



4250 Route 6N
Edinboro, Pennsylvania 16412

Environmental Remediation & Recovery, Inc.

Telephone (814)734-6411
Fax (814)734-4756

January 26, 2015

Mr. David Hall
Storage Tank Section
Northwest Regional Office
Pennsylvania Department of Environmental Protection
230 Chestnut Street
Meadville, Pennsylvania 16335

RE: Russell City Store
1536 State Route 66
DeYoung, Pennsylvania 16728
PADEP Facility ID # 24-30431
USTIF Claim #2014170
ER&R Project # 2014.74

Dear Mr. Hall:

An underground storage tank (UST) was closed, by removal, at the above listed site on November 25, 2014. Impacted soils were encountered proximate to the former dispenser island. PADEP and Highland Township were notified of the confirmed release. USTIF was similarly notified of a potential claim.

The UST system closure report form and supporting documentation are attached. Additional site characterization and source removal work are scheduled to be completed in the near future. A site characterization report (including detailed maps and photographs) are forthcoming and will be submitted to the Department.

Thank you for your cooperation in this matter. Comments or questions may be directed to the undersigned by phoning 814.734.6411.

Sincerely,

Environmental Remediation and Recovery, Inc.

David J. Birchard, P.G.
Project Manager

Encl.

Cc: J Cramer - ICF
T Lutz

2/19/2015 1:47:08 PM



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

**UNDERGROUND STORAGE TANK SYSTEM
CLOSURE REPORT FORM**

24-30431
Facility I.D.

Russell City Store
Facility Name

Highland Township
Municipality

Elk
County

January 23, 2015
Date Prepared

Michael Waltz
Name of Person Submitting Report
(Please Print)

Environmental Remediation & Recovery, Inc.
Company Name
(If Applicable)

Senior Project Manager
Title

Closure Method (Check all that apply):

- Removal
- Closure-In-Place
- Change-In-Service

Site Assessment Results (Check all that apply):

- No Obvious Contamination - Sample Results Meet Standards/Levels
- No Obvious Contamination - Sample Results Do Not Meet Standards/Levels
- Obvious, Localized Contamination - Sample Results Meet Standards/Levels
- Obvious, Localized Contamination - Sample Results Do Not Meet Standards/Levels
- Obvious, Extensive Contamination

DATE OF TANK CLOSURE (Month/Day/Year)		- -	- -	- -	- -
Tank Registration Number					
Estimated Total Capacity (Gallons)					
Substance(s) Stored Throughout Operating Life of Tank (Check All That Apply)	a. Petroleum				
	Unleaded Gasoline	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Leaded Gasoline	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Aviation Gasoline	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Kerosene	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Jet Fuel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Diesel Fuel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Fuel Oil No. 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Fuel Oil No. 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Fuel Oil No. 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Fuel Oil No. 5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Fuel Oil No. 6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	New Motor Oil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Used Motor Oil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Other, Please Specify				
NOTE: If Hazardous Substance Block is Checked, Attach Material Safety Data Sheets (MSDS)	b. Hazardous Substance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Name of Principal CERCLA Substance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<u>AND</u> Chemical Abstract Service (CAS) No.				
Closure Method (Check Only One)	c. Unknown	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	a. Removal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b. Closure-in-Place	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Partial System Closure (Yes or No)	c. Change-In-Service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Yes N/A

11. Briefly describe the storage tank facility and the nature of the operations which were conducted at the facility (both historical and present) including use of tanks: _____

The site was operated as a country store with limited retail fueling. The tanks were utilized to fuel vehicles.

12. A site location and sampling map of the site, drawn to scale, is attached. Figure 1 & 2 of the UST Closure Report.

13. Original, color photographs of the closure process are attached (i.e., inside of excavation/piping runs, pit water, tanks showing condition). Attachment A of the UST Closure Report.

14. An amended "Storage Tanks Registration/Permitting Application Form" was submitted to the DEP, Bureau of Waste Management, Division of Storage Tanks, P.O. Box 8762, Harrisburg, PA 17105-8762.

Date: January 27, 2014

15. If a reportable release was confirmed, the appropriate regional office of DEP was notified by the owner or operator.

Date: 12 - 22 - 2014 Office: NWRO

Yes N/A

16. If tanks were cleaned on-site:

a. Briefly describe the disposition of usable product: _____
Useable product was removed by a pneumatic drum vacuum.

b. Briefly describe the disposal of unusable product, sludges, sediments, and wastewater generated during cleaning. Provide the name and permit number of the processing, treatment, storage or disposal facility. (Attach documentation of proper disposal):
Very little sludge or product was present and less than 10 gallons was given to the excavation contractor to burn in his waste oil burner.

c. If tank contents were determined/deemed to be hazardous waste, provide:
(1) Generator ID Number: NA
(2) Licensed Hazardous Waste Transporter Name and ID Number: NA

17. If tanks were removed from the site for cleaning:

a. Provide the name and permit number of the processing, treatment, storage or disposal facility performing the tank cleaning: _____

b. If tank contents were determined/deemed to be hazardous waste, provide:
(1) Generator ID Number: _____
(2) Licensed Hazardous Waste Transporter Name and ID Number: _____

18. Briefly describe the disposition of tanks/piping (Attach documentation of proper disposal):
The clean and vapor free USTs and piping were given to the excavation contractor as scrap steel. The dispensers were retained by the owner.

19. If contaminated soil is excavated:

a. Briefly describe the disposition and amount ____ (tons) of contaminated soil. Provide the name and permit number of the processing, treatment, storage or disposal facility. (Attach documentation of proper disposal):

b. If contaminated soil is determined/deemed to be hazardous waste, provide:
(1) Generator ID Number: _____
(2) Licensed Hazardous Waste Transporter Name and ID Number: _____

Yes N/A

20. Briefly describe the disposition of and amount _____ (tons) of uncontaminated soil (attach analyses):

I, Theodore Lutz, hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904
(Print Name)
(relating to unsworn falsification to authorities) that I am the owner of the above referenced storage tank(s) and that the information provided by me in this closure report (Section I) is true, accurate and complete to the best of my knowledge and belief.

Signature of Tank Owner

_____/_____/_____
Date

Company Name
(If Applicable)

Title

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

**UNDERGROUND STORAGE TANK SYSTEM
CLOSURE REPORT FORM**

SECTION II. Tank Handling Information

Facility ID Number 24-30431

Yes N/A

- 1. Briefly describe the excavation and initial on-site staging of uncontaminated/contaminated soil:
All soil was staged on-site during tank removal activities and reused for backfill following the tank removal. Contaminated soil was not encountered.
- 2. Briefly describe the method of piping system closure and the closure of the piping systems including the quantity and condition of the piping:
Piping was disconnected and removed as necessary to remove the tanks. Fiberglass vent and vapor recovery pipe was in good condition. Double wall plastic piping was in good condition. All piping was removed.
- 3. Briefly describe the condition of the tanks and any problems encountered during tank removal:
The tank was in very good condition.
- 4. Briefly describe the method used to purge the tanks of and monitor for explosive vapors:
Vacuum extraction and lower explosive limit (LEL) meter.

- 5. If tanks were cleaned on-site:
 - a. Briefly describe the tank cleaning process: Tanks were entered and scraped clean.
 - b. If subcontracted, name and address of company that performed the tank cleaning:

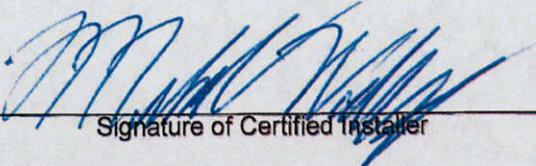
- 6. If tanks were closed-in-place, briefly describe the tank fill material: _____

- 7. If contamination was suspected or observed, the "Notification of Contamination" form was submitted.

SECTION II. (continued)

I, Michael Waltz, hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904
(Print Name)

(relating to unsworn falsification to authorities) that I am the certified installer who performed the tank handling activities associated with the closure of the above referenced storage tank(s) and that the information provided by me in this closure report (Section I) is true, accurate and complete to the best of my knowledge and belief.



Signature of Certified Installer

1 / 23 / 15
Date

3717
Installer Certification Number

1315
Company Certification Number

Environmental Remediation and Recovery, Inc.
Company Name

4250 Route 6N
Street

Edinboro, PA 16412
City/Town, State, Zip

814 - 734 - 6411
Phone

UNDERGROUND STORAGE TANK CLOSURE REPORT FORM

SECTION III. Site Assessment Information

Tank Registration # 003 (complete one sheet for EACH tank system and attach ALL laboratory sheets pertaining to that system)

Facility ID Number 24 - 30431

A. Provide depth of *BEDROCK* and *WATER* IF encountered during excavation or soil boring (write "N/A: if NOT encountered).

Bedrock NA feet below land surface Water NA feet below land surface

B. Provide Length of *PIPING* IF piping was closed-in-place (write "N/A" if NOT closed-in-place).
Length of piping NA feet

C. TANK SYSTEM REMOVED FROM THE GROUND

1). Was obvious contamination observed while excavating?

NO -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records -----> Do not complete item C.2. below.

YES-----> Report release to DEP within 2 hours -----> Describe contamination observed and likely source(s) tank, piping, dispenser, spills, overfills):

Contamination was only observed below the dispensers.

-----> Complete item C.2. below.

2). Was contamination localized (within three feet of the tank system in every direction with no obvious water contamination)?

YES -----> Remove or remediate contaminated soil -----> Conduct confirmatory sampling-----> See end of this section for options on submission and maintenance of closure records -----> Call Indemnification Fund (717-787-0763).

NO-----> Continue interim remedial actions -----> See end of this section for options on submission and maintenance of closure records -----> Call Indemnification Fund (717-787-0763).

D. TANK SYSTEM CLOSED-IN-PLACE OR CHANGED-IN-SERVICE

Was obvious contamination observed during sampling, boring or assessing water depths?

NO -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records.

YES-----> Report release to DEP within 2 hours -----> Describe contamination observed and likely source(s) tank, piping, dispenser, spills, overfills):

Continue with corrective action -----> See end of this section for options on submission and maintenance of closure records -----> Call Indemnification Fund (717-787-0763).

E. If the answer to C.1. is "no", the answer to C.2. if "yes" or the answer to D. is "no", confirmatory samples are required. Use the sample/analysis information sheet on page 10 of 11 to provide the information on confirmatory sampling and complete the diagram on Page 11 of 11.

Options for Submission and Maintenance of Closure Site Assessment Records

Records of the site assessment must be maintained for at least three years after completion of permanent closure or change-in-service in one of the following ways:

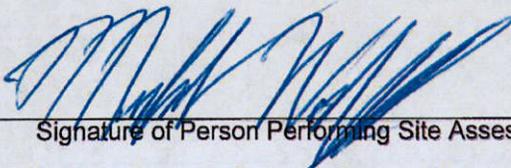
- (a) By the owners and operators who took the UST system out of service;
- (b) By the current owners and operators of the UST system site; or
- (c) By mailing these records to the implementing agency if they cannot be maintained at the closed facility.

At least one option must be chosen. If option (c) is chosen, the closure report form should be sent to the DEP regional office responsible for the county in which the tank is located.

Where the results of the site assessment indicate that obvious, localized soil contamination was encountered and the analytical results of the confirmatory sampling show levels below the statewide standard/action levels, this closure report form (Sections I, II, and III) or some other acceptable site characterization report must be received by the Department within 180 days of verbally reporting the release.

Where the results of the site assessment indicate that no obvious contamination or obvious, localized contamination was encountered, but the analytical results of the confirmatory sampling show levels above the statewide standard/action levels, or where there is obvious, extensive contamination, Section 245.310(a)(8) of the CAP regulation requires that details of removal from service be included in the site characterization report. A copy of the completed closure report form should be submitted as part of the site characterization report to satisfy the requirements of Section 245.310(a)(8) of the CAP regulations.

I, Michael Waltz, P.G., hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to unsworn falsification to authorities) that I am the person who performed the site assessment activities associated with the closure of the above referenced storage tank(s) and that the information provided by me in this closure report (Section III) is true, accurate and complete to the best of my knowledge and belief.



Signature of Person Performing Site Assessment

1 / 23 / 15
Date

Project Manager

Title of Person Performing Site Assessment

Environmental Remediation & Recovery, Inc.

Name of Company Performing Site Assessment

814-734-6411

Telephone Number of Person Performing Site Assessment

UNDERGROUND STORAGE TANK CLOSURE REPORT FORM

SECTION III. Site Assessment Information

Tank Registration # 004 (complete one sheet for EACH tank system and attach ALL laboratory sheets pertaining to that system)

Facility ID Number 24 - 30431

A. Provide depth of *BEDROCK* and *WATER* IE encountered during excavation or soil boring (write "N/A" if NOT encountered).

Bedrock NA feet below land surface Water NA feet below land surface

B. Provide Length of *PIPING* IE piping was closed-in-place (write "N/A" if NOT closed-in-place).

Length of piping NA feet

C. TANK SYSTEM REMOVED FROM THE GROUND

1). Was obvious contamination observed while excavating?

NO -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records -----> Do not complete item C.2. below.

YES-----> Report release to DEP within 2 hours -----> Describe contamination observed and likely source(s) tank, piping, dispenser, spills, overfills):

Contamination was only observed below the dispensers.

-----> Complete item C.2. below.

2). Was contamination localized (within three feet of the tank system in every direction with no obvious water contamination)?

YES -----> Remove or remediate contaminated soil -----> Conduct confirmatory sampling-----> See end of this section for options on submission and maintenance of closure records -----> Call Indemnification Fund (717-787-0763).

NO-----> Continue interim remedial actions -----> See end of this section for options on submission and maintenance of closure records -----> Call Indemnification Fund (717-787-0763).

D. TANK SYSTEM CLOSED-IN-PLACE OR CHANGED-IN-SERVICE

Was obvious contamination observed during sampling, boring or assessing water depths?

NO -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records.

YES-----> Report release to DEP within 2 hours -----> Describe contamination observed and likely source(s) tank, piping, dispenser, spills, overfills):

-----> Continue with corrective action -----> See end of this section for options on submission and maintenance of closure records -----> Call Indemnification Fund (717-787-0763).

E. If the answer to C.1. is "no", the answer to C.2. if "yes" or the answer to D. is "no", confirmatory samples are required. Use the sample/analysis information sheet on page 10 of 11 to provide the information on confirmatory sampling and complete the diagram on Page 11 of 11.

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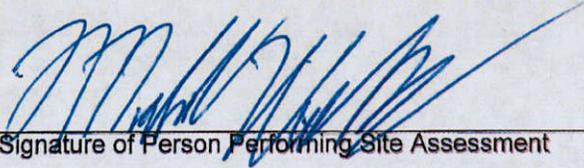
- (a) By the owners and operators who took the UST system out of service;
- (b) By the current owners and operators of the UST system site; or
- (c) By mailing these records to the implementing agency if they cannot be maintained at the closed facility.

At least one option must be chosen. If option (c) is chosen, the closure report form should be sent to the DEP regional office responsible for the county in which the tank is located.

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I, Michael Waltz, P.G., hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to unsworn falsification to authorities) that I am the person who performed the site assessment activities associated with the closure of the above referenced storage tank(s) and that the information provided by me in this closure report (Section III) is true, accurate and complete to the best of my knowledge and belief.


Signature of Person Performing Site Assessment

1 / 23 / 15
Date

Senior Project Manager
Title of Person Performing Site Assessment

Environmental Remediation & Recovery, Inc.
Name of Company Performing Site Assessment

814-734-6411
Telephone Number of Person Performing Site Assessment

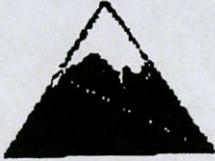
Site Location and Sampling Map - Use this page or suitable facsimile to provide a large scale map of the site where tanks were closed. Scales between 1" = 10 and 1" = 100 feet frequently work out well. Include the following information as each applies to the site: facility name and I.D., county, township or borough, property boundaries or area of interest, buildings, roads and streets with names or route numbers, utilities, location and ID number of storage tanks removed including piping and dispensers, soil stockpile locations, excavations or other locations of product recovery, north arrow, approximate map scale and legend. Also show depth and location of samples with sample ID numbers cross-referenced to the same ID numbers shown on Page 10 of 11.

Facility Name and ID: Russell City Store 24 - 30431

County: Elk

Township/Borough: Highland Township

SEE ATTACHED FIGURE 1 AND 2



ENVIRONMENTAL REMEDIATION & RECOVERY, INC.
 4250 ROUTE 6N
 EDINBORO, PA 16412
 TELEPHONE: (814) 734-6411
 FAX: (814) 734-4756

Non-Hazardous Bill of Lading/Product Shipment

Destination:

Generator:

Project #:

2014.74

Delivery Date:

11-25-14

Type of Shipment: Bulk Liquid Bulk Solid Drum
 Other

Quantity	Units	Description	Unit Price	Comments
1	2000-gal	STI-P23 tank	Scrap	Not to be used
1	1000-gal	STI-P3 tank	Scrap	for fuel or water
1	Drum	Liquid, waste		To be recycled oil heater

Truck # 12

Shipper/ER&R (print) M Waltz

Signature [Signature]

Transporter (print) S Dyne

Signature X [Signature]

Receiver (print) S Dyne

Signature X [Signature]



Table 1
Analytical Results for Soil Samples
 UST Removal
 Russell City, Pennsylvania
 ER&R Project #2014.74

Sample ID & Location	Units	UST 3 South	UST 3 Center	UST 3 North	UST 4 North	UST 4 Center	UST 4 South	Line	Dispenser East	Dispenser West	Residential USED Aquifer STANDARDS in µg/Kg		Non-Residential USED Aquifer STANDARDS in µg/Kg		Vapor Evaluation	
		11/25/2014	11/25/2014	11/25/2014	11/25/2014	11/25/2014	11/25/2014				11/25/2014	11/25/2014	11/25/2014	PADEP Action Levels (100 X GW MSCs) Medium-Specific Concentrations	PADEP Action Levels (Generic Value) Medium-Specific Concentrations	PADEP Action Levels (100 X GW MSCs) Medium-Specific Concentrations
Sample Date		11/25/2014	11/25/2014	11/25/2014	11/25/2014	11/25/2014	11/25/2014	11/25/2014	11/25/2014	11/25/2014						
Sample Time		14:00	14:05	14:10	15:00	15:05	15:10	15:30	16:00	16:30						
Sample Depth	Feet	8.0	8.0	8.0	8.0	8.0	8.0	3.0	2.0	2.0						
Laboratory ID#		30135589 001	30135589 002	30135589 003	30135589 004	30135589 005	30135589 006	30135589 007	30135589 008	30135589 009						
Percent Moisture	%	9.9%	10.6%	9.9%	12.5%	9.9%	24.2%	13.2%	14.7%	11.6%						
Benzene	(µg/kg)	<4.7	<5.0	<5.4	<4.9	<4.5	<5.4	<5.2	76.5	6.5	500	130	500	130	370	630
Ethylbenzene	(µg/kg)	<4.7	10.7	<5.4	<4.9	<4.5	<5.4	<5.2	42.8	<4.5	70,000	46,000	70,000	46,000	5,700	9,500
Isopropylbenzene (Cumene)	(µg/kg)	11.4	43.7	<5.4	<4.9	<4.5	<5.4	<5.2	52.8	<4.5	84,000	600,000	350,000	2,500,000	360,000	360000 +
Methyl tert-butyl ether (MTBE)	(µg/kg)	<4.7	<5.0	<5.4	<4.9	<4.5	<5.4	<5.2	<4.7	<4.5	5	1	5	1	170	290
Naphthalene	(µg/kg)	10.4	51.8	<5.4	<4.9	<4.5	<5.4	<5.2	12,000	10,200	10,000	25,000	10,000	25,000	64,000	NOC
Toluene	(µg/kg)	<4.7	<5.0	<5.4	<4.9	<4.5	<5.4	<5.2	<4.7	<4.5	100,000	44,000	100,000	44,000	76,000	110,000
1,2,4 Trimethylbenzene	(µg/kg)	31.2	648	26.1	11.1	5.8	<5.4	<5.2	32,300	48,900	1,500	8,600	6,200	35,000	20,000	29,000
1,3,5 Trimethylbenzene	(µg/kg)	23.4	321	7.3	<4.9	<4.5	<5.4	<5.2	43,900	39,700	1,300	2,300	5,300	9,300	4,600	6,400
Total Xylenes	(µg/kg)	<14.2	<15.0	<16.2	<14.8	<13.4	<16.1	<15.7	442	171	1,000,000	990,000	1,000,000	990,000	55,000	77,000

Notes:

1. Soil results are reported on a dry weight basis in µg/kg.
2. NS = Parameter does not have an indoor air standard.
3. Volatile organic compounds analyzed by EPA Method 8260B (GC/MS).
4. Laboratory analysis completed by Pace Analytical Services, Inc. (Greensburg, PA).
5. < less than values indicate concentrations below the laboratory reporting limits.
6. Samples analyzed for PADEP's short list of unleaded gasoline parameters
7. Vapor Soil Screening values represent Tables 4 (residential) and Table 5 (nonresidential) of PADEP Vapor Intrusion guidance document (2004).
8. NOC = Not of Concern for indoor air protection.



2/19/2015 1:47:25 PM



2/19/2015 1:47:26 PM



Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

December 19, 2014

Mike Waltz
Environmental Remediation & Recovery, Inc.
4250 Route 6N
Edinboro, PA 16412

RE: Project: LUTZ UST REMOVAL
Pace Project No.: 30135589

Dear Mike Waltz:

Enclosed are the analytical results for sample(s) received by the laboratory on December 02, 2014. 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,

Timothy Reed
timothy.reed@pacelabs.com
Project Manager

Enclosures

cc: Karann Holman, Environmental Remediation & Recovery,
Inc.



REPORT OF LABORATORY ANALYSIS

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

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Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5800

CERTIFICATIONS

Project: LUTZ UST REMOVAL

Pace Project No.: 30135589

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ACCLASS DOD-ELAP Accreditation #: ADE-1544
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California/TNI Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Guam/PADEP Certification
Hawaii/PADEP Certification
Idaho Certification
Illinois/PADEP Certification
Indiana/PADEP Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235

Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188
Utah/TNI Certification #: PA014572014-4
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin/PADEP Certification
Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: LUTZ UST REMOVAL

Pace Project No.: 30135589

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30135589001	UST 3 S	Solid	11/25/14 14:00	12/02/14 10:00
30135589002	UST 3 C	Solid	11/25/14 14:05	12/02/14 10:00
30135589003	UST 3 N	Solid	11/25/14 14:10	12/02/14 10:00
30135589004	UST 4 N	Solid	11/25/14 15:00	12/02/14 10:00
30135589005	UST 4 C	Solid	11/25/14 15:05	12/02/14 10:00
30135589006	UST 4 S	Solid	11/25/14 15:10	12/02/14 10:00
30135589007	LINE	Solid	11/25/14 15:30	12/02/14 10:00
30135589008	DISP E	Solid	11/25/14 16:00	12/02/14 10:00
30135589009	DISP W	Solid	11/25/14 16:30	12/02/14 10:00

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SAMPLE ANALYTE COUNT

Project: LUTZ UST REMOVAL
Pace Project No.: 30135589

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30135589001	UST 3 S	EPA 8260B	JEW	12
		ASTM D2974-87	AMR	1
30135589002	UST 3 C	EPA 8260B	JEW	12
		ASTM D2974-87	AMR	1
30135589003	UST 3 N	EPA 8260B	JEW	12
		ASTM D2974-87	AMR	1
30135589004	UST 4 N	EPA 8260B	JEW	12
		ASTM D2974-87	AMR	1
30135589005	UST 4 C	EPA 8260B	JEW	12
		ASTM D2974-87	AMR	1
30135589006	UST 4 S	EPA 8260B	JEW	12
		ASTM D2974-87	AMR	1
30135589007	LINE	EPA 8260B	JEW	12
		ASTM D2974-87	AMR	1
30135589008	DISP E	EPA 8260B	JEW	12
		ASTM D2974-87	AMR	1
30135589009	DISP W	EPA 8260B	JEW	12
		ASTM D2974-87	AMR	1

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PROJECT NARRATIVE

Project: LUTZ UST REMOVAL
Pace Project No.: 30135589

Method: EPA 8260B
Description: 8260 MSV UST
Client: Environmental Remediation and Recovery, Inc.
Date: December 19, 2014

General Information:

9 samples were analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

QC Batch: MSV/21812

S2: Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from sample re-analysis).

- DISP E (Lab ID: 30135589008)
 - Toluene-d8 (S)
- DISP W (Lab ID: 30135589009)
 - Toluene-d8 (S)

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/21812

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

QC Batch: MSV/21834

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

Workorder Comments:

This project was revised on 12/19/14 in order to add TMBs to the volatile list.

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PROJECT NARRATIVE

Project: LUTZ UST REMOVAL
Pace Project No.: 30135589

Method: EPA 8260B
Description: 8260 MSV UST
Client: Environmental Remediation and Recovery, Inc.
Date: December 19, 2014

Analyte Comments:

QC Batch: MSV/21812

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- UST 3 C (Lab ID: 30135589002)
- 1,2,4-Trimethylbenzene

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: LUTZ UST REMOVAL

Pace Project No.: 30135589

Sample: UST 3 S Lab ID: 30135589001 Collected: 11/25/14 14:00 Received: 12/02/14 10:00 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST		Analytical Method: EPA 8260B							
Benzene	ND	ug/kg	4.7	0.74	1		12/09/14 12:03	71-43-2	M5
Ethylbenzene	ND	ug/kg	4.7	2.4	1		12/09/14 12:03	100-41-4	M5
Isopropylbenzene (Cumene)	11.4	ug/kg	4.7	1.0	1		12/09/14 12:03	98-82-8	M5
Methyl-tert-butyl ether	ND	ug/kg	4.7	0.67	1		12/09/14 12:03	1634-04-4	M5
Naphthalene	10.4	ug/kg	4.7	2.4	1		12/09/14 12:03	91-20-3	M5
Toluene	ND	ug/kg	4.7	0.61	1		12/09/14 12:03	108-88-3	M5
1,2,4-Trimethylbenzene	31.2	ug/kg	4.7	1.1	1		12/09/14 12:03	95-63-6	M5
1,3,5-Trimethylbenzene	23.4	ug/kg	4.7	1.3	1		12/09/14 12:03	108-67-8	M5
Xylene (Total)	ND	ug/kg	14.2	2.9	1		12/09/14 12:03	1330-20-7	M5
Surrogates									
Toluene-d8 (S)	98 %		73-124		1		12/09/14 12:03	2037-26-5	M5
4-Bromofluorobenzene (S)	107 %		71-124		1		12/09/14 12:03	460-00-4	M5
1,2-Dichloroethane-d4 (S)	110 %		83-138		1		12/09/14 12:03	17060-07-0	M5
Percent Moisture		Analytical Method: ASTM D2974-87							
Percent Moisture	9.9 %		0.10	0.10	1		12/15/14 19:04		

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ANALYTICAL RESULTS

Project: LUTZ UST REMOVAL
 Pace Project No.: 30135589

Sample: UST 3 C Lab ID: 30135589002 Collected: 11/25/14 14:05 Received: 12/02/14 10:00 Matrix: Solid
 Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST									
Analytical Method: EPA 8260B									
Benzene	ND	ug/kg	5.0	0.78	1		12/08/14 17:31	71-43-2	M5
Ethylbenzene	10.7	ug/kg	5.0	2.6	1		12/08/14 17:31	100-41-4	M5
Isopropylbenzene (Cumene)	43.7	ug/kg	5.0	1.1	1		12/08/14 17:31	98-82-8	M5
Methyl-tert-butyl ether	ND	ug/kg	5.0	0.71	1		12/08/14 17:31	1634-04-4	M5
Naphthalene	51.8	ug/kg	5.0	2.5	1		12/08/14 17:31	91-20-3	M5
Toluene	ND	ug/kg	5.0	0.64	1		12/08/14 17:31	108-88-3	M5
1,2,4-Trimethylbenzene	648	ug/kg	5.0	1.2	1		12/08/14 17:31	95-63-6	E,M5
1,3,5-Trimethylbenzene	321	ug/kg	5.0	1.4	1		12/08/14 17:31	108-67-8	M5
Xylene (Total)	ND	ug/kg	15.0	3.1	1		12/08/14 17:31	1330-20-7	M5
Surrogates									
Toluene-d8 (S)	98	%	73-124		1		12/08/14 17:31	2037-26-5	M5
4-Bromofluorobenzene (S)	106	%	71-124		1		12/08/14 17:31	460-00-4	M5
1,2-Dichloroethane-d4 (S)	107	%	83-138		1		12/08/14 17:31	17060-07-0	M5
Percent Moisture									
Analytical Method: ASTM D2974-87									
Percent Moisture	10.6	%	0.10	0.10	1		12/15/14 19:05		

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ANALYTICAL RESULTS

Project: LUTZ UST REMOVAL
 Pace Project No.: 30135589

Sample: UST 3 N Lab ID: 30135589003 Collected: 11/25/14 14:10 Received: 12/02/14 10:00 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST		Analytical Method: EPA 8260B							
Benzene	ND	ug/kg	5.4	0.84	1		12/08/14 17:54	71-43-2	M5
Ethylbenzene	ND	ug/kg	5.4	2.8	1		12/08/14 17:54	100-41-4	M5
Isopropylbenzene (Cumene)	ND	ug/kg	5.4	1.1	1		12/08/14 17:54	98-82-8	M5
Methyl-tert-butyl ether	ND	ug/kg	5.4	0.77	1		12/08/14 17:54	1634-04-4	M5
Naphthalene	ND	ug/kg	5.4	2.7	1		12/08/14 17:54	91-20-3	M5
Toluene	ND	ug/kg	5.4	0.69	1		12/08/14 17:54	108-88-3	M5
1,2,4-Trimethylbenzene	26.1	ug/kg	5.4	1.3	1		12/08/14 17:54	95-63-6	M5
1,3,5-Trimethylbenzene	7.3	ug/kg	5.4	1.5	1		12/08/14 17:54	108-67-8	M5
Xylene (Total)	ND	ug/kg	16.2	3.3	1		12/08/14 17:54	1330-20-7	M5
Surrogates									
Toluene-d8 (S)	100 %		73-124		1		12/08/14 17:54	2037-26-5	M5
4-Bromofluorobenzene (S)	97 %		71-124		1		12/08/14 17:54	460-00-4	M5
1,2-Dichloroethane-d4 (S)	102 %		83-138		1		12/08/14 17:54	17060-07-0	M5
Percent Moisture		Analytical Method: ASTM D2974-87							
Percent Moisture	9.9 %		0.10	0.10	1		12/15/14 19:05		

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ANALYTICAL RESULTS

Project: LUTZ UST REMOVAL

Pace Project No.: 30135589

Sample: UST 4 N Lab ID: 30135589004 Collected: 11/25/14 15:00 Received: 12/02/14 10:00 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST		Analytical Method: EPA 8260B							
Benzene	ND	ug/kg	4.9	0.77	1		12/08/14 18:16	71-43-2	M5
Ethylbenzene	ND	ug/kg	4.9	2.5	1		12/08/14 18:16	100-41-4	M5
Isopropylbenzene (Cumene)	ND	ug/kg	4.9	1.0	1		12/08/14 18:16	98-82-8	M5
Methyl-tert-butyl ether	ND	ug/kg	4.9	0.70	1		12/08/14 18:16	1634-04-4	M5
Naphthalene	ND	ug/kg	4.9	2.5	1		12/08/14 18:16	91-20-3	M5
Toluene	ND	ug/kg	4.9	0.63	1		12/08/14 18:16	108-88-3	M5
1,2,4-Trimethylbenzene	11.1	ug/kg	4.9	1.1	1		12/08/14 18:16	95-63-6	M5
1,3,5-Trimethylbenzene	ND	ug/kg	4.9	1.3	1		12/08/14 18:16	108-67-8	M5
Xylene (Total)	ND	ug/kg	14.8	3.0	1		12/08/14 18:16	1330-20-7	M5
Surrogates									
Toluene-d8 (S)	98 %		73-124		1		12/08/14 18:16	2037-26-5	M5
4-Bromofluorobenzene (S)	96 %		71-124		1		12/08/14 18:16	460-00-4	M5
1,2-Dichloroethane-d4 (S)	101 %		83-138		1		12/08/14 18:16	17060-07-0	M5
Percent Moisture		Analytical Method: ASTM D2974-87							
Percent Moisture	12.5 %		0.10	0.10	1		12/15/14 19:06		

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ANALYTICAL RESULTS

Project: LUTZ UST REMOVAL

Pace Project No.: 30135589

Sample: UST 4 C Lab ID: 30135589005 Collected: 11/25/14 15:05 Received: 12/02/14 10:00 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST									
Analytical Method: EPA 8260B									
Benzene	ND	ug/kg	4.5	0.70	1		12/08/14 18:38	71-43-2	M5
Ethylbenzene	ND	ug/kg	4.5	2.3	1		12/08/14 18:38	100-41-4	M5
Isopropylbenzene (Cumene)	ND	ug/kg	4.5	0.94	1		12/08/14 18:38	98-82-8	M5
Methyl-tert-butyl ether	ND	ug/kg	4.5	0.63	1		12/08/14 18:38	1634-04-4	M5
Naphthalene	ND	ug/kg	4.5	2.2	1		12/08/14 18:38	91-20-3	M5
Toluene	ND	ug/kg	4.5	0.57	1		12/08/14 18:38	108-88-3	M5
1,2,4-Trimethylbenzene	5.8	ug/kg	4.5	1.0	1		12/08/14 18:38	95-63-6	M5
1,3,5-Trimethylbenzene	ND	ug/kg	4.5	1.2	1		12/08/14 18:38	108-67-8	M5
Xylene (Total)	ND	ug/kg	13.4	2.7	1		12/08/14 18:38	1330-20-7	M5
Surrogates									
Toluene-d8 (S)	98 %		73-124		1		12/08/14 18:38	2037-26-5	M5
4-Bromofluorobenzene (S)	96 %		71-124		1		12/08/14 18:38	460-00-4	M5
1,2-Dichloroethane-d4 (S)	102 %		83-138		1		12/08/14 18:38	17060-07-0	M5
Percent Moisture									
Analytical Method: ASTM D2974-87									
Percent Moisture	9.9 %		0.10	0.10	1		12/15/14 19:07		

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ANALYTICAL RESULTS

Project: LUTZ UST REMOVAL
 Pace Project No.: 30135589

Sample: UST 4 S Lab ID: 30135589006 Collected: 11/25/14 15:10 Received: 12/02/14 10:00 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST		Analytical Method: EPA 8260B							
Benzene	ND	ug/kg	5.4	0.84	1		12/08/14 19:00	71-43-2	M5
Ethylbenzene	ND	ug/kg	5.4	2.8	1		12/08/14 19:00	100-41-4	M5
Isopropylbenzene (Cumene)	ND	ug/kg	5.4	1.1	1		12/08/14 19:00	98-82-8	M5
Methyl-tert-butyl ether	ND	ug/kg	5.4	0.76	1		12/08/14 19:00	1634-04-4	M5
Naphthalene	ND	ug/kg	5.4	2.7	1		12/08/14 19:00	91-20-3	M5
Toluene	ND	ug/kg	5.4	0.69	1		12/08/14 19:00	108-88-3	M5
1,2,4-Trimethylbenzene	ND	ug/kg	5.4	1.2	1		12/08/14 19:00	95-63-6	M5
1,3,5-Trimethylbenzene	ND	ug/kg	5.4	1.4	1		12/08/14 19:00	108-67-8	M5
Xylene (Total)	ND	ug/kg	16.1	3.3	1		12/08/14 19:00	1330-20-7	M5
Surrogates									
Toluene-d8 (S)	100 %		73-124		1		12/08/14 19:00	2037-26-5	M5
4-Bromofluorobenzene (S)	97 %		71-124		1		12/08/14 19:00	460-00-4	M5
1,2-Dichloroethane-d4 (S)	101 %		83-138		1		12/08/14 19:00	17060-07-0	M5
Percent Moisture		Analytical Method: ASTM D2974-87							
Percent Moisture	24.2 %		0.10	0.10	1		12/15/14 19:08		

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ANALYTICAL RESULTS

Project: LUTZ UST REMOVAL

Pace Project No.: 30135589

Sample: LINE Lab ID: 30135589007 Collected: 11/25/14 15:30 Received: 12/02/14 10:00 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST		Analytical Method: EPA 8260B							
Benzene	ND	ug/kg	5.2	0.82	1		12/08/14 19:23	71-43-2	M5
Ethylbenzene	ND	ug/kg	5.2	2.7	1		12/08/14 19:23	100-41-4	M5
Isopropylbenzene (Cumene)	ND	ug/kg	5.2	1.1	1		12/08/14 19:23	98-82-8	M5
Methyl-tert-butyl ether	ND	ug/kg	5.2	0.75	1		12/08/14 19:23	1634-04-4	M5
Naphthalene	ND	ug/kg	5.2	2.6	1		12/08/14 19:23	91-20-3	M5
Toluene	ND	ug/kg	5.2	0.67	1		12/08/14 19:23	108-88-3	M5
1,2,4-Trimethylbenzene	ND	ug/kg	5.2	1.2	1		12/08/14 19:23	95-63-6	M5
1,3,5-Trimethylbenzene	ND	ug/kg	5.2	1.4	1		12/08/14 19:23	108-67-8	M5
Xylene (Total)	ND	ug/kg	15.7	3.2	1		12/08/14 19:23	1330-20-7	M5
Surrogates									
Toluene-d8 (S)	99 %		73-124		1		12/08/14 19:23	2037-26-5	M5
4-Bromofluorobenzene (S)	93 %		71-124		1		12/08/14 19:23	460-00-4	M5
1,2-Dichloroethane-d4 (S)	102 %		83-138		1		12/08/14 19:23	17060-07-0	M5
Percent Moisture		Analytical Method: ASTM D2974-87							
Percent Moisture	13.2 %		0.10	0.10	1		12/15/14 19:09		

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ANALYTICAL RESULTS

Project: LUTZ UST REMOVAL

Pace Project No.: 30135589

Sample: DISP E Lab ID: 30135589008 Collected: 11/25/14 16:00 Received: 12/02/14 10:00 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST									
Analytical Method: EPA 8260B									
Benzene	76.5	ug/kg	4.7	0.73	1		12/08/14 19:45	71-43-2	M5
Ethylbenzene	42.8	ug/kg	4.7	2.4	1		12/08/14 19:45	100-41-4	M5
Isopropylbenzene (Cumene)	52.8	ug/kg	4.7	0.99	1		12/08/14 19:45	98-82-8	M5
Methyl-tert-butyl ether	ND	ug/kg	4.7	0.66	1		12/08/14 19:45	1634-04-4	M5
Naphthalene	12000	ug/kg	2380	1200	500		12/09/14 12:25	91-20-3	M5
Toluene	ND	ug/kg	4.7	0.60	1		12/08/14 19:45	108-88-3	M5
1,2,4-Trimethylbenzene	32300	ug/kg	2380	552	500		12/09/14 12:25	95-63-6	M5
1,3,5-Trimethylbenzene	43900	ug/kg	2380	642	500		12/09/14 12:25	108-67-8	M5
Xylene (Total)	442	ug/kg	14.0	2.8	1		12/08/14 19:45	1330-20-7	M5
Surrogates									
Toluene-d8 (S)	129	%	73-124		1		12/08/14 19:45	2037-26-5	M5,S2
4-Bromofluorobenzene (S)	72	%	71-124		1		12/08/14 19:45	460-00-4	M5
1,2-Dichloroethane-d4 (S)	107	%	83-138		1		12/08/14 19:45	17060-07-0	M5
Percent Moisture									
Analytical Method: ASTM D2974-87									
Percent Moisture	14.7	%	0.10	0.10	1		12/15/14 19:10		

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ANALYTICAL RESULTS

Project: LUTZ UST REMOVAL

Pace Project No.: 30135589

Sample: DISP W Lab ID: 30135589009 Collected: 11/25/14 16:30 Received: 12/02/14 10:00 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST									
Analytical Method: EPA 8260B									
Benzene	6.5	ug/kg	4.5	0.70	1		12/08/14 20:07	71-43-2	M5
Ethylbenzene	ND	ug/kg	4.5	2.3	1		12/08/14 20:07	100-41-4	M5
Isopropylbenzene (Cumene)	ND	ug/kg	4.5	0.95	1		12/08/14 20:07	98-82-8	M5
Methyl-tert-butyl ether	ND	ug/kg	4.5	0.64	1		12/08/14 20:07	1634-04-4	M5
Naphthalene	10200	ug/kg	2530	1280	500		12/09/14 12:48	91-20-3	M5
Toluene	ND	ug/kg	4.5	0.58	1		12/08/14 20:07	108-88-3	M5
1,2,4-Trimethylbenzene	48900	ug/kg	2530	588	500		12/09/14 12:48	95-63-6	M5
1,3,5-Trimethylbenzene	39700	ug/kg	2530	684	500		12/09/14 12:48	108-67-8	M5
Xylene (Total)	171	ug/kg	13.5	2.8	1		12/08/14 20:07	1330-20-7	M5
Surrogates									
Toluene-d8 (S)	42	%	73-124		1		12/08/14 20:07	2037-26-5	M5, S2
4-Bromofluorobenzene (S)	104	%	71-124		1		12/08/14 20:07	460-00-4	M5
1,2-Dichloroethane-d4 (S)	99	%	83-138		1		12/08/14 20:07	17060-07-0	M5
Percent Moisture									
Analytical Method: ASTM D2974-87									
Percent Moisture	11.6	%	0.10	0.10	1		12/15/14 19:10		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LUTZ UST REMOVAL
 Pace Project No.: 30135589

QC Batch: MSV/21812 Analysis Method: EPA 8260B
 QC Batch Method: EPA 8260B Analysis Description: 8260 MSV UST-SOIL
 Associated Lab Samples: 30135589002, 30135589003, 30135589004, 30135589005, 30135589006, 30135589007, 30135589008, 30135589009

METHOD BLANK: 826919 Matrix: Solid
 Associated Lab Samples: 30135589002, 30135589003, 30135589004, 30135589005, 30135589006, 30135589007, 30135589008, 30135589009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	ND	5.0	12/08/14 11:58	M5
1,3,5-Trimethylbenzene	ug/kg	ND	5.0	12/08/14 11:58	M5
Benzene	ug/kg	ND	5.0	12/08/14 11:58	M5
Ethylbenzene	ug/kg	ND	5.0	12/08/14 11:58	M5
Isopropylbenzene (Cumene)	ug/kg	ND	5.0	12/08/14 11:58	M5
Methyl-tert-butyl ether	ug/kg	ND	5.0	12/08/14 11:58	M5
Naphthalene	ug/kg	ND	5.0	12/08/14 11:58	M5
Toluene	ug/kg	ND	5.0	12/08/14 11:58	M5
Xylene (Total)	ug/kg	ND	15.0	12/08/14 11:58	M5
1,2-Dichloroethane-d4 (S)	%	101	83-138	12/08/14 11:58	M5
4-Bromofluorobenzene (S)	%	98	71-124	12/08/14 11:58	M5
Toluene-d8 (S)	%	102	73-124	12/08/14 11:58	M5

LABORATORY CONTROL SAMPLE: 826920

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	20	16.7	84	54-131	M5
1,3,5-Trimethylbenzene	ug/kg	20	16.5	82	54-131	M5
Benzene	ug/kg	20	15.9	79	52-126	M5
Ethylbenzene	ug/kg	20	17.7	88	54-128	M5
Isopropylbenzene (Cumene)	ug/kg	20	16.9	85	58-144	M5
Methyl-tert-butyl ether	ug/kg	20	19.8	99	57-129	M5
Naphthalene	ug/kg	20	17.0	85	36-152	M5
Toluene	ug/kg	20	17.3	86	53-127	M5
Xylene (Total)	ug/kg	60	54.6	91	53-127	M5
1,2-Dichloroethane-d4 (S)	%			98	83-138	M5
4-Bromofluorobenzene (S)	%			96	71-124	M5
Toluene-d8 (S)	%			96	73-124	M5

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LUTZ UST REMOVAL

Pace Project No.: 30135589

QC Batch: MSV/21834 Analysis Method: EPA 8260B
 QC Batch Method: EPA 8260B Analysis Description: 8260 MSV UST-SOIL
 Associated Lab Samples: 30135589001

METHOD BLANK: 828032 Matrix: Solid
 Associated Lab Samples: 30135589001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	ND	5.0	12/09/14 10:39	M5
1,3,5-Trimethylbenzene	ug/kg	ND	5.0	12/09/14 10:39	M5
Benzene	ug/kg	ND	5.0	12/09/14 10:39	M5
Ethylbenzene	ug/kg	ND	5.0	12/09/14 10:39	M5
Isopropylbenzene (Cumene)	ug/kg	ND	5.0	12/09/14 10:39	M5
Methyl-tert-butyl ether	ug/kg	ND	5.0	12/09/14 10:39	M5
Naphthalene	ug/kg	ND	5.0	12/09/14 10:39	M5
Toluene	ug/kg	ND	5.0	12/09/14 10:39	M5
Xylene (Total)	ug/kg	ND	15.0	12/09/14 10:39	M5
1,2-Dichloroethane-d4 (S)	%	95	83-138	12/09/14 10:39	M5
4-Bromofluorobenzene (S)	%	99	71-124	12/09/14 10:39	M5
Toluene-d8 (S)	%	101	73-124	12/09/14 10:39	M5

LABORATORY CONTROL SAMPLE: 828033

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	20	15.3	77	54-131	M5
1,3,5-Trimethylbenzene	ug/kg	20	15.2	76	54-131	M5
Benzene	ug/kg	20	14.9	75	52-126	M5
Ethylbenzene	ug/kg	20	15.7	78	54-128	M5
Isopropylbenzene (Cumene)	ug/kg	20	15.1	76	58-144	M5
Methyl-tert-butyl ether	ug/kg	20	18.8	94	57-129	M5
Naphthalene	ug/kg	20	16.7	84	36-152	M5
Toluene	ug/kg	20	16.0	80	53-127	M5
Xylene (Total)	ug/kg	60	49.7	83	53-127	M5
1,2-Dichloroethane-d4 (S)	%			97	83-138	M5
4-Bromofluorobenzene (S)	%			98	71-124	M5
Toluene-d8 (S)	%			99	73-124	M5

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LUTZ UST REMOVAL
Pace Project No.: 30135589

QC Batch: PMST/5037

Analysis Method: ASTM D2974-87

QC Batch Method: ASTM D2974-87

Analysis Description: Dry Weight/Percent Moisture

Associated Lab Samples: 30135589001, 30135589002, 30135589003, 30135589004, 30135589005, 30135589006, 30135589007, 30135589008, 30135589009

SAMPLE DUPLICATE: 830349

Parameter	Units	30135595003 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	12.1	12.2	1	20	

SAMPLE DUPLICATE: 830350

Parameter	Units	30135605005 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	9.0	9.2	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: LUTZ UST REMOVAL
Pace Project No.: 30135589

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.

PQL - Practical Quantitation 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.

WORKORDER QUALIFIERS

WO: 30135589

[1] This project was revised on 12/19/14 in order to add TMBs to the volatile list.

BATCH QUALIFIERS

Batch: MSV/21812

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

Batch: MSV/21834

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

ANALYTE QUALIFIERS

E Analyte concentration exceeded the calibration range. The reported result is estimated.

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

S2 Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from sample re-analysis).

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: LUTZ UST REMOVAL
 Pace Project No.: 30135589

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30135589001	UST 3 S	EPA 8260B	MSV/21834		
30135589002	UST 3 C	EPA 8260B	MSV/21812		
30135589003	UST 3 N	EPA 8260B	MSV/21812		
30135589004	UST 4 N	EPA 8260B	MSV/21812		
30135589005	UST 4 C	EPA 8260B	MSV/21812		
30135589006	UST 4 S	EPA 8260B	MSV/21812		
30135589007	LINE	EPA 8260B	MSV/21812		
30135589008	DISP E	EPA 8260B	MSV/21812		
30135589009	DISP W	EPA 8260B	MSV/21812		
30135589001	UST 3 S	ASTM D2974-87	PMST/5037		
30135589002	UST 3 C	ASTM D2974-87	PMST/5037		
30135589003	UST 3 N	ASTM D2974-87	PMST/5037		
30135589004	UST 4 N	ASTM D2974-87	PMST/5037		
30135589005	UST 4 C	ASTM D2974-87	PMST/5037		
30135589006	UST 4 S	ASTM D2974-87	PMST/5037		
30135589007	LINE	ASTM D2974-87	PMST/5037		
30135589008	DISP E	ASTM D2974-87	PMST/5037		
30135589009	DISP W	ASTM D2974-87	PMST/5037		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

Client Name: ER&R

Project # 30135589

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 7720 32314980

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no Biological Tissue is Frozen: Yes No

Packing Material: Bubble Wrap _____ Bubble Bags _____ None Other _____

Thermometer Used 8 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temp.: Observed Temp.: 1.3 °C Correction Factor: 0.1 °C Final Temp: 1.2 °C

Date and Initials of person examining contents: 12-8-14 CMT

Temp should be above freezing to 6°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 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.
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 type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
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	
Containers Intact:	<input 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>SL</u>		
All containers needing preservation have been checked.	<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.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed <u>CMT</u> Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
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):		

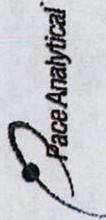
Client Notification/ Resolution: _____ Date/Time: _____
Person Contacted: M. Montague
Comments/ Resolution: Na 1st

Project Manager Review: _____ Date: 12/8/14

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Project Number: **30135589**

Client Name: ERA



Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1 M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y	O & G (1L)	TPH (1L)	VCA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubliner (500 ml / 4L)	Ziploc	Other	Other	
600	SL																								
100	SL																								

CHAIN-OF-CUSTODY / Analytical Request Document
 The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.



Section A
 Required Client Information:
 Company: ERTR
 Address: 4250 Rt 60N Edinboro PA 16412
 Email To: M.WALTZ@ENVIRONMENTAL-REMEDICATION.NET
 Phone: 814-734-6418 / 814-734-4780
 Requested Due Date/TAT: STANDARD

Section B
 Required Project Information:
 Report To: MIKE WALTZ
 Copy To:
 Purchase Order No.: LK2014-74
 Project Name: LK2014-74
 Project Number: 2014-74

Section C
 Invoice Information:
 Attention: TANIA KUMM
 Company Name: ERTR
 Address: 4250 Rt 60N Edinboro PA
 Pace Quote Reference:
 Pace Project Manager: TIM REID
 Pace Profile #:

Section D
 Required Client Information:
 Regulatory Agency: PA
 NPDES GROUND WATER DRINKING WATER
 UST RCRA OTHER
 Site Location: PA
 STATE: PA

ITEM #	Matrix Codes MATRIX / CODE Drinking Water DW Waste Water WT Water P Product SL Soil/Solid OL Oil WP Wipe AR Air TS Tissue OT Other	SAMPLE ID (A-Z, 0-9 / /) Sample IDs MUST BE UNIQUE	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives Unpreserved H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ S ₂ O ₈ Methanol Other	Requested Analysis Filtered (Y/N)	Pace Project No. / Lab I.D.
			COMPOSITE START	COMPOSITE END/GRAB					
1		UST 3S	DATE: 11-25-14	TIME: 2:00	41				601
2		UST 3C	DATE: 12-11-14	TIME: 2:05	11				007
3		UST 3N	DATE: 12-11-14	TIME: 2:10	11				003
4		UST 4N	DATE: 12-11-14	TIME: 3:00	11				004
5		UST 4S	DATE: 12-11-14	TIME: 3:05	11				005
6		UST 4S	DATE: 12-11-14	TIME: 3:10	11				006
7		LINE	DATE: 12-11-14	TIME: 3:30	11				007
8		DISPE	DATE: 12-11-14	TIME: 4:00	11				008
9		DISPW	DATE: 12-11-14	TIME: 4:30	11				009
10									
11									
12									

ADDITIONAL COMMENTS: Please note collection date

RELINQUISHED BY / AFFILIATION: Mike Waltz
 DATE: 12-11-14
 TIME: 8:00

ACCEPTED BY / AFFILIATION: Tania Kumm / Mike Waltz
 DATE: 12-11-14
 TIME: 10:00

Temp in °C: 1.2
 Received on Ice (Y/N): Y
 Custody (Y/N): N
 Samples Intact (Y/N): Y

ORIGINAL

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER: MALLORY SMITH / MIKE WALTZ
 SIGNATURE of SAMPLER: MALLORY SMITH

Appendix K
Response to Request for Information
Russell City Store
PADEP Facility ID # 24-30431
USTIF Claim # 2014-0170(S)
ER&R Project # 2014.74

ASSESSMENT MAP
ELK COUNTY
PENNSYLVANIA

1 inch = 75 feet



2/19/2015 1:47:55 PM

Appendix L
Response to Request for Information
Russell City Store
PADEP Facility ID # 24-30431
USTIF Claim # 2014-0170(S)
ER&R Project # 2014.74