

October 23, 2019

State of Wisconsin  
Department of Natural Resources  
Timothy Zeichert  
PO Box 7921  
Madison, WI 53707-7921

Re: Letter Report - Soil Excavation, Transportation, and Landfill Disposal  
Lenny's Service Center, 1500 Rawson Avenue, South Milwaukee, Wisconsin  
BRRTS #03-41-003443

Dear Mr. Zeichert:

On September 12, 2019 AEA requested approval of scope and cost for the excavation, transportation, and disposal of petroleum contaminated soil at Lenny's. This change order request included costs for the following:

- Specification and bidding for the excavation, transportation, and disposal of contaminated soil;
- A presumed cost for the excavation, transportation and disposal of contaminated soil at U&C costs;
- Sidewall and excavation bottom sampling after soil removal in 10 locations with PVOC+naphthalene;
- Water level checking (evaluation for free product) and well abandonment - MW-26;
- Monitoring well sampling for 2 quarters post soil removal (MW-15, MW-16, MW-23, MW-24 and MW-27).

In your letter to AEA dated September 24, 2019 you provided approval for the scope of work. Further approval was provided by you for additional soil removal in a text dated October 14, 2019 and in an email dated October 17, 2019.

This letter and attachments constitutes a letter report to document soil removal and soil sampling activities. This letter also updates data tables and figures.

**Contractor Specification and Bidding.** The specifications for bidding and bidding results from two of the contactors contacted are attached. As provided, EK Construction of South Milwaukee, Wisconsin provided the lowest bid and was the selected contractor.

**Water Level - MW-26.** The water level was checked in MW-26 prior to excavation activities. There was no water in the well and approximately 3-feet of product in the well.

### **Documentation of Soil Excavation, Transportation, and Disposal**

Soil excavation, transportation, and disposal activities were performed on October 4, October 5, and October 9, 2019. Overburden soil was segregated and soil with petroleum staining, odors, and elevated headspace readings from a photoionization detector were excavated and removed from the Property. The extent of the excavation and confirmation soil sample locations are indicated on the attached Excavation Documentation Figure. The total amount of material removed was 1,108 tons as documented on the attached Waste Management report.

### **Soil Laboratory Results**

Confirmation samples were obtained from the resulting excavation and submitted to Pace Laboratories for PVOC analysis including naphthalene. The Pace Laboratory analytical results are attached and the results are summarized on the attached Table A.2 Soil Sampling Results - Post Excavation. The laboratory results confirm that benzene was detected in the laboratory blank and exceeded the Wisconsin Administrative Code Natural Resources Chapter 720 (NR 720) Residual Contaminant Level (RCL) for groundwater protection in all samples. Only one sample from EX2-1 had any other compound exceeding the NR 720 RCLs. The benzene results are provided on the attached Excavation Documentation Figure along with the results of sampling from the previous excavation activities on the site. The sampling results confirm that the petroleum impacts were substantially removed from the Property and residual impacts that remain are de-minimis.

Unless otherwise requested by the WDNR, tasks that remain include sampling for 2 quarters MW-15, MW-16, MW-23, MW-24 and MW-27. AEA anticipates requesting closure from the WDNR after completing the groundwater sampling.

If we can provide you with any additional information or if you require clarification, please call me at (262) 781-4646.

Sincerely,



Gregory S. Walsh, PE  
ASSURED ENVIRONMENTAL ASSOCIATES, INC.

## Request For Bid

Assured Environmental Associates, Inc. (AEA) requests bids for excavation, transportation, and disposal of soil from an excavation at the site listed below. This request for bid will establish unit rates for soil removal activities.

Site Name: Lenny's Service Center

Address: 1500 Rawson Avenue, South Milwaukee, Wisconsin

Scope of Work: This task consists of labor and equipment to conduct a limited remedial excavation to remove and dispose of contaminated soils, costs for the excavator, transportation, and backfill the excavation.

Landfill Costs of \$23/ton and fuel surcharge fees of \$1/ton will be paid by Assured Environmental Associates, Inc.

Bid Price: Estimated Quantity: 500 tons quote: \$\_\_\_\_\_ /ton

Total Estimate \$\_\_\_\_\_

Please respond to : Greg Walsh, AEA via email at [aea@wi.com](mailto:aea@wi.com)

Mr. Eric Kreckler  
EK Construction, LLC  
1107 Montana Ave  
South Milwaukee, WI 53172

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Assured Environmental Associates, Inc. (AEA) requests bids for excavation, transportation, and disposal of soil from an excavation at the site listed below. This request for bid will establish unit rates for soil removal activities.

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Address: 1500 Rawson Avenue, South Milwaukee, Wisconsin  
Scope of Work: This task consists of labor and equipment to conduct a limited remedial excavation to remove and dispose of contaminated soils, costs for the excavator, transportation, and backfill the excavation.

Bid excludes landfill Costs of \$23/ton disposal, \$1.00 per ton fuel surcharge

Bid Price: Estimated Quantity: 500 tons  
quote: \$37.80/ton  
Total Estimate \$18,900.00

Please respond to : Greg Walsh, AEA via email at [aea@wi.com](mailto:aea@wi.com)

Signature:   
Mr. Eric Kreckler  
EEK Enterprises LLC

Mr. Scott Kolinski  
Scott Enterprises

### Request For Bid

Assured Environmental Associates, Inc. (AEA) requests bids for excavation, transportation, and disposal of soil from an excavation at the site listed below. This request for bid will establish unit rates for soil removal activities.

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Bid excludes landfill Costs of \$23/ton disposal, \$1.00 per ton fuel surcharge

Bid Price: Estimated Quantity: 500 tons

quote: \$ 40 /ton

Total Estimate

\$ 20,000 —

Please respond to : Greg Walsh, AEA via email at [aea@wi.com](mailto:aea@wi.com)

Signature: Scott Kolinski

Mr. Scott Kolinski

Scott Enterprises



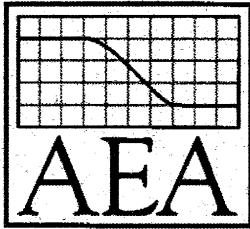


Table A.2.<sup>1</sup>  
 Soil Sampling Results - Post Excavation  
 Lenny's Service Center  
 1500 Rawson Avenue  
 South Milwaukee, Wisconsin

Analyte	NR 720 RCL			EX2-01 10' bgs	EX2-02 10' bgs	EX2-03 10' bgs
	Non-Industrial Direct Contact	Industrial Direct Contact	Groundwater			
BENZENE	1.6	7.07	0.0051	<b>0.0468B</b>	<b>0.0131BJ</b>	<b>0.178B</b>
TOLUENE	818	NS	1.1072	0.0454	<0.00830	0.0606B
ETHYLBENZENE	8.02	35.4	1.57	<b>4.77</b>	0.00929BJ	0.0122BJ
M&P-XYLENE	260	260	3.96	<b>6.27</b>	0.0255BJ	0.0783B
O-XYLENE				<b>0.37</b>	0.00748BJ	0.0233BJ
METHYL TERT-BUTYL ETHER	63.8	282	0.027	<b>0.07</b>	<0.00824	0.0135J
NAPHTHALENE	5.52	24.1	0.6528	<b>5.75J6</b>	<0.0536	<0.0786
1,3,5-TRIMETHYLBENZENE	182	293	1.3821	<b>2.39</b>	<0.00423	<0.00620
1,2,4-TRIMETHYLBENZENE	219	NS		<b>10.1V</b>	0.0306B	0.014BJ

Analyte	NR 720 RCL			EX2-04 10' bgs	EX2-05 10' bgs	EX2-06 8' bgs
	Non-Industrial Direct Contact	Industrial Direct Contact	Groundwater			
BENZENE	1.6	7.07	0.0051	<b>0.00734BJ</b>	<b>0.00677BJ</b>	<b>0.00661BJ</b>
TOLUENE	818	NS	1.1072	<0.00990	<0.00993	<0.00910
ETHYLBENZENE	8.02	35.4	1.57	0.0192	<0.00561	<0.00514
M&P-XYLENE	260	260	3.96	1.22	0.0207BJ	0.0122BJ
O-XYLENE				0.0172J	<0.00592	<0.00543
METHYL TERT-BUTYL ETHER	63.8	282	0.027	<0.00984	<0.00987	<0.00904
NAPHTHALENE	5.52	24.1	0.6528	0.435	<0.0641	<0.0588
1,3,5-TRIMETHYLBENZENE	182	293	1.3821	0.0175B	0.00528BJ	<0.00463
1,2,4-TRIMETHYLBENZENE	219	NS		0.075B	0.0185BJ	0.0098BJ

<sup>1</sup> All concentrations in milligrams per kilogram or ppm. NS = No Standard. Bold concentrations exceed the NR 720 Residual Contaminant Level (RCL) for the protection of groundwater. Underlined exceeds non-industrial direct contact RCL. Underlined exceeds the non-industrial direct contact RCL, and italicized exceeds the industrial direct contact RCL. All samples from unsaturated soil. Samples collected 4/5/18. Sample depth presented as feet below ground surface - ' bgs.

Qualifiers: J: The identification of the analyte is acceptable; the reported value is an estimate.

J6: The sample matrix interfered with the ability to make any accurate determination; spike value is low.

V: The sample concentration is too high to evaluate accurate spike recoveries.

B: The same analyte is found in the associated blank.

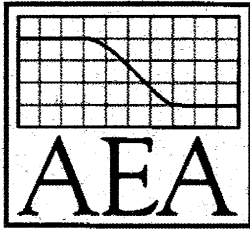


Table A.2.<sup>2</sup>  
 Soil Sampling Results - Post Excavation  
 Lenny's Service Center  
 1500 Rawson Avenue  
 South Milwaukee, Wisconsin

Analyte	NR 720 RCL			EX2-07	EX2-08
	Non-Industrial Direct Contact	Industrial Direct Contact	Groundwater	12' bgs	8' bgs
BENZENE	1.6	7.07	0.0051	<b>0.00804BJ</b>	<b>0.00753BJ</b>
TOLUENE	818	NS	1.1072	<0.00852	<0.00880
ETHYLBENZENE	8.02	35.4	1.57	<0.00481	<0.00497
M&P-XYLENE	260	260	3.96	0.0122BJ	0.0116BJ
O-XYLENE				<0.00508	<0.00525
METHYL TERT-BUTYL ETHER	63.8	282	0.027	<0.00846	<0.00874
NAPHTHALENE	5.52	24.1	0.6528	<0.0550	<0.0568
1,3,5-TRIMETHYLBENZENE	182	293	1.3821	<0.00434	<0.00448
1,2,4-TRIMETHYLBENZENE	219	NS		0.0121BJ	0.00791BJ

Analyte	NR 720 RCL			EX2-09	EX2-10
	Non-Industrial Direct Contact	Industrial Direct Contact	Groundwater	15' bgs	10' bgs
BENZENE	1.6	7.07	0.0051	<b>0.0072BJ</b>	<b>0.0063BJ</b>
TOLUENE	818	NS	1.1072	<0.00934	<0.00921
ETHYLBENZENE	8.02	35.4	1.57	<0.00528	<0.00521
M&P-XYLENE	260	260	3.96	0.0095BJ	<0.00881
O-XYLENE				<0.00557	<0.00549
METHYL TERT-BUTYL ETHER	63.8	282	0.027	<0.00928	<0.00915
NAPHTHALENE	5.52	24.1	0.6528	<0.0603	<0.0595
1,3,5-TRIMETHYLBENZENE	182	293	1.3821	<0.00476	<0.00469
1,2,4-TRIMETHYLBENZENE	219	NS		<0.00621	<0.00612

<sup>2</sup> All concentrations in milligrams per kilogram or ppm. NS = No Standard. Bold concentrations exceed the NR 720 Residual Contaminant Level (RCL) for the protection of groundwater. Underlined exceeds non-industrial direct contact RCL. Underlined exceeds the non-industrial direct contact RCL, and italicized exceeds the industrial direct contact RCL. All samples from unsaturated soil. Samples collected 4/5/18. Sample depth presented as feet below ground surface - ' bgs.

Qualifiers: J: The identification of the analyte is acceptable; the reported value is an estimate.

B: The same analyte is found in the associated blank.



## Assured Environmental Associates, Inc

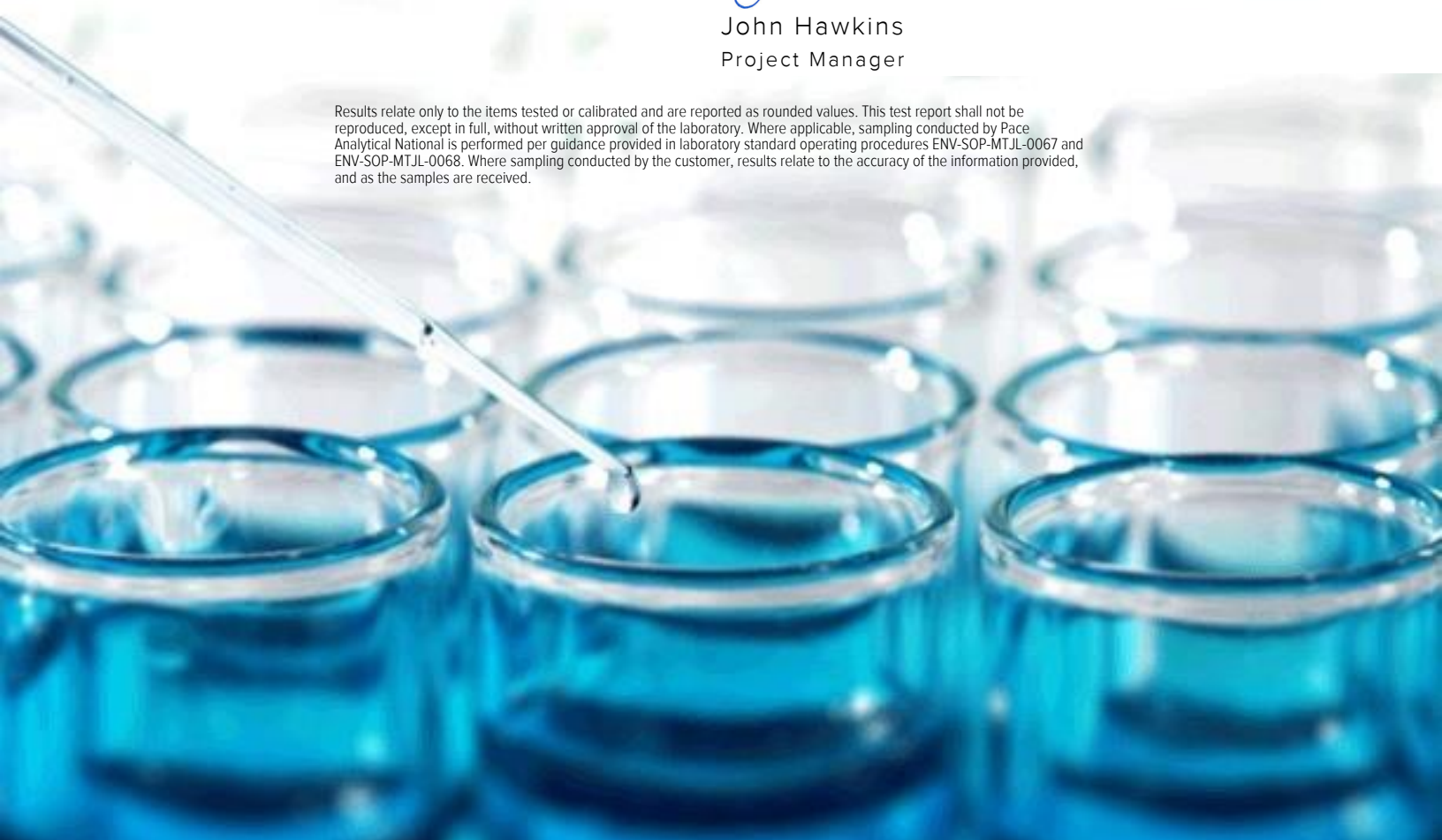
Sample Delivery Group: L1149036  
Samples Received: 10/11/2019  
Project Number:  
Description:  
Site: Lennys  
Report To: Gregory Walsh  
14120 West Glendale Avenue  
Brookfield, WI 53005

Entire Report Reviewed By:












John Hawkins  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.





<b>Cp: Cover Page</b>	<b>1</b>	
<b>Tc: Table of Contents</b>	<b>2</b>	
<b>Ss: Sample Summary</b>	<b>3</b>	
<b>Cn: Case Narrative</b>	<b>5</b>	
<b>Sr: Sample Results</b>	<b>6</b>	
EX2-01 L1149036-01	6	
EX2-02 L1149036-02	7	
EX2-03 L1149036-03	8	
EX2-04 L1149036-04	9	
EX2-05 L1149036-05	10	
EX2-06 L1149036-06	11	
EX2-07 L1149036-07	12	
EX2-08 L1149036-08	13	
EX2-09 L1149036-09	14	
EX2-10 L1149036-10	15	
<b>Qc: Quality Control Summary</b>	<b>16</b>	
Total Solids by Method 2540 G-2011	16	
Volatile Organic Compounds (GC) by Method 8021B/WI(95) GRO	17	
<b>Gl: Glossary of Terms</b>	<b>20</b>	
<b>Al: Accreditations &amp; Locations</b>	<b>21</b>	
<b>Sc: Sample Chain of Custody</b>	<b>22</b>	

# SAMPLE SUMMARY



## EX2-01 L1149036-01 Solid

Collected by Michael Goy  
Collected date/time 10/05/19 09:00  
Received date/time 10/11/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1364820	1	10/18/19 14:12	10/18/19 14:32	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021B/WI(95) GRO	WG1363132	1	10/05/19 09:00	10/15/19 12:19	BMB	Mt. Juliet, TN

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## EX2-02 L1149036-02 Solid

Collected by Michael Goy  
Collected date/time 10/05/19 09:00  
Received date/time 10/11/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1364820	1	10/18/19 14:12	10/18/19 14:32	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021B/WI(95) GRO	WG1362767	1	10/05/19 09:00	10/15/19 03:01	BMB	Mt. Juliet, TN

## EX2-03 L1149036-03 Solid

Collected by Michael Goy  
Collected date/time 10/05/19 09:00  
Received date/time 10/11/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1364820	1	10/18/19 14:12	10/18/19 14:32	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021B/WI(95) GRO	WG1362767	1	10/05/19 09:00	10/15/19 03:26	BMB	Mt. Juliet, TN

## EX2-04 L1149036-04 Solid

Collected by Michael Goy  
Collected date/time 10/05/19 09:00  
Received date/time 10/11/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1364820	1	10/18/19 14:12	10/18/19 14:32	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021B/WI(95) GRO	WG1363132	1	10/05/19 09:00	10/15/19 12:44	BMB	Mt. Juliet, TN

## EX2-05 L1149036-05 Solid

Collected by Michael Goy  
Collected date/time 10/09/19 10:00  
Received date/time 10/11/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1364820	1	10/18/19 14:12	10/18/19 14:32	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021B/WI(95) GRO	WG1363132	1	10/09/19 10:00	10/15/19 13:09	BMB	Mt. Juliet, TN

## EX2-06 L1149036-06 Solid

Collected by Michael Goy  
Collected date/time 10/09/19 10:00  
Received date/time 10/11/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1364820	1	10/18/19 14:12	10/18/19 14:32	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021B/WI(95) GRO	WG1363132	1	10/09/19 10:00	10/15/19 13:34	BMB	Mt. Juliet, TN

## EX2-07 L1149036-07 Solid

Collected by Michael Goy  
Collected date/time 10/09/19 10:00  
Received date/time 10/11/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1364820	1	10/18/19 14:12	10/18/19 14:32	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021B/WI(95) GRO	WG1363132	1	10/09/19 10:00	10/15/19 13:58	BMB	Mt. Juliet, TN

# SAMPLE SUMMARY

## EX2-08 L1149036-08 Solid

Collected by  
Michael Goy  
Collected date/time  
10/09/19 10:00  
Received date/time  
10/11/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1364820	1	10/18/19 14:12	10/18/19 14:32	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021B/WI(95) GRO	WG1363132	1	10/09/19 10:00	10/15/19 14:23	BMB	Mt. Juliet, TN

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## EX2-09 L1149036-09 Solid

Collected by  
Michael Goy  
Collected date/time  
10/09/19 10:00  
Received date/time  
10/11/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1364820	1	10/18/19 14:12	10/18/19 14:32	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021B/WI(95) GRO	WG1363132	1	10/09/19 10:00	10/15/19 14:47	BMB	Mt. Juliet, TN

## EX2-10 L1149036-10 Solid

Collected by  
Michael Goy  
Collected date/time  
10/09/19 10:00  
Received date/time  
10/11/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1364820	1	10/18/19 14:12	10/18/19 14:32	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021B/WI(95) GRO	WG1363132	1	10/09/19 10:00	10/15/19 15:12	BMB	Mt. Juliet, TN



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

John Hawkins  
Project Manager

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Gl
- <sup>8</sup> Al
- <sup>9</sup> Sc



Collected date/time: 10/05/19 09:00

L1149036

## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.5		1	10/18/2019 14:32	<a href="#">WG1364820</a>

## Volatile Organic Compounds (GC) by Method 8021B/WI(95) GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	0.0468	<u>B</u>	0.00554	0.0185	1	10/15/2019 12:19	<a href="#">WG1363132</a>
Toluene	0.0454		0.0101	0.0337	1	10/15/2019 12:19	<a href="#">WG1363132</a>
Ethylbenzene	4.77		0.00572	0.0191	1	10/15/2019 12:19	<a href="#">WG1363132</a>
m&p-Xylene	6.27		0.00969	0.0323	1	10/15/2019 12:19	<a href="#">WG1363132</a>
o-Xylene	0.370		0.00604	0.0201	1	10/15/2019 12:19	<a href="#">WG1363132</a>
Methyl tert-butyl ether	0.0700		0.0101	0.0336	1	10/15/2019 12:19	<a href="#">WG1363132</a>
Naphthalene	5.75	<u>J6</u>	0.0654	0.218	1	10/15/2019 12:19	<a href="#">WG1363132</a>
1,3,5-Trimethylbenzene	2.39		0.00516	0.0172	1	10/15/2019 12:19	<a href="#">WG1363132</a>
1,2,4-Trimethylbenzene	10.1	<u>V</u>	0.00673	0.0224	1	10/15/2019 12:19	<a href="#">WG1363132</a>
TPH (GC/FID) Low Fraction	57.4	<u>J6</u>	0.692	2.30	1	10/15/2019 12:19	<a href="#">WG1363132</a>
(S) a,a,a-Trifluorotoluene(PID)	140			80.0-200		10/15/2019 12:19	<a href="#">WG1363132</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.0		1	10/18/2019 14:32	<a href="#">WG1364820</a>

## Volatile Organic Compounds (GC) by Method 8021B/WI(95) GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	0.0131	<u>B J</u>	0.00453	0.0151	1	10/15/2019 03:01	<a href="#">WG1362767</a>
Toluene	U		0.00830	0.0276	1	10/15/2019 03:01	<a href="#">WG1362767</a>
Ethylbenzene	0.00929	<u>B J</u>	0.00469	0.0157	1	10/15/2019 03:01	<a href="#">WG1362767</a>
m&p-Xylene	0.0255	<u>B J</u>	0.00794	0.0265	1	10/15/2019 03:01	<a href="#">WG1362767</a>
o-Xylene	0.00748	<u>B J</u>	0.00495	0.0165	1	10/15/2019 03:01	<a href="#">WG1362767</a>
Methyl tert-butyl ether	U		0.00824	0.0275	1	10/15/2019 03:01	<a href="#">WG1362767</a>
Naphthalene	U		0.0536	0.178	1	10/15/2019 03:01	<a href="#">WG1362767</a>
1,3,5-Trimethylbenzene	U		0.00423	0.0141	1	10/15/2019 03:01	<a href="#">WG1362767</a>
1,2,4-Trimethylbenzene	0.0306	<u>B</u>	0.00551	0.0183	1	10/15/2019 03:01	<a href="#">WG1362767</a>
TPH (GC/FID) Low Fraction	13.2		0.567	1.89	1	10/15/2019 03:01	<a href="#">WG1362767</a>
(S) a,a,a-Trifluorotoluene(PID)	101			80.0-200		10/15/2019 03:01	<a href="#">WG1362767</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	66.2		1	10/18/2019 14:32	<a href="#">WG1364820</a>

## Volatile Organic Compounds (GC) by Method 8021B/WI(95) GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	0.178	<u>B</u>	0.00665	0.0222	1	10/15/2019 03:26	<a href="#">WG1362767</a>
Toluene	0.0606	<u>B</u>	0.0122	0.0405	1	10/15/2019 03:26	<a href="#">WG1362767</a>
Ethylbenzene	0.0122	<u>B J</u>	0.00688	0.0230	1	10/15/2019 03:26	<a href="#">WG1362767</a>
m&p-Xylene	0.0783	<u>B</u>	0.0116	0.0388	1	10/15/2019 03:26	<a href="#">WG1362767</a>
o-Xylene	0.0233	<u>B J</u>	0.00725	0.0242	1	10/15/2019 03:26	<a href="#">WG1362767</a>
Methyl tert-butyl ether	0.0135	<u>J</u>	0.0121	0.0403	1	10/15/2019 03:26	<a href="#">WG1362767</a>
Naphthalene	U		0.0786	0.261	1	10/15/2019 03:26	<a href="#">WG1362767</a>
1,3,5-Trimethylbenzene	U		0.00620	0.0207	1	10/15/2019 03:26	<a href="#">WG1362767</a>
1,2,4-Trimethylbenzene	0.0140	<u>B J</u>	0.00808	0.0269	1	10/15/2019 03:26	<a href="#">WG1362767</a>
TPH (GC/FID) Low Fraction	2.19	<u>B J</u>	0.831	2.77	1	10/15/2019 03:26	<a href="#">WG1362767</a>
(S) a,a,a-Trifluorotoluene(PID)	101			80.0-200		10/15/2019 03:26	<a href="#">WG1362767</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.3		1	10/18/2019 14:32	<a href="#">WG1364820</a>

## Volatile Organic Compounds (GC) by Method 8021B/WI(95) GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	0.00734	<u>B</u> <u>J</u>	0.00541	0.0181	1	10/15/2019 12:44	<a href="#">WG1363132</a>
Toluene	U		0.00990	0.0330	1	10/15/2019 12:44	<a href="#">WG1363132</a>
Ethylbenzene	0.0192		0.00560	0.0187	1	10/15/2019 12:44	<a href="#">WG1363132</a>
m&p-Xylene	1.22		0.00947	0.0316	1	10/15/2019 12:44	<a href="#">WG1363132</a>
o-Xylene	0.0172	<u>J</u>	0.00591	0.0197	1	10/15/2019 12:44	<a href="#">WG1363132</a>
Methyl tert-butyl ether	U		0.00984	0.0328	1	10/15/2019 12:44	<a href="#">WG1363132</a>
Naphthalene	0.435		0.0640	0.213	1	10/15/2019 12:44	<a href="#">WG1363132</a>
1,3,5-Trimethylbenzene	0.0175	<u>B</u>	0.00504	0.0169	1	10/15/2019 12:44	<a href="#">WG1363132</a>
1,2,4-Trimethylbenzene	0.0750	<u>B</u>	0.00658	0.0219	1	10/15/2019 12:44	<a href="#">WG1363132</a>
TPH (GC/FID) Low Fraction	2.83	<u>B</u>	0.677	2.25	1	10/15/2019 12:44	<a href="#">WG1363132</a>
(S) a,a,a-Trifluorotoluene(PID)	102			80.0-200		10/15/2019 12:44	<a href="#">WG1363132</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.1		1	10/18/2019 14:32	<a href="#">WG1364820</a>

## Volatile Organic Compounds (GC) by Method 8021B/WI(95) GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	0.00677	<u>B J</u>	0.00543	0.0181	1	10/15/2019 13:09	<a href="#">WG1363132</a>
Toluene	U		0.00993	0.0330	1	10/15/2019 13:09	<a href="#">WG1363132</a>
Ethylbenzene	U		0.00561	0.0187	1	10/15/2019 13:09	<a href="#">WG1363132</a>
m&p-Xylene	0.0207	<u>B J</u>	0.00950	0.0317	1	10/15/2019 13:09	<a href="#">WG1363132</a>
o-Xylene	U		0.00592	0.0197	1	10/15/2019 13:09	<a href="#">WG1363132</a>
Methyl tert-butyl ether	U		0.00987	0.0329	1	10/15/2019 13:09	<a href="#">WG1363132</a>
Naphthalene	U		0.0641	0.213	1	10/15/2019 13:09	<a href="#">WG1363132</a>
1,3,5-Trimethylbenzene	0.00528	<u>B J</u>	0.00506	0.0169	1	10/15/2019 13:09	<a href="#">WG1363132</a>
1,2,4-Trimethylbenzene	0.0185	<u>B J</u>	0.00660	0.0219	1	10/15/2019 13:09	<a href="#">WG1363132</a>
TPH (GC/FID) Low Fraction	1.01	<u>B J</u>	0.678	2.26	1	10/15/2019 13:09	<a href="#">WG1363132</a>
(S) a,a,a-Trifluorotoluene(PID)	102			80.0-200		10/15/2019 13:09	<a href="#">WG1363132</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.5		1	10/18/2019 14:32	<a href="#">WG1364820</a>

## Volatile Organic Compounds (GC) by Method 8021B/WI(95) GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	0.00661	<u>B J</u>	0.00497	0.0166	1	10/15/2019 13:34	<a href="#">WG1363132</a>
Toluene	U		0.00910	0.0303	1	10/15/2019 13:34	<a href="#">WG1363132</a>
Ethylbenzene	U		0.00514	0.0172	1	10/15/2019 13:34	<a href="#">WG1363132</a>
m&p-Xylene	0.0122	<u>B J</u>	0.00870	0.0291	1	10/15/2019 13:34	<a href="#">WG1363132</a>
o-Xylene	U		0.00543	0.0181	1	10/15/2019 13:34	<a href="#">WG1363132</a>
Methyl tert-butyl ether	U		0.00904	0.0302	1	10/15/2019 13:34	<a href="#">WG1363132</a>
Naphthalene	U		0.0588	0.196	1	10/15/2019 13:34	<a href="#">WG1363132</a>
1,3,5-Trimethylbenzene	U		0.00463	0.0155	1	10/15/2019 13:34	<a href="#">WG1363132</a>
1,2,4-Trimethylbenzene	0.00980	<u>B J</u>	0.00605	0.0201	1	10/15/2019 13:34	<a href="#">WG1363132</a>
TPH (GC/FID) Low Fraction	0.753	<u>B J</u>	0.622	2.07	1	10/15/2019 13:34	<a href="#">WG1363132</a>
(S) a,a,a-Trifluorotoluene(PID)	101			80.0-200		10/15/2019 13:34	<a href="#">WG1363132</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	94.5		1	10/18/2019 14:32	<a href="#">WG1364820</a>

## Volatile Organic Compounds (GC) by Method 8021B/WI(95) GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	0.00804	<u>B J</u>	0.00466	0.0156	1	10/15/2019 13:58	<a href="#">WG1363132</a>
Toluene	U		0.00852	0.0284	1	10/15/2019 13:58	<a href="#">WG1363132</a>
Ethylbenzene	U		0.00481	0.0161	1	10/15/2019 13:58	<a href="#">WG1363132</a>
m&p-Xylene	0.0122	<u>B J</u>	0.00815	0.0272	1	10/15/2019 13:58	<a href="#">WG1363132</a>
o-Xylene	U		0.00508	0.0169	1	10/15/2019 13:58	<a href="#">WG1363132</a>
Methyl tert-butyl ether	U		0.00846	0.0283	1	10/15/2019 13:58	<a href="#">WG1363132</a>
Naphthalene	U		0.0550	0.183	1	10/15/2019 13:58	<a href="#">WG1363132</a>
1,3,5-Trimethylbenzene	U		0.00434	0.0145	1	10/15/2019 13:58	<a href="#">WG1363132</a>
1,2,4-Trimethylbenzene	0.0121	<u>B J</u>	0.00566	0.0188	1	10/15/2019 13:58	<a href="#">WG1363132</a>
TPH (GC/FID) Low Fraction	1.39	<u>B J</u>	0.582	1.94	1	10/15/2019 13:58	<a href="#">WG1363132</a>
(S) a,a,a-Trifluorotoluene(PID)	102			80.0-200		10/15/2019 13:58	<a href="#">WG1363132</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.5		1	10/18/2019 14:32	<a href="#">WG1364820</a>

## Volatile Organic Compounds (GC) by Method 8021B/WI(95) GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	0.00753	<u>B J</u>	0.00481	0.0161	1	10/15/2019 14:23	<a href="#">WG1363132</a>
Toluene	U		0.00880	0.0293	1	10/15/2019 14:23	<a href="#">WG1363132</a>
Ethylbenzene	U		0.00497	0.0166	1	10/15/2019 14:23	<a href="#">WG1363132</a>
m&p-Xylene	0.0116	<u>B J</u>	0.00842	0.0281	1	10/15/2019 14:23	<a href="#">WG1363132</a>
o-Xylene	U		0.00525	0.0175	1	10/15/2019 14:23	<a href="#">WG1363132</a>
Methyl tert-butyl ether	U		0.00874	0.0292	1	10/15/2019 14:23	<a href="#">WG1363132</a>
Naphthalene	U		0.0568	0.189	1	10/15/2019 14:23	<a href="#">WG1363132</a>
1,3,5-Trimethylbenzene	U		0.00448	0.0150	1	10/15/2019 14:23	<a href="#">WG1363132</a>
1,2,4-Trimethylbenzene	0.00791	<u>B J</u>	0.00585	0.0195	1	10/15/2019 14:23	<a href="#">WG1363132</a>
TPH (GC/FID) Low Fraction	1.11	<u>B J</u>	0.601	2.00	1	10/15/2019 14:23	<a href="#">WG1363132</a>
(S) a,a,a-Trifluorotoluene(PID)	101			80.0-200		10/15/2019 14:23	<a href="#">WG1363132</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	86.2		1	10/18/2019 14:32	<a href="#">WG1364820</a>

## Volatile Organic Compounds (GC) by Method 8021B/WI(95) GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	0.00720	<u>B J</u>	0.00510	0.0171	1	10/15/2019 14:47	<a href="#">WG1363132</a>
Toluene	U		0.00934	0.0311	1	10/15/2019 14:47	<a href="#">WG1363132</a>
Ethylbenzene	U		0.00528	0.0176	1	10/15/2019 14:47	<a href="#">WG1363132</a>
m&p-Xylene	0.00950	<u>B J</u>	0.00893	0.0298	1	10/15/2019 14:47	<a href="#">WG1363132</a>
o-Xylene	U		0.00557	0.0186	1	10/15/2019 14:47	<a href="#">WG1363132</a>
Methyl tert-butyl ether	U		0.00928	0.0310	1	10/15/2019 14:47	<a href="#">WG1363132</a>
Naphthalene	U		0.0603	0.201	1	10/15/2019 14:47	<a href="#">WG1363132</a>
1,3,5-Trimethylbenzene	U		0.00476	0.0159	1	10/15/2019 14:47	<a href="#">WG1363132</a>
1,2,4-Trimethylbenzene	U		0.00621	0.0207	1	10/15/2019 14:47	<a href="#">WG1363132</a>
TPH (GC/FID) Low Fraction	0.956	<u>B J</u>	0.638	2.12	1	10/15/2019 14:47	<a href="#">WG1363132</a>
(S) a,a,a-Trifluorotoluene(PID)	101			80.0-200		10/15/2019 14:47	<a href="#">WG1363132</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 10/09/19 10:00

L1149036

## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.4		1	10/18/2019 14:32	<a href="#">WG1364820</a>

## Volatile Organic Compounds (GC) by Method 8021B/WI(95) GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	0.00630	<u>B J</u>	0.00503	0.0168	1	10/15/2019 15:12	<a href="#">WG1363132</a>
Toluene	U		0.00921	0.0307	1	10/15/2019 15:12	<a href="#">WG1363132</a>
Ethylbenzene	U		0.00521	0.0174	1	10/15/2019 15:12	<a href="#">WG1363132</a>
m&p-Xylene	U		0.00881	0.0294	1	10/15/2019 15:12	<a href="#">WG1363132</a>
o-Xylene	U		0.00549	0.0183	1	10/15/2019 15:12	<a href="#">WG1363132</a>
Methyl tert-butyl ether	U		0.00915	0.0306	1	10/15/2019 15:12	<a href="#">WG1363132</a>
Naphthalene	U		0.0595	0.198	1	10/15/2019 15:12	<a href="#">WG1363132</a>
1,3,5-Trimethylbenzene	U		0.00469	0.0157	1	10/15/2019 15:12	<a href="#">WG1363132</a>
1,2,4-Trimethylbenzene	U		0.00612	0.0204	1	10/15/2019 15:12	<a href="#">WG1363132</a>
TPH (GC/FID) Low Fraction	0.704	<u>B J</u>	0.629	2.09	1	10/15/2019 15:12	<a href="#">WG1363132</a>
(S) a,a,a-Trifluorotoluene(PID)	101			80.0-200		10/15/2019 15:12	<a href="#">WG1363132</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3462690-1 10/18/19 14:32

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Total Solids	0.00200			

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L1149036-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1149036-01 10/18/19 14:32 • (DUP) R3462690-3 10/18/19 14:32

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	79.5	84.0	1	5.54		10

Laboratory Control Sample (LCS)

(LCS) R3462690-2 10/18/19 14:32

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	%	%	%	%	
Total Solids	50.0	50.0	99.9	85.0-115	





Method Blank (MB)

(MB) R3461807-3 10/14/19 22:32

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	0.0124	↓	0.00440	0.0147
Toluene	0.0101	↓	0.00805	0.0268
Ethylbenzene	0.00836	↓	0.00455	0.0152
m&p-Xylenes	0.0291		0.00770	0.0257
o-Xylene	0.00794	↓	0.00480	0.0160
Methyl tert-butyl ether	U		0.00800	0.0267
Naphthalene	U		0.0520	0.173
1,3,5-Trimethylbenzene	0.00638	↓	0.00410	0.0137
1,2,4-Trimethylbenzene	0.0147	↓	0.00535	0.0178
TPH (GC/FID) Low Fraction	1.04	↓	0.550	1.83
<sup>(S)</sup> a,a,a-Trifluorotoluene(PID)	101			80.0-200

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3461807-1 10/14/19 21:19 • (LCSD) R3461807-4 10/15/19 08:21

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	2.50	2.31	2.27	92.4	90.8	80.0-120			1.75	20
Toluene	2.50	2.34	2.31	93.6	92.4	80.0-120			1.29	20
Ethylbenzene	2.50	2.23	2.17	89.2	86.8	80.0-120			2.73	20
m&p-Xylenes	5.00	4.52	4.39	90.4	87.8	80.0-120			2.92	20
Naphthalene	2.50	2.38	2.44	95.2	97.6	80.0-120			2.49	20
1,3,5-Trimethylbenzene	2.50	2.20	2.14	88.0	85.6	80.0-120			2.76	20
o-Xylene	2.50	2.21	2.16	88.4	86.4	80.0-120			2.29	20
1,2,4-Trimethylbenzene	2.50	2.26	2.20	90.4	88.0	80.0-120			2.69	20
Methyl tert-butyl ether	2.50	2.24	2.20	89.6	88.0	80.0-120			1.80	20
<sup>(S)</sup> a,a,a-Trifluorotoluene(PID)				99.7	101	80.0-200				

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3461807-2 10/14/19 21:19 • (LCSD) R3461807-5 10/15/19 08:21

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	27.5	23.7	24.3	86.2	88.4	80.0-120			2.50	20
<sup>(S)</sup> a,a,a-Trifluorotoluene(PID)				99.7	101	80.0-200				



Method Blank (MB)

(MB) R3463374-3 10/15/19 11:34

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
Benzene	0.00455	↓	0.00440	0.0147
Toluene	U		0.00805	0.0268
Ethylbenzene	U		0.00455	0.0152
m&p-Xylene	0.0139	↓	0.00770	0.0257
o-Xylene	U		0.00480	0.0160
Methyl tert-butyl ether	U		0.00800	0.0267
Naphthalene	U		0.0520	0.173
1,3,5-Trimethylbenzene	0.00532	↓	0.00410	0.0137
1,2,4-Trimethylbenzene	0.00769	↓	0.00535	0.0178
TPH (GC/FID) Low Fraction	0.805	↓	0.550	1.83
(S) a,a,a-Trifluorotoluene(PID)	101			80.0-200

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3463374-1 10/15/19 10:20 • (LCSD) R3463374-8 10/15/19 16:50

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Benzene	2.50	2.56	2.55	102	102	80.0-120			0.391	20
Toluene	2.50	2.59	2.59	104	104	80.0-120			0.000	20
Ethylbenzene	2.50	2.45	2.45	98.0	98.0	80.0-120			0.000	20
m&p-Xylene	5.00	4.95	4.93	99.0	98.6	80.0-120			0.405	20
o-Xylene	2.50	2.41	2.41	96.4	96.4	80.0-120			0.000	20
Methyl tert-butyl ether	2.50	2.39	2.39	95.6	95.6	80.0-120			0.000	20
Naphthalene	2.50	2.73	2.53	109	101	80.0-120			7.60	20
1,3,5-Trimethylbenzene	2.50	2.43	2.40	97.2	96.0	80.0-120			1.24	20
1,2,4-Trimethylbenzene	2.50	2.48	2.47	99.2	98.8	80.0-120			0.404	20
(S) a,a,a-Trifluorotoluene(PID)				101	102	80.0-200				

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3463374-2 10/15/19 10:20 • (LCSD) R3463374-9 10/15/19 16:50

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	%	%	%			%	%
TPH (GC/FID) Low Fraction	27.5	26.2	25.7	95.3	93.5	80.0-120			1.93	20
(S) a,a,a-Trifluorotoluene(PID)				101	102	80.0-200				



L1149036-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1149036-01 10/15/19 12:19 • (MS) R3463374-4 10/15/19 15:36 • (MSD) R3463374-6 10/15/19 16:01

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	2.43	0.0468	2.67	2.59	108	105	1	32.0-137			2.87	39
Toluene	2.43	0.0454	2.64	2.57	107	104	1	20.0-142			2.90	42
Ethylbenzene	2.43	4.77	6.69	6.52	79.3	72.0	1	10.0-150			2.67	44
m&p-Xylene	4.84	6.27	10.3	10.0	82.6	77.1	1	14.0-141			2.61	44
o-Xylene	2.43	0.370	2.72	2.65	96.7	94.1	1	10.0-157			2.34	44
Methyl tert-butyl ether	2.43	0.0700	2.21	2.13	88.3	84.7	1	24.0-151			4.06	37
Naphthalene	2.43	5.75	7.46	7.83	70.5	85.5	1	80.0-120	J6		4.77	20
1,3,5-Trimethylbenzene	2.43	2.39	4.57	4.47	89.6	85.5	1	80.0-120			2.23	20
1,2,4-Trimethylbenzene	2.43	10.1	11.6	11.4	62.2	51.8	1	80.0-120	V	V	2.19	20
(S) a,a,a-Trifluorotoluene(PID)					129	126		80.0-200				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1149036-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1149036-01 10/15/19 12:19 • (MS) R3463374-5 10/15/19 15:36 • (MSD) R3463374-7 10/15/19 16:01

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	26.7	57.4	76.6	76.5	72.2	71.7	1	80.0-120	J6	J6	0.164	20
(S) a,a,a-Trifluorotoluene(PID)					129	126		80.0-200				



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
V	The sample concentration is too high to evaluate accurate spike recoveries.



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.  
 \* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

## State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico <sup>1</sup>	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	90010	South Carolina	84004
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana <sup>1</sup>	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

## Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Assured Environmental Associates, Inc

14120 W Glendale Avenue  
Brookfield, WI 53005

Billing Information:

Gregory Walsh  
14120 W Glendale Avenue  
Brookfield, WI 53005

Report to:  
Gregory Walsh

Email To:  
aea@wi.rr.com

Chain of Custody Page 1 of 1



12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859



L# 1149036  
H130

Acctnum:  
Template:  
Prelogin:  
TSR:  
PB:  
Shipped Via:

Pres  
Chk

Analysis / Container / Preservative

PVOCGRO 60mlAmb/MeOH/Syr  
TS 4ozClr-NoPres

Project Description:

Phone: 262-781-4646

Client Project #

City/State  
Collected: So. Milwaukee, WI

Lab Project #  
ASSUREDWI-LENNYS

Collected by (print):  
MICHAEL GOY

Site/Facility ID #

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)

Quote #

Immediately Packed on Ice: N  Y  X

Same Day  Five Day   
Next Day  5 Day (Rad Only)   
Two Day  10 Day (Rad Only)   
Three Day

Date Results Needed

No. of  
Cnts

Sample ID

Comp/Grab

Matrix \*

Depth

Date

Time

EX2-01  
EX2-02  
EX2-03  
EX2-04  
EX2-05  
EX2-06  
EX2-07  
EX2-08  
EX2-09  
EX2-10

Grab

SS

10/5/2019

0900 hrs

2

X

X

Grab

SS

10/5/2019

0900 hrs

2

X

X

Grab

SS

10/5/2019

0900 hrs

2

X

X

Grab

SS

10/5/2019

0900 hrs

2

X

X

Grab

SS

10/9/2019

1000 hrs

2

X

X

Grab

SS

10/9/2019

1000 hrs

2

X

X

Grab

SS

10/9/2019

1000 hrs

2

X

X

Grab

SS

10/9/2019

1000 hrs

2

X

X

Grab

SS

10/9/2019

1000 hrs

2

X

X

Grab

SS

10/9/2019

1000 hrs

2

X

X

\* Matrix:  
SS - Soil AIR - Air  
GW - Groundwater  
WW - Waste Water  
DW - Drinking Water  
OT - Other

F - Filter  
B - Bioassay

Remarks:

Must report Naphthalene concentrations

pH \_\_\_\_\_ Temp \_\_\_\_\_

Flow \_\_\_\_\_ Other \_\_\_\_\_

Sample Receipt Checklist

COC Seal Present/Intact:  NP  Y  N  
COC Signed/Accurate:  Y  N  
Bottles arrive intact:  Y  N  
Correct bottles used:  Y  N  
Sufficient volume sent:  Y  N  
If Applicable  
VOA Zero Headspace:  Y  N  
Preservation Correct/Checked:  Y  N

RAD SCREEN: <0.5 mR/hr

If preservation required by Login: Date/Time

Samples returned via:  
UPS  FedEx  Courier

Tracking # 12038786 2241

Date: 10 OCT 19 Time: 2130 hrs

Received by: (Signature)

Trip Blank Received:  No  
FCL MeOH  
TBR

Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received by: (Signature)

Temp: 51.3 = 4.9 <sup>AP</sup> 20 °C Bottles Received:

Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received for lab by: (Signature)

Date: 10/11/19 Time: 0845

Hold: \_\_\_\_\_ Condition: NCF / OK

Relinquished by: (Signature)  
Relinquished by: (Signature)  
Relinquished by: (Signature)