GEOPROBE INVESTIGATION REPORT STAUDE PROPERTY (BRRTS 03-28-174068) 611 SOUTH SIXTH STREET WATERTOWN, WISCONSIN 53094

PREPARED FOR:

JON HEBERER WISCONSIN DEPARTMENT OF NATURAL RESOURCES 3911 FISH HATCHERY ROAD FITCHBURG, WISCONSIN 53711

KEN STAUDE 611 SOUTH SIXTH STREET WATERTOWN, WISCONSIN 53094

OCTOBER 2017

SEYMOUR ENVIRONMENTAL SERVICES, INC.

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1.0 INTRODUCTION

This describes the work that was conducted to investigate the soil and groundwater associated with a release from a 500 gallon unleaded gasoline underground storage tank (UST) property located at 611 South Sixth Street, Watertown. The tank was removed on September 22, 1997 and the contamination was reported to the Wisconsin Department of Natural Resources (WDNR) the same day.

The investigation showed that soil contamination is present in the tank location and to the south. The groundwater is also impacted and the distribution is similar to the soil contamination.

1.1 Site and Consultant Information

Site Location: Staude Property BRRTS: 03-28-174068

611 South Sixth Street

Watertown, Wisconsin 53094

Jefferson County - City of Watertown

SW 1/4 NE 1/4 Section 04, Township 08 North, Range 15 East

WTM: X-624001, Y-302640

Owner: Mr. Kenneth Staude

611 South Sixth Street

Watertown, Wisconsin 53094

(920) 253-8544

Consultant: Seymour Environmental Services, Inc.

2531 Dyreson Road

McFarland, Wisconsin 53558

Contact: Robyn Seymour (608) 838-9120

Geoprobe/Driller: On-site Environmental Services, Inc.

P.O. Box 280

Sun Prairie, Wisconsin 53590

Contact: Kim Kapugi (608) 837-8992

Laboratory: Pace Analytical

1241 Bellevue Street, Suite 9 Green Bay, Wisconsin 54302

Contact: Dan Milewsky (920) 469-2436

1.2 Description of Surrounding Area

The property is located at the northeast corner of the intersection of Milwaukee and South Sixth Streets. The area surrounding the site is mainly a residential neighborhood. The adjacent properties are all private homes.

1.3 Site History and Previous Environmental Activities

The property formerly was occupied by a moving company. A 500 gallon underground gasoline tank was used to store fuel for the business vehicles. In September 1997 the UST was removed by Tank Removal Specialists of Green Bay, Wisconsin. The tank remover observed clay and sand in the tank excavation. A soil sample collected from beneath the former UST for the tank assessment contained 1,600 milligram per kilogram gasoline range organics. This concentration exceeded the assessment guideline of 10 mg/kg.

It appears that some investigation was conducted at the site by Assured Environmental Associates in 2009. However, minimal information from the work is available and is not included.

1.4 Geologic Setting

This site is located in the glaciated area of Wisconsin. Locally, glacial deposits are comprised of ground moraine (basal till) from the Green Bay glacial lobe. The till forms gently undulating plains with moderate relief. The till is comprised primarily of unsorted clay to fine sand sized sediments although the deposits may contain material as large as boulders. The glacially-derived materials extend to a depth of 60-70 feet where bedrock is encountered. The bedrock is Ordovician dolomite (Platteville Formation).

Soil in the area is mapped as Theresa silt loam. The Theresa series consists of very deep moderately well drained soils that are moderately deep to dense. Theresa soils are characterized by silty soils from the surface to a depth of ~14 inches. There surficial silts originate from loess deposits. The silty loams are underlain by clayey loam from 14 to 35 inches. Soils deeper than 35 inches are loams comprised of clay, silt and fine sand.

The site is located in central Watertown at an elevation of approximately 835 feet above mean sea level. The ground surface generally slopes toward the west southwest toward the Rock River. The surface slope is ~2.7%. The Rock River is present approximately ½ mile to the west of the site.

Published information indicates that the water table in the area is present at a depth of ~18 feet (818 feet msl). Groundwater at the site was encountered 8-10 feet deep. It is unclear whether the water encountered is the water table or a layer of "perched" water within the relatively tight glacial sediments.

1.5 Receptors

The area is serviced by the City of Watertown water utility so no private water supply wells are located nearby. The nearest water supply well is a municipal well (Watertown #4) which is located 600 feet west southwest of the site. That well is \sim 725 feet deep and is cased to a depth of 125 feet. Water from the well comes from the lower Ordovician and Upper Cambrian aquifers.

The contamination is not identified shallower than 7 feet below the surface. This is likely deeper than utility trenches so migration through the trenches should not be an issue.

2.0 SITE INVESTIGATION ACTIVITIES

Seymour and On-site met at the site on June 23, 2017 to conduct a Geoprobe investigation. Six borings were installed at the site. Soil samples were collected continuously during drilling. Soil samples were described in the field and screened for organic vapors using a photoionization detector equipped with a 10.6 eV lamp. Groundwater samples were also collected from all but one of the borings. Soil and groundwater samples collected during the investigation were submitted to Pace Analytical for analysis of petroleum volatile organic compounds plus naphthalene (PVOC+naph.). Information collected from each of the borings is discussed in the following section. The soil analytical results are summarized on Table 1 and the groundwater results on Table 2. The analytical report is attached as Appendix A. The boring logs are included as Appendix B. Soil at the site was ranged from clayey silt to silty sand. The sandier soil was generally deeper.

The first boring, B-1, was installed at the location of the former tank. The boring was advanced to 25 feet. Field screening showed elevated levels of organic vapors in soils from \sim 7 to 25 feet below grade. The highest organic vapor levels of 1,500 vppm were noted at \sim 7 feet. Vapor levels declined with depth and were 90 vppm in the soil at \sim 22 feet. During drilling it was difficult to determine the moisture conditions in the tight soils. We installed a temporary casing in the boring. The water level in the

temporary well rose to 7.7 feet below grade. Two soil samples from B-1 (7 and 19 feet) were analyzed. Both soil samples contained PVOCs above the groundwater pathway RCLs. The groundwater sample collected at B-1 contained a number of PVOCs but only benzene was present above the NR140 ES.

The second boring, B-2, was installed 12 feet to the north of the former UST near the foundation of the house. This boring was advanced to a depth of 15 feet. No organic vapors were noted in the soil at this location from the surface to about 10 feet below grade; very low (>1 vppm) organic vapor levels were present in the soil from 10-15 feet. A soil sample collected from a depth of 7 feet was selected for laboratory analysis; this is just above the groundwater level noted in the temporary well at B-1. No analytes were detected in the soil sample. A groundwater sample also was collected from B-2. The groundwater sample contained low levels of several PVOCs. Benzene was present above the NR140 PAL in the groundwater sample at this location.

Boring B-3 was installed 20 feet west of the former tank to a depth of 15 feet. No organic vapors were noted in the soil at this location. A soil sample collected from a depth of 7 feet was selected for laboratory analysis; no analytes were detected in the soil sample. A groundwater sample also was collected from B-3 and no PVOCs were detected in the sample.

Boring B-4 was installed 17 feet directly south of the former tank. No organic vapors were noted in the soil at this location from the surface to about ~7.5 feet below grade. Elevated organic vapor levels (90-150 vppm) were noted in soil from 7.5 to 12.5 feet. No organic vapors were noted in the soil from 12.5 to 15 feet. A single soil sample collected at the top of the suspected contamination (7.5 feet) was selected for laboratory analysis. The soil sample contained a number of PVOCs at levels that exceed the groundwater pathway RCLs. A groundwater sample also was collected at B-4. The groundwater sample contained several PVOCs at concentrations exceeding the NR140 ES.

Boring B-5 was installed 25 feet to the southwest of the former tank bed. This boring was advanced to a depth of 15 feet. No organic vapors were noted in the soil at this location. A soil sample and a groundwater sample from a depth of 8 feet were collected for laboratory analysis. No analytes were detected in the soil sample. The groundwater sample contained benzene (9.3 ug/l) above the NR140 ES.

The final boring, B-6, was installed just to the east of the former tank bed and advanced to a depth of 10 feet. No organic vapors were noted in the soil at this location. A single soil sample collected from the base of the boring (9-10 feet) was selected for laboratory analysis. No analytes were detected in the soil sample.

3.0 DISCUSSION OF RESULTS

3.1 Soil

The results show that soil contamination is present at the former tank location (B-1). Soil containing PVOCs above the groundwater pathway RCLs was identified in this area from 7 to 19 feet below grade. Based on field observations it appears that the contamination originated from the bottom of the tank. No elevated organic vapor levels were noted within the soil from the shallow, direct contact horizon. The soil contamination extends to the south from the former tank bed beneath the Milwaukee Street right-of-way (Figure 3). Soil contamination exceeding the groundwater pathway RCL was identified at a depth of 7 feet below grade at B-4. The limit of the soil contamination to the south has not been defined. Compounds present in the contaminated soil above the groundwater pathway RCLs include benzene, ethylbenzene, total trimethylbenzenes (TMB), xylenes and naphthalene.

3.2 Groundwater

Groundwater was collected from 5 of the 6 borings. Since there was no field evidence of contamination at B-6 no groundwater sample was collected from that location. Petroleum compounds were present above the detection limit in each of the five samples. Groundwater from 3 of the borings (B-1, B-4 and B-5) contained at least one PVOC above NR140 ESs. These borings were located within the former tank bed (B-1) and to the south and southwest of the former tank bed (Figure 4). Benzene was present above the NR140 PAL in the groundwater sample collected 12 feet north of the former tank bed (B-2). No analytes were present above WDNR groundwater quality standards in the groundwater sample collected 20 feet to the west of the tank bed (B-3).

The highest contaminant levels in the groundwater samples were present at B-4, which appears to be in the downgradient direction based on the analytical results. Both benzene and ethylbenzene were present above the ES at this location. Lower contaminant levels were present in the groundwater sample collected at the tank bed (B-1) but this water sample was collected about 10 feet deeper than the other samples. The benzene level at B-1 and B-5 exceeded the NR140 ES. Lower levels of benzene were noted to the north at B-2; benzene at this location was 1.2 ug/l, above the PAL.

4.0 RECOMMENDATIONS

Soil and groundwater contamination above WDNR standards is present at the site. The extent of the contamination has not been defined to the south. We recommend additional soil and groundwater investigation to the south across Milwaukee Street. It does not seem likely that the soil contamination will extend much further south, but the groundwater contamination may have migrated farther.

Removal of the contaminated soil in the source area may be appropriate. Because of structural impediments soil excavation would be limited to the source property.

5.0 REFERENCES

Mudrey, Jr., M.G., Brown, B.A. Greenburg, J.K., 1982, Bedrock Geologic Map of Wisconsin

Glocker, Carl, 1979, Soil Survey of Jefferson County, Wisconsin, USCS, UW-Madison

Wisconsin Department of Natural Resources, 2013, Wisconsin Administrative Code, Chs. NR 700-749, Investigation and Remediation of Environmental Contamination.

Wisconsin Department of Natural Resources, 2015, Wisconsin Administrative Code, Chs. NR 140, Groundwater Quality.

Questions about this work should be directed to Robyn Seymour or Mark Fryman at (608) 838-9120.

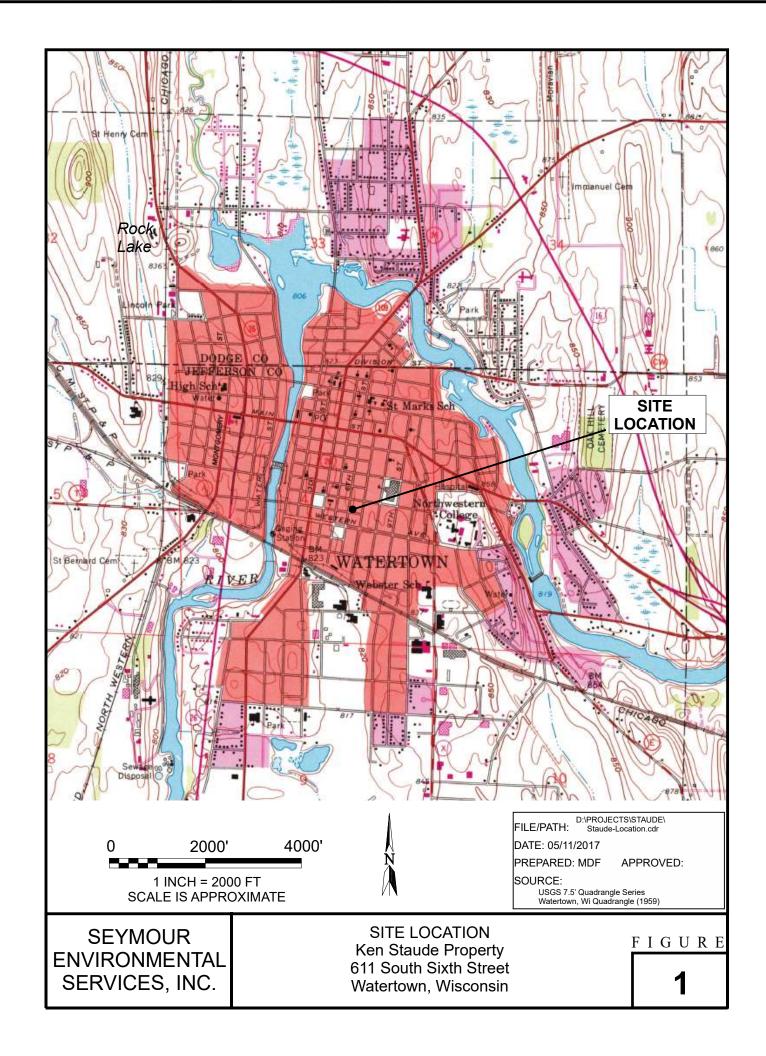
Sincerely,

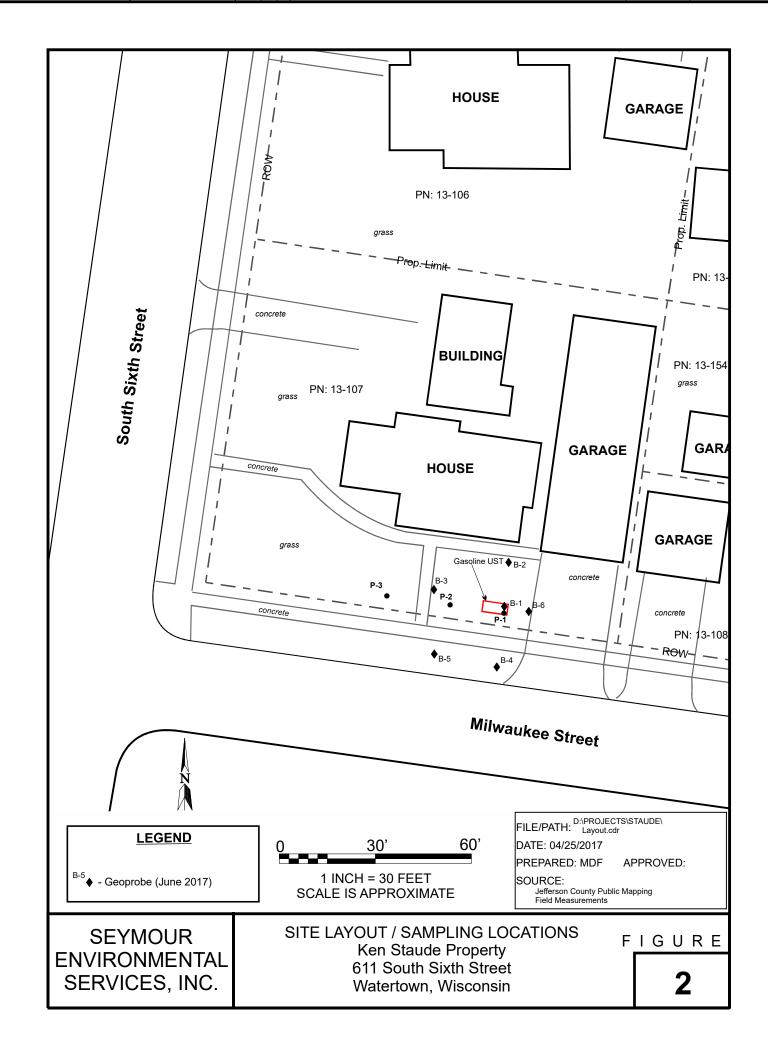
Seymour Environmental Services, Inc.

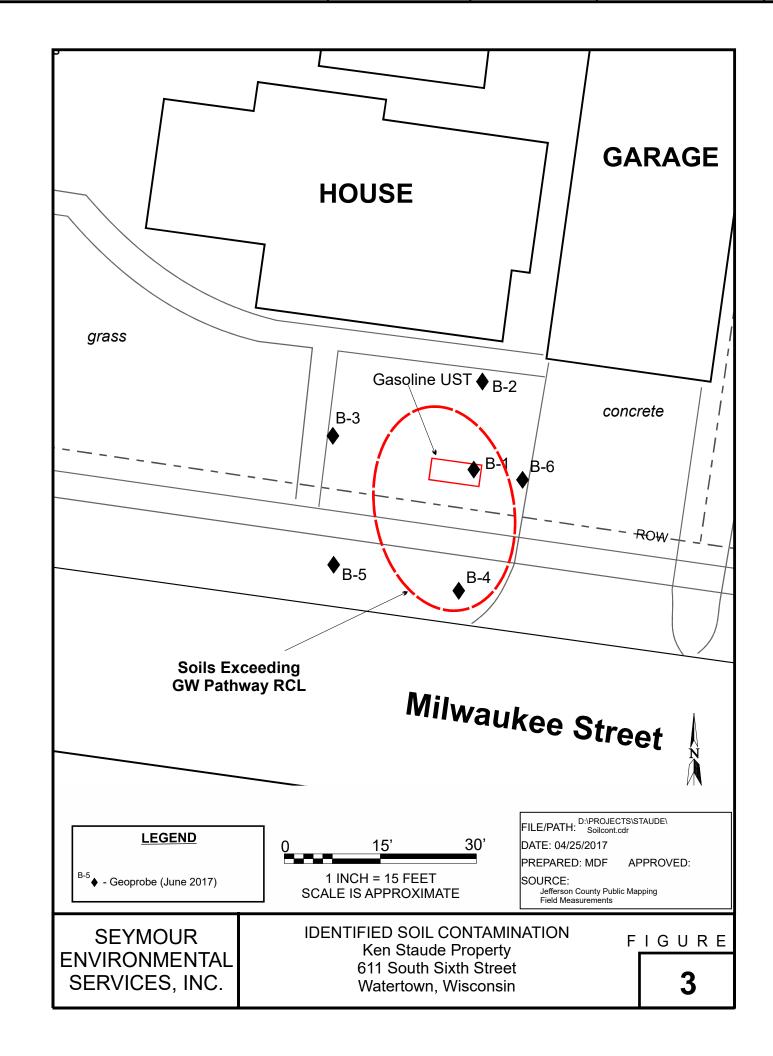
Robyn Seymour

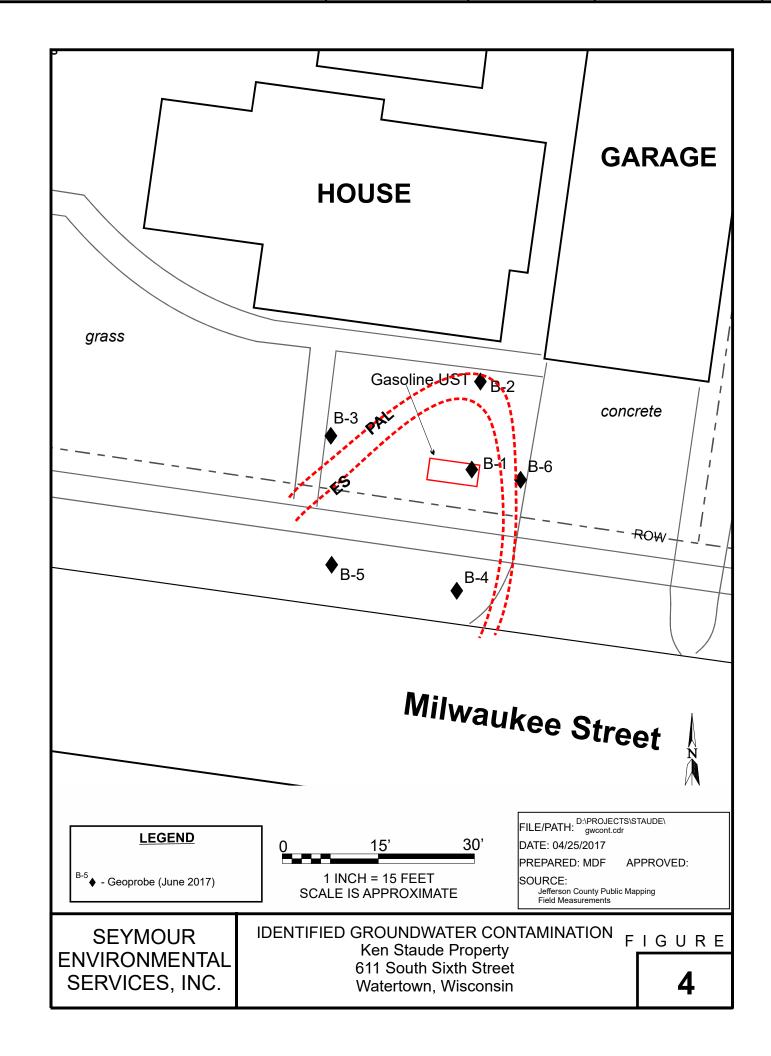
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FIGURES









TABLES

TABLE 1 SUMMARY OF GEOPROBE SOIL ANALYTICAL DATA (06/23/2017)

Ken Staude Property

611 South Sixth Street - Watertown, Wisconsin

SAMPLE	B-1	B-1	B-2	В-3	B-4	B-5	B-6	Groundwater	Non-Industrial Direct Contact
Depth (ft)	7	19	7	7	7.5	8	9-10	Pathway RCL	RCL
PID	1500	800	0	0	150	0	0	ns	ns
DRO	na	ns	ns						
GRO	na	ns	ns						
PVOCs									
Benzene	<250	4390	<25.0	<25.0	<50.0	<25.0	<25.0	5.1	1600
1,2 Dichloroethane	na	2.8	652						
Ethylbenzene	12400	1720	<25.0	<25.0	4760	<25.0	<25.0	1570	8020
Methyl-tert-butyl ether	<250	<25.0	<25.0	<25.0	<50.0	<25.0	<25.0	27	63800
Toluene	1840	865	<25.0	<25.0	<50.0	<25.0	<25.0	1107	818000
1,3,5 Trimethylbenzene	18700	43.9	<25.0	<25.0	3030	<25.0	<25.0	ns	182000
1,2,4 Trimethylbenzene	42000	111	<25.0	<25.0	10200	<25.0	<25.0	ns	219000
Total Trimethylbenzenes	60700	154.9	<50.0	<50.0	13230	<50.0	<50.0	1379	ns
Xylenes, -m, -p	16800	3420	<50.0	<50.0	7750	<50.0	<50.0	ns	ns
Xylene, -o	6920	2340	<25.0	<25.0	229	<25.0	<25.0	ns	ns
Total Xylenes	23720	5760	<75.0	<75.0	7979	<75.0	<75.0	3940	260000
Naphthalene	4660	<25.0	<25.0	<25.0	2230	<25.0	<25.0	658.7	5520

- All results are reported in ug/kg
- na = not analyzed
- ns = no standard established
- -(J) = Present below limit of quantitation
- Groundwater Pathway RCL = Residual Contaminant Level (exceedances bold)
- Non-Industrial Direct Contact Hazard Level (exceedance underlined)
- Soil standards are default values from WDNR R&R Calculator

TABLE 2 SUMMARY OF GEOPROBE GROUNDWATER ANALYTICAL DATA (06/23/2017) Ken Staude Property

611 South Sixth Street – Watertown, Wisconsin

Sample Location	B-1	B-2	B-3	B-4	B-5	NR	140
Date	06/23/17	06/23/17	06/23/17	06/23/17	06/23/17	ES	PAL
PVOCs							
Benzene	297	1.2	0.45 (J)	892	9.3	5	0.5
1,2 Dichloroethane	na	na	na	na	na	5	0.5
Ethylbenzene	52.1	0.58 (J)	< 0.39	788	< 0.39	700	140
Methyl-tert-butyl ether	<1.2	< 0.48	< 0.48	<4.8	< 0.48	60	12
Toluene	14.1	0.39 (J)	0.47 (J)	2010	0.85 (J)	800	160
1,3,5 Trimethylbenzene	28.6	< 0.42	< 0.42	183	< 0.42	ns	ns
1,2,4 Trimethylbenzene	84.2	0.52 (J)	< 0.42	608	< 0.42	ns	ns
Γotal Trimethylbenzenes	112.8	0.52 (J)	< 0.84	791	< 0.84	480	96
Xylenes, -m, -p	60.8	< 0.80	< 0.80	1370	< 0.80	ns	ns
Xylene, -o	39.4	< 0.45	< 0.45	281	< 0.45	ns	ns
Γotal Xylenes	100.2	<1.25	<1.25	<u>1651</u>	<1.25	2000	400
Naphthalene	4.6	< 0.42	< 0.42	<u>18.6</u>	< 0.42	100	10

⁻ All data is listed in ug/l

⁻ na = not analyzed

⁻ ns = no standard established

⁻ PAL = NR140 Preventative Action Limit (exceedances underlined)

⁻ ES = NR140 Enforcement Standard (exceedances bold)

⁻⁽J) = present below limit of quantitiation

APPENDIX A LABORATORY REPORT



July 11, 2017

Robyn Seymour Seymour Environmental Services, INC. 2531 Dyreson Road Mc Farland, WI 53558

RE: Project: STAUDE

Pace Project No.: 40152396

Dear Robyn Seymour:

Enclosed are the analytical results for sample(s) received by the laboratory on June 28, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

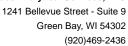
Dan Milewsky dan.milewsky@pacelabs.com (920)469-2436

Project Manager

Day Mileny

Enclosures







CERTIFICATIONS

Project: STAUDE
Pace Project No.: 40152396

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302 Florida/NELAP Certification #: E87948 Illinois Certification #: 200050 Kentucky UST Certification #: 82 Louisiana Certification #: 04168 Minnesota Certification #: 055-999-334 New York Certification #: 12064 North Dakota Certification #: R-150

Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0



SAMPLE SUMMARY

Project: STAUDE
Pace Project No.: 40152396

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40152396001	B-1, 7'	Solid	06/23/17 12:00	06/28/17 10:05
40152396002	B-1	Water	06/23/17 12:45	06/28/17 10:05
40152396003	B-2, 7'	Solid	06/23/17 13:00	06/28/17 10:05
40152396004	B-2	Water	06/23/17 13:15	06/28/17 10:05
40152396005	B-3, 7'	Solid	06/23/17 13:30	06/28/17 10:05
40152396006	B-4 7 1/2'	Solid	06/23/17 14:05	06/28/17 10:05
40152396007	B-3	Water	06/23/17 14:20	06/28/17 10:05
40152396008	B-5, 8'	Solid	06/23/17 14:40	06/28/17 10:05
40152396009	B-4	Water	06/23/17 15:00	06/28/17 10:05
40152396010	B-5	Water	06/23/17 15:15	06/28/17 10:05
40152396011	B-6, 9-10	Solid	06/23/17 15:30	06/28/17 10:05
40152396012	B-1, 19'	Solid	06/23/17 12:15	06/28/17 10:05



SAMPLE ANALYTE COUNT

Project: STAUDE
Pace Project No.: 40152396

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40152396001	B-1, 7'	WI MOD GRO	ALD	10	PASI-G
		ASTM D2974-87	RMV	1	PASI-G
40152396002	B-1	WI MOD GRO	ALD	10	PASI-G
40152396003	B-2, 7'	WI MOD GRO	ALD	10	PASI-G
		ASTM D2974-87	RMV	1	PASI-G
40152396004	B-2	WI MOD GRO	ALD	10	PASI-G
40152396005	B-3, 7'	WI MOD GRO	ALD	10	PASI-G
		ASTM D2974-87	RMV	1	PASI-G
40152396006	B-4 7 1/2'	WI MOD GRO	ALD	10	PASI-G
		ASTM D2974-87	RMV	1	PASI-G
40152396007	B-3	WI MOD GRO	ALD	10	PASI-G
40152396008	B-5, 8'	WI MOD GRO	ALD	10	PASI-G
		ASTM D2974-87	RMV	1	PASI-G
40152396009	B-4	WI MOD GRO	ALD	10	PASI-G
40152396010	B-5	WI MOD GRO	ALD	10	PASI-G
40152396011	B-6, 9-10	WI MOD GRO	ALD	10	PASI-G
		ASTM D2974-87	RMV	1	PASI-G
40152396012	B-1, 19'	WI MOD GRO	ALD	10	PASI-G
		ASTM D2974-87	RMV	1	PASI-G



SUMMARY OF DETECTION

Project: STAUDE
Pace Project No.: 40152396

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
0152396001	B-1, 7'					
VI MOD GRO	Ethylbenzene	12400	ug/kg	670	06/29/17 17:14	
WI MOD GRO	Naphthalene	4660	ug/kg	670	06/29/17 17:14	
WI MOD GRO	Toluene	1840	ug/kg	670	06/29/17 17:14	
VI MOD GRO	1,2,4-Trimethylbenzene	42000	ug/kg	670	06/29/17 17:14	
VI MOD GRO	1,3,5-Trimethylbenzene	18700	ug/kg	670	06/29/17 17:14	
VI MOD GRO	m&p-Xylene	16800	ug/kg	1340	06/29/17 17:14	
VI MOD GRO	o-Xylene	6920	ug/kg	670	06/29/17 17:14	
STM D2974-87	Percent Moisture	10.4	%	0.10	07/10/17 11:51	
0152396002	B-1					
VI MOD GRO	Benzene	297	ug/L	2.5	06/30/17 20:17	
VI MOD GRO	Ethylbenzene	52.1	ug/L	2.5	06/30/17 20:17	
VI MOD GRO	Naphthalene	4.6	ug/L	2.5	06/30/17 20:17	
VI MOD GRO	Toluene	14.1	ug/L	2.5	06/30/17 20:17	
VI MOD GRO	1,2,4-Trimethylbenzene	84.2	ug/L	2.5	06/30/17 20:17	
VI MOD GRO	1,3,5-Trimethylbenzene	28.6	ug/L	2.5	06/30/17 20:17	
VI MOD GRO	m&p-Xylene	60.8	ug/L	5.0	06/30/17 20:17	
VI MOD GRO	o-Xylene	39.4	ug/L	2.5	06/30/17 20:17	
0152396003	B-2, 7'					
STM D2974-87	Percent Moisture	12.7	%	0.10	07/10/17 13:24	
0152396004	B-2					
VI MOD GRO	Benzene	1.2	ug/L	1.0	06/29/17 10:33	
/I MOD GRO	Ethylbenzene	0.58J	ug/L	1.0	06/29/17 10:33	
VI MOD GRO	Toluene	0.39J	ug/L	1.0	06/29/17 10:33	
VI MOD GRO	1,2,4-Trimethylbenzene	0.52J	ug/L	1.0	06/29/17 10:33	
0152396005	B-3, 7'					
STM D2974-87	Percent Moisture	8.2	%	0.10	07/10/17 13:24	
152396006	B-4 7 1/2'					
VI MOD GRO	Ethylbenzene	4760	ug/kg	131	06/29/17 16:23	
VI MOD GRO	Naphthalene	2230	ug/kg	131	06/29/17 16:23	
VI MOD GRO	1,2,4-Trimethylbenzene	10200	ug/kg	131	06/29/17 16:23	
VI MOD GRO	1,3,5-Trimethylbenzene	3030	ug/kg	131	06/29/17 16:23	
VI MOD GRO	m&p-Xylene	7750	ug/kg	262	06/29/17 16:23	
VI MOD GRO	o-Xylene	229	ug/kg	131	06/29/17 16:23	
STM D2974-87	Percent Moisture	8.5	%	0.10	07/10/17 13:24	
0152396007	B-3					
WI MOD GRO	Benzene	0.45J	ug/L	1.0	06/29/17 10:58	
VI MOD GRO	Toluene	0.47J	ug/L	1.0	06/29/17 10:58	
0152396008	B-5, 8'					
ASTM D2974-87	Percent Moisture	9.5	%	0.10	07/10/17 13:24	
0152396009	B-4					
/I MOD GRO	Benzene	892	ug/L	10.0	06/30/17 20:42	
VI MOD GRO	Ethylbenzene	788	ug/L	10.0	06/30/17 20:42	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: STAUDE
Pace Project No.: 40152396

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
10152396009	B-4					
WI MOD GRO	Naphthalene	18.6	ug/L	10.0	06/30/17 20:42	
WI MOD GRO	Toluene	2010	ug/L	10.0	06/30/17 20:42	
WI MOD GRO	1,2,4-Trimethylbenzene	608	ug/L	10.0	06/30/17 20:42	
WI MOD GRO	1,3,5-Trimethylbenzene	183	ug/L	10.0	06/30/17 20:42	
WI MOD GRO	m&p-Xylene	1370	ug/L	20.0	06/30/17 20:42	
WI MOD GRO	o-Xylene	281	ug/L	10.0	06/30/17 20:42	
10152396010	B-5					
WI MOD GRO	Benzene	9.3	ug/L	1.0	06/29/17 11:24	
WI MOD GRO	Toluene	0.85J	ug/L	1.0	06/29/17 11:24	
0152396011	B-6, 9-10					
ASTM D2974-87	Percent Moisture	11.0	%	0.10	07/10/17 13:24	
0152396012	B-1, 19'					
WI MOD GRO	Benzene	4390	ug/kg	66.8	06/29/17 15:06	
WI MOD GRO	Ethylbenzene	1720	ug/kg	66.8	06/29/17 15:06	
WI MOD GRO	Toluene	865	ug/kg	66.8	06/29/17 15:06	
WI MOD GRO	1,2,4-Trimethylbenzene	111	ug/kg	66.8	06/29/17 15:06	
WI MOD GRO	1,3,5-Trimethylbenzene	43.9J	ug/kg	66.8	06/29/17 15:06	
WI MOD GRO	m&p-Xylene	3420	ug/kg	134	06/29/17 15:06	
WI MOD GRO	o-Xylene	2340	ug/kg	66.8	06/29/17 15:06	
ASTM D2974-87	Percent Moisture	10.2	%	0.10	07/10/17 13:24	



Project: STAUDE
Pace Project No.: 40152396

Date: 07/11/2017 08:09 AM

Sample: B-1, 7' Lab ID: 40152396001 Collected: 06/23/17 12:00 Received: 06/28/17 10:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical	Method: WI	MOD GRO P	reparation N	/lethod	: TPH GRO/PVO	C WI ext.		
Benzene	<250	ug/kg	600	250	10	06/29/17 07:45	06/29/17 17:14	71-43-2	W
Ethylbenzene	12400	ug/kg	670	279	10	06/29/17 07:45	06/29/17 17:14	100-41-4	
Methyl-tert-butyl ether	<250	ug/kg	600	250	10	06/29/17 07:45	06/29/17 17:14	1634-04-4	W
Naphthalene	4660	ug/kg	670	279	10	06/29/17 07:45	06/29/17 17:14	91-20-3	
Toluene	1840	ug/kg	670	279	10	06/29/17 07:45	06/29/17 17:14	108-88-3	
1,2,4-Trimethylbenzene	42000	ug/kg	670	279	10	06/29/17 07:45	06/29/17 17:14	95-63-6	
1,3,5-Trimethylbenzene	18700	ug/kg	670	279	10	06/29/17 07:45	06/29/17 17:14	108-67-8	
m&p-Xylene	16800	ug/kg	1340	558	10	06/29/17 07:45	06/29/17 17:14	179601-23-1	
o-Xylene	6920	ug/kg	670	279	10	06/29/17 07:45	06/29/17 17:14	95-47-6	
Surrogates		-9.19							
a,a,a-Trifluorotoluene (S)	106	%	80-120		10	06/29/17 07:45	06/29/17 17:14	98-08-8	
Percent Moisture	Analytical	Method: AST	M D2974-87						
							07/40/47 44 54		
Percent Moisture	10.4	%	0.10	0.10	1		07/10/17 11:51		
Percent Moisture Sample: B-1		% 4015239600		0.10 d: 06/23/17		Received: 06/		atrix: Water	
						Received: 06/		atrix: Water CAS No.	Qual
Sample: B-1	Lab ID:	4015239600	2 Collected	d: 06/23/17	7 12:45		/28/17 10:05 Ma		Qual
Sample: B-1 Parameters	Lab ID:	4015239600 Units	2 Collected	d: 06/23/17	7 12:45		/28/17 10:05 Ma	CAS No.	Qual
Sample: B-1 Parameters WIGRO GCV	Lab ID: Results Analytical	4015239600 Units Method: WI N	2 Collected LOQ MOD GRO	d: 06/23/17 LOD	7 12:45 DF		/28/17 10:05 Ma Analyzed	CAS No.	Qual
Sample: B-1 Parameters WIGRO GCV Benzene	Lab ID: Results Analytical 297	Units Method: WI Nug/L	2 Collected LOQ MOD GRO 2.5	d: 06/23/17 LOD 0.99	7 12:45 DF 2.5		/28/17 10:05 Ma Analyzed 06/30/17 20:17	CAS No. 71-43-2 100-41-4	Qual
Sample: B-1 Parameters WIGRO GCV Benzene Ethylbenzene	Lab ID: Results Analytical 297 52.1	Units Method: WI Nug/Lug/L	LOQ MOD GRO 2.5 2.5	d: 06/23/17 LOD 0.99 0.98	7 12:45 DF 2.5 2.5		28/17 10:05 Ma Analyzed 06/30/17 20:17 06/30/17 20:17	71-43-2 100-41-4 1634-04-4	Qual
Sample: B-1 Parameters WIGRO GCV Benzene Ethylbenzene Methyl-tert-butyl ether	Lab ID: Results Analytical 297 52.1 <1.2	Units Method: WI Nug/Lug/Lug/Lug/L	2 Collected LOQ MOD GRO 2.5 2.5 2.5	0.99 0.98 1.2	7 12:45 DF 2.5 2.5 2.5 2.5		28/17 10:05 Ma Analyzed 06/30/17 20:17 06/30/17 20:17 06/30/17 20:17	71-43-2 100-41-4 1634-04-4 91-20-3	Qual
Sample: B-1 Parameters WIGRO GCV Benzene Ethylbenzene Methyl-tert-butyl ether Naphthalene	Lab ID: Results Analytical 297 52.1 <1.2 4.6	Units Method: WI N ug/L ug/L ug/L ug/L ug/L	2 Collected LOQ MOD GRO 2.5 2.5 2.5 2.5	0.99 0.98 1.2 1.1	7 12:45 DF 2.5 2.5 2.5 2.5 2.5		28/17 10:05 Ma Analyzed 06/30/17 20:17 06/30/17 20:17 06/30/17 20:17 06/30/17 20:17	71-43-2 100-41-4 1634-04-4 91-20-3 108-88-3	Qual
Parameters WIGRO GCV Benzene Ethylbenzene Methyl-tert-butyl ether Naphthalene Toluene 1,2,4-Trimethylbenzene	Lab ID: Results Analytical 297 52.1 <1.2 4.6 14.1	Units Method: WI N ug/L ug/L ug/L ug/L ug/L ug/L ug/L	2 Collected LOQ MOD GRO 2.5 2.5 2.5 2.5 2.5	0.99 0.98 1.2 1.1 0.97	7 12:45 DF 2.5 2.5 2.5 2.5 2.5 2.5		28/17 10:05 Ma Analyzed 06/30/17 20:17 06/30/17 20:17 06/30/17 20:17 06/30/17 20:17 06/30/17 20:17	71-43-2 100-41-4 1634-04-4 91-20-3 108-88-3 95-63-6	Qual
Sample: B-1 Parameters WIGRO GCV Benzene Ethylbenzene Methyl-tert-butyl ether Naphthalene Toluene	Lab ID: Results Analytical 297 52.1 <1.2 4.6 14.1 84.2	Units Method: WI Nug/Lug/Lug/Lug/Lug/Lug/Lug/Lug/Lug/Lug/L	2 Collected LOQ MOD GRO 2.5 2.5 2.5 2.5 2.5 2.5	0.99 0.98 1.2 1.1 0.97	7 12:45 DF 2.5 2.5 2.5 2.5 2.5 2.5 2.5		28/17 10:05 Ma Analyzed 06/30/17 20:17 06/30/17 20:17 06/30/17 20:17 06/30/17 20:17 06/30/17 20:17 06/30/17 20:17	71-43-2 100-41-4 1634-04-4 91-20-3 108-88-3 95-63-6 108-67-8	Qual
Parameters WIGRO GCV Benzene Ethylbenzene Methyl-tert-butyl ether Naphthalene Toluene 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene	Lab ID: Results Analytical 297 52.1 <1.2 4.6 14.1 84.2 28.6	Units Method: WI N ug/L ug/L	2 Collected LOQ MOD GRO 2.5 2.5 2.5 2.5 2.5 2.5 2.5	0.99 0.98 1.2 1.1 0.97 1.0	7 12:45 DF 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5		28/17 10:05 Ma Analyzed 06/30/17 20:17 06/30/17 20:17 06/30/17 20:17 06/30/17 20:17 06/30/17 20:17 06/30/17 20:17	71-43-2 100-41-4 1634-04-4 91-20-3 108-88-3 95-63-6 108-67-8 179601-23-1	Qual
Sample: B-1 Parameters WIGRO GCV Benzene Ethylbenzene Methyl-tert-butyl ether Naphthalene Toluene 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene m&p-Xylene	Lab ID: Results Analytical 297 52.1 <1.2 4.6 14.1 84.2 28.6 60.8	Units Method: WI Nug/Lug/Lug/Lug/Lug/Lug/Lug/Lug/Lug/Lug/L	2 Collected LOQ MOD GRO 2.5 2.5 2.5 2.5 2.5 2.5 5.0	0.99 0.98 1.2 1.1 0.97 1.0 2.0	7 12:45 DF 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5		28/17 10:05 Ma Analyzed 06/30/17 20:17 06/30/17 20:17 06/30/17 20:17 06/30/17 20:17 06/30/17 20:17 06/30/17 20:17 06/30/17 20:17 06/30/17 20:17	71-43-2 100-41-4 1634-04-4 91-20-3 108-88-3 95-63-6 108-67-8 179601-23-1	Qual

Sample: B-2, 7' Lab ID: 40152396003 Collected: 06/23/17 13:00 Received: 06/28/17 10:05 Matrix: Solid Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical	Method: WI M	IOD GRO F	reparation N	Method	: TPH GRO/PVO	C WI ext.		
Benzene	<25.0	ug/kg	60.0	25.0	1	06/29/17 07:45	06/29/17 12:07	71-43-2	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/29/17 07:45	06/29/17 12:07	100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	06/29/17 07:45	06/29/17 12:07	1634-04-4	W
Naphthalene	<25.0	ug/kg	60.0	25.0	1	06/29/17 07:45	06/29/17 12:07	91-20-3	W



Project: STAUDE
Pace Project No.: 40152396

1,2,4-Trimethylbenzene

1,3,5-Trimethylbenzene

a,a,a-Trifluorotoluene (S)

Date: 07/11/2017 08:09 AM

m&p-Xylene

Surrogates

o-Xylene

Sample: B-2, 7' Lab ID: 40152396003 Collected: 06/23/17 13:00 Received: 06/28/17 10:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qua
WIGRO GCV	Analytical	Method: WI MC	DD GRO P	eparation N	/lethod	: TPH GRO/PVO	C WI ext.		
Toluene	<25.0	ug/kg	60.0	25.0	1	06/29/17 07:45	06/29/17 12:07	108-88-3	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/29/17 07:45	06/29/17 12:07	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/29/17 07:45	06/29/17 12:07	108-67-8	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	06/29/17 07:45	06/29/17 12:07	179601-23-1	W
o-Xylene Surrogates	<25.0	ug/kg	60.0	25.0	1	06/29/17 07:45	06/29/17 12:07	95-47-6	W
a,a,a-Trifluorotoluene (S)	105	%	80-120		1	06/29/17 07:45	06/29/17 12:07	98-08-8	
Percent Moisture	Analytical	Method: ASTM	D2974-87						
Percent Moisture	12.7	%	0.10	0.10	1		07/10/17 13:24		
Sample: B-2	Lab ID:	40152396004	Collected	d: 06/23/17	7 13:15	Received: 06/	28/17 10:05 Ma	atrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qua
WIGRO GCV	Analytical	Method: WI MC	DD GRO						
Benzene	1.2	ug/L	1.0	0.40	1		06/29/17 10:33	71-43-2	
Ethylbenzene	0.58J	ug/L	1.0	0.39	1		06/29/17 10:33	100-41-4	
Methyl-tert-butyl ether	<0.48	ug/L	1.0	0.48	1		06/29/17 10:33	1634-04-4	
Naphthalene	<0.42	ug/L	1.0	0.42	1		06/29/17 10:33	91-20-3	
Toluene	0.39J	ug/L	1.0	0.39	1		06/29/17 10:33	108-88-3	

Sample: B-3, 7'	Lab ID: 40152396005	Collected: 06/23/17 13:30	Received: 06/28/17 10:05	Matrix: Solid
Results reported on a "dry weight" ba	sis and are adjusted for p	ercent moisture, sample siz	e and any dilutions.	

1.0

1.0

2.0

1.0

80-120

0.42

0.42

0.80

0.45

1

1

1

1

06/29/17 10:33 95-63-6

06/29/17 10:33 95-47-6

06/29/17 10:33 98-08-8

06/29/17 10:33 108-67-8

06/29/17 10:33 179601-23-1

0.52J

< 0.42

<0.80

< 0.45

108

ug/L

ug/L

ug/L

ug/L

%

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical	Method: WI I	MOD GRO Pr	eparation N	/lethod	: TPH GRO/PVO	C WI ext.		
Benzene	<25.0	ug/kg	60.0	25.0	1	06/29/17 07:45	06/29/17 12:33	71-43-2	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/29/17 07:45	06/29/17 12:33	100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	06/29/17 07:45	06/29/17 12:33	1634-04-4	W
Naphthalene	<25.0	ug/kg	60.0	25.0	1	06/29/17 07:45	06/29/17 12:33	91-20-3	W
Toluene	<25.0	ug/kg	60.0	25.0	1	06/29/17 07:45	06/29/17 12:33	108-88-3	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/29/17 07:45	06/29/17 12:33	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/29/17 07:45	06/29/17 12:33	108-67-8	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	06/29/17 07:45	06/29/17 12:33	179601-23-1	W

REPORT OF LABORATORY ANALYSIS

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Project: STAUDE
Pace Project No.: 40152396

Date: 07/11/2017 08:09 AM

Sample: B-3, 7' Lab ID: 40152396005 Collected: 06/23/17 13:30 Received: 06/28/17 10:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical	Method: WI I	MOD GRO Pre	eparation N	/lethod:	TPH GRO/PVOC	C WI ext.		
o-Xylene	<25.0	ug/kg	60.0	25.0	1	06/29/17 07:45	06/29/17 12:33	95-47-6	W
Surrogates a,a,a-Trifluorotoluene (S)	106	%	80-120		1	06/29/17 07:45	06/29/17 12:33	98-08-8	
Percent Moisture	Analytical	Method: AST	TM D2974-87						
Percent Moisture	8.2	%	0.10	0.10	1		07/10/17 13:24		

Sample: B-4 7 1/2' Lab ID: 40152396006 Collected: 06/23/17 14:05 Received: 06/28/17 10:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical	Method: WI	MOD GRO Pr	eparation N	/lethod	I: TPH GRO/PVO	C WI ext.		
Benzene	<50.0	ug/kg	120	50.0	2	06/29/17 07:45	06/29/17 16:23	71-43-2	W
Ethylbenzene	4760	ug/kg	131	54.7	2	06/29/17 07:45	06/29/17 16:23	100-41-4	
Methyl-tert-butyl ether	<50.0	ug/kg	120	50.0	2	06/29/17 07:45	06/29/17 16:23	1634-04-4	W
Naphthalene	2230	ug/kg	131	54.7	2	06/29/17 07:45	06/29/17 16:23	91-20-3	
Toluene	<50.0	ug/kg	120	50.0	2	06/29/17 07:45	06/29/17 16:23	108-88-3	W
1,2,4-Trimethylbenzene	10200	ug/kg	131	54.7	2	06/29/17 07:45	06/29/17 16:23	95-63-6	
1,3,5-Trimethylbenzene	3030	ug/kg	131	54.7	2	06/29/17 07:45	06/29/17 16:23	108-67-8	
m&p-Xylene	7750	ug/kg	262	109	2	06/29/17 07:45	06/29/17 16:23	179601-23-1	
o-Xylene	229	ug/kg	131	54.7	2	06/29/17 07:45	06/29/17 16:23	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	107	%	80-120		2	06/29/17 07:45	06/29/17 16:23	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	8.5	%	0.10	0.10	1		07/10/17 13:24		

Sample: B-3	Lab ID: 40152396007	Collected: 06	6/23/17 14:20	Received:	06/28/17 10:05	Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical	Method: WI	MOD GRO						
Benzene	0.45J	ug/L	1.0	0.40	1		06/29/17 10:58	71-43-2	
Ethylbenzene	< 0.39	ug/L	1.0	0.39	1		06/29/17 10:58	100-41-4	
Methyl-tert-butyl ether	<0.48	ug/L	1.0	0.48	1		06/29/17 10:58	1634-04-4	
Naphthalene	<0.42	ug/L	1.0	0.42	1		06/29/17 10:58	91-20-3	
Toluene	0.47J	ug/L	1.0	0.39	1		06/29/17 10:58	108-88-3	
1,2,4-Trimethylbenzene	<0.42	ug/L	1.0	0.42	1		06/29/17 10:58	95-63-6	
1,3,5-Trimethylbenzene	<0.42	ug/L	1.0	0.42	1		06/29/17 10:58	108-67-8	
m&p-Xylene	<0.80	ug/L	2.0	0.80	1		06/29/17 10:58	179601-23-1	
o-Xylene	<0.45	ug/L	1.0	0.45	1		06/29/17 10:58	95-47-6	



Project: STAUDE
Pace Project No.: 40152396

Date: 07/11/2017 08:09 AM

Pace Project No.: 40152396									
Sample: B-3	Lab ID:	40152396007	Collected	: 06/23/17	14:20	Received: 06/	/28/17 10:05 N	latrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical	Method: WI MC	DD GRO						
Surrogates a,a,a-Trifluorotoluene (S)	108	%	80-120		1		06/29/17 10:58	3 98-08-8	рН
Sample: B-5, 8'		40152396008		: 06/23/17	_			latrix: Solid	
Results reported on a "dry wei	ight" basis and ar	e adjusted for _l	oercent moi	sture, san	nple si	ze and any diluti	ions.		
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical	Method: WI MC	DD GRO Pre	eparation N	/lethod:	TPH GRO/PVO	C WI ext.		
Benzene	<25.0	ug/kg	60.0	25.0	1	06/29/17 07:45	06/29/17 12:58	3 71-43-2	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/29/17 07:45	06/29/17 12:58	3 100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	06/29/17 07:45	06/29/17 12:58		W
Naphthalene	<25.0	ug/kg	60.0	25.0	1	06/29/17 07:45			W
Toluene	<25.0	ug/kg	60.0	25.0	1	06/29/17 07:45			W
1,2,4-Trimethylbenzene	<25.0	ug/kg ug/kg	60.0	25.0	1	06/29/17 07:45			W
1,3,5-Trimethylbenzene	<25.0	ug/kg ug/kg	60.0	25.0	1	06/29/17 07:45	06/29/17 12:58		W
• •	<50.0	ug/kg ug/kg	120	50.0	1	06/29/17 07:45		3 179601-23-1	
m&p-Xylene o-Xylene					1		06/29/17 12:58		W
Surrogates	<25.0	ug/kg	60.0	25.0	1	06/29/17 07:45	06/29/17 12:56	95-47-6	VV
a,a,a-Trifluorotoluene (S)	105	%	80-120		1	06/29/17 07:45	06/29/17 12:58	8 98-08-8	
•					•	00/23/11 01.43	00/25/17 12.50	30-00-0	
Percent Moisture	Anaiyiicai	Method: ASTM	D2974-07						
Percent Moisture	9.5	%	0.10	0.10	1		07/10/17 13:24	ļ	
Sample: B-4	Lab ID:	40152396009	Collected	: 06/23/17	15:00	Received: 06/	/28/17 10:05 N	latrix: Water	
	5 "	11.5						0404	0 1
Parameters	Results -	Units -	LOQ _	LOD .	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical	Method: WI MC	DD GRO						
Benzene	892	ug/L	10.0	4.0	10		06/30/17 20:42	2 71-43-2	
Ethylbenzene	788	ug/L	10.0	3.9	10		06/30/17 20:42	2 100-41-4	
Methyl-tert-butyl ether	<4.8	ug/L	10.0	4.8	10		06/30/17 20:42	2 1634-04-4	
Naphthalene	18.6	ug/L	10.0	4.2	10		06/30/17 20:42	91-20-3	
	2010	ug/L	10.0	3.9	10		06/30/17 20:42	2 108-88-3	
Toluene			40.0	4.0	10		06/30/17 20:42	05-63-6	
	608	ug/L	10.0	4.2	10		00/30/11 20.42	. 90-00-0	
1,2,4-Trimethylbenzene	608 183	ug/L ug/L	10.0	4.2	10		06/30/17 20:42		
1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene		ug/L					06/30/17 20:42		
1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene m&p-Xylene	183 1370	ug/L ug/L	10.0 20.0	4.2	10		06/30/17 20:42	2 108-67-8 2 179601-23-1	
Toluene 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene m&p-Xylene o-Xylene Surrogates	183	ug/L	10.0	4.2 8.0	10 10		06/30/17 20:42 06/30/17 20:42	2 108-67-8 2 179601-23-1	

REPORT OF LABORATORY ANALYSIS

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Project: STAUDE
Pace Project No.: 40152396

Date: 07/11/2017 08:09 AM

	Lab ID: 40152396010				Received: 06/28/17 10:05 Matrix: Water			•	
Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual	
Analytical	Method: WI MC	DD GRO							
9.3	ug/L	1.0	0.40	1		06/29/17 11:24	71-43-2		
< 0.39	ug/L	1.0	0.39	1		06/29/17 11:24	100-41-4		
<0.48	ug/L	1.0	0.48	1		06/29/17 11:24	1634-04-4		
<0.42	ug/L	1.0	0.42	1		06/29/17 11:24	91-20-3		
0.85J	ug/L	1.0	0.39	1		06/29/17 11:24	108-88-3		
<0.42	ug/L	1.0	0.42	1		06/29/17 11:24	95-63-6		
<0.42	ug/L	1.0	0.42	1		06/29/17 11:24	108-67-8		
<0.80	ug/L	2.0	0.80	1		06/29/17 11:24	179601-23-1	ı	
<0.45	ug/L	1.0	0.45	1		06/29/17 11:24	95-47-6		
108	%	80-120		1		06/29/17 11:24	98-08-8	рН	
	9.3 <0.39 <0.48 <0.42 0.85J <0.42 <0.42 <0.42 <0.45	9.3 ug/L <0.39 ug/L <0.48 ug/L <0.42 ug/L <0.85J ug/L <0.42 ug/L <0.42 ug/L <0.42 ug/L <0.42 ug/L <0.45 ug/L <0.45 ug/L	Analytical Method: WI MOD GRO 9.3 ug/L 1.0 <0.39 ug/L 1.0 <0.48 ug/L 1.0 <0.42 ug/L 1.0 <0.85J ug/L 1.0 <0.42 ug/L 1.0 <0.42 ug/L 1.0 <0.42 ug/L 1.0 <0.45 ug/L 1.0 <0.45 ug/L 1.0	Analytical Method: WI MOD GRO 9.3	Analytical Method: WI MOD GRO 9.3 ug/L 1.0 0.40 1 <0.39 ug/L 1.0 0.39 1 <0.48 ug/L 1.0 0.48 1 <0.42 ug/L 1.0 0.42 1 0.85J ug/L 1.0 0.39 1 <0.42 ug/L 1.0 0.39 1 <0.42 ug/L 1.0 0.42 1 <0.42 ug/L 1.0 0.42 1 <0.42 ug/L 1.0 0.42 1 <0.42 ug/L 1.0 0.45 1	Analytical Method: WI MOD GRO 9.3	Analytical Method: WI MOD GRO 9.3 ug/L 1.0 0.40 1 06/29/17 11:24 <0.39 ug/L 1.0 0.39 1 06/29/17 11:24 <0.48 ug/L 1.0 0.48 1 06/29/17 11:24 <0.42 ug/L 1.0 0.42 1 06/29/17 11:24 0.85J ug/L 1.0 0.39 1 06/29/17 11:24 <0.42 ug/L 1.0 0.39 1 06/29/17 11:24 <0.42 ug/L 1.0 0.42 1 06/29/17 11:24 <0.42 ug/L 1.0 0.42 1 06/29/17 11:24 <0.42 ug/L 1.0 0.42 1 06/29/17 11:24 <0.40 ug/L 2.0 0.80 1 06/29/17 11:24 <0.45 ug/L 1.0 0.45 1 06/29/17 11:24	9.3 ug/L 1.0 0.40 1 06/29/17 11:24 71-43-2 <0.39	

Sample: B-6, 9-10 Lab ID: 40152396011 Collected: 06/23/17 15:30 Received: 06/28/17 10:05 Matrix: Solid Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical	Method: WI	MOD GRO Pr	eparation N	/lethod	: TPH GRO/PVOC	C WI ext.		
Benzene	<25.0	ug/kg	60.0	25.0	1	06/29/17 07:45	06/29/17 13:24	71-43-2	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/29/17 07:45	06/29/17 13:24	100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	06/29/17 07:45	06/29/17 13:24	1634-04-4	W
Naphthalene	<25.0	ug/kg	60.0	25.0	1	06/29/17 07:45	06/29/17 13:24	91-20-3	W
Toluene	<25.0	ug/kg	60.0	25.0	1	06/29/17 07:45	06/29/17 13:24	108-88-3	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/29/17 07:45	06/29/17 13:24	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/29/17 07:45	06/29/17 13:24	108-67-8	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	06/29/17 07:45	06/29/17 13:24	179601-23-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	06/29/17 07:45	06/29/17 13:24	95-47-6	W
Surrogates									
a,a,a-Trifluorotoluene (S)	104	%	80-120		1	06/29/17 07:45	06/29/17 13:24	98-08-8	
Percent Moisture	Analytical	Method: AST	TM D2974-87						
Percent Moisture	11.0	%	0.10	0.10	1		07/10/17 13:24		

Sample: B-1, 19' Lab ID: 40152396012 Collected: 06/23/17 12:15 Received: 06/28/17 10:05 Matrix: Solid Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical	Method: WI	MOD GRO Pr	eparation N	/lethod	I: TPH GRO/PVO	C WI ext.		
Benzene	4390	ug/kg	66.8	27.8	1	06/29/17 07:45	06/29/17 15:06	71-43-2	
Ethylbenzene	1720	ug/kg	66.8	27.8	1	06/29/17 07:45	06/29/17 15:06	100-41-4	
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	06/29/17 07:45	06/29/17 15:06	1634-04-4	W
Naphthalene	<25.0	ug/kg	60.0	25.0	1	06/29/17 07:45	06/29/17 15:06	91-20-3	W



Project: STAUDE
Pace Project No.: 40152396

Date: 07/11/2017 08:09 AM

Sample: B-1, 19' Lab ID: 40152396012 Collected: 06/23/17 12:15 Received: 06/28/17 10:05 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical	Method: WI	MOD GRO P	reparation N	/lethod	: TPH GRO/PVO	C WI ext.		
Toluene	865	ug/kg	66.8	27.8	1	06/29/17 07:45	06/29/17 15:06	108-88-3	
1,2,4-Trimethylbenzene	111	ug/kg	66.8	27.8	1	06/29/17 07:45	06/29/17 15:06	95-63-6	
1,3,5-Trimethylbenzene	43.9J	ug/kg	66.8	27.8	1	06/29/17 07:45	06/29/17 15:06	108-67-8	
m&p-Xylene	3420	ug/kg	134	55.7	1	06/29/17 07:45	06/29/17 15:06	179601-23-1	
o-Xylene	2340	ug/kg	66.8	27.8	1	06/29/17 07:45	06/29/17 15:06	95-47-6	
Surrogates a,a,a-Trifluorotoluene (S)	108	%	80-120		1	06/29/17 07:45	06/29/17 15:06	98-08-8	
Percent Moisture	Analytical	Method: AST	ΓM D2974-87						
Percent Moisture	10.2	%	0.10	0.10	1		07/10/17 13:24		



QUALITY CONTROL DATA

Project: STAUDE
Pace Project No.: 40152396

Date: 07/11/2017 08:09 AM

QC Batch: 260097 Analysis Method: WI MOD GRO
QC Batch Method: TPH GRO/PVOC WI ext. Analysis Description: WIGRO Solid GCV

Associated Lab Samples: 40152396001, 40152396003, 40152396005, 40152396006, 40152396008, 40152396011, 40152396012

METHOD BLANK: 1532276 Matrix: Solid

Associated Lab Samples: 40152396001, 40152396003, 40152396005, 40152396006, 40152396008, 40152396011, 40152396012

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	<25.0	50.0	06/29/17 08:43	
1,3,5-Trimethylbenzene	ug/kg	<25.0	50.0	06/29/17 08:43	
Benzene	ug/kg	<25.0	50.0	06/29/17 08:43	
Ethylbenzene	ug/kg	<25.0	50.0	06/29/17 08:43	
m&p-Xylene	ug/kg	<50.0	100	06/29/17 08:43	
Methyl-tert-butyl ether	ug/kg	<25.0	50.0	06/29/17 08:43	
Naphthalene	ug/kg	<25.0	50.0	06/29/17 08:43	
o-Xylene	ug/kg	<25.0	50.0	06/29/17 08:43	
Toluene	ug/kg	<25.0	50.0	06/29/17 08:43	
a,a,a-Trifluorotoluene (S)	%	106	80-120	06/29/17 08:43	

LABORATORY CONTROL SAMPL	E & LCSD: 1532277		15	32278						
		Spike	LCS	LCSD	LCS	LCSD	% Rec		Max	
Parameter	Units	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	1000	1030	1030	103	103	80-120	0	20	
1,3,5-Trimethylbenzene	ug/kg	1000	1000	999	100	100	80-120	0	20	
Benzene	ug/kg	1000	988	996	99	100	80-120	1	20	
Ethylbenzene	ug/kg	1000	991	1000	99	100	80-120	1	20	
m&p-Xylene	ug/kg	2000	1980	2000	99	100	80-120	1	20	
Methyl-tert-butyl ether	ug/kg	1000	998	993	100	99	80-120	1	20	
Naphthalene	ug/kg	1000	1070	1070	107	107	80-120	0	20	
o-Xylene	ug/kg	1000	995	1000	100	100	80-120	1	20	
Toluene	ug/kg	1000	993	1000	99	100	80-120	1	20	
a,a,a-Trifluorotoluene (S)	%				109	109	80-120			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALITY CONTROL DATA

Project: STAUDE
Pace Project No.: 40152396

Date: 07/11/2017 08:09 AM

QC Batch: 260096 Analysis Method: WI MOD GRO
QC Batch Method: WI MOD GRO Analysis Description: WIGRO GCV Water
Associated Lab Samples: 40152396002, 40152396004, 40152396007, 40152396009, 40152396010

METHOD BLANK: 1532273 Matrix: Water

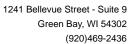
Associated Lab Samples: 40152396002, 40152396004, 40152396007, 40152396009, 40152396010

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/L	<0.42	1.0	06/29/17 08:42	
1,3,5-Trimethylbenzene	ug/L	< 0.42	1.0	06/29/17 08:42	
Benzene	ug/L	< 0.40	1.0	06/29/17 08:42	
Ethylbenzene	ug/L	< 0.39	1.0	06/29/17 08:42	
m&p-Xylene	ug/L	<0.80	2.0	06/29/17 08:42	
Methyl-tert-butyl ether	ug/L	<0.48	1.0	06/29/17 08:42	
Naphthalene	ug/L	< 0.42	1.0	06/29/17 08:42	
o-Xylene	ug/L	< 0.45	1.0	06/29/17 08:42	
Toluene	ug/L	< 0.39	1.0	06/29/17 08:42	
a,a,a-Trifluorotoluene (S)	%	106	80-120	06/29/17 08:42	

LABORATORY CONTROL SAMPL	E & LCSD: 153227	4	15	32275			•	•	•	•
		Spike	LCS	LCSD	LCS	LCSD	% Rec		Max	
Parameter	Units	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/L	20	18.3	18.4	92	92	80-120	0	20	
1,3,5-Trimethylbenzene	ug/L	20	17.6	17.5	88	88	80-120	0	20	
Benzene	ug/L	20	21.3	21.1	107	105	80-120	1	20	
Ethylbenzene	ug/L	20	20.7	20.5	104	102	80-120	1	20	
m&p-Xylene	ug/L	40	39.8	39.4	100	98	80-120	1	20	
Methyl-tert-butyl ether	ug/L	20	20.1	19.8	100	99	80-120	1	20	
Naphthalene	ug/L	20	19.8	20.0	99	100	80-120	1	20	
o-Xylene	ug/L	20	20.0	20.0	100	100	80-120	0	20	
Toluene	ug/L	20	20.4	20.5	102	102	80-120	0	20	
a,a,a-Trifluorotoluene (S)	%				105	108	80-120			

MATRIX SPIKE & MATRIX SP	PIKE DUPLICA	TE: 15330	92		1533093							
			MS	MSD								
	4	0152396009	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
1,2,4-Trimethylbenzene	ug/L	608	200	200	794	797	93	95	11-200	0	20	
1,3,5-Trimethylbenzene	ug/L	183	200	200	353	357	85	87	54-142	1	20	
Benzene	ug/L	892	200	200	1100	1110	107	108	66-140	0	20	
Ethylbenzene	ug/L	788	200	200	1000	1010	107	109	66-143	0	20	
m&p-Xylene	ug/L	1370	400	400	1770	1780	100	102	60-141	0	20	
Methyl-tert-butyl ether	ug/L	<4.8	200	200	179	180	89	90	70-129	1	20	
Naphthalene	ug/L	18.6	200	200	202	205	92	93	64-129	2	20	
o-Xylene	ug/L	281	200	200	476	472	98	96	68-132	1	20	
Toluene	ug/L	2010	200	200	2260	2270	125	127	76-130	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





QUALITY CONTROL DATA

Project: STAUDE Pace Project No.: 40152396

Date: 07/11/2017 08:09 AM

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1533092 1533093

MS MSD 40152396009 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Conc. Conc. Result % Rec % Rec RPD RPD Qual Result Result Limits % a,a,a-Trifluorotoluene (S) 105 106 80-120

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

(920)469-2436



QUALITY CONTROL DATA

Project:

STAUDE

Pace Project No.:

40152396

QC Batch:

261016

QC Batch Method:

Parameter

ASTM D2974-87

40152396001

Analysis Method:

ASTM D2974-87

Analysis Description:

Dry Weight/Percent Moisture

Associated Lab Samples: SAMPLE DUPLICATE: 1537336

Date: 07/11/2017 08:09 AM

40152390011

Result

Dup Result

Max **RPD** RPD

Qualifiers

Percent Moisture

Units %

13.7

13.1

5 10

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

(920)469-2436



QUALITY CONTROL DATA

Project: STAUDE
Pace Project No.: 40152396

QC Batch: 261040 Analysis Method: ASTM D2974-87

QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 40152396003, 40152396005, 40152396006, 40152396008, 40152396011, 40152396012

SAMPLE DUPLICATE: 1537419

Date: 07/11/2017 08:09 AM

40152939010 Dup Max Parameter Units Result Result **RPD** RPD Qualifiers 12.2 % 2 Percent Moisture 12.0 10

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALIFIERS

Project: STAUDE
Pace Project No.: 40152396

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-G Pace Analytical Services - Green Bay

ANALYTE QUALIFIERS

Date: 07/11/2017 08:09 AM

W Non-detect results are reported on a wet weight basis.

pH Post-analysis pH measurement indicates insufficient VOA sample preservation.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: STAUDE
Pace Project No.: 40152396

Date: 07/11/2017 08:09 AM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40152396001	—— B-1, 7'	TPH GRO/PVOC WI ext.	260097	WI MOD GRO	260154
40152396003	B-2, 7'	TPH GRO/PVOC WI ext.	260097	WI MOD GRO	260154
40152396005	B-3, 7'	TPH GRO/PVOC WI ext.	260097	WI MOD GRO	260154
40152396006	B-4 7 1/2'	TPH GRO/PVOC WI ext.	260097	WI MOD GRO	260154
40152396008	B-5, 8'	TPH GRO/PVOC WI ext.	260097	WI MOD GRO	260154
40152396011	B-6, 9-10	TPH GRO/PVOC WI ext.	260097	WI MOD GRO	260154
40152396012	B-1, 19'	TPH GRO/PVOC WI ext.	260097	WI MOD GRO	260154
40152396002	B-1	WI MOD GRO	260096		
40152396004	B-2	WI MOD GRO	260096		
40152396007	B-3	WI MOD GRO	260096		
40152396009	B-4	WI MOD GRO	260096		
40152396010	B-5	WI MOD GRO	260096		
40152396001	B-1, 7'	ASTM D2974-87	261016		
40152396003	B-2, 7'	ASTM D2974-87	261040		
40152396005	B-3, 7'	ASTM D2974-87	261040		
40152396006	B-4 7 1/2'	ASTM D2974-87	261040		
40152396008	B-5, 8'	ASTM D2974-87	261040		
40152396011	B-6, 9-10	ASTM D2974-87	261040		
40152396012	B-1, 19'	ASTM D2974-87	261040		

ORIGINAL

OK / Adjusted Cooler CustodY Seal Present Not Present Intact/ Not Intact Version 60 06/1408	Date/Time:	Received By:	Date/Time: Date/Time:	Relinquished By:		phone: Samples on HOLD are subject to special pricing and release of liability	Telephone: Fax: sp
Sample Receipt pH	Date/Ime:	Nocored Cy.					Email #2:
Receipt Temp =	www par ulain	5	aps/m ras	CS (US)157728 Relinquished By	Transmit Prelim Rush Results by (complete what you want):	elim Rush Results	Transmit Pr Email #1:
PACE Project No.	Date/Time:	Received By:	Date/Time: AUM 6/271/7	Relinquished By: Relinquished By: Relinquished By:	pproval/surcharge)	TAT subject to a Date Needed:	(Rush
					and the second s	rearried Time	
19 F	<		*	1215 5	191	3-1	929
-4000 A			7	1530 5	912	1.—	01
	3-40mL, B		B	Lw 161 21		B-5	000
	3-40ml,6		メ	1500 Jun		13-	283
~40to^			≺	1490 5	8	8.5	2
٠	(3-40mmb		*	1920 Cm	5	13-	69, ×
1-4000x			3	1405 5	71/2	2/2	2000
1-4020 x			Z	1330 5	7	33	23
	(3-40mlub		73	131500		3.2	25
1-4020 A			3	1300 5	-1	3-2	33
	(3.40mc B		4	1245 Cm)		Bil	83
T-4020x			<u> </u>	1200 5	7 6123	3-1	8
(Lab Use Only)	COMMENTS		P	TIME MATRIX	CLIENT FIELD ID DATE		PACE LAB #
LAB COMMENTS	CHENT			Waste Water Vipe	your sample S = Soil		
	Invoice To Phone:		[+h,	DW = Drinking Water GW = Ground Water SW = Surface Water	(billable) C = Charcoal	EPA Level III	
	* (.)		сири	trix Codes	MS/MSD A=AI	Data Package Options (billable)	Data Pac
	Invoice To Address:		1.				P0 #:
	Invoice To Company:				3		Sampled By (Sign):
. 100 100 101	Invoice To Contact:		100	PRESERVATION Pick (CODE)* Letter	Robus Sumour		Sampled By (Print):
manda and			7	FILTERED? (YES/NO) Y/N	Jusconsi'n		Project State:
2531 Durason 1200/			l=Sodium Thiosulfate	H=Sodium Bisulfate Solution	Stande		Project Name:
Section Section Assessment	Mail To Company:	F≂Methanoi G≔NaOH	*Preservation Codes C=H2SO4 D=HNO3 E=DI Water F=Me	A=None B=HCL (_	Project Number:
Patrice Co	Mail To Contact:	004	AN OF CUST	9	2259	683	Phone:
	Quote #:		мем. ресенар сот		Robus Sinnour		Project Contact:
20172396			ace Analytical "	Pac			Branch/Location:
	612-607-1700 WI: 920-469-2436	MN: 612-607-17	ı		Limition		Company Name:

UPPER MIDWEST REGION MN: 612-607-1700 **WI**: 920-469-2436

Company Name:

(Please Print Clearly)

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of 21

APPENDIX B BORING LOGS

	y/Projec								ct Number			e/Perm		nitoring	Number
Staud	le Prop	erty]	10813	.01			B-1	4 - 11	1		
On-si	Drilled	by ny Kani	ugi) Seymour Environmental (Robyn	Sevi	mo:	11r)					Date Ir 06/23	nstalled /17	1		
Boring B-1	g or Wel	l Number	WI Unique Well Number (assigned by DNI	₹)		E	Borehole 2-inch		eter		Water : 7-8		S	urface E	levation
	of NE	1/4 of S	ection 4 T 8 N R 15	Е	,	+			ı (if applica		, 0				
Coun	ity .	Jefferso	on County Code 28			(Civil T	Town	Wate	rtowi	1				
S A	R E C	D E		W		D I			Stable	<u> </u>	Soil P	roper	ties	1	
M	О	P	SOIL/ROCK	E		A	U	RQ	О	L				_	Blow
P L E	V E R Y	T H (ft)	DESCRIPTION	L		G R A M	S C S	D	V M (vppm)	q	W	LL	PL	P200	Count
1			Gravel Medium brown silty sand			.,,	SM		0						
	48	5	Brown silty clay				CL		0						
2	42		Brown silty clay				CL		1500						
		10					ML								
3	38		Gray slightly clayey silt				ML		1080						
		15													
4			Gray clayey silt, sl sand, wet				ML		800						
		20	Appeared to be saturated												
5									90						
		25	End of boring												
			Set temp well, water came to 7.7												
				$\left \cdot \right $											
G:	4	י ה	(E.	0	F			4-1 C			
Signa	uure	Koky	n Lymour				гIII	ı. se	ymour E	iviro	ııııen	ıaı Se	rvice	s, inc.	

Date Installed On-site (Tony Kapugi) Seymour Environmental (Robyn Seymour) Date Installed On-site (Tony Kapugi) Seymour Environmental (Robyn Seymour) One of (23/17)		y/Projec le Prop								Seymou 10813		ct Number		Licens B-2	e/Perm	it/Mor	itoring	Number
B-2	Boring	g Drilled	by								.01			Date In		l		
B-2	On-s	ite (To	ny Kapi	ugi) Se	ymour Enviro	nmental (l	Robyn S	Seyn	nour	·)	- D:	-4		06/23	5/17	C-	£	14:
SW vof NE vof Section 4	B-2	g or wei	i Number	WIU	mique wen Num	ber (assigned	а ву DNR	.)		2-inch		leter			Levei	SI	iriace E	levation
S		of NE	½ 1/4 of S	ection _	4 T 8	N R	_15_	Е				n (if applica						
Solid Properties Solid Prope	Coun	•	Jefferso	n	County Cod	e 28				Civil 7	own	Wate	ertowi	n				
P	A	E C	E		SOII /P	OCK		1	I		PO	1	S	Soil P	roper	ties		Plow
1 60 Grass Silty topsoil Brown silty clay 5 SM 0 CL 0 CL 0 SM 0 ML ML ML 0.2 SM 0 ML ML 0.2 SM 0 ML ML ML ML ML ML ML	P L	V E R	T H					L	G R A	S C S		V M	q	W	LL	PL	P200	
S Brown silty clay CL 0 SM 0 ML ML O.2 SM O ML O.2 O O O O O O O O O	1	60								SM		0						
10		00	5	Brow	vn silty clay					CL		0						
Gray slightly clayey silt ML 0.2	2	60		Sligh	atly silty fine s	sand				SM		0						
3 60 15 End of boring ML 0.2			10	C	-1:-1-411	:14				ML								
	3	60		Gray	slightly claye	ey siit				ML		0.2						
Signature 12-language Environmental Services Inc.			15	End	of boring													
Signature Rule Services Inc.																		
Signature Polonia Control Services Inc.																		
Signature Rule - Common Services Inc.																		
Signature Robert Services Inc.																		
Signature Poly and Sarvings Inc.																		
Signature Poly and Sarvings Inc.																		
Signature Poly - Company Saymour Environmental Sarvices Inc.																		
Signature Poly - Company Figure Proving Inc.																		
AUCHDONING TO A VICTOR OF THE SEVERAL SERVICES THE	Sions	ature	Pah	24 0	11/21/					Firn): Se	vmour F	nviro	nmen	tal Se	ervice	s. Inc	

Facilit	y/Projec	t Name												ct Number		Licens	e/Perm	it/Mor	nitoring	Number
Staud	le Prop	erty									1	0813	.01			B-3				
Boring	Drilled	by		4.1 /D	-1	٦		\						nstalled	l		
On-si	ite (10	ny Kapı l Number	ugi) Se	ymou	r Envii	onmer	ntal (Ro ssigned b	obyn S	Seyr	noı	ır)	oreholo	Diam	otor		06/23 Water		C,	ırfaaa E	levation
B-3	g or wen	Number	WIC	mque	wen Nu	mber (as	ssigned	ру рик	.)			-inch		ieter		7-8	Level	31	uriace E	ievation
	of NE	½ of S	ection	4	T 8	N	R	15	Е					n (if applica		, 0				
Coun		– Jefferso			nty Co		28					ivil T			ertow	n				
Coun	R .		·11	Cou	iny Co	uc .	20		I			71 V 11 1	OWII	vv acc	I to w					
S	Е	D									ь					rail D	roper		1	
A	C	E			COII	ROCK			W		I	11	DO.	Stable		OII F	roper	1168		D1
M P	O V	P T				ROCK			E L		A G	U S	RQ D	O V						Blow Count
L	Е	Н							L		R	C	_	M						
Е	R Y	(ft)									A M	S		(vppm)	q	W	LL	PL	P200	
	-		Gras	SS							**									
1			Silty	topso	il							SM		0						
	60																			
														0						
		5									ļ									
			~	. ,								~~ /								
2	60		Silty	clay/	clayey	sılt						CL/		0						
		10										ML								
		10	Prox	vn cilt	y sand				-		ŀ									
3	60		BIOV	WII SIII	y Sand							SM		0						
												DIVI								
		15	End	of bor	ing															
											İ									
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									-		ŀ									
									1		Ì									
									-		ŀ									
Signa	iture	Pah	n Sup									Firm	1 Se	ymour E	nviro	nmen	tal Se	rvice	s Inc	
Sigile		KOKKY	n Oly	ywww'								1 11 11	. 50	, incui L	, 110		50	. , 100	., 1110.	

Boring Dering by Done Statistical One Statistical One Statistical One On		y/Projec le Prop								eymou 0813		ct Number		License B-4	e/Perm	it/Mor	itoring	Number
Boringor Well Number	Boring	g Drilled	by						'	0010	.01			Date Ir]		
B-4	On-s	ite (To	ny Kapı	ugi) Se	ymour Environ	mental (Robyn	Sey	moı	ır)	orahal	Diam	atar		06/23	/17	Ç,	ırfaaa E	lavation
SW		g or wer	i Nullibei	WIU	inique wen Numb	er (assigned by Div	IK)				Diam	etei			Levei	31	ii iace E	ievation
S		of NE	½ of Se	ection _	4 T 8	N R 15	Е	,		Grid L	ocation	ı (if applica	able)					
S	Coun	-	Jefferso	n	County Code	28			С	ivil T	`own	Wate	ertowi	1				
P	A	E C	Е		SOIL/RC	OCK	- 1	7	I	U	RO			Soil P	roper	ties		Blow
1 60 Silty topsoil Brown silt, slight clay and sand 5 Silty sand with sl gravel 2 60 Silty sand 10 Hydrocarbon odor Brown silty sand, slight odor No odor 15 End of boring SM 0 SM	P L	V E R	T H				L	. (G R A	S C		V M	q	W	LL	PL	P200	
SM SM O Silty sand with sl gravel 2 60 Silty sand 10 Hydrocarbon odor Brown silty sand, slight odor No odor 15 End of boring SM O SM O SM O 1	60		Silty	topsoil	ay and sand				ML									
3 60 Brown silty sand, slight odor No odor 15 End of boring SM O SM			5	Silty	sand with sl gr	ravel				SM		0						
Brown silty sand, slight odor No odor End of boring SM 90 SM 0	2	60		Silty	sand					SM		0						
3 60 No odor End of boring SM 0			10															
No odor End of boring 0	3	60		Brow	vn silty sand, sl	light odor				SM		90						
Signature Robert Countries Firm: Seymour Environmental Services Inc.	3	00	15							5111		0						
Signature Pohya Sugara Firm: Seymour Environmental Services Inc.																		
Signature Pohya Quagra Firm: Seymour Environmental Services Inc.							_											
Signature Pohya Sugara Firm: Seymour Environmental Services Inc.																		
Signature Pohya Sugara Firm: Seymour Environmental Services Inc.							-											
Signature Pohyo Suguras Firm: Seymour Environmental Services Inc.																		
Signature Pohor Sugarante Firm: Seymour Environmental Services Inc.																		
Signature Pohya Sugara Firm: Seymour Environmental Services Inc.																		
Signature Pohor Sugara Firm: Seymour Environmental Services Inc.																		
Signature Pohou Sugara Firm: Seymour Environmental Services Inc.							_											
Signature Value Sugara Firm: Seymour Environmental Services Inc.																		
	Sions	ature	Pah	a, a(Firm	r Se	vmour F	nviro	nmen	tal Se	rvice	s Inc	

	y/Projec											ect Number			se/Perm	nit/Mon	nitoring	Number
	le Prop									10813	.01			B-5				
Boring	g Drilled	by	nai) C-	111111 (23)	Envisor:	nantal (D -	h., C	107		`					nstalled	i		
Boring	or Well	ny Kapı l Number	ugi) Se	ymour Inique W	LIIVITONN ell Number	nental (Ro (assigned by	v DNP	eyn	10ur) Borehol	e Dian	neter		06/23 Water	1 evel	S	urface F	levation
B-5	, 01 11 011		**1 (inque W	on rannoci	(assigned 0	, 101111	•)		2-inch		10101		7-8	LCVCI	3	ariace E	io varion
	of NE	_ 1/4 of S	ection _	4 T	_8_ N	N R _	15	Е		Grid I	ocatio	n (if applica	able)					
Coun		Jefferso	n	Coun	ty Code	28				Civil 7	Γown	Wate	ertow	n				
s	R E	D							D					~				
A	С	E			COIL /BO	TIZ		W	I	1,1	DO.	Stable		Soil P	roper	ties		D1
M P	O V	P T		I	SOIL/ROO DESCRIPT			E L	A G	U S	RQ D	O V						Blow Count
L E	E R	H (ft)						L	R A	CS		M (vppm)	q	W	LL	PL	P200	
	Y	(11)							M			('PPIII)	•		_		1	
1			Gras Silty	s topsoil	1				1			0						
1	60			clay						ML								
			J	J								0						
		5	Silty	sand v	vith sl gra	ivel				SM								
2	60		Silty	sand						SM		0						
-			Silty	Surra														
		10																
3	60			vn silty	sand, so	me gravel	+			SM		0						
3	00		clay							SIVI		0						
		15	End	of bori	ng													
															+			
-															+			
															-			
Signa	ıture	Rober	n Sup	MOUN						Firn	n: Se	ymour E	nviro	nmer	ıtal Se	ervice	es, Inc.	
		JOU MOY	.c wy	, 550 00								-					,	

Facilit	y/Project	t Name				Seymou	ır Proje	ct Number		License	e/Perm			Number
Staud	le Prop	erty				10813				B-6				
Boring	Drilled	by	ugi) Saymour Environmental (Dohan S	27/100	(011m)					Date In 06/23	nstalled /17			
Boring	or Well	Number	ugi) Seymour Environmental (Robyn Se r WI Unique Well Number (assigned by DNR)	C y II	I	Borehol	e Diam	eter		Water]		Su	ırface E	levation
B-6	,		1 (C ,		2	2-inch				7-8				
SW 1/4	of NE	_ ½ of S	Section <u>4</u> T <u>8</u> N R <u>15</u>	E		Grid L	ocation	n (if applica	ble)					
Coun	ty J	Jefferso	on County Code 28		(Civil 7	Town	Wate	rtowi	n				
S	R E	D			D								- I	
A	C	Е		W	I			Stable	S	Soil P	ropert	ies		
M P	O V	P T	SOIL/ROCK DESCRIPTION	E L	A G	U S	RQ D	O V						Blow Count
L	Е	Н	BESCRII HOIV	L	R	C		M						Count
Е	R Y	(ft)			A M	S		(vppm)	q	W	LL	PL	P200	
			Concrete											
1			Gravel					0						
	60		Moist black clayey silt			ML		0						
		5	Silty sand with sl gravel			SM		0						
2	60		Silty sand with clay			SM		0						
		10	End of boring											
		10	End of cornig											
C:	. + 1 1	, ה	(E:		F			to 1.0		д Т	
Signa	uure	Koky	n Lymon			rırn	ı: Se	ymour Ei	iviro	ıımen	ıaı Se	ivice	s, inc.	