Scope of Work
Remedial Action
K&K Stripping Site 826021

1. Purpose

Excavate concrete slab, building foundation and lead contaminated soil. Backfill excavations, place topsoil, restore vegetative cover.

2. Site Background

Location: The site is a former furniture stripping facility known as K&K Stripping located at 1920 Buell Avenue in the Village of Lima, in the northeastern corner of Livingston County, New York. The parcel is identified on real property records as Tax Map Number 37.14-1-21.2.

Site Features: This small property is located along a primarily residential street one block southeast of the intersection of Routes 20 and 15A. It is surrounded on three sides by residential properties. A small auto detailing shop abuts the site to the south. There was formerly a vacant single-story commercial structure on-site (approximately 4,300 square feet) along the northern property line. The property is serviced by a gravel driveway. The perimeter and rear of the property are grass-covered. The area is served by a public water supply.

The topography is generally flat and slopes to the south. An unnamed tributary to Spring Brook flows along the southern property line. Surface water runoff flows to this tributary which flows in an easterly direction before entering a culvert flowing beneath Buell Avenue. This tributary discharges to a class C unnamed tributary of Spring Brook.

Current Zoning and Land Use: The site is zoned residential according to the Village of Lima, although actual use of the site had been commercial. The property is currently abandoned.

Past Use of the Site: Prior to Livingston County acquiring the property in August 2010, the former owner operated a furniture stripping business at the site. The stripping business ceased operations following the conviction of the former owner (October 2000) for treatment of hazardous wastes without authorization. Solvents utilized during facility operations included acetone, toluene, MEK, methanol, and methylene chloride.

3. Investigation/Remediation History

This site was the subject of two Department criminal investigations (1997-1998 and 2009-2010) and a hazardous waste removal action by the Department in 2009 (Spill #0900191). Samples collected in 1997 from the sanitary sewer upstream of the municipal sewer main documented VOC and metals being discharged to the village sewer system causing WWTP upsets and high metals in sludge. Data also showed mishandling of hazardous waste with evidence of solvent spillage on the concrete floors and high lead levels in the gravel driveway. In 2009, DEC initiated a removal action which pumped/disposed of 2,000 gallons of solvent waste from a subfloor sump and removed/disposed of some assorted waste containers.

3.1. Site Characterization

In 2012, the Department completed a site characterization and identified high levels of lead in

soil, solvents in interior sumps, and low levels of acetone, xylene, toluene, and 1,3,5 trimethylbenzene in groundwater. Total VOCs in groundwater were less than 10 parts per billion (ppb), lead was detected in groundwater at levels exceeding the New York State groundwater standards. No site-related contamination was detected in surface water. Based upon the Site Characterization Report, the Department completed an interim remedial measure (IRM) at the site in 2016.

3.2. Interim Remedial Measure

In 2016, a soil removal and oil/water separator demolition were completed by a DEC-hired contractor. The goal was to excavate and dispose of lead contaminated soils exceeding commercial SCOs of 1000 ppm due to a proposed zoning change from residential to commercial. Approximately 67 tons of lead-contaminated soil was excavated from the western portion of the property to a depth of approximately 2 feet. These soils were disposed of off-site at a permitted landfill. One of six sidewall confirmatory samples indicated lead levels of 646 ppm which exceed the residential SCO of 400 ppm. The excavation was backfilled with crusher-run stone. Within the building an elevated oil/water separator structure was pumped out, and demolished. Approximately 1,050 gallons of solvent contaminated liquids and sludge were disposed of off-site as a hazardous waste. Approximately 110 tons of associated concrete, fill material, and wooden structural materials were disposed of off-site at a permitted landfill. Confirmatory soil samples indicated lead levels of 696 ppm and 826 ppm which exceed the residential SCO for lead. The area was backfilled with crusher-run stone. Surface water samples from an unnamed tributary to Spring Brook on the south side of the property did not indicate any site-related contamination. The IRM is documented in a construction completion report that is included as an appendix in the Remedial Investigation Report prepared by Ramboll dated October 2019.

Attached are the waste characterization results for the soil disposal.

3.3. Remedial Investigation/Feasibility Study

The Remedial Investigation was completed at the site in 2019. The goal of the RI was to determine the nature and extent of contamination remaining on-site after completion of the IRM in 2016.

Soil:
Acetone and lead were the only contaminants detected above the unrestricted use SCOs. Acetone contamination is limited to shallow soils in a small area beneath the former oil/water separator in the building. This area was subject to the IRM. Lead contamination exceeds the residential SCO of 400 ppm within the upper 2 feet of soil in two small areas of the site.

Groundwater:
Lead was the only contaminant of concern detected in one groundwater well above the New York State Groundwater Standard of 25 parts per billion (ppb). The highest level detected was 53 ppb. These exceedances for lead may be a result high levels of suspended solids (turbidity) in the groundwater samples

Site Geology and Hydrogeology:
The uppermost overburden underlying the site generally consists of fill ranging in thickness from approximately one foot to 10 feet. The fill consists of varying amounts of silt, sand, gravel, small amounts of clay and at times ash and metal fragments. The fill is underlain by clay-rich glacial till

with variable gravel and silt content. The thickness of the overburden is unknown, and mapping indicates that Onondaga Limestone underlies the site.

Groundwater was encountered in monitoring wells at depths ranging from 4.5 to 10 feet below ground surface. Groundwater flows toward the south-southeast, generally following the topography and likely influenced by the nearby stream.

3.4. Building Demolition

In December 2021, Livingston County hired a contractor to demolish the building down to the building slab and dispose of building debris.

4. Scope or Remedial Work

4.1. Site Visit

Initial site reconnaissance with DEC Project Manager to discuss scope of the remedial work.

4.2. Site survey/Map

A base survey map shall be prepared identifying the property limits, monitoring well locations, and the location of the former building. The map shall be submitted to the Department in electronic format (.pdf) 11x17 size.

4.3. Site Clearing and Erosion Control

Clear and grub surficial vegetation. Silt fencing or equivalent (e.g. Diamond Sock) shall be placed along the downslope portions of the site perimeter to prevent sediment run-off.

4.4. Concrete Slab and Foundation Removal

The concrete slab and foundation elements shall be excavated and disposed of off-site at either a permitted concrete recycler or permitted disposal facility. Excavation shall be backfilled with clean imported material A as specified in under Soil Import Section below.

Community Air Monitoring Plan (CAMP) monitoring is required during all ground intrusive activities. A PID shall be used to screen for VOCs during excavation activities. Any elevated VOCs should have the location noted for sample locations. At least four samples shall be obtained beneath the slab (outside the lead contaminated soil area defined in section 4.5 and Figure 6) and submitted to an ELAP approved lab with category B deliverables for VOC and lead analyses.

4.5. Lead Contaminated Soil Excavation

Excavate and approximate 30’ by 15’ be area to a depth of two feet. The material shall be characterized and disposed of at a permitted facility. Characterization shall be the disposal facility requirements. See Figure 6 for approximate location. Four confirmatory samples shall be obtained beneath the slab and submitted to an ELAP approved lab with category B deliverables for lead analyses. The area will not be backfilled until confirmatory sample results are received and the levels of lead are below the residential SCOs (400 ppm). Attached is the waste characterization data from the previous soil excavation.

If soils do not meet the SCOs for lead, additional excavations will be required until the residential SCO for lead is achieved. Once approved, excavation shall be backfilled with clean imported material A as specified under Soil Import Section below. CAMP monitoring is required during all ground intrusive activities. A PID shall be used to screen for VOCs during excavation activities

4.6. Former Drainage Pipe

Excavate and remove former drainpipe and dispose of materials at a permitted facility. See Figure 6 for approximate location of the pipe.

4.7. Site Restoration

The area of the former building shall be graded to drain towards the south with a slope no greater than 1%. At least six inches of topsoil shall be placed over backfilled areas and seeded. Erosion control shall be removed once a vegetative cover has been established unless is it biodegradable. Topsoil shall extend over the existing gravel driveway.

4.8. Soil Import

Two types of backfill. Material A will consist of stone meeting the sieve requirements in DER-10 Section 5.4(e)5. Material B shall consist of topsoil that meets the Residential SCOs in 6NYCRR Part 375. Topsoil shall be sampled per guidelines in DER-10 import request.

4.9. Data Usability and EDD Submittal

Data from received from soils sampled in section 4.4 and 4.5 shall be submitted to a third party validator to prepare a data usability study report (DUSR). Validated data shall have an EDD package prepared and submitted to EQUIS.

4.10. Decommission 3 monitoring wells

Prior to placement of topsoil backfill decommission the three monitoring wells. See Figure 3 for approximate well locations.

5. Deliverables

- Documentation of the type and quantity of all imported materials.
- Documentation of disposal quantities and location for concrete and lead contaminated soils.
- DUSR
- Site map as specified in Section 4.2.
- Documentation of well decommissioning.

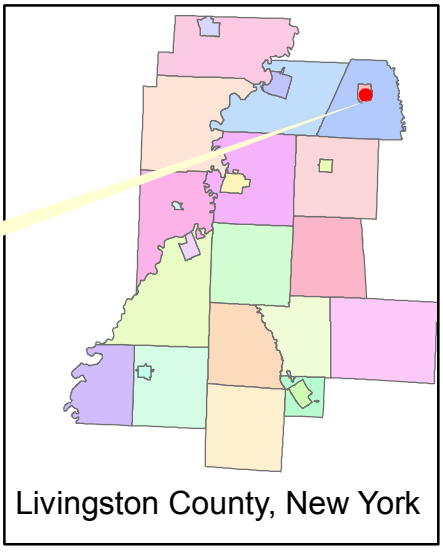
Figure 1 - K&K Stripping

N
W E
S

0 20 40 80 120 160
Feet

Legend

- Drainage Culvert
- Class C Spring Brook Trib.
- Culvert
- Unnamed Tributary



NOTES:
1. IRM - INTERIM REMEDIAL MEASURES
2. 6 NYCRR PART 375, TABLE 375-6.8 SOIL CLEANUP OBJECTIVES, DECEMBER 14, 2006 AND CP-51, SOIL CLEANUP GUIDANCE, TABLE 1: SUPPLEMENTAL SOIL CLEANUP OBJECTIVES, OCTOBER 21, 2010.
3. SAMPLE LOCATION SYMBOLS WITHOUT COLORED LINES REPRESENT SAMPLES WITH RESULTS BELOW SCOs.
4. IMPORTED GRAVEL ABOVE GRADE WAS LAID OVER FABRIC DURING IRM ACTIVITIES.
5. Area 2 limits of excavation demarcated with orange snow fence, backfilled to grade with gravel and compacted.
6. Area 3 demolition left exposed soil at grade. Exposed soil from demolition covered with orange snow fence and six inches of gravel and compacted.

AERIAL IMAGERY PROVIDED BY NYS GIS CLEARINGHOUSE, IMAGERY YEAR 2015

N

LEGEND

IRM DOCUMENTATION SAMPLING

- COMPOSITE SIDEWALL SAMPLE (0-2')
- IRM EXCAVATION LIMITS
- COMPOSITE SIDEWALL SAMPLE (0-2')
- COMPOSITE SIDEWALL SAMPLE EXCEEDING UNRESTRICTED SCOs
- COMPOSITE SIDEWALL SAMPLE EXCEEDING RESIDENTIAL AND PROTECTION OF GROUNDWATER SCOs
- COMPOSITE FLOOR SOIL SAMPLE (6") EXCEEDING UNRESTRICTED, RESIDENTIAL, AND PROTECTION OF GROUNDWATER SCOs

SITE FEATURES

- UNDERGROUND PIPE
- APPROXIMATE FORMER ELEVATED OIL WATER SEPARATOR
- EXTENT OF IMPORTED GRAVEL ABOVE GRADE
- PROPERTY LINE
- UNNAMED TRIBUTARY

NYSDEC
REMEDIAL INVESTIGATION
K&K STRIPPING SITE
LIMA, NEW YORK
SITE NO. 826021

INTERIM REMEDIAL MEASURES SITE LAYOUT

0 10 20 40
Feet

FILE 62147
FEBRUARY 2018

O'BRIEN & GERE ENGINEERS, INC.

Figure 3 - Groundwater

N
W E
S

0 10 20 40 60 80
Feet

Legend

- SC-Wells
- RI Wells
- Sump Discharge Pipe
- Culvert
- Unnamed Tributary
- IRM Areas

NOTES:

1. RI - REMEDIAL INVESTIGATION
   IRM - INTERIM REMEDIAL MEASURES
   SC - SITE CHARACTERIZATION
2. 6 NYCRR PART 375, TABLE 375-6.8 SOIL CLEANUP OBJECTIVES, DECEMBER 14, 2006 AND CP-51, SOIL CLEANUP GUIDANCE, TABLE 1: SUPPLEMENTAL SOIL CLEANUP OBJECTIVES, OCTOBER 21, 2010.
3. SAMPLE LOCATION SYMBOLS WITHOUT COLORED RINGS REPRESENT SAMPLES WITH RESULTS BELOW SCOs.
4. GRAYED SYMBOLS REPRESENT LOCATIONS IN WHICH NO SAMPLE WAS COLLECTED AT A DEPTH LESS THAN 2".
5. IMPORTED GRAVEL ABOVE GRADE WAS LAID OVER FABRIC DURING IRM ACTIVITIES.
6. SURFACE SOIL (0-2")
7. NEAR SURFACE SOIL (0-6")

AERIAL IMAGERY PROVIDED BY NYS GIS CLEARINGHOUSE, IMAGERY YEAR 2015

N

LEGEND

RI SAMPLE LOCATIONS

- MONITORING WELL
- SOIL BORING
- SURFACE SOIL
- NEAR SURFACE SOIL

SC SAMPLE LOCATIONS

- NEAR SURFACE SOIL
- SOIL BORING

IRM SAMPLE LOCATIONS

- COMPOSITE FLOOR SOIL SAMPLE (6") EXCEEDING UNRESTRICTED, RESIDENTIAL, AND PROTECTION OF GROUNDWATER SCOs
- IRM EXCAVATION LIMITS

LEAD RESULTS COMPARED TO SCOs[1]

- LEAD EXCEEDS UNRESTRICTED SCO (63 mg/kg)
- LEAD EXCEEDS RESIDENTIAL SCO (400 mg/kg)
- LEAD EXCEEDS PROTECTION OF GROUNDWATER SCO (450 mg/kg)

SITE FEATURES

- UNDERGROUND PIPE
- APPROXIMATE FORMER ELEVATED OIL WATER SEPARATOR
- EXTENT OF IMPORTED GRAVEL ABOVE GRADE
- PROPERTY LINE
- UNNAMED TRIBUTARY

NYSDEC
REMEDIAL INVESTIGATION
K&K STRIPPING SITE
LIMA, NEW YORK
SITE NO. 826021

SURFACE SOIL (0-2")
LEAD EXCEEDANCES

0 10 20 40
Feet

FILE NO. 8653.62147
FEBRUARY 2018

O'BRIEN & GERE ENGINEERS, INC.

NOTES:

1. RI - REMEDIAL INVESTIGATION
   IRM - INTERIM REMEDIAL MEASURES
   SC - SITE CHARACTERIZATION
2. [1]6 NYCRR PART 375, TABLE 375-6.8 SOIL CLEANUP OBJECTIVES, DECEMBER 14, 2006 AND CP-51, SOIL CLEANUP GUIDANCE, TABLE 1: SUPPLEMENTAL SOIL CLEANUP OBJECTIVES, OCTOBER 21, 2010.
3. SAMPLE LOCATION SYMBOLS WITHOUT COLORED RINGS REPRESENT SAMPLES WITH RESULTS BELOW SCOs.
4. GRAYED SYMBOLS REPRESENT LOCATIONS IN WHICH NO SAMPLE WAS COLLECTED AT A DEPTH >6".
5. IMPORTED GRAVEL ABOVE GRADE WAS LAID OVER FABRIC DURING IRM ACTIVITIES.
6. SURFACE SOIL (0-2")
7. NEAR SURFACE SOIL (0-6")

AERIAL IMAGERY PROVIDED BY NYS GIS CLEARINGHOUSE, IMAGERY YEAR 2015

N

LEGEND

RI SAMPLE LOCATIONS

- MONITORING WELL
- SOIL BORING
- SURFACE SOIL
- SURFACE SOIL/SOIL BORING
- NEAR SURFACE SOIL

SC SAMPLE LOCATIONS

- NEAR SURFACE SOIL
- SOIL BORING

IRM DOCUMENTATION SAMPLING

- COMPOSITE SIDEWALL SAMPLE (0-2')
- IRM EXCAVATION LIMITS

LEAD RESULTS COMPARED TO SCOs[1]

- LEAD EXCEEDS UNRESTRICTED SCO (63 mg/kg)
- LEAD EXCEEDS RESIDENTIAL SCO (400 mg/kg)
- LEAD EXCEEDS PROTECTION OF GROUNDWATER SCO (450 mg/kg)

SITE FEATURES

- UNDERGROUND PIPE
- APPROXIMATE FORMER ELEVATED OIL WATER SEPARATOR
- EXTENT OF IMPORTED GRAVEL ABOVE GRADE
- PROPERTY LINE
- UNNAMED TRIBUTARY

NYSDEC
REMEDIAL INVESTIGATION
K&K STRIPPING SITE
LIMA, NEW YORK
SITE NO. 826021

RI, IRM, AND SC SUBSURFACE SOIL (>6" DEPTH) LEAD EXCEEDANCES

0 10 20 40
Feet

FILE 62147
FEBRUARY 2018

O'BRIEN & GERE ENGINEERS, INC.

Figure 6 - K&K Stripping
Proposed Remedy

N
W E
S

0 10 20 40 60 80
Feet

Legend

- K&K Stripping
- Soil Removal Area 1
- Soil Removal Area 2
- Culvert
- Unnamed Tributary

RAMBOLL

EXHIBIT 2
WASTE CHARACTERIZATION LABORATORY RESULTS

RAMBOLL

EXHIBIT 2
AREA 2
WASTE CHARACTERIZATION LABORATORY REPORTS

PARADIGM
ENVIRONMENTAL SERVICES, INC

Analytical Report For

TREC Environmental Inc.

For Lab Project ID

161619

Referencing

K&K Stripping

Prepared

Monday, May 02, 2016

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 161619

Client: **TREC Environmental Inc.**

Project Reference: K&K Stripping

Sample Identifier: Disposal
Lab Sample ID: 161619-01 **Date Sampled:** 4/26/2016
Matrix: Soil **Date Received:** 4/26/2016

Flash Point

Analyte	Result	Units	Qualifier	Date Analyzed
Flash Point, Celsius	>70.0	C		4/28/2016

Method Reference(s): EPA 1010A

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 8.37	ug/Kg		4/27/2016 16:13
1,1,2,2-Tetrachloroethane	< 8.37	ug/Kg		4/27/2016 16:13
1,1,2-Trichloroethane	< 8.37	ug/Kg		4/27/2016 16:13
1,1-Dichloroethane	< 8.37	ug/Kg		4/27/2016 16:13
1,1-Dichloroethene	< 8.37	ug/Kg		4/27/2016 16:13
1,2,3-Trichlorobenzene	< 20.9	ug/Kg		4/27/2016 16:13
1,2,4-Trichlorobenzene	< 20.9	ug/Kg		4/27/2016 16:13
1,2-Dibromo-3-Chloropropane	< 41.9	ug/Kg		4/27/2016 16:13
1,2-Dibromoethane	< 8.37	ug/Kg		4/27/2016 16:13
1,2-Dichlorobenzene	< 8.37	ug/Kg		4/27/2016 16:13
1,2-Dichloroethane	< 8.37	ug/Kg		4/27/2016 16:13
1,2-Dichloropropane	< 8.37	ug/Kg		4/27/2016 16:13
1,3-Dichlorobenzene	< 8.37	ug/Kg		4/27/2016 16:13
1,4-Dichlorobenzene	< 8.37	ug/Kg		4/27/2016 16:13
1,4-dioxane	< 83.7	ug/Kg		4/27/2016 16:13
2-Butanone	< 41.9	ug/Kg		4/27/2016 16:13
2-Hexanone	< 20.9	ug/Kg		4/27/2016 16:13
4-Methyl-2-pentanone	< 20.9	ug/Kg		4/27/2016 16:13
Acetone	**45.9**	ug/Kg		4/27/2016 16:13
Benzene	< 8.37	ug/Kg		4/27/2016 16:13
Bromochloromethane	< 20.9	ug/Kg		4/27/2016 16:13
Bromodichloromethane	< 8.37	ug/Kg		4/27/2016 16:13
Bromoform	< 20.9	ug/Kg		4/27/2016 16:13
Bromomethane	< 8.37	ug/Kg		4/27/2016 16:13

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 161619

Client: **TREC Environmental Inc.**

Project Reference: K&K Stripping

Sample Identifier:	Disposal		
Lab Sample ID:	161619-01	**Date Sampled:**	4/26/2016
Matrix:	Soil	**Date Received:**	4/26/2016

Carbon disulfide	< 8.37	ug/Kg	4/27/2016	16:13
Carbon Tetrachloride	< 8.37	ug/Kg	4/27/2016	16:13
Chlorobenzene	< 8.37	ug/Kg	4/27/2016	16:13
Chloroethane	< 8.37	ug/Kg	4/27/2016	16:13
Chloroform	< 8.37	ug/Kg	4/27/2016	16:13
Chloromethane	< 8.37	ug/Kg	4/27/2016	16:13
cis-1,2-Dichloroethene	< 8.37	ug/Kg	4/27/2016	16:13
cis-1,3-Dichloropropene	< 8.37	ug/Kg	4/27/2016	16:13
Cyclohexane	< 41.9	ug/Kg	4/27/2016	16:13
Dibromochloromethane	< 8.37	ug/Kg	4/27/2016	16:13
Dichlorodifluoromethane	< 8.37	ug/Kg	4/27/2016	16:13
Ethylbenzene	< 8.37	ug/Kg	4/27/2016	16:13
Freon 113	< 8.37	ug/Kg	4/27/2016	16:13
Isopropylbenzene	< 8.37	ug/Kg	4/27/2016	16:13
m,p-Xylene	< 8.37	ug/Kg	4/27/2016	16:13
Methyl acetate	< 8.37	ug/Kg	4/27/2016	16:13
Methyl tert-butyl Ether	< 8.37	ug/Kg	4/27/2016	16:13
Methylcyclohexane	< 8.37	ug/Kg	4/27/2016	16:13
Methylene chloride	< 20.9	ug/Kg	4/27/2016	16:13
o-Xylene	< 8.37	ug/Kg	4/27/2016	16:13
Styrene	< 20.9	ug/Kg	4/27/2016	16:13
Tetrachloroethene	< 8.37	ug/Kg	4/27/2016	16:13
Toluene	< 8.37	ug/Kg	4/27/2016	16:13
trans-1,2-Dichloroethene	< 8.37	ug/Kg	4/27/2016	16:13
trans-1,3-Dichloropropene	< 8.37	ug/Kg	4/27/2016	16:13
Trichloroethene	< 8.37	ug/Kg	4/27/2016	16:13
Trichlorofluoromethane	< 8.37	ug/Kg	4/27/2016	16:13
Vinyl chloride	< 8.37	ug/Kg	4/27/2016	16:13

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 161619

Client: **TREC Environmental Inc.**

Project Reference: K&K Stripping

Sample Identifier: Disposal
Lab Sample ID: 161619-01 **Date Sampled:** 4/26/2016
Matrix: Soil **Date Received:** 4/26/2016

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**107**	85.4 - 122		4/27/2016	16:13
4-Bromofluorobenzene	**102**	81.1 - 115		4/27/2016	16:13
Pentafluorobenzene	**103**	90.7 - 109		4/27/2016	16:13
Toluene-D8	**103**	88.5 - 110		4/27/2016	16:13

Method Reference(s): EPA 8260C
EPA 5035A
Data File: x31919.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

Lab Project ID: 161619

Client: **TREC Environmental Inc.**

Project Reference: K&K Stripping

Sample Identifier: Disposal
Lab Sample ID: 161619-01A **Date Sampled:** 4/26/2016
Matrix: TCLP Extract **Date Received:** 4/26/2016

TCLP Mercury

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Mercury	< 0.00200	mg/L	0.2		4/29/2016 16:36

Method Reference(s): EPA 7470A
EPA 1311
Preparation Date: 4/29/2016
Data File: Hg160429C

TCLP RCRA Metals (ICP)

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Arsenic	< 0.100	mg/L	5		4/29/2016 12:45
Barium	**1.87**	mg/L	100		4/29/2016 12:45
Cadmium	< 0.0250	mg/L	1		4/29/2016 12:45
Chromium	< 0.0500	mg/L	5		4/29/2016 12:45
Lead	< 0.100	mg/L	5		4/29/2016 12:45
Selenium	< 0.100	mg/L	1		4/29/2016 12:45
Silver	< 0.0500	mg/L	5		4/29/2016 12:45

Method Reference(s): EPA 6010C
EPA 1311 / 3005A
Preparation Date: 4/28/2016
Data File: 042916a

Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

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All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

"<" = Analyzed for but not detected at or above the quantitation limit.
"E" = Result has been estimated, calibration limit exceeded.
"Z" = See case narrative.
"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.
"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.
"B" = Method blank contained trace levels of analyte. Refer to included method blank report.
"J" = Result estimated between the quantitation limit and half the quantitation limit.
"L" = Laboratory Control Sample recovery outside accepted QC limits.
"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.
"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.
"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*
"(1)" = Indicates data from primary column used for QC calculation.
"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.
"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

GENERAL TERMS AND CONDITIONS
LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, tern or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty. Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB wi use LAB default method for all tests unless specified otherwise on the Work Order.
Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices. Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

Limitations of Liability. In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.
LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.
All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.
Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure. Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

Sample Handling. Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.
Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on th final report.
Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.
LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility. LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment. LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure. LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law. This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

1 of 2

CHAIN OF CUSTODY

PARADIGM ENVIRONMENTAL SERVICES, INC.

REPORT TO:		INVOICE TO:			
COMPANY:	TREC Environmental, Inc	COMPANY:	Same	LAB PROJECT #: 16169	CLIENT PROJECT #:
ADDRESS:	1018 Washington Street	ADDRESS:			
CITY:	Spencerport STATE: NY ZIP: 14559	CITY:	STATE: ZIP:	TURNAROUND TIME: (WORKING DAYS)	
PHONE:	(585) 594-5545 FAX:	PHONE:	FAX:	STD / OTHER	
PROJECT NAME/SITE NAME:	K & K Stripping	ATTN:	Michael Carpenter	☐ 1 ☐ 2 ☐ 3 ☒ 5 ☐	
ATTN:	Michael Carpenter	ATTN:			
COMMENTS:	↳ mcarp@trecenv.com			Quotation #	

REQUESTED ANALYSIS

	DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	NUMBER OF CONTAINERS	Total VOCs 72	TCLP Metals	Flashpoint	REMARKS	PARADIGM LAB SAMPLE NUMBER
1	4/26/16	9:00 AM	X		Disposal	Soil	1	X	X	X	mix well	A
2											A for TCLP extract.	
3											on 4/26/16	
4												
5												
6												
7												
8												
9												
10												

LAB USE ONLY BELOW THIS LINE

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance	
Container Type:	Y ☐	N ☐
Comments:		
Preservation:	Y ☐	N ☐
Comments:		
Holding Time:	Y ☐	N ☐
Comments:		
Temperature:	Y ☐	N ☐
Comments: 5°C 4/26/16 14:59		

Paul Wilcy	4/26/16 @ 9:00	Sampled By / Date/Time
Paul Wilcy	4/26/16 1450	Relinquished By / Date/Time
Jamie Dakota	4/26/16 1450	Received By / Date/Time
JR	4/26/16 15:09	Received @ Lab By / Date/Time

Total Cost:

P.I.F.

PARADIGM ENVIRONMENTAL SERVICES, INC.

Chain of Custody Supplement

Client: TREC Environmental **Completed by:** Glenn Pezzulo

Lab Project ID: 161619 **Date:** 4/26/16

Sample Condition Requirements

Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt		
	Yes	No	N/A
Container Type	[X] metals	[X] 5035	[ ]
Comments	Sample collected in plastic bag, transferred portion to 8oz glass jar for VOC, Flashpoint.		
Transferred to method-compliant container	[X] pb to g3	[ ]	[X] metals
Headspace (<1 mL)	[ ]	[ ]	[X]
Comments			
Preservation	[ ]	[ ]	[X]
Comments			
Chlorine Absent (<0.10 ppm per test strip)	[ ]	[ ]	[X]
Comments			
Holding Time	[X]	[ ]	[ ]
Comments			
Temperature	[X]	[ ]	[X] metals
Comments	5°C		
Sufficient Sample Quantity	[X]	[ ]	[ ]
Comments			

RAMBOLL

EXHIBIT 2
AREA 3
WASTE CHARACTERIZATION LABORATORY REPORTS

PARADIGM

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Analytical Report For

TREC Environmental Inc.

For Lab Project ID

163836

Referencing

K and K

Prepared

Monday, September 12, 2016

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

M. Mc

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958 • PADEP ID# 68-02351

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 163836

Client: **TREC Environmental Inc.**

Project Reference: K and K

Sample Identifier: SP2-VOC
Lab Sample ID: 163836-01 **Date Sampled:** 9/2/2016
Matrix: Soil **Date Received:** 9/2/2016

Ignitability

Analyte	Result	Units	Qualifier	Date Analyzed
Ignitability	No Burn	mm / sec		9/12/2016

Method Reference(s): EPA 1030

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 7.24	ug/Kg		9/9/2016 18:30
1,1,2,2-Tetrachloroethane	< 7.24	ug/Kg		9/9/2016 18:30
1,1,2-Trichloroethane	< 7.24	ug/Kg		9/9/2016 18:30
1,1-Dichloroethane	< 7.24	ug/Kg		9/9/2016 18:30
1,1-Dichloroethene	< 7.24	ug/Kg		9/9/2016 18:30
1,2,3-Trichlorobenzene	< 18.1	ug/Kg		9/9/2016 18:30
1,2,4-Trichlorobenzene	< 18.1	ug/Kg		9/9/2016 18:30
1,2-Dibromo-3-Chloropropane	< 36.2	ug/Kg		9/9/2016 18:30
1,2-Dibromoethane	< 7.24	ug/Kg		9/9/2016 18:30
1,2-Dichlorobenzene	< 7.24	ug/Kg		9/9/2016 18:30
1,2-Dichloroethane	< 7.24	ug/Kg		9/9/2016 18:30
1,2-Dichloropropane	< 7.24	ug/Kg		9/9/2016 18:30
1,3-Dichlorobenzene	< 7.24	ug/Kg		9/9/2016 18:30
1,4-Dichlorobenzene	< 7.24	ug/Kg		9/9/2016 18:30
1,4-dioxane	< 72.4	ug/Kg		9/9/2016 18:30
2-Butanone	< 36.2	ug/Kg		9/9/2016 18:30
2-Hexanone	< 18.1	ug/Kg		9/9/2016 18:30
4-Methyl-2-pentanone	< 18.1	ug/Kg		9/9/2016 18:30
Acetone	< 36.2	ug/Kg		9/9/2016 18:30
Benzene	< 7.24	ug/Kg		9/9/2016 18:30
Bromochloromethane	< 18.1	ug/Kg		9/9/2016 18:30
Bromodichloromethane	< 7.24	ug/Kg		9/9/2016 18:30
Bromoform	< 18.1	ug/Kg		9/9/2016 18:30
Bromomethane	< 7.24	ug/Kg		9/9/2016 18:30

Lab Project ID: 163836

Client: **TREC Environmental Inc.**

Project Reference: K and K

Sample Identifier: SP2-VOC
Lab Sample ID: 163836-01 **Date Sampled:** 9/2/2016
Matrix: Soil **Date Received:** 9/2/2016

Carbon disulfide	< 7.24	ug/Kg	9/9/2016	18:30
Carbon Tetrachloride	< 7.24	ug/Kg	9/9/2016	18:30
Chlorobenzene	< 7.24	ug/Kg	9/9/2016	18:30
Chloroethane	< 7.24	ug/Kg	9/9/2016	18:30
Chloroform	< 7.24	ug/Kg	9/9/2016	18:30
Chloromethane	< 7.24	ug/Kg	9/9/2016	18:30
cis-1,2-Dichloroethene	< 7.24	ug/Kg	9/9/2016	18:30
cis-1,3-Dichloropropene	< 7.24	ug/Kg	9/9/2016	18:30
Cyclohexane	< 36.2	ug/Kg	9/9/2016	18:30
Dibromochloromethane	< 7.24	ug/Kg	9/9/2016	18:30
Dichlorodifluoromethane	< 7.24	ug/Kg	9/9/2016	18:30
Ethylbenzene	< 7.24	ug/Kg	9/9/2016	18:30
Freon 113	< 7.24	ug/Kg	9/9/2016	18:30
Isopropylbenzene	< 7.24	ug/Kg	9/9/2016	18:30
m,p-Xylene	< 7.24	ug/Kg	9/9/2016	18:30
Methyl acetate	< 7.24	ug/Kg	9/9/2016	18:30
Methyl tert-butyl Ether	< 7.24	ug/Kg	9/9/2016	18:30
Methylcyclohexane	< 7.24	ug/Kg	9/9/2016	18:30
Methylene chloride	< 18.1	ug/Kg	9/9/2016	18:30
o-Xylene	< 7.24	ug/Kg	9/9/2016	18:30
Styrene	< 18.1	ug/Kg	9/9/2016	18:30
Tetrachloroethene	< 7.24	ug/Kg	9/9/2016	18:30
Toluene	< 7.24	ug/Kg	9/9/2016	18:30
trans-1,2-Dichloroethene	< 7.24	ug/Kg	9/9/2016	18:30
trans-1,3-Dichloropropene	< 7.24	ug/Kg	9/9/2016	18:30
Trichloroethene	< 7.24	ug/Kg	9/9/2016	18:30
Trichlorofluoromethane	< 7.24	ug/Kg	9/9/2016	18:30
Vinyl chloride	< 7.24	ug/Kg	9/9/2016	18:30

Lab Project ID: 163836

Client: **TREC Environmental Inc.**

Project Reference: K and K

Sample Identifier: SP2-VOC
Lab Sample ID: 163836-01 **Date Sampled:** 9/2/2016
Matrix: Soil **Date Received:** 9/2/2016

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**107**	81.3 - 124		9/9/2016	18:30
4-Bromofluorobenzene	**100**	80 - 117		9/9/2016	18:30
Pentafluorobenzene	**101**	88.3 - 111		9/9/2016	18:30
Toluene-D8	**101**	78 - 123		9/9/2016	18:30

Method Reference(s): EPA 8260C
EPA 5035A
Data File: x35242.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

Lab Project ID: 163836

Client: **TREC Environmental Inc.**

Project Reference: K and K

Sample Identifier: SP2-VOC
Lab Sample ID: 163836-01A **Date Sampled:** 9/2/2016
Matrix: TCLP Extract **Date Received:** 9/2/2016

TCLP Mercury

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Mercury	< 0.00200	mg/L	0.2		9/9/2016 11:54

Method Reference(s): EPA 7470A
EPA 1311
Preparation Date: 9/8/2016
Data File: Hg160909A

TCLP RCRA Metals (ICP)

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Arsenic	< 0.100	mg/L	5		9/7/2016 23:40
Barium	**0.637**	mg/L	100		9/7/2016 23:40
Cadmium	< 0.0250	mg/L	1		9/7/2016 23:40
Chromium	< 0.0500	mg/L	5		9/7/2016 23:40
Lead	< 0.100	mg/L	5		9/7/2016 23:40
Selenium	< 0.100	mg/L	1		9/7/2016 23:40
Silver	< 0.0500	mg/L	5		9/7/2016 23:40

Method Reference(s): EPA 6010C
EPA 1311 / 3005A
Preparation Date: 9/3/2016
Data File: 090716c

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 163836

Client: **TREC Environmental Inc.**

Project Reference: K and K

Sample Identifier: RO-001 Comp
Lab Sample ID: 163836-02 **Date Sampled:** 9/2/2016
Matrix: Solid **Date Received:** 9/2/2016

Flash Point

Analyte	Result	Units	Qualifier	Date Analyzed
Flash Point, Celsius	>70.0	C		9/7/2016

Method Reference(s): EPA 1010A

Ignitability

Analyte	Result	Units	Qualifier	Date Analyzed
Ignitability	No Burn	mm / sec		9/12/2016

Method Reference(s): EPA 1030

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.314	mg/Kg		9/12/2016 03:56
PCB-1221	< 0.314	mg/Kg		9/12/2016 03:56
PCB-1232	< 0.314	mg/Kg		9/12/2016 03:56
PCB-1242	< 0.314	mg/Kg		9/12/2016 03:56
PCB-1248	< 0.314	mg/Kg		9/12/2016 03:56
PCB-1254	< 0.314	mg/Kg		9/12/2016 03:56
PCB-1260	< 0.314	mg/Kg		9/12/2016 03:56
PCB-1262	< 0.314	mg/Kg		9/12/2016 03:56
PCB-1268	< 0.314	mg/Kg		9/12/2016 03:56

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl	**88.1**	10 - 146		9/12/2016 03:56
Tetrachloro-m-xylene	**81.0**	10 - 141		9/12/2016 03:56

Method Reference(s): EPA 8082A
EPA 3550C
Preparation Date: 9/7/2016

pH

Analyte	Result	Units	Qualifier	Date Analyzed
pH	11.33 @ 21.0 C	S.U.		9/6/2016 12:50

Method Reference(s): EPA 9045D

Lab Project ID: 163836

Client: **TREC Environmental Inc.**

Project Reference: K and K

Sample Identifier: RO-001 Comp
Lab Sample ID: 163836-02A **Date Sampled:** 9/2/2016
Matrix: TCLP Extract **Date Received:** 9/2/2016

TCLP Mercury

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Mercury	< 0.00200	mg/L	0.2		9/9/2016 11:57

Method Reference(s): EPA 7470A
EPA 1311
Preparation Date: 9/8/2016
Data File: Hg160909A

TCLP RCRA Metals (ICP)

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Arsenic	< 0.100	mg/L	5		9/7/2016 23:45
Barium	< 0.500	mg/L	100		9/7/2016 23:45
Cadmium	< 0.0250	mg/L	1		9/7/2016 23:45
Chromium	< 0.0500	mg/L	5		9/7/2016 23:45
Lead	**0.154**	mg/L	5		9/7/2016 23:45
Selenium	< 0.100	mg/L	1		9/7/2016 23:45
Silver	< 0.0500	mg/L	5		9/7/2016 23:45

Method Reference(s): EPA 6010C
EPA 1311 / 3005A
Preparation Date: 9/3/2016
Data File: 090716c

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 163836

Client: **TREC Environmental Inc.**

Project Reference: K and K

Sample Identifier: RO-001 Grab
Lab Sample ID: 163836-03 **Date Sampled:** 9/2/2016
Matrix: Solid **Date Received:** 9/2/2016

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 8.55	ug/Kg		9/9/2016 18:54
1,1,2,2-Tetrachloroethane	< 8.55	ug/Kg		9/9/2016 18:54
1,1,2-Trichloroethane	< 8.55	ug/Kg		9/9/2016 18:54
1,1-Dichloroethane	< 8.55	ug/Kg		9/9/2016 18:54
1,1-Dichloroethene	< 8.55	ug/Kg		9/9/2016 18:54
1,2,3-Trichlorobenzene	< 21.4	ug/Kg		9/9/2016 18:54
1,2,4-Trichlorobenzene	< 21.4	ug/Kg		9/9/2016 18:54
1,2-Dibromo-3-Chloropropane	< 42.7	ug/Kg		9/9/2016 18:54
1,2-Dibromoethane	< 8.55	ug/Kg		9/9/2016 18:54
1,2-Dichlorobenzene	< 8.55	ug/Kg		9/9/2016 18:54
1,2-Dichloroethane	< 8.55	ug/Kg		9/9/2016 18:54
1,2-Dichloropropane	< 8.55	ug/Kg		9/9/2016 18:54
1,3-Dichlorobenzene	< 8.55	ug/Kg		9/9/2016 18:54
1,4-Dichlorobenzene	< 8.55	ug/Kg		9/9/2016 18:54
1,4-dioxane	< 85.5	ug/Kg		9/9/2016 18:54
2-Butanone	< 42.7	ug/Kg		9/9/2016 18:54
2-Hexanone	< 21.4	ug/Kg		9/9/2016 18:54
4-Methyl-2-pentanone	< 21.4	ug/Kg		9/9/2016 18:54
Acetone	< 42.7	ug/Kg		9/9/2016 18:54
Benzene	< 8.55	ug/Kg		9/9/2016 18:54
Bromochloromethane	< 21.4	ug/Kg		9/9/2016 18:54
Bromodichloromethane	< 8.55	ug/Kg		9/9/2016 18:54
Bromoform	< 21.4	ug/Kg		9/9/2016 18:54
Bromomethane	< 8.55	ug/Kg		9/9/2016 18:54
Carbon disulfide	< 8.55	ug/Kg		9/9/2016 18:54
Carbon Tetrachloride	< 8.55	ug/Kg		9/9/2016 18:54
Chlorobenzene	< 8.55	ug/Kg		9/9/2016 18:54
Chloroethane	< 8.55	ug/Kg		9/9/2016 18:54
Chloroform	< 8.55	ug/Kg		9/9/2016 18:54

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 163836

Client: **TREC Environmental Inc.**

Project Reference: K and K

Sample Identifier:	RO-001 Grab		
Lab Sample ID:	163836-03	**Date Sampled:**	9/2/2016
Matrix:	Solid	**Date Received:**	9/2/2016

Chloromethane	< 8.55	ug/Kg	9/9/2016	18:54
cis-1,2-Dichloroethene	< 8.55	ug/Kg	9/9/2016	18:54
cis-1,3-Dichloropropene	< 8.55	ug/Kg	9/9/2016	18:54
Cyclohexane	< 42.7	ug/Kg	9/9/2016	18:54
Dibromochloromethane	< 8.55	ug/Kg	9/9/2016	18:54
Dichlorodifluoromethane	< 8.55	ug/Kg	9/9/2016	18:54
Ethylbenzene	< 8.55	ug/Kg	9/9/2016	18:54
Freon 113	< 8.55	ug/Kg	9/9/2016	18:54
Isopropylbenzene	< 8.55	ug/Kg	9/9/2016	18:54
m,p-Xylene	< 8.55	ug/Kg	9/9/2016	18:54
Methyl acetate	< 8.55	ug/Kg	9/9/2016	18:54
Methyl tert-butyl Ether	< 8.55	ug/Kg	9/9/2016	18:54
Methylcyclohexane	< 8.55	ug/Kg	9/9/2016	18:54
Methylene chloride	< 21.4	ug/Kg	9/9/2016	18:54
o-Xylene	< 8.55	ug/Kg	9/9/2016	18:54
Styrene	< 21.4	ug/Kg	9/9/2016	18:54
Tetrachloroethene	< 8.55	ug/Kg	9/9/2016	18:54
Toluene	< 8.55	ug/Kg	9/9/2016	18:54
trans-1,2-Dichloroethene	< 8.55	ug/Kg	9/9/2016	18:54
trans-1,3-Dichloropropene	< 8.55	ug/Kg	9/9/2016	18:54
Trichloroethene	< 8.55	ug/Kg	9/9/2016	18:54
Trichlorofluoromethane	< 8.55	ug/Kg	9/9/2016	18:54
Vinyl chloride	< 8.55	ug/Kg	9/9/2016	18:54

Lab Project ID: 163836

Client: **TREC Environmental Inc.**

Project Reference: K and K

Sample Identifier: RO-001 Grab
Lab Sample ID: 163836-03 **Date Sampled:** 9/2/2016
Matrix: Solid **Date Received:** 9/2/2016

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**106**	81.3 - 124		9/9/2016	18:54
4-Bromofluorobenzene	**101**	80 - 117		9/9/2016	18:54
Pentafluorobenzene	**100**	88.3 - 111		9/9/2016	18:54
Toluene-D8	**99.5**	78 - 123		9/9/2016	18:54

Method Reference(s): EPA 8260C
EPA 5035A
Data File: x35243.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 163836

Client: **TREC Environmental Inc.**

Project Reference: K and K

Sample Identifier: RO-001 Grab
Lab Sample ID: 163836-03A **Date Sampled:** 9/2/2016
Matrix: TCLP Extract **Date Received:** 9/2/2016

TCLP Semi-Volatile Organics

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,4-Dichlorobenzene	< 40.0	ug/L	7500		9/8/2016 07:12
2,4,5-Trichlorophenol	< 80.0	ug/L	400000		9/8/2016 07:12
2,4,6-Trichlorophenol	< 40.0	ug/L	2000		9/8/2016 07:12
2,4-Dinitrotoluene	< 40.0	ug/L	130		9/8/2016 07:12
Cresols (as m,p,o-Cresol)	< 80.0	ug/L	200000		9/8/2016 07:12
Hexachlorobenzene	< 40.0	ug/L	130		9/8/2016 07:12
Hexachlorobutadiene	< 40.0	ug/L	500		9/8/2016 07:12
Hexachloroethane	< 40.0	ug/L	3000		9/8/2016 07:12
Nitrobenzene	< 40.0	ug/L	2000		9/8/2016 07:12
Pentachlorophenol	< 80.0	ug/L	100000		9/8/2016 07:12
Pyridine	< 40.0	ug/L	5000		9/8/2016 07:12

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	**92.1**	42.2 - 115		9/8/2016 07:12
2-Fluorobiphenyl	**92.5**	41.5 - 97.8		9/8/2016 07:12
2-Fluorophenol	**68.7**	13.4 - 95.4		9/8/2016 07:12
Nitrobenzene-d5	**79.9**	48 - 97.5		9/8/2016 07:12
Phenol-d5	**66.2**	10 - 95.4		9/8/2016 07:12
Terphenyl-d14	**93.1**	55.2 - 109		9/8/2016 07:12

Method Reference(s): EPA 8270D
EPA 1311 / 3510C
Preparation Date: 9/6/2016
Data File: B13924.D

TCLP Volatile Organics

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,1-Dichloroethene	< 20.0	ug/L	700		9/8/2016 00:44
1,2-Dichloroethane	< 20.0	ug/L	500		9/8/2016 00:44
2-Butanone	< 100	ug/L	200000		9/8/2016 00:44
Benzene	< 20.0	ug/L	500		9/8/2016 00:44
Carbon Tetrachloride	< 20.0	ug/L	500		9/8/2016 00:44

Lab Project ID: 163836

Client: **TREC Environmental Inc.**

Project Reference: K and K

Sample Identifier: RO-001 Grab
Lab Sample ID: 163836-03A **Date Sampled:** 9/2/2016
Matrix: TCLP Extract **Date Received:** 9/2/2016

Chlorobenzene	< 20.0	ug/L	100000		9/8/2016 00:44
Chloroform	< 20.0	ug/L	6000		9/8/2016 00:44
Tetrachloroethene	< 20.0	ug/L	700		9/8/2016 00:44
Trichloroethene	< 20.0	ug/L	500		9/8/2016 00:44
Vinyl chloride	< 20.0	ug/L	200		9/8/2016 00:44

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**106**	86 - 116		9/8/2016 00:44
4-Bromofluorobenzene	**93.7**	82.2 - 113		9/8/2016 00:44
Pentafluorobenzene	**97.0**	90.9 - 110		9/8/2016 00:44
Toluene-D8	**101**	90.8 - 109		9/8/2016 00:44

Method Reference(s): EPA 8260C
EPA 1311 / 5030C
Data File: x35162.D

Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

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All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

"<" = Analyzed for but not detected at or above the quantitation limit.
"E" = Result has been estimated, calibration limit exceeded.
"Z" = See case narrative.
"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.
"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.
"B" = Method blank contained trace levels of analyte. Refer to included method blank report.
"J" = Result estimated between the quantitation limit and half the quantitation limit.
"L" = Laboratory Control Sample recovery outside accepted QC limits.
"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.
"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.
"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*
"(1)" = Indicates data from primary column used for QC calculation.
"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.
"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

GENERAL TERMS AND CONDITIONS
LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, tern or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty. Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB wi use LAB default method for all tests unless specified otherwise on the Work Order.
Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices. Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

Limitations of Liability. In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.
LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.
All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.
Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure. Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

Sample Handling. Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.
Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on th final report.
Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.
LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility. LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment. LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure. LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law. This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

CHAIN OF CUSTODY

PARADIGM

REPORT TO:		INVOICE TO:		
CLIENT:	TREC Environmental, Inc	CLIENT:	Same	LAB PROJECT ID: 163836
ADDRESS:	1018 Washington Street	ADDRESS:		
CITY:	Spencerport STATE: NY ZIP 14559	CITY: STATE: ZIP:		Quotation #:
PHONE:	(585) 472-9399	PHONE:		Email: mcarp@trecenv.com
ATTN:	Mike Carpenter mcarp@trecenv.com	ATTN:	Keith Hambley	

PROJECT REFERENCE: K and K

Matrix Codes:
AQ - Aqueous Liquid; NQ - Non-Aqueous Liquid; WA - Water; WG - Groundwater; DW - Drinking Water; WW - Wastewater; SO - Soil; SL - Sludge; SD - Solid; PT - Paint; WP - Wipe; CK - Caulk; OL - Oil; AR - Air

REQUESTED ANALYSIS

DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX CODES	NUMBER OF CONTAINERS	Flashpoint	Ignitability	pH	TCLP Metals	TCLP Volatiles	TCLP SVOCs	Total PCBs	Total VOAs-TCL	REMARKS	PARADIGM LAB SAMPLE NUMBER
9/2/2016	11:30		X	SP2-VOC	SO	2		X		X				X		01A
↓	11:35	X	X	RO-001 Comp	SD	2	X	X	X	X	X	X	X		> Call w/any questions 472-9399	02A
↓	11:40		X	RO-001 Grab	SD	1					X	X		X		03A
															A for TCLP extract MW 9/2/16	
															3°C iced 9/2/16 1351 hb	

Turnaround Time		Report Supplements			
Availability contingent upon lab approval; additional fees may apply.					
Standard 5 day	X	None Required		None Required	
10 day		Batch QC		Basic EDD	
Rush 3 day		Category A		NYSDEC EDD	
Rush 2 day		Category B			
Rush 1 day					
Other		Other		Other EDD	
please indicate date needed:		please indicate package needed:		please indicate EDD needed :	

Sampled By	9/2/16 @ 11:30 Date/Time	Total Cost:
Relinquished By	9/2/16 @ 13:45 Date/Time	
Received By	9/2/16 @ 13:45 Date/Time	P.I.F.
Received @ Lab By	9/2/16 1425 Date/Time	

By signing this form, client agrees to Paradigm Terms and Conditions (reverse).

See additional page for sample conditions.

PARADIGM

Chain of Custody Supplement

Client: Trec **Completed by:** Molly Vail

Lab Project ID: 163836 **Date:** 9/2/16

Sample Condition Requirements

Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt: Yes	No	N/A
Container Type	X	5035	
Comments			
Transferred to method-compliant container			X
Headspace (<1 mL)			X
Comments			
Preservation			X
Comments			
Chlorine Absent (<0.10 ppm per test strip)			X
Comments			
Holding Time	X		
Comments			
Temperature	X		X MeOH
Comments	3°C iced 9/2/16 1351		
Sufficient Sample Quantity	X		
Comments			