MASSACHUSETTS CONTINGENCY PLAN

Release Abatement Measure Status Report #4

0 & 12-24 Fairmount Court
Hyde Park, MA 02136
RTN: 3-1616

980 Washington Street
Suite 325
Dedham, Massachusetts 02026
800.446.5518

221375.07

City of Boston Department of Neighborhood Development

November 2012

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1. INTRODUCTION

This Release Abatement Measure (RAM) Status Report has been prepared in accordance with the Massachusetts Contingency Plan (MCP), 310 CMR 40.0445, for the property located at 0 and 12-24 Fairmount Court in Hyde Park, Massachusetts (the Site). A Site Locus is provided as Figure 1.

The City of Boston, Massachusetts has assumed the role as the potentially responsible party (PRP) for the release, designated by Release Tracking Number (RTN) 3-1616 by the Massachusetts Department of Environmental Protection (MassDEP). The City of Boston has implemented a RAM to address volatile organic compounds (VOCs) in soil and soil vapor present at the Site below the Site building foundation. The RAM activities include the operation of a Soil Vapor Extraction (SVE) System at the Site. The original RAM Transmittal Forms (BWSC 106, 106A, and 106B) are being signed and submitted with this report via the eDEP filing system. Copies of the transmittal forms will be included as Appendix A in post-submittal report copies.

1.1 SITE DESCRIPTION

The subject property, 30,592 square feet in size, is currently owned by the City of Boston and comprised of two parcels laid out in a rectangular manner. The smaller of the two parcels, comprising 6,338 square feet, is not improved. The larger parcel, comprising 24,254 square feet, is improved with a currently vacant three-story, 8,800-square foot (building footprint), former industrial building. The coordinates of the property are 42° 15’ 10”N latitude, 71° 07’ 11”W longitude. The Universal Transverse Mercator (UTM) coordinates are 4680042 Northing and 325153 Easting in Zone 19. A Site Plan is included as Figure 2.

1.2 SURROUNDING RECEPTORS

The Site is located in a restricted manufacturing zoned area of Boston. Nearby properties are zoned commercial, restricted manufacturing, and residential and are developed as such. The nearest human receptors are residents living within 500 feet north and east of the Site across MBTA railroad lines, which run along the northern Site boundary. The Neponset River, which runs along the southern Site boundary, and the land situated adjacently southwest of the Site is identified as protected open space.

1.3 RELEASE HISTORY

The Site has a history of industrial use and was formerly the location of the Lewis Chemical Company. Based on available information, the Site was utilized as a leather manufacturing company from 1940 to the early 1960’s. Lewis Chemical operated the Site from 1963 until 1983 and collected, stored, transported, and processed hazardous waste. Lewis Chemical was forced to cease operations under a Court Order issued by MassDEP in 1983. The MassDEP subsequently listed the Site as a State disposal site in 1987 and issued release tracking number (RTN) 3-1616. The Site is currently listed as a Tier 1B disposal site. The City of Boston gained ownership of the property in October 2000 via tax foreclosure.

Several environmental investigations have been performed at the Site since 1986 and were detailed in the RAM Plan submitted to the MassDEP in July 2010 (W&C, 2010). The most recent was a supplemental soil investigation conducted by Woodard & Curran for the City of Boston completed in 2008. The 2008 investigation conducted at the Site identified significant volatile organic compound (VOC) concentrations in soil below the building foundation. Notably, tetrachloroethene (PCE) and trichloroethene (TCE) were detected in maximum concentrations of 8,000 mg/Kg and 1,900 mg/Kg, respectively, in soil samples

collected beneath the concrete slab floor at the western portion of the Site building. The previous RAM Status Report was submitted in November 2011.

2. RAM STATUS

2.1 STATUS OF ONGOING RAM ACTIVITIES

The SVE system construction was completed at the Site on September 24, 2010. SVE system start-up also occurred on this day. The RAM Plan submitted to the MassDEP in July 2010 detailed the construction of the SVE system (W&C, 2010). The SVE system was constructed in accordance with the RAM Plan and no significant changes in the system were made during construction. As documented in the RAM Status Report #1 submitted to MassDEP on June 2, 2011, the SVE system was modified on October 20, 2010 to include a potassium permanganate filter to extract the vinyl chloride from the system effluent vapors prior to discharge to the atmosphere (W&C, 2011a).

2.2 SIGNIFICANT OR NEW INFORMATION

RAM Status Report #3 summarized the new information since the submittal of the RAM Status Report #2 in November 2011 through May 2012. The reporting period for this RAM Status Report #4 is from May 22, 2012 to October 31, 2012.

The SVE system was shut down on May 10, 2012, as documented in RAM Status Report #3, in order to complete a carbon change for the first carbon vessel of the off-gas controls. The carbon change was to occur soon after shut down; however, the carbon change subcontractor was involved in a vehicular accident that damaged the vacuum apparatus used during carbon changes. In the interim, Woodard & Curran restarted the SVE system on May 25, 2012 to continue source mitigation while maintaining a 95% removal efficiency via the second carbon vessel. A 2,000-pound carbon change (both treatment vessels) was subsequently completed on June 7, 2012.

The SVE system was again shut down on August 14, 2012 in order to complete a change out of the Hydrosil International LTD HS-600 material (potassium permanganate filter added in October 2010). This change out occurred on August 24, 2012 and the system was subsequently restarted on this date.

The SVE system automatically shut down due to a High Water Level Alarm for the moisture knock-out drum on September 2, 2012. The shut down was discovered during a full monitoring event on September 13, 2012. Water was not observed in the knock-out drum and the alarm was determined to be an anomalous event. The system was reset and restarted on September 13, 2012 and has operated continuously since this date.

Additional information regarding the need to turn off the SVE system is provided in Section 3.3 of this report.

2.3 SUBSLAB VAPOR REMOVAL SUMMARY

Cumulative total volatile organic compounds (TVOC) mass removal accomplished during the reporting period is shown in Table 2 and shown graphically in Figure 3. Approximately 1,657 pounds of VOCs have been removed from the subsurface from initial startup to the end of this reporting period. In general, as the cumulative VOC removal amount has increased, the VOC concentrations within the process air stream have also remained relatively consistent over this reporting period with exception of a slight rebound during the 11-day period the SVE system was off due to automatic shutdown on September 2, 2012. VOC concentrations are graphically shown in Figure 3. The system efficiency for the removal of TVOCs based on the laboratory data obtained from the SVE system process air sampling events is shown

on Table 1. The system efficiency for the removal of TVOCs based on the PID screening data obtained during the SVE system monitoring events is provided on the field monitoring reports in Appendix B. Laboratory analytical reports for SVE process air sampling are provided in Appendix C.

Four SVE process air sampling events were completed during this reporting period. The first sampling event was completed on July 6, 2012 in order to obtain 1st quarter laboratory data for SVE process air. Due to malfunctioning air canister regulators on July 6, 2012, the air canisters could not be analyzed by the laboratory. A second sampling event was conducted on August 1, 2012. The analytical results indicated that overall TVOC removal efficiency was 98%. However, the results also indicated that vinyl chloride was present at elevated effluent concentrations compared to historical SVE process air sampling analytical results. Therefore, Woodard & Curran shut down the system on August 14, 2012 in order to replace the 55-gallon drum unit containing the Hydrosil International LTD HS-600 material, which was installed to mitigate the concentrations of vinyl chloride in the effluent process air being discharged to the atmosphere. The change out was completed and the system was restarted on August 24, 2012. The process air was subsequently sampled on August 28, 2012. Results again indicated that a 99% TVOC removal efficiency was achieved. Additionally, vinyl chloride effluent concentrations were reduced. The most recent quarterly process air sampling event was conducted on October 31, 2012. These analytical results will be included in the next RAM Status Report.

Several suspected lab contaminants were also detected during the August 2012 SVE process air sampling events, as they were not detected in influent analytical results. Chloroethane [27 micrograms per cubic meter (ug/m^3)] and methylene chloride (71 ug/m^3) were detected in the quarterly effluent process air sample that was collected on August 1, 2012. Acetone (16 ug/m^3) and ethanol (12 ug/m^3) were detected in the quarterly effluent process air sample that was collected on August 28, 2012. Acetone and ethanol were detected in both the influent and effluent sample collected on August 1, 2012 and methylene chloride was detected in both the influent and effluent sample collected on August 28, 2012. Additionally, chloroethane was also detected in the influent sample collected on August 28, 2012. Therefore, based on the sporadic presence of these analytes during August 2012 sampling events and historical analytical data obtained during previous sampling events it is postulated that these compounds were likely introduced into the samples as laboratory contaminants. Suspected laboratory contaminants will continue to be monitored and evaluated during future reporting periods and additions to the off-gas treatment will be made, if necessary. However, the current off-gas controls continue to operate at an efficiency greater than 95%.

2.4 REMEDIATION WASTE MANAGEMENT

Approximately 2,000 pounds of vapor phase granulated activated carbon (VGAC), which is being utilized as an off-gas control, has been replaced during this reporting period. A carbon sample was previously collected from the off-gas controls and submitted for toxicity characteristic leaching procedure (TCLP) analysis via method 1311 on November 15, 2010 in order to assess the waste for toxicity characteristics. Based upon the laboratory results, the carbon waste is not considered hazardous and is able to be transported as non-hazardous and regenerated. The spent carbon was removed and transported to Carbon Activated in Blasdell, New York for regeneration by Carbon Filtrations Systems (CFS) of Johnston, Rhode Island. The laboratory report for the VGAC waste characterization sample was previously provided in RAM Status Report #1.

Spent Hydrosil International LTD HS-600 material that was replaced in August 2012 is scheduled to be removed from the Site during the next carbon change. A sample was collected of the spent material and submitted for TCLP analysis via method 1311 on August 24, 2012 in order to assess the waste for toxicity characteristics. Based upon the laboratory results, the material is not considered hazardous and is able to

be transported as non-hazardous and landfill disposed. Disposal documentation will be provided in the next RAM Status Report.

Five drums were transported for disposal on June 7, 2012. Two drums contained soil from previous soil borings conducted at the Site and three of the drums contained water collected in the condensate knock-out drum of the SVE system. The drums were removed and transported to Vexor Technologies Inc. in Medina, Ohio for disposal by New England Disposal Technologies Inc. (NEDT) of Sutton, Massachusetts. The laboratory reports for waste characterization are included in Appendix C and the waste manifest is included in Appendix D. As noted on the waste manifest by Woodard & Curran, one soil drum was not shipped due to slight corrosion that rendered it not shippable. The soil will be transferred into a new drum prior to transport and disposal. Disposal documentation for this drum will be included in the next RAM Status Report.

2.5 SCHEDULE & RAM REPORTING

It is anticipated that RAM Status Report #5 will be submitted in May 2013. The SVE system will continue to run over the next reporting period.

2.6 LICENSED SITE PROFESSIONAL OPINION, SEAL AND SIGNATURE

The activities described in this RAM Status Report are in general conformance with the tasks outlined in the RAM Plan. The seal and signature of Craig Blake, the Licensed Site Professional who is overseeing RAM activities, is provided and a copy of the RAM Transmittal Form has been submitted via eDEP concurrently with this report.

3. REMEDIAL MONITORING REPORT

3.1 GENERAL

This is the fourth remedial monitoring report (RMR) to summarize the RAM activities conducted since the submission of the RAM Plan. A completed RMR BWSC form 106A and 106B is being submitted concurrently with this report via eDEP. An SVE System layout is provided on the Site plan, which is provided as Figure 2. The following sections provide the information requested on the RMR checklist and describe the start-up, testing, and operation of the SVE system.

3.2 SVE ROUTINE OPERATION

Woodard & Curran conducted a total of five Site visits since the submission of the RMR in May 2012 in order to conduct a full monitoring round to collect physical and chemical field measurements, such as air flowrate, vacuum, temperature, and TVOC levels using a photoionization detector (PID) at each monitoring point throughout the system. Table 3 summarizes the remedial activities conducted during the reporting period. Additional spot checks were also performed by Woodard & Curran personnel to ensure the system was running efficiently and to check for water in the condensate knock-out drum. Copies of the SVE field monitoring reports are provided in Appendix B.

Woodard & Curran collected process air samples from the SVE influent and effluent stream on August 1, 2012, August 28, 2012, and October 31, 2012. Process air sampling was previously discussed in Section 2.3 of this report. The process air samples were submitted for EPA TO-15 analysis to Absolute Resource Associates of Portsmouth, New Hampshire and analyzed by EMSL Analytical Inc. of Cinnaminson, New Jersey. The purpose of these process air samples was to further characterize the subslab soil gas in order to correlate PID readings to the laboratory data to assist in the mass removal estimation. The results are summarized in Table 1. The laboratory reports for the August 2012 sampling process air sampling events are provided in Appendix C.

3.3 SIGNIFICANT OPERATIONAL EVENTS

The SVE system was shut down on May 10, 2012, as documented in RAM Status Report #3 (Woodard & Curran, 2012), in order to complete a carbon change. The system remained off for 15 days prior to restart on May 25, 2012. Woodard & Curran selected to restart the system since the second carbon vessel was effectively performing at/or greater than a 95% removal efficiency. A 2,000-pound carbon change (both treatment vessels) was subsequently completed on June 7, 2012. During the carbon change, the SVE system remained off for approximately one hour.

The SVE system was again shut down on August 14, 2012 in order to complete a change out of the Hydrosil International LTD HS-600 material due to elevated effluent vinyl chloride concentrations. The SVE system remained off for 10 days prior to change-out and restart on August 24, 2012.

The SVE system automatically shut down due to a High Water Level Alarm for the moisture knock-out drum on August 28, 2012. The SVE system remained off for 11 days prior to discovery of this condition on September 13, 2012. Water was not observed in the knock-out drum and the alarm was determined to be an anomalous event. The system was reset and restarted on September 13, 2012 and has operated continuously since this date.

4. LIMITATIONS

The activities described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or limited is implied. These services were performed consistent with the agreement with our client. The conclusions presented in this Report were based upon the services described and not on scientific tasks or procedures beyond the scope of described services or time or budgetary constraints. Any statement or opinion contained in this report prepared by Woodard & Curran shall not be construed to create any warranty or representation that the property is free of pollution or complies with any or all applicable regulatory or statutory requirements; or that the property is fit for any particular purpose. Unless otherwise indicated in this Report, no attempt was made to check on the compliance of present or past owners of the Site with federal, state, or local laws and regulations. Woodard & Curran Inc. shall not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed at the time the evaluation was performed.

Results of the activities contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others or the use of segregated portions of this report.

This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

5. REFERENCES

Woodard & Curran, Inc. (W&C) 2010. *Release Abatement Measure Plan*, 0 & 12-24 Fairmount Court, Hyde Park, Massachusetts, RTN 3-1616, July.

Woodard & Curran, Inc. (W&C) 2011a. *Release Abatement Measure Status Report #1*, 0 & 12-24 Fairmount Court, Hyde Park, Massachusetts, RTN 3-1616, May.

Woodard & Curran, Inc. (W&C) 2011b. *Release Abatement Measure Status Report #2*, 0 & 12-24 Fairmount Court, Hyde Park, Massachusetts, RTN 3-1616, November.

Woodard & Curran, Inc. (W&C) 2012. *Release Abatement Measure Status Report #3*, 0 & 12-24 Fairmount Court, Hyde Park, Massachusetts, RTN 3-1616, May.

TABLES

Table 1
Process Air Sampling Results Summary
August 1, 2012 & August 28,2012

LOCATION SAMPLING DATE	CasNum		INFLUENT 8/1/2012	EFFLUENT 8/1/2012	INFLUENT 8/28/2012	EFFLUENT 8/28/2012
MCP Volatile Organics in Air		ug/m3				
Acetone	67-64-1		57	87	ND(12)	16
Vinyl chloride	75-01-4		130	100	210	46
Chloroethane	75-00-3		ND(40)	27	21	ND(13)
Ethanol	64-17-5		43	34	ND(9.4)	12
1,1-Dichloroethene	75-35-4		60	ND(20)	150	ND(20)
Methylene chloride	75-09-2		ND(52)	71	80	56
Carbon disulfide	75-15-0		ND(47)	ND(16)	32	ND(16)
trans- 1,2-Dichloroethene	156-60-5		ND(59)	ND(20)	60	ND(20)
n-Hexane	110-54-3		ND(53)	ND(18)	23	ND(18)
1,1-Dichloroethane	75-34-3		150	ND(20)	360	ND(20)
cis-1,2-Dichloroethene	156-59-2		3,600	ND(20)	7,100	ND(20)
1,2-Dichloroethane	107-06-2		ND(61)	ND(20)	90	ND(20)
1,1,1-Trichloroethane	71-55-6		10,000	ND(27)	31,000	ND(27)
Cyclohexane	110-82-7		ND(52)	ND(17)	390	ND(17)
n-Heptane	142-82-5		ND(61)	ND(20)	55	ND(20)
Trichloroethene	79-01-6		16,000	ND(27)	45,000	ND(27)
Toluene	108-88-3		870	ND(19)	3,700	ND(19)
Tetrachloroethene	127-18-4		13,000	ND(34)	31,000	ND(34)
Chlorobenzene	108-90-7		ND(69)	ND(23)	30	ND(23)
Ethylbenzene	100-41-4		ND(65)	ND(22)	300	ND(22)
p/m-Xylene	106-42-3/108-38-3		ND(130)	ND(43)	720	ND(43)
o-Xylene	95-47-6		75	ND(22)	360	ND(22)
Freon 113	76-13-1		2,700	ND(38)	5,600	ND(38)
4-Ethyltoluene	622-96-8		ND(74)	ND(25)	50	ND(25)
Benzyl chloride	100-44-7		ND(77)	ND(26)	56	ND(26)
SUM			*47,525*	*796*	*126,396*	*23*
Removal Efficiency		*%*		*98.33%*		*99.98%*

Notes:
Only laboratory detections are summarized in this table.
ND= Not detected above laboratory detection limit. Detection limit is provided in parenthesis.
ug/m3= microgram per cubic meter.
MCP= Massachusetts Contingency Plan.

TABLE 2
TVOC Mass Removal Summary
September 2010 to May 2012

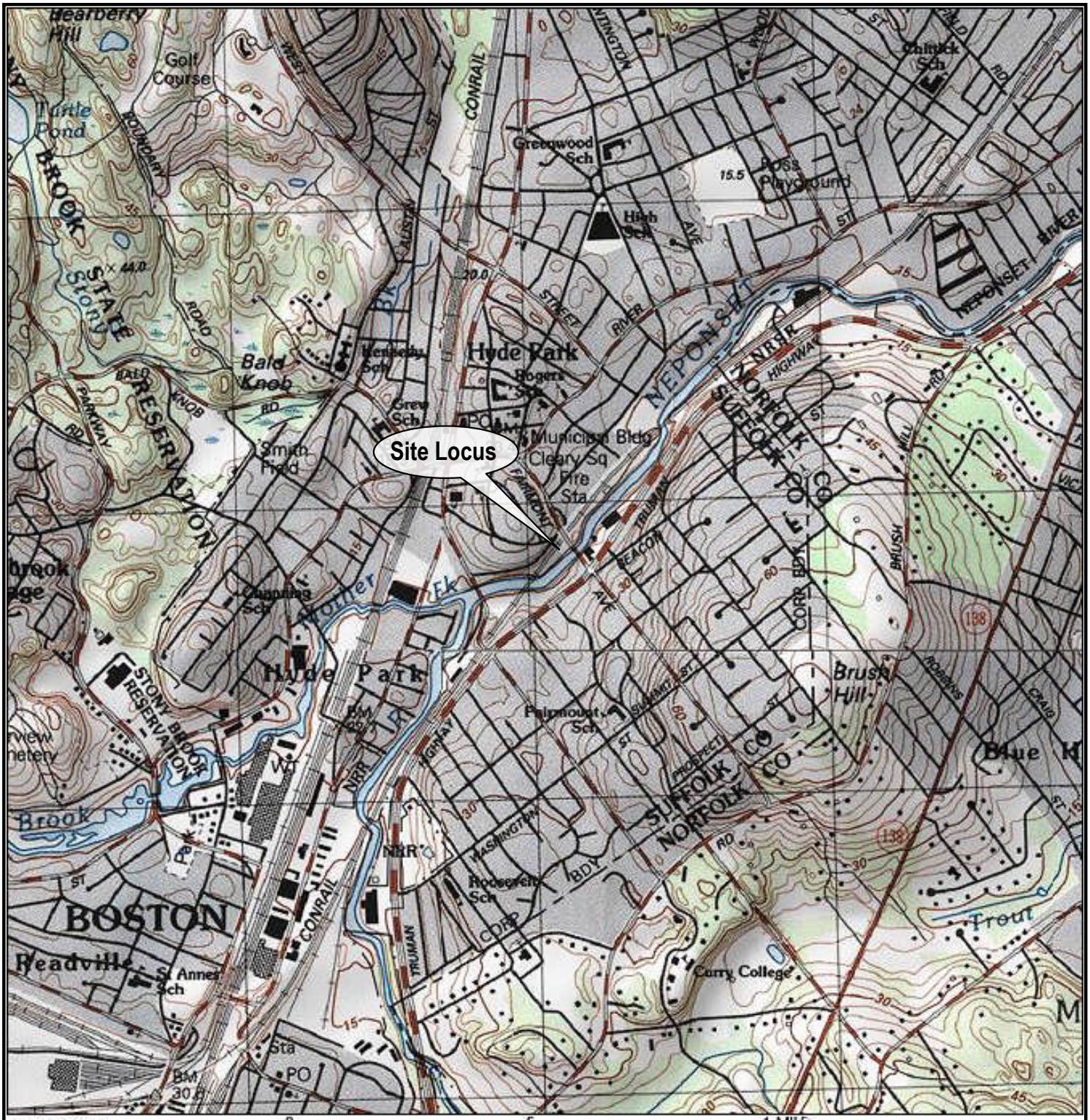
DATE	FLOW (scfm)	TVOC-PID (ppmV)	Run Time (Days)	Mass Removed (Lbs)	Cum. Mass Removed (Lbs)	Cum. Run Time (Days)
9/24/10	81.0	410.5				
10/1/10	124.0	166.1	6.70	101.32	101.32	6.70
10/8/10	175.0	91.5	7.00	69.3	170.62	13.70
1/1/00	264.0	57.5	12.00	100.65	271.27	25.70
11/12/10	282.0	12.1	13.60	66.04	337.31	39.30
12/22/10	172.0	48.9	10.30	36.52	373.83	49.60
1/7/11	159.0	16.7	15.92	44.09	417.92	65.52
2/3/11	98.0	24.2	10.80	14.48	432.4	76.32
2/18/11	194.0	16.0	4.71	7.06	439.46	81.03
3/4/11	165.0	6.2	14.08	14.31	453.77	95.11
4/1/11	110.0	47.5	16.11	30.34	484.11	111.22
4/29/11	35.0	36.9	27.82	43.42	527.53	139.04
5/27/11	151.0	45.7	27.95	54.87	582.4	166.99
6/19/11	118.0	42.3	21.00	63.52	645.92	187.99
9/23/11	147.0	121.0	11.11	61.32	707.24	199.10
10/27/11	72.0	12.0	31.01	114.49	821.73	230.11
1/5/12	75.0	26.8	69.48	90.01	911.74	299.59
2/8/12	206.0	23.1	21.64	55.8	967.54	321.23
3/14/12	98.0	20.7	34.97	85.62	1053.16	356.20
4/20/12	100.0	32.1	36.92	70.97	1124.1	393.12
5/25/12	93.0	41.8	20.07	52.6	1176.7	413.19
7/6/12	108.0	43.0	41.65	130.54	1307.3	454.84
8/10/12	131.0	39.3	34.99	119.3	1426.6	489.83
9/13/12	69.0	78.3	33.34	135.9	1562.5	523.17
10/31/12	131.0	16.9	28.72	94.8	1657.3	551.89

Notes:
scfm= standard cubic feet per minute
ppmV= parts per million by volume

Table 3: Remedial Activities Summary

Item	Description
a.) Operating Status of the Active Remedial System Including Shutdowns	The SVE operated for a total of approximately 138 days between May 22, 2012 (beginning of reporting period) to October 31, 2012 (end of reporting period). The SVE was shut down for approximately 25 days during this remedial monitoring period.
b.) Dates and Number of Monitoring Events	Five full Site monitoring events were conducted on the following dates: 5/25/2012, 7/6/2012, 8/10/2012, 9/13/2012, and 10/31/2012.
c.) Effluent Concentrations	The goal of the off-gas treatment controls is to maintain a removal efficiency of 95%. Based upon both the PID measurements obtained from the influent and effluent process air streams during SVE system monitoring events and the influent and effluent process air samples collected for TO-15 laboratory analysis, this goal has been achieved to date.
d.) Discharges Above Permissible Levels	Not applicable.
e.) Recovery Rates and/or Volumes	Based on an average flowrate of 134 scfm and runtime of approximately 552 days, approximately 480 pounds of VOCs were removed between May 22, 2012 to October 31, 2012. Table 2 summarizes the system TVOC mass removal based on a runtime of 552 days from data collected over 24 total Site visits since startup. A graph showing the influent TVOC concentration over time and the cumulative mass removal by the SVE is provided in Figure 3.
f.) Discharge Volumes	It is estimated that 44,632,656 standard cubic feet of air were discharged to the atmosphere since the SVE system was started on September 24, 2010. This estimate is lower than the volume reported in RAM Status Report #3. This is due to lower recorded flow rates in May and September 2012 that were included in the updated average flow rate used in the air discharge volume calculation.
g.) Remedial Additives	No remedial additives were applied.
h.) Related Maps, Graphs or Diagrams	SVE design drawings including a piping and well layout, piping and instrumentation diagram (P&ID), piping and well details were previously provided in the July 2010 RAM Plan.

FIGURES



Base Map Source:
TOPO!™ © 2000
Wildflower Productions

LAT: 42°15'11.00"
LONG: 71°07'10.09"

DES.BY:	DR.BY: MES	CK.BY: CB

12-24 Fairmount Court
Hyde Park, MA 02136

FIGURE 1
SITE LOCUS

SCALE: AS SHOWN	JOB NO.: 221375.01
DATE: JULY 2010	FILE NAME:

WOODARD &CURRAN
COMMITMENT & INTEGRITY
DRIVE RESULTS
980 Washington St, Suite 325
Dedham, MA 02026
T: 800.446.5518

NOTES:

1. SEE CITY OF BOSTON ASSESSOR'S PLAN WARD #18, BLOCK #199, LOT #10598 AND #10601 FOR SITE REFERENCE. SITE IS KNOWN AS #12 AND #0 FAIRMOUNT COURT.
2. SEE S.C.R.D. BOOK 8338, PG 650, AND LC 38601 FOR SITE PROPERTY LINE INFORMATION.

COMMONWEALTH OF MASSACHUSETTS MBTA

OHW

OHW

GP

SB FND

CONC. BLK RET. WALL

1 STORY BLOCK

1 1/2 STORY CONC. BLOCK

3 STORY CONC. BLOCK AND WOOD

STEEL FIRE ESCAPE

6' HIGH CLF

STONE FOUNDATION WALL

CEM. CONC.

EP-1

SVE-1

EP-3

EP-4

SVE-2

SG-03

EP-5

EP-6

1 1/2 STORY BRICK

EP-2

SG-06

EP-7

SVE-3

EP-8

EP-9

SG-02

EP-10

SVE EQUIPMENT AREA

IR SET

ESM-16

SVE DISCHARGE

WG

N/F NEPONSET RIVER RESERVATION

TOP OF BANK

NEPONSET RIVER

LEGEND

EP-1 ⊠	EXTRACTION POINT
———	2" SCH 40 PVC PIPE
—·—·—	3" SCH 40 PVC PIPE
— — —	PROPERTY LINE
IR SET ○	IRON ROD SET
SB FND □	STONE BOUND FOUND
	UTILITY POLE
Ⓢ	SEWER MANHOLE
	HYDRANT
WG □	WATER GATE
GP ●	GATE POST
RET.	RETAINING
CEM. CONC.	CEMENT CONCRETE
CONC. BLK	CONCRETE BLOCK
—x—x—	CHAIN LINK FENCE
—OHW—	OVERHEAD WIRES

20 0 20 40

SCALE IN FEET

980 WASHINGTON STREET
DEDHAM, MASSACHUSETTS 02026
781.251.0200 | www.woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

WOODARD & CURRAN

SITE PLAN

CHECKED BY: SLD
221375-SVE-Layout-FIG-1.dwg
DESIGNED BY: DRC
DRAWN BY: GA

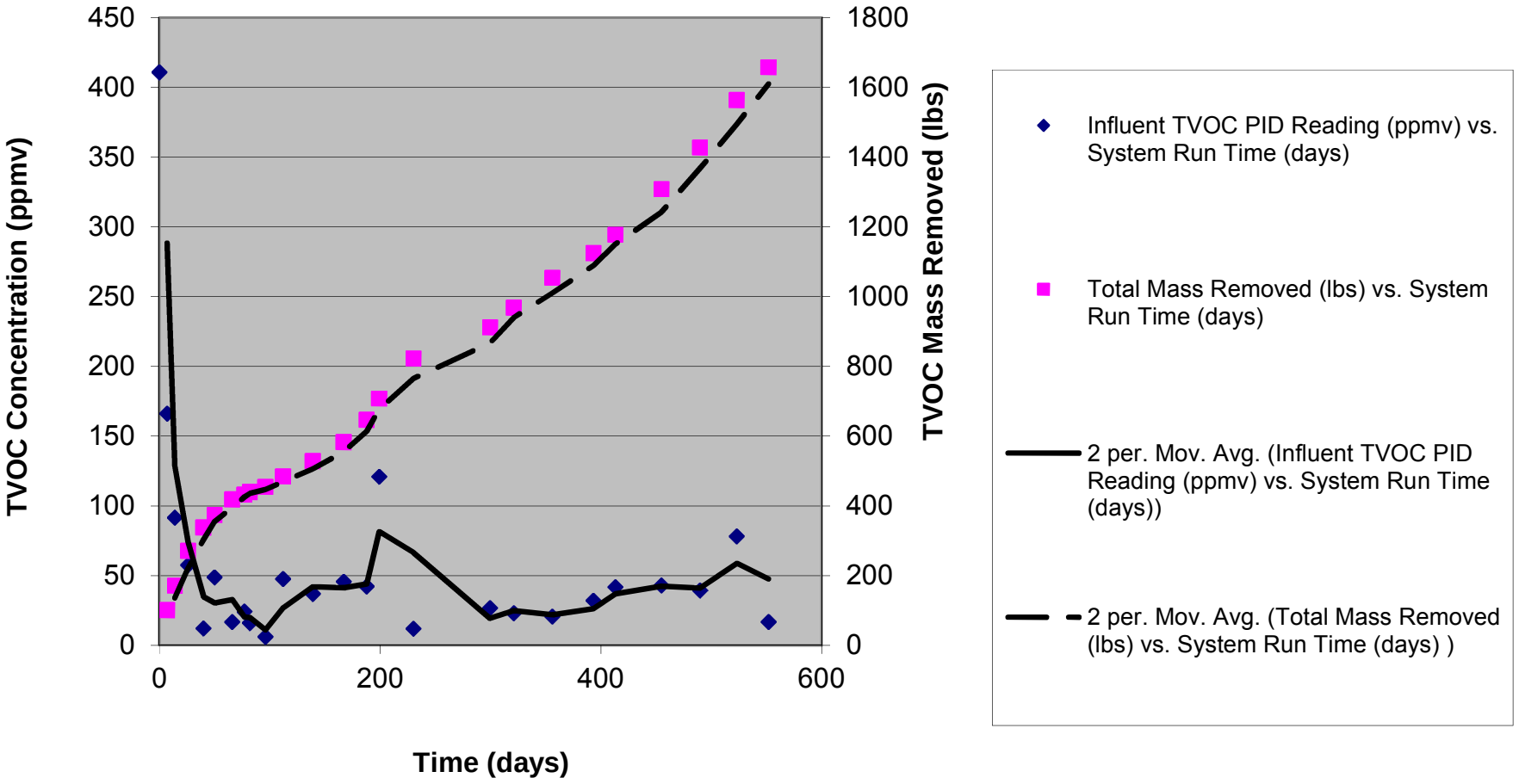
CITY OF BOSTON
DEPARTMENT OF
NEIGHBORHOOD DEVELOPMENT

FORMER LEWIS CHEMICAL SITE

JOB NO: 221375
DATE: AUGUST 2009
SCALE: 1" = 20'

FIGURE - 2

Figure 3: TVOC Readings and Mass Removal Versus Time



APPENDIX A: BWSC FORMS 106, 106A, AND 106B (POST-SUBMITTAL REPORT COPIES)

Note: Forms not included with report filed via e-DEP because forms are completed during e-DEP submittal. Forms included in post-submittal report copies.

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC106

RELEASE ABATEMENT MEASURE (RAM) TRANSMITTAL FORM

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

Release Tracking Number: 3 - 1616

A. SITE LOCATION:

1. Site Name/Location Aid: **LEWIS CHEMICAL CORP FMR**

2. Street Address: **16 FAIRMONT CT**

3. City/Town: **HYDE PARK** 4. ZIP Code: **021360000**

5. UTM Coordinates: a. UTM N: **4679832** b. UTM E: **325144**

☐ 6. Check here if a Tier Classification Submittal has been provided to DEP for this disposal site.

☐ a. Tier IA ☑ b. Tier IB ☐ c. Tier IC ☐ d. Tier II

7. If a Tier I Permit has been issued, provide Permit Number: **W060698**

B. THIS FORM IS BEING USED TO: (check all that apply)

1. List Submittal Date of Initial RAM Plan (if previously submitted): **7/27/2010** (mm/dd/yyyy)

☐ 2. Submit an **Initial Release Abatement Measure (RAM) Plan**.

☐ a. Check here if the RAM is being conducted as part of the construction of a permanent structure. If checked, you must specify what type of permanent structure is to be erected in or in the immediate vicinity of the area where the RAM is to be conducted.

b. Specify type of permanent structure: (check all that apply) ☐ i. School ☐ ii. Residential ☐ iii. Commercial ☐ iv. Industrial ☐ v. Other Specify: _____

☐ 3. Submit a **Modified RAM Plan** of a previously submitted RAM Plan.

☑ 4. Submit a **RAM Status Report**.

☑ 5. Submit a **Remedial Monitoring Report**. (This report can only be submitted through eDEP, concurrent with a RAM Status Report.)

a. Type of Report: (check one) ☐ i. Initial Report ☑ ii. Interim Report ☐ iii. Final Report

b. Number of Remedial Systems and/or Monitoring Programs: **1**

A separate BWSC106A, RAM Remedial Monitoring Report, must be filled out for each Remedial System and/or Monitoring Program addressed by this transmittal form.

☐ 6. Submit a **RAM Completion Statement**.

☐ 7. Submit a **Revised RAM Completion Statement**.

8. Provide Additional RTNs:

☐ a. Check here if this RAM Submittal covers additional Release Tracking Numbers (RTNs). RTNs that have been previously linked to a Primary Tier Classified RTN do not need to be listed here. This section is intended to allow a RAM to cover more than one unclassified RTN and not show permanent linkage to a Primary Tier Classified RTN.

b. Provide the additional Release Tracking Number(s) covered by this RAM Submittal. ☐ - ☐ ☐ - ☐

(All sections of this transmittal form must be filled out unless otherwise noted above)

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC106

RELEASE ABATEMENT MEASURE (RAM) TRANSMITTAL FORM

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

Release Tracking Number
3 - 1616

C. RELEASE OR THREAT OF RELEASE CONDITIONS THAT WARRANT RAM:

1. Identify Media Impacted and Receptors Affected: (check all that apply)

☐ a. Air ☐ b. Basement ☐ c. Critical Exposure Pathway ☑ d. Groundwater ☐ e. Residence

☐ f. Paved Surface ☐ g. Private Well ☐ h. Public Water Supply ☐ i. School ☐ j. Sediments

☑ k. Soil ☐ l. Storm Drain ☐ m. Surface Water ☐ n. Unknown ☐ o. Wetland ☐ p. Zone 2

☐ q. Others Specify: _____

2. Identify all sources of the Release or Threat of Release, if known: (check all that apply)

☐ a. Above-ground Storage Tank (AST) ☐ b. Boat/Vessel ☐ c. Drums ☐ d. Fuel Tank

☐ e. Pipe/Hose/Line ☐ f. Tanker Truck ☐ g. Transformer ☐ h. Under-ground Storage Tank (UST)

☐ i. Vehicle ☑ j. Others Specify: **RELEASES FROM CHEMICAL HANDLING AND PROCESSING**

3. Identify Oils and Hazardous Materials Released: (check all that apply)

☑ a. Oils ☑ b. Chlorinated Solvents ☐ c. Heavy Metals

☐ d. Others Specify: _____

D. DESCRIPTION OF RESPONSE ACTIONS: (check all that apply, for volumes list cumulative amounts)

☐ 1. Assessment and/or Monitoring Only
☐ 2. Temporary Covers or Caps
☐ 3. Deployment of Absorbent or Containment Materials
☐ 4. Temporary Water Supplies
☐ 5. Structure Venting System
☐ 6. Temporary Evacuation or Relocation of Residents
☐ 7. Product or NAPL Recovery
☐ 8. Fencing and Sign Posting
☐ 9. Groundwater Treatment Systems
☑ 10. Soil Vapor Extraction
☐ 11. Bioremediation
☐ 12. Air Sparging

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RELEASE ABATEMENT MEASURE (RAM) TRANSMITTAL FORM

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Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

D. DESCRIPTION OF RESPONSE ACTIONS (cont.): (check all that apply, for volumes list cumulative amounts)

☐ 13. Excavation of Contaminated Soils

☐ a. Re-use, Recycling or Treatment ☐ i. On Site Estimated volume in cubic yards _____

☐ ii. Off Site Estimated volume in cubic yards _____

iia. Receiving Facility: _____ Town: _____ State: _____

iib. Receiving Facility: _____ Town: _____ State: _____

iii. Describe: _____

☐ b. Store ☐ i. On Site Estimated volume in cubic yards _____

☐ ii. Off Site Estimated volume in cubic yards _____

iia. Receiving Facility: _____ Town: _____ State: _____

iib. Receiving Facility: _____ Town: _____ State: _____

☐ c. Landfill

☐ i. Cover Estimated volume in cubic yards _____

Receiving Facility: _____ Town: _____ State: _____

☐ ii. Disposal Estimated volume in cubic yards _____

Receiving Facility: _____ Town: _____ State: _____

☑ 14. Removal of Drums, Tanks or Containers:

a. Describe Quantity and Amount: **3 55-GALLON DRUMS OF CONDENSATE KNOCK-OUT WATER; 3 55-GALLON DRUMS OF SOIL FROM SOIL BORINGS.**

b. Receiving Facility: **VEXOR TECHNOLOGY INC.** Town: **MEDINA** State: **OH**

c. Receiving Facility: _____ Town: _____ State: _____

☐ 15. Removal of Other Contaminated Media:

a. Specify Type and Volume: _____

b. Receiving Facility: _____ Town: _____ State: _____

c. Receiving Facility: _____ Town: _____ State: _____

☐ 16. Other Response Actions:

Describe: _____

☐ 17. Use of Innovative Technologies:

Describe: _____

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RELEASE ABATEMENT MEASURE (RAM) TRANSMITTAL FORM

Release Tracking Number
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Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

E. LSP SIGNATURE AND STAMP :

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and 309 CMR 4.03(2), and (iii) the provisions of 309 CMR 4.03(3), to the best of my knowledge, information and belief,

> *if Section B of this form indicates that a* ***Release Abatement Measure Plan*** *is being submitted*, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> *if Section B of this form indicates that a* ***Release Abatement Measure Status Report*** *and/or* ***Remedial Monitoring Report*** *is being submitted*, the response action(s) that is (are) the subject of this submittal (i) is (are) being implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> *if Section B of this form indicates that a* ***Release Abatement Measure Completion Statement*** *is being submitted*, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal:

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

1. LSP #: 3760

2. First Name: CRAIG E 3. Last Name: BLAKE

4. Telephone: 7812510200 5. Ext.: 6. FAX:

7. Signature:

8. Date: (mm/dd/yyyy)

9. LSP Stamp:

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RELEASE ABATEMENT MEASURE (RAM) TRANSMITTAL FORM

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

Release Tracking Number

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F. PERSON UNDERTAKING RAM:

1. Check all that apply: ☐ a. change in contact name ☐ b. change of address ☐ c. change in the person undertaking response actions

2. Name of Organization: **BOSTON DEPT OF NEIGHBORHOOD DEVELOPMENT**

3. Contact First Name: **JAMES** 4. Last Name: **SMITH**

5. Street: **26 COURT ST 9TH FLOOR** 6. Title: **SR ENVIRONMENTAL COMPLIANCE MGR**

7. City/Town: **BOSTON** 8. State: **MA** 9. ZIP Code: **021080000**

10. Telephone: **6176350103** 11. Ext.: 12. FAX: **6176350282**

G. RELATIONSHIP TO RELEASE OR THREAT OF RELEASE OF PERSON UNDERTAKING RAM:

☐ 1. RP or PRP ☐ a. Owner ☐ b. Operator ☐ c. Generator ☐ d. Transporter

☐ e. Other RP or PRP Specify:

☑ 2. Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)

☐ 3. Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))

☐ 4. Any Other Person Undertaking RAM Specify Relationship:

H. REQUIRED ATTACHMENT AND SUBMITTALS:

☐ 1. Check here if any Remediation Waste, generated as a result of this RAM, will be stored, treated, managed, recycled or reused at the site following submission of the RAM Completion Statement. You must submit a Phase IV Remedy Implementation Plan along with the appropriate transmittal form (BWSC108).

☐ 2. Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approval(s) issued by DEP or EPA. If the box is checked, you MUST attach a statement identifying the applicable provisions thereof.

☑ 3. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the implementation of a Release Abatement Measure.

☐ 4. Check here if any non-updatable information provided on this form is incorrect, e.g. Release Address/Location Aid. Send corrections to the DEP Regional Office.

☐ 5. If a RAM Compliance Fee is required for this RAM, check here to certify that a RAM Compliance Fee was submitted to DEP, P. O. Box 4062, Boston, MA 02211.

☑ 6. Check here to certify that the LSP Opinion containing the material facts, data, and other information is attached.

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC106

RELEASE ABATEMENT MEASURE (RAM) TRANSMITTAL FORM

Release Tracking Number
3 - 1616

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

I. CERTIFICATION OF PERSON UNDERTAKING RAM:

1. I, _____ , attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

2. By: _____ 3. Title: **SR ENVIRONMENTAL COMPLI**

Signature

4. For: **BOSTON DEPT OF NEIGHBORHOOD DEVELOPMENT** 5. Date: _____

(Name of person or entity recorded in Section F) (mm/dd/yyyy)

☐ 6. Check here if the address of the person providing certification is different from address recorded in Section F.

7. Street: _____

8. City/Town: _____ 9. State: _____ 10. ZIP Code: _____

11. Telephone: _____ 12. Ext.: _____ 13. FAX: _____

YOU ARE SUBJECT TO AN ANNUAL COMPLIANCE ASSURANCE FEE OF UP TO $10,000 PER BILLABLE YEAR FOR THIS DISPOSAL SITE. YOU MUST LEGIBLY COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.

Date Stamp (DEP USE ONLY:)

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC106 A

RAM REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0400 (SUBPART D)

Release Tracking Number: 3 - 1616

Remedial System or Monitoring Program: 1 of: 1

A. DESCRIPTION OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM:

1. Type of Active Remedial System or Active Remedial Monitoring Program: (check all that apply)

- [✓] a. Active Remedial System: (check all that apply)
  - [ ] i. NAPL Recovery
  - [✓] ii. Soil Vapor Extraction/Bioventing
  - [ ] iii. Vapor-phase Carbon Adsorption
  - [ ] iv. Groundwater Recovery
  - [ ] v. Dual/Multi-phase Extraction
  - [ ] vi. Aqueous-phase Carbon Adsorption
  - [ ] vii. Air Stripping
  - [ ] viii. Sparging/Biosparging
  - [ ] ix. Cat/Thermal Oxidation
  - [ ] x. Other Describe:
- [ ] b. Application of Remedial Additives: (check all that apply)
  - [ ] i. To the Subsurface
  - [ ] ii. To Groundwater (Injection)
  - [ ] iii. To the Surface
- [ ] c. Active Remedial Monitoring Program Without the Application of Remedial Additives: (check all that apply; Sections C, D and E are not required; attach supporting information, data, maps and/or sketches needed by checking Section F5)
  - [ ] i. Reactive Wall
  - [ ] ii. Natural Attenuation
  - [ ] iii. Other Describe:

2. Mode of Operation: (check one)

- [✓] a. Continuous
- [ ] b. Intermittent
- [ ] c. Pulsed
- [ ] d. One-time Event Only
- [ ] e. Other:

3. System Effluent/Discharge: (check all that apply)

- [ ] a. Sanitary Sewer/POTW
- [ ] b. Groundwater Re-infiltration/Re-injection: (check one)
  - [ ] i. Downgradient
  - [ ] ii. Upgradient
- [✓] c. Vapor-phase Discharge to Ambient Air: (check one)
  - [✓] i. Off-gas Controls
  - [ ] ii. No Off-gas Controls
- [ ] d. Drinking Water Supply
- [ ] e. Surface Water (including Storm Drains)
- [ ] f. Other Describe:

B. MONITORING FREQUENCY:

1. Reporting period that is the subject of this submittal: From: 5/22/2012 (mm/dd/yyyy) To: 10/31/2012 (mm/dd/yyyy)

2. Number of monitoring events during the reporting period: (check one)

- [ ] a. System Startup: (if applicable)
  - [ ] i. Days 1, 3, 6, and then weekly thereafter, for the first month.
  - [ ] ii. Other Describe:
- [✓] b. Post-system Startup (after first month) or Monitoring Program:
  - [✓] i. Monthly
  - [ ] ii. Quarterly
  - [ ] iii. Other Describe:

[ ] 3. Check here to certify that the number of required monitoring events were conducted during the reporting period.

C. EFFLUENT/DISCHARGE REGULATION: (check one to indicate how the effluent/discharge limits were established)

[ ] 1. NPDES: (check one)
- [ ] a. Remediation General Permit
- [ ] b. Individual Permit
- [ ] c. Emergency Exclusion

Effective Date of Permit: (mm/dd/yyyy)

[✓] 2. MCP Performance Standard MCP Citations(s): 310 CMR 40.0049

[ ] 3. DEP Approval Letter Date of Letter: (mm/dd/yyyy)

[ ] 4. Other Describe:

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BWSC106 A

RAM REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0400 (SUBPART D)

Release Tracking Number: 3 - 1616

Remedial System or Monitoring Program: 1 of: 1

D. WASTEWATER TREATMENT PLANT OPERATOR: (check one)

☐ 1. Required due to Remedial Wastewater Treatment Plant in place for more than 30 days.

a. Name: _____ b. Grade: _____

c. License No.: _____ d. License Exp. Date: _____ (mm/dd/yyyy)

☐ 2. Not Required

☑ 3. Not Applicable

E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD: (check all that apply)

☑ 1. The Active Remedial System was functional one or more days during the Reporting Period.

a. Days System was Fully Functional: 138 b. GW Recovered (gals): _____

c. NAPL Recovered (gals): _____ d. GW Discharged (gals): _____

e. Avg. Soil Gas Recovery Rate (scfm): 134 f. Avg. Sparging Rate (scfm) : _____

☐ 2. Remedial Additives: (check all that apply)

☑ a. No Remedial Additives applied during the Reporting Period.

☐ b. Enhanced Bioremediation Additives applied: (total quantity applied at the site for the current reporting period)

☐ i. Nitrogen/Phosphorus:

Name of Additive	Date	Quantity	Units

☐ ii. Peroxides:

Name of Additive	Date	Quantity	Units

☐ iii. Microorganisms:

Name of Additive	Date	Quantity	Units

☐ iv. Other:

Name of Additive	Date	Quantity	Units

☐ c. Chemical oxidation/reduction additives applied: (total quantity applied at the site for the current reporting period)

☐ i. Permanganates:

Name of Additive	Date	Quantity	Units

☐ ii. Peroxides:

Name of Additive	Date	Quantity	Units

☐ iii. Persulfates:

Name of Additive	Date	Quantity	Units

☐ iv. Other:

Name of Additive	Date	Quantity	Units

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BWSC106A

RAM REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0400 (SUBPART D)

Release Tracking Number: 3 - 1616

Remedial System or Monitoring Program: 1 of: 1

E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD: (cont.) (check all that apply)

☐ d. Other additives applied: (total quantity applied at the site for the current reporting period)

Name of Additive	Date	Quantity	Units

Name of Additive	Date	Quantity	Units

☐ e. Check here if any additional Remedial Additives were applied. Attach list of additional additives and include Name of Additive, Date Applied, Quantity Applied and Units (in gals. or lbs.)

F. SHUTDOWNS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM: (check all that apply)

☑ 1. The Active Remedial System had unscheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Unscheduled Shutdowns: 3 b. Total Number of Days of Unscheduled Shutdowns: 25

c. Reason(s) for Unscheduled Shutdowns: **CARBON CHANGE, HYDROSIL MATERIAL CHANGE, HIGH WATER LEVEL SWITCH**

☐ 2. The Active Remedial System had scheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Scheduled Shutdowns: b. Total Number of Days of Scheduled Shutdowns:

c. Reason(s) for Scheduled Shutdowns:

☐ 3. The Active Remedial System or Active Remedial Monitoring Program was permanently shutdown/discontinued during the Reporting Period.

a. Date of Final System or Monitoring Program Shutdown: (mm/dd/yyyy)

☐ b. No Further Effluent Discharges.

☐ c. No Further Application of Remedial Additives planned; sufficient monitoring completed to demonstrate compliance with 310 CMR 40.0046.

☐ d. No Further Submittals Planned.

☐ e. Other: Describe:

G. SUMMARY STATEMENTS: (check all that apply for the current reporting period)

☐ 1. All Active Remedial System checks and effluent analyses required by the approved plan and/or permit were performed when applicable.

☑ 2. There were no significant problems or prolonged (>25% of reporting period) unscheduled shutdowns of the Active Remedial System.

☐ 3. The Active Remedial System or Active Remedial Monitoring Program operated in conformance with the MCP, and all applicable approval conditions and/or permits.

4. Indicate any Operational Problems or Notes:

☑ 5. Check here if additional/supporting Information, data, maps, and/or sketches are attached to the form.

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Release Tracking Number
3 - 1616

RAM REMEDIAL MONITORING REPORT
EFFLUENT/DISCHARGE CONCENTRATIONS

Pursuant to 310 CMR 40.0400 (SUBPART D)

Remedial System or Monitoring Program: 1 of: 1

For each Point of Measurement, indicate the highest concentration detected during the reporting period, of each oil, hazardous material and/or remedial additive.

Point of Measurement	Date (mm/dd/yyyy)	Contaminant, Measurement and/or Indicator Parameter	Influent Concentraion (where applicable)	Midpoint Concentration (where applicable)	(check one) ☑ Discharge ☐ Groundwater Concentration	Check here, if ND/BDL	Permissible Concentration	Units	Within Permissible Limits? (Y/N)
INF/EFF	8/1/2012	ACETONE (LC)	.024		.037	☐	.001	PPMV	N
INF/EFF	8/1/2012	VINYL CHLORIDE	.051		.038	☐	.003	PPMV	N
INF/EFF	8/1/2012	CHLOROETHANE (LC)	0		.01	☐		PPMV	N
INF/EFF	8/1/2012	ETHANOL (LC)	.023		.018	☐	.001	PPMV	N
INF/EFF	8/1/2012	1,1-DICHLOROETHENE	.015			☑		PPMV	Yes
INF/EFF	8/1/2012	METHYLENE CHLORIDE (LC)	0		.02	☐		PPMV	N
INF/EFF	8/1/2012	1,1-DICHLOROETHANE	.038			☑		PPMV	Yes
INF/EFF	8/1/2012	CIS-1,2-DICHLOROETHENE	.9			☑		PPMV	Yes
INF/EFF	8/1/2012	1,1,1-TRICHLOROETHANE	1.9			☑		PPMV	Yes
INF/EFF	8/1/2012	TRICHLOROETHENE	2.9			☑		PPMV	Yes
INF/EFF	8/1/2012	TOLUENE	.23			☑		PPMV	Yes
INF/EFF	8/1/2012	TETRACHLOROETHENE	2			☑		PPMV	Yes
INF/EFF	8/1/2012	O-XYLENE	.017			☑		PPMV	Yes
INF/EFF	8/1/2012	FREON 113	.36			☑		PPMV	Yes
		LC=LAB CONTAMINANT				☐			
INF/EFF	8/28/2012	ACETONE (LC)	0		.0067	☐		PPMV	N
INF/EFF	8/28/2012	VINYL CHLORIDE	.084		.018	☐	.004	PPMV	N
INF/EFF	8/28/2012	CHLOROETHANE (LC)	.0079			☑		PPMV	Yes
INF/EFF	8/28/2012	ETHANOL (LC)	0		.0062	☐		PPMV	N
INF/EFF	8/28/2012	1,1-DICHLOROETHENE	.038		0	☐	.002	PPMV	Yes

☑ Check here if an additional BWSC106B, Effluent/Discharge Concentrations Form, is needed.

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Release Tracking Number
3 - 1616

RAM REMEDIAL MONITORING REPORT
EFFLUENT/DISCHARGE CONCENTRATIONS

Pursuant to 310 CMR 40.0400 (SUBPART D)

Remedial System or Monitoring Program: 1 of: 1

For each Point of Measurement, indicate the highest concentration detected during the reporting period, of each oil, hazardous material and/or remedial additive.

Point of Measurement	Date (mm/dd/yyyy)	Contaminant, Measurement and/or Indicator Parameter	Influent Concentraion (where applicable)	Midpoint Concentration (where applicable)	(check one) ☑ Discharge ☐ Groundwater Concentration	Check here, if ND/BDL	Permissible Concentration	Units	Within Permissible Limits? (Y/N)
INF/EFF	8/28/2012	METHYLENE CHLORIDE (LC)	.023		.016	☐	.001	PPMV	N
INF/EFF	8/28/2012	CARBON DISULFIDE	.01			☑		PPMV	Yes
INF/EFF	8/28/2012	TRANS- 1,2-DICHLOROETHENE	.015			☑		PPMV	Yes
INF/EFF	8/28/2012	N-HEXANE	.0067			☑		PPMV	Yes
INF/EFF	8/28/2012	1,1-DICHLOROETHANE	.09			☑		PPMV	Yes
INF/EFF	8/28/2012	CIS-1,2-DICHLOROETHENE	1.8			☑		PPMV	Yes
INF/EFF	8/28/2012	1,2-DICHLOROETHANE	.022			☑		PPMV	Yes
INF/EFF	8/28/2012	1,1,1-TRICHLOROETHANE	5.6			☑		PPMV	Yes
INF/EFF	8/28/2012	CYCLOHEXANE	.11			☑		PPMV	Yes
INF/EFF	8/28/2012	N-HEPTANE	.013			☑		PPMV	Yes
INF/EFF	8/28/2012	TRICHLOROETHENE	8.4			☑		PPMV	Yes
INF/EFF	8/28/2012	TOLUENE	.97			☑		PPMV	Yes
INF/EFF	8/28/2012	TETRACHLOROETHENE	4.6			☑		PPMV	Yes
INF/EFF	8/28/2012	CHLOROBENZENE	.0065			☑		PPMV	Yes
INF/EFF	8/28/2012	ETHYLBENZENE	.069			☑		PPMV	Yes
INF/EFF	8/28/2012	P/M-XYLENE	.16			☑		PPMV	Yes
INF/EFF	8/28/2012	O-XYLENE	.083			☑		PPMV	Yes
INF/EFF	8/28/2012	FREON 113	.73			☑		PPMV	Yes
INF/EFF	8/28/2012	4-ETHYLTOLUENE	.01			☑		PPMV	Yes
INF/EFF	8/28/2012	BENZYL CHLORIDE	.011			☑		PPMV	Yes

☐ Check here if an additional BWSC106B, Effluent/Discharge Concentrations Form, is needed.

APPENDIX B: SVE SYSTEM FIELD MONITORING REPORTS

TABLE B-1
Soil Vapor Extraction System Checklist
Former Lewis Chemical Site Hyde Park, Massachusetts

Operator: DC/BG

Date: 5/25/12

Location	Time	Vacuum/Pressure	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Temperature
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(deg - F)
Knock-Out Drum Inlet	8:45	-14			42.8	
SVE Blower Inlet	8:50	-15	1900	93	41.8	63.8
SVE Blower Outlet	8:55	12	2700	236	16	89.9
VGAC #1 Outlet	9:00	10			16.6	
VGAC #2 Outlet	9:05	7			0	
Post MnO4/Discharge	9:10	1	3300	288	0	70.8
				System Efficeincy	100%	

Knockout Drum Water Vol.	(gallons)	0		
SVE Blower Runtime	(Time)	10:00	(hours)	9931.9

Extraction Point ID	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Status
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(ON/OFF)
SVE-1	7:55	-13.5	1600	35	78.9	ON
EP-1	7:33	-10.50	820	18	159	ON
EP-2	7:30	-11.00	1300	28	35.6	ON
SVE-2	8:00	-13.5	1000	49	25	ON
EP-3	7:40	-12	1103	24	25.7	ON
EP-4	7:43	-12	1175	26	11.3	ON
EP-5	7:48			0	2.9	OFF
EP-6	7:50			0	3.8	OFF
SVE-3	8:40	-14	1091	54	15.6	ON
EP-7	7:40	-11.5	1000	22	18.6	ON
EP-8	7:35	-3.0	300	7	20.3	ON
EP-9	8:15			0	36	OFF
EP-10	8:30			0	26.1	OFF

*To calculate the flowrate, multiply the measured velocity by [0.021817 for 2-inch pipe] [0.049087 for 3-inch pipe] [0.087266 for 4-inch pipe]
(Q = 3.14 (2/12)^2 * V)

Vapor Probe ID	Time	Vacuum	TVOC-PID Concentration
		(in-W.C.)	(ppm_v)
SG-02	See Note 2		
SG-03	7:43	-2.5	8.5
ESM-16	8:45	0	21.1

Notes:

1) SG-01, SG-04, SG-05, and SG-06 are destroyed and will not be included in future monitoring sheets.

2) SG-02 drew water during sampling; therefore. Monitoring could not be conducted at the point.

TABLE B-1
Soil Vapor Extraction System Checklist
Former Lewis Chemical Site Hyde Park, Massachusetts

Operator: DC/RS

Date: 7/6/12

Location	Time	Vacuum/Pressure	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Temperature
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(deg - F)
Knock-Out Drum Inlet	9:45	-12.5			43.8	
SVE Blower Inlet	9:47	-14	2200	108	43	73.7
SVE Blower Outlet	9:55	-14	2500	218	14	98
VGAC #1 Outlet	10:00	10			0	
VGAC #2 Outlet	10:02	7			0	
Post MnO4/Discharge	10:05	1.5	3100	271	0	86
				System Efficeincy	100%	

Knockout Drum Water Vol.	(gallons)	0		
SVE Blower Runtime	(Time)	10:08	(hours)	10931.5

Extraction Point ID	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Status
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(ON/OFF)
SVE-1	9:30	-12	2100	46	11.6	ON
EP-1	8:45	-10.00	1000	22	93.2	ON
EP-2	8:37	-10.00	1130	25	57.5	ON
SVE-2	9:33	-12	840	41	25.3	ON
EP-3	8:58	-11.5	875	19	23.5	ON
EP-4	9:00	-11.5	1200	26	12.9	ON
EP-5	9:20			0	1.3	OFF
EP-6	9:23			0	3.4	OFF
SVE-3	9:35	-12	800	39	20.9	ON
EP-7	8:50	-11.0	700	15	25.6	ON
EP-8	8:48	-3.0	300	7	25.3	ON
EP-9	9:45	-5.0	700	15	24.6	ON
EP-10	8:40			0	16	OFF

*To calculate the flowrate, multiply the measured velocity by [0.021817 for 2-inch pipe] [0.049087 for 3-inch pipe] [0.087266 for 4-inch pipe]
(Q = 3.14 (2/12)^2 * V)

Vapor Probe ID	Time	Vacuum	TVOC-PID Concentration
		(in-W.C.)	(ppm_v)
SG-02	See Note 3		
SG-03	9:00	-2	2
ESM-16	9:50	0	17.7

Notes:
1) SG-01, SG-04, SG-05, and SG-06 are destroyed and will not be included in future monitoring sheets.
2) SG-02 drew water during sampling; therefore, monitoring could not be conducted at the point.

TABLE B-1
Soil Vapor Extraction System Checklist
Former Lewis Chemical Site Hyde Park, Massachusetts

Operator: DC/BA

Date: 8/10/12

Location	Time	Vacuum/Pressure	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Temperature
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(deg - F)
Knock-Out Drum Inlet	9:40	-12.5			39.1	
SVE Blower Inlet	9:42	-13.5	2660	131	39.3	74
SVE Blower Outlet	9:45	13	2420	211	18.4	101.2
VGAC #1 Outlet	9:46	10			0.7	
VGAC #2 Outlet	9:48	7			0	
Post MnO4/Discharge	9:51	1	3200	279	0	89.5
				System Efficeincy	100%	

Knockout Drum Water Vol.	(gallons)	0		
SVE Blower Runtime	(Time)	9:59	(hours)	11771.3

Extraction Point ID	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Status
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(ON/OFF)
SVE-1	9:30	-11	5000	109	90.4	ON
EP-1	9:02	-9.00	1050	23	146	ON
EP-2	9:00	-8.00	1840	40	65	ON
SVE-2	9:30	-11.5	1550	76	9.1	ON
EP-3	9:10	-11	2040	45	20.1	ON
EP-4	9:12	-11	1310	29	3.1	ON
EP-5	9:22			0	0.6	OFF
EP-6	9:24			0	2.3	OFF
SVE-3	9:35	-11.5	1400	69	13.9	ON
EP-7	9:05	-3.0	600	13	18.4	ON
EP-8	9:08	-10.0	1080	24	23.8	ON
EP-9	9:36	-6.0	850	19	2.8	ON
EP-10	9:38			0	3.8	OFF

*To calculate the flowrate, multiply the measured velocity by [0.021817 for 2-inch pipe] [0.049087 for 3-inch pipe] [0.087266 for 4-inch pipe]
(Q = 3.14 (2/12)^2 * V)

Vapor Probe ID	Time	Vacuum	TVOC-PID Concentration
		(in-W.C.)	(ppm_v)
SG-02	See Note 2		
SG-03	9:15	-3	See Note 3
ESM-16	9:50	0	17.7

Notes:

1) SG-01, SG-04, SG-05, and SG-06 are destroyed and will not be included in future monitoring sheets.

2) SG-02 drew water during sampling; therefore, monitoring could not be conducted at the point.

3) Low air flow would not allow for TVOC measurement.

TABLE B-1
Soil Vapor Extraction System Checklist
Former Lewis Chemical Site Hyde Park, Massachusetts

Operator: DC/AR

Date: 9/13/12

Location	Time	Vacuum/Pressure	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Temperature
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(deg - F)
Knock-Out Drum Inlet	10:18	-12			77	
SVE Blower Inlet	10:23	-13.5	1400	69	78.3	66.5
SVE Blower Outlet	10:25	14	2000	175	24.7	93
VGAC #1 Outlet	10:31	11.5			2.4	
VGAC #2 Outlet	10:32	8.5			0	
Post MnO4/Discharge	10:37	0.82	2600	227	0	75.5
				System Efficeincy	100%	

Knockout Drum Water Vol.	(gallons)	0		
SVE Blower Runtime	(Time)	10:45	(hours)	12571.4

Extraction Point ID	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Status
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(ON/OFF)
SVE-1	9:56	-12	1500	33	171	ON
EP-1	9:26	-9.50	850	19	195	ON
EP-2	9:23	-9.00	1100	24	138	ON
SVE-2	9:57	-12	700	34	20.7	ON
EP-3	9:40	-11	650	14	28.2	ON
EP-4	9:42	-11	700	15	8.5	ON
EP-5	9:51			0	1.5	OFF
EP-6	9:54			0	3.5	OFF
SVE-3	9:58	-12	1000	49	20.7	ON
EP-7	9:36	-10.0	782	17	33	ON
EP-8	9:34	-3.0	266	6	18.8	ON
EP-9	10:12	-6.0	550	12	6.2	ON
EP-10	10:08			0	13.1	OFF

*To calculate the flowrate, multiply the measured velocity by [0.021817 for 2-inch pipe] [0.049087 for 3-inch pipe] [0.087266 for 4-inch pipe]
(Q = 3.14 (2/12)^2 * V)

Vapor Probe ID	Time	Vacuum	TVOC-PID Concentration
		(in-W.C.)	(ppm_v)
SG-02	See Note 2		
SG-03	9:49	-2.2	6.4
ESM-16	10:24	0	12

Notes:

1) SG-01, SG-04, SG-05, and SG-06 are destroyed and will not be included in future monitoring sheets.

2) SG-02 drew water during sampling; therefore. Monitoring could not be conducted at the point during PID Sampling

Blower Time Off

Date	Time	Reading
8/10/2012	9:59	11771.3
9/13/2012	10:45	12571.4

Difference in readings: 800.1

Real time difference: 34 days, 46 minutes
816.7667 (hours)

TIME OFF: 16.67

Blower Time Off

Date	Time	Reading
8/10/2012	9:59	11771.3
9/13/2012	10:45	12157.4

Difference in readings: 386.1

Real time difference: 34 days, 46 minutes
816.7667 (hours)

TIME OFF: 430.67

TABLE B-1
Soil Vapor Extraction System Checklist
Former Lewis Chemical Site Hyde Park, Massachusetts

Operator: DC/AR

Date: 10/31/2012

Location	Time	Vacuum/Pressure	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Temperature
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(deg - F)
Knock-Out Drum Inlet	12:20	-12.5			15	
SVE Blower Inlet	12:22	-14	1650	81	16.9	59.5
SVE Blower Outlet	12:29	13	2200	192	20.4	84.9
VGAC #1 Outlet	12:31	11			12.3	
VGAC #2 Outlet	12:33	7			0.3	
Post MnO4/Discharge	12:35	1	2400	209	0.3	65.9
				System Efficeincy	98.5%	

Knockout Drum Water Vol.	(gallons)	0		
SVE Blower Runtime	(Time)	1242	(hours)	13260.7

Extraction Point ID	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Status
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(ON/OFF)
SVE-1	12:01	-12.5	1400	31	20.4	ON
EP-1	11:40	-10.00	509	11	59.8	ON
EP-2	11:21	-10.00	800	17	6.2	ON
SVE-2	12:02	-12.5	592	29	13.9	ON
EP-3	11:50	-11	590	13	23.7	ON
EP-4	11:53	-11.5	749	16	6.5	ON
EP-5	11:57	-	-	-	1.8	OFF
EP-6	12:00	-	-	-	2.9	OFF
SVE-3	12:05	-12.5	507	25	7.9	ON
EP-7	11:47	-10.5	530	12	18.3	ON
EP-8	11:45	-2.5	217	5	12.9	ON
EP-9	12:07	-6.0	530	12	3.7	ON
EP-10	12:21	-	-	-	12.7	OFF

*To calculate the flowrate, multiply the measured velocity by [0.021817 for 2-inch pipe] [0.049087 for 3-inch pipe] [0.087266 for 4-inch pipe]
(Q = 3.14 (2/12)^2 * V)

Vapor Probe ID	Time	Vacuum	TVOC-PID Concentration
		(in-W.C.)	(ppm_v)
SG-02	12:05	0	See Note 2
SG-03	11:55	-3	See Note 2
ESM-16	12:31	0	See Note 2

Notes:

1) SG-01, SG-04, SG-05, and SG-06 are destroyed and will not be included in future monitoring sheets.

2) Low air flow would not allow for TVOC measurement.

APPENDIX C: LABORATORY ANALYTICAL REPORTS

USEPA TO-15 Data Report

Client	Report Date
Woodward & Curran 980 Washington Street, Suite 325 Dedham, MA 02026 Attn: Dan Clinton	08/09/12
	Project Receipt Date
	08/02/12
Client Project ID	**EMSL Project ID**
221375/Lewis Chemical	491200749

Sample Summary

EMSL Sample ID	Client Sample ID	Sample Collection Date
491200749-1	Effluent	08/01/2012
491200749-2	Influent	08/01/2012

I certify that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and electronic data has been authorized by the laboratory manager or his/her designee, as verified by the following signature.

Marjorie Howley

8/9/2012

Marjorie Howley
TO-15 Laboratory Manager
EMSL Analytical, Inc

Air Analysis Data Summary

EPA Compendium TO-15

Target Compound List

Client Project Name: 221375/Lewis Chemical
Client Sample ID: Influent
EMSL ID: 491200749-2
Canister ID: HD2320

Primary Lab File ID: M0933.D
Analysis Date: 08/07/2012
Sample Vol(ml): 25
Dilution Factor: 30

Dilution Lab File ID: M0947.D
Analysis Date: 08/08/2012
Sample Vol(ml): 25
Dilution Factor: 270

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3
Propylene	115-07-1	58.08	ND	30		ND	71
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	ND	15		ND	74
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	15		ND	100
Chloromethane	74-87-3	50.49	ND	15		ND	31
n-Butane	106-97-8	58.12	ND	15		ND	36
Vinyl chloride	75-01-4	62.50	**51**	15		**130**	38
1,3-Butadiene	106-99-0	54.09	ND	15		ND	33
Bromomethane	74-83-9	94.94	ND	15		ND	58
Chloroethane	75-00-3	64.52	ND	15		ND	40
Ethanol	64-17-5	46.07	**23**	15		**43**	28
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	15		ND	66
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	ND	15		ND	84
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	ND	15		ND	37
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	**360**	15		**2700**	110
Acetone	67-64-1	58.08	**24**	15		**57**	36
1,1-Dichloroethene	75-35-4	96.94	**15**	15		**60**	59
Acetonitrile	75-05-8	41.00	ND	15		ND	25
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	15		ND	45
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	15		ND	66
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	15		ND	47
Carbon disulfide	75-15-0	76.14	ND	15		ND	47
Methylene chloride	75-09-2	84.94	ND	15		ND	52
Acrylonitrile	107-13-1	53.00	ND	15		ND	33
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	15		ND	54
trans-1,2-Dichloroethene	156-60-5	96.94	ND	15		ND	59
n-Hexane	110-54-3	86.17	ND	15		ND	53
1,1-Dichloroethane	75-34-3	98.96	**38**	15		**150**	61
Vinyl acetate	108-05-4	86.00	ND	15		ND	53
2-Butanone(MEK)	78-93-3	72.10	ND	15		ND	44
cis-1,2-Dichloroethene	156-59-2	96.94	**900**	15		**3600**	59
Ethyl acetate	141-78-6	88.10	ND	15		ND	54
Chloroform	67-66-3	119.4	ND	15		ND	73
Tetrahydrofuran	109-99-9	72.11	ND	15		ND	44
1,1,1-Trichloroethane	71-55-6	133.4	**1900**	140	**D**	**10000**	740
Cyclohexane	110-82-7	84.16	ND	15		ND	52
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	15		ND	70
Carbon tetrachloride	56-23-5	153.8	ND	15		ND	94
n-Heptane	142-82-5	100.2	ND	15		ND	61
1,2-Dichloroethane	107-06-2	98.96	ND	15		ND	61
Benzene	71-43-2	78.11	ND	15		ND	48

Air Analysis Data Summary

EPA Compendium TO-15

Target Compound List

Client Project Name: 221375/Lewis Chemical
Client Sample ID: Influent
EMSL ID: 491200749-2
Canister ID: HD2320

Primary Lab File ID: M0933.D
Analysis Date: 08/07/2012
Sample Vol(ml): 25
Dilution Factor: 30

Dilution Lab File ID: M0947.D
Analysis Date: 08/08/2012
Sample Vol(ml): 25
Dilution Factor: 270

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3
Trichloroethene	79-01-6	131.4	2900	140	D	16000	730
1,2-Dichloropropane	78-87-5	113.0	ND	15		ND	69
Methyl Methacrylate	80-62-6	100.12	ND	15		ND	61
Bromodichloromethane	75-27-4	163.8	ND	15		ND	100
1,4-Dioxane	123-91-1	88.12	ND	15		ND	54
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	15		ND	61
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	15		ND	68
Toluene	108-88-3	92.14	230	15		870	57
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	15		ND	68
1,1,2-Trichloroethane	79-00-5	133.4	ND	15		ND	82
2-Hexanone(MBK)	591-78-6	100.1	ND	15		ND	61
Tetrachloroethene	127-18-4	165.8	2000	140	D	13000	920
Dibromochloromethane	124-48-1	208.3	ND	15		ND	130
1,2-Dibromoethane	106-93-4	187.8	ND	15		ND	120
Chlorobenzene	108-90-7	112.6	ND	15		ND	69
Ethylbenzene	100-41-4	106.2	ND	15		ND	65
Xylene (p,m)	1330-20-7	106.2	ND	30		ND	130
Xylene (Ortho)	95-47-6	106.2	17	15		75	65
Styrene	100-42-5	104.1	ND	15		ND	64
Isopropylbenzene (cumene)	98-82-8	120.19	ND	15		ND	74
Bromoform	75-25-2	252.8	ND	15		ND	160
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	15		ND	100
4-Ethyltoluene	622-96-8	120.2	ND	15		ND	74
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	15		ND	74
2-Chlorotoluene	95-49-8	126.6	ND	15		ND	78
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	15		ND	74
1,3-Dichlorobenzene	541-73-1	147.0	ND	15		ND	90
1,4-Dichlorobenzene	106-46-7	147.0	ND	15		ND	90
Benzyl chloride	100-44-7	126.0	ND	15		ND	77
1,2-Dichlorobenzene	95-50-1	147.0	ND	15		ND	90
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	15		ND	110
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	15		ND	160
Naphthalene	91-20-3	128.17	ND	15		ND	79

Surrogate	Result	Spike	Recovery
4-Bromofluorobenzene	9.9	10	99%

Qualifier Definitions

B = Compound also found in method blank.

ND= Non Detect

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Air Analysis Data Summary

Lost KMnO4 ○ on 3/29/12

EPA Compendium TO-15
Target Compound List

Client Project Name: 221375/Lewis Chemical
Client Sample ID: Effluent
EMSL ID: 491200749-1
Canister ID: HD1458

Primary Lab File ID: M0932.D
Analysis Date: 08/07/2012
Sample Vol(ml): 25
Dilution Factor: 10

Dilution Lab File ID: NA
Analysis Date: NA
Sample Vol(ml): NA
Dilution Factor: NA

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3
Propylene	115-07-1	58.08	ND	10		ND	24
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	ND	5.0		ND	25
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	5.0		ND	35
Chloromethane	74-87-3	50.49	ND	5.0		ND	10
n-Butane	106-97-8	58.12	ND	5.0		ND	12
Vinyl chloride	75-01-4	62.50	38	5.0		100	13
1,3-Butadiene	106-99-0	54.09	ND	5.0		ND	11
Bromomethane	74-83-9	94.94	ND	5.0		ND	19
Chloroethane	75-00-3	64.52	10	5.0		27	13
Ethanol	64-17-5	46.07	18	5.0		34	9.4
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	5.0		ND	22
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	ND	5.0		ND	28
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	ND	5.0		ND	12
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	5.0		ND	38
Acetone	67-64-1	58.08	37	5.0		87	12
1,1-Dichloroethene	75-35-4	96.94	ND	5.0		ND	20
Acetonitrile	75-05-8	41.00	ND	5.0		ND	8.4
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	5.0		ND	15
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	5.0		ND	22
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	5.0		ND	16
Carbon disulfide	75-15-0	76.14	ND	5.0		ND	16
Methylene chloride	75-09-2	84.94	20	5.0		71	17
Acrylonitrile	107-13-1	53.00	ND	5.0		ND	11
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	5.0		ND	18
trans-1,2-Dichloroethene	156-60-5	96.94	ND	5.0		ND	20
n-Hexane	110-54-3	86.17	ND	5.0		ND	18
1,1-Dichloroethane	75-34-3	98.96	ND	5.0		ND	20
Vinyl acetate	108-05-4	86.00	ND	5.0		ND	18
2-Butanone(MEK)	78-93-3	72.10	ND	5.0		ND	15
cis-1,2-Dichloroethene	156-59-2	96.94	ND	5.0		ND	20
Ethyl acetate	141-78-6	88.10	ND	5.0		ND	18
Chloroform	67-66-3	119.4	ND	5.0		ND	24
Tetrahydrofuran	109-99-9	72.11	ND	5.0		ND	15
1,1,1-Trichloroethane	71-55-6	133.4	ND	5.0		ND	27
Cyclohexane	110-82-7	84.16	ND	5.0		ND	17
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	5.0		ND	23
Carbon tetrachloride	56-23-5	153.8	ND	5.0		ND	31
n-Heptane	142-82-5	100.2	ND	5.0		ND	20
1,2-Dichloroethane	107-06-2	98.96	ND	5.0		ND	20
Benzene	71-43-2	78.11	ND	5.0		ND	16

Air Analysis Data Summary

EPA Compendium TO-15

Target Compound List

Client Project Name: 221375/Lewis Chemical
Client Sample ID: Effluent
EMSL ID: 491200749-1
Canister ID: HD1458

Primary Lab File ID: M0932.D
Analysis Date: 08/07/2012
Sample Vol(ml): 25
Dilution Factor: 10

Dilution Lab File ID: NA
Analysis Date: NA
Sample Vol(ml): NA
Dilution Factor: NA

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3
Trichloroethene	79-01-6	131.4	ND	5.0		ND	27
1,2-Dichloropropane	78-87-5	113.0	ND	5.0		ND	23
Methyl Methacrylate	80-62-6	100.12	ND	5.0		ND	20
Bromodichloromethane	75-27-4	163.8	ND	5.0		ND	33
1,4-Dioxane	123-91-1	88.12	ND	5.0		ND	18
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	5.0		ND	20
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	5.0		ND	23
Toluene	108-88-3	92.14	ND	5.0		ND	19
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	5.0		ND	23
1,1,2-Trichloroethane	79-00-5	133.4	ND	5.0		ND	27
2-Hexanone(MBK)	591-78-6	100.1	ND	5.0		ND	20
Tetrachloroethene	127-18-4	165.8	ND	5.0		ND	34
Dibromochloromethane	124-48-1	208.3	ND	5.0		ND	43
1,2-Dibromoethane	106-93-4	187.8	ND	5.0		ND	38
Chlorobenzene	108-90-7	112.6	ND	5.0		ND	23
Ethylbenzene	100-41-4	106.2	ND	5.0		ND	22
Xylene (p,m)	1330-20-7	106.2	ND	10		ND	43
Xylene (Ortho)	95-47-6	106.2	ND	5.0		ND	22
Styrene	100-42-5	104.1	ND	5.0		ND	21
Isopropylbenzene (cumene)	98-82-8	120.19	ND	5.0		ND	25
Bromoform	75-25-2	252.8	ND	5.0		ND	52
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	5.0		ND	34
4-Ethyltoluene	622-96-8	120.2	ND	5.0		ND	25
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	5.0		ND	25
2-Chlorotoluene	95-49-8	126.6	ND	5.0		ND	26
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	5.0		ND	25
1,3-Dichlorobenzene	541-73-1	147.0	ND	5.0		ND	30
1,4-Dichlorobenzene	106-46-7	147.0	ND	5.0		ND	30
Benzyl chloride	100-44-7	126.0	ND	5.0		ND	26
1,2-Dichlorobenzene	95-50-1	147.0	ND	5.0		ND	30
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	5.0		ND	37
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	5.0		ND	53
Naphthalene	91-20-3	128.17	ND	5.0		ND	26

Surrogate	Result	Spike	Recovery
4-Bromofluorobenzene	9.8	10	98%

Qualifier Definitions

B = Compound also found in method blank.

ND= Non Detect

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

USEPA TO-15

External Chain of Custody/ Field Test Data Sheet

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077
Ph. (800) 220-3675
Fax (856) 786-0327

EMSL ANALYTICAL, INC. LABORATORY • PRODUCTS • TRAINING

EMSL Order Number (Lab Use Only): 491200749

Report To Contact Name: Dan Clinton	Bill To Company: Absolute Resource Associates	Sampled By (Sign):
Company Name: Woodard + Curran c/o ARA	Attention To:	Sampled By (Name): Dan Clinton
Address 1: 980 Washington Street	Address 1: 124 Heritage Avenue	Total # of Samples: 2
Address 2: Suite 325	Address 2: Portsmouth NH 03801	Date Shipped: 8/1/12
Phone No. : 781-251-0200 Fax :	Phone No.: 603-436-2001 Fax :	Sample Collection Zip Code: 02136
Email Results To: dclinton@woodardcurran.com	Project Name: 22375/Lewis Chemical	Purchase Order:

Turnaround Time (in Business Days): ☒ 10 Day Standard ☐ 5 Day ☐ 4 Day ☐ 3 Day ☐ 2 Day ☐ 1 Day ☐ Other

Reporting Format: ☒ Results Only (Standard Lab Report) ☐ Full Deliverables (Surcharge may apply) ☐ Other

Field Use - All Information Required! | **Lab Use Only**

EMSL Sample Identifier	Client Field Sample Identification	Sampling Start Information (Barometric Pres. ("Hg): —) Start Date	Time (24 hr clock)	Canister Pressure ("Hg)	Interior Temp. (F)	Sampling Stop Information (Barometric Pres. ("Hg): —) Stop Date	Time (24 hr clock)	Canister Pressure ("Hg)	Interior Temp. (F)	Canister Information: Canister ID	Size (L)	Can Cert Batch ID	Outgoing Pressure ("Hg)	Incoming Pressure ("Hg)	Flow Contoller: Reg. ID	Cal Flow (ml/min)
	Effluent	8/1/12	1415	-30	75	8/1/12	1430	-2	75	HD1458	1.4	HD078	-30.0	~~-5~~ -1.0	3670	79.64
	Influent	8/1/12	1415	-30	>5	8/1/12	1430	-2	75	HD2320	1.4	↓	-30.0	~~-2.5~~ -2.0	7217543	80.80

Analysis				Matrix		
USEPA TO-15	NJDEP LLTO-15	LIBRARY SEARCH	Other (Specify)	Indoor/ Ambient Air	Soil Gas	Landfill/ Vent
☒						
☒						

Comments: Influent VOCs are elevated 40-50ppm; Process Air Samples from SVE

Lab Canister Certification

Analyst Signature (TO-15):

Relinquished by:	Date/ Time	Received by:	Date/ Time	Affixed Seal #	Reason for Exchange (circle appropriate)
	7/30/12 1650		8/1/12 12:00	846	(Shipping) Courier Receiving Sampling Other:
	8/1/12 1530	Stewart UPS	8/2/12 9:10AM		Shipping Courier Receiving Sampling Other:
Stewart	8/2/12		8/2/12 12:00		Shipping Courier Receiving Sampling (Other: DW)
					Shipping Courier Receiving Sampling Other:
					Shipping Courier Receiving Sampling Other:

USEPA TO-15 Data Report

Client	Report Date
Woodard & Curran 980 Washington Street, Suite 325 Dedham, MA 02026 Attn: Dan Clinton	09/13/12
	Project Receipt Date
	08/29/12
Client Project ID	**EMSL Project ID**
Lewis Chemical/221375	491200836

Sample Summary

EMSL Sample ID	Client Sample ID	Sample Collection Date
491200836-1	Influent	08/28/2012
491200836-2	Effluent	08/28/2012

I certify that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and electronic data has been authorized by the laboratory manager or his/her designee, as verified by the following signature.

Marjorie Howley

9/13/2012

Marjorie Howley
TO-15 Laboratory Manager
EMSL Analytical, Inc

Air Analysis Data Summary

EPA Compendium TO-15

Target Compound List

Client Project Name: Lewis Chemical/221375
Client Sample ID: Influent
EMSL ID: 491200836-1
Canister ID: HD2295

Primary Lab File ID: M1513.D
Analysis Date: 09/12/2012
Sample Vol(ml): 25
Dilution Factor: 10

Dilution Lab File ID: M1514.D, M1516.D
Analysis Date: 9/12, 9/13/12
Sample Vol(ml): 25,25
Dilution Factor: 90, 540

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3
Propylene	115-07-1	58.08	ND	10		ND	24
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	ND	5.0		ND	25
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	5.0		ND	35
Chloromethane	74-87-3	50.49	ND	5.0		ND	10
n-Butane	106-97-8	58.12	ND	5.0		ND	12
Vinyl chloride	75-01-4	62.50	84	5.0		210	13
1,3-Butadiene	106-99-0	54.09	ND	5.0		ND	11
Bromomethane	74-83-9	94.94	ND	5.0		ND	19
Chloroethane	75-00-3	64.52	7.9	5.0		21	13
Ethanol	64-17-5	46.07	ND	5.0		ND	9.4
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	5.0		ND	22
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	ND	5.0		ND	28
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	ND	5.0		ND	12
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	730	45	D	5600	340
Acetone	67-64-1	58.08	ND	5.0		ND	12
1,1-Dichloroethene	75-35-4	96.94	38	5.0		150	20
Acetonitrile	75-05-8	41.00	ND	5.0		ND	8.4
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	5.0		ND	15
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	5.0		ND	22
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	5.0		ND	16
Carbon disulfide	75-15-0	76.14	10	5.0		32	16
Methylene chloride	75-09-2	84.94	23	5.0		80	17
Acrylonitrile	107-13-1	53.00	ND	5.0		ND	11
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	5.0		ND	18
trans-1,2-Dichloroethene	156-60-5	96.94	15	5.0		60	20
n-Hexane	110-54-3	86.17	6.7	5.0		23	18
1,1-Dichloroethane	75-34-3	98.96	90	5.0		360	20
Vinyl acetate	108-05-4	86.00	ND	5.0		ND	18
2-Butanone(MEK)	78-93-3	72.10	ND	5.0		ND	15
cis-1,2-Dichloroethene	156-59-2	96.94	1800	45	D	7100	180
Ethyl acetate	141-78-6	88.10	ND	5.0		ND	18
Chloroform	67-66-3	119.4	ND	5.0		ND	24
Tetrahydrofuran	109-99-9	72.11	ND	5.0		ND	15
1,1,1-Trichloroethane	71-55-6	133.4	5600	270	D	31000	1500
Cyclohexane	110-82-7	84.16	110	5.0		390	17
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	5.0		ND	23
Carbon tetrachloride	56-23-5	153.8	ND	5.0		ND	31
n-Heptane	142-82-5	100.2	13	5.0		55	20
1,2-Dichloroethane	107-06-2	98.96	22	5.0		90	20
Benzene	71-43-2	78.11	ND	5.0		ND	16

Air Analysis Data Summary

EPA Compendium TO-15

Target Compound List

Client Project Name: Lewis Chemical/221375
Client Sample ID: Influent
EMSL ID: 491200836-1
Canister ID: HD2295

Primary Lab File ID: M1513.D
Analysis Date: 09/12/2012
Sample Vol(ml): 25
Dilution Factor: 10

Dilution Lab File ID: M1514.D, M1516.D
Analysis Date: 9/12, 9/13/12
Sample Vol(ml): 25,25
Dilution Factor: 90, 540

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3
Trichloroethene	79-01-6	131.4	**8400**	270	**D**	**45000**	1500
1,2-Dichloropropane	78-87-5	113.0	ND	5.0		ND	23
Methyl Methacrylate	80-62-6	100.12	ND	5.0		ND	20
Bromodichloromethane	75-27-4	163.8	ND	5.0		ND	33
1,4-Dioxane	123-91-1	88.12	ND	5.0		ND	18
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	5.0		ND	20
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	5.0		ND	23
Toluene	108-88-3	92.14	**970**	45	**D**	**3700**	170
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	5.0		ND	23
1,1,2-Trichloroethane	79-00-5	133.4	ND	5.0		ND	27
2-Hexanone(MBK)	591-78-6	100.1	ND	5.0		ND	20
Tetrachloroethene	127-18-4	165.8	**4600**	270	**D**	**31000**	1800
Dibromochloromethane	124-48-1	208.3	ND	5.0		ND	43
1,2-Dibromoethane	106-93-4	187.8	ND	5.0		ND	38
Chlorobenzene	108-90-7	112.6	**6.5**	5.0		**30**	23
Ethylbenzene	100-41-4	106.2	**69**	5.0		**300**	22
Xylene (p,m)	1330-20-7	106.2	**160**	10		**720**	43
Xylene (Ortho)	95-47-6	106.2	**83**	5.0		**360**	22
Styrene	100-42-5	104.1	ND	5.0		ND	21
Isopropylbenzene (cumene)	98-82-8	120.19	ND	5.0		ND	25
Bromoform	75-25-2	252.8	ND	5.0		ND	52
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	5.0		ND	34
4-Ethyltoluene	622-96-8	120.2	**10**	5.0		**50**	25
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	5.0		ND	25
2-Chlorotoluene	95-49-8	126.6	ND	5.0		ND	26
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	5.0		ND	25
1,3-Dichlorobenzene	541-73-1	147.0	ND	5.0		ND	30
1,4-Dichlorobenzene	106-46-7	147.0	ND	5.0		ND	30
Benzyl chloride	100-44-7	126.0	**11**	5.0		**56**	26
1,2-Dichlorobenzene	95-50-1	147.0	ND	5.0		ND	30
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	5.0		ND	37
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	5.0		ND	53
Naphthalene	91-20-3	128.17	ND	5.0		ND	26

Surrogate	Result	Spike	Recovery
4-Bromofluorobenzene	10.5	10	**105%**

Qualifier Definitions

B = Compound also found in method blank.
E= Estimated concentration exceeding upper calibration range.
D= Result reported from diluted analysis.

ND= Non Detect

Air Analysis Data Summary

EPA Compendium TO-15

Target Compound List

Client Project Name: Lewis Chemical/221375
Client Sample ID: Effluent
EMSL ID: 491200836-2
Canister ID: HD2152

Primary Lab File ID: M1512.D
Analysis Date: 09/12/2012
Sample Vol(ml): 25
Dilution Factor: 10

Dilution Lab File ID: NA
Analysis Date: NA
Sample Vol(ml): NA
Dilution Factor: NA

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3
Propylene	115-07-1	58.08	ND	10		ND	24
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	ND	5.0		ND	25
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	5.0		ND	35
Chloromethane	74-87-3	50.49	ND	5.0		ND	10
n-Butane	106-97-8	58.12	ND	5.0		ND	12
Vinyl chloride	75-01-4	62.50	18	5.0		46	13
1,3-Butadiene	106-99-0	54.09	ND	5.0		ND	11
Bromomethane	74-83-9	94.94	ND	5.0		ND	19
Chloroethane	75-00-3	64.52	ND	5.0		ND	13
Ethanol	64-17-5	46.07	6.2	5.0		12	9.4
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	5.0		ND	22
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	ND	5.0		ND	28
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	ND	5.0		ND	12
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	5.0		ND	38
Acetone	67-64-1	58.08	6.7	5.0		16	12
1,1-Dichloroethene	75-35-4	96.94	ND	5.0		ND	20
Acetonitrile	75-05-8	41.00	ND	5.0		ND	8.4
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	5.0		ND	15
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	5.0		ND	22
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	5.0		ND	16
Carbon disulfide	75-15-0	76.14	ND	5.0		ND	16
Methylene chloride	75-09-2	84.94	16	5.0		56	17
Acrylonitrile	107-13-1	53.00	ND	5.0		ND	11
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	5.0		ND	18
trans-1,2-Dichloroethene	156-60-5	96.94	ND	5.0		ND	20
n-Hexane	110-54-3	86.17	ND	5.0		ND	18
1,1-Dichloroethane	75-34-3	98.96	ND	5.0		ND	20
Vinyl acetate	108-05-4	86.00	ND	5.0		ND	18
2-Butanone(MEK)	78-93-3	72.10	ND	5.0		ND	15
cis-1,2-Dichloroethene	156-59-2	96.94	ND	5.0		ND	20
Ethyl acetate	141-78-6	88.10	ND	5.0		ND	18
Chloroform	67-66-3	119.4	ND	5.0		ND	24
Tetrahydrofuran	109-99-9	72.11	ND	5.0		ND	15
1,1,1-Trichloroethane	71-55-6	133.4	ND	5.0		ND	27
Cyclohexane	110-82-7	84.16	ND	5.0		ND	17
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	5.0		ND	23
Carbon tetrachloride	56-23-5	153.8	ND	5.0		ND	31
n-Heptane	142-82-5	100.2	ND	5.0		ND	20
1,2-Dichloroethane	107-06-2	98.96	ND	5.0		ND	20
Benzene	71-43-2	78.11	ND	5.0		ND	16

Air Analysis Data Summary

EPA Compendium TO-15

Target Compound List

Client Project Name: Lewis Chemical/221375
Client Sample ID: Effluent
EMSL ID: 491200836-2
Canister ID: HD2152

Primary Lab File ID: M1512.D
Analysis Date: 09/12/2012
Sample Vol(ml): 25
Dilution Factor: 10

Dilution Lab File ID: NA
Analysis Date: NA
Sample Vol(ml): NA
Dilution Factor: NA

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3
Trichloroethene	79-01-6	131.4	ND	5.0		ND	27
1,2-Dichloropropane	78-87-5	113.0	ND	5.0		ND	23
Methyl Methacrylate	80-62-6	100.12	ND	5.0		ND	20
Bromodichloromethane	75-27-4	163.8	ND	5.0		ND	33
1,4-Dioxane	123-91-1	88.12	ND	5.0		ND	18
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	5.0		ND	20
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	5.0		ND	23
Toluene	108-88-3	92.14	ND	5.0		ND	19
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	5.0		ND	23
1,1,2-Trichloroethane	79-00-5	133.4	ND	5.0		ND	27
2-Hexanone(MBK)	591-78-6	100.1	ND	5.0		ND	20
Tetrachloroethene	127-18-4	165.8	ND	5.0		ND	34
Dibromochloromethane	124-48-1	208.3	ND	5.0		ND	43
1,2-Dibromoethane	106-93-4	187.8	ND	5.0		ND	38
Chlorobenzene	108-90-7	112.6	ND	5.0		ND	23
Ethylbenzene	100-41-4	106.2	ND	5.0		ND	22
Xylene (p,m)	1330-20-7	106.2	ND	10		ND	43
Xylene (Ortho)	95-47-6	106.2	ND	5.0		ND	22
Styrene	100-42-5	104.1	ND	5.0		ND	21
Isopropylbenzene (cumene)	98-82-8	120.19	ND	5.0		ND	25
Bromoform	75-25-2	252.8	ND	5.0		ND	52
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	5.0		ND	34
4-Ethyltoluene	622-96-8	120.2	ND	5.0		ND	25
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	5.0		ND	25
2-Chlorotoluene	95-49-8	126.6	ND	5.0		ND	26
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	5.0		ND	25
1,3-Dichlorobenzene	541-73-1	147.0	ND	5.0		ND	30
1,4-Dichlorobenzene	106-46-7	147.0	ND	5.0		ND	30
Benzyl chloride	100-44-7	126.0	ND	5.0		ND	26
1,2-Dichlorobenzene	95-50-1	147.0	ND	5.0		ND	30
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	5.0		ND	37
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	5.0		ND	53
Naphthalene	91-20-3	128.17	ND	5.0		ND	26

Surrogate	Result	Spike	Recovery
4-Bromofluorobenzene	10.0	10	100%

Qualifier Definitions

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

ND= Non Detect

USEPA TO-15

External Chain of Custody/ Field Test Data Sheet

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077
Ph. (800) 220-3675
Fax (856) 786-0327

EMSL ANALYTICAL, INC. LABORATORY • PRODUCTS • TRAINING

EMSL Order Number (Lab Use Only): 491200836

Report To Contact Name: Don Clinton	Bill To Company: SAME c/o Absolute Resource Assc.	Sampled By (Sign):	
Company Name: Woodard + Curran	Attention To: Don Clinton	Sampled By (Name): Don Clinton	
Address 1: 980 Washington St	Address 1:	Total # of Samples: 2	
Address 2: Dedham MA	Address 2:	Date Shipped: 8/28/12	
Phone No.: 781.251.0200 Fax:	Phone No.: Fax:	Sample Collection Zip Code: 02136	
Email Results To: dclinton@woodardcurran.com	Project Name: Lewis Chemical/221375	Purchase Order:	

Turnaround Time (in Business Days): ☒ 10 Day Standard ☐ 5 Day ☐ 4 Day ☐ 3 Day ☐ 2 Day ☐ 1 Day ☐ Other

Reporting Format: ☒ Results Only (Standard Lab Report) ☐ Full Deliverables (Surcharge may apply) ☐ Other

Analysis: ☒ USEPA TO-15 ☐ NJDEP LLTO-15 ☐ LIBRARY SEARCH ☐ Other (Specify)

Matrix: ☒ Indoor/ Ambient Air ☐ Soil Gas ☐ Landfill/ Vent

Field Use - All Information Required! | **Lab Use Only**

EMSL Sample Identifier	Client Field Sample Identification	Sampling Start Information: Start Date	Start Time (24 hr clock)	Start Barometric Pres. ("Hg): Canister Pressure ("Hg)	Start Interior Temp. (F)	Sampling Stop Information: Stop Date	Stop Time (24 hr clock)	Stop Barometric Pres. ("Hg): Canister Pressure ("Hg)	Stop Interior Temp. (F)	Canister Information: Canister ID	Size (L)	Can Cert Batch ID	Outgoing Pressure ("Hg)	Incoming Pressure ("Hg)	Flow Contoller: Reg. ID	Cal Flow (ml/min)
	Influent	8/28/12	1330	-27.5	80	8/28/12	1345	-2	80	HD2295	1.4	H0082	-30.0	~~-13.5~~ -2.0	3670	79.76
	Effluent	8/28/12	1330	-27.0	80	8/28/12	1345	-2	80	HD2152	↓	↓	↓	~~-0.8~~ -2.5	3589	79.10

Comments: SUE Process Air Sampling Influent ~ 40 ppm - PID Effluent - ND - PID

Lab Canister Certification

Analyst Signature (TO-15):

Relinquished by:	Date/ Time	Received by:	Date/ Time	Affixed Seal #
[signature]	8/22/12 1645	KD UPS 9:00AM	8/29/2012	172
KD UPS	8/29/2012	[signature]	8/29/12 17:15	

Reason for Exchange (circle appropriate)

Shipping Courier Receiving Sampling Other:

Shipping Courier Receiving Sampling Other: AV

Shipping Courier Receiving Sampling Other:

Shipping Courier Receiving Sampling Other:

Shipping Courier Receiving Sampling Other:

491200836

TO-15 Sample Information

Please fill out this worksheet in addition to the Chain of Custody form. This information helps us to best analyze your samples and achieve requested TAT

Company: Woodard + Curran

Contact Person:

Name: Dan Clinton

E-mail: dclinton@woodardcurran.com

Additional E-mail:

Telephone #: 781-251-0200 **Fax:**

Do you want your results emailed? [X] YES [ ] NO

Library Search requested: [ ] YES [X] NO

A library search will identify up to 20 of the largest, non-target peaks that are not part of the standard TO-15 list of 74 compounds. If you are performing an Indoor Air Quality or odor investigation the library search is recommended. If you will need help interpreting your report the library search is REQUIRED.

Sample Type:

[ ] Indoor Air Quality (Home/Office) [ ] Vent Gas [ ] Soil Gas
[ ] IAQ (Industrial) [X] Other: SVE Process Air

Description of sample (Important for the lab to achieve your requested turnaround time):

SVE Process Air Sample - VOCs

Are there any special detection limits, specific set of compounds, or any other specifics you need in your report?

[ ] NO

[ ] Permissable Exposure Limits
[ ] TVOC
[ ] Other (Please list or attach separate sheet)

Do you need any additional analysis on the canister sample? (additional charges will apply)

Draeger CMS Analyzer:
CO ; CO_2 ; SO_2 ; EtO ; NH3 ; Cl_2 ; H_2S ; NO_2 ; NOx ; O_2 ; Pet. Hydrocarbs ; Phosgene ; Phosphene

US EPA TO-3:
C_1-C_6 hydrocarbons ; Methane only

ASTM-D5504:
Sulfur Scan (H_2S, COS, MeSH, EtSH, DMS) ; H_2S only

Sample Retention Policy: All canisters are guaranteed to be retained for one day after results are reported. Please review your results promptly to ensure that your project scope is fully addressed. Cans may be retained for a longer period of time but arrangements to hold your cans must be made through your customer account representative quickly. Thank you.

ANALYTICAL REPORT

Lab Number:	L1017653
Client:	Woodard & Curran 980 Washington Street Dedham, MA 02026
ATTN:	Craig Blake
Phone:	(781) 251-0200
Project Name:	LEWIS CHEMICAL
Project Number:	221375.01
Report Date:	11/11/10

Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1017653
Report Date: 11/11/10

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1017653-01	WCDRUM-A-110310	HYDE PARK, MA	11/03/10 14:00
L1017653-02	WCDRUM-B-110310	HYDE PARK, MA	11/03/10 14:15

Project Name: LEWIS CHEMICAL **Lab Number:** L1017653

Project Number: 221375.01 **Report Date:** 11/11/10

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	NO
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	NO

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1017653
Report Date: 11/11/10

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

For additional information, please contact Client Services at 800-624-9220.

MCP Related Narratives

Sample Receipt

In reference to question H:

A Matrix Spike was not submitted for the analysis of Metals.

Volatile Organics

L1017653-01 has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question H:

The WG441686-1 LCS recovery, associated with L1017653-01 and -02, is below the individual acceptance

Project Name:	LEWIS CHEMICAL	**Lab Number:**	L1017653
Project Number:	221375.01	**Report Date:**	11/11/10

Case Narrative (continued)

criteria for Chloroethane (67%), but within the overall method allowances. The results of the associated samples are reported; however, all results are considered to have a potentially low bias for this compound.
The WG441686-1/-2 LCS/LCSD recoveries, associated with L1017653-01 and -02, are below the acceptance criteria for Dichlorodifluoromethane (68%/67%); however, it has been identified as a "difficult" analyte and is within the 40-160% acceptance limits. The results of the associated samples are reported; however, all results are considered to have a potentially low bias for this compound.
The initial calibration, associated with L1017653-01 and -02, did not meet the method required minimum response factor for 4-Methyl-2-pentanone and 1,4-Dioxane.
The continuing calibration standard, associated with L1017653-01 and -02, is outside the acceptance criteria for several compounds; however, it is within overall method allowances. A copy of the continuing calibration standard is included as an addendum to this report.

Metals
In reference to question I:
All samples were analyzed for a subset of MCP elements per the Chain of Custody.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Elizabeth Simmons

Title: Technical Director/Representative Date: 11/11/10

ORGANICS

VOLATILES

Project Name: LEWIS CHEMICAL **Lab Number:** L1017653

Project Number: 221375.01 **Report Date:** 11/11/10

SAMPLE RESULTS

Lab ID:	L1017653-01 D	Date Collected:	11/03/10 14:00
Client ID:	WCDRUM-A-110310	Date Received:	11/04/10
Sample Location:	HYDE PARK, MA	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	97,8260B		
Analytical Date:	11/06/10 12:40		
Analyst:	CF		
Percent Solids:	92%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	7200	--	10
1,1-Dichloroethane	ND		ug/kg	1100	--	10
Chloroform	ND		ug/kg	1100	--	10
Carbon tetrachloride	ND		ug/kg	720	--	10
1,2-Dichloropropane	ND		ug/kg	2500	--	10
Dibromochloromethane	ND		ug/kg	720	--	10
1,1,2-Trichloroethane	ND		ug/kg	1100	--	10
Tetrachloroethene	67000		ug/kg	720	--	10
Chlorobenzene	ND		ug/kg	720	--	10
Trichlorofluoromethane	ND		ug/kg	2900	--	10
1,2-Dichloroethane	ND		ug/kg	720	--	10
1,1,1-Trichloroethane	8900		ug/kg	720	--	10
Bromodichloromethane	ND		ug/kg	720	--	10
trans-1,3-Dichloropropene	ND		ug/kg	720	--	10
cis-1,3-Dichloropropene	ND		ug/kg	720	--	10
1,1-Dichloropropene	ND		ug/kg	2900	--	10
Bromoform	ND		ug/kg	2900	--	10
1,1,2,2-Tetrachloroethane	ND		ug/kg	720	--	10
Benzene	ND		ug/kg	720	--	10
Toluene	ND		ug/kg	1100	--	10
Ethylbenzene	ND		ug/kg	720	--	10
Chloromethane	ND		ug/kg	2900	--	10
Bromomethane	ND		ug/kg	1400	--	10
Vinyl chloride	ND		ug/kg	1400	--	10
Chloroethane	ND		ug/kg	1400	--	10
1,1-Dichloroethene	ND		ug/kg	720	--	10
trans-1,2-Dichloroethene	ND		ug/kg	1100	--	10
Trichloroethene	46000		ug/kg	720	--	10
1,2-Dichlorobenzene	ND		ug/kg	2900	--	10
1,3-Dichlorobenzene	ND		ug/kg	2900	--	10

Project Name: LEWIS CHEMICAL **Lab Number:** L1017653

Project Number: 221375.01 **Report Date:** 11/11/10

SAMPLE RESULTS

Lab ID: L1017653-01 D Date Collected: 11/03/10 14:00

Client ID: WCDRUM-A-110310 Date Received: 11/04/10

Sample Location: HYDE PARK, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 5035 High - Westborough Lab						
1,4-Dichlorobenzene	ND		ug/kg	2900	--	10
Methyl tert butyl ether	ND		ug/kg	1400	--	10
p/m-Xylene	ND		ug/kg	1400	--	10
o-Xylene	ND		ug/kg	1400	--	10
cis-1,2-Dichloroethene	3800		ug/kg	720	--	10
Dibromomethane	ND		ug/kg	2900	--	10
1,2,3-Trichloropropane	ND		ug/kg	2900	--	10
Styrene	ND		ug/kg	1400	--	10
Dichlorodifluoromethane	ND		ug/kg	7200	--	10
Acetone	ND		ug/kg	26000	--	10
Carbon disulfide	ND		ug/kg	2900	--	10
2-Butanone	ND		ug/kg	7200	--	10
4-Methyl-2-pentanone	ND		ug/kg	7200	--	10
2-Hexanone	ND		ug/kg	7200	--	10
Bromochloromethane	ND		ug/kg	2900	--	10
Tetrahydrofuran	ND		ug/kg	2900	--	10
2,2-Dichloropropane	ND		ug/kg	3600	--	10
1,2-Dibromoethane	ND		ug/kg	2900	--	10
1,3-Dichloropropane	ND		ug/kg	2900	--	10
1,1,1,2-Tetrachloroethane	ND		ug/kg	720	--	10
Bromobenzene	ND		ug/kg	3600	--	10
n-Butylbenzene	ND		ug/kg	720	--	10
sec-Butylbenzene	ND		ug/kg	720	--	10
tert-Butylbenzene	ND		ug/kg	2900	--	10
o-Chlorotoluene	ND		ug/kg	2900	--	10
p-Chlorotoluene	ND		ug/kg	2900	--	10
1,2-Dibromo-3-chloropropane	ND		ug/kg	2900	--	10
Hexachlorobutadiene	ND		ug/kg	2900	--	10
Isopropylbenzene	ND		ug/kg	720	--	10
p-Isopropyltoluene	ND		ug/kg	720	--	10
Naphthalene	ND		ug/kg	2900	--	10
n-Propylbenzene	ND		ug/kg	720	--	10
1,2,3-Trichlorobenzene	ND		ug/kg	2900	--	10
1,2,4-Trichlorobenzene	ND		ug/kg	2900	--	10
1,3,5-Trimethylbenzene	ND		ug/kg	2900	--	10
1,2,4-Trimethylbenzene	ND		ug/kg	2900	--	10
Ethyl ether	ND		ug/kg	3600	--	10

Project Name: LEWIS CHEMICAL **Lab Number:** L1017653

Project Number: 221375.01 **Report Date:** 11/11/10

SAMPLE RESULTS

Lab ID: L1017653-01 D Date Collected: 11/03/10 14:00

Client ID: WCDRUM-A-110310 Date Received: 11/04/10

Sample Location: HYDE PARK, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 5035 High - Westborough Lab						
Isopropyl Ether	ND		ug/kg	2900	--	10
Ethyl-Tert-Butyl-Ether	ND		ug/kg	2900	--	10
Tertiary-Amyl Methyl Ether	ND		ug/kg	2900	--	10
1,4-Dioxane	ND		ug/kg	140000	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	88		70-130
Toluene-d8	88		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	93		70-130

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1017653
Report Date: 11/11/10

SAMPLE RESULTS

Lab ID: L1017653-02
Client ID: WCDRUM-B-110310
Sample Location: HYDE PARK, MA
Matrix: Soil
Analytical Method: 97,8260B
Analytical Date: 11/06/10 12:06
Analyst: CF
Percent Solids: 88%

Date Collected: 11/03/10 14:15
Date Received: 11/04/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	840	--	1
1,1-Dichloroethane	ND		ug/kg	130	--	1
Chloroform	ND		ug/kg	130	--	1
Carbon tetrachloride	ND		ug/kg	84	--	1
1,2-Dichloropropane	ND		ug/kg	300	--	1
Dibromochloromethane	ND		ug/kg	84	--	1
1,1,2-Trichloroethane	ND		ug/kg	130	--	1
Tetrachloroethene	16000		ug/kg	84	--	1
Chlorobenzene	ND		ug/kg	84	--	1
Trichlorofluoromethane	ND		ug/kg	340	--	1
1,2-Dichloroethane	ND		ug/kg	84	--	1
1,1,1-Trichloroethane	1500		ug/kg	84	--	1
Bromodichloromethane	ND		ug/kg	84	--	1
trans-1,3-Dichloropropene	ND		ug/kg	84	--	1
cis-1,3-Dichloropropene	ND		ug/kg	84	--	1
1,1-Dichloropropene	ND		ug/kg	340	--	1
Bromoform	ND		ug/kg	340	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	84	--	1
Benzene	ND		ug/kg	84	--	1
Toluene	ND		ug/kg	130	--	1
Ethylbenzene	ND		ug/kg	84	--	1
Chloromethane	ND		ug/kg	340	--	1
Bromomethane	ND		ug/kg	170	--	1
Vinyl chloride	ND		ug/kg	170	--	1
Chloroethane	ND		ug/kg	170	--	1
1,1-Dichloroethene	ND		ug/kg	84	--	1
trans-1,2-Dichloroethene	ND		ug/kg	130	--	1
Trichloroethene	4500		ug/kg	84	--	1
1,2-Dichlorobenzene	ND		ug/kg	340	--	1
1,3-Dichlorobenzene	ND		ug/kg	340	--	1

Project Name: LEWIS CHEMICAL **Lab Number:** L1017653

Project Number: 221375.01 **Report Date:** 11/11/10

SAMPLE RESULTS

Lab ID: L1017653-02 Date Collected: 11/03/10 14:15

Client ID: WCDRUM-B-110310 Date Received: 11/04/10

Sample Location: HYDE PARK, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 5035 High - Westborough Lab						
1,4-Dichlorobenzene	ND		ug/kg	340	--	1
Methyl tert butyl ether	ND		ug/kg	170	--	1
p/m-Xylene	ND		ug/kg	170	--	1
o-Xylene	ND		ug/kg	170	--	1
cis-1,2-Dichloroethene	550		ug/kg	84	--	1
Dibromomethane	ND		ug/kg	340	--	1
1,2,3-Trichloropropane	ND		ug/kg	340	--	1
Styrene	ND		ug/kg	170	--	1
Dichlorodifluoromethane	ND		ug/kg	840	--	1
Acetone	ND		ug/kg	3000	--	1
Carbon disulfide	ND		ug/kg	340	--	1
2-Butanone	ND		ug/kg	840	--	1
4-Methyl-2-pentanone	ND		ug/kg	840	--	1
2-Hexanone	ND		ug/kg	840	--	1
Bromochloromethane	ND		ug/kg	340	--	1
Tetrahydrofuran	ND		ug/kg	340	--	1
2,2-Dichloropropane	ND		ug/kg	420	--	1
1,2-Dibromoethane	ND		ug/kg	340	--	1
1,3-Dichloropropane	ND		ug/kg	340	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	84	--	1
Bromobenzene	ND		ug/kg	420	--	1
n-Butylbenzene	ND		ug/kg	84	--	1
sec-Butylbenzene	ND		ug/kg	84	--	1
tert-Butylbenzene	ND		ug/kg	340	--	1
o-Chlorotoluene	ND		ug/kg	340	--	1
p-Chlorotoluene	ND		ug/kg	340	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	340	--	1
Hexachlorobutadiene	ND		ug/kg	340	--	1
Isopropylbenzene	ND		ug/kg	84	--	1
p-Isopropyltoluene	ND		ug/kg	84	--	1
Naphthalene	ND		ug/kg	340	--	1
n-Propylbenzene	ND		ug/kg	84	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	340	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	340	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	340	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	340	--	1
Ethyl ether	ND		ug/kg	420	--	1

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1017653
Report Date: 11/11/10

SAMPLE RESULTS

Lab ID: L1017653-02
Client ID: WCDRUM-B-110310
Sample Location: HYDE PARK, MA
Date Collected: 11/03/10 14:15
Date Received: 11/04/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 5035 High - Westborough Lab						
Isopropyl Ether	ND		ug/kg	340	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	340	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	340	--	1
1,4-Dioxane	ND		ug/kg	17000	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	86		70-130
Toluene-d8	88		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	86		70-130

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1017653
Report Date: 11/11/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 11/06/10 06:38
Analyst: CF

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260B/5035 - Westborough Lab for sample(s): 01-02 Batch: WG441686-3					
Methylene chloride	ND		ug/kg	500	--
1,1-Dichloroethane	ND		ug/kg	75	--
Chloroform	ND		ug/kg	75	--
Carbon tetrachloride	ND		ug/kg	50	--
1,2-Dichloropropane	ND		ug/kg	180	--
Dibromochloromethane	ND		ug/kg	50	--
1,1,2-Trichloroethane	ND		ug/kg	75	--
Tetrachloroethene	ND		ug/kg	50	--
Chlorobenzene	ND		ug/kg	50	--
Trichlorofluoromethane	ND		ug/kg	200	--
1,2-Dichloroethane	ND		ug/kg	50	--
1,1,1-Trichloroethane	ND		ug/kg	50	--
Bromodichloromethane	ND		ug/kg	50	--
trans-1,3-Dichloropropene	ND		ug/kg	50	--
cis-1,3-Dichloropropene	ND		ug/kg	50	--
1,1-Dichloropropene	ND		ug/kg	200	--
Bromoform	ND		ug/kg	200	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	50	--
Benzene	ND		ug/kg	50	--
Toluene	ND		ug/kg	75	--
Ethylbenzene	ND		ug/kg	50	--
Chloromethane	ND		ug/kg	200	--
Bromomethane	ND		ug/kg	100	--
Vinyl chloride	ND		ug/kg	100	--
Chloroethane	ND		ug/kg	100	--
1,1-Dichloroethene	ND		ug/kg	50	--
trans-1,2-Dichloroethene	ND		ug/kg	75	--
Trichloroethene	ND		ug/kg	50	--
1,2-Dichlorobenzene	ND		ug/kg	200	--
1,3-Dichlorobenzene	ND		ug/kg	200	--

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1017653
Report Date: 11/11/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 11/06/10 06:38
Analyst: CF

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260B/5035 - Westborough Lab for sample(s): 01-02 Batch: WG441686-3					
1,4-Dichlorobenzene	ND		ug/kg	200	--
Methyl tert butyl ether	ND		ug/kg	100	--
p/m-Xylene	ND		ug/kg	100	--
o-Xylene	ND		ug/kg	100	--
cis-1,2-Dichloroethene	ND		ug/kg	50	--
Dibromomethane	ND		ug/kg	200	--
1,2,3-Trichloropropane	ND		ug/kg	200	--
Styrene	ND		ug/kg	100	--
Dichlorodifluoromethane	ND		ug/kg	500	--
Acetone	ND		ug/kg	1800	--
Carbon disulfide	ND		ug/kg	200	--
2-Butanone	ND		ug/kg	500	--
4-Methyl-2-pentanone	ND		ug/kg	500	--
2-Hexanone	ND		ug/kg	500	--
Bromochloromethane	ND		ug/kg	200	--
Tetrahydrofuran	ND		ug/kg	200	--
2,2-Dichloropropane	ND		ug/kg	250	--
1,2-Dibromoethane	ND		ug/kg	200	--
1,3-Dichloropropane	ND		ug/kg	200	--
1,1,1,2-Tetrachloroethane	ND		ug/kg	50	--
Bromobenzene	ND		ug/kg	250	--
n-Butylbenzene	ND		ug/kg	50	--
sec-Butylbenzene	ND		ug/kg	50	--
tert-Butylbenzene	ND		ug/kg	200	--
o-Chlorotoluene	ND		ug/kg	200	--
p-Chlorotoluene	ND		ug/kg	200	--
1,2-Dibromo-3-chloropropane	ND		ug/kg	200	--
Hexachlorobutadiene	ND		ug/kg	200	--
Isopropylbenzene	ND		ug/kg	50	--
p-Isopropyltoluene	ND		ug/kg	50	--

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1017653
Report Date: 11/11/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 11/06/10 06:38
Analyst: CF

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260B/5035 - Westborough Lab for sample(s): 01-02 Batch: WG441686-3					
Naphthalene	ND		ug/kg	200	--
n-Propylbenzene	ND		ug/kg	50	--
1,2,3-Trichlorobenzene	ND		ug/kg	200	--
1,2,4-Trichlorobenzene	ND		ug/kg	200	--
1,3,5-Trimethylbenzene	ND		ug/kg	200	--
1,2,4-Trimethylbenzene	ND		ug/kg	200	--
Ethyl ether	ND		ug/kg	250	--
Isopropyl Ether	ND		ug/kg	200	--
Ethyl-Tert-Butyl-Ether	ND		ug/kg	200	--
Tertiary-Amyl Methyl Ether	ND		ug/kg	200	--
1,4-Dioxane	ND		ug/kg	10000	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	89		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	98		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: LEWIS CHEMICAL

Project Number: 221375.01

Lab Number: L1017653

Report Date: 11/11/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by 8260B/5035 - Westborough Lab Associated sample(s): 01-02 Batch: WG441686-1 WG441686-2								
Methylene chloride	89		83		70-130	7		20
1,1-Dichloroethane	99		97		70-130	2		20
Chloroform	99		98		70-130	1		20
Carbon tetrachloride	102		103		70-130	1		20
1,2-Dichloropropane	87		90		70-130	3		20
Dibromochloromethane	96		97		70-130	1		20
1,1,2-Trichloroethane	88		90		70-130	2		20
Tetrachloroethene	105		106		70-130	1		20
Chlorobenzene	92		93		70-130	1		20
Trichlorofluoromethane	104		101		70-130	3		20
1,2-Dichloroethane	102		102		70-130	0		20
1,1,1-Trichloroethane	104		103		70-130	1		20
Bromodichloromethane	99		99		70-130	0		20
trans-1,3-Dichloropropene	96		98		70-130	2		20
cis-1,3-Dichloropropene	92		94		70-130	2		20
1,1-Dichloropropene	98		100		70-130	2		20
Bromoform	100		98		70-130	2		20
1,1,2,2-Tetrachloroethane	96		94		70-130	2		20
Benzene	93		93		70-130	0		20
Toluene	95		98		70-130	3		20
Ethylbenzene	97		98		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: LEWIS CHEMICAL

Project Number: 221375.01

Lab Number: L1017653

Report Date: 11/11/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by 8260B/5035 - Westborough Lab Associated sample(s): 01-02 Batch: WG441686-1 WG441686-2								
Chloromethane	85		84		70-130	1		20
Bromomethane	93		87		70-130	7		20
Vinyl chloride	102		100		70-130	2		20
Chloroethane	**67**	Q	80		70-130	18		20
1,1-Dichloroethene	99		97		70-130	2		20
trans-1,2-Dichloroethene	95		93		70-130	2		20
Trichloroethene	99		98		70-130	1		20
1,2-Dichlorobenzene	98		99		70-130	1		20
1,3-Dichlorobenzene	99		98		70-130	1		20
1,4-Dichlorobenzene	99		98		70-130	1		20
Methyl tert butyl ether	94		92		70-130	2		20
p/m-Xylene	98		99		70-130	1		20
o-Xylene	98		100		70-130	2		20
cis-1,2-Dichloroethene	104		102		70-130	2		20
Dibromomethane	102		100		70-130	2		20
1,2,3-Trichloropropane	92		91		70-130	1		20
Styrene	100		102		70-130	2		20
Dichlorodifluoromethane	**68**	Q	**67**	Q	70-130	1		20
Acetone	83		75		70-130	10		20
Carbon disulfide	74		74		70-130	0		20
2-Butanone	93		90		70-130	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: LEWIS CHEMICAL

Project Number: 221375.01

Lab Number: L1017653

Report Date: 11/11/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by 8260B/5035 - Westborough Lab Associated sample(s): 01-02 Batch: WG441686-1 WG441686-2								
4-Methyl-2-pentanone	90		89		70-130	1		20
2-Hexanone	88		88		70-130	0		20
Bromochloromethane	106		106		70-130	0		20
Tetrahydrofuran	94		88		70-130	7		20
2,2-Dichloropropane	110		109		70-130	1		20
1,2-Dibromoethane	97		100		70-130	3		20
1,3-Dichloropropane	88		89		70-130	1		20
1,1,1,2-Tetrachloroethane	101		103		70-130	2		20
Bromobenzene	99		99		70-130	0		20
n-Butylbenzene	96		96		70-130	0		20
sec-Butylbenzene	94		94		70-130	0		20
tert-Butylbenzene	98		98		70-130	0		20
o-Chlorotoluene	93		93		70-130	0		20
p-Chlorotoluene	95		94		70-130	1		20
1,2-Dibromo-3-chloropropane	91		92		70-130	1		20
Hexachlorobutadiene	106		106		70-130	0		20
Isopropylbenzene	104		104		70-130	0		20
p-Isopropyltoluene	104		103		70-130	1		20
Naphthalene	97		97		70-130	0		20
n-Propylbenzene	96		96		70-130	0		20
1,2,3-Trichlorobenzene	102		104		70-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: LEWIS CHEMICAL

Project Number: 221375.01

Lab Number: L1017653

Report Date: 11/11/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by 8260B/5035 - Westborough Lab Associated sample(s): 01-02 Batch: WG441686-1 WG441686-2								
1,2,4-Trichlorobenzene	112		112		70-130	0		20
1,3,5-Trimethylbenzene	96		96		70-130	0		20
1,2,4-Trimethylbenzene	100		99		70-130	1		20
Ethyl ether	95		92		70-130	3		20
Isopropyl Ether	89		89		70-130	0		20
Ethyl-Tert-Butyl-Ether	94		94		70-130	0		20
Tertiary-Amyl Methyl Ether	99		100		70-130	1		20
1,4-Dioxane	106		102		70-130	4		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	95		95		70-130
Toluene-d8	88		90		70-130
4-Bromofluorobenzene	97		100		70-130
Dibromofluoromethane	103		101		70-130

METALS

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1017653
Report Date: 11/11/10

SAMPLE RESULTS

Lab ID: L1017653-01
Client ID: WCDRUM-A-110310
Sample Location: HYDE PARK, MA
Matrix: Soil
Percent Solids: 92%

Date Collected: 11/03/10 14:00
Date Received: 11/04/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Arsenic, Total	3.8		mg/kg	0.43	--	1	11/09/10 16:20	11/10/10 21:44	EPA 3050B	97,6010B	MG
Barium, Total	71		mg/kg	0.43	--	1	11/09/10 16:20	11/10/10 21:44	EPA 3050B	97,6010B	MG
Cadmium, Total	15		mg/kg	0.43	--	1	11/09/10 16:20	11/10/10 21:44	EPA 3050B	97,6010B	MG
Chromium, Total	47		mg/kg	0.43	--	1	11/09/10 16:20	11/10/10 21:44	EPA 3050B	97,6010B	MG
Lead, Total	310		mg/kg	2.2	--	1	11/09/10 16:20	11/10/10 21:44	EPA 3050B	97,6010B	MG
Mercury, Total	1.2		mg/kg	0.08	--	1	11/09/10 11:24	11/09/10 14:25	EPA 7471A	97,7471A	EZ
Selenium, Total	ND		mg/kg	2.2	--	1	11/09/10 16:20	11/10/10 21:44	EPA 3050B	97,6010B	MG
Silver, Total	1.0		mg/kg	0.43	--	1	11/09/10 16:20	11/10/10 21:44	EPA 3050B	97,6010B	MG

Project Name: LEWIS CHEMICAL
Lab Number: L1017653
Project Number: 221375.01
Report Date: 11/11/10

SAMPLE RESULTS

Lab ID: L1017653-02
Client ID: WCDRUM-B-110310
Sample Location: HYDE PARK, MA
Matrix: Soil
Percent Solids: 88%

Date Collected: 11/03/10 14:15
Date Received: 11/04/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Arsenic, Total	3.0		mg/kg	0.44	--	1	11/09/10 16:20	11/10/10 21:47	EPA 3050B	97,6010B	MG
Barium, Total	54		mg/kg	0.44	--	1	11/09/10 16:20	11/10/10 21:47	EPA 3050B	97,6010B	MG
Cadmium, Total	1.8		mg/kg	0.44	--	1	11/09/10 16:20	11/10/10 21:47	EPA 3050B	97,6010B	MG
Chromium, Total	59		mg/kg	0.44	--	1	11/09/10 16:20	11/10/10 21:47	EPA 3050B	97,6010B	MG
Lead, Total	120		mg/kg	2.2	--	1	11/09/10 16:20	11/10/10 21:47	EPA 3050B	97,6010B	MG
Mercury, Total	0.68		mg/kg	0.09	--	1	11/09/10 11:24	11/09/10 14:30	EPA 7471A	97,7471A	EZ
Selenium, Total	ND		mg/kg	2.2	--	1	11/09/10 16:20	11/10/10 21:47	EPA 3050B	97,6010B	MG
Silver, Total	0.44		mg/kg	0.44	--	1	11/09/10 16:20	11/10/10 21:47	EPA 3050B	97,6010B	MG

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1017653
Report Date: 11/11/10

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Westborough Lab for sample(s): 01-02 Batch: WG442076-1										
Mercury, Total	ND		mg/kg	0.08	--	1	11/09/10 11:24	11/09/10 14:09	97,7471A	EZ

Prep Information

Digestion Method: EPA 7471A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Westborough Lab for sample(s): 01-02 Batch: WG442186-1										
Arsenic, Total	ND		mg/kg	0.40	--	1	11/09/10 16:20	11/10/10 20:36	97,6010B	MG
Barium, Total	ND		mg/kg	0.40	--	1	11/09/10 16:20	11/10/10 20:36	97,6010B	MG
Cadmium, Total	ND		mg/kg	0.40	--	1	11/09/10 16:20	11/10/10 20:36	97,6010B	MG
Chromium, Total	ND		mg/kg	0.40	--	1	11/09/10 16:20	11/10/10 20:36	97,6010B	MG
Lead, Total	ND		mg/kg	2.0	--	1	11/09/10 16:20	11/10/10 20:36	97,6010B	MG
Selenium, Total	ND		mg/kg	2.0	--	1	11/09/10 16:20	11/10/10 20:36	97,6010B	MG
Silver, Total	ND		mg/kg	0.40	--	1	11/09/10 16:20	11/10/10 20:36	97,6010B	MG

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: LEWIS CHEMICAL

Project Number: 221375.01

Lab Number: L1017653

Report Date: 11/11/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Total Metals - Westborough Lab Associated sample(s): 01-02 Batch: WG442076-2 WG442076-3 SRM Lot Number: 0518-10-02								
Mercury, Total	95		95		67-133	9		30
MCP Total Metals - Westborough Lab Associated sample(s): 01-02 Batch: WG442186-2 WG442186-3 SRM Lot Number: 0518-10-02								
Arsenic, Total	100		104		81-119	4		30
Barium, Total	100		100		83-118	0		30
Cadmium, Total	102		102		82-117	0		30
Chromium, Total	101		101		80-119	0		30
Lead, Total	103		105		80-120	2		30
Selenium, Total	98		102		80-120	4		30
Silver, Total	101		101		66-134	0		30

INORGANICS
&
MISCELLANEOUS

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1017653
Report Date: 11/11/10

SAMPLE RESULTS

Lab ID: L1017653-01
Client ID: WCDRUM-A-110310
Sample Location: HYDE PARK, MA
Matrix: Soil

Date Collected: 11/03/10 14:00
Date Received: 11/04/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	92		%	0.10	NA	1	-	11/08/10 17:01	30,2540G	KK

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1017653
Report Date: 11/11/10

SAMPLE RESULTS

Lab ID: L1017653-02
Client ID: WCDRUM-B-110310
Sample Location: HYDE PARK, MA
Matrix: Soil

Date Collected: 11/03/10 14:15
Date Received: 11/04/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	88		%	0.10	NA	1	-	11/08/10 17:01	30,2540G	KK

Lab Duplicate Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1017653
Report Date: 11/11/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG441917-1 QC Sample: L1017591-01 Client ID: DUP Sample						
Solids, Total	90	89	%	1		20

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1017653
Report Date: 11/11/10

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1017653-01A	Vial MeOH preserved	A	N/A	3	Y	Absent	MCP-8260H-10(14)
L1017653-01B	Vial Large unpreserved	A	N/A	3	Y	Absent	MCP-8260H-10(14)
L1017653-01C	Vial MeOH preserved	A	N/A	3	Y	Absent	MCP-CR-6010T-10(180),MCP-AS-6010T-10(180),MCP-7471T-10(28),MCP-CD-6010T-10(180),TS(7),MCP-AG-6010T-10(180),MCP-SE-6010T-10(180),MCP-BA-6010T-10(180),MCP-PB-6010T-10(180)
L1017653-01D	Amber 250ml unpreserved	A	N/A	3	Y	Absent	MCP-CR-6010T-10(180),MCP-AS-6010T-10(180),MCP-7471T-10(28),MCP-CD-6010T-10(180),TS(7),MCP-AG-6010T-10(180),MCP-SE-6010T-10(180),MCP-BA-6010T-10(180),MCP-PB-6010T-10(180)
L1017653-02A	Vial MeOH preserved	A	N/A	3	Y	Absent	MCP-8260H-10(14)
L1017653-02B	Vial Large unpreserved	A	N/A	3	Y	Absent	MCP-8260H-10(14)
L1017653-02C	Vial MeOH preserved	A	N/A	3	Y	Absent	MCP-CR-6010T-10(180),MCP-AS-6010T-10(180),MCP-7471T-10(28),MCP-CD-6010T-10(180),TS(7),MCP-AG-6010T-10(180),MCP-SE-6010T-10(180),MCP-BA-6010T-10(180),MCP-PB-6010T-10(180)
L1017653-02D	Amber 250ml unpreserved	A	N/A	3	Y	Absent	MCP-CR-6010T-10(180),MCP-AS-6010T-10(180),MCP-7471T-10(28),MCP-CD-6010T-10(180),TS(7),MCP-AG-6010T-10(180),MCP-SE-6010T-10(180),MCP-BA-6010T-10(180),MCP-PB-6010T-10(180)

Container Comments

L1017653-01A

*Values in parentheses indicate holding time in days

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1017653
Report Date: 11/11/10

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)

Container Comments

L1017653-02A

*Values in parentheses indicate holding time in days

Project Name:	LEWIS CHEMICAL	**Lab Number:**	L1017653
Project Number:	221375.01	**Report Date:**	11/11/10

GLOSSARY

Acronyms

EPA · Environmental Protection Agency.

LCS · Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD · Laboratory Control Sample Duplicate: Refer to LCS.

MDL · Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS · Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD · Matrix Spike Sample Duplicate: Refer to MS.

NA · Not Applicable.

NC · Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI · Not Ignitable.

RL · Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD · Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

Report Format: Data Usability Report

Project Name:	LEWIS CHEMICAL	**Lab Number:**	L1017653
Project Number:	221375.01	**Report Date:**	11/11/10

Data Qualifiers

RE - Analytical results are from sample re-extraction.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name:	LEWIS CHEMICAL	**Lab Number:**	L1017653
Project Number:	221375.01	**Report Date:**	11/11/10

REFERENCES

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised July 19, 2010 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D))
Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E).)
Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3.3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 300.0, 353.2, SM2130B, 2320B, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)
Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, Lachat 10-107-06-1-B, SM2320B, 2340B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B.5, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624, ME DRO, ME GRO, MA EPH, MA VPH.)
*Solid Waste/Soil (*Organic Parameters: ME DRO, ME GRO, MA EPH, MA VPH.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
Drinking Water
Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl)
(EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate)
353.2 for: Nitrate-N, Nitrite-N; SM4500NO3-F, 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B.
Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics)
(504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), 314.0, 332.
Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; MF-SM9222D
Non-Potable Water
Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn)
(EPA 200.7 for: Al,Sb,As,Be,Cd,Cr,Co,Cu,Fe,Pb,Mn,Mo,Ni,Se,Ag,Sr,Ti,Tl, V,Zn,Ca,Mg,Na,K)
245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2540B, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-B,C-Titr, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics)

(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCBs-Water), EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables, 600/4-81-045-PCB-Oil

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM6215B, 9222B, 9223B Colilert, EPA 200.7, 200.8, 245.2, 120.1, 300.0, 314.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 331.0. Organic Parameters: 504.1, 524.2, SM6251B.)
Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 351.1, 353.2, 420.1, 1664A, SW-846 9010, 9030, 9040B, SM426C, SM2310B, 2540B, 2540D, 4500H+B, 4500NH3-H, 4500NH3-E, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 2320B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-117-07-1-B, LACHAT 10-107-06-1-B, LACHAT 10-107-04-1-C, LACHAT 10-107-04-1-J, LACHAT 10-117-07-1-A, SM4500CL-E, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3005A, 3015A, 3510C, 5030B, 8021B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A.)
Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 7.3.3.2, 7.3.4.2, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040, 9045C, 9050C, 1311, 3005A, 3050B, 3051A. Organic Parameters: SW-846 3540C, 3545, 3580A, 5030B, 5035, 8021B, 8260B, 8270C, 8330, 8151A, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 2540C, 2320B, 314.0, SM2120B, 2510B, 5310C, SM4500H-B, EPA 200.8, 245.2. Organic Parameters: 504.1, SM6251B, 524.2.)
Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-D, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, SM9221CE, 9222D, 9221B, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, SM5210B, SW-846 3015, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 3510C, EPA 608, 624, 625, SW-846 5030B, 8021B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7.)
Solid & Chemical Materials (Inorganic Parameters: SW-846 9040B, 3005A, 6010B, 7196A, 5030B, 9010B, 9030B, 1030, 1311, 3050B, 3051, 7471A, 9014, 9012A, 9045C, 9050A, 9065. Organic Parameters: SW-846 8021B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 1311, 1312, 3540C, 3545, 3550B, 3580A, 5035L, 5035H, NJ OQA-QAM-025 Rev.7.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 314.0, 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, EPA 120.1, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)
Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, LACHAT 10-117-07-1A or B, SM4500Cl-E, 4500F-C, SM15 426C, EPA 350.1, LACHAT 10-107-06-1-B, SM4500NH3-H, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-041-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, S\M3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, SM4500-CN-E LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, SM5310C, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 3015. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B, 9010B, 9030B.)
Solid & Hazardous Waste (Inorganic Parameters: 1010, 1030, SW-846 Ch 7 Sec 7.3, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Non-Potable Water (Organic Parameters: EPA 3510C, 5030B, 625, 624. 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)
Solid & Hazardous Waste (Inorganic Parameters: EPA 1010, 1030, 1311, 3050B, 3051, 6010B, EPA 7.3.3.2, EPA 7.3.4.2, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065. Organic Parameters: 3540C, 3545, 3580A, 5035, 8021B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NY-DOH.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NY-DOH Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476-09-1. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 376.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Department of Defense Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 9251, 9038, 350.1, 353.2, 351.1, 120.1, 9050A , 410.4, 9060, 1664, 420.1, LACHAT 10-107-06-1-B, SM 4500CN-E, 4500H-B, 4500CL-E, 4500F-BC, 4500SO4-E, 426C, 4500NH3-B, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500Norg-C, 4500PE, 2510B, 5540C, 5220D, 5310C, 2540B, 2540C, 2540D, 510C, 4500S2-AD, 3005A, 3015, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8330, 625, 8082, 8151A, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9040B, 9045C, 9065, 420.1, 9012A, 6860, 1311, 1312, 3050B, 9030B, 3051, 9010B, 3540C, SM 510ABC, 4500CN-CE, 2540G, SW-846 7.3, Organic Parameters: EPA 8260B, 8270C, 8330, 8082, 8081A, 8151A, 3545, 3546, 3580, 5035, MassDEP EPH, MassDEP VPH.)

Analytes Not Accredited by NELAP
Certification is not available by NELAP for the following analytes: **EPA 8260B:** Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline. **EPA 350.1** for Ammonia in a Soil matrix.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 11/4/10

ALPHA Job #: L0176053

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Serial_No:11111016:59

Client Information

Client: Woodard + Curran

Address: Dedham, MA

Phone:

Fax:

Email: dclinton@woodardcurran.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Lewis Chemical

Project Location: ~~221375.01~~ DC Hyde Park, MA

Project #: 221375.01

Project Manager: C. Blake

ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL

☑ ADEx ☐ Add'l Deliverables

Billing Information

☑ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program MCP Criteria S-1

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☑ Yes ☐ No Are MCP Analytical Methods Required?

☐ Yes ☑ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)

☐ Yes ☑ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required , indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All ***CAM*** methods for inorganic analyses require MS every 20 soil samples)

S-1

ANALYSIS: VOCs 8260 | Total RCRA Metals | TCLP VOCs | TCLP Metals

SAMPLE HANDLING

Filtration
☐ Done
☑ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOCs 8260	Total RCRA Metals	TCLP VOCs	TCLP Metals	Sample Specific Comments	TOTAL # BOTTLES
7653.1	WCDrum-A-110310	11/3/10	14:20	SO	DC	X	X	X	X		4
.2	WCDrum-B-110310	11/3/10	14:15	SO	DC	X	X	X	X	* Hold both TCLP analysis until authorization to proceed. DC Needs to review primary results first before authorization -DC	4

Container Type	V	A	A	A
Preservative	F	A	A	A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
[signature] 11-4-10 16:30	11/4/10 1345	[signature]	11-4-10 1345
		[signature]	11/4/10 1630

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 18-Jan-2010)

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1017653

Instrument ID: curly.i Calibration Date: 06-NOV-2010 Time: 05:30

Lab File ID: 1106A01 Init. Calib. Date(s): 12-OCT-2 12-OCT-2

Sample No: 8260 CCAL Init. Calib. Times : 07:07 12:15

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
dichlorodifluoromethane	.43158	.29297	.1	32	20	F
chloromethane	.32188	.27293	.1	15	20	
vinyl chloride	.30906	.31418	.1	-2	20	
bromomethane	.24665	.22986	.1	7	20	
chloroethane	.15833	.10607	.1	33	20	F
trichlorofluoromethane	.62808	.65432	.1	-4	20	
ethyl ether	.10689	.10131	.05	5	20	
acetone	100	83.031	.1	17	20	
1,1-dichloroethene	.21625	.21404	.1	1	20	
carbon disulfide	.60902	.45105	.1	26	20	F
methylene chloride	.23238	.20599	.1	11	20	
methyl tert butyl ether	.7629	.71919	.1	6	20	
trans-1,2-dichloroethene	.25617	.24398	.1	5	20	
Diisopropyl Ether	.7969	.70931	.05	11	20	
1,1-dichloroethane	.42547	.42219	.2	1	20	
Ethyl-Tert-Butyl-Ether	.81187	.76522	.05	6	20	
2-butanone	.11008	.10278	.1	7	20	
2,2-dichloropropane	.43385	.47617	.05	-10	20	
cis-1,2-dichloroethene	.25739	.2671	.1	-4	20	
chloroform	.54113	.53534	.2	1	20	
bromochloromethane	.1507	.15969	.05	-6	20	
tetrahydrofuran	.0697	.06539	.05	6	20	
1,1,1-trichloroethane	.54998	.57358	.1	-4	20	
1,1-dichloropropene	.35518	.34842	.05	2	20	
carbon tetrachloride	.50817	.51979	.1	-2	20	
Tertiary-Amyl Methyl Ether	.64008	.63486	.05	1	20	
1,2-dichloroethane	.50538	.51593	.1	-2	20	
benzene	.86358	.80086	.5	7	20	
trichloroethene	.30322	.2993	.2	1	20	
1,2-dichloropropane	.208	.18151	.1	13	20	
bromodichloromethane	.39493	.3912	.2	1	20	
1,4-Dioxane	.00251	.00267	.05	-6	20	F
dibromomethane	.1771	.18015	.05	-2	20	
4-methyl-2-pentanone	.08198	.0734	.1	10	20	F
cis-1,3-dichloropropene	.37394	.34405	.2	8	20	
toluene	.77857	.73631	.4	5	20	
trans-1,3-dichloropropene	.44087	.42371	.1	4	20	
1,1,2-trichloroethane	.19831	.17388	.1	12	20	

FORM VII MCP-8260H-10

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1017653

Instrument ID: curly.i Calibration Date: 06-NOV-2010 Time: 05:30

Lab File ID: 1106A01 Init. Calib. Date(s): 12-OCT-2 12-OCT-2

Sample No: 8260 CCAL Init. Calib. Times : 07:07 12:15

Compound	RRF	RRF	MIN RRF	%D	MAX %D
2-hexanone	.22816	.20183	.1	12	20
1,3-dichloropropane	.41637	.36721	.05	12	20
tetrachloroethene	.40853	.42884	.2	-5	20
chlorodibromomethane	.40042	.38342	.1	4	20
1,2-dibromoethane	.2848	.2762	.1	3	20
chlorobenzene	.96659	.88532	.5	8	20
1,1,1,2-tetrachloroethane	.39033	.39382	.05	-1	20
ethylbenzene	1.5376	1.4944	.1	3	20
p/m-xylene	.61799	.6048	.1	2	20
o-xylene	.58128	.57097	.3	2	20
styrene	.93855	.93928	.3	0	20
bromoform	.39352	.39322	.1	0	20
isopropylbenzene	1.5982	1.6567	.1	-4	20
1,1,2,2-tetrachloroethane	.48333	.46329	.3	4	20
1,2,3-trichloropropane	.45935	.42488	.05	8	20
n-propylbenzene	3.0740	2.9381	.05	4	20
bromobenzene	.81462	.80377	.05	1	20
2-chlorotoluene	2.2892	2.1255	.05	7	20
1,3,5-trimethylbenzene	2.4711	2.3821	.05	4	20
4-chlorotoluene	2.0731	1.9780	.05	5	20
tert-butylbenzene	2.3480	2.2964	.05	2	20
1,2,4-trimethylbenzene	2.3491	2.3474	.05	0	20
sec-butylbenzene	3.0202	2.8415	.05	6	20
p-isopropyltoluene	2.7160	2.8213	.05	-4	20
1,3-dichlorobenzene	1.5662	1.5499	.6	1	20
1,4-dichlorobenzene	1.5955	1.5830	.5	1	20
n-butylbenzene	2.5024	2.3950	.05	4	20
1,2-dichlorobenzene	1.4581	1.4268	.4	2	20
1,2-dibromo-3-chloropropane	.13338	.1214	.05	9	20
1,2,4-trichlorobenzene	.75291	.83965	.2	-12	20
hexachlorobutadiene	.57341	.60724	.05	-6	20
naphthalene	1.5961	1.5537	.05	3	20
1,2,3-trichlorobenzene	.77209	.78661	.05	-2	20
dibromofluoromethane	.28162	.28979	.001	-3	30
1,2-dichloroethane-d4	.38166	.36325	.001	5	30
toluene-d8	1.1878	1.0504	.001	12	30
4-bromofluorobenzene	.86775	.841	.001	3	30

FORM VII MCP-8260H-10

ANALYTICAL REPORT

Lab Number:	L1018209
Client:	Woodard & Curran 980 Washington Street Dedham, MA 02026
ATTN:	Craig Blake
Phone:	(781) 251-0200
Project Name:	LEWIS CHEMICAL
Project Number:	221375.01
Report Date:	11/19/10

Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1018209
Report Date: 11/19/10

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1018209-01	WCDRUM-A-110310	HYDE PARK	11/03/10 14:00
L1018209-02	WCDRUM-B-110310	HYDE PARK	11/03/10 14:15

Project Name: LEWIS CHEMICAL **Lab Number:** L1018209

Project Number: 221375.01 **Report Date:** 11/19/10

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	YES
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1018209
Report Date: 11/19/10

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

For additional information, please contact Client Services at 800-624-9220.

MCP Related Narratives

Report Submission

All MCP required questions were answered with affirmative responses; therefore, there are no relevant protocol-specific QC and/or performance standard non-conformances to report.

Non-MCP Related Narratives

TCLP Volatiles

At the client's request, the analyte list for L1018209-01 was modified to include Trichloroethene.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 11/19/10

ORGANICS

VOLATILES

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1018209
Report Date: 11/19/10

SAMPLE RESULTS

Lab ID: L1018209-01
Client ID: WCDRUM-A-110310
Sample Location: HYDE PARK
Matrix: Soil
Analytical Method: 1,8260B
Analytical Date: 11/19/10 06:11
Analyst: MM

Date Collected: 11/03/10 14:00
Date Received: 11/04/10
Field Prep: Not Specified

TCLP/SPLP Ext. Date: 11/16/10 17:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
TCLP Volatiles by EPA 1311 - Westborough Lab						
Tetrachloroethene	370		ug/l	5.0	--	10
Trichloroethene	430		ug/l	5.0	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	99		70-130

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1018209
Report Date: 11/19/10

SAMPLE RESULTS

Lab ID: L1018209-02
Client ID: WCDRUM-B-110310
Sample Location: HYDE PARK
Matrix: Soil
Analytical Method: 1,8260B
Analytical Date: 11/19/10 06:44
Analyst: MM

Date Collected: 11/03/10 14:15
Date Received: 11/04/10
Field Prep: Not Specified

TCLP/SPLP Ext. Date: 11/16/10 17:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
TCLP Volatiles by EPA 1311 - Westborough Lab						
Tetrachloroethene	45		ug/l	5.0	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	96		70-130

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1018209
Report Date: 11/19/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260B
Analytical Date: 11/19/10 05:39
Analyst: MM
TCLP Extraction Date: 11/16/10 17:30

Extraction Date: 11/16/10 17:30

Parameter	Result	Qualifier	Units	RL	MDL
TCLP Volatiles by EPA 1311 - Westborough Lab for sample(s): 01-02 Batch: WG443953-3					
Chloroform	ND		ug/l	7.5	--
Carbon tetrachloride	ND		ug/l	5.0	--
Tetrachloroethene	ND		ug/l	5.0	--
Chlorobenzene	ND		ug/l	5.0	--
1,2-Dichloroethane	ND		ug/l	5.0	--
Benzene	ND		ug/l	5.0	--
Vinyl chloride	ND		ug/l	10	--
1,1-Dichloroethene	ND		ug/l	5.0	--
Trichloroethene	ND		ug/l	5.0	--
1,4-Dichlorobenzene	ND		ug/l	25	--
2-Butanone	ND		ug/l	50	--
Hexachlorobutadiene	ND		ug/l	5.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	98		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: LEWIS CHEMICAL

Project Number: 221375.01

Lab Number: L1018209

Report Date: 11/19/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
TCLP Volatiles by EPA 1311 - Westborough Lab Associated sample(s): 01-02 Batch: WG443953-1 WG443953-2								
Chloroform	100		99		70-130	1		20
Carbon tetrachloride	77		84		70-130	9		20
Tetrachloroethene	96		93		70-130	3		20
Chlorobenzene	96		94		75-130	2		20
1,2-Dichloroethane	104		98		70-130	6		20
Benzene	101		98		76-127	3		20
Vinyl chloride	110		105		70-130	5		20
1,1-Dichloroethene	103		101		61-145	2		20
Trichloroethene	94		92		71-120	2		20
1,4-Dichlorobenzene	99		99		70-130	0		20
2-Butanone	96		92		70-130	4		20
Hexachlorobutadiene	82		87		70-130	6		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	105		102		70-130
Toluene-d8	100		102		70-130
4-Bromofluorobenzene	97		101		70-130
Dibromofluoromethane	101		100		70-130

METALS

Project Name: LEWIS CHEMICAL
Lab Number: L1018209
Project Number: 221375.01
Report Date: 11/19/10

SAMPLE RESULTS

Lab ID: L1018209-01
Client ID: WCDRUM-A-110310
Sample Location: HYDE PARK
Matrix: Soil
Date Collected: 11/03/10 14:00
Date Received: 11/04/10
Field Prep: Not Specified
TCLP/SPLP Ext. Date: 11/17/10 19:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab											
Lead, TCLP	ND		mg/l	0.50	--	1	11/18/10 15:00	11/19/10 13:55	EPA 3015	1,6010B	AI

Project Name: LEWIS CHEMICAL
Lab Number: L1018209
Project Number: 221375.01
Report Date: 11/19/10

SAMPLE RESULTS

Lab ID: L1018209-02
Client ID: WCDRUM-B-110310
Sample Location: HYDE PARK
Matrix: Soil
Date Collected: 11/03/10 14:15
Date Received: 11/04/10
Field Prep: Not Specified
TCLP/SPLP Ext. Date: 11/17/10 19:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab											
Lead, TCLP	ND		mg/l	0.50	--	1	11/18/10 15:00	11/19/10 13:58	EPA 3015	1,6010B	AI

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1018209
Report Date: 11/19/10

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab for sample(s): 01-02 Batch: WG443826-1										
Lead, TCLP	ND		mg/l	0.50	--	1	11/18/10 15:00	11/19/10 13:15	1,6010B	AI

Prep Information

Digestion Method: EPA 3015
TCLP Extraction Date: 11/17/10 19:15

Lab Control Sample Analysis

Batch Quality Control

Project Name: LEWIS CHEMICAL

Project Number: 221375.01

Lab Number: L1018209

Report Date: 11/19/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-02 Batch: WG443826-2								
Lead, TCLP	92		-		75-125	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1018209
Report Date: 11/19/10

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG443826-4 QC Sample: L1018203-01 Client ID: MS Sample												
Lead, TCLP	ND	10	8.4	84		-	-		75-125	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1018209
Report Date: 11/19/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG443826-3 QC Sample: L1018203-01 Client ID: DUP Sample						
Lead, TCLP	ND	ND	mg/l	NC		20

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1018209
Report Date: 11/19/10

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1018209-01A	Plastic 250ml HNO3 preserved spl	A	<2	3	Y	Absent	PB-CI(180)
L1018209-01B	Vial Large unpreserved	A	N/A	3	Y	Absent	TCLP-EXT-ZHE(14),TCLP-VOA(14)
L1018209-01X	Amber 250ml unpreserved	A	N/A	3	Y	Absent	-
L1018209-02A	Plastic 250ml HNO3 preserved spl	A	<2	3	Y	Absent	PB-CI(180)
L1018209-02B	Vial Large unpreserved	A	N/A	3	Y	Absent	TCLP-EXT-ZHE(14),TCLP-VOA(14)
L1018209-02X	Amber 250ml unpreserved	A	N/A	3	Y	Absent	-

*Values in parentheses indicate holding time in days

Project Name:	LEWIS CHEMICAL	**Lab Number:**	L1018209
Project Number:	221375.01	**Report Date:**	11/19/10

GLOSSARY

Acronyms

EPA · Environmental Protection Agency.

LCS · Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD · Laboratory Control Sample Duplicate: Refer to LCS.

MDL · Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS · Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD · Matrix Spike Sample Duplicate: Refer to MS.

NA · Not Applicable.

NC · Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI · Not Ignitable.

RL · Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD · Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

Report Format: Data Usability Report

Project Name:	LEWIS CHEMICAL	**Lab Number:**	L1018209
Project Number:	221375.01	**Report Date:**	11/19/10

Data Qualifiers

RE - Analytical results are from sample re-extraction.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name:	LEWIS CHEMICAL	**Lab Number:**	L1018209
Project Number:	221375.01	**Report Date:**	11/19/10

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised July 19, 2010 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D))
Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E).)
Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3.3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 300.0, 353.2, SM2130B, 2320B, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)
Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, Lachat 10-107-06-1-B, SM2320B, 2340B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B.5, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624, ME DRO, ME GRO, MA EPH, MA VPH.)
*Solid Waste/Soil (*Organic Parameters: ME DRO, ME GRO, MA EPH, MA VPH.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
Drinking Water
Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl)
(EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate)
353.2 for: Nitrate-N, Nitrite-N; SM4500NO3-F, 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B.
Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics)
(504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), 314.0, 332.
Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; MF-SM9222D
Non-Potable Water
Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn)
(EPA 200.7 for: Al,Sb,As,Be,Cd,Cr,Co,Cu,Fe,Pb,Mn,Mo,Ni,Se,Ag,Sr,Ti,Tl, V,Zn,Ca,Mg,Na,K)
245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2540B, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-B,C-Titr, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics)

(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCBs-Water), EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables, 600/4-81-045-PCB-Oil

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM6215B, 9222B, 9223B Colilert, EPA 200.7, 200.8, 245.2, 120.1, 300.0, 314.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 331.0. Organic Parameters: 504.1, 524.2, SM6251B.)
Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 351.1, 353.2, 420.1, 1664A, SW-846 9010, 9030, 9040B, SM426C, SM2310B, 2540B, 2540D, 4500H+B, 4500NH3-H, 4500NH3-E, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 2320B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-117-07-1-B, LACHAT 10-107-06-1-B, LACHAT 10-107-04-1-C, LACHAT 10-107-04-1-J, LACHAT 10-117-07-1-A, SM4500CL-E, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3005A, 3015A, 3510C, 5030B, 8021B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A.)
Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 7.3.3.2, 7.3.4.2, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040, 9045C, 9050C, 1311, 3005A, 3050B, 3051A. Organic Parameters: SW-846 3540C, 3545, 3580A, 5030B, 5035, 8021B, 8260B, 8270C, 8330, 8151A, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 2540C, 2320B, 314.0, SM2120B, 2510B, 5310C, SM4500H-B, EPA 200.8, 245.2. Organic Parameters: 504.1, SM6251B, 524.2.)
Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-D, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, SM9221CE, 9222D, 9221B, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, SM5210B, SW-846 3015, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 3510C, EPA 608, 624, 625, SW-846 5030B, 8021B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7.)
Solid & Chemical Materials (Inorganic Parameters: SW-846 9040B, 3005A, 6010B, 7196A, 5030B, 9010B, 9030B, 1030, 1311, 3050B, 3051, 7471A, 9014, 9012A, 9045C, 9050A, 9065. Organic Parameters: SW-846 8021B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 1311, 1312, 3540C, 3545, 3550B, 3580A, 5035L, 5035H, NJ OQA-QAM-025 Rev.7.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 314.0, 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, EPA 120.1, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)
Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, LACHAT 10-117-07-1A or B, SM4500Cl-E, 4500F-C, SM15 426C, EPA 350.1, LACHAT 10-107-06-1-B, SM4500NH3-H, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-041-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, S\M3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, SM4500-CN-E LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, SM5310C, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 3015. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B, 9010B, 9030B.)
Solid & Hazardous Waste (Inorganic Parameters: 1010, 1030, SW-846 Ch 7 Sec 7.3, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Non-Potable Water (Organic Parameters: EPA 3510C, 5030B, 625, 624. 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)
Solid & Hazardous Waste (Inorganic Parameters: EPA 1010, 1030, 1311, 3050B, 3051, 6010B, EPA 7.3.3.2, EPA 7.3.4.2, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065. Organic Parameters: 3540C, 3545, 3580A, 5035, 8021B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NY-DOH.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NY-DOH Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476-09-1. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 376.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Department of Defense Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 9251, 9038, 350.1, 353.2, 351.1, 120.1, 9050A , 410.4, 9060, 1664, 420.1, LACHAT 10-107-06-1-B, SM 4500CN-E, 4500H-B, 4500CL-E, 4500F-BC, 4500SO4-E, 426C, 4500NH3-B, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500Norg-C, 4500PE, 2510B, 5540C, 5220D, 5310C, 2540B, 2540C, 2540D, 510C, 4500S2-AD, 3005A, 3015, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8330, 625, 8082, 8151A, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9040B, 9045C, 9065, 420.1, 9012A, 6860, 1311, 1312, 3050B, 9030B, 3051, 9010B, 3540C, SM 510ABC, 4500CN-CE, 2540G, SW-846 7.3, Organic Parameters: EPA 8260B, 8270C, 8330, 8082, 8081A, 8151A, 3545, 3546, 3580, 5035, MassDEP EPH, MassDEP VPH.)

Analytes Not Accredited by NELAP
Certification is not available by NELAP for the following analytes: **EPA 8260B:** Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline. **EPA 350.1** for Ammonia in a Soil matrix.

L 1018209

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 11/4/10

ALPHA Job #: L1018209

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: Woodard & Curran
Address: Dedham, MA
Phone:
Fax:
Email: jclinton@woodardcurran.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Lewis Chemical
Project Location: ~~221375.01~~ DC Hyde Park, MA
Project #: 221375.01
Project Manager: C. Blake
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 11/19/10 Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program: MCP Criteria: S-1

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☒ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required, indicate In Sample Specific Comments which samples and what tests MS to be performed.
(Note: All *CAM* methods for inorganic analyses require MS every 20 soil samples)

S-1

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOCs 8260	Total RCRA Metals	TCLP VOCs	TCLP Metals	TCLP Pb	TCLP RCE	Sample Specific Comments	TOTAL # BOTTLES
7658-1	WCDrum-A-110310	11/3/10	14:20	SO	DC	X	X	X	X	X	X		4
-2	WCDrum-B-110310	11/3/10	14:15	SO	DC	X	X	X	X	X	X	* Hold both TCLP analysis until authorization to proceed. DC Needs to review primary results first before authorization -DC	4

SAMPLE HANDLING
Filtration
☐ Done ☒ Not needed ☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Container Type	V	A	A	A
Preservative	F	H	A	A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
	11/4/10 1345		11-4-10 1345
	11-4-10 1631		11/4/10 1630

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 18-Jan-2010)

ANALYTICAL REPORT

Lab Number:	L1014543
Client:	Woodard & Curran 980 Washington Street Dedham, MA 02026
ATTN:	Dan Clinton
Phone:	(800) 446-5518
Project Name:	LEWIS CHEMICAL
Project Number:	221375
Report Date:	10/01/10

Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: LEWIS CHEMICAL
Project Number: 221375

Lab Number: L1014543
Report Date: 10/01/10

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1014543-01	DRUM33106A	FAIRMOUNT CT. HYDE PARK, MA	09/16/10 08:00
L1014543-02	DRUM33106B	FAIRMOUNT CT. HYDE PARK, MA	09/16/10 08:00

Project Name: LEWIS CHEMICAL **Lab Number:** L1014543

Project Number: 221375 **Report Date:** 10/01/10

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	YES
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.

Project Name: LEWIS CHEMICAL
Project Number: 221375

Lab Number: L1014543
Report Date: 10/01/10

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

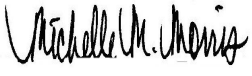
For additional information, please contact Client Services at 800-624-9220.

MCP Related Narratives

Report Submission

All MCP required questions were answered with affirmative responses; therefore, there are no relevant protocol-specific QC and/or performance standard non-conformances to report.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Michelle M. Morris

Title: Technical Director/Representative Date: 10/01/10

ORGANICS

VOLATILES

Project Name: LEWIS CHEMICAL **Lab Number:** L1014543

Project Number: 221375 **Report Date:** 10/01/10

SAMPLE RESULTS

Lab ID:	L1014543-01	Date Collected:	09/16/10 08:00
Client ID:	DRUM33106A	Date Received:	09/17/10
Sample Location:	FAIRMOUNT CT. HYDE PARK, MA	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260B		
Analytical Date:	09/21/10 18:45		
Analyst:	MM		
Percent Solids:	82%		
TCLP/SPLP Ext. Date:	09/20/10 17:00		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
TCLP Volatiles by EPA 1311 - Westborough Lab						
Chloroform	ND		ug/l	7.5	--	10
Carbon tetrachloride	ND		ug/l	5.0	--	10
Tetrachloroethene	39		ug/l	5.0	--	10
Chlorobenzene	23		ug/l	5.0	--	10
1,2-Dichloroethane	ND		ug/l	5.0	--	10
Benzene	ND		ug/l	5.0	--	10
Vinyl chloride	ND		ug/l	10	--	10
1,1-Dichloroethene	ND		ug/l	5.0	--	10
Trichloroethene	7.3		ug/l	5.0	--	10
1,4-Dichlorobenzene	ND		ug/l	25	--	10
2-Butanone	ND		ug/l	50	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	115		70-130

Project Name: LEWIS CHEMICAL **Lab Number:** L1014543

Project Number: 221375 **Report Date:** 10/01/10

SAMPLE RESULTS

Lab ID:	L1014543-02	Date Collected:	09/16/10 08:00
Client ID:	DRUM33106B	Date Received:	09/17/10
Sample Location:	FAIRMOUNT CT. HYDE PARK, MA	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260B		
Analytical Date:	09/21/10 19:18		
Analyst:	MM		
Percent Solids:	82%		
TCLP/SPLP Ext. Date:	09/20/10 17:00		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
TCLP Volatiles by EPA 1311 - Westborough Lab						
Chloroform	ND		ug/l	7.5	--	10
Carbon tetrachloride	ND		ug/l	5.0	--	10
Tetrachloroethene	48		ug/l	5.0	--	10
Chlorobenzene	ND		ug/l	5.0	--	10
1,2-Dichloroethane	ND		ug/l	5.0	--	10
Benzene	ND		ug/l	5.0	--	10
Vinyl chloride	ND		ug/l	10	--	10
1,1-Dichloroethene	ND		ug/l	5.0	--	10
Trichloroethene	9.0		ug/l	5.0	--	10
1,4-Dichlorobenzene	ND		ug/l	25	--	10
2-Butanone	ND		ug/l	50	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	109		70-130

Project Name: LEWIS CHEMICAL
Project Number: 221375

Lab Number: L1014543
Report Date: 10/01/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260B
Analytical Date: 09/21/10 18:13
Analyst: MM
TCLP Extraction Date: 09/20/10 17:00

Extraction Date: 09/20/10 17:00

Parameter	Result	Qualifier	Units	RL	MDL
TCLP Volatiles by EPA 1311 - Westborough Lab for sample(s): 01-02 Batch: WG433634-3					
Chloroform	ND		ug/l	0.75	--
Carbon tetrachloride	ND		ug/l	0.50	--
Tetrachloroethene	ND		ug/l	0.50	--
Chlorobenzene	ND		ug/l	0.50	--
1,2-Dichloroethane	ND		ug/l	0.50	--
Benzene	ND		ug/l	0.50	--
Vinyl chloride	ND		ug/l	1.0	--
1,1-Dichloroethene	ND		ug/l	0.50	--
Trichloroethene	ND		ug/l	0.50	--
1,4-Dichlorobenzene	ND		ug/l	2.5	--
2-Butanone	ND		ug/l	5.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	88		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	115		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: LEWIS CHEMICAL

Project Number: 221375

Lab Number: L1014543

Report Date: 10/01/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
TCLP Volatiles by EPA 1311 - Westborough Lab Associated sample(s): 01-02 Batch: WG433634-1 WG433634-2								
Chloroform	104		103		70-130	1		20
Carbon tetrachloride	125		122		70-130	2		20
Tetrachloroethene	96		98		70-130	2		20
Chlorobenzene	92		92		75-130	0		20
1,2-Dichloroethane	104		102		70-130	2		20
Benzene	105		104		76-127	1		20
Vinyl chloride	104		106		70-130	2		20
1,1-Dichloroethene	98		98		61-145	0		20
Trichloroethene	101		102		71-120	1		20
1,4-Dichlorobenzene	90		92		70-130	2		20
2-Butanone	106		103		70-130	3		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	98		96		70-130
Toluene-d8	94		96		70-130
4-Bromofluorobenzene	93		97		70-130
Dibromofluoromethane	105		102		70-130

PCBS

Project Name: LEWIS CHEMICAL
Project Number: 221375
Lab Number: L1014543
Report Date: 10/01/10

SAMPLE RESULTS

Lab ID:	L1014543-01	Date Collected:	09/16/10 08:00
Client ID:	DRUM33106A	Date Received:	09/17/10
Sample Location:	FAIRMOUNT CT. HYDE PARK, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	97,8082	Extraction Date:	09/29/10 21:43
Analytical Date:	09/30/10 12:08	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	09/30/10
Percent Solids:	82%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	09/30/10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1248	157		ug/kg	40.4	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	59		30-150	B
Decachlorobiphenyl	45		30-150	B
2,4,5,6-Tetrachloro-m-xylene	50		30-150	A
Decachlorobiphenyl	35		30-150	A

Project Name: LEWIS CHEMICAL
Project Number: 221375
Lab Number: L1014543
Report Date: 10/01/10

SAMPLE RESULTS

Lab ID:	L1014543-01	Date Collected:	09/16/10 08:00
Client ID:	DRUM33106A	Date Received:	09/17/10
Sample Location:	FAIRMOUNT CT. HYDE PARK, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	97,8082	Extraction Date:	09/29/10 21:43
Analytical Date:	09/30/10 12:08	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	09/30/10
Percent Solids:	82%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	09/30/10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1016	ND		ug/kg	40.4	--	1
Aroclor 1221	ND		ug/kg	40.4	--	1
Aroclor 1232	ND		ug/kg	40.4	--	1
Aroclor 1242	ND		ug/kg	40.4	--	1
Aroclor 1254	ND		ug/kg	40.4	--	1
Aroclor 1260	ND		ug/kg	40.4	--	1
Aroclor 1262	ND		ug/kg	40.4	--	1
Aroclor 1268	ND		ug/kg	40.4	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	59		30-150	B
Decachlorobiphenyl	45		30-150	B
2,4,5,6-Tetrachloro-m-xylene	50		30-150	A
Decachlorobiphenyl	35		30-150	A

Project Name: LEWIS CHEMICAL
Project Number: 221375
Lab Number: L1014543
Report Date: 10/01/10

SAMPLE RESULTS

Lab ID:	L1014543-02	Date Collected:	09/16/10 08:00
Client ID:	DRUM33106B	Date Received:	09/17/10
Sample Location:	FAIRMOUNT CT. HYDE PARK, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	97,8082	Extraction Date:	09/29/10 21:43
Analytical Date:	09/30/10 12:20	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	09/30/10
Percent Solids:	82%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	09/30/10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1248	154		ug/kg	39.4	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	59		30-150	B
Decachlorobiphenyl	53		30-150	B
2,4,5,6-Tetrachloro-m-xylene	52		30-150	A
Decachlorobiphenyl	44		30-150	A

Project Name: LEWIS CHEMICAL
Project Number: 221375
Lab Number: L1014543
Report Date: 10/01/10

SAMPLE RESULTS

Lab ID:	L1014543-02	Date Collected:	09/16/10 08:00
Client ID:	DRUM33106B	Date Received:	09/17/10
Sample Location:	FAIRMOUNT CT. HYDE PARK, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	97,8082	Extraction Date:	09/29/10 21:43
Analytical Date:	09/30/10 12:20	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	09/30/10
Percent Solids:	82%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	09/30/10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1016	ND		ug/kg	39.4	--	1
Aroclor 1221	ND		ug/kg	39.4	--	1
Aroclor 1232	ND		ug/kg	39.4	--	1
Aroclor 1242	ND		ug/kg	39.4	--	1
Aroclor 1254	ND		ug/kg	39.4	--	1
Aroclor 1260	ND		ug/kg	39.4	--	1
Aroclor 1262	ND		ug/kg	39.4	--	1
Aroclor 1268	ND		ug/kg	39.4	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	59		30-150	B
Decachlorobiphenyl	53		30-150	B
2,4,5,6-Tetrachloro-m-xylene	52		30-150	A
Decachlorobiphenyl	44		30-150	A

Project Name: LEWIS CHEMICAL
Project Number: 221375

Lab Number: L1014543
Report Date: 10/01/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8082
Analytical Date: 09/30/10 05:50
Analyst: KB

Extraction Method: EPA 3546
Extraction Date: 09/29/10 21:43
Cleanup Method1: EPA 3665A
Cleanup Date1: 09/30/10
Cleanup Method2: EPA 3660B
Cleanup Date2: 09/30/10

Parameter	Result	Qualifier	Units	RL	MDL
MCP Polychlorinated Biphenyls - Westborough Lab for sample(s): 01-02 Batch: WG434920-1					
Aroclor 1016	ND		ug/kg	33.3	--
Aroclor 1221	ND		ug/kg	33.3	--
Aroclor 1232	ND		ug/kg	33.3	--
Aroclor 1242	ND		ug/kg	33.3	--
Aroclor 1248	ND		ug/kg	33.3	--
Aroclor 1254	ND		ug/kg	33.3	--
Aroclor 1260	ND		ug/kg	33.3	--
Aroclor 1262	ND		ug/kg	33.3	--
Aroclor 1268	ND		ug/kg	33.3	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	75		30-150	B
Decachlorobiphenyl	86		30-150	B
2,4,5,6-Tetrachloro-m-xylene	71		30-150	A
Decachlorobiphenyl	71		30-150	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: LEWIS CHEMICAL

Project Number: 221375

Lab Number: L1014543

Report Date: 10/01/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Polychlorinated Biphenyls - Westborough Lab Associated sample(s): 01-02 Batch: WG434920-2 WG434920-3								
Aroclor 1016	82		97		40-140	17		30
Aroclor 1260	82		97		40-140	17		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	104		97		30-150	B
Decachlorobiphenyl	94		90		30-150	B
2,4,5,6-Tetrachloro-m-xylene	99		93		30-150	A
Decachlorobiphenyl	84		82		30-150	A

METALS

Project Name: LEWIS CHEMICAL
Lab Number: L1014543
Project Number: 221375
Report Date: 10/01/10

SAMPLE RESULTS

Lab ID: L1014543-01
Client ID: DRUM33106A
Sample Location: FAIRMOUNT CT. HYDE PARK, MA
Matrix: Soil
Percent Solids: 82%

Date Collected: 09/16/10 08:00
Date Received: 09/17/10
Field Prep: Not Specified
TCLP/SPLP Ext. Date: 09/20/10 13:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab											
Arsenic, TCLP	ND		mg/l	1.0	--	1	09/21/10 10:15	09/21/10 13:14	EPA 3015	1,6010B	AI
Barium, TCLP	ND		mg/l	0.50	--	1	09/21/10 10:15	09/21/10 13:14	EPA 3015	1,6010B	AI
Cadmium, TCLP	ND		mg/l	0.10	--	1	09/21/10 10:15	09/21/10 13:14	EPA 3015	1,6010B	AI
Chromium, TCLP	ND		mg/l	0.20	--	1	09/21/10 10:15	09/21/10 13:14	EPA 3015	1,6010B	AI
Lead, TCLP	ND		mg/l	0.50	--	1	09/21/10 10:15	09/21/10 13:14	EPA 3015	1,6010B	AI
Mercury, TCLP	ND		mg/l	0.0010	--	1	09/30/10 17:00	10/01/10 13:50	EPA 7470A	1,7470A	DM
Selenium, TCLP	ND		mg/l	0.50	--	1	09/21/10 10:15	09/21/10 13:14	EPA 3015	1,6010B	AI
Silver, TCLP	ND		mg/l	0.10	--	1	09/21/10 10:15	09/21/10 13:14	EPA 3015	1,6010B	AI

Project Name: LEWIS CHEMICAL
Lab Number: L1014543
Project Number: 221375
Report Date: 10/01/10

SAMPLE RESULTS

Lab ID: L1014543-02
Client ID: DRUM33106B
Sample Location: FAIRMOUNT CT. HYDE PARK, MA
Matrix: Soil
Percent Solids: 82%

Date Collected: 09/16/10 08:00
Date Received: 09/17/10
Field Prep: Not Specified
TCLP/SPLP Ext. Date: 09/20/10 13:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab											
Arsenic, TCLP	ND		mg/l	1.0	--	1	09/21/10 10:15	09/21/10 13:17	EPA 3015	1,6010B	AI
Barium, TCLP	ND		mg/l	0.50	--	1	09/21/10 10:15	09/21/10 13:17	EPA 3015	1,6010B	AI
Cadmium, TCLP	ND		mg/l	0.10	--	1	09/21/10 10:15	09/21/10 13:17	EPA 3015	1,6010B	AI
Chromium, TCLP	ND		mg/l	0.20	--	1	09/21/10 10:15	09/21/10 13:17	EPA 3015	1,6010B	AI
Lead, TCLP	2.1		mg/l	0.50	--	1	09/21/10 10:15	09/21/10 13:17	EPA 3015	1,6010B	AI
Mercury, TCLP	ND		mg/l	0.0010	--	1	09/30/10 17:00	10/01/10 13:56	EPA 7470A	1,7470A	DM
Selenium, TCLP	ND		mg/l	0.50	--	1	09/21/10 10:15	09/21/10 13:17	EPA 3015	1,6010B	AI
Silver, TCLP	ND		mg/l	0.10	--	1	09/21/10 10:15	09/21/10 13:17	EPA 3015	1,6010B	AI

Project Name: LEWIS CHEMICAL
Project Number: 221375
Lab Number: L1014543
Report Date: 10/01/10

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab for sample(s): 01-02 Batch: WG433379-1										
Barium, TCLP	ND		mg/l	0.50	--	1	09/21/10 10:15	09/21/10 12:13	1,6010B	AI
Lead, TCLP	ND		mg/l	0.50	--	1	09/21/10 10:15	09/21/10 12:13	1,6010B	AI

Prep Information

Digestion Method: EPA 3015
TCLP Extraction Date: 09/20/10 13:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab for sample(s): 01-02 Batch: WG433379-1										
Arsenic, TCLP	ND		mg/l	1.0	--	1	09/21/10 10:15	09/21/10 12:13	1,6010B	AI
Cadmium, TCLP	ND		mg/l	0.10	--	1	09/21/10 10:15	09/21/10 12:13	1,6010B	AI
Chromium, TCLP	ND		mg/l	0.20	--	1	09/21/10 10:15	09/21/10 12:13	1,6010B	AI
Selenium, TCLP	ND		mg/l	0.50	--	1	09/21/10 10:15	09/21/10 12:13	1,6010B	AI
Silver, TCLP	ND		mg/l	0.10	--	1	09/21/10 10:15	09/21/10 12:13	1,6010B	AI

Prep Information

Digestion Method: EPA 3015
TCLP Extraction Date: 09/20/10 13:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab for sample(s): 01-02 Batch: WG435141-1										
Mercury, TCLP	ND		mg/l	0.0010	--	1	09/30/10 17:00	10/01/10 13:47	1,7470A	DM

Prep Information

Digestion Method: EPA 7470A
TCLP Extraction Date: 09/20/10 13:30

Lab Control Sample Analysis

Batch Quality Control

Project Name: LEWIS CHEMICAL

Project Number: 221375

Lab Number: L1014543

Report Date: 10/01/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-02 Batch: WG433379-2								
Arsenic, TCLP	110		-		75-125	-		20
Barium, TCLP	99		-		75-125	-		20
Cadmium, TCLP	100		-		75-125	-		20
Chromium, TCLP	100		-		75-125	-		20
Lead, TCLP	100		-		75-125	-		20
Selenium, TCLP	110		-		75-125	-		20
Silver, TCLP	110		-		75-125	-		20
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-02 Batch: WG435141-2								
Mercury, TCLP	107		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375
Lab Number: L1014543
Report Date: 10/01/10

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG433379-4 QC Sample: L1014558-01 Client ID: MS Sample												
Arsenic, TCLP	ND	10	10	100		-	-		75-125	-		20
Barium, TCLP	ND	100	96	96		-	-		75-125	-		20
Cadmium, TCLP	ND	10	9.8	98		-	-		75-125	-		20
Chromium, TCLP	ND	10	9.8	98		-	-		75-125	-		20
Lead, TCLP	ND	10	9.5	95		-	-		75-125	-		20
Selenium, TCLP	ND	20	20	100		-	-		75-125	-		20
Silver, TCLP	ND	10	10	100		-	-		75-125	-		20
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG435141-4 QC Sample: L1014543-01 Client ID: DRUM33106A												
Mercury, TCLP	ND	0.005	0.0056	112		-	-		70-130	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375

Lab Number: L1014543
Report Date: 10/01/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG433379-3 QC Sample: L1014558-01 Client ID: DUP Sample						
Lead, TCLP	ND	ND	mg/l	NC		20
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG435141-3 QC Sample: L1014543-01 Client ID: DRUM33106A						
Mercury, TCLP	ND	ND	mg/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: LEWIS CHEMICAL
Project Number: 221375

Lab Number: L1014543
Report Date: 10/01/10

SAMPLE RESULTS

Lab ID: L1014543-01
Client ID: DRUM33106A
Sample Location: FAIRMOUNT CT. HYDE PARK, MA
Matrix: Soil

Date Collected: 09/16/10 08:00
Date Received: 09/17/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	82		%	0.10	NA	1	-	09/27/10 19:22	30,2540G	AW

Project Name: LEWIS CHEMICAL
Project Number: 221375

Lab Number: L1014543
Report Date: 10/01/10

SAMPLE RESULTS

Lab ID: L1014543-02
Client ID: DRUM33106B
Sample Location: FAIRMOUNT CT. HYDE PARK, MA
Matrix: Soil

Date Collected: 09/16/10 08:00
Date Received: 09/17/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	82		%	0.10	NA	1	-	09/27/10 19:22	30,2540G	AW

Lab Duplicate Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375

Lab Number: L1014543
Report Date: 10/01/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG434455-1 QC Sample: L1014543-01 Client ID: DRUM33106A						
Solids, Total	82	81	%	1		20

Project Name: LEWIS CHEMICAL
Project Number: 221375

Lab Number: L1014543
Report Date: 10/01/10

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1014543-01A	Vial Large unpreserved	A	N/A	2	Y	Absent	TCLP-EXT-ZHE(14),TCLP-VOA(14)
L1014543-01B	Amber 120ml unpreserved	A	N/A	2	Y	Absent	-
L1014543-01C	Amber 250ml unpreserved	A	N/A	2	Y	Absent	MCP-8082-10(365),TS(7)
L1014543-01X	Plastic 250ml HNO3 preserved spl	A	<2	2	Y	Absent	CD-CI(180),AS-CI(180),BA-CI(180),HG-C(28),PB-CI(180),CR-CI(180),SE-CI(180),AG-CI(180)
L1014543-02A	Vial Large unpreserved	A	N/A	2	Y	Absent	TCLP-EXT-ZHE(14),TCLP-VOA(14)
L1014543-02B	Amber 120ml unpreserved	A	N/A	2	Y	Absent	-
L1014543-02C	Amber 250ml unpreserved	A	N/A	2	Y	Absent	MCP-8082-10(365),TS(7)
L1014543-02X	Plastic 250ml HNO3 preserved spl	A	<2	2	Y	Absent	CD-CI(180),AS-CI(180),BA-CI(180),HG-C(28),PB-CI(180),CR-CI(180),SE-CI(180),AG-CI(180)

*Values in parentheses indicate holding time in days

Project Name:	LEWIS CHEMICAL	**Lab Number:**	L1014543
Project Number:	221375	**Report Date:**	10/01/10

GLOSSARY

Acronyms

EPA · Environmental Protection Agency.

LCS · Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD · Laboratory Control Sample Duplicate: Refer to LCS.

MDL · Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS · Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD · Matrix Spike Sample Duplicate: Refer to MS.

NA · Not Applicable.

NC · Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI · Not Ignitable.

RL · Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD · Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

Report Format: Data Usability Report

Project Name:	LEWIS CHEMICAL	**Lab Number:**	L1014543
Project Number:	221375	**Report Date:**	10/01/10

Data Qualifiers

RE - Analytical results are from sample re-extraction.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name:	LEWIS CHEMICAL	**Lab Number:**	L1014543
Project Number:	221375	**Report Date:**	10/01/10

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised July 19, 2010 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D))
Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E).)
Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3.3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 300.0, 353.2, SM2130B, 2320B, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)
Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, Lachat 10-107-06-1-B, SM2320B, 2340B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B.5, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624, ME DRO, ME GRO, MA EPH, MA VPH.)
*Solid Waste/Soil (*Organic Parameters: ME DRO, ME GRO, MA EPH, MA VPH.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
Drinking Water
Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl)
(EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate)
353.2 for: Nitrate-N, Nitrite-N; SM4500NO3-F, 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B.
Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics)
(504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), 314.0, 332.
Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; MF-SM9222D
Non-Potable Water
Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn)
(EPA 200.7 for: Al,Sb,As,Be,Cd,Cr,Co,Cu,Fe,Pb,Mn,Mo,Ni,Se,Ag,Sr,Ti,Tl, V,Zn,Ca,Mg,Na,K)
245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2540B, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-B,C-Titr, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics)

(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCBs-Water), EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables, 600/4-81-045-PCB-Oil

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM6215B, 9222B, 9223B Colilert, EPA 200.7, 200.8, 245.2, 120.1, 300.0, 314.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 331.0. Organic Parameters: 504.1, 524.2, SM6251B.)
Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 351.1, 353.2, 420.1, 1664A, SW-846 9010, 9030, 9040B, SM426C, SM2310B, 2540B, 2540D, 4500H+B, 4500NH3-H, 4500NH3-E, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 2320B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-117-07-1-B, LACHAT 10-107-06-1-B, LACHAT 10-107-04-1-C, LACHAT 10-107-04-1-J, LACHAT 10-117-07-1-A, SM4500CL-E, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3005A, 3015A, 3510C, 5030B, 8021B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A.)
Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 7.3.3.2, 7.3.4.2, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040, 9045C, 9050C, 1311, 3005A, 3050B, 3051A. Organic Parameters: SW-846 3540C, 3545, 3580A, 5030B, 5035, 8021B, 8260B, 8270C, 8330, 8151A, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 2540C, 2320B, 314.0, SM2120B, 2510B, 5310C, SM4500H-B, EPA 200.8, 245.2. Organic Parameters: 504.1, SM6251B, 524.2.)
Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-D, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, SM9221CE, 9222D, 9221B, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, SM5210B, SW-846 3015, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 3510C, EPA 608, 624, 625, SW-846 5030B, 8021B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7.)
Solid & Chemical Materials (Inorganic Parameters: SW-846 9040B, 3005A, 6010B, 7196A, 5030B, 9010B, 9030B, 1030, 1311, 3050B, 3051, 7471A, 9014, 9012A, 9045C, 9050A, 9065. Organic Parameters: SW-846 8021B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 1311, 1312, 3540C, 3545, 3550B, 3580A, 5035L, 5035H, NJ OQA-QAM-025 Rev.7.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 314.0, 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, EPA 120.1, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)
Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, LACHAT 10-117-07-1A or B, SM4500Cl-E, 4500F-C, SM15 426C, EPA 350.1, LACHAT 10-107-06-1-B, SM4500NH3-H, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-041-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, S\M3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, SM4500-CN-E LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, SM5310C, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 3015. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B, 9010B, 9030B.)
Solid & Hazardous Waste (Inorganic Parameters: 1010, 1030, SW-846 Ch 7 Sec 7.3, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Non-Potable Water (Organic Parameters: EPA 3510C, 5030B, 625, 624. 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)
Solid & Hazardous Waste (Inorganic Parameters: EPA 1010, 1030, 1311, 3050B, 3051, 6010B, EPA 7.3.3.2, EPA 7.3.4.2, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065. Organic Parameters: 3540C, 3545, 3580A, 5035, 8021B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NY-DOH.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NY-DOH Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476-09-1. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 376.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Department of Defense Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 9251, 9038, 350.1, 353.2, 351.1, 120.1, 9050A , 410.4, 9060, 1664, 420.1, LACHAT 10-107-06-1-B, SM 4500CN-E, 4500H-B, 4500CL-E, 4500F-BC, 4500SO4-E, 426C, 4500NH3-B, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500Norg-C, 4500PE, 2510B, 5540C, 5220D, 5310C, 2540B, 2540C, 2540D, 510C, 4500S2-AD, 3005A, 3015, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8330, 625, 8082, 8151A, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9040B, 9045C, 9065, 420.1, 9012A, 6860, 1311, 1312, 3050B, 9030B, 3051, 9010B, 3540C, SM 510ABC, 4500CN-CE, 2540G, SW-846 7.3, Organic Parameters: EPA 8260B, 8270C, 8330, 8082, 8081A, 8151A, 3545, 3546, 3580, 5035, MassDEP EPH, MassDEP VPH.)

Analytes Not Accredited by NELAP
Certification is not available by NELAP for the following analytes: **EPA 8260B:** Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline. **EPA 350.1** for Ammonia in a Soil matrix.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 9/17/10

ALPHA Job #: L1014543

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Serial No:10011016:20

Client Information

Client: Woodard + Curran

Address: Dedham MA

Phone:

Fax:

Email: jclint@woodardcurran.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Lewis Chemical

Project Location: Fairmount CT Hyde Park MA

Project #: 22137S

Project Manager: C. Blake

ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: 10-day 10/1/10 Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL

☑ ADEx ☐ Add'l Deliverables

Billing Information

☑ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☑ Yes ☐ No Are MCP Analytical Methods Required?

☐ Yes ☑ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)

☐ Yes ☑ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required , indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All ***CAM*** methods for inorganic analyses require MS every 20 soil samples)

MCP S-1

ANALYSIS: PCBs | TCLP VOCs | TCLP RCRA 8

SAMPLE HANDLING

Filtration
☐ Done ☑ Not needed ☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PCBs	TCLP VOCs	TCLP RCRA 8	Sample Specific Comments	TOTAL # BOTTLES
14543.1	Drum33106A	9/16/10	0800	SO	DC	ℓ	ℓ	ℓ		3
2	Drum33106B	9/16/10	0800	SO	DC	ℓ	ℓ	ℓ		3

Container Type	A	A	A
Preservative	A	A	A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
P. Gilbert	9/17/10 16:45	P. Gilbert	9/17/10 14:00
			9/17/10 1645

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 18-Jan-2010)

VEXOR Technology, Inc.
955 West Smith Road
Medina, Ohio 44256
Phone: 330-721-9773
FAX: 330-721-9438
EPA ID# OHD 077772895

MATERIAL CHARACTERIZATION

www.vexortechnology.com

Approval # _____
Sample # _____
Sales Rep _____
Date Submitted _____

Generator CITY OF BOSTON
Site Address 12-14 FAIRMOUNT COURT
City HYDEPARK State MA ZIP 02136
Phone 617-635-3880 Fax _____
EPA ID# MP6176353880 SIC Code _____
Technical Contact JAMES SMITH
Title COORDINATOR e-mail jasmith.dnd@cityofboston.gov

Bill To Name New England Disposal Technologies, Inc.
Site Address 83 Gilmore Dr
City Sutton State MA ZIP 01590
Phone 508-234-4440 Fax 508-234-4441
Business Contact Michael J Robertson
Title GM e-mail mrobertson@NEDTinc.com

MATERIAL DESCRIPTION

Name and Description of Material: Impacted Water
Process Generating Material: SITE INVESTIGATION U.S. EPA Hazardous Waste: ___Yes ✔No
Proper DOT shipping name: NON-RCRA NON-DOT REGULATED MATERIAL
Method of Shipment: ☐ Bulk ☑ Drum ☐ Tote ☐ Cubic Yd Box ☐ Other/Explain: _____
Estimated Annual Volume: Cubic Yards Tons Gallons 3 Drums DM Container material (metal, plastic, etc.)
Frequency: ☑ One Time Only ☐ Daily ☐ Weekly ☐ Monthly ☐ Yearly ☐ Other- explain 450 POUNDS Approx drum weight
Special Handling Instructions: _____
Preferred Disposal Method: ☑ Landfill ☐ Waste to Energy ☐ Recycling ☐ VEF ☐ Other _____

MATERIAL PROPERTIES AT 78°F

a) Physical State: ☐ Solid ☐ Semi-solid ☐ Powder ☑ Liquid ☐ Phases
b) Reactivity: ☐ Water reactive ☐ Acid Reactive ☐ Alkaline Reactive ☐ Oxidizer ☐ Autosetting ☑ none
c) Flash Point, °F: ☐ ≤ 72 ☐ >72-100 ☐ >100-140 ☐ >140-200 ☑ >200 ☐ NA
d) S. G./Density_____ e) pH: ☐ ≤ 2 ☐ >2 – 6 ☑ >6 – 9 ☐ >9 – <12.5 ☐ ≥12.5 ☐ NA
f) Odor: ☐ None ☑ Mild ☐ Strong : Describe: _____ g) Color brownish
h) Total Organic Halogen (TOX) ☑ 0 ppm ☐ >1000 ppm* If this material is considered a "USED OIL" and is to be managed as a USED OIL, please complete the "USED OIL" ADDENDUM and attach to this profile.
i) PCB Content: ☑ 0 ppm ☐ 1-49 ppm* ☐ equal to or > 50 ppm *Supporting analysis and documentation required.

MATERIAL COMPOSITION: List all components, add up to 100%.

Constituent	Range % (wt-vol)	
	Min	Max
Water	100	100
SEE ANALYTICAL		
A combined total should equal 100%		

Above is based on: Generator Knowledge___ Analytical Data ✔ MSDS ___
Please attach analysis, TCLP information and appropriate MSDS sheets.
SAMPLE SUBMITTED WITH THIS PROFILE: Yes___ No ✔

CHEMICAL COMPOSITION:

Constituent	Range %	
	Min	Max
Sulfur	NA	
Chlorine	NA	
Bromine	NA	
Fluorine	NA	
Nitrogen	NA	
Oxygen	NA	
Carbon	NA	
Ash	NA	
Btu's	NA	
Biomass	NA	

Metals (other than RCRA)

Metal	ppm	Metal	ppm	Metal	ppm	Metal	ppm
Thallium	NA	Antimony	NA	Beryllium	NA	Cobalt	NA
Copper	NA	Nickel	NA	Vanadium	NA	Tin	NA
Zinc	NA	Iron	NA	Manganese	NA	Magnesium	NA
Molybdenum	NA	Palladium	NA				

MATERIAL CHARACTERIZATION

Approval # _____

RCRA CONTAMINANTS: ☐ TCLP ✔ TOTAL ☐ NONE IN THIS SECTION

EPA #	NAME		REGULATORY LEVEL	ACTUAL	EPA#	NAME		REGULATORY LEVEL	ACTUAL
D004	Arsenic	☐	>5.0		D024	m-Cresol	☐	>200.0	
D005	Barium	☐	>100.0		D025	p-Cresol	☐	>200.0	
D006	Cadmium	☐	>1.0		D026	Cresol (total)	☐	>200.0	
D007	Chromium	☐	>5.0		D027	1,4-Dichlorobenzene	☐	>7.5	
D008	Lead	☐	>5.0		D028	1,2-Dichlorethane	☐	>0.5	
D009	Mercury	☐	>0.2		D029	1,2-Dichlorethylene	☐	>.13	
D010	Selenium	☐	>1.0		D030	2,4-Dinitrotoluene	☐	>0.008	
D011	Silver	☐	>5.0		D031	Heptachlor	☐	>0.13	
D012	Endrin	☐	>0.02		D032	Hexachlorobenzene	☐	>0.5	
D013	Lindane	☐	>0.4		D033	Hexachloro-1,3-butadiene	☐	>0.5	
D014	Methoxychlor	☐	>10.0		D034	Hexachloroethane	☐	>3.0	
D015	Toxaphene	☐	>0.05		D035	Methyl Ethyl Ketone	☐	>200.0	
D016	2,4-D	☐	>10.0		D036	Nitrobenzene	☐	>2.0	
D017	2,4,5-TP (Silvex)	☐	>1.0		D037	Petachlorophenol	☐	>100.0	
D018	Benzene	☐	>0.5		D038	Pyridine	☐	>100.0	
D019	Carbon Tetrchloride	☐	>0.5		D039	Tetrchloroethylene	☐	>0.7	
D020	Chlordane	☐	>0.03		D040	Trichloroethylene	☐	>0.5	4 ug/L
D021	Chlorobenzene	☐	>100.0		D041	2,4,5-Trichlorophenol	☐	>400.0	
D022	Chloroform	☐	>6.0		D042	2,4,6-Trichlorophenol	☐	>2.0	
D023	o-Cresol	☐	>200.0		D043	Vinyl Chloride	☐	>0.2	

1,4-Dioxane 86 ug/L

GENERATOR CERTIFICATION

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true and accurate description of the material being offered for disposal.
Samples of this material submitted to VEXOR are representative of the material described in this profile. I further certify that by utilizing this profile, neither I nor any other employee of the company will deliver for treatment, processing or recycling or attempt to deliver for same any material that is classified as a hazardous waste, medical or infectious waste or any other material that this facility is prohibited from accepting by law.

Authorized Representative Name (Printed) Daniel Clinton- Agent for City of Boston Company City of Boston Department of Neighborhood Development

Authorized Representative Signature: _____

Title: Agent for the City of Boston Date: _____

For VEXOR Use Only

Reviewed by: _____ Date: _____ Second review: _____ Date:

Approved for treatment (please check and initial) _____ Special Handling (if yes, make process directions in notes): _____

Treatment	Solidification/Landfill	Waste to Energy	VEF	Water	Used oil	Recycling	Other (please note processing)
Check all that apply							

Rejected – reason: _____

Price: _____ per unit: _____ CS initial_____ Price approved by: _____ Date: _____

Notes: _____

VEXOR Technology, Inc.
955 West Smith Road
Medina, Ohio 44256
Phone: 330-721-9773
FAX: 330-721-9438
EPA ID# OHD 077772895

MATERIAL CHARACTERIZATION

www.vexortechnology.com

Approval # _____
Sample # _____
Sales Rep _____
Date Submitted _____

Generator CITY OF BOSTON
Site Address 12-14 FAIRMOUNT COURT
City HYDEPARK State MA ZIP 02136
Phone 617-635-3880 Fax _____
EPA ID# MP6176353880 SIC Code _____
Technical Contact JAMES SMITH
Title COORDINATOR e-mail jasmith.dnd@cityofboston.gov

Bill To Name New England Disposal Technologies, Inc.
Site Address 83 Gilmore Dr
City Sutton State MA ZIP 01590
Phone 508-234-4440 Fax 508-234-4441
Business Contact Michael J Robertson
Title GM e-mail mrobertson@NEDTinc.com

MATERIAL DESCRIPTION

Name and Description of Material: Impacted Water
Process Generating Material: SITE INVESTIGATION U.S. EPA Hazardous Waste: ___Yes ✔No
Proper DOT shipping name: NON-RCRA NON-DOT REGULATED MATERIAL
Method of Shipment: ☐ Bulk ☑ Drum ☐ Tote ☐ Cubic Yd Box ☐ Other/Explain: _____
Estimated Annual Volume: Cubic Yards Tons Gallons 3 Drums DM Container material (metal, plastic, etc.)
Frequency: ☑ One Time Only ☐ Daily ☐ Weekly ☐ Monthly ☐ Yearly ☐ Other- explain 450 POUNDS Approx drum weight
Special Handling Instructions: _____
Preferred Disposal Method: ☑ Landfill ☐ Waste to Energy ☐ Recycling ☐ VEF ☐ Other _____

MATERIAL PROPERTIES AT 78°F

a) Physical State: ☐ Solid ☐ Semi-solid ☐ Powder ☑ Liquid ☐ Phases
b) Reactivity: ☐ Water reactive ☐ Acid Reactive ☐ Alkaline Reactive ☐ Oxidizer ☐ Autosetting ☑ none
c) Flash Point, °F: ☐ ≤ 72 ☐ >72-100 ☐ >100-140 ☐ >140-200 ☑ >200 ☐ NA
d) S. G./Density_____ e) pH: ☐ ≤ 2 ☐ >2 – 6 ☑ >6 – 9 ☐ >9 – <12.5 ☐ ≥12.5 ☐ NA
f) Odor: ☐ None ☑ Mild ☐ Strong : Describe: _____ g) Color brownish
h) Total Organic Halogen (TOX) ☑ 0 ppm ☐ >1000 ppm* If this material is considered a "USED OIL" and is to be managed as a USED OIL, please complete the "USED OIL" ADDENDUM and attach to this profile.
i) PCB Content: ☑ 0 ppm ☐ 1-49 ppm* ☐ equal to or > 50 ppm *Supporting analysis and documentation required.

MATERIAL COMPOSITION: List all components, add up to 100%.

Constituent	Range % (wt-vol)	
	Min	Max
Water	100	100
SEE ANALYTICAL		
A combined total should equal 100%		

Above is based on: Generator Knowledge___ Analytical Data ✔ MSDS ___
Please attach analysis, TCLP information and appropriate MSDS sheets.
SAMPLE SUBMITTED WITH THIS PROFILE: Yes___ No ✔

CHEMICAL COMPOSITION:

Constituent	Range %	
	Min	Max
Sulfur	NA	
Chlorine	NA	
Bromine	NA	
Fluorine	NA	
Nitrogen	NA	
Oxygen	NA	
Carbon	NA	
Ash	NA	
Btu's	NA	
Biomass	NA	

Metals (other than RCRA)

Metal	ppm	Metal	ppm	Metal	ppm	Metal	ppm
Thallium	NA	Antimony	NA	Beryllium	NA	Cobalt	NA
Copper	NA	Nickel	NA	Vanadium	NA	Tin	NA
Zinc	NA	Iron	NA	Manganese	NA	Magnesium	NA
Molybdenum	NA	Palladium	NA				

MATERIAL CHARACTERIZATION

Approval # _____

RCRA CONTAMINANTS: ☐ TCLP ✔ TOTAL ☐ NONE IN THIS SECTION

EPA #	NAME		REGULATORY LEVEL	ACTUAL	EPA#	NAME		REGULATORY LEVEL	ACTUAL
D004	Arsenic	☐	>5.0		D024	m-Cresol	☐	>200.0	
D005	Barium	☐	>100.0		D025	p-Cresol	☐	>200.0	
D006	Cadmium	☐	>1.0		D026	Cresol (total)	☐	>200.0	
D007	Chromium	☐	>5.0		D027	1,4-Dichlorobenzene	☐	>7.5	
D008	Lead	☐	>5.0		D028	1,2-Dichlorethane	☐	>0.5	6 ug/L
D009	Mercury	☐	>0.2		D029	1,2-Dichlorethylene	☐	>.13	44 ug/L
D010	Selenium	☐	>1.0		D030	2,4-Dinitrotoluene	☐	>0.008	
D011	Silver	☐	>5.0		D031	Heptachlor	☐	>0.13	
D012	Endrin	☐	>0.02		D032	Hexachlorobenzene	☐	>0.5	
D013	Lindane	☐	>0.4		D033	Hexachloro-1,3-butadiene	☐	>0.5	
D014	Methoxychlor	☐	>10.0		D034	Hexachloroethane	☐	>3.0	
D015	Toxaphene	☐	>0.05		D035	Methyl Ethyl Ketone	☐	>200.0	
D016	2,4-D	☐	>10.0		D036	Nitrobenzene	☐	>2.0	
D017	2,4,5-TP (Silvex)	☐	>1.0		D037	Petachlorophenol	☐	>100.0	
D018	Benzene	☐	>0.5		D038	Pyridine	☐	>100.0	
D019	Carbon Tetrchloride	☐	>0.5		D039	Tetrchloroethylene	☐	>0.7	130 ug/L
D020	Chlordane	☐	>0.03		D040	Trichloroethylene	☐	>0.5	210 ug/L
D021	Chlorobenzene	☐	>100.0		D041	2,4,5-Trichlorophenol	☐	>400.0	
D022	Chloroform	☐	>6.0		D042	2,4,6-Trichlorophenol	☐	>2.0	
D023	o-Cresol	☐	>200.0		D043	Vinyl Chloride	☐	>0.2	

Miscelanoues Analytical Hits: Methylene chloride 27 ug/L; 1,1-Dichloroethane 2 ug/L; 1,1,1-Trichloroethane 73 ug/L; Chloromethane 4 ug/L; 1,1-Dichloroethene1 ug/L; o-xylene 3 ug/L; Tetrahydrofuran 43 ug/L; 1,4- Dioxane 52 ug/L

GENERATOR CERTIFICATION

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true and accurate description of the material being offered for disposal.
Samples of this material submitted to VEXOR are representative of the material described in this profile. I further certify that by utilizing this profile, neither I nor any other employee of the company will deliver for treatment, processing or recycling or attempt to deliver for same any material that is classified as a hazardous waste, medical or infectious waste or any other material that this facility is prohibited from accepting by law.

Authorized Representative Name (Printed) Daniel Clinton- Agent for City of Boston Company City of Boston Department of Neighborhood Development

Authorized Representative Signature: _____

Title: Agent for the City of Boston Date: _____

For VEXOR Use Only

Reviewed by: _____ Date: _____ Second review: _____ Date:

Approved for treatment (please check and initial) _____ Special Handling (if yes, make process directions in notes): _____

Treatment	Solidification/Landfill	Waste to Energy	VEF	Water	Used oil	Recycling	Other (please note processing)
Check all that apply							

Rejected – reason: _____

Price: _____ per unit: _____ CS initial_____ Price approved by: _____ Date: _____

Notes: _____

VEXOR Technology, Inc.
955 West Smith Road
Medina, Ohio 44256
Phone: 330-721-9773
FAX: 330-721-9438
EPA ID# OHD 077772895

MATERIAL CHARACTERIZATION

www.vexortechnology.com

Approval # _____
Sample # _____
Sales Rep _____
Date Submitted _____

Generator CITY OF BOSTON
Site Address 12-14 FAIRMOUNT COURT
City HYDEPARK State MA ZIP 02136
Phone 617-635-3880 Fax _____
EPA ID# MP6176353880 SIC Code _____
Technical Contact JAMES SMITH
Title COORDINATOR e-mail jasmith.dnd@cityofboston.gov

Bill To Name New England Disposal Technologies, Inc.
Site Address 83 Gilmore Dr
City Sutton State MA ZIP 01590
Phone 508-234-4440 Fax 508-234-4441
Business Contact Michael J Robertson
Title GM e-mail mrobertson@NEDTinc.com

MATERIAL DESCRIPTION

Name and Description of Material: Impacted Water
Process Generating Material: SITE INVESTIGATION U.S. EPA Hazardous Waste: ___Yes ✔No
Proper DOT shipping name: NON-RCRA NON-DOT REGULATED MATERIAL
Method of Shipment: ☐ Bulk ☑ Drum ☐ Tote ☐ Cubic Yd Box ☐ Other/Explain: _____
Estimated Annual Volume: Cubic Yards Tons Gallons 3 Drums DM Container material (metal, plastic, etc.)
Frequency: ☑ One Time Only ☐ Daily ☐ Weekly ☐ Monthly ☐ Yearly ☐ Other- explain 450 POUNDS Approx drum weight
Special Handling Instructions: _____
Preferred Disposal Method: ☑ Landfill ☐ Waste to Energy ☐ Recycling ☐ VEF ☐ Other _____

MATERIAL PROPERTIES AT 78°F

a) Physical State: ☐ Solid ☐ Semi-solid ☐ Powder ☑ Liquid ☐ Phases
b) Reactivity: ☐ Water reactive ☐ Acid Reactive ☐ Alkaline Reactive ☐ Oxidizer ☐ Autosetting ☑ none
c) Flash Point, °F: ☐ ≤ 72 ☐ >72-100 ☐ >100-140 ☐ >140-200 ☑ >200 ☐ NA
d) S. G./Density_____ e) pH: ☐ ≤ 2 ☐ >2 – 6 ☑ >6 – 9 ☐ >9 – <12.5 ☐ ≥12.5 ☐ NA
f) Odor: ☐ None ☑ Mild ☐ Strong : Describe: _____ g) Color brownish
h) Total Organic Halogen (TOX) ☑ 0 ppm ☐ >1000 ppm* If this material is considered a "USED OIL" and is to be managed as a USED OIL, please complete the "USED OIL" ADDENDUM and attach to this profile.
i) PCB Content: ☑ 0 ppm ☐ 1-49 ppm* ☐ equal to or > 50 ppm *Supporting analysis and documentation required.

MATERIAL COMPOSITION: List all components, add up to 100%.

Constituent	Range % (wt-vol)	
	Min	Max
Water	100	100
SEE ANALYTICAL		
A combined total should equal 100%		

Above is based on: Generator Knowledge___ Analytical Data ✔ MSDS ___
Please attach analysis, TCLP information and appropriate MSDS sheets.
SAMPLE SUBMITTED WITH THIS PROFILE: Yes___ No ✔

CHEMICAL COMPOSITION:

Constituent	Range %	
	Min	Max
Sulfur	NA	
Chlorine	NA	
Bromine	NA	
Fluorine	NA	
Nitrogen	NA	
Oxygen	NA	
Carbon	NA	
Ash	NA	
Btu's	NA	
Biomass	NA	

Metals (other than RCRA)

Metal	ppm	Metal	ppm	Metal	ppm	Metal	ppm
Thallium	NA	Antimony	NA	Beryllium	NA	Cobalt	NA
Copper	NA	Nickel	NA	Vanadium	NA	Tin	NA
Zinc	NA	Iron	NA	Manganese	NA	Magnesium	NA
Molybdenum	NA	Palladium	NA				

MATERIAL CHARACTERIZATION

Approval # _____

RCRA CONTAMINANTS: ☐ TCLP ✔ TOTAL ☐ NONE IN THIS SECTION

EPA #	NAME		REGULATORY LEVEL	ACTUAL	EPA#	NAME		REGULATORY LEVEL	ACTUAL
D004	Arsenic	☐	>5.0		D024	m-Cresol	☐	>200.0	
D005	Barium	☐	>100.0		D025	p-Cresol	☐	>200.0	
D006	Cadmium	☐	>1.0		D026	Cresol (total)	☐	>200.0	
D007	Chromium	☐	>5.0		D027	1,4-Dichlorobenzene	☐	>7.5	
D008	Lead	☐	>5.0		D028	1,2-Dichlorethane	☐	>0.5	2 ug/L
D009	Mercury	☐	>0.2		D029	1,2-Dichlorethylene	☐	>.13	33 ug/L
D010	Selenium	☐	>1.0		D030	2,4-Dinitrotoluene	☐	>0.008	
D011	Silver	☐	>5.0		D031	Heptachlor	☐	>0.13	
D012	Endrin	☐	>0.02		D032	Hexachlorobenzene	☐	>0.5	
D013	Lindane	☐	>0.4		D033	Hexachloro-1,3-butadiene	☐	>0.5	
D014	Methoxychlor	☐	>10.0		D034	Hexachloroethane	☐	>3.0	
D015	Toxaphene	☐	>0.05		D035	Methyl Ethyl Ketone	☐	>200.0	
D016	2,4-D	☐	>10.0		D036	Nitrobenzene	☐	>2.0	
D017	2,4,5-TP (Silvex)	☐	>1.0		D037	Petachlorophenol	☐	>100.0	
D018	Benzene	☐	>0.5		D038	Pyridine	☐	>100.0	
D019	Carbon Tetrchloride	☐	>0.5		D039	Tetrchloroethylene	☐	>0.7	24 ug/L
D020	Chlordane	☐	>0.03		D040	Trichloroethylene	☐	>0.5	21 ug/L
D021	Chlorobenzene	☐	>100.0		D041	2,4,5-Trichlorophenol	☐	>400.0	
D022	Chloroform	☐	>6.0		D042	2,4,6-Trichlorophenol	☐	>2.0	
D023	o-Cresol	☐	>200.0		D043	Vinyl Chloride	☐	>0.2	

Miscelanoues Analytical Hits: 1,1,1-Trichloroethane 6 ug/L; Toluene 2 ug/L; Acetone 12 ug/L; 1,4- Dioxane 3 ug/L

GENERATOR CERTIFICATION

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true and accurate description of the material being offered for disposal.
Samples of this material submitted to VEXOR are representative of the material described in this profile. I further certify that by utilizing this profile, neither I nor any other employee of the company will deliver for treatment, processing or recycling or attempt to deliver for same any material that is classified as a hazardous waste, medical or infectious waste or any other material that this facility is prohibited from accepting by law.

Authorized Representative Name (Printed) Daniel Clinton- Agent for City of Boston Company City of Boston Department of Neighborhood Development

Authorized Representative Signature: _____

Title: Agent for the City of Boston Date: _____

For VEXOR Use Only

Reviewed by: _____ Date: _____ Second review: _____ Date:

Approved for treatment (please check and initial) _____ Special Handling (if yes, make process directions in notes): _____

Treatment	Solidification/Landfill	Waste to Energy	VEF	Water	Used oil	Recycling	Other (please note processing)
Check all that apply							

Rejected – reason: _____

Price: _____ per unit: _____ CS initial_____ Price approved by: _____ Date: _____

Notes: _____

Absolute Resource associates
124 Heritage Avenue Portsmouth NH 03801

Dan Clinton
Woodard & Curran
980 Washington St
Suite 325N
Dedham, MA 02026

PO Number: None
Job ID: 24838
Date Received: 8/28/12

Project: Lewis Chemical 221375

Attached please find results for the analysis of the samples received on the date referenced above.

Unless otherwise noted in the attached report, the analyses performed met the requirements of Absolute Resource Associates' Quality Assurance Plan. The Standard Operating Procedures are based upon USEPA SW-846, USEPA Methods for Chemical Analysis of Water and Wastewater, Standard Methods for the Examination of Water and Wastewater and other recognized methodologies. The results contained in this report pertain only to the samples as indicated on the chain of custody.

Absolute Resource Associates maintains certification with the agencies listed below.

We appreciate the opportunity to provide laboratory services. If you have any questions regarding the enclosed report, please contact the laboratory and we will be glad to assist you.

Sincerely,
Absolute Resource Associates

SS (for)

Sue Sylvester
Principal, General Manager

Date of Approval: 9/13/2012
Total number of pages: 3

Absolute Resource Associates Certifications

New Hampshire	1732	Massachusetts	M-NH902
Maine	NH903		

Project ID: 221375 Lewis Chemical
Job ID: 24838
Sample #: 24838-001
Sample ID: Post Filter 82412
Matrix: TCLP Extract
Sampled: 8/24/12 12:00
TCLP: 9/4/12

Parameter	Result	Reporting Limit	TCLP Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
1,2-dichloroethane	< 40	40	500	ug/L	20	LMM	9/4/12	5486	9/5/12	22:13	SW1311 SW5030B8260B
1,1-dichloroethene	< 40	40	700	ug/L	20	LMM	9/4/12	5486	9/5/12	22:13	SW1311 SW5030B8260B
1,4-dichlorobenzene	< 40	40	7500	ug/L	20	LMM	9/4/12	5486	9/5/12	22:13	SW1311 SW5030B8260B
benzene	< 40	40	500	ug/L	20	LMM	9/4/12	5486	9/5/12	22:13	SW1311 SW5030B8260B
carbon tetrachloride	< 40	40	500	ug/L	20	LMM	9/4/12	5486	9/5/12	22:13	SW1311 SW5030B8260B
chlorobenzene	< 40	40	100000	ug/L	20	LMM	9/4/12	5486	9/5/12	22:13	SW1311 SW5030B8260B
chloroform	< 40	40	6000	ug/L	20	LMM	9/4/12	5486	9/5/12	22:13	SW1311 SW5030B8260B
2-butanone (MEK)	< 200	200	200000	ug/L	20	LMM	9/4/12	5486	9/5/12	22:13	SW1311 SW5030B8260B
tetrachloroethene	< 40	40	700	ug/L	20	LMM	9/4/12	5486	9/5/12	22:13	SW1311 SW5030B8260B
trichloroethene	< 40	40	500	ug/L	20	LMM	9/4/12	5486	9/5/12	22:13	SW1311 SW5030B8260B
vinyl chloride	< 40	40	200	ug/L	20	LMM	9/4/12	5486	9/5/12	22:13	SW1311 SW5030B8260B
Surrogate Recovery				**Limits**							
dibromofluoromethane SUR	100	78-114		%	20	LMM	9/4/12	5486	9/5/12	22:13	SW1311 SW5030B8260B
toluene-D8 SUR	101	88-110		%	20	LMM	9/4/12	5486	9/5/12	22:13	SW1311 SW5030B8260B
4-bromofluorobenzene SUR	97	86-115		%	20	LMM	9/4/12	5486	9/5/12	22:13	SW1311 SW5030B8260B

Absolute Resource associates

Absolute Resource associates
124 Heritage Avenue #10
Portsmouth, NH 03801
603-436-2001
absoluteresourceassociates.com

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST 24838

Company Name: Woodard & Curran Inc.
Company Address: 980 Washington Street
Report To: Dan Clinton
Phone #: 781-251-0200
Invoice To: Dan Clinton of Woodard & Curran

Project Name: Lewis Chemical
Project #: 221375
Project Location: NH (MA) ME VT Other
Protocol: (RCRA) MCP SDWA NHDES NPDES OTHER
Reporting Limits: QAPP EPA DW GW-1 Other S-1
Quote # ☐ NH GREE/ODD Fund Pricing
PO #

Lab Sample ID (Lab Use Only)	Field ID	# CONTAINERS	Matrix: WATER	Matrix: SOLID	Matrix: OTHER	Preservation Method: HCl	Preservation Method: HNO_3	Preservation Method: H_2SO_4	Preservation Method: NaOH	Preservation Method: MeOH	Preservation Method: OTHER (Specify)	Sampling: DATE	Sampling: TIME	Sampling: SAMPLER
24838-01	Post Filter 82412	1		X								8/24/12	12:00	DC

ANALYSIS REQUEST

Lab Sample ID	☐ VOC 8260 ☐ VOC 8260 NHDES ☐ VOC 8260-MADEP	☐ VOC 624 ☐ VOC BTEX ☐ MtBE, only ☐ VOC 8021VT	☐ VPH MADEP ☐ MEGRO ☐ GRO 8015	☐ VOC 524.2 ☐ VOC 524.2 NH List ☐ Gases-List:	☐ TPH ☐ DRO 8015 ☐ MEDRO ☐ EPH MADEP ☐ TPH Fingerprint	☐ 8270PAH ☐ 8270ABN ☐ 625 ☐ EDB 504.1	☐ 8082 PCB ☐ 8081 Pesticides ☐ 608 Pest/PCB	☐ O&G 1664 ☐ Mineral O&G SM5520F	☐ pH ☐ BOD ☐ Conductivity ☐ Turbidity	☐ TSS ☐ TDS ☐ TS ☐ TVS ☐ Alkalinity	☐ RCRA Metals ☐ Priority Pollutant Metals ☐ TAL Metals	☐ Total Metals-list:	☐ Dissolved Metals-list:	☐ Ammonia ☐ COD ☐ TKN ☐ TN ☐ TON	☐ T-Phosphorus ☐ Phenols ☐ Bacteria P/A ☐ Bacteria MPN	☐ Cyanide ☐ Sulfide ☐ Nitrate+Nitrite ☐ Ortho P	☐ Nitrate ☐ Nitrite ☐ Chloride ☐ Sulfate ☐ Bromide ☐ Fluoride	☐ Corrosivity ☐ Reactive CN ☐ Reactive S- ☐ Ignitibility/FP	☐ TCLP Metals ☒ TCLP VOC ☐ TCLP SVOC ☐ TCLP Pesticide	Subcontract: ☐ TOC ☐ Grain Size ☐ TCLP Herbicides				Grab (G) or Composite (C)
24838-01																				X					C

TAT REQUESTED
Priority (24 hr)* ☐
Expedited (48 hr)* ☐
Standard (10 Business Days) ☒
*Date Needed _____

See absoluteresourceassociates.com for sample acceptance policy and current accreditation lists.

SPECIAL INSTRUCTIONS
Material is solid impregnated with 6% KMnO4 used to treat VOCs in SVE process air. Call Dan Clinton with questions.

REPORTING INSTRUCTIONS ☒ PDF (e-mail address) dclinton@woodardcurran.com
☐ HARD COPY REQUIRED ☐ FAX (FAX#) _____ ☐ OTHER (specify) _____

RECEIVED ON ICE (Y) ☐ YES ☐ NO
TEMPERATURE 2 °C

CUSTODY RECORD
QSD-01 Revision 12/23/10

	Date	Time		Date	Time
Relinquished by Sampler:	8/28/12	11 20	Received by:	8/28/12	11 20
Relinquished by:			Received by:		
Relinquished by:			Received by Laboratory:		
			Way Bill#:		

3

APPENDIX D: WASTE DISPOSAL DOCUMENTATION

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
MP6176953860	1	800-888-1865	009178664 JJK

GENERATOR

5. Generator's Name and Mailing Address
City of Boston - Dept. of Neighborhood Development
26 Court Street - 9th Floor
Boston MA 02108
Generator's Phone: 617 635-3850

Generator's Site Address (if different than mailing address)
Former Lewis Chemical Site
12 - 14 Fairmount Court
Hyde Park MA 02136

6. Transporter 1 Company Name: New England Disposal Technologies, Inc. — U.S. EPA ID Number: MAC300008059

7. Transporter 2 Company Name: New England Disposal Technologies, Inc. — U.S. EPA ID Number: MAC300008059

8. Designated Facility Name and Site Address
Veolia Technology, Inc.
955 West Smith Road
Medina OH 44256
Facility's Phone: 330 721-9773
U.S. EPA ID Number: OHD077772895

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA, non-DOT Regulated Material (soil borings)	3	DM	1500	P	MA99
	2. Non-RCRA, non-DOT Regulated Material (water)	3	DM	165	G	MA99
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1)VEX22837 2)VEX23236 DC-Drum not Transported Job# 01-13402 -unshippable
Item #1 includes drums: Waste 3, 33105-3, 33105-7, Waste 9
Item #2 includes drums: Knock Out-A, Knock Out-B, Knock Out-C

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Daniel Clinton — Signature: [signature] — Month: 06 Day: 07 Year: 12

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Shaun M. Faul — Signature: [signature] — Month: 06 Day: 07 Year: 12

Transporter 2 Printed/Typed Name: Tom Black — Signature: [signature] — Month: 06 Day: 15 Year: 12

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Joe Richmond — Signature: [signature] — Month: 06 Day: 15 Year: 12

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

TRANSPORTER'S COPY