State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
Southeast Region Headquarters
2300 N. Dr. Martin Luther King, Jr. Drive
Milwaukee WI 53212-3128

Scott Walker, Governor
Daniel L. Meyer, Secretary
Telephone 414-263-8500
FAX 414-263-8483
TTY 414-263-8713

WISCONSIN
DEPT. OF NATURAL RESOURCES

June 25, 2018

Joshua Ivey
Milwaukee Holdings LLC
913 29th St
Des Moines, IA 50312

Subject: Reported Contamination at Comedy Club Cafe FMR, 615 E Brady St, Milwaukee, WI
DNR BRRTS Activity #03-41-581665
DNR FID #341170170

Dear Mr. Ivey:

On July 19, 2018, Timothy Anderson from United Engineering Consultants LLC, on behalf of Milwaukee Holdings LLC notified the Department of Natural Resources (DNR) that soil contamination had been detected at the site described above.

Based on the information that has been submitted to the DNR regarding this site, we believe Milwaukee Holdings LLC is responsible for investigating and restoring the environment at the above-described site under Section 292.11, Wisconsin Statutes, known as the hazardous substances spills law.

This letter describes the legal responsibilities of a person who is responsible under section 292.11, Wis. Stats., explains what you need to do to investigate and clean up the contamination, and provides you with information about cleanups, environmental consultants, possible financial assistance, and working cooperatively with the DNR or the Department of Agriculture, Trade and Consumer Protection (DATCP).

Legal Responsibilities:

Your legal responsibilities are defined both in statute and in administrative codes. The hazardous substances spill law, Section 292.11 (3) Wisconsin Statutes, states:

- RESPONSIBILITY. A person who possesses or controls a hazardous substance which is discharged or who causes the discharge of a hazardous substance shall take the actions necessary to restore the environment to the extent practicable and minimize the harmful effects from the discharge to the air, lands, or waters of the state.

Wisconsin Administrative Code chapters NR 700 through NR 754 establish requirements for emergency and interim actions, public information, site investigations, design and operation of remedial action systems, and case closure. Wisconsin Administrative Code chapter NR 140 establishes groundwater standards for contaminants that reach groundwater.

Steps to Take:

The longer contamination is left in the environment, the farther it can spread and the more it may cost to clean up. Quick action may lessen damage to your property and neighboring properties and reduce costs in investigating and cleaning up the contamination. To ensure that your cleanup complies

with Wisconsin's laws and administrative codes, you should hire a professional environmental consultant who understands what needs to be done. The following information provides the timeframes and required steps to take. Unless otherwise approved by DNR in writing you must complete the work by the timeframes specified.

1. Within the next **30 days,** by July 25, 2018, you should submit written verification (such as a letter from the consultant) that you have hired an environmental consultant. If you do not take action within this time frame, the DNR may initiate enforcement action against you.

2. Within the next **60 days,** by August 24, 2018, you must submit a work plan for completing the investigation. The work plan must comply with the requirements in the NR 700 Wis. Adm. Code rule series and should adhere to current DNR technical guidance documents.

3. You must initiate the site investigation within 90 days of submitting the site investigation work plan. If a fee for DNR review has been submitted, the site investigation must begin within 60 days after receiving DNR comments.

4. Within 60 days after completion of the field investigation and receipt of the laboratory data, you must submit a Site Investigation Report to the DNR or other agency with administrative authority. For sites with agrichemicals contamination, your case will be transferred to the Department of Agriculture, Trade and Consumer Protection for oversight.

5. Within 60 days after submitting the Site Investigation Report, you must submit a remedial actions options report.

Sites where discharges to the environment have been reported are entered into the Bureau for Remediation and Redevelopment Tracking System ("BRRTS"), a version of which appears on the DNR's internet site. You may view the information related to your site at any time (http://dnr.wi.gov/botw/SetUpBasicSearchForm.do) and use the feedback system to alert us to any errors in the data.

If you want a formal written response from the department on a specific submittal, please be aware that a review fee is required in accordance with ch. NR 749, Wis. Adm. Code. If a fee is not submitted with your reports, you must complete the site investigation and cleanup to maintain your compliance with the spills law and chapters NR 700 through NR 754. **The timeframes specified above are required by rule, so do not delay the investigation of your site.** We have provided detailed technical guidance to environmental consultants. Your consultant is expected to know our technical procedures and administrative rules and should be able to answer your questions on meeting cleanup requirements. All correspondence regarding this site should be sent to:

Chue Yee Yang
Environmental Program Associate
Remediation and Redevelopment Program
Wisconsin Department of Natural Resources
2300 N. Martin Luther King Dr.
Milwaukee, WI 53212
chueyee.yang@wisconsin.gov

Unless otherwise directed, submit one paper copy and one electronic copy of plans and reports. To speed processing, correspondence should reference the BRRTS and FID numbers (if assigned) shown at the top of this letter.

Site Investigation and Vapor Pathway Analysis:

As you develop the site investigation work plan, we want to remind you to include an assessment of the vapor intrusion pathway. Chapter NR 716, Wisconsin Administrative Code outlines the requirements for investigation of contamination in the environment. Specifically, s. NR 716.11(3)(a) requires that the field investigation determine the "nature, degree and extent, both areal and vertical, of the hazardous substances or environmental pollution in all affected media". In addition, section NR 716.11(5)(g) and (h) contains the specific requirements for evaluating the presence of vapors in the sub-surface as well as in indoor air.

You will need to include documentation with the Site Investigation Report that explains how the assessment was done. If the vapor pathway is being ruled out, then the report needs to provide the appropriate justification for reaching this conclusion. If the pathway cannot be ruled out, then investigation and, if appropriate, remedial action must be taken to address the risk presented prior to submitting the site for closure. The DNR has developed guidance to help responsible parties and their consultants comply with the requirements described above. The guidance includes a detailed explanation of how to assess the vapor intrusion pathway and provides criteria which identify when an investigation is necessary. The guidance is available at: http://dnr.wi.gov/files/PDF/pubs/rr/RR800.pdf.

Additional Information for Site Owners:

We encourage you to visit our website at http://dnr.wi.gov/topic/Brownfields/, where you can find information on selecting a consultant, financial assistance and understanding the cleanup process. You will also find information there about liability clarification letters, post-cleanup liability and more.

If you have questions, call the DNR Project Manager Nancy Ryan at (414) 263-8533 for more information or visit the RR web site at the address above.

Thank you for your cooperation.

Sincerely,

Matt Kaelin

for

Chue Yee Yang
Environmental Program Associate
Remediation & Redevelopment Program

Enclosures:

Selecting a Consultant – RR-502
http://dnr.wi.gov/files/PDF/pubs/rr/RR502.pdf

Environmental Services Contractor List – RR-024
http://dnr.wi.gov/files/PDF/pubs/rr/RR024.pdf

VPLE Fact Sheet #2
http://dnr.wi.gov/files/PDF/pubs/rr/RR506.pdf

Environmental Contamination Basics, RR-674
http://dnr.wi.gov/files/PDF/pubs/rr/RR674.pdf

Underground Storage Tanks, Clarifying Local Government Unit's Responsibility to Remove Tanks on Properties They Own, RR-627 (if applicable)
http://dnr.wi.gov/files/PDF/pubs/rr/RR627.pdf

cc: Timothy Anderson - United Engineering Consultants LLC
WI DNR Case File

State of Wisconsin
Department of Natural Resources
dnr.wi.gov

Notification For Hazardous Substance Discharge (Non-Emergency Only)

Form 4400-225 (05/12) Page 1 of 2

Emergency Discharges / Spills should be reported via the 24-Hour Hotline: 1-800-943-0003

Notice: Hazardous substance discharges must be reported immediately according to s. 292.11 Wis. Stats. Non-emergency hazardous substance discharges may be reported by telefaxing or e-mailing a completed report to the Department, or calling or visiting a Department office in person. If you choose to notify the Department by telefax or by email, you should use this form to be sure that all necessary information is included. However, use of this form is not mandatory. Under s. 292.99, Wis. Stats., the penalty for violating the reporting requirements of ch. 292 Wis. Stats., shall be no less than $10 nor more than $5000 for each violation. Each day of continued violation is a separate offense. It is not the Department's intention to use any personally identifiable information from this form for any purpose other than program administration. However, information submitted on this form may also be made available to requesters under Wisconsin's Open Records Law (ss. 19.31 – 19.39, Wis. Stats.).

Confirmatory laboratory data should be included with this form, to assist the DNR in processing this Hazardous Substance Release Notification.

Complete this form. **TYPE or PRINT LEGIBLY.** NOTIFY appropriate DNR region (see next page) **IMMEDIATELY** upon discovery of a potential release from **(check one)**:

☒ Underground Petroleum Storage Tank System (additional information may be required for Item 6 below)
☐ Aboveground Petroleum Storage Tank System
☐ Dry Cleaner Facility
☐ Other - Describe: _____

ATTN DNR: **R & R Program Associate** Date DNR Notified: 06/19/2018

1. Discharge Reported By

Name	Firm	Phone No. (include area code)
Timothy J. Anderson	United Engineering Consultants, Inc.	(262) 785-1447

Mailing Address	Email Address
16237 W. Ryerson Road New Berlin, Wisconsin 53151	tauec@sbcglobal.net

2. Site Information

Name of site at which discharge occurred. Include local name of site/business, not responsible party name, unless a residence/vacant property. Former Comedy Club Cafe

Location: Include street address, not PO Box. If no street address, describe as precisely as possible, i.e., 1/4 mile NW of CTHs 60 & 123 on E side of CTH 60. 615 E. Brady Street

Municipality: (City, Village, Township) Specify municipality in which the site is located, not mailing address/city.
Milwaukee

County:	Legal Description:	WTM:
Milwaukee	NW 1/4 SW 1/4 Sec 21 Tn 7 Range 22 ◉E ○W	X 690681 Y 288806

3. Responsible Party (RP) and/or RP Representative

Responsible Party Name: Business or owner name that is responsible for cleanup. If more than one, list all. Attach additional pages as necessary.

Milwaukee Holdings LLC

☐ Reported in compliance with s. 292.11(2), Wis. Stats., by a local government exempt from liability under s. 292.11(9)(e), Wis. Stats. For more information see **http://dnr.wi.gov/org/aw/rr/lgu/liability.htm**.

Contact Person Name (if different)	Phone Number	Email Address
Joshua Ivey	(319) 530-0289	josh@woolysdm.com

Mailing Address	City	State	ZIP Code
913 29th Street	Des Moines	IA	50312

Property owner if Different From RP: Business or owner name that is responsible for cleanup. If more than one, list all. Attach additional pages as necessary.

Contact Person Name (if different)	Phone Number	Email Address

Mailing Address	City	State	ZIP Code

(continued)

State of Wisconsin
Department of Natural Resources
dnr.wi.gov

Notification For Hazardous Substance Discharge (Non-Emergency Only)

4. Hazardous Substance Information

Identify hazardous substance discharged (check all that apply):

- ☒ VOC's
- ☐ PAH's
- ☐ Metals (specify): _____
- ☐ Arsenic
- ☐ Chromium
- ☐ Cyanide
- ☐ Lead
- ☐ PCB's
- ☐ Diesel
- ☐ Fuel Oil
- ☒ Gasoline
- ☐ Hydraulic Oil
- ☐ Jet Fuel
- ☐ Mineral Oil
- ☒ Waste Oil
- ☐ Petroleum-Unknown Type
- ☐ PERC (Dry Cleaners)
- ☐ RCRA Hazardous Waste
- ☐ Leachate
- ☐ Fertilizer
- ☐ Pesticide/Herbicide/Insecticide(s)
- ☐ Other (specify): _____
- ☐ Unknown

5. Impacts to the Environment Information

Enter "K" for known/confirmed or "P" for potential for all that apply.

- ___ Air Contamination
- ___ Co-Contamination (Petroleum & Non-Petroleum)
- ___ Contamination Within 1 Meter of Bedrock
- ___ Contaminated Private Well
- ___ Contaminated Public Well
- ___ Contamination in Fractured Bedrock
- ___ Sanitary Sewer Contamination
- ___ Contamination in Right of Way
- ___ Fire Explosion Threat
- ___ Free Product
- ___ Groundwater Contamination
- ___ Off-Site Contamination
- ___ Other (specify): _____
- K Soil Contamination
- ___ Storm Sewer Contamination
- ___ Surface Water Contamination
- ___ Within 100 ft of Private Well
- ___ Within 1000 ft of Public Well

Contamination was discovered as a result of:

☒ Tank closure assessment Dat 03/07/2018

☐ Site assessment Dat

☐ Other - Describe: _____ Dat

Lab results: ☐ Lab results will be faxed upon receipt ☒ Lab results are attached

Additional Comments: Include a brief description of immediate actions taken to halt the release and contain or cleanup hazardous substances that have been discharged.

6. Federal Energy Act Requirements (Section 9002(d) of the Solid Waste Disposal Act (SWDA))

For all confirmed releases from UST's occurring after 9/30/2007 please provide the following information:

☐ Does not apply.

Source

- ☒ Tank
- ☐ Piping
- ☐ Dispenser
- ☐ Submersible Turbine Pump
- ☐ Delivery Problem
- ☐ Other (specify): _____

Cause

- ☐ Spill
- ☐ Overfill
- ☒ Corrosion
- ☐ Physical or Mechanical Damage
- ☐ Installation Problem
- ☐ Other (does not fit any of above)
- ☐ Unknown

Contact information to report non-emergency releases in DNR's five regions are as follows:

Northeast Region (FAX: 920-662-5197); Attention -- R&R Program Associate: DNRRRNER@wisconsin.gov

Brown, Calumet, Door, Fond du Lac **(except City of Waupun - see South Central Region)**, Green Lake, Kewaunee, Manitowoc, Marinette, Marquette, Menominee, Oconto, Outagamie, Shawano, Sheboygan, Waupaca, Waushara, Winnebago counties

Northern Region (FAX: 715-623-6773); Attention -- R&R Program Associate: DNRRRNOR@wisconsin.gov

Ashland, Barron, Bayfield, Burnett, Douglas, Forest, Florence, Iron, Langlade, Lincoln, Oneida, Polk, Price, Rusk, Sawyer, Taylor, Vilas, Washburn counties

South Central Region (FAX: 608-273-5610); Attention -- R&R Program Associate: DNRRRSCR@wisconsin.gov

Columbia, Dane, Dodge, Fond du Lac **(City of Waupun only)**, Grant, Green, Iowa, Jefferson, Lafayette, Richland, Rock, Sauk, Walworth counties

Southeast Region (FAX: 414-263-8550); Attention -- R&R Program Associate: DNRRRSER@wisconsin.gov

Kenosha, Milwaukee, Ozaukee, Racine, Washington, Waukesha counties

West Central Region (FAX: 715-839-6076); Attention -- R&R Program Associate: DNRRRWCR@wisconsin.gov

Adams, Buffalo, Chippewa, Clark, Crawford, Dunn, Eau Claire, Jackson, Juneau, LaCrosse, Marathon, Monroe, Pepin, Pierce, Portage, St. Croix, Trempealeau, Vernon, Wood counties

Environmental
Monitoring and
Technologies, Inc.

8100 N. Austin Avenue Morton Grove, IL 60053-3203 P 847.967.6666 800.246.0663 F 847.967.6735 www.emt.com

Analytical Report

Timothy J. Anderson
United Engineering Consultants, Inc.
16237 W. Ryerson Road
New Berlin, WI 53151

March 29, 2018

Work Order: 18C0468

RE: Waste Characterization
18006/18009

Dear Timothy J. Anderson:

Enclosed are the analytical reports for the EMT Work Order listed. Also included with this analytical report is a copy of the chain of custody associated with these samples. If you have any questions, please contact me.

Sincerely,

Katherine Langfoss
Project Manager
847.967.6666
klangfoss@emt.com
Approved for release: 3/29/2018 12:11:22PM

Approved by,

Matthew Gregory
Technical Manager

State of Wisconsin Dept of Natural Resources, Cert No. 999888890

Table of Contents

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Sample Summary

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SP-615	18C0468-01	Soil	03/07/18 11:00	03/13/18 17:15
FO-BROADWAY	18C0468-02	Soil	03/08/18 12:00	03/13/18 17:15
PE-E	18C0468-03	Soil	03/07/18 10:45	03/13/18 17:15
PE-C	18C0468-04	Soil	03/07/18 10:50	03/13/18 17:15
PE-W	18C0468-05	Soil	03/07/18 10:55	03/13/18 17:15

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Case Narrative

Client: United Engineering Consultants, Inc. **Date:** 03/29/2018
Project: Waste Characterization
18006/18009
Work Order: 18C0468

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

Sample results only relate to the sample(s) received at the laboratory and analytes of interest tested.

Work Order: 18C0468
The samples were received on 03/13/18 17:15. The samples arrived in good condition and properly preserved. The temperature of the cooler at receipt was

Cooler	Temp C°
Default Cooler	2.0

Refer to Qualifiers and Definitions for quality and analytical clarifications or deviations.

Version 2.
This is a revised report with total VOC reported for Sample -01, SP-615, per client request.

GC/MS Semivolatiles
Method: 8270D_SVOC_TCLP, B8C0637-BS1: The recovery for two compounds in the blank spike were below the laboratory control limit, However, the BSD recoveries were within acceptable laboratory control limits.

Method: 8270D_SVOC_TCLP, B8C0637-BS1/BSD1: The relative percent difference (RPD) for two spike compounds were outside of the 20% limit. However, the compounds in question were not detected in the sample.

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Client Sample Results

Client: United Engineering Consultants, Inc.
Project: Waste Characterization 18006/18009
Work Order: 18C0468

Client Sample ID: SP-615
Report Date: 03/29/2018
Collection Date: 03/07/2018 11:00
Matrix: Soil
Lab ID: 18C0468-01

Analyses	Result	EMT Reporting Limit	Qual	Units	Reg Limit	MDL	Date/Time Analyzed	Batch	Analyst	DF
Metals by ICP-AES										
Method: SW6010C / SW3015 / SW1311										
Lead, TCLP	< 0.0140	0.0500		mg/L	5	0.0140	03/15/18 19:41	B8C0526	GJ1	1
Wet Chemistry										
Method: SM2540G										
Total Solids	**88.0**	0.100	H	% (Percent)		0.00700	03/27/18 17:10	B8C0934	JJ2	1
Volatile Organic Compounds by GC/MS										
Method: SW8260B / SW5030 / SW1311										
1,1-Dichloroethene, TCLP	< 0.00585	0.0200		mg/L		0.00585	03/22/18 07:21	B8C0737	JL	1
1,2-Dichloroethane, TCLP	< 0.00725	0.0400		mg/L		0.00725	03/22/18 07:21	B8C0737	JL	1
1,4-Dichlorobenzene, TCLP	< 0.00430	0.0200		mg/L		0.00430	03/22/18 07:21	B8C0737	JL	1
2-Butanone, TCLP	< 0.0477	0.200		mg/L		0.0477	03/22/18 07:21	B8C0737	JL	1
Benzene, TCLP	< 0.00470	0.0200		mg/L		0.00470	03/22/18 07:21	B8C0737	JL	1
Carbon tetrachloride, TCLP	< 0.00425	0.0200		mg/L		0.00425	03/22/18 07:21	B8C0737	JL	1
Chlorobenzene, TCLP	< 0.00305	0.0200		mg/L		0.00305	03/22/18 07:21	B8C0737	JL	1
Chloroform, TCLP	< 0.00650	0.0400		mg/L		0.00650	03/22/18 07:21	B8C0737	JL	1
Tetrachloroethene, TCLP	**0.00675**	0.0200	J	mg/L		0.00510	03/22/18 07:21	B8C0737	JL	1
Trichloroethene, TCLP	< 0.00450	0.0200		mg/L		0.00450	03/22/18 07:21	B8C0737	JL	1
Vinyl chloride, TCLP	< 0.00525	0.0200		mg/L		0.00525	03/22/18 07:21	B8C0737	JL	1
Surrogate: Dibromofluoromethane, TCLP				*Recovery: 111%*		*Limits: 78-119*	*03/22/18 07:21*	*B8C0737*	*JL*	*1*
Surrogate: 1,2-Dichloroethane-d4, TCLP				*Recovery: 131%*		*Limits: 71-136*	*03/22/18 07:21*	*B8C0737*	*JL*	*1*
Surrogate: Fluorobenzene, TCLP				*Recovery: 98%*		*Limits: 81-114*	*03/22/18 07:21*	*B8C0737*	*JL*	*1*
Surrogate: Toluene-d8, TCLP				*Recovery: 91%*		*Limits: 85-116*	*03/22/18 07:21*	*B8C0737*	*JL*	*1*
Surrogate: 4-Bromofluorobenzene, TCLP				*Recovery: 102%*		*Limits: 79-119*	*03/22/18 07:21*	*B8C0737*	*JL*	*1*
Surrogate: 1,2-Dichlorobenzene-d4, TCLP				*Recovery: 106%*		*Limits: 80-120*	*03/22/18 07:21*	*B8C0737*	*JL*	*1*
Method: SW-846 8260B/WDNR: PUBL-FW-140										
1,1,1-Trichloroethane	< 25.0	25.0		ug/Kg dry		23.7	03/28/18 18:58	B8C1040	JL	50
1,1,2,2-Tetrachloroethane	< 25.0	25.0		ug/Kg dry		22.9	03/28/18 18:58	B8C1040	JL	50
1,1,2-Trichloroethane	< 25.0	25.0		ug/Kg dry		23.5	03/28/18 18:58	B8C1040	JL	50
1,1-Dichloroethane	< 35.6	35.6		ug/Kg dry		35.6	03/28/18 18:58	B8C1040	JL	50
1,1-Dichloroethene	< 27.8	27.8		ug/Kg dry		27.8	03/28/18 18:58	B8C1040	JL	50
1,2,4-Trimethylbenzene	< 25.0	25.0		ug/Kg dry		13.7	03/28/18 18:58	B8C1040	JL	50
1,2-Dibromo-3-chloropropane	< 39.0	39.0		ug/Kg dry		39.0	03/28/18 18:58	B8C1040	JL	50
1,2-Dibromoethane	< 25.0	25.0		ug/Kg dry		11.9	03/28/18 18:58	B8C1040	JL	50
1,2-Dichloroethane	< 25.0	25.0		ug/Kg dry		8.64	03/28/18 18:58	B8C1040	JL	50
1,2-Dichloropropane	< 25.0	25.0		ug/Kg dry		16.0	03/28/18 18:58	B8C1040	JL	50
1,3,5-Trimethylbenzene	< 25.0	25.0		ug/Kg dry		13.5	03/28/18 18:58	B8C1040	JL	50
1-Butanol	< 408	408		ug/Kg dry		408	03/28/18 18:58	B8C1040	JL	50
2-Butanone	< 101	101		ug/Kg dry		101	03/28/18 18:58	B8C1040	JL	50
2-Hexanone	< 70.0	70.0		ug/Kg dry		70.0	03/28/18 18:58	B8C1040	JL	50
4-Methyl-2-pentanone	< 47.1	47.1		ug/Kg dry		47.1	03/28/18 18:58	B8C1040	JL	50
Acetone	< 174	174		ug/Kg dry		174	03/28/18 18:58	B8C1040	JL	50
Acrylonitrile	< 50.0	50.0		ug/Kg dry		50.0	03/28/18 18:58	B8C1040	JL	50
Benzene	< 25.0	25.0		ug/Kg dry		10.2	03/28/18 18:58	B8C1040	JL	50

Environmental Monitoring and Technologies, Inc.

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Client Sample Results

(Continued)

Client: United Engineering Consultants, Inc.
Project: Waste Characterization 18006/18009
Work Order: 18C0468

Client Sample ID: SP-615
Report Date: 03/29/2018
Collection Date: 03/07/2018 11:00
Matrix: Soil
Lab ID: 18C0468-01 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	Reg Limit	MDL	Date/Time Analyzed	Batch	Analyst	DF
Volatile Organic Compounds by GC/MS (Continued)										
Method: SW-846 8260B/WDNR: PUBL-FW-140 (Continued)										
Bromodichloromethane	< 25.0	25.0		ug/Kg dry		15.3	03/28/18 18:58	B8C1040	JL	50
Bromoform	< 25.0	25.0		ug/Kg dry		16.6	03/28/18 18:58	B8C1040	JL	50
Carbon disulfide	< 25.0	25.0		ug/Kg dry		12.4	03/28/18 18:58	B8C1040	JL	50
Carbon tetrachloride	< 25.0	25.0		ug/Kg dry		10.8	03/28/18 18:58	B8C1040	JL	50
Chlorobenzene	< 25.0	25.0		ug/Kg dry		11.8	03/28/18 18:58	B8C1040	JL	50
Chloroform	< 25.0	25.0		ug/Kg dry		22.1	03/28/18 18:58	B8C1040	JL	50
cis-1,2-Dichloroethene	< 25.0	25.0		ug/Kg dry		24.4	03/28/18 18:58	B8C1040	JL	50
Dibromochloromethane	< 25.0	25.0		ug/Kg dry		19.4	03/28/18 18:58	B8C1040	JL	50
Ethylbenzene	< 25.0	25.0		ug/Kg dry		15.2	03/28/18 18:58	B8C1040	JL	50
m,p-Xylene	< 75.7	75.7		ug/Kg dry		75.7	03/28/18 18:58	B8C1040	JL	50
Methyl tert-butyl ether	< 25.0	25.0		ug/Kg dry		17.8	03/28/18 18:58	B8C1040	JL	50
Methylene chloride	< 41.6	41.6		ug/Kg dry		41.6	03/28/18 18:58	B8C1040	JL	50
o-Xylene	< 25.0	25.0		ug/Kg dry		10.5	03/28/18 18:58	B8C1040	JL	50
Styrene	< 25.0	25.0		ug/Kg dry		15.2	03/28/18 18:58	B8C1040	JL	50
Tetrachloroethene	**212**	25.0		ug/Kg dry		18.4	03/28/18 18:58	B8C1040	JL	50
Toluene	< 25.0	25.0		ug/Kg dry		13.8	03/28/18 18:58	B8C1040	JL	50
trans-1,2-Dichloroethene	< 33.6	33.6		ug/Kg dry		33.6	03/28/18 18:58	B8C1040	JL	50
Trichloroethene	**27.9**	25.0		ug/Kg dry		12.3	03/28/18 18:58	B8C1040	JL	50
Vinyl acetate	< 27.3	27.3		ug/Kg dry		27.3	03/28/18 18:58	B8C1040	JL	50
Vinyl chloride	< 25.0	25.0		ug/Kg dry		16.8	03/28/18 18:58	B8C1040	JL	50
Xylenes, Total	< 86.2	86.2		ug/Kg dry		86.2	03/28/18 18:58	B8C1040	JL	50
1,2-Dichloroethene, Total	< 58.0	58.0		ug/Kg dry		58.0	03/28/18 18:58	B8C1040	JL	50
Surrogate: Dibromofluoromethane				*Recovery: 101%*		*Limits: 78-137*	*03/28/18 18:58*	*B8C1040*	*JL*	*50*
Surrogate: 1,2-Dichloroethane-d4				*Recovery: 103%*		*Limits: 86-137*	*03/28/18 18:58*	*B8C1040*	*JL*	*50*
Surrogate: Fluorobenzene				*Recovery: 97%*		*Limits: 80-120*	*03/28/18 18:58*	*B8C1040*	*JL*	*50*
Surrogate: Toluene-d8				*Recovery: 92%*		*Limits: 85-115*	*03/28/18 18:58*	*B8C1040*	*JL*	*50*
Surrogate: 4-Bromofluorobenzene				*Recovery: 93%*		*Limits: 85-120*	*03/28/18 18:58*	*B8C1040*	*JL*	*50*
Surrogate: 1,2-Dichlorobenzene-d4				*Recovery: 119%*		*Limits: 85-128*	*03/28/18 18:58*	*B8C1040*	*JL*	*50*
Semivolatile Organic Compounds by GC/MS										
Method: SW8270D / SW3510 / SW1311										
Cresols, Total, TCLP	< 0.0040	0.0177		mg/L	200	0.0040	03/21/18 05:38	B8C0637	JN1	2
1,4-Dichlorobenzene, TCLP	< 0.0014	0.0088		mg/L	7.5	0.0014	03/21/18 05:38	B8C0637	JN1	2
2,4,5-Trichlorophenol, TCLP	< 0.0051	0.0442		mg/L	400	0.0051	03/21/18 05:38	B8C0637	JN1	2
2,4,6-Trichlorophenol, TCLP	< 0.0057	0.0442		mg/L	2	0.0057	03/21/18 05:38	B8C0637	JN1	2
2,4-Dinitrotoluene, TCLP	< 0.0032	0.0221		mg/L	0.13	0.0032	03/21/18 05:38	B8C0637	JN1	2
2-Methylphenol, TCLP	< 0.0020	0.0088		mg/L	200	0.0020	03/21/18 05:38	B8C0637	JN1	2
3 & 4-Methylphenol, TCLP	< 0.0020	0.0088		mg/L	200	0.0020	03/21/18 05:38	B8C0637	JN1	2
Hexachlorobenzene, TCLP	< 0.0017	0.0088		mg/L	0.13	0.0017	03/21/18 05:38	B8C0637	JN1	2
Hexachlorobutadiene, TCLP	< 0.0053	0.0442		mg/L	0.5	0.0053	03/21/18 05:38	B8C0637	JN1	2
Hexachloroethane, TCLP	< 0.0056	0.0442		mg/L	3	0.0056	03/21/18 05:38	B8C0637	JN1	2
Nitrobenzene, TCLP	< 0.0026	0.0177		mg/L	2	0.0026	03/21/18 05:38	B8C0637	JN1	2
Pentachlorophenol, TCLP	< 0.0335	0.221		mg/L	100	0.0335	03/21/18 05:38	B8C0637	JN1	2
Pyridine, TCLP	< 0.0160	0.110		mg/L	5	0.0160	03/21/18 05:38	B8C0637	JN1	2
Surrogate: 2-Fluorophenol, TCLP				*Recovery: 42%*		*Limits: 4-108*	*03/21/18 05:38*	*B8C0637*	*JN1*	*2*

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Client Sample Results

(Continued)

Client:	United Engineering Consultants, Inc.	**Client Sample ID:**	SP-615
Project:	Waste Characterization 18006/18009	**Report Date:**	03/29/2018
		Collection Date:	03/07/2018 11:00
Work Order:	18C0468	**Matrix:**	Soil
		Lab ID:	18C0468-01 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	Reg Limit	MDL	Date/Time Analyzed	Batch	Analyst	DF
Semivolatile Organic Compounds by GC/MS (Continued)										
Method: SW8270D / SW3510 / SW1311 (Continued)										
Surrogate: Phenol-d5, TCLP				*Recovery: 36%*		*Limits: 1-101*	*03/21/18 05:38*	*B8C0637*	*JN1*	*2*
Surrogate: Nitrobenzene-d5, TCLP				*Recovery: 50%*		*Limits: 23-119*	*03/21/18 05:38*	*B8C0637*	*JN1*	*2*
Surrogate: 2-Fluorobiphenyl, TCLP				*Recovery: 44%*		*Limits: 28-124*	*03/21/18 05:38*	*B8C0637*	*JN1*	*2*
Surrogate: 2,4,6-Tribromophenol, TCLP				*Recovery: 40%*		*Limits: 11-102*	*03/21/18 05:38*	*B8C0637*	*JN1*	*2*
Surrogate: 4-Terphenyl-d14, TCLP				*Recovery: 116%*		*Limits: 79-147*	*03/21/18 05:38*	*B8C0637*	*JN1*	*2*

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Client Sample Results

(Continued)

Client: United Engineering Consultants, Inc.
Project: Waste Characterization 18006/18009
Work Order: 18C0468

Client Sample ID: PE-E
Report Date: 03/29/2018
Collection Date: 03/07/2018 10:45
Matrix: Soil
Lab ID: 18C0468-03

Analyses	Result	EMT Reporting Limit	Qual	Units	Reg Limit	MDL	Date/Time Analyzed	Batch	Analyst	DF
Wet Chemistry										
Method: SM2540G										
Total Solids	**93.5**	0.100		% (Percent)		0.00700	03/14/18 17:32	B8C0504	JJ2	1
PVOC Compounds by GC PID/FID										
Method: WI(95)-GRO/PVOC: PUBL-SW-140										
1,2,4-Trimethylbenzene	< 42.6	42.6		ug/Kg dry		42.6	03/15/18 17:21	B8C0564	FP1	50
1,3,5-Trimethylbenzene	< 25.0	25.0		ug/Kg dry		21.0	03/15/18 17:21	B8C0564	FP1	50
Benzene	< 38.6	38.6		ug/Kg dry		38.6	03/15/18 17:21	B8C0564	FP1	50
Ethylbenzene	< 25.2	25.2		ug/Kg dry		25.2	03/15/18 17:21	B8C0564	FP1	50
m,p-Xylene	< 25.0	25.0		ug/Kg dry		23.1	03/15/18 17:21	B8C0564	FP1	50
Methyl tert-butyl ether	< 66.3	66.3		ug/Kg dry		66.3	03/15/18 17:21	B8C0564	FP1	50
Naphthalene	**165**	44.8		ug/Kg dry		44.8	03/15/18 17:21	B8C0564	FP1	50
o-Xylene	< 31.7	31.7		ug/Kg dry		31.7	03/15/18 17:21	B8C0564	FP1	50
Toluene	< 46.3	46.3		ug/Kg dry		46.3	03/15/18 17:21	B8C0564	FP1	50
Xylenes, Total	< 53.6	53.6		ug/Kg dry		53.6	03/15/18 17:21	B8C0564	FP1	50
Surrogate: 1,4-Dichlorobenzene-d4				*Recovery: 101%*		*Limits: 70-130*	*03/15/18 17:21*	*B8C0564*	*FP1*	*50*

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Client Sample Results

(Continued)

Client:	United Engineering Consultants, Inc.	**Client Sample ID:**	PE-C
Project:	Waste Characterization 18006/18009	**Report Date:**	03/29/2018
		Collection Date:	03/07/2018 10:50
Work Order:	18C0468	**Matrix:**	Soil
		Lab ID:	18C0468-04

Analyses	Result	EMT Reporting Limit	Qual	Units	Reg Limit	MDL	Date/Time Analyzed	Batch	Analyst	DF
Wet Chemistry										
Method: SM2540G										
Total Solids	**93.7**	0.100		% (Percent)		0.00700	03/14/18 17:34	B8C0504	JJ2	1
PVOC Compounds by GC PID/FID										
Method: WI(95)-GRO/PVOC: PUBL-SW-140										
1,2,4-Trimethylbenzene	< 42.6	42.6		ug/Kg dry		42.6	03/15/18 17:56	B8C0564	FP1	50
1,3,5-Trimethylbenzene	< 25.0	25.0		ug/Kg dry		21.0	03/15/18 17:56	B8C0564	FP1	50
Benzene	< 38.6	38.6		ug/Kg dry		38.6	03/15/18 17:56	B8C0564	FP1	50
Ethylbenzene	< 25.2	25.2		ug/Kg dry		25.2	03/15/18 17:56	B8C0564	FP1	50
m,p-Xylene	< 25.0	25.0		ug/Kg dry		23.1	03/15/18 17:56	B8C0564	FP1	50
Methyl tert-butyl ether	< 66.3	66.3		ug/Kg dry		66.3	03/15/18 17:56	B8C0564	FP1	50
Naphthalene	**116**	44.8		ug/Kg dry		44.8	03/15/18 17:56	B8C0564	FP1	50
o-Xylene	< 31.7	31.7		ug/Kg dry		31.7	03/15/18 17:56	B8C0564	FP1	50
Toluene	< 46.3	46.3		ug/Kg dry		46.3	03/15/18 17:56	B8C0564	FP1	50
Xylenes, Total	< 53.6	53.6		ug/Kg dry		53.6	03/15/18 17:56	B8C0564	FP1	50
Surrogate: 1,4-Dichlorobenzene-d4				*Recovery: 106%*		*Limits: 70-130*	*03/15/18 17:56*	*B8C0564*	*FP1*	*50*

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Client Sample Results

(Continued)

Client:	United Engineering Consultants, Inc.	**Client Sample ID:**	PE-W
Project:	Waste Characterization 18006/18009	**Report Date:**	03/29/2018
		Collection Date:	03/07/2018 10:55
Work Order:	18C0468	**Matrix:**	Soil
		Lab ID:	18C0468-05

Analyses	Result	EMT Reporting Limit	Qual	Units	Reg Limit	MDL	Date/Time Analyzed	Batch	Analyst	DF
Wet Chemistry										
Method: SM2540G										
Total Solids	**83.9**	0.100		% (Percent)		0.00700	03/14/18 17:36	B8C0504	JJ2	1
PVOC Compounds by GC PID/FID										
Method: WI(95)-GRO/PVOC: PUBL-SW-140										
1,2,4-Trimethylbenzene	< 42.6	42.6		ug/Kg dry		42.6	03/15/18 18:32	B8C0564	FP1	50
1,3,5-Trimethylbenzene	< 25.0	25.0		ug/Kg dry		21.0	03/15/18 18:32	B8C0564	FP1	50
Benzene	< 38.6	38.6		ug/Kg dry		38.6	03/15/18 18:32	B8C0564	FP1	50
Ethylbenzene	< 25.2	25.2		ug/Kg dry		25.2	03/15/18 18:32	B8C0564	FP1	50
m,p-Xylene	< 25.0	25.0		ug/Kg dry		23.1	03/15/18 18:32	B8C0564	FP1	50
Methyl tert-butyl ether	< 66.3	66.3		ug/Kg dry		66.3	03/15/18 18:32	B8C0564	FP1	50
Naphthalene	**134**	44.8		ug/Kg dry		44.8	03/15/18 18:32	B8C0564	FP1	50
o-Xylene	< 31.7	31.7		ug/Kg dry		31.7	03/15/18 18:32	B8C0564	FP1	50
Toluene	< 46.3	46.3		ug/Kg dry		46.3	03/15/18 18:32	B8C0564	FP1	50
Xylenes, Total	< 53.6	53.6		ug/Kg dry		53.6	03/15/18 18:32	B8C0564	FP1	50
Surrogate: 1,4-Dichlorobenzene-d4				*Recovery: 94%*		*Limits: 70-130*	*03/15/18 18:32*	*B8C0564*	*FP1*	*50*

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Dates Report

Client: United Engineering Consultants, Inc.
Project: Waste Characterization
18006/18009
Work Order: 18C0468

Report Date: 03/29/2018

Sample ID	Client Sample ID	Collection	Matrix	Test Name	Leached Prep Date	Prep Date	Analysis Date	Batch ID	Sequence
18C0468-01	SP-615	03/07/18	Soil	Lead, TCLP ICP-AES	03/14/18 11:32	03/15/18 12:29	03/15/18 19:41	B8C0526	S8C0247
				Semivolatile Organic Compounds TCLP by GC/MS	03/14/18 11:32	03/20/18 08:50	03/21/18 05:38	B8C0637	S8C0327
				Volatile Organic Compounds TCLP by GC/MS	03/16/18 16:02	03/21/18 12:07	03/22/18 07:21	B8C0737	S8C0332
				Total Solids / Percent Moisture		03/27/18 16:53	03/27/18 17:10	B8C0934	
				Volatile Organic Compounds (WDNR) by GC/MS		03/28/18 11:38	03/28/18 18:58	B8C1040	S8C0485
18C0468-02	FO-BROADWAY	03/08/18		Total Solids / Percent Moisture		03/14/18 17:09	03/14/18 17:30	B8C0504	
				Volatile Organic Compounds by GC/MS		03/15/18 13:00	03/16/18 00:48	B8C0554	S8C0249
18C0468-03	PE-E	03/07/18		Total Solids / Percent Moisture		03/14/18 17:09	03/14/18 17:32	B8C0504	
				PVOC (WDNR) by GC/FID		03/15/18 09:00	03/15/18 17:21	B8C0564	S8C0253
18C0468-04	PE-C	03/07/18		Total Solids / Percent Moisture		03/14/18 17:09	03/14/18 17:34	B8C0504	
				PVOC (WDNR) by GC/FID		03/15/18 09:00	03/15/18 17:56	B8C0564	S8C0253
18C0468-05	PE-W	03/07/18		Total Solids / Percent Moisture		03/14/18 17:09	03/14/18 17:36	B8C0504	
				PVOC (WDNR) by GC/FID		03/15/18 09:00	03/15/18 18:32	B8C0564	S8C0253

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Quality Control

Client: United Engineering Consultants, Inc.
Project: Waste Characterization 18006/18009
Work Order: 18C0468

Report Date: 03/29/2018
Matrix: Solid

Wet Chemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
Batch: B8C0504											
Blank (B8C0504-BLK1)				*Prepared: 03/14/2018 17:09*			*Analyzed: 03/14/2018 17:42*				
Total Solids	< 0.00700	0.100	%								1
LCS (B8C0504-BS1)				*Prepared: 03/14/2018 17:09*			*Analyzed: 03/14/2018 17:44*				
Total Solids	0.189	0.100	%	0.2000		94.6	80.2-112				1
Batch: B8C0934											
Blank (B8C0934-BLK1)				*Prepared: 03/27/2018 16:53*			*Analyzed: 03/27/2018 17:24*				
Total Solids	< 0.00700	0.100	%								1
LCS (B8C0934-BS1)				*Prepared: 03/27/2018 16:53*			*Analyzed: 03/27/2018 17:26*				
Total Solids	0.178	0.100	%	0.2000		89.1	80.2-112				1
Duplicate (B8C0934-DUP1)		**Source: 18C0815-02**		*Prepared: 03/27/2018 16:53*			*Analyzed: 03/27/2018 17:28*				
Total Solids	99.0	0.100	%		99.0			0.0427	5		1

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Quality Control

(Continued)

Client: United Engineering Consultants, Inc. **Report Date:** 03/29/2018
Project: Waste Characterization 18006/18009 **Matrix:** Solid
Work Order: 18C0468

PVOC Compounds by GC PID/FID

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
Batch: B8C0564											
Blank (B8C0564-BLK1)				*Prepared: 03/15/2018 09:00 Analyzed: 03/15/2018 10:59*							
1,2,4-Trimethylbenzene	< 42.6	42.6	ug/Kg wet								50
1,3,5-Trimethylbenzene	< 25.0	25.0	ug/Kg wet								50
Benzene	< 38.6	38.6	ug/Kg wet								50
Ethylbenzene	< 25.2	25.2	ug/Kg wet								50
m,p-Xylene	< 25.0	25.0	ug/Kg wet								50
Methyl tert-butyl ether	< 66.3	66.3	ug/Kg wet								50
Naphthalene	< 44.8	44.8	ug/Kg wet								50
o-Xylene	< 31.7	31.7	ug/Kg wet								50
Toluene	< 46.3	46.3	ug/Kg wet								50
Xylenes, Total	< 53.6	53.6	ug/Kg wet								50
Surrogate: 1,4-Dichlorobenzene-d4	*19.7*		*ug/Kg*	*20.00*		*98*	*70-130*				*50*
LCS (B8C0564-BS1)				*Prepared: 03/15/2018 09:00 Analyzed: 03/15/2018 16:44*							
1,2,4-Trimethylbenzene	4570	128	ug/Kg wet	5000		91	80-120				50
1,3,5-Trimethylbenzene	4560	63.1	ug/Kg wet	5000		91	80-120				50
Benzene	4580	116	ug/Kg wet	5000		92	80-120				50
Ethylbenzene	4610	75.6	ug/Kg wet	5000		92	80-120				50
m,p-Xylene	9290	69.2	ug/Kg wet	10000		93	80-120				50
Methyl tert-butyl ether	4770	199	ug/Kg wet	5000		95	80-120				50
Naphthalene	4610	134	ug/Kg wet	5000		92	80-120				50
o-Xylene	4650	95.0	ug/Kg wet	5000		93	80-120				50
Toluene	4610	139	ug/Kg wet	5000		92	80-120				50
Xylenes, Total	13900	161	ug/Kg wet	15000		93	80-120				50
Surrogate: 1,4-Dichlorobenzene-d4	*20.2*		*ug/Kg*	*20.00*		*101*	*70-130*				*50*
LCS Dup (B8C0564-BSD1)				*Prepared: 03/15/2018 09:00 Analyzed: 03/15/2018 19:08*							
1,2,4-Trimethylbenzene	5570	128	ug/Kg wet	5000		111	80-120	20	20		50
1,3,5-Trimethylbenzene	5550	63.1	ug/Kg wet	5000		111	80-120	19	20		50
Benzene	5580	116	ug/Kg wet	5000		112	80-120	20	20		50
Ethylbenzene	5620	75.6	ug/Kg wet	5000		112	80-120	20	20		50
m,p-Xylene	11300	69.2	ug/Kg wet	10000		113	80-120	20	20		50
Methyl tert-butyl ether	5760	199	ug/Kg wet	5000		115	80-120	19	20		50
Naphthalene	5460	134	ug/Kg wet	5000		109	80-120	17	20		50
o-Xylene	5640	95.0	ug/Kg wet	5000		113	80-120	19	20		50
Toluene	5630	139	ug/Kg wet	5000		113	80-120	20	20		50
Xylenes, Total	17000	161	ug/Kg wet	15000		113	80-120	20	20		50
Surrogate: 1,4-Dichlorobenzene-d4	*20.2*		*ug/Kg*	*20.00*		*101*	*70-130*				*50*

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Quality Control

(Continued)

Client: United Engineering Consultants, Inc.
Project: Waste Characterization 18006/18009
Work Order: 18C0468

Report Date: 03/29/2018
Matrix: Solid

Volatile Organic Compounds by GC/MS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
Batch: B8C0554 - SW5035											
Blank (B8C0554-BLK1)				*Prepared: 03/15/2018 13:00 Analyzed: 03/15/2018 14:16*							
Benzene	< 12.8	98.4	ug/Kg wet								50
Surrogate: Fluorobenzene	*19.3*		*ug/Kg*	*20.00*		*96*	*91-106*				*50*
Surrogate: Toluene-d8	*17.5*		*ug/Kg*	*20.00*		*87*	*71-112*				*50*
Surrogate: 4-Bromofluorobenzene	*10.7*		*ug/Kg*	*10.00*		*107*	*85-119*				*50*
LCS (B8C0554-BS1)				*Prepared: 03/15/2018 13:00 Analyzed: 03/15/2018 15:16*							
Benzene	4680	97.5	ug/Kg wet	3899		120	77-121				50
Surrogate: Fluorobenzene	*20.2*		*ug/Kg*	*20.00*		*101*	*91-106*				*50*
Surrogate: Toluene-d8	*20.8*		*ug/Kg*	*20.00*		*104*	*71-112*				*50*
Surrogate: 4-Bromofluorobenzene	*9.07*		*ug/Kg*	*10.00*		*91*	*85-119*				*50*
LCS Dup (B8C0554-BSD1)				*Prepared: 03/15/2018 13:00 Analyzed: 03/15/2018 15:46*							
Benzene	4510	99.2	ug/Kg wet	3969		114	77-121	4	20		50
Surrogate: Fluorobenzene	*20.3*		*ug/Kg*	*20.00*		*102*	*91-106*				*50*
Surrogate: Toluene-d8	*20.9*		*ug/Kg*	*20.00*		*104*	*71-112*				*50*
Surrogate: 4-Bromofluorobenzene	*9.66*		*ug/Kg*	*10.00*		*97*	*85-119*				*50*
Batch: B8C0737 - SW5030											
Blank (B8C0737-BLK1)				*Prepared: 03/21/2018 12:07 Analyzed: 03/22/2018 05:12*							
1,1-Dichloroethene	< 0.00117	0.00400	mg/L								1
1,2-Dichloroethane	< 0.00145	0.00800	mg/L								1
1,4-Dichlorobenzene	< 0.000860	0.00400	mg/L								1
2-Butanone	< 0.00954	0.0400	mg/L								1
Benzene	< 0.000940	0.00400	mg/L								1
Carbon tetrachloride	< 0.000850	0.00400	mg/L								1
Chlorobenzene	< 0.000610	0.00400	mg/L								1
Chloroform	< 0.00130	0.00800	mg/L								1
Tetrachloroethene	< 0.00102	0.00400	mg/L								1
Trichloroethene	< 0.000900	0.00400	mg/L								1
Vinyl chloride	< 0.00105	0.00400	mg/L								1
Surrogate: Dibromofluoromethane	*18.7*		*ug/L*	*20.00*		*93*	*78-119*				*1*
Surrogate: 1,2-Dichloroethane-d4	*19.8*		*ug/L*	*20.00*		*99*	*71-136*				*1*
Surrogate: Fluorobenzene	*19.4*		*ug/L*	*20.00*		*97*	*81-114*				*1*
Surrogate: Toluene-d8	*20.0*		*ug/L*	*20.00*		*100*	*85-116*				*1*
Surrogate: 4-Bromofluorobenzene	*10.6*		*ug/L*	*10.00*		*106*	*79-119*				*1*
Surrogate: 1,2-Dichlorobenzene-d4	*21.6*		*ug/L*	*20.00*		*108*	*80-120*				*1*

Environmental Monitoring and Technologies, Inc.

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Quality Control
(Continued)

Client: United Engineering Consultants, Inc.
Project: Waste Characterization 18006/18009
Work Order: 18C0468

Report Date: 03/29/2018
Matrix: Solid

Volatile Organic Compounds by GC/MS
(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
Batch: B8C0737 - SW5030 *(Continued)*											
LCS (B8C0737-BS1)				*Prepared: 03/21/2018 12:07 Analyzed: 03/22/2018 02:29*							
1,1-Dichloroethene	0.0980	0.00400	mg/L	0.08000		123	71-131				1
1,2-Dichloroethane	0.0884	0.00800	mg/L	0.08000		111	73-128				1
1,4-Dichlorobenzene	0.0912	0.00400	mg/L	0.08000		114	84-129				1
2-Butanone	0.256	0.0400	mg/L	0.2800		92	71-119				1
Benzene	0.0852	0.00400	mg/L	0.08000		106	79-120				1
Carbon tetrachloride	0.0862	0.00400	mg/L	0.08000		108	75-125				1
Chlorobenzene	0.0870	0.00400	mg/L	0.08000		109	82-118				1
Chloroform	0.0939	0.00800	mg/L	0.08000		117	79-124				1
Tetrachloroethene	0.0810	0.00400	mg/L	0.08000		101	74-129				1
Trichloroethene	0.0868	0.00400	mg/L	0.08000		108	84-129				1
Vinyl chloride	0.106	0.00400	mg/L	0.08000		132	58-137				1
Surrogate: Dibromofluoromethane	*17.8*		*ug/L*	*20.00*		*89*	*78-119*				*1*
Surrogate: 1,2-Dichloroethane-d4	*17.5*		*ug/L*	*20.00*		*88*	*71-136*				*1*
Surrogate: Fluorobenzene	*18.5*		*ug/L*	*20.00*		*92*	*81-114*				*1*
Surrogate: Toluene-d8	*17.4*		*ug/L*	*20.00*		*87*	*85-116*				*1*
Surrogate: 4-Bromofluorobenzene	*8.14*		*ug/L*	*10.00*		*81*	*79-119*				*1*
Surrogate: 1,2-Dichlorobenzene-d4	*17.8*		*ug/L*	*20.00*		*89*	*80-120*				*1*
LCS Dup (B8C0737-BSD1)				*Prepared: 03/21/2018 12:07 Analyzed: 03/22/2018 03:02*							
1,1-Dichloroethene	0.0719	0.00400	mg/L	0.08000		90	71-131	31	20	P	1
1,2-Dichloroethane	0.0777	0.00800	mg/L	0.08000		97	73-128	13	20		1
1,4-Dichlorobenzene	0.0815	0.00400	mg/L	0.08000		102	84-129	11	20		1
2-Butanone	0.274	0.0400	mg/L	0.2800		98	71-119	7	20		1
Benzene	0.0832	0.00400	mg/L	0.08000		104	79-120	2	20		1
Carbon tetrachloride	0.0793	0.00400	mg/L	0.08000		99	75-125	8	20		1
Chlorobenzene	0.0868	0.00400	mg/L	0.08000		108	82-118	0.3	20		1
Chloroform	0.0915	0.00800	mg/L	0.08000		114	79-124	3	20		1
Tetrachloroethene	0.0783	0.00400	mg/L	0.08000		98	74-129	3	20		1
Trichloroethene	0.0755	0.00400	mg/L	0.08000		94	84-129	14	20		1
Vinyl chloride	0.0772	0.00400	mg/L	0.08000		97	58-137	31	20	P	1
Surrogate: Dibromofluoromethane	*23.7*		*ug/L*	*20.00*		*119*	*78-119*				*1*
Surrogate: 1,2-Dichloroethane-d4	*22.2*		*ug/L*	*20.00*		*111*	*71-136*				*1*
Surrogate: Fluorobenzene	*20.4*		*ug/L*	*20.00*		*102*	*81-114*				*1*
Surrogate: Toluene-d8	*21.5*		*ug/L*	*20.00*		*107*	*85-116*				*1*
Surrogate: 4-Bromofluorobenzene	*10.9*		*ug/L*	*10.00*		*109*	*79-119*				*1*
Surrogate: 1,2-Dichlorobenzene-d4	*23.5*		*ug/L*	*20.00*		*117*	*80-120*				*1*
Batch: B8C1040											
Blank (B8C1040-BLK1)				*Prepared: 03/28/2018 11:38 Analyzed: 03/28/2018 17:52*							
1,1,1-Trichloroethane	< 26.6	26.6	ug/Kg wet								50
1,1,2,2-Tetrachloroethane	< 25.7	25.7	ug/Kg wet								50

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Quality Control

(Continued)

Client: United Engineering Consultants, Inc.
Project: Waste Characterization 18006/18009
Work Order: 18C0468

Report Date: 03/29/2018
Matrix: Solid

Volatile Organic Compounds by GC/MS

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
Batch: B8C1040 *(Continued)*											
Blank (B8C1040-BLK1) (Continued)				*Prepared: 03/28/2018 11:38 Analyzed: 03/28/2018 17:52*							
1,1,2-Trichloroethane	< 26.4	26.4	ug/Kg wet								50
1,1-Dichloroethane	< 40.0	40.0	ug/Kg wet								50
1,1-Dichloroethene	< 31.2	31.2	ug/Kg wet								50
1,2,4-Trimethylbenzene	< 25.0	25.0	ug/Kg wet								50
1,2-Dibromo-3-chloropropane	< 43.7	43.7	ug/Kg wet								50
1,2-Dibromoethane	< 25.0	25.0	ug/Kg wet								50
1,2-Dichloroethane	< 25.0	25.0	ug/Kg wet								50
1,2-Dichloropropane	< 25.0	25.0	ug/Kg wet								50
1,3,5-Trimethylbenzene	< 25.0	25.0	ug/Kg wet								50
1-Butanol	< 457	457	ug/Kg wet								50
2-Butanone	< 114	114	ug/Kg wet								50
2-Hexanone	< 78.5	78.5	ug/Kg wet								50
4-Methyl-2-pentanone	< 52.9	52.9	ug/Kg wet								50
Acetone	< 195	195	ug/Kg wet								50
Acrylonitrile	< 56.1	56.1	ug/Kg wet								50
Benzene	< 25.0	25.0	ug/Kg wet								50
Bromodichloromethane	< 25.0	25.0	ug/Kg wet								50
Bromoform	< 25.0	25.0	ug/Kg wet								50
Carbon disulfide	< 25.0	25.0	ug/Kg wet								50
Carbon tetrachloride	< 25.0	25.0	ug/Kg wet								50
Chlorobenzene	< 25.0	25.0	ug/Kg wet								50
Chloroform	< 25.0	25.0	ug/Kg wet								50
cis-1,2-Dichloroethene	< 27.4	27.4	ug/Kg wet								50
Dibromochloromethane	< 25.0	25.0	ug/Kg wet								50
Ethylbenzene	< 25.0	25.0	ug/Kg wet								50
m,p-Xylene	< 84.9	84.9	ug/Kg wet								50
Methyl tert-butyl ether	< 25.0	25.0	ug/Kg wet								50
Methylene chloride	< 46.7	46.7	ug/Kg wet								50
o-Xylene	< 25.0	25.0	ug/Kg wet								50
Styrene	< 25.0	25.0	ug/Kg wet								50
Tetrachloroethene	< 25.0	25.0	ug/Kg wet								50
Toluene	< 25.0	25.0	ug/Kg wet								50
trans-1,2-Dichloroethene	< 37.7	37.7	ug/Kg wet								50
Trichloroethene	< 25.0	25.0	ug/Kg wet								50
Vinyl acetate	< 30.6	30.6	ug/Kg wet								50
Vinyl chloride	< 25.0	25.0	ug/Kg wet								50
Xylenes, Total	< 96.7	96.7	ug/Kg wet								50
1,2-Dichloroethene, Total	< 65.1	65.1	ug/Kg wet								50
Surrogate: Dibromofluoromethane	*20.9*		*ug/Kg*	*20.00*		*105*	*78-137*				*50*
Surrogate: 1,2-Dichloroethane-d4	*18.8*		*ug/Kg*	*20.00*		*94*	*86-137*				*50*
Surrogate: Fluorobenzene	*19.8*		*ug/Kg*	*20.00*		*99*	*80-120*				*50*
Surrogate: Toluene-d8	*19.3*		*ug/Kg*	*20.00*		*97*	*85-115*				*50*

Environmental Monitoring and Technologies, Inc.

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Quality Control

(Continued)

Client: United Engineering Consultants, Inc.
Project: Waste Characterization 18006/18009
Work Order: 18C0468

Report Date: 03/29/2018
Matrix: Solid

Volatile Organic Compounds by GC/MS

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
Batch: B8C1040 *(Continued)*											
Blank (B8C1040-BLK1) (Continued)				*Prepared: 03/28/2018 11:38*			*Analyzed: 03/28/2018 17:52*				
Surrogate: 4-Bromofluorobenzene	*8.91*		*ug/Kg*	*10.00*		*89*	*85-120*				*50*
Surrogate: 1,2-Dichlorobenzene-d4	*22.6*		*ug/Kg*	*20.00*		*113*	*85-128*				*50*
LCS (B8C1040-BS1)				*Prepared: 03/28/2018 11:38*			*Analyzed: 03/28/2018 15:38*				
1,1,1-Trichloroethane	3890	26.6	ug/Kg wet	4000		97	55-145				50
1,1,2,2-Tetrachloroethane	3920	25.7	ug/Kg wet	4000		98	40-145				50
1,1,2-Trichloroethane	4180	26.4	ug/Kg wet	4000		105	50-140				50
1,1-Dichloroethane	3800	40.0	ug/Kg wet	4000		95	65-135				50
1,1-Dichloroethene	3320	31.2	ug/Kg wet	4000		83	55-150				50
1,2,4-Trimethylbenzene	4110	25.0	ug/Kg wet	4000		103	55-145				50
1,2-Dibromo-3-chloropropane	3760	43.7	ug/Kg wet	4000		94	25-150				50
1,2-Dibromoethane	4640	25.0	ug/Kg wet	4000		116	60-135				50
1,2-Dichloroethane	3640	25.0	ug/Kg wet	4000		91	60-145				50
1,2-Dichloropropane	3910	25.0	ug/Kg wet	4000		98	65-125				50
1,3,5-Trimethylbenzene	4210	25.0	ug/Kg wet	4000		105	55-145				50
1-Butanol	26200	457	ug/Kg wet	36000		73	70-130				50
2-Butanone	10900	114	ug/Kg wet	14000		78	10-180				50
2-Hexanone	11600	78.5	ug/Kg wet	14000		83	30-160				50
4-Methyl-2-pentanone	11200	52.9	ug/Kg wet	14000		80	30-165				50
Acetone	10900	195	ug/Kg wet	14000		78	10-180				50
Acrylonitrile	3390	56.1	ug/Kg wet	4000		85	70-130				50
Benzene	4180	25.0	ug/Kg wet	4000		104	65-135				50
Bromodichloromethane	4050	25.0	ug/Kg wet	4000		101	60-135				50
Bromoform	4400	25.0	ug/Kg wet	4000		110	45-150				50
Carbon disulfide	3850	25.0	ug/Kg wet	4000		96	30-180				50
Carbon tetrachloride	4190	25.0	ug/Kg wet	4000		105	55-145				50
Chlorobenzene	4430	25.0	ug/Kg wet	4000		111	65-130				50
Chloroform	3920	25.0	ug/Kg wet	4000		98	65-135				50
cis-1,2-Dichloroethene	4190	27.4	ug/Kg wet	4000		105	55-135				50
Dibromochloromethane	4590	25.0	ug/Kg wet	4000		115	55-140				50
Ethylbenzene	4640	25.0	ug/Kg wet	4000		116	65-135				50
m,p-Xylene	9820	84.9	ug/Kg wet	8000		123	70-135				50
Methyl tert-butyl ether	3530	25.0	ug/Kg wet	4000		88	70-130				50
Methylene chloride	3560	46.7	ug/Kg wet	4000		89	40-155				50
o-Xylene	3880	25.0	ug/Kg wet	4000		97	70-135				50
Styrene	4280	25.0	ug/Kg wet	4000		107	65-135				50
Tetrachloroethene	4400	25.0	ug/Kg wet	4000		110	55-150				50
Toluene	4620	25.0	ug/Kg wet	4000		115	60-135				50
trans-1,2-Dichloroethene	3590	37.7	ug/Kg wet	4000		90	55-145				50
Trichloroethene	4380	25.0	ug/Kg wet	4000		110	70-130				50
Vinyl acetate	3370	30.6	ug/Kg wet	4000		84	50-150				50
Vinyl chloride	3560	25.0	ug/Kg wet	4000		89	45-140				50

Environmental Monitoring and Technologies, Inc.

8100 N. Austin Avenue Morton Grove, IL 60053-3203 P 847.967.6666 800.246.0663 F 847.967.6735 www.emt.com

Quality Control
(Continued)

Client: United Engineering Consultants, Inc.
Project: Waste Characterization 18006/18009
Work Order: 18C0468

Report Date: 03/29/2018
Matrix: Solid

Volatile Organic Compounds by GC/MS
(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
Batch: B8C1040 *(Continued)*											
LCS (B8C1040-BS1) (Continued)				*Prepared: 03/28/2018 11:38*			*Analyzed: 03/28/2018 15:38*				
Xylenes, Total	13700	96.7	ug/Kg wet	12000		114	70-135				50
1,2-Dichloroethene, Total	7780	65.1	ug/Kg wet	8000		97	55-135				50
Surrogate: Dibromofluoromethane	*19.9*		*ug/Kg*	*20.00*		*99*	*78-137*				*50*
Surrogate: 1,2-Dichloroethane-d4	*17.4*		*ug/Kg*	*20.00*		*87*	*86-137*				*50*
Surrogate: Fluorobenzene	*19.9*		*ug/Kg*	*20.00*		*100*	*80-120*				*50*
Surrogate: Toluene-d8	*21.0*		*ug/Kg*	*20.00*		*105*	*85-115*				*50*
Surrogate: 4-Bromofluorobenzene	*8.46*		*ug/Kg*	*10.00*		*85*	*85-120*				*50*
Surrogate: 1,2-Dichlorobenzene-d4	*19.0*		*ug/Kg*	*20.00*		*95*	*85-128*				*50*
LCS Dup (B8C1040-BSD1)				*Prepared: 03/28/2018 11:38*			*Analyzed: 03/28/2018 16:12*				
1,1,1-Trichloroethane	3640	26.6	ug/Kg wet	4000		91	55-145	7	20		50
1,1,2,2-Tetrachloroethane	3990	25.7	ug/Kg wet	4000		100	40-145	2	20		50
1,1,2-Trichloroethane	3990	26.4	ug/Kg wet	4000		100	50-140	5	20		50
1,1-Dichloroethane	3650	40.0	ug/Kg wet	4000		91	65-135	4	20		50
1,1-Dichloroethene	3160	31.2	ug/Kg wet	4000		79	55-150	5	20		50
1,2,4-Trimethylbenzene	4210	25.0	ug/Kg wet	4000		105	55-145	3	20		50
1,2-Dibromo-3-chloropropane	3670	43.7	ug/Kg wet	4000		92	25-150	3	20		50
1,2-Dibromoethane	4380	25.0	ug/Kg wet	4000		110	60-135	6	20		50
1,2-Dichloroethane	3580	25.0	ug/Kg wet	4000		90	60-145	1	20		50
1,2-Dichloropropane	3700	25.0	ug/Kg wet	4000		93	65-125	6	20		50
1,3,5-Trimethylbenzene	4330	25.0	ug/Kg wet	4000		108	55-145	3	20		50
1-Butanol	28800	457	ug/Kg wet	36000		80	70-130	10	20		50
2-Butanone	14300	114	ug/Kg wet	14000		102	10-180	27	20	P	50
2-Hexanone	10700	78.5	ug/Kg wet	14000		77	30-160	7	20		50
4-Methyl-2-pentanone	10600	52.9	ug/Kg wet	14000		76	30-165	6	20		50
Acetone	10700	195	ug/Kg wet	14000		76	10-180	2	20		50
Acrylonitrile	3180	56.1	ug/Kg wet	4000		79	70-130	6	20		50
Benzene	4020	25.0	ug/Kg wet	4000		101	65-135	4	20		50
Bromodichloromethane	4000	25.0	ug/Kg wet	4000		100	60-135	1	20		50
Bromoform	4190	25.0	ug/Kg wet	4000		105	45-150	5	20		50
Carbon disulfide	3640	25.0	ug/Kg wet	4000		91	30-180	6	20		50
Carbon tetrachloride	3990	25.0	ug/Kg wet	4000		100	55-145	5	20		50
Chlorobenzene	4350	25.0	ug/Kg wet	4000		109	65-130	2	20		50
Chloroform	3700	25.0	ug/Kg wet	4000		93	65-135	6	20		50
cis-1,2-Dichloroethene	4030	27.4	ug/Kg wet	4000		101	55-135	4	20		50
Dibromochloromethane	4480	25.0	ug/Kg wet	4000		112	55-140	2	20		50
Ethylbenzene	4650	25.0	ug/Kg wet	4000		116	65-135	0.2	20		50
m,p-Xylene	9450	84.9	ug/Kg wet	8000		118	70-135	4	20		50
Methyl tert-butyl ether	3390	25.0	ug/Kg wet	4000		85	70-130	4	20		50
Methylene chloride	3450	46.7	ug/Kg wet	4000		86	40-155	3	20		50
o-Xylene	4070	25.0	ug/Kg wet	4000		102	70-135	5	20		50
Styrene	4240	25.0	ug/Kg wet	4000		106	65-135	0.8	20		50

Environmental Monitoring and Technologies, Inc.

8100 N. Austin Avenue Morton Grove, IL 60053-3203 P 847.967.6666 800.246.0663 F 847.967.6735 www.emt.com

Quality Control
(Continued)

Client: United Engineering Consultants, Inc.
Project: Waste Characterization 18006/18009
Work Order: 18C0468

Report Date: 03/29/2018
Matrix: Solid

Volatile Organic Compounds by GC/MS
(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
Batch: B8C1040 *(Continued)*											
LCS Dup (B8C1040-BSD1) (Continued)				*Prepared: 03/28/2018 11:38*			*Analyzed: 03/28/2018 16:12*				
Tetrachloroethene	4230	25.0	ug/Kg wet	4000		106	55-150	4	20		50
Toluene	4550	25.0	ug/Kg wet	4000		114	60-135	2	20		50
trans-1,2-Dichloroethene	3430	37.7	ug/Kg wet	4000		86	55-145	4	20		50
Trichloroethene	4220	25.0	ug/Kg wet	4000		105	70-130	4	20		50
Vinyl acetate	3280	30.6	ug/Kg wet	4000		82	50-150	3	20		50
Vinyl chloride	3350	25.0	ug/Kg wet	4000		84	45-140	6	20		50
Xylenes, Total	13500	96.7	ug/Kg wet	12000		113	70-135	1	20		50
1,2-Dichloroethene, Total	7460	65.1	ug/Kg wet	8000		93	55-135	4	20		50
Surrogate: Dibromofluoromethane	*19.0*		*ug/Kg*	*20.00*		*95*	*78-137*				*50*
Surrogate: 1,2-Dichloroethane-d4	*17.5*		*ug/Kg*	*20.00*		*88*	*86-137*				*50*
Surrogate: Fluorobenzene	*19.5*		*ug/Kg*	*20.00*		*97*	*80-120*				*50*
Surrogate: Toluene-d8	*21.3*		*ug/Kg*	*20.00*		*107*	*85-115*				*50*
Surrogate: 4-Bromofluorobenzene	*9.02*		*ug/Kg*	*10.00*		*90*	*85-120*				*50*
Surrogate: 1,2-Dichlorobenzene-d4	*19.3*		*ug/Kg*	*20.00*		*96*	*85-128*				*50*

Environmental Monitoring and Technologies, Inc.

8100 N. Austin Avenue Morton Grove, IL 60053-3203 P 847.967.6666 800.246.0663 F 847.967.6735 www.emt.com

Quality Control

(Continued)

Client: United Engineering Consultants, Inc.
Project: Waste Characterization 18006/18009
Work Order: 18C0468

Report Date: 03/29/2018
Matrix: Water

Metals by ICP-AES

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
Batch: B8C0526 - SW3015											
Blank (B8C0526-BLK1)				*Prepared: 03/15/2018 12:29 Analyzed: 03/15/2018 18:59*							
Lead	< 0.0140	0.0500	mg/L								1
TCLP Blank (B8C0526-BLK2)				*Prepared: 03/15/2018 12:29 Analyzed: 03/15/2018 19:12*							
Lead	< 0.0140	0.0500	mg/L								1
LCS (B8C0526-BS1)				*Prepared: 03/15/2018 12:29 Analyzed: 03/15/2018 19:03*							
Lead	1.24	0.0500	mg/L	1.250		98.9	86-113				1
Serial Dilution (B8C0526-DUP1)		**Source: 18C0466-01**		*Prepared: 03/15/2018 12:29 Analyzed: 03/15/2018 20:02*							
Lead	< 0.0700	0.250	mg/L		ND				10		5
MRL Check (B8C0526-MRL1)				*Prepared: 03/15/2018 12:29 Analyzed: 03/15/2018 19:08*							
Lead	0.0682	0.0500	mg/L	0.06250		109	70-130				1
Matrix Spike (B8C0526-MS1)		**Source: 18C0466-01**		*Prepared: 03/15/2018 12:29 Analyzed: 03/15/2018 19:50*							
Lead	1.16	0.0500	mg/L	1.250	0.0186	91.6	75-125				1
Matrix Spike Dup (B8C0526-MSD1)		**Source: 18C0466-01**		*Prepared: 03/15/2018 12:29 Analyzed: 03/15/2018 19:54*							
Lead	1.18	0.0500	mg/L	1.250	0.0186	92.5	75-125	0.940	20		1
Post Spike (B8C0526-PS1)		**Source: 18C0466-01**		*Prepared: 03/15/2018 12:29 Analyzed: 03/15/2018 19:58*							
Lead	0.662	0.0556	mg/L	0.6944	0.0186	92.7	80-120				1

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Quality Control

(Continued)

Client: United Engineering Consultants, Inc. **Report Date:** 03/29/2018
Project: Waste Characterization 18006/18009 **Matrix:** Water
Work Order: 18C0468

Semivolatile Organic Compounds by GC/MS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
Batch: B8C0637 - SW3510											
Blank (B8C0637-BLK1)				*Prepared: 03/20/2018 08:50 Analyzed: 03/21/2018 00:55*							
Cresols, Total	< 0.0021	0.0092	mg/L								1
1,4-Dichlorobenzene	< 0.0007	0.0046	mg/L								1
2,4,5-Trichlorophenol	< 0.0027	0.0231	mg/L								1
2,4,6-Trichlorophenol	< 0.0030	0.0231	mg/L								1
2,4-Dinitrotoluene	< 0.0017	0.0116	mg/L								1
2-Methylphenol	< 0.0011	0.0046	mg/L								1
3 & 4-Methylphenol	< 0.0010	0.0046	mg/L								1
Hexachlorobenzene	< 0.0009	0.0046	mg/L								1
Hexachlorobutadiene	< 0.0028	0.0231	mg/L								1
Hexachloroethane	< 0.0029	0.0231	mg/L								1
Nitrobenzene	< 0.0014	0.0092	mg/L								1
Pentachlorophenol	< 0.0176	0.116	mg/L								1
Pyridine	< 0.0084	0.0578	mg/L								1
Surrogate: 2-Fluorophenol	*0.0291*		*mg/L*	*0.09634*		*30*	*4-108*				*1*
Surrogate: Phenol-d5	*0.0236*		*mg/L*	*0.09634*		*24*	*1-101*				*1*
Surrogate: Nitrobenzene-d5	*0.0330*		*mg/L*	*0.09634*		*34*	*23-119*				*1*
Surrogate: 2-Fluorobiphenyl	*0.0326*		*mg/L*	*0.09634*		*34*	*28-124*				*1*
Surrogate: 2,4,6-Tribromophenol	*0.0179*		*mg/L*	*0.09634*		*19*	*11-102*				*1*
Surrogate: 4-Terphenyl-d14	*0.0981*		*mg/L*	*0.09634*		*102*	*79-147*				*1*
LCS (B8C0637-BS1)				*Prepared: 03/20/2018 08:50 Analyzed: 03/21/2018 02:57*							
Cresols, Total	0.0361	0.0040	mg/L	0.1000		36	8-74				1
1,4-Dichlorobenzene	0.0139	0.0020	mg/L	0.05000		28	23-137				1
2,4,5-Trichlorophenol	0.0263	0.0100	mg/L	0.05000		53	33-161				1
2,4,6-Trichlorophenol	0.0212	0.0100	mg/L	0.05000		42	36-149				1
2,4-Dinitrotoluene	0.0353	0.0050	mg/L	0.05000		71	31-151				1
2-Methylphenol	0.0187	0.0020	mg/L	0.05000		37	36-131				1
3 & 4-Methylphenol	0.0174	0.0020	mg/L	0.05000		35	30-137				1
Hexachlorobenzene	0.0336	0.0020	mg/L	0.05000		67	39-139				1
Hexachlorobutadiene	0.0150	0.0100	mg/L	0.05000		30	36-128			S	1
Hexachloroethane	0.0128	0.0100	mg/L	0.05000		26	33-126			S	1
Nitrobenzene	0.0185	0.0040	mg/L	0.05000		37	30-143				1
Pentachlorophenol	0.0322	0.0500	mg/L	0.05000		64	37-112			J	1
Pyridine	0.0105	0.0250	mg/L	0.05000		21	16-133			J	1
Surrogate: 2-Fluorophenol	*0.00977*		*mg/L*	*0.03334*		*29*	*4-108*				*1*
Surrogate: Phenol-d5	*0.00713*		*mg/L*	*0.03334*		*21*	*1-101*				*1*
Surrogate: Nitrobenzene-d5	*0.0126*		*mg/L*	*0.03334*		*38*	*23-119*				*1*
Surrogate: 2-Fluorobiphenyl	*0.0132*		*mg/L*	*0.03334*		*40*	*28-124*				*1*
Surrogate: 2,4,6-Tribromophenol	*0.0245*		*mg/L*	*0.03334*		*74*	*11-102*				*1*
Surrogate: 4-Terphenyl-d14	*0.0352*		*mg/L*	*0.03334*		*106*	*79-147*				*1*

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Quality Control

(Continued)

Client: United Engineering Consultants, Inc.
Project: Waste Characterization 18006/18009
Work Order: 18C0468

Report Date: 03/29/2018
Matrix: Water

Semivolatile Organic Compounds by GC/MS

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
Batch: B8C0637 - SW3510 *(Continued)*											
LCS Dup (B8C0637-BSD1)				*Prepared: 03/20/2018 08:50*			*Analyzed: 03/21/2018 03:37*				
Cresols, Total	0.0420	0.0040	mg/L	0.1000		42	8-74	15	20		1
1,4-Dichlorobenzene	0.0182	0.0020	mg/L	0.05000		36	23-137	26	20	P	1
2,4,5-Trichlorophenol	0.0307	0.0100	mg/L	0.05000		61	33-161	15	20		1
2,4,6-Trichlorophenol	0.0268	0.0100	mg/L	0.05000		54	36-149	23	20	P	1
2,4-Dinitrotoluene	0.0402	0.0050	mg/L	0.05000		80	31-151	13	20		1
2-Methylphenol	0.0221	0.0020	mg/L	0.05000		44	36-131	17	20		1
3 & 4-Methylphenol	0.0199	0.0020	mg/L	0.05000		40	30-137	13	20		1
Hexachlorobenzene	0.0386	0.0020	mg/L	0.05000		77	39-139	14	20		1
Hexachlorobutadiene	0.0182	0.0100	mg/L	0.05000		36	36-128	19	20		1
Hexachloroethane	0.0167	0.0100	mg/L	0.05000		33	33-126	27	20	P	1
Nitrobenzene	0.0246	0.0040	mg/L	0.05000		49	30-143	28	20	P	1
Pentachlorophenol	0.0359	0.0500	mg/L	0.05000		72	37-112	11	20	J	1
Pyridine	0.0140	0.0250	mg/L	0.05000		28	16-133	29	20	P, J	1
Surrogate: 2-Fluorophenol	*0.0114*		*mg/L*	*0.03334*		*34*	*4-108*				*1*
Surrogate: Phenol-d5	*0.00788*		*mg/L*	*0.03334*		*24*	*1-101*				*1*
Surrogate: Nitrobenzene-d5	*0.0164*		*mg/L*	*0.03334*		*49*	*23-119*				*1*
Surrogate: 2-Fluorobiphenyl	*0.0172*		*mg/L*	*0.03334*		*52*	*28-124*				*1*
Surrogate: 2,4,6-Tribromophenol	*0.0270*		*mg/L*	*0.03334*		*81*	*11-102*				*1*
Surrogate: 4-Terphenyl-d14	*0.0370*		*mg/L*	*0.03334*		*111*	*79-147*				*1*

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Certified Analyses included in this Report

Analyte	CAS #	Certifications
SM2540G in Solid		
Total Solids	Moist	WDNR
SW6010C in Water		
Lead, TCLP	7439-92-1	AKDEC,ISO,WDNR,DoD,ILEPA
SW8260B in Solid		
1,1-Dichloroethene, TCLP	75-35-4	AKDEC,LELAP,WDNR,DoD,ILEPA
1,2-Dichloroethane, TCLP	107-06-2	AKDEC,LELAP,WDNR,DoD,ILEPA
1,4-Dichlorobenzene, TCLP	106-46-7	LELAP,WDNR,DoD,ILEPA
2-Butanone, TCLP	78-93-3	LELAP,WDNR,DoD,ILEPA
Benzene, TCLP	71-43-2	LELAP,WDNR,DoD,ILEPA
Carbon tetrachloride, TCLP	56-23-5	AKDEC,LELAP,WDNR,DoD,ILEPA
Chlorobenzene, TCLP	108-90-7	AKDEC,LELAP,WDNR,DoD,ILEPA
Chloroform, TCLP	67-66-3	AKDEC,LELAP,WDNR,DoD,ILEPA
Tetrachloroethene, TCLP	127-18-4	LELAP,WDNR,DoD,ILEPA
Trichloroethene, TCLP	79-01-6	AKDEC,LELAP,WDNR,DoD,ILEPA
Vinyl chloride, TCLP	75-01-4	AKDEC,LELAP,WDNR,DoD,ILEPA
Benzene	71-43-2	LELAP,WDNR,DoD,ILEPA
SW8270D in Water		
Cresols, Total, TCLP	1319-77-3	DoD,WDNR
1,4-Dichlorobenzene, TCLP	106-46-7	DoD,WDNR,ILEPA
2,4,5-Trichlorophenol, TCLP	95-95-4	DoD,WDNR,ILEPA
2,4,6-Trichlorophenol, TCLP	88-06-2	DoD,WDNR,ILEPA
2,4-Dinitrotoluene, TCLP	121-14-2	DoD,WDNR,ILEPA
2-Methylphenol, TCLP	95-48-7	DoD,WDNR,ILEPA
3 & 4-Methylphenol, TCLP	84989-04-8	DoD,WDNR,ILEPA
Hexachlorobenzene, TCLP	118-74-1	DoD,WDNR,ILEPA
Hexachlorobutadiene, TCLP	87-68-3	DoD,WDNR,ILEPA
Hexachloroethane, TCLP	67-72-1	DoD,WDNR,ILEPA
Nitrobenzene, TCLP	98-95-3	DoD,WDNR,ILEPA
Pentachlorophenol, TCLP	87-86-5	DoD,WDNR,ILEPA
Pyridine, TCLP	110-86-1	DoD,WDNR,ILEPA
SW-846 8260B/WDNR: PUBL-FW-140 in Solid		
1,1,1-Trichloroethane	71-55-6	WDNR
1,1,2,2-Tetrachloroethane	79-34-5	WDNR
1,1,2-Trichloroethane	79-00-5	WDNR
1,1-Dichloroethane	75-34-3	WDNR
1,1-Dichloroethene	75-35-4	WDNR
1,2,4-Trimethylbenzene	95-63-6	WDNR
1,2-Dibromo-3-chloropropane	96-12-8	WDNR
1,2-Dibromoethane	106-93-4	WDNR
1,2-Dichloroethane	107-06-2	WDNR
1,2-Dichloropropane	78-87-5	WDNR

Environmental Monitoring and Technologies, Inc.

8100 N. Austin Avenue Morton Grove, IL 60053-3203 P 847.967.6666 800.246.0663 F 847.967.6735 www.emt.com

Certified Analyses included in this Report (Continued)

Analyte	CAS #	Certifications
SW-846 8260B/WDNR: PUBL-FW-140 in Solid (Continued)		
1,3,5-Trimethylbenzene	108-67-8	WDNR
1-Butanol	71-36-3	WDNR
2-Butanone	78-93-3	WDNR
2-Hexanone	591-78-6	WDNR
4-Methyl-2-pentanone	108-10-1	WDNR
Acetone	67-64-1	WDNR
Acrylonitrile	107-13-1	WDNR
Benzene	71-43-2	WDNR
Bromodichloromethane	75-27-4	WDNR
Bromoform	75-25-2	WDNR
Carbon disulfide	75-15-0	WDNR
Carbon tetrachloride	56-23-5	WDNR
Chlorobenzene	108-90-7	WDNR
Chloroform	67-66-3	WDNR
cis-1,2-Dichloroethene	156-59-2	WDNR
Dibromochloromethane	124-48-1	WDNR
Ethylbenzene	100-41-4	WDNR
m,p-Xylene	179601-23-1	WDNR
Methyl tert-butyl ether	1634-04-4	WDNR
Methylene chloride	75-09-2	WDNR
o-Xylene	95-47-6	WDNR
Styrene	100-42-5	WDNR
Tetrachloroethene	127-18-4	WDNR
Toluene	108-88-3	WDNR
trans-1,2-Dichloroethene	156-60-5	WDNR
Trichloroethene	79-01-6	WDNR
Vinyl acetate	108-05-4	WDNR
Vinyl chloride	75-01-4	WDNR
Xylenes, Total	1330-20-7	WDNR
1,2-Dichloroethene, Total	540-59-0	WDNR
WI(95)-GRO/PVOC: PUBL-SW-140 in Solid		
1,2,4-Trimethylbenzene	95-63-6	WDNR
1,3,5-Trimethylbenzene	108-67-8	WDNR
Benzene	71-43-2	WDNR
Ethylbenzene	100-41-4	WDNR
m,p-Xylene	179601-23-1	WDNR
Methyl tert-butyl ether	1634-04-4	WDNR
Naphthalene	91-20-3	WDNR
o-Xylene	95-47-6	WDNR
Toluene	108-88-3	WDNR
Xylenes, Total	1330-20-7	WDNR

Environmental
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Technologies, Inc.

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List of Certifications

Code	Description	Number	Expires
AKDEC	State of Alaska, Dept. Environmental Conservation	UST-105	04/30/2018
CPSC	US Consumer Product Safety Commission, Accredited by PJLA Lab No. 1050	L14-56	04/30/2018
DoD	Department of Defense, Accredited by PJLA	L14-55	04/30/2018
ILEPA	State of Illinois, NELAP Accredited Lab No. 100256	003674	08/08/2018
ISO	ISO/IEC 17025, Accredited by PJLA	L14-56	04/30/2018
LELAP	State of Louisiana, NELAP Accredited Lab No. 171344	05015	06/30/2018
NJDEP	State of New Jersey, NELAP Accredited Lab No. IL010	NLC160001	06/30/2018
WDNR	State of Wisconsin Dept of Natural Resources	999888890	08/31/2018

Environmental Monitoring and Technologies, Inc.

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Qualifiers and Definitions

Item	Description
H	Sample prepared and/ or analyzed past recommended holdtime.
J	Estimated Value
P	The %RPD result is above the laboratory control limits.
S	The recovery is outside of the laboratory control limits.
%Rec	Percent Recovery
MDL	In the state of Wisconsin MDL is equivalent to LOD; in all other applications MDL is equivalent to MDL. In the state of Wisconsin LOQ is equivalent to Reporting Limit.

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

18C0468
PM: Katherine Langfoss
United Engineering Consultants, Inc.
UEC Analysis

ustody Record

TURNAROUND TIME:
☐ RUSH
___ day turnaround
☑ ROUTINE

Due Date: ___-___-___ COC #: 157954

Company: UNITED ENGINEERING CONSULTANTS INC.
Address: 16237 W. RYERSON ROAD
NEW BERLIN, WI 53151

Phone #: (262) 785-1447 Fax #: (262) 706-4400
P.O. #: Proj.#: -
Client Contact:
Project ID / Location: 18006/18009

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other
3. Soil 6. Groundwater

Container Type:
P - Plastic V - VOC Vial O - Other
G - Glass B - Tedlar Bag

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other
3. HNO_3 6. MeOH

Analyses

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	Sampling By	Sampling Date	Sampling Time	pH	Temp.	Preservation Field	Preservation Lab	TCLP-LEAD	TCLP-VOC	TCLP-SVOC	TOTAL BENZENE	TOTAL SOLIDS	PVOC+NAPHTHALENE	EMT USE ONLY / EMT WORKORDER # 18C0468
SP-615	3	2OZ.	G	4	N/A	3/7/18	AM	-	-	1.		✓	✓	✓			✓	01ABCD
FO - BROADWAY	3	40ML	G	2	↓	3/6/18	PM	-	-	6.					✓	✓	✓	02AB
PE-E	3	↓	↓	↓	↓	3/7/18	AM	-	-	6						✓	✓	03AB
PE-C	3	↓	↓	↓	↓	↓	↓	-	-	6						✓	✓	04AB
PE-W	3	↓	↓	↓	↓	↓	↓	-	-	6						✓	✓	05AB

Relinquished By:	Date: 3-13-18 Time: 1:35 PM	Received By:	Date: 3-13-18 Time: 1335	EMT USE ONLY Client Code:
Relinquished By:	Date: 3-13-18 Time: 1715	Received By:	Date: - - Time: :	EMT Project I.D.
Relinquished By:	Date: - - Time: :	Received For Lab By:	Date: 3-13-18 Time: 17:15	Jar Lot No.

☐ ~~SAMPLE~~ RECEIVED ON ICE
☐ TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)
2.0

EMT SAMPLE RETURN POLICY ON BACK

SPECIAL INSTRUCTIONS: 13 GRAMS ADDED TO "FO-BROADWAY" BY PLASTIC MOULD)
PVOC+NAP ONLY ON "PE" Samples

EMT-FORM-GEN-028

Table of Contents

Sample Receipt Checklist

Work Order: 18C0468

Printed: 3/14/2018 7:59:26AM

Client:	**United Engineering Consultants, Inc.**	**Date Due:**	**03/20/18 17:00 (5 day TAT)**
Project:	**Waste Characterization**		

Received By:	**Steven Legacki**	**Date Received:**	**03/13/18 17:15**
Logged In By:	**Steven Legacki**	**Date Logged In:**	**03/13/18 18:00**

Samples Received at:	2°C
How were samples received?	EMT
Custody Seals Present	No
Custody Seals Intact	NA
Sample Cont/Cooler Intact	Yes
COC Present/Complete	Yes
COC/Labels Agree	Yes
Proper Cont/Preservation checked	No
Sufficient Sample Volume	Yes
Samples Within Holdtime	Yes
Cooler Temp Within Limits	Yes
VOA Water Vials Received	No
VOA Water Vials/Zero Headspace	NA
PM or Client Contacted	Yes

COMMENTS

Chain says vials have MeOH, vials do not say they are preserved

3/13/18