Solid	7470A	624872
500-207057-1 DU	2674V2-18-B01 (0-7)	TCLP	Solid	7470A	624872

### Analysis Batch: 625539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207057-3	2674V2-18-B02 (0-2)	TCLP	Solid	6010B	625181

### Analysis Batch: 625619

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207057-1	2674V2-18-B01 (0-7)	SPLP East	Solid	6010B	625182
500-207057-2	2674V2-18-B01 (0-7)D	SPLP East	Solid	6010B	625182
LB 500-624891/21-B	Method Blank	SPLP East	Solid	6010B	625182
LCS 500-625182/2-A	Lab Control Sample	Total/NA	Solid	6010B	625182

### Analysis Batch: 625693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207057-1	2674V2-18-B01 (0-7)	TCLP	Solid	6020A	625181
500-207057-2	2674V2-18-B01 (0-7)D	TCLP	Solid	6020A	625181

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# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207057-1

## Metals (Continued)

### Analysis Batch: 625693 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207057-3	2674V2-18-B02 (0-2)	TCLP	Solid	6020A	625181
LB 500-624872/1-B	Method Blank	TCLP	Solid	6020A	625181
LCS 500-625181/2-A	Lab Control Sample	Total/NA	Solid	6020A	625181
500-207057-1 MS	2674V2-18-B01 (0-7)	TCLP	Solid	6020A	625181
500-207057-1 DU	2674V2-18-B01 (0-7)	TCLP	Solid	6020A	625181

### Prep Batch: 625696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207057-1	2674V2-18-B01 (0-7)	Total/NA	Solid	7471B	
500-207057-2	2674V2-18-B01 (0-7)D	Total/NA	Solid	7471B	
500-207057-3	2674V2-18-B02 (0-2)	Total/NA	Solid	7471B	
MB 500-625696/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-625696/13-A	Lab Control Sample	Total/NA	Solid	7471B	
500-207057-2 MS	2674V2-18-B01 (0-7)D	Total/NA	Solid	7471B	
500-207057-2 MSD	2674V2-18-B01 (0-7)D	Total/NA	Solid	7471B	
500-207057-2 DU	2674V2-18-B01 (0-7)D	Total/NA	Solid	7471B	

### Analysis Batch: 625700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207057-1	2674V2-18-B01 (0-7)	TCLP	Solid	7470A	625462
500-207057-2	2674V2-18-B01 (0-7)D	TCLP	Solid	7470A	625462
500-207057-3	2674V2-18-B02 (0-2)	TCLP	Solid	7470A	625462
LB 500-624872/1-C	Method Blank	TCLP	Solid	7470A	625462
MB 500-625462/12-A	Method Blank	Total/NA	Solid	7470A	625462
LCS 500-625462/14-A	Lab Control Sample	Total/NA	Solid	7470A	625462
500-207057-1 MS	2674V2-18-B01 (0-7)	TCLP	Solid	7470A	625462
500-207057-1 DU	2674V2-18-B01 (0-7)	TCLP	Solid	7470A	625462

### Analysis Batch: 625923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207057-1	2674V2-18-B01 (0-7)	Total/NA	Solid	7471B	625696
500-207057-2	2674V2-18-B01 (0-7)D	Total/NA	Solid	7471B	625696
500-207057-3	2674V2-18-B02 (0-2)	Total/NA	Solid	7471B	625696
MB 500-625696/12-A	Method Blank	Total/NA	Solid	7471B	625696
LCS 500-625696/13-A	Lab Control Sample	Total/NA	Solid	7471B	625696
500-207057-2 MS	2674V2-18-B01 (0-7)D	Total/NA	Solid	7471B	625696
500-207057-2 MSD	2674V2-18-B01 (0-7)D	Total/NA	Solid	7471B	625696
500-207057-2 DU	2674V2-18-B01 (0-7)D	Total/NA	Solid	7471B	625696

### Prep Batch: 626488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207057-1	2674V2-18-B01 (0-7)	Total/NA	Solid	3050B	
500-207057-2	2674V2-18-B01 (0-7)D	Total/NA	Solid	3050B	
500-207057-3	2674V2-18-B02 (0-2)	Total/NA	Solid	3050B	
MB 500-626488/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-626488/2-A	Lab Control Sample	Total/NA	Solid	3050B	

### Analysis Batch: 626854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207057-1	2674V2-18-B01 (0-7)	Total/NA	Solid	6010B	626488
500-207057-2	2674V2-18-B01 (0-7)D	Total/NA	Solid	6010B	626488

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# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207057-1

## Metals (Continued)

### Analysis Batch: 626854 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207057-3	2674V2-18-B02 (0-2)	Total/NA	Solid	6010B	626488
MB 500-626488/1-A	Method Blank	Total/NA	Solid	6010B	626488
LCS 500-626488/2-A	Lab Control Sample	Total/NA	Solid	6010B	626488

### Analysis Batch: 626867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207057-1	2674V2-18-B01 (0-7)	Total/NA	Solid	6010B	626488
500-207057-2	2674V2-18-B01 (0-7)D	Total/NA	Solid	6010B	626488
500-207057-3	2674V2-18-B02 (0-2)	Total/NA	Solid	6010B	626488
LCS 500-626488/2-A	Lab Control Sample	Total/NA	Solid	6010B	626488

## General Chemistry

### Analysis Batch: 624697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207057-1	2674V2-18-B01 (0-7)	Total/NA	Solid	Moisture	
500-207057-2	2674V2-18-B01 (0-7)D	Total/NA	Solid	Moisture	
500-207057-3	2674V2-18-B02 (0-2)	Total/NA	Solid	Moisture	

### Analysis Batch: 624833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207057-1	2674V2-18-B01 (0-7)	Total/NA	Solid	9045D	
500-207057-2	2674V2-18-B01 (0-7)D	Total/NA	Solid	9045D	
500-207057-3	2674V2-18-B02 (0-2)	Total/NA	Solid	9045D	
LCS 500-624833/2	Lab Control Sample	Total/NA	Solid	9045D	
LCSD 500-624833/3	Lab Control Sample Dup	Total/NA	Solid	9045D	

# Surrogate Summary

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207057-1

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

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	DBFM	DCA	TOL
		(75-131)	(75-126)	(70-134)	(75-124)
500-207057-1	2674V2-18-B01 (0-7)	88	98	110	94
500-207057-2	2674V2-18-B01 (0-7)D	88	98	106	93
500-207057-3	2674V2-18-B02 (0-2)	91	99	107	94
LCS 500-625243/4	Lab Control Sample	82	91	92	97
LCSD 500-625243/5	Lab Control Sample Dup	84	91	93	97
MB 500-625243/7	Method Blank	88	93	96	96

#### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)  
 DBFM = Dibromofluoromethane  
 DCA = 1,2-Dichloroethane-d4 (Surr)  
 TOL = Toluene-d8 (Surr)

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

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	2FP	PHL	NBZ	FBP	TBP	TPHL
		(31-166)	(30-153)	(37-147)	(43-145)	(31-143)	(42-157)
500-207057-1	2674V2-18-B01 (0-7)	100	92	77	72	95	110
500-207057-2	2674V2-18-B01 (0-7)D	107	94	96	89	97	117
500-207057-3	2674V2-18-B02 (0-2)	86	70	76	71	79	96
LCS 500-625120/2-A	Lab Control Sample	121	105	118	112	99	116
MB 500-625120/1-A	Method Blank	102	68	90	92	61	101

#### Surrogate Legend

2FP = 2-Fluorophenol  
 PHL = Phenol-d5  
 NBZ = Nitrobenzene-d5 (Surr)  
 FBP = 2-Fluorobiphenyl (Surr)  
 TBP = 2,4,6-Tribromophenol  
 TPHL = Terphenyl-d14 (Surr)

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207057-1

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

**Lab Sample ID: MB 500-625243/7**  
**Matrix: Solid**  
**Analysis Batch: 625243**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	<0.020		0.020	0.0087	mg/Kg			10/25/21 13:35	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg			10/25/21 13:35	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg			10/25/21 13:35	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg			10/25/21 13:35	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg			10/25/21 13:35	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg			10/25/21 13:35	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg			10/25/21 13:35	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg			10/25/21 13:35	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg			10/25/21 13:35	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg			10/25/21 13:35	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg			10/25/21 13:35	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg			10/25/21 13:35	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg			10/25/21 13:35	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg			10/25/21 13:35	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg			10/25/21 13:35	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg			10/25/21 13:35	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg			10/25/21 13:35	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg			10/25/21 13:35	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg			10/25/21 13:35	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00070	mg/Kg			10/25/21 13:35	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg			10/25/21 13:35	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			10/25/21 13:35	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg			10/25/21 13:35	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg			10/25/21 13:35	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg			10/25/21 13:35	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg			10/25/21 13:35	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg			10/25/21 13:35	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/25/21 13:35	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg			10/25/21 13:35	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg			10/25/21 13:35	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg			10/25/21 13:35	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg			10/25/21 13:35	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg			10/25/21 13:35	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/25/21 13:35	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg			10/25/21 13:35	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg			10/25/21 13:35	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg			10/25/21 13:35	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	88		75 - 131		10/25/21 13:35	1
Dibromofluoromethane	93		75 - 126		10/25/21 13:35	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 134		10/25/21 13:35	1
Toluene-d8 (Surr)	96		75 - 124		10/25/21 13:35	1

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207057-1

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

**Lab Sample ID: LCS 500-625243/4**  
**Matrix: Solid**  
**Analysis Batch: 625243**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0500	0.0538		mg/Kg		108	40 - 150
Benzene	0.0500	0.0499		mg/Kg		100	70 - 125
Bromodichloromethane	0.0500	0.0511		mg/Kg		102	67 - 129
Bromoform	0.0500	0.0510		mg/Kg		102	68 - 136
Bromomethane	0.0500	0.0704	*+	mg/Kg		141	70 - 130
2-Butanone (MEK)	0.0500	0.0613		mg/Kg		123	47 - 138
Carbon disulfide	0.0500	0.0437		mg/Kg		87	70 - 129
Carbon tetrachloride	0.0500	0.0446		mg/Kg		89	75 - 125
Chlorobenzene	0.0500	0.0497		mg/Kg		99	50 - 150
Chloroethane	0.0500	0.0756	*+	mg/Kg		151	75 - 125
Chloroform	0.0500	0.0490		mg/Kg		98	57 - 135
Chloromethane	0.0500	0.0431		mg/Kg		86	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0476		mg/Kg		95	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0517		mg/Kg		103	70 - 125
Dibromochloromethane	0.0500	0.0533		mg/Kg		107	69 - 125
1,1-Dichloroethane	0.0500	0.0462		mg/Kg		92	70 - 125
1,2-Dichloroethane	0.0500	0.0501		mg/Kg		100	70 - 130
1,1-Dichloroethene	0.0500	0.0444		mg/Kg		89	70 - 120
1,2-Dichloropropane	0.0500	0.0512		mg/Kg		102	70 - 125
Ethylbenzene	0.0500	0.0535		mg/Kg		107	61 - 136
2-Hexanone	0.0500	0.0652		mg/Kg		130	48 - 146
Methylene Chloride	0.0500	0.0453		mg/Kg		91	70 - 126
4-Methyl-2-pentanone (MIBK)	0.0500	0.0631		mg/Kg		126	50 - 148
Methyl tert-butyl ether	0.0500	0.0432		mg/Kg		86	50 - 140
Styrene	0.0500	0.0536		mg/Kg		107	70 - 125
1,1,2,2-Tetrachloroethane	0.0500	0.0547		mg/Kg		109	70 - 122
Tetrachloroethene	0.0500	0.0517		mg/Kg		103	70 - 124
Toluene	0.0500	0.0524		mg/Kg		105	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0461		mg/Kg		92	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0495		mg/Kg		99	70 - 125
1,1,1-Trichloroethane	0.0500	0.0433		mg/Kg		87	70 - 128
1,1,2-Trichloroethane	0.0500	0.0554		mg/Kg		111	70 - 125
Trichloroethene	0.0500	0.0510		mg/Kg		102	70 - 125
Vinyl acetate	0.0500	0.0584		mg/Kg		117	40 - 153
Vinyl chloride	0.0500	0.0458		mg/Kg		92	70 - 125
Xylenes, Total	0.100	0.100		mg/Kg		100	53 - 147

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	82		75 - 131
Dibromofluoromethane	91		75 - 126
1,2-Dichloroethane-d4 (Surr)	92		70 - 134
Toluene-d8 (Surr)	97		75 - 124

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207057-1

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

**Lab Sample ID: LCSD 500-625243/5**  
**Matrix: Solid**  
**Analysis Batch: 625243**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.0500	0.0509		mg/Kg		102	40 - 150	5	30
Benzene	0.0500	0.0485		mg/Kg		97	70 - 125	3	30
Bromodichloromethane	0.0500	0.0492		mg/Kg		98	67 - 129	4	30
Bromoform	0.0500	0.0494		mg/Kg		99	68 - 136	3	30
Bromomethane	0.0500	0.0692	*+	mg/Kg		138	70 - 130	2	30
2-Butanone (MEK)	0.0500	0.0568		mg/Kg		114	47 - 138	8	30
Carbon disulfide	0.0500	0.0420		mg/Kg		84	70 - 129	4	30
Carbon tetrachloride	0.0500	0.0434		mg/Kg		87	75 - 125	3	30
Chlorobenzene	0.0500	0.0480		mg/Kg		96	50 - 150	3	30
Chloroethane	0.0500	0.0736	*+	mg/Kg		147	75 - 125	3	30
Chloroform	0.0500	0.0465		mg/Kg		93	57 - 135	5	30
Chloromethane	0.0500	0.0418		mg/Kg		84	70 - 125	3	30
cis-1,2-Dichloroethene	0.0500	0.0448		mg/Kg		90	70 - 125	6	30
cis-1,3-Dichloropropene	0.0500	0.0496		mg/Kg		99	70 - 125	4	30
Dibromochloromethane	0.0500	0.0507		mg/Kg		101	69 - 125	5	30
1,1-Dichloroethane	0.0500	0.0441		mg/Kg		88	70 - 125	5	30
1,2-Dichloroethane	0.0500	0.0480		mg/Kg		96	70 - 130	4	30
1,1-Dichloroethene	0.0500	0.0427		mg/Kg		85	70 - 120	4	30
1,2-Dichloropropane	0.0500	0.0484		mg/Kg		97	70 - 125	5	30
Ethylbenzene	0.0500	0.0519		mg/Kg		104	61 - 136	3	30
2-Hexanone	0.0500	0.0634		mg/Kg		127	48 - 146	3	30
Methylene Chloride	0.0500	0.0429		mg/Kg		86	70 - 126	5	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0597		mg/Kg		119	50 - 148	6	30
Methyl tert-butyl ether	0.0500	0.0419		mg/Kg		84	50 - 140	3	30
Styrene	0.0500	0.0518		mg/Kg		104	70 - 125	3	30
1,1,2,2-Tetrachloroethane	0.0500	0.0535		mg/Kg		107	70 - 122	2	30
Tetrachloroethene	0.0500	0.0498		mg/Kg		100	70 - 124	4	30
Toluene	0.0500	0.0500		mg/Kg		100	70 - 125	5	30
trans-1,2-Dichloroethene	0.0500	0.0445		mg/Kg		89	70 - 125	4	30
trans-1,3-Dichloropropene	0.0500	0.0486		mg/Kg		97	70 - 125	2	30
1,1,1-Trichloroethane	0.0500	0.0423		mg/Kg		85	70 - 128	2	30
1,1,2-Trichloroethane	0.0500	0.0546		mg/Kg		109	70 - 125	1	30
Trichloroethene	0.0500	0.0485		mg/Kg		97	70 - 125	5	30
Vinyl acetate	0.0500	0.0554		mg/Kg		111	40 - 153	5	30
Vinyl chloride	0.0500	0.0452		mg/Kg		90	70 - 125	1	30
Xylenes, Total	0.100	0.0967		mg/Kg		97	53 - 147	3	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	84		75 - 131
Dibromofluoromethane	91		75 - 126
1,2-Dichloroethane-d4 (Surr)	93		70 - 134
Toluene-d8 (Surr)	97		75 - 124

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207057-1

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

**Lab Sample ID: MB 500-625120/1-A**  
**Matrix: Solid**  
**Analysis Batch: 626713**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 625120**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	<0.17		0.17	0.074	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.050	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
1,3-Dichlorobenzene	<0.17		0.17	0.037	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
1,4-Dichlorobenzene	<0.17		0.17	0.043	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
1,2-Dichlorobenzene	<0.17		0.17	0.040	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2-Methylphenol	<0.17		0.17	0.053	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.039	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
N-Nitrosodi-n-propylamine	<0.067		0.067	0.041	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Hexachloroethane	<0.17		0.17	0.051	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2-Chlorophenol	<0.17		0.17	0.057	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Nitrobenzene	<0.033		0.033	0.0083	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.034	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.036	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Isophorone	<0.17		0.17	0.037	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,4-Dimethylphenol	<0.33		0.33	0.13	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Hexachlorobutadiene	<0.17		0.17	0.052	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Naphthalene	<0.033		0.033	0.0051	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,4-Dichlorophenol	<0.33		0.33	0.079	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4-Chloroaniline	<0.67		0.67	0.16	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,4,6-Trichlorophenol	<0.33		0.33	0.11	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,4,5-Trichlorophenol	<0.33		0.33	0.076	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Hexachlorocyclopentadiene	<0.67		0.67	0.19	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2-Methylnaphthalene	<0.067		0.067	0.0061	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2-Nitroaniline	<0.17		0.17	0.045	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2-Chloronaphthalene	<0.17		0.17	0.037	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4-Chloro-3-methylphenol	<0.33		0.33	0.11	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,6-Dinitrotoluene	<0.17		0.17	0.065	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2-Nitrophenol	<0.33		0.33	0.079	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
3-Nitroaniline	<0.33		0.33	0.10	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Dimethyl phthalate	<0.17		0.17	0.043	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,4-Dinitrophenol	<0.67		0.67	0.59	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Acenaphthylene	<0.033		0.033	0.0044	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
2,4-Dinitrotoluene	<0.17		0.17	0.053	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Acenaphthene	<0.033		0.033	0.0060	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Dibenzofuran	<0.17		0.17	0.039	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4-Nitrophenol	<0.67		0.67	0.32	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Fluorene	<0.033		0.033	0.0047	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4-Nitroaniline	<0.33		0.33	0.14	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.044	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Hexachlorobenzene	<0.067		0.067	0.0077	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Diethyl phthalate	<0.17		0.17	0.056	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.039	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Pentachlorophenol	<0.67		0.67	0.53	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
N-Nitrosodiphenylamine	<0.17		0.17	0.039	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
4,6-Dinitro-2-methylphenol	<0.67		0.67	0.27	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Phenanthrene	<0.033		0.033	0.0046	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Anthracene	<0.033		0.033	0.0056	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Carbazole	<0.17		0.17	0.083	mg/Kg		10/25/21 06:38	11/02/21 18:34	1

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207057-1

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

**Lab Sample ID: MB 500-625120/1-A**  
**Matrix: Solid**  
**Analysis Batch: 626713**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 625120**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	<0.17		0.17	0.051	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Fluoranthene	<0.033		0.033	0.0062	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Pyrene	<0.033		0.033	0.0066	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Butyl benzyl phthalate	<0.17		0.17	0.063	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Benzo[a]anthracene	<0.033		0.033	0.0045	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Chrysene	<0.033		0.033	0.0091	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.047	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.061	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Di-n-octyl phthalate	<0.17		0.17	0.054	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Benzo[b]fluoranthene	<0.033		0.033	0.0072	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Benzo[k]fluoranthene	<0.033		0.033	0.0098	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Benzo[a]pyrene	<0.033		0.033	0.0064	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Indeno[1,2,3-cd]pyrene	<0.033		0.033	0.0086	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Dibenz(a,h)anthracene	<0.033		0.033	0.0064	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
Benzo[g,h,i]perylene	<0.033		0.033	0.011	mg/Kg		10/25/21 06:38	11/02/21 18:34	1
3 & 4 Methylphenol	<0.17		0.17	0.055	mg/Kg		10/25/21 06:38	11/02/21 18:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	102		31 - 166	10/25/21 06:38	11/02/21 18:34	1
Phenol-d5	68		30 - 153	10/25/21 06:38	11/02/21 18:34	1
Nitrobenzene-d5 (Surr)	90		37 - 147	10/25/21 06:38	11/02/21 18:34	1
2-Fluorobiphenyl (Surr)	92		43 - 145	10/25/21 06:38	11/02/21 18:34	1
2,4,6-Tribromophenol	61		31 - 143	10/25/21 06:38	11/02/21 18:34	1
Terphenyl-d14 (Surr)	101		42 - 157	10/25/21 06:38	11/02/21 18:34	1

**Lab Sample ID: LCS 500-625120/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626461**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625120**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Phenol	1.33	1.13		mg/Kg		85	56 - 122
Bis(2-chloroethyl)ether	1.33	1.21		mg/Kg		91	55 - 111
1,3-Dichlorobenzene	1.33	1.25		mg/Kg		94	65 - 124
1,4-Dichlorobenzene	1.33	1.26		mg/Kg		94	61 - 110
1,2-Dichlorobenzene	1.33	1.33		mg/Kg		100	62 - 110
2-Methylphenol	1.33	1.45		mg/Kg		109	60 - 120
2,2'-oxybis[1-chloropropane]	1.33	0.808		mg/Kg		61	40 - 124
N-Nitrosodi-n-propylamine	1.33	1.52		mg/Kg		114	56 - 118
Hexachloroethane	1.33	1.14		mg/Kg		85	60 - 114
2-Chlorophenol	1.33	1.35		mg/Kg		101	64 - 110
Nitrobenzene	1.33	1.39		mg/Kg		104	60 - 116
Bis(2-chloroethoxy)methane	1.33	1.43		mg/Kg		107	60 - 112
1,2,4-Trichlorobenzene	1.33	1.37		mg/Kg		103	66 - 117
Isophorone	1.33	1.51	*+	mg/Kg		114	55 - 110
2,4-Dimethylphenol	1.33	1.25		mg/Kg		94	60 - 110
Hexachlorobutadiene	1.33	1.53		mg/Kg		114	56 - 120
Naphthalene	1.33	1.39		mg/Kg		104	63 - 110
2,4-Dichlorophenol	1.33	1.31		mg/Kg		99	58 - 120

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207057-1

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

**Lab Sample ID: LCS 500-625120/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626461**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625120**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chloroaniline	1.33	0.919		mg/Kg		69	30 - 150
2,4,6-Trichlorophenol	1.33	1.29		mg/Kg		97	57 - 120
2,4,5-Trichlorophenol	1.33	1.28		mg/Kg		96	50 - 120
Hexachlorocyclopentadiene	1.33	0.426	J	mg/Kg		32	10 - 133
2-Methylnaphthalene	1.33	1.55	*+	mg/Kg		116	69 - 112
2-Nitroaniline	1.33	1.44		mg/Kg		108	57 - 124
2-Chloronaphthalene	1.33	1.36		mg/Kg		102	69 - 114
4-Chloro-3-methylphenol	1.33	1.28		mg/Kg		96	65 - 122
2,6-Dinitrotoluene	1.33	1.49		mg/Kg		112	70 - 123
2-Nitrophenol	1.33	1.34		mg/Kg		101	60 - 120
3-Nitroaniline	1.33	0.701		mg/Kg		53	40 - 122
Dimethyl phthalate	1.33	1.53		mg/Kg		115	69 - 116
2,4-Dinitrophenol	2.67	<0.67		mg/Kg		11	10 - 100
Acenaphthylene	1.33	1.42		mg/Kg		107	68 - 120
2,4-Dinitrotoluene	1.33	1.49		mg/Kg		112	69 - 124
Acenaphthene	1.33	1.39		mg/Kg		104	65 - 124
Dibenzofuran	1.33	1.40		mg/Kg		105	66 - 115
4-Nitrophenol	2.67	2.62		mg/Kg		98	30 - 122
Fluorene	1.33	1.43		mg/Kg		107	62 - 120
4-Nitroaniline	1.33	1.16		mg/Kg		87	60 - 160
4-Bromophenyl phenyl ether	1.33	1.53		mg/Kg		115	68 - 118
Hexachlorobenzene	1.33	1.58		mg/Kg		118	63 - 124
Diethyl phthalate	1.33	1.52		mg/Kg		114	58 - 120
4-Chlorophenyl phenyl ether	1.33	1.43		mg/Kg		107	62 - 119
Pentachlorophenol	2.67	1.18		mg/Kg		44	13 - 112
N-Nitrosodiphenylamine	1.33	1.43		mg/Kg		107	65 - 112
4,6-Dinitro-2-methylphenol	2.67	0.642	J	mg/Kg		24	10 - 110
Phenanthrene	1.33	1.45		mg/Kg		109	62 - 120
Anthracene	1.33	1.48		mg/Kg		111	70 - 114
Carbazole	1.33	1.50		mg/Kg		112	65 - 142
Di-n-butyl phthalate	1.33	1.47		mg/Kg		110	65 - 120
Fluoranthene	1.33	1.50		mg/Kg		112	62 - 120
Pyrene	1.33	1.42		mg/Kg		106	61 - 128
Butyl benzyl phthalate	1.33	1.35		mg/Kg		101	71 - 129
Benzo[a]anthracene	1.33	1.46		mg/Kg		109	67 - 122
Chrysene	1.33	1.42		mg/Kg		107	63 - 120
3,3'-Dichlorobenzidine	1.33	1.24		mg/Kg		93	35 - 128
Bis(2-ethylhexyl) phthalate	1.33	1.42		mg/Kg		107	72 - 131
Di-n-octyl phthalate	1.33	1.33		mg/Kg		100	68 - 134
Benzo[b]fluoranthene	1.33	1.32		mg/Kg		99	69 - 129
Benzo[k]fluoranthene	1.33	1.40		mg/Kg		105	68 - 127
Benzo[a]pyrene	1.33	1.43		mg/Kg		108	65 - 133
Indeno[1,2,3-cd]pyrene	1.33	1.37		mg/Kg		103	68 - 130
Dibenz(a,h)anthracene	1.33	1.39		mg/Kg		104	64 - 131
Benzo[g,h,i]perylene	1.33	1.38		mg/Kg		103	72 - 131
3 & 4 Methylphenol	1.33	1.46		mg/Kg		109	57 - 120

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207057-1

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

**Lab Sample ID: LCS 500-625120/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626461**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625120**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol	121		31 - 166
Phenol-d5	105		30 - 153
Nitrobenzene-d5 (Surr)	118		37 - 147
2-Fluorobiphenyl (Surr)	112		43 - 145
2,4,6-Tribromophenol	99		31 - 143
Terphenyl-d14 (Surr)	116		42 - 157

## Method: 6010B - Metals (ICP)

**Lab Sample ID: LCS 500-625181/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625354**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625181**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Barium	0.500	0.518		mg/L		104	80 - 120
Beryllium	0.0500	0.0481		mg/L		96	80 - 120
Boron	1.00	0.812		mg/L		81	80 - 120
Cadmium	0.0500	0.0465		mg/L		93	80 - 120
Chromium	0.200	0.195		mg/L		98	80 - 120
Cobalt	0.500	0.503		mg/L		101	80 - 120
Iron	1.00	1.03		mg/L		103	80 - 120
Lead	0.100	0.0955		mg/L		95	80 - 120
Manganese	0.500	0.468		mg/L		94	80 - 120
Nickel	0.500	0.509		mg/L		102	80 - 120
Selenium	0.100	0.102		mg/L		102	80 - 120
Silver	0.0500	0.0483		mg/L		97	80 - 120
Zinc	0.500	0.583	^+	mg/L		117	80 - 120

**Lab Sample ID: LCS 500-625182/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625619**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625182**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Manganese	0.500	0.485		mg/L		97	80 - 120

**Lab Sample ID: MB 500-626488/1-A**  
**Matrix: Solid**  
**Analysis Batch: 626854**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 626488**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.0		2.0	0.39	mg/Kg		11/01/21 10:06	11/02/21 10:17	1
Arsenic	<1.0		1.0	0.34	mg/Kg		11/01/21 10:06	11/02/21 10:17	1
Barium	0.169	J	1.0	0.11	mg/Kg		11/01/21 10:06	11/02/21 10:17	1
Beryllium	<0.40		0.40	0.093	mg/Kg		11/01/21 10:06	11/02/21 10:17	1
Boron	0.687	J	5.0	0.47	mg/Kg		11/01/21 10:06	11/02/21 10:17	1
Cadmium	0.0645	J	0.20	0.036	mg/Kg		11/01/21 10:06	11/02/21 10:17	1
Calcium	5.89	J	20	3.4	mg/Kg		11/01/21 10:06	11/02/21 10:17	1
Chromium	<1.0		1.0	0.50	mg/Kg		11/01/21 10:06	11/02/21 10:17	1
Cobalt	<0.50		0.50	0.13	mg/Kg		11/01/21 10:06	11/02/21 10:17	1

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207057-1

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

**Lab Sample ID: MB 500-626488/1-A**  
**Matrix: Solid**  
**Analysis Batch: 626854**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 626488**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Copper	<1.0		1.0	0.28	mg/Kg		11/01/21 10:06	11/02/21 10:17	1
Iron	<20		20	10	mg/Kg		11/01/21 10:06	11/02/21 10:17	1
Lead	<0.50		0.50	0.23	mg/Kg		11/01/21 10:06	11/02/21 10:17	1
Magnesium	<10		10	5.0	mg/Kg		11/01/21 10:06	11/02/21 10:17	1
Manganese	0.404	J	1.0	0.15	mg/Kg		11/01/21 10:06	11/02/21 10:17	1
Nickel	<1.0		1.0	0.29	mg/Kg		11/01/21 10:06	11/02/21 10:17	1
Potassium	<50		50	18	mg/Kg		11/01/21 10:06	11/02/21 10:17	1
Selenium	<1.0		1.0	0.59	mg/Kg		11/01/21 10:06	11/02/21 10:17	1
Silver	<0.50		0.50	0.13	mg/Kg		11/01/21 10:06	11/02/21 10:17	1
Sodium	<100		100	15	mg/Kg		11/01/21 10:06	11/02/21 10:17	1
Thallium	<1.0		1.0	0.50	mg/Kg		11/01/21 10:06	11/02/21 10:17	1
Vanadium	<0.50		0.50	0.12	mg/Kg		11/01/21 10:06	11/02/21 10:17	1
Zinc	<2.0		2.0	0.88	mg/Kg		11/01/21 10:06	11/02/21 10:17	1

**Lab Sample ID: LCS 500-626488/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626854**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626488**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	10.0	9.44		mg/Kg		94	80 - 120
Barium	200	199		mg/Kg		99	80 - 120
Beryllium	5.00	4.83		mg/Kg		97	80 - 120
Boron	100	86.1		mg/Kg		86	80 - 120
Cadmium	5.00	4.60		mg/Kg		92	80 - 120
Calcium	1000	990		mg/Kg		99	80 - 120
Chromium	20.0	19.2		mg/Kg		96	80 - 120
Cobalt	50.0	48.2		mg/Kg		96	80 - 120
Copper	25.0	24.1		mg/Kg		96	80 - 120
Lead	10.0	9.37		mg/Kg		94	80 - 120
Magnesium	1000	962		mg/Kg		96	80 - 120
Manganese	50.0	47.5		mg/Kg		95	80 - 120
Nickel	50.0	49.1		mg/Kg		98	80 - 120
Potassium	1000	938		mg/Kg		94	80 - 120
Selenium	10.0	8.87		mg/Kg		89	80 - 120
Silver	5.00	4.60		mg/Kg		92	80 - 120
Sodium	1000	921		mg/Kg		92	80 - 120
Thallium	10.0	9.25		mg/Kg		92	80 - 120
Vanadium	50.0	49.5		mg/Kg		99	80 - 120
Zinc	50.0	48.6		mg/Kg		97	80 - 120

**Lab Sample ID: LCS 500-626488/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626867**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626488**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207057-1

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

**Lab Sample ID: LB 500-624872/1-B**  
**Matrix: Solid**  
**Analysis Batch: 625354**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 625181**

Analyte	LB LB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Barium	<0.50		0.50	0.050	mg/L		10/25/21 08:30	10/25/21 16:12	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/25/21 08:30	10/25/21 16:12	1
Boron	<0.50		0.50	0.050	mg/L		10/25/21 08:30	10/25/21 16:12	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/25/21 08:30	10/25/21 16:12	1
Chromium	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:12	1
Cobalt	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:12	1
Iron	<0.40		0.40	0.20	mg/L		10/25/21 08:30	10/25/21 16:12	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/25/21 08:30	10/25/21 16:12	1
Manganese	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:12	1
Nickel	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:12	1
Selenium	<0.050		0.050	0.020	mg/L		10/25/21 08:30	10/25/21 16:12	1
Silver	<0.025		0.025	0.010	mg/L		10/25/21 08:30	10/25/21 16:12	1
Zinc	<0.50	^+	0.50	0.020	mg/L		10/25/21 08:30	10/25/21 16:12	1

**Lab Sample ID: 500-207057-1 MS**  
**Matrix: Solid**  
**Analysis Batch: 625354**

**Client Sample ID: 2674V2-18-B01 (0-7)**  
**Prep Type: TCLP**  
**Prep Batch: 625181**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	Limits
				Result	Qualifier				
Barium	0.56		0.500	1.06		mg/L		99	75 - 125
Beryllium	<0.0040		0.0500	0.0471		mg/L		94	75 - 125
Boron	0.076	J	1.00	0.866		mg/L		79	75 - 125
Cadmium	<0.0050		0.0500	0.0465		mg/L		93	75 - 125
Chromium	<0.025		0.200	0.188		mg/L		94	75 - 125
Cobalt	0.020	J	0.500	0.509		mg/L		98	75 - 125
Iron	<0.40		1.00	1.08		mg/L		108	75 - 125
Lead	<0.0075		0.100	0.0942		mg/L		94	75 - 125
Manganese	8.4	^2	0.500	8.62	4	mg/L		47	75 - 125
Nickel	0.025		0.500	0.518		mg/L		99	75 - 125
Selenium	<0.050		0.100	0.103		mg/L		103	75 - 125
Silver	<0.025		0.0500	0.0472		mg/L		94	75 - 125
Zinc	<0.50	^+	0.500	0.556	^+	mg/L		111	75 - 125

**Lab Sample ID: 500-207057-1 DU**  
**Matrix: Solid**  
**Analysis Batch: 625354**

**Client Sample ID: 2674V2-18-B01 (0-7)**  
**Prep Type: TCLP**  
**Prep Batch: 625181**

Analyte	Sample Result	Sample Qualifier	DU DU		Unit	D	RPD	Limit
			Result	Qualifier				
Barium	0.56		0.566		mg/L		0.8	20
Beryllium	<0.0040		<0.0040		mg/L		NC	20
Boron	0.076	J	0.0764	J	mg/L		0	20
Cadmium	<0.0050		<0.0050		mg/L		NC	20
Chromium	<0.025		<0.025		mg/L		NC	20
Cobalt	0.020	J	0.0201	J	mg/L		0.1	20
Iron	<0.40		<0.40		mg/L		NC	20
Lead	<0.0075		<0.0075		mg/L		NC	20
Manganese	8.4	^2	8.44		mg/L		0.7	20
Nickel	0.025		0.0266		mg/L		7	20
Selenium	<0.050		<0.050		mg/L		NC	20

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207057-1

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

Lab Sample ID: 500-207057-1 DU  
Matrix: Solid  
Analysis Batch: 625354

Client Sample ID: 2674V2-18-B01 (0-7)  
Prep Type: TCLP  
Prep Batch: 625181

Analyte	Sample	Sample	DU		Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Silver	<0.025		<0.025		mg/L		NC	20
Zinc	<0.50	^+	<0.50	^+	mg/L		NC	20

Lab Sample ID: LB 500-624891/21-B  
Matrix: Solid  
Analysis Batch: 625619

Client Sample ID: Method Blank  
Prep Type: SPLP East  
Prep Batch: 625182

Analyte	LB	LB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Manganese	<0.025		0.025	0.010	mg/L		10/25/21 08:33	10/26/21 17:15	1

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

Lab Sample ID: LCS 500-625181/2-A  
Matrix: Solid  
Analysis Batch: 625693

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 625181

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Antimony	0.500	0.500		mg/L		100	80 - 120
Thallium	0.100	0.116		mg/L		116	80 - 120

Lab Sample ID: LB 500-624872/1-B  
Matrix: Solid  
Analysis Batch: 625693

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 625181

Analyte	LB	LB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.0060		0.0060	0.0060	mg/L		10/25/21 08:30	10/26/21 15:05	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/25/21 08:30	10/26/21 15:05	1

Lab Sample ID: 500-207057-1 MS  
Matrix: Solid  
Analysis Batch: 625693

Client Sample ID: 2674V2-18-B01 (0-7)  
Prep Type: TCLP  
Prep Batch: 625181

Analyte	Sample	Sample	Spike Added	MS		Unit	D	%Rec	%Rec. Limits
	Result	Qualifier		Result	Qualifier				
Antimony	<0.0060		0.500	0.472		mg/L		94	75 - 125
Thallium	<0.0020		0.100	0.102		mg/L		102	75 - 125

Lab Sample ID: 500-207057-1 DU  
Matrix: Solid  
Analysis Batch: 625693

Client Sample ID: 2674V2-18-B01 (0-7)  
Prep Type: TCLP  
Prep Batch: 625181

Analyte	Sample	Sample	DU		Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Antimony	<0.0060		<0.0060		mg/L		NC	20
Thallium	<0.0020		<0.0020		mg/L		NC	20

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207057-1

## Method: 7470A - TCLP Mercury

Lab Sample ID: MB 500-625462/12-A  
Matrix: Solid  
Analysis Batch: 625700

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 625462

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 08:13	1

Lab Sample ID: LCS 500-625462/14-A  
Matrix: Solid  
Analysis Batch: 625700

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 625462

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00183		mg/L		91	80 - 120

Lab Sample ID: LB 500-624872/1-C  
Matrix: Solid  
Analysis Batch: 625700

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 625462

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 08:16	1

Lab Sample ID: 500-207057-1 MS  
Matrix: Solid  
Analysis Batch: 625700

Client Sample ID: 2674V2-18-B01 (0-7)  
Prep Type: TCLP  
Prep Batch: 625462

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.00020		0.00100	0.000931		mg/L		93	75 - 125

Lab Sample ID: 500-207057-1 DU  
Matrix: Solid  
Analysis Batch: 625700

Client Sample ID: 2674V2-18-B01 (0-7)  
Prep Type: TCLP  
Prep Batch: 625462

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	<0.00020		<0.00020		mg/L		NC	20

## Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 500-625696/12-A  
Matrix: Solid  
Analysis Batch: 625923

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 625696

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0056	mg/Kg		10/27/21 14:15	10/28/21 06:34	1

Lab Sample ID: LCS 500-625696/13-A  
Matrix: Solid  
Analysis Batch: 625923

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 625696

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.167	0.175		mg/Kg		105	80 - 120

# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207057-1

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

**Lab Sample ID: 500-207057-2 MS**

**Matrix: Solid**

**Analysis Batch: 625923**

**Client Sample ID: 2674V2-18-B01 (0-7)D**

**Prep Type: Total/NA**

**Prep Batch: 625696**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.064		0.103	0.176		mg/Kg	☼	108	75 - 125

**Lab Sample ID: 500-207057-2 MSD**

**Matrix: Solid**

**Analysis Batch: 625923**

**Client Sample ID: 2674V2-18-B01 (0-7)D**

**Prep Type: Total/NA**

**Prep Batch: 625696**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.064		0.104	0.178		mg/Kg	☼	110	75 - 125	1	20

**Lab Sample ID: 500-207057-2 DU**

**Matrix: Solid**

**Analysis Batch: 625923**

**Client Sample ID: 2674V2-18-B01 (0-7)D**

**Prep Type: Total/NA**

**Prep Batch: 625696**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Mercury	0.064		0.0582		mg/Kg	☼	10	20



# Lab Chronicle

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207057-1

**Client Sample ID: 2674V2-18-B01 (0-7)**

**Lab Sample ID: 500-207057-1**

**Date Collected: 10/18/21 11:35**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			624891	10/21/21 15:30	OAJ	TAL CHI
SPLP East	Prep	3010A			625182	10/25/21 08:33	BDE	TAL CHI
SPLP East	Analysis	6010B		1	625619	10/26/21 18:03	JJB	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6010B		1	625354	10/25/21 16:21	JJB	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6020A		1	625693	10/26/21 15:08	FXG	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	7470A			625462	10/26/21 09:55	MJG	TAL CHI
TCLP	Analysis	7470A		1	625700	10/27/21 08:20	MJG	TAL CHI
Total/NA	Analysis	9045D		1	624833	10/21/21 17:31	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	624697	10/21/21 08:57	LWN	TAL CHI

**Client Sample ID: 2674V2-18-B01 (0-7)**

**Lab Sample ID: 500-207057-1**

**Date Collected: 10/18/21 11:35**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 78.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624914	10/19/21 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625243	10/25/21 19:10	PMF	TAL CHI
Total/NA	Prep	3541			625120	10/25/21 06:38	SB	TAL CHI
Total/NA	Analysis	8270D		1	626713	11/02/21 14:02	EMA	TAL CHI
Total/NA	Prep	3050B			626488	11/01/21 10:06	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626867	11/02/21 16:37	JJB	TAL CHI
Total/NA	Prep	3050B			626488	11/01/21 10:06	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626854	11/02/21 12:30	JJB	TAL CHI
Total/NA	Prep	7471B			625696	10/27/21 14:15	MJG	TAL CHI
Total/NA	Analysis	7471B		1	625923	10/28/21 06:58	MJG	TAL CHI

**Client Sample ID: 2674V2-18-B01 (0-7)D**

**Lab Sample ID: 500-207057-2**

**Date Collected: 10/18/21 11:38**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			624891	10/21/21 15:30	OAJ	TAL CHI
SPLP East	Prep	3010A			625182	10/25/21 08:33	BDE	TAL CHI
SPLP East	Analysis	6010B		1	625619	10/26/21 18:06	JJB	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6010B		1	625354	10/25/21 16:18	JJB	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6020A		1	625693	10/26/21 15:07	FXG	TAL CHI

# Lab Chronicle

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207057-1

**Client Sample ID: 2674V2-18-B01 (0-7)D**

**Lab Sample ID: 500-207057-2**

Date Collected: 10/18/21 11:38

Matrix: Solid

Date Received: 10/19/21 11:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	7470A			625462	10/26/21 09:55	MJG	TAL CHI
TCLP	Analysis	7470A		1	625700	10/27/21 08:30	MJG	TAL CHI
Total/NA	Analysis	9045D		1	624833	10/21/21 17:33	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	624697	10/21/21 08:57	LWN	TAL CHI

**Client Sample ID: 2674V2-18-B01 (0-7)D**

**Lab Sample ID: 500-207057-2**

Date Collected: 10/18/21 11:38

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 74.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624914	10/19/21 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625243	10/25/21 19:35	PMF	TAL CHI
Total/NA	Prep	3541			625120	10/25/21 06:38	SB	TAL CHI
Total/NA	Analysis	8270D		1	626713	11/02/21 14:25	EMA	TAL CHI
Total/NA	Prep	3050B			626488	11/01/21 10:06	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626867	11/02/21 16:40	JJB	TAL CHI
Total/NA	Prep	3050B			626488	11/01/21 10:06	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626854	11/02/21 12:33	JJB	TAL CHI
Total/NA	Prep	7471B			625696	10/27/21 14:15	MJG	TAL CHI
Total/NA	Analysis	7471B		1	625923	10/28/21 07:00	MJG	TAL CHI

**Client Sample ID: 2674V2-18-B02 (0-2)**

**Lab Sample ID: 500-207057-3**

Date Collected: 10/18/21 11:48

Matrix: Solid

Date Received: 10/19/21 11:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6010B		1	625354	10/25/21 16:35	JJB	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6010B		1	625539	10/26/21 14:51	JJB	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	3010A			625181	10/25/21 08:30	BDE	TAL CHI
TCLP	Analysis	6020A		1	625693	10/26/21 15:13	FXG	TAL CHI
TCLP	Leach	1311			624872	10/21/21 15:46	OAJ	TAL CHI
TCLP	Prep	7470A			625462	10/26/21 09:55	MJG	TAL CHI
TCLP	Analysis	7470A		1	625700	10/27/21 08:33	MJG	TAL CHI
Total/NA	Analysis	9045D		1	624833	10/21/21 17:36	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	624697	10/21/21 08:57	LWN	TAL CHI

# Lab Chronicle

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207057-1

**Client Sample ID: 2674V2-18-B02 (0-2)**

**Lab Sample ID: 500-207057-3**

**Date Collected: 10/18/21 11:48**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 85.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624914	10/19/21 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625243	10/25/21 20:01	PMF	TAL CHI
Total/NA	Prep	3541			625120	10/25/21 06:38	SB	TAL CHI
Total/NA	Analysis	8270D		1	626713	11/02/21 14:49	EMA	TAL CHI
Total/NA	Prep	3050B			626488	11/01/21 10:06	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626867	11/02/21 16:43	JJB	TAL CHI
Total/NA	Prep	3050B			626488	11/01/21 10:06	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626854	11/02/21 12:36	JJB	TAL CHI
Total/NA	Prep	7471B			625696	10/27/21 14:15	MJG	TAL CHI
Total/NA	Analysis	7471B		1	625923	10/28/21 07:09	MJG	TAL CHI

**Laboratory References:**

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



# Accreditation/Certification Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207057-1

## Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

1

2

3

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15

# Chain of Custody Record

546545




Environment Testing  
TestAmerica

TAL-8210

Address \_\_\_\_\_

Regulatory Program:  DW  NPDES  RCRA  Other

<b>Client Contact</b> Company Name <u>WSP</u> Address _____ City/State/Zip <u>Chicago IL</u> Phone _____ Fax _____ Project Name <u>1007 W004</u> Site <u>Lake Villa IL</u> P O # _____		<b>Project Manager</b> <u>A Tiebout</u> Tel/Email _____		<b>Site Contact</b> <u>A Hoppel</u> Lab Contact <u>R Wright</u>		<b>Date</b> <u>10/18/21</u> Carrier _____		<b>COC No</b> <u>6</u> of <u>11</u> COCs																																																			
QR Code:  500-207057 COC		<b>Analysis Turnaround Time</b> <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Filtered Sample (Y/N) _____ Perform MS / MSD (Y/N) _____ VOCs _____ PH _____ SVOCs _____ V. moisture _____ Total metals _____ TCLP metals * _____		Sampler _____ For Lab Use Only Walk-in Client _____ Lab Sampling _____		Job / SDG No <u>500-207057</u>																																																			
		<table border="1"> <thead> <tr> <th>Sample Identification</th> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=Comp G=Grab)</th> <th>Matrix</th> <th># of Cont.</th> <th>Filtered Sample (Y/N)</th> <th>Perform MS / MSD (Y/N)</th> <th>VOCs</th> <th>PH</th> <th>SVOCs</th> <th>V. moisture</th> <th>Total metals</th> <th>TCLP metals *</th> </tr> </thead> <tbody> <tr> <td>1 267402-18-B01(0-7)</td> <td>10/18/21</td> <td>1135</td> <td>C</td> <td>S</td> <td>2</td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td>2 267402-18-B01(0-7)-DUP</td> <td>10/18/21</td> <td>1138</td> <td>C</td> <td>S</td> <td>2</td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td>3 267402-18-B02(0-2)</td> <td>10/18/21</td> <td>1148</td> <td>C</td> <td>S</td> <td>2</td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> </tbody> </table>				Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VOCs	PH	SVOCs	V. moisture	Total metals	TCLP metals *	1 267402-18-B01(0-7)	10/18/21	1135	C	S	2			X	X	X	X	X	X	2 267402-18-B01(0-7)-DUP	10/18/21	1138	C	S	2			X	X	X	X	X	X	3 267402-18-B02(0-2)	10/18/21	1148	C	S	2			X	X	X	X
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VOCs	PH	SVOCs	V. moisture	Total metals	TCLP metals *																																														
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3 267402-18-B02(0-2)	10/18/21	1148	C	S	2			X	X	X	X	X	X																																														
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other _____										Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample <input type="checkbox"/> Non Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown		Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months																																															
Special Instructions/QC Requirements & Comments: <u>* SPLP analysis based on TCLP results</u>										Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No _____		Cooler Temp (°C) Obs'd <u>3.8</u> Cor'd <u>3.7</u> Therm ID No _____																																															
Requisitioned by <u>[Signature]</u> Company <u>WSP</u> Date/Time <u>10/18/21 11:15</u>		Received by <u>[Signature]</u> Company <u>EVA</u> Date/Time _____		Requisitioned by <u>[Signature]</u> Company <u>EVA</u> Date/Time <u>10/19/21 11:15</u>		Received in Laboratory by <u>[Signature]</u> Company <u>EVA-CRT</u> Date/Time <u>10/19/21 11:15</u>		Requisitioned by _____ Company _____ Date/Time _____		Received by _____ Company _____ Date/Time _____																																																	

# Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 500-207057-1

**Login Number: 207057**

**List Source: Eurofins TestAmerica, Chicago**

**List Number: 1**

**Creator: Scott, Sherri L**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





# Illinois Environmental Protection Agency

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

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

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

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

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

### I. Source Location Information

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

Project Name: FAP 541 (Illinois Route 132) Office Phone Number, if available: \_\_\_\_\_

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

59 E. Grand Avenue (ISGS #2674V2-19)

City: Lake Villa State: IL Zip Code: 60046

County: Lake Township: Lake Villa

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

Latitude: 42.41519 Longitude: - 88.08091  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

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

Approximate Start Date (mm/dd/yyyy): \_\_\_\_\_ Approximate End Date (mm/dd/yyyy): \_\_\_\_\_

Estimated Volume of debris (cu. Yd.): 4

### 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):

Location 2674V2-19-B01 was sampled within the construction zone adjacent to ISGS #2674V2-19 (Residence). Refer to PSI Report for ISGS #2674V2-19 (Residence) including Table 4-4, and Figures 4-3 and 4-6.

- 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]:

See attached data summary table and associated laboratory data package J207056-1.

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

I, Tom Campbell (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: WSP USA  
 Street Address: 115 W Washington St., Suite 1270S  
 City: Indianapolis State: IN Zip Code: 46204  
 Phone: (317) 972-1706

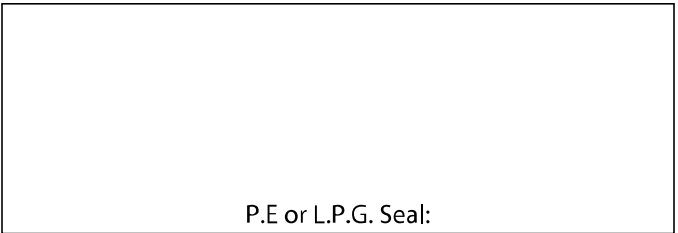
Tom Campbell  
 Printed Name:



02/03/2022  
 Date:

Expires **11/30/2023**

*Tom Campbell*  
 Licensed Professional Engineer or Licensed Professional Geologist Signature:



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





**Analytical Data Summary**  
**PTB #196-002; Work Order 04 - IDOT Job # P-91-583-12**

**Key to Data Tables**

- MAC = Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- TACO = Tiered Approach to Corrective Action Objectives
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers and Shading**

- # = pH is less than 6.25 or greater than 9.0 standard units.
- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- r = Concentration exceeds a TACO Tier 1 RO for the Residential Soil Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds applicable comparison criteria.

PTB #196-002; Work Order 04 - IDOT Job # P-91-583-12

CONTAMINANTS OF CONCERN

SITE	ISGS #2674V2-19 (Residence)	Comparison Criteria					
		MACs			TACO		
BORING	2674V2-19-B01						
SAMPLE	2674V2-19-B01 (0-2)						
MATRIX	Soil						
DEPTH (feet)	0-2						
pH	7.9						
PID (meter units)	--	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
<b>VOCs (None Detected)</b>							
<b>SVOCs (mg/kg)</b>							
Benzo(a)anthracene	0.023 J	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.023 J	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	0.022 J	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.040 J	--	--	--	--	--	--
Benzo(k)fluoranthene	0.017 J	9	--	--	9	1,700	--
Chrysene	0.036 J	88	--	--	88	17,000	--
Fluoranthene	0.053 J	3,100	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	0.014 J	0.9	1.6	0.9	1.6	170	--
Phenanthrene	0.051 J	--	--	--	--	--	--
Pyrene	0.034 J	2,300	--	--	2,300	61,000	--
<b>Inorganics (mg/kg)</b>							
Arsenic	7.3	11.3	13	--	13	61	--
Barium	130	1,500	--	--	5,500	14,000	--
Beryllium	0.97	22	--	--	160	410	--
Boron	11	40	--	--	16,000	41,000	--
Calcium	6,800	--	--	--	--	--	--
Chromium	22 †	21	--	--	230	690	--
Cobalt	13	20	--	--	4,700	12,000	--
Copper	26	2,900	--	--	2,900	8,200	--
Iron	23,000 †m	15,000	15,900	--	--	--	--
Lead	32	107	--	--	400	700	--
Magnesium	4,900	325,000	--	--	--	730,000	--
Manganese	630	630	636	--	1,600	4,100	--
Mercury	0.057	0.89	--	--	10	0.1	--
Nickel	32	100	--	--	1,600	4,100	--
Potassium	2,900	--	--	--	--	--	--
Selenium	1.0	1.3	--	--	390	1,000	--
Silver	0.59	4.4	--	--	390	1,000	--
Sodium	3,700	--	--	--	--	--	--
Vanadium	31	550	--	--	550	1,400	--
Zinc	91	5,100	--	--	23,000	61,000	--
<b>TCLP Metals (mg/L)</b>							
Barium	0.25 J	--	--	--	--	--	2
Boron	0.10 J	--	--	--	--	--	2
Chromium	ND U	--	--	--	--	--	0.1
Iron	ND U	--	--	--	--	--	5
Manganese	0.65 J L	--	--	--	--	--	0.15
<b>SPLP Metals (mg/L)</b>							
Manganese	1.7 L	--	--	--	--	--	0.15

## ANALYTICAL REPORT

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

Laboratory Job ID: 500-207056-1

Client Project/Site: IDOT - 196-002-WO04 Lake Villa

**For:**

WSP USA Inc.  
30 North LaSalle Street  
Chicago, Illinois 60602

Attn: Dean Tiebot



Authorized for release by:  
11/5/2021 3:54:26 PM

Richard Wright, Senior Project Manager  
(708)746-0045  
[Richard.Wright@Eurofinset.com](mailto:Richard.Wright@Eurofinset.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

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

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

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# Case Narrative

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207056-1

## Job ID: 500-207056-1

### Laboratory: Eurofins TestAmerica, Chicago

#### Narrative

#### Job Narrative 500-207056-1

#### Receipt

The sample was received on 10/19/2021 11:15 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.7° C.

#### GC/MS VOA

Method 8260B: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for 625358 recovered outside control limits for the following analytes: Bromomethane, Chloroethane, and 1,1,2,2-Tetrachloroethane. These analytes were biased high in the LCS/LCSD and were not detected in the associated samples; therefore, the data have been reported. 2674V2-19-B01 (0-2) (500-207056-1)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC/MS Semi VOA

Method 8270D: Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when utilizing this list of analytes. The LCS associated with preparation batch 500-624812 and analytical batch 500-624899 had 1 analyte outside control limits: Carbazole. These results have been reported and qualified.

Method 8270D: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following sample: 2674V2-19-B01 (0-2) (500-207056-1).

Method 8270D: Internal standard (ISTD) responses for the following sample was outside of acceptance limits: 2674V2-19-B01 (0-2) (500-207056-1). The sample was analyzed at a dilution with acceptable ISTD recoveries. The undiluted analysis portion with acceptable ISTD recoveries was reported to obtain lower reporting limits.

Method 8270D: Surrogate recovery for the following sample was outside control limits: 2674V2-19-B01 (0-2) (500-207056-1). Evidence of matrix interference is present; the diluted analysis had acceptable surrogate recoveries.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

Method 6010B: The continuing calibration blanks (CCB) contained Beryllium above the reporting limit (RL). The sample 2674V2-19-B01 (0-2) (500-207056-1) associated with this CCB did not contain the target compound; therefore, re-analysis of samples was not performed. 2674V2-19-B01 (0-2) (500-207056-1)

Method 6010B: The continuing calibration verification (CCV) associated with batch 500-625354 recovered above the upper control limit for Barium. The samples associated with this CCV were below the reporting limit for the affected analytes; therefore, the data have been reported. The associated sample is impacted: 2674V2-19-B01 (0-2) (500-207056-1).

Method 6010B: The continuing calibration verification (CCV) associated with batch 500-625354 recovered above the upper control limit for Zinc. The samples associated with this CCV were below the reporting limit for the affected analytes; therefore, the data have been reported. The associated sample is impacted: 2674V2-19-B01 (0-2) (500-207056-1).

Method 6010B: The continuing calibration blank (CCB) for 500-625354 contained Manganese above the reporting limit (RL). Associated sample 2674V2-19-B01 (0-2) (500-207056-1) was not re-analyzed because results were greater than 10X the value found in the CCB. 2674V2-19-B01 (0-2) (500-207056-1)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### General Chemistry

# Case Narrative

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207056-1

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## Job ID: 500-207056-1 (Continued)

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### Laboratory: Eurofins TestAmerica, Chicago (Continued)

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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# Detection Summary

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207056-1

**Client Sample ID: 2674V2-19-B01 (0-2)**

**Lab Sample ID: 500-207056-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Pyrene	0.034	J	0.044	0.0088	mg/Kg	1	✳		8270D	Total/NA
Benzo[a]anthracene	0.023	J	0.044	0.0060	mg/Kg	1	✳		8270D	Total/NA
Chrysene	0.036	J	0.044	0.012	mg/Kg	1	✳		8270D	Total/NA
Benzo[b]fluoranthene	0.022	J	0.044	0.0096	mg/Kg	1	✳		8270D	Total/NA
Benzo[k]fluoranthene	0.017	J	0.044	0.013	mg/Kg	1	✳		8270D	Total/NA
Benzo[a]pyrene	0.023	J	0.044	0.0086	mg/Kg	1	✳		8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.014	J	0.044	0.012	mg/Kg	1	✳		8270D	Total/NA
Benzo[g,h,i]perylene	0.040	J	0.044	0.014	mg/Kg	1	✳		8270D	Total/NA
Phenanthrene - DL	0.051	J	0.088	0.012	mg/Kg	2	✳		8270D	Total/NA
Fluoranthene - DL	0.053	J	0.088	0.016	mg/Kg	2	✳		8270D	Total/NA
Arsenic	7.3		0.65	0.22	mg/Kg	1	✳		6010B	Total/NA
Barium	130		0.65	0.074	mg/Kg	1	✳		6010B	Total/NA
Beryllium	0.97		0.26	0.061	mg/Kg	1	✳		6010B	Total/NA
Boron	11		3.3	0.30	mg/Kg	1	✳		6010B	Total/NA
Cadmium	0.39	B	0.13	0.023	mg/Kg	1	✳		6010B	Total/NA
Calcium	6800	B	13	2.2	mg/Kg	1	✳		6010B	Total/NA
Chromium	22		0.65	0.32	mg/Kg	1	✳		6010B	Total/NA
Cobalt	13		0.33	0.085	mg/Kg	1	✳		6010B	Total/NA
Copper	26		0.65	0.18	mg/Kg	1	✳		6010B	Total/NA
Iron	23000		13	6.8	mg/Kg	1	✳		6010B	Total/NA
Lead	32		0.33	0.15	mg/Kg	1	✳		6010B	Total/NA
Magnesium	4900	B	6.5	3.2	mg/Kg	1	✳		6010B	Total/NA
Manganese	630	B	0.65	0.094	mg/Kg	1	✳		6010B	Total/NA
Nickel	32		0.65	0.19	mg/Kg	1	✳		6010B	Total/NA
Potassium	2900		33	12	mg/Kg	1	✳		6010B	Total/NA
Selenium	1.0		0.65	0.38	mg/Kg	1	✳		6010B	Total/NA
Silver	0.59		0.33	0.084	mg/Kg	1	✳		6010B	Total/NA
Sodium	3700		65	9.6	mg/Kg	1	✳		6010B	Total/NA
Vanadium	31		0.33	0.077	mg/Kg	1	✳		6010B	Total/NA
Zinc	91		1.3	0.57	mg/Kg	1	✳		6010B	Total/NA
Barium	0.25	J ^+	0.50	0.050	mg/L	1			6010B	TCLP
Boron	0.10	J	0.50	0.050	mg/L	1			6010B	TCLP
Manganese	0.65	^2	0.025	0.010	mg/L	1			6010B	TCLP
Manganese	1.7		0.025	0.010	mg/L	1			6010B	SPLP East
Mercury	0.057		0.021	0.0069	mg/Kg	1	✳		7471B	Total/NA
pH	7.9		0.2	0.2	SU	1			9045D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Method Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207056-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CHI
6010B	Metals (ICP)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
7470A	TCLP Mercury	SW846	TAL CHI
7471B	Mercury (CVAA)	SW846	TAL CHI
9045D	pH	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
1311	TCLP Extraction	SW846	TAL CHI
1312	SPLP Extraction	SW846	TAL CHI
3010A	Preparation, Total Metals	SW846	TAL CHI
3050B	Preparation, Metals	SW846	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI
5035	Closed System Purge and Trap	SW846	TAL CHI
7470A	Preparation, Mercury	SW846	TAL CHI
7471B	Preparation, Mercury	SW846	TAL CHI

#### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



# Sample Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207056-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-207056-1	2674V2-19-B01 (0-2)	Solid	10/18/21 11:27	10/19/21 11:15

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# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207056-1

Client Sample ID: 2674V2-19-B01 (0-2)

Lab Sample ID: 500-207056-1

Date Collected: 10/18/21 11:27

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 72.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.027		0.027	0.012	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
Benzene	<0.0027		0.0027	0.00068	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
Bromodichloromethane	<0.0027		0.0027	0.00054	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
Bromoform	<0.0027		0.0027	0.00078	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
Bromomethane	<0.0067	*+	0.0067	0.0025	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
2-Butanone (MEK)	<0.0067		0.0067	0.0030	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
Carbon disulfide	<0.0067		0.0067	0.0014	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
Carbon tetrachloride	<0.0027		0.0027	0.00077	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
Chlorobenzene	<0.0027		0.0027	0.00098	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
Chloroethane	<0.0067	*+	0.0067	0.0020	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
Chloroform	<0.0027		0.0027	0.00092	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
Chloromethane	<0.0067		0.0067	0.0027	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
cis-1,2-Dichloroethene	<0.0027		0.0027	0.00074	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
cis-1,3-Dichloropropene	<0.0027		0.0027	0.00080	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
Dibromochloromethane	<0.0027		0.0027	0.00087	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
1,1-Dichloroethane	<0.0027		0.0027	0.00091	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
1,2-Dichloroethane	<0.0067		0.0067	0.0021	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
1,1-Dichloroethene	<0.0027		0.0027	0.00092	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
1,2-Dichloropropene	<0.0027		0.0027	0.00069	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
1,3-Dichloropropene, Total	<0.0027		0.0027	0.00094	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
Ethylbenzene	<0.0027		0.0027	0.0013	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
2-Hexanone	<0.0067		0.0067	0.0021	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
Methylene Chloride	<0.0067		0.0067	0.0026	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
4-Methyl-2-pentanone (MIBK)	<0.0067		0.0067	0.0020	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
Methyl tert-butyl ether	<0.0027		0.0027	0.00078	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
Styrene	<0.0027		0.0027	0.00080	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
1,1,2,2-Tetrachloroethane	<0.0027	*+	0.0027	0.00085	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
Tetrachloroethene	<0.0027		0.0027	0.00091	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
Toluene	<0.0027		0.0027	0.00067	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
trans-1,2-Dichloroethene	<0.0027		0.0027	0.0012	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
trans-1,3-Dichloropropene	<0.0027		0.0027	0.00094	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
1,1,1-Trichloroethane	<0.0027		0.0027	0.00089	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
1,1,2-Trichloroethane	<0.0027		0.0027	0.0011	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
Trichloroethene	<0.0027		0.0027	0.00090	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
Vinyl acetate	<0.0067		0.0067	0.0023	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
Vinyl chloride	<0.0027		0.0027	0.0012	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1
Xylenes, Total	<0.0053		0.0053	0.00085	mg/Kg	✱	10/19/21 18:28	10/26/21 19:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		75 - 131	10/19/21 18:28	10/26/21 19:45	1
Dibromofluoromethane	99		75 - 126	10/19/21 18:28	10/26/21 19:45	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 134	10/19/21 18:28	10/26/21 19:45	1
Toluene-d8 (Surr)	95		75 - 124	10/19/21 18:28	10/26/21 19:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	0.034	J	0.044	0.0088	mg/Kg	✱	10/21/21 18:34	10/26/21 15:51	1
Butyl benzyl phthalate	<0.22		0.22	0.085	mg/Kg	✱	10/21/21 18:34	10/26/21 15:51	1
Benzo[a]anthracene	0.023	J	0.044	0.0060	mg/Kg	✱	10/21/21 18:34	10/26/21 15:51	1
Chrysene	0.036	J	0.044	0.012	mg/Kg	✱	10/21/21 18:34	10/26/21 15:51	1

Euofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207056-1

**Client Sample ID: 2674V2-19-B01 (0-2)**

**Lab Sample ID: 500-207056-1**

**Date Collected: 10/18/21 11:27**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 72.6**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	<0.22		0.22	0.081	mg/Kg	✱	10/21/21 18:34	10/26/21 15:51	1
<b>Benzo[b]fluoranthene</b>	<b>0.022</b>	<b>J</b>	0.044	0.0096	mg/Kg	✱	10/21/21 18:34	10/26/21 15:51	1
<b>Benzo[k]fluoranthene</b>	<b>0.017</b>	<b>J</b>	0.044	0.013	mg/Kg	✱	10/21/21 18:34	10/26/21 15:51	1
<b>Benzo[a]pyrene</b>	<b>0.023</b>	<b>J</b>	0.044	0.0086	mg/Kg	✱	10/21/21 18:34	10/26/21 15:51	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.014</b>	<b>J</b>	0.044	0.012	mg/Kg	✱	10/21/21 18:34	10/26/21 15:51	1
Dibenz(a,h)anthracene	<0.044		0.044	0.0086	mg/Kg	✱	10/21/21 18:34	10/26/21 15:51	1
<b>Benzo[g,h,i]perylene</b>	<b>0.040</b>	<b>J</b>	0.044	0.014	mg/Kg	✱	10/21/21 18:34	10/26/21 15:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>2-Fluorophenol</i>	7	S1- *3	31 - 166	10/21/21 18:34	10/26/21 15:51	1
<i>Phenol-d5</i>	15	S1- *3	30 - 153	10/21/21 18:34	10/26/21 15:51	1
<i>Nitrobenzene-d5 (Surr)</i>	1	S1- *3	37 - 147	10/21/21 18:34	10/26/21 15:51	1
<i>2-Fluorobiphenyl (Surr)</i>	51	*3	43 - 145	10/21/21 18:34	10/26/21 15:51	1
<i>2,4,6-Tribromophenol</i>	140	*3	31 - 143	10/21/21 18:34	10/26/21 15:51	1
<i>Terphenyl-d14 (Surr)</i>	62		42 - 157	10/21/21 18:34	10/26/21 15:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.45		0.45	0.20	mg/Kg	✱	10/21/21 18:34	11/05/21 12:00	2
Bis(2-chloroethyl)ether	<0.45		0.45	0.13	mg/Kg	✱	10/21/21 18:34	11/05/21 12:00	2
1,3-Dichlorobenzene	<0.45		0.45	0.10	mg/Kg	✱	10/21/21 18:34	11/05/21 12:00	2
1,4-Dichlorobenzene	<0.45		0.45	0.11	mg/Kg	✱	10/21/21 18:34	11/05/21 12:00	2
1,2-Dichlorobenzene	<0.45		0.45	0.11	mg/Kg	✱	10/21/21 18:34	11/05/21 12:00	2
2-Methylphenol	<0.45		0.45	0.14	mg/Kg	✱	10/21/21 18:34	11/05/21 12:00	2
2,2'-oxybis[1-chloropropane]	<0.45		0.45	0.10	mg/Kg	✱	10/21/21 18:34	11/05/21 12:00	2
N-Nitrosodi-n-propylamine	<0.18		0.18	0.11	mg/Kg	✱	10/21/21 18:34	11/05/21 12:00	2
Hexachloroethane	<0.45		0.45	0.14	mg/Kg	✱	10/21/21 18:34	11/05/21 12:00	2
2-Chlorophenol	<0.45		0.45	0.15	mg/Kg	✱	10/21/21 18:34	11/05/21 12:00	2
Nitrobenzene	<0.088		0.088	0.022	mg/Kg	✱	10/21/21 18:34	11/05/21 12:00	2
Bis(2-chloroethoxy)methane	<0.45		0.45	0.091	mg/Kg	✱	10/21/21 18:34	11/05/21 12:00	2
1,2,4-Trichlorobenzene	<0.45		0.45	0.096	mg/Kg	✱	10/21/21 18:34	11/05/21 12:00	2
Isophorone	<0.45		0.45	0.10	mg/Kg	✱	10/21/21 18:34	11/05/21 12:00	2
2,4-Dimethylphenol	<0.88		0.88	0.34	mg/Kg	✱	10/21/21 18:34	11/05/21 12:00	2
Hexachlorobutadiene	<0.45		0.45	0.14	mg/Kg	✱	10/21/21 18:34	11/05/21 12:00	2
Naphthalene	<0.088		0.088	0.014	mg/Kg	✱	10/21/21 18:34	11/05/21 12:00	2
2,4-Dichlorophenol	<0.88		0.88	0.21	mg/Kg	✱	10/21/21 18:34	11/05/21 12:00	2
4-Chloroaniline	<1.8		1.8	0.42	mg/Kg	✱	10/21/21 18:34	11/05/21 12:00	2
2,4,6-Trichlorophenol	<0.88		0.88	0.31	mg/Kg	✱	10/21/21 18:34	11/05/21 12:00	2
2,4,5-Trichlorophenol	<0.88		0.88	0.20	mg/Kg	✱	10/21/21 18:34	11/05/21 12:00	2
Hexachlorocyclopentadiene	<1.8		1.8	0.51	mg/Kg	✱	10/21/21 18:34	11/05/21 12:00	2
2-Methylnaphthalene	<0.18		0.18	0.016	mg/Kg	✱	10/21/21 18:34	11/05/21 12:00	2
2-Nitroaniline	<0.45		0.45	0.12	mg/Kg	✱	10/21/21 18:34	11/05/21 12:00	2
2-Chloronaphthalene	<0.45		0.45	0.098	mg/Kg	✱	10/21/21 18:34	11/05/21 12:00	2
4-Chloro-3-methylphenol	<0.88		0.88	0.30	mg/Kg	✱	10/21/21 18:34	11/05/21 12:00	2
2,6-Dinitrotoluene	<0.45		0.45	0.17	mg/Kg	✱	10/21/21 18:34	11/05/21 12:00	2
2-Nitrophenol	<0.88		0.88	0.21	mg/Kg	✱	10/21/21 18:34	11/05/21 12:00	2
3-Nitroaniline	<0.88		0.88	0.28	mg/Kg	✱	10/21/21 18:34	11/05/21 12:00	2
Dimethyl phthalate	<0.45		0.45	0.12	mg/Kg	✱	10/21/21 18:34	11/05/21 12:00	2
2,4-Dinitrophenol	<1.8		1.8	1.6	mg/Kg	✱	10/21/21 18:34	11/05/21 12:00	2
Acenaphthylene	<0.088		0.088	0.012	mg/Kg	✱	10/21/21 18:34	11/05/21 12:00	2

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207056-1

**Client Sample ID: 2674V2-19-B01 (0-2)**

**Lab Sample ID: 500-207056-1**

Date Collected: 10/18/21 11:27

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 72.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	<0.45		0.45	0.14	mg/Kg	☼	10/21/21 18:34	11/05/21 12:00	2
Acenaphthene	<0.088		0.088	0.016	mg/Kg	☼	10/21/21 18:34	11/05/21 12:00	2
Dibenzofuran	<0.45		0.45	0.10	mg/Kg	☼	10/21/21 18:34	11/05/21 12:00	2
4-Nitrophenol	<1.8		1.8	0.85	mg/Kg	☼	10/21/21 18:34	11/05/21 12:00	2
Fluorene	<0.088		0.088	0.013	mg/Kg	☼	10/21/21 18:34	11/05/21 12:00	2
4-Nitroaniline	<0.88		0.88	0.37	mg/Kg	☼	10/21/21 18:34	11/05/21 12:00	2
4-Bromophenyl phenyl ether	<0.45		0.45	0.12	mg/Kg	☼	10/21/21 18:34	11/05/21 12:00	2
Hexachlorobenzene	<0.18		0.18	0.021	mg/Kg	☼	10/21/21 18:34	11/05/21 12:00	2
Diethyl phthalate	<0.45		0.45	0.15	mg/Kg	☼	10/21/21 18:34	11/05/21 12:00	2
4-Chlorophenyl phenyl ether	<0.45		0.45	0.10	mg/Kg	☼	10/21/21 18:34	11/05/21 12:00	2
Pentachlorophenol	<1.8		1.8	1.4	mg/Kg	☼	10/21/21 18:34	11/05/21 12:00	2
N-Nitrosodiphenylamine	<0.45		0.45	0.10	mg/Kg	☼	10/21/21 18:34	11/05/21 12:00	2
4,6-Dinitro-2-methylphenol	<1.8		1.8	0.71	mg/Kg	☼	10/21/21 18:34	11/05/21 12:00	2
<b>Phenanthrene</b>	<b>0.051</b>	<b>J</b>	0.088	0.012	mg/Kg	☼	10/21/21 18:34	11/05/21 12:00	2
Anthracene	<0.088		0.088	0.015	mg/Kg	☼	10/21/21 18:34	11/05/21 12:00	2
Carbazole	<0.45	*+	0.45	0.22	mg/Kg	☼	10/21/21 18:34	11/05/21 12:00	2
Di-n-butyl phthalate	<0.45		0.45	0.14	mg/Kg	☼	10/21/21 18:34	11/05/21 12:00	2
<b>Fluoranthene</b>	<b>0.053</b>	<b>J</b>	0.088	0.016	mg/Kg	☼	10/21/21 18:34	11/05/21 12:00	2
3,3'-Dichlorobenzidine	<0.45		0.45	0.12	mg/Kg	☼	10/21/21 18:34	11/05/21 12:00	2
Di-n-octyl phthalate	<0.45		0.45	0.15	mg/Kg	☼	10/21/21 18:34	11/05/21 12:00	2
3 & 4 Methylphenol	<0.45		0.45	0.15	mg/Kg	☼	10/21/21 18:34	11/05/21 12:00	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	106		31 - 166	10/21/21 18:34	11/05/21 12:00	2
Phenol-d5	80		30 - 153	10/21/21 18:34	11/05/21 12:00	2
Nitrobenzene-d5 (Surr)	72		37 - 147	10/21/21 18:34	11/05/21 12:00	2
2-Fluorobiphenyl (Surr)	85		43 - 145	10/21/21 18:34	11/05/21 12:00	2
2,4,6-Tribromophenol	96		31 - 143	10/21/21 18:34	11/05/21 12:00	2
Terphenyl-d14 (Surr)	93		42 - 157	10/21/21 18:34	11/05/21 12:00	2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.3		1.3	0.25	mg/Kg	☼	10/29/21 09:53	10/29/21 22:19	1
<b>Arsenic</b>	<b>7.3</b>		0.65	0.22	mg/Kg	☼	10/29/21 09:53	10/29/21 22:19	1
<b>Barium</b>	<b>130</b>		0.65	0.074	mg/Kg	☼	10/29/21 09:53	10/29/21 22:19	1
<b>Beryllium</b>	<b>0.97</b>		0.26	0.061	mg/Kg	☼	10/29/21 09:53	10/29/21 22:19	1
<b>Boron</b>	<b>11</b>		3.3	0.30	mg/Kg	☼	10/29/21 09:53	10/29/21 22:19	1
<b>Cadmium</b>	<b>0.39</b>	<b>B</b>	0.13	0.023	mg/Kg	☼	10/29/21 09:53	10/29/21 22:19	1
<b>Calcium</b>	<b>6800</b>	<b>B</b>	13	2.2	mg/Kg	☼	10/29/21 09:53	10/29/21 22:19	1
<b>Chromium</b>	<b>22</b>		0.65	0.32	mg/Kg	☼	10/29/21 09:53	10/29/21 22:19	1
<b>Cobalt</b>	<b>13</b>		0.33	0.085	mg/Kg	☼	10/29/21 09:53	10/29/21 22:19	1
<b>Copper</b>	<b>26</b>		0.65	0.18	mg/Kg	☼	10/29/21 09:53	10/29/21 22:19	1
<b>Iron</b>	<b>23000</b>		13	6.8	mg/Kg	☼	10/29/21 09:53	10/29/21 22:19	1
<b>Lead</b>	<b>32</b>		0.33	0.15	mg/Kg	☼	10/29/21 09:53	10/29/21 22:19	1
<b>Magnesium</b>	<b>4900</b>	<b>B</b>	6.5	3.2	mg/Kg	☼	10/29/21 09:53	10/29/21 22:19	1
<b>Manganese</b>	<b>630</b>	<b>B</b>	0.65	0.094	mg/Kg	☼	10/29/21 09:53	10/29/21 22:19	1
<b>Nickel</b>	<b>32</b>		0.65	0.19	mg/Kg	☼	10/29/21 09:53	10/29/21 22:19	1
<b>Potassium</b>	<b>2900</b>		33	12	mg/Kg	☼	10/29/21 09:53	10/29/21 22:19	1
<b>Selenium</b>	<b>1.0</b>		0.65	0.38	mg/Kg	☼	10/29/21 09:53	11/01/21 11:54	1
<b>Silver</b>	<b>0.59</b>		0.33	0.084	mg/Kg	☼	10/29/21 09:53	10/29/21 22:19	1

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# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207056-1

**Client Sample ID: 2674V2-19-B01 (0-2)**

**Lab Sample ID: 500-207056-1**

Date Collected: 10/18/21 11:27

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 72.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Sodium</b>	<b>3700</b>		65	9.6	mg/Kg	☼	10/29/21 09:53	10/29/21 22:19	1
Thallium	<0.65		0.65	0.33	mg/Kg	☼	10/29/21 09:53	10/29/21 22:19	1
<b>Vanadium</b>	<b>31</b>		0.33	0.077	mg/Kg	☼	10/29/21 09:53	10/29/21 22:19	1
<b>Zinc</b>	<b>91</b>		1.3	0.57	mg/Kg	☼	10/29/21 09:53	10/29/21 22:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>0.25</b>	<b>J ^+</b>	0.50	0.050	mg/L		10/25/21 08:27	10/25/21 18:37	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/25/21 08:27	10/25/21 18:37	1
<b>Boron</b>	<b>0.10</b>	<b>J</b>	0.50	0.050	mg/L		10/25/21 08:27	10/25/21 18:37	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/25/21 08:27	10/25/21 18:37	1
Chromium	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 18:37	1
Cobalt	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 18:37	1
Iron	<0.40		0.40	0.20	mg/L		10/25/21 08:27	10/25/21 18:37	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/25/21 08:27	10/25/21 18:37	1
<b>Manganese</b>	<b>0.65</b>	<b>^2</b>	0.025	0.010	mg/L		10/25/21 08:27	10/25/21 18:37	1
Nickel	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 18:37	1
Selenium	<0.050		0.050	0.020	mg/L		10/25/21 08:27	10/25/21 18:37	1
Silver	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 18:37	1
Zinc	<0.50	*+ ^+	0.50	0.020	mg/L		10/25/21 08:27	10/25/21 18:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Manganese</b>	<b>1.7</b>		0.025	0.010	mg/L		10/25/21 08:33	10/26/21 17:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/25/21 08:27	10/26/21 15:04	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/25/21 08:27	10/26/21 15:04	1

### Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 10:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.057</b>		0.021	0.0069	mg/Kg	☼	10/27/21 14:15	10/28/21 06:56	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>7.9</b>		0.2	0.2	SU			10/21/21 17:28	1

# Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207056-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.

### GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*3	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.
S1-	Surrogate recovery exceeds control limits, low biased.

### Metals

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## 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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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)
TNTC	Too Numerous To Count

# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207056-1

## GC/MS VOA

### Prep Batch: 624914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207056-1	2674V2-19-B01 (0-2)	Total/NA	Solid	5035	

### Analysis Batch: 625358

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207056-1	2674V2-19-B01 (0-2)	Total/NA	Solid	8260B	624914
MB 500-625358/7	Method Blank	Total/NA	Solid	8260B	
LCS 500-625358/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-625358/5	Lab Control Sample Dup	Total/NA	Solid	8260B	

## GC/MS Semi VOA

### Prep Batch: 624812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207056-1	2674V2-19-B01 (0-2)	Total/NA	Solid	3541	
500-207056-1 - DL	2674V2-19-B01 (0-2)	Total/NA	Solid	3541	
MB 500-624812/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-624812/2-A	Lab Control Sample	Total/NA	Solid	3541	

### Analysis Batch: 624899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-624812/1-A	Method Blank	Total/NA	Solid	8270D	624812
LCS 500-624812/2-A	Lab Control Sample	Total/NA	Solid	8270D	624812

### Analysis Batch: 625414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207056-1	2674V2-19-B01 (0-2)	Total/NA	Solid	8270D	624812

### Analysis Batch: 627393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207056-1 - DL	2674V2-19-B01 (0-2)	Total/NA	Solid	8270D	624812

## Metals

### Leach Batch: 624860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207056-1	2674V2-19-B01 (0-2)	TCLP	Solid	1311	
LB 500-624860/1-B	Method Blank	TCLP	Solid	1311	
LB 500-624860/1-C	Method Blank	TCLP	Solid	1311	

### Leach Batch: 624891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207056-1	2674V2-19-B01 (0-2)	SPLP East	Solid	1312	
LB 500-624891/21-B	Method Blank	SPLP East	Solid	1312	

### Prep Batch: 625180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207056-1	2674V2-19-B01 (0-2)	TCLP	Solid	3010A	624860
LB 500-624860/1-B	Method Blank	TCLP	Solid	3010A	624860
LCS 500-625180/2-A	Lab Control Sample	Total/NA	Solid	3010A	
LCSD 500-625180/3-A	Lab Control Sample Dup	Total/NA	Solid	3010A	

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# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207056-1

## Metals

### Prep Batch: 625182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207056-1	2674V2-19-B01 (0-2)	SPLP East	Solid	3010A	624891
LB 500-624891/21-B	Method Blank	SPLP East	Solid	3010A	624891
LCS 500-625182/2-A	Lab Control Sample	Total/NA	Solid	3010A	

### Analysis Batch: 625354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207056-1	2674V2-19-B01 (0-2)	TCLP	Solid	6010B	625180
LB 500-624860/1-B	Method Blank	TCLP	Solid	6010B	625180
LCS 500-625180/2-A	Lab Control Sample	Total/NA	Solid	6010B	625180
LCSD 500-625180/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	625180
MRL 500-625354/16	Lab Control Sample	Total/NA	Solid	6010B	

### Prep Batch: 625464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207056-1	2674V2-19-B01 (0-2)	TCLP	Solid	7470A	624860
LB 500-624860/1-C	Method Blank	TCLP	Solid	7470A	624860
MB 500-625464/12-A	Method Blank	Total/NA	Solid	7470A	
LCS 500-625464/14-A	Lab Control Sample	Total/NA	Solid	7470A	

### Analysis Batch: 625619

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207056-1	2674V2-19-B01 (0-2)	SPLP East	Solid	6010B	625182
LB 500-624891/21-B	Method Blank	SPLP East	Solid	6010B	625182
LCS 500-625182/2-A	Lab Control Sample	Total/NA	Solid	6010B	625182

### Analysis Batch: 625693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207056-1	2674V2-19-B01 (0-2)	TCLP	Solid	6020A	625180
LB 500-624860/1-B	Method Blank	TCLP	Solid	6020A	625180
LCS 500-625180/2-A	Lab Control Sample	Total/NA	Solid	6020A	625180
LCSD 500-625180/3-A	Lab Control Sample Dup	Total/NA	Solid	6020A	625180

### Prep Batch: 625696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207056-1	2674V2-19-B01 (0-2)	Total/NA	Solid	7471B	
MB 500-625696/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-625696/13-A	Lab Control Sample	Total/NA	Solid	7471B	

### Analysis Batch: 625700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207056-1	2674V2-19-B01 (0-2)	TCLP	Solid	7470A	625464
LB 500-624860/1-C	Method Blank	TCLP	Solid	7470A	625464
MB 500-625464/12-A	Method Blank	Total/NA	Solid	7470A	625464
LCS 500-625464/14-A	Lab Control Sample	Total/NA	Solid	7470A	625464

### Analysis Batch: 625923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207056-1	2674V2-19-B01 (0-2)	Total/NA	Solid	7471B	625696
MB 500-625696/12-A	Method Blank	Total/NA	Solid	7471B	625696
LCS 500-625696/13-A	Lab Control Sample	Total/NA	Solid	7471B	625696

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# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207056-1

## Metals

### Prep Batch: 626120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207056-1	2674V2-19-B01 (0-2)	Total/NA	Solid	3050B	
MB 500-626120/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-626120/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCS 500-626120/2-A ^2	Lab Control Sample	Total/NA	Solid	3050B	

### Analysis Batch: 626432

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207056-1	2674V2-19-B01 (0-2)	Total/NA	Solid	6010B	626120
MB 500-626120/1-A	Method Blank	Total/NA	Solid	6010B	626120
LCS 500-626120/2-A	Lab Control Sample	Total/NA	Solid	6010B	626120

### Analysis Batch: 626573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207056-1	2674V2-19-B01 (0-2)	Total/NA	Solid	6010B	626120
LCS 500-626120/2-A ^2	Lab Control Sample	Total/NA	Solid	6010B	626120

## General Chemistry

### Analysis Batch: 624697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207056-1	2674V2-19-B01 (0-2)	Total/NA	Solid	Moisture	

### Analysis Batch: 624833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207056-1	2674V2-19-B01 (0-2)	Total/NA	Solid	9045D	
LCS 500-624833/2	Lab Control Sample	Total/NA	Solid	9045D	
LCSD 500-624833/3	Lab Control Sample Dup	Total/NA	Solid	9045D	

# Surrogate Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207056-1

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

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (75-131)	DBFM (75-126)	DCA (70-134)	TOL (75-124)
500-207056-1	2674V2-19-B01 (0-2)	91	99	103	95
LCS 500-625358/4	Lab Control Sample	85	88	92	97
LCS 500-625358/5	Lab Control Sample Dup	85	90	92	97
MB 500-625358/7	Method Blank	89	92	95	95

### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

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

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	2FP (31-166)	PHL (30-153)	NBZ (37-147)	FBP (43-145)	TBP (31-143)	TPHL (42-157)
500-207056-1	2674V2-19-B01 (0-2)	7 S1- *3	15 S1- *3	1 S1- *3	51 *3	140 *3	62
500-207056-1 - DL	2674V2-19-B01 (0-2)	106	80	72	85	96	93
LCS 500-624812/2-A	Lab Control Sample	108	101	90	95	76	92
MB 500-624812/1-A	Method Blank	111	103	82	96	74	98

### Surrogate Legend

2FP = 2-Fluorophenol

PHL = Phenol-d5

NBZ = Nitrobenzene-d5 (Surr)

FBP = 2-Fluorobiphenyl (Surr)

TBP = 2,4,6-Tribromophenol

TPHL = Terphenyl-d14 (Surr)

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207056-1

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

**Lab Sample ID: MB 500-625358/7**  
**Matrix: Solid**  
**Analysis Batch: 625358**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	<0.020		0.020	0.0087	mg/Kg			10/26/21 11:37	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg			10/26/21 11:37	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg			10/26/21 11:37	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg			10/26/21 11:37	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg			10/26/21 11:37	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg			10/26/21 11:37	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg			10/26/21 11:37	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg			10/26/21 11:37	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg			10/26/21 11:37	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg			10/26/21 11:37	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg			10/26/21 11:37	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg			10/26/21 11:37	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg			10/26/21 11:37	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg			10/26/21 11:37	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg			10/26/21 11:37	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg			10/26/21 11:37	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg			10/26/21 11:37	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg			10/26/21 11:37	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg			10/26/21 11:37	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00070	mg/Kg			10/26/21 11:37	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg			10/26/21 11:37	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			10/26/21 11:37	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg			10/26/21 11:37	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg			10/26/21 11:37	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg			10/26/21 11:37	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg			10/26/21 11:37	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg			10/26/21 11:37	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/26/21 11:37	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg			10/26/21 11:37	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg			10/26/21 11:37	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg			10/26/21 11:37	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg			10/26/21 11:37	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg			10/26/21 11:37	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/26/21 11:37	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg			10/26/21 11:37	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg			10/26/21 11:37	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg			10/26/21 11:37	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	89		75 - 131		10/26/21 11:37	1
Dibromofluoromethane	92		75 - 126		10/26/21 11:37	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 134		10/26/21 11:37	1
Toluene-d8 (Surr)	95		75 - 124		10/26/21 11:37	1

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207056-1

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

**Lab Sample ID: LCS 500-625358/4**  
**Matrix: Solid**  
**Analysis Batch: 625358**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0500	0.0535		mg/Kg		107	40 - 150
Benzene	0.0500	0.0575		mg/Kg		115	70 - 125
Bromodichloromethane	0.0500	0.0557		mg/Kg		111	67 - 129
Bromoform	0.0500	0.0549		mg/Kg		110	68 - 136
Bromomethane	0.0500	0.0683	*+	mg/Kg		137	70 - 130
2-Butanone (MEK)	0.0500	0.0590		mg/Kg		118	47 - 138
Carbon disulfide	0.0500	0.0535		mg/Kg		107	70 - 129
Carbon tetrachloride	0.0500	0.0502		mg/Kg		100	75 - 125
Chlorobenzene	0.0500	0.0550		mg/Kg		110	50 - 150
Chloroethane	0.0500	0.0726	*+	mg/Kg		145	75 - 125
Chloroform	0.0500	0.0541		mg/Kg		108	57 - 135
Chloromethane	0.0500	0.0447		mg/Kg		89	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0532		mg/Kg		106	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0577		mg/Kg		115	70 - 125
Dibromochloromethane	0.0500	0.0570		mg/Kg		114	69 - 125
1,1-Dichloroethane	0.0500	0.0527		mg/Kg		105	70 - 125
1,2-Dichloroethane	0.0500	0.0552		mg/Kg		110	70 - 130
1,1-Dichloroethene	0.0500	0.0524		mg/Kg		105	70 - 120
1,2-Dichloropropane	0.0500	0.0576		mg/Kg		115	70 - 125
Ethylbenzene	0.0500	0.0596		mg/Kg		119	61 - 136
2-Hexanone	0.0500	0.0621		mg/Kg		124	48 - 146
Methylene Chloride	0.0500	0.0521		mg/Kg		104	70 - 126
4-Methyl-2-pentanone (MIBK)	0.0500	0.0606		mg/Kg		121	50 - 148
Methyl tert-butyl ether	0.0500	0.0493		mg/Kg		99	50 - 140
Styrene	0.0500	0.0585		mg/Kg		117	70 - 125
1,1,2,2-Tetrachloroethane	0.0500	0.0592		mg/Kg		118	70 - 122
Tetrachloroethene	0.0500	0.0581		mg/Kg		116	70 - 124
Toluene	0.0500	0.0581		mg/Kg		116	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0541		mg/Kg		108	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0568		mg/Kg		114	70 - 125
1,1,1-Trichloroethane	0.0500	0.0496		mg/Kg		99	70 - 128
1,1,2-Trichloroethane	0.0500	0.0609		mg/Kg		122	70 - 125
Trichloroethene	0.0500	0.0560		mg/Kg		112	70 - 125
Vinyl acetate	0.0500	0.0601		mg/Kg		120	40 - 153
Vinyl chloride	0.0500	0.0478		mg/Kg		96	70 - 125
Xylenes, Total	0.100	0.110		mg/Kg		110	53 - 147

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	85		75 - 131
Dibromofluoromethane	88		75 - 126
1,2-Dichloroethane-d4 (Surr)	92		70 - 134
Toluene-d8 (Surr)	97		75 - 124

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207056-1

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

**Lab Sample ID: LCSD 500-625358/5**  
**Matrix: Solid**  
**Analysis Batch: 625358**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.0500	0.0569		mg/Kg		114	40 - 150	6	30
Benzene	0.0500	0.0569		mg/Kg		114	70 - 125	1	30
Bromodichloromethane	0.0500	0.0557		mg/Kg		111	67 - 129	0	30
Bromoform	0.0500	0.0567		mg/Kg		113	68 - 136	3	30
Bromomethane	0.0500	0.0685	*+	mg/Kg		137	70 - 130	0	30
2-Butanone (MEK)	0.0500	0.0640		mg/Kg		128	47 - 138	8	30
Carbon disulfide	0.0500	0.0534		mg/Kg		107	70 - 129	0	30
Carbon tetrachloride	0.0500	0.0496		mg/Kg		99	75 - 125	1	30
Chlorobenzene	0.0500	0.0547		mg/Kg		109	50 - 150	0	30
Chloroethane	0.0500	0.0691	*+	mg/Kg		138	75 - 125	5	30
Chloroform	0.0500	0.0540		mg/Kg		108	57 - 135	0	30
Chloromethane	0.0500	0.0456		mg/Kg		91	70 - 125	2	30
cis-1,2-Dichloroethene	0.0500	0.0536		mg/Kg		107	70 - 125	1	30
cis-1,3-Dichloropropene	0.0500	0.0583		mg/Kg		117	70 - 125	1	30
Dibromochloromethane	0.0500	0.0582		mg/Kg		116	69 - 125	2	30
1,1-Dichloroethane	0.0500	0.0534		mg/Kg		107	70 - 125	1	30
1,2-Dichloroethane	0.0500	0.0567		mg/Kg		113	70 - 130	3	30
1,1-Dichloroethene	0.0500	0.0525		mg/Kg		105	70 - 120	0	30
1,2-Dichloropropane	0.0500	0.0554		mg/Kg		111	70 - 125	4	30
Ethylbenzene	0.0500	0.0594		mg/Kg		119	61 - 136	0	30
2-Hexanone	0.0500	0.0689		mg/Kg		138	48 - 146	10	30
Methylene Chloride	0.0500	0.0526		mg/Kg		105	70 - 126	1	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0668		mg/Kg		134	50 - 148	10	30
Methyl tert-butyl ether	0.0500	0.0510		mg/Kg		102	50 - 140	3	30
Styrene	0.0500	0.0588		mg/Kg		118	70 - 125	0	30
1,1,2,2-Tetrachloroethane	0.0500	0.0615	*+	mg/Kg		123	70 - 122	4	30
Tetrachloroethene	0.0500	0.0565		mg/Kg		113	70 - 124	3	30
Toluene	0.0500	0.0581		mg/Kg		116	70 - 125	0	30
trans-1,2-Dichloroethene	0.0500	0.0530		mg/Kg		106	70 - 125	2	30
trans-1,3-Dichloropropene	0.0500	0.0569		mg/Kg		114	70 - 125	0	30
1,1,1-Trichloroethane	0.0500	0.0495		mg/Kg		99	70 - 128	0	30
1,1,2-Trichloroethane	0.0500	0.0620		mg/Kg		124	70 - 125	2	30
Trichloroethene	0.0500	0.0569		mg/Kg		114	70 - 125	2	30
Vinyl acetate	0.0500	0.0601		mg/Kg		120	40 - 153	0	30
Vinyl chloride	0.0500	0.0478		mg/Kg		96	70 - 125	0	30
Xylenes, Total	0.100	0.110		mg/Kg		110	53 - 147	0	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	85		75 - 131
Dibromofluoromethane	90		75 - 126
1,2-Dichloroethane-d4 (Surr)	92		70 - 134
Toluene-d8 (Surr)	97		75 - 124

# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207056-1

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

**Lab Sample ID: MB 500-624812/1-A**  
**Matrix: Solid**  
**Analysis Batch: 624899**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 624812**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	<0.17		0.17	0.074	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.050	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
1,3-Dichlorobenzene	<0.17		0.17	0.037	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
1,4-Dichlorobenzene	<0.17		0.17	0.043	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
1,2-Dichlorobenzene	<0.17		0.17	0.040	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
2-Methylphenol	<0.17		0.17	0.053	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.039	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
N-Nitrosodi-n-propylamine	<0.067		0.067	0.041	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Hexachloroethane	<0.17		0.17	0.051	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
2-Chlorophenol	<0.17		0.17	0.057	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Nitrobenzene	<0.033		0.033	0.0083	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.034	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.036	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Isophorone	<0.17		0.17	0.037	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
2,4-Dimethylphenol	<0.33		0.33	0.13	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Hexachlorobutadiene	<0.17		0.17	0.052	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Naphthalene	<0.033		0.033	0.0051	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
2,4-Dichlorophenol	<0.33		0.33	0.079	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
4-Chloroaniline	<0.67		0.67	0.16	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
2,4,6-Trichlorophenol	<0.33		0.33	0.11	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
2,4,5-Trichlorophenol	<0.33		0.33	0.076	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Hexachlorocyclopentadiene	<0.67		0.67	0.19	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
2-Methylnaphthalene	<0.067		0.067	0.0061	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
2-Nitroaniline	<0.17		0.17	0.045	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
2-Chloronaphthalene	<0.17		0.17	0.037	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
4-Chloro-3-methylphenol	<0.33		0.33	0.11	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
2,6-Dinitrotoluene	<0.17		0.17	0.065	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
2-Nitrophenol	<0.33		0.33	0.079	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
3-Nitroaniline	<0.33		0.33	0.10	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Dimethyl phthalate	<0.17		0.17	0.043	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
2,4-Dinitrophenol	<0.67		0.67	0.59	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Acenaphthylene	<0.033		0.033	0.0044	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
2,4-Dinitrotoluene	<0.17		0.17	0.053	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Acenaphthene	<0.033		0.033	0.0060	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Dibenzofuran	<0.17		0.17	0.039	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
4-Nitrophenol	<0.67		0.67	0.32	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Fluorene	<0.033		0.033	0.0047	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
4-Nitroaniline	<0.33		0.33	0.14	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.044	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Hexachlorobenzene	<0.067		0.067	0.0077	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Diethyl phthalate	<0.17		0.17	0.056	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.039	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Pentachlorophenol	<0.67		0.67	0.53	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
N-Nitrosodiphenylamine	<0.17		0.17	0.039	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
4,6-Dinitro-2-methylphenol	<0.67		0.67	0.27	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Phenanthrene	<0.033		0.033	0.0046	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Anthracene	<0.033		0.033	0.0056	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Carbazole	<0.17		0.17	0.083	mg/Kg		10/21/21 18:34	10/22/21 11:34	1

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207056-1

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

**Lab Sample ID: MB 500-624812/1-A**  
**Matrix: Solid**  
**Analysis Batch: 624899**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 624812**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	<0.17		0.17	0.051	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Fluoranthene	<0.033		0.033	0.0062	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Pyrene	<0.033		0.033	0.0066	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Butyl benzyl phthalate	<0.17		0.17	0.063	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Benzo[a]anthracene	<0.033		0.033	0.0045	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Chrysene	<0.033		0.033	0.0091	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.047	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.061	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Di-n-octyl phthalate	<0.17		0.17	0.054	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Benzo[b]fluoranthene	<0.033		0.033	0.0072	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Benzo[k]fluoranthene	<0.033		0.033	0.0098	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Benzo[a]pyrene	<0.033		0.033	0.0064	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Indeno[1,2,3-cd]pyrene	<0.033		0.033	0.0086	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Dibenz(a,h)anthracene	<0.033		0.033	0.0064	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Benzo[g,h,i]perylene	<0.033		0.033	0.011	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
3 & 4 Methylphenol	<0.17		0.17	0.055	mg/Kg		10/21/21 18:34	10/22/21 11:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	111		31 - 166	10/21/21 18:34	10/22/21 11:34	1
Phenol-d5	103		30 - 153	10/21/21 18:34	10/22/21 11:34	1
Nitrobenzene-d5 (Surr)	82		37 - 147	10/21/21 18:34	10/22/21 11:34	1
2-Fluorobiphenyl (Surr)	96		43 - 145	10/21/21 18:34	10/22/21 11:34	1
2,4,6-Tribromophenol	74		31 - 143	10/21/21 18:34	10/22/21 11:34	1
Terphenyl-d14 (Surr)	98		42 - 157	10/21/21 18:34	10/22/21 11:34	1

**Lab Sample ID: LCS 500-624812/2-A**  
**Matrix: Solid**  
**Analysis Batch: 624899**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 624812**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Phenol	1.33	1.25		mg/Kg		94	56 - 122
Bis(2-chloroethyl)ether	1.33	1.14		mg/Kg		86	55 - 111
1,3-Dichlorobenzene	1.33	1.14		mg/Kg		86	65 - 124
1,4-Dichlorobenzene	1.33	1.18		mg/Kg		88	61 - 110
1,2-Dichlorobenzene	1.33	1.16		mg/Kg		87	62 - 110
2-Methylphenol	1.33	1.22		mg/Kg		91	60 - 120
2,2'-oxybis[1-chloropropane]	1.33	1.00		mg/Kg		75	40 - 124
N-Nitrosodi-n-propylamine	1.33	0.996		mg/Kg		75	56 - 118
Hexachloroethane	1.33	1.07		mg/Kg		80	60 - 114
2-Chlorophenol	1.33	1.25		mg/Kg		93	64 - 110
Nitrobenzene	1.33	1.22		mg/Kg		92	60 - 116
Bis(2-chloroethoxy)methane	1.33	1.20		mg/Kg		90	60 - 112
1,2,4-Trichlorobenzene	1.33	1.27		mg/Kg		95	66 - 117
Isophorone	1.33	1.19		mg/Kg		89	55 - 110
2,4-Dimethylphenol	1.33	1.22		mg/Kg		91	60 - 110
Hexachlorobutadiene	1.33	1.23		mg/Kg		93	56 - 120
Naphthalene	1.33	1.22		mg/Kg		91	63 - 110
2,4-Dichlorophenol	1.33	1.31		mg/Kg		99	58 - 120

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207056-1

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

**Lab Sample ID: LCS 500-624812/2-A**  
**Matrix: Solid**  
**Analysis Batch: 624899**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 624812**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chloroaniline	1.33	1.26		mg/Kg		94	30 - 150
2,4,6-Trichlorophenol	1.33	1.17		mg/Kg		88	57 - 120
2,4,5-Trichlorophenol	1.33	1.30		mg/Kg		98	50 - 120
Hexachlorocyclopentadiene	1.33	0.410	J	mg/Kg		31	10 - 133
2-Methylnaphthalene	1.33	1.26		mg/Kg		94	69 - 112
2-Nitroaniline	1.33	1.19		mg/Kg		89	57 - 124
2-Chloronaphthalene	1.33	1.24		mg/Kg		93	69 - 114
4-Chloro-3-methylphenol	1.33	1.32		mg/Kg		99	65 - 122
2,6-Dinitrotoluene	1.33	1.37		mg/Kg		103	70 - 123
2-Nitrophenol	1.33	1.24		mg/Kg		93	60 - 120
3-Nitroaniline	1.33	1.60		mg/Kg		120	40 - 122
Dimethyl phthalate	1.33	1.30		mg/Kg		97	69 - 116
2,4-Dinitrophenol	2.67	<0.67		mg/Kg		16	10 - 100
Acenaphthylene	1.33	1.26		mg/Kg		94	68 - 120
2,4-Dinitrotoluene	1.33	1.36		mg/Kg		102	69 - 124
Acenaphthene	1.33	1.29		mg/Kg		96	65 - 124
Dibenzofuran	1.33	1.28		mg/Kg		96	66 - 115
4-Nitrophenol	2.67	2.24		mg/Kg		84	30 - 122
Fluorene	1.33	1.28		mg/Kg		96	62 - 120
4-Nitroaniline	1.33	1.91		mg/Kg		143	60 - 160
4-Bromophenyl phenyl ether	1.33	1.23		mg/Kg		92	68 - 118
Hexachlorobenzene	1.33	1.19		mg/Kg		90	63 - 124
Diethyl phthalate	1.33	1.31		mg/Kg		98	58 - 120
4-Chlorophenyl phenyl ether	1.33	1.28		mg/Kg		96	62 - 119
Pentachlorophenol	2.67	1.05		mg/Kg		39	13 - 112
N-Nitrosodiphenylamine	1.33	1.47		mg/Kg		111	65 - 112
4,6-Dinitro-2-methylphenol	2.67	0.977		mg/Kg		37	10 - 110
Phenanthrene	1.33	1.26		mg/Kg		95	62 - 120
Anthracene	1.33	1.23		mg/Kg		92	70 - 114
Carbazole	1.33	2.30	*+	mg/Kg		172	65 - 142
Di-n-butyl phthalate	1.33	1.39		mg/Kg		104	65 - 120
Fluoranthene	1.33	1.34		mg/Kg		101	62 - 120
Pyrene	1.33	1.21		mg/Kg		90	61 - 128
Butyl benzyl phthalate	1.33	1.30		mg/Kg		97	71 - 129
Benzo[a]anthracene	1.33	1.29		mg/Kg		97	67 - 122
Chrysene	1.33	1.28		mg/Kg		96	63 - 120
3,3'-Dichlorobenzidine	1.33	1.64		mg/Kg		123	35 - 128
Bis(2-ethylhexyl) phthalate	1.33	1.38		mg/Kg		104	72 - 131
Di-n-octyl phthalate	1.33	1.55		mg/Kg		116	68 - 134
Benzo[b]fluoranthene	1.33	1.42		mg/Kg		106	69 - 129
Benzo[k]fluoranthene	1.33	1.39		mg/Kg		104	68 - 127
Benzo[a]pyrene	1.33	1.30		mg/Kg		98	65 - 133
Indeno[1,2,3-cd]pyrene	1.33	1.41		mg/Kg		106	68 - 130
Dibenz(a,h)anthracene	1.33	1.27		mg/Kg		95	64 - 131
Benzo[g,h,i]perylene	1.33	1.31		mg/Kg		98	72 - 131
3 & 4 Methylphenol	1.33	1.19		mg/Kg		89	57 - 120



# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207056-1

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

**Lab Sample ID: LCS 500-624812/2-A**  
**Matrix: Solid**  
**Analysis Batch: 624899**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 624812**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol	108		31 - 166
Phenol-d5	101		30 - 153
Nitrobenzene-d5 (Surr)	90		37 - 147
2-Fluorobiphenyl (Surr)	95		43 - 145
2,4,6-Tribromophenol	76		31 - 143
Terphenyl-d14 (Surr)	92		42 - 157

## Method: 6010B - Metals (ICP)

**Lab Sample ID: LCS 500-625180/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625354**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625180**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Barium	0.500	0.538	^+	mg/L		108	80 - 120
Beryllium	0.0500	0.0499		mg/L		100	80 - 120
Boron	1.00	0.841		mg/L		84	80 - 120
Cadmium	0.0500	0.0479		mg/L		96	80 - 120
Chromium	0.200	0.202		mg/L		101	80 - 120
Cobalt	0.500	0.524		mg/L		105	80 - 120
Iron	1.00	1.05		mg/L		105	80 - 120
Lead	0.100	0.0984		mg/L		98	80 - 120
Manganese	0.500	0.481		mg/L		96	80 - 120
Nickel	0.500	0.532		mg/L		106	80 - 120
Selenium	0.100	0.108		mg/L		108	80 - 120
Silver	0.0500	0.0496		mg/L		99	80 - 120
Zinc	0.500	0.617	*+ ^+	mg/L		123	80 - 120

**Lab Sample ID: LCSD 500-625180/3-A**  
**Matrix: Solid**  
**Analysis Batch: 625354**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 625180**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Barium	0.500	0.540	^+	mg/L		108	80 - 120	0	20
Beryllium	0.0500	0.0498		mg/L		100	80 - 120	0	20
Boron	1.00	0.842		mg/L		84	80 - 120	0	20
Cadmium	0.0500	0.0480		mg/L		96	80 - 120	0	20
Chromium	0.200	0.205		mg/L		102	80 - 120	1	20
Cobalt	0.500	0.524		mg/L		105	80 - 120	0	20
Iron	1.00	1.05		mg/L		105	80 - 120	0	20
Lead	0.100	0.0955		mg/L		96	80 - 120	3	20
Manganese	0.500	0.482		mg/L		96	80 - 120	0	20
Nickel	0.500	0.530		mg/L		106	80 - 120	0	20
Selenium	0.100	0.104		mg/L		104	80 - 120	4	20
Silver	0.0500	0.0504		mg/L		101	80 - 120	2	20
Zinc	0.500	0.624	*+ ^+	mg/L		125	80 - 120	1	20

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207056-1

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

**Lab Sample ID: LCS 500-625182/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625619**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625182**  
**%Rec.**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Manganese	0.500	0.485		mg/L		97	80 - 120

**Lab Sample ID: MRL 500-625354/16**  
**Matrix: Solid**  
**Analysis Batch: 625354**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	Limits
Barium	0.0100	<0.050		mg/L		107	70 - 130
Beryllium	0.00400	0.00405		mg/L		101	70 - 130
Boron	0.0500	<0.050		mg/L		97	70 - 130
Cadmium	0.00200	<0.0020		mg/L		79	70 - 130
Chromium	0.0100	<0.010		mg/L		95	70 - 130
Cobalt	0.00500	<0.010		mg/L		102	70 - 130
Manganese	0.0100	0.0101		mg/L		101	70 - 130
Nickel	0.0100	<0.010		mg/L		90	70 - 130
Selenium	0.0100	<0.020	^3+	mg/L		151	70 - 130
Silver	0.00500	<0.010		mg/L		111	70 - 130
Zinc	0.0200	0.0216		mg/L		108	70 - 130

**Lab Sample ID: MB 500-626120/1-A**  
**Matrix: Solid**  
**Analysis Batch: 626432**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 626120**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<2.0		2.0	0.39	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Arsenic	<1.0		1.0	0.34	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Barium	<1.0		1.0	0.11	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Beryllium	<0.40		0.40	0.093	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Boron	<5.0		5.0	0.47	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Cadmium	0.0896	J	0.20	0.036	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Calcium	17.1	J	20	3.4	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Chromium	<1.0		1.0	0.50	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Cobalt	<0.50		0.50	0.13	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Copper	<1.0		1.0	0.28	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Iron	<20		20	10	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Lead	<0.50		0.50	0.23	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Magnesium	9.67	J	10	5.0	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Manganese	0.154	J	1.0	0.15	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Nickel	<1.0		1.0	0.29	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Potassium	<50		50	18	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Selenium	<1.0		1.0	0.59	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Silver	<0.50		0.50	0.13	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Sodium	<100		100	15	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Thallium	<1.0		1.0	0.50	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Vanadium	<0.50		0.50	0.12	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Zinc	<2.0		2.0	0.88	mg/Kg		10/29/21 09:53	10/29/21 20:40	1

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207056-1

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

**Lab Sample ID: LCS 500-626120/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626432**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626120**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	50.0	46.3		mg/Kg		93	80 - 120
Arsenic	10.0	8.90		mg/Kg		89	80 - 120
Barium	200	195		mg/Kg		98	80 - 120
Beryllium	5.00	4.58		mg/Kg		92	80 - 120
Boron	100	82.7		mg/Kg		83	80 - 120
Cadmium	5.00	4.60		mg/Kg		92	80 - 120
Calcium	1000	920		mg/Kg		92	80 - 120
Chromium	20.0	18.7		mg/Kg		94	80 - 120
Cobalt	50.0	47.3		mg/Kg		95	80 - 120
Copper	25.0	25.4		mg/Kg		102	80 - 120
Iron	100	106		mg/Kg		106	80 - 120
Lead	10.0	9.24		mg/Kg		92	80 - 120
Magnesium	1000	924		mg/Kg		92	80 - 120
Manganese	50.0	45.7		mg/Kg		91	80 - 120
Nickel	50.0	47.6		mg/Kg		95	80 - 120
Potassium	1000	900		mg/Kg		90	80 - 120
Silver	5.00	4.38		mg/Kg		88	80 - 120
Sodium	1000	981		mg/Kg		98	80 - 120
Thallium	10.0	8.83		mg/Kg		88	80 - 120
Vanadium	50.0	48.3		mg/Kg		97	80 - 120
Zinc	50.0	46.4		mg/Kg		93	80 - 120

**Lab Sample ID: LCS 500-626120/2-A ^2**  
**Matrix: Solid**  
**Analysis Batch: 626573**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626120**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Selenium	10.0	8.46		mg/Kg		85	80 - 120

**Lab Sample ID: LB 500-624860/1-B**  
**Matrix: Solid**  
**Analysis Batch: 625354**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 625180**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.50	^+	0.50	0.050	mg/L		10/25/21 08:27	10/25/21 17:27	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/25/21 08:27	10/25/21 17:27	1
Boron	<0.50		0.50	0.050	mg/L		10/25/21 08:27	10/25/21 17:27	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/25/21 08:27	10/25/21 17:27	1
Chromium	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 17:27	1
Cobalt	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 17:27	1
Iron	<0.40		0.40	0.20	mg/L		10/25/21 08:27	10/25/21 17:27	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/25/21 08:27	10/25/21 17:27	1
Manganese	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 17:27	1
Nickel	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 17:27	1
Selenium	<0.050		0.050	0.020	mg/L		10/25/21 08:27	10/25/21 17:27	1
Silver	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 17:27	1
Zinc	<0.50	^+	0.50	0.020	mg/L		10/25/21 08:27	10/25/21 17:27	1

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207056-1

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

Lab Sample ID: LB 500-624891/21-B  
Matrix: Solid  
Analysis Batch: 625619

Client Sample ID: Method Blank  
Prep Type: SPLP East  
Prep Batch: 625182

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	<0.025		0.025	0.010	mg/L		10/25/21 08:33	10/26/21 17:15	1

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

Lab Sample ID: LCS 500-625180/2-A  
Matrix: Solid  
Analysis Batch: 625693

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 625180

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.489		mg/L		98	80 - 120
Thallium	0.100	0.112		mg/L		112	80 - 120

Lab Sample ID: LCSD 500-625180/3-A  
Matrix: Solid  
Analysis Batch: 625693

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 625180

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.500	0.500		mg/L		100	80 - 120	2	20
Thallium	0.100	0.110		mg/L		110	80 - 120	2	20

Lab Sample ID: LB 500-624860/1-B  
Matrix: Solid  
Analysis Batch: 625693

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 625180

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/25/21 08:27	10/26/21 14:51	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/25/21 08:27	10/26/21 14:51	1

## Method: 7470A - TCLP Mercury

Lab Sample ID: MB 500-625464/12-A  
Matrix: Solid  
Analysis Batch: 625700

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 625464

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 09:20	1

Lab Sample ID: LCS 500-625464/14-A  
Matrix: Solid  
Analysis Batch: 625700

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 625464

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00183		mg/L		92	80 - 120

Lab Sample ID: LB 500-624860/1-C  
Matrix: Solid  
Analysis Batch: 625700

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 625464

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 09:22	1

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207056-1

## Method: 7471B - Mercury (CVAA)

**Lab Sample ID: MB 500-625696/12-A**  
**Matrix: Solid**  
**Analysis Batch: 625923**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 625696**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0056	mg/Kg		10/27/21 14:15	10/28/21 06:34	1

**Lab Sample ID: LCS 500-625696/13-A**  
**Matrix: Solid**  
**Analysis Batch: 625923**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625696**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.167	0.175		mg/Kg		105	80 - 120



# Lab Chronicle

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207056-1

**Client Sample ID: 2674V2-19-B01 (0-2)**

**Lab Sample ID: 500-207056-1**

**Date Collected: 10/18/21 11:27**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			624891	10/21/21 15:30	OAJ	TAL CHI
SPLP East	Prep	3010A			625182	10/25/21 08:33	BDE	TAL CHI
SPLP East	Analysis	6010B		1	625619	10/26/21 17:59	JJB	TAL CHI
TCLP	Leach	1311			624860	10/21/21 15:30	OAJ	TAL CHI
TCLP	Prep	3010A			625180	10/25/21 08:27	BDE	TAL CHI
TCLP	Analysis	6010B		1	625354	10/25/21 18:37	JJB	TAL CHI
TCLP	Leach	1311			624860	10/21/21 15:30	OAJ	TAL CHI
TCLP	Prep	3010A			625180	10/25/21 08:27	BDE	TAL CHI
TCLP	Analysis	6020A		1	625693	10/26/21 15:04	FXG	TAL CHI
TCLP	Leach	1311			624860	10/21/21 15:30	OAJ	TAL CHI
TCLP	Prep	7470A			625464	10/26/21 09:55	MJG	TAL CHI
TCLP	Analysis	7470A		1	625700	10/27/21 10:00	MJG	TAL CHI
Total/NA	Analysis	9045D		1	624833	10/21/21 17:28	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	624697	10/21/21 08:57	LWN	TAL CHI

**Client Sample ID: 2674V2-19-B01 (0-2)**

**Lab Sample ID: 500-207056-1**

**Date Collected: 10/18/21 11:27**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 72.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624914	10/19/21 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625358	10/26/21 19:45	PMF	TAL CHI
Total/NA	Prep	3541			624812	10/21/21 18:34	JP1	TAL CHI
Total/NA	Analysis	8270D		1	625414	10/26/21 15:51	SS	TAL CHI
Total/NA	Prep	3541	DL		624812	10/21/21 18:34	JP1	TAL CHI
Total/NA	Analysis	8270D	DL	2	627393	11/05/21 12:00	GLR	TAL CHI
Total/NA	Prep	3050B			626120	10/29/21 09:53	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626432	10/29/21 22:19	JJB	TAL CHI
Total/NA	Prep	3050B			626120	10/29/21 09:53	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626573	11/01/21 11:54	JJB	TAL CHI
Total/NA	Prep	7471B			625696	10/27/21 14:15	MJG	TAL CHI
Total/NA	Analysis	7471B		1	625923	10/28/21 06:56	MJG	TAL CHI

**Laboratory References:**

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Accreditation/Certification Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207056-1

## Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

1

2

3

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14

15

# Chain of Custody Record

546544



Environment Testing  
TestAmerica

TAL-8210

Address \_\_\_\_\_

Regulatory Program:  DW  NPDES  RCRA  Other

<b>Client Contact</b> Company Name: <u>WSP</u> Address: _____ City/State/Zip: <u>Chicago IL</u> Phone: _____ Fax: _____ Project Name: <u>180T W004</u> 500-207056 COC Site: <u>Lake Villa IL</u> P O #: _____		<b>Project Manager:</b> <u>D Trelout</u> Tel/Email: _____		<b>Site Contact:</b> <u>A Hoppel</u> Lab Contact: <u>R Wright</u>		Date: <u>10/18/2021</u> Carrier: _____		COC No: <u>5</u> _____ of <u>11</u> COCs	
		<b>Analysis Turnaround Time</b> <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below: _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Filtered Sample (Y/N) Perform MS/MSD (Y/N) VOCs PH SVOCs γ. moisture total metals TELP metals *		Sampler For Lab Use Only Walk-in Client Lab Sampling		Job / SDG No <u>500-207056</u>	
<b>Sample Identification</b>		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Sample Specific Notes		
1) 2674U2-19-B01(0-2)		10/18/21	1127	C	S	2	X X X X X		
<b>Preservation Used:</b> 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other		<b>Possible Hazard Identification:</b> Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample <input type="checkbox"/> Non Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown		<b>Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)</b> <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months					
<b>Special Instructions/QC Requirements &amp; Comments:</b> * SPLP analysis based on TELP results									
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temp (°C), Obs'd <u>3.8</u> Corr'd <u>3.7</u>		Therm ID No _____			
Relinquished by: <u>[Signature]</u>		Company: <u>WSP</u>		Date/Time: <u>10/18/21 1015</u>		Received by: <u>[Signature]</u>		Company: <u>EPA</u>	
Relinquished by: <u>[Signature]</u>		Company: <u>EPA</u>		Date/Time: <u>10/19/21 1115</u>		Received by: _____		Company: _____	
Relinquished by: _____		Company: _____		Date/Time: _____		Received in Laboratory by: <u>[Signature]</u>		Company: <u>EPA-CAT</u>	
								Date/Time: <u>10/19/21 1115</u>	





# Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 500-207056-1

**Login Number: 207056**

**List Source: Eurofins TestAmerica, Chicago**

**List Number: 1**

**Creator: Scott, Sherri L**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





# Illinois Environmental Protection Agency

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

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

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

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

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

### I. Source Location Information

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

Project Name: FAP 541 (Illinois Route 132) Office Phone Number, if available: \_\_\_\_\_

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

69 E. Grand Avenue (ISGS #2674V2-20)

City: Lake Villa State: IL Zip Code: 60046

County: Lake Township: Lake Villa

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

Latitude: 42.41521 Longitude: - 88.08063  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

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

Approximate Start Date (mm/dd/yyyy): \_\_\_\_\_ Approximate End Date (mm/dd/yyyy): \_\_\_\_\_

Estimated Volume of debris (cu. Yd.): 3

### 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.





**Analytical Data Summary**  
**PTB #196-002; Work Order 04 - IDOT Job # P-91-583-12**

**Key to Data Tables**

- MAC = Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- TACO = Tiered Approach to Corrective Action Objectives
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers and Shading**

- # = pH is less than 6.25 or greater than 9.0 standard units.
- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- r = Concentration exceeds a TACO Tier 1 RO for the Residential Soil Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds applicable comparison criteria.

PTB #196-002; Work Order 04 - IDOT Job # P-91-583-12

CONTAMINANTS OF CONCERN

SITE	ISGS #2674V2-20 (Jon M. Lasco Tax Service)	Comparison Criteria					
		MACs			TACO		
BORING	2674V2-20-B01	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
SAMPLE	2674V2-20-B01 (0-2)						
MATRIX	Soil						
DEPTH (feet)	0-2						
pH	8.2						
PID (meter units)	--						
<b>VOCs (None Detected)</b>							
<b>SVOCs (mg/kg)</b>							
Acenaphthylene	0.0064 J	--	--	--	--	--	--
Anthracene	0.020 J	12,000	--	--	23,000	610,000	--
Benzo(a)anthracene	0.12	0.9	1.8	1.1	1.8	170	--
Benzo(a)pyrene	0.15 †	0.09	2.1	1.3	2.1	17	--
Benzo(b)fluoranthene	0.14	0.9	2.1	1.5	2.1	170	--
Benzo(g,h,i)perylene	0.076	--	--	--	--	--	--
Benzo(k)fluoranthene	0.15	9	--	--	9	1,700	--
Chrysene	0.16	88	--	--	88	17,000	--
Dibenz(a,h)anthracene	0.019 J	0.09	0.42	0.2	0.42	17	--
Fluoranthene	0.30	3,100	--	--	3,100	82,000	--
Fluorene	0.0066 J	560	--	--	3,100	82,000	--
Indeno(1,2,3-cd)pyrene	0.064	0.9	1.6	0.9	1.6	170	--
Phenanthrene	0.13	--	--	--	--	--	--
Pyrene	0.25	2,300	--	--	2,300	61,000	--
<b>Inorganics (mg/kg)</b>							
Arsenic	6.5	11.3	13	--	13	61	--
Barium	120	1,500	--	--	5,500	14,000	--
Beryllium	0.99	22	--	--	160	410	--
Boron	10	40	--	--	16,000	41,000	--
Calcium	6,600	--	--	--	--	--	--
Chromium	22 †	21	--	--	230	690	--
Cobalt	11	20	--	--	4,700	12,000	--
Copper	24	2,900	--	--	2,900	8,200	--
Iron	23,000 †m	15,000	15,900	--	--	--	--
Lead	23	107	--	--	400	700	--
Magnesium	4,600	325,000	--	--	--	730,000	--
Manganese	530	630	636	--	1,600	4,100	--
Mercury	0.055	0.89	--	--	10	0.1	--
Nickel	28	100	--	--	1,600	4,100	--
Potassium	2,800	--	--	--	--	--	--
Selenium	0.82	1.3	--	--	390	1,000	--
Silver	0.61	4.4	--	--	390	1,000	--
Sodium	2,300	--	--	--	--	--	--
Vanadium	30	550	--	--	550	1,400	--
Zinc	90	5,100	--	--	23,000	61,000	--
<b>TCLP Metals (mg/L)</b>							
Barium	0.19 J	--	--	--	--	--	2
Boron	0.098 J	--	--	--	--	--	2
Chromium	ND U	--	--	--	--	--	0.1
Iron	ND U	--	--	--	--	--	5
Manganese	0.048	--	--	--	--	--	0.15
<b>SPLP Metals (Not Analyzed)</b>							

## ANALYTICAL REPORT

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

Laboratory Job ID: 500-207055-1

Client Project/Site: IDOT - 196-002-WO04 Lake Villa

**For:**

WSP USA Inc.  
30 North LaSalle Street  
Chicago, Illinois 60602

Attn: Dean Tiebot

*Jodie Bracken*

Authorized for release by:  
11/1/2021 5:23:02 PM

Jodie Bracken, Project Management Assistant II  
[Jodie.Bracken@Eurofinset.com](mailto:Jodie.Bracken@Eurofinset.com)

Designee for

Richard Wright, Senior Project Manager  
(708)746-0045  
[Richard.Wright@Eurofinset.com](mailto:Richard.Wright@Eurofinset.com)

### LINKS

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[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

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

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



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# Case Narrative

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207055-1

## Job ID: 500-207055-1

### Laboratory: Eurofins TestAmerica, Chicago

#### Narrative

#### Job Narrative 500-207055-1

#### Receipt

The sample was received on 10/19/2021 11:15 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.7° C.

#### GC/MS VOA

Method 8260B: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for 625358 recovered outside control limits for the following analytes: Bromomethane, Chloroethane, and 1,1,2,2-Tetrachloroethane. These analytes were biased high in the LCS/LCSD and were not detected in the associated samples; therefore, the data have been reported. 2674V2-20-B01 (0-2) (500-207055-1)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC/MS Semi VOA

Method 8270D: Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when utilizing this list of analytes. The LCS associated with preparation batch 500-624812 and analytical batch 500-624899 had 1 analyte outside control limits: Carbazole. These results have been reported and qualified.

Method 8270D: The continuing calibration verification (CCV) analyzed in batch 500-625201 was outside the method criteria for the following analyte(s): 3,3'-Dichlorobenzidine, 3-Nitroaniline, Bis(2-chloroethoxy)methane, Carbazole and Hexachlorobenzene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

Method 6010B: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 500-624860 and 500-625180 and analytical batch 500-625354 recovered outside control limits for the following analytes: Zinc. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 6010B: The continuing calibration verification (CCV) associated with batch 500-625354 recovered above the upper control limit for Zinc. The samples associated with this CCV were below the reporting limit for the affected analytes; therefore, the data have been reported. The associated sample is impacted: 2674V2-20-B01 (0-2) (500-207055-1).

Method 6010B: The continuing calibration verification (CCV) associated with batch 500-625354 recovered above the upper control limit for Barium. The samples associated with this CCV were below the reporting limit for the affected analytes; therefore, the data have been reported. The associated sample is impacted: 2674V2-20-B01 (0-2) (500-207055-1).

Method 6010B: The continuing calibration blanks (CCB) contained Beryllium above the reporting limit (RL). The sample 2674V2-20-B01 (0-2) (500-207055-1) associated with this CCB did not contain the target compound; therefore, re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



# Detection Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207055-1

**Client Sample ID: 2674V2-20-B01 (0-2)**

**Lab Sample ID: 500-207055-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acenaphthylene	0.0064	J	0.046	0.0061	mg/Kg	1	✳	8270D	Total/NA	
Fluorene	0.0066	J	0.046	0.0065	mg/Kg	1	✳	8270D	Total/NA	
Phenanthrene	0.13		0.046	0.0064	mg/Kg	1	✳	8270D	Total/NA	
Anthracene	0.020	J	0.046	0.0077	mg/Kg	1	✳	8270D	Total/NA	
Fluoranthene	0.30		0.046	0.0086	mg/Kg	1	✳	8270D	Total/NA	
Pyrene	0.25		0.046	0.0092	mg/Kg	1	✳	8270D	Total/NA	
Benzo[a]anthracene	0.12		0.046	0.0062	mg/Kg	1	✳	8270D	Total/NA	
Chrysene	0.16		0.046	0.013	mg/Kg	1	✳	8270D	Total/NA	
Benzo[b]fluoranthene	0.14		0.046	0.010	mg/Kg	1	✳	8270D	Total/NA	
Benzo[k]fluoranthene	0.15		0.046	0.014	mg/Kg	1	✳	8270D	Total/NA	
Benzo[a]pyrene	0.15		0.046	0.0089	mg/Kg	1	✳	8270D	Total/NA	
Indeno[1,2,3-cd]pyrene	0.064		0.046	0.012	mg/Kg	1	✳	8270D	Total/NA	
Dibenz(a,h)anthracene	0.019	J	0.046	0.0089	mg/Kg	1	✳	8270D	Total/NA	
Benzo[g,h,i]perylene	0.076		0.046	0.015	mg/Kg	1	✳	8270D	Total/NA	
Arsenic	6.5		0.66	0.22	mg/Kg	1	✳	6010B	Total/NA	
Barium	120		0.66	0.075	mg/Kg	1	✳	6010B	Total/NA	
Beryllium	0.99		0.26	0.061	mg/Kg	1	✳	6010B	Total/NA	
Boron	10		3.3	0.31	mg/Kg	1	✳	6010B	Total/NA	
Cadmium	0.28	B	0.13	0.024	mg/Kg	1	✳	6010B	Total/NA	
Calcium	6600	B	13	2.2	mg/Kg	1	✳	6010B	Total/NA	
Chromium	22		0.66	0.32	mg/Kg	1	✳	6010B	Total/NA	
Cobalt	11		0.33	0.086	mg/Kg	1	✳	6010B	Total/NA	
Copper	24		0.66	0.18	mg/Kg	1	✳	6010B	Total/NA	
Iron	23000		13	6.8	mg/Kg	1	✳	6010B	Total/NA	
Lead	23		0.33	0.15	mg/Kg	1	✳	6010B	Total/NA	
Magnesium	4600	B	6.6	3.3	mg/Kg	1	✳	6010B	Total/NA	
Manganese	530	B	0.66	0.095	mg/Kg	1	✳	6010B	Total/NA	
Nickel	28		0.66	0.19	mg/Kg	1	✳	6010B	Total/NA	
Potassium	2800		33	12	mg/Kg	1	✳	6010B	Total/NA	
Selenium	0.82		0.66	0.39	mg/Kg	1	✳	6010B	Total/NA	
Silver	0.61		0.33	0.085	mg/Kg	1	✳	6010B	Total/NA	
Sodium	2300		66	9.7	mg/Kg	1	✳	6010B	Total/NA	
Vanadium	30		0.33	0.077	mg/Kg	1	✳	6010B	Total/NA	
Zinc	90		1.3	0.58	mg/Kg	1	✳	6010B	Total/NA	
Barium	0.19	J ^+	0.50	0.050	mg/L	1		6010B	TCLP	
Boron	0.098	J	0.50	0.050	mg/L	1		6010B	TCLP	
Manganese	0.048		0.025	0.010	mg/L	1		6010B	TCLP	
Mercury	0.055		0.021	0.0070	mg/Kg	1	✳	7471B	Total/NA	
pH	8.2		0.2	0.2	SU	1		9045D	Total/NA	

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Method Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207055-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CHI
6010B	Metals (ICP)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
7470A	TCLP Mercury	SW846	TAL CHI
7471B	Mercury (CVAA)	SW846	TAL CHI
9045D	pH	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
1311	TCLP Extraction	SW846	TAL CHI
3010A	Preparation, Total Metals	SW846	TAL CHI
3050B	Preparation, Metals	SW846	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI
5035	Closed System Purge and Trap	SW846	TAL CHI
7470A	Preparation, Mercury	SW846	TAL CHI
7471B	Preparation, Mercury	SW846	TAL CHI

#### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Sample Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207055-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-207055-1	2674V2-20-B01 (0-2)	Solid	10/18/21 11:17	10/19/21 11:15

1

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# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207055-1

**Client Sample ID: 2674V2-20-B01 (0-2)**

**Lab Sample ID: 500-207055-1**

Date Collected: 10/18/21 11:17

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 70.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.027		0.027	0.012	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
Benzene	<0.0027		0.0027	0.00070	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
Bromodichloromethane	<0.0027		0.0027	0.00056	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
Bromoform	<0.0027		0.0027	0.00080	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
Bromomethane	<0.0069	*+	0.0069	0.0026	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
2-Butanone (MEK)	<0.0069		0.0069	0.0030	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
Carbon disulfide	<0.0069		0.0069	0.0014	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
Carbon tetrachloride	<0.0027		0.0027	0.00080	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
Chlorobenzene	<0.0027		0.0027	0.0010	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
Chloroethane	<0.0069	*+	0.0069	0.0020	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
Chloroform	<0.0027		0.0027	0.00095	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
Chloromethane	<0.0069		0.0069	0.0028	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
cis-1,2-Dichloroethene	<0.0027		0.0027	0.00077	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
cis-1,3-Dichloropropene	<0.0027		0.0027	0.00083	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
Dibromochloromethane	<0.0027		0.0027	0.00090	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
1,1-Dichloroethane	<0.0027		0.0027	0.00094	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
1,2-Dichloroethane	<0.0069		0.0069	0.0021	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
1,1-Dichloroethene	<0.0027		0.0027	0.00094	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
1,2-Dichloropropane	<0.0027		0.0027	0.00071	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
1,3-Dichloropropane, Total	<0.0027		0.0027	0.00096	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
Ethylbenzene	<0.0027		0.0027	0.0013	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
2-Hexanone	<0.0069		0.0069	0.0021	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
Methylene Chloride	<0.0069		0.0069	0.0027	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
4-Methyl-2-pentanone (MIBK)	<0.0069		0.0069	0.0020	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
Methyl tert-butyl ether	<0.0027		0.0027	0.00081	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
Styrene	<0.0027		0.0027	0.00083	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
1,1,2,2-Tetrachloroethane	<0.0027	*+	0.0027	0.00088	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
Tetrachloroethene	<0.0027		0.0027	0.00093	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
Toluene	<0.0027		0.0027	0.00069	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
trans-1,2-Dichloroethene	<0.0027		0.0027	0.0012	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
trans-1,3-Dichloropropene	<0.0027		0.0027	0.00096	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
1,1,1-Trichloroethane	<0.0027		0.0027	0.00092	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
1,1,2-Trichloroethane	<0.0027		0.0027	0.0012	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
Trichloroethene	<0.0027		0.0027	0.00093	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
Vinyl acetate	<0.0069		0.0069	0.0024	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
Vinyl chloride	<0.0027		0.0027	0.0012	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1
Xylenes, Total	<0.0055		0.0055	0.00088	mg/Kg	☼	10/19/21 18:28	10/26/21 19:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		75 - 131	10/19/21 18:28	10/26/21 19:20	1
Dibromofluoromethane	100		75 - 126	10/19/21 18:28	10/26/21 19:20	1
1,2-Dichloroethane-d4 (Surr)	106		70 - 134	10/19/21 18:28	10/26/21 19:20	1
Toluene-d8 (Surr)	97		75 - 124	10/19/21 18:28	10/26/21 19:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.23		0.23	0.10	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
Bis(2-chloroethyl)ether	<0.23		0.23	0.069	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
1,3-Dichlorobenzene	<0.23		0.23	0.052	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
1,4-Dichlorobenzene	<0.23		0.23	0.059	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207055-1

**Client Sample ID: 2674V2-20-B01 (0-2)**

**Lab Sample ID: 500-207055-1**

**Date Collected: 10/18/21 11:17**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 70.2**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.23		0.23	0.055	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
2-Methylphenol	<0.23		0.23	0.074	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
2,2'-oxybis[1-chloropropane]	<0.23		0.23	0.053	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
N-Nitrosodi-n-propylamine	<0.093		0.093	0.056	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
Hexachloroethane	<0.23		0.23	0.070	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
2-Chlorophenol	<0.23		0.23	0.079	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
Nitrobenzene	<0.046		0.046	0.012	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
Bis(2-chloroethoxy)methane	<0.23		0.23	0.047	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
1,2,4-Trichlorobenzene	<0.23		0.23	0.050	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
Isophorone	<0.23		0.23	0.052	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
2,4-Dimethylphenol	<0.46		0.46	0.17	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
Hexachlorobutadiene	<0.23		0.23	0.072	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
Naphthalene	<0.046		0.046	0.0071	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
2,4-Dichlorophenol	<0.46		0.46	0.11	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
4-Chloroaniline	<0.93		0.93	0.22	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
2,4,6-Trichlorophenol	<0.46		0.46	0.16	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
2,4,5-Trichlorophenol	<0.46		0.46	0.11	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
Hexachlorocyclopentadiene	<0.93		0.93	0.27	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
2-Methylnaphthalene	<0.093		0.093	0.0085	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
2-Nitroaniline	<0.23		0.23	0.062	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
2-Chloronaphthalene	<0.23		0.23	0.051	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
4-Chloro-3-methylphenol	<0.46		0.46	0.16	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
2,6-Dinitrotoluene	<0.23		0.23	0.091	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
2-Nitrophenol	<0.46		0.46	0.11	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
3-Nitroaniline	<0.46		0.46	0.14	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
Dimethyl phthalate	<0.23		0.23	0.060	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
2,4-Dinitrophenol	<0.93		0.93	0.81	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
<b>Acenaphthylene</b>	<b>0.0064</b>	<b>J</b>	0.046	0.0061	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
2,4-Dinitrotoluene	<0.23		0.23	0.073	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
Acenaphthene	<0.046		0.046	0.0083	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
Dibenzofuran	<0.23		0.23	0.054	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
4-Nitrophenol	<0.93		0.93	0.44	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
<b>Fluorene</b>	<b>0.0066</b>	<b>J</b>	0.046	0.0065	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
4-Nitroaniline	<0.46		0.46	0.19	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
4-Bromophenyl phenyl ether	<0.23		0.23	0.061	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
Hexachlorobenzene	<0.093		0.093	0.011	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
Diethyl phthalate	<0.23		0.23	0.078	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
4-Chlorophenyl phenyl ether	<0.23		0.23	0.054	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
Pentachlorophenol	<0.93		0.93	0.74	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
N-Nitrosodiphenylamine	<0.23		0.23	0.054	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
4,6-Dinitro-2-methylphenol	<0.93		0.93	0.37	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
<b>Phenanthrene</b>	<b>0.13</b>		0.046	0.0064	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
<b>Anthracene</b>	<b>0.020</b>	<b>J</b>	0.046	0.0077	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
Carbazole	<0.23	*+	0.23	0.12	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
Di-n-butyl phthalate	<0.23		0.23	0.070	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
<b>Fluoranthene</b>	<b>0.30</b>		0.046	0.0086	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
<b>Pyrene</b>	<b>0.25</b>		0.046	0.0092	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
Butyl benzyl phthalate	<0.23		0.23	0.088	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
<b>Benzo[a]anthracene</b>	<b>0.12</b>		0.046	0.0062	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207055-1

**Client Sample ID: 2674V2-20-B01 (0-2)**

**Lab Sample ID: 500-207055-1**

Date Collected: 10/18/21 11:17

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 70.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chrysene</b>	<b>0.16</b>		0.046	0.013	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
3,3'-Dichlorobenzidine	<0.23		0.23	0.065	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
Bis(2-ethylhexyl) phthalate	<0.23		0.23	0.084	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
Di-n-octyl phthalate	<0.23		0.23	0.075	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
<b>Benzo[b]fluoranthene</b>	<b>0.14</b>		0.046	0.010	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
<b>Benzo[k]fluoranthene</b>	<b>0.15</b>		0.046	0.014	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
<b>Benzo[a]pyrene</b>	<b>0.15</b>		0.046	0.0089	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.064</b>		0.046	0.012	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
<b>Dibenz(a,h)anthracene</b>	<b>0.019 J</b>		0.046	0.0089	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
<b>Benzo[g,h,i]perylene</b>	<b>0.076</b>		0.046	0.015	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
3 & 4 Methylphenol	<0.23		0.23	0.077	mg/Kg	☼	10/21/21 18:34	10/25/21 19:47	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorophenol	89		31 - 166				10/21/21 18:34	10/25/21 19:47	1
Phenol-d5	58		30 - 153				10/21/21 18:34	10/25/21 19:47	1
Nitrobenzene-d5 (Surr)	70		37 - 147				10/21/21 18:34	10/25/21 19:47	1
2-Fluorobiphenyl (Surr)	78		43 - 145				10/21/21 18:34	10/25/21 19:47	1
2,4,6-Tribromophenol	70		31 - 143				10/21/21 18:34	10/25/21 19:47	1
Terphenyl-d14 (Surr)	83		42 - 157				10/21/21 18:34	10/25/21 19:47	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.3		1.3	0.26	mg/Kg	☼	10/29/21 09:53	10/29/21 22:15	1
<b>Arsenic</b>	<b>6.5</b>		0.66	0.22	mg/Kg	☼	10/29/21 09:53	10/29/21 22:15	1
<b>Barium</b>	<b>120</b>		0.66	0.075	mg/Kg	☼	10/29/21 09:53	10/29/21 22:15	1
<b>Beryllium</b>	<b>0.99</b>		0.26	0.061	mg/Kg	☼	10/29/21 09:53	10/29/21 22:15	1
<b>Boron</b>	<b>10</b>		3.3	0.31	mg/Kg	☼	10/29/21 09:53	10/29/21 22:15	1
<b>Cadmium</b>	<b>0.28 B</b>		0.13	0.024	mg/Kg	☼	10/29/21 09:53	10/29/21 22:15	1
<b>Calcium</b>	<b>6600 B</b>		13	2.2	mg/Kg	☼	10/29/21 09:53	10/29/21 22:15	1
<b>Chromium</b>	<b>22</b>		0.66	0.32	mg/Kg	☼	10/29/21 09:53	10/29/21 22:15	1
<b>Cobalt</b>	<b>11</b>		0.33	0.086	mg/Kg	☼	10/29/21 09:53	10/29/21 22:15	1
<b>Copper</b>	<b>24</b>		0.66	0.18	mg/Kg	☼	10/29/21 09:53	10/29/21 22:15	1
<b>Iron</b>	<b>23000</b>		13	6.8	mg/Kg	☼	10/29/21 09:53	10/29/21 22:15	1
<b>Lead</b>	<b>23</b>		0.33	0.15	mg/Kg	☼	10/29/21 09:53	10/29/21 22:15	1
<b>Magnesium</b>	<b>4600 B</b>		6.6	3.3	mg/Kg	☼	10/29/21 09:53	10/29/21 22:15	1
<b>Manganese</b>	<b>530 B</b>		0.66	0.095	mg/Kg	☼	10/29/21 09:53	10/29/21 22:15	1
<b>Nickel</b>	<b>28</b>		0.66	0.19	mg/Kg	☼	10/29/21 09:53	10/29/21 22:15	1
<b>Potassium</b>	<b>2800</b>		33	12	mg/Kg	☼	10/29/21 09:53	10/29/21 22:15	1
<b>Selenium</b>	<b>0.82</b>		0.66	0.39	mg/Kg	☼	10/29/21 09:53	11/01/21 11:51	1
<b>Silver</b>	<b>0.61</b>		0.33	0.085	mg/Kg	☼	10/29/21 09:53	10/29/21 22:15	1
<b>Sodium</b>	<b>2300</b>		66	9.7	mg/Kg	☼	10/29/21 09:53	10/29/21 22:15	1
Thallium	<0.66		0.66	0.33	mg/Kg	☼	10/29/21 09:53	10/29/21 22:15	1
<b>Vanadium</b>	<b>30</b>		0.33	0.077	mg/Kg	☼	10/29/21 09:53	10/29/21 22:15	1
<b>Zinc</b>	<b>90</b>		1.3	0.58	mg/Kg	☼	10/29/21 09:53	10/29/21 22:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>0.19 J ^+</b>		0.50	0.050	mg/L		10/25/21 08:27	10/25/21 18:34	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/25/21 08:27	10/25/21 18:34	1
<b>Boron</b>	<b>0.098 J</b>		0.50	0.050	mg/L		10/25/21 08:27	10/25/21 18:34	1

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# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207055-1

**Client Sample ID: 2674V2-20-B01 (0-2)**

**Lab Sample ID: 500-207055-1**

Date Collected: 10/18/21 11:17

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 70.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/25/21 08:27	10/25/21 18:34	1
Chromium	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 18:34	1
Cobalt	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 18:34	1
Iron	<0.40		0.40	0.20	mg/L		10/25/21 08:27	10/26/21 16:37	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/25/21 08:27	10/25/21 18:34	1
<b>Manganese</b>	<b>0.048</b>		0.025	0.010	mg/L		10/25/21 08:27	10/26/21 16:37	1
Nickel	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 18:34	1
Selenium	<0.050		0.050	0.020	mg/L		10/25/21 08:27	10/25/21 18:34	1
Silver	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 18:34	1
Zinc	<0.50	*+ ^+	0.50	0.020	mg/L		10/25/21 08:27	10/25/21 18:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/25/21 08:27	10/26/21 15:01	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/25/21 08:27	10/26/21 15:01	1

## Method: 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 09:58	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<b>0.055</b>		0.021	0.0070	mg/Kg	☼	10/27/21 14:15	10/28/21 06:50	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	<b>8.2</b>		0.2	0.2	SU			10/21/21 17:11	1

# Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207055-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.

### GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
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
*+	LCS and/or LCSD is outside acceptance limits, high biased.
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## 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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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)
TNTC	Too Numerous To Count



# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207055-1

## GC/MS VOA

### Prep Batch: 624914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207055-1	2674V2-20-B01 (0-2)	Total/NA	Solid	5035	

### Analysis Batch: 625358

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207055-1	2674V2-20-B01 (0-2)	Total/NA	Solid	8260B	624914
MB 500-625358/7	Method Blank	Total/NA	Solid	8260B	
LCS 500-625358/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-625358/5	Lab Control Sample Dup	Total/NA	Solid	8260B	

## GC/MS Semi VOA

### Prep Batch: 624812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207055-1	2674V2-20-B01 (0-2)	Total/NA	Solid	3541	
MB 500-624812/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-624812/2-A	Lab Control Sample	Total/NA	Solid	3541	

### Analysis Batch: 624899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-624812/1-A	Method Blank	Total/NA	Solid	8270D	624812
LCS 500-624812/2-A	Lab Control Sample	Total/NA	Solid	8270D	624812

### Analysis Batch: 625201

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207055-1	2674V2-20-B01 (0-2)	Total/NA	Solid	8270D	624812

## Metals

### Leach Batch: 624860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207055-1	2674V2-20-B01 (0-2)	TCLP	Solid	1311	
LB 500-624860/1-B	Method Blank	TCLP	Solid	1311	
LB 500-624860/1-C	Method Blank	TCLP	Solid	1311	

### Prep Batch: 625180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207055-1	2674V2-20-B01 (0-2)	TCLP	Solid	3010A	624860
LB 500-624860/1-B	Method Blank	TCLP	Solid	3010A	624860
LCS 500-625180/2-A	Lab Control Sample	Total/NA	Solid	3010A	
LCSD 500-625180/3-A	Lab Control Sample Dup	Total/NA	Solid	3010A	

### Analysis Batch: 625354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207055-1	2674V2-20-B01 (0-2)	TCLP	Solid	6010B	625180
LB 500-624860/1-B	Method Blank	TCLP	Solid	6010B	625180
LCS 500-625180/2-A	Lab Control Sample	Total/NA	Solid	6010B	625180
LCSD 500-625180/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	625180

### Prep Batch: 625464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207055-1	2674V2-20-B01 (0-2)	TCLP	Solid	7470A	624860
LB 500-624860/1-C	Method Blank	TCLP	Solid	7470A	624860

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# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207055-1

## Metals (Continued)

### Prep Batch: 625464 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-625464/12-A	Method Blank	Total/NA	Solid	7470A	
LCS 500-625464/14-A	Lab Control Sample	Total/NA	Solid	7470A	

### Analysis Batch: 625638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207055-1	2674V2-20-B01 (0-2)	TCLP	Solid	6010B	625180

### Analysis Batch: 625693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207055-1	2674V2-20-B01 (0-2)	TCLP	Solid	6020A	625180
LB 500-624860/1-B	Method Blank	TCLP	Solid	6020A	625180
LCS 500-625180/2-A	Lab Control Sample	Total/NA	Solid	6020A	625180
LCSD 500-625180/3-A	Lab Control Sample Dup	Total/NA	Solid	6020A	625180

### Prep Batch: 625696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207055-1	2674V2-20-B01 (0-2)	Total/NA	Solid	7471B	
MB 500-625696/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-625696/13-A	Lab Control Sample	Total/NA	Solid	7471B	

### Analysis Batch: 625700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207055-1	2674V2-20-B01 (0-2)	TCLP	Solid	7470A	625464
LB 500-624860/1-C	Method Blank	TCLP	Solid	7470A	625464
MB 500-625464/12-A	Method Blank	Total/NA	Solid	7470A	625464
LCS 500-625464/14-A	Lab Control Sample	Total/NA	Solid	7470A	625464

### Analysis Batch: 625923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207055-1	2674V2-20-B01 (0-2)	Total/NA	Solid	7471B	625696
MB 500-625696/12-A	Method Blank	Total/NA	Solid	7471B	625696
LCS 500-625696/13-A	Lab Control Sample	Total/NA	Solid	7471B	625696

### Prep Batch: 626120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207055-1	2674V2-20-B01 (0-2)	Total/NA	Solid	3050B	
MB 500-626120/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-626120/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCS 500-626120/2-A ^2	Lab Control Sample	Total/NA	Solid	3050B	

### Analysis Batch: 626432

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207055-1	2674V2-20-B01 (0-2)	Total/NA	Solid	6010B	626120
MB 500-626120/1-A	Method Blank	Total/NA	Solid	6010B	626120
LCS 500-626120/2-A	Lab Control Sample	Total/NA	Solid	6010B	626120

### Analysis Batch: 626573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207055-1	2674V2-20-B01 (0-2)	Total/NA	Solid	6010B	626120
LCS 500-626120/2-A ^2	Lab Control Sample	Total/NA	Solid	6010B	626120

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# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207055-1

## General Chemistry

### Analysis Batch: 624697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207055-1	2674V2-20-B01 (0-2)	Total/NA	Solid	Moisture	

### Analysis Batch: 624833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207055-1	2674V2-20-B01 (0-2)	Total/NA	Solid	9045D	
LCS 500-624833/2	Lab Control Sample	Total/NA	Solid	9045D	
LCSD 500-624833/3	Lab Control Sample Dup	Total/NA	Solid	9045D	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

# Surrogate Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207055-1

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

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (75-131)	DBFM (75-126)	DCA (70-134)	TOL (75-124)
500-207055-1	2674V2-20-B01 (0-2)	91	100	106	97
LCS 500-625358/4	Lab Control Sample	85	88	92	97
LCS 500-625358/5	Lab Control Sample Dup	85	90	92	97
MB 500-625358/7	Method Blank	89	92	95	95

#### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

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

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	2FP (31-166)	PHL (30-153)	NBZ (37-147)	FBP (43-145)	TBP (31-143)	TPHL (42-157)
500-207055-1	2674V2-20-B01 (0-2)	89	58	70	78	70	83
LCS 500-624812/2-A	Lab Control Sample	108	101	90	95	76	92
MB 500-624812/1-A	Method Blank	111	103	82	96	74	98

#### Surrogate Legend

2FP = 2-Fluorophenol

PHL = Phenol-d5

NBZ = Nitrobenzene-d5 (Surr)

FBP = 2-Fluorobiphenyl (Surr)

TBP = 2,4,6-Tribromophenol

TPHL = Terphenyl-d14 (Surr)

# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207055-1

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

**Lab Sample ID: MB 500-625358/7**  
**Matrix: Solid**  
**Analysis Batch: 625358**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	<0.020		0.020	0.0087	mg/Kg			10/26/21 11:37	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg			10/26/21 11:37	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg			10/26/21 11:37	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg			10/26/21 11:37	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg			10/26/21 11:37	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg			10/26/21 11:37	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg			10/26/21 11:37	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg			10/26/21 11:37	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg			10/26/21 11:37	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg			10/26/21 11:37	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg			10/26/21 11:37	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg			10/26/21 11:37	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg			10/26/21 11:37	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg			10/26/21 11:37	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg			10/26/21 11:37	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg			10/26/21 11:37	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg			10/26/21 11:37	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg			10/26/21 11:37	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg			10/26/21 11:37	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00070	mg/Kg			10/26/21 11:37	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg			10/26/21 11:37	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			10/26/21 11:37	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg			10/26/21 11:37	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg			10/26/21 11:37	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg			10/26/21 11:37	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg			10/26/21 11:37	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg			10/26/21 11:37	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/26/21 11:37	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg			10/26/21 11:37	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg			10/26/21 11:37	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg			10/26/21 11:37	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg			10/26/21 11:37	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg			10/26/21 11:37	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/26/21 11:37	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg			10/26/21 11:37	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg			10/26/21 11:37	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg			10/26/21 11:37	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	89		75 - 131		10/26/21 11:37	1
Dibromofluoromethane	92		75 - 126		10/26/21 11:37	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 134		10/26/21 11:37	1
Toluene-d8 (Surr)	95		75 - 124		10/26/21 11:37	1

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207055-1

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

**Lab Sample ID: LCS 500-625358/4**  
**Matrix: Solid**  
**Analysis Batch: 625358**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0500	0.0535		mg/Kg		107	40 - 150
Benzene	0.0500	0.0575		mg/Kg		115	70 - 125
Bromodichloromethane	0.0500	0.0557		mg/Kg		111	67 - 129
Bromoform	0.0500	0.0549		mg/Kg		110	68 - 136
Bromomethane	0.0500	0.0683	*+	mg/Kg		137	70 - 130
2-Butanone (MEK)	0.0500	0.0590		mg/Kg		118	47 - 138
Carbon disulfide	0.0500	0.0535		mg/Kg		107	70 - 129
Carbon tetrachloride	0.0500	0.0502		mg/Kg		100	75 - 125
Chlorobenzene	0.0500	0.0550		mg/Kg		110	50 - 150
Chloroethane	0.0500	0.0726	*+	mg/Kg		145	75 - 125
Chloroform	0.0500	0.0541		mg/Kg		108	57 - 135
Chloromethane	0.0500	0.0447		mg/Kg		89	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0532		mg/Kg		106	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0577		mg/Kg		115	70 - 125
Dibromochloromethane	0.0500	0.0570		mg/Kg		114	69 - 125
1,1-Dichloroethane	0.0500	0.0527		mg/Kg		105	70 - 125
1,2-Dichloroethane	0.0500	0.0552		mg/Kg		110	70 - 130
1,1-Dichloroethene	0.0500	0.0524		mg/Kg		105	70 - 120
1,2-Dichloropropane	0.0500	0.0576		mg/Kg		115	70 - 125
Ethylbenzene	0.0500	0.0596		mg/Kg		119	61 - 136
2-Hexanone	0.0500	0.0621		mg/Kg		124	48 - 146
Methylene Chloride	0.0500	0.0521		mg/Kg		104	70 - 126
4-Methyl-2-pentanone (MIBK)	0.0500	0.0606		mg/Kg		121	50 - 148
Methyl tert-butyl ether	0.0500	0.0493		mg/Kg		99	50 - 140
Styrene	0.0500	0.0585		mg/Kg		117	70 - 125
1,1,2,2-Tetrachloroethane	0.0500	0.0592		mg/Kg		118	70 - 122
Tetrachloroethene	0.0500	0.0581		mg/Kg		116	70 - 124
Toluene	0.0500	0.0581		mg/Kg		116	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0541		mg/Kg		108	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0568		mg/Kg		114	70 - 125
1,1,1-Trichloroethane	0.0500	0.0496		mg/Kg		99	70 - 128
1,1,2-Trichloroethane	0.0500	0.0609		mg/Kg		122	70 - 125
Trichloroethene	0.0500	0.0560		mg/Kg		112	70 - 125
Vinyl acetate	0.0500	0.0601		mg/Kg		120	40 - 153
Vinyl chloride	0.0500	0.0478		mg/Kg		96	70 - 125
Xylenes, Total	0.100	0.110		mg/Kg		110	53 - 147

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	85		75 - 131
Dibromofluoromethane	88		75 - 126
1,2-Dichloroethane-d4 (Surr)	92		70 - 134
Toluene-d8 (Surr)	97		75 - 124

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207055-1

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

**Lab Sample ID: LCSD 500-625358/5**  
**Matrix: Solid**  
**Analysis Batch: 625358**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.0500	0.0569		mg/Kg		114	40 - 150	6	30
Benzene	0.0500	0.0569		mg/Kg		114	70 - 125	1	30
Bromodichloromethane	0.0500	0.0557		mg/Kg		111	67 - 129	0	30
Bromoform	0.0500	0.0567		mg/Kg		113	68 - 136	3	30
Bromomethane	0.0500	0.0685	*+	mg/Kg		137	70 - 130	0	30
2-Butanone (MEK)	0.0500	0.0640		mg/Kg		128	47 - 138	8	30
Carbon disulfide	0.0500	0.0534		mg/Kg		107	70 - 129	0	30
Carbon tetrachloride	0.0500	0.0496		mg/Kg		99	75 - 125	1	30
Chlorobenzene	0.0500	0.0547		mg/Kg		109	50 - 150	0	30
Chloroethane	0.0500	0.0691	*+	mg/Kg		138	75 - 125	5	30
Chloroform	0.0500	0.0540		mg/Kg		108	57 - 135	0	30
Chloromethane	0.0500	0.0456		mg/Kg		91	70 - 125	2	30
cis-1,2-Dichloroethene	0.0500	0.0536		mg/Kg		107	70 - 125	1	30
cis-1,3-Dichloropropene	0.0500	0.0583		mg/Kg		117	70 - 125	1	30
Dibromochloromethane	0.0500	0.0582		mg/Kg		116	69 - 125	2	30
1,1-Dichloroethane	0.0500	0.0534		mg/Kg		107	70 - 125	1	30
1,2-Dichloroethane	0.0500	0.0567		mg/Kg		113	70 - 130	3	30
1,1-Dichloroethene	0.0500	0.0525		mg/Kg		105	70 - 120	0	30
1,2-Dichloropropane	0.0500	0.0554		mg/Kg		111	70 - 125	4	30
Ethylbenzene	0.0500	0.0594		mg/Kg		119	61 - 136	0	30
2-Hexanone	0.0500	0.0689		mg/Kg		138	48 - 146	10	30
Methylene Chloride	0.0500	0.0526		mg/Kg		105	70 - 126	1	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0668		mg/Kg		134	50 - 148	10	30
Methyl tert-butyl ether	0.0500	0.0510		mg/Kg		102	50 - 140	3	30
Styrene	0.0500	0.0588		mg/Kg		118	70 - 125	0	30
1,1,2,2-Tetrachloroethane	0.0500	0.0615	*+	mg/Kg		123	70 - 122	4	30
Tetrachloroethene	0.0500	0.0565		mg/Kg		113	70 - 124	3	30
Toluene	0.0500	0.0581		mg/Kg		116	70 - 125	0	30
trans-1,2-Dichloroethene	0.0500	0.0530		mg/Kg		106	70 - 125	2	30
trans-1,3-Dichloropropene	0.0500	0.0569		mg/Kg		114	70 - 125	0	30
1,1,1-Trichloroethane	0.0500	0.0495		mg/Kg		99	70 - 128	0	30
1,1,2-Trichloroethane	0.0500	0.0620		mg/Kg		124	70 - 125	2	30
Trichloroethene	0.0500	0.0569		mg/Kg		114	70 - 125	2	30
Vinyl acetate	0.0500	0.0601		mg/Kg		120	40 - 153	0	30
Vinyl chloride	0.0500	0.0478		mg/Kg		96	70 - 125	0	30
Xylenes, Total	0.100	0.110		mg/Kg		110	53 - 147	0	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	85		75 - 131
Dibromofluoromethane	90		75 - 126
1,2-Dichloroethane-d4 (Surr)	92		70 - 134
Toluene-d8 (Surr)	97		75 - 124

# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207055-1

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

**Lab Sample ID: MB 500-624812/1-A**  
**Matrix: Solid**  
**Analysis Batch: 624899**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 624812**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	<0.17		0.17	0.074	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.050	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
1,3-Dichlorobenzene	<0.17		0.17	0.037	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
1,4-Dichlorobenzene	<0.17		0.17	0.043	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
1,2-Dichlorobenzene	<0.17		0.17	0.040	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
2-Methylphenol	<0.17		0.17	0.053	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.039	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
N-Nitrosodi-n-propylamine	<0.067		0.067	0.041	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Hexachloroethane	<0.17		0.17	0.051	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
2-Chlorophenol	<0.17		0.17	0.057	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Nitrobenzene	<0.033		0.033	0.0083	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.034	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.036	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Isophorone	<0.17		0.17	0.037	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
2,4-Dimethylphenol	<0.33		0.33	0.13	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Hexachlorobutadiene	<0.17		0.17	0.052	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Naphthalene	<0.033		0.033	0.0051	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
2,4-Dichlorophenol	<0.33		0.33	0.079	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
4-Chloroaniline	<0.67		0.67	0.16	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
2,4,6-Trichlorophenol	<0.33		0.33	0.11	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
2,4,5-Trichlorophenol	<0.33		0.33	0.076	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Hexachlorocyclopentadiene	<0.67		0.67	0.19	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
2-Methylnaphthalene	<0.067		0.067	0.0061	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
2-Nitroaniline	<0.17		0.17	0.045	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
2-Chloronaphthalene	<0.17		0.17	0.037	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
4-Chloro-3-methylphenol	<0.33		0.33	0.11	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
2,6-Dinitrotoluene	<0.17		0.17	0.065	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
2-Nitrophenol	<0.33		0.33	0.079	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
3-Nitroaniline	<0.33		0.33	0.10	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Dimethyl phthalate	<0.17		0.17	0.043	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
2,4-Dinitrophenol	<0.67		0.67	0.59	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Acenaphthylene	<0.033		0.033	0.0044	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
2,4-Dinitrotoluene	<0.17		0.17	0.053	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Acenaphthene	<0.033		0.033	0.0060	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Dibenzofuran	<0.17		0.17	0.039	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
4-Nitrophenol	<0.67		0.67	0.32	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Fluorene	<0.033		0.033	0.0047	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
4-Nitroaniline	<0.33		0.33	0.14	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.044	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Hexachlorobenzene	<0.067		0.067	0.0077	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Diethyl phthalate	<0.17		0.17	0.056	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.039	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Pentachlorophenol	<0.67		0.67	0.53	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
N-Nitrosodiphenylamine	<0.17		0.17	0.039	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
4,6-Dinitro-2-methylphenol	<0.67		0.67	0.27	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Phenanthrene	<0.033		0.033	0.0046	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Anthracene	<0.033		0.033	0.0056	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Carbazole	<0.17		0.17	0.083	mg/Kg		10/21/21 18:34	10/22/21 11:34	1

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207055-1

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

**Lab Sample ID: MB 500-624812/1-A**  
**Matrix: Solid**  
**Analysis Batch: 624899**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 624812**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Di-n-butyl phthalate	<0.17		0.17	0.051	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Fluoranthene	<0.033		0.033	0.0062	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Pyrene	<0.033		0.033	0.0066	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Butyl benzyl phthalate	<0.17		0.17	0.063	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Benzo[a]anthracene	<0.033		0.033	0.0045	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Chrysene	<0.033		0.033	0.0091	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.047	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.061	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Di-n-octyl phthalate	<0.17		0.17	0.054	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Benzo[b]fluoranthene	<0.033		0.033	0.0072	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Benzo[k]fluoranthene	<0.033		0.033	0.0098	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Benzo[a]pyrene	<0.033		0.033	0.0064	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Indeno[1,2,3-cd]pyrene	<0.033		0.033	0.0086	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Dibenz(a,h)anthracene	<0.033		0.033	0.0064	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
Benzo[g,h,i]perylene	<0.033		0.033	0.011	mg/Kg		10/21/21 18:34	10/22/21 11:34	1
3 & 4 Methylphenol	<0.17		0.17	0.055	mg/Kg		10/21/21 18:34	10/22/21 11:34	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorophenol	111		31 - 166	10/21/21 18:34	10/22/21 11:34	1
Phenol-d5	103		30 - 153	10/21/21 18:34	10/22/21 11:34	1
Nitrobenzene-d5 (Surr)	82		37 - 147	10/21/21 18:34	10/22/21 11:34	1
2-Fluorobiphenyl (Surr)	96		43 - 145	10/21/21 18:34	10/22/21 11:34	1
2,4,6-Tribromophenol	74		31 - 143	10/21/21 18:34	10/22/21 11:34	1
Terphenyl-d14 (Surr)	98		42 - 157	10/21/21 18:34	10/22/21 11:34	1

**Lab Sample ID: LCS 500-624812/2-A**  
**Matrix: Solid**  
**Analysis Batch: 624899**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 624812**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Bis(2-chloroethyl)ether	1.33	1.14		mg/Kg		86	55 - 111
1,3-Dichlorobenzene	1.33	1.14		mg/Kg		86	65 - 124
1,4-Dichlorobenzene	1.33	1.18		mg/Kg		88	61 - 110
1,2-Dichlorobenzene	1.33	1.16		mg/Kg		87	62 - 110
2-Methylphenol	1.33	1.22		mg/Kg		91	60 - 120
2,2'-oxybis[1-chloropropane]	1.33	1.00		mg/Kg		75	40 - 124
N-Nitrosodi-n-propylamine	1.33	0.996		mg/Kg		75	56 - 118
Hexachloroethane	1.33	1.07		mg/Kg		80	60 - 114
2-Chlorophenol	1.33	1.25		mg/Kg		93	64 - 110
Nitrobenzene	1.33	1.22		mg/Kg		92	60 - 116
Bis(2-chloroethoxy)methane	1.33	1.20		mg/Kg		90	60 - 112
1,2,4-Trichlorobenzene	1.33	1.27		mg/Kg		95	66 - 117
Isophorone	1.33	1.19		mg/Kg		89	55 - 110
2,4-Dimethylphenol	1.33	1.22		mg/Kg		91	60 - 110
Hexachlorobutadiene	1.33	1.23		mg/Kg		93	56 - 120
Naphthalene	1.33	1.22		mg/Kg		91	63 - 110
2,4-Dichlorophenol	1.33	1.31		mg/Kg		99	58 - 120

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207055-1

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

Lab Sample ID: LCS 500-624812/2-A

Matrix: Solid

Analysis Batch: 624899

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 624812

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chloroaniline	1.33	1.26		mg/Kg		94	30 - 150
2,4,6-Trichlorophenol	1.33	1.17		mg/Kg		88	57 - 120
2,4,5-Trichlorophenol	1.33	1.30		mg/Kg		98	50 - 120
Hexachlorocyclopentadiene	1.33	0.410	J	mg/Kg		31	10 - 133
2-Methylnaphthalene	1.33	1.26		mg/Kg		94	69 - 112
2-Nitroaniline	1.33	1.19		mg/Kg		89	57 - 124
2-Chloronaphthalene	1.33	1.24		mg/Kg		93	69 - 114
4-Chloro-3-methylphenol	1.33	1.32		mg/Kg		99	65 - 122
2,6-Dinitrotoluene	1.33	1.37		mg/Kg		103	70 - 123
2-Nitrophenol	1.33	1.24		mg/Kg		93	60 - 120
3-Nitroaniline	1.33	1.60		mg/Kg		120	40 - 122
Dimethyl phthalate	1.33	1.30		mg/Kg		97	69 - 116
2,4-Dinitrophenol	2.67	<0.67		mg/Kg		16	10 - 100
Acenaphthylene	1.33	1.26		mg/Kg		94	68 - 120
2,4-Dinitrotoluene	1.33	1.36		mg/Kg		102	69 - 124
Acenaphthene	1.33	1.29		mg/Kg		96	65 - 124
Dibenzofuran	1.33	1.28		mg/Kg		96	66 - 115
4-Nitrophenol	2.67	2.24		mg/Kg		84	30 - 122
Fluorene	1.33	1.28		mg/Kg		96	62 - 120
4-Nitroaniline	1.33	1.91		mg/Kg		143	60 - 160
4-Bromophenyl phenyl ether	1.33	1.23		mg/Kg		92	68 - 118
Hexachlorobenzene	1.33	1.19		mg/Kg		90	63 - 124
Diethyl phthalate	1.33	1.31		mg/Kg		98	58 - 120
4-Chlorophenyl phenyl ether	1.33	1.28		mg/Kg		96	62 - 119
Pentachlorophenol	2.67	1.05		mg/Kg		39	13 - 112
N-Nitrosodiphenylamine	1.33	1.47		mg/Kg		111	65 - 112
4,6-Dinitro-2-methylphenol	2.67	0.977		mg/Kg		37	10 - 110
Phenanthrene	1.33	1.26		mg/Kg		95	62 - 120
Anthracene	1.33	1.23		mg/Kg		92	70 - 114
Carbazole	1.33	2.30	*+	mg/Kg		172	65 - 142
Di-n-butyl phthalate	1.33	1.39		mg/Kg		104	65 - 120
Fluoranthene	1.33	1.34		mg/Kg		101	62 - 120
Pyrene	1.33	1.21		mg/Kg		90	61 - 128
Butyl benzyl phthalate	1.33	1.30		mg/Kg		97	71 - 129
Benzo[a]anthracene	1.33	1.29		mg/Kg		97	67 - 122
Chrysene	1.33	1.28		mg/Kg		96	63 - 120
3,3'-Dichlorobenzidine	1.33	1.64		mg/Kg		123	35 - 128
Bis(2-ethylhexyl) phthalate	1.33	1.38		mg/Kg		104	72 - 131
Di-n-octyl phthalate	1.33	1.55		mg/Kg		116	68 - 134
Benzo[b]fluoranthene	1.33	1.42		mg/Kg		106	69 - 129
Benzo[k]fluoranthene	1.33	1.39		mg/Kg		104	68 - 127
Benzo[a]pyrene	1.33	1.30		mg/Kg		98	65 - 133
Indeno[1,2,3-cd]pyrene	1.33	1.41		mg/Kg		106	68 - 130
Dibenz(a,h)anthracene	1.33	1.27		mg/Kg		95	64 - 131
Benzo[g,h,i]perylene	1.33	1.31		mg/Kg		98	72 - 131
3 & 4 Methylphenol	1.33	1.19		mg/Kg		89	57 - 120

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207055-1

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

**Lab Sample ID: LCS 500-624812/2-A**  
**Matrix: Solid**  
**Analysis Batch: 624899**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 624812**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol	108		31 - 166
Phenol-d5	101		30 - 153
Nitrobenzene-d5 (Surr)	90		37 - 147
2-Fluorobiphenyl (Surr)	95		43 - 145
2,4,6-Tribromophenol	76		31 - 143
Terphenyl-d14 (Surr)	92		42 - 157

## Method: 6010B - Metals (ICP)

**Lab Sample ID: LCS 500-625180/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625354**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625180**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Barium	0.500	0.538	^+	mg/L		108	80 - 120
Beryllium	0.0500	0.0499		mg/L		100	80 - 120
Boron	1.00	0.841		mg/L		84	80 - 120
Cadmium	0.0500	0.0479		mg/L		96	80 - 120
Chromium	0.200	0.202		mg/L		101	80 - 120
Cobalt	0.500	0.524		mg/L		105	80 - 120
Iron	1.00	1.05		mg/L		105	80 - 120
Lead	0.100	0.0984		mg/L		98	80 - 120
Manganese	0.500	0.481		mg/L		96	80 - 120
Nickel	0.500	0.532		mg/L		106	80 - 120
Selenium	0.100	0.108		mg/L		108	80 - 120
Silver	0.0500	0.0496		mg/L		99	80 - 120
Zinc	0.500	0.617	*+ ^+	mg/L		123	80 - 120

**Lab Sample ID: LCSD 500-625180/3-A**  
**Matrix: Solid**  
**Analysis Batch: 625354**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 625180**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Barium	0.500	0.540	^+	mg/L		108	80 - 120	0	20
Beryllium	0.0500	0.0498		mg/L		100	80 - 120	0	20
Boron	1.00	0.842		mg/L		84	80 - 120	0	20
Cadmium	0.0500	0.0480		mg/L		96	80 - 120	0	20
Chromium	0.200	0.205		mg/L		102	80 - 120	1	20
Cobalt	0.500	0.524		mg/L		105	80 - 120	0	20
Iron	1.00	1.05		mg/L		105	80 - 120	0	20
Lead	0.100	0.0955		mg/L		96	80 - 120	3	20
Manganese	0.500	0.482		mg/L		96	80 - 120	0	20
Nickel	0.500	0.530		mg/L		106	80 - 120	0	20
Selenium	0.100	0.104		mg/L		104	80 - 120	4	20
Silver	0.0500	0.0504		mg/L		101	80 - 120	2	20
Zinc	0.500	0.624	*+ ^+	mg/L		125	80 - 120	1	20

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207055-1

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

**Lab Sample ID: MB 500-626120/1-A**  
**Matrix: Solid**  
**Analysis Batch: 626432**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 626120**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<2.0		2.0	0.39	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Arsenic	<1.0		1.0	0.34	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Barium	<1.0		1.0	0.11	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Beryllium	<0.40		0.40	0.093	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Boron	<5.0		5.0	0.47	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Cadmium	0.0896	J	0.20	0.036	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Calcium	17.1	J	20	3.4	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Chromium	<1.0		1.0	0.50	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Cobalt	<0.50		0.50	0.13	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Copper	<1.0		1.0	0.28	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Iron	<20		20	10	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Lead	<0.50		0.50	0.23	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Magnesium	9.67	J	10	5.0	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Manganese	0.154	J	1.0	0.15	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Nickel	<1.0		1.0	0.29	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Potassium	<50		50	18	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Selenium	<1.0		1.0	0.59	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Silver	<0.50		0.50	0.13	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Sodium	<100		100	15	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Thallium	<1.0		1.0	0.50	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Vanadium	<0.50		0.50	0.12	mg/Kg		10/29/21 09:53	10/29/21 20:40	1
Zinc	<2.0		2.0	0.88	mg/Kg		10/29/21 09:53	10/29/21 20:40	1

**Lab Sample ID: LCS 500-626120/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626432**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626120**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	10.0	8.90		mg/Kg		89	80 - 120
Barium	200	195		mg/Kg		98	80 - 120
Beryllium	5.00	4.58		mg/Kg		92	80 - 120
Boron	100	82.7		mg/Kg		83	80 - 120
Cadmium	5.00	4.60		mg/Kg		92	80 - 120
Calcium	1000	920		mg/Kg		92	80 - 120
Chromium	20.0	18.7		mg/Kg		94	80 - 120
Cobalt	50.0	47.3		mg/Kg		95	80 - 120
Copper	25.0	25.4		mg/Kg		102	80 - 120
Iron	100	106		mg/Kg		106	80 - 120
Lead	10.0	9.24		mg/Kg		92	80 - 120
Magnesium	1000	924		mg/Kg		92	80 - 120
Manganese	50.0	45.7		mg/Kg		91	80 - 120
Nickel	50.0	47.6		mg/Kg		95	80 - 120
Potassium	1000	900		mg/Kg		90	80 - 120
Silver	5.00	4.38		mg/Kg		88	80 - 120
Sodium	1000	981		mg/Kg		98	80 - 120
Thallium	10.0	8.83		mg/Kg		88	80 - 120
Vanadium	50.0	48.3		mg/Kg		97	80 - 120
Zinc	50.0	46.4		mg/Kg		93	80 - 120

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207055-1

## Method: 6010B - Metals (ICP)

Lab Sample ID: LCS 500-626120/2-A ^2  
Matrix: Solid  
Analysis Batch: 626573

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 626120  
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Selenium	10.0	8.46		mg/Kg		85	80 - 120

Lab Sample ID: LB 500-624860/1-B  
Matrix: Solid  
Analysis Batch: 625354

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 625180

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.50	^+	0.50	0.050	mg/L		10/25/21 08:27	10/25/21 17:27	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/25/21 08:27	10/25/21 17:27	1
Boron	<0.50		0.50	0.050	mg/L		10/25/21 08:27	10/25/21 17:27	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/25/21 08:27	10/25/21 17:27	1
Chromium	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 17:27	1
Cobalt	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 17:27	1
Iron	<0.40		0.40	0.20	mg/L		10/25/21 08:27	10/25/21 17:27	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/25/21 08:27	10/25/21 17:27	1
Manganese	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 17:27	1
Nickel	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 17:27	1
Selenium	<0.050		0.050	0.020	mg/L		10/25/21 08:27	10/25/21 17:27	1
Silver	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 17:27	1
Zinc	<0.50	^+	0.50	0.020	mg/L		10/25/21 08:27	10/25/21 17:27	1

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

Lab Sample ID: LCS 500-625180/2-A  
Matrix: Solid  
Analysis Batch: 625693

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 625180  
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.500	0.489		mg/L		98	80 - 120
Thallium	0.100	0.112		mg/L		112	80 - 120

Lab Sample ID: LCSD 500-625180/3-A  
Matrix: Solid  
Analysis Batch: 625693

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 625180  
%Rec.

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Antimony	0.500	0.500		mg/L		100	80 - 120	2	20
Thallium	0.100	0.110		mg/L		110	80 - 120	2	20

Lab Sample ID: LB 500-624860/1-B  
Matrix: Solid  
Analysis Batch: 625693

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 625180

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/25/21 08:27	10/26/21 14:51	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/25/21 08:27	10/26/21 14:51	1

# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207055-1

## Method: 7470A - TCLP Mercury

**Lab Sample ID: MB 500-625464/12-A**  
**Matrix: Solid**  
**Analysis Batch: 625700**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 625464**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 09:20	1

**Lab Sample ID: LCS 500-625464/14-A**  
**Matrix: Solid**  
**Analysis Batch: 625700**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625464**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00183		mg/L		92	80 - 120

**Lab Sample ID: LB 500-624860/1-C**  
**Matrix: Solid**  
**Analysis Batch: 625700**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 625464**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 09:22	1

## Method: 7471B - Mercury (CVAA)

**Lab Sample ID: MB 500-625696/12-A**  
**Matrix: Solid**  
**Analysis Batch: 625923**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 625696**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0056	mg/Kg		10/27/21 14:15	10/28/21 06:34	1

**Lab Sample ID: LCS 500-625696/13-A**  
**Matrix: Solid**  
**Analysis Batch: 625923**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625696**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.167	0.175		mg/Kg		105	80 - 120

# Lab Chronicle

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207055-1

**Client Sample ID: 2674V2-20-B01 (0-2)**

**Lab Sample ID: 500-207055-1**

**Date Collected: 10/18/21 11:17**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			624860	10/21/21 15:30	OAJ	TAL CHI
TCLP	Prep	3010A			625180	10/25/21 08:27	BDE	TAL CHI
TCLP	Analysis	6010B		1	625354	10/25/21 18:34	JJB	TAL CHI
TCLP	Leach	1311			624860	10/21/21 15:30	OAJ	TAL CHI
TCLP	Prep	3010A			625180	10/25/21 08:27	BDE	TAL CHI
TCLP	Analysis	6010B		1	625638	10/26/21 16:37	JJB	TAL CHI
TCLP	Leach	1311			624860	10/21/21 15:30	OAJ	TAL CHI
TCLP	Prep	3010A			625180	10/25/21 08:27	BDE	TAL CHI
TCLP	Analysis	6020A		1	625693	10/26/21 15:01	FXG	TAL CHI
TCLP	Leach	1311			624860	10/21/21 15:30	OAJ	TAL CHI
TCLP	Prep	7470A			625464	10/26/21 09:55	MJG	TAL CHI
TCLP	Analysis	7470A		1	625700	10/27/21 09:58	MJG	TAL CHI
Total/NA	Analysis	9045D		1	624833	10/21/21 17:11	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	624697	10/21/21 08:57	LWN	TAL CHI

**Client Sample ID: 2674V2-20-B01 (0-2)**

**Lab Sample ID: 500-207055-1**

**Date Collected: 10/18/21 11:17**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 70.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624914	10/19/21 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625358	10/26/21 19:20	PMF	TAL CHI
Total/NA	Prep	3541			624812	10/21/21 18:34	JP1	TAL CHI
Total/NA	Analysis	8270D		1	625201	10/25/21 19:47	EMA	TAL CHI
Total/NA	Prep	3050B			626120	10/29/21 09:53	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626432	10/29/21 22:15	JJB	TAL CHI
Total/NA	Prep	3050B			626120	10/29/21 09:53	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626573	11/01/21 11:51	JJB	TAL CHI
Total/NA	Prep	7471B			625696	10/27/21 14:15	MJG	TAL CHI
Total/NA	Analysis	7471B		1	625923	10/28/21 06:50	MJG	TAL CHI

**Laboratory References:**

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Accreditation/Certification Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207055-1

## Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15



# Chain of Custody Record

546543



Environment Testing  
TestAmerica

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Address \_\_\_\_\_

Regulatory Program:  DW  NPDES  RCRA  Other

TAL-8210

<b>Client Contact</b> Company Name <u>WSP</u> Address _____ City/State/Zip <u>Chicago IL</u> Phone _____ Fax _____ Project Name <u>IDOT W004</u> Site <u>Lake Villa IL</u> P O # _____		<b>Project Manager:</b> <u>D Tiebow</u> Tel/Email: _____ <b>Analysis Turnaround Time</b> <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		<b>Site Contact</b> <u>A Happel</u> Lab Contact <u>R. Wright</u> Date <u>10/14/2021</u> Carrier _____		COC No <u>4</u> <u>4</u> of <u>11</u> COCs Sampler _____ For Lab Use Only Walk-in Client <input type="checkbox"/> Lab Sampling <input type="checkbox"/> Job / SDG No <u>500-207055</u>		
<b>Sample Identification</b> 267402-20-B01(0-2)		Sample Date <u>10/18/21</u>	Sample Time <u>1117</u>	Sample Type (C=Comp G=Grab) <u>C</u>	Matrix <u>S</u>	# of Cont. <u>2</u>	Filtered Sample (Y/N) _____ Perform MS / MSD (Y/N) _____ VOCs _____ PH _____ SVOCs _____ T. moisture _____ Total Metals _____ TCLP metals _____	Sample Specific Notes
		<del>_____</del>						
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____								
<b>Possible Hazard Identification</b> Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample <input type="checkbox"/> Non Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown				<b>Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)</b> <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months				
<b>Special Instructions/QC Requirements &amp; Comments:</b> <u>* SPLP results based on TCLP results</u>								
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No _____		Cooler Temp (°C) Obs'd <u>3.8</u> Corr'd <u>3.7</u>		Therm ID No _____		
Relinquished by <u>[Signature]</u>		Company <u>WSP</u>		Date/Time <u>10/18/21 1015</u>		Received by <u>[Signature]</u>		
Relinquished by <u>[Signature]</u>		Company <u>EAT</u>		Date/Time <u>10/19/21 1115</u>		Received by _____		
Relinquished by _____		Company _____		Date/Time _____		Received in Laboratory by <u>[Signature]</u>		
Company _____		Company <u>EAT</u>		Date/Time <u>10/19/21 1115</u>		Received by _____		

# Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 500-207055-1

**Login Number: 207055**

**List Source: Eurofins TestAmerica, Chicago**

**List Number: 1**

**Creator: Scott, Sherri L**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# Illinois Environmental Protection Agency

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

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

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

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

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

### I. Source Location Information

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

Project Name: FAP 541 (Illinois Route 132) Office Phone Number, if available: \_\_\_\_\_

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

84-92 E. Grand Avenue (ISGS #2674V2-22)

City: Lake Villa State: IL Zip Code: 60046

County: Lake Township: Lake Villa

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

Latitude: 42.41577 Longitude: - 88.08017

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

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

Approximate Start Date (mm/dd/yyyy): \_\_\_\_\_ Approximate End Date (mm/dd/yyyy): \_\_\_\_\_

Estimated Volume of debris (cu. Yd.): 54

### 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):

Location 2674V2-22-B01 was sampled within the construction zone adjacent to ISGS #2674V2-22 (Residences). Refer to PSI Report for ISGS #2674V2-22 (Residences) including Table 4-4, and Figures 4-3 and 4-6.

- 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]:

See attached data summary table and associated laboratory data package J207052-1.

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

I, Tom Campbell (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: WSP USA  
 Street Address: 115 W Washington St., Suite 1270S  
 City: Indianapolis State: IN Zip Code: 46204  
 Phone: (317) 972-1706

Tom Campbell  
 Printed Name:



\_\_\_\_\_  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

02/03/2022  
 Date:



Expires 11/30/2023



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

**Analytical Data Summary**  
**PTB #196-002; Work Order 04 - IDOT Job # P-91-583-12**

**Key to Data Tables**

- MAC = Maximum Allowable Concentration of Chemical Constituent in Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- TACO = Tiered Approach to Corrective Action Objectives
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers and Shading**

- # = pH is less than 6.25 or greater than 9.0 standard units.
- † = Concentration exceeds the most stringent MAC.
- m = Concentration exceeds the MAC for an MSA.
- r = Concentration exceeds a TACO Tier 1 RO for the Residential Soil Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the SCGIER.
-  = Concentration exceeds the most stringent MAC, but is below the MAC for an MSA.
-  = Concentration exceeds applicable comparison criteria.

PTB #196-002; Work Order 04 - IDOT Job # P-91-583-12

CONTAMINANTS OF CONCERN

SITE	ISGS #2674V2-22 (Residences)	Comparison Criteria					
		MACs			TACO		
BORING	2674V2-22-B01	Most Stringent	Within an MSA	Within Chicago	Residential	Construction Worker	SCGIER
SAMPLE	2674V2-22-B01 (0-2)						
MATRIX	Soil						
DEPTH (feet)	0-2						
pH	8.1						
PID (meter units)	--						
<b>VOCs (mg/kg)</b>							
1,1,1-Trichloroethane	0.00089 J	2	--	--	1,200	1,200	--
<b>SVOCs (None Detected)</b>							
<b>Inorganics (mg/kg)</b>							
Arsenic	5.1	11.3	13	--	13	61	--
Barium	130	1,500	--	--	5,500	14,000	--
Beryllium	1.1	22	--	--	160	410	--
Boron	6.5 J	40	--	--	16,000	41,000	--
Calcium	7,100	--	--	--	--	--	--
Chromium	22 †	21	--	--	230	690	--
Cobalt	14	20	--	--	4,700	12,000	--
Copper	22	2,900	--	--	2,900	8,200	--
Iron	23,000 †m	15,000	15,900	--	--	--	--
Lead	21 J	107	--	--	400	700	--
Magnesium	6,800	325,000	--	--	--	730,000	--
Manganese	560	630	636	--	1,600	4,100	--
Mercury	0.041	0.89	--	--	10	0.1	--
Nickel	36	100	--	--	1,600	4,100	--
Potassium	2,000 J	--	--	--	--	--	--
Selenium	0.48 J	1.3	--	--	390	1,000	--
Silver	0.45	4.4	--	--	390	1,000	--
Sodium	1,400	--	--	--	--	--	--
Thallium	0.58 J	2.6	--	--	6.3	160	--
Vanadium	26	550	--	--	550	1,400	--
Zinc	75 J	5,100	--	--	23,000	61,000	--
<b>TCLP Metals (mg/L)</b>							
Barium	0.22 J	--	--	--	--	--	2
Boron	0.074 J	--	--	--	--	--	2
Chromium	ND U	--	--	--	--	--	0.1
Iron	0.37 J	--	--	--	--	--	5
Manganese	0.029	--	--	--	--	--	0.15
Zinc	0.022 J	--	--	--	--	--	5
<b>SPLP Metals (Not Analyzed)</b>							

## ANALYTICAL REPORT

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

Laboratory Job ID: 500-207052-1

Client Project/Site: IDOT - 196-002-WO04 Lake Villa

**For:**

WSP USA Inc.  
30 North LaSalle Street  
Chicago, Illinois 60602

Attn: Dean Tiebot



Authorized for release by:  
11/2/2021 5:43:18 PM

Richard Wright, Senior Project Manager  
(708)746-0045  
[Richard.Wright@Eurofinset.com](mailto:Richard.Wright@Eurofinset.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Case Narrative

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207052-1

## Job ID: 500-207052-1

### Laboratory: Eurofins TestAmerica, Chicago

#### Narrative

#### Job Narrative 500-207052-1

#### Receipt

The sample was received on 10/19/2021 11:15 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.6° C.

#### GC/MS VOA

Method 8260B: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for 625358 recovered outside control limits for the following analytes: Bromomethane, Chloroethane, and 1,1,2,2-Tetrachloroethane. These analytes were biased high in the LCS/LCSD and were not detected in the associated samples; therefore, the data have been reported. 2674V2-22-B01 (0-2) (500-207052-1)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC/MS Semi VOA

Method 8270D: The following sample contained one acid surrogate outside acceptance limits: 2674V2-22-B01 (0-2) (500-207052-1). The laboratory's SOP allows one acid and one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

Method 8270D: Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 3 analytes to recover outside criteria for this method when utilizing this list of analytes. The LCS associated with preparation batch 500-624401 and analytical batch 500-625875 had 1 analyte outside control limits: 2,2'-oxybis[1-chloropropane]. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

Method 6010B: The continuing calibration verification (CCV) associated with batch 500-625354 recovered above the upper control limit for Zinc. The samples associated with this CCV were below the reporting limit for the affected analytes; therefore, the data have been reported. The associated sample is impacted: 2674V2-22-B01 (0-2) (500-207052-1).

Method 6010B: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 500-624860 and 500-625180 and analytical batch 500-625354 recovered outside control limits for the following analytes: Zinc. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 6010B: The continuing calibration blanks (CCB) contained Iron above the reporting limit (RL). The sample 2674V2-22-B01 (0-2) (500-207052-1) associated with this CCB was below the reporting limit for the target compound; therefore, re-analysis of samples was not performed.  
2674V2-22-B01 (0-2) (500-207052-1)

Method 6010B: The continuing calibration blanks (CCB) contained Beryllium above the reporting limit (RL). The sample 2674V2-22-B01 (0-2) (500-207052-1) associated with this CCB did not contain the target compound; therefore, re-analysis of samples was not performed.  
2674V2-22-B01 (0-2) (500-207052-1)

Method 6010B: The method blank for preparation batch 500-626511 and analytical batch 500-626836 contained Calcium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Organic Prep

# Case Narrative

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207052-1

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## Job ID: 500-207052-1 (Continued)

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### Laboratory: Eurofins TestAmerica, Chicago (Continued)

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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# Detection Summary

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207052-1

**Client Sample ID: 2674V2-22-B01 (0-2)**

**Lab Sample ID: 500-207052-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.00089	J	0.0022	0.00075	mg/Kg	1	☼	8260B	Total/NA
Antimony	0.63	J B F1	1.3	0.25	mg/Kg	1	☼	6010B	Total/NA
Arsenic	5.1		0.63	0.22	mg/Kg	1	☼	6010B	Total/NA
Barium	130	B	0.63	0.072	mg/Kg	1	☼	6010B	Total/NA
Beryllium	1.1		0.25	0.059	mg/Kg	1	☼	6010B	Total/NA
Boron	6.5	F1	3.2	0.29	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.16	B F1	0.13	0.023	mg/Kg	1	☼	6010B	Total/NA
Calcium	7100	B	13	2.1	mg/Kg	1	☼	6010B	Total/NA
Chromium	22		0.63	0.31	mg/Kg	1	☼	6010B	Total/NA
Cobalt	14		0.32	0.083	mg/Kg	1	☼	6010B	Total/NA
Copper	22	B	0.63	0.18	mg/Kg	1	☼	6010B	Total/NA
Iron	23000	B	13	6.6	mg/Kg	1	☼	6010B	Total/NA
Lead	21	F1	0.32	0.15	mg/Kg	1	☼	6010B	Total/NA
Magnesium	6800	B	6.3	3.1	mg/Kg	1	☼	6010B	Total/NA
Manganese	560	F2	0.63	0.091	mg/Kg	1	☼	6010B	Total/NA
Nickel	36		0.63	0.18	mg/Kg	1	☼	6010B	Total/NA
Potassium	2000	F1	32	11	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.48	J F1	0.63	0.37	mg/Kg	1	☼	6010B	Total/NA
Silver	0.45		0.32	0.081	mg/Kg	1	☼	6010B	Total/NA
Sodium	1400		63	9.3	mg/Kg	1	☼	6010B	Total/NA
Thallium	0.58	J	0.63	0.31	mg/Kg	1	☼	6010B	Total/NA
Vanadium	26		0.32	0.074	mg/Kg	1	☼	6010B	Total/NA
Zinc	75	B F1	1.3	0.55	mg/Kg	1	☼	6010B	Total/NA
Barium	0.22	J	0.50	0.050	mg/L	1		6010B	TCLP
Boron	0.074	J	0.50	0.050	mg/L	1		6010B	TCLP
Iron	0.37	J ^2	0.40	0.20	mg/L	1		6010B	TCLP
Manganese	0.029		0.025	0.010	mg/L	1		6010B	TCLP
Zinc	0.022	J *+ ^+	0.50	0.020	mg/L	1		6010B	TCLP
Mercury	0.041		0.020	0.0067	mg/Kg	1	☼	7471B	Total/NA
pH	8.1		0.2	0.2	SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

# Method Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207052-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CHI
6010B	Metals (ICP)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
7470A	TCLP Mercury	SW846	TAL CHI
7471B	Mercury (CVAA)	SW846	TAL CHI
9045D	pH	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
1311	TCLP Extraction	SW846	TAL CHI
3010A	Preparation, Total Metals	SW846	TAL CHI
3050B	Preparation, Metals	SW846	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI
5035	Closed System Purge and Trap	SW846	TAL CHI
7470A	Preparation, Mercury	SW846	TAL CHI
7471B	Preparation, Mercury	SW846	TAL CHI

#### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Sample Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207052-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-207052-1	2674V2-22-B01 (0-2)	Solid	10/18/21 10:10	10/19/21 11:15

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# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207052-1

**Client Sample ID: 2674V2-22-B01 (0-2)**

**Lab Sample ID: 500-207052-1**

Date Collected: 10/18/21 10:10

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 78.1

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.022		0.022	0.0098	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
Benzene	<0.0022		0.0022	0.00057	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
Bromodichloromethane	<0.0022		0.0022	0.00046	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
Bromoform	<0.0022		0.0022	0.00066	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
Bromomethane	<0.0056	*+	0.0056	0.0021	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
2-Butanone (MEK)	<0.0056		0.0056	0.0025	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
Carbon disulfide	<0.0056		0.0056	0.0012	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
Carbon tetrachloride	<0.0022		0.0022	0.00065	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
Chlorobenzene	<0.0022		0.0022	0.00083	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
Chloroethane	<0.0056	*+	0.0056	0.0017	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
Chloroform	<0.0022		0.0022	0.00078	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
Chloromethane	<0.0056		0.0056	0.0023	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
cis-1,2-Dichloroethene	<0.0022		0.0022	0.00063	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
cis-1,3-Dichloropropene	<0.0022		0.0022	0.00068	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
Dibromochloromethane	<0.0022		0.0022	0.00073	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
1,1-Dichloroethane	<0.0022		0.0022	0.00077	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
1,2-Dichloroethane	<0.0056		0.0056	0.0018	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
1,1-Dichloroethene	<0.0022		0.0022	0.00077	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
1,2-Dichloropropane	<0.0022		0.0022	0.00058	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
1,3-Dichloropropane, Total	<0.0022		0.0022	0.00079	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
Ethylbenzene	<0.0022		0.0022	0.0011	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
2-Hexanone	<0.0056		0.0056	0.0018	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
Methylene Chloride	<0.0056		0.0056	0.0022	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
4-Methyl-2-pentanone (MIBK)	<0.0056		0.0056	0.0017	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
Methyl tert-butyl ether	<0.0022		0.0022	0.00066	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
Styrene	<0.0022		0.0022	0.00068	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
1,1,2,2-Tetrachloroethane	<0.0022	*+	0.0022	0.00072	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
Tetrachloroethene	<0.0022		0.0022	0.00076	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
Toluene	<0.0022		0.0022	0.00057	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
trans-1,2-Dichloroethene	<0.0022		0.0022	0.0010	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
trans-1,3-Dichloropropene	<0.0022		0.0022	0.00079	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
<b>1,1,1-Trichloroethane</b>	<b>0.00089</b>	<b>J</b>	0.0022	0.00075	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
1,1,2-Trichloroethane	<0.0022		0.0022	0.00096	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
Trichloroethene	<0.0022		0.0022	0.00076	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
Vinyl acetate	<0.0056		0.0056	0.0020	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
Vinyl chloride	<0.0022		0.0022	0.00099	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1
Xylenes, Total	<0.0045		0.0045	0.00072	mg/Kg	☼	10/19/21 18:28	10/26/21 16:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		75 - 131	10/19/21 18:28	10/26/21 16:46	1
Dibromofluoromethane	100		75 - 126	10/19/21 18:28	10/26/21 16:46	1
1,2-Dichloroethane-d4 (Surr)	105		70 - 134	10/19/21 18:28	10/26/21 16:46	1
Toluene-d8 (Surr)	96		75 - 124	10/19/21 18:28	10/26/21 16:46	1

**Method: 8270D - Semivolatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.089	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207052-1

**Client Sample ID: 2674V2-22-B01 (0-2)**

**Lab Sample ID: 500-207052-1**

**Date Collected: 10/18/21 10:10**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 78.1**

**Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
2,2'-oxybis[1-chloropropane]	<0.20	*	0.20	0.046	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
2,4,5-Trichlorophenol	<0.40		0.40	0.091	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
2-Methylnaphthalene	<0.081		0.081	0.0074	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
2,4-Dinitrophenol	<0.81		0.81	0.70	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
Pentachlorophenol	<0.81		0.81	0.64	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
Phenanthrene	<0.040		0.040	0.0056	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
Fluoranthene	<0.040		0.040	0.0074	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
Pyrene	<0.040		0.040	0.0079	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1

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# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207052-1

**Client Sample ID: 2674V2-22-B01 (0-2)**

**Lab Sample ID: 500-207052-1**

Date Collected: 10/18/21 10:10

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 78.1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
Benzo[b]fluoranthene	<0.040		0.040	0.0086	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
Benzo[a]pyrene	<0.040		0.040	0.0077	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.010	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0077	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	10/20/21 06:58	10/28/21 14:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	135		31 - 166	10/20/21 06:58	10/28/21 14:55	1
Phenol-d5	135		30 - 153	10/20/21 06:58	10/28/21 14:55	1
Nitrobenzene-d5 (Surr)	86		37 - 147	10/20/21 06:58	10/28/21 14:55	1
2-Fluorobiphenyl (Surr)	115		43 - 145	10/20/21 06:58	10/28/21 14:55	1
2,4,6-Tribromophenol	146	S1+	31 - 143	10/20/21 06:58	10/28/21 14:55	1
Terphenyl-d14 (Surr)	111		42 - 157	10/20/21 06:58	10/28/21 14:55	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.63	J B F1	1.3	0.25	mg/Kg	☼	11/01/21 10:13	11/02/21 11:15	1
Arsenic	5.1		0.63	0.22	mg/Kg	☼	11/01/21 10:13	11/02/21 11:15	1
Barium	130	B	0.63	0.072	mg/Kg	☼	11/01/21 10:13	11/02/21 11:15	1
Beryllium	1.1		0.25	0.059	mg/Kg	☼	11/01/21 10:13	11/02/21 11:15	1
Boron	6.5	F1	3.2	0.29	mg/Kg	☼	11/01/21 10:13	11/02/21 11:15	1
Cadmium	0.16	B F1	0.13	0.023	mg/Kg	☼	11/01/21 10:13	11/02/21 11:15	1
Calcium	7100	B	13	2.1	mg/Kg	☼	11/01/21 10:13	11/02/21 11:15	1
Chromium	22		0.63	0.31	mg/Kg	☼	11/01/21 10:13	11/02/21 11:15	1
Cobalt	14		0.32	0.083	mg/Kg	☼	11/01/21 10:13	11/02/21 11:15	1
Copper	22	B	0.63	0.18	mg/Kg	☼	11/01/21 10:13	11/02/21 11:15	1
Iron	23000	B	13	6.6	mg/Kg	☼	11/01/21 10:13	11/02/21 11:15	1
Lead	21	F1	0.32	0.15	mg/Kg	☼	11/01/21 10:13	11/02/21 11:15	1
Magnesium	6800	B	6.3	3.1	mg/Kg	☼	11/01/21 10:13	11/02/21 11:15	1
Manganese	560	F2	0.63	0.091	mg/Kg	☼	11/01/21 10:13	11/02/21 11:15	1
Nickel	36		0.63	0.18	mg/Kg	☼	11/01/21 10:13	11/02/21 11:15	1
Potassium	2000	F1	32	11	mg/Kg	☼	11/01/21 10:13	11/02/21 11:15	1
Selenium	0.48	J F1	0.63	0.37	mg/Kg	☼	11/01/21 10:13	11/02/21 11:15	1
Silver	0.45		0.32	0.081	mg/Kg	☼	11/01/21 10:13	11/02/21 11:15	1
Sodium	1400		63	9.3	mg/Kg	☼	11/01/21 10:13	11/02/21 11:15	1
Thallium	0.58	J	0.63	0.31	mg/Kg	☼	11/01/21 10:13	11/02/21 11:15	1
Vanadium	26		0.32	0.074	mg/Kg	☼	11/01/21 10:13	11/02/21 11:15	1
Zinc	75	B F1	1.3	0.55	mg/Kg	☼	11/01/21 10:13	11/02/21 11:15	1

## Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.22	J	0.50	0.050	mg/L		10/25/21 08:27	10/26/21 16:12	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/25/21 08:27	10/25/21 18:14	1
Boron	0.074	J	0.50	0.050	mg/L		10/25/21 08:27	10/25/21 18:14	1

Eurofins TestAmerica, Chicago



# Client Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207052-1

**Client Sample ID: 2674V2-22-B01 (0-2)**

**Lab Sample ID: 500-207052-1**

Date Collected: 10/18/21 10:10

Matrix: Solid

Date Received: 10/19/21 11:15

Percent Solids: 78.1

**Method: 6010B - Metals (ICP) - TCLP (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/25/21 08:27	10/25/21 18:14	1
Chromium	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 18:14	1
Cobalt	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 18:14	1
<b>Iron</b>	<b>0.37</b>	<b>J ^2</b>	0.40	0.20	mg/L		10/25/21 08:27	10/25/21 18:14	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/25/21 08:27	10/25/21 18:14	1
<b>Manganese</b>	<b>0.029</b>		0.025	0.010	mg/L		10/25/21 08:27	10/26/21 16:12	1
Nickel	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 18:14	1
Selenium	<0.050		0.050	0.020	mg/L		10/25/21 08:27	10/25/21 18:14	1
Silver	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 18:14	1
<b>Zinc</b>	<b>0.022</b>	<b>J ** ^^</b>	0.50	0.020	mg/L		10/25/21 08:27	10/25/21 18:14	1

**Method: 6020A - Metals (ICP/MS) - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/25/21 08:27	10/26/21 14:54	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/25/21 08:27	10/26/21 14:54	1

**Method: 7470A - TCLP Mercury - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 09:37	1

**Method: 7471B - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<b>0.041</b>		0.020	0.0067	mg/Kg	☼	10/27/21 14:15	10/28/21 06:38	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	<b>8.1</b>		0.2	0.2	SU			10/21/21 17:06	1

# Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207052-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
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 and/or LCSD is outside acceptance limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

### Metals

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^2	Calibration Blank (ICB and/or CCB) 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 exceeds control 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, and the absolute difference between results is < the upper reporting limits for both.
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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)

# Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207052-1

## 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)
TNTC	Too Numerous To Count

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# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207052-1

## GC/MS VOA

### Prep Batch: 624914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207052-1	2674V2-22-B01 (0-2)	Total/NA	Solid	5035	

### Analysis Batch: 625358

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207052-1	2674V2-22-B01 (0-2)	Total/NA	Solid	8260B	624914
MB 500-625358/7	Method Blank	Total/NA	Solid	8260B	
LCS 500-625358/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-625358/5	Lab Control Sample Dup	Total/NA	Solid	8260B	

## GC/MS Semi VOA

### Prep Batch: 624401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207052-1	2674V2-22-B01 (0-2)	Total/NA	Solid	3541	
MB 500-624401/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-624401/2-A	Lab Control Sample	Total/NA	Solid	3541	

### Analysis Batch: 625875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-624401/1-A	Method Blank	Total/NA	Solid	8270D	624401
LCS 500-624401/2-A	Lab Control Sample	Total/NA	Solid	8270D	624401

### Analysis Batch: 625884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207052-1	2674V2-22-B01 (0-2)	Total/NA	Solid	8270D	624401

## Metals

### Leach Batch: 624860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207052-1	2674V2-22-B01 (0-2)	TCLP	Solid	1311	
LB 500-624860/1-B	Method Blank	TCLP	Solid	1311	
LB 500-624860/1-C	Method Blank	TCLP	Solid	1311	

### Prep Batch: 625180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207052-1	2674V2-22-B01 (0-2)	TCLP	Solid	3010A	624860
LB 500-624860/1-B	Method Blank	TCLP	Solid	3010A	624860
LCS 500-625180/2-A	Lab Control Sample	Total/NA	Solid	3010A	
LCSD 500-625180/3-A	Lab Control Sample Dup	Total/NA	Solid	3010A	

### Analysis Batch: 625354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207052-1	2674V2-22-B01 (0-2)	TCLP	Solid	6010B	625180
LB 500-624860/1-B	Method Blank	TCLP	Solid	6010B	625180
LCS 500-625180/2-A	Lab Control Sample	Total/NA	Solid	6010B	625180
LCSD 500-625180/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	625180

### Prep Batch: 625464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207052-1	2674V2-22-B01 (0-2)	TCLP	Solid	7470A	624860
LB 500-624860/1-C	Method Blank	TCLP	Solid	7470A	624860

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# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207052-1

## Metals (Continued)

### Prep Batch: 625464 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-625464/12-A	Method Blank	Total/NA	Solid	7470A	
LCS 500-625464/14-A	Lab Control Sample	Total/NA	Solid	7470A	

### Analysis Batch: 625638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207052-1	2674V2-22-B01 (0-2)	TCLP	Solid	6010B	625180
LB 500-624860/1-B	Method Blank	TCLP	Solid	6010B	625180
LCS 500-625180/2-A	Lab Control Sample	Total/NA	Solid	6010B	625180
LCSD 500-625180/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	625180

### Analysis Batch: 625693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207052-1	2674V2-22-B01 (0-2)	TCLP	Solid	6020A	625180
LB 500-624860/1-B	Method Blank	TCLP	Solid	6020A	625180
LCS 500-625180/2-A	Lab Control Sample	Total/NA	Solid	6020A	625180
LCSD 500-625180/3-A	Lab Control Sample Dup	Total/NA	Solid	6020A	625180

### Prep Batch: 625696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207052-1	2674V2-22-B01 (0-2)	Total/NA	Solid	7471B	
MB 500-625696/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-625696/13-A	Lab Control Sample	Total/NA	Solid	7471B	

### Analysis Batch: 625700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207052-1	2674V2-22-B01 (0-2)	TCLP	Solid	7470A	625464
LB 500-624860/1-C	Method Blank	TCLP	Solid	7470A	625464
MB 500-625464/12-A	Method Blank	Total/NA	Solid	7470A	625464
LCS 500-625464/14-A	Lab Control Sample	Total/NA	Solid	7470A	625464

### Analysis Batch: 625923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207052-1	2674V2-22-B01 (0-2)	Total/NA	Solid	7471B	625696
MB 500-625696/12-A	Method Blank	Total/NA	Solid	7471B	625696
LCS 500-625696/13-A	Lab Control Sample	Total/NA	Solid	7471B	625696

### Prep Batch: 626511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207052-1	2674V2-22-B01 (0-2)	Total/NA	Solid	3050B	
MB 500-626511/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-626511/2-A	Lab Control Sample	Total/NA	Solid	3050B	
500-207052-1 MS	2674V2-22-B01 (0-2)	Total/NA	Solid	3050B	
500-207052-1 MSD	2674V2-22-B01 (0-2)	Total/NA	Solid	3050B	
500-207052-1 DU	2674V2-22-B01 (0-2)	Total/NA	Solid	3050B	

### Analysis Batch: 626836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207052-1	2674V2-22-B01 (0-2)	Total/NA	Solid	6010B	626511
MB 500-626511/1-A	Method Blank	Total/NA	Solid	6010B	626511
LCS 500-626511/2-A	Lab Control Sample	Total/NA	Solid	6010B	626511
500-207052-1 MS	2674V2-22-B01 (0-2)	Total/NA	Solid	6010B	626511

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# QC Association Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207052-1

## Metals (Continued)

### Analysis Batch: 626836 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207052-1 MSD	2674V2-22-B01 (0-2)	Total/NA	Solid	6010B	626511
500-207052-1 DU	2674V2-22-B01 (0-2)	Total/NA	Solid	6010B	626511

## General Chemistry

### Analysis Batch: 624615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207052-1	2674V2-22-B01 (0-2)	Total/NA	Solid	Moisture	

### Analysis Batch: 624833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207052-1	2674V2-22-B01 (0-2)	Total/NA	Solid	9045D	
LCS 500-624833/2	Lab Control Sample	Total/NA	Solid	9045D	
LCSD 500-624833/3	Lab Control Sample Dup	Total/NA	Solid	9045D	

# Surrogate Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207052-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (75-131)	DBFM (75-126)	DCA (70-134)	TOL (75-124)
500-207052-1	2674V2-22-B01 (0-2)	90	100	105	96
LCS 500-625358/4	Lab Control Sample	85	88	92	97
LCSD 500-625358/5	Lab Control Sample Dup	85	90	92	97
MB 500-625358/7	Method Blank	89	92	95	95

#### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane  
DCA = 1,2-Dichloroethane-d4 (Surr)  
TOL = Toluene-d8 (Surr)

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	2FP (31-166)	PHL (30-153)	NBZ (37-147)	FBP (43-145)	TBP (31-143)	TPHL (42-157)
500-207052-1	2674V2-22-B01 (0-2)	135	135	86	115	146 S1+	111
LCS 500-624401/2-A	Lab Control Sample	119	92	96	104	76	108
MB 500-624401/1-A	Method Blank	135	98	100	106	64	110

#### Surrogate Legend

2FP = 2-Fluorophenol  
PHL = Phenol-d5  
NBZ = Nitrobenzene-d5 (Surr)  
FBP = 2-Fluorobiphenyl (Surr)  
TBP = 2,4,6-Tribromophenol  
TPHL = Terphenyl-d14 (Surr)

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207052-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 500-625358/7**  
**Matrix: Solid**  
**Analysis Batch: 625358**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	<0.020		0.020	0.0087	mg/Kg			10/26/21 11:37	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg			10/26/21 11:37	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg			10/26/21 11:37	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg			10/26/21 11:37	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg			10/26/21 11:37	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg			10/26/21 11:37	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg			10/26/21 11:37	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg			10/26/21 11:37	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg			10/26/21 11:37	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg			10/26/21 11:37	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg			10/26/21 11:37	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg			10/26/21 11:37	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg			10/26/21 11:37	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg			10/26/21 11:37	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg			10/26/21 11:37	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg			10/26/21 11:37	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg			10/26/21 11:37	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg			10/26/21 11:37	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg			10/26/21 11:37	1
1,3-Dichloropropane, Total	<0.0020		0.0020	0.00070	mg/Kg			10/26/21 11:37	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg			10/26/21 11:37	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg			10/26/21 11:37	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg			10/26/21 11:37	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg			10/26/21 11:37	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg			10/26/21 11:37	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg			10/26/21 11:37	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg			10/26/21 11:37	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/26/21 11:37	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg			10/26/21 11:37	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg			10/26/21 11:37	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg			10/26/21 11:37	1
1,1,1-Trichloroethane	<0.0020		0.0020	0.00067	mg/Kg			10/26/21 11:37	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg			10/26/21 11:37	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg			10/26/21 11:37	1
Vinyl acetate	<0.0050		0.0050	0.0017	mg/Kg			10/26/21 11:37	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg			10/26/21 11:37	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg			10/26/21 11:37	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	89		75 - 131		10/26/21 11:37	1
Dibromofluoromethane	92		75 - 126		10/26/21 11:37	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 134		10/26/21 11:37	1
Toluene-d8 (Surr)	95		75 - 124		10/26/21 11:37	1



# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207052-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 500-625358/4**  
**Matrix: Solid**  
**Analysis Batch: 625358**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	0.0500	0.0535		mg/Kg		107	40 - 150
Benzene	0.0500	0.0575		mg/Kg		115	70 - 125
Bromodichloromethane	0.0500	0.0557		mg/Kg		111	67 - 129
Bromoform	0.0500	0.0549		mg/Kg		110	68 - 136
Bromomethane	0.0500	0.0683	*+	mg/Kg		137	70 - 130
2-Butanone (MEK)	0.0500	0.0590		mg/Kg		118	47 - 138
Carbon disulfide	0.0500	0.0535		mg/Kg		107	70 - 129
Carbon tetrachloride	0.0500	0.0502		mg/Kg		100	75 - 125
Chlorobenzene	0.0500	0.0550		mg/Kg		110	50 - 150
Chloroethane	0.0500	0.0726	*+	mg/Kg		145	75 - 125
Chloroform	0.0500	0.0541		mg/Kg		108	57 - 135
Chloromethane	0.0500	0.0447		mg/Kg		89	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0532		mg/Kg		106	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0577		mg/Kg		115	70 - 125
Dibromochloromethane	0.0500	0.0570		mg/Kg		114	69 - 125
1,1-Dichloroethane	0.0500	0.0527		mg/Kg		105	70 - 125
1,2-Dichloroethane	0.0500	0.0552		mg/Kg		110	70 - 130
1,1-Dichloroethene	0.0500	0.0524		mg/Kg		105	70 - 120
1,2-Dichloropropane	0.0500	0.0576		mg/Kg		115	70 - 125
Ethylbenzene	0.0500	0.0596		mg/Kg		119	61 - 136
2-Hexanone	0.0500	0.0621		mg/Kg		124	48 - 146
Methylene Chloride	0.0500	0.0521		mg/Kg		104	70 - 126
4-Methyl-2-pentanone (MIBK)	0.0500	0.0606		mg/Kg		121	50 - 148
Methyl tert-butyl ether	0.0500	0.0493		mg/Kg		99	50 - 140
Styrene	0.0500	0.0585		mg/Kg		117	70 - 125
1,1,2,2-Tetrachloroethane	0.0500	0.0592		mg/Kg		118	70 - 122
Tetrachloroethene	0.0500	0.0581		mg/Kg		116	70 - 124
Toluene	0.0500	0.0581		mg/Kg		116	70 - 125
trans-1,2-Dichloroethene	0.0500	0.0541		mg/Kg		108	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0568		mg/Kg		114	70 - 125
1,1,1-Trichloroethane	0.0500	0.0496		mg/Kg		99	70 - 128
1,1,2-Trichloroethane	0.0500	0.0609		mg/Kg		122	70 - 125
Trichloroethene	0.0500	0.0560		mg/Kg		112	70 - 125
Vinyl acetate	0.0500	0.0601		mg/Kg		120	40 - 153
Vinyl chloride	0.0500	0.0478		mg/Kg		96	70 - 125
Xylenes, Total	0.100	0.110		mg/Kg		110	53 - 147

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	85		75 - 131
Dibromofluoromethane	88		75 - 126
1,2-Dichloroethane-d4 (Surr)	92		70 - 134
Toluene-d8 (Surr)	97		75 - 124

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207052-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCSD 500-625358/5**  
**Matrix: Solid**  
**Analysis Batch: 625358**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	0.0500	0.0569		mg/Kg		114	40 - 150	6	30
Benzene	0.0500	0.0569		mg/Kg		114	70 - 125	1	30
Bromodichloromethane	0.0500	0.0557		mg/Kg		111	67 - 129	0	30
Bromoform	0.0500	0.0567		mg/Kg		113	68 - 136	3	30
Bromomethane	0.0500	0.0685	*+	mg/Kg		137	70 - 130	0	30
2-Butanone (MEK)	0.0500	0.0640		mg/Kg		128	47 - 138	8	30
Carbon disulfide	0.0500	0.0534		mg/Kg		107	70 - 129	0	30
Carbon tetrachloride	0.0500	0.0496		mg/Kg		99	75 - 125	1	30
Chlorobenzene	0.0500	0.0547		mg/Kg		109	50 - 150	0	30
Chloroethane	0.0500	0.0691	*+	mg/Kg		138	75 - 125	5	30
Chloroform	0.0500	0.0540		mg/Kg		108	57 - 135	0	30
Chloromethane	0.0500	0.0456		mg/Kg		91	70 - 125	2	30
cis-1,2-Dichloroethene	0.0500	0.0536		mg/Kg		107	70 - 125	1	30
cis-1,3-Dichloropropene	0.0500	0.0583		mg/Kg		117	70 - 125	1	30
Dibromochloromethane	0.0500	0.0582		mg/Kg		116	69 - 125	2	30
1,1-Dichloroethane	0.0500	0.0534		mg/Kg		107	70 - 125	1	30
1,2-Dichloroethane	0.0500	0.0567		mg/Kg		113	70 - 130	3	30
1,1-Dichloroethene	0.0500	0.0525		mg/Kg		105	70 - 120	0	30
1,2-Dichloropropane	0.0500	0.0554		mg/Kg		111	70 - 125	4	30
Ethylbenzene	0.0500	0.0594		mg/Kg		119	61 - 136	0	30
2-Hexanone	0.0500	0.0689		mg/Kg		138	48 - 146	10	30
Methylene Chloride	0.0500	0.0526		mg/Kg		105	70 - 126	1	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0668		mg/Kg		134	50 - 148	10	30
Methyl tert-butyl ether	0.0500	0.0510		mg/Kg		102	50 - 140	3	30
Styrene	0.0500	0.0588		mg/Kg		118	70 - 125	0	30
1,1,2,2-Tetrachloroethane	0.0500	0.0615	*+	mg/Kg		123	70 - 122	4	30
Tetrachloroethene	0.0500	0.0565		mg/Kg		113	70 - 124	3	30
Toluene	0.0500	0.0581		mg/Kg		116	70 - 125	0	30
trans-1,2-Dichloroethene	0.0500	0.0530		mg/Kg		106	70 - 125	2	30
trans-1,3-Dichloropropene	0.0500	0.0569		mg/Kg		114	70 - 125	0	30
1,1,1-Trichloroethane	0.0500	0.0495		mg/Kg		99	70 - 128	0	30
1,1,2-Trichloroethane	0.0500	0.0620		mg/Kg		124	70 - 125	2	30
Trichloroethene	0.0500	0.0569		mg/Kg		114	70 - 125	2	30
Vinyl acetate	0.0500	0.0601		mg/Kg		120	40 - 153	0	30
Vinyl chloride	0.0500	0.0478		mg/Kg		96	70 - 125	0	30
Xylenes, Total	0.100	0.110		mg/Kg		110	53 - 147	0	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	85		75 - 131
Dibromofluoromethane	90		75 - 126
1,2-Dichloroethane-d4 (Surr)	92		70 - 134
Toluene-d8 (Surr)	97		75 - 124

# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207052-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 500-624401/1-A**  
**Matrix: Solid**  
**Analysis Batch: 625875**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 624401**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Phenol	<0.17		0.17	0.074	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Bis(2-chloroethyl)ether	<0.17		0.17	0.050	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
1,3-Dichlorobenzene	<0.17		0.17	0.037	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
1,4-Dichlorobenzene	<0.17		0.17	0.043	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
1,2-Dichlorobenzene	<0.17		0.17	0.040	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
2-Methylphenol	<0.17		0.17	0.053	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
2,2'-oxybis[1-chloropropane]	<0.17		0.17	0.039	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
N-Nitrosodi-n-propylamine	<0.067		0.067	0.041	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Hexachloroethane	<0.17		0.17	0.051	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
2-Chlorophenol	<0.17		0.17	0.057	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Nitrobenzene	<0.033		0.033	0.0083	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Bis(2-chloroethoxy)methane	<0.17		0.17	0.034	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
1,2,4-Trichlorobenzene	<0.17		0.17	0.036	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Isophorone	<0.17		0.17	0.037	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
2,4-Dimethylphenol	<0.33		0.33	0.13	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Hexachlorobutadiene	<0.17		0.17	0.052	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Naphthalene	<0.033		0.033	0.0051	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
2,4-Dichlorophenol	<0.33		0.33	0.079	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
4-Chloroaniline	<0.67		0.67	0.16	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
2,4,6-Trichlorophenol	<0.33		0.33	0.11	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
2,4,5-Trichlorophenol	<0.33		0.33	0.076	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Hexachlorocyclopentadiene	<0.67		0.67	0.19	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
2-Methylnaphthalene	<0.067		0.067	0.0061	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
2-Nitroaniline	<0.17		0.17	0.045	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
2-Chloronaphthalene	<0.17		0.17	0.037	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
4-Chloro-3-methylphenol	<0.33		0.33	0.11	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
2,6-Dinitrotoluene	<0.17		0.17	0.065	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
2-Nitrophenol	<0.33		0.33	0.079	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
3-Nitroaniline	<0.33		0.33	0.10	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Dimethyl phthalate	<0.17		0.17	0.043	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
2,4-Dinitrophenol	<0.67		0.67	0.59	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Acenaphthylene	<0.033		0.033	0.0044	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
2,4-Dinitrotoluene	<0.17		0.17	0.053	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Acenaphthene	<0.033		0.033	0.0060	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Dibenzofuran	<0.17		0.17	0.039	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
4-Nitrophenol	<0.67		0.67	0.32	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Fluorene	<0.033		0.033	0.0047	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
4-Nitroaniline	<0.33		0.33	0.14	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
4-Bromophenyl phenyl ether	<0.17		0.17	0.044	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Hexachlorobenzene	<0.067		0.067	0.0077	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Diethyl phthalate	<0.17		0.17	0.056	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
4-Chlorophenyl phenyl ether	<0.17		0.17	0.039	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Pentachlorophenol	<0.67		0.67	0.53	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
N-Nitrosodiphenylamine	<0.17		0.17	0.039	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
4,6-Dinitro-2-methylphenol	<0.67		0.67	0.27	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Phenanthrene	<0.033		0.033	0.0046	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Anthracene	<0.033		0.033	0.0056	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Carbazole	<0.17		0.17	0.083	mg/Kg		10/20/21 06:58	10/28/21 16:04	1

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207052-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 500-624401/1-A**  
**Matrix: Solid**  
**Analysis Batch: 625875**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 624401**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	<0.17		0.17	0.051	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Fluoranthene	<0.033		0.033	0.0062	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Pyrene	<0.033		0.033	0.0066	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Butyl benzyl phthalate	<0.17		0.17	0.063	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Benzo[a]anthracene	<0.033		0.033	0.0045	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Chrysene	<0.033		0.033	0.0091	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
3,3'-Dichlorobenzidine	<0.17		0.17	0.047	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17	0.061	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Di-n-octyl phthalate	<0.17		0.17	0.054	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Benzo[b]fluoranthene	<0.033		0.033	0.0072	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Benzo[k]fluoranthene	<0.033		0.033	0.0098	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Benzo[a]pyrene	<0.033		0.033	0.0064	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Indeno[1,2,3-cd]pyrene	<0.033		0.033	0.0086	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Dibenz(a,h)anthracene	<0.033		0.033	0.0064	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
Benzo[g,h,i]perylene	<0.033		0.033	0.011	mg/Kg		10/20/21 06:58	10/28/21 16:04	1
3 & 4 Methylphenol	<0.17		0.17	0.055	mg/Kg		10/20/21 06:58	10/28/21 16:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	135		31 - 166	10/20/21 06:58	10/28/21 16:04	1
Phenol-d5	98		30 - 153	10/20/21 06:58	10/28/21 16:04	1
Nitrobenzene-d5 (Surr)	100		37 - 147	10/20/21 06:58	10/28/21 16:04	1
2-Fluorobiphenyl (Surr)	106		43 - 145	10/20/21 06:58	10/28/21 16:04	1
2,4,6-Tribromophenol	64		31 - 143	10/20/21 06:58	10/28/21 16:04	1
Terphenyl-d14 (Surr)	110		42 - 157	10/20/21 06:58	10/28/21 16:04	1

**Lab Sample ID: LCS 500-624401/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625875**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 624401**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Phenol	1.33	1.08		mg/Kg		81	56 - 122
Bis(2-chloroethyl)ether	1.33	1.10		mg/Kg		82	55 - 111
1,3-Dichlorobenzene	1.33	1.12		mg/Kg		84	65 - 124
1,4-Dichlorobenzene	1.33	1.15		mg/Kg		86	61 - 110
1,2-Dichlorobenzene	1.33	1.25		mg/Kg		93	62 - 110
2-Methylphenol	1.33	1.22		mg/Kg		92	60 - 120
2,2'-oxybis[1-chloropropane]	1.33	0.516	*	mg/Kg		39	40 - 124
N-Nitrosodi-n-propylamine	1.33	1.29		mg/Kg		97	56 - 118
Hexachloroethane	1.33	1.03		mg/Kg		77	60 - 114
2-Chlorophenol	1.33	1.35		mg/Kg		101	64 - 110
Nitrobenzene	1.33	1.13		mg/Kg		85	60 - 116
Bis(2-chloroethoxy)methane	1.33	1.19		mg/Kg		89	60 - 112
1,2,4-Trichlorobenzene	1.33	1.12		mg/Kg		84	66 - 117
Isophorone	1.33	1.25		mg/Kg		94	55 - 110
2,4-Dimethylphenol	1.33	1.15		mg/Kg		87	60 - 110
Hexachlorobutadiene	1.33	1.24		mg/Kg		93	56 - 120
Naphthalene	1.33	1.25		mg/Kg		93	63 - 110
2,4-Dichlorophenol	1.33	1.11		mg/Kg		83	58 - 120

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207052-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 500-624401/2-A**

**Matrix: Solid**

**Analysis Batch: 625875**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 624401**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chloroaniline	1.33	0.952		mg/Kg		71	30 - 150
2,4,6-Trichlorophenol	1.33	1.22		mg/Kg		92	57 - 120
2,4,5-Trichlorophenol	1.33	1.20		mg/Kg		90	50 - 120
Hexachlorocyclopentadiene	1.33	0.759		mg/Kg		57	10 - 133
2-Methylnaphthalene	1.33	1.29		mg/Kg		96	69 - 112
2-Nitroaniline	1.33	1.31		mg/Kg		98	57 - 124
2-Chloronaphthalene	1.33	1.29		mg/Kg		96	69 - 114
4-Chloro-3-methylphenol	1.33	1.15		mg/Kg		86	65 - 122
2,6-Dinitrotoluene	1.33	1.40		mg/Kg		105	70 - 123
2-Nitrophenol	1.33	1.22		mg/Kg		91	60 - 120
3-Nitroaniline	1.33	0.777		mg/Kg		58	40 - 122
Dimethyl phthalate	1.33	1.40		mg/Kg		105	69 - 116
2,4-Dinitrophenol	2.67	<0.67		mg/Kg		17	10 - 100
Acenaphthylene	1.33	1.37		mg/Kg		103	68 - 120
2,4-Dinitrotoluene	1.33	1.31		mg/Kg		98	69 - 124
Acenaphthene	1.33	1.35		mg/Kg		101	65 - 124
Dibenzofuran	1.33	1.22		mg/Kg		92	66 - 115
4-Nitrophenol	2.67	2.12		mg/Kg		80	30 - 122
Fluorene	1.33	1.16		mg/Kg		87	62 - 120
4-Nitroaniline	1.33	0.926		mg/Kg		69	60 - 160
4-Bromophenyl phenyl ether	1.33	1.43		mg/Kg		107	68 - 118
Hexachlorobenzene	1.33	1.48		mg/Kg		111	63 - 124
Diethyl phthalate	1.33	1.27		mg/Kg		95	58 - 120
4-Chlorophenyl phenyl ether	1.33	1.15		mg/Kg		86	62 - 119
Pentachlorophenol	2.67	1.43		mg/Kg		54	13 - 112
N-Nitrosodiphenylamine	1.33	1.38		mg/Kg		103	65 - 112
4,6-Dinitro-2-methylphenol	2.67	1.02		mg/Kg		38	10 - 110
Phenanthrene	1.33	1.37		mg/Kg		103	62 - 120
Anthracene	1.33	1.40		mg/Kg		105	70 - 114
Carbazole	1.33	1.38		mg/Kg		103	65 - 142
Di-n-butyl phthalate	1.33	1.38		mg/Kg		104	65 - 120
Fluoranthene	1.33	1.41		mg/Kg		106	62 - 120
Pyrene	1.33	1.29		mg/Kg		97	61 - 128
Butyl benzyl phthalate	1.33	1.20		mg/Kg		90	71 - 129
Benzo[a]anthracene	1.33	1.38		mg/Kg		104	67 - 122
Chrysene	1.33	1.34		mg/Kg		100	63 - 120
3,3'-Dichlorobenzidine	1.33	1.10		mg/Kg		83	35 - 128
Bis(2-ethylhexyl) phthalate	1.33	1.24		mg/Kg		93	72 - 131
Di-n-octyl phthalate	1.33	1.24		mg/Kg		93	68 - 134
Benzo[b]fluoranthene	1.33	1.30		mg/Kg		98	69 - 129
Benzo[k]fluoranthene	1.33	1.32		mg/Kg		99	68 - 127
Benzo[a]pyrene	1.33	1.32		mg/Kg		99	65 - 133
Indeno[1,2,3-cd]pyrene	1.33	1.30		mg/Kg		97	68 - 130
Dibenz(a,h)anthracene	1.33	1.32		mg/Kg		99	64 - 131
Benzo[g,h,i]perylene	1.33	1.22		mg/Kg		92	72 - 131
3 & 4 Methylphenol	1.33	1.28		mg/Kg		96	57 - 120

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207052-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 500-624401/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625875**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 624401**

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorophenol	119		31 - 166
Phenol-d5	92		30 - 153
Nitrobenzene-d5 (Surr)	96		37 - 147
2-Fluorobiphenyl (Surr)	104		43 - 145
2,4,6-Tribromophenol	76		31 - 143
Terphenyl-d14 (Surr)	108		42 - 157

## Method: 6010B - Metals (ICP)

**Lab Sample ID: LCS 500-625180/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625354**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625180**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Beryllium	0.0500	0.0499		mg/L		100	80 - 120	
Boron	1.00	0.841		mg/L		84	80 - 120	
Cadmium	0.0500	0.0479		mg/L		96	80 - 120	
Chromium	0.200	0.202		mg/L		101	80 - 120	
Cobalt	0.500	0.524		mg/L		105	80 - 120	
Iron	1.00	1.05		mg/L		105	80 - 120	
Lead	0.100	0.0984		mg/L		98	80 - 120	
Manganese	0.500	0.481		mg/L		96	80 - 120	
Nickel	0.500	0.532		mg/L		106	80 - 120	
Selenium	0.100	0.108		mg/L		108	80 - 120	
Silver	0.0500	0.0496		mg/L		99	80 - 120	
Zinc	0.500	0.617	*+ ^+	mg/L		123	80 - 120	

**Lab Sample ID: LCS 500-625180/2-A**  
**Matrix: Solid**  
**Analysis Batch: 625638**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 625180**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Barium	0.500	0.499	J	mg/L		100	80 - 120	

**Lab Sample ID: LCSD 500-625180/3-A**  
**Matrix: Solid**  
**Analysis Batch: 625354**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 625180**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	
							Limits		RPD	Limit
Beryllium	0.0500	0.0498		mg/L		100	80 - 120	0	20	
Boron	1.00	0.842		mg/L		84	80 - 120	0	20	
Cadmium	0.0500	0.0480		mg/L		96	80 - 120	0	20	
Chromium	0.200	0.205		mg/L		102	80 - 120	1	20	
Cobalt	0.500	0.524		mg/L		105	80 - 120	0	20	
Iron	1.00	1.05		mg/L		105	80 - 120	0	20	
Lead	0.100	0.0955		mg/L		96	80 - 120	3	20	
Manganese	0.500	0.482		mg/L		96	80 - 120	0	20	
Nickel	0.500	0.530		mg/L		106	80 - 120	0	20	
Selenium	0.100	0.104		mg/L		104	80 - 120	4	20	

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207052-1

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID: LCSD 500-625180/3-A**  
**Matrix: Solid**  
**Analysis Batch: 625354**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 625180**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silver	0.0500	0.0504		mg/L		101	80 - 120	2	20
Zinc	0.500	0.624	*+ ^+	mg/L		125	80 - 120	1	20

**Lab Sample ID: LCSD 500-625180/3-A**  
**Matrix: Solid**  
**Analysis Batch: 625638**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 625180**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	0.500	0.505		mg/L		101	80 - 120	1	20

**Lab Sample ID: MB 500-626511/1-A**  
**Matrix: Solid**  
**Analysis Batch: 626836**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 626511**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.414	J	2.0	0.39	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Arsenic	<1.0		1.0	0.34	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Barium	0.553	J	1.0	0.11	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Beryllium	<0.40		0.40	0.093	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Boron	<5.0		5.0	0.47	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Cadmium	0.0880	J	0.20	0.036	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Calcium	22.3		20	3.4	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Chromium	<1.0		1.0	0.50	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Cobalt	<0.50		0.50	0.13	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Copper	0.345	J	1.0	0.28	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Iron	13.2	J	20	10	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Lead	<0.50		0.50	0.23	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Magnesium	6.68	J	10	5.0	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Manganese	<1.0		1.0	0.15	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Nickel	<1.0		1.0	0.29	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Potassium	<50		50	18	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Selenium	<1.0		1.0	0.59	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Silver	<0.50		0.50	0.13	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Sodium	<100		100	15	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Thallium	<1.0		1.0	0.50	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Vanadium	<0.50		0.50	0.12	mg/Kg		11/01/21 10:13	11/02/21 11:09	1
Zinc	0.970	J	2.0	0.88	mg/Kg		11/01/21 10:13	11/02/21 11:09	1

**Lab Sample ID: LCS 500-626511/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626836**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626511**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	50.0	48.2		mg/Kg		96	80 - 120
Arsenic	10.0	9.18		mg/Kg		92	80 - 120
Barium	200	202		mg/Kg		101	80 - 120
Beryllium	5.00	4.81		mg/Kg		96	80 - 120
Boron	100	84.4		mg/Kg		84	80 - 120
Cadmium	5.00	4.66		mg/Kg		93	80 - 120

Eurofins TestAmerica, Chicago

# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207052-1

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID: LCS 500-626511/2-A**  
**Matrix: Solid**  
**Analysis Batch: 626836**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 626511**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	1000	907		mg/Kg		91	80 - 120
Chromium	20.0	18.6		mg/Kg		93	80 - 120
Cobalt	50.0	46.5		mg/Kg		93	80 - 120
Copper	25.0	24.0		mg/Kg		96	80 - 120
Iron	100	107		mg/Kg		107	80 - 120
Lead	10.0	9.24		mg/Kg		92	80 - 120
Magnesium	1000	961		mg/Kg		96	80 - 120
Manganese	50.0	45.7		mg/Kg		91	80 - 120
Nickel	50.0	47.2		mg/Kg		94	80 - 120
Potassium	1000	992		mg/Kg		99	80 - 120
Selenium	10.0	8.00		mg/Kg		80	80 - 120
Silver	5.00	4.67		mg/Kg		93	80 - 120
Sodium	1000	1020		mg/Kg		102	80 - 120
Thallium	10.0	8.99		mg/Kg		90	80 - 120
Vanadium	50.0	46.3		mg/Kg		93	80 - 120
Zinc	50.0	46.0		mg/Kg		92	80 - 120

**Lab Sample ID: 500-207052-1 MS**  
**Matrix: Solid**  
**Analysis Batch: 626836**

**Client Sample ID: 2674V2-22-B01 (0-2)**  
**Prep Type: Total/NA**  
**Prep Batch: 626511**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.63	J B F1	30.2	5.21	F1	mg/Kg	✱	15	75 - 125
Arsenic	5.1		6.03	10.9		mg/Kg	✱	97	75 - 125
Barium	130	B	121	251		mg/Kg	✱	101	75 - 125
Beryllium	1.1		3.02	3.75		mg/Kg	✱	87	75 - 125
Boron	6.5	F1	60.3	39.8	F1	mg/Kg	✱	55	75 - 125
Cadmium	0.16	B F1	3.02	2.37	F1	mg/Kg	✱	74	75 - 125
Calcium	7100	B	603	5000	4	mg/Kg	✱	-354	75 - 125
Chromium	22		12.1	34.8		mg/Kg	✱	107	75 - 125
Cobalt	14		30.2	47.4		mg/Kg	✱	112	75 - 125
Copper	22	B	15.1	34.8		mg/Kg	✱	85	75 - 125
Iron	23000	B	60.3	26000	4	mg/Kg	✱	5045	75 - 125
Lead	21	F1	6.03	22.7	F1	mg/Kg	✱	29	75 - 125
Magnesium	6800	B	603	6290	4	mg/Kg	✱	-85	75 - 125
Manganese	560	F2	30.2	753	4	mg/Kg	✱	634	75 - 125
Nickel	36		30.2	67.0		mg/Kg	✱	104	75 - 125
Potassium	2000	F1	603	3760	F1	mg/Kg	✱	284	75 - 125
Selenium	0.48	J F1	6.03	3.92	F1	mg/Kg	✱	57	75 - 125
Silver	0.45		3.02	2.87		mg/Kg	✱	80	75 - 125
Sodium	1400		603	2040		mg/Kg	✱	107	75 - 125
Thallium	0.58	J	6.03	5.42		mg/Kg	✱	80	75 - 125
Vanadium	26		30.2	56.0		mg/Kg	✱	99	75 - 125
Zinc	75	B F1	30.2	107		mg/Kg	✱	106	75 - 125



# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207052-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 500-207052-1 MSD

Matrix: Solid

Analysis Batch: 626836

Client Sample ID: 2674V2-22-B01 (0-2)

Prep Type: Total/NA

Prep Batch: 626511

Analyte	Sample	Sample	Spike	MSD		Unit	D	%Rec	%Rec.	Limits	RPD	RPD	Limit
	Result	Qualifier		Result	Qualifier								
Antimony	0.63	J B F1	30.4	5.44	F1	mg/Kg	⊛	16	75 - 125	4	20		
Arsenic	5.1		6.09	9.92		mg/Kg	⊛	80	75 - 125	10	20		
Barium	130	B	122	233		mg/Kg	⊛	86	75 - 125	7	20		
Beryllium	1.1		3.04	3.74		mg/Kg	⊛	86	75 - 125	0	20		
Boron	6.5	F1	60.9	38.6	F1	mg/Kg	⊛	53	75 - 125	3	20		
Cadmium	0.16	B F1	3.04	2.32	F1	mg/Kg	⊛	71	75 - 125	2	20		
Calcium	7100	B	609	5210	4	mg/Kg	⊛	-316	75 - 125	4	20		
Chromium	22		12.2	34.5		mg/Kg	⊛	104	75 - 125	1	20		
Cobalt	14		30.4	43.0		mg/Kg	⊛	97	75 - 125	10	20		
Copper	22	B	15.2	34.9		mg/Kg	⊛	85	75 - 125	0	20		
Iron	23000	B	60.9	25700	4	mg/Kg	⊛	4569	75 - 125	1	20		
Lead	21	F1	6.09	26.6		mg/Kg	⊛	93	75 - 125	16	20		
Magnesium	6800	B	609	6570	4	mg/Kg	⊛	-39	75 - 125	4	20		
Manganese	560	F2	30.4	496	4 F2	mg/Kg	⊛	-214	75 - 125	41	20		
Nickel	36		30.4	65.6		mg/Kg	⊛	98	75 - 125	2	20		
Potassium	2000	F1	609	3710	F1	mg/Kg	⊛	273	75 - 125	1	20		
Selenium	0.48	J F1	6.09	3.87	F1	mg/Kg	⊛	56	75 - 125	1	20		
Silver	0.45		3.04	2.85		mg/Kg	⊛	79	75 - 125	1	20		
Sodium	1400		609	2010		mg/Kg	⊛	101	75 - 125	2	20		
Thallium	0.58	J	6.09	5.21		mg/Kg	⊛	76	75 - 125	4	20		
Vanadium	26		30.4	55.5		mg/Kg	⊛	96	75 - 125	1	20		
Zinc	75	B F1	30.4	114	F1	mg/Kg	⊛	129	75 - 125	6	20		

Lab Sample ID: 500-207052-1 DU

Matrix: Solid

Analysis Batch: 626836

Client Sample ID: 2674V2-22-B01 (0-2)

Prep Type: Total/NA

Prep Batch: 626511

Analyte	Sample	Sample	DU		Unit	D	RPD	RPD	Limit
	Result	Qualifier	Result	Qualifier					
Antimony	0.63	J B F1	0.430	J F5	mg/Kg	⊛	37	20	
Arsenic	5.1		5.38		mg/Kg	⊛	6	20	
Barium	130	B	130		mg/Kg	⊛	0.9	20	
Beryllium	1.1		1.20		mg/Kg	⊛	7	20	
Boron	6.5	F1	7.17		mg/Kg	⊛	9	20	
Cadmium	0.16	B F1	0.0899	J F5	mg/Kg	⊛	53	20	
Calcium	7100	B	5620	F3	mg/Kg	⊛	24	20	
Chromium	22		23.4		mg/Kg	⊛	7	20	
Cobalt	14		12.9		mg/Kg	⊛	5	20	
Copper	22	B	24.1		mg/Kg	⊛	9	20	
Iron	23000	B	24300		mg/Kg	⊛	6	20	
Lead	21	F1	20.2		mg/Kg	⊛	4	20	
Magnesium	6800	B	6110		mg/Kg	⊛	11	20	
Manganese	560	F2	574		mg/Kg	⊛	2	20	
Nickel	36		35.1		mg/Kg	⊛	2	20	
Potassium	2000	F1	2270		mg/Kg	⊛	10	20	
Selenium	0.48	J F1	0.612	J F5	mg/Kg	⊛	24	20	
Silver	0.45		0.443		mg/Kg	⊛	0.5	20	
Sodium	1400		1460		mg/Kg	⊛	5	20	
Thallium	0.58	J	0.711		mg/Kg	⊛	20	20	
Vanadium	26		28.9		mg/Kg	⊛	10	20	

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# QC Sample Results

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207052-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 500-207052-1 DU  
Matrix: Solid  
Analysis Batch: 626836

Client Sample ID: 2674V2-22-B01 (0-2)  
Prep Type: Total/NA  
Prep Batch: 626511

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Zinc	75	B F1	76.4		mg/Kg	*	2	20

Lab Sample ID: LB 500-624860/1-B  
Matrix: Solid  
Analysis Batch: 625354

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 625180

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/25/21 08:27	10/25/21 17:27	1
Boron	<0.50		0.50	0.050	mg/L		10/25/21 08:27	10/25/21 17:27	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/25/21 08:27	10/25/21 17:27	1
Chromium	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 17:27	1
Cobalt	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 17:27	1
Iron	<0.40		0.40	0.20	mg/L		10/25/21 08:27	10/25/21 17:27	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/25/21 08:27	10/25/21 17:27	1
Manganese	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 17:27	1
Nickel	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 17:27	1
Selenium	<0.050		0.050	0.020	mg/L		10/25/21 08:27	10/25/21 17:27	1
Silver	<0.025		0.025	0.010	mg/L		10/25/21 08:27	10/25/21 17:27	1
Zinc	<0.50	^+	0.50	0.020	mg/L		10/25/21 08:27	10/25/21 17:27	1

Lab Sample ID: LB 500-624860/1-B  
Matrix: Solid  
Analysis Batch: 625638

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 625180

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.50		0.50	0.050	mg/L		10/25/21 08:27	10/26/21 15:34	1

## Method: 6020A - Metals (ICP/MS)

Lab Sample ID: LCS 500-625180/2-A  
Matrix: Solid  
Analysis Batch: 625693

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 625180

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.489		mg/L		98	80 - 120
Thallium	0.100	0.112		mg/L		112	80 - 120

Lab Sample ID: LCSD 500-625180/3-A  
Matrix: Solid  
Analysis Batch: 625693

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 625180

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.500	0.500		mg/L		100	80 - 120	2	20
Thallium	0.100	0.110		mg/L		110	80 - 120	2	20

# QC Sample Results

Client: WSP USA Inc.  
 Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207052-1

## Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LB 500-624860/1-B  
 Matrix: Solid  
 Analysis Batch: 625693

Client Sample ID: Method Blank  
 Prep Type: TCLP  
 Prep Batch: 625180

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		10/25/21 08:27	10/26/21 14:51	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/25/21 08:27	10/26/21 14:51	1

## Method: 7470A - TCLP Mercury

Lab Sample ID: MB 500-625464/12-A  
 Matrix: Solid  
 Analysis Batch: 625700

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 625464

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 09:20	1

Lab Sample ID: LCS 500-625464/14-A  
 Matrix: Solid  
 Analysis Batch: 625700

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 625464

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00183		mg/L		92	80 - 120

Lab Sample ID: LB 500-624860/1-C  
 Matrix: Solid  
 Analysis Batch: 625700

Client Sample ID: Method Blank  
 Prep Type: TCLP  
 Prep Batch: 625464

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		10/26/21 09:55	10/27/21 09:22	1

## Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 500-625696/12-A  
 Matrix: Solid  
 Analysis Batch: 625923

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 625696

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0056	mg/Kg		10/27/21 14:15	10/28/21 06:34	1

Lab Sample ID: LCS 500-625696/13-A  
 Matrix: Solid  
 Analysis Batch: 625923

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 625696

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.167	0.175		mg/Kg		105	80 - 120

# Lab Chronicle

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207052-1

**Client Sample ID: 2674V2-22-B01 (0-2)**

**Lab Sample ID: 500-207052-1**

**Date Collected: 10/18/21 10:10**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			624860	10/21/21 15:30	OAJ	TAL CHI
TCLP	Prep	3010A			625180	10/25/21 08:27	BDE	TAL CHI
TCLP	Analysis	6010B		1	625354	10/25/21 18:14	JJB	TAL CHI
TCLP	Leach	1311			624860	10/21/21 15:30	OAJ	TAL CHI
TCLP	Prep	3010A			625180	10/25/21 08:27	BDE	TAL CHI
TCLP	Analysis	6010B		1	625638	10/26/21 16:12	JJB	TAL CHI
TCLP	Leach	1311			624860	10/21/21 15:30	OAJ	TAL CHI
TCLP	Prep	3010A			625180	10/25/21 08:27	BDE	TAL CHI
TCLP	Analysis	6020A		1	625693	10/26/21 14:54	FXG	TAL CHI
TCLP	Leach	1311			624860	10/21/21 15:30	OAJ	TAL CHI
TCLP	Prep	7470A			625464	10/26/21 09:55	MJG	TAL CHI
TCLP	Analysis	7470A		1	625700	10/27/21 09:37	MJG	TAL CHI
Total/NA	Analysis	9045D		1	624833	10/21/21 17:06	LWN	TAL CHI
Total/NA	Analysis	Moisture		1	624615	10/21/21 06:48	LWN	TAL CHI

**Client Sample ID: 2674V2-22-B01 (0-2)**

**Lab Sample ID: 500-207052-1**

**Date Collected: 10/18/21 10:10**

**Matrix: Solid**

**Date Received: 10/19/21 11:15**

**Percent Solids: 78.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			624914	10/19/21 18:28	WRE	TAL CHI
Total/NA	Analysis	8260B		1	625358	10/26/21 16:46	PMF	TAL CHI
Total/NA	Prep	3541			624401	10/20/21 06:58	SB	TAL CHI
Total/NA	Analysis	8270D		1	625884	10/28/21 14:55	AK	TAL CHI
Total/NA	Prep	3050B			626511	11/01/21 10:13	BDE	TAL CHI
Total/NA	Analysis	6010B		1	626836	11/02/21 11:15	JJB	TAL CHI
Total/NA	Prep	7471B			625696	10/27/21 14:15	MJG	TAL CHI
Total/NA	Analysis	7471B		1	625923	10/28/21 06:38	MJG	TAL CHI

**Laboratory References:**

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Accreditation/Certification Summary

Client: WSP USA Inc.  
Project/Site: IDOT - 196-002-WO04 Lake Villa

Job ID: 500-207052-1

## Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

1

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Chain of Custody Record

546540



Environment Testing TestAmerica

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Address \_\_\_\_\_

Regulatory Program:  DW  NPDES  RCRA  Other

TAL-8210

<b>Client Contact</b> Company Name <u>WSP</u> Address _____ City/State/Zip <u>Chicago, IL</u> Phone _____ Fax _____ Project Name <u>FOOTWOOD</u> Site <u>Lake Villa, IL</u> P O # _____		<b>Project Manager</b> <u>D. Tichholtz</u> Tel/Email _____		<b>Site Contact</b> <u>A. Hanel</u> Lab Contact <u>R. Wright</u>		<b>Date:</b> <u>10/18/21</u> <b>Carrier</b> _____		<b>COC No</b> <u>1</u> of <u>11</u> COCs	
		<b>Analysis Turnaround Time</b> <input checked="" type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____		Filtered Sample (Y/N) Perform MS/MSD (Y/N)		VOCs PH SVOCs Semi-Volatiles Total Metals TCAP Metals		<b>For Lab Use Only</b> Walk-in Client <input type="checkbox"/> Lab Sampling <input type="checkbox"/>	
		<input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day						Job / SDG No <u>500-207052</u>	

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	VOCs	PH	SVOCs	Semi-Volatiles	Total Metals	TCAP Metals	Sample Specific Notes
<u>2674 VZ-22-B01 (0-2)</u>	<u>10/18/21</u>	<u>1010</u>	<u>C</u>	<u>S</u>	<u>2</u>			<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>		
<del><u>2674 VZ-17-B02 (0-4)</u></del>	<del><u>10/19/21</u></del>	<del><u>1030</u></del>	<del><u>C</u></del>	<del><u>S</u></del>	<del><u>2</u></del>			<del><u>XX</u></del>	<del><u>XX</u></del>	<del><u>XX</u></del>	<del><u>XX</u></del>	<del><u>XX</u></del>	<del><u>XX</u></del>	<u>BM</u>

**Preservation Used:** 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other \_\_\_\_\_

**Possible Hazard Identification:**  
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

Non Hazard  Flammable  Skin Irritant  Poison B  Unknown

**Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month )**  
 Return to Client  Disposal by Lab  Archive for \_\_\_\_\_ Months

**Special Instructions/QC Requirements & Comments:**  
\* Splp sampling + FCLP <sup>results</sup> based on TCLP results

Custody Seals Intact  Yes  No  
Custody Seal No \_\_\_\_\_ Cooler Temp (°C) Obs'd 5.7 Corr'd 5.6 Therm ID No \_\_\_\_\_

Relinquished by <u>Boyer</u>	Company <u>WSP</u>	Date/Time <u>10/18/21 1615</u>	Received by <u>M. Neal</u>	Company <u>EPA</u>	Date/Time <u>10/19/21 0920</u>
Relinquished by <u>M. Neal</u>	Company <u>EPA</u>	Date/Time <u>10/19/21 1115</u>	Received by _____	Company _____	Date/Time _____
Relinquished by _____	Company _____	Date/Time _____	Received by Laboratory by <u>Shirley Scott</u>	Company <u>EPA-CHI</u>	Date/Time <u>10/19/21 1115</u>

# Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 500-207052-1

**Login Number: 207052**

**List Source: Eurofins TestAmerica, Chicago**

**List Number: 1**

**Creator: Scott, Sherri L**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

