

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

Scott Walker, Governor  
Cathy Stepp, Secretary  
Telephone 608-266-2621  
Toll Free 1-888-936-7463  
TTY Access via relay - 711



July 29, 2013

EEl Real Estate Holdings: Fortis LLC  
2120Pewaukee Road #250  
Waukesha, WI 53188

Subject: No Further Action Decision for the HOPE Christian School – Fortis 3601 North Port  
Washington Road Milwaukee, WI

FID: 341156970  
BRRTS: 02-41-560763

Dear Sirs:

On July 25, 2013, the Wisconsin Department of Natural Resources (“the Department”) received the, “*Petroleum Impacted Soil Removal and Soil Sampling and Analysis*”, report from United Engineering Consultants, Inc. (UEC). I have reviewed the document and concur that the environment has been restored to the extent practicable as provided in Section NR 708.09, Wisconsin Administrative Code. Therefore, the immediate action in response to a release has been completed and the Department of Natural Resources is requiring no further action at this time.

The Department appreciates the actions you have taken to investigate and remediate the contamination at this site. If you have any questions regarding this No Further Action determination, please feel free to contact me at the above address or at (414) 263-8644. Please refer to the FID number at the top of this letter in any future correspondence. Future correspondence should be sent directly to the Remediation and Redevelopment Program Assistant Vicky Stovall (414-263-8688) at the above address.

Sincerely,

John J. Hnat, P.G., C.P.G.  
Project Manager/Hydrogeologist  
Southeast Region  
Bureau for Remediation and Redevelopment

C: Tim Anderson - UEC  
WDNR SER Files

02-41-560763

Notification For Hazardous Substance Discharge  
(Non-Emergency Only)

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: \_\_\_\_\_

RECEIVED  
JUL 25 2013  
BY: KS

ATTN DNR: **R & R Program Associate**

Date DNR Notified: \_\_\_\_\_

**1. Discharge Reported By**

Name Timothy J. Anderson	Firm United Engineering Consultants, Inc.	Phone No. (include area code) (262) 785-1447
Mailing Address 16237 W. Ryerson Road New Berlin, Wisconsin 53151	Email Address 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. Hope Christian School - Fortis

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. 3601 N. Port Washington Road

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

Milwaukee

County: Milwaukee	Legal Description: SW 1/4 NE 1/4 Sec 8 Tn 7 Range 22 ● E ○ W	WTM: X 689490 Y 292126
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**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.

EEL Real Estate Holdings: Fortis 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	
Mailing Address 2120 Pewaukee Road #250	City Waukesha	State WI	ZIP Code 53188

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

**4. Hazardous Substance Information**

Identify hazardous substance discharged (check all that apply):

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> VOC's                   | <input type="checkbox"/> Diesel                 | <input type="checkbox"/> PERC (Dry Cleaners)                |
| <input checked="" type="checkbox"/> PAH's        | <input type="checkbox"/> Fuel Oil               | <input type="checkbox"/> RCRA Hazardous Waste               |
| <input type="checkbox"/> Metals (specify): _____ | <input type="checkbox"/> Gasoline               | <input type="checkbox"/> Leachate                           |
| <input type="checkbox"/> Arsenic                 | <input type="checkbox"/> Hydraulic Oil          | <input type="checkbox"/> Fertilizer                         |
| <input type="checkbox"/> Chromium                | <input type="checkbox"/> Jet Fuel               | <input type="checkbox"/> Pesticide/Herbicide/Insecticide(s) |
| <input type="checkbox"/> Cyanide                 | <input type="checkbox"/> Mineral Oil            | <input type="checkbox"/> Other (specify): _____             |
| <input type="checkbox"/> Lead                    | <input type="checkbox"/> Waste Oil              | <input type="checkbox"/> Unknown                            |
| <input type="checkbox"/> PCB's                   | <input type="checkbox"/> Petroleum-Unknown Type |   |

**5. Impacts to the Environment Information**

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

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> Air Contamination                            | <input type="checkbox"/> Sanitary Sewer Contamination  | <input checked="" type="checkbox"/> Soil Contamination |
| <input type="checkbox"/> Co-Contamination (Petroleum & Non-Petroleum) | <input type="checkbox"/> Contamination in Right of Way | <input type="checkbox"/> Storm Sewer Contamination     |
| <input type="checkbox"/> Contamination Within 1 Meter of Bedrock      | <input type="checkbox"/> Fire Explosion Threat         | <input type="checkbox"/> Surface Water Contamination   |
| <input type="checkbox"/> Contaminated Private Well                    | <input type="checkbox"/> Free Product                  | <input type="checkbox"/> Within 100 ft of Private Well |
| <input type="checkbox"/> Contaminated Public Well                     | <input type="checkbox"/> Groundwater Contamination     | <input type="checkbox"/> Within 1000 ft of Public Well |
| <input type="checkbox"/> Contamination in Fractured Bedrock           | <input type="checkbox"/> Off-Site Contamination        |  |
|   | <input type="checkbox"/> Other (specify): _____        |  |

Contamination was discovered as a result of:

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Tank closure assessment | <input checked="" type="checkbox"/> Site assessment | <input type="checkbox"/> Other - Describe: _____ |
| Date: <input type="text"/>                       | Date: <input type="text" value="05/03/2013"/>       | Date: <input type="text"/>                       |

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:

- |                                     | Source                   | Cause  |
|-------------------------------------|--------------------------|--|
| <input checked="" type="checkbox"/> | Tank                     | <input type="checkbox"/> Spill                             |
| <input type="checkbox"/>            | Piping                   | <input type="checkbox"/> Overfill                          |
| <input type="checkbox"/>            | Dispenser                | <input type="checkbox"/> Corrosion                         |
| <input type="checkbox"/>            | Submersible Turbine Pump | <input type="checkbox"/> Physical or Mechanical Damage     |
| <input type="checkbox"/>            | Delivery Problem         | <input type="checkbox"/> Installation Problem              |
| <input type="checkbox"/>            | Other (specify): _____   | <input type="checkbox"/> Other (does not fit any of above) |
| <input type="checkbox"/>            |                          | <input checked="" type="checkbox"/> 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





*United Engineering Consultants, Inc.*

**RECEIVED**

**JUL 25 2013**

**BY: \_\_\_\_\_**

July 24, 2013

Mr. Jay Hnat  
Remediation and Redevelopment Program  
Wisconsin Department of Natural Resources  
2300 N. Martin Luther King Drive  
Milwaukee, Wisconsin 53212

Subject: Petroleum Impacted Soil Removal  
and Soil Sampling and Analysis  
Hope Christian School - Fortis  
3601 N. Port Washington Road  
Milwaukee, Wisconsin 53212  
UEC Project No. 13020  
FID No. 341156970

Dear Mr. Hnat:

During the construction of the addition to the above referenced school, petroleum impacted soil was encountered at the design bearing elevation of the continuous wall footing at the northwest corner. Key Engineering Group, Ltd. (Key) stated the petroleum contamination was most likely due to a release from a former Underground Storage Tank (UST) containing fuel oil. To facilitate the construction of the footing, the impacted soil was excavated and stockpiled on-site (See Figure-Soil Boring Location and Area of Impacted Soil Removal). Key sampled the stockpile on May 1 and 3, 2013 for Protocol B analysis for Waste Management landfill disposal.

Based on the results of the Protocol B analysis, the petroleum impacted soil was approved for disposal at Waste Management's Orchard Ridge RDF facility (See Pace Analytical Protocol B Analytical Results-May 6 and 10, 2013). On May 29, 2013, 63.62 tons of impacted soil was transported to Orchard Ridge RDF for disposal (See- Waste Management Non-Hazardous Manifests).

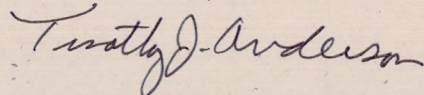


Due to the absence of excavation limit sampling and analysis, United Engineering Consultants, Inc. (United) advanced a soil boring with a track mounted drill rig subsequent to construction of the addition immediately adjacent to the petroleum impacted area (See-Soil Boring Log and Borehole Abandonment Form 3300-005 (4/08). Soil samples were collected at and below the approximate footing bottom at sample intervals of eight (8) to ten (10) feet and ten (10) to twelve (12) feet. The collected samples were analyzed for the presence of Polynuclear Aromatic Hydrocarbons (PAH).

The results indicated the presence of 1-Methylnaphthalene, 2-Methylnaphthalene and Phenanthrene at concentrations ranging from ten (10) to twenty four (24) ug/kg at the sample interval of eight (8) to ten (10) feet. These results were "J" flagged by the laboratory indicating their presence between the quantitation limit and the method detection limit. These concentrations are considerably less than their respective Generic Residual Contaminant Level (GRCL). No other PAH compounds were present at this sample interval as well as the ten (10) to twelve (12) foot interval at concentrations at or above their respective detection limits (See-Soil Analytical Results and Chain of Custody – June 20, 2013).

Based on the results of the soil sampling and PAH analysis and the petroleum impacted soil removal and disposal not exceeding one hundred (100) tons, United requests a "No Further Action" designation per WDNR Chapter 708.09 for the PAH release on behalf of Hope Christian School-Fortis.

Respectfully submitted,  
UNITED ENGINEERING CONSULTANTS, INC.



Timothy J. Anderson, P.E.  
Principal

Attachments: Figure-Soil Boring Location and Area of Impacted Soil Removal  
Pace Analytical Protocol B Analytical Results-May 6 and 10, 2013  
Waste Management Non-Hazardous Manifests  
Soil Boring Log  
Borehole Abandonment Form 3300-005 (4/08)  
Soil Analytical Results and Chain of  
Custody – June 20, 2013



These test results apply only to the specific locations and materials noted and may not represent any other locations or elevations. This report may not be reproduced, except in full, without written permission by Professional Service Industries, Inc. If a non-compliance appears on this report, to the extent that the reported non-compliance impacts the project, the resolution is outside the PSI scope of engagement.

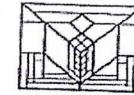
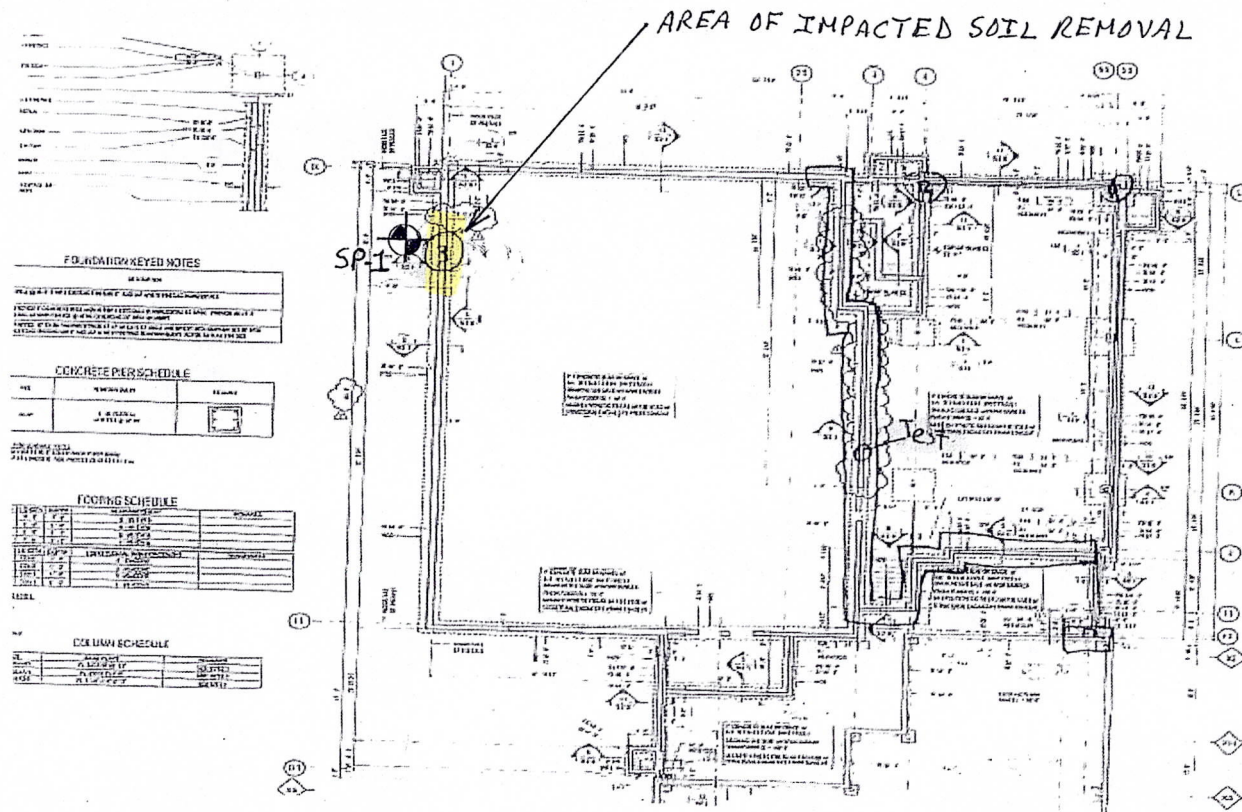
Approved Signatory: Scott Renner (Project Specialist)  
 Date of Issue: 5/9/2013

# Foundation Report

**Client:** CATALYST CONSTRUCTION  
 225 E. MASON STREET  
 SUITE 600  
 MILWAUKEE, WI 53202

**CC:** JOE SMALLWOOD,  
 RON KAMMERZELT

**Project:** HOPE FORTIS EXPANSION  
 MILWAUKEE, WI



STEPHEN PERRY SMITH  
 ARCHITECTS, INC.  
 TWO PARK PLACE  
 108.50 W. PARK PLACE, SUITE 400  
 MILWAUKEE, WISCONSIN 53224  
 T 414.359.9700 | F 414.359.9704  
 www.spsa.com



**PROJECT**

**HOPE**  
 HOPE FORTIS  
 GYMNASIUM EXPANSION  
 3401 N. FORT WASHINGTON RD.  
 MILWAUKEE, WI 53212

**CONSTRUCTION MANAGER**

**CATALYST**  
 CONSTRUCTION

225 E. MASON STREET, SUITE 400  
 MILWAUKEE, WI 53202  
 T: 414.227.8840

**REVISIONS**

NO.	DESCRIPTION	DATE
1	ISSUE FOR PERMIT	5/9/2013
2	CONSTRUCTION COORDINATION	5/9/2013

**INFORMATION**



May 06, 2013

D'Arcy Gravelle  
KEY ENGINEERING GROUP, LTD.  
735 N. Water St  
STE 1000  
Milwaukee, WI 53202

RE: Project: 2207002 HOPE SCHOOL  
Pace Project No.: 4077300

Dear D'Arcy Gravelle:

Enclosed are the analytical results for sample(s) received by the laboratory on May 04, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



Brian Basten for  
Dan Milewsky  
dan.milewsky@pacelabs.com  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc..

## CERTIFICATIONS

Project: 2207002 HOPE SCHOOL  
Pace Project No.: 4077300

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### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334

New York Certification #: 11888  
North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
US Dept of Agriculture #: S-76505  
Wisconsin Certification #: 405132750



### SAMPLE SUMMARY

Project: 2207002 HOPE SCHOOL  
Pace Project No.: 4077300

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
4077300001	S-1	Solid	05/03/13 09:00	05/04/13 08:15

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### REPORT OF LABORATORY ANALYSIS

### SAMPLE ANALYTE COUNT

Project: 2207002 HOPE SCHOOL  
Pace Project No.: 4077300

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Lab ID	Sample ID	Method	Analysts	Analytes Reported
4077300001	S-1	EPA 8270 by SIM	ARO	20
		EPA 8260	SMT	64
		ASTM D2974-87	MAV	1



## ANALYTICAL RESULTS

Project: 2207002 HOPE SCHOOL  
Pace Project No.: 4077300

Sample: S-1 Lab ID: 4077300001 Collected: 05/03/13 09:00 Received: 05/04/13 08:15 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<51.3	ug/kg	103	51.3	5	05/06/13 08:58	05/06/13 14:30	83-32-9	
Acenaphthylene	<51.3	ug/kg	103	51.3	5	05/06/13 08:58	05/06/13 14:30	208-96-8	
Anthracene	22.0J	ug/kg	103	10.5	5	05/06/13 08:58	05/06/13 14:30	120-12-7	
Benzo(a)anthracene	<51.3	ug/kg	103	51.3	5	05/06/13 08:58	05/06/13 14:30	56-55-3	
Benzo(a)pyrene	<51.3	ug/kg	103	51.3	5	05/06/13 08:58	05/06/13 14:30	50-32-8	
Benzo(b)fluoranthene	17.9J	ug/kg	103	14.8	5	05/06/13 08:58	05/06/13 14:30	205-99-2	
Benzo(g,h,i)perylene	<51.3	ug/kg	103	51.3	5	05/06/13 08:58	05/06/13 14:30	191-24-2	
Benzo(k)fluoranthene	<51.3	ug/kg	103	51.3	5	05/06/13 08:58	05/06/13 14:30	207-08-9	
Chrysene	29.9J	ug/kg	103	11.7	5	05/06/13 08:58	05/06/13 14:30	218-01-9	
Dibenz(a,h)anthracene	<51.3	ug/kg	103	51.3	5	05/06/13 08:58	05/06/13 14:30	53-70-3	
Fluoranthene	71.7J	ug/kg	103	51.3	5	05/06/13 08:58	05/06/13 14:30	206-44-0	
Fluorene	<51.3	ug/kg	103	51.3	5	05/06/13 08:58	05/06/13 14:30	86-73-7	
Indeno(1,2,3-cd)pyrene	<51.3	ug/kg	103	51.3	5	05/06/13 08:58	05/06/13 14:30	193-39-5	
1-Methylnaphthalene	909	ug/kg	103	46.8	5	05/06/13 08:58	05/06/13 14:30	90-12-0	
2-Methylnaphthalene	2040	ug/kg	103	9.6	5	05/06/13 08:58	05/06/13 14:30	91-57-6	
Naphthalene	551	ug/kg	103	19.3	5	05/06/13 08:58	05/06/13 14:30	91-20-3	
Phenanthrene	123	ug/kg	103	13.1	5	05/06/13 08:58	05/06/13 14:30	85-01-8	
Pyrene	70.2J	ug/kg	103	51.3	5	05/06/13 08:58	05/06/13 14:30	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	83 %		40-130		5	05/06/13 08:58	05/06/13 14:30	321-60-8	
Terphenyl-d14 (S)	75 %		40-130		5	05/06/13 08:58	05/06/13 14:30	1718-51-0	
<b>8260 MSV Med Level Normal List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Benzene	<7.3	ug/kg	60.0	7.3	1	05/06/13 11:03	05/06/13 16:10	71-43-2	W
Bromobenzene	<11.7	ug/kg	60.0	11.7	1	05/06/13 11:03	05/06/13 16:10	108-86-1	W
Bromochloromethane	<13.6	ug/kg	60.0	13.6	1	05/06/13 11:03	05/06/13 16:10	74-97-5	W
Bromodichloromethane	<9.3	ug/kg	60.0	9.3	1	05/06/13 11:03	05/06/13 16:10	75-27-4	W
Bromoform	<10.4	ug/kg	60.0	10.4	1	05/06/13 11:03	05/06/13 16:10	75-25-2	W
Bromomethane	<15.3	ug/kg	60.0	15.3	1	05/06/13 11:03	05/06/13 16:10	74-83-9	W
n-Butylbenzene	<13.4	ug/kg	60.0	13.4	1	05/06/13 11:03	05/06/13 16:10	104-51-8	W
sec-Butylbenzene	46.7J	ug/kg	73.9	13.5	1	05/06/13 11:03	05/06/13 16:10	135-98-8	
tert-Butylbenzene	<11.8	ug/kg	60.0	11.8	1	05/06/13 11:03	05/06/13 16:10	98-06-6	W
Carbon tetrachloride	<10.9	ug/kg	60.0	10.9	1	05/06/13 11:03	05/06/13 16:10	56-23-5	W
Chlorobenzene	<8.4	ug/kg	60.0	8.4	1	05/06/13 11:03	05/06/13 16:10	108-90-7	W
Chloroethane	<22.4	ug/kg	60.0	22.4	1	05/06/13 11:03	05/06/13 16:10	75-00-3	W
Chloroform	<13.0	ug/kg	60.0	13.0	1	05/06/13 11:03	05/06/13 16:10	67-66-3	W
Chloromethane	<12.8	ug/kg	60.0	12.8	1	05/06/13 11:03	05/06/13 16:10	74-87-3	W
2-Chlorotoluene	<11.1	ug/kg	60.0	11.1	1	05/06/13 11:03	05/06/13 16:10	95-49-8	W
4-Chlorotoluene	<16.5	ug/kg	60.0	16.5	1	05/06/13 11:03	05/06/13 16:10	106-43-4	W
1,2-Dibromo-3-chloropropane	<49.8	ug/kg	250	49.8	1	05/06/13 11:03	05/06/13 16:10	96-12-8	W
Dibromochloromethane	<7.0	ug/kg	60.0	7.0	1	05/06/13 11:03	05/06/13 16:10	124-48-1	W
1,2-Dibromoethane (EDB)	<19.4	ug/kg	60.0	19.4	1	05/06/13 11:03	05/06/13 16:10	106-93-4	W
Dibromomethane	<14.3	ug/kg	60.0	14.3	1	05/06/13 11:03	05/06/13 16:10	74-95-3	W
1,2-Dichlorobenzene	<15.9	ug/kg	60.0	15.9	1	05/06/13 11:03	05/06/13 16:10	95-50-1	W
1,3-Dichlorobenzene	<9.8	ug/kg	60.0	9.8	1	05/06/13 11:03	05/06/13 16:10	541-73-1	W

### ANALYTICAL RESULTS

Project: 2207002 HOPE SCHOOL  
Pace Project No.: 4077300

Sample: S-1 Lab ID: 4077300001 Collected: 05/03/13 09:00 Received: 05/04/13 08:15 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,4-Dichlorobenzene	<14.2	ug/kg	60.0	14.2	1	05/06/13 11:03	05/06/13 16:10	106-46-7	W
Dichlorodifluoromethane	<24.6	ug/kg	60.0	24.6	1	05/06/13 11:03	05/06/13 16:10	75-71-8	W
1,1-Dichloroethane	<8.2	ug/kg	60.0	8.2	1	05/06/13 11:03	05/06/13 16:10	75-34-3	W
1,2-Dichloroethane	<13.3	ug/kg	60.0	13.3	1	05/06/13 11:03	05/06/13 16:10	107-06-2	W
1,1-Dichloroethene	<11.1	ug/kg	60.0	11.1	1	05/06/13 11:03	05/06/13 16:10	75-35-4	W
cis-1,2-Dichloroethene	<17.3	ug/kg	60.0	17.3	1	05/06/13 11:03	05/06/13 16:10	156-59-2	W
trans-1,2-Dichloroethene	<10.5	ug/kg	60.0	10.5	1	05/06/13 11:03	05/06/13 16:10	156-60-5	W
1,2-Dichloropropane	<17.3	ug/kg	60.0	17.3	1	05/06/13 11:03	05/06/13 16:10	78-87-5	W
1,3-Dichloropropane	<15.2	ug/kg	60.0	15.2	1	05/06/13 11:03	05/06/13 16:10	142-28-9	W
2,2-Dichloropropane	<17.2	ug/kg	60.0	17.2	1	05/06/13 11:03	05/06/13 16:10	594-20-7	W
1,1-Dichloropropene	<17.6	ug/kg	60.0	17.6	1	05/06/13 11:03	05/06/13 16:10	563-58-6	W
cis-1,3-Dichloropropene	<6.6	ug/kg	60.0	6.6	1	05/06/13 11:03	05/06/13 16:10	10061-01-5	W
trans-1,3-Dichloropropene	<10.3	ug/kg	60.0	10.3	1	05/06/13 11:03	05/06/13 16:10	10061-02-6	W
Diisopropyl ether	<10.5	ug/kg	60.0	10.5	1	05/06/13 11:03	05/06/13 16:10	108-20-3	W
Ethylbenzene	<8.9	ug/kg	60.0	8.9	1	05/06/13 11:03	05/06/13 16:10	100-41-4	W
Hexachloro-1,3-butadiene	<16.5	ug/kg	60.0	16.5	1	05/06/13 11:03	05/06/13 16:10	87-68-3	W
Isopropylbenzene (Cumene)	<10.6	ug/kg	60.0	10.6	1	05/06/13 11:03	05/06/13 16:10	98-82-8	W
p-Isopropyltoluene	79.7	ug/kg	73.9	15.8	1	05/06/13 11:03	05/06/13 16:10	99-87-6	
Methylene Chloride	<8.5	ug/kg	60.0	8.5	1	05/06/13 11:03	05/06/13 16:10	75-09-2	W
Methyl-tert-butyl ether	<9.7	ug/kg	60.0	9.7	1	05/06/13 11:03	05/06/13 16:10	1634-04-4	L2,W
Naphthalene	1360	ug/kg	73.9	18.1	1	05/06/13 11:03	05/06/13 16:10	91-20-3	
n-Propylbenzene	15.4J	ug/kg	73.9	13.4	1	05/06/13 11:03	05/06/13 16:10	103-65-1	
Styrene	<5.9	ug/kg	60.0	5.9	1	05/06/13 11:03	05/06/13 16:10	100-42-5	W
1,1,1,2-Tetrachloroethane	<9.9	ug/kg	60.0	9.9	1	05/06/13 11:03	05/06/13 16:10	630-20-6	W
1,1,2,2-Tetrachloroethane	<13.0	ug/kg	60.0	13.0	1	05/06/13 11:03	05/06/13 16:10	79-34-5	W
Tetrachloroethene	<13.4	ug/kg	60.0	13.4	1	05/06/13 11:03	05/06/13 16:10	127-18-4	W
Toluene	<15.5	ug/kg	60.0	15.5	1	05/06/13 11:03	05/06/13 16:10	108-88-3	W
1,2,3-Trichlorobenzene	<13.8	ug/kg	60.0	13.8	1	05/06/13 11:03	05/06/13 16:10	87-61-6	W
1,2,4-Trichlorobenzene	<17.4	ug/kg	60.0	17.4	1	05/06/13 11:03	05/06/13 16:10	120-82-1	W
1,1,1-Trichloroethane	<13.7	ug/kg	60.0	13.7	1	05/06/13 11:03	05/06/13 16:10	71-55-6	W
1,1,2-Trichloroethane	<18.6	ug/kg	60.0	18.6	1	05/06/13 11:03	05/06/13 16:10	79-00-5	W
Trichloroethene	<20.0	ug/kg	60.0	20.0	1	05/06/13 11:03	05/06/13 16:10	79-01-6	W
Trichlorofluoromethane	<15.2	ug/kg	60.0	15.2	1	05/06/13 11:03	05/06/13 16:10	75-69-4	W
1,2,3-Trichloropropane	<24.4	ug/kg	60.0	24.4	1	05/06/13 11:03	05/06/13 16:10	96-18-4	W
1,2,4-Trimethylbenzene	282	ug/kg	73.9	11.7	1	05/06/13 11:03	05/06/13 16:10	95-63-6	
1,3,5-Trimethylbenzene	20.2J	ug/kg	73.9	16.5	1	05/06/13 11:03	05/06/13 16:10	108-67-8	
Vinyl chloride	<10.8	ug/kg	60.0	10.8	1	05/06/13 11:03	05/06/13 16:10	75-01-4	W
m&p-Xylene	<25.6	ug/kg	120	25.6	1	05/06/13 11:03	05/06/13 16:10	179601-23-1	W
o-Xylene	108	ug/kg	73.9	16.8	1	05/06/13 11:03	05/06/13 16:10	95-47-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	92 %		57-130		1	05/06/13 11:03	05/06/13 16:10	1868-53-7	
Toluene-d8 (S)	99 %		54-133		1	05/06/13 11:03	05/06/13 16:10	2037-26-5	
4-Bromofluorobenzene (S)	90 %		49-130		1	05/06/13 11:03	05/06/13 16:10	460-00-4	

**ANALYTICAL RESULTS**

Project: 2207002 HOPE SCHOOL  
Pace Project No.: 4077300

Sample: S-1 Lab ID: 4077300001 Collected: 05/03/13 09:00 Received: 05/04/13 08:15 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	18.8 %		0.10	0.10	1		05/04/13 13:02		



### QUALITY CONTROL DATA

Project: 2207002 HOPE SCHOOL  
Pace Project No.: 4077300

QC Batch: MSV/19476 Analysis Method: EPA 8260  
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Normal List  
Associated Lab Samples: 4077300001

METHOD BLANK: 784975 Matrix: Solid  
Associated Lab Samples: 4077300001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	<9.9	60.0	05/06/13 12:20	
1,1,1-Trichloroethane	ug/kg	<13.7	60.0	05/06/13 12:20	
1,1,2,2-Tetrachloroethane	ug/kg	<13.0	60.0	05/06/13 12:20	
1,1,2-Trichloroethane	ug/kg	<18.6	60.0	05/06/13 12:20	
1,1-Dichloroethane	ug/kg	<8.2	60.0	05/06/13 12:20	
1,1-Dichloroethene	ug/kg	<11.1	60.0	05/06/13 12:20	
1,1-Dichloropropene	ug/kg	<17.6	60.0	05/06/13 12:20	
1,2,3-Trichlorobenzene	ug/kg	<13.8	60.0	05/06/13 12:20	
1,2,3-Trichloropropane	ug/kg	<24.4	60.0	05/06/13 12:20	
1,2,4-Trichlorobenzene	ug/kg	<17.4	60.0	05/06/13 12:20	
1,2,4-Trimethylbenzene	ug/kg	<9.5	60.0	05/06/13 12:20	
1,2-Dibromo-3-chloropropane	ug/kg	<49.8	250	05/06/13 12:20	
1,2-Dibromoethane (EDB)	ug/kg	<19.4	60.0	05/06/13 12:20	
1,2-Dichlorobenzene	ug/kg	<15.9	60.0	05/06/13 12:20	
1,2-Dichloroethane	ug/kg	<13.3	60.0	05/06/13 12:20	
1,2-Dichloropropane	ug/kg	<17.3	60.0	05/06/13 12:20	
1,3,5-Trimethylbenzene	ug/kg	<13.4	60.0	05/06/13 12:20	
1,3-Dichlorobenzene	ug/kg	<9.8	60.0	05/06/13 12:20	
1,3-Dichloropropane	ug/kg	<15.2	60.0	05/06/13 12:20	
1,4-Dichlorobenzene	ug/kg	<14.2	60.0	05/06/13 12:20	
2,2-Dichloropropane	ug/kg	<17.2	60.0	05/06/13 12:20	
2-Chlorotoluene	ug/kg	<11.1	60.0	05/06/13 12:20	
4-Chlorotoluene	ug/kg	<16.5	60.0	05/06/13 12:20	
Benzene	ug/kg	<7.3	60.0	05/06/13 12:20	
Bromobenzene	ug/kg	<11.7	60.0	05/06/13 12:20	
Bromochloromethane	ug/kg	<13.6	60.0	05/06/13 12:20	
Bromodichloromethane	ug/kg	<9.3	60.0	05/06/13 12:20	
Bromoform	ug/kg	<10.4	60.0	05/06/13 12:20	
Bromomethane	ug/kg	<15.3	60.0	05/06/13 12:20	
Carbon tetrachloride	ug/kg	<10.9	60.0	05/06/13 12:20	
Chlorobenzene	ug/kg	<8.4	60.0	05/06/13 12:20	
Chloroethane	ug/kg	<22.4	60.0	05/06/13 12:20	
Chloroform	ug/kg	<13.0	60.0	05/06/13 12:20	
Chloromethane	ug/kg	<12.8	60.0	05/06/13 12:20	
cis-1,2-Dichloroethene	ug/kg	<17.3	60.0	05/06/13 12:20	
cis-1,3-Dichloropropene	ug/kg	<6.6	60.0	05/06/13 12:20	
Dibromochloromethane	ug/kg	<7.0	60.0	05/06/13 12:20	
Dibromomethane	ug/kg	<14.3	60.0	05/06/13 12:20	
Dichlorodifluoromethane	ug/kg	<24.6	60.0	05/06/13 12:20	
Diisopropyl ether	ug/kg	<10.5	60.0	05/06/13 12:20	
Ethylbenzene	ug/kg	<8.9	60.0	05/06/13 12:20	
Hexachloro-1,3-butadiene	ug/kg	<16.5	60.0	05/06/13 12:20	
Isopropylbenzene (Cumene)	ug/kg	<10.6	60.0	05/06/13 12:20	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 2207002 HOPE SCHOOL

Pace Project No.: 4077300

METHOD BLANK: 784975

Matrix: Solid

Associated Lab Samples: 4077300001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
m&p-Xylene	ug/kg	<25.6	120	05/06/13 12:20	
Methyl-tert-butyl ether	ug/kg	<9.7	60.0	05/06/13 12:20	
Methylene Chloride	ug/kg	21.8J	60.0	05/06/13 12:20	
n-Butylbenzene	ug/kg	<13.4	60.0	05/06/13 12:20	
n-Propylbenzene	ug/kg	<10.9	60.0	05/06/13 12:20	
Naphthalene	ug/kg	<14.7	60.0	05/06/13 12:20	
o-Xylene	ug/kg	<13.7	60.0	05/06/13 12:20	
p-Isopropyltoluene	ug/kg	<12.8	60.0	05/06/13 12:20	
sec-Butylbenzene	ug/kg	<10.9	60.0	05/06/13 12:20	
Styrene	ug/kg	<5.9	60.0	05/06/13 12:20	
tert-Butylbenzene	ug/kg	<11.8	60.0	05/06/13 12:20	
Tetrachloroethene	ug/kg	<13.4	60.0	05/06/13 12:20	
Toluene	ug/kg	<15.5	60.0	05/06/13 12:20	
trans-1,2-Dichloroethene	ug/kg	<10.5	60.0	05/06/13 12:20	
trans-1,3-Dichloropropene	ug/kg	<10.3	60.0	05/06/13 12:20	
Trichloroethene	ug/kg	<20.0	60.0	05/06/13 12:20	
Trichlorofluoromethane	ug/kg	<15.2	60.0	05/06/13 12:20	
Vinyl chloride	ug/kg	<10.8	60.0	05/06/13 12:20	
4-Bromofluorobenzene (S)	%	95	49-130	05/06/13 12:20	
Dibromofluoromethane (S)	%	96	57-130	05/06/13 12:20	
Toluene-d8 (S)	%	107	54-133	05/06/13 12:20	

LABORATORY CONTROL SAMPLE & LCSD: 784976

784977

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/kg	2500	2350	2420	94	97	70-130	3	20	
1,1,2,2-Tetrachloroethane	ug/kg	2500	2340	2490	93	100	70-130	6	20	
1,1,2-Trichloroethane	ug/kg	2500	2370	2450	95	98	70-130	3	20	
1,1-Dichloroethane	ug/kg	2500	2290	2270	92	91	70-130	1	20	
1,1-Dichloroethene	ug/kg	2500	2290	2260	92	90	64-130	1	20	
1,2,4-Trichlorobenzene	ug/kg	2500	2760	2910	110	117	68-130	5	20	
1,2-Dibromo-3-chloropropane	ug/kg	2500	2190	2270	87	91	50-150	4	20	
1,2-Dibromoethane (EDB)	ug/kg	2500	2300	2330	92	93	70-130	2	20	
1,2-Dichlorobenzene	ug/kg	2500	2490	2520	100	101	70-130	1	20	
1,2-Dichloroethane	ug/kg	2500	2240	2260	90	90	70-130	1	20	
1,2-Dichloropropane	ug/kg	2500	2450	2470	98	99	70-130	1	20	
1,3-Dichlorobenzene	ug/kg	2500	2460	2530	99	101	70-130	3	20	
1,4-Dichlorobenzene	ug/kg	2500	2380	2470	95	99	70-130	4	20	
Benzene	ug/kg	2500	2250	2250	90	90	70-130	0	20	
Bromodichloromethane	ug/kg	2500	2230	2300	89	92	70-130	3	20	
Bromoform	ug/kg	2500	2300	2510	92	100	63-130	9	20	
Bromomethane	ug/kg	2500	2250	2170	90	87	41-142	4	20	
Carbon tetrachloride	ug/kg	2500	2250	2250	90	90	70-130	0	20	
Chlorobenzene	ug/kg	2500	2410	2370	96	95	70-130	2	20	
Chloroethane	ug/kg	2500	2030	2060	81	83	57-130	2	20	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 2207002 HOPE SCHOOL

Pace Project No.: 4077300

LABORATORY CONTROL SAMPLE & LCSD: 784976		784977								
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Chloroform	ug/kg	2500	2270	2250	91	90	70-130	1	20	
Chloromethane	ug/kg	2500	2120	2100	85	84	57-130	1	20	
cis-1,2-Dichloroethene	ug/kg	2500	2260	2300	91	92	70-130	2	20	
cis-1,3-Dichloropropene	ug/kg	2500	2140	2220	85	89	70-130	4	20	
Dibromochloromethane	ug/kg	2500	2120	2240	85	89	70-130	5	20	
Dichlorodifluoromethane	ug/kg	2500	1940	1870	78	75	31-150	4	20	
Ethylbenzene	ug/kg	2500	2500	2500	100	100	65-137	0	20	
Isopropylbenzene (Cumene)	ug/kg	2500	2350	2330	94	93	70-130	1	20	
m&p-Xylene	ug/kg	5000	4890	4980	98	100	64-139	2	20	
Methyl-tert-butyl ether	ug/kg	2500	1610	1690	64	68	69-130	5	20	LO
Methylene Chloride	ug/kg	2500	2340	2290	94	92	70-130	2	20	
o-Xylene	ug/kg	2500	2320	2310	93	93	63-135	0	20	
Styrene	ug/kg	2500	2280	2250	91	90	69-130	1	20	
Tetrachloroethene	ug/kg	2500	2490	2520	100	101	70-130	1	20	
Toluene	ug/kg	2500	2440	2470	97	99	70-130	1	20	
trans-1,2-Dichloroethene	ug/kg	2500	1750	1750	70	70	70-130	0	20	
trans-1,3-Dichloropropene	ug/kg	2500	2280	2340	91	94	70-130	2	20	
Trichloroethene	ug/kg	2500	2510	2500	100	100	70-130	0	20	
Trichlorofluoromethane	ug/kg	2500	2050	2020	82	81	50-150	2	20	
Vinyl chloride	ug/kg	2500	2370	2260	95	90	57-130	4	20	
4-Bromofluorobenzene (S)	%				100	96	49-130			
Dibromofluoromethane (S)	%				102	98	57-130			
Toluene-d8 (S)	%				106	103	54-133			



### QUALITY CONTROL DATA

Project: 2207002 HOPE SCHOOL

Pace Project No.: 4077300

QC Batch: OEXT/18124

Analysis Method: EPA 8270 by SIM

QC Batch Method: EPA 3546

Analysis Description: 8270/3546 MSSV PAH by SIM

Associated Lab Samples: 4077300001

METHOD BLANK: 784846

Matrix: Solid

Associated Lab Samples: 4077300001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg	<7.6	16.7	05/06/13 10:31	
2-Methylnaphthalene	ug/kg	<1.6	16.7	05/06/13 10:31	
Acenaphthene	ug/kg	<8.3	16.7	05/06/13 10:31	
Acenaphthylene	ug/kg	<8.3	16.7	05/06/13 10:31	
Anthracene	ug/kg	<1.7	16.7	05/06/13 10:31	
Benzo(a)anthracene	ug/kg	<8.3	16.7	05/06/13 10:31	
Benzo(a)pyrene	ug/kg	<8.3	16.7	05/06/13 10:31	
Benzo(b)fluoranthene	ug/kg	<2.4	16.7	05/06/13 10:31	
Benzo(g,h,i)perylene	ug/kg	<8.3	16.7	05/06/13 10:31	
Benzo(k)fluoranthene	ug/kg	<8.3	16.7	05/06/13 10:31	
Chrysene	ug/kg	<1.9	16.7	05/06/13 10:31	
Dibenz(a,h)anthracene	ug/kg	<8.3	16.7	05/06/13 10:31	
Fluoranthene	ug/kg	<8.3	16.7	05/06/13 10:31	
Fluorene	ug/kg	<8.3	16.7	05/06/13 10:31	
Indeno(1,2,3-cd)pyrene	ug/kg	<8.3	16.7	05/06/13 10:31	
Naphthalene	ug/kg	<3.1	16.7	05/06/13 10:31	
Phenanthrene	ug/kg	<2.1	16.7	05/06/13 10:31	
Pyrene	ug/kg	<8.3	16.7	05/06/13 10:31	
2-Fluorobiphenyl (S)	%	92	40-130	05/06/13 10:31	
Terphenyl-d14 (S)	%	82	40-130	05/06/13 10:31	

LABORATORY CONTROL SAMPLE: 784847

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	333	282	85	47-130	
2-Methylnaphthalene	ug/kg	333	259	78	48-130	
Acenaphthene	ug/kg	333	272	81	55-130	
Acenaphthylene	ug/kg	333	276	83	55-130	
Anthracene	ug/kg	333	285	86	66-130	
Benzo(a)anthracene	ug/kg	333	268	80	55-130	
Benzo(a)pyrene	ug/kg	333	288	86	56-130	
Benzo(b)fluoranthene	ug/kg	333	286	86	53-130	
Benzo(g,h,i)perylene	ug/kg	333	288	87	51-130	
Benzo(k)fluoranthene	ug/kg	333	290	87	52-130	
Chrysene	ug/kg	333	299	90	58-130	
Dibenz(a,h)anthracene	ug/kg	333	291	87	55-130	
Fluoranthene	ug/kg	333	271	81	62-130	
Fluorene	ug/kg	333	278	83	58-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	287	86	54-130	
Naphthalene	ug/kg	333	231	69	41-130	
Phenanthrene	ug/kg	333	269	81	60-130	

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### QUALITY CONTROL DATA

Project: 2207002 HOPE SCHOOL

Pace Project No.: 4077300

LABORATORY CONTROL SAMPLE: 784847

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Pyrene	ug/kg	333	297	89	51-130	
2-Fluorobiphenyl (S)	%			87	40-130	
Terphenyl-d14 (S)	%			88	40-130	

**QUALITY CONTROL DATA**

Project: 2207002 HOPE SCHOOL

Pace Project No.: 4077300

QC Batch: PMST/8404

Analysis Method: ASTM D2974-87

QC Batch Method: ASTM D2974-87

Analysis Description: Dry Weight/Percent Moisture

Associated Lab Samples: 4077300001

SAMPLE DUPLICATE: 784760

Parameter	Units	4077315001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	43.0	42.5	1	10	

## QUALIFIERS

Project: 2207002 HOPE SCHOOL

Pace Project No.: 4077300

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

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

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

TNI - The NELAC Institute.

### BATCH QUALIFIERS

Batch: MSV/19477

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

### ANALYTE QUALIFIERS

L0 Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

L2 Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results may be biased low.

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



### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 2207002 HOPE SCHOOL

Pace Project No.: 4077300

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Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
4077300001	S-1	EPA 3546	OEXT/18124	EPA 8270 by SIM	MSSV/5632
4077300001	S-1	EPA 5035/5030B	MSV/19476	EPA 8260	MSV/19477
4077300001	S-1	ASTM D2974-87	PMST/8404		





### Sample Condition Upon Receipt

Client Name: Key Eng. Project # 4077300

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other CS Logistics

Tracking #: \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_

Thermometer Used N/A Type of Ice:  Wet  Blue Dry None  Samples on ice, cooling process has begun

Cooler Temperature Uncorr: ROT /Corr: \_\_\_\_\_ Biological Tissue is Frozen:  yes  no

Temp Blank Present:  yes  no  no

Temp should be above freezing to 6°C for all sample except Biota.

Frozen Biota Samples should be received ≤ 0°C.

Person examining contents:

Date: 5/4/13

Initials: EMH

#### Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7. <u>5/6/13</u>
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:	<u>S</u>	
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed
		Lab Std #/ID of preservative
		Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):	_____	

Client Notification/ Resolution: \_\_\_\_\_ If checked, see attached form for additional comments

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Project Manager Review: MMT for DM

Date: 5.4.13

May 10, 2013

D'Arcy Gravelle  
KEY ENGINEERING GROUP, LTD.  
735 N. Water St  
STE 1000  
Milwaukee, WI 53202

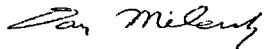
RE: Project: 2207002 HOPE FORTIS  
Pace Project No.: 4077216

Dear D'Arcy Gravelle:

Enclosed are the analytical results for sample(s) received by the laboratory on May 03, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



Dan Milewsky

dan.milewsky@pacelabs.com  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 2207002 HOPE FORTIS  
Pace Project No.: 4077216

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### Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414  
A2LA Certification #: 2926.01  
Alaska Certification #: UST-078  
Alaska Certification #MN00064  
Arizona Certification #: AZ-0014  
Arkansas Certification #: 88-0680  
California Certification #: 01155CA  
Colorado Certification #Pace  
Connecticut Certification #: PH-0256  
EPA Region 8 Certification #: Pace  
Florida/NELAP Certification #: E87605  
Georgia Certification #: 959  
Hawaii Certification #Pace  
Idaho Certification #: MN00064  
Illinois Certification #: 200011  
Kansas Certification #: E-10167  
Louisiana Certification #: 03086  
Louisiana Certification #: LA080009  
Maine Certification #: 2007029  
Maryland Certification #: 322  
Michigan DEQ Certification #: 9909  
Minnesota Certification #: 027-053-137  
Mississippi Certification #: Pace

Montana Certification #: MT CERT0092  
Nebraska Certification #: Pace  
Nevada Certification #: MN\_00064  
New Jersey Certification #: MN-002  
New York Certification #: 11647  
North Carolina Certification #: 530  
North Dakota Certification #: R-036  
North Dakota Certification #: R-036A  
Ohio VAP Certification #: CL101  
Oklahoma Certification #: 9507  
Oregon Certification #: MN200001  
Oregon Certification #: MN300001  
Pennsylvania Certification #: 68-00563  
Puerto Rico Certification  
Tennessee Certification #: 02818  
Texas Certification #: T104704192  
Utah Certification #: MN00064  
Virginia/DCLS Certification #: 002521  
Virginia/VELAP Certification #: 460163  
Washington Certification #: C754  
West Virginia Certification #: 382  
Wisconsin Certification #: 999407970

### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334

New York Certification #: 11888  
North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
US Dept of Agriculture #: S-76505  
Wisconsin Certification #: 405132750

### Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219  
A2LA Certification #: 2456.01  
Arkansas Certification #: 12-019-0  
Illinois Certification #: 002885  
Iowa Certification #: 118  
Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055  
Nevada Certification #: KS000212008A  
Oklahoma Certification #: 9205/9935  
Texas Certification #: T104704407-12-3  
Utah Certification #: KS000212012-2  
Illinois Certification #: 003097

### SAMPLE SUMMARY

Project: 2207002 HOPE FORTIS  
Pace Project No.: 4077216

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
4077216001	S-1	Solid	05/01/13 16:30	05/03/13 09:05

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### REPORT OF LABORATORY ANALYSIS

### SAMPLE ANALYTE COUNT

Project: 2207002 HOPE FORTIS  
Pace Project No.: 4077216

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
4077216001	S-1	EPA 8082	BLM	10	PASI-G
		EPA 6010	DLB	10	PASI-G
		EPA 7470	CMS	1	PASI-G
		EPA 8270	ARO	16	PASI-G
		EPA 8260	SMT	13	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
		EPA 1010	DEY	1	PASI-G
		SW-846 7.3.4.2	AJM	1	PASI-K
		EPA 9040	DEY	1	PASI-G
		EPA 9095	DEY	1	PASI-G
		SM 2710F	DEY	1	PASI-G
		EPA 420.1	KEO	1	PASI-M
		SW-846 7.3.3.2	AJM	1	PASI-K

### REPORT OF LABORATORY ANALYSIS

## ANALYTICAL RESULTS

Project: 2207002 HOPE FORTIS  
Pace Project No.: 4077216

Sample: S-1 Lab ID: 4077216001 Collected: 05/01/13 16:30 Received: 05/03/13 09:05 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>		Analytical Method: EPA 8082 Preparation Method: EPA 3541							
PCB-1016 (Aroclor 1016)	<31.3	ug/kg	62.7	31.3	1	05/06/13 12:00	05/06/13 21:50	12674-11-2	
PCB-1221 (Aroclor 1221)	<31.3	ug/kg	62.7	31.3	1	05/06/13 12:00	05/06/13 21:50	11104-28-2	
PCB-1232 (Aroclor 1232)	<31.3	ug/kg	62.7	31.3	1	05/06/13 12:00	05/06/13 21:50	11141-16-5	
PCB-1242 (Aroclor 1242)	<31.3	ug/kg	62.7	31.3	1	05/06/13 12:00	05/06/13 21:50	53469-21-9	
PCB-1248 (Aroclor 1248)	<31.3	ug/kg	62.7	31.3	1	05/06/13 12:00	05/06/13 21:50	12672-29-6	
PCB-1254 (Aroclor 1254)	<31.3	ug/kg	62.7	31.3	1	05/06/13 12:00	05/06/13 21:50	11097-69-1	
PCB-1260 (Aroclor 1260)	<31.3	ug/kg	62.7	31.3	1	05/06/13 12:00	05/06/13 21:50	11096-82-5	
PCB, Total	<31.3	ug/kg	62.7	31.3	1	05/06/13 12:00	05/06/13 21:50	1336-36-3	
<b>Surrogates</b>									
Tetrachloro-m-xylene (S)	85 %		40-130		1	05/06/13 12:00	05/06/13 21:50	877-09-8	
Decachlorobiphenyl (S)	86 %		48-130		1	05/06/13 12:00	05/06/13 21:50	2051-24-3	
<b>6010 MET ICP, TCLP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010							
		Leachate Method/Date: EPA 1311; 05/06/13 00:00							
Arsenic	<0.12	mg/L	0.25	0.12	1	05/07/13 09:20	05/08/13 12:16	7440-38-2	
Barium	<1.2	mg/L	2.5	1.2	1	05/07/13 09:20	05/08/13 12:16	7440-39-3	
Cadmium	<0.0025	mg/L	0.0050	0.0025	1	05/07/13 09:20	05/08/13 12:16	7440-43-9	
Chromium	<0.12	mg/L	0.25	0.12	1	05/07/13 09:20	05/08/13 12:16	7440-47-3	
Copper	<0.12	mg/L	0.25	0.12	1	05/07/13 09:20	05/08/13 12:16	7440-50-8	
Lead	0.022J	mg/L	0.038	0.015	1	05/07/13 09:20	05/08/13 12:16	7439-92-1	
Nickel	<0.12	mg/L	0.25	0.12	1	05/07/13 09:20	05/08/13 12:16	7440-02-0	
Selenium	<0.12	mg/L	0.25	0.12	1	05/07/13 09:20	05/08/13 12:16	7782-49-2	
Silver	<0.12	mg/L	0.25	0.12	1	05/07/13 09:20	05/08/13 12:16	7440-22-4	
Zinc	0.57	mg/L	0.25	0.12	1	05/07/13 09:20	05/08/13 12:16	7440-66-6	1q
<b>7470 Mercury, TCLP</b>		Analytical Method: EPA 7470 Preparation Method: EPA 7470							
		Leachate Method/Date: EPA 1311; 05/06/13 00:00							
Mercury	<0.10	ug/L	0.20	0.10	1	05/07/13 11:12	05/08/13 10:03	7439-97-6	M0
<b>8270 MSSV TCLP Sep Funnel</b>		Analytical Method: EPA 8270 Preparation Method: EPA 3510							
		Leachate Method/Date: EPA 1311; 05/06/13 00:00							
1,4-Dichlorobenzene	<8.6	ug/L	50.0	8.6	1	05/09/13 12:00	05/09/13 14:22	106-46-7	
2,4-Dinitrotoluene	<8.0	ug/L	50.0	8.0	1	05/09/13 12:00	05/09/13 14:22	121-14-2	
Hexachloro-1,3-butadiene	<6.6	ug/L	100	6.6	1	05/09/13 12:00	05/09/13 14:22	87-68-3	
Hexachlorobenzene	<11.1	ug/L	50.0	11.1	1	05/09/13 12:00	05/09/13 14:22	118-74-1	
Hexachloroethane	<5.8	ug/L	50.0	5.8	1	05/09/13 12:00	05/09/13 14:22	67-72-1	
2-Methylphenol(o-Cresol)	<9.7	ug/L	50.0	9.7	1	05/09/13 12:00	05/09/13 14:22	95-48-7	
3&4-Methylphenol(m&p Cresol)	<7.7	ug/L	50.0	7.7	1	05/09/13 12:00	05/09/13 14:22		
Nitrobenzene	<13.7	ug/L	50.0	13.7	1	05/09/13 12:00	05/09/13 14:22	98-95-3	
Pentachlorophenol	<10.8	ug/L	100	10.8	1	05/09/13 12:00	05/09/13 14:22	87-86-5	
Pyridine	<14.3	ug/L	50.0	14.3	1	05/09/13 12:00	05/09/13 14:22	110-86-1	
2,4,5-Trichlorophenol	<10	ug/L	50.0	10	1	05/09/13 12:00	05/09/13 14:22	95-95-4	
2,4,6-Trichlorophenol	<10.7	ug/L	50.0	10.7	1	05/09/13 12:00	05/09/13 14:22	88-06-2	



### ANALYTICAL RESULTS

Project: 2207002 HOPE FORTIS  
Pace Project No.: 4077216

Sample: S-1 Lab ID: 4077216001 Collected: 05/01/13 16:30 Received: 05/03/13 09:05 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV TCLP Sep Funnel</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3510									
Leachate Method/Date: EPA 1311; 05/06/13 00:00									
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	80 %		59-130		1	05/09/13 12:00	05/09/13 14:22	4165-60-0	
2-Fluorobiphenyl (S)	77 %		60-130		1	05/09/13 12:00	05/09/13 14:22	321-60-8	
Phenol-d6 (S)	32 %		19-130		1	05/09/13 12:00	05/09/13 14:22	13127-88-3	
2,4,6-Tribromophenol (S)	112 %		34-143		1	05/09/13 12:00	05/09/13 14:22	118-79-6	
<b>8260 MSV TCLP</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 1311									
Benzene	<5.0 ug/L		10.0	5.0	10	05/06/13 00:00	05/07/13 22:02	71-43-2	
2-Butanone (MEK)	<27.0 ug/L		200	27.0	10	05/06/13 00:00	05/07/13 22:02	78-93-3	
Carbon tetrachloride	<3.7 ug/L		10.0	3.7	10	05/06/13 00:00	05/07/13 22:02	56-23-5	
Chlorobenzene	<3.6 ug/L		10.0	3.6	10	05/06/13 00:00	05/07/13 22:02	108-90-7	
Chloroform	<6.9 ug/L		50.0	6.9	10	05/06/13 00:00	05/07/13 22:02	67-66-3	
1,2-Dichloroethane	<4.8 ug/L		10.0	4.8	10	05/06/13 00:00	05/07/13 22:02	107-06-2	
1,1-Dichloroethene	<4.3 ug/L		10.0	4.3	10	05/06/13 00:00	05/07/13 22:02	75-35-4	
Tetrachloroethene	<4.7 ug/L		10.0	4.7	10	05/06/13 00:00	05/07/13 22:02	127-18-4	
Trichloroethene	<4.3 ug/L		10.0	4.3	10	05/06/13 00:00	05/07/13 22:02	79-01-6	
Vinyl chloride	<1.8 ug/L		10.0	1.8	10	05/06/13 00:00	05/07/13 22:02	75-01-4	
<b>Surrogates</b>									
Toluene-d8 (S)	105 %		55-137		10	05/06/13 00:00	05/07/13 22:02	2037-26-5	
4-Bromofluorobenzene (S)	99 %		43-137		10	05/06/13 00:00	05/07/13 22:02	460-00-4	
Dibromofluoromethane (S)	106 %		70-130		10	05/06/13 00:00	05/07/13 22:02	1868-53-7	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	20.2 %		0.10	0.10	1		05/04/13 12:31		
<b>1010 Flashpoint, Closed Cup</b>									
Analytical Method: EPA 1010									
Flashpoint	>210 deg F				1		05/06/13 10:05		
<b>Reactive Sulfide</b>									
Analytical Method: SW-846 7.3.4.2									
Sulfide, Reactive	10.1J mg/kg		100		1		05/08/13 11:30		
<b>9040 pH</b>									
Analytical Method: EPA 9040									
pH	7.5 Std. Units		0.10	0.010	1		05/07/13 11:10		2q,H6
<b>9095 Paint Filter Liquid Test</b>									
Analytical Method: EPA 9095									
Free Liquids	Pass no units				1		05/07/13 10:27		
<b>Specific Gravity</b>									
Analytical Method: SM 2710F									
Specific Gravity	1.9 no units				1		05/07/13 12:05		
<b>Phenolics, Total Recoverable</b>									
Analytical Method: EPA 420.1									
Phenolics, Total Recoverable	<15.0 ug/L		50.0	15.0	1		05/09/13 11:54		

**ANALYTICAL RESULTS**

Project: 2207002 HOPE FORTIS  
Pace Project No.: 4077216

Sample: S-1 Lab ID: 4077216001 Collected: 05/01/13 16:30 Received: 05/03/13 09:05 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>733C S Reactive Cyanide</b>	Analytical Method: SW-846 7.3.3.2								
Cyanide, Reactive	0.0070J	mg/kg	0.025	0.0052	1		05/08/13 10:37		B

### QUALITY CONTROL DATA

Project: 2207002 HOPE FORTIS  
Pace Project No.: 4077216

QC Batch: MERP/3632 Analysis Method: EPA 7470  
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury TCLP  
Associated Lab Samples: 4077216001

METHOD BLANK: 785511 Matrix: Water  
Associated Lab Samples: 4077216001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.10	0.20	05/08/13 09:58	

LABORATORY CONTROL SAMPLE: 785512

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	101	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 785513 785514

Parameter	Units	4077216001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max		
										RPD	RPD	Qual
Mercury	ug/L	<0.10	5	5	6.0	6.0	120	119	85-115	1	20	M0

MATRIX SPIKE SAMPLE: 785515

Parameter	Units	4077332001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	<0.10	5	6.0	120	85-115	M0

### QUALITY CONTROL DATA

Project: 2207002 HOPE FORTIS  
Pace Project No.: 4077216

QC Batch: MPRP/8440 Analysis Method: EPA 6010  
QC Batch Method: EPA 3010 Analysis Description: 6010 MET TCLP  
Associated Lab Samples: 4077216001

METHOD BLANK: 785526 Matrix: Water  
Associated Lab Samples: 4077216001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	<0.025	0.050	05/07/13 21:06	
Barium	mg/L	<0.25	0.50	05/07/13 21:06	
Cadmium	mg/L	<0.00050	0.0010	05/07/13 21:06	
Chromium	mg/L	<0.025	0.050	05/07/13 21:06	
Copper	mg/L	<0.025	0.050	05/07/13 21:06	
Lead	mg/L	<0.0030	0.0075	05/07/13 21:06	
Nickel	mg/L	<0.025	0.050	05/07/13 21:06	
Selenium	mg/L	<0.025	0.050	05/07/13 21:06	
Silver	mg/L	<0.025	0.050	05/07/13 21:06	
Zinc	mg/L	<0.025	0.050	05/07/13 21:06	

LABORATORY CONTROL SAMPLE: 785527

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	.5	0.52	104	80-120	
Barium	mg/L	.5	0.52	103	80-120	
Cadmium	mg/L	.5	0.52	104	80-120	
Chromium	mg/L	.5	0.53	106	80-120	
Copper	mg/L	.5	0.52	104	80-120	
Lead	mg/L	.5	0.53	107	80-120	
Nickel	mg/L	.5	0.53	106	80-120	
Selenium	mg/L	.5	0.54	108	80-120	
Silver	mg/L	.25	0.26	105	80-120	
Zinc	mg/L	.5	0.54	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 785528 785529

Parameter	Units	4077110001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result	MSD Result					
Arsenic	mg/L	<0.12	2.5	2.5	2.6	2.6	102	101	75-125	0	20
Barium	mg/L	<1.2	2.5	2.5	3.6	3.5	100	96	75-125	3	20
Cadmium	mg/L	<0.0025	2.5	2.5	2.6	2.6	103	102	75-125	1	20
Chromium	mg/L	<0.12	2.5	2.5	2.6	2.6	103	102	75-125	1	20
Copper	mg/L	<0.12	2.5	2.5	2.6	2.5	103	102	75-125	1	20
Lead	mg/L	<0.015	2.5	2.5	2.6	2.6	104	103	75-125	1	20
Nickel	mg/L	<0.12	2.5	2.5	2.6	2.6	103	102	75-125	1	20
Selenium	mg/L	<0.12	2.5	2.5	2.6	2.6	104	105	75-125	1	20
Silver	mg/L	<0.12	1.2	1.2	1.3	1.3	104	104	75-125	0	20
Zinc	mg/L	0.24J	2.5	2.5	2.9	2.8	105	103	75-125	1	20



### QUALITY CONTROL DATA

Project: 2207002 HOPE FORTIS

Pace Project No.: 4077216

MATRIX SPIKE SAMPLE: 785530

Parameter	Units	4077332001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	<0.12	2.5	2.4	96	75-125	
Barium	mg/L	<1.2	2.5	2.9	100	75-125	
Cadmium	mg/L	<0.0025	2.5	2.4	97	75-125	
Chromium	mg/L	<0.12	2.5	2.4	97	75-125	
Copper	mg/L	<0.12	2.5	2.4	97	75-125	
Lead	mg/L	<0.015	2.5	2.5	99	75-125	
Nickel	mg/L	<0.12	2.5	2.4	96	75-125	
Selenium	mg/L	<0.12	2.5	2.4	98	75-125	
Silver	mg/L	<0.12	1.2	1.3	100	75-125	
Zinc	mg/L	0.75	2.5	3.2	98	75-125	

### QUALITY CONTROL DATA

Project: 2207002 HOPE FORTIS  
Pace Project No.: 4077216

QC Batch: MSV/19485 Analysis Method: EPA 8260  
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV TCLP  
Associated Lab Samples: 4077216001

METHOD BLANK: 785301 Matrix: Water  
Associated Lab Samples: 4077216001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1-Dichloroethene	ug/L	<0.43	1.0	05/07/13 17:14	
1,2-Dichloroethane	ug/L	<0.48	1.0	05/07/13 17:14	
2-Butanone (MEK)	ug/L	<2.7	20.0	05/07/13 17:14	
Benzene	ug/L	<0.50	1.0	05/07/13 17:14	
Carbon tetrachloride	ug/L	<0.37	1.0	05/07/13 17:14	
Chlorobenzene	ug/L	<0.36	1.0	05/07/13 17:14	
Chloroform	ug/L	<0.69	5.0	05/07/13 17:14	
Tetrachloroethene	ug/L	<0.47	1.0	05/07/13 17:14	
Trichloroethene	ug/L	<0.43	1.0	05/07/13 17:14	
Vinyl chloride	ug/L	<0.18	1.0	05/07/13 17:14	
4-Bromofluorobenzene (S)	%	97	43-137	05/07/13 17:14	
Dibromofluoromethane (S)	%	105	70-130	05/07/13 17:14	
Toluene-d8 (S)	%	104	55-137	05/07/13 17:14	

LABORATORY CONTROL SAMPLE & LCSD: 785302 785303

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1-Dichloroethene	ug/L	50	48.2	47.6	96	95	70-130	1	20	
1,2-Dichloroethane	ug/L	50	52.3	50.5	105	101	70-144	4	20	
Benzene	ug/L	50	45.5	44.3	91	89	70-137	3	20	
Carbon tetrachloride	ug/L	50	52.1	50.8	104	102	70-154	3	20	
Chlorobenzene	ug/L	50	52.0	50.3	104	101	70-130	3	20	
Chloroform	ug/L	50	48.7	47.3	97	95	70-130	3	20	
Tetrachloroethene	ug/L	50	57.1	53.1	114	106	70-130	7	20	
Trichloroethene	ug/L	50	53.5	50.1	107	100	70-130	7	20	
Vinyl chloride	ug/L	50	49.8	48.9	100	98	61-143	2	20	
4-Bromofluorobenzene (S)	%				113	113	43-137			
Dibromofluoromethane (S)	%				97	98	70-130			
Toluene-d8 (S)	%				106	104	55-137			

MATRIX SPIKE SAMPLE: 785304

Parameter	Units	4076968001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/L	<4.3	500	456	91	70-130	
1,2-Dichloroethane	ug/L	<4.8	500	483	97	70-146	
2-Butanone (MEK)	ug/L	<27.0		<27.0			
Benzene	ug/L	<5.0	500	423	85	70-137	
Carbon tetrachloride	ug/L	<3.7	500	501	100	70-154	
Chlorobenzene	ug/L	<3.6	500	478	96	70-130	
Chloroform	ug/L	<6.9	500	455	91	70-130	

### QUALITY CONTROL DATA

Project: 2207002 HOPE FORTIS

Pace Project No.: 4077216

MATRIX SPIKE SAMPLE: 785304

Parameter	Units	4076968001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Tetrachloroethene	ug/L	<4.7	500	511	102	70-130	
Trichloroethene	ug/L	<4.3	500	485	97	70-130	
Vinyl chloride	ug/L	<1.8	500	456	91	59-144	
4-Bromofluorobenzene (S)	%				112	43-137	
Dibromofluoromethane (S)	%				97	70-130	
Toluene-d8 (S)	%				103	55-137	

### QUALITY CONTROL DATA

Project: 2207002 HOPE FORTIS

Pace Project No.: 4077216

QC Batch:	OEXT/18125	Analysis Method:	EPA 8082
QC Batch Method:	EPA 3541	Analysis Description:	8082 GCS PCB
Associated Lab Samples:	4077216001		

METHOD BLANK: 784850 Matrix: Solid

Associated Lab Samples: 4077216001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<25.0	50.0	05/06/13 19:09	
PCB-1221 (Aroclor 1221)	ug/kg	<25.0	50.0	05/06/13 19:09	
PCB-1232 (Aroclor 1232)	ug/kg	<25.0	50.0	05/06/13 19:09	
PCB-1242 (Aroclor 1242)	ug/kg	<25.0	50.0	05/06/13 19:09	
PCB-1248 (Aroclor 1248)	ug/kg	<25.0	50.0	05/06/13 19:09	
PCB-1254 (Aroclor 1254)	ug/kg	<25.0	50.0	05/06/13 19:09	
PCB-1260 (Aroclor 1260)	ug/kg	<25.0	50.0	05/06/13 19:09	
Decachlorobiphenyl (S)	%	95	48-130	05/06/13 19:09	
Tetrachloro-m-xylene (S)	%	83	40-130	05/06/13 19:09	

LABORATORY CONTROL SAMPLE: 784851

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg		<25.0			
PCB-1221 (Aroclor 1221)	ug/kg		<25.0			
PCB-1232 (Aroclor 1232)	ug/kg		<25.0			
PCB-1242 (Aroclor 1242)	ug/kg		<25.0			
PCB-1248 (Aroclor 1248)	ug/kg		<25.0			
PCB-1254 (Aroclor 1254)	ug/kg		<25.0			
PCB-1260 (Aroclor 1260)	ug/kg	500	411	82	70-130	
Decachlorobiphenyl (S)	%			94	48-130	
Tetrachloro-m-xylene (S)	%			76	40-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 784852 784853

Parameter	Units	4077315001		784853		MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
PCB-1016 (Aroclor 1016)	ug/kg	<175		<175	<175					31	
PCB-1221 (Aroclor 1221)	ug/kg	<175		<175	<175					31	
PCB-1232 (Aroclor 1232)	ug/kg	<175		<175	<175					31	
PCB-1242 (Aroclor 1242)	ug/kg	2630		2720	2650				3	31	
PCB-1248 (Aroclor 1248)	ug/kg	<175		<175	<175					31	
PCB-1254 (Aroclor 1254)	ug/kg	<175		<175	<175					31	
PCB-1260 (Aroclor 1260)	ug/kg	<175	877	877	688	667	79	76	40-149	3	31
Decachlorobiphenyl (S)	%						65	65	48-130		
Tetrachloro-m-xylene (S)	%						86	84	40-130		

### QUALITY CONTROL DATA

Project: 2207002 HOPE FORTIS  
Pace Project No.: 4077216

QC Batch: OEXT/18156 Analysis Method: EPA 8270  
QC Batch Method: EPA 3510 Analysis Description: 8270 TCLP MSSV  
Associated Lab Samples: 4077216001

METHOD BLANK: 786619 Matrix: Water  
Associated Lab Samples: 4077216001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dichlorobenzene	ug/L	<1.7	10.0	05/09/13 12:43	
2,4,5-Trichlorophenol	ug/L	<2.0	10.0	05/09/13 12:43	
2,4,6-Trichlorophenol	ug/L	<2.1	10.0	05/09/13 12:43	
2,4-Dinitrotoluene	ug/L	<1.6	10.0	05/09/13 12:43	
2-Methylphenol(o-Cresol)	ug/L	<1.9	10.0	05/09/13 12:43	
3&4-Methylphenol(m&p Cresol)	ug/L	<1.5	10.0	05/09/13 12:43	
Hexachloro-1,3-butadiene	ug/L	<1.3	20.0	05/09/13 12:43	
Hexachlorobenzene	ug/L	<2.2	10.0	05/09/13 12:43	
Hexachloroethane	ug/L	<1.2	10.0	05/09/13 12:43	
Nitrobenzene	ug/L	<2.7	10.0	05/09/13 12:43	
Pentachlorophenol	ug/L	<2.2	20.0	05/09/13 12:43	
Pyridine	ug/L	<2.9	10.0	05/09/13 12:43	
2,4,6-Tribromophenol (S)	%	93	34-143	05/09/13 12:43	
2-Fluorobiphenyl (S)	%	79	60-130	05/09/13 12:43	
Nitrobenzene-d5 (S)	%	79	59-130	05/09/13 12:43	
Phenol-d6 (S)	%	33	19-130	05/09/13 12:43	

LABORATORY CONTROL SAMPLE: 786620

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	50	39.4	79	53-130	
2,4,5-Trichlorophenol	ug/L	50	51.3	103	70-130	
2,4,6-Trichlorophenol	ug/L	50	48.7	97	70-130	
2,4-Dinitrotoluene	ug/L	50	55.3	111	69-134	
2-Methylphenol(o-Cresol)	ug/L	50	45.5	91	48-130	
3&4-Methylphenol(m&p Cresol)	ug/L	50	41.4	83	43-130	
Hexachloro-1,3-butadiene	ug/L	50	44.5	89	53-130	
Hexachlorobenzene	ug/L	50	52.8	106	59-130	
Hexachloroethane	ug/L	50	38.1	76	47-130	
Nitrobenzene	ug/L	50	44.8	90	66-130	
Pentachlorophenol	ug/L	50	50.3	101	54-130	
Pyridine	ug/L	50	17.8	36	10-130	
2,4,6-Tribromophenol (S)	%			106	34-143	
2-Fluorobiphenyl (S)	%			85	60-130	
Nitrobenzene-d5 (S)	%			89	59-130	
Phenol-d6 (S)	%			44	19-130	

### QUALITY CONTROL DATA

Project: 2207002 HOPE FORTIS

Pace Project No.: 4077216

MATRIX SPIKE SAMPLE: 786621

Parameter	Units	4077110001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	<8.6	250	204	81	50-130	
2,4,5-Trichlorophenol	ug/L	<10	250	233	93	65-130	
2,4,6-Trichlorophenol	ug/L	<10.7	250	231	92	64-130	
2,4-Dinitrotoluene	ug/L	<8.0	250	265	106	49-136	
2-Methylphenol(o-Cresol)	ug/L	19.1J	250	187	67	33-130	
3&4-Methylphenol(m&p Cresol)	ug/L	17.1J	250	181	66	35-130	
Hexachloro-1,3-butadiene	ug/L	<6.6	250	218	87	48-130	
Hexachlorobenzene	ug/L	<11.1	250	265	106	57-130	
Hexachloroethane	ug/L	<5.8	250	204	82	45-130	
Nitrobenzene	ug/L	<13.7	250	211	84	62-130	
Pentachlorophenol	ug/L	<10.8	250	243	97	10-149	
Pyridine	ug/L	<14.3	250	80.4	32	10-130	
2,4,6-Tribromophenol (S)	%				100	34-143	
2-Fluorobiphenyl (S)	%				85	60-130	
Nitrobenzene-d5 (S)	%				85	59-130	
Phenol-d6 (S)	%				37	19-130	

**QUALITY CONTROL DATA**

Project: 2207002 HOPE FORTIS  
Pace Project No.: 4077216

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QC Batch:	PMST/8402	Analysis Method:	ASTM D2974-87
QC Batch Method:	ASTM D2974-87	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	4077216001		

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SAMPLE DUPLICATE: 784756

Parameter	Units	4077155001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	7.2	7.2	1	10	



### QUALITY CONTROL DATA

Project: 2207002 HOPE FORTIS

Pace Project No.: 4077216

QC Batch: WET/14908

Analysis Method: EPA 1010

QC Batch Method: EPA 1010

Analysis Description: 1010 Flash Point, Closed Cup

Associated Lab Samples: 4077216001

LABORATORY CONTROL SAMPLE: 784884

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Flashpoint	deg F		81.2			

LABORATORY CONTROL SAMPLE: 784885

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Flashpoint	deg F		82.6			

SAMPLE DUPLICATE: 785100

Parameter	Units	4077278002 Result	Dup Result	RPD	Max RPD	Qualifiers
Flashpoint	deg F	>210	>210			

SAMPLE DUPLICATE: 785102

Parameter	Units	4077281001 Result	Dup Result	RPD	Max RPD	Qualifiers
Flashpoint	deg F	>210	>210			

**QUALITY CONTROL DATA**

Project: 2207002 HOPE FORTIS

Pace Project No.: 4077216

QC Batch: WET/41138

Analysis Method: SW-846 7.3.4.2

QC Batch Method: SW-846 7.3.4.2

Analysis Description: Reactive Sulfide

Associated Lab Samples: 4077216001

METHOD BLANK: 1182694

Matrix: Solid

Associated Lab Samples: 4077216001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfide, Reactive	mg/kg	0.0J	100	05/08/13 11:30	

LABORATORY CONTROL SAMPLE: 1182695

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Reactive	mg/kg	200	198	99	77-110	

SAMPLE DUPLICATE: 1182696

Parameter	Units	4077216001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Reactive	mg/kg	10.1J	10.1J		30	

**QUALITY CONTROL DATA**

Project: 2207002 HOPE FORTIS  
Pace Project No.: 4077216

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QC Batch: WET/14947                      Analysis Method: EPA 9040  
QC Batch Method: EPA 9040              Analysis Description: 9040 pH  
Associated Lab Samples: 4077216001

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SAMPLE DUPLICATE: 786789

Parameter	Units	4077216001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH	Std. Units	7.5	7.6	1	20	

**QUALITY CONTROL DATA**

Project: 2207002 HOPE FORTIS  
Pace Project No.: 4077216

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QC Batch: WET/14919                      Analysis Method: EPA 9095  
QC Batch Method: EPA 9095              Analysis Description: 9095 PAINT FILTER LIQUID TEST  
Associated Lab Samples: 4077216001

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SAMPLE DUPLICATE: 785409

Parameter	Units	4077281001 Result	Dup Result	RPD	Max RPD	Qualifiers
Free Liquids	no units	Pass	Pass			

**QUALITY CONTROL DATA**

Project: 2207002 HOPE FORTIS  
Pace Project No.: 4077216

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QC Batch:	WET/14922	Analysis Method:	SM 2710F
QC Batch Method:	SM 2710F	Analysis Description:	Spec.Gravity
Associated Lab Samples:	4077216001		

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SAMPLE DUPLICATE: 785478

Parameter	Units	4077254001 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Gravity	no units	0.968	0.99	2		

**QUALITY CONTROL DATA**

Project: 2207002 HOPE FORTIS  
Pace Project No.: 4077216

QC Batch: WETA/14771      Analysis Method: EPA 420.1  
QC Batch Method: EPA 420.1      Analysis Description: 420.1 Phenolics  
Associated Lab Samples: 4077216001

METHOD BLANK: 1424850      Matrix: Water  
Associated Lab Samples: 4077216001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phenolics, Total Recoverable	ug/L	<15.0	50.0	05/09/13 11:27	

LABORATORY CONTROL SAMPLE: 1424851

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	ug/L	1000	996	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1424999      1425000

Parameter	Units	10227803001		MS	MSD	MS	MSD	MS	MSD	% Rec	Max	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	
Phenolics, Total Recoverable	ug/L	91.3	1000	1000	1050	1000	96	91	90-110	5	20	

### QUALITY CONTROL DATA

Project: 2207002 HOPE FORTIS  
Pace Project No.: 4077216

QC Batch: WETA/24589      Analysis Method: SW-846 7.3.3.2  
QC Batch Method: SW-846 7.3.3.2      Analysis Description: 733C Reactive Cyanide  
Associated Lab Samples: 4077216001

METHOD BLANK: 1182714      Matrix: Solid  
Associated Lab Samples: 4077216001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide, Reactive	mg/kg	0.0085J	0.025	05/08/13 10:34	

LABORATORY CONTROL SAMPLE: 1182715

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide, Reactive	mg/kg	.5	0.49	97	71-123	

SAMPLE DUPLICATE: 1182716

Parameter	Units	4077216001 Result	Dup Result	RPD	Max RPD	Qualifiers
Cyanide, Reactive	mg/kg	0.0070J	0.0075J		23	



## QUALIFIERS

Project: 2207002 HOPE FORTIS  
Pace Project No.: 4077216

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

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

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

TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

PASI-K Pace Analytical Services - Kansas City

PASI-M Pace Analytical Services - Minneapolis

### ANALYTE QUALIFIERS

1q Analyte was detected in the associated leach blank at a concentration of 0.17 mg/L.

2q Due to the sample matrix, DI water was added to this sample on a one to one basis and the sample was stirred before analysis.

B Analyte was detected in the associated method blank.

H6 Analysis initiated outside of the 15 minute EPA recommended holding time.

MO Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 2207002 HOPE FORTIS  
Pace Project No.: 4077216

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
4077216001	S-1	EPA 3541	OEXT/18125	EPA 8082	GCSV/9497
4077216001	S-1	EPA 3010	MPRP/8440	EPA 6010	ICP/7483
4077216001	S-1	EPA 7470	MERP/3632	EPA 7470	MERC/4508
4077216001	S-1	EPA 3510	OEXT/18156	EPA 8270	MSSV/5646
4077216001	S-1	EPA 1311	TCLP/2929	EPA 8260	MSV/19485
4077216001	S-1	ASTM D2974-87	PMST/8402		
4077216001	S-1	EPA 1010	WET/14908		
4077216001	S-1	SW-846 7.3.4.2	WET/41138		
4077216001	S-1	EPA 9040	WET/14947		
4077216001	S-1	EPA 9095	WET/14919		
4077216001	S-1	SM 2710F	WET/14922		
4077216001	S-1	EPA 420.1	WETA/14771		
4077216001	S-1	SW-846 7.3.3.2	WETA/24589		

(Please Print Clearly)



Need ASAP 4077216

Company Name: Key Engineering  
 Branch/Location:  
 Project Contact: D'Arcy Gravelle  
 Phone: (414) 224-8300 ext 21  
 Project Number: 2207002  
 Project Name: Hope Fortis  
 Project State: WI  
 Sampled By (Print): JMK  
 Sampled By (Sign): *[Signature]*  
 PO #:  
 Regulatory Program:

### CHAIN OF CUSTODY

\*Preservation Codes  
 A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH  
 H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

FILTERED?  
(YES/NO)  
 PRESERVATION  
(CODE)\*

Y/N	Pick Letter	Analyses Requested
Y	N	Protocol B

Quote #:  
 Mail To Contact: D'Arcy Gravelle  
 Mail To Company: Key Engineering  
 Mail To Address: 735 N Water St, Ste 510 Milwaukee, WI 53202  
 Invoice To Contact:  
 Invoice To Company:  
 Invoice To Address: *[Signature]*  
 Invoice To Phone: (414) 224-8300 ext 21  
 CLIENT COMMENTS  
 LAB COMMENTS (Lab Use Only)  
 Profile #

Data Package Options (billable)  
 EPA Level III  
 EPA Level IV  
 MS/MSD  
 On your sample (billable)  
 NOT needed on your sample  
 Matrix Codes  
 A = Air W = Water  
 B = Biota DW = Drinking Water  
 C = Charcoal GW = Ground Water  
 O = Oil SW = Surface Water  
 S = Soil WW = Waste Water  
 Sl = Sludge WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX
		DATE	TIME	
001	S-1	5/1/13	4:30	S

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge)  
 Date Needed:  
 Transmit Prelim Rush Results by (complete what you want):  
 Email #1: *[Signature]*  
 Email #2: *[Signature]*  
 Telephone:  
 Fax:  
 Samples on HOLD are subject to special pricing and release of liability

Relinquished By: *[Signature]* Date/Time: 5/2/13 9:18am  
 Relinquished By: *[Signature]* Date/Time: 5/2/13 16:30  
 Relinquished By: *[Signature]* Date/Time: 5/3/13 0905  
 Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Received By: *[Signature]* Date/Time: 5/2/13 10:57  
 Received By: *[Signature]* Date/Time: \_\_\_\_\_  
 Received By: *[Signature]* Date/Time: 5/3/13 0905  
 Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

PACE Project No. 4077216  
 Receipt Temp = 20.1 °C  
 Sample Receipt pH OK / Adjusted  
 Cooler Custody Seal Present / Not Present Intact / Not Intact

**Pace Analytical™**

**Sample Condition Upon Receipt**

Client Name: Key Eng Project # 4077216

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other CS Logistics

Tracking #: \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_

Thermometer Used NA Type of Ice:  Wet  Blue  Dry  None  Samples on ice, cooling process has begun

Cooler Temperature Uncorr: \_\_\_\_\_ /Corr: ROI Biological Tissue is Frozen:  yes  no

Temp Blank Present:  yes  no

Person examining contents:  
Date: 5/3/13  
Initials: DM

Temp should be above freezing to 6°C for all sample except Biota.  
Frozen Biota Samples should be received ≤ 0°C.

Comments:

Chain of Custody Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A - VOA Samples frozen upon receipt <input type="checkbox"/> Yes <input type="checkbox"/> No	5. Date/Time: _____
Short Hold Time Analysis (<72hr): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7. <u>ASAP</u> <u>DM 5/3/13</u>
Sufficient Volume: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A - Pace Containers Used: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A - Pace IR Containers Used: <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	9.
Containers Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A - Includes date/time/ID/Analysis Matrix: <u>S</u>	12.
All containers needing preservation have been checked. (Non-Compliance noted in 13.) <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 <input type="checkbox"/> NaOH <input type="checkbox"/> NaOH + ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12) exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER: _____ <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Headspace in VOA Vials (>6mm): <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14. Initial when completed _____ Lab Std #ID of preservative _____ Date/Time: _____
Trip Blank Present: <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased): _____	

Client Notification/ Resolution: \_\_\_\_\_ If checked, see attached form for additional comments

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Project Manager Review: DM for DM Date: 5/3/13





# NON-HAZARDOUS MANIFEST

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.		Manifest Doc No.		2. Page 1 of <span style="float: right;">92</span>		
3. Generator's Mailing Address: EDUCATIONAL ENTERPRISES, INC. 3601 N. PORT WASHINGTON RD MILWAUKEE, WI 53212			Generator's Site Address (if different than mailing): EDUCATIONAL ENTERPRISES, INC. 3601 N. PORT WASHINGTON RD MILWAUKEE, WI 53212 MILWAUKEE COUNTY			A. Manifest Number <b>WMNA</b> <b>T206703</b>		
4. Generator's Phone 262-542-3546			B. State Generator's ID <b>18.53</b>					
5. Transporter 1 Company Name <i>Schneider/Rans</i>		6. US EPA ID Number		C. State Transporter's ID				
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone				
9. Designated Facility Name and Site Address Orchard Ridge RDF W124 N9355 Boundary Road Menomonee Falls, WI 53051		10. US EPA ID Number		E. State Transporter's ID				
				F. Transporter's Phone				
				G. State Facility ID				
				H. State Facility Phone 262-253-8620				
GENERATOR	11. Description of Waste Materials		12. Containers		13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments	
	a. Contaminated soil		No.	Type				
	WM Profile # <b>BIO117253WI</b>							
	b.							
	WM Profile #							
	c.							
WM Profile #								
d.								
WM Profile #								
J. Additional Descriptions for Materials Listed Above			K. Disposal Location					
			Cell		Level			
			Grid					
15. Special Handling Instructions and Additional Information								
Purchase Order #				EMERGENCY CONTACT / PHONE NO.:				
16. GENERATOR'S CERTIFICATE: I hereby certify that the above-described materials are not hazardous wastes as defined by CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.								
Printed Name <i>Lucas Rios</i>			Signature "On behalf of"			Month	Day	Year
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials			Signature <i>[Signature]</i>		Month	Day	Year
	Printed Name <i>Lucas Rios</i>					<b>5</b>	<b>29</b>	<b>13</b>
FACILITY	18. Transporter 2 Acknowledgement of Receipt of Materials			Signature		Month	Day	Year
	Printed Name							
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.								
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.								
Printed Name <i>Juan Carlos Lopez</i>			Signature <i>[Signature]</i>			Month	Day	Year
						<b>5</b>	<b>29</b>	<b>13</b>

White- TREATMENT, STORAGE, DISPOSAL FACILITY COPY

Blue- GENERATOR #2 COPY

Yellow- GENERATOR #1 COPY

Pink- FACILITY USE ONLY

Gold- TRANSPORTER #1 COPY



# NON-HAZARDOUS MANIFEST

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.	Manifest Doc No.	2. Page 1 of	81			
3. Generator's Mailing Address: EDUCATIONAL ENTERPRISES, INC. 3601 N. PORT WASHINGTON RD MILWAUKEE, WI 53212		Generator's Site Address (if different than mailing): EDUCATIONAL ENTERPRISES, INC. 3601 N. PORT WASHINGTON RD MILWAUKEE, WI 53212 MILWAUKEE COUNTY		A. Manifest Number WMNA	T206702			
4. Generator's Phone 262-542-9546				B. State Generator's ID			20.14	
5. Transporter 1 Company Name <b>RAMS #81</b>		6. US EPA ID Number		C. State Transporter's ID				
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone				
9. Designated Facility Name and Site Address Orchard Ridge RDF W124 N9355 Boundary Road Menomonee Falls, WI 53051		10. US EPA ID Number		E. State Transporter's ID				
				F. Transporter's Phone				
				G. State Facility ID				
				H. State Facility Phone			262-253-8620	
GENERATOR	11. Description of Waste Materials		12. Containers		13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments	
	a. Contaminated soil		No.	Type				
	WM Profile #							
	b. <b>BIO117253WI</b>							
	WM Profile #							
	c.							
WM Profile #								
d.								
WM Profile #								
J. Additional Descriptions for Materials Listed Above			K. Disposal Location					
			Cell				Level	
			Grid					
15. Special Handling Instructions and Additional Information								
Purchase Order #		EMERGENCY CONTACT / PHONE NO.:						
16. GENERATOR'S CERTIFICATE: I hereby certify that the above-described materials are not hazardous wastes as defined by CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.								
Printed Name		Signature "On behalf of"			Month	Day	Year	
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials							
	Printed Name		Signature			Month	Day	Year
	<b>Jim Faber</b>		<b>Jim Faber</b>			<b>5</b>	<b>28</b>	<b>19</b>
18. Transporter 2 Acknowledgement of Receipt of Materials								
Printed Name		Signature			Month	Day	Year	
FACILITY	19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
	20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
	Printed Name		Signature			Month	Day	Year
<b>Wame Ond</b>		<b>Pamela</b>			<b>5</b>	<b>29</b>	<b>13</b>	

White- TREATMENT, STORAGE, DISPOSAL FACILITY COPY

Blue- GENERATOR #2 COPY

Yellow- GENERATOR #1 COPY

Pink- FACILITY USE ONLY

Gold- TRANSPORTER #1 COPY





# NON-HAZARDOUS MANIFEST

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.	Manifest Doc No.	2. Page 1 of	92
3. Generator's Mailing Address: EDUCATIONAL ENTERPRISES, INC. 3501 N. FORT WASHINGTON RD MILWAUKEE, WI 53212		Generator's Site Address (if different than mailing): EDUCATIONAL ENTERPRISES, INC. 3601 N. FORT WASHINGTON RD MILWAUKEE, WI 53212 MILWAUKEE COUNTY		A. Manifest Number WMNA	T206705
4. Generator's Phone 262-542-9546				1267	
5. Transporter 1 Company Name <i>Schneider/Kanars</i>		6. US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address Orchard Ridge RDF W124 N9355 Boundary Road Menomonee Falls, WI 53051		10. US EPA ID Number		E. State Transporter's ID	
				F. Transporter's Phone	
				G. State Facility ID	
				H. State Facility Phone 262-253-8620	
GENERATOR	11. Description of Waste Materials		12. Containers		13. Total Quantity
			No.	Type	14. Unit Wt./Vol.
	a.	Contaminated soil			I. Misc. Comments
	WM Profile #	BIO117253WI			
	b.				
	WM Profile #				
	c.				
	WM Profile #				
	d.				
	WM Profile #				
J. Additional Descriptions for Materials Listed Above		K. Disposal Location			
		Cell			
		Grid			
		Level			
15. Special Handling Instructions and Additional Information					
Purchase Order #		EMERGENCY CONTACT / PHONE NO.:			
16. GENERATOR'S CERTIFICATE: I hereby certify that the above-described materials are not hazardous wastes as defined by CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.					
Printed Name		Signature "On behalf of"		Month	Day
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials		Signature		Month
	Printed Name				Day
	<i>Jason Hill</i>		<i>[Signature]</i>		Year
				5	29
18. Transporter 2 Acknowledgement of Receipt of Materials		Signature		Month	Day
Printed Name					
FACILITY	19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.				
	20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.				
	Printed Name		Signature		Month
				5	29
					13

White- TREATMENT, STORAGE, DISPOSAL FACILITY COPY

Blue- GENERATOR #2 COPY

Yellow- GENERATOR #1 COPY

Pink- FACILITY USE ONLY

Gold- TRANSPORTER #1 COPY





# NON-HAZARDOUS MANIFEST

NON-HAZARDOUS MANIFEST	1. Generator's US EPA ID No.	Manifest Doc No.	2. Page 1 of <span style="font-size: 2em; vertical-align: middle;">91</span>
3. Generator's Mailing Address: EDUCATIONAL ENTERPRISES, INC. 3601 N. PORT WASHINGTON RD MILWAUKEE, WI 53212	Generator's Site Address (if different than mailing): EDUCATIONAL ENTERPRISES, INC. 3601 N. PORT WASHINGTON RD MILWAUKEE, WI 53212 MILWAUKEE COUNTY		A. Manifest Number <b>WMNA T206704</b>
			B. State Generator's ID <span style="font-size: 2em; vertical-align: middle;">12-28</span>
4. Generator's Phone 262-542-9546	5. Transporter 1 Company Name		6. US EPA ID Number
7. Transporter 2 Company Name	7. Transporter 2 Company Name		8. US EPA ID Number
9. Designated Facility Name and Site Address Orchard Ridge RDF W124 N9355 Boundary Road Menomonee Falls, WI 53051	9. Designated Facility Name and Site Address Orchard Ridge RDF W124 N9355 Boundary Road Menomonee Falls, WI 53051		10. US EPA ID Number
			C. State Transporter's ID
			D. Transporter's Phone
			E. State Transporter's ID
			F. Transporter's Phone
			G. State Facility ID
			H. State Facility Phone 262-253-8620
GENERATOR	11. Description of Waste Materials		12. Containers
			No. Type
	a. Contaminated soil		13. Total Quantity
	WM Profile # <span style="font-size: 1.5em;">BIO117253WI</span>		14. Unit Wt./Vol.
	b.		I. Misc. Comments
	WM Profile #		
c.			
WM Profile #			
d.			
WM Profile #			
J. Additional Descriptions for Materials Listed Above		K. Disposal Location	
		Cell	Level
		Grid	
15. Special Handling Instructions and Additional Information			
Purchase Order #		EMERGENCY CONTACT / PHONE NO.:	
16. GENERATOR'S CERTIFICATE: I hereby certify that the above-described materials are not hazardous wastes as defined by CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.			
Printed Name		Signature "On behalf of"	Month Day Year
17. Transporter 1 Acknowledgement of Receipt of Materials			
Printed Name <i>Daniel Maldonado</i>		Signature <i>[Signature]</i>	Month Day Year 5 29 13
18. Transporter 2 Acknowledgement of Receipt of Materials			
Printed Name		Signature	Month Day Year
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.			
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.			
Printed Name <i>[Signature]</i>		Signature <i>[Signature]</i>	Month Day Year 5 29 13

White- TREATMENT, STORAGE, DISPOSAL FACILITY COPY

Pink- FACILITY USE ONLY

Blue- GENERATOR #2 COPY

Gold- TRANSPORTER #1 COPY

Yellow- GENERATOR #1 COPY

## SOIL BORING LOG

Project: Hope Christian School-Fortis  
 3601 N. Port Washington Road  
 Milwaukee, Wisconsin 53212

Borehole Identification: SP-1  
 Project No.: 13020  
 Date of Boring: 6/20/13  
 Field Representative: T. Anderson

VISUAL SOIL CLASSIFICATION	DEPTH (feet)	SAMPLE No.	N	Qp (tsf)	Qu (tsf)	MC %	Qs (tsf)	REMARKS
Ground Surface Elevation: ft								
Note A:								
Brown Silty CLAY, little Sand	5							
	10	1-SS	7	-	-	-	-	
Grayish Brown Silty CLAY, little Sand		2-SS	10	-	-	-	-	
<b>TERMINATION DEPTH OF BORING: 12'</b>								
Boring dry during advancement of the augers and upon completion								
Note A: 0"-8" +/- Gravel								
	15							
	20							
	25							
	30							
	35							
	40							

Lines of Demarcation represent an **approximate** boundary between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual. Dashed lines are indicative of potentially erratic or unknown changes, such as fill-to-natural soil zone transitions.

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Verification Only of Fill and Seal

Route to:

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment

Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**      **2. Facility / Owner Information**

County <b>MILWAUKEE</b>	WI Unique Well # of Removed Well _____	Hicap # _____	Facility Name <b>HOPE CHRISTIAN SCHOOL- FORTIS</b>		
Latitude / Longitude (Degrees and Minutes) <b>43° 04' 58.4" N</b>		Method Code (see instructions) _____		Facility ID (FID or PWS) <b>341156970</b>	
<b>87° 55' 44" W</b>		Section <b>8</b>		License/Permit/Monitoring # _____	
Township <b>7 N</b>		Range <b>22</b>		Original Well Owner _____	
Well Street Address <b>3601 N. PORT WASHINGTON ROAD</b>		Present Well Owner <b>EEL REAL ESTATE HOLDINGS FORTIS LLC</b>		Mailing Address of Present Owner <b>2120 PEWAUKEE ROAD #250</b>	
Well City, Village or Town <b>MILWAUKEE</b>		Well ZIP Code <b>53212</b>		City of Present Owner <b>WAUKESHA</b>	
Subdivision Name _____		Lot # _____		State <b>WI</b>	
Reason For Removal From Service <b>ABANDONMENT</b>		WI Unique Well # of Replacement Well _____		ZIP Code <b>53188</b>	

**3. Well / Drillhole / Borehole Information**      **4. Pump, Liner, Screen, Casing & Sealing Material**

<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input checked="" type="checkbox"/> Borehole / Drillhole	Original Construction Date (mm/dd/yyyy) <b>06/20/2013</b>	Pump and piping removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (specify): _____	If a Well Construction Report is available, please attach. _____	Liner(s) removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock	Total Well Depth From Ground Surface (ft.) <b>12</b>	Screen removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Casing Diameter (in.) _____	Lower Drillhole Diameter (in.) <b>8</b>	Casing left in place? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Was well annular space grouted? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	Depth to Water (feet) <b>DRY</b>	Was casing cut off below surface? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
If yes, to what depth (feet)? _____	Required Method of Placing Sealing Material <input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped <input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips) <input type="checkbox"/> Other (Explain): _____	Did sealing material rise to surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
If yes, to what depth (feet)? _____	Sealing Materials <input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Clay-Sand Slurry (11 lb./gal. wt.) <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Bentonite-Sand Slurry " " <input type="checkbox"/> Concrete <input checked="" type="checkbox"/> Bentonite Chips	Did material settle after 24 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A			
If yes, to what depth (feet)? _____	For Monitoring Wells and Monitoring Well Boreholes Only: <input type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry	If bentonite chips were used, were they hydrated with water from a known safe source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A			

5. Material Used To Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
<b>3/8" BENTONITE CHIPS</b>	Surface	<b>12</b>	<b>3 BAGS</b>	

**6. Comments**

**7. Supervision of Work**      **DNR Use Only**

Name of Person or Firm Doing Filling & Sealing <b>UNITED ENGINEERING CONSULTANTS</b>	License # _____	Date of Filling & Sealing (mm/dd/yyyy) <b>06/20/2013</b>	Date Received _____	Noted By _____
Street or Route <b>16237 W. RYERSON ROAD</b>	Telephone Number <b>(262) 785-1447</b>		Comments _____	
City <b>NEW BERLIN</b>	State <b>WI</b>	ZIP Code <b>53151</b>	Signature of Person Doing Work <i>Trudy J. Anderson</i>	Date Signed <b>6/20/2013</b>

# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.



3115 W. WISCONSIN AVENUE, SUITE 200, MILWAUKEE, WI 53233  
847.967.6666 • FAX 847.240.2666 • FAX 847.737.3666 • WWW.EMT.COM

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

July 02, 2013

RE: Hope Fortis

Lab Orders:  
13060723

Dear Timothy Anderson:

Enclosed are the analytical reports for the EMT Lab 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 at 847-967-6666.

Sincerely,

Approved by,

A handwritten signature in black ink, appearing to read 'Eric Jensen', written over a horizontal line.

Eric Jensen  
Project Manager

A handwritten signature in black ink, appearing to read 'Marilyn Krueding', written over a horizontal line.

Marilyn Krueding  
Laboratory Director

This Report Contains 6 pages

The Contents of this report apply to the sample(s) analyzed. No duplication is allowed except in its entirety.

State of Illinois, NELAC Accredited Lab. No. 100256  
State of Wisconsin, WDNR Accredited Lab No. 99988890

environmental laboratory and testing services  
water | soil | air | product | waste



# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.



8100 North Austin • Morton Grove, IL 60053-3203  
847.967.6666 • 800.246.0663 • fax: 847.967.6735 • www.emt.com

**CLIENT:** United Engineering Consultants, Inc.

**Date:** 7/2/2013

**Project:** Hope Fortis

## CASE NARRATIVE

**Lab Order:** 13060723

---

Unless otherwise noted, samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

Unless otherwise noted, all method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

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

All results are reported on a wet weight basis, unless otherwise noted. Dry weight adjusted results, reporting limits, method detection limits and dilution factors are indicated by the notation "dry" in the Units column. If present, a dilution factor will adjust the method detection limits and reporting limits.

The test results contained in this report meet all of the requirements of NELAC. Accreditation by the State of Illinois or Wisconsin is not an endorsement or a guarantee of the validity of data generated. For specific information regarding EMT's scope of accreditation, please contact your EMT project manager.

The Reporting Limit listed on the Report of Laboratory Analysis is EMT's reporting limit for the analyte reported. For most test methods this reporting limit is primarily based upon the lowest point in the calibration curve.

Analyst's initials of "OUT" indicate that the analyte was analyzed by a subcontracted laboratory.

### Method References:

SW=USEPA, Test Methods for Evaluating Solid Waste, SW-846.

E=USEPA Methods for the Determination of Inorganic Substances in Environmental Samples; Methods for Chemical Analysis of Water and Wastes; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, 40 CFR Part 136, App A; methods for the Determination of Metals in Environmental Samples; Methods for the Determination of Organic Compounds in Drinking Water.

SM= APHA, Standard Methods for the Examination of Water and Wastewater.

D=ASTM, Annual Book of Standards

Batch numbers starting with a letter indicate an analytical batch while those that are exclusively numerals indicate a preparation batch.

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# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.



8100 North Austin • Morton Grove, IL 60053-3203  
847.967.6666 • 800.246.0663 • fax: 847.967.6735 • www.emt.com

## Report of Laboratory Analysis

**CLIENT:** United Engineering Consultants, Inc. **Client Sample ID:** SP-1 8'-9'

**Lab Order:** 13060723 **Report Date:** 7/2/2013

**Project:** Hope Fortis **Collection Date:** 6/20/2013

**Lab ID:** 13060723-01 **Matrix:** Soil

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	Date Analyzed	Batch	DF	Analyst
<b>Percent Moisture</b>									
Percent Moisture	15.9	0.0300		% (Percent)	0.0150	6/24/13 10:35	R187608	1.00	TB2
<b>Solids, Total</b>									
Total Solids (Percent)	84.1	0.03		% (Percent)	0.0100	6/24/13 10:35	R187609	1.00	TB2
<b>Polynuclear Aromatic Hydrocarbons</b>									
<b>Method: SW8310 / SW3540C</b>									
1-Methylnaphthalene	24.	29.1	J	µg/Kg-dry	11.6	6/24/13	82760	1.00	MNN
2-Methylnaphthalene	12.	29.1	J	µg/Kg-dry	8.22	6/24/13	82760	1.00	MNN
Acenaphthene	< 29.1	29.1		µg/Kg-dry	9.22	6/24/13	82760	1.00	MNN
Acenaphthylene	< 146.	146.		µg/Kg-dry	12.8	6/24/13	82760	1.00	MNN
Anthracene	< 29.1	29.1		µg/Kg-dry	6.44	6/24/13	82760	1.00	MNN
Benz(a)anthracene	< 29.1	29.1		µg/Kg-dry	6.82	6/24/13	82760	1.00	MNN
Benzo(a)pyrene	< 29.1	29.1		µg/Kg-dry	7.16	6/24/13	82760	1.00	MNN
Benzo(b)fluoranthene	< 29.1	29.1		µg/Kg-dry	8.09	6/24/13	82760	1.00	MNN
Benzo(g,h,i)perylene	< 29.1	29.1		µg/Kg-dry	10.9	6/24/13	82760	1.00	MNN
Benzo(k)fluoranthene	< 29.1	29.1		µg/Kg-dry	7.00	6/24/13	82760	1.00	MNN
Chrysene	< 29.1	29.1		µg/Kg-dry	6.82	6/24/13	82760	1.00	MNN
Dibenz(a,h)anthracene	< 29.1	29.1		µg/Kg-dry	6.18	6/24/13	82760	1.00	MNN
Fluoranthene	< 29.1	29.1		µg/Kg-dry	7.80	6/24/13	82760	1.00	MNN
Fluorene	< 29.1	29.1		µg/Kg-dry	8.29	6/24/13	82760	1.00	MNN
Indeno(1,2,3-cd)pyrene	< 29.1	29.1		µg/Kg-dry	9.40	6/24/13	82760	1.00	MNN
Naphthalene	< 29.1	29.1		µg/Kg-dry	7.24	6/24/13	82760	1.00	MNN
Phenanthrene	10.	29.1	J	µg/Kg-dry	8.07	6/24/13	82760	1.00	MNN
Pyrene	< 29.1	29.1		µg/Kg-dry	7.37	6/24/13	82760	1.00	MNN
<b>Surrogates:</b>									
4-Terphenyl-d14	96.8	33-133		%REC	0	6/24/13	82760	1.00	MNN

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits

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Environmental Monitoring and Testing Services  
 877-345-6789 • 2000 North 17th Street, Suite 100 • Aurora, CO 80012 • USA  
 Fax: 303-733-8800 • Email: info@emts.com

## Report of Laboratory Analysis

**CLIENT:** United Engineering Consultants, Inc. **Client Sample ID:** SP-1 11'-12'

**Lab Order:** 13060723 **Report Date:** 7/2/2013

**Project:** Hope Fortis **Collection Date:** 6/20/2013

**Lab ID:** 13060723-02 **Matrix:** Soil

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	Date Analyzed	Batch	DF	Analyst
<b>Percent Moisture</b>									
Method: SM2540G									
Percent Moisture	14.1	0.0300		% (Percent)	0.0150	6/24/13 10:35	R187608	1.00	TB2
<b>Solids, Total</b>									
Method: SM2540G									
Total Solids (Percent)	84.3	0.03		% (Percent)	0.0100	6/24/13 10:35	R187609	1.00	TB2
<b>Polynuclear Aromatic Hydrocarbons</b>									
Method: SW8310 / SW3540C									
1-Methylnaphthalene	< 29.	29.		µg/Kg-dry	11.6	6/24/13	82760	1.00	MNN
2-Methylnaphthalene	< 29.	29.		µg/Kg-dry	8.20	6/24/13	82760	1.00	MNN
Acenaphthene	< 29.	29.		µg/Kg-dry	9.19	6/24/13	82760	1.00	MNN
Acenaphthylene	< 145.	145.		µg/Kg-dry	12.8	6/24/13	82760	1.00	MNN
Anthracene	< 29.	29.		µg/Kg-dry	6.42	6/24/13	82760	1.00	MNN
Benz(a)anthracene	< 29.	29.		µg/Kg-dry	6.80	6/24/13	82760	1.00	MNN
Benzo(a)pyrene	< 29.	29.		µg/Kg-dry	7.14	6/24/13	82760	1.00	MNN
Benzo(b)fluoranthene	< 29.	29.		µg/Kg-dry	8.07	6/24/13	82760	1.00	MNN
Benzo(g,h,i)perylene	< 29.	29.		µg/Kg-dry	10.9	6/24/13	82760	1.00	MNN
Benzo(k)fluoranthene	< 29.	29.		µg/Kg-dry	6.98	6/24/13	82760	1.00	MNN
Chrysene	< 29.	29.		µg/Kg-dry	6.80	6/24/13	82760	1.00	MNN
Dibenz(a,h)anthracene	< 29.	29.		µg/Kg-dry	6.16	6/24/13	82760	1.00	MNN
Fluoranthene	< 29.	29.		µg/Kg-dry	7.78	6/24/13	82760	1.00	MNN
Fluorene	< 29.	29.		µg/Kg-dry	8.27	6/24/13	82760	1.00	MNN
Indeno(1,2,3-cd)pyrene	< 29.	29.		µg/Kg-dry	9.37	6/24/13	82760	1.00	MNN
Naphthalene	< 29.	29.		µg/Kg-dry	7.22	6/24/13	82760	1.00	MNN
Phenanthrene	< 29.	29.		µg/Kg-dry	8.04	6/24/13	82760	1.00	MNN
Pyrene	< 29.	29.		µg/Kg-dry	7.35	6/24/13	82760	1.00	MNN
<b>Surrogates:</b>									
4-Terphenyl-d14	98.0	33-133		%REC	0	6/24/13	82760	1.00	MNN

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
 E - Estimated R - RPD outside accepted recovery limits  
 H - Holding Time Exceeded J - Analyte detected below quantitation limits



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**Client:** United Engineering Consultants, Inc.  
**Project:** UEC\_WDNR

## DATES REPORT

7/2/2013

**Lab Order:** 13060723

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date	Batch ID
13060723-01A	SP-1 8'-9'	6/20/13	Soil	Percent Moisture			6/24/13 10:35	R187608
				Polynuclear Aromatic Hydrocarbons		6/23/13 17:38	6/24/13	82760
				Solids, Total (TS)			6/24/13 10:35	R187609
13060723-02A	SP-1 11'-12'			Percent Moisture			6/24/13 10:35	R187608
				Polynuclear Aromatic Hydrocarbons		6/23/13 17:38	6/24/13	82760
				Solids, Total (TS)			6/24/13 10:35	R187609

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# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue  
Morton Grove, Illinois 60053-3203

## Chain of Custody Record

847-967-6666  
FAX: 847-967-6735  
www.emt.com

TURNAROUND TIME:  
 RUSH  
 day turnaround  
 ROUTINE

Due Date: \_\_\_\_\_ COC #: **119750**

Company: UEC  
 Address: 16237 W. RYERSON ROAD  
NEW BERLIN, WI 53151  
 Phone #: (262) 785-1447 Fax #: (262) 706-4400  
 P.O. #: \_\_\_\_\_ Proj #: \_\_\_\_\_  
 Client Contact: TIMOTHY J. ANDERSON  
 Project ID / Location: HOPE FORTIS

**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<sub>2</sub>SO<sub>4</sub> 5. HCl 8. Other  
 3. HNO<sub>3</sub> 6. MeOH

### Analyses

PAH  
TOTAL SOLIDS

EMT USE ONLY

EMT WORKORDER # 130606723

Sample I.D.	Sample Type	Container			Sampling					Preservation		PAH	TOTAL SOLIDS	
		Size	Type	No.	By	Date	Time	pH	Temp.	Field	Lab			
SP-1 8'-9'	3	402	G	1	TA	6/20/13	AM					✓	✓	
SP-1 11'-12'	↓	↓	↓	↓	↓	↓	↓					✓	✓	

Relinquished By: <u>Timothy J. Anderson</u>	Date: <u>6-21-13</u> Time: <u>9:35 AM</u>	Received By: <u>DJH</u>	Date: <u>6-21-13</u> Time: <u>9:35</u>	EMT USE ONLY	<input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE
Relinquished By: <u>DJH</u>	Date: <u>6-21-13</u> Time: <u>14:01</u>	Received By: <u>[Signature]</u>	Date: <u>6-21-13</u> Time: <u>14:01</u>	Client Code: <u>UEC</u>	<input type="checkbox"/> TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)
Relinquished By: <u>[Signature]</u>	Date: <u>6-21-13</u> Time: <u>15:40</u>	Received For Lab By: <u>[Signature]</u>	Date: <u>6-21-13</u> Time: <u>15:40</u>	EMT Project I.D.: <u>UEC.WDNR</u>	<u>14°C</u>
Jar Lot No.				EMT SAMPLE RETURN POLICY ON BACK	

**SPECIAL INSTRUCTIONS:**