

APPENDIX E

DATA USABILITY SUMMARY REPORTS DUSRS

ANALITICAL LAB REPORTS

DATA USABILITY SUMMARY REPORT (DUSR)

**31/150 Tonawanda Site
Buffalo, NY 14207
NYSDEC BCP # C915299**

SDG: 203556
6 soil samples

Prepared for:

**BE3 Corp.
960 Busti Avenue
Suite 150-B
Buffalo, NY 14213
Attention: John Berry**

October 2020



Environmental Data Usability 10028 Deer Park Dr. Dansville, NY 14437 585-991-9156

Table of Contents

	<u>Page No.</u>
REVIEWER'S NARRATIVE	
1.0 SUMMARY	1
2.0 INTRODUCTION	1
3.0 SAMPLE AND ANALYSIS SUMMARY	2
4.0 GUIDANCE DOCUMENTS AND DATA REVIEW CRITERIA	2
5.0 DATA VALIDATION QUALIFIERS	3
6.0 RESULTS OF THE DATA REVIEW	4
7.0 TOTAL USABLE DATA	4

APPENDIX A	Validated Analytical Results
APPENDIX B	Laboratory QC Documentation
APPENDIX C	Validator Qualifications

Tables

Table 4-1	Data Validation Guidance Documents
Table 4-2	Quality Control Criteria for Validating Laboratory Analytical Data

Summaries of Validated Results

Table 6-1	VOCs
Table 6-2	SVOCs
Table 6-3	Pesticides
Table 6-4	PCBs
Table 6-5	Metals
Table 6-6	Hexavalent chromium (Cr+6)
Table 6-7	Herbicides (Silvex)
Table 6-8	PFAAs by EPA 537

REVIEWER'S NARRATIVE

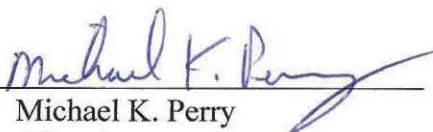
BE3 SDG 203556: 31/150 Tonawanda Site

The data associated with this Sample Delivery Group (SDG) 203556, analyzed by Paradigm Environmental Services, Inc. Rochester, NY have been reviewed in accordance with assessment criteria provided by the New York State Department of Environmental Conservation following the review procedures provided in the USEPA Functional Guidelines for evaluating organic and inorganic data.

All analytical results reported by the laboratory are considered valid and acceptable except results that have been qualified as rejected, "R". Results qualified as estimated "J", or as non-detects, "U", are considered usable for the purpose of evaluating water and/or soil quality. However, these qualifiers indicate that the accuracy and/or precision of the analytical result is questionable. A summary of all data that have been qualified and the reasons for qualification are provided in the following data usability summary report (DUSR).

Two facts should be noted by all data users. First, the "R" qualifier means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the analyte is present or not. Values qualified with an "R" should not appear on the final data tables because they cannot be relied upon, even as the last resort. Second, no analyte concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error.

Reviewer's Signature: _____


Michael K. Perry
Chemist

Date: _____

10/5/20

1.0 SUMMARY

SITE: 31/150 Tonawanda
Clean fill
Buffalo, NY 14207

SAMPLING DATE: July 30, 2020

SAMPLE TYPE: 6 soil samples

LABORATORY: Paradigm Environmental
Rochester, NY

SDG No.: 203556

2.0 INTRODUCTION

This data usability summary report (DUSR) was prepared in accordance with guidance provided by the New York State Department of Environmental Conservation (NYSDEC). The DUSR is based on a review and evaluation of the laboratory analytical data package. Specifically, the NYSDEC guidance recommends review and evaluation of the following elements of the data package:

- Completeness of the data package as defined under the requirements of the NYSDEC Analytical Services Protocols (ASP) Category B or the United States Environmental Protection Agency (USEPA) Contract Laboratory Program (CLP) deliverables,
- Compliance with established analyte holding times,
- Adherence to quality control (QC) limits and specifications for blanks, instrument tuning and calibration, surrogate recoveries, spike recoveries, laboratory duplicate analyses, and other QC criteria,
- Adherence to established analytical protocols,
- Conformance of data summary sheets with raw analytical data, and
- Use of correct data qualifiers.

Data deficiencies, analytical protocol deviations, and quality control problems identified using the review criteria above and their effect on the analytical results are discussed in this report.

3.0 SAMPLE AND ANALYSIS SUMMARY

The data package consists of analytical results for six soil samples collected on July 30, 2020. These samples were analyzed for the Part 375 list of Volatile Organic Compounds, Semi-volatile Organic Compounds, PCBs, Pesticides, Cr+6, Herbicides, Metals, and PFAAs.

All analyses were performed by Paradigm Environmental Services, Inc., Rochester, NY and analyzed as SDG 203556 except Herbicides and Mercury were analyzed by Adirondack Environmental, Albany, NY as SDG 200731035 and PFAAs by ALS Environmental, Rochester, NY as SDG R2006787. The analytical results were provided in NYSDEC ASP Category B format, which includes all raw analytical data and laboratory QC data.

4.0 GUIDANCE DOCUMENTS AND DATA REVIEW CRITERIA

The guidance documents used for reviewing laboratory quality control (QC) data and assigning data qualifiers (flags) to analytical results are listed in Table 4-1. The QC limits established in the documents applicable to this data review were used to assess the quality of the analytical results. In some cases, however, QC limits established internally by the laboratory were taken into account to determine data quality.

The QC criteria considered for assessing the usability of the reported analytical results provided for each analyte type (i.e. VOCs, SVOCs, metals, etc.) are listed in Table 4-2. These criteria may vary with the analytical method utilized by the laboratory. These criteria comply with the guidance recommended in Section 2.0 above.

5.0 DATA VALIDATION QUALIFIERS

The letter qualifiers (flags) used to define data usability are described briefly below. These letters are assigned by the data validator to analytical results having questionable accuracy and/or precision as determined by reviewing the laboratory QC data associated with the analytical results.

TABLE 4-1

DATA VALIDATION GUIDANCE DOCUMENTS

Analyte Type	Validation Guidance
VOCs	USEPA, 2008, Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry; SW-846 Method 8260B; SOP # HW-24, Rev. 2. USEPA, 2008, Statement of Work for Organic Analysis of Low/Medium Concentration of Volatile Organic Compounds SQM01.2; SOP HW-33, Rev. 2.
SVOCs	USEPA, 2007, Statement of Work for Organic Analysis of Low/Medium Concentration of Semivolatile Organic Compounds SQM01.2; SOP HW-35, Rev. 1.
Pesticides/PCBs	USEPA, 2006, CLP Organics Data Review and Preliminary Review (CLP/SOW OLMO 4.3); SOP # HW-6, Rev. 14, Part C.
Metals	USEPA, 2006, Validation of Metals for the Contract Laboratory Program (CLP) based on SOW ILMO 5.3 (SOP Revision 13), SOP # HW-2, Rev. 13.
Gen Chemistry	NYSDEC, 2005, Analytical Services Protocols (ASP)
VOCs (Ambient air)	USEPA, 2006, Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canister by Method TO-15; SOP # HW-31, Rev. 4.
Perfluoroalkyl Substances (PFASs)	USEPA, 2018, Data Review and Validation Guidelines for Perfluoroalkyl Substances (PFASs) Analyzed Using EPA Method 537

TABLE 4-2

**QUALITY CONTROL CRITERIA USED FOR VALIDATING
LABORATORY ANALYTICAL DATA**

VOCs	SVOCs	Pesticides/PCBs	Metals	Gen Chemistry	Method TO-15
Completeness of Pkg Sample Preservation Holding Time System Monitoring Compounds Lab Control Sample Matrix Spikes Blanks Instrument Tuning Internal Standards Initial Calibration Continuing Calibration Lab Qualifiers Field Duplicate	Completeness of Pkg Sample Preservation Holding Time Surrogate Recoveries Lab Control Sample Matrix Spikes Blanks Instrument Tuning Internal Standards Initial Calibration Continuing Calibration Lab Qualifiers Field Duplicate	Completeness of Pkg Sample Preservation Holding Time Surrogate Recoveries Matrix Spikes Blanks Instrument Calibration & Verification Analyte ID Lab Qualifiers Field Duplicate	Completeness of Pkg Sample Preservation Holding Time Initial/Continuing Calibration CRDL Standards Blanks Interference Check Sample Spike Recoveries Lab Duplicate Lab Control Sample ICP Serial Dilutions Lab Qualifiers Field Duplicate	Completeness of Pkg Sample Preservation Holding Times Calibration Lab Control Samples Blanks Spike Recoveries Lab Duplicates	Completeness of Pkg Sample Preservation Holding Time Canister Certification Lab Control Sample Instrument Tuning Blanks Initial Calibration & System Performance Daily Calibration Field Duplicate

PFASs
Completeness of Pkg Sample Preservation Holding Time Instr Performance Check Initial Calibration Continuing Calibration Blanks Surrogates Lab Fortified Blank Matrix Spikes Internal Standards

The laboratory may also use various letters and symbols to flag analytical results generated when QC limits were exceeded. The meanings of these flags may differ from those used by the independent data validator. Those used by the laboratory are provided with the analytical results.

NOTE: The assignment of data qualifiers by the data reviewer (validator) to laboratory analytical results should not necessarily be interpreted by the data user as a measure of laboratory ability or proficiency. Rather, the qualifiers are intended to provide a measure of data accuracy and precision to the data user, which, for example, may provide a level of confidence in determining whether or not standards or cleanup objectives have been met.

- U** The analyte was analyzed for but was not detected at or above the sample quantitation limit.
- J** The analyte was positively identified; the associated numerical value is the *approximate* concentration of the analyte in the sample. (The magnitude of any \pm value associated with the result is not determined by data validation).
- UJ** The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is *approximate* and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R** The sample result is rejected (i.e., is unusable) due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.
- N** The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".
- JN** The analyte is considered to be "presumptively present." The associated numerical value represents its *approximate* concentration.

The validated analytical results are attached to this report. Validation qualifiers (flags) are indicated using red ink. Data sheets having qualified data are signed and dated by the data reviewer.

6.0 RESULTS OF THE DATA REVIEW

The results of the data review are summarized in Tables 6-1 through 6-8. The tables list the samples where QC criteria were found to exceed acceptable limits and the actions taken to qualify the associated analytical results.

7.0 TOTAL USABLE DATA

For SDG 203556, six samples were analyzed and results were reported for 520 analytes. Thirty-six results were rejected. Even though some results were flagged with a "J" as estimated, all other results (93 %) are considered usable. See the summary table for the analyses that have been rejected and the associated QC reasons.

NOTE: 1) As noted by the laboratory, the soil samples were not collected following SW846 5035A protocol. This adds an element of uncertainty to the analytical results for volatile organic analytes (VOAs). Although not specifically indicated on the final data sheets with a "J" flag, the VOA analytical results should be considered estimated, but usable.

NOTE: 2) The data packages for this project contained no laboratory QC data for the CRDL standard for metals (Form 2B) and the Serial Dilutions of metals (Form 8). Therefore, no evaluation of the CRDL recoveries and the serial dilution results were performed by this data reviewer and no data were qualified as a result.

Table 6-1 **VOCs**

SAMPLES AFFECTED	ANALYTES	ACTION	QC VIOLATION	COMMENTS
CF VOC1 CF VOC2 CF VOC3 CF VOC4	1,4-Dioxane	R all data	ICAL RF < 0.005	Data are rejected
CF VOC1 CF VOC2 CF VOC3 CF VOC4	All analytes	J detects UJ non-detects	Surr. rec for TD8 and 4BFB < QC limit and IS area #2 < 50 % of QC limit	Data may be biased low
CF VOC1 CF VOC2 CF VOC3 CF VOC4	1,2-DCB 1,3-DCB 1,4-DCB 1,2,4-TCB 1,2,3-TCB DBCP Naphthalene n-Butylbenzene	R all data	IS area #3 < 25 % of the QC limit	Data are rejected

Table 6-2 **SVOCs**

SAMPLES AFFECTED	ANALYTES	ACTION	QC VIOLATION	COMMENTS
CF1 CF2	Atrazine Hexachloropentadiene	UJ non-detects J detects	% D for CCV > QC limit	Data are estimated

Table 6-3 Pesticides

SAMPLES AFFECTED	ANALYTES	ACTION	QC VIOLATION	COMMENTS
CF1	Endrin ketone	J	>25 % D between dual column analysis	Matrix interference suspected
CF2	4,4'-DDE	J	>25 % D between dual column analysis	Matrix interference suspected

Table 6-4 PCBs

SAMPLES AFFECTED	ANALYTES	ACTION	QC VIOLATION	COMMENTS
none		none		

Table 6-5 Metals

SAMPLES AFFECTED	ANALYTES	ACTION	QC VIOLATION	COMMENTS
none			none	

Table 6-6 Hexavalent Chromium

SAMPLES AFFECTED	ANALYTES	ACTION	QC VIOLATION	COMMENTS
none			none	

Table 6-7 Herbicides

SAMPLES AFFECTED	ANALYTES	ACTION	QC VIOLATION	COMMENTS
none			none	

Table 6-8 PFAAs

SAMPLES AFFECTED	ANALYTES	ACTION	QC VIOLATION	COMMENTS
CF1 CF2	PFNA	J detects	Detected in Method Blank	Data are estimated
CF1 CF2	PFBS	UJ non-detects J detects	% LCS < QC limit	Data are estimated

ACRONYMS

BSP	Blank Spike
CCAL	Continuing Calibration
CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification
CRDL	Contract Required Detection Limit
CRQL	Contract Required Quantitation Limit
%D	Percent Difference
ICAL	Initial Calibration
ICB	Initial Calibration Blank
IS	Internal Standard
LCS	Laboratory Control Sample
MS/MSD	Matrix Spike/Matrix Spike Duplicate
QA	Quality Assurance
QC	Quality Control
%R	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
%RSD	Percent Relative Standard Deviation
TAL	Target Analyte List (metals)
TCL	Target Compound List (organics)

Appendix A

Validated Analytical Results

LAB PROJECT NARRATIVE: 203556
PROJECT NAME: 31/150 Tonawanda Clean Fill
SDG: 3556-01
CLIENT: BE3

Six soil samples were collected by the client on July 30, 2020 and were received by the Paradigm Laboratory on the same day. Samples were received under the conditions as noted on the Chain-of-Custody Supplement. The samples were submitted with the Chains-of-Custody requesting the Part 375 lists for SVOCs, VOCs, Pesticides, Metals, PCBs, Hexavalent Chromium, Silvex, and PFAs. All analyses were performed using EPA SW-846 Methods and the associated holding times.

The items noted in this case narrative address compliance with the referenced methods, NYSDOH ELAP rules, and any project specific data quality requirements. These may be different from the usability criteria referenced in any "Functional Guidelines" or other data review standards used by data validators.

GENERAL NOTES

Regarding surrogate limits for Semivolatiles, Pesticides, and PCBs: Quality Control limits were updated internally on August 05, 2020. The samples were analyzed before August 05, but because the summary was generated after that date, the report automatically included the updated limits in error. All forms included in this package have been corrected to reflect the limits that were in-use at the time of analysis.

ALL ANALYSES

The initial and continuing calibration reports are only evaluated for compounds that are on the sample summary report.

Regarding results on QC summary forms versus included raw data, due to calculations made at the instrument where many significant figures may be used, there may be slight discrepancies between the summary report result and that recorded on the raw data. This does not affect data usability.

VOLATILES AND SEMIVOLATILES

Regarding initial calibrations, it should be noted that the Quantitation Report concentrations supplied for the initial calibration reflect the calibration prior to updating. The response factors and areas are correct.

Regarding Quantitation Reports, it should be noted that the "#" symbol that appears on some of the Quantitation Reports is a software artifact and should be disregarded.

Compounds flagged with an "*" on the summary table have been calibrated using a non-average Response Factor calibration curve. The supporting curves are located after the initial calibration table.

VOLATILES

Soil samples were not sampled per EPA method 5035A compliance rules. Thus, an extra note has been added to all VOC reports.

Holding times were met for all samples.

Surrogate recoveries for the samples and associated QC were within acceptance limits, except Toluene-d8 was out low in all samples and 4-Bromofluorobenzene was out low in CF VOC 1, CF VOC 2, and CF VOC 4. These outliers have been flagged with an “*” on the surrogate recovery form and the sample results page. Matrix interference is suspected.

Site specific QC was not requested on this SDG. The Laboratory Control Sample recovered within acceptance limits.

The Method Blank was free from contamination within reportable ranges.

The instrument tunes passed all criteria and samples were within a 12-hour window.

The internal standards areas and retention times were within acceptance ranges for the samples and QC, except Chlorobenzene-d5 and 1,4-Dichlorobenzene-d4 were out low in all samples. These outliers have been flagged with an “*” on the summary form and annotated on the sample report accordingly. The samples were repeated to confirm the results and the raw data for the confirmation has been supplied after the raw data from the reported results. Matrix interference is suspected. No further evaluation of this data or corresponding summary forms have been made.

All data for the initial calibration was within acceptance limits for the reported analytes.

All continuing calibration data was within acceptance limits for the reported analytes with the following exceptions: Dichlorodifluoromethane, Chloromethane, Chloroethane, Trichlorofluoromethane, and Freon 113 were out low in the CCV. Adequate sensitivity at the reporting limit for these compounds was verified by the analysis of a single point 1ppb standard. This is usable for non-detects only. All samples were non-detect for these compounds.

SEMI-VOLATILES

Holding time was met for the samples.

All surrogate recoveries for the samples and associated QC were within acceptance limits.

Site specific QC was not requested on this SDG. The Laboratory Control Sample recovered within acceptance limits.

The Method Blank was free from contamination within reportable ranges.

The instrument tunes passed all criteria and samples were within a 12-hour window.

The internal standards areas and retention times were within acceptance ranges for the samples and associated QC.

All data for the initial calibrations was within acceptance limits for the reported analytes.

All continuing calibration data was within acceptance limits for the reported analytes, with the following exceptions: In both CCVs Benzaldehyde and Di-n-Octylphthalate were out high and Hexachlorocyclopentadiene and Atrazine were out low. For compounds that are out high data is usable if the samples are non-detect for those compounds. For the compounds that were out low, adequate sensitivity at the reporting limit was verified by the analysis of single point 5ppm and 10ppm standards. This is usable for non-detects only. All samples were non-detect for the outlying compounds.

PESTICIDES

Holding time was met for the samples.

Surrogate recoveries for the samples and associated QC were within acceptance limits, except Tetrachloro-m-xylene was out low in the LCS and CF2. These outliers have been flagged with an “*” on the surrogate recovery form and the sample results page. The LCS was deemed usable as the surrogate recovery was acceptable in the rest of the QC and all target analytes in the LCS were within acceptance limits.

Site specific QC was not requested on this SDG. The Laboratory Control samples recovered within acceptance limits.

The method blank was free from contamination within the reportable ranges.

The internal standards areas and retention times were within acceptance ranges for the samples and associated QC, except the internal standard was out high in the Blank and Toxaphene LCS when compared to the Toxaphene calibration curve. The internal standard was within acceptance limits in both QC samples when compared to the single-peak pesticides calibration curve, and data was deemed usable. The Toxaphene LCS recovered within acceptance limits and the Blank was free from contamination within reportable ranges.

All data for the initial calibrations were within acceptance limits. The internal acceptance criteria for the initial calibrations was 0.99 or better for each peak.

All continuing calibration data was within acceptable QC limits.

For all Pesticide hits, a Form 10 including Percent Difference has been included. Column confirmations above 40% difference have been flagged with a “P” on the sample reports and an “*” on the Form 10 indicating matrix interference. The reported result is always the lower of the two results.

PCBS

Holding time was met for the samples.

The surrogate recoveries for the samples and the associated QC were within acceptance limits.

Site specific QC was not requested on this SDG. The Laboratory Control Sample recovered within acceptance limits.

The method blank was free from contamination within the reportable ranges.

All data for the initial calibrations were within acceptance limits. The internal acceptance criteria for the initial calibrations was 0.99 or better for each peak.

All data for continuing calibrations was within acceptance limits.

METALS

ICP-AES interelement and background corrections were applied. Raw data was not generated before application of background corrections.

Holding times were met for the samples.

Site specific QC was not requested on this SDG. The Laboratory Control Samples recovered within acceptable limits. All LCS % differences were within acceptance limits.

The Method Blank was free from contamination within reportable ranges.

All data for the initial calibrations was within acceptance limits.

All continuing calibrations data was within acceptance limits.

SUBCONTRACTED ANALYSES

Silvex by EPA 8151A, Total Mercury by EPA 7471B, and Hexavalent Chromium by EPA 7196A were subcontracted to Adirondack Environmental Services, Inc. of Albany, NY. PFAs by 537.1 were subcontracted to ALS Environmental of Rochester, New York. Their reports are provided in their entirety as a separate entity after the Paradigm Environmental Services, Inc. report. Separate case narratives addressing the above parameters are included with their reports.

(signed) Steven DeVito
Steven DeVito – Technical Director

(date) 9/25/2020

BATCH LOG

Lab Name: Paradigm Environmental Services
 Lab Project #: 203556
 Client Name: BE3
 Client Project Name: 31/150 Tonawanda Clean Fill
 Client Project #: N/A
 SDG No.: 3556-01

Protocol: SW846Report Due Date: 8/21/2020

Batch Due Date:

8/29/2020

[illegible]

1 of 2

PARADIGM

CHAIN OF CUSTODY

PROJECT REFERENCE
31/150 TONAWANDA
CLEAN FILL

REPORT TO:		INVOICE TO:		LAB PROJECT ID
CLIENT: BE3		CLIENT:		203556
ADDRESS: 960 BUSSE ST. 150-B		ADDRESS:		Quotation #:
CITY: BUFFALO STATE: NY ZIP: 14213		CITY: STATE: ZIP:		Email:
PHONE: 716-308-8220		PHONE:		
ATTN: PETE GORTON		ATTN:		
Matrix Codes:				
AQ - Aqueous Liquid	WA - Water	DW - Drinking Water	SO - Soil	SD - Solid
NQ - Non-Aqueous Liquid	WG - Groundwater	WW - Wastewater	SL - Sludge	PT - Paint
				WP - Wipe
				CK - Caulk
				OL - Oil
				AR - Air

REQUESTED ANALYSIS													
DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX	CONTAINER OF	375 Metals	375 VOCs	375 Pesticides	375 PCBs	HEX CHROM	REMARKS	PARADIGM LAB SAMPLE NUMBER
7-30-20	1210	X		CF1	SD	4	X	X	X	X	X		01
				CF2		4	X	X	X	X	X		02
				CF VOC 1		1						X	03
				CF VOC 2		1						X	04
				CF VOC 3		1						X	05
				CF VOC 4		1						X	06
per visual on 7/30/2020													
CF = CLEAN FILL													
municipal site, not in field													
moly mail 7/30/20 1710													
N/A moly mail delivered													

Turnaround Time	Report Supplements	
Availability contingent upon lab approval; additional fees may apply.		
Standard 5 day <input type="checkbox"/>	None Required <input type="checkbox"/>	None Required <input type="checkbox"/>
10 day <input checked="" type="checkbox"/>	Batch QC <input type="checkbox"/>	Basic EDD <input type="checkbox"/>
Rush 3 day <input type="checkbox"/>	Category A <input type="checkbox"/>	NYSDEC EDD <input checked="" type="checkbox"/>
Rush 2 day <input type="checkbox"/>	Category B <input checked="" type="checkbox"/>	
Rush 1 day <input type="checkbox"/>		
Date Needed _____	Other <input type="checkbox"/>	Other EDD <input type="checkbox"/>
please indicate date needed:	please indicate package needed:	please indicate EDD needed:
NOTE: FASTER THE BETTER		

Sampled By: PETE GORTON Date/Time: 7-30-20 1210
 Relinquished By: Pete Gorton Date/Time: 7-30-20
 Received By: Brian Zund Date/Time: 7/30/20 3:15
 Received @ Lab By: moly mail Date/Time: 7/30/20 1728

Total Cost: delivered

P.I.F. ☐

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

Page 7 of 706

See additional page for sample conditions.

VOLATILE ORGANICS
SAMPLE DATA



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier: CF VOC 1

Lab Sample ID: 203556-03

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 3.92 <i>UJ</i>	ug/Kg		8/7/2020 19:50
1,1,2,2-Tetrachloroethane	< 3.92	ug/Kg		8/7/2020 19:50
1,1,2-Trichloroethane	< 3.92	ug/Kg		8/7/2020 19:50
1,1-Dichloroethane	< 3.92	ug/Kg		8/7/2020 19:50
1,1-Dichloroethene	< 3.92	ug/Kg		8/7/2020 19:50
1,2,3-Trichlorobenzene	< 9.79 <i>R</i>	ug/Kg		8/7/2020 19:50
1,2,4-Trichlorobenzene	< 9.79 <i>R</i>	ug/Kg		8/7/2020 19:50
1,2,4-Trimethylbenzene	< 3.92 <i>UJ</i>	ug/Kg		8/7/2020 19:50
1,2-Dibromo-3-Chloropropane	< 19.6 <i>R</i>	ug/Kg		8/7/2020 19:50
1,2-Dibromoethane	< 3.92 <i>UJ</i>	ug/Kg		8/7/2020 19:50
1,2-Dichlorobenzene	< 3.92 <i>R</i>	ug/Kg		8/7/2020 19:50
1,2-Dichloroethane	< 3.92 <i>UJ</i>	ug/Kg		8/7/2020 19:50
1,2-Dichloropropane	< 3.92	ug/Kg		8/7/2020 19:50
1,3,5-Trimethylbenzene	< 3.92	ug/Kg		8/7/2020 19:50
1,3-Dichlorobenzene	< 3.92 <i>R</i>	ug/Kg		8/7/2020 19:50
1,4-Dichlorobenzene	< 3.92	ug/Kg		8/7/2020 19:50
1,4-Dioxane	< 3.92	ug/Kg		8/7/2020 19:50
2-Butanone	< 19.6 <i>UJ</i>	ug/Kg		8/7/2020 19:50
2-Hexanone	< 9.79	ug/Kg		8/7/2020 19:50
4-Methyl-2-pentanone	< 9.79	ug/Kg		8/7/2020 19:50
Acetone	< 19.6	ug/Kg		8/7/2020 19:50
Benzene	< 3.92	ug/Kg		8/7/2020 19:50
Bromochloromethane	< 9.79	ug/Kg		8/7/2020 19:50

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.



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier: CF VOC 1

Lab Sample ID: 203556-03

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

Bromodichloromethane	< 3.92	UJ	ug/Kg	8/7/2020	19:50
Bromoform	< 9.79		ug/Kg	8/7/2020	19:50
Bromomethane	< 3.92		ug/Kg	8/7/2020	19:50
Carbon disulfide	< 3.92		ug/Kg	8/7/2020	19:50
Carbon Tetrachloride	< 3.92		ug/Kg	8/7/2020	19:50
Chlorobenzene	< 3.92		ug/Kg	8/7/2020	19:50
Chloroethane	< 3.92		ug/Kg	8/7/2020	19:50
Chloroform	< 3.92		ug/Kg	8/7/2020	19:50
Chloromethane	< 3.92		ug/Kg	8/7/2020	19:50
cis-1,2-Dichloroethene	< 3.92		ug/Kg	8/7/2020	19:50
cis-1,3-Dichloropropene	< 3.92		ug/Kg	8/7/2020	19:50
Cyclohexane	< 19.6		ug/Kg	8/7/2020	19:50
Dibromochloromethane	< 3.92		ug/Kg	8/7/2020	19:50
Dichlorodifluoromethane	< 3.92		ug/Kg	8/7/2020	19:50
Ethylbenzene	< 3.92		ug/Kg	8/7/2020	19:50
Freon 113	< 3.92		ug/Kg	8/7/2020	19:50
Isopropylbenzene	< 3.92		ug/Kg	8/7/2020	19:50
m,p-Xylene	< 3.92		ug/Kg	8/7/2020	19:50
Methyl acetate	< 3.92		ug/Kg	8/7/2020	19:50
Methyl tert-butyl Ether	< 3.92		ug/Kg	8/7/2020	19:50
Methylcyclohexane	< 3.92		ug/Kg	8/7/2020	19:50
Methylene chloride	< 9.79		ug/Kg	8/7/2020	19:50
Naphthalene	< 9.79	R	ug/Kg	8/7/2020	19:50
n-Butylbenzene	< 3.92	R	ug/Kg	8/7/2020	19:50
n-Propylbenzene	< 3.92	UJ	ug/Kg	8/7/2020	19:50

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.



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier:	CF VOC 1		
Lab Sample ID:	203556-03	Date Sampled:	7/30/2020
Matrix:	Soil	Date Received:	7/30/2020

o-Xylene	< 3.92	UJ	ug/Kg	8/7/2020	19:50
p-Isopropyltoluene	< 3.92		ug/Kg	8/7/2020	19:50
sec-Butylbenzene	< 3.92		ug/Kg	8/7/2020	19:50
Styrene	< 9.79		ug/Kg	8/7/2020	19:50
tert-Butylbenzene	< 3.92		ug/Kg	8/7/2020	19:50
Tetrachloroethene	< 3.92		ug/Kg	8/7/2020	19:50
Toluene	< 3.92		ug/Kg	8/7/2020	19:50
trans-1,2-Dichloroethene	< 3.92		ug/Kg	8/7/2020	19:50
trans-1,3-Dichloropropene	< 3.92		ug/Kg	8/7/2020	19:50
Trichloroethene	< 3.92		ug/Kg	8/7/2020	19:50
Trichlorofluoromethane	< 3.92		ug/Kg	8/7/2020	19:50
Vinyl chloride	< 3.92		ug/Kg	8/7/2020	19:50

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	119	75 - 134		8/7/2020 19:50
4-Bromofluorobenzene	58.6	59.5 - 129	*	8/7/2020 19:50
Pentafluorobenzene	98.0	88.8 - 118		8/7/2020 19:50
Toluene-D8	81.0	84 - 114	*	8/7/2020 19:50

Internal standard outliers indicate probable matrix interference

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x72387.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.

MKP 10/5/2020

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.



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier: CF VOC 2

Lab Sample ID: 203556-04

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.05 <i>UJ</i>	ug/Kg		8/7/2020 20:12
1,1,2,2-Tetrachloroethane	< 4.05	ug/Kg		8/7/2020 20:12
1,1,2-Trichloroethane	< 4.05	ug/Kg		8/7/2020 20:12
1,1-Dichloroethane	< 4.05	ug/Kg		8/7/2020 20:12
1,1-Dichloroethene	< 4.05	ug/Kg		8/7/2020 20:12
1,2,3-Trichlorobenzene	< 10.1 <i>R</i>	ug/Kg		8/7/2020 20:12
1,2,4-Trichlorobenzene	< 10.1 <i>R</i>	ug/Kg		8/7/2020 20:12
1,2,4-Trimethylbenzene	< 4.05 <i>UJ</i>	ug/Kg		8/7/2020 20:12
1,2-Dibromo-3-Chloropropane	< 20.3 <i>R</i>	ug/Kg		8/7/2020 20:12
1,2-Dibromoethane	< 4.05 <i>UJ</i>	ug/Kg		8/7/2020 20:12
1,2-Dichlorobenzene	< 4.05 <i>R</i>	ug/Kg		8/7/2020 20:12
1,2-Dichloroethane	< 4.05 <i>UJ</i>	ug/Kg		8/7/2020 20:12
1,2-Dichloropropane	< 4.05	ug/Kg		8/7/2020 20:12
1,3,5-Trimethylbenzene	< 4.05	ug/Kg		8/7/2020 20:12
1,3-Dichlorobenzene	< 4.05 <i>R</i>	ug/Kg		8/7/2020 20:12
1,4-Dichlorobenzene	< 4.05 <i>R</i>	ug/Kg		8/7/2020 20:12
1,4-Dioxane	< 40.5 <i>R</i>	ug/Kg		8/7/2020 20:12
2-Butanone	< 20.3 <i>UJ</i>	ug/Kg		8/7/2020 20:12
2-Hexanone	< 10.1	ug/Kg		8/7/2020 20:12
4-Methyl-2-pentanone	< 10.1	ug/Kg		8/7/2020 20:12
Acetone	< 20.3	ug/Kg		8/7/2020 20:12
Benzene	< 4.05	ug/Kg		8/7/2020 20:12
Bromochloromethane	< 10.1	ug/Kg		8/7/2020 20:12

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.



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier: CF VOC 2

Lab Sample ID: 203556-04

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

Bromodichloromethane	< 4.05	UJ	ug/Kg	8/7/2020 20:12
Bromoform	< 10.1		ug/Kg	8/7/2020 20:12
Bromomethane	< 4.05		ug/Kg	8/7/2020 20:12
Carbon disulfide	< 4.05		ug/Kg	8/7/2020 20:12
Carbon Tetrachloride	< 4.05		ug/Kg	8/7/2020 20:12
Chlorobenzene	< 4.05		ug/Kg	8/7/2020 20:12
Chloroethane	< 4.05		ug/Kg	8/7/2020 20:12
Chloroform	< 4.05		ug/Kg	8/7/2020 20:12
Chloromethane	< 4.05		ug/Kg	8/7/2020 20:12
cis-1,2-Dichloroethene	< 4.05		ug/Kg	8/7/2020 20:12
cis-1,3-Dichloropropene	< 4.05		ug/Kg	8/7/2020 20:12
Cyclohexane	< 20.3		ug/Kg	8/7/2020 20:12
Dibromochloromethane	< 4.05		ug/Kg	8/7/2020 20:12
Dichlorodifluoromethane	< 4.05		ug/Kg	8/7/2020 20:12
Ethylbenzene	< 4.05		ug/Kg	8/7/2020 20:12
Freon 113	< 4.05		ug/Kg	8/7/2020 20:12
Isopropylbenzene	< 4.05		ug/Kg	8/7/2020 20:12
m,p-Xylene	2.13	J	ug/Kg	8/7/2020 20:12
Methyl acetate	< 4.05	UJ	ug/Kg	8/7/2020 20:12
Methyl tert-butyl Ether	< 4.05		ug/Kg	8/7/2020 20:12
Methylcyclohexane	< 4.05		ug/Kg	8/7/2020 20:12
Methylene chloride	< 10.1		ug/Kg	8/7/2020 20:12
Naphthalene	< 10.1	R	ug/Kg	8/7/2020 20:12
n-Butylbenzene	< 4.05	R	ug/Kg	8/7/2020 20:12
n-Propylbenzene	< 4.05	UJ	ug/Kg	8/7/2020 20:12

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.



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier:	CF VOC 2		
Lab Sample ID:	203556-04	Date Sampled:	7/30/2020
Matrix:	Soil	Date Received:	7/30/2020

o-Xylene	< 4.05	UJ	ug/Kg	8/7/2020	20:12
p-Isopropyltoluene	< 4.05		ug/Kg	8/7/2020	20:12
sec-Butylbenzene	< 4.05		ug/Kg	8/7/2020	20:12
Styrene	< 10.1		ug/Kg	8/7/2020	20:12
tert-Butylbenzene	< 4.05		ug/Kg	8/7/2020	20:12
Tetrachloroethene	< 4.05		ug/Kg	8/7/2020	20:12
Toluene	< 4.05		ug/Kg	8/7/2020	20:12
trans-1,2-Dichloroethene	< 4.05		ug/Kg	8/7/2020	20:12
trans-1,3-Dichloropropene	< 4.05		ug/Kg	8/7/2020	20:12
Trichloroethene	< 4.05		ug/Kg	8/7/2020	20:12
Trichlorofluoromethane	< 4.05		ug/Kg	8/7/2020	20:12
Vinyl chloride	< 4.05		ug/Kg	8/7/2020	20:12

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	120	75 - 134		8/7/2020 20:12
4-Bromofluorobenzene	58.2	59.5 - 129	*	8/7/2020 20:12
Pentafluorobenzene	99.8	88.8 - 118		8/7/2020 20:12
Toluene-D8	83.1	84 - 114	*	8/7/2020 20:12

Internal standard outliers indicate probable matrix interference

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x72388.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.

MKP 10/5/2020

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.



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier: CF VOC 3

Lab Sample ID: 203556-05

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.49 <i>UJ</i>	ug/Kg		8/7/2020 20:34
1,1,2,2-Tetrachloroethane	< 4.49	ug/Kg		8/7/2020 20:34
1,1,2-Trichloroethane	< 4.49	ug/Kg		8/7/2020 20:34
1,1-Dichloroethane	< 4.49	ug/Kg		8/7/2020 20:34
1,1-Dichloroethene	< 4.49	ug/Kg		8/7/2020 20:34
1,2,3-Trichlorobenzene	< 11.2 <i>R</i>	ug/Kg		8/7/2020 20:34
1,2,4-Trichlorobenzene	< 11.2 <i>R</i>	ug/Kg		8/7/2020 20:34
1,2,4-Trimethylbenzene	< 4.49 <i>UJ</i>	ug/Kg		8/7/2020 20:34
1,2-Dibromo-3-Chloropropane	< 22.4 <i>R</i>	ug/Kg		8/7/2020 20:34
1,2-Dibromoethane	< 4.49 <i>UJ</i>	ug/Kg		8/7/2020 20:34
1,2-Dichlorobenzene	< 4.49 <i>R</i>	ug/Kg		8/7/2020 20:34
1,2-Dichloroethane	< 4.49 <i>UJ</i>	ug/Kg		8/7/2020 20:34
1,2-Dichloropropane	< 4.49	ug/Kg		8/7/2020 20:34
1,3,5-Trimethylbenzene	< 4.49	ug/Kg		8/7/2020 20:34
1,3-Dichlorobenzene	< 4.49 <i>R</i>	ug/Kg		8/7/2020 20:34
1,4-Dichlorobenzene	< 4.49 <i>R</i>	ug/Kg		8/7/2020 20:34
1,4-Dioxane	< 4.49 <i>R</i>	ug/Kg		8/7/2020 20:34
2-Butanone	< 22.4 <i>UJ</i>	ug/Kg		8/7/2020 20:34
2-Hexanone	< 11.2	ug/Kg		8/7/2020 20:34
4-Methyl-2-pentanone	< 11.2	ug/Kg		8/7/2020 20:34
Acetone	< 22.4	ug/Kg		8/7/2020 20:34
Benzene	< 4.49	ug/Kg		8/7/2020 20:34
Bromochloromethane	< 11.2	ug/Kg		8/7/2020 20:34

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.



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier: CF VOC 3

Lab Sample ID: 203556-05

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

Bromodichloromethane	< 4.49	UJ	ug/Kg	8/7/2020 20:34
Bromoform	< 11.2		ug/Kg	8/7/2020 20:34
Bromomethane	< 4.49		ug/Kg	8/7/2020 20:34
Carbon disulfide	< 4.49		ug/Kg	8/7/2020 20:34
Carbon Tetrachloride	< 4.49		ug/Kg	8/7/2020 20:34
Chlorobenzene	< 4.49		ug/Kg	8/7/2020 20:34
Chloroethane	< 4.49		ug/Kg	8/7/2020 20:34
Chloroform	< 4.49		ug/Kg	8/7/2020 20:34
Chloromethane	< 4.49		ug/Kg	8/7/2020 20:34
cis-1,2-Dichloroethene	< 4.49		ug/Kg	8/7/2020 20:34
cis-1,3-Dichloropropene	< 4.49		ug/Kg	8/7/2020 20:34
Cyclohexane	< 22.4		ug/Kg	8/7/2020 20:34
Dibromochloromethane	< 4.49		ug/Kg	8/7/2020 20:34
Dichlorodifluoromethane	< 4.49		ug/Kg	8/7/2020 20:34
Ethylbenzene	< 4.49		ug/Kg	8/7/2020 20:34
Freon 113	< 4.49		ug/Kg	8/7/2020 20:34
Isopropylbenzene	< 4.49		ug/Kg	8/7/2020 20:34
m,p-Xylene	< 4.49		ug/Kg	8/7/2020 20:34
Methyl acetate	< 4.49		ug/Kg	8/7/2020 20:34
Methyl tert-butyl Ether	< 4.49		ug/Kg	8/7/2020 20:34
Methylcyclohexane	< 4.49		ug/Kg	8/7/2020 20:34
Methylene chloride	< 11.2		ug/Kg	8/7/2020 20:34
Naphthalene	< 11.2	R	ug/Kg	8/7/2020 20:34
n-Butylbenzene	< 4.49	R	ug/Kg	8/7/2020 20:34
n-Propylbenzene	< 4.49	UJ	ug/Kg	8/7/2020 20:34

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.



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier: CF VOC 3

Lab Sample ID: 203556-05

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

o-Xylene	< 4.49	UJ	ug/Kg	8/7/2020	20:34
p-Isopropyltoluene	< 4.49		ug/Kg	8/7/2020	20:34
sec-Butylbenzene	< 4.49		ug/Kg	8/7/2020	20:34
Styrene	< 11.2		ug/Kg	8/7/2020	20:34
tert-Butylbenzene	< 4.49		ug/Kg	8/7/2020	20:34
Tetrachloroethene	< 4.49		ug/Kg	8/7/2020	20:34
Toluene	< 4.49		ug/Kg	8/7/2020	20:34
trans-1,2-Dichloroethene	< 4.49		ug/Kg	8/7/2020	20:34
trans-1,3-Dichloropropene	< 4.49		ug/Kg	8/7/2020	20:34
Trichloroethene	< 4.49		ug/Kg	8/7/2020	20:34
Trichlorofluoromethane	< 4.49		ug/Kg	8/7/2020	20:34
Vinyl chloride	< 4.49		ug/Kg	8/7/2020	20:34

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	119	75 - 134		8/7/2020 20:34
4-Bromofluorobenzene	59.8	59.5 - 129		8/7/2020 20:34
Pentafluorobenzene	98.6	88.8 - 118		8/7/2020 20:34
Toluene-D8	79.7	84 - 114	*	8/7/2020 20:34

Internal standard outliers indicate probable matrix interference

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x72389.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.

MKP 10/5/2020

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.



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier: CF VOC 4

Lab Sample ID: 203556-06

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.40 <i>UJ</i>	ug/Kg		8/7/2020 20:56
1,1,2,2-Tetrachloroethane	< 4.40	ug/Kg		8/7/2020 20:56
1,1,2-Trichloroethane	< 4.40	ug/Kg		8/7/2020 20:56
1,1-Dichloroethane	< 4.40	ug/Kg		8/7/2020 20:56
1,1-Dichloroethene	< 4.40	ug/Kg		8/7/2020 20:56
1,2,3-Trichlorobenzene	< 11.0 <i>R</i>	ug/Kg		8/7/2020 20:56
1,2,4-Trichlorobenzene	< 11.0 <i>R</i>	ug/Kg		8/7/2020 20:56
1,2,4-Trimethylbenzene	< 4.40 <i>UJ</i>	ug/Kg		8/7/2020 20:56
1,2-Dibromo-3-Chloropropane	< 22.0 <i>R</i>	ug/Kg		8/7/2020 20:56
1,2-Dibromoethane	< 4.40 <i>UJ</i>	ug/Kg		8/7/2020 20:56
1,2-Dichlorobenzene	< 4.40 <i>R</i>	ug/Kg		8/7/2020 20:56
1,2-Dichloroethane	< 4.40 <i>UJ</i>	ug/Kg		8/7/2020 20:56
1,2-Dichloropropane	< 4.40	ug/Kg		8/7/2020 20:56
1,3,5-Trimethylbenzene	< 4.40	ug/Kg		8/7/2020 20:56
1,3-Dichlorobenzene	< 4.40 <i>R</i>	ug/Kg		8/7/2020 20:56
1,4-Dichlorobenzene	< 4.40 <i>R</i>	ug/Kg		8/7/2020 20:56
1,4-Dioxane	< 4.40 <i>R</i>	ug/Kg		8/7/2020 20:56
2-Butanone	< 22.0 <i>UJ</i>	ug/Kg		8/7/2020 20:56
2-Hexanone	< 11.0	ug/Kg		8/7/2020 20:56
4-Methyl-2-pentanone	< 11.0	ug/Kg		8/7/2020 20:56
Acetone	< 22.0	ug/Kg		8/7/2020 20:56
Benzene	< 4.40	ug/Kg		8/7/2020 20:56
Bromochloromethane	< 11.0	ug/Kg		8/7/2020 20:56

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.



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier: CF VOC 4

Lab Sample ID: 203556-06

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

Bromodichloromethane	< 4.40	UJ	ug/Kg	8/7/2020 20:56
Bromoform	< 11.0		ug/Kg	8/7/2020 20:56
Bromomethane	< 4.40		ug/Kg	8/7/2020 20:56
Carbon disulfide	< 4.40		ug/Kg	8/7/2020 20:56
Carbon Tetrachloride	< 4.40		ug/Kg	8/7/2020 20:56
Chlorobenzene	< 4.40		ug/Kg	8/7/2020 20:56
Chloroethane	< 4.40		ug/Kg	8/7/2020 20:56
Chloroform	< 4.40		ug/Kg	8/7/2020 20:56
Chloromethane	< 4.40		ug/Kg	8/7/2020 20:56
cis-1,2-Dichloroethene	< 4.40		ug/Kg	8/7/2020 20:56
cis-1,3-Dichloropropene	< 4.40		ug/Kg	8/7/2020 20:56
Cyclohexane	< 22.0		ug/Kg	8/7/2020 20:56
Dibromochloromethane	< 4.40		ug/Kg	8/7/2020 20:56
Dichlorodifluoromethane	< 4.40		ug/Kg	8/7/2020 20:56
Ethylbenzene	< 4.40		ug/Kg	8/7/2020 20:56
Freon 113	< 4.40		ug/Kg	8/7/2020 20:56
Isopropylbenzene	< 4.40		ug/Kg	8/7/2020 20:56
m,p-Xylene	2.40	J	ug/Kg	J 8/7/2020 20:56
Methyl acetate	< 4.40	UJ	ug/Kg	8/7/2020 20:56
Methyl tert-butyl Ether	< 4.40		ug/Kg	8/7/2020 20:56
Methylcyclohexane	< 4.40		ug/Kg	8/7/2020 20:56
Methylene chloride	< 11.0		ug/Kg	8/7/2020 20:56
Naphthalene	< 11.0	R	ug/Kg	8/7/2020 20:56
n-Butylbenzene	< 4.40	R	ug/Kg	8/7/2020 20:56
n-Propylbenzene	< 4.40	UJ	ug/Kg	8/7/2020 20:56

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.



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier:	CF VOC 4		
Lab Sample ID:	203556-06	Date Sampled:	7/30/2020
Matrix:	Soil	Date Received:	7/30/2020

o-Xylene	< 4.40	UU	ug/Kg	8/7/2020	20:56
p-Isopropyltoluene	< 4.40		ug/Kg	8/7/2020	20:56
sec-Butylbenzene	< 4.40		ug/Kg	8/7/2020	20:56
Styrene	< 11.0		ug/Kg	8/7/2020	20:56
tert-Butylbenzene	< 4.40		ug/Kg	8/7/2020	20:56
Tetrachloroethene	< 4.40		ug/Kg	8/7/2020	20:56
Toluene	< 4.40		ug/Kg	8/7/2020	20:56
trans-1,2-Dichloroethene	< 4.40		ug/Kg	8/7/2020	20:56
trans-1,3-Dichloropropene	< 4.40		ug/Kg	8/7/2020	20:56
Trichloroethene	< 4.40		ug/Kg	8/7/2020	20:56
Trichlorofluoromethane	< 4.40		ug/Kg	8/7/2020	20:56
Vinyl chloride	< 4.40		ug/Kg	8/7/2020	20:56

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	119	75 - 134		8/7/2020 20:56
4-Bromofluorobenzene	58.8	59.5 - 129	*	8/7/2020 20:56
Pentafluorobenzene	96.5	88.8 - 118		8/7/2020 20:56
Toluene-D8	81.2	84 - 114	*	8/7/2020 20:56

Internal standard outliers indicate probable matrix interference

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x72390.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.

MKP 10/5/2020

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.

SEMIVOLATILE ORGANICS

SAMPLE DATA



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier: CF1

Lab Sample ID: 203556-01

Matrix: Soil

Date Sampled: 7/30/2020

Date Received: 7/30/2020

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 329	ug/Kg		8/4/2020 12:05
1,2,4,5-Tetrachlorobenzene	< 329	ug/Kg		8/4/2020 12:05
1,2,4-Trichlorobenzene	< 329	ug/Kg		8/4/2020 12:05
1,2-Dichlorobenzene	< 329	ug/Kg		8/4/2020 12:05
1,3-Dichlorobenzene	< 329	ug/Kg		8/4/2020 12:05
1,4-Dichlorobenzene	< 329	ug/Kg		8/4/2020 12:05
2,2-Oxybis (1-chloropropane)	< 329	ug/Kg		8/4/2020 12:05
2,3,4,6-Tetrachlorophenol	< 329	ug/Kg		8/4/2020 12:05
2,4,5-Trichlorophenol	< 329	ug/Kg		8/4/2020 12:05
2,4,6-Trichlorophenol	< 329	ug/Kg		8/4/2020 12:05
2,4-Dichlorophenol	< 329	ug/Kg		8/4/2020 12:05
2,4-Dimethylphenol	< 329	ug/Kg		8/4/2020 12:05
2,4-Dinitrophenol	< 1320	ug/Kg		8/4/2020 12:05
2,4-Dinitrotoluene	< 329	ug/Kg		8/4/2020 12:05
2,6-Dinitrotoluene	< 329	ug/Kg		8/4/2020 12:05
2-Chloronaphthalene	< 329	ug/Kg		8/4/2020 12:05
2-Chlorophenol	< 329	ug/Kg		8/4/2020 12:05
2-Methylnaphthalene	< 329	ug/Kg		8/4/2020 12:05
2-Methylphenol	< 329	ug/Kg		8/4/2020 12:05
2-Nitroaniline	< 329	ug/Kg		8/4/2020 12:05
2-Nitrophenol	< 329	ug/Kg		8/4/2020 12:05
3&4-Methylphenol	< 329	ug/Kg		8/4/2020 12:05
3,3'-Dichlorobenzidine	< 329	ug/Kg		8/4/2020 12:05

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.



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier:		CF1			
Lab Sample ID:		203556-01		Date Sampled: 7/30/2020	
Matrix:		Soil		Date Received: 7/30/2020	
3-Nitroaniline	< 329	ug/Kg		8/4/2020	12:05
4,6-Dinitro-2-methylphenol	< 659	ug/Kg		8/4/2020	12:05
4-Bromophenyl phenyl ether	< 329	ug/Kg		8/4/2020	12:05
4-Chloro-3-methylphenol	< 329	ug/Kg		8/4/2020	12:05
4-Chloroaniline	< 329	ug/Kg		8/4/2020	12:05
4-Chlorophenyl phenyl ether	< 329	ug/Kg		8/4/2020	12:05
4-Nitroaniline	< 329	ug/Kg		8/4/2020	12:05
4-Nitrophenol	< 329	ug/Kg		8/4/2020	12:05
Acenaphthene	< 329	ug/Kg		8/4/2020	12:05
Acenaphthylene	< 329	ug/Kg		8/4/2020	12:05
Acetophenone	< 329	ug/Kg		8/4/2020	12:05
Anthracene	261	ug/Kg	J	8/4/2020	12:05
Atrazine	< 329 <i>UJ</i>	ug/Kg		8/4/2020	12:05
Benzaldehyde	< 329	ug/Kg		8/4/2020	12:05
Benzo (a) anthracene	1080	ug/Kg		8/4/2020	12:05
Benzo (a) pyrene	1210	ug/Kg		8/4/2020	12:05
Benzo (b) fluoranthene	1340	ug/Kg		8/4/2020	12:05
Benzo (g,h,i) perylene	901	ug/Kg		8/4/2020	12:05
Benzo (k) fluoranthene	983	ug/Kg		8/4/2020	12:05
Bis (2-chloroethoxy) methane	< 329	ug/Kg		8/4/2020	12:05
Bis (2-chloroethyl) ether	< 329	ug/Kg		8/4/2020	12:05
Bis (2-ethylhexyl) phthalate	< 329	ug/Kg		8/4/2020	12:05
Butylbenzylphthalate	< 329	ug/Kg		8/4/2020	12:05
Caprolactam	< 329	ug/Kg		8/4/2020	12:05
Carbazole	< 329	ug/Kg		8/4/2020	12:05

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.



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier:	CF1			
Lab Sample ID:	203556-01		Date Sampled:	7/30/2020
Matrix:	Soil		Date Received:	7/30/2020
Chrysene	1250	ug/Kg		8/4/2020 12:05
Dibenz (a,h) anthracene	270	ug/Kg	J	8/4/2020 12:05
Dibenzofuran	< 329	ug/Kg		8/4/2020 12:05
Diethyl phthalate	< 329	ug/Kg		8/4/2020 12:05
Dimethyl phthalate	< 329	ug/Kg		8/4/2020 12:05
Di-n-butyl phthalate	< 329	ug/Kg		8/4/2020 12:05
Di-n-octylphthalate	< 329	ug/Kg		8/4/2020 12:05
Fluoranthene	2510	ug/Kg		8/4/2020 12:05
Fluorene	< 329	ug/Kg		8/4/2020 12:05
Hexachlorobenzene	< 329	ug/Kg		8/4/2020 12:05
Hexachlorobutadiene	< 329	ug/Kg		8/4/2020 12:05
Hexachlorocyclopentadiene	< 1320 UJ	ug/Kg		8/4/2020 12:05
Hexachloroethane	< 329	ug/Kg		8/4/2020 12:05
Indeno (1,2,3-cd) pyrene	797	ug/Kg		8/4/2020 12:05
Isophorone	< 329	ug/Kg		8/4/2020 12:05
Naphthalene	< 329	ug/Kg		8/4/2020 12:05
Nitrobenzene	< 329	ug/Kg		8/4/2020 12:05
N-Nitroso-di-n-propylamine	< 329	ug/Kg		8/4/2020 12:05
N-Nitrosodiphenylamine	< 329	ug/Kg		8/4/2020 12:05
Pentachlorophenol	< 659	ug/Kg		8/4/2020 12:05
Phenanthrene	1110	ug/Kg		8/4/2020 12:05
Phenol	< 329	ug/Kg		8/4/2020 12:05
Pyrene	2000	ug/Kg		8/4/2020 12:05

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.



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier: CF2

Lab Sample ID: 203556-02

Matrix: Soil

Date Sampled: 7/30/2020

Date Received: 7/30/2020

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 320	ug/Kg		8/4/2020 12:34
1,2,4,5-Tetrachlorobenzene	< 320	ug/Kg		8/4/2020 12:34
1,2,4-Trichlorobenzene	< 320	ug/Kg		8/4/2020 12:34
1,2-Dichlorobenzene	< 320	ug/Kg		8/4/2020 12:34
1,3-Dichlorobenzene	< 320	ug/Kg		8/4/2020 12:34
1,4-Dichlorobenzene	< 320	ug/Kg		8/4/2020 12:34
2,2-Oxybis (1-chloropropane)	< 320	ug/Kg		8/4/2020 12:34
2,3,4,6-Tetrachlorophenol	< 320	ug/Kg		8/4/2020 12:34
2,4,5-Trichlorophenol	< 320	ug/Kg		8/4/2020 12:34
2,4,6-Trichlorophenol	< 320	ug/Kg		8/4/2020 12:34
2,4-Dichlorophenol	< 320	ug/Kg		8/4/2020 12:34
2,4-Dimethylphenol	< 320	ug/Kg		8/4/2020 12:34
2,4-Dinitrophenol	< 1280	ug/Kg		8/4/2020 12:34
2,4-Dinitrotoluene	< 320	ug/Kg		8/4/2020 12:34
2,6-Dinitrotoluene	< 320	ug/Kg		8/4/2020 12:34
2-Chloronaphthalene	< 320	ug/Kg		8/4/2020 12:34
2-Chlorophenol	< 320	ug/Kg		8/4/2020 12:34
2-Methylnaphthalene	< 320	ug/Kg		8/4/2020 12:34
2-Methylphenol	< 320	ug/Kg		8/4/2020 12:34
2-Nitroaniline	< 320	ug/Kg		8/4/2020 12:34
2-Nitrophenol	< 320	ug/Kg		8/4/2020 12:34
3&4-Methylphenol	< 320	ug/Kg		8/4/2020 12:34
3,3'-Dichlorobenzidine	< 320	ug/Kg		8/4/2020 12:34

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.



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier:	CF2			
Lab Sample ID:	203556-02		Date Sampled:	7/30/2020
Matrix:	Soil		Date Received:	7/30/2020
3-Nitroaniline	< 320	ug/Kg	8/4/2020	12:34
4,6-Dinitro-2-methylphenol	< 639	ug/Kg	8/4/2020	12:34
4-Bromophenyl phenyl ether	< 320	ug/Kg	8/4/2020	12:34
4-Chloro-3-methylphenol	< 320	ug/Kg	8/4/2020	12:34
4-Chloroaniline	< 320	ug/Kg	8/4/2020	12:34
4-Chlorophenyl phenyl ether	< 320	ug/Kg	8/4/2020	12:34
4-Nitroaniline	< 320	ug/Kg	8/4/2020	12:34
4-Nitrophenol	< 320	ug/Kg	8/4/2020	12:34
Acenaphthene	< 320	ug/Kg	8/4/2020	12:34
Acenaphthylene	< 320	ug/Kg	8/4/2020	12:34
Acetophenone	< 320	ug/Kg	8/4/2020	12:34
Anthracene	< 320	ug/Kg	8/4/2020	12:34
Atrazine	< 320	ug/Kg	8/4/2020	12:34
Benzaldehyde	< 320	ug/Kg	8/4/2020	12:34
Benzo (a) anthracene	386	ug/Kg	8/4/2020	12:34
Benzo (a) pyrene	486	ug/Kg	8/4/2020	12:34
Benzo (b) fluoranthene	607	ug/Kg	8/4/2020	12:34
Benzo (g,h,i) perylene	410	ug/Kg	8/4/2020	12:34
Benzo (k) fluoranthene	373	ug/Kg	8/4/2020	12:34
Bis (2-chloroethoxy) methane	< 320	ug/Kg	8/4/2020	12:34
Bis (2-chloroethyl) ether	< 320	ug/Kg	8/4/2020	12:34
Bis (2-ethylhexyl) phthalate	< 320	ug/Kg	8/4/2020	12:34
Butylbenzylphthalate	< 320	ug/Kg	8/4/2020	12:34
Caprolactam	< 320	ug/Kg	8/4/2020	12:34
Carbazole	< 320	ug/Kg	8/4/2020	12:34

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.



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier:	CF2		
Lab Sample ID:	203556-02	Date Sampled:	7/30/2020
Matrix:	Soil	Date Received:	7/30/2020
Chrysene	508	ug/Kg	8/4/2020 12:34
Dibenz (a,h) anthracene	< 320	ug/Kg	8/4/2020 12:34
Dibenzofuran	< 320	ug/Kg	8/4/2020 12:34
Diethyl phthalate	< 320	ug/Kg	8/4/2020 12:34
Dimethyl phthalate	< 320	ug/Kg	8/4/2020 12:34
Di-n-butyl phthalate	< 320	ug/Kg	8/4/2020 12:34
Di-n-octylphthalate	< 320	ug/Kg	8/4/2020 12:34
Fluoranthene	944	ug/Kg	8/4/2020 12:34
Fluorene	< 320	ug/Kg	8/4/2020 12:34
Hexachlorobenzene	< 320	ug/Kg	8/4/2020 12:34
Hexachlorobutadiene	< 320	ug/Kg	8/4/2020 12:34
Hexachlorocyclopentadiene	< 1280 UJ	ug/Kg	8/4/2020 12:34
Hexachloroethane	< 320	ug/Kg	8/4/2020 12:34
Indeno (1,2,3-cd) pyrene	336	ug/Kg	8/4/2020 12:34
Isophorone	< 320	ug/Kg	8/4/2020 12:34
Naphthalene	< 320	ug/Kg	8/4/2020 12:34
Nitrobenzene	< 320	ug/Kg	8/4/2020 12:34
N-Nitroso-di-n-propylamine	< 320	ug/Kg	8/4/2020 12:34
N-Nitrosodiphenylamine	< 320	ug/Kg	8/4/2020 12:34
Pentachlorophenol	< 639	ug/Kg	8/4/2020 12:34
Phenanthrene	312	ug/Kg	J 8/4/2020 12:34
Phenol	< 320	ug/Kg	8/4/2020 12:34
Pyrene	735	ug/Kg	8/4/2020 12:34

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.

PESTICIDES
SAMPLE DATA



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier: CF1

Lab Sample ID: 203556-01

Matrix: Soil

Date Sampled: 7/30/2020

Date Received: 7/30/2020

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 3.19	ug/Kg		8/3/2020 15:32
4,4-DDE	< 3.19	ug/Kg		8/3/2020 15:32
4,4-DDT	< 3.19	ug/Kg		8/3/2020 15:32
Aldrin	< 3.19	ug/Kg		8/3/2020 15:32
alpha-BHC	< 3.19	ug/Kg		8/3/2020 15:32
beta-BHC	< 3.19	ug/Kg		8/3/2020 15:32
cis-Chlordane	< 3.19	ug/Kg		8/3/2020 15:32
delta-BHC	< 3.19	ug/Kg		8/3/2020 15:32
Dieldrin	< 3.19	ug/Kg		8/3/2020 15:32
Endosulfan I	< 3.19	ug/Kg		8/3/2020 15:32
Endosulfan II	< 3.19	ug/Kg		8/3/2020 15:32
Endosulfan Sulfate	< 3.19	ug/Kg		8/3/2020 15:32
Endrin	< 3.19	ug/Kg		8/3/2020 15:32
Endrin Aldehyde	< 3.19	ug/Kg		8/3/2020 15:32
Endrin Ketone	2.14 J	ug/Kg	J	8/3/2020 15:32
gamma-BHC (Lindane)	3.84	ug/Kg		8/3/2020 15:32
Heptachlor	< 3.19	ug/Kg		8/3/2020 15:32
Heptachlor Epoxide	< 3.19	ug/Kg		8/3/2020 15:32
Methoxychlor	< 3.19	ug/Kg		8/3/2020 15:32
Toxaphene	< 3.19	ug/Kg		8/3/2020 15:32
trans-Chlordane	< 3.19	ug/Kg		8/3/2020 15:32

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.



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier: CF2

Lab Sample ID: 203556-02

Matrix: Soil

Date Sampled: 7/30/2020

Date Received: 7/30/2020

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 3.18	ug/Kg		8/3/2020 15:51
4,4-DDE	11.5 J	ug/Kg		8/3/2020 15:51
4,4-DDT	< 3.18	ug/Kg		8/3/2020 15:51
Aldrin	< 3.18	ug/Kg		8/3/2020 15:51
alpha-BHC	< 3.18	ug/Kg		8/3/2020 15:51
beta-BHC	< 3.18	ug/Kg		8/3/2020 15:51
cis-Chlordane	< 3.18	ug/Kg		8/3/2020 15:51
delta-BHC	< 3.18	ug/Kg		8/3/2020 15:51
Dieldrin	< 3.18	ug/Kg		8/3/2020 15:51
Endosulfan I	< 3.18	ug/Kg		8/3/2020 15:51
Endosulfan II	< 3.18	ug/Kg		8/3/2020 15:51
Endosulfan Sulfate	< 3.18	ug/Kg		8/3/2020 15:51
Endrin	< 3.18	ug/Kg		8/3/2020 15:51
Endrin Aldehyde	< 3.18	ug/Kg		8/3/2020 15:51
Endrin Ketone	< 3.18	ug/Kg		8/3/2020 15:51
gamma-BHC (Lindane)	< 3.18	ug/Kg		8/3/2020 15:51
Heptachlor	< 3.18	ug/Kg		8/3/2020 15:51
Heptachlor Epoxide	< 3.18	ug/Kg		8/3/2020 15:51
Methoxychlor	< 3.18	ug/Kg		8/3/2020 15:51
Toxaphene	< 31.8	ug/Kg		8/3/2020 15:51
trans-Chlordane	< 3.18	ug/Kg		8/3/2020 15:51

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.

PCBS
SAMPLE DATA



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier: CF1

Lab Sample ID: 203556-01

Matrix: Soil

Date Sampled: 7/30/2020

Date Received: 7/30/2020

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0319	mg/Kg		8/3/2020 15:58
PCB-1221	< 0.0319	mg/Kg		8/3/2020 15:58
PCB-1232	< 0.0319	mg/Kg		8/3/2020 15:58
PCB-1242	< 0.0319	mg/Kg		8/3/2020 15:58
PCB-1248	< 0.0319	mg/Kg		8/3/2020 15:58
PCB-1254	< 0.0319	mg/Kg		8/3/2020 15:58
PCB-1260	< 0.0319	mg/Kg		8/3/2020 15:58
PCB-1262	< 0.0319	mg/Kg		8/3/2020 15:58
PCB-1268	< 0.0319	mg/Kg		8/3/2020 15:58

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Tetrachloro-m-xylene	52.4	18.2 - 85.6		8/3/2020 15:58

Method Reference(s): EPA 8082A
EPA 3546
Preparation Date: 8/3/2020

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.



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier: CF2

Lab Sample ID: 203556-02

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0318	mg/Kg		8/3/2020 16:23
PCB-1221	< 0.0318	mg/Kg		8/3/2020 16:23
PCB-1232	< 0.0318	mg/Kg		8/3/2020 16:23
PCB-1242	< 0.0318	mg/Kg		8/3/2020 16:23
PCB-1248	< 0.0318	mg/Kg		8/3/2020 16:23
PCB-1254	< 0.0318	mg/Kg		8/3/2020 16:23
PCB-1260	< 0.0318	mg/Kg		8/3/2020 16:23
PCB-1262	< 0.0318	mg/Kg		8/3/2020 16:23
PCB-1268	< 0.0318	mg/Kg		8/3/2020 16:23

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Tetrachloro-m-xylene	44.4	18.2 - 85.6		8/3/2020 16:23

Method Reference(s): EPA 8082A

EPA 3546

Preparation Date: 8/3/2020

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.

METALS DATA



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier: CF1

Lab Sample ID: 203556-01

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

Metals

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	10.8	mg/Kg		8/4/2020 20:25
Barium	65.8	mg/Kg		8/4/2020 20:25
Beryllium	0.365	mg/Kg		8/4/2020 20:25
Cadmium	2.03	mg/Kg		8/4/2020 20:25
Chromium	17.5	mg/Kg		8/4/2020 20:25
Copper	20.5	mg/Kg		8/4/2020 20:25
Lead	27.9	mg/Kg		8/4/2020 20:25
Manganese	318	mg/Kg		8/4/2020 20:25
Nickel	16.9	mg/Kg		8/4/2020 20:25
Selenium	< 1.07	mg/Kg		8/4/2020 20:25
Silver	< 0.536	mg/Kg		8/4/2020 20:25
Zinc	73.7	mg/Kg		8/5/2020 18:44

Method Reference(s): EPA 6010C

EPA 3050B

Preparation Date: 8/3/2020

Data File: 200804B

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.



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier: CF2

Lab Sample ID: 203556-02

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

Metals

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	4.32	mg/Kg		8/4/2020 20:30
Barium	102	mg/Kg		8/4/2020 20:30
Beryllium	0.615	mg/Kg		8/4/2020 20:30
Cadmium	2.29	mg/Kg		8/4/2020 20:30
Chromium	14.8	mg/Kg		8/4/2020 20:30
Copper	15.0	mg/Kg		8/4/2020 20:30
Lead	40.4	mg/Kg		8/4/2020 20:30
Manganese	968	mg/Kg		8/5/2020 18:48
Nickel	13.3	mg/Kg		8/4/2020 20:30
Selenium	< 1.10	mg/Kg		8/4/2020 20:30
Silver	< 0.550	mg/Kg		8/4/2020 20:30
Zinc	96.6	mg/Kg		8/5/2020 18:53

Method Reference(s): EPA 6010C

EPA 3050B

Preparation Date: 8/3/2020

Data File: 200804B

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.



August 27, 2020

Service Request No:R2006787

Paradigm Environmental Services, Inc.
179 Lake Avenue
Rochester, NY 14608

Laboratory Results for: 203556

Dear Reporting,

Enclosed are the results of the sample(s) submitted to our laboratory July 31, 2020
For your reference, these analyses have been assigned our service request number **R2006787**.

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at Brady.Kalkman@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Brady Kalkman
Project Manager

ADDRESS

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

PHONE +1 585 288 5380 | **FAX** +1 585 288 8475

ALS Group USA, Corp.
dba ALS Environmental



Client: Paradigm Environmental Services, Inc.
Project: 203556
Sample Matrix: Soil

Service Request: R2006787
Date Received: 07/31/2020

CASE NARRATIVE


All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level IV requested by the client.

Sample Receipt:

Two soil samples were received for analysis at ALS Environmental on 07/31/2020. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Subcontracted Analytical Parameters:

One or more samples were subcontracted to another laboratory for testing. The certified analytical report from the subcontractor has been included in its entirety at the end of this report and includes the name and address of the subcontracted laboratory.

Approved by 

Date 08/27/2020



CHAIN OF CUSTODY

 10/1
 ALS: ELAP ID: 10145

REPORT TO:				INVOICE TO:			
COMPANY: Paradigm Environmental				COMPANY: Same			
ADDRESS:				ADDRESS:			
CITY:		STATE:		CITY:		STATE:	
PHONE:		FAX:		PHONE:		FAX:	
ATTN: Reporting				ATTN: Accounts Payable			
COMMENTS: Please email results to reporting@paradigmenv.com				Date Due:			

 PROJECT NAME/SITE NAME:
 3/150 Tonawanda
 Clean Fill

REQUESTED ANALYSIS										PARADIGM LAB SAMPLE NUMBER	
DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	CONTAINER	PEAS	REMARKS			
17/30/2020	1210			CF1	soil	2	X	report J flags ASP Cat B package due 9/21 SW 846 MT report as Dry wt			
2	↓			CF2	soil	2	X				
3											
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 <input type="checkbox"/> N <input type="checkbox"/>
Comments:	
Preservation:	Y <input type="checkbox"/> N <input type="checkbox"/>
Comments:	
Holding Time:	Y <input type="checkbox"/> N <input type="checkbox"/>
Comments:	
Temperature:	Y <input type="checkbox"/> N <input type="checkbox"/>
Comments:	

Client

Sampled By

Date/Time

Total Cost:

Relinquished By

Date/Time

Received By

Date/Time

Received @ Lab By

Date/Time

P.I.F.

R2006787

Paradigm Environmental Services, Inc.
203566



August 26, 2020

Brady Kalkman
ALS Environmental
1565 Jefferson Rd
Bldg 300
Rochester, NY 14623

Re: **R2006787**

Work Order: **20080320**

Dear Brady,

ALS Environmental received 2 sample(s) on Aug 05, 2020 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 286.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

Ehrland Bosworth
/S/ Ehrland Bosworth

Ehrland Bosworth
Project Manager

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company



Client: ALS Environmental
Project: R2006787
Work Order: 20080320

Case Narrative

Samples for the above noted Work Order were received on 08/05/2020. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting. A copy of the laboratory's scope of accreditation is available upon request.

With the following exceptions, all sample analyses achieved analytical criteria.

Extractable Organics:

Batch 161297, Method LCMS_D7968_S, Sample LCS1-161297: The LCS recovery was below the lower control limit. The sample results for this analyte may be biased low for this analyte: PFBS, however passes QC criteria.

Batch 161297, Method LCMS_D7968_S, Sample LCS1-161297: PFDS ion ratio failed low. PFOS ion ratio failed low.

Batch 161297, Method LCMS_D7968_S, Sample LCS2-161297: NEtFOSAA ion ratio failed high.

Batch 161297, Method LCMS_D7968_S, Sample LCS3-161297: The LCS recovery was below the lower control limit. The sample results for this analyte may be biased low for this analyte: HFPO-DA, however passes QC criteria.

No other deviations or anomalies were noted.

Client: ALS Environmental
Project: R2006787
Work Order: 20080320

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
20080320-01	203556-01 CF1	Soil		7/30/2020 12:10	8/5/2020 10:30	<input type="checkbox"/>
20080320-02	203556-02 CF2	Soil		7/30/2020 12:10	8/5/2020 10:30	<input type="checkbox"/>

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS - ROCHESTER
Project: R2006787
Sample Matrix: Soil

Service Request: 20080320
Date Collected: 07/30/20 12:10
Date Received: 08/05/20 10:30

Sample Name: 203556-01 CF1
Lab Code: 20080320-01

Units: ng/Kg-dry
Basis: Dry

Organic LC

Analysis Method: D7968-17a
Prep Method: D7968-17a

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluorobutanoic Acid (PFBA)	130 J	140	1	08/11/20 18:45	08/11/20 17:00	
Perfluoropentanoic Acid (PFPeA)	75 J	140	1	08/11/20 18:45	08/11/20 17:00	
Perfluorohexanoic Acid (PFHxA)	59 J	140	1	08/11/20 18:45	08/11/20 17:00	
Perfluoroheptanoic Acid (PFHpA)	98 J	140	1	08/11/20 18:45	08/11/20 17:00	
Perfluorooctanoic Acid (PFOA)	460	28	1	08/11/20 18:45	08/11/20 17:00	
Perfluorononanoic Acid (PFNA)	100 J	28	1	08/11/20 18:45	08/11/20 17:00	
Perfluorodecanoic Acid (PFDA)	37 J	140	1	08/11/20 18:45	08/11/20 17:00	
Perfluoroundecanoic Acid (PFUnA)	140 U	140	1	08/11/20 18:45	08/11/20 17:00	
Perfluorododecanoic Acid (PFDoA)	140 U	140	1	08/11/20 18:45	08/11/20 17:00	
Perfluorotridecanoic Acid (PFTriA)	47 J	140	1	08/11/20 18:45	08/11/20 17:00	
Perfluorotetradecanoic Acid (PFTeA)	140 U	140	1	08/11/20 18:45	08/11/20 17:00	
Perfluorobutanesulfonic Acid (PFBS)	28 U JJ	28	1	08/11/20 18:45	08/11/20 17:00	
Perfluorohexanesulfonic Acid (PFHxS)	41 J	140	1	08/11/20 18:45	08/11/20 17:00	
Perfluoroheptanesulfonic Acid (PFHpS)	48 J	140	1	08/11/20 18:45	08/11/20 17:00	
Perfluorooctanesulfonic Acid (PFOS)	1,400	28	1	08/11/20 18:45	08/11/20 17:00	
Perfluorodecanesulfonic Acid (PFDS)	28 U	28	1	08/11/20 18:45	08/11/20 17:00	
Fluorotelomer Sulphonic Acid 6:2 (FtS 6:2)	140 U	140	1	08/11/20 18:45	08/11/20 17:00	
Fluorotelomer Sulphonic Acid 8:2 (FtS 8:2)	140 U	140	1	08/11/20 18:45	08/11/20 17:00	
Perfluorooctanesulfonamide (PFOSA)	28 U	28	1	08/11/20 18:45	08/11/20 17:00	
N-Ethylperfluorooctanesulfonamidoacetic Acid	140 U	140	1	08/11/20 18:45	08/11/20 17:00	

MKP 10/5/2020

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS - ROCHESTER
Project: R2006787
Sample Matrix: Soil

Service Request: 20080320
Date Collected: 07/30/20 12:10
Date Received: 08/05/20 10:30

Sample Name: 203556-01 CF1
Lab Code: 20080320-01

Units: ng/Kg-dry
Basis: Dry

Organic LC

Analysis Method: D7968-17a
Prep Method: D7968-17a

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
N-Methylperfluorooctanesulfo namidoacetic Acid	140 U	140	1	08/11/20 18:45	08/11/20 17:00	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C4-PFBA	103	50 - 130	08/11/20 18:45	
13C5-PFPeA	99.8	50 - 130	08/11/20 18:45	
13C2-PFHxA	102	50 - 130	08/11/20 18:45	
13C4-PFHpA	99.0	50 - 130	08/11/20 18:45	
13C4-PFOA	101	70 - 130	08/11/20 18:45	
13C5-PFNA	103	70 - 130	08/11/20 18:45	
13C2-PFDA	106	70 - 130	08/11/20 18:45	
13C2-PFUnA	102	70 - 130	08/11/20 18:45	
13C2-PFDoA	94.9	70 - 130	08/11/20 18:45	
13C2-PFTeA	57.1	50 - 130	08/11/20 18:45	
13C3-PFBS	95.0	50 - 130	08/11/20 18:45	
18O2-PFHxS	106	70 - 130	08/11/20 18:45	
13C4-PFOS	100	70 - 130	08/11/20 18:45	
13C2-FtS 4:2	82.5	50 - 130	08/11/20 18:45	
13C2-FtS 6:2	92.3	50 - 130	08/11/20 18:45	
13C2-FtS 8:2	87.8	50 - 130	08/11/20 18:45	
13C8-FOSA	98.9	50 - 130	08/11/20 18:45	
d3-N-MeFOSAA	102	50 - 130	08/11/20 18:45	
d5-N-EtFOSAA	105	50 - 130	08/11/20 18:45	
13C3-HFPO-DA	102	50 - 130	08/11/20 18:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS - ROCHESTER
Project: R2006787
Sample Matrix: Soil

Service Request: 20080320
Date Collected: 07/30/20 12:10
Date Received: 08/05/20 10:30

Sample Name: 203556-02 CF2
Lab Code: 20080320-02

Units: ng/Kg-dry
Basis: Dry

Organic LC

Analysis Method: D7968-17a
Prep Method: D7968-17a

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluorobutanoic Acid (PFBA)	160	140	1	08/11/20 18:56	08/11/20 17:00	
Perfluoropentanoic Acid (PFPeA)	100 J	140	1	08/11/20 18:56	08/11/20 17:00	
Perfluorohexanoic Acid (PFHxA)	120 J	140	1	08/11/20 18:56	08/11/20 17:00	
Perfluoroheptanoic Acid (PFHpA)	110 J	140	1	08/11/20 18:56	08/11/20 17:00	
Perfluorooctanoic Acid (PFOA)	360	28	1	08/11/20 18:56	08/11/20 17:00	
Perfluorononanoic Acid (PFNA)	100 J	28	1	08/11/20 18:56	08/11/20 17:00	
Perfluorodecanoic Acid (PFDA)	53 J	140	1	08/11/20 18:56	08/11/20 17:00	
Perfluoroundecanoic Acid (PFUnA)	140 U	140	1	08/11/20 18:56	08/11/20 17:00	
Perfluorododecanoic Acid (PFDoA)	140 U	140	1	08/11/20 18:56	08/11/20 17:00	
Perfluorotridecanoic Acid (PFTriA)	140 U	140	1	08/11/20 18:56	08/11/20 17:00	
Perfluorotetradecanoic Acid (PFTeA)	140 U	140	1	08/11/20 18:56	08/11/20 17:00	
Perfluorobutanesulfonic Acid (PFBS)	36 J	28	1	08/11/20 18:56	08/11/20 17:00	
Perfluorohexanesulfonic Acid (PFHxS)	56 J	140	1	08/11/20 18:56	08/11/20 17:00	
Perfluoroheptanesulfonic Acid (PFHpS)	140 U	140	1	08/11/20 18:56	08/11/20 17:00	
Perfluorooctanesulfonic Acid (PFOS)	820	28	1	08/11/20 18:56	08/11/20 17:00	
Perfluorodecanesulfonic Acid (PFDS)	28 U	28	1	08/11/20 18:56	08/11/20 17:00	
Fluorotelomer Sulphonic Acid 6:2 (FtS 6:2)	140 U	140	1	08/11/20 18:56	08/11/20 17:00	
Fluorotelomer Sulphonic Acid 8:2 (FtS 8:2)	140 U	140	1	08/11/20 18:56	08/11/20 17:00	
Perfluorooctanesulfonamide (PFOSA)	28 U	28	1	08/11/20 18:56	08/11/20 17:00	
N-Ethylperfluorooctanesulfonamidoacetic Acid	140 U	140	1	08/11/20 18:56	08/11/20 17:00	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS - ROCHESTER
Project: R2006787
Sample Matrix: Soil

Service Request: 20080320
Date Collected: 07/30/20 12:10
Date Received: 08/05/20 10:30

Sample Name: 203556-02 CF2
Lab Code: 20080320-02

Units: ng/Kg-dry
Basis: Dry

Organic LC

Analysis Method: D7968-17a
Prep Method: D7968-17a

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
N-Methylperfluorooctanesulfo namidoacetic Acid	140 U	140	1	08/11/20 18:56	08/11/20 17:00	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C4-PFBA	109	50 - 130	08/11/20 18:56	
13C5-PFPeA	103	50 - 130	08/11/20 18:56	
13C2-PFHxA	102	50 - 130	08/11/20 18:56	
13C4-PFHpA	103	50 - 130	08/11/20 18:56	
13C4-PFOA	104	70 - 130	08/11/20 18:56	
13C5-PFNA	102	70 - 130	08/11/20 18:56	
13C2-PFDA	106	70 - 130	08/11/20 18:56	
13C2-PFUnA	102	70 - 130	08/11/20 18:56	
13C2-PFDoA	93.6	70 - 130	08/11/20 18:56	
13C2-PFTeA	55.3	50 - 130	08/11/20 18:56	
13C3-PFBS	93.8	50 - 130	08/11/20 18:56	
18O2-PFHxS	99.0	70 - 130	08/11/20 18:56	
13C4-PFOS	98.4	70 - 130	08/11/20 18:56	
13C2-FtS 4:2	78.3	50 - 130	08/11/20 18:56	
13C2-FtS 6:2	93.5	50 - 130	08/11/20 18:56	
13C2-FtS 8:2	87.0	50 - 130	08/11/20 18:56	
13C8-FOSA	99.6	50 - 130	08/11/20 18:56	
d3-N-MeFOSAA	101	50 - 130	08/11/20 18:56	
d5-N-EtFOSAA	109	50 - 130	08/11/20 18:56	
13C3-HFPO-DA	95.2	50 - 130	08/11/20 18:56	



Experience is the solution

314 North Pearl Street ♦ Albany, New York 12207
(800) 848-4983 ♦ (518) 434-4546 ♦ Fax (518) 434-0891

September 02, 2020

Sarah Conlon
Paradigm Environmental
179 Lake Avenue
Rochester, NY 14608
TEL: (800) 724-1997

Work Order No: 200731035

RE: Sample Analysis
Project# : 203556

Dear Sarah Conlon:

"I certify that this data package is in compliance with the terms and conditions of the protocol, both technically and for completeness, to the best of my knowledge, for other than the conditions detailed in the Case Narrative. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Director or his designee, as verified by the following signature."

A handwritten signature in black ink, appearing to read "Tara Daniels", is written over a horizontal line.

Tara Daniels
Laboratory Director

Workorder Sample Summary

Client: Paradigm Environmental

Work Order: 200731035

ProjectName: Sample Analysis

ProjLocation: Project# : 203556

AES Sample No	ClientSampID	Matrix	CollectionDate	DateReceived
200731035-001	CF1	Soil	7/30/2020 12:10:00 PM	7/31/2020
200731035-002	CF2	Soil	7/30/2020 12:10:00 PM	7/31/2020



Experience is the Solution

314 North Pearl Street • Albany, New York 12207 • (518) 434-4546 • Fax (518) 434-0891
www.adirondackenvironmental.com

Case Narrative

Client: Paradigm Environmental Services

Case: 200731035

SDG: CF1

Herbicides

- 1) The samples received on were analyzed for Silvex by EPA Method 8321B.
- 2) The sample bottles were not supplied by Adirondack Environmental Services.
- 3) The samples received on 7/31/20 had a temperature of 3 °C.
- 4) Peak height was used to calculate all values appearing in this data package.
- 5) The primary quantitation column is identified as C8.
- 6) AES sample number 200731026-001 was used for the matrix spike and the matrix spike duplicate analysis. All other recoveries were within acceptable limits.

Inorganics – Total Mercury

- 1) The samples were analyzed for Total Mercury as specified on the chain of custody.
- 2) Sample CF2 (AES sample number 200731035-002) was used as the Mercury matrix spike sample. All recoveries were within acceptable limits.
- 3) Sample CF2 (AES sample number 200731035-002) was used as the Mercury duplicate sample. All recoveries were within acceptable limits.

Inorganics

- 1) This project required the analysis of Hexavalent Chromium by EPA 3060A/7196A.
- 2) AES sample number 200728066-002 was used as the soil matrix spike sample for Hexavalent Chromium. The recovery for the soluble Hexavalent Chromium spike was below the acceptable limits. The recovery for the insoluble Hexavalent Chromium spike was below the acceptable limits. This sample is from a separate project, the sample from this project is not flagged.



Experience is the Solution

314 North Pearl Street • Albany, New York 12207 • (518) 434-4546 • Fax (518) 434-0891
www.adirondackenvironmental.com

- 3) Sample CF2 (AES sample number 200731035-002) was used as the Hexavalent Chromium duplicate sample. All recoveries were within acceptable limits.
- 4) AES sample number 200803044-008 was used as the soil duplicate sample for Percent Moisture. The recovery was outside the specified limits. This sample was from a different project. No samples in this project are flagged.

“I certify that this data package is in compliance with the terms and conditions of the protocol, both technically and for completeness, to the best of my knowledge, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.”

A handwritten signature in black ink, appearing to read "Tara Davis", is written over a horizontal line.

Laboratory Director

Date: 9/2/2020



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

200731035

CHAIN OF CUSTODY

ADIRONDACK: ELAP ID:

REPORT TO:		INVOICE TO:		NEC	
COMPANY:	Paradigm Environmental	COMPANY:	Same	LAB PROJECT #:	CLIENT PROJ:
ADDRESS:		ADDRESS:			
CITY:	STATE: ZIP:	CITY:	STATE: ZIP:	TURNAROUND TIME: (WORKING DAYS)	
PHONE:	FAX:	PHONE:	FAX:		
PROJECT NAME/SITE NAME:	ATTN: Reporting	ATTN: Accounts Payable	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input checked="" type="checkbox"/> 5		
COMMENTS: Please email results to reporting@paradigmenv.com			Date Due: 8/7/2020 STD		

REQUESTED ANALYSIS

DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	CONTAINER	ANALYSIS	REMARKS	PARADIGM SAMPLE NUMBER
11/30/2020	1210			CF-1	soil	1	silver	report J Flagg	203556-01
2				CF-2	soil	1	Hex Cr	ASPCat B Package Due 8/1	-02
3								report as Dry WT	
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 <input type="checkbox"/> N <input type="checkbox"/>
Comments:	
Preservation:	Y <input type="checkbox"/> N <input type="checkbox"/>
Comments:	
Holding Time:	Y <input type="checkbox"/> N <input type="checkbox"/>
Comments:	
Temperature: 3°C	Y <input type="checkbox"/> N <input type="checkbox"/>
Comments:	

Client	
Sampled By	Date/Time
Molly Vail	7/31/2020 0830
Relinquished By	Date/Time
Received By	Date/Time
King	7/31/20 449pm
Received @ Lab By	Date/Time

Total Cost:

P.I.F.



200731035

Adirondack Environmental Services, Inc**Date:** 05-Aug-20**CLIENT:** Paradigm Environmental**Client Sample ID:** CF1**Work Order:** 200731035**Collection Date:** 7/30/2020 12:10:00 PM**Reference:** Sample Analysis / Project# : 203556**Lab Sample ID:** 200731035-001**PO#:****Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
CHLORINATED HERBICIDES - EPA 8321B						Analyst: KF
(Prep: SW3545A - 7/31/2020)						
2,4,5-TP (Silvex)	ND	358		µg/Kg-dry	1	8/3/2020 4:20:34 PM
Surr: Acifluorfen	135	51.2-145		%REC	1	8/3/2020 4:20:34 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
X - Value exceeds Maximum Contaminant Level
E - Value above quantitation range-Estimate

S - LCS Spike below accepted limits (+ above)
Z - RPD outside accepted recovery limits
N - Matrix Spike below accepted limits (+ above)
T - Tentitively Identified Compound-Estimated Conc.

Adirondack Environmental Services, Inc**Date:** 05-Aug-20**CLIENT:** Paradigm Environmental**Client Sample ID:** CF2**Work Order:** 200731035**Collection Date:** 7/30/2020 12:10:00 PM**Reference:** Sample Analysis / Project# : 203556**Lab Sample ID:** 200731035-002**PO#:****Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
CHLORINATED HERBICIDES - EPA 8321B						Analyst: KF
(Prep: SW3545A - 7/31/2020)						
2,4,5-TP (Silvex)	ND	361		µg/Kg-dry	1	8/3/2020 4:42:11 PM
Surr: Acifluorfen	160	51.2-145	S	%REC	1	8/3/2020 4:42:11 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
X - Value exceeds Maximum Contaminant Level
E - Value above quantitation range-Estimate

S - LCS Spike below accepted limits (+ above)
Z - RPD outside accepted recovery limits
N - Matrix Spike below accepted limits (+ above)
T - Tentatively Identified Compound-Estimated Conc.

Adirondack Environmental Services, Inc**Date:** 05-Aug-20**CLIENT:** Paradigm Environmental**Client Sample ID:** CF1**Work Order:** 200731035**Collection Date:** 7/30/2020 12:10:00 PM**Reference:** Sample Analysis / Project# : 203556**Lab Sample ID:** 200731035-001**PO#:****Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MERCURY - SW 7471B						Analyst: AVB
(Prep: SW7471B - 8/3/2020)						
Mercury	ND	0.238		µg/g-dry	1	8/3/2020 3:18:07 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
X - Value exceeds Maximum Contaminant Level
E - Value above quantitation range-Estimate

S - LCS Spike below accepted limits (+ above)
Z - RPD outside accepted recovery limits
N - Matrix Spike below accepted limits (+ above)
T - Tentitively Identified Compound-Estimated Conc.

Adirondack Environmental Services, Inc**Date:** 05-Aug-20**CLIENT:** Paradigm Environmental**Client Sample ID:** CF2**Work Order:** 200731035**Collection Date:** 7/30/2020 12:10:00 PM**Reference:** Sample Analysis / Project# : 203556**Lab Sample ID:** 200731035-002**PO#:****Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MERCURY - SW 7471B						Analyst: AVB
(Prep: SW7471B - 8/3/2020)						
Mercury	0.095	0.241	J	µg/g-dry	1	8/3/2020 3:23:11 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
X - Value exceeds Maximum Contaminant Level
E - Value above quantitation range-Estimate

S - LCS Spike below accepted limits (+ above)
Z - RPD outside accepted recovery limits
N - Matrix Spike below accepted limits (+ above)
T - Tentatively Identified Compound-Estimated Conc.

Adirondack Environmental Services, Inc**Date:** 05-Aug-20**CLIENT:** Paradigm Environmental**Work Order:** 200731035**Reference:** Sample Analysis / Project# : 203556**PO#:****Client Sample ID:** CF1**Collection Date:** 7/30/2020 12:10:00 PM**Lab Sample ID:** 200731035-001**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM - SW 7196A (3060A)						Analyst: JW
(Prep: SW3060A - 8/3/2020)						
Chromium, Hexavalent	ND	1.2		µg/g-dry	1	8/3/2020 3:40:00 PM
MOISTURE CONTENT-ASTM D2216 (NOT ELAP CERTIFIED)						Analyst: TSZ
Percent Moisture	16.1	0.1		wt%	1	8/4/2020

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
X - Value exceeds Maximum Contaminant Level
E - Value above quantitation range-Estimate

S - LCS Spike below accepted limits (+ above)
Z - RPD outside accepted recovery limits
N - Matrix Spike below accepted limits (+ above)
T - Tentatively Identified Compound-Estimated Conc.

Adirondack Environmental Services, Inc**Date:** 05-Aug-20**CLIENT:** Paradigm Environmental**Client Sample ID:** CF2**Work Order:** 200731035**Collection Date:** 7/30/2020 12:10:00 PM**Reference:** Sample Analysis / Project# : 203556**Lab Sample ID:** 200731035-002**PO#:****Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM - SW 7196A (3060A)						Analyst: JW
(Prep: SW3060A - 8/3/2020)						
Chromium, Hexavalent	ND	1.2		µg/g-dry	1	8/3/2020 3:40:00 PM
MOISTURE CONTENT-ASTM D2216 (NOT ELAP CERTIFIED)						Analyst: TSZ
Percent Moisture	17.0	0.1		wt%	1	8/4/2020

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
X - Value exceeds Maximum Contaminant Level
E - Value above quantitation range-Estimate

S - LCS Spike below accepted limits (+ above)
Z - RPD outside accepted recovery limits
N - Matrix Spike below accepted limits (+ above)
T - Tentatively Identified Compound-Estimated Conc.

Appendix B

Laboratory QC Documentation

2
VOLATILE SURROGATE RECOVERY

Lab Name: Paradigm Environmental Services
 Lab Project #: 203556
 Client Name: Paradigm Environmental Services
 Client Project Name: BE3
 Client Project #: N/A
 SDG No.: 3556-01

Matrix: Soil
 QC Batch: voas200807

Instrument ID: Instrument1
 GC Column 1: DB-624 ID (mm): 0.20 Detector: MSD

	LAB SAMPLE NO.	CLIENT SAMPLE ID	PFB %REC	12DCed4 %REC	TD8 %REC	4BFB %REC	Total Out
1	Blk 1	N/A	105	75.7	98.4	75	0
2	LCS 1	N/A	102	84.9	110	109	0
3	203556-03	CF VOC 1	98.0	119	81.0 *	58.6 *	2
4	203556-04	CF VOC 2	99.8	120	83.1 *	58.2 *	2
5	203556-05	CF VOC 3	98.6	119	79.7 *	59.8	1
6	203556-06	CF VOC 4	96.5	119	81.2 *	58.8 *	2
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

QC LIMITS %

PFB = Pentafluorobenzene (88.8 - 118)
 12DCEd4 = 1,2-Dichloroethane-d4 (75 - 134)
 TD8 = Toluene-d8 (84 - 114)
 4BFB = 4-Bromofluorobenzene (59.5 - 129)

* Values outside of current required QC limits
 D Surrogate diluted out

VOLATILE INTERNAL STANDARD AREA and RT SUMMARY

Lab Name: Paradigm Environmental Services Sample ID: CCV
 Lab Project #: 203556 Lab File ID: x72366a.D
 Client Name: Paradigm Environmental Services
 Client Project Name: BE3 Date Analyzed: 8/7/2020
 Client Project #: 31/150 Tonawanda Clean Fill Time Analyzed: 11:38
 SDG No.: 3556-01 QC Batch: voas200807
 Instrument ID: Instrument1
 GC Column 1: DV-624 ID (mm): 0.20 Detector: MSD

CCV	IS1: FB		IS2: CBd5		IS3: 14DCBd4	
	Area	RT	Area	RT	AREA	RT
12 Hour Standard	206542	5.00	150040	7.95	85848	10.48
Upper Limit	413084	5.50	300080	8.45	171696	10.98
Lower Limit	103271	4.50	75020	7.45	42924	9.98

This CCV applies to the following Samples and QC

	Lab Sample No.	Client Sample ID	IS1: FB		IS2: CBd5		IS3: 14DCBd4	
			Area	RT	Area	RT	AREA	RT
1	Blk1	N/A	225095	5.01	152994	7.95	58988	10.49
2	LCS1	N/A	195617	5.01	140010	7.95	81663	10.48
3	203556-03	CF VOC 1	125699	5.01	67913 *	7.96	15852 *	10.49
4	203556-04	CF VOC 2	112184	5.01	66416 *	7.95	15727 *	10.49
5	203556-05	CF VOC 3	115708	5.01	67782 *	7.96	17324 *	10.49
6	203556-06	CF VOC 4	131853	5.01	74005 *	7.96	18254 *	10.49
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

IS1: FB = Fluorobenzene

IS2: CBd5 = Chlorobenzene-d5

IS3: 14DCBd4 = 1,4-Dichlorobenzene-d4

Notes: * Values outside of current required QC limits

Area Limits = -50% to +100% of 12 Hour Standard area

RT Limits = -0.50 to +0.50 minutes of 12 Hour Standard retention times

Method Path : C:\msdchem\1\METHODS\
 Method File : 200803.M
 Title : 8260/624 Analysis
 Last Update : Mon Aug 03 14:04:06 2020
 Response Via : Initial Calibration

8/3/2020 B13

Calibration Files

1 =x72208.D 2 =x72209.D 3 =x72210.D 4 =x72211.D 5 =x72212.D 6 =x72213.D 7 =x72214.D

Compound	1	2	3	4	5	6	7	Avg	%RSD
1) I Fluorobenzene	-----ISTD-----								
2) P Dichlorodifluo...	1.045	1.246	1.364	1.108	0.917	0.822	1.084	18.60	
3) P Chloromethane	1.257	1.470	1.652	1.305	1.093	1.019	0.997	1.256	19.35
4) P Vinyl chloride	0.782	1.065	1.299	1.179	1.042	0.962	0.958	1.041	15.99
5) P Bromomethane	1.000	0.957	0.984	0.776	0.641	0.597	0.589	0.792	23.60 *
6) P Chloroethane	0.745	0.842	0.920	0.750	0.626	0.577	0.575	0.719	18.52
7) P Trichlorofluor...	1.457	1.718	1.927	1.539	1.248	1.091	1.075	1.436	22.33 *
8) Ethyl ether	0.260	0.303	0.378	0.339	0.315	0.322	0.334	0.322	11.22
9) P Freon 113	0.854	1.046	1.155	0.938	0.760	0.671	0.658	0.869	21.70 *
10) P 1,1-Dichloroet...	0.954	1.211	1.401	1.187	0.988	0.881	0.882	1.072	18.45
11) P Acetone	0.586	0.189	0.224	0.164	0.141	0.134	0.138	0.225	72.08 *
12) Isopropyl Alcohol							0.000	-1.00	
13) P Carbon disulfide	1.643	2.034	2.413	2.130	1.799	1.640	1.634	1.899	15.92
14) P Methyl acetate	0.154	0.219	0.228	0.193	0.167	0.160	0.164	0.184	16.45
15) P Methylene chlo...	1.300	0.943	0.935	0.725	0.597	0.567	0.568	0.805	33.77 *
16) Acrylonitrile	0.141	0.133	0.139	0.108	0.096	0.092	0.096	0.115	18.87
17) tert-Butyl Alc...	0.016	0.014	0.013	0.012	0.011	0.012	0.013	0.013	10.88
18) P Methyl tert-bu...	0.484	0.769	0.871	0.776	0.733	0.750	0.784	0.738	16.32
19) P trans-1,2-Dich...	0.931	1.188	1.343	1.101	0.929	0.840	0.838	1.024	18.73
20) P 1,1-Dichloroet...	1.376	1.727	1.919	1.569	1.335	1.233	1.206	1.481	18.06
21) Vinyl acetate	0.424	0.459	0.551	0.533	0.571	0.597	0.620	0.537	13.34
22) 2,2-Dichloropr...	0.826	1.018	1.228	1.088	0.980	0.933	0.948	1.003	12.73
23) P 2-Butanone	0.040	0.041	0.055	0.050	0.046	0.046	0.047	0.046#	10.99
24) P cis-1,2-Dichlo...	0.594	0.795	0.977	0.883	0.792	0.763	0.768	0.796	14.79
25) Bromochloromet...	0.258	0.323	0.388	0.322	0.276	0.267	0.266	0.300	15.76
26) P Chloroform	1.244	1.598	1.798	1.484	1.244	1.161	1.143	1.382	18.08
27) S Pentafluoroben...	0.526	0.519	0.537	0.550	0.551	0.561	0.545	0.541	2.74
28) Tetrahydrofuran	0.054	0.037	0.042	0.046	0.048	0.052	0.058	0.048	15.01
29) P 1,1,1-Trichlor...	0.960	1.300	1.552	1.345	1.159	1.082	1.078	1.211	16.58
30) P Cyclohexane		1.137	1.538	1.724	1.413	1.356	1.320	1.415	14.16
31) S 1,2-Dichloroet...	0.262	0.257	0.242	0.221	0.206	0.194	0.186	0.224	13.61
32) P Carbon Tetrach...	0.857	1.132	1.371	1.189	1.031	0.949	0.931	1.066	16.66
33) P Benzene	2.192	3.028	3.859	3.374	2.883	2.686	2.602	2.946	18.50
34) P 1,2-Dichloroet...	0.624	0.827	0.931	0.742	0.631	0.602	0.593	0.707	18.49
35) P Trichloroethene	0.550	0.700	0.860	0.822	0.770	0.754	0.764	0.746	13.42
36) tert-Butyl Ace...							0.000	-1.00	
37) P Methylcyclohexane	0.519	0.754	1.393	1.563	1.451	1.347	1.362	1.198	33.06 *
38) 1,4-Dioxane		0.003	0.003	0.003	0.004	0.004	0.003	11.51	

RF < 0.005

*curve is not avg. of response factors

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\200804\
 Data File : B48360.D
 Acq On : 4 Aug 2020 9:40 am
 Operator : A. Monfette
 Sample : CCV 50PPM 8270 + PyrMulti
 Misc :
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 04 10:25:13 2020
 Quant Method : C:\msdchem\1\methods\ABN200729A.M
 Quant Title :
 QLast Update : Mon Aug 03 12:06:51 2020
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
46 P	Dibenzofuran	50.000	52.513	-5.0	148	0.00
47 P	Diethyl phthalate	50.000	52.659	-5.3	149	0.00
48 P	Dimethyl phthalate	50.000	53.024	-6.0	148	0.00
49 PM	2,4-Dinitrophenol	50.000	43.037	13.9	129	0.00
50 PM	2,4-Dinitrotoluene	50.000	54.764	-9.5	150	0.00
51 P	2,6-Dinitrotoluene	50.000	53.874	-7.7	150	0.00
52 P	Fluorene	50.000	53.193	-6.4	145	0.00
53 S	2-Fluorobiphenyl	50.000	52.790	-5.6	147	0.00
54 P	Hexachlorocyclopentadiene	50.000	25.219	149.6#	66	0.00
55 P	2-Nitroaniline	50.000	55.086	-10.2	151	0.00
56 P	3-Nitroaniline	50.000	53.953	-7.9	151	0.00
57 P	4-Nitroaniline	50.000	55.693	-11.4	155	0.01
58 PM	4-Nitrophenol	50.000	55.278	-10.6	159	0.02
59 S	2,4,6-Tribromophenol	100.000	105.749	-5.7	147	0.00
60 PM	2,4,6-Trichlorophenol	50.000	51.017	-2.0	140	0.00
61 P	2,4,5-Trichlorophenol	50.000	50.911	-1.8	140	0.01
62 P	2,3,4,6-Tetrachlorophenol	50.000	47.628	4.7	135	0.00
63 P	Atrazine	50.000	4.051	191.9#	14	0.00
64 I	Phenanthrene-d10	40.000	40.000	0.0	143	0.00
65 P	4-Bromophenyl phenyl ether	50.000	52.006	-4.0	145	0.00
66 P	Di-n-butyl phthalate	50.000	55.914	-11.8	152	0.00
67 PM	4,6-Dinitro-2-methylphenol	50.000	45.184	9.6	138	0.01
68 P	Fluoranthene	50.000	53.422	-6.8	146	0.00
69 P	Hexachlorobenzene	50.000	52.098	-4.2	146	0.00
70 P	N-Nitrosodiphenylamine	50.000	53.016	-6.0	146	0.00
71 PM	Pentachlorophenol	50.000	41.612	16.8	121	0.00
72 P	Anthracene	50.000	51.943	-3.9	143	0.00
73 P	Phenanthrene	50.000	51.472	-2.9	145	0.00
74 P	Carbazole	50.000	53.151	-6.3	148	0.00
75 P	Benzo (a) anthracene	50.000	54.011	-8.0	149	0.00
76 I	Chrysene-d12	40.000	40.000	0.0	139	0.00
77	Benzidine	50.000	78.641	-57.3#	0	0.00 NT
78 P	Bis (2-ethylhexyl) phthalat	50.000	58.136	-16.3	155	0.00
79 P	Butylbenzylphthalate	50.000	57.292	-14.6	154	0.00
80 P	Chrysene	50.000	52.567	-5.1	143	0.01
81 P	3,3'-Dichlorobenzidine	50.000	59.022	-18.0	164	0.00
82 PM	Pyrene	50.000	53.545	-7.1	146	0.00
83 S	Terphenyl-d14	50.000	53.575	-7.2	147	0.00
84 I	Perylene-d12	40.000	40.000	0.0	142	0.01
85 P	Benzo (b) fluoranthene	50.000	51.882	-3.8	143	0.00
86 P	Benzo (k) fluoranthene	50.000	55.819	-11.6	150	0.00
87 P	Benzo (g,h,i) perylene	50.000	54.326	-8.7	149	0.01
88 P	Benzo (a) pyrene	50.000	55.231	-10.5	147	0.00
89 P	Dibenz (a,h) anthracene	50.000	54.587	-9.2	145	0.01

Sample ID: CF1
Lab Sample #: 203556-01

Date Analyzed: 8/3/2020
Time Analyzed: 15:32
Matrix: Soil

Detector 2: ECD2

%D = $\leq 40\%$; Passes
* = Outside QC limits

Sample ID: CF2
Lab Sample #: 203556-02

Date Analyzed: 8/3/2020
Time Analyzed: 15:51
Matrix: Soil

Detector 2: ECD2

%D = $\leq 40\%$; Passes
* = Outside QC limits

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS - ROCHESTER
Project: R2006787
Sample Matrix: Soil

Service Request: 20080320
Date Collected: NA
Date Received: NA

Sample Name: MBLK2-161297
Lab Code: MBLK2-161297

Units: ng/Kg
Basis: Wet

Organic LC

Analysis Method: D7968-17a
Prep Method: D7968-17a

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluorobutanoic Acid (PFBA)	120 U	120	1	08/11/20 17:53	08/11/20 17:00	
Perfluoropentanoic Acid (PFPeA)	120 U	120	1	08/11/20 17:53	08/11/20 17:00	
Perfluorohexanoic Acid (PFHxA)	120 U	120	1	08/11/20 17:53	08/11/20 17:00	
Perfluoroheptanoic Acid (PFHpA)	120 U	120	1	08/11/20 17:53	08/11/20 17:00	
Perfluorooctanoic Acid (PFOA)	25 U	25	1	08/11/20 17:53	08/11/20 17:00	
Perfluorononanoic Acid (PFNA)	14.96 J	25	1	08/11/20 17:53	08/11/20 17:00	
Perfluorodecanoic Acid (PFDA)	120 U	120	1	08/11/20 17:53	08/11/20 17:00	
Perfluoroundecanoic Acid (PFUnA)	120 U	120	1	08/11/20 17:53	08/11/20 17:00	
Perfluorododecanoic Acid (PFDoA)	120 U	120	1	08/11/20 17:53	08/11/20 17:00	
Perfluorotridecanoic Acid (PFTriA)	120 U	120	1	08/11/20 17:53	08/11/20 17:00	
Perfluorotetradecanoic Acid (PFTeA)	120 U	120	1	08/11/20 17:53	08/11/20 17:00	
Perfluorobutanesulfonic Acid (PFBS)	25 U	25	1	08/11/20 17:53	08/11/20 17:00	
Perfluorohexanesulfonic Acid (PFHxS)	120 U	120	1	08/11/20 17:53	08/11/20 17:00	
Perfluoroheptanesulfonic Acid (PFHpS)	120 U	120	1	08/11/20 17:53	08/11/20 17:00	
Perfluorooctanesulfonic Acid (PFOS)	25 U	25	1	08/11/20 17:53	08/11/20 17:00	
Perfluorodecanesulfonic Acid (PFDS)	25 U	25	1	08/11/20 17:53	08/11/20 17:00	
Fluorotelomer Sulphonic Acid 6:2 (FtS 6:2)	120 U	120	1	08/11/20 17:53	08/11/20 17:00	
Fluorotelomer Sulphonic Acid 8:2 (FtS 8:2)	120 U	120	1	08/11/20 17:53	08/11/20 17:00	
Perfluorooctanesulfonamide (PFOSA)	25 U	25	1	08/11/20 17:53	08/11/20 17:00	
N-Ethylperfluorooctanesulfonamidoacetic Acid	120 U	120	1	08/11/20 17:53	08/11/20 17:00	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: ALS - ROCHESTER
Project: R2006787
Sample Matrix: Soil

Service Request: 20080320
Date Analyzed: 08/11/2020
Date Extracted: 08/11/2020

Lab Control Sample Summary
Organic LC

Analysis Method: D7968-17a
Prep Method: D7968-17a

Units: ng/Kg
Basis: Wet
Analysis Lot: LCMS1_200811A

LCS1-161297

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Perfluorobutanesulfonic Acid (PFBS)	25 S,U	22	0 *	35-150
Perfluorodecanesulfonic Acid (PFDS)	22.72 J	24	94.7	35-150
Perfluorononanoic Acid (PFNA)	24.19 J	25	96.8	35-150
Perfluorooctanesulfonamide (PFOSA)	23.46 J	25	93.8	35-150
Perfluorooctanesulfonic Acid (PFOS)	19.35 J	23	84.1	35-150
Perfluorooctanoic Acid (PFOA)	19.58 J	25	78.3	35-150

Appendix C

Validator Qualifications

KENNETH R. APPLIN

Geochemist/Data Validator

Ph.D., Geochemistry and Mineralogy, The Pennsylvania State University

M.S., Geochemistry and Mineralogy, The Pennsylvania State University

B.A., Geological Sciences, SUNY at Geneseo, NY

Dr. Applin has over 35 years of experience working with the geochemistry of natural waters. His prior experience includes working as an Assistant Professor of Geology at the University of Missouri-Columbia and as Chief Hydrogeologist and Geochemist with a leading engineering firm in Rochester, NY. In 1993, he established KR Applin and Associates, a small consulting business that focuses on the geochemistry of natural waters, especially as applied to problems involving the contamination of groundwater and surface water.

Dr. Applin is also an experienced analytical data validator and has provided data validation services since 1994 to a variety of clients performing brownfield cleanup projects, hazardous waste remediation, groundwater monitoring at solid waste facilities, and other projects requiring third-party data validation. Dr. Applin has several years of hands-on experience with the laboratory analysis of natural waters and has successfully completed the USEPA Region II certification courses for performing inorganic and organic analytical data validation.

MICHAEL K. PERRY

Chemist/Data Validator

B.S. Chemistry, Georgia State University, Atlanta, GA

A.A.S., Chemical Technology, Alfred State College, Alfred, NY

Mr. Perry has over 30 years of experience in the analytical laboratory business. During his early career, he spent several years as a laboratory analyst performing the analysis of soil, water, and air samples for inorganic and organic chemical parameters. During his last 20 years in the environmental laboratory business, he managed and directed two major analytical laboratories in Rochester, NY. His management responsibilities included oversight of the daily operations of the lab, staff training and supervision, the selection, purchase, and maintenance of analytical instruments, the introduction of new laboratory methods, analytical quality assurance and quality control, data acquisition and management, and other business-related activities.

Mr. Perry has an extensive working knowledge of the methods and procedures used for sampling and analyzing both inorganic and organic analytes in soil, water, and air. He is an accomplished laboratory chemist and is familiar with the analytical methods and procedures established under the USEPA Contract Laboratory Protocols (CLP), the NYSDEC Analytical Services Protocols (ASP), and the NYSDOH Environmental Laboratory Approval Program (ELAP).

DATA USABILITY SUMMARY REPORT (DUSR)

**31/150 Tonawanda Site
Buffalo, NY 14207
NYSDEC BCP # C915299**

SDG: 203558
5 soil samples

Prepared for:

**BE3 Corp.
960 Busti Avenue
Suite 150-B
Buffalo, NY 14213
Attention: John Berry**

October 2020



Environmental Data Usability 10028 Deer Park Dr. Dansville, NY 14437 585-991-9156

Table of Contents

	<u>Page No.</u>
REVIEWER'S NARRATIVE	
1.0 SUMMARY	1
2.0 INTRODUCTION	1
3.0 SAMPLE AND ANALYSIS SUMMARY	2
4.0 GUIDANCE DOCUMENTS AND DATA REVIEW CRITERIA	2
5.0 DATA VALIDATION QUALIFIERS	3
6.0 RESULTS OF THE DATA REVIEW	4
7.0 TOTAL USABLE DATA	4
<hr/>	
APPENDIX A	Validated Analytical Results
APPENDIX B	Laboratory QC Documentation
APPENDIX C	Validator Qualifications

Tables

Table 4-1	Data Validation Guidance Documents
Table 4-2	Quality Control Criteria for Validating Laboratory Analytical Data

Summaries of Validated Results

Table 6-1	VOCs
Table 6-2	SVOCs
Table 6-3	Pesticides
Table 6-4	PCBs
Table 6-5	Metals
Table 6-6	Hexavalent chromium (Cr+6)
Table 6-7	Herbicides (Silvex)
Table 6-8	PFAAs by EPA 537

REVIEWER'S NARRATIVE


BE3 SDG 203558: 31/150 Tonawanda Site

The data associated with this Sample Delivery Group (SDG) 203558, analyzed by Paradigm Environmental Services, Inc. Rochester, NY have been reviewed in accordance with assessment criteria provided by the New York State Department of Environmental Conservation following the review procedures provided in the USEPA Functional Guidelines for evaluating organic and inorganic data.

All analytical results reported by the laboratory are considered valid and acceptable except results that have been qualified as rejected, "R". Results qualified as estimated "J", or as non-detects, "U", are considered usable for the purpose of evaluating water and/or soil quality. However, these qualifiers indicate that the accuracy and/or precision of the analytical result is questionable. A summary of all data that have been qualified and the reasons for qualification are provided in the following data usability summary report (DUSR).

Two facts should be noted by all data users. First, the "R" qualifier means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the analyte is present or not. Values qualified with an "R" should not appear on the final data tables because they cannot be relied upon, even as the last resort. Second, no analyte concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error.

Reviewer's Signature: _____


Michael K. Perry
Chemist

Date: _____

10/7/20

1.0 SUMMARY

SITE: 31/150 Tonawanda
BIO-Soil
Buffalo, NY 14207

SAMPLING DATE: July 30, 2020

SAMPLE TYPE: 5 soil samples

LABORATORY: Paradigm Environmental
Rochester, NY

SDG No.: 203558

2.0 INTRODUCTION

This data usability summary report (DUSR) was prepared in accordance with guidance provided by the New York State Department of Environmental Conservation (NYSDEC). The DUSR is based on a review and evaluation of the laboratory analytical data package. Specifically, the NYSDEC guidance recommends review and evaluation of the following elements of the data package:

- Completeness of the data package as defined under the requirements of the NYSDEC Analytical Services Protocols (ASP) Category B or the United States Environmental Protection Agency (USEPA) Contract Laboratory Program (CLP) deliverables,
- Compliance with established analyte holding times,
- Adherence to quality control (QC) limits and specifications for blanks, instrument tuning and calibration, surrogate recoveries, spike recoveries, laboratory duplicate analyses, and other QC criteria,
- Adherence to established analytical protocols,
- Conformance of data summary sheets with raw analytical data, and
- Use of correct data qualifiers.

Data deficiencies, analytical protocol deviations, and quality control problems identified using the review criteria above and their effect on the analytical results are discussed in this report.

3.0 SAMPLE AND ANALYSIS SUMMARY

The data package consists of analytical results for five soil samples collected on July 30, 2020. These samples were analyzed for the Part 375 list of Volatile Organic Compounds, Semi-volatile Organic Compounds, PCBs, Pesticides, Cr+6, Herbicides, Metals, and PFAAs.

All analyses were performed by Paradigm Environmental Services, Inc., Rochester, NY and analyzed as SDG 203558 except Herbicides and Mercury were analyzed by Adirondack Environmental, Albany, NY as SDG 200731032 and PFAAs by ALS Environmental, Rochester, NY as SDG R2006788. The analytical results were provided in NYSDEC ASP Category B format, which includes all raw analytical data and laboratory QC data.

4.0 GUIDANCE DOCUMENTS AND DATA REVIEW CRITERIA

The guidance documents used for reviewing laboratory quality control (QC) data and assigning data qualifiers (flags) to analytical results are listed in Table 4-1. The QC limits established in the documents applicable to this data review were used to assess the quality of the analytical results. In some cases, however, QC limits established internally by the laboratory were taken into account to determine data quality.

The QC criteria considered for assessing the usability of the reported analytical results provided for each analyte type (i.e. VOCs, SVOCs, metals, etc.) are listed in Table 4-2. These criteria may vary with the analytical method utilized by the laboratory. These criteria comply with the guidance recommended in Section 2.0 above.

5.0 DATA VALIDATION QUALIFIERS

The letter qualifiers (flags) used to define data usability are described briefly below. These letters are assigned by the data validator to analytical results having questionable accuracy and/or precision as determined by reviewing the laboratory QC data associated with the analytical results.

TABLE 4-1

DATA VALIDATION GUIDANCE DOCUMENTS

Analyte Type	Validation Guidance
VOCs	USEPA, 2008, Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry; SW-846 Method 8260B; SOP # HW-24, Rev. 2. USEPA, 2008, Statement of Work for Organic Analysis of Low/Medium Concentration of Volatile Organic Compounds SQM01.2; SOP HW-33, Rev. 2.
SVOCs	USEPA, 2007, Statement of Work for Organic Analysis of Low/Medium Concentration of Semivolatile Organic Compounds SQM01.2; SOP HW-35, Rev. 1.
Pesticides/PCBs	USEPA, 2006, CLP Organics Data Review and Preliminary Review (CLP/SOW OLMO 4.3); SOP # HW-6, Rev. 14, Part C.
Metals	USEPA, 2006, Validation of Metals for the Contract Laboratory Program (CLP) based on SOW ILMO 5.3 (SOP Revision 13), SOP # HW-2, Rev. 13.
Gen Chemistry	NYSDEC, 2005, Analytical Services Protocols (ASP)
VOCs (Ambient air)	USEPA, 2006, Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canister by Method TO-15; SOP # HW-31, Rev. 4.
Perfluoroalkyl Substances (PFASs)	USEPA, 2018, Data Review and Validation Guidelines for Perfluoroalkyl Substances (PFASs) Analyzed Using EPA Method 537

TABLE 4-2

**QUALITY CONTROL CRITERIA USED FOR VALIDATING
LABORATORY ANALYTICAL DATA**

VOCs	SVOCs	Pesticides/PCBs	Metals	Gen Chemistry	Method TO-15
Completeness of Pkg Sample Preservation Holding Time System Monitoring Compounds Lab Control Sample Matrix Spikes Blanks Instrument Tuning Internal Standards Initial Calibration Continuing Calibration Lab Qualifiers Field Duplicate	Completeness of Pkg Sample Preservation Holding Time Surrogate Recoveries Lab Control Sample Matrix Spikes Blanks Instrument Tuning Internal Standards Initial Calibration Continuing Calibration Lab Qualifiers Field Duplicate	Completeness of Pkg Sample Preservation Holding Time Surrogate Recoveries Matrix Spikes Blanks Instrument Calibration & Verification Analyte ID Lab Qualifiers Field Duplicate	Completeness of Pkg Sample Preservation Holding Time Initial/Continuing Calibration CRDL Standards Blanks Interference Check Sample Spike Recoveries Lab Duplicate Lab Control Sample ICP Serial Dilutions Lab Qualifiers Field Duplicate	Completeness of Pkg Sample Preservation Holding Times Calibration Lab Control Samples Blanks Spike Recoveries Lab Duplicates	Completeness of Pkg Sample Preservation Holding Time Canister Certification Lab Control Sample Instrument Tuning Blanks Initial Calibration & System Performance Daily Calibration Field Duplicate

PFASs
Completeness of Pkg Sample Preservation Holding Time Instr Performance Check Initial Calibration Continuing Calibration Blanks Surrogates Lab Fortified Blank Matrix Spikes Internal Standards

The laboratory may also use various letters and symbols to flag analytical results generated when QC limits were exceeded. The meanings of these flags may differ from those used by the independent data validator. Those used by the laboratory are provided with the analytical results.

NOTE: The assignment of data qualifiers by the data reviewer (validator) to laboratory analytical results should not necessarily be interpreted by the data user as a measure of laboratory ability or proficiency. Rather, the qualifiers are intended to provide a measure of data accuracy and precision to the data user, which, for example, may provide a level of confidence in determining whether or not standards or cleanup objectives have been met.

- U** The analyte was analyzed for but was not detected at or above the sample quantitation limit.
- J** The analyte was positively identified; the associated numerical value is the *approximate* concentration of the analyte in the sample. (The magnitude of any \pm value associated with the result is not determined by data validation).
- UJ** The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is *approximate* and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R** The sample result is rejected (i.e., is unusable) due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.
- N** The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".
- JN** The analyte is considered to be "presumptively present." The associated numerical value represents its *approximate* concentration.

The validated analytical results are attached to this report. Validation qualifiers (flags) are indicated using red ink. Data sheets having qualified data are signed and dated by the data reviewer.

6.0 RESULTS OF THE DATA REVIEW

The results of the data review are summarized in Tables 6-1 through 6-8. The tables list the samples where QC criteria were found to exceed acceptable limits and the actions taken to qualify the associated analytical results.

7.0 TOTAL USABLE DATA

For SDG 203558, five samples were analyzed and results were reported for 382 analytes. Thirty-six results were rejected. Even though some results were flagged with a “J” as estimated, all other results (91 %) are considered usable. See the summary table for the analyses that have been rejected and the associated QC reasons.

NOTE: 1) As noted by the laboratory, the soil samples were not collected following SW846 5035A protocol. This adds an element of uncertainty to the analytical results for volatile organic analytes (VOAs). Although not specifically indicated on the final data sheets with a “J” flag, the VOA analytical results should be considered estimated, but usable.

NOTE: 2) The data packages for this project contained no laboratory QC data for the CRDL standard for metals (Form 2B) and the Serial Dilutions of metals (Form 8). Therefore, no evaluation of the CRDL recoveries and the serial dilution results were performed by this data reviewer and no data were qualified as a result.

Table 6-1 VOCs

SAMPLES AFFECTED	ANALYTES	ACTION	QC VIOLATION	COMMENTS
BF VOC1 BF VOC2 BF VOC3 BF VOC4	1,4-Dioxane	R data	ICAL RF < 0.005	Data is rejected
BF VOC1 BF VOC2 BF VOC3 BF VOC4	All analytes	J detects UJ non-detects	Surr. rec for TD8 and 4BFB < QC limit and IS area #2 < 50 % of QC limit	Data may be biased low
BF VOC1 BF VOC2 BF VOC3 BF VOC4	1,2-DCB 1,3-DCB 1,4-DCB 1,2,4-TCB 1,2,3-TCB DBCP Naphthalene n-Butylbenzene	R	IS area #3 < 25 % of the QC limit	Data are rejected

Table 6-2 SVOCs

SAMPLES AFFECTED	ANALYTES	ACTION	QC VIOLATION	COMMENTS
BF1	Atrazine Hexachloropentadiene	UJ non-detects J detects	% D for CCV > QC limit	Data are estimated

Table 6-3 Pesticides

SAMPLES AFFECTED	ANALYTES	ACTION	QC VIOLATION	COMMENTS
BF1	All analytes	UJ non-detects J detects	Both Suur. Recs < QC limit	Data are estimated

Table 6-4 PCBs

SAMPLES AFFECTED	ANALYTES	ACTION	QC VIOLATION	COMMENTS
none		none		

Table 6-5 Metals

SAMPLES AFFECTED	ANALYTES	ACTION	QC VIOLATION	COMMENTS
none			none	

Table 6-6 Hexavalent Chromium

SAMPLES AFFECTED	ANALYTES	ACTION	QC VIOLATION	COMMENTS
none			none	

SDG 203558

Table 6-7 Herbicides

SAMPLES AFFECTED	ANALYTES	ACTION	QC VIOLATION	COMMENTS
none			none	

Table 6-8 PFAAs

SAMPLES AFFECTED	ANALYTES	ACTION	QC VIOLATION	COMMENTS
BF1	PFNA	J detects	Detected in Method Blank	Data are estimated
BF1	PFBS	UJ non-detects J detects	% LCS < QC limit	Data are estimated

ACRONYMS

BSP	Blank Spike
CCAL	Continuing Calibration
CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification
CRDL	Contract Required Detection Limit
CRQL	Contract Required Quantitation Limit
%D	Percent Difference
ICAL	Initial Calibration
ICB	Initial Calibration Blank
IS	Internal Standard
LCS	Laboratory Control Sample
MS/MSD	Matrix Spike/Matrix Spike Duplicate
QA	Quality Assurance
QC	Quality Control
%R	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
%RSD	Percent Relative Standard Deviation
TAL	Target Analyte List (metals)
TCL	Target Compound List (organics)

Appendix A

Validated Analytical Results

LAB PROJECT NARRATIVE: 203558
PROJECT NAME: 31/150 Tonawanda BIO-Soil
SDG: 3558-01
CLIENT: BE3

Five soil samples were collected by the client on July 30, 2020 and were received by the Paradigm Laboratory on the same day. Samples were received under the conditions as noted on the Chain-of-Custody Supplement. The samples were submitted with the Chains-of-Custody requesting the Part 375 lists for SVOCs, VOCs, Pesticides, Metals, PCBs, Hexavalent Chromium, Silvex, and PFAs. All analyses were performed using EPA SW-846 Methods and the associated holding times.

The items noted in this case narrative address compliance with the referenced methods, NYSDOH ELAP rules, and any project specific data quality requirements. These may be different from the usability criteria referenced in any "Functional Guidelines" or other data review standards used by data validators.

GENERAL NOTES

Regarding surrogate limits for Semivolatiles, Pesticides, and PCBs: Quality Control limits were updated internally on August 05, 2020. The samples were analyzed before August 05, but because the summary was generated after that date, the report automatically included the updated limits in error. All forms included in this package have been corrected to reflect the limits that were in-use at the time of analysis.

ALL ANALYSES

The initial and continuing calibration reports are only evaluated for compounds that are on the sample summary report.

Regarding results on QC summary forms versus included raw data, due to calculations made at the instrument where many significant figures may be used, there may be slight discrepancies between the summary report result and that recorded on the raw data. This does not affect data usability.

VOLATILES AND SEMIVOLATILES

Regarding initial calibrations, it should be noted that the Quantitation Report concentrations supplied for the initial calibration reflect the calibration prior to updating. The response factors and areas are correct.

Regarding Quantitation Reports, it should be noted that the "#" symbol that appears on some of the Quantitation Reports is a software artifact and should be disregarded.

Compounds flagged with an "*" on the summary table have been calibrated using a non-average Response Factor calibration curve. The supporting curves are located after the initial calibration table.

VOLATILES

Soil samples were not sampled per EPA method 5035A compliance rules. Thus, an extra note has been added to all VOC reports.

Holding times were met for all samples.

Surrogate recoveries for the samples and associated QC were within acceptance limits, except Toluene-d8 was out low in all samples and 4-Bromofluorobenzene was out low in BF VOC 1, BF VOC 2, and BF VOC 3. These outliers have been flagged with an "*" on the surrogate recovery form and the sample results page. Matrix interference is suspected.

Site specific QC was not requested on this SDG. The Laboratory Control Sample recovered within acceptance limits.

The Method Blank was free from contamination within reportable ranges.

The instrument tunes passed all criteria and samples were within a 12-hour window.

The internal standards areas and retention times were within acceptance ranges for the samples and QC, except Chlorobenzene-d5 and 1,4-Dichlorobenzene-d4 were out low in all samples and Fluorobenzene was out low in BF VOC 4. These outliers have been flagged with an "*" on the summary form and annotated on the sample report accordingly. The samples were repeated to confirm the results and the raw data for the confirmation has been supplied after the raw data from the reported results. Matrix interference is suspected. No further evaluation of this data or corresponding summary forms have been made.

All data for the initial calibration was within acceptance limits for the reported analytes.

All continuing calibration data was within acceptance limits for the reported analytes with the following exceptions: Dichlorodifluoromethane, Chloromethane, Chloroethane, Trichlorofluoromethane, and Freon 113 were out low in the CCV. Adequate sensitivity at the reporting limit for these compounds was verified by the analysis of a single point 1ppb standard. This is usable for non-detects only. All samples were non-detect for these compounds.

SEMI-VOLATILES

Holding time was met for the sample.

All surrogate recoveries for the sample and associated QC were within acceptance limits.

Site specific QC was not requested on this SDG. The Laboratory Control Sample recovered within acceptance limits.

The Method Blank was free from contamination within reportable ranges.

The instrument tunes passed all criteria and samples were within a 12-hour window.

The internal standards areas and retention times were within acceptance ranges for the sample and associated QC.

All data for the initial calibrations was within acceptance limits for the reported analytes.

All continuing calibration data was within acceptance limits for the reported analytes, with the following exceptions: In both CCVs Benzaldehyde and Di-n-Octylphthalate were out high and Hexachlorocyclopentadiene and Atrazine were out low. For compounds that are out high data is usable if the samples are non-detect for those compounds. For the compounds that were out low, adequate sensitivity at the reporting limit was verified by the analysis of single point 5ppm and 10ppm standards. This is usable for non-detects only. All samples were non-detect for the outlying compounds.

PESTICIDES

Holding time was met for the sample.

Surrogate recoveries for the sample and associated QC were within acceptance limits, with the following exceptions: Tetrachloro-m-xylene and Decachlorobiphenyl were out low in BF1 and Decachlorobiphenyl was out high in the LCS. These outliers have been flagged with an “*” on the surrogate recovery form and the sample results page. Matrix interference is suspected for the outliers in the sample. The LCS was deemed usable as the surrogate recovery was acceptable in the rest of the QC and all target analytes in the LCS were within acceptance limits.

Site specific QC was not requested on this SDG. The Laboratory Control samples recovered within acceptance limits.

The method blank was free from contamination within the reportable ranges.

The internal standards areas and retention times were within acceptance ranges for the sample and associated QC.

All data for the initial calibrations were within acceptance limits. The internal acceptance criteria for the initial calibrations was 0.99 or better for each peak.

All continuing calibration data was within acceptable QC limits, except for the Decachlorobiphenyl outlier in the LCS as mentioned above.

For all Pesticide hits, a Form 10 including Percent Difference has been included. Column confirmations above 40% difference have been flagged with a “P” on the sample reports and an “*” on the Form 10 indicating matrix interference. The reported result is always the lower of the two results.

PCBS

Holding time was met for the sample.

The surrogate recoveries for the sample and the associated QC were within acceptance limits.

Site specific QC was not requested on this SDG. The Laboratory Control Sample recovered within acceptance limits.

The method blank was free from contamination within the reportable ranges.

All data for the initial calibrations were within acceptance limits. The internal acceptance criteria for the initial calibrations was 0.99 or better for each peak.

All data for continuing calibrations was within acceptance limits.

METALS

ICP-AES interelement and background corrections were applied. Raw data was not generated before application of background corrections.

Holding time was met for the sample.

Site specific QC was not requested on this SDG but was analyzed on BF 1 and there was one outlier. Manganese recovered low in the spike and the outlier was flagged with an “*” on the summary form and an “M” on the sample results page accordingly. As there was an outlier, Post Digest Spikes were analyzed accordingly. The raw data for these QC samples has been supplied on the attached ICP analytical worksheets, labeled as “pds”. There are no data qualifiers or QC forms associated with the post digest spikes. Matrix Interference is suspected. The Laboratory Control Samples recovered within acceptable limits. All LCS % differences were within acceptance limits.

The Method Blank was free from contamination within reportable ranges.

All data for the initial calibrations was within acceptance limits.

All continuing calibrations data was within acceptance limits.

SUBCONTRACTED ANALYSES

Silvex by EPA 8151A, Total Mercury by EPA 7471B, and Hexavalent Chromium by EPA 7196A were subcontracted to Adirondack Environmental Services, Inc. of Albany, NY. PFAs by 537.1 were subcontracted to ALS Environmental of Rochester, New York. Their reports are provided in their entirety as a separate entity after the Paradigm Environmental Services, Inc. report. Separate case narratives addressing the above parameters are included with their reports.

(signed) Steven DeVito
Steven DeVito – Technical Director

(date) 9/28/2020

BATCH LOG

Lab Name: Paradigm Environmental Services
 Lab Project #: 203558
 Client Name: BE3
 Client Project Name: 31/150 Tonawanda BIO-Soil
 Client Project #: N/A
 SDG No.: 3558-01

Protocol: SW846Report Due Date: 8/21/2020

Batch Due Date:

8/29/2020

[illegible]



Turnaround Time		Report Supplements	
Availability contingent upon lab approval; additional fees may apply.			
Standard 5 day	<input type="checkbox"/>	None Required	<input type="checkbox"/>
10 day	<input checked="" type="checkbox"/>	Batch QC	<input type="checkbox"/>
Rush 3 day	<input type="checkbox"/>	Category A	<input type="checkbox"/>
Rush 2 day	<input type="checkbox"/>	Category B	<input checked="" type="checkbox"/>
Rush 1 day	<input type="checkbox"/>		
Date Needed _____		Other <input type="checkbox"/>	Other EDD <input type="checkbox"/>
please indicate date needed:		please indicate package needed:	please indicate EDD needed :
NOTE - FASTER			

Sampled By	<u>PETER J. Gorman</u>	Date/Time	<u>7-30-20 12:20</u>	Total Cost:	<div></div>
Relinquished By	<u>[Signature]</u>	Date/Time	<u>7-30-20</u>		
Received By	<u>Brian Zuck</u>	Date/Time	<u>7-30-20 3:15</u>	P.I.F.	<div></div>
Received @ Lab By	<u>Molly Nail</u>	Date/Time	<u>7/30/2020 1755</u>		

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

See additional page for sample conditions.

VOLATILE ORGANICS
SAMPLE DATA



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier: BF VOC 1

Lab Sample ID: 203558-02

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.82 <i>UJ</i>	ug/Kg		8/7/2020 21:18
1,1,2,2-Tetrachloroethane	< 4.82	ug/Kg		8/7/2020 21:18
1,1,2-Trichloroethane	< 4.82	ug/Kg		8/7/2020 21:18
1,1-Dichloroethane	< 4.82	ug/Kg		8/7/2020 21:18
1,1-Dichloroethene	< 4.82	ug/Kg		8/7/2020 21:18
1,2,3-Trichlorobenzene	< 12.0 <i>R</i>	ug/Kg		8/7/2020 21:18
1,2,4-Trichlorobenzene	< 12.0 <i>R</i>	ug/Kg		8/7/2020 21:18
1,2,4-Trimethylbenzene	< 4.82 <i>UJ</i>	ug/Kg		8/7/2020 21:18
1,2-Dibromo-3-Chloropropane	< 24.1 <i>R</i>	ug/Kg		8/7/2020 21:18
1,2-Dibromoethane	< 4.82 <i>UJ</i>	ug/Kg		8/7/2020 21:18
1,2-Dichlorobenzene	< 4.82 <i>R</i>	ug/Kg		8/7/2020 21:18
1,2-Dichloroethane	< 4.82 <i>UJ</i>	ug/Kg		8/7/2020 21:18
1,2-Dichloropropane	< 4.82	ug/Kg		8/7/2020 21:18
1,3,5-Trimethylbenzene	< 4.82	ug/Kg		8/7/2020 21:18
1,3-Dichlorobenzene	< 4.82 <i>R</i>	ug/Kg		8/7/2020 21:18
1,4-Dichlorobenzene	< 4.82 <i>R</i>	ug/Kg		8/7/2020 21:18
1,4-Dioxane	< 48.2 <i>R</i>	ug/Kg		8/7/2020 21:18
2-Butanone	< 24.1 <i>UJ</i>	ug/Kg		8/7/2020 21:18
2-Hexanone	< 12.0	ug/Kg		8/7/2020 21:18
4-Methyl-2-pentanone	< 12.0	ug/Kg		8/7/2020 21:18
Acetone	< 24.1	ug/Kg		8/7/2020 21:18
Benzene	< 4.82	ug/Kg		8/7/2020 21:18
Bromochloromethane	< 12.0	ug/Kg		8/7/2020 21:18

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.



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier: BF VOC 1

Lab Sample ID: 203558-02

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

Bromodichloromethane	< 4.82	UJ	ug/Kg	8/7/2020 21:18
Bromoform	< 12.0		ug/Kg	8/7/2020 21:18
Bromomethane	< 4.82		ug/Kg	8/7/2020 21:18
Carbon disulfide	< 4.82		ug/Kg	8/7/2020 21:18
Carbon Tetrachloride	< 4.82		ug/Kg	8/7/2020 21:18
Chlorobenzene	< 4.82		ug/Kg	8/7/2020 21:18
Chloroethane	< 4.82		ug/Kg	8/7/2020 21:18
Chloroform	< 4.82		ug/Kg	8/7/2020 21:18
Chloromethane	< 4.82		ug/Kg	8/7/2020 21:18
cis-1,2-Dichloroethene	< 4.82		ug/Kg	8/7/2020 21:18
cis-1,3-Dichloropropene	< 4.82		ug/Kg	8/7/2020 21:18
Cyclohexane	< 24.1		ug/Kg	8/7/2020 21:18
Dibromochloromethane	< 4.82		ug/Kg	8/7/2020 21:18
Dichlorodifluoromethane	< 4.82		ug/Kg	8/7/2020 21:18
Ethylbenzene	< 4.82		ug/Kg	8/7/2020 21:18
Freon 113	< 4.82		ug/Kg	8/7/2020 21:18
Isopropylbenzene	< 4.82		ug/Kg	8/7/2020 21:18
m,p-Xylene	3.26	J	ug/Kg	J 8/7/2020 21:18
Methyl acetate	< 4.82	UJ	ug/Kg	8/7/2020 21:18
Methyl tert-butyl Ether	< 4.82		ug/Kg	8/7/2020 21:18
Methylcyclohexane	< 4.82		ug/Kg	8/7/2020 21:18
Methylene chloride	< 12.0		ug/Kg	8/7/2020 21:18
Naphthalene	< 12.0	R	ug/Kg	8/7/2020 21:18
n-Butylbenzene	< 4.82	R	ug/Kg	8/7/2020 21:18
n-Propylbenzene	< 4.82	UJ	ug/Kg	8/7/2020 21:18

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.



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier: BF VOC 1

Lab Sample ID: 203558-02

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

o-Xylene	< 4.82	UJ	ug/Kg	8/7/2020	21:18
p-Isopropyltoluene	< 4.82		ug/Kg	8/7/2020	21:18
sec-Butylbenzene	< 4.82		ug/Kg	8/7/2020	21:18
Styrene	< 12.0		ug/Kg	8/7/2020	21:18
tert-Butylbenzene	< 4.82		ug/Kg	8/7/2020	21:18
Tetrachloroethene	< 4.82		ug/Kg	8/7/2020	21:18
Toluene	< 4.82		ug/Kg	8/7/2020	21:18
trans-1,2-Dichloroethene	< 4.82		ug/Kg	8/7/2020	21:18
trans-1,3-Dichloropropene	< 4.82		ug/Kg	8/7/2020	21:18
Trichloroethene	< 4.82		ug/Kg	8/7/2020	21:18
Trichlorofluoromethane	< 4.82		ug/Kg	8/7/2020	21:18
Vinyl chloride	< 4.82		ug/Kg	8/7/2020	21:18

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	123	75 - 134		8/7/2020 21:18
4-Bromofluorobenzene	58.4	59.5 - 129	*	8/7/2020 21:18
Pentafluorobenzene	97.4	88.8 - 118		8/7/2020 21:18
Toluene-D8	80.3	84 - 114	*	8/7/2020 21:18

Internal standard outliers indicate probable matrix interference

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x72391.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.

MKP 10/7/2020

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.



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier: BF VOC 2

Lab Sample ID: 203558-03

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.54 <i>UJ</i>	ug/Kg		8/7/2020 21:41
1,1,2,2-Tetrachloroethane	< 4.54	ug/Kg		8/7/2020 21:41
1,1,2-Trichloroethane	< 4.54	ug/Kg		8/7/2020 21:41
1,1-Dichloroethane	< 4.54	ug/Kg		8/7/2020 21:41
1,1-Dichloroethene	< 4.54	ug/Kg		8/7/2020 21:41
1,2,3-Trichlorobenzene	< 11.3 <i>R</i>	ug/Kg		8/7/2020 21:41
1,2,4-Trichlorobenzene	< 11.3 <i>R</i>	ug/Kg		8/7/2020 21:41
1,2,4-Trimethylbenzene	< 4.54 <i>UJ</i>	ug/Kg		8/7/2020 21:41
1,2-Dibromo-3-Chloropropane	< 22.7 <i>R</i>	ug/Kg		8/7/2020 21:41
1,2-Dibromoethane	< 4.54 <i>UJ</i>	ug/Kg		8/7/2020 21:41
1,2-Dichlorobenzene	< 4.54 <i>R</i>	ug/Kg		8/7/2020 21:41
1,2-Dichloroethane	< 4.54 <i>UJ</i>	ug/Kg		8/7/2020 21:41
1,2-Dichloropropane	< 4.54	ug/Kg		8/7/2020 21:41
1,3,5-Trimethylbenzene	< 4.54	ug/Kg		8/7/2020 21:41
1,3-Dichlorobenzene	< 4.54 <i>R</i>	ug/Kg		8/7/2020 21:41
1,4-Dichlorobenzene	< 4.54 <i>R</i>	ug/Kg		8/7/2020 21:41
1,4-Dioxane	< 4.54 <i>R</i>	ug/Kg		8/7/2020 21:41
2-Butanone	< 22.7 <i>UJ</i>	ug/Kg		8/7/2020 21:41
2-Hexanone	< 11.3	ug/Kg		8/7/2020 21:41
4-Methyl-2-pentanone	< 11.3	ug/Kg		8/7/2020 21:41
Acetone	< 22.7	ug/Kg		8/7/2020 21:41
Benzene	< 4.54	ug/Kg		8/7/2020 21:41
Bromochloromethane	< 11.3	ug/Kg		8/7/2020 21:41

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.



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier: BF VOC 2

Lab Sample ID: 203558-03

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

Bromodichloromethane	< 4.54	UJ	ug/Kg	8/7/2020 21:41
Bromoform	< 11.3		ug/Kg	8/7/2020 21:41
Bromomethane	< 4.54		ug/Kg	8/7/2020 21:41
Carbon disulfide	< 4.54		ug/Kg	8/7/2020 21:41
Carbon Tetrachloride	< 4.54		ug/Kg	8/7/2020 21:41
Chlorobenzene	< 4.54		ug/Kg	8/7/2020 21:41
Chloroethane	< 4.54		ug/Kg	8/7/2020 21:41
Chloroform	< 4.54		ug/Kg	8/7/2020 21:41
Chloromethane	< 4.54		ug/Kg	8/7/2020 21:41
cis-1,2-Dichloroethene	< 4.54		ug/Kg	8/7/2020 21:41
cis-1,3-Dichloropropene	< 4.54		ug/Kg	8/7/2020 21:41
Cyclohexane	< 22.7		ug/Kg	8/7/2020 21:41
Dibromochloromethane	< 4.54		ug/Kg	8/7/2020 21:41
Dichlorodifluoromethane	< 4.54		ug/Kg	8/7/2020 21:41
Ethylbenzene	< 4.54		ug/Kg	8/7/2020 21:41
Freon 113	< 4.54		ug/Kg	8/7/2020 21:41
Isopropylbenzene	< 4.54		ug/Kg	8/7/2020 21:41
m,p-Xylene	3.13	J	ug/Kg	8/7/2020 21:41
Methyl acetate	< 4.54	UJ	ug/Kg	8/7/2020 21:41
Methyl tert-butyl Ether	< 4.54		ug/Kg	8/7/2020 21:41
Methylcyclohexane	< 4.54		ug/Kg	8/7/2020 21:41
Methylene chloride	< 11.3		ug/Kg	8/7/2020 21:41
Naphthalene	< 11.3	R	ug/Kg	8/7/2020 21:41
n-Butylbenzene	< 4.54	R	ug/Kg	8/7/2020 21:41
n-Propylbenzene	< 4.54	UJ	ug/Kg	8/7/2020 21:41

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.



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier:	BF VOC 2			Date Sampled:	7/30/2020	
Lab Sample ID:	203558-03			Date Received:	7/30/2020	
Matrix:	Soil					
o-Xylene	< 4.54	UJ	ug/Kg	8/7/2020	21:41	
p-Isopropyltoluene	< 4.54		ug/Kg	8/7/2020	21:41	
sec-Butylbenzene	< 4.54		ug/Kg	8/7/2020	21:41	
Styrene	< 11.3		ug/Kg	8/7/2020	21:41	
tert-Butylbenzene	< 4.54		ug/Kg	8/7/2020	21:41	
Tetrachloroethene	< 4.54		ug/Kg	8/7/2020	21:41	
Toluene	< 4.54		ug/Kg	8/7/2020	21:41	
trans-1,2-Dichloroethene	< 4.54		ug/Kg	8/7/2020	21:41	
trans-1,3-Dichloropropene	< 4.54		ug/Kg	8/7/2020	21:41	
Trichloroethene	< 4.54		ug/Kg	8/7/2020	21:41	
Trichlorofluoromethane	< 4.54		ug/Kg	8/7/2020	21:41	
Vinyl chloride	< 4.54		ug/Kg	8/7/2020	21:41	
Surrogate	Percent Recovery		Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	120		75 - 134		8/7/2020	21:41
4-Bromofluorobenzene	56.2		59.5 - 129	*	8/7/2020	21:41
Pentafluorobenzene	94.1		88.8 - 118		8/7/2020	21:41
Toluene-D8	79.8		84 - 114	*	8/7/2020	21:41

Internal standard outliers indicate probable matrix interference

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x72392.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.

MKP 10/7/2020

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.



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier: BF VOC 3

Lab Sample ID: 203558-04

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.94 <i>UJ</i>	ug/Kg		8/7/2020 22:03
1,1,2,2-Tetrachloroethane	< 4.94	ug/Kg		8/7/2020 22:03
1,1,2-Trichloroethane	< 4.94	ug/Kg		8/7/2020 22:03
1,1-Dichloroethane	< 4.94	ug/Kg		8/7/2020 22:03
1,1-Dichloroethene	< 4.94	ug/Kg		8/7/2020 22:03
1,2,3-Trichlorobenzene	< 12.4 <i>R</i>	ug/Kg		8/7/2020 22:03
1,2,4-Trichlorobenzene	< 12.4 <i>R</i>	ug/Kg		8/7/2020 22:03
1,2,4-Trimethylbenzene	< 4.94 <i>UJ</i>	ug/Kg		8/7/2020 22:03
1,2-Dibromo-3-Chloropropane	< 24.7 <i>R</i>	ug/Kg		8/7/2020 22:03
1,2-Dibromoethane	< 4.94 <i>UJ</i>	ug/Kg		8/7/2020 22:03
1,2-Dichlorobenzene	< 4.94 <i>R</i>	ug/Kg		8/7/2020 22:03
1,2-Dichloroethane	< 4.94 <i>UJ</i>	ug/Kg		8/7/2020 22:03
1,2-Dichloropropane	< 4.94	ug/Kg		8/7/2020 22:03
1,3,5-Trimethylbenzene	< 4.94	ug/Kg		8/7/2020 22:03
1,3-Dichlorobenzene	< 4.94 <i>R</i>	ug/Kg		8/7/2020 22:03
1,4-Dichlorobenzene	< 4.94 <i>R</i>	ug/Kg		8/7/2020 22:03
1,4-Dioxane	< 49.4 <i>R</i>	ug/Kg		8/7/2020 22:03
2-Butanone	< 24.7 <i>UJ</i>	ug/Kg		8/7/2020 22:03
2-Hexanone	< 12.4	ug/Kg		8/7/2020 22:03
4-Methyl-2-pentanone	< 12.4	ug/Kg		8/7/2020 22:03
Acetone	< 24.7	ug/Kg		8/7/2020 22:03
Benzene	< 4.94	ug/Kg		8/7/2020 22:03
Bromochloromethane	< 12.4	ug/Kg		8/7/2020 22:03

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.



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier: BF VOC 3

Lab Sample ID: 203558-04

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

Bromodichloromethane	< 4.94	UJ	ug/Kg	8/7/2020	22:03
Bromoform	< 12.4		ug/Kg	8/7/2020	22:03
Bromomethane	< 4.94		ug/Kg	8/7/2020	22:03
Carbon disulfide	< 4.94		ug/Kg	8/7/2020	22:03
Carbon Tetrachloride	< 4.94		ug/Kg	8/7/2020	22:03
Chlorobenzene	< 4.94		ug/Kg	8/7/2020	22:03
Chloroethane	< 4.94		ug/Kg	8/7/2020	22:03
Chloroform	< 4.94		ug/Kg	8/7/2020	22:03
Chloromethane	< 4.94		ug/Kg	8/7/2020	22:03
cis-1,2-Dichloroethene	< 4.94		ug/Kg	8/7/2020	22:03
cis-1,3-Dichloropropene	< 4.94		ug/Kg	8/7/2020	22:03
Cyclohexane	< 24.7		ug/Kg	8/7/2020	22:03
Dibromochloromethane	< 4.94		ug/Kg	8/7/2020	22:03
Dichlorodifluoromethane	< 4.94		ug/Kg	8/7/2020	22:03
Ethylbenzene	< 4.94		ug/Kg	8/7/2020	22:03
Freon 113	< 4.94		ug/Kg	8/7/2020	22:03
Isopropylbenzene	< 4.94		ug/Kg	8/7/2020	22:03
m,p-Xylene	< 4.94		ug/Kg	8/7/2020	22:03
Methyl acetate	< 4.94		ug/Kg	8/7/2020	22:03
Methyl tert-butyl Ether	< 4.94		ug/Kg	8/7/2020	22:03
Methylcyclohexane	< 4.94		ug/Kg	8/7/2020	22:03
Methylene chloride	< 12.4		ug/Kg	8/7/2020	22:03
Naphthalene	< 12.4	R	ug/Kg	8/7/2020	22:03
n-Butylbenzene	< 4.94	R	ug/Kg	8/7/2020	22:03
n-Propylbenzene	< 4.94	UJ	ug/Kg	8/7/2020	22:03

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.



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier:	BF VOC 3	Date Sampled:	7/30/2020
Lab Sample ID:	203558-04	Date Received:	7/30/2020
Matrix:	Soil		

o-Xylene	< 4.94	UJ	ug/Kg	8/7/2020	22:03
p-Isopropyltoluene	< 4.94		ug/Kg	8/7/2020	22:03
sec-Butylbenzene	< 4.94		ug/Kg	8/7/2020	22:03
Styrene	< 12.4		ug/Kg	8/7/2020	22:03
tert-Butylbenzene	< 4.94		ug/Kg	8/7/2020	22:03
Tetrachloroethene	< 4.94		ug/Kg	8/7/2020	22:03
Toluene	< 4.94		ug/Kg	8/7/2020	22:03
trans-1,2-Dichloroethene	< 4.94		ug/Kg	8/7/2020	22:03
trans-1,3-Dichloropropene	< 4.94		ug/Kg	8/7/2020	22:03
Trichloroethene	< 4.94		ug/Kg	8/7/2020	22:03
Trichlorofluoromethane	< 4.94		ug/Kg	8/7/2020	22:03
Vinyl chloride	< 4.94		ug/Kg	8/7/2020	22:03

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	127	75 - 134		8/7/2020 22:03
4-Bromofluorobenzene	52.7	59.5 - 129	*	8/7/2020 22:03
Pentafluorobenzene	95.9	88.8 - 118		8/7/2020 22:03
Toluene-D8	75.3	84 - 114	*	8/7/2020 22:03

Internal standard outliers indicate probable matrix interference

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x72393.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.

MKP 10/7/2020

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.



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier: BF VOC 4

Lab Sample ID: 203558-05

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.38 <i>UJ</i>	ug/Kg		8/7/2020 22:25
1,1,2,2-Tetrachloroethane	< 4.38	ug/Kg		8/7/2020 22:25
1,1,2-Trichloroethane	< 4.38	ug/Kg		8/7/2020 22:25
1,1-Dichloroethane	< 4.38	ug/Kg		8/7/2020 22:25
1,1-Dichloroethene	< 4.38	ug/Kg		8/7/2020 22:25
1,2,3-Trichlorobenzene	< 11.0 <i>R</i>	ug/Kg		8/7/2020 22:25
1,2,4-Trichlorobenzene	< 11.0 <i>R</i>	ug/Kg		8/7/2020 22:25
1,2,4-Trimethylbenzene	< 4.38 <i>UJ</i>	ug/Kg		8/7/2020 22:25
1,2-Dibromo-3-Chloropropane	< 21.9 <i>R</i>	ug/Kg		8/7/2020 22:25
1,2-Dibromoethane	< 4.38 <i>UJ</i>	ug/Kg		8/7/2020 22:25
1,2-Dichlorobenzene	< 4.38 <i>R</i>	ug/Kg		8/7/2020 22:25
1,2-Dichloroethane	< 4.38 <i>UJ</i>	ug/Kg		8/7/2020 22:25
1,2-Dichloropropane	< 4.38	ug/Kg		8/7/2020 22:25
1,3,5-Trimethylbenzene	< 4.38	ug/Kg		8/7/2020 22:25
1,3-Dichlorobenzene	< 4.38 <i>R</i>	ug/Kg		8/7/2020 22:25
1,4-Dichlorobenzene	< 4.38 <i>R</i>	ug/Kg		8/7/2020 22:25
1,4-Dioxane	< 4.38 <i>R</i>	ug/Kg		8/7/2020 22:25
2-Butanone	< 21.9 <i>UJ</i>	ug/Kg		8/7/2020 22:25
2-Hexanone	< 11.0	ug/Kg		8/7/2020 22:25
4-Methyl-2-pentanone	< 11.0	ug/Kg		8/7/2020 22:25
Acetone	< 21.9	ug/Kg		8/7/2020 22:25
Benzene	< 4.38	ug/Kg		8/7/2020 22:25
Bromochloromethane	< 11.0	ug/Kg		8/7/2020 22:25

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.



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier: BF VOC 4

Lab Sample ID: 203558-05

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

Bromodichloromethane	< 4.38	UJ	ug/Kg	8/7/2020 22:25
Bromoform	< 11.0		ug/Kg	8/7/2020 22:25
Bromomethane	< 4.38		ug/Kg	8/7/2020 22:25
Carbon disulfide	< 4.38		ug/Kg	8/7/2020 22:25
Carbon Tetrachloride	< 4.38		ug/Kg	8/7/2020 22:25
Chlorobenzene	< 4.38		ug/Kg	8/7/2020 22:25
Chloroethane	< 4.38		ug/Kg	8/7/2020 22:25
Chloroform	< 4.38		ug/Kg	8/7/2020 22:25
Chloromethane	< 4.38		ug/Kg	8/7/2020 22:25
cis-1,2-Dichloroethene	< 4.38		ug/Kg	8/7/2020 22:25
cis-1,3-Dichloropropene	< 4.38		ug/Kg	8/7/2020 22:25
Cyclohexane	< 21.9		ug/Kg	8/7/2020 22:25
Dibromochloromethane	< 4.38		ug/Kg	8/7/2020 22:25
Dichlorodifluoromethane	< 4.38		ug/Kg	8/7/2020 22:25
Ethylbenzene	< 4.38		ug/Kg	8/7/2020 22:25
Freon 113	< 4.38		ug/Kg	8/7/2020 22:25
Isopropylbenzene	< 4.38		ug/Kg	8/7/2020 22:25
m,p-Xylene	< 4.38		ug/Kg	8/7/2020 22:25
Methyl acetate	< 4.38		ug/Kg	8/7/2020 22:25
Methyl tert-butyl Ether	< 4.38		ug/Kg	8/7/2020 22:25
Methylcyclohexane	< 4.38		ug/Kg	8/7/2020 22:25
Methylene chloride	6.69	J	ug/Kg	J 8/7/2020 22:25
Naphthalene	< 11.0	R	ug/Kg	8/7/2020 22:25
n-Butylbenzene	< 4.38	R	ug/Kg	8/7/2020 22:25
n-Propylbenzene	< 4.38	UJ	ug/Kg	8/7/2020 22:25

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.



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier:	BF VOC 4		
Lab Sample ID:	203558-05	Date Sampled:	7/30/2020
Matrix:	Soil	Date Received:	7/30/2020

o-Xylene	< 4.38	UJ	ug/Kg	8/7/2020	22:25
p-Isopropyltoluene	< 4.38		ug/Kg	8/7/2020	22:25
sec-Butylbenzene	< 4.38		ug/Kg	8/7/2020	22:25
Styrene	< 11.0		ug/Kg	8/7/2020	22:25
tert-Butylbenzene	< 4.38		ug/Kg	8/7/2020	22:25
Tetrachloroethene	< 4.38		ug/Kg	8/7/2020	22:25
Toluene	< 4.38		ug/Kg	8/7/2020	22:25
trans-1,2-Dichloroethene	< 4.38		ug/Kg	8/7/2020	22:25
trans-1,3-Dichloropropene	< 4.38		ug/Kg	8/7/2020	22:25
Trichloroethene	< 4.38		ug/Kg	8/7/2020	22:25
Trichlorofluoromethane	< 4.38		ug/Kg	8/7/2020	22:25
Vinyl chloride	< 4.38		ug/Kg	8/7/2020	22:25

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	126	75 - 134		8/7/2020 22:25
4-Bromofluorobenzene	62.5	59.5 - 129		8/7/2020 22:25
Pentafluorobenzene	99.9	88.8 - 118		8/7/2020 22:25
Toluene-D8	80.4	84 - 114	*	8/7/2020 22:25

Internal standard outliers indicate probable matrix interference

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x72394.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.

MKP 10/7/2020

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.

SEMIVOLATILE ORGANICS

SAMPLE DATA



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier: BF 1

Lab Sample ID: 203558-01

Matrix: Soil

Date Sampled: 7/30/2020

Date Received: 7/30/2020

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 314	ug/Kg		8/4/2020 13:03
1,2,4,5-Tetrachlorobenzene	< 314	ug/Kg		8/4/2020 13:03
1,2,4-Trichlorobenzene	< 314	ug/Kg		8/4/2020 13:03
1,2-Dichlorobenzene	< 314	ug/Kg		8/4/2020 13:03
1,3-Dichlorobenzene	< 314	ug/Kg		8/4/2020 13:03
1,4-Dichlorobenzene	< 314	ug/Kg		8/4/2020 13:03
2,2-Oxybis (1-chloropropane)	< 314	ug/Kg		8/4/2020 13:03
2,3,4,6-Tetrachlorophenol	< 314	ug/Kg		8/4/2020 13:03
2,4,5-Trichlorophenol	< 314	ug/Kg		8/4/2020 13:03
2,4,6-Trichlorophenol	< 314	ug/Kg		8/4/2020 13:03
2,4-Dichlorophenol	< 314	ug/Kg		8/4/2020 13:03
2,4-Dimethylphenol	< 314	ug/Kg		8/4/2020 13:03
2,4-Dinitrophenol	< 1260	ug/Kg		8/4/2020 13:03
2,4-Dinitrotoluene	< 314	ug/Kg		8/4/2020 13:03
2,6-Dinitrotoluene	< 314	ug/Kg		8/4/2020 13:03
2-Chloronaphthalene	< 314	ug/Kg		8/4/2020 13:03
2-Chlorophenol	< 314	ug/Kg		8/4/2020 13:03
2-Methylnaphthalene	< 314	ug/Kg		8/4/2020 13:03
2-Methylphenol	< 314	ug/Kg		8/4/2020 13:03
2-Nitroaniline	< 314	ug/Kg		8/4/2020 13:03
2-Nitrophenol	< 314	ug/Kg		8/4/2020 13:03
3&4-Methylphenol	< 314	ug/Kg		8/4/2020 13:03
3,3'-Dichlorobenzidine	< 314	ug/Kg		8/4/2020 13:03

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.



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier:	BF 1			
Lab Sample ID:	203558-01		Date Sampled:	7/30/2020
Matrix:	Soil		Date Received:	7/30/2020
3-Nitroaniline	< 314	ug/Kg	8/4/2020	13:03
4,6-Dinitro-2-methylphenol	< 628	ug/Kg	8/4/2020	13:03
4-Bromophenyl phenyl ether	< 314	ug/Kg	8/4/2020	13:03
4-Chloro-3-methylphenol	< 314	ug/Kg	8/4/2020	13:03
4-Chloroaniline	< 314	ug/Kg	8/4/2020	13:03
4-Chlorophenyl phenyl ether	< 314	ug/Kg	8/4/2020	13:03
4-Nitroaniline	< 314	ug/Kg	8/4/2020	13:03
4-Nitrophenol	< 314	ug/Kg	8/4/2020	13:03
Acenaphthene	< 314	ug/Kg	8/4/2020	13:03
Acenaphthylene	< 314	ug/Kg	8/4/2020	13:03
Acetophenone	< 314	ug/Kg	8/4/2020	13:03
Anthracene	< 314	ug/Kg	8/4/2020	13:03
Atrazine	< 314 <i>UJ</i>	ug/Kg	8/4/2020	13:03
Benzaldehyde	< 314	ug/Kg	8/4/2020	13:03
Benzo (a) anthracene	< 314	ug/Kg	8/4/2020	13:03
Benzo (a) pyrene	< 314	ug/Kg	8/4/2020	13:03
Benzo (b) fluoranthene	< 314	ug/Kg	8/4/2020	13:03
Benzo (g,h,i) perylene	< 314	ug/Kg	8/4/2020	13:03
Benzo (k) fluoranthene	< 314	ug/Kg	8/4/2020	13:03
Bis (2-chloroethoxy) methane	< 314	ug/Kg	8/4/2020	13:03
Bis (2-chloroethyl) ether	< 314	ug/Kg	8/4/2020	13:03
Bis (2-ethylhexyl) phthalate	< 314	ug/Kg	8/4/2020	13:03
Butylbenzylphthalate	< 314	ug/Kg	8/4/2020	13:03
Caprolactam	< 314	ug/Kg	8/4/2020	13:03
Carbazole	< 314	ug/Kg	8/4/2020	13:03

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.



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier:	BF 1			
Lab Sample ID:	203558-01		Date Sampled:	7/30/2020
Matrix:	Soil		Date Received:	7/30/2020
Chrysene	< 314	ug/Kg	8/4/2020	13:03
Dibenz (a,h) anthracene	< 314	ug/Kg	8/4/2020	13:03
Dibenzofuran	< 314	ug/Kg	8/4/2020	13:03
Diethyl phthalate	< 314	ug/Kg	8/4/2020	13:03
Dimethyl phthalate	< 314	ug/Kg	8/4/2020	13:03
Di-n-butyl phthalate	< 314	ug/Kg	8/4/2020	13:03
Di-n-octylphthalate	< 314	ug/Kg	8/4/2020	13:03
Fluoranthene	< 314	ug/Kg	8/4/2020	13:03
Fluorene	< 314	ug/Kg	8/4/2020	13:03
Hexachlorobenzene	< 314	ug/Kg	8/4/2020	13:03
Hexachlorobutadiene	< 314	ug/Kg	8/4/2020	13:03
Hexachlorocyclopentadiene	< 1260	UJ ug/Kg	8/4/2020	13:03
Hexachloroethane	< 314	ug/Kg	8/4/2020	13:03
Indeno (1,2,3-cd) pyrene	< 314	ug/Kg	8/4/2020	13:03
Isophorone	< 314	ug/Kg	8/4/2020	13:03
Naphthalene	< 314	ug/Kg	8/4/2020	13:03
Nitrobenzene	< 314	ug/Kg	8/4/2020	13:03
N-Nitroso-di-n-propylamine	< 314	ug/Kg	8/4/2020	13:03
N-Nitrosodiphenylamine	< 314	ug/Kg	8/4/2020	13:03
Pentachlorophenol	< 628	ug/Kg	8/4/2020	13:03
Phenanthrene	< 314	ug/Kg	8/4/2020	13:03
Phenol	< 314	ug/Kg	8/4/2020	13:03
Pyrene	< 314	ug/Kg	8/4/2020	13:03

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.

PESTICIDES
SAMPLE DATA



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier: BF 1

Lab Sample ID: 203558-01

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 3.40 <i>UJ</i>	ug/Kg		7/31/2020 21:42
4,4-DDE	< 3.40	ug/Kg		7/31/2020 21:42
4,4-DDT	< 3.40	ug/Kg		7/31/2020 21:42
Aldrin	< 3.40	ug/Kg		7/31/2020 21:42
alpha-BHC	< 3.40	ug/Kg		7/31/2020 21:42
beta-BHC	< 3.40	ug/Kg		7/31/2020 21:42
cis-Chlordane	< 3.40	ug/Kg		7/31/2020 21:42
delta-BHC	< 3.40	ug/Kg		7/31/2020 21:42
Dieldrin	< 3.40	ug/Kg		7/31/2020 21:42
Endosulfan I	< 3.40	ug/Kg		7/31/2020 21:42
Endosulfan II	< 3.40	ug/Kg		7/31/2020 21:42
Endosulfan Sulfate	< 3.40	ug/Kg		7/31/2020 21:42
Endrin	< 3.40	ug/Kg		7/31/2020 21:42
Endrin Aldehyde	< 3.40	ug/Kg		7/31/2020 21:42
Endrin Ketone	< 3.40	ug/Kg		7/31/2020 21:42
gamma-BHC (Lindane)	< 3.40	ug/Kg		7/31/2020 21:42
Heptachlor	2.37 <i>J</i>	ug/Kg	J	7/31/2020 21:42
Heptachlor Epoxide	< 3.40 <i>UJ</i>	ug/Kg		7/31/2020 21:42
Methoxychlor	< 3.40	ug/Kg		7/31/2020 21:42
Toxaphene	< 34.0	ug/Kg		7/31/2020 21:42
trans-Chlordane	< 3.40	ug/Kg		7/31/2020 21:42

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.



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier: BF 1

Lab Sample ID: 203558-01

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
Decachlorobiphenyl (1)	31.8	33.3 - 107	*	7/31/2020	21:42
Tetrachloro-m-xylene (1)	20.4	28.5 - 99.8	*	7/31/2020	21:42
Method Reference(s):	EPA 8081B				
	EPA 3546				
Preparation Date:	7/31/2020				

MKP 10/7/2020

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.

PCBS
SAMPLE DATA



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier: BF 1

Lab Sample ID: 203558-01

Matrix: Soil

Date Sampled: 7/30/2020

Date Received: 7/30/2020

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0340	mg/Kg		8/1/2020 04:52
PCB-1221	< 0.0340	mg/Kg		8/1/2020 04:52
PCB-1232	< 0.0340	mg/Kg		8/1/2020 04:52
PCB-1242	< 0.0340	mg/Kg		8/1/2020 04:52
PCB-1248	< 0.0340	mg/Kg		8/1/2020 04:52
PCB-1254	< 0.0340	mg/Kg		8/1/2020 04:52
PCB-1260	< 0.0340	mg/Kg		8/1/2020 04:52
PCB-1262	< 0.0340	mg/Kg		8/1/2020 04:52
PCB-1268	< 0.0340	mg/Kg		8/1/2020 04:52

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Tetrachloro-m-xylene	35.7	18.2 - 85.6		8/1/2020 04:52

Method Reference(s): EPA 8082A
EPA 3546
Preparation Date: 7/31/2020

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.

METALS DATA



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier: BF 1

Lab Sample ID: 203558-01

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

Metals

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	4.75	mg/Kg		8/4/2020 20:44
Barium	31.6	mg/Kg		8/4/2020 20:44
Beryllium	0.203	mg/Kg	J	8/4/2020 20:44
Cadmium	1.70	mg/Kg		8/4/2020 20:44
Chromium	9.54	mg/Kg		8/4/2020 20:44
Copper	20.0	mg/Kg		8/4/2020 20:44
Lead	9.34	mg/Kg		8/4/2020 20:44
Manganese	288	mg/Kg	M	8/4/2020 20:44
Nickel	17.5	mg/Kg		8/4/2020 20:44
Selenium	< 1.21	mg/Kg		8/4/2020 20:44
Silver	< 0.603	mg/Kg		8/4/2020 20:44
Zinc	53.1	mg/Kg		8/5/2020 19:30

Method Reference(s): EPA 6010C

EPA 3050B

Preparation Date:

8/3/2020

Data File:

200804B

MKP 10/7/2020

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.



August 27, 2020

Service Request No:R2006788

Paradigm Environmental Services, Inc.
179 Lake Avenue
Rochester, NY 14608

Laboratory Results for: 203558

Dear Reporting,

Enclosed are the results of the sample(s) submitted to our laboratory July 31, 2020
For your reference, these analyses have been assigned our service request number **R2006788**.

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at Brady.Kalkman@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Brady Kalkman
Project Manager

ADDRESS

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

PHONE +1 585 288 5380 | **FAX** +1 585 288 8475

ALS Group USA, Corp.
dba ALS Environmental

Client: Paradigm Environmental Services, Inc.
Project: 203558
Sample Matrix: Soil

Service Request: R2006788
Date Received: 07/31/2020

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level IV requested by the client.

Sample Receipt:

One soil sample was received for analysis at ALS Environmental on 07/31/2020. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Subcontracted Analytical Parameters:

One or more samples were subcontracted to another laboratory for testing. The certified analytical report from the subcontractor has been included in its entirety at the end of this report and includes the name and address of the subcontracted laboratory.

Approved by



Date

08/27/2020



CHAIN OF CUSTODY

 10/1
 ALS: ELAP ID: 10145

REPORT TO:				INVOICE TO:				LAB PROJECT #:		CLIENT PROJECT #:			
COMPANY: Paradigm Environmental				COMPANY: Same									
ADDRESS:				ADDRESS:									
CITY:		STATE:		ZIP:		CITY:		STATE:		ZIP:			
PHONE:		FAX:		PHONE:		FAX:							
PROJECT NAME/SITE NAME:				ATTN: Reporting				ATTN: Accounts Payable					
				COMMENTS: Please email results to reporting@paradigmenv.com				TURNAROUND TIME: (WORKING DAYS) Standard STD <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 5 <input type="checkbox"/> OTHER					
								Date Due:					
								REQUESTED ANALYSIS report J Flays ASPCat B package due 8/21 SW 846 HTS report as dry wt REMARKS					
DATE	TIME	C O M P O S I T E	G R A B	SAMPLE LOCATION/FIELD ID	M A T R I X	C O N T A I N E R						PARADIGM LAB SAMPLE NUMBER	
1 7/30/2020	1220			BF1	SO:1	2	X						203556
2													203558-01
3													
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 <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		
Preservation:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		
Holding Time:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		
Temperature:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		

Client		
Sampled By	Date/Time	
<i>Emily Farmer</i>	7/31/2020	
Relinquished By	Date/Time	
<i>Douglas Dale</i>	7-31-20 0845	
Received By	Date/Time	
<i>Aug 1/20</i>	7/31/2020 0849	
Received @ Lab By	Date/Time	



Total Cost:

P.I.F.



Subcontracted Analytical Parameters

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com



August 26, 2020

Brady Kalkman
ALS Environmental
1565 Jefferson Rd
Bldg 300
Rochester, NY 14623

Re: **R2006788**

Work Order: **20080315**

Dear Brady,

ALS Environmental received 1 sample(s) on Aug 05, 2020 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 270.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

Ehrland Bosworth
/S/ Ehrland Bosworth

Ehrland Bosworth
Project Manager

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company



Client: ALS Environmental
Project: R2006788
Work Order: 20080315

Case Narrative**Analytical Comments:**

Batch 161297, Method LCMS_D7968_S, Sample 20080315-01AMS: The MS recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte: PFTeA, PFTriA, passes in MSD.

Batch 161297, Method LCMS_D7968_S, Sample 20080315-01AMSD: The RPD between the MS and MSD was outside the control limit. The corresponding result in the parent sample should be considered estimated for this analyte: NMeFOSAA

Batch 161297, Method LCMS_D7968_S, Sample LCS1-161297: The LCS recovery was below the lower control limit. The sample results for this analyte may be biased low for this analyte: PFBS, however passes QC criteria.

Batch 161297, Method LCMS_D7968_S, Sample LCS1-161297: PFDS ion ratio failed low. PFOS ion ratio failed low.

Batch 161297, Method LCMS_D7968_S, Sample LCS2-161297: NEtFOSAA ion ratio failed high.

Batch 161297, Method LCMS_D7968_S, Sample LCS3-161297: The LCS recovery was below the lower control limit. The sample results for this analyte may be biased low for this analyte: HFPO-DA, however passes QC criteria.

Client: ALS Environmental
Project: R2006788
Work Order: 20080315

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
20080315-01	203558-01 BF1	Soil		7/30/2020 12:20	8/5/2020 10:30	<input type="checkbox"/>



Sample Results

ALS Enviromental – Holland Laboratory
3352 128th Avenue, Holland, MI 49424
Phone (616) 399-6070 Fax (616) 399-6185
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS - ROCHESTER
Project: R2006788
Sample Matrix: Soil

Service Request: 20080315
Date Collected: 07/30/20 12:20
Date Received: 08/05/20 10:30

Sample Name: 203558-01 BF1
Lab Code: 20080315-01

Units: ng/Kg-dry
Basis: Dry

Organic LC

Analysis Method: D7968-17a
Prep Method: D7968-17a

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluorobutanoic Acid (PFBA)	150 U	150	1	08/11/20 18:35	08/11/20 17:00	
Perfluoropentanoic Acid (PFPeA)	29 J	150	1	08/11/20 18:35	08/11/20 17:00	
Perfluorohexanoic Acid (PFHxA)	150 U	150	1	08/11/20 18:35	08/11/20 17:00	
Perfluoroheptanoic Acid (PFHpA)	150 U	150	1	08/11/20 18:35	08/11/20 17:00	
Perfluorooctanoic Acid (PFOA)	20 J	29	1	08/11/20 18:35	08/11/20 17:00	
Perfluorononanoic Acid (PFNA)	17 J 29 UJ	29	1	08/11/20 18:35	08/11/20 17:00	
Perfluorodecanoic Acid (PFDA)	150 U	150	1	08/11/20 18:35	08/11/20 17:00	
Perfluoroundecanoic Acid (PFUnA)	150 U	150	1	08/11/20 18:35	08/11/20 17:00	
Perfluorododecanoic Acid (PFDoA)	150 U	150	1	08/11/20 18:35	08/11/20 17:00	
Perfluorotridecanoic Acid (PFTriA)	150 U UJ	150	1	08/11/20 18:35	08/11/20 17:00	
Perfluorotetradecanoic Acid (PFTeA)	150 U UJ	150	1	08/11/20 18:35	08/11/20 17:00	
Perfluorobutanesulfonic Acid (PFBS)	29 U UJ	29	1	08/11/20 18:35	08/11/20 17:00	
Perfluorohexanesulfonic Acid (PFHxS)	150 U	150	1	08/11/20 18:35	08/11/20 17:00	
Perfluoroheptanesulfonic Acid (PFHpS)	150 U	150	1	08/11/20 18:35	08/11/20 17:00	
Perfluorooctanesulfonic Acid (PFOS)	48	29	1	08/11/20 18:35	08/11/20 17:00	
Perfluorodecanesulfonic Acid (PFDS)	29 U	29	1	08/11/20 18:35	08/11/20 17:00	
Fluorotelomer Sulphonic Acid 6:2 (FtS 6:2)	150 U	150	1	08/11/20 18:35	08/11/20 17:00	
Fluorotelomer Sulphonic Acid 8:2 (FtS 8:2)	150 U	150	1	08/11/20 18:35	08/11/20 17:00	
Perfluorooctanesulfonamide (PFOSA)	29 U	29	1	08/11/20 18:35	08/11/20 17:00	
N-Ethylperfluorooctanesulfonamidoacetic Acid	150 U	150	1	08/11/20 18:35	08/11/20 17:00	

MKP 10/7/2020

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS - ROCHESTER
Project: R2006788
Sample Matrix: Soil

Service Request: 20080315
Date Collected: 07/30/20 12:20
Date Received: 08/05/20 10:30

Sample Name: 203558-01 BF1
Lab Code: 20080315-01

Units: ng/Kg-dry
Basis: Dry

Organic LC

Analysis Method: D7968-17a
Prep Method: D7968-17a

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
N-Methylperfluorooctanesulfo namidoacetic Acid	150 U	150	1	08/11/20 18:35	08/11/20 17:00	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C4-PFBA	100	50 - 130	08/11/20 18:35	
13C5-PFPeA	101	50 - 130	08/11/20 18:35	
13C2-PFHxA	101	50 - 130	08/11/20 18:35	
13C4-PFHpA	98.5	50 - 130	08/11/20 18:35	
13C4-PFOA	98.4	70 - 130	08/11/20 18:35	
13C5-PFNA	104	70 - 130	08/11/20 18:35	
13C2-PFDA	106	70 - 130	08/11/20 18:35	
13C2-PFUnA	101	70 - 130	08/11/20 18:35	
13C2-PFDoA	96.8	70 - 130	08/11/20 18:35	
13C2-PFTeA	55.0	50 - 130	08/11/20 18:35	
13C3-PFBS	93.1	50 - 130	08/11/20 18:35	
18O2-PFHxS	104	70 - 130	08/11/20 18:35	
13C4-PFOS	99.9	70 - 130	08/11/20 18:35	
13C2-FtS 4:2	76.6	50 - 130	08/11/20 18:35	
13C2-FtS 6:2	85.4	50 - 130	08/11/20 18:35	
13C2-FtS 8:2	90.1	50 - 130	08/11/20 18:35	
13C8-FOSA	103	50 - 130	08/11/20 18:35	
d3-N-MeFOSAA	105	50 - 130	08/11/20 18:35	
d5-N-EtFOSAA	106	50 - 130	08/11/20 18:35	
13C3-HFPO-DA	85.4	50 - 130	08/11/20 18:35	



Experience is the solution

314 North Pearl Street ♦ Albany, New York 12207
(800) 848-4983 ♦ (518) 434-4546 ♦ Fax (518) 434-0891

September 02, 2020

Sarah Conlon
Paradigm Environmental
179 Lake Avenue
Rochester, NY 14608
TEL: (800) 724-1997

Work Order No: 200731032

RE: Sample Analysis
Tonowanda BIO-Soil

Project# : 203558

Dear Sarah Conlon:

"I certify that this data package is in compliance with the terms and conditions of the protocol, both technically and for completeness, to the best of my knowledge, for other than the conditions detailed in the Case Narrative. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Director or his designee, as verified by the following signature."

A handwritten signature in black ink, appearing to read "Tara Daniels", is written over a horizontal line.

Tara Daniels
Laboratory Director

Workorder Sample Summary

Client: Paradigm Environmental

Work Order: 200731032

ProjectName: Sample Analysis

ProjLocation: Tonowanda BIO-Soil

AES Sample No	ClientSampID	Matrix	CollectionDate	DateReceived
200731032-001	BF-1	Soil	7/30/2020 12:20:00 PM	7/31/2020



Experience is the Solution

314 North Pearl Street • Albany, New York 12207 • (518) 434-4546 • Fax (518) 434-0891
www.adirondackenvironmental.com

Case Narrative

Client: Paradigm Environmental Services

Case: 200731032

SDG: BF1

Herbicides

- 1) The samples received on were analyzed for Silvex by EPA Method 8321B.
- 2) The sample bottles were not supplied by Adirondack Environmental Services.
- 3) The samples received on 7/31/20 had a temperature of 3 °C.
- 4) Peak height was used to calculate all values appearing in this data package.
- 5) The primary quantitation column is identified as C8.
- 6) AES sample number 200731026-001 was used for the matrix spike and the matrix spike duplicate analysis. All other recoveries were within acceptable limits.

Inorganics – Total Mercury

- 1) The samples were analyzed for Total Mercury as specified on the chain of custody.
- 2) Sample BF1 (AES sample number 200731032-001) was used as the Mercury matrix spike sample. All recoveries were within acceptable limits.
- 3) Sample BF1 (AES sample number 200731032-001) was used as the Mercury duplicate sample. All recoveries were within acceptable limits.

Inorganics

- 1) This project required the analysis of Hexavalent Chromium by EPA 3060A/7196A.
- 2) AES sample number 200728066-002 was used as the soil matrix spike sample for Hexavalent Chromium. The recovery for the soluble Hexavalent Chromium spike was below the acceptable limits. The recovery for the insoluble Hexavalent Chromium spike was below the acceptable limits. This sample is from a separate project, the sample from this project is not flagged.



Experience is the Solution

314 North Pearl Street • Albany, New York 12207 • (518) 434-4546 • Fax (518) 434-0891
www.adirondackenvironmental.com

- 3) AES sample number 200731035-002 was used for the duplicate sample. All recoveries were within acceptable limits.
- 4) AES sample number 200803044-008 was used as the soil duplicate sample for Percent Moisture. The recovery was outside the specified limits. This sample was from a different project. No samples in this project are flagged.

“I certify that this data package is in compliance with the terms and conditions of the protocol, both technically and for completeness, to the best of my knowledge, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.”

A handwritten signature in black ink, appearing to read "Tara Davis", is written above a horizontal line.

Laboratory Director

Date: 9/2/2020



10/1

ADIRONDACK: ELAP ID

PROJECT NAME/SITE NAME:
31/150 Tonowanda
BIO-soil

Date Due: 8/17/2020 report I Flags Asp Cat B package in SW 846 HHS report as dry UT	PAF SAM
REMARKS	

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

Client	
Sampled By	Date/Time
Molly Kail	7/31/2020 0830
Relinquished By	Date/Time
Received By	Date/Time
Kraz	7/31/20 446p
Received @ Lab By	Date/Time

Total Cost:

P.I.F.



260167007

Adirondack Environmental Services, Inc**Date:** 05-Aug-20**CLIENT:** Paradigm Environmental**Client Sample ID:** BF-1**Work Order:** 200731032**Collection Date:** 7/30/2020 12:20:00 PM**Reference:** Sample Analysis / Tonowanda BIO-Soil**Lab Sample ID:** 200731032-001**PO#:****Matrix:** SOIL**Project# :** 203558

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
CHLORINATED HERBICIDES - EPA 8321B						Analyst: KF
(Prep: SW3545A - 7/31/2020)						
2,4,5-TP (Silvex)	ND	344		µg/Kg-dry	1	8/3/2020 5:03:48 PM
Surr: Acifluorfen	178	51.2-145	S	%REC	1	8/3/2020 5:03:48 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
X - Value exceeds Maximum Contaminant Level
E - Value above quantitation range-Estimate

S - LCS Spike below accepted limits (+ above)
Z - RPD outside accepted recovery limits
N - Matrix Spike below accepted limits (+ above)
T - Tentatively Identified Compound-Estimated Conc.

Adirondack Environmental Services, Inc**Date:** 05-Aug-20**CLIENT:** Paradigm Environmental**Client Sample ID:** BF-1**Work Order:** 200731032**Collection Date:** 7/30/2020 12:20:00 PM**Reference:** Sample Analysis / Tonowanda BIO-Soil**Lab Sample ID:** 200731032-001**PO#:****Matrix:** SOIL**Project# :** 203558

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MERCURY - SW 7471B						Analyst: AVB
(Prep: SW7471B - 8/3/2020)						
Mercury	ND	0.229		µg/g-dry	1	8/3/2020 3:09:35 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
X - Value exceeds Maximum Contaminant Level
E - Value above quantitation range-Estimate

S - LCS Spike below accepted limits (+ above)
Z - RPD outside accepted recovery limits
N - Matrix Spike below accepted limits (+ above)
T - Tentatively Identified Compound-Estimated Conc.

Adirondack Environmental Services, Inc**Date:** 05-Aug-20**CLIENT:** Paradigm Environmental**Client Sample ID:** BF-1**Work Order:** 200731032**Collection Date:** 7/30/2020 12:20:00 PM**Reference:** Sample Analysis / Tonowanda BIO-Soil**Lab Sample ID:** 200731032-001**PO#:****Matrix:** SOIL**Project# :** 203558

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM - SW 7196A (3060A)						Analyst: JW
(Prep: SW3060A - 8/3/2020)						
Chromium, Hexavalent	ND	1.2		µg/g-dry	1	8/3/2020 3:40:00 PM
MOISTURE CONTENT-ASTM D2216 (NOT ELAP CERTIFIED)						Analyst: TSZ
Percent Moisture	12.7	0.1		wt%	1	8/4/2020

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
X - Value exceeds Maximum Contaminant Level
E - Value above quantitation range-Estimate

S - LCS Spike below accepted limits (+ above)
Z - RPD outside accepted recovery limits
N - Matrix Spike below accepted limits (+ above)
T - Tentitively Identified Compound-Estimated Conc.

Appendix B

Laboratory QC Documentation

2
VOLATILE SURROGATE RECOVERY

Lab Name: Paradigm Environmental Services
 Lab Project #: 203558
 Client Name: BE3
 Client Project Name: 31/150 Tonawanda BIO-Soil
 Client Project #: N/A
 SDG No.: 3558-01

Matrix: Soil
 QC Batch: voas200807

Instrument ID: Instrument1
 GC Column 1: DB-624 ID (mm): 0.20 Detector: MSD

	LAB SAMPLE NO.	CLIENT SAMPLE ID	PFB %REC	12DCed4 %REC	TD8 %REC	4BFB %REC	Total Out
1	Blk 1	N/A	105	75.7	98.4	75	0
2	LCS 1	N/A	102	84.9	110	109	0
3	203558-02	BF VOC 1	97.4	123	80.3 *	58.4 *	2
4	203558-03	BF VOC 2	94.1	120	79.8 *	56.2 *	2
5	203558-04	BF VOC 3	95.9	127	75.3 *	52.7 *	2
6	203558-05	BF VOC 4	99.9	126	80.4 *	62.5	1
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

QC LIMITS %

PFB = Pentafluorobenzene (88.8 - 118)
 12DCEd4 = 1,2-Dichloroethane-d4 (75 - 134)
 TD8 = Toluene-d8 (84 - 114)
 4BFB = 4-Bromofluorobenzene (59.5 - 129)

* Values outside of current required QC limits
 D Surrogate diluted out

VOLATILE INTERNAL STANDARD AREA and RT SUMMARY

Lab Name: Paradigm Environmental Services Sample ID: CCV
 Lab Project #: 203558 Lab File ID: x72366a.D
 Client Name: BE3
 Client Project Name: 31/150 Tonawanda BIO-Soil Date Analyzed: 8/7/2020
 Client Project #: N/A Time Analyzed: 11:38
 SDG No.: 3558-01 QC Batch: voas200807
 Instrument ID: Instrument1
 GC Column 1: DV-624 ID (mm): 0.20 Detector: MSD

CCV	IS1: FB		IS2: CBd5		IS3: 14DCBd4	
	Area	RT	Area	RT	AREA	RT
12 Hour Standard	206542	5.00	150040	7.95	85848	10.48
Upper Limit	413084	5.50	300080	8.45	171696	10.98
Lower Limit	103271	4.50	75020	7.45	42924	9.98

This CCV applies to the following Samples and QC

	Lab Sample No.	Client Sample ID	IS1: FB		IS2: CBd5		IS3: 14DCBd4	
			Area	RT	Area	RT	AREA	RT
1	Blk1	N/A	225095	5.01	152994	7.95	58988	10.49
2	LCS1	N/A	195617	5.01	140010	7.95	81663	10.48
3	203558-02	BF VOC 1	118605	5.01	59530 *	7.96	12675 *	10.49
4	203558-03	BF VOC 2	124404	5.01	64507 *	7.96	14661 *	10.49
5	203558-04	BF VOC 3	110057	5.01	48836 *	7.96	9128 *	10.49
6	203558-05	BF VOC 4	101095 *	5.01	56727 *	7.96	14586 *	10.49
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

IS1: FB = Fluorobenzene

IS2: CBd5 = Chlorobenzene-d5

IS3: 14DCBd4 = 1,4-Dichlorobenzene-d4

Notes: * Values outside of current required QC limits
 Area Limits = -50% to +100% of 12 Hour Standard area
 RT Limits = -0.50 to +0.50 minutes of 12 Hour Standard retention times

Method Path : C:\msdchem\1\METHODS\
 Method File : 200803.M
 Title : 8260/624 Analysis
 Last Update : Mon Aug 03 14:04:06 2020
 Response Via : Initial Calibration

8/3/2020 B13

Calibration Files

1 =x72208.D 2 =x72209.D 3 =x72210.D 4 =x72211.D 5 =x72212.D 6 =x72213.D 7 =x72214.D

Compound	1	2	3	4	5	6	7	Avg	%RSD
1) I Fluorobenzene	-----ISTD-----								
2) P Dichlorodifluo...	1.045	1.246	1.364	1.108	0.917	0.822	1.084	18.60	
3) P Chloromethane	1.257	1.470	1.652	1.305	1.093	1.019	0.997	1.256	19.35
4) P Vinyl chloride	0.782	1.065	1.299	1.179	1.042	0.962	0.958	1.041	15.99
5) P Bromomethane	1.000	0.957	0.984	0.776	0.641	0.597	0.589	0.792	23.60 *
6) P Chloroethane	0.745	0.842	0.920	0.750	0.626	0.577	0.575	0.719	18.52 *
7) P Trichlorofluor...	1.457	1.718	1.927	1.539	1.248	1.091	1.075	1.436	22.33
8) Ethyl ether	0.260	0.303	0.378	0.339	0.315	0.322	0.334	0.322	11.22
9) P Freon 113	0.854	1.046	1.155	0.938	0.760	0.671	0.658	0.869	21.70 *
10) P 1,1-Dichloroet...	0.954	1.211	1.401	1.187	0.988	0.881	0.882	1.072	18.45
11) P Acetone	0.586	0.189	0.224	0.164	0.141	0.134	0.138	0.225	72.08 *
12) Isopropyl Alcohol							0.000	-1.00	
13) P Carbon disulfide	1.643	2.034	2.413	2.130	1.799	1.640	1.634	1.899	15.92
14) P Methyl acetate	0.154	0.219	0.228	0.193	0.167	0.160	0.164	0.184	16.45
15) P Methylene chlo...	1.300	0.943	0.935	0.725	0.597	0.567	0.568	0.805	33.77 *
16) Acrylonitrile	0.141	0.133	0.139	0.108	0.096	0.092	0.096	0.115	18.87
17) tert-Butyl Alc...	0.016	0.014	0.013	0.012	0.011	0.012	0.013	0.013	10.88
18) P Methyl tert-bu...	0.484	0.769	0.871	0.776	0.733	0.750	0.784	0.738	16.32
19) P trans-1,2-Dich...	0.931	1.188	1.343	1.101	0.929	0.840	0.838	1.024	18.73
20) P 1,1-Dichloroet...	1.376	1.727	1.919	1.569	1.335	1.233	1.206	1.481	18.06
21) Vinyl acetate	0.424	0.459	0.551	0.533	0.571	0.597	0.620	0.537	13.34
22) 2,2-Dichloropr...	0.826	1.018	1.228	1.088	0.980	0.933	0.948	1.003	12.73
23) P 2-Butanone	0.040	0.041	0.055	0.050	0.046	0.046	0.047	0.046#	10.99
24) P cis-1,2-Dichlo...	0.594	0.795	0.977	0.883	0.792	0.763	0.768	0.796	14.79
25) Bromochloromet...	0.258	0.323	0.388	0.322	0.276	0.267	0.266	0.300	15.76
26) P Chloroform	1.244	1.598	1.798	1.484	1.244	1.161	1.143	1.382	18.08
27) S Pentafluoroben...	0.526	0.519	0.537	0.550	0.551	0.561	0.545	0.541	2.74
28) Tetrahydrofuran	0.054	0.037	0.042	0.046	0.048	0.052	0.058	0.048	15.01
29) P 1,1,1-Trichlor...	0.960	1.300	1.552	1.345	1.159	1.082	1.078	1.211	16.58
30) P Cyclohexane		1.137	1.538	1.724	1.413	1.356	1.320	1.415	14.16
31) S 1,2-Dichloroet...	0.262	0.257	0.242	0.221	0.206	0.194	0.186	0.224	13.61
32) P Carbon Tetrach...	0.857	1.132	1.371	1.189	1.031	0.949	0.931	1.066	16.66
33) P Benzene	2.192	3.028	3.859	3.374	2.883	2.686	2.602	2.946	18.50
34) P 1,2-Dichloroet...	0.624	0.827	0.931	0.742	0.631	0.602	0.593	0.707	18.49
35) P Trichloroethene	0.550	0.700	0.860	0.822	0.770	0.754	0.764	0.746	13.42
36) tert-Butyl Ace...							0.000	-1.00	
37) P Methylcyclohexane	0.519	0.754	1.393	1.563	1.451	1.347	1.362	1.190	33.06 *
38) 1,4-Dioxane		0.003	0.003	0.003	0.004	0.004	0.003	11.51	RF < 0.005

*curve is not avg. of response factors

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\200804\
 Data File : B48360.D
 Acq On : 4 Aug 2020 9:40 am
 Operator : A. Monfette
 Sample : CCV 50PPM 8270 + PyrMulti
 Misc :
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 04 10:25:13 2020
 Quant Method : C:\msdchem\1\methods\ABN200729A.M
 Quant Title :
 QLast Update : Mon Aug 03 12:06:51 2020
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area	Dev(min)
46 P	Dibenzofuran	50.000	52.513	-5.0	148	0.00
47 P	Diethyl phthalate	50.000	52.659	-5.3	149	0.00
48 P	Dimethyl phthalate	50.000	53.024	-6.0	148	0.00
49 PM	2,4-Dinitrophenol	50.000	43.037	13.9	129	0.00
50 PM	2,4-Dinitrotoluene	50.000	54.764	-9.5	150	0.00
51 P	2,6-Dinitrotoluene	50.000	53.874	-7.7	150	0.00
52 P	Fluorene	50.000	53.193	-6.4	145	0.00
53 S	2-Fluorobiphenyl	50.000	52.790	-5.6	147	0.00
54 P	Hexachlorocyclopentadiene	50.000	25.219	↓ 49.6#	66	0.00
55 P	2-Nitroaniline	50.000	55.086	10.2	151	0.00
56 P	3-Nitroaniline	50.000	53.953	-7.9	151	0.00
57 P	4-Nitroaniline	50.000	55.693	-11.4	155	0.01
58 PM	4-Nitrophenol	50.000	55.278	-10.6	159	0.02
59 S	2,4,6-Tribromophenol	100.000	105.749	-5.7	147	0.00
60 PM	2,4,6-Trichlorophenol	50.000	51.017	-2.0	140	0.00
61 P	2,4,5-Trichlorophenol	50.000	50.911	-1.8	140	0.01
62 P	2,3,4,6-Tetrachlorophenol	50.000	47.628	↓ 4.7	135	0.00
63 P	Atrazine	50.000	4.051	↓ 91.9#	14	0.00
64 I	Phenanthrene-d10	40.000	40.000	0.0	143	0.00
65 P	4-Bromophenyl phenyl ether	50.000	52.006	-4.0	145	0.00
66 P	Di-n-butyl phthalate	50.000	55.914	-11.8	152	0.00
67 PM	4,6-Dinitro-2-methylphenol	50.000	45.184	9.6	138	0.01
68 P	Fluoranthene	50.000	53.422	-6.8	146	0.00
69 P	Hexachlorobenzene	50.000	52.098	-4.2	146	0.00
70 P	N-Nitrosodiphenylamine	50.000	53.016	-6.0	146	0.00
71 PM	Pentachlorophenol	50.000	41.612	16.8	121	0.00
72 P	Anthracene	50.000	51.943	-3.9	143	0.00
73 P	Phenanthrene	50.000	51.472	-2.9	145	0.00
74 P	Carbazole	50.000	53.151	-6.3	148	0.00
75 P	Benzo (a) anthracene	50.000	54.011	-8.0	149	0.00
76 I	Chrysene-d12	40.000	40.000	0.0	139	0.00
77	Benzidine	50.000	78.641	↑ -57.3#	0	0.00
78 P	Bis (2-ethylhexyl) phthalat	50.000	58.136	-16.3	155	0.00
79 P	Butylbenzylphthalate	50.000	57.292	-14.6	154	0.00
80 P	Chrysene	50.000	52.567	-5.1	143	0.01
81 P	3,3'-Dichlorobenzidine	50.000	59.022	-18.0	164	0.00
82 PM	Pyrene	50.000	53.545	-7.1	146	0.00
83 S	Terphenyl-d14	50.000	53.575	-7.2	147	0.00
84 I	Perylene-d12	40.000	40.000	0.0	142	0.01
85 P	Benzo (b) fluoranthene	50.000	51.882	-3.8	143	0.00
86 P	Benzo (k) fluoranthene	50.000	55.819	-11.6	150	0.00
87 P	Benzo (g,h,i) perylene	50.000	54.326	-8.7	149	0.01
88 P	Benzo (a) pyrene	50.000	55.231	-10.5	147	0.00
89 P	Dibenz (a,h) anthracene	50.000	54.587	-9.2	145	0.01

NT

2
PESTICIDE SURROGATE RECOVERY

Lab Name: Paradigm Environmental Services
 Lab Project #: 203558
 Client Name: BE3
 Client Project Name: 31/150 Tonawanda BIO-Soil
 Client Project #: N/A
 SDG No.: 3558-01

Matrix: Soil
 QC Batch: QC200731PESTS

Instrument ID: Dual ECD 1
 GC Column 1: Rtx-CLPesticides1 ID (mm): 0.32 Detector: ECD1

	LAB SAMPLE NO.	CLIENT SAMPLE ID	TCmX (%Recovery)	DCBP (%Recovery)	Total Out
1	Blk 1	N/A	46.9	71.6	0
2	LCS 1	N/A	45.9	124 *	1
3	LCS Tox	N/A	55.6	61.5	0
4	203558-01	BF 1	20.4 *	31.8 *	2
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					

QC LIMITS %
 (28.5 - 99.8)
 (33.3 - 107)

TCmX = Tetrachloro-m-xylene
 DCBP = Decachlorobiphenyl

* Values outside of current required QC limits
 D Surrogate diluted out



QC Report for Sample Spike and Sample Duplicate

Client: **BE3**
Project Reference: 31/150 Tonawanda BIO-Soil

SDG #: 3558-01
Lab Project ID: 203558

Lab Sample ID: 203558-01
Sample Identifier: BF 1
Matrix: Soil

Date Sampled: 7/30/2020
Date Received: 7/30/2020

Metals

	Sample	Result	Spike	Spike	Spike %	% Rec	Spike	Duplicate	Relative %	RPD	RPD	Date
Analyte	Results	Units	Added	Result	Recovery	Limits	Outliers	Result	Difference	Limit	Outliers	Analyzed
Arsenic	4.75	mg/Kg	141	126	86.1	75 - 125		4.39	7.86	20		8/4/2020
Barium	31.6	mg/Kg	141	158	89.7	75 - 125		34.2	8.00	20		8/4/2020
Beryllium	0.203	mg/Kg	28.2	23.4	82.3	75 - 125		0.175	NC	20		8/4/2020
Cadmium	1.70	mg/Kg	56.4	48.5	82.9	75 - 125		1.63	4.22	20		8/4/2020
Chromium	9.54	mg/Kg	141	127	83.6	75 - 125		10.9	13.1	20		8/4/2020
Copper	20.0	mg/Kg	141	138	83.7	75 - 125		19.1	4.98	20		8/4/2020
Lead	9.34	mg/Kg	141	126	82.5	75 - 125		9.50	1.72	20		8/4/2020
Manganese	288	mg/Kg	56.4 +	299	19.2	75 - 125	*	287	0.396	20		8/4/2020
Nickel	17.5	mg/Kg	282	234	76.8	75 - 125		15.7	11.2	20		8/4/2020
Selenium	< 1.21	mg/Kg	141	111	78.9	75 - 125		<1.14	NC	20		8/4/2020
Silver	< 0.603	mg/Kg	14.1	12.2	86.3	75 - 125		<0.569	NC	20		8/4/2020
Zinc	53.1	mg/Kg	141	162	77.1	75 - 125		50.3	5.46	20		8/5/2020

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.

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.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: ALS - ROCHESTER
Project: R2006788
Sample Matrix: Soil

Service Request: 20080315
Date Collected: N/A
Date Received: N/A
Date Analyzed: 08/11/2020
Date Extracted: 08/11/2020

Matrix Spike Summary
Organic LC

Sample Name: 203558-01 BF1
Lab Code: 203558-01 BF1
Analysis Method: D7968-17a
Prep Method: D7968-17a

Units: ng/Kg
Basis: Wet

20080315-01AMS

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Perfluorobutanoic Acid (PFBA)	7.029	427.5	490.2	85.8	50-130
Perfluoropentanoic Acid (PFPeA)	24.95	489.3	490.2	94.7	70-130
Perfluorohexanoic Acid (PFHxA)	5.145	391.7	490.2	78.8	50-130
Perfluoroheptanoic Acid (PFHpA)	16.13	432.9	490.2	85.0	50-130
Perfluorooctanoic Acid (PFOA)	17.14	429.8	490.2	84.2	70-130
Perfluorononanoic Acid (PFNA)	15.14	431.8	490.2	85.0	70-130
Perfluorodecanoic Acid (PFDA)	9.579	435.3	490.2	86.9	70-130
Perfluoroundecanoic Acid (PFUnA)	3.702	418.7	490.2	84.7	70-130
Perfluorododecanoic Acid (PFDoA)	1.516	385.9	490.2	78.4	70-130
Perfluorotridecanoic Acid (PFTriA)	0	315.8 S	490.2	64.4 *	70-130
Perfluorotetradecanoic Acid (PFTeA)	2.328	299 S	490.2	60.5 *	70-130
Perfluorobutanesulfonic Acid (PFBS)	0	344.9	433.3	79.6	70-130
Perfluorohexanesulfonic Acid (PFHxS)	0	337.9	446.1	75.7	70-130
Perfluoroheptanesulfonic Acid (PFHpS)	0	396.7	466.7	85.0	70-130
Perfluorooctanesulfonic Acid (PFOS)	42.02	442.4	454.9	88.0	70-130
Perfluorodecanesulfonic Acid (PFDS)	0	357.1	472.5	75.6	70-130
Fluorotelomer Sulphonic Acid 6:2 (FtS 6:2)	0	444.6	464.7	95.7	70-130
Fluorotelomer Sulphonic Acid 8:2 (FtS 8:2)	17.08	495.9	469.6	102	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS - ROCHESTER
Project: R2006788
Sample Matrix: Soil

Service Request: 20080315
Date Collected: NA
Date Received: NA

Sample Name: MBLK2-161297
Lab Code: MBLK2-161297

Units: ng/Kg
Basis: Wet

Organic LC

Analysis Method: D7968-17a
Prep Method: D7968-17a

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluorobutanoic Acid (PFBA)	120 U	120	1	08/11/20 17:53	08/11/20 17:00	
Perfluoropentanoic Acid (PFPeA)	120 U	120	1	08/11/20 17:53	08/11/20 17:00	
Perfluorohexanoic Acid (PFHxA)	120 U	120	1	08/11/20 17:53	08/11/20 17:00	
Perfluoroheptanoic Acid (PFHpA)	120 U	120	1	08/11/20 17:53	08/11/20 17:00	
Perfluorooctanoic Acid (PFOA)	25 U	25	1	08/11/20 17:53	08/11/20 17:00	
Perfluorononanoic Acid (PFNA)	14.96 J	25	1	08/11/20 17:53	08/11/20 17:00	
Perfluorodecanoic Acid (PFDA)	120 U	120	1	08/11/20 17:53	08/11/20 17:00	
Perfluoroundecanoic Acid (PFUnA)	120 U	120	1	08/11/20 17:53	08/11/20 17:00	
Perfluorododecanoic Acid (PFDoA)	120 U	120	1	08/11/20 17:53	08/11/20 17:00	
Perfluorotridecanoic Acid (PFTriA)	120 U	120	1	08/11/20 17:53	08/11/20 17:00	
Perfluorotetradecanoic Acid (PFTeA)	120 U	120	1	08/11/20 17:53	08/11/20 17:00	
Perfluorobutanesulfonic Acid (PFBS)	25 U	25	1	08/11/20 17:53	08/11/20 17:00	
Perfluorohexanesulfonic Acid (PFHxS)	120 U	120	1	08/11/20 17:53	08/11/20 17:00	
Perfluoroheptanesulfonic Acid (PFHpS)	120 U	120	1	08/11/20 17:53	08/11/20 17:00	
Perfluorooctanesulfonic Acid (PFOS)	25 U	25	1	08/11/20 17:53	08/11/20 17:00	
Perfluorodecanesulfonic Acid (PFDS)	25 U	25	1	08/11/20 17:53	08/11/20 17:00	
Fluorotelomer Sulphonic Acid 6:2 (FtS 6:2)	120 U	120	1	08/11/20 17:53	08/11/20 17:00	
Fluorotelomer Sulphonic Acid 8:2 (FtS 8:2)	120 U	120	1	08/11/20 17:53	08/11/20 17:00	
Perfluorooctanesulfonamide (PFOSA)	25 U	25	1	08/11/20 17:53	08/11/20 17:00	
N-Ethylperfluorooctanesulfonamidoacetic Acid	120 U	120	1	08/11/20 17:53	08/11/20 17:00	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: ALS - ROCHESTER
Project: R2006788
Sample Matrix: Soil

Service Request: 20080315
Date Analyzed: 08/11/2020
Date Extracted: 08/11/2020

Lab Control Sample Summary
Organic LC

Analysis Method: D7968-17a
Prep Method: D7968-17a

Units: ng/Kg
Basis: Wet
Analysis Lot: LCMS1_200811A

LCS1-161297

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Perfluorobutanesulfonic Acid (PFBS)	25 S,U	22	0 *	35-150
Perfluorodecanesulfonic Acid (PFDS)	22.72 J	24	94.7	35-150
Perfluorononanoic Acid (PFNA)	24.19 J	25	96.8	35-150
Perfluorooctanesulfonamide (PFOSA)	23.46 J	25	93.8	35-150
Perfluorooctanesulfonic Acid (PFOS)	19.35 J	23	84.1	35-150
Perfluorooctanoic Acid (PFOA)	19.58 J	25	78.3	35-150

Appendix C

Validator Qualifications

KENNETH R. APPLIN

Geochemist/Data Validator

Ph.D., Geochemistry and Mineralogy, The Pennsylvania State University

M.S., Geochemistry and Mineralogy, The Pennsylvania State University

B.A., Geological Sciences, SUNY at Geneseo, NY

Dr. Applin has over 35 years of experience working with the geochemistry of natural waters. His prior experience includes working as an Assistant Professor of Geology at the University of Missouri-Columbia and as Chief Hydrogeologist and Geochemist with a leading engineering firm in Rochester, NY. In 1993, he established KR Applin and Associates, a small consulting business that focuses on the geochemistry of natural waters, especially as applied to problems involving the contamination of groundwater and surface water.

Dr. Applin is also an experienced analytical data validator and has provided data validation services since 1994 to a variety of clients performing brownfield cleanup projects, hazardous waste remediation, groundwater monitoring at solid waste facilities, and other projects requiring third-party data validation. Dr. Applin has several years of hands-on experience with the laboratory analysis of natural waters and has successfully completed the USEPA Region II certification courses for performing inorganic and organic analytical data validation.

MICHAEL K. PERRY

Chemist/Data Validator

B.S. Chemistry, Georgia State University, Atlanta, GA

A.A.S., Chemical Technology, Alfred State College, Alfred, NY

Mr. Perry has over 30 years of experience in the analytical laboratory business. During his early career, he spent several years as a laboratory analyst performing the analysis of soil, water, and air samples for inorganic and organic chemical parameters. During his last 20 years in the environmental laboratory business, he managed and directed two major analytical laboratories in Rochester, NY. His management responsibilities included oversight of the daily operations of the lab, staff training and supervision, the selection, purchase, and maintenance of analytical instruments, the introduction of new laboratory methods, analytical quality assurance and quality control, data acquisition and management, and other business-related activities.

Mr. Perry has an extensive working knowledge of the methods and procedures used for sampling and analyzing both inorganic and organic analytes in soil, water, and air. He is an accomplished laboratory chemist and is familiar with the analytical methods and procedures established under the USEPA Contract Laboratory Protocols (CLP), the NYSDEC Analytical Services Protocols (ASP), and the NYSDOH Environmental Laboratory Approval Program (ELAP).

DATA USABILITY SUMMARY REPORT (DUSR)

**31 Tonawanda Street
Buffalo, NY 14207
NYSDEC BCP # C915299**

SDG: 203903
1 soil sample

Prepared for:

**BE3 Corp.
960 Busti Avenue
Suite 150-B
Buffalo, NY 14213
Attention: John Berry**

October 2020



Environmental Data Usability 10028 Deer Park Dr. Dansville, NY 14437 585-991-9156

Table of Contents

	<u>Page No.</u>
REVIEWER'S NARRATIVE	
1.0 SUMMARY	1
2.0 INTRODUCTION	1
3.0 SAMPLE AND ANALYSIS SUMMARY	2
4.0 GUIDANCE DOCUMENTS AND DATA REVIEW CRITERIA	2
5.0 DATA VALIDATION QUALIFIERS	3
6.0 RESULTS OF THE DATA REVIEW	4
7.0 TOTAL USABLE DATA	4

APPENDIX A	Validated Analytical Results
APPENDIX B	Laboratory QC Documentation
APPENDIX C	Validator Qualifications

Tables

Table 4-1	Data Validation Guidance Documents
Table 4-2	Quality Control Criteria for Validating Laboratory Analytical Data

Summaries of Validated Results

Table 6-1	VOCs
Table 6-2	SVOCs
Table 6-3	Pesticides
Table 6-4	PCBs
Table 6-5	Metals
Table 6-6	TCN

REVIEWER'S NARRATIVE

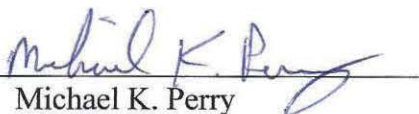
BE3 SDG 203903: 31 Tonawanda Street

The data associated with this Sample Delivery Group (SDG) 203903, analyzed by Paradigm Environmental Services, Inc. Rochester, NY have been reviewed in accordance with assessment criteria provided by the New York State Department of Environmental Conservation following the review procedures provided in the USEPA Functional Guidelines for evaluating organic and inorganic data.

All analytical results reported by the laboratory are considered valid and acceptable except results that have been qualified as rejected, "R". Results qualified as estimated "J", or as non-detects, "U", are considered usable for the purpose of evaluating water and/or soil quality. However, these qualifiers indicate that the accuracy and/or precision of the analytical result is questionable. A summary of all data that have been qualified and the reasons for qualification are provided in the following data usability summary report (DUSR).

Two facts should be noted by all data users. First, the "R" qualifier means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the analyte is present or not. Values qualified with an "R" should not appear on the final data tables because they cannot be relied upon, even as the last resort. Second, no analyte concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error.

Reviewer's Signature: _____


Michael K. Perry
Chemist

Date: _____

10/22/20

1.0 SUMMARY

SITE: 31 Tonawanda Street
Buffalo, NY 14207

SAMPLING DATE: August 18, 2020

SAMPLE TYPE: 1 soil sample

LABORATORY: Paradigm Environmental
Rochester, NY

SDG No.: 203903

2.0 INTRODUCTION

This data usability summary report (DUSR) was prepared in accordance with guidance provided by the New York State Department of Environmental Conservation (NYSDEC). The DUSR is based on a review and evaluation of the laboratory analytical data package. Specifically, the NYSDEC guidance recommends review and evaluation of the following elements of the data package:

- Completeness of the data package as defined under the requirements of the NYSDEC Analytical Services Protocols (ASP) Category B or the United States Environmental Protection Agency (USEPA) Contract Laboratory Program (CLP) deliverables,
- Compliance with established analyte holding times,
- Adherence to quality control (QC) limits and specifications for blanks, instrument tuning and calibration, surrogate recoveries, spike recoveries, laboratory duplicate analyses, and other QC criteria,
- Adherence to established analytical protocols,
- Conformance of data summary sheets with raw analytical data, and
- Use of correct data qualifiers.

Data deficiencies, analytical protocol deviations, and quality control problems identified using the review criteria above and their effect on the analytical results are discussed in this report.

3.0 SAMPLE AND ANALYSIS SUMMARY

The data package consists of analytical results for one soil sample collected on August 18, 2020. These samples were analyzed for the Part 375 list of Volatile Organic Compounds, Semi-volatile Organic Compounds, PCBs, Pesticides, Metals, and TCN.

All analyses were performed by Paradigm Environmental Services, Inc., Rochester, NY and analyzed as SDG 203903. The analytical results were provided in NYSDEC ASP Category B format, which includes all raw analytical data and laboratory QC data.

4.0 GUIDANCE DOCUMENTS AND DATA REVIEW CRITERIA

The guidance documents used for reviewing laboratory quality control (QC) data and assigning data qualifiers (flags) to analytical results are listed in Table 4-1. The QC limits established in the documents applicable to this data review were used to assess the quality of the analytical results. In some cases, however, QC limits established internally by the laboratory were taken into account to determine data quality.

The QC criteria considered for assessing the usability of the reported analytical results provided for each analyte type (i.e. VOCs, SVOCs, metals, etc.) are listed in Table 4-2. These criteria may vary with the analytical method utilized by the laboratory. These criteria comply with the guidance recommended in Section 2.0 above.

5.0 DATA VALIDATION QUALIFIERS

The letter qualifiers (flags) used to define data usability are described briefly below. These letters are assigned by the data validator to analytical results having questionable accuracy and/or precision as determined by reviewing the laboratory QC data associated with the analytical results.

TABLE 4-1

DATA VALIDATION GUIDANCE DOCUMENTS

Analyte Type	Validation Guidance
VOCs	USEPA, 2008, Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry; SW-846 Method 8260B; SOP # HW-24, Rev. 2. USEPA, 2008, Statement of Work for Organic Analysis of Low/Medium Concentration of Volatile Organic Compounds SQM01.2; SOP HW-33, Rev. 2.
SVOCs	USEPA, 2007, Statement of Work for Organic Analysis of Low/Medium Concentration of Semivolatile Organic Compounds SQM01.2; SOP HW-35, Rev. 1.
Pesticides/PCBs	USEPA, 2006, CLP Organics Data Review and Preliminary Review (CLP/SOW OLMO 4.3); SOP # HW-6, Rev. 14, Part C.
Metals	USEPA, 2006, Validation of Metals for the Contract Laboratory Program (CLP) based on SOW ILMO 5.3 (SOP Revision 13), SOP # HW-2, Rev. 13.
Gen Chemistry	NYSDEC, 2005, Analytical Services Protocols (ASP)
VOCs (Ambient air)	USEPA, 2006, Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canister by Method TO-15; SOP # HW-31, Rev. 4.
Perfluoroalkyl Substances (PFASs)	USEPA, 2018, Data Review and Validation Guidelines for Perfluoroalkyl Substances (PFASs) Analyzed Using EPA Method 537

TABLE 4-2

**QUALITY CONTROL CRITERIA USED FOR VALIDATING
LABORATORY ANALYTICAL DATA**

VOCs	SVOCs	Pesticides/PCBs	Metals	Gen Chemistry	Method TO-15
Completeness of Pkg Sample Preservation Holding Time System Monitoring Compounds Lab Control Sample Matrix Spikes Blanks Instrument Tuning Internal Standards Initial Calibration Continuing Calibration Lab Qualifiers Field Duplicate	Completeness of Pkg Sample Preservation Holding Time Surrogate Recoveries Lab Control Sample Matrix Spikes Blanks Instrument Tuning Internal Standards Initial Calibration Continuing Calibration Lab Qualifiers Field Duplicate	Completeness of Pkg Sample Preservation Holding Time Surrogate Recoveries Matrix Spikes Blanks Instrument Calibration & Verification Analyte ID Lab Qualifiers Field Duplicate	Completeness of Pkg Sample Preservation Holding Time Initial/Continuing Calibration CRDL Standards Blanks Interference Check Sample Spike Recoveries Lab Duplicate Lab Control Sample ICP Serial Dilutions Lab Qualifiers Field Duplicate	Completeness of Pkg Sample Preservation Holding Times Calibration Lab Control Samples Blanks Spike Recoveries Lab Duplicates	Completeness of Pkg Sample Preservation Holding Time Canister Certification Lab Control Sample Instrument Tuning Blanks Initial Calibration & System Performance Daily Calibration Field Duplicate

PFASs
Completeness of Pkg Sample Preservation Holding Time Instr Performance Check Initial Calibration Continuing Calibration Blanks Surrogates Lab Fortified Blank Matrix Spikes Internal Standards

The laboratory may also use various letters and symbols to flag analytical results generated when QC limits were exceeded. The meanings of these flags may differ from those used by the independent data validator. Those used by the laboratory are provided with the analytical results.

NOTE: The assignment of data qualifiers by the data reviewer (validator) to laboratory analytical results should not necessarily be interpreted by the data user as a measure of laboratory ability or proficiency. Rather, the qualifiers are intended to provide a measure of data accuracy and precision to the data user, which, for example, may provide a level of confidence in determining whether or not standards or cleanup objectives have been met.

- U** The analyte was analyzed for but was not detected at or above the sample quantitation limit.
- J** The analyte was positively identified; the associated numerical value is the *approximate* concentration of the analyte in the sample. (The magnitude of any \pm value associated with the result is not determined by data validation).
- UJ** The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is *approximate* and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R** The sample result is rejected (i.e., is unusable) due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.
- N** The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".
- JN** The analyte is considered to be "presumptively present." The associated numerical value represents its *approximate* concentration.

The validated analytical results are attached to this report. Validation qualifiers (flags) are indicated using red ink. Data sheets having qualified data are signed and dated by the data reviewer.

6.0 RESULTS OF THE DATA REVIEW

The results of the data review are summarized in Tables 6-1 through 6-6. The tables list the samples where QC criteria were found to exceed acceptable limits and the actions taken to qualify the associated analytical results.

7.0 TOTAL USABLE DATA

For SDG 203903, one sample was analyzed and results were reported for 177 analytes. One result was rejected. Even though some results were flagged with a "J" as estimated, all other results (99 %) are considered usable. See the summary table for the analyses that have been rejected and the associated QC reasons.

NOTE: 1) As noted by the laboratory, the soil samples were not collected following SW846 5035A protocol. This adds an element of uncertainty to the analytical results for volatile organic analytes (VOAs). Although not specifically indicated on the final data sheets with a "J" flag, the VOA analytical results should be considered estimated, but usable.

NOTE: 2) The data packages for this project contained no laboratory QC data for the CRDL standard for metals (Form 2B) and the Serial Dilutions of metals (Form 8). Therefore, no evaluation of the CRDL recoveries and the serial dilution results were performed by this data reviewer and no data were qualified as a result.

Table 6-1 **VOCs**

SAMPLES AFFECTED	ANALYTES	ACTION	QC VIOLATION	COMMENTS
NFS-1	1,4-Dioxane	R all data	ICAL RF < 0.005	Data are rejected

Table 6-2 **SVOCs**

SAMPLES AFFECTED	ANALYTES	ACTION	QC VIOLATION	COMMENTS
NFS-1	Atrazine	UJ non-detects J detects	3 pt. ICAL	Data are estimated
NFS-1	Atrazine Hexachloropentadiene	UJ non-detects J detects	% D for CCV > QC limit	Data are estimated

Table 6-3 **Pesticides**

SAMPLES AFFECTED	ANALYTES	ACTION	QC VIOLATION	COMMENTS
NFS-1	4,4'-DDT g-BHC	J JN	>25 % D between dual column analysis	Matrix interference suspected

SDG 203903

Table 6-4 PCBs

SAMPLES AFFECTED	ANALYTES	ACTION	QC VIOLATION	COMMENTS
none		none		

Table 6-5 Metals

SAMPLES AFFECTED	ANALYTES	ACTION	QC VIOLATION	COMMENTS
none			none	

Table 6-6 TCN

SAMPLES AFFECTED	ANALYTES	ACTION	QC VIOLATION	COMMENTS
none			none	

ACRONYMS

BSP	Blank Spike
CCAL	Continuing Calibration
CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification
CRDL	Contract Required Detection Limit
CRQL	Contract Required Quantitation Limit
%D	Percent Difference
ICAL	Initial Calibration
ICB	Initial Calibration Blank
IS	Internal Standard
LCS	Laboratory Control Sample
MS/MSD	Matrix Spike/Matrix Spike Duplicate
QA	Quality Assurance
QC	Quality Control
%R	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
%RSD	Percent Relative Standard Deviation
TAL	Target Analyte List (metals)
TCL	Target Compound List (organics)

Appendix A

Validated Analytical Results

LAB PROJECT NARRATIVE: 203903
PROJECT NAME: 31 Tonawanda
SDG: 3903-01
CLIENT: BE3

One soil sample was collected by the client on August 18, 2020 and received by the Paradigm Laboratory on August 19, 2020. Samples were received under the conditions as noted on the Chain-of-Custody Supplement. The samples were submitted with the Chains-of-Custody requesting the Part 375 lists for SVOCs, VOCs, Pesticides, Metals, PCBs, and Total Cyanide. All analyses were performed using EPA SW-846 Methods and the associated holding times.

The items noted in this case narrative address compliance with the referenced methods, NYSDOH ELAP rules, and any project specific data quality requirements. These may be different from the usability criteria referenced in any "Functional Guidelines" or other data review standards used by data validators.

GENERAL NOTES

ALL ANALYSES

The initial and continuing calibration reports are only evaluated for compounds that are on the sample summary report.

Regarding results on QC summary forms versus included raw data, due to calculations made at the instrument where many significant figures may be used, there may be slight discrepancies between the summary report result and that recorded on the raw data. This does not affect data usability.

VOLATILES AND SEMIVOLATILES

Regarding initial calibrations, it should be noted that the Quantitation Report concentrations supplied for the initial calibration reflect the calibration prior to updating. The response factors and areas are correct.

Regarding Quantitation Reports, it should be noted that the "#" symbol that appears on some of the Quantitation Reports is a software artifact and should be disregarded.

Compounds flagged with an "*" on the summary table have been calibrated using a non-average Response Factor calibration curve. The supporting curves are located after the initial calibration table.

VOLATILES

Soil samples were not sampled per EPA method 5035A compliance rules. Thus, an extra note has been added to all VOC reports.

Holding time was met for the sample.

All surrogate recoveries for the sample and associated QC were within acceptance limits.

Site specific QC was not requested on this SDG. The Laboratory Control Sample recovered within acceptance limits, except 1,1,2,2-Tetrachloroethane and Chlorobenzene were out high in the LCS. These outliers were flagged with an “*” on the summary form and an “L” on the sample results page accordingly. The samples were non-detect for these compounds so the LCS was deemed usable and no further action was taken.

The Method Blank was free from contamination within reportable ranges.

The instrument tunes passed all criteria and samples were within a 12-hour window.

The internal standards areas and retention times were within acceptance ranges for the sample and QC.

All data for the initial calibration was within acceptance limits for the reported analytes.

All continuing calibration data was within acceptance limits for the reported analytes with the following exceptions: 4-Methyl-2-Pentanone and 1,2-Dibromo-3-Chloropropane were out low in the CCV. Adequate sensitivity at the reporting limit for these compounds was verified by the analysis of a single point 1ppb standard. This is usable for non-detects only. All samples were non-detect for these compounds.

SEMI-VOLATILES

Holding time was met for the sample.

All surrogate recoveries for the sample and associated QC were within acceptance limits.

Site specific QC was not requested on this SDG. The Laboratory Control Sample recovered within acceptance limits.

The Method Blank was free from contamination within reportable ranges.

The instrument tunes passed all criteria and samples were within a 12-hour window.

The internal standards areas and retention times were within acceptance ranges for the sample and associated QC.

All data for the initial calibrations was within acceptance limits for the reported analytes, with the following exception: Atrazine did not have the minimum number of points required for the calibration curve. Adequate sensitivity for this analyte is verified by the analysis of a single point 5ppm standard. This is usable for non-detects only. All samples were non-detect for this compound.

All continuing calibration data was within acceptance limits for the reported analytes, with the following exceptions: Hexachlorocyclopentadiene and Atrazine were out low in the CCV. For the compounds that were out low, adequate sensitivity at the reporting limit was verified by the analysis of a single point 5ppm standard. This is usable for non-detects only. All samples were non-detect for these compounds.

PESTICIDES

Holding time was met for the sample.

Surrogate recoveries for the sample and associated QC were within acceptance limits.

Site specific QC was not requested on this SDG. The Laboratory Control samples recovered within acceptance limits.

The method blank was free from contamination within the reportable ranges.

The internal standards areas and retention times were within acceptance ranges for the sample and associated QC.

All data for the initial calibrations were within acceptance limits. The internal acceptance criteria for the initial calibrations was 0.99 or better for each peak.

All continuing calibration data was within acceptable QC limits, except for the Decachlorobiphenyl outlier in the LCS as mentioned above.

For all Pesticide hits, a Form 10 including Percent Difference has been included. Column confirmations above 40% difference have been flagged with a "P" on the sample reports and an "*" on the Form 10 indicating matrix interference. The reported result is always the lower of the two results.

PCBS

Holding time was met for the sample.

The surrogate recoveries for the sample and the associated QC were within acceptance limits.

Site specific QC was not requested on this SDG. The Laboratory Control Samples recovered within acceptance limits.

The method blank was free from contamination within the reportable ranges.

All data for the initial calibrations were within acceptance limits. The internal acceptance criteria for the initial calibrations was 0.99 or better for each peak.

All data for continuing calibrations was within acceptance limits.

METALS

ICP-AES interelement and background corrections were applied. Raw data was not generated before application of background corrections.

Holding time was met for the sample.

Site specific QC was not requested on this SDG. The Laboratory Control Samples recovered within acceptable limits. All LCS % differences were within acceptance limits.

The Method Blank was free from contamination within reportable ranges.

All data for the initial calibrations was within acceptance limits.

All continuing calibrations data was within acceptance limits.

Total Cyanide

Holding times was met for the sample.

Site specific QC was not requested on this SDG. The Laboratory Control Sample recovered within acceptable limits.

The Method Blank was free from contamination within reportable range.

All data for the initial calibrations was within acceptance limits.

All continuing calibrations data was within acceptance limits.

(signed) Steven DeVito
Steven DeVito – Technical Director

(date) 10/5/2020

BATCH LOG

Lab Name: Paradigm Environmental Services
 Lab Project #: 203903
 Client Name: BE3
 Client Project Name: 31 Tonawanda
 Client Project #: N/A
 SDG No.: 3903-01

Protocol: SW846 Report Due Date: 8/21/2020 Batch Due Date: 9/18/2020

[illegible]



CHAIN OF CUSTODY

[illegible]

Turnaround Time		Report Supplements	
Availability contingent upon lab approval; additional fees may apply.			
Standard 5 day	<input type="checkbox"/>	None Required	<input type="checkbox"/>
10 day	<input type="checkbox"/>	Batch QC	<input type="checkbox"/>
Rush 3 day	<input type="checkbox"/>	Category A	<input type="checkbox"/>
Rush 2 day	<input checked="" type="checkbox"/>	Category B	<input checked="" type="checkbox"/>
Rush 1 day	<input type="checkbox"/>		
Date Needed _____		Other	<input type="checkbox"/>
please indicate date needed:		please indicate package needed:	
_____		_____	

PETER J. GORDON 8-18-20 300
Sampled By Date/Time Total Cost:

Peter / Gordon 8-19-20 8:20
Relinquished By Date/Time

Brinzech 8-19-20 8:20
Received By Date/Time P.I.F.

Multy Mail 8/19/2020 1134
Received @ Lab By Date/Time

4°C iced 8/19/2020 11:33. Custody Seal intact. Signed, dated,
By signing this form, client agrees to Paradigm Terms and Conditions (reverse). 8/19/2020
Page 7 of 499
See additional page for sample conditions.

VOLATILE ORGANICS
SAMPLE DATA



Lab Project ID: 203903

Client: **BE3**

Project Reference: 31 Tonawanda

Sample Identifier: NFS-1

Lab Sample ID: 203903-01

Date Sampled: 8/18/2020

Matrix: Soil

Date Received: 8/19/2020

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.86	ug/Kg	L	8/19/2020 14:25
1,1,2,2-Tetrachloroethane	< 4.86	ug/Kg		8/19/2020 14:25
1,1,2-Trichloroethane	< 4.86	ug/Kg		8/19/2020 14:25
1,1-Dichloroethane	< 4.86	ug/Kg		8/19/2020 14:25
1,1-Dichloroethene	< 4.86	ug/Kg		8/19/2020 14:25
1,2,3-Trichlorobenzene	< 12.1	ug/Kg		8/19/2020 14:25
1,2,4-Trichlorobenzene	< 12.1	ug/Kg		8/19/2020 14:25
1,2,4-Trimethylbenzene	< 4.86	ug/Kg		8/19/2020 14:25
1,2-Dibromo-3-Chloropropane	< 24.3	ug/Kg		8/19/2020 14:25
1,2-Dibromoethane	< 4.86	ug/Kg		8/19/2020 14:25
1,2-Dichlorobenzene	< 4.86	ug/Kg		8/19/2020 14:25
1,2-Dichloroethane	< 4.86	ug/Kg		8/19/2020 14:25
1,2-Dichloropropane	< 4.86	ug/Kg		8/19/2020 14:25
1,3,5-Trimethylbenzene	< 4.86	ug/Kg		8/19/2020 14:25
1,3-Dichlorobenzene	< 4.86	ug/Kg		8/19/2020 14:25
1,4-Dichlorobenzene	< 4.86	ug/Kg		8/19/2020 14:25
1,4-Dioxane	< 4.86 R	ug/Kg		8/19/2020 14:25
2-Butanone	< 24.3	ug/Kg		8/19/2020 14:25
2-Hexanone	< 12.1	ug/Kg		8/19/2020 14:25
4-Methyl-2-pentanone	< 12.1	ug/Kg		8/19/2020 14:25
Acetone	< 24.3	ug/Kg		8/19/2020 14:25
Benzene	< 4.86	ug/Kg		8/19/2020 14:25
Bromochloromethane	< 12.1	ug/Kg		8/19/2020 14:25

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.



Lab Project ID: 203903

Client: **BE3**

Project Reference: 31 Tonawanda

Sample Identifier:	NFS-1			
Lab Sample ID:	203903-01		Date Sampled:	8/18/2020
Matrix:	Soil		Date Received:	8/19/2020
Bromodichloromethane	< 4.86	ug/Kg		8/19/2020 14:25
Bromoform	< 12.1	ug/Kg		8/19/2020 14:25
Bromomethane	< 4.86	ug/Kg		8/19/2020 14:25
Carbon disulfide	< 4.86	ug/Kg		8/19/2020 14:25
Carbon Tetrachloride	< 4.86	ug/Kg		8/19/2020 14:25
Chlorobenzene	< 4.86	ug/Kg	L	8/19/2020 14:25
Chloroethane	< 4.86	ug/Kg		8/19/2020 14:25
Chloroform	< 4.86	ug/Kg		8/19/2020 14:25
Chloromethane	< 4.86	ug/Kg		8/19/2020 14:25
cis-1,2-Dichloroethene	< 4.86	ug/Kg		8/19/2020 14:25
cis-1,3-Dichloropropene	< 4.86	ug/Kg		8/19/2020 14:25
Cyclohexane	< 24.3	ug/Kg		8/19/2020 14:25
Dibromochloromethane	< 4.86	ug/Kg		8/19/2020 14:25
Dichlorodifluoromethane	< 4.86	ug/Kg		8/19/2020 14:25
Ethylbenzene	< 4.86	ug/Kg		8/19/2020 14:25
Freon 113	< 4.86	ug/Kg		8/19/2020 14:25
Isopropylbenzene	< 4.86	ug/Kg		8/19/2020 14:25
m,p-Xylene	< 4.86	ug/Kg		8/19/2020 14:25
Methyl acetate	< 4.86	ug/Kg		8/19/2020 14:25
Methyl tert-butyl Ether	< 4.86	ug/Kg		8/19/2020 14:25
Methylcyclohexane	< 4.86	ug/Kg		8/19/2020 14:25
Methylene chloride	< 12.1	ug/Kg		8/19/2020 14:25
Naphthalene	< 12.1	ug/Kg		8/19/2020 14:25
n-Butylbenzene	< 4.86	ug/Kg		8/19/2020 14:25
n-Propylbenzene	< 4.86	ug/Kg		8/19/2020 14:25

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.



Lab Project ID: 203903

Client: **BE3**

Project Reference: 31 Tonawanda

Sample Identifier:		NFS-1			
Lab Sample ID:		203903-01		Date Sampled:	8/18/2020
Matrix:		Soil		Date Received:	8/19/2020
o-Xylene	< 4.86	ug/Kg		8/19/2020	14:25
p-Isopropyltoluene	< 4.86	ug/Kg		8/19/2020	14:25
sec-Butylbenzene	< 4.86	ug/Kg		8/19/2020	14:25
Styrene	< 12.1	ug/Kg		8/19/2020	14:25
tert-Butylbenzene	< 4.86	ug/Kg		8/19/2020	14:25
Tetrachloroethene	< 4.86	ug/Kg		8/19/2020	14:25
Toluene	< 4.86	ug/Kg		8/19/2020	14:25
trans-1,2-Dichloroethene	< 4.86	ug/Kg		8/19/2020	14:25
trans-1,3-Dichloropropene	< 4.86	ug/Kg		8/19/2020	14:25
Trichloroethene	< 4.86	ug/Kg		8/19/2020	14:25
Trichlorofluoromethane	< 4.86	ug/Kg		8/19/2020	14:25
Vinyl chloride	< 4.86	ug/Kg		8/19/2020	14:25
Surrogate	Percent Recovery		Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	102		75 - 134		8/19/2020 14:25
4-Bromofluorobenzene	87.2		59.5 - 129		8/19/2020 14:25
Pentafluorobenzene	98.6		88.8 - 118		8/19/2020 14:25
Toluene-D8	85.6		84 - 114		8/19/2020 14:25

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x72661.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.

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.

SEMIVOLATILE ORGANICS

SAMPLE DATA



Lab Project ID: 203903

Client: **BE3**

Project Reference: 31 Tonawanda

Sample Identifier: NFS-1

Lab Sample ID: 203903-01

Matrix: Soil

Date Sampled: 8/18/2020

Date Received: 8/19/2020

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 336	ug/Kg		8/20/2020 19:13
1,2,4,5-Tetrachlorobenzene	< 336	ug/Kg		8/20/2020 19:13
1,2,4-Trichlorobenzene	< 336	ug/Kg		8/20/2020 19:13
1,2-Dichlorobenzene	< 336	ug/Kg		8/20/2020 19:13
1,3-Dichlorobenzene	< 336	ug/Kg		8/20/2020 19:13
1,4-Dichlorobenzene	< 336	ug/Kg		8/20/2020 19:13
2,2-Oxybis (1-chloropropane)	< 336	ug/Kg		8/20/2020 19:13
2,3,4,6-Tetrachlorophenol	< 336	ug/Kg		8/20/2020 19:13
2,4,5-Trichlorophenol	< 336	ug/Kg		8/20/2020 19:13
2,4,6-Trichlorophenol	< 336	ug/Kg		8/20/2020 19:13
2,4-Dichlorophenol	< 336	ug/Kg		8/20/2020 19:13
2,4-Dimethylphenol	< 336	ug/Kg		8/20/2020 19:13
2,4-Dinitrophenol	< 1340	ug/Kg		8/20/2020 19:13
2,4-Dinitrotoluene	< 336	ug/Kg		8/20/2020 19:13
2,6-Dinitrotoluene	< 336	ug/Kg		8/20/2020 19:13
2-Chloronaphthalene	< 336	ug/Kg		8/20/2020 19:13
2-Chlorophenol	< 336	ug/Kg		8/20/2020 19:13
2-Methylnaphthalene	< 336	ug/Kg		8/20/2020 19:13
2-Methylphenol	< 336	ug/Kg		8/20/2020 19:13
2-Nitroaniline	< 336	ug/Kg		8/20/2020 19:13
2-Nitrophenol	< 336	ug/Kg		8/20/2020 19:13
3&4-Methylphenol	< 336	ug/Kg		8/20/2020 19:13
3,3'-Dichlorobenzidine	< 336	ug/Kg		8/20/2020 19:13

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.



Lab Project ID: 203903

Client: **BE3**

Project Reference: 31 Tonawanda

Sample Identifier:	NFS-1			
Lab Sample ID:	203903-01		Date Sampled:	8/18/2020
Matrix:	Soil		Date Received:	8/19/2020
3-Nitroaniline	< 336	ug/Kg	8/20/2020	19:13
4,6-Dinitro-2-methylphenol	< 672	ug/Kg	8/20/2020	19:13
4-Bromophenyl phenyl ether	< 336	ug/Kg	8/20/2020	19:13
4-Chloro-3-methylphenol	< 336	ug/Kg	8/20/2020	19:13
4-Chloroaniline	< 336	ug/Kg	8/20/2020	19:13
4-Chlorophenyl phenyl ether	< 336	ug/Kg	8/20/2020	19:13
4-Nitroaniline	< 336	ug/Kg	8/20/2020	19:13
4-Nitrophenol	< 336	ug/Kg	8/20/2020	19:13
Acenaphthene	977	ug/Kg	8/20/2020	19:13
Acenaphthylene	< 336	ug/Kg	8/20/2020	19:13
Acetophenone	< 336	ug/Kg	8/20/2020	19:13
Anthracene	2400	ug/Kg	8/20/2020	19:13
Atrazine	< 336 UJ	ug/Kg	8/20/2020	19:13
Benzaldehyde	< 336	ug/Kg	8/20/2020	19:13
Benzo (a) anthracene	3250	ug/Kg	8/20/2020	19:13
Benzo (a) pyrene	2570	ug/Kg	8/20/2020	19:13
Benzo (b) fluoranthene	2240	ug/Kg	8/20/2020	19:13
Benzo (g,h,i) perylene	1300	ug/Kg	8/20/2020	19:13
Benzo (k) fluoranthene	2110	ug/Kg	8/20/2020	19:13
Bis (2-chloroethoxy) methane	< 336	ug/Kg	8/20/2020	19:13
Bis (2-chloroethyl) ether	< 336	ug/Kg	8/20/2020	19:13
Bis (2-ethylhexyl) phthalate	< 336	ug/Kg	8/20/2020	19:13
Butylbenzylphthalate	< 336	ug/Kg	8/20/2020	19:13
Caprolactam	< 336	ug/Kg	8/20/2020	19:13
Carbazole	978	ug/Kg	8/20/2020	19:13

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.



Lab Project ID: 203903

Client: **BE3**

Project Reference: 31 Tonawanda

Sample Identifier:	NFS-1		
Lab Sample ID:	203903-01	Date Sampled:	8/18/2020
Matrix:	Soil	Date Received:	8/19/2020
Chrysene	3080	ug/Kg	8/20/2020 19:13
Dibenz (a,h) anthracene	579	ug/Kg	8/20/2020 19:13
Dibenzofuran	546	ug/Kg	8/20/2020 19:13
Diethyl phthalate	< 336	ug/Kg	8/20/2020 19:13
Dimethyl phthalate	< 336	ug/Kg	8/20/2020 19:13
Di-n-butyl phthalate	< 336	ug/Kg	8/20/2020 19:13
Di-n-octylphthalate	< 336	ug/Kg	8/20/2020 19:13
Fluoranthene	7880	ug/Kg	8/20/2020 19:13
Fluorene	970	ug/Kg	8/20/2020 19:13
Hexachlorobenzene	< 336	ug/Kg	8/20/2020 19:13
Hexachlorobutadiene	< 336	ug/Kg	8/20/2020 19:13
Hexachlorocyclopentadiene	< 1340 UJ	ug/Kg	8/20/2020 19:13
Hexachloroethane	< 336	ug/Kg	8/20/2020 19:13
Indeno (1,2,3-cd) pyrene	1350	ug/Kg	8/20/2020 19:13
Isophorone	< 336	ug/Kg	8/20/2020 19:13
Naphthalene	< 336	ug/Kg	8/20/2020 19:13
Nitrobenzene	< 336	ug/Kg	8/20/2020 19:13
N-Nitroso-di-n-propylamine	< 336	ug/Kg	8/20/2020 19:13
N-Nitrosodiphenylamine	< 336	ug/Kg	8/20/2020 19:13
Pentachlorophenol	< 672	ug/Kg	8/20/2020 19:13
Phenanthrene	8020	ug/Kg	8/20/2020 19:13
Phenol	< 336	ug/Kg	8/20/2020 19:13
Pyrene	6260	ug/Kg	8/20/2020 19:13

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.

PESTICIDES
SAMPLE DATA



Lab Project ID: 203903

Client: **BE3**

Project Reference: 31 Tonawanda

Sample Identifier: NFS-1

Lab Sample ID: 203903-01

Matrix: Soil

Date Sampled: 8/18/2020

Date Received: 8/19/2020

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 3.36	ug/Kg		8/19/2020 18:52
4,4-DDE	< 3.36	ug/Kg		8/19/2020 18:52
4,4-DDT	3.04 J	ug/Kg	JP	8/19/2020 18:52
Aldrin	< 3.36	ug/Kg		8/19/2020 18:52
alpha-BHC	< 3.36	ug/Kg		8/19/2020 18:52
beta-BHC	< 3.36	ug/Kg		8/19/2020 18:52
cis-Chlordane	< 3.36	ug/Kg		8/19/2020 18:52
delta-BHC	< 3.36	ug/Kg		8/19/2020 18:52
Dieldrin	< 3.36	ug/Kg		8/19/2020 18:52
Endosulfan I	< 3.36	ug/Kg		8/19/2020 18:52
Endosulfan II	< 3.36	ug/Kg		8/19/2020 18:52
Endosulfan Sulfate	< 3.36	ug/Kg		8/19/2020 18:52
Endrin	< 3.36	ug/Kg		8/19/2020 18:52
Endrin Aldehyde	< 3.36	ug/Kg		8/19/2020 18:52
Endrin Ketone	2.48	ug/Kg	J	8/19/2020 18:52
gamma-BHC (Lindane)	1.73 JN	ug/Kg	JP	8/19/2020 18:52
Heptachlor	< 3.36	ug/Kg		8/19/2020 18:52
Heptachlor Epoxide	< 3.36	ug/Kg		8/19/2020 18:52
Methoxychlor	< 3.36	ug/Kg		8/19/2020 18:52
Toxaphene	< 33.6	ug/Kg		8/19/2020 18:52
trans-Chlordane	< 3.36	ug/Kg		8/19/2020 18:52

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.

PCBS
SAMPLE DATA

No Data Validation Qualifiers Were Added

MKP 10/20/2020



Lab Project ID: 203903

Client: **BE3**

Project Reference: 31 Tonawanda

Sample Identifier: NFS-1

Lab Sample ID: 203903-01

Matrix: Soil

Date Sampled: 8/18/2020

Date Received: 8/19/2020

PCBs

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
PCB-1016	< 0.0336	mg/Kg		8/19/2020 17:55
PCB-1221	< 0.0336	mg/Kg		8/19/2020 17:55
PCB-1232	< 0.0336	mg/Kg		8/19/2020 17:55
PCB-1242	< 0.0336	mg/Kg		8/19/2020 17:55
PCB-1248	< 0.0336	mg/Kg		8/19/2020 17:55
PCB-1254	< 0.0336	mg/Kg		8/19/2020 17:55
PCB-1260	< 0.0336	mg/Kg		8/19/2020 17:55
PCB-1262	< 0.0336	mg/Kg		8/19/2020 17:55
PCB-1268	< 0.0336	mg/Kg		8/19/2020 17:55

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Tetrachloro-m-xylene	67.4	17.8 - 74		8/19/2020 17:55

Method Reference(s): EPA 8082A

EPA 3546

Preparation Date: 8/19/2020

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.

METALS DATA

No Data Validation Qualifiers Were Added

MKP 10/20/2020



Lab Project ID: 203903

Client: **BE3**

Project Reference: 31 Tonawanda

Sample Identifier: NFS-1

Lab Sample ID: 203903-01

Matrix: Soil

Date Sampled: 8/18/2020

Date Received: 8/19/2020

Metals

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	5.25	mg/Kg		8/20/2020 14:32
Barium	114	mg/Kg		8/20/2020 14:32
Beryllium	0.416	mg/Kg		8/20/2020 14:32
Cadmium	2.05	mg/Kg		8/20/2020 14:32
Chromium	24.0	mg/Kg		8/20/2020 14:32
Copper	31.9	mg/Kg		8/20/2020 14:32
Lead	46.1	mg/Kg		8/20/2020 14:32
Manganese	1000	mg/Kg		8/21/2020 10:31
Nickel	22.5	mg/Kg		8/20/2020 14:32
Selenium	< 1.22	mg/Kg		8/20/2020 14:32
Silver	< 0.610	mg/Kg		8/20/2020 14:32
Zinc	95.0	mg/Kg		8/20/2020 14:32

Method Reference(s): EPA 6010C

EPA 3050B

Preparation Date: 8/19/2020

Data File: 200820A

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.



Lab Project ID: 203903

Client: **BE3**

Project Reference: 31 Tonawanda

Sample Identifier: NFS-1

Lab Sample ID: 203903-01

Matrix: Soil

Date Sampled: 8/18/2020

Date Received: 8/19/2020

Mercury

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Mercury	0.0365	mg/Kg		8/21/2020 06:29

Method Reference(s): EPA 7471B

Preparation Date: 8/19/2020

Data File: Hg200821A

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.

WETCHEM DATA

No Data Validation Qualifiers Were Added

MKP 10/20/2020



Lab Project ID: 203903

Client: **BE3**

Project Reference: 31 Tonawanda

Sample Identifier: NFS-1

Lab Sample ID: 203903-01

Date Sampled: 8/18/2020

Matrix: Soil

Date Received: 8/19/2020

Total Cyanide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Cyanide, Total	< 0.576	mg/Kg		8/19/2020

Method Reference(s): EPA 9014
EPA 9010C

Preparation Date: 8/19/2020

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.

Appendix B

Laboratory QC Documentation

QC Report for Laboratory Control Sample

Client: BE3
Project Reference: 31 Tonawanda
Lab Project ID: 203903
SDG #: 3903-01
Matrix: Soil

Volatile Organics

<u>Analyte</u>	<u>Spike Added</u>	<u>Spike Units</u>	<u>LCS Result</u>	<u>LCS % Recovery</u>	<u>% Rec Limits</u>	<u>LCS Outliers</u>	<u>Date Analyzed</u>
1,1,1-Trichloroethane	20.0	ug/Kg	17.6	87.9	64.9 - 133		8/19/2020
1,1,2,2-Tetrachloroethane	20.0	ug/Kg	27.9	139	71.9 - 134	*	8/19/2020
1,1,2-Trichloroethane	20.0	ug/Kg	20.9	105	74.2 - 129		8/19/2020
1,1-Dichloroethane	20.0	ug/Kg	20.4	102	61.6 - 134		8/19/2020
1,1-Dichloroethene	20.0	ug/Kg	17.5	87.6	60.6 - 128		8/19/2020
1,2-Dichlorobenzene	20.0	ug/Kg	23.3	116	70.9 - 129		8/19/2020
1,2-Dichloroethane	20.0	ug/Kg	19.5	97.5	67.2 - 143		8/19/2020
1,2-Dichloropropane	20.0	ug/Kg	17.6	87.9	68.0 - 123		8/19/2020
1,3-Dichlorobenzene	20.0	ug/Kg	22.0	110	67.2 - 124		8/19/2020
1,4-Dichlorobenzene	20.0	ug/Kg	23.3	117	66.8 - 123		8/19/2020
Benzene	20.0	ug/Kg	19.6	98.1	72.2 - 129		8/19/2020
Bromodichloromethane	20.0	ug/Kg	16.7	83.7	64.2 - 129		8/19/2020
Bromoform	20.0	ug/Kg	16.3	81.4	55.2 - 123		8/19/2020
Bromomethane	20.0	ug/Kg	21.8	109	65.2 - 146		8/19/2020
Carbon Tetrachloride	20.0	ug/Kg	18.0	90.2	61.2 - 137		8/19/2020
Chlorobenzene	20.0	ug/Kg	25.8	129	71.6 - 127	*	8/19/2020

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.

Method Path : C:\msdchem\1\METHODS\
 Method File : 200817.M
 Title : 8260/624 Analysis
 Last Update : Mon Aug 17 16:04:59 2020
 Response Via : Initial Calibration

8/17/2020 BJR

Calibration Files

1 =x72583.D 2 =x72584.D 3 =x72585.D 4 =x72586.D 5 =x72587.D 6 =x72588.D 7 =x72589.D

Compound	1	2	3	4	5	6	7	Avg	%RSD
-----ISTD-----									
1) I Fluorobenzene									
2) P Dichlorodifluo...	1.416	0.887	0.849	0.880	0.863	0.877	0.905	0.954	21.46 *
3) P Chloromethane	1.701	1.001	0.949	0.953	0.961	0.965	0.980	1.073	25.87 *
4) P Vinyl chloride	1.400	0.928	0.910	0.925	0.932	0.924	0.964	0.997	17.87
5) P Bromomethane	1.044	0.600	0.524	0.524	0.540	0.546	0.561	0.620	30.48 *
6) P Chloroethane	0.833	0.489	0.450	0.474	0.484	0.484	0.506	0.531	25.25 *
7) P Trichlorofluor...	1.828	1.184	1.099	1.168	1.148	1.138	1.176	1.249	20.57 *
8) Ethyl ether	0.408	0.276	0.266	0.272	0.294	0.292	0.304	0.302	16.11
9) P Freon 113	0.984	0.634	0.608	0.628	0.631	0.626	0.644	0.679	19.83
10) P 1,1-Dichloroet...	1.529	0.973	0.955	0.982	0.982	0.961	0.987	1.053	19.97
11) P Acetone	0.302	0.116	0.109	0.112	0.110	0.111	0.111	0.139	51.98 *
12) Isopropyl Alcohol							0.000	-1.00	
13) P Carbon disulfide	2.737	1.818	1.779	1.857	1.916	1.897	1.961	1.995	16.68
14) P Methyl acetate	0.153	0.148	0.113	0.120	0.126	0.121	0.124	0.129	11.80
15) P Methylene chlo...	1.287	0.594	0.504	0.491	0.517	0.519	0.538	0.636	45.47 *
16) Acrylonitrile	0.080	0.070	0.065	0.068	0.075	0.072	0.076	0.072	7.09
17) tert-Butyl Alc...		0.016	0.015	0.015	0.016	0.014	0.015	0.015	4.77
18) P Methyl tert-bu...	1.248	0.864	0.837	0.860	0.897	0.894	0.913	0.930	15.29
19) P trans-1,2-Dich...	1.341	0.859	0.832	0.844	0.856	0.850	0.868	0.921	20.16 *
20) P 1,1-Dichloroet...	1.959	1.257	1.192	1.188	1.138	1.239	1.227	1.314	21.84 *
21) Vinyl acetate	0.726	0.468	0.476	0.511	0.498	0.541	0.529	0.536	16.46
22) 2,2-Dichloropr...		1.123	1.052	1.108	1.120	1.142	1.166	1.118	3.42
23) P 2-Butanone	0.063	0.040	0.040	0.041	0.041	0.041	0.041	0.044#	19.54
24) P cis-1,2-Dichlo...	1.206	0.791	0.769	0.799	0.799	0.823	0.828	0.859	17.94
25) Bromochloromet...	0.425	0.285	0.279	0.281	0.285	0.298	0.301	0.308	17.00
26) P Chloroform	1.768	1.266	1.160	1.192	1.177	1.206	1.225	1.285	16.78
27) S Pentafluoroben...	0.681	0.599	0.605	0.610	0.689	0.626	0.581	0.627	6.66
28) Tetrahydrofuran	0.076	0.054	0.049	0.052	0.053	0.055	0.055	0.056	15.73
29) P 1,1,1-Trichlor...	1.857	1.174	1.145	1.214	1.221	1.243	1.271	1.304	19.00
30) P Cyclohexane	2.012	1.379	1.337	1.403	1.370	1.398	1.269	1.452	17.28
31) S 1,2-Dichloroet...	0.161	0.173	0.172	0.170	0.197	0.174	0.165	0.173	6.64
32) P Carbon Tetrach...	1.395	1.026	1.021	1.109	1.100	1.115	1.136	1.129	11.12
33) P Benzene	4.267	2.954	2.788	2.835	2.760	2.764	2.792	3.023	18.28
34) P 1,2-Dichloroet...	0.975	0.639	0.624	0.632	0.627	0.632	0.647	0.682	18.96
35) P Trichloroethene	1.281	0.827	0.819	0.872	0.883	0.896	0.925	0.929	17.19
36) tert-Butyl Ace...							0.000	-1.00	
37) P Methylcyclohexane	1.900	1.330	1.390	1.504	1.474	1.485	1.499	1.512	12.09
38) 1,4-Dioxane		0.003	0.004	0.004	0.004	0.004	0.004	0.004	9.21

RF < 0.005

* Curve is not avg. of response factors

Method Path : C:\msdchem\1\methods\

Method File : ABN200814.M

38)	P	Caprolactam	0.156	0.164	0.156	0.164	0.164	0.164	0.160	0.157	0.161	2.34
39)	P	1,2,4,5-Tetrac...	0.271	0.273	0.258	0.268	0.269	0.267	0.258	0.251	0.264	2.92
40)	P	Biphenyl	0.840	0.835	0.779	0.802	0.802	0.780	0.747	0.718	0.788	5.26
41)	I	Acenaphthene-d10	-----ISTD-----									
42)	P	2-Chloronaphth...	0.382	0.395	0.379	0.385	0.379	0.379	0.360	0.343	0.375#	4.31
43)	PM	Acenaphthene	1.228	1.226	1.172	1.219	1.198	1.212	1.159	1.116	1.191	3.31
44)	P	Acenaphthylene	1.808	1.865	1.772	1.861	1.835	1.852	1.757	1.705	1.807	3.20
45)	P	4-Chlorophenyl...	0.622	0.631	0.596	0.623	0.617	0.628	0.596	0.573	0.611	3.29
46)	P	Dibenzofuran	1.678	1.718	1.643	1.700	1.671	1.684	1.613	1.568	1.659	2.96
47)	P	Diethyl phthalate	1.536	1.484	1.376	1.416	1.382	1.387	1.318	1.274	1.397	6.01
48)	P	Dimethyl phtha...	1.949	1.637	1.422	1.384	1.372	1.375	1.315	1.272	1.466	15.22
49)	PM	2,4-Dinitrophenol		0.056	0.089	0.147	0.171	0.183	0.197	0.199	0.149	37.65✖
50)	PM	2,4-Dinitrotol...	0.363	0.411	0.411	0.439	0.443	0.450	0.435	0.427	0.422	6.55
51)	P	2,6-Dinitrotol...	0.286	0.309	0.304	0.328	0.327	0.332	0.324	0.316	0.316	4.87
52)	P	Fluorene	1.371	1.396	1.327	1.381	1.353	1.344	1.284	1.233	1.336	4.07
53)	S	2-Fluorobiphenyl	1.353	1.373	1.314	1.363	1.350	1.345	1.301	1.273	1.334	2.58
54)	P	Hexachlorocycl...	0.105	0.155	0.192	0.250	0.272	0.278	0.261	0.226	0.218	28.43✖
55)	P	2-Nitroaniline	0.382	0.422	0.419	0.453	0.458	0.463	0.453	0.441	0.436	6.28
56)	P	3-Nitroaniline	0.350	0.379	0.361	0.379	0.384	0.386	0.377	0.366	0.373	3.35
57)	P	4-Nitroaniline	0.323	0.361	0.366	0.380	0.387	0.385	0.365	0.369	0.367	5.52
58)	PM	4-Nitrophenol	0.248	0.283	0.287	0.314	0.315	0.318	0.305	0.296	0.296	7.83
59)	S	2,4,6-Tribromo...	0.158	0.170	0.168	0.174	0.171	0.173	0.161	0.160	0.167	3.75
60)	PM	2,4,6-Trichlor...	0.328	0.342	0.337	0.352	0.353	0.355	0.348	0.334	0.343	2.91
61)	P	2,4,5-Trichlor...	0.343	0.364	0.360	0.381	0.382	0.386	0.383	0.362	0.370	4.13
62)	P	2,3,4,6-Tetrac...	0.253	0.270	0.273	0.284	0.278	0.279	0.287	0.272	0.274	3.84
63)	P	Atrazine	0.322	0.292	0.225					0.286		17.67
64)	I	Phenanthrene-d10	-----ISTD-----									
65)	P	4-Bromophenyl ...	0.194	0.200	0.190	0.198	0.193	0.198	0.191	0.189	0.194	2.18
66)	P	Di-n-butyl pht...	1.284	1.390	1.309	1.415	1.374	1.418	1.355	1.327	1.359	3.62
67)	PM	4,6-Dinitro-2-...	0.057	0.085	0.101	0.133	0.141	0.150	0.153	0.152	0.122	29.67✖
68)	P	Fluoranthene	1.148	1.194	1.133	1.192	1.165	1.192	1.145	1.123	1.162	2.46
69)	P	Hexachlorobenzene	0.211	0.220	0.209	0.217	0.214	0.215	0.207	0.205	0.212	2.43
70)	P	N-Nitrosodiphe...	0.666	0.694	0.662	0.685	0.674	0.681	0.665	0.649	0.672	2.15
71)	PM	Pentachlorophenol	0.047	0.074	0.084	0.109	0.115	0.121	0.124	0.122	0.099	28.25✖
72)	P	Anthracene	1.115	1.185	1.125	1.177	1.157	1.167	1.129	1.108	1.145	2.62
73)	P	Phenanthrene	1.130	1.162	1.085	1.139	1.116	1.137	1.100	1.069	1.117	2.77
74)	P	Carbazole	1.088	1.129	1.050	1.097	1.084	1.102	1.077	1.052	1.085	2.39
75)	P	Benzo (a) anth...	1.083	1.123	1.063	1.112	1.089	1.099	1.071	1.051	1.086	2.26
76)	I	Chrysene-d12	-----ISTD-----									
77)	P	Benzidine	0.217	0.385						0.301		39.49✖
78)	P	Bis (2-ethylhe...	0.867	0.933	0.912	0.981	0.990	0.981	0.970	0.947	0.948	4.44
79)	P	Butylbenzylpht...	0.590	0.657	0.637	0.694	0.697	0.710	0.693	0.672	0.669	5.95
80)	P	Chrysene	1.145	1.215	1.160	1.218	1.211	1.201	1.161	1.138	1.181	2.82
81)	P	3,3'-Dichlorob...	0.435	0.470	0.451	0.432	0.455	0.424	0.402	0.425	0.437	4.85
82)	PM	Pyrene	1.256	1.349	1.285	1.351	1.357	1.348	1.302	1.286	1.317	2.99

3 pt. ICAL

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\200820\
 Data File : B48859.D
 Acq On : 20 Aug 2020 3:16 pm
 Operator : A. Monfette
 Sample : CCV 50PPM 8270 + PyrMulti
 Misc :
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 20 15:41:51 2020
 Quant Method : C:\msdchem\1\methods\ABN200814A.M
 Quant Title :
 QLast Update : Tue Aug 18 14:44:35 2020
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
46 P	Dibenzofuran	50.000	51.279	-2.6	107	0.00
47 P	Diethyl phthalate	50.000	50.275	-0.5	106	0.00
48 P	Dimethyl phthalate	50.000	46.547	6.9	106	0.00
49 PM	2,4-Dinitrophenol	50.000	40.614	18.8	96	0.00
50 PM	2,4-Dinitrotoluene	50.000	49.553	0.9	102	0.00
51 P	2,6-Dinitrotoluene	50.000	50.524	-1.0	104	0.00
52 P	Fluorene	50.000	51.071	-2.1	106	0.00
53 S	2-Fluorobiphenyl	50.000	52.968	-5.9	111	-0.01
54 P	Hexachlorocyclopentadiene	50.000	22.406	55.2#	56	0.00
55 P	2-Nitroaniline	50.000	50.914	-1.8	105	0.00
56 P	3-Nitroaniline	50.000	50.949	-1.9	107	0.00
57 P	4-Nitroaniline	50.000	50.213	-0.4	104	0.00
58 PM	4-Nitrophenol	50.000	48.101	3.8	97	-0.04
59 S	2,4,6-Tribromophenol	100.000	98.060	1.9	101	0.00
60 PM	2,4,6-Trichlorophenol	50.000	49.066	1.9	103	-0.01
61 P	2,4,5-Trichlorophenol	50.000	49.306	1.4	103	-0.03
62 P	2,3,4,6-Tetrachlorophenol	50.000	46.511	7.0	96	-0.01
63 P	Atrazine	50.000	4.288	91.4#	0	-0.01
64 I	Phenanthrene-d10	40.000	40.000	0.0	103	0.00
65 P	4-Bromophenyl phenyl ether	50.000	51.452	-2.9	104	0.00
66 P	Di-n-butyl phthalate	50.000	51.246	-2.5	102	0.00
67 PM	4,6-Dinitro-2-methylphenol	50.000	43.603	12.8	95	0.00
68 P	Fluoranthene	50.000	50.866	-1.7	102	0.00
69 P	Hexachlorobenzene	50.000	51.041	-2.1	103	0.00
70 P	N-Nitrosodiphenylamine	50.000	52.259	-4.5	106	0.00
71 PM	Pentachlorophenol	50.000	40.533	18.9	87	-0.01
72 P	Anthracene	50.000	51.164	-2.3	103	0.00
73 P	Phenanthrene	50.000	51.349	-2.7	104	-0.01
74 P	Carbazole	50.000	51.028	-2.1	104	0.00
75 P	Benzo (a) anthracene	50.000	51.022	-2.0	103	0.00
76 I	Chrysene-d12	40.000	40.000	0.0	102	0.00
77	Benzidine	50.000	82.815	↑ -65.6#	0	0.00
78 P	Bis (2-ethylhexyl) phthalat	50.000	48.704	2.6	96	0.00
79 P	Butylbenzylphthalate	50.000	50.631	-1.3	100	0.00
80 P	Chrysene	50.000	51.161	-2.3	102	0.00
81 P	3,3'-Dichlorobenzidine	50.000	55.505	-11.0	115	0.00
82 PM	Pyrene	50.000	51.346	-2.7	102	0.00
83 S	Terphenyl-d14	50.000	51.613	-3.2	102	-0.01
84 I	Perylene-d12	40.000	40.000	0.0	100	0.00
85 P	Benzo (b) fluoranthene	50.000	53.828	-7.7	102	0.00
86 P	Benzo (k) fluoranthene	50.000	53.197	-6.4	108	0.00
87 P	Benzo (g,h,i) perylene	50.000	55.300	-10.6	109	0.00
88 P	Benzo (a) pyrene	50.000	53.408	-6.8	104	0.00
89 P	Dibenz (a,h) anthracene	50.000	55.857	-11.7	110	0.00

Sample ID: NFS-1
Lab Sample #: 203903-01

Date Analyzed: 8/19/2020
Time Analyzed: 18:52
Matrix: Soil

Detector 2: ECD2

%D = $\leq 40\%$; Passes
* = Outside QC limits

Appendix C

Validator Qualifications

KENNETH R. APPLIN

Geochemist/Data Validator

Ph.D., Geochemistry and Mineralogy, The Pennsylvania State University

M.S., Geochemistry and Mineralogy, The Pennsylvania State University

B.A., Geological Sciences, SUNY at Geneseo, NY

Dr. Applin has over 35 years of experience working with the geochemistry of natural waters. His prior experience includes working as an Assistant Professor of Geology at the University of Missouri-Columbia and as Chief Hydrogeologist and Geochemist with a leading engineering firm in Rochester, NY. In 1993, he established KR Applin and Associates, a small consulting business that focuses on the geochemistry of natural waters, especially as applied to problems involving the contamination of groundwater and surface water.

Dr. Applin is also an experienced analytical data validator and has provided data validation services since 1994 to a variety of clients performing brownfield cleanup projects, hazardous waste remediation, groundwater monitoring at solid waste facilities, and other projects requiring third-party data validation. Dr. Applin has several years of hands-on experience with the laboratory analysis of natural waters and has successfully completed the USEPA Region II certification courses for performing inorganic and organic analytical data validation.

MICHAEL K. PERRY

Chemist/Data Validator

B.S. Chemistry, Georgia State University, Atlanta, GA

A.A.S., Chemical Technology, Alfred State College, Alfred, NY

Mr. Perry has over 30 years of experience in the analytical laboratory business. During his early career, he spent several years as a laboratory analyst performing the analysis of soil, water, and air samples for inorganic and organic chemical parameters. During his last 20 years in the environmental laboratory business, he managed and directed two major analytical laboratories in Rochester, NY. His management responsibilities included oversight of the daily operations of the lab, staff training and supervision, the selection, purchase, and maintenance of analytical instruments, the introduction of new laboratory methods, analytical quality assurance and quality control, data acquisition and management, and other business-related activities.

Mr. Perry has an extensive working knowledge of the methods and procedures used for sampling and analyzing both inorganic and organic analytes in soil, water, and air. He is an accomplished laboratory chemist and is familiar with the analytical methods and procedures established under the USEPA Contract Laboratory Protocols (CLP), the NYSDEC Analytical Services Protocols (ASP), and the NYSDOH Environmental Laboratory Approval Program (ELAP).

DATA USABILITY SUMMARY REPORT (DUSR)

**31 Tonawanda
Buffalo, NY 14211
NYSDEC BCP # C91299**

SDG: 202239
1 water sample

Prepared for:

**BE3
1270 Niagara Street
Buffalo, NY 14213
Attention: John Berry**

July 2020



Environmental Data Usability 10028 Deerpark Dr. Dansville, NY 14437 585-991-9156

Table of Contents

	<u>Page No.</u>
REVIEWER'S NARRATIVE	
1.0 SUMMARY	1
2.0 INTRODUCTION	1
3.0 SAMPLE AND ANALYSIS SUMMARY	2
4.0 GUIDANCE DOCUMENTS AND DATA REVIEW CRITERIA	2
5.0 DATA VALIDATION QUALIFIERS	3
6.0 RESULTS OF THE DATA REVIEW	4
7.0 TOTAL USABLE DATA	4

APPENDIX A	Validated Analytical Results
APPENDIX B	Laboratory QC Documentation
APPENDIX C	Validator Qualifications

Tables

Table 4-1	Data Validation Guidance Documents
Table 4-2	Quality Control Criteria for Validating Laboratory Analytical Data

Summaries of Validated Results

Table 6-1	SVOCs
Table 6-2	Metals
Table 6-3	Sulfate and TOC

REVIEWER'S NARRATIVE
BE3 SDG 202239: 31 Tonawanda

The data associated with this Sample Delivery Group (SDG) 202239, analyzed by Paradigm Environmental Services, Inc. Rochester, NY have been reviewed in accordance with assessment criteria provided by the New York State Department of Environmental Conservation following the review procedures provided in the USEPA Functional Guidelines for evaluating organic and inorganic data.

All analytical results reported by the laboratory are considered valid and acceptable except results that have been qualified as rejected, "R". Results qualified as estimated "J", or as non-detects, "U", are considered usable for the purpose of evaluating water and/or soil quality. However, these qualifiers indicate that the accuracy and/or precision of the analytical result is questionable. A summary of all data that have been qualified and the reasons for qualification are provided in the following data usability summary report (DUSR).

Two facts should be noted by all data users. First, the "R" qualifier means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the analyte is present or not. Values qualified with an "R" should not appear on the final data tables because they cannot be relied upon, even as the last resort. Second, no analyte concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error.

Reviewer's Signature: Michael K. Perry Date: 7/22/2020
Michael K. Perry
Chemist

1.0 SUMMARY

SITE: 31 Tonawanda Street
Buffalo, NY 14211

SAMPLING DATE: May 22, 2020

SAMPLE TYPE: 1 water sample (31-MW-3)

LABORATORY: Paradigm Environmental Services, Inc.
Rochester, NY

SDG No.: 202239

2.0 INTRODUCTION

This data usability summary report (DUSR) was prepared in accordance with guidance provided by the New York State Department of Environmental Conservation (NYSDEC). The DUSR is based on a review and evaluation of the laboratory analytical data package. Specifically, the NYSDEC guidance recommends review and evaluation of the following elements of the data package:

- Completeness of the data package as defined under the requirements of the NYSDEC Analytical Services Protocols (ASP) Category B or the United States Environmental Protection Agency (USEPA) Contract Laboratory Program (CLP) deliverables,
- Compliance with established analyte holding times,
- Adherence to quality control (QC) limits and specifications for blanks, instrument tuning and calibration, surrogate recoveries, spike recoveries, laboratory duplicate analyses, and other QC criteria,
- Adherence to established analytical protocols,
- Conformance of data summary sheets with raw analytical data, and
- Use of correct data qualifiers.

Data deficiencies, analytical protocol deviations, and quality control problems identified using the review criteria above and their effect on the analytical results are discussed in this report.

3.0 SAMPLE AND ANALYSIS SUMMARY

The data package consists of analytical results for one water sample collected on May 22, 2020. This sample were analyzed for Volatile Organic Compounds (VOCs), Iron, Sulfate, and TOC.

All analyses were performed by Paradigm Environmental Services, Inc., Rochester, NY and analyzed as SDG 202239 except Sulfate and TOC were subcontracted to Alpha analytical in Westborough, MA and analyzed as SDG L2021382. The analytical results were provided in NYSDEC ASP Category B format, which includes all raw analytical data and laboratory QC data.

4.0 GUIDANCE DOCUMENTS AND DATA REVIEW CRITERIA

The guidance documents used for reviewing laboratory quality control (QC) data and assigning data qualifiers (flags) to analytical results are listed in Table 4-1. The QC limits established in the documents applicable to this data review were used to assess the quality of the analytical results. In some cases, however, QC limits established internally by the laboratory were taken into account to determine data quality.

The QC criteria considered for assessing the usability of the reported analytical results provided for each analyte type (i.e. VOCs, SVOCs, metals, etc.) are listed in Table 4-2. These criteria may vary with the analytical method utilized by the laboratory. These criteria comply with the guidance recommended in Section 2.0 above.

5.0 DATA VALIDATION QUALIFIERS

The letter qualifiers (flags) used to define data usability are described briefly below. These letters are assigned by the data validator to analytical results having questionable accuracy and/or precision as determined by reviewing the laboratory QC data associated with the analytical results.

TABLE 4-1

DATA VALIDATION GUIDANCE DOCUMENTS

Analyte Type	Validation Guidance
VOCs	USEPA, 2008, Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry; SW-846 Method 8260B; SOP # HW-24, Rev. 2. USEPA, 2008, Statement of Work for Organic Analysis of Low/Medium Concentration of Volatile Organic Compounds SQM01.2; SOP HW-33, Rev. 2.
SVOCs	USEPA, 2007, Statement of Work for Organic Analysis of Low/Medium Concentration of Semivolatile Organic Compounds SQM01.2; SOP HW-35, Rev. 1.
Pesticides/PCBs	USEPA, 2006, CLP Organics Data Review and Preliminary Review (CLP/SOW OLMO 4.3); SOP # HW-6, Rev. 14, Part C.
Metals	USEPA, 2006, Validation of Metals for the Contract Laboratory Program (CLP) based on SOW ILMO 5.3 (SOP Revision 13), SOP # HW-2, Rev. 13.
Gen Chemistry	NYSDEC, 2005, Analytical Services Protocols (ASP)
VOCs (Ambient air)	USEPA, 2006, Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canister by Method TO-15; SOP # HW-31, Rev. 4.
Perfluoroalkyl Substances (PFASs)	USEPA, 2018, Data Review and Validation Guidelines for Perfluoroalkyl Substances (PFASs) Analyzed Using EPA Method 537

TABLE 4-2

**QUALITY CONTROL CRITERIA USED FOR VALIDATING
LABORATORY ANALYTICAL DATA**

VOCs	SVOCs	Pesticides/PCBs	Metals	Gen Chemistry	Method TO-15
Completeness of Pkg Sample Preservation Holding Time System Monitoring Compounds Lab Control Sample Matrix Spikes Blanks Instrument Tuning Internal Standards Initial Calibration Continuing Calibration Lab Qualifiers Field Duplicate	Completeness of Pkg Sample Preservation Holding Time Surrogate Recoveries Lab Control Sample Matrix Spikes Blanks Instrument Tuning Internal Standards Initial Calibration Continuing Calibration Lab Qualifiers Field Duplicate	Completeness of Pkg Sample Preservation Holding Time Surrogate Recoveries Matrix Spikes Blanks Instrument Calibration & Verification Analyte ID Lab Qualifiers Field Duplicate	Completeness of Pkg Sample Preservation Holding Time Initial/Continuing Calibration CRDL Standards Blanks Interference Check Sample Spike Recoveries Lab Duplicate Lab Control Sample ICP Serial Dilutions Lab Qualifiers Field Duplicate	Completeness of Pkg Sample Preservation Holding Times Calibration Lab Control Samples Blanks Spike Recoveries Lab Duplicates	Completeness of Pkg Sample Preservation Holding Time Canister Certification Lab Control Sample Instrument Tuning Blanks Initial Calibration & System Performance Daily Calibration Field Duplicate

PFASs
Completeness of Pkg Sample Preservation Holding Time Instr Performance Check Initial Calibration Continuing Calibration Blanks Surrogates Lab Fortified Blank Matrix Spikes Internal Standards

The laboratory may also use various letters and symbols to flag analytical results generated when QC limits were exceeded. The meanings of these flags may differ from those used by the independent data validator. Those used by the laboratory are provided with the analytical results.

NOTE: The assignment of data qualifiers by the data reviewer (validator) to laboratory analytical results should not necessarily be interpreted by the data user as a measure of laboratory ability or proficiency. Rather, the qualifiers are intended to provide a measure of data accuracy and precision to the data user, which, for example, may provide a level of confidence in determining whether or not standards or cleanup objectives have been met.

- U** The analyte was analyzed for but was not detected at or above the sample quantitation limit.
- J** The analyte was positively identified; the associated numerical value is the *approximate* concentration of the analyte in the sample. (The magnitude of any \pm value associated with the result is not determined by data validation).
- UJ** The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is *approximate* and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R** The sample result is rejected (i.e., is unusable) due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.
- N** The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".
- JN** The analyte is considered to be "presumptively present." The associated numerical value represents its *approximate* concentration.

The validated analytical results are attached to this report. Validation qualifiers (flags) are indicated using red ink. Data sheets having qualified data are signed and dated by the data reviewer.

6.0 RESULTS OF THE DATA REVIEW

The results of the data review are summarized in Tables 6-1 through 6-3. The table lists the samples where QC criteria were found to exceed acceptable limits and the actions taken to qualify the associated analytical results.

7.0 TOTAL USABLE DATA

For SDG 202239, one sample was analyzed and results were reported for 31 analytes. All results (100 %) are considered usable. See the summary table for any associated QC issues.

NOTE: 1) The data packages for this project contained no laboratory QC data for the CRDL standard for metals (Form 2B) and the Serial Dilutions of metals (Form 8). Therefore, no evaluation of the CRDL recoveries and the serial dilution results were performed by this data reviewer and no data were qualified as a result.

Table 6-1 **VOCs**

SAMPLES AFFECTED	ANALYTES	ACTION	QC VIOLATION	COMMENTS
none			none	

Table 6-2 **Metals**

SAMPLES AFFECTED	ANALYTES	ACTION	QC VIOLATION	COMMENTS
none			none	

Table 6-3 **Wet Chemistry**

SAMPLES AFFECTED	ANALYTES	ACTION	QC VIOLATION	COMMENTS
none			none	

ACRONYMS

BSP	Blank Spike
CCAL	Continuing Calibration
CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification
CRDL	Contract Required Detection Limit
CRQL	Contract Required Quantitation Limit
%D	Percent Difference
ICAL	Initial Calibration
ICB	Initial Calibration Blank
IS	Internal Standard
LCS	Laboratory Control Sample
MS/MSD	Matrix Spike/Matrix Spike Duplicate
QA	Quality Assurance
QC	Quality Control
%R	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
%RSD	Percent Relative Standard Deviation
TAL	Target Analyte List (metals)
TCL	Target Compound List (organics)

Appendix A

Validated Analytical Results

LAB PROJECT NARRATIVE: 202239
PROJECT NAME: 31 Tonawanda
SDG: 2039-01
CLIENT: BE3

One Groundwater sample was collected by the client on May 22, 2020. The sample was received by the Paradigm Laboratory on May 26, 2020. Containers and holding times were acceptable at the time of receipt, the sample was received at 6°C and was on ice. The sample was submitted with the Chains-of-Custody requesting Halogenated VOCs, TOC, Dissolved Iron, and Sulfates. All analyses were performed using EPA SW-846 Methods and the associated holding times.

The items noted in this case narrative address compliance with the referenced methods, NYSDOH ELAP rules, and any project specific data quality requirements. These may be different from the usability criteria referenced in any “Functional Guidelines” or other data review standards used by data validators.

GENERAL NOTES

ALL ANALYSES

The initial and continuing calibration reports are only evaluated for compounds that are on the sample summary report.

Regarding results on QC summary forms versus included raw data, due to calculations made at the instrument where many significant figures may be used, there may be slight discrepancies between the summary report result and that recorded on the raw data. This does not affect data usability.

VOLATILES

Regarding initial calibrations, it should be noted that the Quantitation Report concentrations supplied for the initial calibration reflect the calibration prior to updating. The response factors and areas are correct.

Regarding Quantitation Reports, it should be noted that the “#” symbol that appears on some of the Quantitation Reports is a software artifact and should be disregarded.

Compounds flagged with an “*” on the summary table have been calibrated using a non-average Response Factor calibration curve. The supporting curves are located after the initial calibration table.

Holding time was met for the sample.

All surrogate recoveries for the sample and associated QC were within acceptance limits.

Site specific QC was not requested on this SDG. The Laboratory Control Sample recovered within acceptance limits.

The Method Blank was free from contamination within reportable ranges.

The instrument tunes passed all criteria and samples were within a 12-hour window.

The internal standards areas and retention times were within acceptance ranges.

All data for the initial calibrations was within acceptance limits for the reported analytes.

All continuing calibration data was within acceptance limits for the reported analytes.

METALS

ICP-AES interelement and background corrections were applied. Raw data was not generated before application of background corrections.

Holding time was met for the sample.

Site specific QC was not requested on this SDG. The Laboratory Control Samples recovered within acceptable limits. All LCS % differences were within acceptance limits.

The Method Blank was free from contamination within reportable ranges.

All data for the initial calibrations was within acceptance limits.

All continuing calibrations data was within acceptance limits.

SUBCONTRACTED ANALYSES

Sulfates by EPA method 9038, Total Organic Carbon by EPA 9060A were subcontracted to Alpha Analytical of Westborough, MA. Their reports are provided in their entirety as a separate entity after the Paradigm Environmental Services, Inc. report. Separate case narratives addressing the above parameters are included with their reports.

(signed) Steven DeVito
Steven DeVito – Technical Director

(date) 7/8/2020

BATCH LOG

Lab Name: Paradigm Environmental Services
Lab Project #: 202239
Client Name: BE3
Client Project Name: 31 Tonawanda
Client Project #: N/A
SDG No.: 2239-01

Protocol: SW846Report Due Date: 6/2/2020

Batch Due Date:

6/25/2020

[illegible]



Sampled By	Jesse Zientek	Date/Time	5/22/2020 9:47 Am	Total Cost:	<div style="border: 1px solid black; width: 150px; height: 100px;"></div>
Relinquished By	Jesse Zientek	Date/Time	5/22/2020 1:45 Pm		
Received By	Brian Zientek	Date/Time	5-22-20 1:45	P.I.F.	<div style="border: 1px solid black; width: 150px; height: 100px;"></div>
Received @ Lab By	Molly Vail	Date/Time	5/26/2020 1:54		

See additional page for sample conditions.

VOLATILE ORGANICS

SAMPLE DATA

No Data Validation Qualifiers Were Added

MKP 7/22/2020

METALS DATA

No Data Validation Qualifiers Were Added

MKP 7/22/2020



www.alphalab.com



Alpha Analytical

Laboratory Code: 11148

SDG Number: L2021328

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Project Name: 31 TONAWANDA
Project Number: 31 TONAWANDA

Lab Number: L2021328
Report Date: 05/29/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2021328-01	31-MW-3	WATER	Not Specified	05/22/20 09:47	05/22/20

Project Name: 31 TONAWANDA
Project Number: 31 TONAWANDA

Lab Number: L2021328
Report Date: 05/29/20

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

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: *Siffani Morrissey*

Report Date: 05/29/20

Title: Technical Director/Representative



REPORT TO:			INVOICE TO:		
COMPANY:	Paradigm Environmental	COMPANY:	Same	LAB PROJECT #:	CLIENT PROJECT #:
ADDRESS:	179 Lake Avenue	ADDRESS:			
CITY:	Rochester	STATE:	NY	ZIP:	14608
PHONE:		FAX:		TURNAROUND TIME: (WORKING DAYS)	
ATTN:	Reporting	ATTN:	Accounts Payable	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input checked="" type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> OTHER	
COMMENTS:	Please email results to reporting@paradigmenv.com			Date Due:	

[illegible]

Receipt Parameter		NELAC Compliance	
Container Type:		Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments: _____			
Preservation:		Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments: _____			
Holding Time:		Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments: _____			
Temperature:		Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments: _____			

Sampled By	Date/Time	Total
Brain Zuck	5-22-20 2:05	1405
Relinquished By	Date/Time	
BCG Ad	5-22-20 14:05	
Received By	Date/Time	P.I.F
Bl	5-22-20 14:05	
Received By	Date/Time	
Relinquished By	Date/Time	
Bl	5/23/20 00:50	
Received @ Lab By	Date/Time	

1

Wet Chemistry

No Data Validation Qualifiers Were Added

MKP 7/22/2020

Appendix B

Laboratory QC Documentation

Appendix C

Validator Qualifications

KENNETH R. APPLIN

Geochemist/Data Validator

Ph.D., Geochemistry and Mineralogy, The Pennsylvania State University

M.S., Geochemistry and Mineralogy, The Pennsylvania State University

B.A., Geological Sciences, SUNY at Geneseo, NY

Dr. Applin has over 35 years of experience working with the geochemistry of natural waters. His prior experience includes working as an Assistant Professor of Geology at the University of Missouri-Columbia and as Chief Hydrogeologist and Geochemist with a leading engineering firm in Rochester, NY. In 1993, he established KR Applin and Associates, a small consulting business that focuses on the geochemistry of natural waters, especially as applied to problems involving the contamination of groundwater and surface water.

Dr. Applin is also an experienced analytical data validator and has provided data validation services since 1994 to a variety of clients performing brownfield cleanup projects, hazardous waste remediation, groundwater monitoring at solid waste facilities, and other projects requiring third-party data validation. Dr. Applin has several years of hands-on experience with the laboratory analysis of natural waters and has successfully completed the USEPA Region II certification courses for performing inorganic and organic analytical data validation.

MICHAEL K. PERRY

Chemist/Data Validator

B.S. Chemistry, Georgia State University, Atlanta, GA

A.A.S., Chemical Technology, Alfred State College, Alfred, NY

Mr. Perry has over 30 years of experience in the analytical laboratory business. During his early career, he spent several years as a laboratory analyst performing the analysis of soil, water, and air samples for inorganic and organic chemical parameters. During his last 20 years in the environmental laboratory business, he managed and directed two major analytical laboratories in Rochester, NY. His management responsibilities included oversight of the daily operations of the lab, staff training and supervision, the selection, purchase, and maintenance of analytical instruments, the introduction of new laboratory methods, analytical quality assurance and quality control, data acquisition and management, and other business-related activities.

Mr. Perry has an extensive working knowledge of the methods and procedures used for sampling and analyzing both inorganic and organic analytes in soil, water, and air. He is an accomplished laboratory chemist and is familiar with the analytical methods and procedures established under the USEPA Contract Laboratory Protocols (CLP), the NYSDEC Analytical Services Protocols (ASP), and the NYSDOH Environmental Laboratory Approval Program (ELAP).

DATA USABILITY SUMMARY REPORT (DUSR)

**31 Tonawanda
Buffalo, NY 14211
NYSDEC BCP # C91299**

SDG: 204418
1 water sample

Prepared for:

**BE3 Corp.
960 Busti Avenue
Suite 150-B
Buffalo, NY 14213
Attention: John Berry**

November 2020



Environmental Data Usability 10028 Deer Park Dr. Dansville, NY 14437 585-991-9156

Table of Contents

	<u>Page No.</u>
REVIEWER'S NARRATIVE	
1.0 SUMMARY	1
2.0 INTRODUCTION	1
3.0 SAMPLE AND ANALYSIS SUMMARY	2
4.0 GUIDANCE DOCUMENTS AND DATA REVIEW CRITERIA	2
5.0 DATA VALIDATION QUALIFIERS	3
6.0 RESULTS OF THE DATA REVIEW	4
7.0 TOTAL USABLE DATA	4

APPENDIX A	Validated Analytical Results
APPENDIX B	Laboratory QC Documentation
APPENDIX C	Validator Qualifications

Tables

Table 4-1	Data Validation Guidance Documents
Table 4-2	Quality Control Criteria for Validating Laboratory Analytical Data

Summaries of Validated Results

Table 6-1	SVOCs
Table 6-2	Metals
Table 6-3	Sulfate and TOC

REVIEWER'S NARRATIVE

BE3 SDG 204418: 31 Tonawanda Street

The data associated with this Sample Delivery Group (SDG) 204418, analyzed by Paradigm Environmental Services, Inc. Rochester, NY have been reviewed in accordance with assessment criteria provided by the New York State Department of Environmental Conservation following the review procedures provided in the USEPA Functional Guidelines for evaluating organic and inorganic data.

All analytical results reported by the laboratory are considered valid and acceptable except results that have been qualified as rejected, "R". Results qualified as estimated "J", or as non-detects, "U", are considered usable for the purpose of evaluating water and/or soil quality. However, these qualifiers indicate that the accuracy and/or precision of the analytical result is questionable. A summary of all data that have been qualified and the reasons for qualification are provided in the following data usability summary report (DUSR).

Two facts should be noted by all data users. First, the "R" qualifier means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the analyte is present or not. Values qualified with an "R" should not appear on the final data tables because they cannot be relied upon, even as the last resort. Second, no analyte concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error.

Reviewer's Signature: Michael K. Perry Date: 11/18/20
Michael K. Perry
Chemist

1.0 SUMMARY

SITE: 31 Tonawanda Street
Buffalo, NY 14211

SAMPLING DATE: September 15, 2020

SAMPLE TYPE: 1 water sample (31-MW-3)

LABORATORY: Paradigm Environmental Services, Inc.
Rochester, NY

SDG No.: 204418

2.0 INTRODUCTION

This data usability summary report (DUSR) was prepared in accordance with guidance provided by the New York State Department of Environmental Conservation (NYSDEC). The DUSR is based on a review and evaluation of the laboratory analytical data package. Specifically, the NYSDEC guidance recommends review and evaluation of the following elements of the data package:

- Completeness of the data package as defined under the requirements of the NYSDEC Analytical Services Protocols (ASP) Category B or the United States Environmental Protection Agency (USEPA) Contract Laboratory Program (CLP) deliverables,
- Compliance with established analyte holding times,
- Adherence to quality control (QC) limits and specifications for blanks, instrument tuning and calibration, surrogate recoveries, spike recoveries, laboratory duplicate analyses, and other QC criteria,
- Adherence to established analytical protocols,
- Conformance of data summary sheets with raw analytical data, and
- Use of correct data qualifiers.

Data deficiencies, analytical protocol deviations, and quality control problems identified using the review criteria above and their effect on the analytical results are discussed in this report.

3.0 SAMPLE AND ANALYSIS SUMMARY

The data package consists of analytical results for one water sample collected on September 15, 2020. This sample were analyzed for Volatile Organic Compounds (VOCs), Iron, Sulfate, and TOC.

All analyses were performed by Paradigm Environmental Services, Inc., Rochester, NY and analyzed as SDG 204418 except Sulfate and TOC were subcontracted to Alpha Analytical in Westborough, MA and analyzed as SDG L2038411. The analytical results were provided in NYSDEC ASP Category B format, which includes all raw analytical data and laboratory QC data.

4.0 GUIDANCE DOCUMENTS AND DATA REVIEW CRITERIA

The guidance documents used for reviewing laboratory quality control (QC) data and assigning data qualifiers (flags) to analytical results are listed in Table 4-1. The QC limits established in the documents applicable to this data review were used to assess the quality of the analytical results. In some cases, however, QC limits established internally by the laboratory were taken into account to determine data quality.

The QC criteria considered for assessing the usability of the reported analytical results provided for each analyte type (i.e. VOCs, SVOCs, metals, etc.) are listed in Table 4-2. These criteria may vary with the analytical method utilized by the laboratory. These criteria comply with the guidance recommended in Section 2.0 above.

5.0 DATA VALIDATION QUALIFIERS

The letter qualifiers (flags) used to define data usability are described briefly below. These letters are assigned by the data validator to analytical results having questionable accuracy and/or precision as determined by reviewing the laboratory QC data associated with the analytical results.

TABLE 4-1

DATA VALIDATION GUIDANCE DOCUMENTS

Analyte Type	Validation Guidance
VOCs	USEPA, 2008, Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry; SW-846 Method 8260B; SOP # HW-24, Rev. 2. USEPA, 2008, Statement of Work for Organic Analysis of Low/Medium Concentration of Volatile Organic Compounds SQM01.2; SOP HW-33, Rev. 2.
SVOCs	USEPA, 2007, Statement of Work for Organic Analysis of Low/Medium Concentration of Semivolatile Organic Compounds SQM01.2; SOP HW-35, Rev. 1.
Pesticides/PCBs	USEPA, 2006, CLP Organics Data Review and Preliminary Review (CLP/SOW OLMO 4.3); SOP # HW-6, Rev. 14, Part C.
Metals	USEPA, 2006, Validation of Metals for the Contract Laboratory Program (CLP) based on SOW ILMO 5.3 (SOP Revision 13), SOP # HW-2, Rev. 13.
Gen Chemistry	NYSDEC, 2005, Analytical Services Protocols (ASP)
VOCs (Ambient air)	USEPA, 2006, Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canister by Method TO-15; SOP # HW-31, Rev. 4.
Perfluoroalkyl Substances (PFASs)	USEPA, 2018, Data Review and Validation Guidelines for Perfluoroalkyl Substances (PFASs) Analyzed Using EPA Method 537

TABLE 4-2

**QUALITY CONTROL CRITERIA USED FOR VALIDATING
LABORATORY ANALYTICAL DATA**

VOCs	SVOCs	Pesticides/PCBs	Metals	Gen Chemistry	Method TO-15
Completeness of Pkg Sample Preservation Holding Time System Monitoring Compounds Lab Control Sample Matrix Spikes Blanks Instrument Tuning Internal Standards Initial Calibration Continuing Calibration Lab Qualifiers Field Duplicate	Completeness of Pkg Sample Preservation Holding Time Surrogate Recoveries Lab Control Sample Matrix Spikes Blanks Instrument Tuning Internal Standards Initial Calibration Continuing Calibration Lab Qualifiers Field Duplicate	Completeness of Pkg Sample Preservation Holding Time Surrogate Recoveries Matrix Spikes Blanks Instrument Calibration & Verification Analyte ID Lab Qualifiers Field Duplicate	Completeness of Pkg Sample Preservation Holding Time Initial/Continuing Calibration CRDL Standards Blanks Interference Check Sample Spike Recoveries Lab Duplicate Lab Control Sample ICP Serial Dilutions Lab Qualifiers Field Duplicate	Completeness of Pkg Sample Preservation Holding Times Calibration Lab Control Samples Blanks Spike Recoveries Lab Duplicates	Completeness of Pkg Sample Preservation Holding Time Canister Certification Lab Control Sample Instrument Tuning Blanks Initial Calibration & System Performance Daily Calibration Field Duplicate

PFASs
Completeness of Pkg Sample Preservation Holding Time Instr Performance Check Initial Calibration Continuing Calibration Blanks Surrogates Lab Fortified Blank Matrix Spikes Internal Standards

The laboratory may also use various letters and symbols to flag analytical results generated when QC limits were exceeded. The meanings of these flags may differ from those used by the independent data validator. Those used by the laboratory are provided with the analytical results.

NOTE: The assignment of data qualifiers by the data reviewer (validator) to laboratory analytical results should not necessarily be interpreted by the data user as a measure of laboratory ability or proficiency. Rather, the qualifiers are intended to provide a measure of data accuracy and precision to the data user, which, for example, may provide a level of confidence in determining whether or not standards or cleanup objectives have been met.

- U** The analyte was analyzed for but was not detected at or above the sample quantitation limit.
- J** The analyte was positively identified; the associated numerical value is the *approximate* concentration of the analyte in the sample. (The magnitude of any \pm value associated with the result is not determined by data validation).
- UJ** The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is *approximate* and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R** The sample result is rejected (i.e., is unusable) due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.
- N** The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".
- JN** The analyte is considered to be "presumptively present." The associated numerical value represents its *approximate* concentration.

The validated analytical results are attached to this report. Validation qualifiers (flags) are indicated using red ink. Data sheets having qualified data are signed and dated by the data reviewer.

6.0 RESULTS OF THE DATA REVIEW

The results of the data review are summarized in Tables 6-1 through 6-3. The table lists the samples where QC criteria were found to exceed acceptable limits and the actions taken to qualify the associated analytical results.

7.0 TOTAL USABLE DATA

For SDG 204418, one sample was analyzed and results were reported for 64 analytes. All results (100 %) are considered usable. See the summary table for any associated QC issues.

NOTE: 1) The data packages for this project contained no laboratory QC data for the CRDL standard for metals (Form 2B) and the Serial Dilutions of metals (Form 8). Therefore, no evaluation of the CRDL recoveries and the serial dilution results were performed by this data reviewer and no data were qualified as a result.

Table 6-1 **VOCs**

SAMPLES AFFECTED	ANALYTES	ACTION	QC VIOLATION	COMMENTS
none			none	

Table 6-2 **Metals**

SAMPLES AFFECTED	ANALYTES	ACTION	QC VIOLATION	COMMENTS
none			none	

Table 6-3 **Wet Chemistry**

SAMPLES AFFECTED	ANALYTES	ACTION	QC VIOLATION	COMMENTS
31-MW-3	Sulfate	J Detects	Detected in method blank	Results < 10X method blank contamination are estimated

ACRONYMS

BSP	Blank Spike
CCAL	Continuing Calibration
CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification
CRDL	Contract Required Detection Limit
CRQL	Contract Required Quantitation Limit
%D	Percent Difference
ICAL	Initial Calibration
ICB	Initial Calibration Blank
IS	Internal Standard
LCS	Laboratory Control Sample
MS/MSD	Matrix Spike/Matrix Spike Duplicate
QA	Quality Assurance
QC	Quality Control
%R	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
%RSD	Percent Relative Standard Deviation
TAL	Target Analyte List (metals)
TCL	Target Compound List (organics)

Appendix A

Validated Analytical Results

LAB PROJECT NARRATIVE: 204418
PROJECT NAME: 31 Tonawanda
SDG: 4418-01
CLIENT: BE3

One groundwater sample was collected by the client on September 15, 2020 and was received by the Paradigm Laboratory on September 16, 2020. Containers and holding times were acceptable at the time of receipt; the sample was received at 5°C and was on ice. The sample was submitted with the Chains-of-Custody requesting Dissolved Oxygen, the Part 375 list for VOCs, Sulfate, Total Organic Carbon, and Dissolved Iron. All analyses were performed using EPA SW-846 Methods and the associated holding times.

The items noted in this case narrative address compliance with the referenced methods, NYSDOH ELAP rules, and any project specific data quality requirements. These may be different from the usability criteria referenced in any “Functional Guidelines” or other data review standards used by data validators.

GENERAL NOTES

ALL ANALYSES

The initial and continuing calibration reports are only evaluated for compounds that are on the sample summary report.

Regarding results on QC summary forms versus included raw data, due to calculations made at the instrument where many significant figures may be used, there may be slight discrepancies between the summary report result and that recorded on the raw data. This does not affect data usability.

VOLATILES

Regarding initial calibrations, it should be noted that the Quantitation Report concentrations supplied for the initial calibration reflect the calibration prior to updating. The response factors and areas are correct.

Regarding Quantitation Reports, it should be noted that the “#” symbol that appears on some of the Quantitation Reports is a software artifact and should be disregarded.

Compounds flagged with an “*” on the summary table have been calibrated using a non-average Response Factor calibration curve. The supporting curves are located after the initial calibration table.

Holding time was met for the sample.

All surrogate recoveries for the sample and associated QC were within acceptance limits.

Site specific QC was not requested on this SDG. The Laboratory Control Sample recovered within acceptance limits.

The Method Blank was free from contamination within reportable ranges.

The instrument tunes passed all criteria and samples were within a 12-hour window.

All internal standards areas and retention times were within acceptance ranges for the sample and QC.

All data for the initial calibration was within acceptance limits for the reported analytes.

All continuing calibration data was within acceptance limits for the reported analytes.

METALS

ICP-AES interelement and background corrections were applied. Raw data was not generated before application of background corrections.

Holding times were met for the samples.

Site specific QC was not requested on this SDG. The Laboratory Control Samples recovered within acceptable limits. All LCS % differences were within acceptance limits.

The Method Blank was free from contamination within reportable ranges.

All data for the initial calibrations was within acceptance limits.

All continuing calibrations data was within acceptance limits.

Wet Chemistry – Dissolved Oxygen

There are no Laboratory Control Samples associated with this analysis.

There are no Method Blanks associated with this analysis.

SUBCONTRACTED ANALYSES

Total Organic Carbon by EPA 9060A and Sulfate by EPA 9038 were subcontracted to Alpha Analytical of Westborough, MA. Their reports are provided in their entirety as a separate entity after the Paradigm Environmental Services, Inc. report. Separate case narratives addressing the above parameters are included with their reports.

(signed) Steven DeVito
Steven DeVito – Technical Director

(date) 10/27/2020

1082

**CHAIN OF CUSTODY**

PROJECT REFERENCE		REPORT TO:		INVOICE TO:		LAB PROJECT ID	
31 Tonawanda		CLIENT: BE3 Corp		CLIENT:		204418	
		ADDRESS: 960 Bush Ave Suite B50		ADDRESS:		Quotation #:	
		CITY: Buffalo STATE: NY ZIP:		CITY: STATE: ZIP:		Email:	
		PHONE: 716-462-7401		PHONE:		jzientek@be3corp.com	
		ATTN: Jesse Zientek		ATTN:			
		Matrix Codes:					
		AQ - Aqueous Liquid		WA - Water		DW - Drinking Water	
		NQ - Non-Aqueous Liquid		WG - Groundwater		WW - Wastewater	
				SO - Soil		SD - Solid	
				SL - Sludge		WP - Wipe	
						CK - Caulk	
						OL - Oil	
						AR - Air	
REQUESTED ANALYSIS							
DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX	CONTAINER	REMARKS
9/15/20	0930		X	31-mw-3	GW	5	include CVOA
							for dissolved Fe
							mw 9/16/2020
							sub sent directly to
							sub lab mw 9/16/2020

Turnaround Time		Report Supplements	
Availability contingent upon lab approval; additional fees may apply.			
Standard 5 day <input checked="" type="checkbox"/>	None Required <input type="checkbox"/>	None Required <input type="checkbox"/>	
10 day <input type="checkbox"/>	Batch QC <input type="checkbox"/>	Basic EDD <input type="checkbox"/>	
Rush 3 day <input type="checkbox"/>	Category A <input type="checkbox"/>	NYSDEC EDD <input checked="" type="checkbox"/>	
Rush 2 day <input type="checkbox"/>	Category B <input checked="" type="checkbox"/>		
Rush 1 day <input type="checkbox"/>			
Date Needed _____	Other <input type="checkbox"/>	Other EDD <input type="checkbox"/>	
please indicate date needed: _____	please indicate package needed: _____	please indicate EDD needed: _____	

Sampled By: Jesse Zientek Date/Time: 9/15/2020 9:30
 Relinquished By: Nancy J... Date/Time: 9/15/2020
 Received By: Brian Z... Date/Time: 9/15/20 2:05
 Received @ Lab By: Molly Mail Date/Time: 9/16/2020 1554
 5°C iced 9/16/2020 15:02 No activity seals

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

VOLATILE ORGANICS

SAMPLE DATA

No Data Validation Qualifiers Were Added

MKP 11/16/2020



Lab Project ID: 204418

Client: **BE3**

Project Reference: 31 Tonawanda

Sample Identifier: 31-MW-3

Lab Sample ID: 204418-01

Date Sampled: 9/15/2020

Matrix: Groundwater

Date Received: 9/16/2020

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	26500	ug/L		9/17/2020 17:52
1,1,2,2-Tetrachloroethane	< 500	ug/L		9/17/2020 17:52
1,1,2-Trichloroethane	< 500	ug/L		9/17/2020 17:52
1,1-Dichloroethane	26100	ug/L		9/17/2020 17:52
1,1-Dichloroethene	630	ug/L		9/17/2020 17:52
1,2,3-Trichlorobenzene	< 1250	ug/L		9/17/2020 17:52
1,2,4-Trichlorobenzene	< 1250	ug/L		9/17/2020 17:52
1,2,4-Trimethylbenzene	< 500	ug/L		9/17/2020 17:52
1,2-Dibromo-3-Chloropropane	< 2500	ug/L		9/17/2020 17:52
1,2-Dibromoethane	< 500	ug/L		9/17/2020 17:52
1,2-Dichlorobenzene	< 500	ug/L		9/17/2020 17:52
1,2-Dichloroethane	< 500	ug/L		9/17/2020 17:52
1,2-Dichloropropane	< 500	ug/L		9/17/2020 17:52
1,3,5-Trimethylbenzene	< 500	ug/L		9/17/2020 17:52
1,3-Dichlorobenzene	< 500	ug/L		9/17/2020 17:52
1,4-Dichlorobenzene	< 500	ug/L		9/17/2020 17:52
1,4-Dioxane	< 5000	ug/L		9/17/2020 17:52
2-Butanone	< 2500	ug/L		9/17/2020 17:52
2-Hexanone	< 1250	ug/L		9/17/2020 17:52
4-Methyl-2-pentanone	< 1250	ug/L		9/17/2020 17:52
Acetone	< 2500	ug/L		9/17/2020 17:52
Benzene	< 250	ug/L		9/17/2020 17:52
Bromochloromethane	< 1250	ug/L		9/17/2020 17:52

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.



Lab Project ID: 204418

Client: **BE3**

Project Reference: 31 Tonawanda

Sample Identifier: 31-MW-3

Lab Sample ID: 204418-01

Date Sampled: 9/15/2020

Matrix: Groundwater

Date Received: 9/16/2020

Bromodichloromethane	< 500	ug/L	9/17/2020 17:52
Bromoform	< 1250	ug/L	9/17/2020 17:52
Bromomethane	< 500	ug/L	9/17/2020 17:52
Carbon disulfide	< 500	ug/L	9/17/2020 17:52
Carbon Tetrachloride	< 500	ug/L	9/17/2020 17:52
Chlorobenzene	< 500	ug/L	9/17/2020 17:52
Chloroethane	21900	ug/L	9/17/2020 17:52
Chloroform	< 500	ug/L	9/17/2020 17:52
Chloromethane	< 500	ug/L	9/17/2020 17:52
cis-1,2-Dichloroethene	28200	ug/L	9/17/2020 17:52
cis-1,3-Dichloropropene	< 500	ug/L	9/17/2020 17:52
Cyclohexane	< 2500	ug/L	9/17/2020 17:52
Dibromochloromethane	< 500	ug/L	9/17/2020 17:52
Dichlorodifluoromethane	< 500	ug/L	9/17/2020 17:52
Ethylbenzene	< 500	ug/L	9/17/2020 17:52
Freon 113	< 500	ug/L	9/17/2020 17:52
Isopropylbenzene	< 500	ug/L	9/17/2020 17:52
m,p-Xylene	< 500	ug/L	9/17/2020 17:52
Methyl acetate	< 500	ug/L	9/17/2020 17:52
Methyl tert-butyl Ether	< 500	ug/L	9/17/2020 17:52
Methylcyclohexane	< 500	ug/L	9/17/2020 17:52
Methylene chloride	1000	ug/L	J 9/17/2020 17:52
Naphthalene	< 1250	ug/L	9/17/2020 17:52
n-Butylbenzene	< 500	ug/L	9/17/2020 17:52
n-Propylbenzene	< 500	ug/L	9/17/2020 17:52

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.



Lab Project ID: 204418

Client: **BE3**

Project Reference: 31 Tonawanda

Sample Identifier:		31-MW-3			
Lab Sample ID:		204418-01		Date Sampled:	9/15/2020
Matrix:		Groundwater		Date Received:	9/16/2020
o-Xylene	< 500	ug/L			9/17/2020 17:52
p-Isopropyltoluene	< 500	ug/L			9/17/2020 17:52
sec-Butylbenzene	< 500	ug/L			9/17/2020 17:52
Styrene	< 1250	ug/L			9/17/2020 17:52
tert-Butylbenzene	< 500	ug/L			9/17/2020 17:52
Tetrachloroethene	< 500	ug/L			9/17/2020 17:52
Toluene	< 500	ug/L			9/17/2020 17:52
trans-1,2-Dichloroethene	284	ug/L	J		9/17/2020 17:52
trans-1,3-Dichloropropene	< 500	ug/L			9/17/2020 17:52
Trichloroethene	1290	ug/L			9/17/2020 17:52
Trichlorofluoromethane	< 500	ug/L			9/17/2020 17:52
Vinyl chloride	3770	ug/L			9/17/2020 17:52
Surrogate	Percent Recovery		Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	91.9		70.9 - 139		9/17/2020 17:52
4-Bromofluorobenzene	79.6		59.5 - 129		9/17/2020 17:52
Pentafluorobenzene	101		89.3 - 117		9/17/2020 17:52
Toluene-D8	93.8		82.9 - 115		9/17/2020 17:52

Method Reference(s): EPA 8260C
EPA 5030C
Data File: x73345.D

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.

METALS DATA

No Data Validation Qualifiers Were Added

MKP 11/16/2020



Lab Project ID: 204418

Client: **BE3**

Project Reference: 31 Tonawanda

Sample Identifier: 31-MW-3

Lab Sample ID: 204418-01A

Date Sampled: 9/15/2020

Matrix: Groundwater

Date Received: 9/16/2020

Dissolved Metals

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Iron	887	mg/L		9/21/2020 15:16

Method Reference(s): EPA 6010C

EPA 3005A

Preparation Date: 9/18/2020

Data File: 200921B

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.

WETCHEM DATA



Lab Project ID: 204418

Client: **BE3**

Project Reference: 31 Tonawanda

Sample Identifier: 31-MW-3

Lab Sample ID: 204418-01

Date Sampled: 9/15/2020

Matrix: Groundwater

Date Received: 9/16/2020

Dissolved Oxygen

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Dissolved Oxygen	1.40	mg/L	A	9/22/2020 15:05

Method Reference(s): SM 4500 O G

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.



www.alphalab.com



Alpha Analytical

Laboratory Code: 11148

SDG Number: L2038411

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Project Name: 31 TONAWANDA ST
Project Number: 31 TONAWANDA ST

Lab Number: L2038411
Report Date: 09/21/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2038411-01	31 - MW - 3	WATER	Not Specified	09/15/20 09:30	09/15/20

Project Name: 31 TONAWANDA ST
Project Number: 31 TONAWANDA ST

Lab Number: L2038411
Report Date: 09/21/20

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

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:  Report Date: 09/21/20
Title: Technical Director/Representative

**CHAIN OF CUSTODY**

L2038411

11148

REPORT TO:				INVOICE TO:			
COMPANY: Paradigm Environmental		COMPANY: Same		LAB PROJECT #:		CLIENT PROJECT #:	
ADDRESS: 179 Lake Avenue		ADDRESS:					
CITY: Rochester STATE: NY ZIP: 14608		CITY: STATE: ZIP:		TURNAROUND TIME: (WORKING DAYS)			
PHONE: FAX:		PHONE: FAX:					
ATTN: Reporting		ATTN: Accounts Payable		<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input checked="" type="checkbox"/> 4 <input type="checkbox"/> 5		STD <input type="checkbox"/> OTHER <input type="checkbox"/>	
PROJECT NAME/SITE NAME: 31 Tonawanda St		COMMENTS: Please email results to reporting@paradigmenv.com		Date Due:			

REQUESTED ANALYSIS																REMARKS	PARADIGM LAB SAMPLE NUMBER			
DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	CONTAINER	Sulfate	TOC												
9/15/20	9:30		X	31 - MW - 3	GW	3	X	X												
																Category B and NYSDEC				
																EDD required.				
																<i>Sulfate and TOC are preserved</i>				

****LAB USE ONLY BELOW THIS LINE****

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

Receipt Parameter	NELAC Compliance	
Container Type:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		
Preservation:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		
Holding Time:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		
Temperature:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		

Client	
Sampled By <i>Brian Zuch</i>	Date/Time <i>9/15/20 16:00</i>
Relinquished By <i>WJF</i>	Date/Time <i>9/15/20 1600</i>
Received By <i>Carl Z</i>	Date/Time <i>9/15/20 1600</i>
Received By <i>retrieved by [signature]</i>	Date/Time <i>9/16/20 01:35</i>
Received @ Lab By	Date/Time

Total Cost:

P.I.F.

Total Organic Carbon Analysis

No Data Validation Qualifiers Were Added

MKP 11/16/2020

Form 1

WETCHEM

Client	: Paradigm Environmental Services	Lab Number	: L2038411
Project Name	: 31 TONAWANDA ST	Project Number	: 31 TONAWANDA ST
Lab ID	: L2038411-01	Date Collected	: 09/15/20 09:30
Client ID	: 31 - MW - 3	Date Received	: 09/15/20
Sample Location	:	Date Analyzed	: 09/17/20 13:08
Sample Matrix	: WATER	Dilution Factor	: 400
Analytical Method	: 1,9060A	Analyst	: DW
Lab File ID	: WG1410952	Instrument ID	: TOC-VW4
Sample Amount	:	%Solids	: N/A
Digestion Method	:	Date Digested	:

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7440-44-0	Total Organic Carbon	1700	200	46.	

Sulfate Analysis

Form 1

WETCHEM

Client	: Paradigm Environmental Services	Lab Number	: L2038411
Project Name	: 31 TONAWANDA ST	Project Number	: 31 TONAWANDA ST
Lab ID	: L2038411-01	Date Collected	: 09/15/20 09:30
Client ID	: 31 - MW - 3	Date Received	: 09/15/20
Sample Location	:	Date Analyzed	: 09/17/20 10:20
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,9038	Analyst	: MV
Lab File ID	: WG1410967.csv	Instrument ID	: SPEC 2
Sample Amount	:	%Solids	: N/A
Digestion Method	:	Date Digested	: 09/17/20

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
14808-79-8	Sulfate	11. J	10	1.4	

MKP 11/16/2020



Appendix B

Laboratory QC Documentation

Form 1

WETCHEM

Client : Paradigm Environmental Services
 Project Name : 31 TONAWANDA ST
 Lab ID : WG1410967-1
 Client ID : WG1410967-1BLANK
 Sample Location :
 Sample Matrix : WATER
 Analytical Method : 1,9038
 Lab File ID : WG1410967.csv
 Sample Amount :
 Digestion Method :

Lab Number : L2038411
 Project Number : 31 TONAWANDA ST
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 09/17/20 10:20
 Dilution Factor : 1
 Analyst : MV
 Instrument ID : SPEC 2
 %Solids : N/A
 Date Digested : 09/17/20

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
14808-79-8	Sulfate	1.5	10	1.4	J



Appendix C

Validator Qualifications

KENNETH R. APPLIN

Geochemist/Data Validator

Ph.D., Geochemistry and Mineralogy, The Pennsylvania State University

M.S., Geochemistry and Mineralogy, The Pennsylvania State University

B.A., Geological Sciences, SUNY at Geneseo, NY

Dr. Applin has over 35 years of experience working with the geochemistry of natural waters. His prior experience includes working as an Assistant Professor of Geology at the University of Missouri-Columbia and as Chief Hydrogeologist and Geochemist with a leading engineering firm in Rochester, NY. In 1993, he established KR Applin and Associates, a small consulting business that focuses on the geochemistry of natural waters, especially as applied to problems involving the contamination of groundwater and surface water.

Dr. Applin is also an experienced analytical data validator and has provided data validation services since 1994 to a variety of clients performing brownfield cleanup projects, hazardous waste remediation, groundwater monitoring at solid waste facilities, and other projects requiring third-party data validation. Dr. Applin has several years of hands-on experience with the laboratory analysis of natural waters and has successfully completed the USEPA Region II certification courses for performing inorganic and organic analytical data validation.

MICHAEL K. PERRY

Chemist/Data Validator

B.S. Chemistry, Georgia State University, Atlanta, GA

A.A.S., Chemical Technology, Alfred State College, Alfred, NY

Mr. Perry has over 30 years of experience in the analytical laboratory business. During his early career, he spent several years as a laboratory analyst performing the analysis of soil, water, and air samples for inorganic and organic chemical parameters. During his last 20 years in the environmental laboratory business, he managed and directed two major analytical laboratories in Rochester, NY. His management responsibilities included oversight of the daily operations of the lab, staff training and supervision, the selection, purchase, and maintenance of analytical instruments, the introduction of new laboratory methods, analytical quality assurance and quality control, data acquisition and management, and other business-related activities.

Mr. Perry has an extensive working knowledge of the methods and procedures used for sampling and analyzing both inorganic and organic analytes in soil, water, and air. He is an accomplished laboratory chemist and is familiar with the analytical methods and procedures established under the USEPA Contract Laboratory Protocols (CLP), the NYSDEC Analytical Services Protocols (ASP), and the NYSDOH Environmental Laboratory Approval Program (ELAP).



PARADIGM
ENVIRONMENTAL SERVICES, INC.

Analytical Report For

BE3

For Lab Project ID

193078

Referencing

Marrano

Prepared

Monday, July 22, 2019

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

Portions of the enclosed report reflects analysis that has been subcontracted and are presented in their original form.

A handwritten signature in black ink, appearing to be "Sun", is written above a horizontal line.

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

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.

Report Prepared Monday, July 22, 2019

Page 1 of 155

Client: BE3
Project Reference: Marrano

Sample Identifier: 1001

Lab Sample ID: 193078-01

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Volatile Organics

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1,1-Trichloroethane	< 9.95	ug/Kg		7/9/2019 14:17
1,1,2,2-Tetrachloroethane	< 9.95	ug/Kg		7/9/2019 14:17
1,1,2-Trichloroethane	< 9.95	ug/Kg		7/9/2019 14:17
1,1-Dichloroethane	< 9.95	ug/Kg		7/9/2019 14:17
1,1-Dichloroethene	< 9.95	ug/Kg		7/9/2019 14:17
1,2,3-Trichlorobenzene	< 24.9	ug/Kg		7/9/2019 14:17
1,2,4-Trichlorobenzene	< 24.9	ug/Kg		7/9/2019 14:17
1,2,4-Trimethylbenzene	< 9.95	ug/Kg		7/9/2019 14:17
1,2-Dibromo-3-Chloropropane	< 49.7	ug/Kg		7/9/2019 14:17
1,2-Dibromoethane	< 9.95	ug/Kg		7/9/2019 14:17
1,2-Dichlorobenzene	< 9.95	ug/Kg		7/9/2019 14:17
1,2-Dichloroethane	< 9.95	ug/Kg		7/9/2019 14:17
1,2-Dichloropropane	< 9.95	ug/Kg		7/9/2019 14:17
1,3,5-Trimethylbenzene	< 9.95	ug/Kg		7/9/2019 14:17
1,3-Dichlorobenzene	< 9.95	ug/Kg		7/9/2019 14:17
1,4-Dichlorobenzene	< 9.95	ug/Kg		7/9/2019 14:17
1,4-Dioxane	< 99.5	ug/Kg		7/9/2019 14:17
2-Butanone	< 49.7	ug/Kg		7/9/2019 14:17
2-Hexanone	< 24.9	ug/Kg		7/9/2019 14:17
4-Methyl-2-pentanone	< 24.9	ug/Kg		7/9/2019 14:17
Acetone	< 49.7	ug/Kg		7/9/2019 14:17
Benzene	< 9.95	ug/Kg		7/9/2019 14:17
Bromochloromethane	< 24.9	ug/Kg		7/9/2019 14:17
Bromodichloromethane	< 9.95	ug/Kg		7/9/2019 14:17
Bromoform	< 24.9	ug/Kg		7/9/2019 14:17
Bromomethane	< 9.95	ug/Kg		7/9/2019 14:17
Carbon disulfide	< 9.95	ug/Kg		7/9/2019 14:17
Carbon Tetrachloride	< 9.95	ug/Kg		7/9/2019 14:17

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.

Lab Project ID: 193078
Client: BE3
Project Reference: Marrano

Sample Identifier: 1001

Lab Sample ID: 193078-01

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Chlorobenzene	< 9.95	ug/Kg	7/9/2019 14:17
Chloroethane	< 9.95	ug/Kg	7/9/2019 14:17
Chloroform	< 9.95	ug/Kg	7/9/2019 14:17
Chloromethane	< 9.95	ug/Kg	7/9/2019 14:17
cis-1,2-Dichloroethene	< 9.95	ug/Kg	7/9/2019 14:17
cis-1,3-Dichloropropene	< 9.95	ug/Kg	7/9/2019 14:17
Cyclohexane	< 49.7	ug/Kg	7/9/2019 14:17
Dibromochloromethane	< 9.95	ug/Kg	7/9/2019 14:17
Dichlorodifluoromethane	< 9.95	ug/Kg	7/9/2019 14:17
Ethylbenzene	< 9.95	ug/Kg	7/9/2019 14:17
Freon 113	< 9.95	ug/Kg	7/9/2019 14:17
Isopropylbenzene	< 9.95	ug/Kg	7/9/2019 14:17
m,p-Xylene	< 9.95	ug/Kg	7/9/2019 14:17
Methyl acetate	< 9.95	ug/Kg	7/9/2019 14:17
Methyl tert-butyl Ether	< 9.95	ug/Kg	7/9/2019 14:17
Methylcyclohexane	< 9.95	ug/Kg	7/9/2019 14:17
Methylene chloride	< 24.9	ug/Kg	7/9/2019 14:17
Naphthalene	< 24.9	ug/Kg	7/9/2019 14:17
n-Butylbenzene	< 9.95	ug/Kg	7/9/2019 14:17
n-Propylbenzene	< 9.95	ug/Kg	7/9/2019 14:17
o-Xylene	< 9.95	ug/Kg	7/9/2019 14:17
p-Isopropyltoluene	< 9.95	ug/Kg	7/9/2019 14:17
sec-Butylbenzene	< 9.95	ug/Kg	7/9/2019 14:17
Styrene	< 24.9	ug/Kg	7/9/2019 14:17
tert-Butylbenzene	< 9.95	ug/Kg	7/9/2019 14:17
Tetrachloroethene	< 9.95	ug/Kg	7/9/2019 14:17
Toluene	< 9.95	ug/Kg	7/9/2019 14:17
trans-1,2-Dichloroethene	< 9.95	ug/Kg	7/9/2019 14:17
trans-1,3-Dichloropropene	< 9.95	ug/Kg	7/9/2019 14:17
Trichloroethene	< 9.95	ug/Kg	7/9/2019 14:17

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.



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 1001

Lab Sample ID: 193078-01

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Trichlorofluoromethane	< 9.95	ug/Kg	7/9/2019 14:17
Vinyl chloride	< 9.95	ug/Kg	7/9/2019 14:17

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
1,2-Dichloroethane-d4	125	71 - 141		7/9/2019 14:17
4-Bromofluorobenzene	87.3	60.2 - 128		7/9/2019 14:17
Pentafluorobenzene	91.3	86.6 - 111		7/9/2019 14:17
Toluene-D8	91.7	77.5 - 115		7/9/2019 14:17

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x62459.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: 193078

Client: BE3
Project Reference: Marrano

Sample Identifier: 1002

Lab Sample ID: 193078-02

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Volatile Organics

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1,1-Trichloroethane	< 6.06	ug/Kg		7/9/2019 14:40
1,1,2,2-Tetrachloroethane	< 6.06	ug/Kg		7/9/2019 14:40
1,1,2-Trichloroethane	< 6.06	ug/Kg		7/9/2019 14:40
1,1-Dichloroethane	< 6.06	ug/Kg		7/9/2019 14:40
1,1-Dichloroethene	< 6.06	ug/Kg		7/9/2019 14:40
1,2,3-Trichlorobenzene	< 15.2	ug/Kg		7/9/2019 14:40
1,2,4-Trichlorobenzene	< 15.2	ug/Kg		7/9/2019 14:40
1,2,4-Trimethylbenzene	< 6.06	ug/Kg		7/9/2019 14:40
1,2-Dibromo-3-Chloropropane	< 30.3	ug/Kg		7/9/2019 14:40
1,2-Dibromoethane	< 6.06	ug/Kg		7/9/2019 14:40
1,2-Dichlorobenzene	< 6.06	ug/Kg		7/9/2019 14:40
1,2-Dichloroethane	< 6.06	ug/Kg		7/9/2019 14:40
1,2-Dichloropropane	< 6.06	ug/Kg		7/9/2019 14:40
1,3,5-Trimethylbenzene	< 6.06	ug/Kg		7/9/2019 14:40
1,3-Dichlorobenzene	< 6.06	ug/Kg		7/9/2019 14:40
1,4-Dichlorobenzene	< 6.06	ug/Kg		7/9/2019 14:40
1,4-Dioxane	< 60.6	ug/Kg		7/9/2019 14:40
2-Butanone	< 30.3	ug/Kg		7/9/2019 14:40
2-Hexanone	< 15.2	ug/Kg		7/9/2019 14:40
4-Methyl-2-pentanone	< 15.2	ug/Kg		7/9/2019 14:40
Acetone	< 30.3	ug/Kg		7/9/2019 14:40
Benzene	< 6.06	ug/Kg		7/9/2019 14:40
Bromochloromethane	< 15.2	ug/Kg		7/9/2019 14:40
Bromodichloromethane	< 6.06	ug/Kg		7/9/2019 14:40
Bromoform	< 15.2	ug/Kg		7/9/2019 14:40
Bromomethane	< 6.06	ug/Kg		7/9/2019 14:40
Carbon disulfide	< 6.06	ug/Kg		7/9/2019 14:40
Carbon Tetrachloride	< 6.06	ug/Kg		7/9/2019 14:40

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.

Lab Project ID: 193078
Client: BE3
Project Reference: Marrano

Sample Identifier: 1002

Lab Sample ID: 193078-02

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Chlorobenzene	< 6.06	ug/Kg	7/9/2019 14:40
Chloroethane	< 6.06	ug/Kg	7/9/2019 14:40
Chloroform	< 6.06	ug/Kg	7/9/2019 14:40
Chloromethane	< 6.06	ug/Kg	7/9/2019 14:40
cis-1,2-Dichloroethene	< 6.06	ug/Kg	7/9/2019 14:40
cis-1,3-Dichloropropene	< 6.06	ug/Kg	7/9/2019 14:40
Cyclohexane	< 30.3	ug/Kg	7/9/2019 14:40
Dibromochloromethane	< 6.06	ug/Kg	7/9/2019 14:40
Dichlorodifluoromethane	< 6.06	ug/Kg	7/9/2019 14:40
Ethylbenzene	< 6.06	ug/Kg	7/9/2019 14:40
Freon 113	< 6.06	ug/Kg	7/9/2019 14:40
Isopropylbenzene	< 6.06	ug/Kg	7/9/2019 14:40
m,p-Xylene	< 6.06	ug/Kg	7/9/2019 14:40
Methyl acetate	< 6.06	ug/Kg	7/9/2019 14:40
Methyl tert-butyl Ether	< 6.06	ug/Kg	7/9/2019 14:40
Methylcyclohexane	< 6.06	ug/Kg	7/9/2019 14:40
Methylene chloride	< 15.2	ug/Kg	7/9/2019 14:40
Naphthalene	< 15.2	ug/Kg	7/9/2019 14:40
n-Butylbenzene	< 6.06	ug/Kg	7/9/2019 14:40
n-Propylbenzene	< 6.06	ug/Kg	7/9/2019 14:40
o-Xylene	< 6.06	ug/Kg	7/9/2019 14:40
p-Isopropyltoluene	< 6.06	ug/Kg	7/9/2019 14:40
sec-Butylbenzene	< 6.06	ug/Kg	7/9/2019 14:40
Styrene	< 15.2	ug/Kg	7/9/2019 14:40
tert-Butylbenzene	< 6.06	ug/Kg	7/9/2019 14:40
Tetrachloroethene	< 6.06	ug/Kg	7/9/2019 14:40
Toluene	< 6.06	ug/Kg	7/9/2019 14:40
trans-1,2-Dichloroethene	< 6.06	ug/Kg	7/9/2019 14:40
trans-1,3-Dichloropropene	< 6.06	ug/Kg	7/9/2019 14:40
Trichloroethene	< 6.06	ug/Kg	7/9/2019 14:40

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.



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 1002

Lab Sample ID: 193078-02

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Trichlorofluoromethane	< 6.06	ug/Kg		7/9/2019 14:40
Vinyl chloride	< 6.06	ug/Kg		7/9/2019 14:40
Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	129	71 - 141		7/9/2019 14:40
4-Bromofluorobenzene	86.4	60.2 - 128		7/9/2019 14:40
Pentafluorobenzene	87.3	86.6 - 111		7/9/2019 14:40
Toluene-D8	90.9	77.5 - 115		7/9/2019 14:40

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x62460.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: 193078

Client: BE3
Project Reference: Marrano

Sample Identifier: 1003

Lab Sample ID: 193078-03

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Volatile Organics

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1,1-Trichloroethane	< 7.42	ug/Kg		7/9/2019 15:03
1,1,2,2-Tetrachloroethane	< 7.42	ug/Kg		7/9/2019 15:03
1,1,2-Trichloroethane	< 7.42	ug/Kg		7/9/2019 15:03
1,1-Dichloroethane	< 7.42	ug/Kg		7/9/2019 15:03
1,1-Dichloroethene	< 7.42	ug/Kg		7/9/2019 15:03
1,2,3-Trichlorobenzene	< 18.6	ug/Kg		7/9/2019 15:03
1,2,4-Trichlorobenzene	< 18.6	ug/Kg		7/9/2019 15:03
1,2,4-Trimethylbenzene	< 7.42	ug/Kg		7/9/2019 15:03
1,2-Dibromo-3-Chloropropane	< 37.1	ug/Kg		7/9/2019 15:03
1,2-Dibromoethane	< 7.42	ug/Kg		7/9/2019 15:03
1,2-Dichlorobenzene	< 7.42	ug/Kg		7/9/2019 15:03
1,2-Dichloroethane	< 7.42	ug/Kg		7/9/2019 15:03
1,2-Dichloropropane	< 7.42	ug/Kg		7/9/2019 15:03
1,3,5-Trimethylbenzene	< 7.42	ug/Kg		7/9/2019 15:03
1,3-Dichlorobenzene	< 7.42	ug/Kg		7/9/2019 15:03
1,4-Dichlorobenzene	< 7.42	ug/Kg		7/9/2019 15:03
1,4-Dioxane	< 74.2	ug/Kg		7/9/2019 15:03
2-Butanone	< 37.1	ug/Kg		7/9/2019 15:03
2-Hexanone	< 18.6	ug/Kg		7/9/2019 15:03
4-Methyl-2-pentanone	< 18.6	ug/Kg		7/9/2019 15:03
Acetone	< 37.1	ug/Kg		7/9/2019 15:03
Benzene	< 7.42	ug/Kg		7/9/2019 15:03
Bromochloromethane	< 18.6	ug/Kg		7/9/2019 15:03
Bromodichloromethane	< 7.42	ug/Kg		7/9/2019 15:03
Bromoform	< 18.6	ug/Kg		7/9/2019 15:03
Bromomethane	< 7.42	ug/Kg		7/9/2019 15:03
Carbon disulfide	< 7.42	ug/Kg		7/9/2019 15:03
Carbon Tetrachloride	< 7.42	ug/Kg		7/9/2019 15:03

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.



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 1003

Lab Sample ID: 193078-03

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Chlorobenzene	< 7.42	ug/Kg	7/9/2019 15:03
Chloroethane	< 7.42	ug/Kg	7/9/2019 15:03
Chloroform	< 7.42	ug/Kg	7/9/2019 15:03
Chloromethane	< 7.42	ug/Kg	7/9/2019 15:03
cis-1,2-Dichloroethene	< 7.42	ug/Kg	7/9/2019 15:03
cis-1,3-Dichloropropene	< 7.42	ug/Kg	7/9/2019 15:03
Cyclohexane	< 37.1	ug/Kg	7/9/2019 15:03
Dibromochloromethane	< 7.42	ug/Kg	7/9/2019 15:03
Dichlorodifluoromethane	< 7.42	ug/Kg	7/9/2019 15:03
Ethylbenzene	< 7.42	ug/Kg	7/9/2019 15:03
Freon 113	< 7.42	ug/Kg	7/9/2019 15:03
Isopropylbenzene	< 7.42	ug/Kg	7/9/2019 15:03
m,p-Xylene	< 7.42	ug/Kg	7/9/2019 15:03
Methyl acetate	< 7.42	ug/Kg	7/9/2019 15:03
Methyl tert-butyl Ether	< 7.42	ug/Kg	7/9/2019 15:03
Methylcyclohexane	< 7.42	ug/Kg	7/9/2019 15:03
Methylene chloride	< 18.6	ug/Kg	7/9/2019 15:03
Naphthalene	< 18.6	ug/Kg	7/9/2019 15:03
n-Butylbenzene	< 7.42	ug/Kg	7/9/2019 15:03
n-Propylbenzene	< 7.42	ug/Kg	7/9/2019 15:03
o-Xylene	< 7.42	ug/Kg	7/9/2019 15:03
p-Isopropyltoluene	< 7.42	ug/Kg	7/9/2019 15:03
sec-Butylbenzene	< 7.42	ug/Kg	7/9/2019 15:03
Styrene	< 18.6	ug/Kg	7/9/2019 15:03
tert-Butylbenzene	< 7.42	ug/Kg	7/9/2019 15:03
Tetrachloroethene	< 7.42	ug/Kg	7/9/2019 15:03
Toluene	< 7.42	ug/Kg	7/9/2019 15:03
trans-1,2-Dichloroethene	< 7.42	ug/Kg	7/9/2019 15:03
trans-1,3-Dichloropropene	< 7.42	ug/Kg	7/9/2019 15:03
Trichloroethene	< 7.42	ug/Kg	7/9/2019 15:03

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.

Report Prepared Monday, July 22, 2019

Page 9 of 155



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 1003

Lab Sample ID: 193078-03

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Trichlorofluoromethane	< 7.42	ug/Kg		7/9/2019 15:03
Vinyl chloride	< 7.42	ug/Kg		7/9/2019 15:03
Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	129	71 - 141		7/9/2019 15:03
4-Bromofluorobenzene	94.0	60.2 - 128		7/9/2019 15:03
Pentafluorobenzene	89.0	86.6 - 111		7/9/2019 15:03
Toluene-D8	91.2	77.5 - 115		7/9/2019 15:03

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x62461.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.



Client: **BE3**

Project Reference: Marrano

Sample Identifier: 1004

Lab Sample ID: 193078-04

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 7.83	ug/Kg		7/9/2019 15:26
1,1,2,2-Tetrachloroethane	< 7.83	ug/Kg		7/9/2019 15:26
1,1,2-Trichloroethane	< 7.83	ug/Kg		7/9/2019 15:26
1,1-Dichloroethane	< 7.83	ug/Kg		7/9/2019 15:26
1,1-Dichloroethene	< 7.83	ug/Kg		7/9/2019 15:26
1,2,3-Trichlorobenzene	< 19.6	ug/Kg		7/9/2019 15:26
1,2,4-Trichlorobenzene	< 19.6	ug/Kg		7/9/2019 15:26
1,2,4-Trimethylbenzene	< 7.83	ug/Kg		7/9/2019 15:26
1,2-Dibromo-3-Chloropropane	< 39.2	ug/Kg		7/9/2019 15:26
1,2-Dibromoethane	< 7.83	ug/Kg		7/9/2019 15:26
1,2-Dichlorobenzene	< 7.83	ug/Kg		7/9/2019 15:26
1,2-Dichloroethane	< 7.83	ug/Kg		7/9/2019 15:26
1,2-Dichloropropane	< 7.83	ug/Kg		7/9/2019 15:26
1,3,5-Trimethylbenzene	< 7.83	ug/Kg		7/9/2019 15:26
1,3-Dichlorobenzene	< 7.83	ug/Kg		7/9/2019 15:26
1,4-Dichlorobenzene	< 7.83	ug/Kg		7/9/2019 15:26
1,4-Dioxane	< 78.3	ug/Kg		7/9/2019 15:26
2-Butanone	< 39.2	ug/Kg		7/9/2019 15:26
2-Hexanone	< 19.6	ug/Kg		7/9/2019 15:26
4-Methyl-2-pentanone	< 19.6	ug/Kg		7/9/2019 15:26
Acetone	< 39.2	ug/Kg		7/9/2019 15:26
Benzene	< 7.83	ug/Kg		7/9/2019 15:26
Bromochloromethane	< 19.6	ug/Kg		7/9/2019 15:26
Bromodichloromethane	< 7.83	ug/Kg		7/9/2019 15:26
Bromoform	< 19.6	ug/Kg		7/9/2019 15:26
Bromomethane	< 7.83	ug/Kg		7/9/2019 15:26
Carbon disulfide	< 7.83	ug/Kg		7/9/2019 15:26
Carbon Tetrachloride	< 7.83	ug/Kg		7/9/2019 15:26

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.

Client: BE3
Project Reference: Marrano

Sample Identifier: 1004

Lab Sample ID: 193078-04

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Chlorobenzene	< 7.83	ug/Kg	7/9/2019 15:26
Chloroethane	< 7.83	ug/Kg	7/9/2019 15:26
Chloroform	< 7.83	ug/Kg	7/9/2019 15:26
Chloromethane	< 7.83	ug/Kg	7/9/2019 15:26
cis-1,2-Dichloroethene	< 7.83	ug/Kg	7/9/2019 15:26
cis-1,3-Dichloropropene	< 7.83	ug/Kg	7/9/2019 15:26
Cyclohexane	< 39.2	ug/Kg	7/9/2019 15:26
Dibromochloromethane	< 7.83	ug/Kg	7/9/2019 15:26
Dichlorodifluoromethane	< 7.83	ug/Kg	7/9/2019 15:26
Ethylbenzene	< 7.83	ug/Kg	7/9/2019 15:26
Freon 113	< 7.83	ug/Kg	7/9/2019 15:26
Isopropylbenzene	< 7.83	ug/Kg	7/9/2019 15:26
m,p-Xylene	< 7.83	ug/Kg	7/9/2019 15:26
Methyl acetate	< 7.83	ug/Kg	7/9/2019 15:26
Methyl tert-butyl Ether	< 7.83	ug/Kg	7/9/2019 15:26
Methylcyclohexane	< 7.83	ug/Kg	7/9/2019 15:26
Methylene chloride	< 19.6	ug/Kg	7/9/2019 15:26
Naphthalene	< 19.6	ug/Kg	7/9/2019 15:26
n-Butylbenzene	< 7.83	ug/Kg	7/9/2019 15:26
n-Propylbenzene	< 7.83	ug/Kg	7/9/2019 15:26
o-Xylene	< 7.83	ug/Kg	7/9/2019 15:26
p-Isopropyltoluene	< 7.83	ug/Kg	7/9/2019 15:26
sec-Butylbenzene	< 7.83	ug/Kg	7/9/2019 15:26
Styrene	< 19.6	ug/Kg	7/9/2019 15:26
tert-Butylbenzene	< 7.83	ug/Kg	7/9/2019 15:26
Tetrachloroethene	< 7.83	ug/Kg	7/9/2019 15:26
Toluene	< 7.83	ug/Kg	7/9/2019 15:26
trans-1,2-Dichloroethene	< 7.83	ug/Kg	7/9/2019 15:26
trans-1,3-Dichloropropene	< 7.83	ug/Kg	7/9/2019 15:26
Trichloroethene	< 7.83	ug/Kg	7/9/2019 15:26

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.



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 1004

Lab Sample ID: 193078-04

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Trichlorofluoromethane	< 7.83	ug/Kg		7/9/2019 15:26
Vinyl chloride	< 7.83	ug/Kg		7/9/2019 15:26
Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	129	71 - 141		7/9/2019 15:26
4-Bromofluorobenzene	92.4	60.2 - 128		7/9/2019 15:26
Pentafluorobenzene	91.1	86.6 - 111		7/9/2019 15:26
Toluene-D8	91.0	77.5 - 115		7/9/2019 15:26

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x62462.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: 193078

Client: BE3
Project Reference: Marrano

Sample Identifier: 1005

Lab Sample ID: 193078-05

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Volatile Organics

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1,1-Trichloroethane	< 8.35	ug/Kg		7/9/2019 15:49
1,1,2,2-Tetrachloroethane	< 8.35	ug/Kg		7/9/2019 15:49
1,1,2-Trichloroethane	< 8.35	ug/Kg		7/9/2019 15:49
1,1-Dichloroethane	< 8.35	ug/Kg		7/9/2019 15:49
1,1-Dichloroethene	< 8.35	ug/Kg		7/9/2019 15:49
1,2,3-Trichlorobenzene	< 20.9	ug/Kg		7/9/2019 15:49
1,2,4-Trichlorobenzene	< 20.9	ug/Kg		7/9/2019 15:49
1,2,4-Trimethylbenzene	< 8.35	ug/Kg		7/9/2019 15:49
1,2-Dibromo-3-Chloropropane	< 41.8	ug/Kg		7/9/2019 15:49
1,2-Dibromoethane	< 8.35	ug/Kg		7/9/2019 15:49
1,2-Dichlorobenzene	< 8.35	ug/Kg		7/9/2019 15:49
1,2-Dichloroethane	< 8.35	ug/Kg		7/9/2019 15:49
1,2-Dichloropropane	< 8.35	ug/Kg		7/9/2019 15:49
1,3,5-Trimethylbenzene	< 8.35	ug/Kg		7/9/2019 15:49
1,3-Dichlorobenzene	< 8.35	ug/Kg		7/9/2019 15:49
1,4-Dichlorobenzene	< 8.35	ug/Kg		7/9/2019 15:49
1,4-Dioxane	< 83.5	ug/Kg		7/9/2019 15:49
2-Butanone	< 41.8	ug/Kg		7/9/2019 15:49
2-Hexanone	< 20.9	ug/Kg		7/9/2019 15:49
4-Methyl-2-pentanone	< 20.9	ug/Kg		7/9/2019 15:49
Acetone	< 41.8	ug/Kg		7/9/2019 15:49
Benzene	< 8.35	ug/Kg		7/9/2019 15:49
Bromochloromethane	< 20.9	ug/Kg		7/9/2019 15:49
Bromodichloromethane	< 8.35	ug/Kg		7/9/2019 15:49
Bromoform	< 20.9	ug/Kg		7/9/2019 15:49
Bromomethane	< 8.35	ug/Kg		7/9/2019 15:49
Carbon disulfide	< 8.35	ug/Kg		7/9/2019 15:49
Carbon Tetrachloride	< 8.35	ug/Kg		7/9/2019 15:49

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.



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 1005

Lab Sample ID: 193078-05

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Chlorobenzene	< 8.35	ug/Kg	7/9/2019 15:49
Chloroethane	< 8.35	ug/Kg	7/9/2019 15:49
Chloroform	< 8.35	ug/Kg	7/9/2019 15:49
Chloromethane	< 8.35	ug/Kg	7/9/2019 15:49
cis-1,2-Dichloroethene	< 8.35	ug/Kg	7/9/2019 15:49
cis-1,3-Dichloropropene	< 8.35	ug/Kg	7/9/2019 15:49
Cyclohexane	< 41.8	ug/Kg	7/9/2019 15:49
Dibromochloromethane	< 8.35	ug/Kg	7/9/2019 15:49
Dichlorodifluoromethane	< 8.35	ug/Kg	7/9/2019 15:49
Ethylbenzene	< 8.35	ug/Kg	7/9/2019 15:49
Freon 113	< 8.35	ug/Kg	7/9/2019 15:49
Isopropylbenzene	< 8.35	ug/Kg	7/9/2019 15:49
m,p-Xylene	< 8.35	ug/Kg	7/9/2019 15:49
Methyl acetate	< 8.35	ug/Kg	7/9/2019 15:49
Methyl tert-butyl Ether	< 8.35	ug/Kg	7/9/2019 15:49
Methylcyclohexane	< 8.35	ug/Kg	7/9/2019 15:49
Methylene chloride	< 20.9	ug/Kg	7/9/2019 15:49
Naphthalene	< 20.9	ug/Kg	7/9/2019 15:49
n-Butylbenzene	< 8.35	ug/Kg	7/9/2019 15:49
n-Propylbenzene	< 8.35	ug/Kg	7/9/2019 15:49
o-Xylene	< 8.35	ug/Kg	7/9/2019 15:49
p-Isopropyltoluene	< 8.35	ug/Kg	7/9/2019 15:49
sec-Butylbenzene	< 8.35	ug/Kg	7/9/2019 15:49
Styrene	< 20.9	ug/Kg	7/9/2019 15:49
tert-Butylbenzene	< 8.35	ug/Kg	7/9/2019 15:49
Tetrachloroethene	< 8.35	ug/Kg	7/9/2019 15:49
Toluene	< 8.35	ug/Kg	7/9/2019 15:49
trans-1,2-Dichloroethene	< 8.35	ug/Kg	7/9/2019 15:49
trans-1,3-Dichloropropene	< 8.35	ug/Kg	7/9/2019 15:49
Trichloroethene	< 8.35	ug/Kg	7/9/2019 15:49

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.

Report Prepared Monday, July 22, 2019

Page 15 of 155



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 1005

Lab Sample ID: 193078-05

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Trichlorofluoromethane	< 8.35	ug/Kg		7/9/2019 15:49
Vinyl chloride	< 8.35	ug/Kg		7/9/2019 15:49
Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	138	71 - 141		7/9/2019 15:49
4-Bromofluorobenzene	88.8	60.2 - 128		7/9/2019 15:49
Pentafluorobenzene	96.3	86.6 - 111		7/9/2019 15:49
Toluene-D8	91.9	77.5 - 115		7/9/2019 15:49

Method Reference(s): EPA 8260C
EPA 5035A - L
Data File: x62463.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.



Client: **BE3**

Project Reference: Marrano

Sample Identifier: 1006

Lab Sample ID: 193078-06

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 7.90	ug/Kg		7/9/2019 16:11
1,1,2,2-Tetrachloroethane	< 7.90	ug/Kg		7/9/2019 16:11
1,1,2-Trichloroethane	< 7.90	ug/Kg		7/9/2019 16:11
1,1-Dichloroethane	< 7.90	ug/Kg		7/9/2019 16:11
1,1-Dichloroethene	< 7.90	ug/Kg		7/9/2019 16:11
1,2,3-Trichlorobenzene	< 19.8	ug/Kg		7/9/2019 16:11
1,2,4-Trichlorobenzene	< 19.8	ug/Kg		7/9/2019 16:11
1,2,4-Trimethylbenzene	< 7.90	ug/Kg		7/9/2019 16:11
1,2-Dibromo-3-Chloropropane	< 39.5	ug/Kg		7/9/2019 16:11
1,2-Dibromoethane	< 7.90	ug/Kg		7/9/2019 16:11
1,2-Dichlorobenzene	< 7.90	ug/Kg		7/9/2019 16:11
1,2-Dichloroethane	< 7.90	ug/Kg		7/9/2019 16:11
1,2-Dichloropropane	< 7.90	ug/Kg		7/9/2019 16:11
1,3,5-Trimethylbenzene	< 7.90	ug/Kg		7/9/2019 16:11
1,3-Dichlorobenzene	< 7.90	ug/Kg		7/9/2019 16:11
1,4-Dichlorobenzene	< 7.90	ug/Kg		7/9/2019 16:11
1,4-Dioxane	< 79.0	ug/Kg		7/9/2019 16:11
2-Butanone	< 39.5	ug/Kg		7/9/2019 16:11
2-Hexanone	< 19.8	ug/Kg		7/9/2019 16:11
4-Methyl-2-pentanone	< 19.8	ug/Kg		7/9/2019 16:11
Acetone	< 39.5	ug/Kg		7/9/2019 16:11
Benzene	< 7.90	ug/Kg		7/9/2019 16:11
Bromochloromethane	< 19.8	ug/Kg		7/9/2019 16:11
Bromodichloromethane	< 7.90	ug/Kg		7/9/2019 16:11
Bromoform	< 19.8	ug/Kg		7/9/2019 16:11
Bromomethane	< 7.90	ug/Kg		7/9/2019 16:11
Carbon disulfide	< 7.90	ug/Kg		7/9/2019 16:11
Carbon Tetrachloride	< 7.90	ug/Kg		7/9/2019 16:11

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.

Lab Project ID: 193078
Client: BE3
Project Reference: Marrano

Sample Identifier: 1006

Lab Sample ID: 193078-06

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Chlorobenzene	< 7.90	ug/Kg	7/9/2019 16:11
Chloroethane	< 7.90	ug/Kg	7/9/2019 16:11
Chloroform	< 7.90	ug/Kg	7/9/2019 16:11
Chloromethane	< 7.90	ug/Kg	7/9/2019 16:11
cis-1,2-Dichloroethene	< 7.90	ug/Kg	7/9/2019 16:11
cis-1,3-Dichloropropene	< 7.90	ug/Kg	7/9/2019 16:11
Cyclohexane	< 39.5	ug/Kg	7/9/2019 16:11
Dibromochloromethane	< 7.90	ug/Kg	7/9/2019 16:11
Dichlorodifluoromethane	< 7.90	ug/Kg	7/9/2019 16:11
Ethylbenzene	< 7.90	ug/Kg	7/9/2019 16:11
Freon 113	< 7.90	ug/Kg	7/9/2019 16:11
Isopropylbenzene	< 7.90	ug/Kg	7/9/2019 16:11
m,p-Xylene	< 7.90	ug/Kg	7/9/2019 16:11
Methyl acetate	< 7.90	ug/Kg	7/9/2019 16:11
Methyl tert-butyl Ether	< 7.90	ug/Kg	7/9/2019 16:11
Methylcyclohexane	< 7.90	ug/Kg	7/9/2019 16:11
Methylene chloride	< 19.8	ug/Kg	7/9/2019 16:11
Naphthalene	< 19.8	ug/Kg	7/9/2019 16:11
n-Butylbenzene	< 7.90	ug/Kg	7/9/2019 16:11
n-Propylbenzene	< 7.90	ug/Kg	7/9/2019 16:11
o-Xylene	< 7.90	ug/Kg	7/9/2019 16:11
p-Isopropyltoluene	< 7.90	ug/Kg	7/9/2019 16:11
sec-Butylbenzene	< 7.90	ug/Kg	7/9/2019 16:11
Styrene	< 19.8	ug/Kg	7/9/2019 16:11
tert-Butylbenzene	< 7.90	ug/Kg	7/9/2019 16:11
Tetrachloroethene	< 7.90	ug/Kg	7/9/2019 16:11
Toluene	< 7.90	ug/Kg	7/9/2019 16:11
trans-1,2-Dichloroethene	< 7.90	ug/Kg	7/9/2019 16:11
trans-1,3-Dichloropropene	< 7.90	ug/Kg	7/9/2019 16:11
Trichloroethene	< 7.90	ug/Kg	7/9/2019 16:11

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.



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 1006

Lab Sample ID: 193078-06

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Trichlorofluoromethane	< 7.90	ug/Kg		7/9/2019 16:11
Vinyl chloride	< 7.90	ug/Kg		7/9/2019 16:11
Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	131	71 - 141		7/9/2019 16:11
4-Bromofluorobenzene	92.2	60.2 - 128		7/9/2019 16:11
Pentafluorobenzene	91.3	86.6 - 111		7/9/2019 16:11
Toluene-D8	92.6	77.5 - 115		7/9/2019 16:11

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x62464.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.



Client: **BE3**

Project Reference: Marrano

Sample Identifier: 1007

Lab Sample ID: 193078-07

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 9.02	ug/Kg		7/9/2019 16:34
1,1,2,2-Tetrachloroethane	< 9.02	ug/Kg		7/9/2019 16:34
1,1,2-Trichloroethane	< 9.02	ug/Kg		7/9/2019 16:34
1,1-Dichloroethane	< 9.02	ug/Kg		7/9/2019 16:34
1,1-Dichloroethene	< 9.02	ug/Kg		7/9/2019 16:34
1,2,3-Trichlorobenzene	< 22.6	ug/Kg		7/9/2019 16:34
1,2,4-Trichlorobenzene	< 22.6	ug/Kg		7/9/2019 16:34
1,2,4-Trimethylbenzene	< 9.02	ug/Kg		7/9/2019 16:34
1,2-Dibromo-3-Chloropropane	< 45.1	ug/Kg		7/9/2019 16:34
1,2-Dibromoethane	< 9.02	ug/Kg		7/9/2019 16:34
1,2-Dichlorobenzene	< 9.02	ug/Kg		7/9/2019 16:34
1,2-Dichloroethane	< 9.02	ug/Kg		7/9/2019 16:34
1,2-Dichloropropane	< 9.02	ug/Kg		7/9/2019 16:34
1,3,5-Trimethylbenzene	< 9.02	ug/Kg		7/9/2019 16:34
1,3-Dichlorobenzene	< 9.02	ug/Kg		7/9/2019 16:34
1,4-Dichlorobenzene	< 9.02	ug/Kg		7/9/2019 16:34
1,4-Dioxane	< 90.2	ug/Kg		7/9/2019 16:34
2-Butanone	< 45.1	ug/Kg		7/9/2019 16:34
2-Hexanone	< 22.6	ug/Kg		7/9/2019 16:34
4-Methyl-2-pentanone	< 22.6	ug/Kg		7/9/2019 16:34
Acetone	< 45.1	ug/Kg		7/9/2019 16:34
Benzene	< 9.02	ug/Kg		7/9/2019 16:34
Bromochloromethane	< 22.6	ug/Kg		7/9/2019 16:34
Bromodichloromethane	< 9.02	ug/Kg		7/9/2019 16:34
Bromoform	< 22.6	ug/Kg		7/9/2019 16:34
Bromomethane	< 9.02	ug/Kg		7/9/2019 16:34
Carbon disulfide	< 9.02	ug/Kg		7/9/2019 16:34
Carbon Tetrachloride	< 9.02	ug/Kg		7/9/2019 16:34

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.



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 1007

Lab Sample ID: 193078-07

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Chlorobenzene	< 9.02	ug/Kg	7/9/2019 16:34
Chloroethane	< 9.02	ug/Kg	7/9/2019 16:34
Chloroform	< 9.02	ug/Kg	7/9/2019 16:34
Chloromethane	< 9.02	ug/Kg	7/9/2019 16:34
cis-1,2-Dichloroethene	< 9.02	ug/Kg	7/9/2019 16:34
cis-1,3-Dichloropropene	< 9.02	ug/Kg	7/9/2019 16:34
Cyclohexane	< 45.1	ug/Kg	7/9/2019 16:34
Dibromochloromethane	< 9.02	ug/Kg	7/9/2019 16:34
Dichlorodifluoromethane	< 9.02	ug/Kg	7/9/2019 16:34
Ethylbenzene	< 9.02	ug/Kg	7/9/2019 16:34
Freon 113	< 9.02	ug/Kg	7/9/2019 16:34
Isopropylbenzene	< 9.02	ug/Kg	7/9/2019 16:34
m,p-Xylene	< 9.02	ug/Kg	7/9/2019 16:34
Methyl acetate	< 9.02	ug/Kg	7/9/2019 16:34
Methyl tert-butyl Ether	< 9.02	ug/Kg	7/9/2019 16:34
Methylcyclohexane	< 9.02	ug/Kg	7/9/2019 16:34
Methylene chloride	< 22.6	ug/Kg	7/9/2019 16:34
Naphthalene	< 22.6	ug/Kg	7/9/2019 16:34
n-Butylbenzene	< 9.02	ug/Kg	7/9/2019 16:34
n-Propylbenzene	< 9.02	ug/Kg	7/9/2019 16:34
o-Xylene	< 9.02	ug/Kg	7/9/2019 16:34
p-Isopropyltoluene	< 9.02	ug/Kg	7/9/2019 16:34
sec-Butylbenzene	< 9.02	ug/Kg	7/9/2019 16:34
Styrene	< 22.6	ug/Kg	7/9/2019 16:34
tert-Butylbenzene	< 9.02	ug/Kg	7/9/2019 16:34
Tetrachloroethene	< 9.02	ug/Kg	7/9/2019 16:34
Toluene	< 9.02	ug/Kg	7/9/2019 16:34
trans-1,2-Dichloroethene	< 9.02	ug/Kg	7/9/2019 16:34
trans-1,3-Dichloropropene	< 9.02	ug/Kg	7/9/2019 16:34
Trichloroethene	< 9.02	ug/Kg	7/9/2019 16:34

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.



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 1007

Lab Sample ID: 193078-07

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Trichlorofluoromethane	< 9.02	ug/Kg		7/9/2019 16:34
Vinyl chloride	< 9.02	ug/Kg		7/9/2019 16:34
Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	130	71 - 141		7/9/2019 16:34
4-Bromofluorobenzene	88.7	60.2 - 128		7/9/2019 16:34
Pentafluorobenzene	90.3	86.6 - 111		7/9/2019 16:34
Toluene-D8	89.9	77.5 - 115		7/9/2019 16:34

Method Reference(s): EPA 8260C
EPA 5035A - L
Data File: x62465.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: 193078

Client: BE3
Project Reference: Marrano

Sample Identifier: 2001

Lab Sample ID: 193078-08

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Volatile Organics

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1,1-Trichloroethane	< 8.40	ug/Kg		7/9/2019 16:57
1,1,2,2-Tetrachloroethane	< 8.40	ug/Kg		7/9/2019 16:57
1,1,2-Trichloroethane	< 8.40	ug/Kg		7/9/2019 16:57
1,1-Dichloroethane	< 8.40	ug/Kg		7/9/2019 16:57
1,1-Dichloroethene	< 8.40	ug/Kg		7/9/2019 16:57
1,2,3-Trichlorobenzene	< 21.0	ug/Kg		7/9/2019 16:57
1,2,4-Trichlorobenzene	< 21.0	ug/Kg		7/9/2019 16:57
1,2,4-Trimethylbenzene	< 8.40	ug/Kg		7/9/2019 16:57
1,2-Dibromo-3-Chloropropane	< 42.0	ug/Kg		7/9/2019 16:57
1,2-Dibromoethane	< 8.40	ug/Kg		7/9/2019 16:57
1,2-Dichlorobenzene	< 8.40	ug/Kg		7/9/2019 16:57
1,2-Dichloroethane	< 8.40	ug/Kg		7/9/2019 16:57
1,2-Dichloropropane	< 8.40	ug/Kg		7/9/2019 16:57
1,3,5-Trimethylbenzene	< 8.40	ug/Kg		7/9/2019 16:57
1,3-Dichlorobenzene	< 8.40	ug/Kg		7/9/2019 16:57
1,4-Dichlorobenzene	< 8.40	ug/Kg		7/9/2019 16:57
1,4-Dioxane	< 84.0	ug/Kg		7/9/2019 16:57
2-Butanone	< 42.0	ug/Kg		7/9/2019 16:57
2-Hexanone	< 21.0	ug/Kg		7/9/2019 16:57
4-Methyl-2-pentanone	< 21.0	ug/Kg		7/9/2019 16:57
Acetone	< 42.0	ug/Kg		7/9/2019 16:57
Benzene	< 8.40	ug/Kg		7/9/2019 16:57
Bromochloromethane	< 21.0	ug/Kg		7/9/2019 16:57
Bromodichloromethane	< 8.40	ug/Kg		7/9/2019 16:57
Bromoform	< 21.0	ug/Kg		7/9/2019 16:57
Bromomethane	< 8.40	ug/Kg		7/9/2019 16:57
Carbon disulfide	< 8.40	ug/Kg		7/9/2019 16:57
Carbon Tetrachloride	< 8.40	ug/Kg		7/9/2019 16:57

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.



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 2001

Lab Sample ID: 193078-08

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Chlorobenzene	< 8.40	ug/Kg	7/9/2019 16:57
Chloroethane	< 8.40	ug/Kg	7/9/2019 16:57
Chloroform	< 8.40	ug/Kg	7/9/2019 16:57
Chloromethane	< 8.40	ug/Kg	7/9/2019 16:57
cis-1,2-Dichloroethene	< 8.40	ug/Kg	7/9/2019 16:57
cis-1,3-Dichloropropene	< 8.40	ug/Kg	7/9/2019 16:57
Cyclohexane	< 42.0	ug/Kg	7/9/2019 16:57
Dibromochloromethane	< 8.40	ug/Kg	7/9/2019 16:57
Dichlorodifluoromethane	< 8.40	ug/Kg	7/9/2019 16:57
Ethylbenzene	< 8.40	ug/Kg	7/9/2019 16:57
Freon 113	< 8.40	ug/Kg	7/9/2019 16:57
Isopropylbenzene	< 8.40	ug/Kg	7/9/2019 16:57
m,p-Xylene	< 8.40	ug/Kg	7/9/2019 16:57
Methyl acetate	< 8.40	ug/Kg	7/9/2019 16:57
Methyl tert-butyl Ether	< 8.40	ug/Kg	7/9/2019 16:57
Methylcyclohexane	< 8.40	ug/Kg	7/9/2019 16:57
Methylene chloride	< 21.0	ug/Kg	7/9/2019 16:57
Naphthalene	< 21.0	ug/Kg	7/9/2019 16:57
n-Butylbenzene	< 8.40	ug/Kg	7/9/2019 16:57
n-Propylbenzene	< 8.40	ug/Kg	7/9/2019 16:57
o-Xylene	< 8.40	ug/Kg	7/9/2019 16:57
p-Isopropyltoluene	< 8.40	ug/Kg	7/9/2019 16:57
sec-Butylbenzene	< 8.40	ug/Kg	7/9/2019 16:57
Styrene	< 21.0	ug/Kg	7/9/2019 16:57
tert-Butylbenzene	< 8.40	ug/Kg	7/9/2019 16:57
Tetrachloroethene	< 8.40	ug/Kg	7/9/2019 16:57
Toluene	< 8.40	ug/Kg	7/9/2019 16:57
trans-1,2-Dichloroethene	< 8.40	ug/Kg	7/9/2019 16:57
trans-1,3-Dichloropropene	< 8.40	ug/Kg	7/9/2019 16:57
Trichloroethene	< 8.40	ug/Kg	7/9/2019 16:57

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.

Report Prepared Monday, July 22, 2019

Page 24 of 155



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 2001

Lab Sample ID: 193078-08

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Trichlorofluoromethane < 8.40 ug/Kg 7/9/2019 16:57

Vinyl chloride < 8.40 ug/Kg 7/9/2019 16:57

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
1,2-Dichloroethane-d4	134	71 - 141		7/9/2019 16:57
4-Bromofluorobenzene	88.2	60.2 - 128		7/9/2019 16:57
Pentafluorobenzene	91.6	86.6 - 111		7/9/2019 16:57
Toluene-D8	88.5	77.5 - 115		7/9/2019 16:57

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x62466.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: 193078

Client: BE3
Project Reference: Marrano

Sample Identifier: 2002

Lab Sample ID: 193078-09

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Volatile Organics

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1,1-Trichloroethane	< 6.58	ug/Kg		7/9/2019 17:20
1,1,2,2-Tetrachloroethane	< 6.58	ug/Kg		7/9/2019 17:20
1,1,2-Trichloroethane	< 6.58	ug/Kg		7/9/2019 17:20
1,1-Dichloroethane	< 6.58	ug/Kg		7/9/2019 17:20
1,1-Dichloroethene	< 6.58	ug/Kg		7/9/2019 17:20
1,2,3-Trichlorobenzene	< 16.5	ug/Kg		7/9/2019 17:20
1,2,4-Trichlorobenzene	< 16.5	ug/Kg		7/9/2019 17:20
1,2,4-Trimethylbenzene	< 6.58	ug/Kg		7/9/2019 17:20
1,2-Dibromo-3-Chloropropane	< 32.9	ug/Kg		7/9/2019 17:20
1,2-Dibromoethane	< 6.58	ug/Kg		7/9/2019 17:20
1,2-Dichlorobenzene	< 6.58	ug/Kg		7/9/2019 17:20
1,2-Dichloroethane	< 6.58	ug/Kg		7/9/2019 17:20
1,2-Dichloropropane	< 6.58	ug/Kg		7/9/2019 17:20
1,3,5-Trimethylbenzene	< 6.58	ug/Kg		7/9/2019 17:20
1,3-Dichlorobenzene	< 6.58	ug/Kg		7/9/2019 17:20
1,4-Dichlorobenzene	< 6.58	ug/Kg		7/9/2019 17:20
1,4-Dioxane	< 65.8	ug/Kg		7/9/2019 17:20
2-Butanone	< 32.9	ug/Kg		7/9/2019 17:20
2-Hexanone	< 16.5	ug/Kg		7/9/2019 17:20
4-Methyl-2-pentanone	< 16.5	ug/Kg		7/9/2019 17:20
Acetone	< 32.9	ug/Kg		7/9/2019 17:20
Benzene	< 6.58	ug/Kg		7/9/2019 17:20
Bromochloromethane	< 16.5	ug/Kg		7/9/2019 17:20
Bromodichloromethane	< 6.58	ug/Kg		7/9/2019 17:20
Bromoform	< 16.5	ug/Kg		7/9/2019 17:20
Bromomethane	< 6.58	ug/Kg		7/9/2019 17:20
Carbon disulfide	< 6.58	ug/Kg		7/9/2019 17:20
Carbon Tetrachloride	< 6.58	ug/Kg		7/9/2019 17:20

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.



Client: BE3

Project Reference: Marrano

Sample Identifier: 2002

Lab Sample ID: 193078-09

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Chlorobenzene	< 6.58	ug/Kg	7/9/2019 17:20
Chloroethane	< 6.58	ug/Kg	7/9/2019 17:20
Chloroform	< 6.58	ug/Kg	7/9/2019 17:20
Chloromethane	< 6.58	ug/Kg	7/9/2019 17:20
cis-1,2-Dichloroethene	< 6.58	ug/Kg	7/9/2019 17:20
cis-1,3-Dichloropropene	< 6.58	ug/Kg	7/9/2019 17:20
Cyclohexane	< 32.9	ug/Kg	7/9/2019 17:20
Dibromochloromethane	< 6.58	ug/Kg	7/9/2019 17:20
Dichlorodifluoromethane	< 6.58	ug/Kg	7/9/2019 17:20
Ethylbenzene	< 6.58	ug/Kg	7/9/2019 17:20
Freon 113	< 6.58	ug/Kg	7/9/2019 17:20
Isopropylbenzene	< 6.58	ug/Kg	7/9/2019 17:20
m,p-Xylene	< 6.58	ug/Kg	7/9/2019 17:20
Methyl acetate	< 6.58	ug/Kg	7/9/2019 17:20
Methyl tert-butyl Ether	< 6.58	ug/Kg	7/9/2019 17:20
Methylcyclohexane	< 6.58	ug/Kg	7/9/2019 17:20
Methylene chloride	< 16.5	ug/Kg	7/9/2019 17:20
Naphthalene	< 16.5	ug/Kg	7/9/2019 17:20
n-Butylbenzene	< 6.58	ug/Kg	7/9/2019 17:20
n-Propylbenzene	< 6.58	ug/Kg	7/9/2019 17:20
o-Xylene	< 6.58	ug/Kg	7/9/2019 17:20
p-Isopropyltoluene	< 6.58	ug/Kg	7/9/2019 17:20
sec-Butylbenzene	< 6.58	ug/Kg	7/9/2019 17:20
Styrene	< 16.5	ug/Kg	7/9/2019 17:20
tert-Butylbenzene	< 6.58	ug/Kg	7/9/2019 17:20
Tetrachloroethene	< 6.58	ug/Kg	7/9/2019 17:20
Toluene	< 6.58	ug/Kg	7/9/2019 17:20
trans-1,2-Dichloroethene	< 6.58	ug/Kg	7/9/2019 17:20
trans-1,3-Dichloropropene	< 6.58	ug/Kg	7/9/2019 17:20
Trichloroethene	< 6.58	ug/Kg	7/9/2019 17:20

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.



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 2002

Lab Sample ID: 193078-09

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Trichlorofluoromethane	< 6.58	ug/Kg		7/9/2019 17:20
Vinyl chloride	< 6.58	ug/Kg		7/9/2019 17:20
Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	137	71 - 141		7/9/2019 17:20
4-Bromofluorobenzene	90.8	60.2 - 128		7/9/2019 17:20
Pentafluorobenzene	89.5	86.6 - 111		7/9/2019 17:20
Toluene-D8	90.4	77.5 - 115		7/9/2019 17:20

Method Reference(s): EPA 8260C
EPA 5035A - L
Data File: x62467.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: 193078

Client: BE3
Project Reference: Marrano

Sample Identifier: 3001

Lab Sample ID: 193078-10

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Volatile Organics

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1,1-Trichloroethane	< 8.40	ug/Kg		7/9/2019 17:43
1,1,2,2-Tetrachloroethane	< 8.40	ug/Kg		7/9/2019 17:43
1,1,2-Trichloroethane	< 8.40	ug/Kg		7/9/2019 17:43
1,1-Dichloroethane	< 8.40	ug/Kg		7/9/2019 17:43
1,1-Dichloroethene	< 8.40	ug/Kg		7/9/2019 17:43
1,2,3-Trichlorobenzene	< 21.0	ug/Kg		7/9/2019 17:43
1,2,4-Trichlorobenzene	< 21.0	ug/Kg		7/9/2019 17:43
1,2,4-Trimethylbenzene	< 8.40	ug/Kg		7/9/2019 17:43
1,2-Dibromo-3-Chloropropane	< 42.0	ug/Kg		7/9/2019 17:43
1,2-Dibromoethane	< 8.40	ug/Kg		7/9/2019 17:43
1,2-Dichlorobenzene	< 8.40	ug/Kg		7/9/2019 17:43
1,2-Dichloroethane	< 8.40	ug/Kg		7/9/2019 17:43
1,2-Dichloropropane	< 8.40	ug/Kg		7/9/2019 17:43
1,3,5-Trimethylbenzene	< 8.40	ug/Kg		7/9/2019 17:43
1,3-Dichlorobenzene	< 8.40	ug/Kg		7/9/2019 17:43
1,4-Dichlorobenzene	< 8.40	ug/Kg		7/9/2019 17:43
1,4-Dioxane	< 84.0	ug/Kg		7/9/2019 17:43
2-Butanone	< 42.0	ug/Kg		7/9/2019 17:43
2-Hexanone	< 21.0	ug/Kg		7/9/2019 17:43
4-Methyl-2-pentanone	< 21.0	ug/Kg		7/9/2019 17:43
Acetone	< 42.0	ug/Kg		7/9/2019 17:43
Benzene	< 8.40	ug/Kg		7/9/2019 17:43
Bromochloromethane	< 21.0	ug/Kg		7/9/2019 17:43
Bromodichloromethane	< 8.40	ug/Kg		7/9/2019 17:43
Bromoform	< 21.0	ug/Kg		7/9/2019 17:43
Bromomethane	< 8.40	ug/Kg		7/9/2019 17:43
Carbon disulfide	< 8.40	ug/Kg		7/9/2019 17:43
Carbon Tetrachloride	< 8.40	ug/Kg		7/9/2019 17:43

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.

Lab Project ID: 193078
Client: BE3
Project Reference: Marrano

Sample Identifier: 3001

Lab Sample ID: 193078-10

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Chlorobenzene	< 8.40	ug/Kg	7/9/2019 17:43
Chloroethane	< 8.40	ug/Kg	7/9/2019 17:43
Chloroform	< 8.40	ug/Kg	7/9/2019 17:43
Chloromethane	< 8.40	ug/Kg	7/9/2019 17:43
cis-1,2-Dichloroethene	< 8.40	ug/Kg	7/9/2019 17:43
cis-1,3-Dichloropropene	< 8.40	ug/Kg	7/9/2019 17:43
Cyclohexane	< 42.0	ug/Kg	7/9/2019 17:43
Dibromochloromethane	< 8.40	ug/Kg	7/9/2019 17:43
Dichlorodifluoromethane	< 8.40	ug/Kg	7/9/2019 17:43
Ethylbenzene	< 8.40	ug/Kg	7/9/2019 17:43
Freon 113	< 8.40	ug/Kg	7/9/2019 17:43
Isopropylbenzene	< 8.40	ug/Kg	7/9/2019 17:43
m,p-Xylene	< 8.40	ug/Kg	7/9/2019 17:43
Methyl acetate	< 8.40	ug/Kg	7/9/2019 17:43
Methyl tert-butyl Ether	< 8.40	ug/Kg	7/9/2019 17:43
Methylcyclohexane	< 8.40	ug/Kg	7/9/2019 17:43
Methylene chloride	< 21.0	ug/Kg	7/9/2019 17:43
Naphthalene	< 21.0	ug/Kg	7/9/2019 17:43
n-Butylbenzene	< 8.40	ug/Kg	7/9/2019 17:43
n-Propylbenzene	< 8.40	ug/Kg	7/9/2019 17:43
o-Xylene	< 8.40	ug/Kg	7/9/2019 17:43
p-Isopropyltoluene	< 8.40	ug/Kg	7/9/2019 17:43
sec-Butylbenzene	< 8.40	ug/Kg	7/9/2019 17:43
Styrene	< 21.0	ug/Kg	7/9/2019 17:43
tert-Butylbenzene	< 8.40	ug/Kg	7/9/2019 17:43
Tetrachloroethene	< 8.40	ug/Kg	7/9/2019 17:43
Toluene	< 8.40	ug/Kg	7/9/2019 17:43
trans-1,2-Dichloroethene	< 8.40	ug/Kg	7/9/2019 17:43
trans-1,3-Dichloropropene	< 8.40	ug/Kg	7/9/2019 17:43
Trichloroethene	< 8.40	ug/Kg	7/9/2019 17:43

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.



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 3001

Lab Sample ID: 193078-10

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Trichlorofluoromethane	< 8.40	ug/Kg	7/9/2019 17:43
Vinyl chloride	< 8.40	ug/Kg	7/9/2019 17:43

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
1,2-Dichloroethane-d4	137	71 - 141		7/9/2019 17:43
4-Bromofluorobenzene	89.1	60.2 - 128		7/9/2019 17:43
Pentafluorobenzene	91.3	86.6 - 111		7/9/2019 17:43
Toluene-D8	94.5	77.5 - 115		7/9/2019 17:43

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x62468.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.



Client: **BE3**

Project Reference: Marrano

Sample Identifier: 3002

Lab Sample ID: 193078-11

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 9.11	ug/Kg		7/9/2019 18:06
1,1,2,2-Tetrachloroethane	< 9.11	ug/Kg		7/9/2019 18:06
1,1,2-Trichloroethane	< 9.11	ug/Kg		7/9/2019 18:06
1,1-Dichloroethane	< 9.11	ug/Kg		7/9/2019 18:06
1,1-Dichloroethene	< 9.11	ug/Kg		7/9/2019 18:06
1,2,3-Trichlorobenzene	< 22.8	ug/Kg		7/9/2019 18:06
1,2,4-Trichlorobenzene	< 22.8	ug/Kg		7/9/2019 18:06
1,2,4-Trimethylbenzene	< 9.11	ug/Kg		7/9/2019 18:06
1,2-Dibromo-3-Chloropropane	< 45.6	ug/Kg		7/9/2019 18:06
1,2-Dibromoethane	< 9.11	ug/Kg		7/9/2019 18:06
1,2-Dichlorobenzene	< 9.11	ug/Kg		7/9/2019 18:06
1,2-Dichloroethane	< 9.11	ug/Kg		7/9/2019 18:06
1,2-Dichloropropane	< 9.11	ug/Kg		7/9/2019 18:06
1,3,5-Trimethylbenzene	< 9.11	ug/Kg		7/9/2019 18:06
1,3-Dichlorobenzene	< 9.11	ug/Kg		7/9/2019 18:06
1,4-Dichlorobenzene	< 9.11	ug/Kg		7/9/2019 18:06
1,4-Dioxane	< 91.1	ug/Kg		7/9/2019 18:06
2-Butanone	< 45.6	ug/Kg		7/9/2019 18:06
2-Hexanone	< 22.8	ug/Kg		7/9/2019 18:06
4-Methyl-2-pentanone	< 22.8	ug/Kg		7/9/2019 18:06
Acetone	< 45.6	ug/Kg		7/9/2019 18:06
Benzene	< 9.11	ug/Kg		7/9/2019 18:06
Bromochloromethane	< 22.8	ug/Kg		7/9/2019 18:06
Bromodichloromethane	< 9.11	ug/Kg		7/9/2019 18:06
Bromoform	< 22.8	ug/Kg		7/9/2019 18:06
Bromomethane	< 9.11	ug/Kg		7/9/2019 18:06
Carbon disulfide	< 9.11	ug/Kg		7/9/2019 18:06
Carbon Tetrachloride	< 9.11	ug/Kg		7/9/2019 18:06

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.

Lab Project ID: 193078
Client: BE3
Project Reference: Marrano

Sample Identifier: 3002

Lab Sample ID: 193078-11

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Chlorobenzene	< 9.11	ug/Kg	7/9/2019 18:06
Chloroethane	< 9.11	ug/Kg	7/9/2019 18:06
Chloroform	< 9.11	ug/Kg	7/9/2019 18:06
Chloromethane	< 9.11	ug/Kg	7/9/2019 18:06
cis-1,2-Dichloroethene	< 9.11	ug/Kg	7/9/2019 18:06
cis-1,3-Dichloropropene	< 9.11	ug/Kg	7/9/2019 18:06
Cyclohexane	< 45.6	ug/Kg	7/9/2019 18:06
Dibromochloromethane	< 9.11	ug/Kg	7/9/2019 18:06
Dichlorodifluoromethane	< 9.11	ug/Kg	7/9/2019 18:06
Ethylbenzene	< 9.11	ug/Kg	7/9/2019 18:06
Freon 113	< 9.11	ug/Kg	7/9/2019 18:06
Isopropylbenzene	< 9.11	ug/Kg	7/9/2019 18:06
m,p-Xylene	< 9.11	ug/Kg	7/9/2019 18:06
Methyl acetate	< 9.11	ug/Kg	7/9/2019 18:06
Methyl tert-butyl Ether	< 9.11	ug/Kg	7/9/2019 18:06
Methylcyclohexane	< 9.11	ug/Kg	7/9/2019 18:06
Methylene chloride	< 22.8	ug/Kg	7/9/2019 18:06
Naphthalene	< 22.8	ug/Kg	7/9/2019 18:06
n-Butylbenzene	< 9.11	ug/Kg	7/9/2019 18:06
n-Propylbenzene	< 9.11	ug/Kg	7/9/2019 18:06
o-Xylene	< 9.11	ug/Kg	7/9/2019 18:06
p-Isopropyltoluene	< 9.11	ug/Kg	7/9/2019 18:06
sec-Butylbenzene	< 9.11	ug/Kg	7/9/2019 18:06
Styrene	< 22.8	ug/Kg	7/9/2019 18:06
tert-Butylbenzene	< 9.11	ug/Kg	7/9/2019 18:06
Tetrachloroethene	< 9.11	ug/Kg	7/9/2019 18:06
Toluene	< 9.11	ug/Kg	7/9/2019 18:06
trans-1,2-Dichloroethene	< 9.11	ug/Kg	7/9/2019 18:06
trans-1,3-Dichloropropene	< 9.11	ug/Kg	7/9/2019 18:06
Trichloroethene	< 9.11	ug/Kg	7/9/2019 18:06

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.



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 3002

Lab Sample ID: 193078-11

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Trichlorofluoromethane	< 9.11	ug/Kg	7/9/2019 18:06
Vinyl chloride	< 9.11	ug/Kg	7/9/2019 18:06

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
1,2-Dichloroethane-d4	138	71 - 141		7/9/2019 18:06
4-Bromofluorobenzene	92.5	60.2 - 128		7/9/2019 18:06
Pentafluorobenzene	91.6	86.6 - 111		7/9/2019 18:06
Toluene-D8	89.3	77.5 - 115		7/9/2019 18:06

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x62469.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.



Client: **BE3**

Project Reference: Marrano

Sample Identifier: 4001

Lab Sample ID: 193078-12

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 7.15	ug/Kg		7/9/2019 21:09
1,1,2,2-Tetrachloroethane	< 7.15	ug/Kg		7/9/2019 21:09
1,1,2-Trichloroethane	< 7.15	ug/Kg		7/9/2019 21:09
1,1-Dichloroethane	< 7.15	ug/Kg		7/9/2019 21:09
1,1-Dichloroethene	< 7.15	ug/Kg		7/9/2019 21:09
1,2,3-Trichlorobenzene	< 17.9	ug/Kg		7/9/2019 21:09
1,2,4-Trichlorobenzene	< 17.9	ug/Kg		7/9/2019 21:09
1,2,4-Trimethylbenzene	< 7.15	ug/Kg		7/9/2019 21:09
1,2-Dibromo-3-Chloropropane	< 35.8	ug/Kg		7/9/2019 21:09
1,2-Dibromoethane	< 7.15	ug/Kg		7/9/2019 21:09
1,2-Dichlorobenzene	< 7.15	ug/Kg		7/9/2019 21:09
1,2-Dichloroethane	< 7.15	ug/Kg		7/9/2019 21:09
1,2-Dichloropropane	< 7.15	ug/Kg		7/9/2019 21:09
1,3,5-Trimethylbenzene	< 7.15	ug/Kg		7/9/2019 21:09
1,3-Dichlorobenzene	< 7.15	ug/Kg		7/9/2019 21:09
1,4-Dichlorobenzene	< 7.15	ug/Kg		7/9/2019 21:09
1,4-Dioxane	< 71.5	ug/Kg		7/9/2019 21:09
2-Butanone	< 35.8	ug/Kg		7/9/2019 21:09
2-Hexanone	< 17.9	ug/Kg		7/9/2019 21:09
4-Methyl-2-pentanone	< 17.9	ug/Kg		7/9/2019 21:09
Acetone	< 35.8	ug/Kg		7/9/2019 21:09
Benzene	< 7.15	ug/Kg		7/9/2019 21:09
Bromochloromethane	< 17.9	ug/Kg		7/9/2019 21:09
Bromodichloromethane	< 7.15	ug/Kg		7/9/2019 21:09
Bromoform	< 17.9	ug/Kg		7/9/2019 21:09
Bromomethane	< 7.15	ug/Kg		7/9/2019 21:09
Carbon disulfide	< 7.15	ug/Kg		7/9/2019 21:09
Carbon Tetrachloride	< 7.15	ug/Kg		7/9/2019 21:09

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.

Lab Project ID: 193078
Client: BE3
Project Reference: Marrano

Sample Identifier: 4001

Lab Sample ID: 193078-12

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Chlorobenzene	< 7.15	ug/Kg	7/9/2019 21:09
Chloroethane	< 7.15	ug/Kg	7/9/2019 21:09
Chloroform	< 7.15	ug/Kg	7/9/2019 21:09
Chloromethane	< 7.15	ug/Kg	7/9/2019 21:09
cis-1,2-Dichloroethene	< 7.15	ug/Kg	7/9/2019 21:09
cis-1,3-Dichloropropene	< 7.15	ug/Kg	7/9/2019 21:09
Cyclohexane	< 35.8	ug/Kg	7/9/2019 21:09
Dibromochloromethane	< 7.15	ug/Kg	7/9/2019 21:09
Dichlorodifluoromethane	< 7.15	ug/Kg	7/9/2019 21:09
Ethylbenzene	< 7.15	ug/Kg	7/9/2019 21:09
Freon 113	< 7.15	ug/Kg	7/9/2019 21:09
Isopropylbenzene	< 7.15	ug/Kg	7/9/2019 21:09
m,p-Xylene	< 7.15	ug/Kg	7/9/2019 21:09
Methyl acetate	< 7.15	ug/Kg	7/9/2019 21:09
Methyl tert-butyl Ether	< 7.15	ug/Kg	7/9/2019 21:09
Methylcyclohexane	< 7.15	ug/Kg	7/9/2019 21:09
Methylene chloride	< 17.9	ug/Kg	7/9/2019 21:09
Naphthalene	< 17.9	ug/Kg	7/9/2019 21:09
n-Butylbenzene	< 7.15	ug/Kg	7/9/2019 21:09
n-Propylbenzene	< 7.15	ug/Kg	7/9/2019 21:09
o-Xylene	< 7.15	ug/Kg	7/9/2019 21:09
p-Isopropyltoluene	< 7.15	ug/Kg	7/9/2019 21:09
sec-Butylbenzene	< 7.15	ug/Kg	7/9/2019 21:09
Styrene	< 17.9	ug/Kg	7/9/2019 21:09
tert-Butylbenzene	< 7.15	ug/Kg	7/9/2019 21:09
Tetrachloroethene	< 7.15	ug/Kg	7/9/2019 21:09
Toluene	< 7.15	ug/Kg	7/9/2019 21:09
trans-1,2-Dichloroethene	< 7.15	ug/Kg	7/9/2019 21:09
trans-1,3-Dichloropropene	< 7.15	ug/Kg	7/9/2019 21:09
Trichloroethene	< 7.15	ug/Kg	7/9/2019 21:09

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.



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 4001

Lab Sample ID: 193078-12

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Trichlorofluoromethane	< 7.15	ug/Kg		7/9/2019 21:09
Vinyl chloride	< 7.15	ug/Kg		7/9/2019 21:09
Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	141	71 - 141		7/9/2019 21:09
4-Bromofluorobenzene	90.2	60.2 - 128		7/9/2019 21:09
Pentafluorobenzene	90.6	86.6 - 111		7/9/2019 21:09
Toluene-D8	89.6	77.5 - 115		7/9/2019 21:09

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x62477.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.



Client: **BE3**

Project Reference: Marrano

Sample Identifier: 4002

Lab Sample ID: 193078-13

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 7.26	ug/Kg		7/9/2019 18:29
1,1,2,2-Tetrachloroethane	< 7.26	ug/Kg		7/9/2019 18:29
1,1,2-Trichloroethane	< 7.26	ug/Kg		7/9/2019 18:29
1,1-Dichloroethane	< 7.26	ug/Kg		7/9/2019 18:29
1,1-Dichloroethene	< 7.26	ug/Kg		7/9/2019 18:29
1,2,3-Trichlorobenzene	< 18.1	ug/Kg		7/9/2019 18:29
1,2,4-Trichlorobenzene	< 18.1	ug/Kg		7/9/2019 18:29
1,2,4-Trimethylbenzene	< 7.26	ug/Kg		7/9/2019 18:29
1,2-Dibromo-3-Chloropropane	< 36.3	ug/Kg		7/9/2019 18:29
1,2-Dibromoethane	< 7.26	ug/Kg		7/9/2019 18:29
1,2-Dichlorobenzene	< 7.26	ug/Kg		7/9/2019 18:29
1,2-Dichloroethane	< 7.26	ug/Kg		7/9/2019 18:29
1,2-Dichloropropane	< 7.26	ug/Kg		7/9/2019 18:29
1,3,5-Trimethylbenzene	< 7.26	ug/Kg		7/9/2019 18:29
1,3-Dichlorobenzene	< 7.26	ug/Kg		7/9/2019 18:29
1,4-Dichlorobenzene	< 7.26	ug/Kg		7/9/2019 18:29
1,4-Dioxane	< 72.6	ug/Kg		7/9/2019 18:29
2-Butanone	< 36.3	ug/Kg		7/9/2019 18:29
2-Hexanone	< 18.1	ug/Kg		7/9/2019 18:29
4-Methyl-2-pentanone	< 18.1	ug/Kg		7/9/2019 18:29
Acetone	< 36.3	ug/Kg		7/9/2019 18:29
Benzene	< 7.26	ug/Kg		7/9/2019 18:29
Bromochloromethane	< 18.1	ug/Kg		7/9/2019 18:29
Bromodichloromethane	< 7.26	ug/Kg		7/9/2019 18:29
Bromoform	< 18.1	ug/Kg		7/9/2019 18:29
Bromomethane	< 7.26	ug/Kg		7/9/2019 18:29
Carbon disulfide	< 7.26	ug/Kg		7/9/2019 18:29
Carbon Tetrachloride	< 7.26	ug/Kg		7/9/2019 18:29

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.

Lab Project ID: 193078
Client: BE3
Project Reference: Marrano

Sample Identifier: 4002

Lab Sample ID: 193078-13

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Chlorobenzene	< 7.26	ug/Kg	7/9/2019 18:29
Chloroethane	< 7.26	ug/Kg	7/9/2019 18:29
Chloroform	< 7.26	ug/Kg	7/9/2019 18:29
Chloromethane	< 7.26	ug/Kg	7/9/2019 18:29
cis-1,2-Dichloroethene	< 7.26	ug/Kg	7/9/2019 18:29
cis-1,3-Dichloropropene	< 7.26	ug/Kg	7/9/2019 18:29
Cyclohexane	< 36.3	ug/Kg	7/9/2019 18:29
Dibromochloromethane	< 7.26	ug/Kg	7/9/2019 18:29
Dichlorodifluoromethane	< 7.26	ug/Kg	7/9/2019 18:29
Ethylbenzene	< 7.26	ug/Kg	7/9/2019 18:29
Freon 113	< 7.26	ug/Kg	7/9/2019 18:29
Isopropylbenzene	< 7.26	ug/Kg	7/9/2019 18:29
m,p-Xylene	< 7.26	ug/Kg	7/9/2019 18:29
Methyl acetate	< 7.26	ug/Kg	7/9/2019 18:29
Methyl tert-butyl Ether	< 7.26	ug/Kg	7/9/2019 18:29
Methylcyclohexane	< 7.26	ug/Kg	7/9/2019 18:29
Methylene chloride	< 18.1	ug/Kg	7/9/2019 18:29
Naphthalene	< 18.1	ug/Kg	7/9/2019 18:29
n-Butylbenzene	< 7.26	ug/Kg	7/9/2019 18:29
n-Propylbenzene	< 7.26	ug/Kg	7/9/2019 18:29
o-Xylene	< 7.26	ug/Kg	7/9/2019 18:29
p-Isopropyltoluene	< 7.26	ug/Kg	7/9/2019 18:29
sec-Butylbenzene	< 7.26	ug/Kg	7/9/2019 18:29
Styrene	< 18.1	ug/Kg	7/9/2019 18:29
tert-Butylbenzene	< 7.26	ug/Kg	7/9/2019 18:29
Tetrachloroethene	< 7.26	ug/Kg	7/9/2019 18:29
Toluene	< 7.26	ug/Kg	7/9/2019 18:29
trans-1,2-Dichloroethene	< 7.26	ug/Kg	7/9/2019 18:29
trans-1,3-Dichloropropene	< 7.26	ug/Kg	7/9/2019 18:29
Trichloroethene	< 7.26	ug/Kg	7/9/2019 18:29

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.



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 4002

Lab Sample ID: 193078-13

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Trichlorofluoromethane	< 7.26	ug/Kg	7/9/2019 18:29
Vinyl chloride	< 7.26	ug/Kg	7/9/2019 18:29

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
1,2-Dichloroethane-d4	141	71 - 141		7/9/2019 18:29
4-Bromofluorobenzene	90.8	60.2 - 128		7/9/2019 18:29
Pentafluorobenzene	93.1	86.6 - 111		7/9/2019 18:29
Toluene-D8	94.8	77.5 - 115		7/9/2019 18:29

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x62470.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.



Client: **BE3**

Project Reference: Marrano

Sample Identifier: 5001

Lab Sample ID: 193078-14

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 7.63	ug/Kg		7/9/2019 18:51
1,1,2,2-Tetrachloroethane	< 7.63	ug/Kg		7/9/2019 18:51
1,1,2-Trichloroethane	< 7.63	ug/Kg		7/9/2019 18:51
1,1-Dichloroethane	< 7.63	ug/Kg		7/9/2019 18:51
1,1-Dichloroethene	< 7.63	ug/Kg		7/9/2019 18:51
1,2,3-Trichlorobenzene	< 19.1	ug/Kg		7/9/2019 18:51
1,2,4-Trichlorobenzene	< 19.1	ug/Kg		7/9/2019 18:51
1,2,4-Trimethylbenzene	< 7.63	ug/Kg		7/9/2019 18:51
1,2-Dibromo-3-Chloropropane	< 38.1	ug/Kg		7/9/2019 18:51
1,2-Dibromoethane	< 7.63	ug/Kg		7/9/2019 18:51
1,2-Dichlorobenzene	< 7.63	ug/Kg		7/9/2019 18:51
1,2-Dichloroethane	< 7.63	ug/Kg		7/9/2019 18:51
1,2-Dichloropropane	< 7.63	ug/Kg		7/9/2019 18:51
1,3,5-Trimethylbenzene	< 7.63	ug/Kg		7/9/2019 18:51
1,3-Dichlorobenzene	< 7.63	ug/Kg		7/9/2019 18:51
1,4-Dichlorobenzene	< 7.63	ug/Kg		7/9/2019 18:51
1,4-Dioxane	< 76.3	ug/Kg		7/9/2019 18:51
2-Butanone	< 38.1	ug/Kg		7/9/2019 18:51
2-Hexanone	< 19.1	ug/Kg		7/9/2019 18:51
4-Methyl-2-pentanone	< 19.1	ug/Kg		7/9/2019 18:51
Acetone	< 38.1	ug/Kg		7/9/2019 18:51
Benzene	< 7.63	ug/Kg		7/9/2019 18:51
Bromochloromethane	< 19.1	ug/Kg		7/9/2019 18:51
Bromodichloromethane	< 7.63	ug/Kg		7/9/2019 18:51
Bromoform	< 19.1	ug/Kg		7/9/2019 18:51
Bromomethane	< 7.63	ug/Kg		7/9/2019 18:51
Carbon disulfide	< 7.63	ug/Kg		7/9/2019 18:51
Carbon Tetrachloride	< 7.63	ug/Kg		7/9/2019 18:51

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.

Lab Project ID: 193078
Client: BE3
Project Reference: Marrano

Sample Identifier: 5001

Lab Sample ID: 193078-14

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Chlorobenzene	< 7.63	ug/Kg	7/9/2019 18:51
Chloroethane	< 7.63	ug/Kg	7/9/2019 18:51
Chloroform	< 7.63	ug/Kg	7/9/2019 18:51
Chloromethane	< 7.63	ug/Kg	7/9/2019 18:51
cis-1,2-Dichloroethene	< 7.63	ug/Kg	7/9/2019 18:51
cis-1,3-Dichloropropene	< 7.63	ug/Kg	7/9/2019 18:51
Cyclohexane	< 38.1	ug/Kg	7/9/2019 18:51
Dibromochloromethane	< 7.63	ug/Kg	7/9/2019 18:51
Dichlorodifluoromethane	< 7.63	ug/Kg	7/9/2019 18:51
Ethylbenzene	< 7.63	ug/Kg	7/9/2019 18:51
Freon 113	< 7.63	ug/Kg	7/9/2019 18:51
Isopropylbenzene	< 7.63	ug/Kg	7/9/2019 18:51
m,p-Xylene	< 7.63	ug/Kg	7/9/2019 18:51
Methyl acetate	< 7.63	ug/Kg	7/9/2019 18:51
Methyl tert-butyl Ether	< 7.63	ug/Kg	7/9/2019 18:51
Methylcyclohexane	< 7.63	ug/Kg	7/9/2019 18:51
Methylene chloride	< 19.1	ug/Kg	7/9/2019 18:51
Naphthalene	< 19.1	ug/Kg	7/9/2019 18:51
n-Butylbenzene	< 7.63	ug/Kg	7/9/2019 18:51
n-Propylbenzene	< 7.63	ug/Kg	7/9/2019 18:51
o-Xylene	< 7.63	ug/Kg	7/9/2019 18:51
p-Isopropyltoluene	< 7.63	ug/Kg	7/9/2019 18:51
sec-Butylbenzene	< 7.63	ug/Kg	7/9/2019 18:51
Styrene	< 19.1	ug/Kg	7/9/2019 18:51
tert-Butylbenzene	< 7.63	ug/Kg	7/9/2019 18:51
Tetrachloroethene	< 7.63	ug/Kg	7/9/2019 18:51
Toluene	< 7.63	ug/Kg	7/9/2019 18:51
trans-1,2-Dichloroethene	< 7.63	ug/Kg	7/9/2019 18:51
trans-1,3-Dichloropropene	< 7.63	ug/Kg	7/9/2019 18:51
Trichloroethene	< 7.63	ug/Kg	7/9/2019 18:51

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.



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 5001

Lab Sample ID: 193078-14

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Trichlorofluoromethane	< 7.63	ug/Kg		7/9/2019 18:51
Vinyl chloride	< 7.63	ug/Kg		7/9/2019 18:51
Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	136	71 - 141		7/9/2019 18:51
4-Bromofluorobenzene	94.2	60.2 - 128		7/9/2019 18:51
Pentafluorobenzene	89.0	86.6 - 111		7/9/2019 18:51
Toluene-D8	90.9	77.5 - 115		7/9/2019 18:51

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x62471.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: 193078

Client: BE3
Project Reference: Marrano

Sample Identifier: 5002

Lab Sample ID: 193078-15

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Volatile Organics

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1,1-Trichloroethane	< 8.02	ug/Kg		7/9/2019 19:14
1,1,2,2-Tetrachloroethane	< 8.02	ug/Kg		7/9/2019 19:14
1,1,2-Trichloroethane	< 8.02	ug/Kg		7/9/2019 19:14
1,1-Dichloroethane	< 8.02	ug/Kg		7/9/2019 19:14
1,1-Dichloroethene	< 8.02	ug/Kg		7/9/2019 19:14
1,2,3-Trichlorobenzene	< 20.1	ug/Kg		7/9/2019 19:14
1,2,4-Trichlorobenzene	< 20.1	ug/Kg		7/9/2019 19:14
1,2,4-Trimethylbenzene	< 8.02	ug/Kg		7/9/2019 19:14
1,2-Dibromo-3-Chloropropane	< 40.1	ug/Kg		7/9/2019 19:14
1,2-Dibromoethane	< 8.02	ug/Kg		7/9/2019 19:14
1,2-Dichlorobenzene	< 8.02	ug/Kg		7/9/2019 19:14
1,2-Dichloroethane	< 8.02	ug/Kg		7/9/2019 19:14
1,2-Dichloropropane	< 8.02	ug/Kg		7/9/2019 19:14
1,3,5-Trimethylbenzene	< 8.02	ug/Kg		7/9/2019 19:14
1,3-Dichlorobenzene	< 8.02	ug/Kg		7/9/2019 19:14
1,4-Dichlorobenzene	< 8.02	ug/Kg		7/9/2019 19:14
1,4-Dioxane	< 80.2	ug/Kg		7/9/2019 19:14
2-Butanone	< 40.1	ug/Kg		7/9/2019 19:14
2-Hexanone	< 20.1	ug/Kg		7/9/2019 19:14
4-Methyl-2-pentanone	< 20.1	ug/Kg		7/9/2019 19:14
Acetone	< 40.1	ug/Kg		7/9/2019 19:14
Benzene	< 8.02	ug/Kg		7/9/2019 19:14
Bromochloromethane	< 20.1	ug/Kg		7/9/2019 19:14
Bromodichloromethane	< 8.02	ug/Kg		7/9/2019 19:14
Bromoform	< 20.1	ug/Kg		7/9/2019 19:14
Bromomethane	< 8.02	ug/Kg		7/9/2019 19:14
Carbon disulfide	< 8.02	ug/Kg		7/9/2019 19:14
Carbon Tetrachloride	< 8.02	ug/Kg		7/9/2019 19:14

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.



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 5002

Lab Sample ID: 193078-15

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Chlorobenzene	< 8.02	ug/Kg	7/9/2019 19:14
Chloroethane	< 8.02	ug/Kg	7/9/2019 19:14
Chloroform	< 8.02	ug/Kg	7/9/2019 19:14
Chloromethane	< 8.02	ug/Kg	7/9/2019 19:14
cis-1,2-Dichloroethene	< 8.02	ug/Kg	7/9/2019 19:14
cis-1,3-Dichloropropene	< 8.02	ug/Kg	7/9/2019 19:14
Cyclohexane	< 40.1	ug/Kg	7/9/2019 19:14
Dibromochloromethane	< 8.02	ug/Kg	7/9/2019 19:14
Dichlorodifluoromethane	< 8.02	ug/Kg	7/9/2019 19:14
Ethylbenzene	< 8.02	ug/Kg	7/9/2019 19:14
Freon 113	< 8.02	ug/Kg	7/9/2019 19:14
Isopropylbenzene	< 8.02	ug/Kg	7/9/2019 19:14
m,p-Xylene	< 8.02	ug/Kg	7/9/2019 19:14
Methyl acetate	< 8.02	ug/Kg	7/9/2019 19:14
Methyl tert-butyl Ether	< 8.02	ug/Kg	7/9/2019 19:14
Methylcyclohexane	< 8.02	ug/Kg	7/9/2019 19:14
Methylene chloride	< 20.1	ug/Kg	7/9/2019 19:14
Naphthalene	< 20.1	ug/Kg	7/9/2019 19:14
n-Butylbenzene	< 8.02	ug/Kg	7/9/2019 19:14
n-Propylbenzene	< 8.02	ug/Kg	7/9/2019 19:14
o-Xylene	< 8.02	ug/Kg	7/9/2019 19:14
p-Isopropyltoluene	< 8.02	ug/Kg	7/9/2019 19:14
sec-Butylbenzene	< 8.02	ug/Kg	7/9/2019 19:14
Styrene	< 20.1	ug/Kg	7/9/2019 19:14
tert-Butylbenzene	< 8.02	ug/Kg	7/9/2019 19:14
Tetrachloroethene	< 8.02	ug/Kg	7/9/2019 19:14
Toluene	< 8.02	ug/Kg	7/9/2019 19:14
trans-1,2-Dichloroethene	< 8.02	ug/Kg	7/9/2019 19:14
trans-1,3-Dichloropropene	< 8.02	ug/Kg	7/9/2019 19:14
Trichloroethene	< 8.02	ug/Kg	7/9/2019 19:14

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.

Report Prepared Monday, July 22, 2019

Page 45 of 155



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 5002

Lab Sample ID: 193078-15

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Trichlorofluoromethane	< 8.02	ug/Kg		7/9/2019 19:14
Vinyl chloride	< 8.02	ug/Kg		7/9/2019 19:14
Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	146	71 - 141	*	7/9/2019 19:14
4-Bromofluorobenzene	93.2	60.2 - 128		7/9/2019 19:14
Pentafluorobenzene	88.1	86.6 - 111		7/9/2019 19:14
Toluene-D8	92.8	77.5 - 115		7/9/2019 19:14

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x62472.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.



Client: **BE3**

Project Reference: Marrano

Sample Identifier: 6001

Lab Sample ID: 193078-16

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 8.54	ug/Kg		7/9/2019 19:37
1,1,2,2-Tetrachloroethane	< 8.54	ug/Kg		7/9/2019 19:37
1,1,2-Trichloroethane	< 8.54	ug/Kg		7/9/2019 19:37
1,1-Dichloroethane	< 8.54	ug/Kg		7/9/2019 19:37
1,1-Dichloroethene	< 8.54	ug/Kg		7/9/2019 19:37
1,2,3-Trichlorobenzene	< 21.4	ug/Kg		7/9/2019 19:37
1,2,4-Trichlorobenzene	< 21.4	ug/Kg		7/9/2019 19:37
1,2,4-Trimethylbenzene	< 8.54	ug/Kg		7/9/2019 19:37
1,2-Dibromo-3-Chloropropane	< 42.7	ug/Kg		7/9/2019 19:37
1,2-Dibromoethane	< 8.54	ug/Kg		7/9/2019 19:37
1,2-Dichlorobenzene	< 8.54	ug/Kg		7/9/2019 19:37
1,2-Dichloroethane	< 8.54	ug/Kg		7/9/2019 19:37
1,2-Dichloropropane	< 8.54	ug/Kg		7/9/2019 19:37
1,3,5-Trimethylbenzene	< 8.54	ug/Kg		7/9/2019 19:37
1,3-Dichlorobenzene	< 8.54	ug/Kg		7/9/2019 19:37
1,4-Dichlorobenzene	< 8.54	ug/Kg		7/9/2019 19:37
1,4-Dioxane	< 85.4	ug/Kg		7/9/2019 19:37
2-Butanone	< 42.7	ug/Kg		7/9/2019 19:37
2-Hexanone	< 21.4	ug/Kg		7/9/2019 19:37
4-Methyl-2-pentanone	< 21.4	ug/Kg		7/9/2019 19:37
Acetone	< 42.7	ug/Kg		7/9/2019 19:37
Benzene	< 8.54	ug/Kg		7/9/2019 19:37
Bromochloromethane	< 21.4	ug/Kg		7/9/2019 19:37
Bromodichloromethane	< 8.54	ug/Kg		7/9/2019 19:37
Bromoform	< 21.4	ug/Kg		7/9/2019 19:37
Bromomethane	< 8.54	ug/Kg		7/9/2019 19:37
Carbon disulfide	< 8.54	ug/Kg		7/9/2019 19:37
Carbon Tetrachloride	< 8.54	ug/Kg		7/9/2019 19:37

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.



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 6001

Lab Sample ID: 193078-16

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Chlorobenzene	< 8.54	ug/Kg	7/9/2019 19:37
Chloroethane	< 8.54	ug/Kg	7/9/2019 19:37
Chloroform	< 8.54	ug/Kg	7/9/2019 19:37
Chloromethane	< 8.54	ug/Kg	7/9/2019 19:37
cis-1,2-Dichloroethene	< 8.54	ug/Kg	7/9/2019 19:37
cis-1,3-Dichloropropene	< 8.54	ug/Kg	7/9/2019 19:37
Cyclohexane	< 42.7	ug/Kg	7/9/2019 19:37
Dibromochloromethane	< 8.54	ug/Kg	7/9/2019 19:37
Dichlorodifluoromethane	< 8.54	ug/Kg	7/9/2019 19:37
Ethylbenzene	< 8.54	ug/Kg	7/9/2019 19:37
Freon 113	< 8.54	ug/Kg	7/9/2019 19:37
Isopropylbenzene	< 8.54	ug/Kg	7/9/2019 19:37
m,p-Xylene	< 8.54	ug/Kg	7/9/2019 19:37
Methyl acetate	< 8.54	ug/Kg	7/9/2019 19:37
Methyl tert-butyl Ether	< 8.54	ug/Kg	7/9/2019 19:37
Methylcyclohexane	< 8.54	ug/Kg	7/9/2019 19:37
Methylene chloride	< 21.4	ug/Kg	7/9/2019 19:37
Naphthalene	< 21.4	ug/Kg	7/9/2019 19:37
n-Butylbenzene	< 8.54	ug/Kg	7/9/2019 19:37
n-Propylbenzene	< 8.54	ug/Kg	7/9/2019 19:37
o-Xylene	< 8.54	ug/Kg	7/9/2019 19:37
p-Isopropyltoluene	< 8.54	ug/Kg	7/9/2019 19:37
sec-Butylbenzene	< 8.54	ug/Kg	7/9/2019 19:37
Styrene	< 21.4	ug/Kg	7/9/2019 19:37
tert-Butylbenzene	< 8.54	ug/Kg	7/9/2019 19:37
Tetrachloroethene	< 8.54	ug/Kg	7/9/2019 19:37
Toluene	< 8.54	ug/Kg	7/9/2019 19:37
trans-1,2-Dichloroethene	< 8.54	ug/Kg	7/9/2019 19:37
trans-1,3-Dichloropropene	< 8.54	ug/Kg	7/9/2019 19:37
Trichloroethene	< 8.54	ug/Kg	7/9/2019 19:37

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.

Report Prepared Monday, July 22, 2019

Page 48 of 155



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 6001

Lab Sample ID: 193078-16

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Trichlorofluoromethane < 8.54 ug/Kg 7/9/2019 19:37

Vinyl chloride < 8.54 ug/Kg 7/9/2019 19:37

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
1,2-Dichloroethane-d4	137	71 - 141		7/9/2019 19:37
4-Bromofluorobenzene	91.6	60.2 - 128		7/9/2019 19:37
Pentafluorobenzene	88.5	86.6 - 111		7/9/2019 19:37
Toluene-D8	91.0	77.5 - 115		7/9/2019 19:37

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x62473.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.



Client: **BE3**

Project Reference: Marrano

Sample Identifier: 6002

Lab Sample ID: 193078-17

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 7.22	ug/Kg		7/9/2019 20:00
1,1,2,2-Tetrachloroethane	< 7.22	ug/Kg		7/9/2019 20:00
1,1,2-Trichloroethane	< 7.22	ug/Kg		7/9/2019 20:00
1,1-Dichloroethane	< 7.22	ug/Kg		7/9/2019 20:00
1,1-Dichloroethene	< 7.22	ug/Kg		7/9/2019 20:00
1,2,3-Trichlorobenzene	< 18.1	ug/Kg		7/9/2019 20:00
1,2,4-Trichlorobenzene	< 18.1	ug/Kg		7/9/2019 20:00
1,2,4-Trimethylbenzene	< 7.22	ug/Kg		7/9/2019 20:00
1,2-Dibromo-3-Chloropropane	< 36.1	ug/Kg		7/9/2019 20:00
1,2-Dibromoethane	< 7.22	ug/Kg		7/9/2019 20:00
1,2-Dichlorobenzene	< 7.22	ug/Kg		7/9/2019 20:00
1,2-Dichloroethane	< 7.22	ug/Kg		7/9/2019 20:00
1,2-Dichloropropane	< 7.22	ug/Kg		7/9/2019 20:00
1,3,5-Trimethylbenzene	< 7.22	ug/Kg		7/9/2019 20:00
1,3-Dichlorobenzene	< 7.22	ug/Kg		7/9/2019 20:00
1,4-Dichlorobenzene	< 7.22	ug/Kg		7/9/2019 20:00
1,4-Dioxane	< 72.2	ug/Kg		7/9/2019 20:00
2-Butanone	< 36.1	ug/Kg		7/9/2019 20:00
2-Hexanone	< 18.1	ug/Kg		7/9/2019 20:00
4-Methyl-2-pentanone	< 18.1	ug/Kg		7/9/2019 20:00
Acetone	< 36.1	ug/Kg		7/9/2019 20:00
Benzene	< 7.22	ug/Kg		7/9/2019 20:00
Bromochloromethane	< 18.1	ug/Kg		7/9/2019 20:00
Bromodichloromethane	< 7.22	ug/Kg		7/9/2019 20:00
Bromoform	< 18.1	ug/Kg		7/9/2019 20:00
Bromomethane	< 7.22	ug/Kg		7/9/2019 20:00
Carbon disulfide	< 7.22	ug/Kg		7/9/2019 20:00
Carbon Tetrachloride	< 7.22	ug/Kg		7/9/2019 20:00

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.



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 6002

Lab Sample ID: 193078-17

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Chlorobenzene	< 7.22	ug/Kg	7/9/2019 20:00
Chloroethane	< 7.22	ug/Kg	7/9/2019 20:00
Chloroform	< 7.22	ug/Kg	7/9/2019 20:00
Chloromethane	< 7.22	ug/Kg	7/9/2019 20:00
cis-1,2-Dichloroethene	< 7.22	ug/Kg	7/9/2019 20:00
cis-1,3-Dichloropropene	< 7.22	ug/Kg	7/9/2019 20:00
Cyclohexane	< 36.1	ug/Kg	7/9/2019 20:00
Dibromochloromethane	< 7.22	ug/Kg	7/9/2019 20:00
Dichlorodifluoromethane	< 7.22	ug/Kg	7/9/2019 20:00
Ethylbenzene	< 7.22	ug/Kg	7/9/2019 20:00
Freon 113	< 7.22	ug/Kg	7/9/2019 20:00
Isopropylbenzene	< 7.22	ug/Kg	7/9/2019 20:00
m,p-Xylene	< 7.22	ug/Kg	7/9/2019 20:00
Methyl acetate	< 7.22	ug/Kg	7/9/2019 20:00
Methyl tert-butyl Ether	< 7.22	ug/Kg	7/9/2019 20:00
Methylcyclohexane	< 7.22	ug/Kg	7/9/2019 20:00
Methylene chloride	< 18.1	ug/Kg	7/9/2019 20:00
Naphthalene	< 18.1	ug/Kg	7/9/2019 20:00
n-Butylbenzene	< 7.22	ug/Kg	7/9/2019 20:00
n-Propylbenzene	< 7.22	ug/Kg	7/9/2019 20:00
o-Xylene	< 7.22	ug/Kg	7/9/2019 20:00
p-Isopropyltoluene	< 7.22	ug/Kg	7/9/2019 20:00
sec-Butylbenzene	< 7.22	ug/Kg	7/9/2019 20:00
Styrene	< 18.1	ug/Kg	7/9/2019 20:00
tert-Butylbenzene	< 7.22	ug/Kg	7/9/2019 20:00
Tetrachloroethene	< 7.22	ug/Kg	7/9/2019 20:00
Toluene	< 7.22	ug/Kg	7/9/2019 20:00
trans-1,2-Dichloroethene	< 7.22	ug/Kg	7/9/2019 20:00
trans-1,3-Dichloropropene	< 7.22	ug/Kg	7/9/2019 20:00
Trichloroethene	< 7.22	ug/Kg	7/9/2019 20:00

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.

Report Prepared Monday, July 22, 2019

Page 51 of 155



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 6002

Lab Sample ID: 193078-17

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Trichlorofluoromethane	< 7.22	ug/Kg		7/9/2019 20:00
Vinyl chloride	< 7.22	ug/Kg		7/9/2019 20:00
Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	140	71 - 141		7/9/2019 20:00
4-Bromofluorobenzene	92.2	60.2 - 128		7/9/2019 20:00
Pentafluorobenzene	87.3	86.6 - 111		7/9/2019 20:00
Toluene-D8	94.7	77.5 - 115		7/9/2019 20:00

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x62474.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: 193078

 Client: **BE3**

Project Reference: Marrano

Sample Identifier: 1001-1

Lab Sample ID: 193078-18

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Part 375 Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	2.63	mg/Kg		7/9/2019 23:06
Barium	74.2	mg/Kg		7/9/2019 23:06
Beryllium	0.523	mg/Kg		7/9/2019 23:06
Cadmium	0.970	mg/Kg		7/9/2019 23:06
Chromium	14.5	mg/Kg		7/9/2019 23:06
Copper	14.5	mg/Kg		7/9/2019 23:06
Lead	7.73	mg/Kg		7/9/2019 23:06
Manganese	393	mg/Kg		7/9/2019 23:06
Nickel	15.7	mg/Kg		7/9/2019 23:06
Selenium	1.63	mg/Kg		7/9/2019 23:06
Silver	< 0.559	mg/Kg		7/9/2019 23:06
Zinc	56.4	mg/Kg		7/9/2019 23:06

Method Reference(s): EPA 6010C

EPA 3050B

Preparation Date: 7/8/2019

Data File: 190709B

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	0.0206	mg/Kg		7/8/2019 10:26

Method Reference(s): EPA 7471B

Preparation Date: 7/3/2019

Data File: Hg190708B

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0282	mg/Kg		7/3/2019 17:37
PCB-1221	< 0.0282	mg/Kg		7/3/2019 17:37
PCB-1232	< 0.0282	mg/Kg		7/3/2019 17:37
PCB-1242	< 0.0282	mg/Kg		7/3/2019 17:37

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.



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier:	1001-1		
Lab Sample ID:	193078-18	Date Sampled:	7/1/2019
Matrix:	Soil	Date Received:	7/2/2019

PCB-1248	< 0.0282	mg/Kg	7/3/2019 17:37
PCB-1254	< 0.0282	mg/Kg	7/3/2019 17:37
PCB-1260	< 0.0282	mg/Kg	7/3/2019 17:37
PCB-1262	< 0.0282	mg/Kg	7/3/2019 17:37
PCB-1268	< 0.0282	mg/Kg	7/3/2019 17:37

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Tetrachloro-m-xylene	42.4	21.7 - 82.5		7/3/2019 17:37

Method Reference(s): EPA 8082A

EPA 3546

Preparation Date: 7/3/2019

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 2.82	ug/Kg		7/5/2019 15:52
4,4-DDE	< 2.82	ug/Kg		7/5/2019 15:52
4,4-DDT	< 2.82	ug/Kg		7/5/2019 15:52
Aldrin	< 2.82	ug/Kg		7/5/2019 15:52
alpha-BHC	< 2.82	ug/Kg		7/5/2019 15:52
beta-BHC	< 2.82	ug/Kg		7/5/2019 15:52
cis-Chlordane	< 2.82	ug/Kg		7/5/2019 15:52
delta-BHC	< 2.82	ug/Kg		7/5/2019 15:52
Dieldrin	< 2.82	ug/Kg		7/5/2019 15:52
Endosulfan I	< 2.82	ug/Kg		7/5/2019 15:52
Endosulfan II	< 2.82	ug/Kg		7/5/2019 15:52
Endosulfan Sulfate	< 2.82	ug/Kg		7/5/2019 15:52
Endrin	< 2.82	ug/Kg		7/5/2019 15:52
Endrin Aldehyde	< 2.82	ug/Kg		7/5/2019 15:52
Endrin Ketone	< 2.82	ug/Kg		7/5/2019 15:52
gamma-BHC (Lindane)	< 2.82	ug/Kg		7/5/2019 15:52
Heptachlor	< 2.82	ug/Kg		7/5/2019 15:52
Heptachlor Epoxide	< 2.82	ug/Kg		7/5/2019 15:52

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.



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 1001-1

Lab Sample ID: 193078-18

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Methoxychlor	< 2.82	ug/Kg		7/5/2019 15:52
Toxaphene	< 28.2	ug/Kg	L	7/5/2019 15:52
trans-Chlordane	< 2.82	ug/Kg		7/5/2019 15:52

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Decachlorobiphenyl (1)	35.7	23.6 - 123		7/5/2019 15:52
Tetrachloro-m-xylene (1)	51.5	36.2 - 86.9		7/5/2019 15:52

Method Reference(s): EPA 8081B

EPA 3546

Preparation Date: 7/3/2019

Semi-Volatile Organics (Acid/Base Neutrals)

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1-Biphenyl	< 332	ug/Kg		7/10/2019 07:17
1,2,4,5-Tetrachlorobenzene	< 332	ug/Kg		7/10/2019 07:17
1,2,4-Trichlorobenzene	< 332	ug/Kg		7/10/2019 07:17
1,2-Dichlorobenzene	< 332	ug/Kg		7/10/2019 07:17
1,3-Dichlorobenzene	< 332	ug/Kg		7/10/2019 07:17
1,4-Dichlorobenzene	< 332	ug/Kg		7/10/2019 07:17
2,2-Oxybis (1-chloropropane)	< 332	ug/Kg		7/10/2019 07:17
2,3,4,6-Tetrachlorophenol	< 332	ug/Kg		7/10/2019 07:17
2,4,5-Trichlorophenol	< 332	ug/Kg		7/10/2019 07:17
2,4,6-Trichlorophenol	< 332	ug/Kg		7/10/2019 07:17
2,4-Dichlorophenol	< 332	ug/Kg		7/10/2019 07:17
2,4-Dimethylphenol	< 332	ug/Kg		7/10/2019 07:17
2,4-Dinitrophenol	< 1330	ug/Kg		7/10/2019 07:17
2,4-Dinitrotoluene	< 332	ug/Kg		7/10/2019 07:17
2,6-Dinitrotoluene	< 332	ug/Kg		7/10/2019 07:17
2-Chloronaphthalene	< 332	ug/Kg		7/10/2019 07:17
2-Chlorophenol	< 332	ug/Kg		7/10/2019 07:17
2-Methylnapthalene	< 332	ug/Kg		7/10/2019 07:17
2-Methylphenol	< 332	ug/Kg		7/10/2019 07:17

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.

Lab Project ID: 193078
Client: BE3
Project Reference: Marrano

Sample Identifier: 1001-1

Lab Sample ID: 193078-18

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

2-Nitroaniline	< 332	ug/Kg	7/10/2019 07:17
2-Nitrophenol	< 332	ug/Kg	7/10/2019 07:17
3&4-Methylphenol	< 332	ug/Kg	7/10/2019 07:17
3,3'-Dichlorobenzidine	< 332	ug/Kg	7/10/2019 07:17
3-Nitroaniline	< 332	ug/Kg	7/10/2019 07:17
4,6-Dinitro-2-methylphenol	< 445	ug/Kg	7/10/2019 07:17
4-Bromophenyl phenyl ether	< 332	ug/Kg	7/10/2019 07:17
4-Chloro-3-methylphenol	< 332	ug/Kg	7/10/2019 07:17
4-Chloroaniline	< 332	ug/Kg	7/10/2019 07:17
4-Chlorophenyl phenyl ether	< 332	ug/Kg	7/10/2019 07:17
4-Nitroaniline	< 332	ug/Kg	7/10/2019 07:17
4-Nitrophenol	< 332	ug/Kg	7/10/2019 07:17
Acenaphthene	< 332	ug/Kg	7/10/2019 07:17
Acenaphthylene	< 332	ug/Kg	7/10/2019 07:17
Acetophenone	< 332	ug/Kg	7/10/2019 07:17
Anthracene	< 332	ug/Kg	7/10/2019 07:17
Atrazine	< 332	ug/Kg	7/10/2019 07:17
Benzaldehyde	< 332	ug/Kg	7/10/2019 07:17
Benzo (a) anthracene	< 332	ug/Kg	7/10/2019 07:17
Benzo (a) pyrene	< 332	ug/Kg	7/10/2019 07:17
Benzo (b) fluoranthene	< 332	ug/Kg	7/10/2019 07:17
Benzo (g,h,i) perylene	< 332	ug/Kg	7/10/2019 07:17
Benzo (k) fluoranthene	< 332	ug/Kg	7/10/2019 07:17
Bis (2-chloroethoxy) methane	< 332	ug/Kg	7/10/2019 07:17
Bis (2-chloroethyl) ether	< 332	ug/Kg	7/10/2019 07:17
Bis (2-ethylhexyl) phthalate	< 332	ug/Kg	7/10/2019 07:17
Butylbenzylphthalate	< 332	ug/Kg	7/10/2019 07:17
Caprolactam	< 332	ug/Kg	7/10/2019 07:17
Carbazole	< 332	ug/Kg	7/10/2019 07:17
Chrysene	< 332	ug/Kg	7/10/2019 07:17

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.



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 1001-1

Lab Sample ID: 193078-18

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Dibenz (a,h) anthracene	< 332	ug/Kg	7/10/2019 07:17
Dibenzofuran	< 332	ug/Kg	7/10/2019 07:17
Diethyl phthalate	< 332	ug/Kg	7/10/2019 07:17
Dimethyl phthalate	< 332	ug/Kg	7/10/2019 07:17
Di-n-butyl phthalate	< 332	ug/Kg	7/10/2019 07:17
Di-n-octylphthalate	< 332	ug/Kg	7/10/2019 07:17
Fluoranthene	< 332	ug/Kg	7/10/2019 07:17
Fluorene	< 332	ug/Kg	7/10/2019 07:17
Hexachlorobenzene	< 332	ug/Kg	7/10/2019 07:17
Hexachlorobutadiene	< 332	ug/Kg	7/10/2019 07:17
Hexachlorocyclopentadiene	< 1330	ug/Kg	7/10/2019 07:17
Hexachloroethane	< 332	ug/Kg	7/10/2019 07:17
Indeno (1,2,3-cd) pyrene	< 332	ug/Kg	7/10/2019 07:17
Isophorone	< 332	ug/Kg	7/10/2019 07:17
Naphthalene	< 332	ug/Kg	7/10/2019 07:17
Nitrobenzene	< 332	ug/Kg	7/10/2019 07:17
N-Nitroso-di-n-propylamine	< 332	ug/Kg	7/10/2019 07:17
N-Nitrosodiphenylamine	< 332	ug/Kg	7/10/2019 07:17
Pentachlorophenol	< 664	ug/Kg	7/10/2019 07:17
Phenanthrene	< 332	ug/Kg	7/10/2019 07:17
Phenol	< 332	ug/Kg	7/10/2019 07:17
Pyrene	< 332	ug/Kg	7/10/2019 07:17

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.

Report Prepared Monday, July 22, 2019

Page 57 of 155



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 1001-1

Lab Sample ID: 193078-18

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	61.4	34.9 - 92.6		7/10/2019 07:17
2-Fluorobiphenyl	61.7	39 - 77.6		7/10/2019 07:17
2-Fluorophenol	69.6	39.1 - 76.8		7/10/2019 07:17
Nitrobenzene-d5	62.9	35.4 - 75.3		7/10/2019 07:17
Phenol-d5	67.5	40.4 - 77.7		7/10/2019 07:17
Terphenyl-d14	67.1	42 - 93.5		7/10/2019 07:17

Method Reference(s): EPA 8270D

EPA 3546

Preparation Date: 7/8/2019

Data File: B38626.D

Dioxane

Analyte	Result	Units	Qualifier	Date Analyzed
1,4-Dioxane	< 30.8	ug/Kg		7/11/2019 09:58

Method Reference(s): EPA 8270D SIM

EPA 3546

Preparation Date: 7/8/2019

Data File: B38690.D

Total Cyanide

Analyte	Result	Units	Qualifier	Date Analyzed
Cyanide, Total	< 0.548	mg/Kg		7/10/2019

Method Reference(s): EPA 9014

EPA 9010C

Preparation Date: 7/10/2019



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 1002-1

Lab Sample ID: 193078-19

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Part 375 Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	4.44	mg/Kg		7/9/2019 23:11
Barium	99.9	mg/Kg		7/9/2019 23:11
Beryllium	0.671	mg/Kg		7/9/2019 23:11
Cadmium	1.29	mg/Kg		7/9/2019 23:11
Chromium	18.3	mg/Kg		7/9/2019 23:11
Copper	22.1	mg/Kg		7/9/2019 23:11
Lead	45.5	mg/Kg		7/9/2019 23:11
Manganese	388	mg/Kg		7/9/2019 23:11
Nickel	18.8	mg/Kg		7/9/2019 23:11
Selenium	1.82	mg/Kg		7/9/2019 23:11
Silver	< 0.605	mg/Kg		7/9/2019 23:11
Zinc	92.5	mg/Kg		7/9/2019 23:11

Method Reference(s): EPA 6010C

EPA 3050B

Preparation Date: 7/8/2019

Data File: 190709B

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	0.0349	mg/Kg		7/8/2019 10:28

Method Reference(s): EPA 7471B

Preparation Date: 7/3/2019

Data File: Hg190708B

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0317	mg/Kg		7/3/2019 18:00
PCB-1221	< 0.0317	mg/Kg		7/3/2019 18:00
PCB-1232	< 0.0317	mg/Kg		7/3/2019 18:00
PCB-1242	< 0.0317	mg/Kg		7/3/2019 18:00

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.

Report Prepared Monday, July 22, 2019

Page 59 of 155

Lab Project ID: 193078
Client: BE3
Project Reference: Marrano

Sample Identifier: 1002-1

Lab Sample ID: 193078-19

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

PCB-1248	< 0.0317	mg/Kg	7/3/2019 18:00
PCB-1254	< 0.0317	mg/Kg	7/3/2019 18:00
PCB-1260	< 0.0317	mg/Kg	7/3/2019 18:00
PCB-1262	< 0.0317	mg/Kg	7/3/2019 18:00
PCB-1268	< 0.0317	mg/Kg	7/3/2019 18:00

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Tetrachloro-m-xylene	46.8	21.7 - 82.5		7/3/2019 18:00

Method Reference(s): EPA 8082A

EPA 3546

Preparation Date: 7/3/2019

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 3.17	ug/Kg		7/5/2019 16:11
4,4-DDE	4.91	ug/Kg		7/5/2019 16:11
4,4-DDT	< 3.17	ug/Kg		7/5/2019 16:11
Aldrin	< 3.17	ug/Kg		7/5/2019 16:11
alpha-BHC	< 3.17	ug/Kg		7/5/2019 16:11
beta-BHC	< 3.17	ug/Kg		7/5/2019 16:11
cis-Chlordane	6.86	ug/Kg		7/5/2019 16:11
delta-BHC	< 3.17	ug/Kg		7/5/2019 16:11
Dieldrin	< 3.17	ug/Kg		7/5/2019 16:11
Endosulfan I	< 3.17	ug/Kg		7/5/2019 16:11
Endosulfan II	< 3.17	ug/Kg		7/5/2019 16:11
Endosulfan Sulfate	< 3.17	ug/Kg		7/5/2019 16:11
Endrin	< 3.17	ug/Kg		7/5/2019 16:11
Endrin Aldehyde	< 3.17	ug/Kg		7/5/2019 16:11
Endrin Ketone	< 3.17	ug/Kg		7/5/2019 16:11
gamma-BHC (Lindane)	< 3.17	ug/Kg		7/5/2019 16:11
Heptachlor	< 3.17	ug/Kg		7/5/2019 16:11
Heptachlor Epoxide	< 3.17	ug/Kg		7/5/2019 16:11

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.



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 1002-1

Lab Sample ID: 193078-19

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Methoxychlor	< 3.17	ug/Kg		7/5/2019 16:11
Toxaphene	< 31.7	ug/Kg	L	7/5/2019 16:11
trans-Chlordane	4.14	ug/Kg		7/5/2019 16:11

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Decachlorobiphenyl (1)	49.7	23.6 - 123		7/5/2019 16:11
Tetrachloro-m-xylene (1)	58.0	36.2 - 86.9		7/5/2019 16:11

Method Reference(s): EPA 8081B

EPA 3546

Preparation Date: 7/3/2019

Semi-Volatile Organics (Acid/Base Neutrals)

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1-Biphenyl	< 338	ug/Kg		7/10/2019 07:46
1,2,4,5-Tetrachlorobenzene	< 338	ug/Kg		7/10/2019 07:46
1,2,4-Trichlorobenzene	< 338	ug/Kg		7/10/2019 07:46
1,2-Dichlorobenzene	< 338	ug/Kg		7/10/2019 07:46
1,3-Dichlorobenzene	< 338	ug/Kg		7/10/2019 07:46
1,4-Dichlorobenzene	< 338	ug/Kg		7/10/2019 07:46
2,2-Oxybis (1-chloropropane)	< 338	ug/Kg		7/10/2019 07:46
2,3,4,6-Tetrachlorophenol	< 338	ug/Kg		7/10/2019 07:46
2,4,5-Trichlorophenol	< 338	ug/Kg		7/10/2019 07:46
2,4,6-Trichlorophenol	< 338	ug/Kg		7/10/2019 07:46
2,4-Dichlorophenol	< 338	ug/Kg		7/10/2019 07:46
2,4-Dimethylphenol	< 338	ug/Kg		7/10/2019 07:46
2,4-Dinitrophenol	< 1350	ug/Kg		7/10/2019 07:46
2,4-Dinitrotoluene	< 338	ug/Kg		7/10/2019 07:46
2,6-Dinitrotoluene	< 338	ug/Kg		7/10/2019 07:46
2-Chloronaphthalene	< 338	ug/Kg		7/10/2019 07:46
2-Chlorophenol	< 338	ug/Kg		7/10/2019 07:46
2-Methylnapthalene	< 338	ug/Kg		7/10/2019 07:46
2-Methylphenol	< 338	ug/Kg		7/10/2019 07:46

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.

Lab Project ID: 193078
Client: BE3
Project Reference: Marrano

Sample Identifier: 1002-1

Lab Sample ID: 193078-19

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

2-Nitroaniline	< 338	ug/Kg	7/10/2019 07:46
2-Nitrophenol	< 338	ug/Kg	7/10/2019 07:46
3&4-Methylphenol	< 338	ug/Kg	7/10/2019 07:46
3,3'-Dichlorobenzidine	< 338	ug/Kg	7/10/2019 07:46
3-Nitroaniline	< 338	ug/Kg	7/10/2019 07:46
4,6-Dinitro-2-methylphenol	< 452	ug/Kg	7/10/2019 07:46
4-Bromophenyl phenyl ether	< 338	ug/Kg	7/10/2019 07:46
4-Chloro-3-methylphenol	< 338	ug/Kg	7/10/2019 07:46
4-Chloroaniline	< 338	ug/Kg	7/10/2019 07:46
4-Chlorophenyl phenyl ether	< 338	ug/Kg	7/10/2019 07:46
4-Nitroaniline	< 338	ug/Kg	7/10/2019 07:46
4-Nitrophenol	< 338	ug/Kg	7/10/2019 07:46
Acenaphthene	< 338	ug/Kg	7/10/2019 07:46
Acenaphthylene	< 338	ug/Kg	7/10/2019 07:46
Acetophenone	< 338	ug/Kg	7/10/2019 07:46
Anthracene	< 338	ug/Kg	7/10/2019 07:46
Atrazine	< 338	ug/Kg	7/10/2019 07:46
Benzaldehyde	< 338	ug/Kg	7/10/2019 07:46
Benzo (a) anthracene	< 338	ug/Kg	7/10/2019 07:46
Benzo (a) pyrene	< 338	ug/Kg	7/10/2019 07:46
Benzo (b) fluoranthene	< 338	ug/Kg	7/10/2019 07:46
Benzo (g,h,i) perylene	< 338	ug/Kg	7/10/2019 07:46
Benzo (k) fluoranthene	< 338	ug/Kg	7/10/2019 07:46
Bis (2-chloroethoxy) methane	< 338	ug/Kg	7/10/2019 07:46
Bis (2-chloroethyl) ether	< 338	ug/Kg	7/10/2019 07:46
Bis (2-ethylhexyl) phthalate	< 338	ug/Kg	7/10/2019 07:46
Butylbenzylphthalate	< 338	ug/Kg	7/10/2019 07:46
Caprolactam	< 338	ug/Kg	7/10/2019 07:46
Carbazole	< 338	ug/Kg	7/10/2019 07:46
Chrysene	< 338	ug/Kg	7/10/2019 07:46

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.

Lab Project ID: 193078
Client: BE3
Project Reference: Marrano

Sample Identifier: 1002-1

Lab Sample ID: 193078-19

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Dibenz (a,h) anthracene	< 338	ug/Kg	7/10/2019 07:46
Dibenzofuran	< 338	ug/Kg	7/10/2019 07:46
Diethyl phthalate	< 338	ug/Kg	7/10/2019 07:46
Dimethyl phthalate	< 338	ug/Kg	7/10/2019 07:46
Di-n-butyl phthalate	< 338	ug/Kg	7/10/2019 07:46
Di-n-octylphthalate	< 338	ug/Kg	7/10/2019 07:46
Fluoranthene	< 338	ug/Kg	7/10/2019 07:46
Fluorene	< 338	ug/Kg	7/10/2019 07:46
Hexachlorobenzene	< 338	ug/Kg	7/10/2019 07:46
Hexachlorobutadiene	< 338	ug/Kg	7/10/2019 07:46
Hexachlorocyclopentadiene	< 1350	ug/Kg	7/10/2019 07:46
Hexachloroethane	< 338	ug/Kg	7/10/2019 07:46
Indeno (1,2,3-cd) pyrene	< 338	ug/Kg	7/10/2019 07:46
Isophorone	< 338	ug/Kg	7/10/2019 07:46
Naphthalene	< 338	ug/Kg	7/10/2019 07:46
Nitrobenzene	< 338	ug/Kg	7/10/2019 07:46
N-Nitroso-di-n-propylamine	< 338	ug/Kg	7/10/2019 07:46
N-Nitrosodiphenylamine	< 338	ug/Kg	7/10/2019 07:46
Pentachlorophenol	< 676	ug/Kg	7/10/2019 07:46
Phenanthrene	< 338	ug/Kg	7/10/2019 07:46
Phenol	< 338	ug/Kg	7/10/2019 07:46
Pyrene	< 338	ug/Kg	7/10/2019 07:46



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 1002-1

Lab Sample ID: 193078-19

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	59.4	34.9 - 92.6		7/10/2019 07:46
2-Fluorobiphenyl	58.1	39 - 77.6		7/10/2019 07:46
2-Fluorophenol	64.3	39.1 - 76.8		7/10/2019 07:46
Nitrobenzene-d5	61.1	35.4 - 75.3		7/10/2019 07:46
Phenol-d5	63.9	40.4 - 77.7		7/10/2019 07:46
Terphenyl-d14	67.9	42 - 93.5		7/10/2019 07:46

Method Reference(s): EPA 8270D

EPA 3546

Preparation Date: 7/8/2019

Data File: B38627.D

Dioxane

Analyte	Result	Units	Qualifier	Date Analyzed
1,4-Dioxane	< 34.4	ug/Kg		7/11/2019 10:08

Method Reference(s): EPA 8270D SIM

EPA 3546

Preparation Date: 7/8/2019

Data File: B38691.D

Total Cyanide

Analyte	Result	Units	Qualifier	Date Analyzed
Cyanide, Total	< 0.555	mg/Kg		7/10/2019

Method Reference(s): EPA 9014

EPA 9010C

Preparation Date: 7/10/2019

Lab Project ID: 193078

 Client: **BE3**

Project Reference: Marrano

Sample Identifier: 2001-1

Lab Sample ID: 193078-20

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Part 375 Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	3.78	mg/Kg		7/9/2019 23:15
Barium	94.2	mg/Kg		7/9/2019 23:15
Beryllium	0.713	mg/Kg		7/9/2019 23:15
Cadmium	1.28	mg/Kg		7/9/2019 23:15
Chromium	19.5	mg/Kg		7/9/2019 23:15
Copper	20.1	mg/Kg		7/9/2019 23:15
Lead	9.74	mg/Kg		7/9/2019 23:15
Manganese	451	mg/Kg		7/9/2019 23:15
Nickel	21.4	mg/Kg		7/9/2019 23:15
Selenium	1.25	mg/Kg		7/9/2019 23:15
Silver	< 0.596	mg/Kg		7/9/2019 23:15
Zinc	67.6	mg/Kg		7/9/2019 23:15

Method Reference(s): EPA 6010C

EPA 3050B

Preparation Date: 7/8/2019

Data File: 190709B

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	0.0155	mg/Kg		7/8/2019 10:30

Method Reference(s): EPA 7471B

Preparation Date: 7/3/2019

Data File: Hg190708B

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0342	mg/Kg		7/3/2019 18:23
PCB-1221	< 0.0342	mg/Kg		7/3/2019 18:23
PCB-1232	< 0.0342	mg/Kg		7/3/2019 18:23
PCB-1242	< 0.0342	mg/Kg		7/3/2019 18:23

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.



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 2001-1

Lab Sample ID: 193078-20

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

PCB-1248	< 0.0342	mg/Kg	7/3/2019 18:23
PCB-1254	< 0.0342	mg/Kg	7/3/2019 18:23
PCB-1260	< 0.0342	mg/Kg	7/3/2019 18:23
PCB-1262	< 0.0342	mg/Kg	7/3/2019 18:23
PCB-1268	< 0.0342	mg/Kg	7/3/2019 18:23

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Tetrachloro-m-xylene	43.9	21.7 - 82.5		7/3/2019 18:23

Method Reference(s): EPA 8082A

EPA 3546

Preparation Date: 7/3/2019

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 3.42	ug/Kg		7/5/2019 16:30
4,4-DDE	< 3.42	ug/Kg		7/5/2019 16:30
4,4-DDT	< 3.42	ug/Kg		7/5/2019 16:30
Aldrin	< 3.42	ug/Kg		7/5/2019 16:30
alpha-BHC	< 3.42	ug/Kg		7/5/2019 16:30
beta-BHC	< 3.42	ug/Kg		7/5/2019 16:30
cis-Chlordane	< 3.42	ug/Kg		7/5/2019 16:30
delta-BHC	< 3.42	ug/Kg		7/5/2019 16:30
Dieldrin	< 3.42	ug/Kg		7/5/2019 16:30
Endosulfan I	< 3.42	ug/Kg		7/5/2019 16:30
Endosulfan II	< 3.42	ug/Kg		7/5/2019 16:30
Endosulfan Sulfate	< 3.42	ug/Kg		7/5/2019 16:30
Endrin	< 3.42	ug/Kg		7/5/2019 16:30
Endrin Aldehyde	< 3.42	ug/Kg		7/5/2019 16:30
Endrin Ketone	< 3.42	ug/Kg		7/5/2019 16:30
gamma-BHC (Lindane)	< 3.42	ug/Kg		7/5/2019 16:30
Heptachlor	< 3.42	ug/Kg		7/5/2019 16:30
Heptachlor Epoxide	< 3.42	ug/Kg		7/5/2019 16:30

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.

Lab Project ID: 193078

 Client: **BE3**

Project Reference: Marrano

Sample Identifier: 2001-1

Lab Sample ID: 193078-20

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Methoxychlor	< 3.42	ug/Kg		7/5/2019 16:30
Toxaphene	< 34.2	ug/Kg	L	7/5/2019 16:30
trans-Chlordane	< 3.42	ug/Kg		7/5/2019 16:30

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Decachlorobiphenyl (1)	47.3	23.6 - 123		7/5/2019 16:30
Tetrachloro-m-xylene (1)	59.1	36.2 - 86.9		7/5/2019 16:30

Method Reference(s): EPA 8081B

EPA 3546

Preparation Date: 7/3/2019

Semi-Volatile Organics (Acid/Base Neutrals)

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1-Biphenyl	< 329	ug/Kg		7/10/2019 08:15
1,2,4,5-Tetrachlorobenzene	< 329	ug/Kg		7/10/2019 08:15
1,2,4-Trichlorobenzene	< 329	ug/Kg		7/10/2019 08:15
1,2-Dichlorobenzene	< 329	ug/Kg		7/10/2019 08:15
1,3-Dichlorobenzene	< 329	ug/Kg		7/10/2019 08:15
1,4-Dichlorobenzene	< 329	ug/Kg		7/10/2019 08:15
2,2-Oxybis (1-chloropropane)	< 329	ug/Kg		7/10/2019 08:15
2,3,4,6-Tetrachlorophenol	< 329	ug/Kg		7/10/2019 08:15
2,4,5-Trichlorophenol	< 329	ug/Kg		7/10/2019 08:15
2,4,6-Trichlorophenol	< 329	ug/Kg		7/10/2019 08:15
2,4-Dichlorophenol	< 329	ug/Kg		7/10/2019 08:15
2,4-Dimethylphenol	< 329	ug/Kg		7/10/2019 08:15
2,4-Dinitrophenol	< 1320	ug/Kg		7/10/2019 08:15
2,4-Dinitrotoluene	< 329	ug/Kg		7/10/2019 08:15
2,6-Dinitrotoluene	< 329	ug/Kg		7/10/2019 08:15
2-Chloronaphthalene	< 329	ug/Kg		7/10/2019 08:15
2-Chlorophenol	< 329	ug/Kg		7/10/2019 08:15
2-Methylnapthalene	< 329	ug/Kg		7/10/2019 08:15
2-Methylphenol	< 329	ug/Kg		7/10/2019 08:15

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.

Client: BE3
Project Reference: Marrano

Sample Identifier: 2001-1

Lab Sample ID: 193078-20

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

2-Nitroaniline	< 329	ug/Kg	7/10/2019 08:15
2-Nitrophenol	< 329	ug/Kg	7/10/2019 08:15
3&4-Methylphenol	< 329	ug/Kg	7/10/2019 08:15
3,3'-Dichlorobenzidine	< 329	ug/Kg	7/10/2019 08:15
3-Nitroaniline	< 329	ug/Kg	7/10/2019 08:15
4,6-Dinitro-2-methylphenol	< 440	ug/Kg	7/10/2019 08:15
4-Bromophenyl phenyl ether	< 329	ug/Kg	7/10/2019 08:15
4-Chloro-3-methylphenol	< 329	ug/Kg	7/10/2019 08:15
4-Chloroaniline	< 329	ug/Kg	7/10/2019 08:15
4-Chlorophenyl phenyl ether	< 329	ug/Kg	7/10/2019 08:15
4-Nitroaniline	< 329	ug/Kg	7/10/2019 08:15
4-Nitrophenol	< 329	ug/Kg	7/10/2019 08:15
Acenaphthene	< 329	ug/Kg	7/10/2019 08:15
Acenaphthylene	< 329	ug/Kg	7/10/2019 08:15
Acetophenone	< 329	ug/Kg	7/10/2019 08:15
Anthracene	< 329	ug/Kg	7/10/2019 08:15
Atrazine	< 329	ug/Kg	7/10/2019 08:15
Benzaldehyde	< 329	ug/Kg	7/10/2019 08:15
Benzo (a) anthracene	< 329	ug/Kg	7/10/2019 08:15
Benzo (a) pyrene	< 329	ug/Kg	7/10/2019 08:15
Benzo (b) fluoranthene	< 329	ug/Kg	7/10/2019 08:15
Benzo (g,h,i) perylene	< 329	ug/Kg	7/10/2019 08:15
Benzo (k) fluoranthene	< 329	ug/Kg	7/10/2019 08:15
Bis (2-chloroethoxy) methane	< 329	ug/Kg	7/10/2019 08:15
Bis (2-chloroethyl) ether	< 329	ug/Kg	7/10/2019 08:15
Bis (2-ethylhexyl) phthalate	< 329	ug/Kg	7/10/2019 08:15
Butylbenzylphthalate	< 329	ug/Kg	7/10/2019 08:15
Caprolactam	< 329	ug/Kg	7/10/2019 08:15
Carbazole	< 329	ug/Kg	7/10/2019 08:15
Chrysene	< 329	ug/Kg	7/10/2019 08:15

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.



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 2001-1

Lab Sample ID: 193078-20

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Dibenz (a,h) anthracene	< 329	ug/Kg	7/10/2019 08:15
Dibenzofuran	< 329	ug/Kg	7/10/2019 08:15
Diethyl phthalate	< 329	ug/Kg	7/10/2019 08:15
Dimethyl phthalate	< 329	ug/Kg	7/10/2019 08:15
Di-n-butyl phthalate	< 329	ug/Kg	7/10/2019 08:15
Di-n-octylphthalate	< 329	ug/Kg	7/10/2019 08:15
Fluoranthene	< 329	ug/Kg	7/10/2019 08:15
Fluorene	< 329	ug/Kg	7/10/2019 08:15
Hexachlorobenzene	< 329	ug/Kg	7/10/2019 08:15
Hexachlorobutadiene	< 329	ug/Kg	7/10/2019 08:15
Hexachlorocyclopentadiene	< 1320	ug/Kg	7/10/2019 08:15
Hexachloroethane	< 329	ug/Kg	7/10/2019 08:15
Indeno (1,2,3-cd) pyrene	< 329	ug/Kg	7/10/2019 08:15
Isophorone	< 329	ug/Kg	7/10/2019 08:15
Naphthalene	< 329	ug/Kg	7/10/2019 08:15
Nitrobenzene	< 329	ug/Kg	7/10/2019 08:15
N-Nitroso-di-n-propylamine	< 329	ug/Kg	7/10/2019 08:15
N-Nitrosodiphenylamine	< 329	ug/Kg	7/10/2019 08:15
Pentachlorophenol	< 658	ug/Kg	7/10/2019 08:15
Phenanthrene	< 329	ug/Kg	7/10/2019 08:15
Phenol	< 329	ug/Kg	7/10/2019 08:15
Pyrene	< 329	ug/Kg	7/10/2019 08:15

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.

Report Prepared Monday, July 22, 2019

Page 69 of 155



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 2001-1

Lab Sample ID: 193078-20

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	63.4	34.9 - 92.6		7/10/2019 08:15
2-Fluorobiphenyl	63.0	39 - 77.6		7/10/2019 08:15
2-Fluorophenol	71.2	39.1 - 76.8		7/10/2019 08:15
Nitrobenzene-d5	64.0	35.4 - 75.3		7/10/2019 08:15
Phenol-d5	68.9	40.4 - 77.7		7/10/2019 08:15
Terphenyl-d14	70.3	42 - 93.5		7/10/2019 08:15

Method Reference(s): EPA 8270D

EPA 3546

Preparation Date: 7/8/2019

Data File: B38628.D

Dioxane

Analyte	Result	Units	Qualifier	Date Analyzed
1,4-Dioxane	< 33.4	ug/Kg		7/11/2019 10:19

Method Reference(s): EPA 8270D SIM

EPA 3546

Preparation Date: 7/8/2019

Data File: B38692.D

Total Cyanide

Analyte	Result	Units	Qualifier	Date Analyzed
Cyanide, Total	< 0.568	mg/Kg		7/10/2019

Method Reference(s): EPA 9014

EPA 9010C

Preparation Date: 7/10/2019



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 3001-1

Lab Sample ID: 193078-21

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Part 375 Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	3.75	mg/Kg		7/9/2019 23:20
Barium	83.0	mg/Kg		7/9/2019 23:20
Beryllium	0.552	mg/Kg		7/9/2019 23:20
Cadmium	1.04	mg/Kg		7/9/2019 23:20
Chromium	14.7	mg/Kg		7/9/2019 23:20
Copper	18.0	mg/Kg		7/9/2019 23:20
Lead	12.3	mg/Kg		7/9/2019 23:20
Manganese	439	mg/Kg		7/9/2019 23:20
Nickel	16.9	mg/Kg		7/9/2019 23:20
Selenium	1.20	mg/Kg		7/10/2019 17:09
Silver	< 0.519	mg/Kg		7/9/2019 23:20
Zinc	61.7	mg/Kg		7/9/2019 23:20

Method Reference(s): EPA 6010C

EPA 3050B

Preparation Date: 7/8/2019

Data File: 190709B

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	0.0119	mg/Kg		7/8/2019 10:36

Method Reference(s): EPA 7471B

Preparation Date: 7/3/2019

Data File: Hg190708B

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0308	mg/Kg		7/3/2019 18:46
PCB-1221	< 0.0308	mg/Kg		7/3/2019 18:46
PCB-1232	< 0.0308	mg/Kg		7/3/2019 18:46
PCB-1242	< 0.0308	mg/Kg		7/3/2019 18:46

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.

Report Prepared Monday, July 22, 2019

Page 71 of 155

Lab Project ID: 193078

 Client: **BE3**

Project Reference: Marrano

Sample Identifier: 3001-1

Lab Sample ID: 193078-21

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

PCB-1248	< 0.0308	mg/Kg	7/3/2019 18:46
PCB-1254	< 0.0308	mg/Kg	7/3/2019 18:46
PCB-1260	< 0.0308	mg/Kg	7/3/2019 18:46
PCB-1262	< 0.0308	mg/Kg	7/3/2019 18:46
PCB-1268	< 0.0308	mg/Kg	7/3/2019 18:46

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Tetrachloro-m-xylene	52.9	21.7 - 82.5		7/3/2019 18:46

Method Reference(s): EPA 8082A

EPA 3546

Preparation Date: 7/3/2019

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 3.08	ug/Kg		7/5/2019 16:49
4,4-DDE	< 3.08	ug/Kg		7/5/2019 16:49
4,4-DDT	< 3.08	ug/Kg		7/5/2019 16:49
Aldrin	< 3.08	ug/Kg		7/5/2019 16:49
alpha-BHC	< 3.08	ug/Kg		7/5/2019 16:49
beta-BHC	< 3.08	ug/Kg		7/5/2019 16:49
cis-Chlordane	< 3.08	ug/Kg		7/5/2019 16:49
delta-BHC	< 3.08	ug/Kg		7/5/2019 16:49
Dieldrin	< 3.08	ug/Kg		7/5/2019 16:49
Endosulfan I	< 3.08	ug/Kg		7/5/2019 16:49
Endosulfan II	< 3.08	ug/Kg		7/5/2019 16:49
Endosulfan Sulfate	< 3.08	ug/Kg		7/5/2019 16:49
Endrin	< 3.08	ug/Kg		7/5/2019 16:49
Endrin Aldehyde	< 3.08	ug/Kg		7/5/2019 16:49
Endrin Ketone	< 3.08	ug/Kg		7/5/2019 16:49
gamma-BHC (Lindane)	< 3.08	ug/Kg		7/5/2019 16:49
Heptachlor	< 3.08	ug/Kg		7/5/2019 16:49
Heptachlor Epoxide	< 3.08	ug/Kg		7/5/2019 16:49

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.

Lab Project ID: 193078

Client: BE3
Project Reference: Marrano

Sample Identifier:	3001-1		
Lab Sample ID:	193078-21	Date Sampled:	7/1/2019
Matrix:	Soil	Date Received:	7/2/2019

Methoxychlor	< 3.08	ug/Kg		7/5/2019 16:49
Toxaphene	< 30.8	ug/Kg	L	7/5/2019 16:49
trans-Chlordane	< 3.08	ug/Kg		7/5/2019 16:49

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Decachlorobiphenyl (1)	49.8	23.6 - 123		7/5/2019 16:49
Tetrachloro-m-xylene (1)	60.4	36.2 - 86.9		7/5/2019 16:49

Method Reference(s): EPA 8081B

EPA 3546

Preparation Date: 7/3/2019

Semi-Volatile Organics (Acid/Base Neutrals)

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1-Biphenyl	< 324	ug/Kg		7/10/2019 08:44
1,2,4,5-Tetrachlorobenzene	< 324	ug/Kg		7/10/2019 08:44
1,2,4-Trichlorobenzene	< 324	ug/Kg		7/10/2019 08:44
1,2-Dichlorobenzene	< 324	ug/Kg		7/10/2019 08:44
1,3-Dichlorobenzene	< 324	ug/Kg		7/10/2019 08:44
1,4-Dichlorobenzene	< 324	ug/Kg		7/10/2019 08:44
2,2-Oxybis (1-chloropropane)	< 324	ug/Kg		7/10/2019 08:44
2,3,4,6-Tetrachlorophenol	< 324	ug/Kg		7/10/2019 08:44
2,4,5-Trichlorophenol	< 324	ug/Kg		7/10/2019 08:44
2,4,6-Trichlorophenol	< 324	ug/Kg		7/10/2019 08:44
2,4-Dichlorophenol	< 324	ug/Kg		7/10/2019 08:44
2,4-Dimethylphenol	< 324	ug/Kg		7/10/2019 08:44
2,4-Dinitrophenol	< 1290	ug/Kg		7/10/2019 08:44
2,4-Dinitrotoluene	< 324	ug/Kg		7/10/2019 08:44
2,6-Dinitrotoluene	< 324	ug/Kg		7/10/2019 08:44
2-Chloronaphthalene	< 324	ug/Kg		7/10/2019 08:44
2-Chlorophenol	< 324	ug/Kg		7/10/2019 08:44
2-Methylnapthalene	< 324	ug/Kg		7/10/2019 08:44
2-Methylphenol	< 324	ug/Kg		7/10/2019 08:44

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.

Lab Project ID: 193078
Client: BE3
Project Reference: Marrano

Sample Identifier: 3001-1

Lab Sample ID: 193078-21

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

2-Nitroaniline	< 324	ug/Kg	7/10/2019 08:44
2-Nitrophenol	< 324	ug/Kg	7/10/2019 08:44
3&4-Methylphenol	< 324	ug/Kg	7/10/2019 08:44
3,3'-Dichlorobenzidine	< 324	ug/Kg	7/10/2019 08:44
3-Nitroaniline	< 324	ug/Kg	7/10/2019 08:44
4,6-Dinitro-2-methylphenol	< 433	ug/Kg	7/10/2019 08:44
4-Bromophenyl phenyl ether	< 324	ug/Kg	7/10/2019 08:44
4-Chloro-3-methylphenol	< 324	ug/Kg	7/10/2019 08:44
4-Chloroaniline	< 324	ug/Kg	7/10/2019 08:44
4-Chlorophenyl phenyl ether	< 324	ug/Kg	7/10/2019 08:44
4-Nitroaniline	< 324	ug/Kg	7/10/2019 08:44
4-Nitrophenol	< 324	ug/Kg	7/10/2019 08:44
Acenaphthene	< 324	ug/Kg	7/10/2019 08:44
Acenaphthylene	< 324	ug/Kg	7/10/2019 08:44
Acetophenone	< 324	ug/Kg	7/10/2019 08:44
Anthracene	< 324	ug/Kg	7/10/2019 08:44
Atrazine	< 324	ug/Kg	7/10/2019 08:44
Benzaldehyde	< 324	ug/Kg	7/10/2019 08:44
Benzo (a) anthracene	< 324	ug/Kg	7/10/2019 08:44
Benzo (a) pyrene	< 324	ug/Kg	7/10/2019 08:44
Benzo (b) fluoranthene	< 324	ug/Kg	7/10/2019 08:44
Benzo (g,h,i) perylene	< 324	ug/Kg	7/10/2019 08:44
Benzo (k) fluoranthene	< 324	ug/Kg	7/10/2019 08:44
Bis (2-chloroethoxy) methane	< 324	ug/Kg	7/10/2019 08:44
Bis (2-chloroethyl) ether	< 324	ug/Kg	7/10/2019 08:44
Bis (2-ethylhexyl) phthalate	< 324	ug/Kg	7/10/2019 08:44
Butylbenzylphthalate	< 324	ug/Kg	7/10/2019 08:44
Caprolactam	< 324	ug/Kg	7/10/2019 08:44
Carbazole	< 324	ug/Kg	7/10/2019 08:44
Chrysene	< 324	ug/Kg	7/10/2019 08:44

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.



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 3001-1

Lab Sample ID: 193078-21

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Dibenz (a,h) anthracene	< 324	ug/Kg	7/10/2019 08:44
Dibenzofuran	< 324	ug/Kg	7/10/2019 08:44
Diethyl phthalate	< 324	ug/Kg	7/10/2019 08:44
Dimethyl phthalate	< 324	ug/Kg	7/10/2019 08:44
Di-n-butyl phthalate	< 324	ug/Kg	7/10/2019 08:44
Di-n-octylphthalate	< 324	ug/Kg	7/10/2019 08:44
Fluoranthene	< 324	ug/Kg	7/10/2019 08:44
Fluorene	< 324	ug/Kg	7/10/2019 08:44
Hexachlorobenzene	< 324	ug/Kg	7/10/2019 08:44
Hexachlorobutadiene	< 324	ug/Kg	7/10/2019 08:44
Hexachlorocyclopentadiene	< 1290	ug/Kg	7/10/2019 08:44
Hexachloroethane	< 324	ug/Kg	7/10/2019 08:44
Indeno (1,2,3-cd) pyrene	< 324	ug/Kg	7/10/2019 08:44
Isophorone	< 324	ug/Kg	7/10/2019 08:44
Naphthalene	< 324	ug/Kg	7/10/2019 08:44
Nitrobenzene	< 324	ug/Kg	7/10/2019 08:44
N-Nitroso-di-n-propylamine	< 324	ug/Kg	7/10/2019 08:44
N-Nitrosodiphenylamine	< 324	ug/Kg	7/10/2019 08:44
Pentachlorophenol	< 647	ug/Kg	7/10/2019 08:44
Phenanthrene	< 324	ug/Kg	7/10/2019 08:44
Phenol	< 324	ug/Kg	7/10/2019 08:44
Pyrene	< 324	ug/Kg	7/10/2019 08:44

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.

Report Prepared Monday, July 22, 2019

Page 75 of 155

Lab Project ID: 193078

 Client: **BE3**

Project Reference: Marrano

Sample Identifier: 3001-1

Lab Sample ID: 193078-21

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	59.1	34.9 - 92.6		7/10/2019 08:44
2-Fluorobiphenyl	61.3	39 - 77.6		7/10/2019 08:44
2-Fluorophenol	63.9	39.1 - 76.8		7/10/2019 08:44
Nitrobenzene-d5	61.6	35.4 - 75.3		7/10/2019 08:44
Phenol-d5	62.7	40.4 - 77.7		7/10/2019 08:44
Terphenyl-d14	62.0	42 - 93.5		7/10/2019 08:44

Method Reference(s): EPA 8270D

EPA 3546

Preparation Date: 7/8/2019

Data File: B38629.D

Dioxane

Analyte	Result	Units	Qualifier	Date Analyzed
1,4-Dioxane	< 30.9	ug/Kg		7/11/2019 10:30

Method Reference(s): EPA 8270D SIM

EPA 3546

Preparation Date: 7/8/2019

Data File: B38693.D

Total Cyanide

Analyte	Result	Units	Qualifier	Date Analyzed
Cyanide, Total	< 0.529	mg/Kg		7/10/2019

Method Reference(s): EPA 9014

EPA 9010C

Preparation Date: 7/10/2019



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 4001-1

Lab Sample ID: 193078-22

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Part 375 Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	4.57	mg/Kg		7/9/2019 23:24
Barium	115	mg/Kg		7/9/2019 23:24
Beryllium	0.939	mg/Kg		7/9/2019 23:24
Cadmium	1.41	mg/Kg		7/9/2019 23:24
Chromium	23.1	mg/Kg		7/9/2019 23:24
Copper	20.7	mg/Kg		7/9/2019 23:24
Lead	12.5	mg/Kg		7/9/2019 23:24
Manganese	419	mg/Kg		7/9/2019 23:24
Nickel	24.7	mg/Kg		7/9/2019 23:24
Selenium	1.61	mg/Kg		7/10/2019 17:13
Silver	< 0.598	mg/Kg		7/9/2019 23:24
Zinc	65.7	mg/Kg		7/9/2019 23:24

Method Reference(s): EPA 6010C

EPA 3050B

Preparation Date: 7/8/2019

Data File: 190709B

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	0.0204	mg/Kg		7/8/2019 10:38

Method Reference(s): EPA 7471B

Preparation Date: 7/3/2019

Data File: Hg190708B

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0343	mg/Kg		7/3/2019 19:09
PCB-1221	< 0.0343	mg/Kg		7/3/2019 19:09
PCB-1232	< 0.0343	mg/Kg		7/3/2019 19:09
PCB-1242	< 0.0343	mg/Kg		7/3/2019 19:09

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.



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 4001-1

Lab Sample ID: 193078-22

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

PCB-1248	< 0.0343	mg/Kg	7/3/2019 19:09
PCB-1254	< 0.0343	mg/Kg	7/3/2019 19:09
PCB-1260	< 0.0343	mg/Kg	7/3/2019 19:09
PCB-1262	< 0.0343	mg/Kg	7/3/2019 19:09
PCB-1268	< 0.0343	mg/Kg	7/3/2019 19:09

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Tetrachloro-m-xylene	40.6	21.7 - 82.5		7/3/2019 19:09

Method Reference(s): EPA 8082A

EPA 3546

Preparation Date: 7/3/2019

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 3.43	ug/Kg		7/5/2019 17:08
4,4-DDE	< 3.43	ug/Kg		7/5/2019 17:08
4,4-DDT	< 3.43	ug/Kg		7/5/2019 17:08
Aldrin	< 3.43	ug/Kg		7/5/2019 17:08
alpha-BHC	< 3.43	ug/Kg		7/5/2019 17:08
beta-BHC	< 3.43	ug/Kg		7/5/2019 17:08
cis-Chlordane	< 3.43	ug/Kg		7/5/2019 17:08
delta-BHC	< 3.43	ug/Kg		7/5/2019 17:08
Dieldrin	< 3.43	ug/Kg		7/5/2019 17:08
Endosulfan I	< 3.43	ug/Kg		7/5/2019 17:08
Endosulfan II	< 3.43	ug/Kg		7/5/2019 17:08
Endosulfan Sulfate	< 3.43	ug/Kg		7/5/2019 17:08
Endrin	< 3.43	ug/Kg		7/5/2019 17:08
Endrin Aldehyde	< 3.43	ug/Kg		7/5/2019 17:08
Endrin Ketone	< 3.43	ug/Kg		7/5/2019 17:08
gamma-BHC (Lindane)	< 3.43	ug/Kg		7/5/2019 17:08
Heptachlor	< 3.43	ug/Kg		7/5/2019 17:08
Heptachlor Epoxide	< 3.43	ug/Kg		7/5/2019 17:08

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.



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 4001-1

Lab Sample ID: 193078-22

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Methoxychlor	< 3.43	ug/Kg		7/5/2019 17:08
Toxaphene	< 34.3	ug/Kg	L	7/5/2019 17:08
trans-Chlordane	< 3.43	ug/Kg		7/5/2019 17:08

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Decachlorobiphenyl (1)	49.0	23.6 - 123		7/5/2019 17:08
Tetrachloro-m-xylene (1)	59.9	36.2 - 86.9		7/5/2019 17:08

Method Reference(s): EPA 8081B

EPA 3546

Preparation Date: 7/3/2019

Semi-Volatile Organics (Acid/Base Neutrals)

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1-Biphenyl	< 339	ug/Kg		7/10/2019 17:50
1,2,4,5-Tetrachlorobenzene	< 339	ug/Kg		7/10/2019 17:50
1,2,4-Trichlorobenzene	< 339	ug/Kg		7/10/2019 17:50
1,2-Dichlorobenzene	< 339	ug/Kg		7/10/2019 17:50
1,3-Dichlorobenzene	< 339	ug/Kg		7/10/2019 17:50
1,4-Dichlorobenzene	< 339	ug/Kg		7/10/2019 17:50
2,2-Oxybis (1-chloropropane)	< 339	ug/Kg		7/10/2019 17:50
2,3,4,6-Tetrachlorophenol	< 339	ug/Kg		7/10/2019 17:50
2,4,5-Trichlorophenol	< 339	ug/Kg		7/10/2019 17:50
2,4,6-Trichlorophenol	< 339	ug/Kg		7/10/2019 17:50
2,4-Dichlorophenol	< 339	ug/Kg		7/10/2019 17:50
2,4-Dimethylphenol	< 339	ug/Kg		7/10/2019 17:50
2,4-Dinitrophenol	< 1360	ug/Kg		7/10/2019 17:50
2,4-Dinitrotoluene	< 339	ug/Kg		7/10/2019 17:50
2,6-Dinitrotoluene	< 339	ug/Kg		7/10/2019 17:50
2-Chloronaphthalene	< 339	ug/Kg		7/10/2019 17:50
2-Chlorophenol	< 339	ug/Kg		7/10/2019 17:50
2-Methylnaphthalene	< 339	ug/Kg		7/10/2019 17:50
2-Methylphenol	< 339	ug/Kg		7/10/2019 17:50

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.

Lab Project ID: 193078
Client: BE3
Project Reference: Marrano

Sample Identifier: 4001-1

Lab Sample ID: 193078-22

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

2-Nitroaniline	< 339	ug/Kg	7/10/2019 17:50
2-Nitrophenol	< 339	ug/Kg	7/10/2019 17:50
3&4-Methylphenol	< 339	ug/Kg	7/10/2019 17:50
3,3'-Dichlorobenzidine	< 339	ug/Kg	7/10/2019 17:50
3-Nitroaniline	< 339	ug/Kg	7/10/2019 17:50
4,6-Dinitro-2-methylphenol	< 453	ug/Kg	7/10/2019 17:50
4-Bromophenyl phenyl ether	< 339	ug/Kg	7/10/2019 17:50
4-Chloro-3-methylphenol	< 339	ug/Kg	7/10/2019 17:50
4-Chloroaniline	< 339	ug/Kg	7/10/2019 17:50
4-Chlorophenyl phenyl ether	< 339	ug/Kg	7/10/2019 17:50
4-Nitroaniline	< 339	ug/Kg	7/10/2019 17:50
4-Nitrophenol	< 339	ug/Kg	7/10/2019 17:50
Acenaphthene	< 339	ug/Kg	7/10/2019 17:50
Acenaphthylene	< 339	ug/Kg	7/10/2019 17:50
Acetophenone	< 339	ug/Kg	7/10/2019 17:50
Anthracene	< 339	ug/Kg	7/10/2019 17:50
Atrazine	< 339	ug/Kg	7/10/2019 17:50
Benzaldehyde	< 339	ug/Kg	7/10/2019 17:50
Benzo (a) anthracene	< 339	ug/Kg	7/10/2019 17:50
Benzo (a) pyrene	< 339	ug/Kg	7/10/2019 17:50
Benzo (b) fluoranthene	< 339	ug/Kg	7/10/2019 17:50
Benzo (g,h,i) perylene	< 339	ug/Kg	7/10/2019 17:50
Benzo (k) fluoranthene	< 339	ug/Kg	7/10/2019 17:50
Bis (2-chloroethoxy) methane	< 339	ug/Kg	7/10/2019 17:50
Bis (2-chloroethyl) ether	< 339	ug/Kg	7/10/2019 17:50
Bis (2-ethylhexyl) phthalate	< 339	ug/Kg	7/10/2019 17:50
Butylbenzylphthalate	< 339	ug/Kg	7/10/2019 17:50
Caprolactam	< 339	ug/Kg	7/10/2019 17:50
Carbazole	< 339	ug/Kg	7/10/2019 17:50
Chrysene	< 339	ug/Kg	7/10/2019 17:50

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.

Lab Project ID: 193078
Client: BE3
Project Reference: Marrano

Sample Identifier: 4001-1

Lab Sample ID: 193078-22

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Dibenz (a,h) anthracene	< 339	ug/Kg	7/10/2019 17:50
Dibenzofuran	< 339	ug/Kg	7/10/2019 17:50
Diethyl phthalate	< 339	ug/Kg	7/10/2019 17:50
Dimethyl phthalate	< 339	ug/Kg	7/10/2019 17:50
Di-n-butyl phthalate	< 339	ug/Kg	7/10/2019 17:50
Di-n-octylphthalate	< 339	ug/Kg	7/10/2019 17:50
Fluoranthene	< 339	ug/Kg	7/10/2019 17:50
Fluorene	< 339	ug/Kg	7/10/2019 17:50
Hexachlorobenzene	< 339	ug/Kg	7/10/2019 17:50
Hexachlorobutadiene	< 339	ug/Kg	7/10/2019 17:50
Hexachlorocyclopentadiene	< 1360	ug/Kg	7/10/2019 17:50
Hexachloroethane	< 339	ug/Kg	7/10/2019 17:50
Indeno (1,2,3-cd) pyrene	< 339	ug/Kg	7/10/2019 17:50
Isophorone	< 339	ug/Kg	7/10/2019 17:50
Naphthalene	< 339	ug/Kg	7/10/2019 17:50
Nitrobenzene	< 339	ug/Kg	7/10/2019 17:50
N-Nitroso-di-n-propylamine	< 339	ug/Kg	7/10/2019 17:50
N-Nitrosodiphenylamine	< 339	ug/Kg	7/10/2019 17:50
Pentachlorophenol	< 678	ug/Kg	7/10/2019 17:50
Phenanthrene	< 339	ug/Kg	7/10/2019 17:50
Phenol	< 339	ug/Kg	7/10/2019 17:50
Pyrene	< 339	ug/Kg	7/10/2019 17:50



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 4001-1

Lab Sample ID: 193078-22

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	52.8	34.9 - 92.6		7/10/2019 17:50
2-Fluorobiphenyl	56.5	39 - 77.6		7/10/2019 17:50
2-Fluorophenol	62.3	39.1 - 76.8		7/10/2019 17:50
Nitrobenzene-d5	59.0	35.4 - 75.3		7/10/2019 17:50
Phenol-d5	60.9	40.4 - 77.7		7/10/2019 17:50
Terphenyl-d14	57.7	42 - 93.5		7/10/2019 17:50

Method Reference(s): EPA 8270D

EPA 3546

Preparation Date: 7/8/2019

Data File: B38651.D

Dioxane

Analyte	Result	Units	Qualifier	Date Analyzed
1,4-Dioxane	< 34.1	ug/Kg		7/11/2019 10:41

Method Reference(s): EPA 8270D SIM

EPA 3546

Preparation Date: 7/8/2019

Data File: B38694.D

Total Cyanide

Analyte	Result	Units	Qualifier	Date Analyzed
Cyanide, Total	< 0.565	mg/Kg		7/10/2019

Method Reference(s): EPA 9014

EPA 9010C

Preparation Date: 7/10/2019

Lab Project ID: 193078

 Client: **BE3**

Project Reference: Marrano

Sample Identifier: 5001-1

Lab Sample ID: 193078-23

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Part 375 Metals (ICP)

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Arsenic	3.07	mg/Kg		7/9/2019 23:29
Barium	66.3	mg/Kg		7/9/2019 23:29
Beryllium	0.524	mg/Kg		7/9/2019 23:29
Cadmium	0.974	mg/Kg		7/9/2019 23:29
Chromium	14.9	mg/Kg		7/9/2019 23:29
Copper	16.0	mg/Kg		7/9/2019 23:29
Lead	8.28	mg/Kg		7/9/2019 23:29
Manganese	334	mg/Kg		7/9/2019 23:29
Nickel	14.4	mg/Kg		7/9/2019 23:29
Selenium	1.26	mg/Kg		7/9/2019 23:29
Silver	< 0.563	mg/Kg		7/9/2019 23:29
Zinc	62.8	mg/Kg		7/9/2019 23:29

Method Reference(s): EPA 6010C

EPA 3050B

Preparation Date: 7/8/2019

Data File: 190709B

Mercury

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Mercury	0.0649	mg/Kg		7/8/2019 10:40

Method Reference(s): EPA 7471B

Preparation Date: 7/3/2019

Data File: Hg190708B

PCBs

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
PCB-1016	< 0.0315	mg/Kg		7/3/2019 19:33
PCB-1221	< 0.0315	mg/Kg		7/3/2019 19:33
PCB-1232	< 0.0315	mg/Kg		7/3/2019 19:33
PCB-1242	< 0.0315	mg/Kg		7/3/2019 19:33

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.



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 5001-1

Lab Sample ID: 193078-23

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

PCB-1248	< 0.0315	mg/Kg	7/3/2019 19:33
PCB-1254	< 0.0315	mg/Kg	7/3/2019 19:33
PCB-1260	< 0.0315	mg/Kg	7/3/2019 19:33
PCB-1262	< 0.0315	mg/Kg	7/3/2019 19:33
PCB-1268	< 0.0315	mg/Kg	7/3/2019 19:33

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Tetrachloro-m-xylene	59.1	21.7 - 82.5		7/3/2019 19:33

Method Reference(s): EPA 8082A

EPA 3546

Preparation Date: 7/3/2019

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 3.15	ug/Kg		7/5/2019 17:27
4,4-DDE	< 3.15	ug/Kg		7/5/2019 17:27
4,4-DDT	< 3.15	ug/Kg		7/5/2019 17:27
Aldrin	< 3.15	ug/Kg		7/5/2019 17:27
alpha-BHC	< 3.15	ug/Kg		7/5/2019 17:27
beta-BHC	< 3.15	ug/Kg		7/5/2019 17:27
cis-Chlordane	< 3.15	ug/Kg		7/5/2019 17:27
delta-BHC	< 3.15	ug/Kg		7/5/2019 17:27
Dieldrin	< 3.15	ug/Kg		7/5/2019 17:27
Endosulfan I	< 3.15	ug/Kg		7/5/2019 17:27
Endosulfan II	< 3.15	ug/Kg		7/5/2019 17:27
Endosulfan Sulfate	< 3.15	ug/Kg		7/5/2019 17:27
Endrin	< 3.15	ug/Kg		7/5/2019 17:27
Endrin Aldehyde	< 3.15	ug/Kg		7/5/2019 17:27
Endrin Ketone	< 3.15	ug/Kg		7/5/2019 17:27
gamma-BHC (Lindane)	< 3.15	ug/Kg		7/5/2019 17:27
Heptachlor	< 3.15	ug/Kg		7/5/2019 17:27
Heptachlor Epoxide	< 3.15	ug/Kg		7/5/2019 17:27

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.



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 5001-1

Lab Sample ID: 193078-23

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Methoxychlor	< 3.15	ug/Kg		7/5/2019 17:27
Toxaphene	< 31.5	ug/Kg	L	7/5/2019 17:27
trans-Chlordane	< 3.15	ug/Kg		7/5/2019 17:27

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Decachlorobiphenyl (1)	67.2	23.6 - 123		7/5/2019 17:27
Tetrachloro-m-xylene (1)	78.8	36.2 - 86.9		7/5/2019 17:27

Method Reference(s): EPA 8081B

EPA 3546

Preparation Date: 7/3/2019

Semi-Volatile Organics (Acid/Base Neutrals)

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1-Biphenyl	< 319	ug/Kg		7/10/2019 18:19
1,2,4,5-Tetrachlorobenzene	< 319	ug/Kg		7/10/2019 18:19
1,2,4-Trichlorobenzene	< 319	ug/Kg		7/10/2019 18:19
1,2-Dichlorobenzene	< 319	ug/Kg		7/10/2019 18:19
1,3-Dichlorobenzene	< 319	ug/Kg		7/10/2019 18:19
1,4-Dichlorobenzene	< 319	ug/Kg		7/10/2019 18:19
2,2-Oxybis (1-chloropropane)	< 319	ug/Kg		7/10/2019 18:19
2,3,4,6-Tetrachlorophenol	< 319	ug/Kg		7/10/2019 18:19
2,4,5-Trichlorophenol	< 319	ug/Kg		7/10/2019 18:19
2,4,6-Trichlorophenol	< 319	ug/Kg		7/10/2019 18:19
2,4-Dichlorophenol	< 319	ug/Kg		7/10/2019 18:19
2,4-Dimethylphenol	< 319	ug/Kg		7/10/2019 18:19
2,4-Dinitrophenol	< 1270	ug/Kg		7/10/2019 18:19
2,4-Dinitrotoluene	< 319	ug/Kg		7/10/2019 18:19
2,6-Dinitrotoluene	< 319	ug/Kg		7/10/2019 18:19
2-Chloronaphthalene	< 319	ug/Kg		7/10/2019 18:19
2-Chlorophenol	< 319	ug/Kg		7/10/2019 18:19
2-Methylnapthalene	< 319	ug/Kg		7/10/2019 18:19
2-Methylphenol	< 319	ug/Kg		7/10/2019 18:19

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.

Lab Project ID: 193078
Client: BE3
Project Reference: Marrano

Sample Identifier: 5001-1

Lab Sample ID: 193078-23

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

2-Nitroaniline	< 319	ug/Kg	7/10/2019 18:19
2-Nitrophenol	< 319	ug/Kg	7/10/2019 18:19
3&4-Methylphenol	< 319	ug/Kg	7/10/2019 18:19
3,3'-Dichlorobenzidine	< 319	ug/Kg	7/10/2019 18:19
3-Nitroaniline	< 319	ug/Kg	7/10/2019 18:19
4,6-Dinitro-2-methylphenol	< 426	ug/Kg	7/10/2019 18:19
4-Bromophenyl phenyl ether	< 319	ug/Kg	7/10/2019 18:19
4-Chloro-3-methylphenol	< 319	ug/Kg	7/10/2019 18:19
4-Chloroaniline	< 319	ug/Kg	7/10/2019 18:19
4-Chlorophenyl phenyl ether	< 319	ug/Kg	7/10/2019 18:19
4-Nitroaniline	< 319	ug/Kg	7/10/2019 18:19
4-Nitrophenol	< 319	ug/Kg	7/10/2019 18:19
Acenaphthene	< 319	ug/Kg	7/10/2019 18:19
Acenaphthylene	< 319	ug/Kg	7/10/2019 18:19
Acetophenone	< 319	ug/Kg	7/10/2019 18:19
Anthracene	< 319	ug/Kg	7/10/2019 18:19
Atrazine	< 319	ug/Kg	7/10/2019 18:19
Benzaldehyde	< 319	ug/Kg	7/10/2019 18:19
Benzo (a) anthracene	< 319	ug/Kg	7/10/2019 18:19
Benzo (a) pyrene	< 319	ug/Kg	7/10/2019 18:19
Benzo (b) fluoranthene	< 319	ug/Kg	7/10/2019 18:19
Benzo (g,h,i) perylene	< 319	ug/Kg	7/10/2019 18:19
Benzo (k) fluoranthene	< 319	ug/Kg	7/10/2019 18:19
Bis (2-chloroethoxy) methane	< 319	ug/Kg	7/10/2019 18:19
Bis (2-chloroethyl) ether	< 319	ug/Kg	7/10/2019 18:19
Bis (2-ethylhexyl) phthalate	< 319	ug/Kg	7/10/2019 18:19
Butylbenzylphthalate	< 319	ug/Kg	7/10/2019 18:19
Caprolactam	< 319	ug/Kg	7/10/2019 18:19
Carbazole	< 319	ug/Kg	7/10/2019 18:19
Chrysene	< 319	ug/Kg	7/10/2019 18:19

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.



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 5001-1

Lab Sample ID: 193078-23

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Dibenz (a,h) anthracene	< 319	ug/Kg	7/10/2019 18:19
Dibenzofuran	< 319	ug/Kg	7/10/2019 18:19
Diethyl phthalate	< 319	ug/Kg	7/10/2019 18:19
Dimethyl phthalate	< 319	ug/Kg	7/10/2019 18:19
Di-n-butyl phthalate	< 319	ug/Kg	7/10/2019 18:19
Di-n-octylphthalate	< 319	ug/Kg	7/10/2019 18:19
Fluoranthene	< 319	ug/Kg	7/10/2019 18:19
Fluorene	< 319	ug/Kg	7/10/2019 18:19
Hexachlorobenzene	< 319	ug/Kg	7/10/2019 18:19
Hexachlorobutadiene	< 319	ug/Kg	7/10/2019 18:19
Hexachlorocyclopentadiene	< 1270	ug/Kg	7/10/2019 18:19
Hexachloroethane	< 319	ug/Kg	7/10/2019 18:19
Indeno (1,2,3-cd) pyrene	< 319	ug/Kg	7/10/2019 18:19
Isophorone	< 319	ug/Kg	7/10/2019 18:19
Naphthalene	< 319	ug/Kg	7/10/2019 18:19
Nitrobenzene	< 319	ug/Kg	7/10/2019 18:19
N-Nitroso-di-n-propylamine	< 319	ug/Kg	7/10/2019 18:19
N-Nitrosodiphenylamine	< 319	ug/Kg	7/10/2019 18:19
Pentachlorophenol	< 637	ug/Kg	7/10/2019 18:19
Phenanthrene	< 319	ug/Kg	7/10/2019 18:19
Phenol	< 319	ug/Kg	7/10/2019 18:19
Pyrene	< 319	ug/Kg	7/10/2019 18:19

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.

Report Prepared Monday, July 22, 2019

Page 87 of 155



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 5001-1

Lab Sample ID: 193078-23

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	58.0	34.9 - 92.6		7/10/2019 18:19
2-Fluorobiphenyl	58.5	39 - 77.6		7/10/2019 18:19
2-Fluorophenol	60.4	39.1 - 76.8		7/10/2019 18:19
Nitrobenzene-d5	55.5	35.4 - 75.3		7/10/2019 18:19
Phenol-d5	61.3	40.4 - 77.7		7/10/2019 18:19
Terphenyl-d14	62.5	42 - 93.5		7/10/2019 18:19

Method Reference(s): EPA 8270D

EPA 3546

Preparation Date: 7/8/2019

Data File: B38652.D

Dioxane

Analyte	Result	Units	Qualifier	Date Analyzed
1,4-Dioxane	< 33.0	ug/Kg		7/11/2019 10:52

Method Reference(s): EPA 8270D SIM

EPA 3546

Preparation Date: 7/8/2019

Data File: B38695.D

Total Cyanide

Analyte	Result	Units	Qualifier	Date Analyzed
Cyanide, Total	< 0.537	mg/Kg		7/10/2019

Method Reference(s): EPA 9014

EPA 9010C

Preparation Date: 7/10/2019

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.

Report Prepared Monday, July 22, 2019

Page 88 of 155

Lab Project ID: 193078

 Client: **BE3**

Project Reference: Marrano

Sample Identifier: 6001-1

Lab Sample ID: 193078-24

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

Part 375 Metals (ICP)

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Arsenic	3.10	mg/Kg		7/9/2019 23:33
Barium	94.2	mg/Kg		7/9/2019 23:33
Beryllium	0.626	mg/Kg		7/9/2019 23:33
Cadmium	1.20	mg/Kg		7/9/2019 23:33
Chromium	17.6	mg/Kg		7/9/2019 23:33
Copper	18.8	mg/Kg		7/9/2019 23:33
Lead	9.11	mg/Kg		7/9/2019 23:33
Manganese	432	mg/Kg		7/9/2019 23:33
Nickel	18.8	mg/Kg		7/9/2019 23:33
Selenium	1.45	mg/Kg		7/9/2019 23:33
Silver	< 0.544	mg/Kg		7/9/2019 23:33
Zinc	65.3	mg/Kg		7/9/2019 23:33

Method Reference(s): EPA 6010C

EPA 3050B

Preparation Date: 7/8/2019

Data File: 190709B

Mercury

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Mercury	0.00916	mg/Kg		7/8/2019 10:42

Method Reference(s): EPA 7471B

Preparation Date: 7/3/2019

Data File: Hg190708B

PCBs

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
PCB-1016	< 0.0332	mg/Kg		7/3/2019 19:56
PCB-1221	< 0.0332	mg/Kg		7/3/2019 19:56
PCB-1232	< 0.0332	mg/Kg		7/3/2019 19:56
PCB-1242	< 0.0332	mg/Kg		7/3/2019 19:56

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.



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 6001-1

Lab Sample ID: 193078-24

Matrix: Soil

Date Sampled: 7/1/2019

Date Received: 7/2/2019

PCB-1248	< 0.0332	mg/Kg	7/3/2019 19:56
PCB-1254	< 0.0332	mg/Kg	7/3/2019 19:56
PCB-1260	< 0.0332	mg/Kg	7/3/2019 19:56
PCB-1262	< 0.0332	mg/Kg	7/3/2019 19:56
PCB-1268	< 0.0332	mg/Kg	7/3/2019 19:56

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Tetrachloro-m-xylene	47.6	21.7 - 82.5		7/3/2019 19:56

Method Reference(s): EPA 8082A

EPA 3546

Preparation Date: 7/3/2019

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 3.32	ug/Kg		7/5/2019 17:45
4,4-DDE	< 3.32	ug/Kg		7/5/2019 17:45
4,4-DDT	< 3.32	ug/Kg		7/5/2019 17:45
Aldrin	< 3.32	ug/Kg		7/5/2019 17:45
alpha-BHC	< 3.32	ug/Kg		7/5/2019 17:45
beta-BHC	< 3.32	ug/Kg		7/5/2019 17:45
cis-Chlordane	< 3.32	ug/Kg		7/5/2019 17:45
delta-BHC	< 3.32	ug/Kg		7/5/2019 17:45
Dieldrin	< 3.32	ug/Kg		7/5/2019 17:45
Endosulfan I	< 3.32	ug/Kg		7/5/2019 17:45
Endosulfan II	< 3.32	ug/Kg		7/5/2019 17:45
Endosulfan Sulfate	< 3.32	ug/Kg		7/5/2019 17:45
Endrin	< 3.32	ug/Kg		7/5/2019 17:45
Endrin Aldehyde	< 3.32	ug/Kg		7/5/2019 17:45
Endrin Ketone	< 3.32	ug/Kg		7/5/2019 17:45
gamma-BHC (Lindane)	< 3.32	ug/Kg		7/5/2019 17:45
Heptachlor	< 3.32	ug/Kg		7/5/2019 17:45
Heptachlor Epoxide	< 3.32	ug/Kg		7/5/2019 17:45

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.

Lab Project ID: 193078

Client: BE3
Project Reference: Marrano

Sample Identifier: 6001-1

Lab Sample ID: 193078-24

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Methoxychlor	< 3.32	ug/Kg		7/5/2019 17:45
Toxaphene	< 33.2	ug/Kg	L	7/5/2019 17:45
trans-Chlordane	< 3.32	ug/Kg		7/5/2019 17:45

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Decachlorobiphenyl (1)	48.3	23.6 - 123		7/5/2019 17:45
Tetrachloro-m-xylene (1)	65.0	36.2 - 86.9		7/5/2019 17:45

Method Reference(s): EPA 8081B

EPA 3546

Preparation Date: 7/3/2019

Semi-Volatile Organics (Acid/Base Neutrals)

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1-Biphenyl	< 330	ug/Kg		7/10/2019 18:49
1,2,4,5-Tetrachlorobenzene	< 330	ug/Kg		7/10/2019 18:49
1,2,4-Trichlorobenzene	< 330	ug/Kg		7/10/2019 18:49
1,2-Dichlorobenzene	< 330	ug/Kg		7/10/2019 18:49
1,3-Dichlorobenzene	< 330	ug/Kg		7/10/2019 18:49
1,4-Dichlorobenzene	< 330	ug/Kg		7/10/2019 18:49
2,2-Oxybis (1-chloropropane)	< 330	ug/Kg		7/10/2019 18:49
2,3,4,6-Tetrachlorophenol	< 330	ug/Kg		7/10/2019 18:49
2,4,5-Trichlorophenol	< 330	ug/Kg		7/10/2019 18:49
2,4,6-Trichlorophenol	< 330	ug/Kg		7/10/2019 18:49
2,4-Dichlorophenol	< 330	ug/Kg		7/10/2019 18:49
2,4-Dimethylphenol	< 330	ug/Kg		7/10/2019 18:49
2,4-Dinitrophenol	< 1320	ug/Kg		7/10/2019 18:49
2,4-Dinitrotoluene	< 330	ug/Kg		7/10/2019 18:49
2,6-Dinitrotoluene	< 330	ug/Kg		7/10/2019 18:49
2-Chloronaphthalene	< 330	ug/Kg		7/10/2019 18:49
2-Chlorophenol	< 330	ug/Kg		7/10/2019 18:49
2-Methylnaphthalene	< 330	ug/Kg		7/10/2019 18:49
2-Methylphenol	< 330	ug/Kg		7/10/2019 18:49

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.

Lab Project ID: 193078
Client: BE3
Project Reference: Marrano

Sample Identifier: 6001-1

Lab Sample ID: 193078-24

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

2-Nitroaniline	< 330	ug/Kg	7/10/2019 18:49
2-Nitrophenol	< 330	ug/Kg	7/10/2019 18:49
3&4-Methylphenol	< 330	ug/Kg	7/10/2019 18:49
3,3'-Dichlorobenzidine	< 330	ug/Kg	7/10/2019 18:49
3-Nitroaniline	< 330	ug/Kg	7/10/2019 18:49
4,6-Dinitro-2-methylphenol	< 442	ug/Kg	7/10/2019 18:49
4-Bromophenyl phenyl ether	< 330	ug/Kg	7/10/2019 18:49
4-Chloro-3-methylphenol	< 330	ug/Kg	7/10/2019 18:49
4-Chloroaniline	< 330	ug/Kg	7/10/2019 18:49
4-Chlorophenyl phenyl ether	< 330	ug/Kg	7/10/2019 18:49
4-Nitroaniline	< 330	ug/Kg	7/10/2019 18:49
4-Nitrophenol	< 330	ug/Kg	7/10/2019 18:49
Acenaphthene	< 330	ug/Kg	7/10/2019 18:49
Acenaphthylene	< 330	ug/Kg	7/10/2019 18:49
Acetophenone	< 330	ug/Kg	7/10/2019 18:49
Anthracene	< 330	ug/Kg	7/10/2019 18:49
Atrazine	< 330	ug/Kg	7/10/2019 18:49
Benzaldehyde	< 330	ug/Kg	7/10/2019 18:49
Benzo (a) anthracene	< 330	ug/Kg	7/10/2019 18:49
Benzo (a) pyrene	< 330	ug/Kg	7/10/2019 18:49
Benzo (b) fluoranthene	< 330	ug/Kg	7/10/2019 18:49
Benzo (g,h,i) perylene	< 330	ug/Kg	7/10/2019 18:49
Benzo (k) fluoranthene	< 330	ug/Kg	7/10/2019 18:49
Bis (2-chloroethoxy) methane	< 330	ug/Kg	7/10/2019 18:49
Bis (2-chloroethyl) ether	< 330	ug/Kg	7/10/2019 18:49
Bis (2-ethylhexyl) phthalate	< 330	ug/Kg	7/10/2019 18:49
Butylbenzylphthalate	< 330	ug/Kg	7/10/2019 18:49
Caprolactam	< 330	ug/Kg	7/10/2019 18:49
Carbazole	< 330	ug/Kg	7/10/2019 18:49
Chrysene	< 330	ug/Kg	7/10/2019 18:49

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.



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 6001-1

Lab Sample ID: 193078-24

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Dibenz (a,h) anthracene	< 330	ug/Kg	7/10/2019 18:49
Dibenzofuran	< 330	ug/Kg	7/10/2019 18:49
Diethyl phthalate	< 330	ug/Kg	7/10/2019 18:49
Dimethyl phthalate	< 330	ug/Kg	7/10/2019 18:49
Di-n-butyl phthalate	< 330	ug/Kg	7/10/2019 18:49
Di-n-octylphthalate	< 330	ug/Kg	7/10/2019 18:49
Fluoranthene	< 330	ug/Kg	7/10/2019 18:49
Fluorene	< 330	ug/Kg	7/10/2019 18:49
Hexachlorobenzene	< 330	ug/Kg	7/10/2019 18:49
Hexachlorobutadiene	< 330	ug/Kg	7/10/2019 18:49
Hexachlorocyclopentadiene	< 1320	ug/Kg	7/10/2019 18:49
Hexachloroethane	< 330	ug/Kg	7/10/2019 18:49
Indeno (1,2,3-cd) pyrene	< 330	ug/Kg	7/10/2019 18:49
Isophorone	< 330	ug/Kg	7/10/2019 18:49
Naphthalene	< 330	ug/Kg	7/10/2019 18:49
Nitrobenzene	< 330	ug/Kg	7/10/2019 18:49
N-Nitroso-di-n-propylamine	< 330	ug/Kg	7/10/2019 18:49
N-Nitrosodiphenylamine	< 330	ug/Kg	7/10/2019 18:49
Pentachlorophenol	< 660	ug/Kg	7/10/2019 18:49
Phenanthrene	< 330	ug/Kg	7/10/2019 18:49
Phenol	< 330	ug/Kg	7/10/2019 18:49
Pyrene	< 330	ug/Kg	7/10/2019 18:49

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.

Report Prepared Monday, July 22, 2019

Page 93 of 155



Lab Project ID: 193078

Client: **BE3**

Project Reference: Marrano

Sample Identifier: 6001-1

Lab Sample ID: 193078-24

Date Sampled: 7/1/2019

Matrix: Soil

Date Received: 7/2/2019

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	56.4	34.9 - 92.6		7/10/2019 18:49
2-Fluorobiphenyl	53.5	39 - 77.6		7/10/2019 18:49
2-Fluorophenol	58.3	39.1 - 76.8		7/10/2019 18:49
Nitrobenzene-d5	55.7	35.4 - 75.3		7/10/2019 18:49
Phenol-d5	56.4	40.4 - 77.7		7/10/2019 18:49
Terphenyl-d14	56.3	42 - 93.5		7/10/2019 18:49

Method Reference(s): EPA 8270D

EPA 3546

Preparation Date: 7/8/2019

Data File: B38653.D

Dioxane

Analyte	Result	Units	Qualifier	Date Analyzed
1,4-Dioxane	< 32.5	ug/Kg		7/11/2019 11:03

Method Reference(s): EPA 8270D SIM

EPA 3546

Preparation Date: 7/8/2019

Data File: B38696.D

Total Cyanide

Analyte	Result	Units	Qualifier	Date Analyzed
Cyanide, Total	< 0.544	mg/Kg		7/10/2019

Method Reference(s): EPA 9014

EPA 9010C

Preparation Date: 7/10/2019



Method Blank Report

Client: BE3
Project Reference: Marrano
Lab Project ID: 193078
Matrix: Soil

Chlorinated Pesticides

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
4,4-DDD	<2.79	ug/Kg		7/5/2019 14:17
4,4-DDE	<2.79	ug/Kg		7/5/2019 14:17
4,4-DDT	<2.79	ug/Kg		7/5/2019 14:17
Aldrin	<2.79	ug/Kg		7/5/2019 14:17
alpha-BHC	<2.79	ug/Kg		7/5/2019 14:17
beta-BHC	<2.79	ug/Kg		7/5/2019 14:17
cis-Chlordane	<2.79	ug/Kg		7/5/2019 14:17
delta-BHC	<2.79	ug/Kg		7/5/2019 14:17
Dieldrin	<2.79	ug/Kg		7/5/2019 14:17
Endosulfan I	<2.79	ug/Kg		7/5/2019 14:17
Endosulfan II	<2.79	ug/Kg		7/5/2019 14:17
Endosulfan Sulfate	<2.79	ug/Kg		7/5/2019 14:17
Endrin	<2.79	ug/Kg		7/5/2019 14:17
Endrin Aldehyde	<2.79	ug/Kg		7/5/2019 14:17
Endrin Ketone	<2.79	ug/Kg		7/5/2019 14:17
gamma-BHC (Lindane)	<2.79	ug/Kg		7/5/2019 14:17
Heptachlor	<2.79	ug/Kg		7/5/2019 14:17
Heptachlor Epoxide	<2.79	ug/Kg		7/5/2019 14:17
Methoxychlor	<2.79	ug/Kg		7/5/2019 14:17
Toxaphene	<27.9	ug/Kg		7/5/2019 14:17
trans-Chlordane	<2.79	ug/Kg		7/5/2019 14:17

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Decachlorobiphenyl (1)	66.7	23.6 - 123		7/5/2019 14:17
Tetrachloro-m-xylene (1)	59.5	36.2 - 86.9		7/5/2019 14:17

Method Reference(s): EPA 8081B
EPA 3546
Preparation Date: 7/3/2019
QC Batch ID: QC190703PESTS
QC Number: 1

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.



QC Report for Laboratory Control Sample

Client: BE3
Project Reference: Marrano
Lab Project ID: 193078
Matrix: Soil

Chlorinated Pesticides

<u>Analyte</u>	<u>Spike Added</u>	<u>Spike Units</u>	<u>LCS Result</u>	<u>LCS % Recovery</u>	<u>% Rec Limits</u>	<u>LCS Outliers</u>	<u>Date Analyzed</u>
4,4-DDD (1)	13.6	ug/Kg	7.41	54.5	22.2 - 102		7/5/2019
4,4-DDE (1)	13.6	ug/Kg	7.33	53.9	26.4 - 99.5		7/5/2019
4,4-DDT (1)	13.6	ug/Kg	7.74	57.0	20.4 - 107		7/5/2019
Aldrin (1)	13.6	ug/Kg	7.84	57.7	25.7 - 86		7/5/2019
alpha-BHC (1)	13.6	ug/Kg	6.48	47.7	23.7 - 89.3		7/5/2019
beta-BHC (1)	13.6	ug/Kg	7.15	52.6	26 - 90		7/5/2019
cis-Chlordane (1)	13.6	ug/Kg	7.87	58.0	27.2 - 98.7		7/5/2019
delta-BHC (1)	13.6	ug/Kg	7.22	53.1	14.8 - 105		7/5/2019
Dieldrin (1)	13.6	ug/Kg	7.57	55.7	26.3 - 93		7/5/2019
Endosulfan I (1)	13.6	ug/Kg	7.09	52.2	20 - 93.9		7/5/2019
Endosulfan II (1)	13.6	ug/Kg	7.80	57.4	29 - 111		7/5/2019
Endosulfan Sulfate (1)	13.6	ug/Kg	7.74	57.0	23 - 102		7/5/2019
Endrin (1)	13.6	ug/Kg	6.28	46.2	26.6 - 83.6		7/5/2019
Endrin Aldehyde (1)	13.6	ug/Kg	7.22	53.1	26.8 - 98.3		7/5/2019
Endrin Ketone (1)	13.6	ug/Kg	8.93	65.7	28 - 122		7/5/2019
gamma-BHC (Lindane) (1)	13.6	ug/Kg	7.26	53.4	24.8 - 84.9		7/5/2019

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.



QC Report for Laboratory Control Sample

Client: BE3
Project Reference: Marrano
Lab Project ID: 193078
Matrix: Soil

Chlorinated Pesticides

<u>Analyte</u>	<u>Spike Added</u>	<u>Spike Units</u>	<u>LCS Result</u>	<u>LCS % Recovery</u>	<u>% Rec Limits</u>	<u>LCS Outliers</u>	<u>Date Analyzed</u>
Heptachlor (1)	13.6	ug/Kg	8.19	60.3	27.3 - 86.3		7/5/2019
Heptachlor Epoxide (1)	13.6	ug/Kg	7.47	55.0	29.4 - 90.4		7/5/2019
Methoxychlor (1)	13.6	ug/Kg	8.93	65.7	24.1 - 105		7/5/2019
Toxaphene (1)	136	ug/Kg	43.3	31.8	34.6 - 104	*	7/5/2019
trans-Chlordane (1)	13.6	ug/Kg	7.50	55.2	22.1 - 90.8		7/5/2019

Method Reference(s): EPA 8081B
EPA 3546
Preparation Date: 7/3/2019
Data File: ST035541.D
QC Number: 1
QC Batch ID: QC190703PESTS

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.

Report Prepared Thursday, July 11, 2019



Analytical Report Appendix

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

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

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.

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.

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, term 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 will 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 the 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.

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.



CHAIN OF CUSTODY

PAGE 1 OF 3

10/4

REPORT TO:		INVOICE TO:	
CLIENT: <u>BE3 Corp</u>	CLIENT: <u>Same</u>	LAB PROJECT ID: <u>193078</u>	
ADDRESS: <u>1270 NAGARA ST</u>	ADDRESS:	Quotation #:	
CITY: <u>BUFFALO</u> STATE: <u>NY</u> ZIP: <u>14213</u>	CITY: STATE: ZIP:	Email:	
PHONE: <u>716 830 8636</u>	PHONE:		
ATTN: <u>Jason Blyden</u>	ATTN:		

Matrix Codes:

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

REQUESTED ANALYSIS												
DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX	CONTAINERS	VOCs	SVOCs	PHENOLS	PAHs	REMARKS	PARADIGM LAB SAMPLE NUMBER
7-1-19	3PM		X	1001	So	2	X					01
				1002								02
				1003								03
				1004								04
				1005								05
				1006								06
				1007								07
				2001								08
				2002								09
	3:30PM		X	3001								10

Turnaround Time		Report Supplements	
Availability contingent upon lab approval; additional fees may apply.			
Standard 5 day	<input checked="" type="checkbox"/>	Batch QC	<input type="checkbox"/>
Rush 3 day	<input type="checkbox"/>	Category A	<input type="checkbox"/>
Rush 2 day	<input type="checkbox"/>	Category B	<input type="checkbox"/>
Rush 1 day	<input type="checkbox"/>	Other	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other EDD	<input type="checkbox"/>
please indicate:		please indicate:	

Sampled By: James Steiner Date/Time: 7-1-19 3-5pm
 Relinquished By: James Steiner Date/Time: 7-1-19
 Received By: James Steiner Date/Time: 7/1/19 6:00 PM
 Received @ Lab By: Andy Kail Date/Time: 7/2/19 1213
 3°Ciced 7/2/19 11:36

Total Cost:

P.I.F.

See additional page for sample conditions.

Page 101 of 155

Sampled By *[Signature]* Date/Time *7-1-19 3:50pm*

Relinquished By *[Signature]* Date/Time *7-1-19*

Received By *James Steiner* Date/Time *7/1/19 6⁰⁰ PM*

Received @ Lab/By *Thilly Bail* Date/Time *7/2/19 1213*

P.I.F.

See additional page for sample conditions.

PAGE 2 OF 3 2/14

**CHAIN OF CUSTODY**

REPORT TO:		INVOICE TO:	
CLIENT: <u>503 CORP</u>	CLIENT: <u>Same</u>	LAB PROJECT ID: <u>193078</u>	
ADDRESS: <u>1270 N. WILSON ST</u>	ADDRESS:	Quotation #:	
CITY: <u>SUFFERN</u> STATE: <u>NY</u> ZIP: <u>14213</u>	CITY: STATE: ZIP:	Email:	
PHONE: <u>716 830 8636</u>	PHONE:		
ATTN:	ATTN:		
Matrix Codes: AQ - Aqueous Liquid WA - Water DW - Drinking Water SO - Soil SD - Solid WP - Wipe OL - Oil NQ - Non-Aqueous Liquid WG - Groundwater WW - Wastewater SL - Sludge PT - Paint CK - Caulk AR - Air			

REQUESTED ANALYSIS									
DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX	CONTAINERS	ANALYSIS	REMARKS	PARADIGM LAB SAMPLE NUMBER
7-1-19	3:30pm		X	3002	So	1	X		11
				4001					12
				4002					13
				5001					14
				5002					15
				6001					16
	4:00pm			6002					17
		X		1001-1		3	X X X X X X		18
				1002-1					19
				2001-1					20

Turnaround Time	Report Supplements		
Availability contingent upon lab approval; additional fees may apply.			
Standard 5 day <input checked="" type="checkbox"/>	Batch QC <input type="checkbox"/>	Basic EDD <input type="checkbox"/>	
Rush 3 day <input type="checkbox"/>	Category A <input type="checkbox"/>	NYSDEC EDD <input type="checkbox"/>	
Rush 2 day <input type="checkbox"/>	Category B <input type="checkbox"/>		
Rush 1 day <input type="checkbox"/>			
Other <input type="checkbox"/>	Other <input type="checkbox"/>	Other EDD <input type="checkbox"/>	
please indicate: _____	please indicate: _____	please indicate: _____	

Sampled By: [Signature] Date/Time: 7-1-19 3:50pm
 Relinquished By: [Signature] Date/Time: 7-1-19
 Received By: James Steiner Date/Time: 7/1/19 6:00pm
 Received @ Lab By: Molly Vail Date/Time: 7/2/19 12:13

Total Cost:

P.I.F.

See additional page for sample conditions.

4 of 4



Chain of Custody Supplement

Client:	<u>BE3</u>	Completed by:	<u>Molykail</u>
Lab Project ID:	<u>193078</u>	Date:	<u>7/2/19</u>

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	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <u>5039</u>	<input type="checkbox"/>
Comments			
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Preservation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> <u>met</u>
Comments	<u>3°C in</u>		
Compliant Sample Quantity/Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			



ANALYTICAL REPORT

Lab Number:	L1929092
Client:	Paradigm Environmental Services 179 Lake Avenue Rochester, NY 14608
ATTN:	Jane Daloia
Phone:	(585) 647-2530
Project Name:	193078
Project Number:	193078
Report Date:	07/22/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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



Project Name: 193078
Project Number: 193078

Lab Number: L1929092
Report Date: 07/22/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1929092-01	193078-18 1001-1	SOIL	Not Specified	07/01/19 16:00	07/02/19
L1929092-02	193078-19 1002-1	SOIL	Not Specified	07/01/19 16:00	07/02/19
L1929092-03	193078-20 2001-1	SOIL	Not Specified	07/01/19 16:00	07/02/19
L1929092-04	193078-21 3001-1	SOIL	Not Specified	07/01/19 16:00	07/02/19
L1929092-05	193078-22 4001-1	SOIL	Not Specified	07/01/19 16:00	07/02/19
L1929092-06	193078-23 5001-1	SOIL	Not Specified	07/01/19 16:00	07/02/19
L1929092-07	193078-24 6001-1	SOIL	Not Specified	07/01/19 17:00	07/02/19

Project Name: 193078
Project Number: 193078

Lab Number: L1929092
Report Date: 07/22/19

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 NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. 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. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. 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. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: 193078
Project Number: 193078

Lab Number: L1929092
Report Date: 07/22/19

Case Narrative (continued)

Report Submission

July 22, 2019: This final report includes the results of all requested analyses.

July 18, 2019: This is a preliminary report. The Client IDs were changed on L1929092-01 through -07.

July 18, 2019: This is a preliminary report.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

L1929092-01 through -07: At the client's request, the Hexavalent Chromium analysis was performed.

Perfluorinated Alkyl Acids by Isotope Dilution


L1929092-02 through -07: Extracted Internal Standard recoveries were outside the acceptance criteria for individual analytes. Please refer to the surrogate section of the report for details.

WG1262123-3: The continuing calibration standard had the response for Perfluorooctanesulfonic Acid-Branched (br-PFOS) outside of acceptance criteria. The response for Perfluorooctanesulfonic Acid (PFOS) was within acceptance criteria; therefore, no further action was taken.

WG1262123-5: The continuing calibration standard had the response for Perfluorohexanesulfonic Acid-Branched (br-PFHxS), outside of acceptance criteria. The response for Perfluorohexanesulfonic Acid (PFHxS) was within acceptance criteria; therefore, no further action was taken.

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:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 07/22/19

ORGANICS

SEMIVOLATILES

Project Name: 193078

Lab Number: L1929092

Project Number: 193078

Report Date: 07/22/19

SAMPLE RESULTS

Lab ID: L1929092-01
 Client ID: 193078-18 1001-1
 Sample Location: Not Specified

Date Collected: 07/01/19 16:00
 Date Received: 07/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 122,537(M)
 Analytical Date: 07/20/19 03:43
 Analyst: JW
 Percent Solids: 87%

Extraction Method: EPA 537(M)
 Extraction Date: 07/18/19 12:54

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ug/kg	1.00	0.023	1
Perfluoropentanoic Acid (PFPeA)	ND		ug/kg	1.00	0.046	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ug/kg	1.00	0.039	1
Perfluorohexanoic Acid (PFHxA)	ND		ug/kg	1.00	0.053	1
Perfluoroheptanoic Acid (PFHpA)	ND		ug/kg	1.00	0.045	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ug/kg	1.00	0.061	1
Perfluorooctanoic Acid (PFOA)	0.061	J	ug/kg	1.00	0.042	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ug/kg	1.00	0.180	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ug/kg	1.00	0.137	1
Perfluorononanoic Acid (PFNA)	ND		ug/kg	1.00	0.075	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ug/kg	1.00	0.130	1
Perfluorodecanoic Acid (PFDA)	ND		ug/kg	1.00	0.067	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ug/kg	1.00	0.287	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ug/kg	1.00	0.202	1
Perfluoroundecanoic Acid (PFUnA)	ND		ug/kg	1.00	0.047	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ug/kg	1.00	0.153	1
Perfluorooctanesulfonamide (FOSA)	ND		ug/kg	1.00	0.098	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ug/kg	1.00	0.085	1
Perfluorododecanoic Acid (PFDoA)	ND		ug/kg	1.00	0.070	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ug/kg	1.00	0.205	1
Perfluorotetradecanoic Acid (PFTA)	ND		ug/kg	1.00	0.054	1
PFOA/PFOS, Total	0.061	J	ug/kg	1.00	0.042	1

Project Name: 193078

Lab Number: L1929092

Project Number: 193078

Report Date: 07/22/19

SAMPLE RESULTS

Lab ID: L1929092-01

Date Collected: 07/01/19 16:00

Client ID: 193078-18 1001-1

Date Received: 07/02/19

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	76		60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	81		65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	78		70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	77		61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	78		62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	77		63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	75		62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	70		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	83		61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	82		65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	75		65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	86		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	51		45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	76		64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	6		1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	43		42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	66		56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	41		26-160

Project Name: 193078

Lab Number: L1929092

Project Number: 193078

Report Date: 07/22/19

SAMPLE RESULTS

Lab ID: L1929092-02
 Client ID: 193078-19 1002-1
 Sample Location: Not Specified

Date Collected: 07/01/19 16:00
 Date Received: 07/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 122,537(M)
 Analytical Date: 07/20/19 03:59
 Analyst: JW
 Percent Solids: 84%

Extraction Method: EPA 537(M)
 Extraction Date: 07/18/19 12:54

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ug/kg	1.19	0.027	1
Perfluoropentanoic Acid (PFPeA)	ND		ug/kg	1.19	0.055	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ug/kg	1.19	0.046	1
Perfluorohexanoic Acid (PFHxA)	ND		ug/kg	1.19	0.062	1
Perfluoroheptanoic Acid (PFHpA)	ND		ug/kg	1.19	0.054	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ug/kg	1.19	0.072	1
Perfluorooctanoic Acid (PFOA)	0.064	J	ug/kg	1.19	0.050	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ug/kg	1.19	0.213	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ug/kg	1.19	0.162	1
Perfluorononanoic Acid (PFNA)	ND		ug/kg	1.19	0.089	1
Perfluorooctanesulfonic Acid (PFOS)	0.342	J	ug/kg	1.19	0.154	1
Perfluorodecanoic Acid (PFDA)	ND		ug/kg	1.19	0.080	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ug/kg	1.19	0.341	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ug/kg	1.19	0.239	1
Perfluoroundecanoic Acid (PFUnA)	ND		ug/kg	1.19	0.056	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ug/kg	1.19	0.182	1
Perfluorooctanesulfonamide (FOSA)	ND		ug/kg	1.19	0.116	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	0.188	J	ug/kg	1.19	0.100	1
Perfluorododecanoic Acid (PFDoA)	ND		ug/kg	1.19	0.083	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ug/kg	1.19	0.243	1
Perfluorotetradecanoic Acid (PFTA)	ND		ug/kg	1.19	0.064	1
PFOA/PFOS, Total	0.406	J	ug/kg	1.19	0.050	1

Project Name: 193078

Lab Number: L1929092

Project Number: 193078

Report Date: 07/22/19

SAMPLE RESULTS

Lab ID: L1929092-02
 Client ID: 193078-19 1002-1
 Sample Location: Not Specified

Date Collected: 07/01/19 16:00
 Date Received: 07/02/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	75		60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	80		65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	81		70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	80		61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	79		62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	77		63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	79		62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	71		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	87		61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	85		65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	78		65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	87		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	50		45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	80		64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	4		1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	39	Q	42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	70		56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	47		26-160

Project Name: 193078

Lab Number: L1929092

Project Number: 193078

Report Date: 07/22/19

SAMPLE RESULTS

Lab ID: L1929092-03
 Client ID: 193078-20 2001-1
 Sample Location: Not Specified

Date Collected: 07/01/19 16:00
 Date Received: 07/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 122,537(M)
 Analytical Date: 07/20/19 04:16
 Analyst: JW
 Percent Solids: 84%

Extraction Method: EPA 537(M)
 Extraction Date: 07/18/19 12:54

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ug/kg	1.12	0.025	1
Perfluoropentanoic Acid (PFPeA)	ND		ug/kg	1.12	0.052	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ug/kg	1.12	0.044	1
Perfluorohexanoic Acid (PFHxA)	ND		ug/kg	1.12	0.059	1
Perfluoroheptanoic Acid (PFHpA)	ND		ug/kg	1.12	0.051	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ug/kg	1.12	0.068	1
Perfluorooctanoic Acid (PFOA)	0.110	J	ug/kg	1.12	0.047	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ug/kg	1.12	0.201	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ug/kg	1.12	0.153	1
Perfluorononanoic Acid (PFNA)	ND		ug/kg	1.12	0.084	1
Perfluorooctanesulfonic Acid (PFOS)	0.213	J	ug/kg	1.12	0.146	1
Perfluorodecanoic Acid (PFDA)	ND		ug/kg	1.12	0.075	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ug/kg	1.12	0.322	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ug/kg	1.12	0.226	1
Perfluoroundecanoic Acid (PFUnA)	ND		ug/kg	1.12	0.052	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ug/kg	1.12	0.171	1
Perfluorooctanesulfonamide (FOSA)	ND		ug/kg	1.12	0.110	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ug/kg	1.12	0.095	1
Perfluorododecanoic Acid (PFDoA)	ND		ug/kg	1.12	0.078	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ug/kg	1.12	0.229	1
Perfluorotetradecanoic Acid (PFTA)	ND		ug/kg	1.12	0.061	1
PFOA/PFOS, Total	0.323	J	ug/kg	1.12	0.047	1

Project Name: 193078

Lab Number: L1929092

Project Number: 193078

Report Date: 07/22/19

SAMPLE RESULTS

Lab ID: L1929092-03
 Client ID: 193078-20 2001-1
 Sample Location: Not Specified

Date Collected: 07/01/19 16:00
 Date Received: 07/02/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	83		60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	87		65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	83		70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	85		61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	84		62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	79		63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	83		62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	66		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	90		61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	82		65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	83		65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	75		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	44	Q	45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	82		64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	16		1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	32	Q	42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	69		56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	24	Q	26-160

Project Name: 193078

Lab Number: L1929092

Project Number: 193078

Report Date: 07/22/19

SAMPLE RESULTS

Lab ID: L1929092-04
 Client ID: 193078-21 3001-1
 Sample Location: Not Specified

Date Collected: 07/01/19 16:00
 Date Received: 07/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 122,537(M)
 Analytical Date: 07/20/19 04:32
 Analyst: JW
 Percent Solids: 88%

Extraction Method: EPA 537(M)
 Extraction Date: 07/18/19 12:54

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ug/kg	1.11	0.025	1
Perfluoropentanoic Acid (PFPeA)	ND		ug/kg	1.11	0.051	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ug/kg	1.11	0.043	1
Perfluorohexanoic Acid (PFHxA)	ND		ug/kg	1.11	0.058	1
Perfluoroheptanoic Acid (PFHpA)	ND		ug/kg	1.11	0.050	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ug/kg	1.11	0.067	1
Perfluorooctanoic Acid (PFOA)	ND		ug/kg	1.11	0.046	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ug/kg	1.11	0.199	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ug/kg	1.11	0.151	1
Perfluorononanoic Acid (PFNA)	ND		ug/kg	1.11	0.083	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ug/kg	1.11	0.144	1
Perfluorodecanoic Acid (PFDA)	ND		ug/kg	1.11	0.074	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ug/kg	1.11	0.318	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ug/kg	1.11	0.223	1
Perfluoroundecanoic Acid (PFUnA)	ND		ug/kg	1.11	0.052	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ug/kg	1.11	0.169	1
Perfluorooctanesulfonamide (FOSA)	ND		ug/kg	1.11	0.108	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ug/kg	1.11	0.094	1
Perfluorododecanoic Acid (PFDoA)	ND		ug/kg	1.11	0.078	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ug/kg	1.11	0.226	1
Perfluorotetradecanoic Acid (PFTA)	ND		ug/kg	1.11	0.060	1
PFOA/PFOS, Total	ND		ug/kg	1.11	0.046	1

Project Name: 193078

Lab Number: L1929092

Project Number: 193078

Report Date: 07/22/19

SAMPLE RESULTS

Lab ID: L1929092-04
 Client ID: 193078-21 3001-1
 Sample Location: Not Specified

Date Collected: 07/01/19 16:00
 Date Received: 07/02/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	77		60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	81		65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	83		70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	81		61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	79		62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	76		63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	79		62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	70		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	88		61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	85		65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	77		65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	68		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	40	Q	45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	77		64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	6		1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	39	Q	42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	66		56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	42		26-160

Project Name: 193078

Lab Number: L1929092

Project Number: 193078

Report Date: 07/22/19

SAMPLE RESULTS

Lab ID: L1929092-05
 Client ID: 193078-22 4001-1
 Sample Location: Not Specified

Date Collected: 07/01/19 16:00
 Date Received: 07/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 122,537(M)
 Analytical Date: 07/20/19 04:49
 Analyst: JW
 Percent Solids: 80%

Extraction Method: EPA 537(M)
 Extraction Date: 07/18/19 12:54

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ug/kg	1.13	0.026	1
Perfluoropentanoic Acid (PFPeA)	ND		ug/kg	1.13	0.052	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ug/kg	1.13	0.044	1
Perfluorohexanoic Acid (PFHxA)	ND		ug/kg	1.13	0.059	1
Perfluoroheptanoic Acid (PFHpA)	ND		ug/kg	1.13	0.051	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ug/kg	1.13	0.068	1
Perfluorooctanoic Acid (PFOA)	ND		ug/kg	1.13	0.047	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ug/kg	1.13	0.202	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ug/kg	1.13	0.154	1
Perfluorononanoic Acid (PFNA)	ND		ug/kg	1.13	0.084	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ug/kg	1.13	0.146	1
Perfluorodecanoic Acid (PFDA)	ND		ug/kg	1.13	0.075	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ug/kg	1.13	0.323	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ug/kg	1.13	0.227	1
Perfluoroundecanoic Acid (PFUnA)	ND		ug/kg	1.13	0.053	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ug/kg	1.13	0.172	1
Perfluorooctanesulfonamide (FOSA)	ND		ug/kg	1.13	0.110	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ug/kg	1.13	0.095	1
Perfluorododecanoic Acid (PFDoA)	ND		ug/kg	1.13	0.079	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ug/kg	1.13	0.230	1
Perfluorotetradecanoic Acid (PFTA)	ND		ug/kg	1.13	0.061	1
PFOA/PFOS, Total	ND		ug/kg	1.13	0.047	1

Project Name: 193078

Lab Number: L1929092

Project Number: 193078

Report Date: 07/22/19

SAMPLE RESULTS

Lab ID: L1929092-05
 Client ID: 193078-22 4001-1
 Sample Location: Not Specified

Date Collected: 07/01/19 16:00
 Date Received: 07/02/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	70		60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	74		65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	72		70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	74		61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	72		62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	67		63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	72		62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	53		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	78		61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	72		65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	69		65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	76		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	33	Q	45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	69		64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	7		1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	29	Q	42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	57		56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	25	Q	26-160

Project Name: 193078

Lab Number: L1929092

Project Number: 193078

Report Date: 07/22/19

SAMPLE RESULTS

Lab ID: L1929092-06
 Client ID: 193078-23 5001-1
 Sample Location: Not Specified

Date Collected: 07/01/19 16:00
 Date Received: 07/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 122,537(M)
 Analytical Date: 07/20/19 05:06
 Analyst: JW
 Percent Solids: 87%

Extraction Method: EPA 537(M)
 Extraction Date: 07/18/19 12:54

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ug/kg	1.03	0.023	1
Perfluoropentanoic Acid (PFPeA)	ND		ug/kg	1.03	0.047	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ug/kg	1.03	0.040	1
Perfluorohexanoic Acid (PFHxA)	ND		ug/kg	1.03	0.054	1
Perfluoroheptanoic Acid (PFHpA)	ND		ug/kg	1.03	0.046	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ug/kg	1.03	0.062	1
Perfluorooctanoic Acid (PFOA)	0.062	J	ug/kg	1.03	0.043	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ug/kg	1.03	0.185	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ug/kg	1.03	0.140	1
Perfluorononanoic Acid (PFNA)	ND		ug/kg	1.03	0.077	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ug/kg	1.03	0.134	1
Perfluorodecanoic Acid (PFDA)	ND		ug/kg	1.03	0.069	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ug/kg	1.03	0.295	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ug/kg	1.03	0.207	1
Perfluoroundecanoic Acid (PFUnA)	ND		ug/kg	1.03	0.048	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ug/kg	1.03	0.157	1
Perfluorooctanesulfonamide (FOSA)	ND		ug/kg	1.03	0.101	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ug/kg	1.03	0.087	1
Perfluorododecanoic Acid (PFDoA)	ND		ug/kg	1.03	0.072	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ug/kg	1.03	0.210	1
Perfluorotetradecanoic Acid (PFTA)	ND		ug/kg	1.03	0.056	1
PFOA/PFOS, Total	0.062	J	ug/kg	1.03	0.043	1

Project Name: 193078

Lab Number: L1929092

Project Number: 193078

Report Date: 07/22/19

SAMPLE RESULTS

Lab ID: L1929092-06
 Client ID: 193078-23 5001-1
 Sample Location: Not Specified

Date Collected: 07/01/19 16:00
 Date Received: 07/02/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	62		60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	67		65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	67	Q	70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	64		61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	64		62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	65		63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	61	Q	62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	56		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	68		61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	68		65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	62	Q	65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	58		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	27	Q	45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	63	Q	64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	6		1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	19	Q	42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	51	Q	56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	24	Q	26-160

Project Name: 193078

Lab Number: L1929092

Project Number: 193078

Report Date: 07/22/19

SAMPLE RESULTS

Lab ID: L1929092-07
 Client ID: 193078-24 6001-1
 Sample Location: Not Specified

Date Collected: 07/01/19 17:00
 Date Received: 07/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 122,537(M)
 Analytical Date: 07/20/19 05:22
 Analyst: JW
 Percent Solids: 85%

Extraction Method: EPA 537(M)
 Extraction Date: 07/18/19 12:54

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ug/kg	1.04	0.024	1
Perfluoropentanoic Acid (PFPeA)	ND		ug/kg	1.04	0.048	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ug/kg	1.04	0.041	1
Perfluorohexanoic Acid (PFHxA)	ND		ug/kg	1.04	0.055	1
Perfluoroheptanoic Acid (PFHpA)	ND		ug/kg	1.04	0.047	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ug/kg	1.04	0.063	1
Perfluorooctanoic Acid (PFOA)	0.077	J	ug/kg	1.04	0.044	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ug/kg	1.04	0.187	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ug/kg	1.04	0.142	1
Perfluorononanoic Acid (PFNA)	ND		ug/kg	1.04	0.078	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ug/kg	1.04	0.136	1
Perfluorodecanoic Acid (PFDA)	ND		ug/kg	1.04	0.070	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ug/kg	1.04	0.300	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ug/kg	1.04	0.210	1
Perfluoroundecanoic Acid (PFUnA)	ND		ug/kg	1.04	0.049	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ug/kg	1.04	0.160	1
Perfluorooctanesulfonamide (FOSA)	ND		ug/kg	1.04	0.102	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ug/kg	1.04	0.088	1
Perfluorododecanoic Acid (PFDoA)	ND		ug/kg	1.04	0.073	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ug/kg	1.04	0.214	1
Perfluorotetradecanoic Acid (PFTA)	ND		ug/kg	1.04	0.056	1
PFOA/PFOS, Total	0.077	J	ug/kg	1.04	0.044	1

Project Name: 193078

Lab Number: L1929092

Project Number: 193078

Report Date: 07/22/19

SAMPLE RESULTS

Lab ID: L1929092-07
 Client ID: 193078-24 6001-1
 Sample Location: Not Specified

Date Collected: 07/01/19 17:00
 Date Received: 07/02/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	72		60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	76		65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	72		70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	73		61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	72		62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	70		63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	71		62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	61		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	78		61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	74		65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	71		65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	60		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	31	Q	45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	72		64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	13		1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	26	Q	42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	59		56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	18	Q	26-160

Project Name: 193078

Project Number: 193078

Lab Number: L1929092

Report Date: 07/22/19

Method Blank Analysis Batch Quality Control

Analytical Method: 122,537(M)
 Analytical Date: 07/20/19 01:30
 Analyst: JW

Extraction Method: EPA 537(M)
 Extraction Date: 07/18/19 12:54

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-07 Batch: WG1261565-1					
Perfluorobutanoic Acid (PFBA)	0.068	J	ug/kg	1.00	0.023
Perfluoropentanoic Acid (PFPeA)	ND		ug/kg	1.00	0.046
Perfluorobutanesulfonic Acid (PFBS)	ND		ug/kg	1.00	0.039
Perfluorohexanoic Acid (PFHxA)	ND		ug/kg	1.00	0.053
Perfluoroheptanoic Acid (PFHpA)	ND		ug/kg	1.00	0.045
Perfluorohexanesulfonic Acid (PFHxS)	ND		ug/kg	1.00	0.061
Perfluorooctanoic Acid (PFOA)	ND		ug/kg	1.00	0.042
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ug/kg	1.00	0.180
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ug/kg	1.00	0.136
Perfluorononanoic Acid (PFNA)	ND		ug/kg	1.00	0.075
Perfluorooctanesulfonic Acid (PFOS)	ND		ug/kg	1.00	0.130
Perfluorodecanoic Acid (PFDA)	ND		ug/kg	1.00	0.067
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ug/kg	1.00	0.287
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ug/kg	1.00	0.202
Perfluoroundecanoic Acid (PFUnA)	ND		ug/kg	1.00	0.047
Perfluorodecanesulfonic Acid (PFDS)	ND		ug/kg	1.00	0.153
Perfluorooctanesulfonamide (FOSA)	ND		ug/kg	1.00	0.098
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ug/kg	1.00	0.085
Perfluorododecanoic Acid (PFDoA)	ND		ug/kg	1.00	0.070
Perfluorotridecanoic Acid (PFTrDA)	ND		ug/kg	1.00	0.204
Perfluorotetradecanoic Acid (PFTA)	ND		ug/kg	1.00	0.054
PFOA/PFOS, Total	ND		ug/kg	1.00	0.042

Project Name: 193078

Project Number: 193078

Lab Number: L1929092

Report Date: 07/22/19

Method Blank Analysis Batch Quality Control

Analytical Method: 122,537(M)
 Analytical Date: 07/20/19 01:30
 Analyst: JW

Extraction Method: EPA 537(M)
 Extraction Date: 07/18/19 12:54

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-07 Batch: WG1261565-1					

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	81		60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	88		65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	88		70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	85		61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	82		62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	88		63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	81		62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	74		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	91		61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	90		65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	85		65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	87		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	66		45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	88		64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	17		1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	58		42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	76		56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	62		26-160

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 193078

Project Number: 193078

Lab Number: L1929092

Report Date: 07/22/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-07 Batch: WG1261565-2 WG1261565-3								
Perfluorobutanoic Acid (PFBA)	106		103		71-135	3		30
Perfluoropentanoic Acid (PFPeA)	102		98		69-132	4		30
Perfluorobutanesulfonic Acid (PFBS)	92		89		72-128	3		30
Perfluorohexanoic Acid (PFHxA)	113		112		70-132	1		30
Perfluoroheptanoic Acid (PFHpA)	106		101		71-131	5		30
Perfluorohexanesulfonic Acid (PFHxS)	117		114		67-130	3		30
Perfluorooctanoic Acid (PFOA)	107		107		69-133	0		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	106		100		64-140	6		30
Perfluoroheptanesulfonic Acid (PFHpS)	104		94		70-132	10		30
Perfluorononanoic Acid (PFNA)	111		108		72-129	3		30
Perfluorooctanesulfonic Acid (PFOS)	100		90		68-136	11		30
Perfluorodecanoic Acid (PFDA)	112		110		69-133	2		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	104		110		65-137	6		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	111		111		63-144	0		30
Perfluoroundecanoic Acid (PFUnA)	98		99		64-136	1		30
Perfluorodecanesulfonic Acid (PFDS)	110		97		59-134	13		30
Perfluorooctanesulfonamide (FOSA)	91		97		67-137	6		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	100		103		61-139	3		30
Perfluorododecanoic Acid (PFDoA)	105		102		69-135	3		30
Perfluorotridecanoic Acid (PFTTrDA)	108		105		66-139	3		30
Perfluorotetradecanoic Acid (PFTA)	118		114		69-133	3		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 193078

Project Number: 193078

Lab Number: L1929092

Report Date: 07/22/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-07 Batch: WG1261565-2 WG1261565-3								

Surrogate (Extracted Internal Standard)	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	89		77		60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	95		82		65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	96		80		70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	92		82		61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	90		83		62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	91		78		63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	91		81		62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	83		68		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	99		89		61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	90		83		65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	92		81		65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	96		73		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	71		65		45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	95		82		64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	19		11		1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	65		57		42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	85		73		56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	69		60		26-160

PESTICIDES

Project Name: 193078**Lab Number:** L1929092**Project Number:** 193078**Report Date:** 07/22/19**SAMPLE RESULTS**

Lab ID: L1929092-01
 Client ID: 193078-18 1001-1
 Sample Location: Not Specified

Date Collected: 07/01/19 16:00
 Date Received: 07/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 07/16/19 15:14
 Analyst: DGM
 Percent Solids: 87%
 Methylation Date: 07/15/19 20:25

Extraction Method: EPA 8151A
 Extraction Date: 07/14/19 03:32

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4,5-TP (Silvex)	ND		ug/kg	191	5.09	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	80		30-150	A
DCAA	73		30-150	B

Project Name: 193078
Project Number: 193078

Lab Number: L1929092
Report Date: 07/22/19

SAMPLE RESULTS

Lab ID: L1929092-02
Client ID: 193078-19 1002-1
Sample Location: Not Specified

Date Collected: 07/01/19 16:00
Date Received: 07/02/19
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 07/16/19 15:33
Analyst: DGM
Percent Solids: 84%
Methylation Date: 07/15/19 20:25

Extraction Method: EPA 8151A
Extraction Date: 07/14/19 03:32

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4,5-TP (Silvex)	ND		ug/kg	196	5.22	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	80		30-150	A
DCAA	77		30-150	B

Project Name: 193078**Lab Number:** L1929092**Project Number:** 193078**Report Date:** 07/22/19**SAMPLE RESULTS**

Lab ID: L1929092-03
 Client ID: 193078-20 2001-1
 Sample Location: Not Specified

Date Collected: 07/01/19 16:00
 Date Received: 07/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 07/16/19 15:52
 Analyst: DGM
 Percent Solids: 84%
 Methylation Date: 07/15/19 20:25

Extraction Method: EPA 8151A
 Extraction Date: 07/14/19 03:32

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4,5-TP (Silvex)	ND		ug/kg	196	5.20	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	71		30-150	A
DCAA	64		30-150	B

Project Name: 193078

Lab Number: L1929092

Project Number: 193078

Report Date: 07/22/19

SAMPLE RESULTS

Lab ID: L1929092-04
 Client ID: 193078-21 3001-1
 Sample Location: Not Specified

Date Collected: 07/01/19 16:00
 Date Received: 07/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 07/16/19 16:10
 Analyst: DGM
 Percent Solids: 88%
 Methylation Date: 07/15/19 20:25

Extraction Method: EPA 8151A
 Extraction Date: 07/14/19 03:32

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4,5-TP (Silvex)	ND		ug/kg	188	4.99	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	78		30-150	A
DCAA	74		30-150	B

Project Name: 193078**Lab Number:** L1929092**Project Number:** 193078**Report Date:** 07/22/19**SAMPLE RESULTS**

Lab ID: L1929092-05
 Client ID: 193078-22 4001-1
 Sample Location: Not Specified

Date Collected: 07/01/19 16:00
 Date Received: 07/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 07/16/19 16:29
 Analyst: DGM
 Percent Solids: 80%
 Methylation Date: 07/15/19 20:25

Extraction Method: EPA 8151A
 Extraction Date: 07/14/19 03:32

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4,5-TP (Silvex)	ND		ug/kg	208	5.53	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	78		30-150	A
DCAA	69		30-150	B

Project Name: 193078
Project Number: 193078

Lab Number: L1929092
Report Date: 07/22/19

SAMPLE RESULTS

Lab ID: L1929092-06
Client ID: 193078-23 5001-1
Sample Location: Not Specified

Date Collected: 07/01/19 16:00
Date Received: 07/02/19
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 07/16/19 16:48
Analyst: DGM
Percent Solids: 87%
Methylation Date: 07/15/19 20:25

Extraction Method: EPA 8151A
Extraction Date: 07/14/19 03:32

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4,5-TP (Silvex)	ND		ug/kg	186	4.94	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	88		30-150	A
DCAA	75		30-150	B

Project Name: 193078
Project Number: 193078

Lab Number: L1929092
Report Date: 07/22/19

SAMPLE RESULTS

Lab ID: L1929092-07
Client ID: 193078-24 6001-1
Sample Location: Not Specified

Date Collected: 07/01/19 17:00
Date Received: 07/02/19
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 07/16/19 17:07
Analyst: DGM
Percent Solids: 85%
Methylation Date: 07/15/19 20:25

Extraction Method: EPA 8151A
Extraction Date: 07/14/19 03:32

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4,5-TP (Silvex)	ND		ug/kg	191	5.07	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	84		30-150	A
DCAA	74		30-150	B

Project Name: 193078

Project Number: 193078

Lab Number: L1929092

Report Date: 07/22/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8151A
 Analytical Date: 07/16/19 12:42
 Analyst: DGM

Extraction Method: EPA 8151A
 Extraction Date: 07/14/19 03:32

Methylation Date: 07/15/19 20:25

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 01-07 Batch: WG1259655-1						
2,4,5-TP (Silvex)	ND		ug/kg	164	4.37	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	88		30-150	A
DCAA	80		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: 193078

Project Number: 193078

Lab Number: L1929092

Report Date: 07/22/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01-07 Batch: WG1259655-2 WG1259655-3									
2,4,5-TP (Silvex)	92		88		30-150	4		30	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	83		78		30-150	A
DCAA	84		85		30-150	B

INORGANICS & MISCELLANEOUS

Project Name: 193078

Lab Number: L1929092

Project Number: 193078

Report Date: 07/22/19

SAMPLE RESULTS

Lab ID: L1929092-01

Date Collected: 07/01/19 16:00

Client ID: 193078-18 1001-1

Date Received: 07/02/19

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	86.5		%	0.100	NA	1	-	07/04/19 01:47	121,2540G	YA
Chromium, Hexavalent	ND		mg/kg	0.925	0.185	1	07/11/19 12:33	07/12/19 09:19	1,7196A	NH



Project Name: 193078

Project Number: 193078

Lab Number: L1929092

Report Date: 07/22/19

SAMPLE RESULTS

Lab ID: L1929092-02

Client ID: 193078-19 1002-1

Sample Location: Not Specified

Date Collected: 07/01/19 16:00

Date Received: 07/02/19

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.6		%	0.100	NA	1	-	07/04/19 01:47	121,2540G	YA
Chromium, Hexavalent	ND		mg/kg	0.957	0.191	1	07/11/19 12:33	07/12/19 09:19	1,7196A	NH



Project Name: 193078

Project Number: 193078

Lab Number: L1929092

Report Date: 07/22/19

SAMPLE RESULTS

Lab ID: L1929092-03

Client ID: 193078-20 2001-1

Sample Location: Not Specified

Date Collected: 07/01/19 16:00

Date Received: 07/02/19

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	84.0		%	0.100	NA	1	-	07/04/19 01:47	121,2540G	YA
Chromium, Hexavalent	ND		mg/kg	0.952	0.190	1	07/11/19 12:33	07/12/19 09:19	1,7196A	NH



Project Name: 193078

Lab Number: L1929092

Project Number: 193078

Report Date: 07/22/19

SAMPLE RESULTS

Lab ID: L1929092-04

Date Collected: 07/01/19 16:00

Client ID: 193078-21 3001-1

Date Received: 07/02/19

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	88.3		%	0.100	NA	1	-	07/04/19 01:47	121,2540G	YA
Chromium, Hexavalent	ND		mg/kg	0.906	0.181	1	07/11/19 12:33	07/12/19 09:19	1,7196A	NH



Project Name: 193078

Lab Number: L1929092

Project Number: 193078

Report Date: 07/22/19

SAMPLE RESULTS

Lab ID: L1929092-05

Date Collected: 07/01/19 16:00

Client ID: 193078-22 4001-1

Date Received: 07/02/19

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	80.0		%	0.100	NA	1	-	07/04/19 01:47	121,2540G	YA
Chromium, Hexavalent	ND		mg/kg	1.00	0.200	1	07/11/19 12:33	07/12/19 09:19	1,7196A	NH



Project Name: 193078

Project Number: 193078

Lab Number: L1929092

Report Date: 07/22/19

SAMPLE RESULTS

Lab ID: L1929092-06

Client ID: 193078-23 5001-1

Sample Location: Not Specified

Date Collected: 07/01/19 16:00

Date Received: 07/02/19

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87.2		%	0.100	NA	1	-	07/04/19 01:47	121,2540G	YA
Chromium, Hexavalent	ND		mg/kg	0.917	0.183	1	07/11/19 12:33	07/12/19 09:19	1,7196A	NH



Project Name: 193078

Lab Number: L1929092

Project Number: 193078

Report Date: 07/22/19

SAMPLE RESULTS

Lab ID: L1929092-07

Date Collected: 07/01/19 17:00

Client ID: 193078-24 6001-1

Date Received: 07/02/19

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85.1		%	0.100	NA	1	-	07/04/19 01:47	121,2540G	YA
Chromium, Hexavalent	ND		mg/kg	0.940	0.188	1	07/11/19 12:33	07/12/19 09:19	1,7196A	NH



Project Name: 193078

Lab Number: L1929092

Project Number: 193078

Report Date: 07/22/19

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-07 Batch: WG1258646-1										
Chromium, Hexavalent	ND		mg/kg	0.800	0.160	1	07/11/19 12:33	07/12/19 09:19	1,7196A	NH

Lab Control Sample Analysis
Batch Quality Control

Project Name: 193078
Project Number: 193078

Lab Number: L1929092
Report Date: 07/22/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-07 Batch: WG1258646-2								
Chromium, Hexavalent	97		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control**Project Name:** 193078**Project Number:** 193078**Lab Number:** L1929092**Report Date:** 07/22/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-07 QC Batch ID: WG1258646-4 QC Sample: L1929092-06 Client ID: 193078-23 5001-1												
Chromium, Hexavalent	ND	1060	1100	104		-	-		75-125	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: 193078

Project Number: 193078

Lab Number: L1929092

Report Date: 07/22/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-07 QC Batch ID: WG1256473-1 QC Sample: L1928791-03 Client ID: DUP Sample						
Solids, Total	81.3	79.6	%	2		20
General Chemistry - Westborough Lab Associated sample(s): 01-07 QC Batch ID: WG1258646-6 QC Sample: L1929092-06 Client ID: 193078-23 5001-1						
Chromium, Hexavalent	ND	ND	mg/kg	NC		20

Project Name: 193078**Lab Number:** L1929092**Project Number:** 193078**Report Date:** 07/22/19**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1929092-01A	Plastic 2oz unpreserved for TS	A	NA		4.3	Y	Absent		TS(7)
L1929092-01B	Glass 120ml/4oz unpreserved	A	NA		4.3	Y	Absent		HERB-APA(14)
L1929092-01C	Plastic 8oz unpreserved	A	NA		4.3	Y	Absent		A2-NY-537-ISOTOPE(28)
L1929092-02A	Plastic 2oz unpreserved for TS	A	NA		4.3	Y	Absent		TS(7)
L1929092-02B	Glass 120ml/4oz unpreserved	A	NA		4.3	Y	Absent		HERB-APA(14)
L1929092-02C	Plastic 8oz unpreserved	A	NA		4.3	Y	Absent		A2-NY-537-ISOTOPE(28)
L1929092-03A	Plastic 2oz unpreserved for TS	A	NA		4.3	Y	Absent		TS(7)
L1929092-03B	Glass 120ml/4oz unpreserved	A	NA		4.3	Y	Absent		HERB-APA(14)
L1929092-03C	Plastic 8oz unpreserved	A	NA		4.3	Y	Absent		A2-NY-537-ISOTOPE(28)
L1929092-04A	Plastic 2oz unpreserved for TS	A	NA		4.3	Y	Absent		TS(7)
L1929092-04B	Glass 120ml/4oz unpreserved	A	NA		4.3	Y	Absent		HERB-APA(14)
L1929092-04C	Plastic 8oz unpreserved	A	NA		4.3	Y	Absent		A2-NY-537-ISOTOPE(28)
L1929092-05A	Plastic 2oz unpreserved for TS	A	NA		4.3	Y	Absent		TS(7)
L1929092-05B	Glass 120ml/4oz unpreserved	A	NA		4.3	Y	Absent		HERB-APA(14)
L1929092-05C	Plastic 8oz unpreserved	A	NA		4.3	Y	Absent		A2-NY-537-ISOTOPE(28)
L1929092-06A	Plastic 2oz unpreserved for TS	A	NA		4.3	Y	Absent		TS(7)
L1929092-06B	Glass 120ml/4oz unpreserved	A	NA		4.3	Y	Absent		HERB-APA(14)
L1929092-06C	Plastic 8oz unpreserved	A	NA		4.3	Y	Absent		A2-NY-537-ISOTOPE(28)
L1929092-07A	Plastic 2oz unpreserved for TS	A	NA		4.3	Y	Absent		TS(7)
L1929092-07B	Glass 120ml/4oz unpreserved	A	NA		4.3	Y	Absent		HERB-APA(14)
L1929092-07C	Plastic 8oz unpreserved	A	NA		4.3	Y	Absent		A2-NY-537-ISOTOPE(28)

Project Name: 193078
Project Number: 193078

Lab Number: L1929092
Report Date: 07/22/19

GLOSSARY

Acronyms

DL	- 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 limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated 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 EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
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.
LFB	- Laboratory Fortified Blank: 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.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
	Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
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. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
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.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
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.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers



Project Name: 193078
Project Number: 193078

Lab Number: L1929092
Report Date: 07/22/19

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

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.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

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 ten times (10x) 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. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- 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.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- 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. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. 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.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers



Project Name: 193078**Lab Number:** L1929092**Project Number:** 193078**Report Date:** 07/22/19

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.
- 122 Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS). EPA Method 537, EPA/600/R-08/092. Version 1.1, September 2009.

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 its 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.



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 12

Published Date: 10/9/2018 4:58:19 PM

Page 1 of 1

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility**EPA 624/624.1:** m/p-xylene, o-xylene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**EPA 6860:** SCM: Perchlorate**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.**Biological Tissue Matrix:** EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO₃-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH₃-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO₃-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO₄-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg. EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1 Hg.****SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.



CHAIN OF CUSTODY

L1929092

11148

REPORT TO:			INVOICE TO:					
COMPANY: Paradigm Environmental			COMPANY: Same			LAB PROJECT #:		CLIENT PROJECT #:
ADDRESS: 179 Lake Avenue			ADDRESS:					
CITY: Rochester STATE: NY ZIP: 14608			CITY: STATE: ZIP:			TURNAROUND TIME: (WORKING DAYS)		
PHONE: FAX:			PHONE: FAX:			<div> <div>STD</div> <div>OTHER</div> </div>		
ATTN: Reporting			ATTN: Accounts Payable			<div> <div>1</div> <div>2</div> <div>3</div> <div>5</div> <div>10</div> </div>		
COMMENTS: Please email results to reporting@paradigmenv.com						Date Due:		

REQUESTED ANALYSIS

[illegible]


LAB USE ONLY BELOW THIS LINE

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

Receipt Parameter		NELAC Compliance	
Container Type:		Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments: _____			
Preservation:		Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments: _____			
Holding Time:		Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments: _____			
Temperature:		Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments: _____			

Client	
Sampled By	Date/Time
<i>[Signature]</i>	7/2/19 1600
Reinquished By	Date/Time
<i>[Signature]</i> AAC	7/2/19 16:35
Received By	Date/Time
<i>[Signature]</i> AAC	7/2/19 16:35
Received By	Date/Time
<i>[Signature]</i>	7/3/19 02:00
Received @ Lab By	Date/Time

Total Cost:



P.L.F.

9



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier: BF 1

Lab Sample ID: 203558-01

Matrix: Soil

Date Sampled: 7/30/2020

Date Received: 7/30/2020

Metals

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	4.75	mg/Kg		8/4/2020 20:44
Barium	31.6	mg/Kg		8/4/2020 20:44
Beryllium	0.203	mg/Kg	J	8/4/2020 20:44
Cadmium	1.70	mg/Kg		8/4/2020 20:44
Chromium	9.54	mg/Kg		8/4/2020 20:44
Copper	20.0	mg/Kg		8/4/2020 20:44
Lead	9.34	mg/Kg		8/4/2020 20:44
Manganese	288	mg/Kg	M	8/4/2020 20:44
Nickel	17.5	mg/Kg		8/4/2020 20:44
Selenium	< 1.21	mg/Kg		8/4/2020 20:44
Silver	< 0.603	mg/Kg		8/4/2020 20:44
Zinc	53.1	mg/Kg		8/5/2020 19:30

Method Reference(s): EPA 6010C

EPA 3050B

Preparation Date: 8/3/2020

Data File: 200804B

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier: BF 1

Lab Sample ID: 203558-01

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

PCBs

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
PCB-1016	< 0.0340	mg/Kg		8/1/2020 04:52
PCB-1221	< 0.0340	mg/Kg		8/1/2020 04:52
PCB-1232	< 0.0340	mg/Kg		8/1/2020 04:52
PCB-1242	< 0.0340	mg/Kg		8/1/2020 04:52
PCB-1248	< 0.0340	mg/Kg		8/1/2020 04:52
PCB-1254	< 0.0340	mg/Kg		8/1/2020 04:52
PCB-1260	< 0.0340	mg/Kg		8/1/2020 04:52
PCB-1262	< 0.0340	mg/Kg		8/1/2020 04:52
PCB-1268	< 0.0340	mg/Kg		8/1/2020 04:52

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Tetrachloro-m-xylene	35.7	17.8 - 74		8/1/2020 04:52

Method Reference(s): EPA 8082A

EPA 3546

Preparation Date: 7/31/2020

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier: BF 1

Lab Sample ID: 203558-01

Matrix: Soil

Date Sampled: 7/30/2020

Date Received: 7/30/2020

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 3.40	ug/Kg		7/31/2020 21:42
4,4-DDE	< 3.40	ug/Kg		7/31/2020 21:42
4,4-DDT	< 3.40	ug/Kg		7/31/2020 21:42
Aldrin	< 3.40	ug/Kg		7/31/2020 21:42
alpha-BHC	< 3.40	ug/Kg		7/31/2020 21:42
beta-BHC	< 3.40	ug/Kg		7/31/2020 21:42
cis-Chlordane	< 3.40	ug/Kg		7/31/2020 21:42
delta-BHC	< 3.40	ug/Kg		7/31/2020 21:42
Dieldrin	< 3.40	ug/Kg		7/31/2020 21:42
Endosulfan I	< 3.40	ug/Kg		7/31/2020 21:42
Endosulfan II	< 3.40	ug/Kg		7/31/2020 21:42
Endosulfan Sulfate	< 3.40	ug/Kg		7/31/2020 21:42
Endrin	< 3.40	ug/Kg		7/31/2020 21:42
Endrin Aldehyde	< 3.40	ug/Kg		7/31/2020 21:42
Endrin Ketone	< 3.40	ug/Kg		7/31/2020 21:42
gamma-BHC (Lindane)	< 3.40	ug/Kg		7/31/2020 21:42
Heptachlor	2.37	ug/Kg	J	7/31/2020 21:42
Heptachlor Epoxide	< 3.40	ug/Kg		7/31/2020 21:42
Methoxychlor	< 3.40	ug/Kg		7/31/2020 21:42
Toxaphene	< 34.0	ug/Kg		7/31/2020 21:42
trans-Chlordane	< 3.40	ug/Kg		7/31/2020 21:42

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier: BF 1

Lab Sample ID: 203558-01

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
Decachlorobiphenyl (1)	31.8	27.3 - 111		7/31/2020	21:42
Tetrachloro-m-xylene (1)	20.4	28.5 - 102	*	7/31/2020	21:42
Method Reference(s):	EPA 8081B				
	EPA 3546				
Preparation Date:	7/31/2020				

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier: BF 1

Lab Sample ID: 203558-01

Matrix: Soil

Date Sampled: 7/30/2020

Date Received: 7/30/2020

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 314	ug/Kg		8/4/2020 13:03
1,2,4,5-Tetrachlorobenzene	< 314	ug/Kg		8/4/2020 13:03
1,2,4-Trichlorobenzene	< 314	ug/Kg		8/4/2020 13:03
1,2-Dichlorobenzene	< 314	ug/Kg		8/4/2020 13:03
1,3-Dichlorobenzene	< 314	ug/Kg		8/4/2020 13:03
1,4-Dichlorobenzene	< 314	ug/Kg		8/4/2020 13:03
2,2-Oxybis (1-chloropropane)	< 314	ug/Kg		8/4/2020 13:03
2,3,4,6-Tetrachlorophenol	< 314	ug/Kg		8/4/2020 13:03
2,4,5-Trichlorophenol	< 314	ug/Kg		8/4/2020 13:03
2,4,6-Trichlorophenol	< 314	ug/Kg		8/4/2020 13:03
2,4-Dichlorophenol	< 314	ug/Kg		8/4/2020 13:03
2,4-Dimethylphenol	< 314	ug/Kg		8/4/2020 13:03
2,4-Dinitrophenol	< 1260	ug/Kg		8/4/2020 13:03
2,4-Dinitrotoluene	< 314	ug/Kg		8/4/2020 13:03
2,6-Dinitrotoluene	< 314	ug/Kg		8/4/2020 13:03
2-Chloronaphthalene	< 314	ug/Kg		8/4/2020 13:03
2-Chlorophenol	< 314	ug/Kg		8/4/2020 13:03
2-Methylnapthalene	< 314	ug/Kg		8/4/2020 13:03
2-Methylphenol	< 314	ug/Kg		8/4/2020 13:03
2-Nitroaniline	< 314	ug/Kg		8/4/2020 13:03
2-Nitrophenol	< 314	ug/Kg		8/4/2020 13:03
3&4-Methylphenol	< 314	ug/Kg		8/4/2020 13:03
3,3'-Dichlorobenzidine	< 314	ug/Kg		8/4/2020 13:03

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier:	BF 1			
Lab Sample ID:	203558-01		Date Sampled:	7/30/2020
Matrix:	Soil		Date Received:	7/30/2020
3-Nitroaniline	< 314	ug/Kg	8/4/2020	13:03
4,6-Dinitro-2-methylphenol	< 628	ug/Kg	8/4/2020	13:03
4-Bromophenyl phenyl ether	< 314	ug/Kg	8/4/2020	13:03
4-Chloro-3-methylphenol	< 314	ug/Kg	8/4/2020	13:03
4-Chloroaniline	< 314	ug/Kg	8/4/2020	13:03
4-Chlorophenyl phenyl ether	< 314	ug/Kg	8/4/2020	13:03
4-Nitroaniline	< 314	ug/Kg	8/4/2020	13:03
4-Nitrophenol	< 314	ug/Kg	8/4/2020	13:03
Acenaphthene	< 314	ug/Kg	8/4/2020	13:03
Acenaphthylene	< 314	ug/Kg	8/4/2020	13:03
Acetophenone	< 314	ug/Kg	8/4/2020	13:03
Anthracene	< 314	ug/Kg	8/4/2020	13:03
Atrazine	< 314	ug/Kg	8/4/2020	13:03
Benzaldehyde	< 314	ug/Kg	8/4/2020	13:03
Benzo (a) anthracene	< 314	ug/Kg	8/4/2020	13:03
Benzo (a) pyrene	< 314	ug/Kg	8/4/2020	13:03
Benzo (b) fluoranthene	< 314	ug/Kg	8/4/2020	13:03
Benzo (g,h,i) perylene	< 314	ug/Kg	8/4/2020	13:03
Benzo (k) fluoranthene	< 314	ug/Kg	8/4/2020	13:03
Bis (2-chloroethoxy) methane	< 314	ug/Kg	8/4/2020	13:03
Bis (2-chloroethyl) ether	< 314	ug/Kg	8/4/2020	13:03
Bis (2-ethylhexyl) phthalate	< 314	ug/Kg	8/4/2020	13:03
Butylbenzylphthalate	< 314	ug/Kg	8/4/2020	13:03
Caprolactam	< 314	ug/Kg	8/4/2020	13:03
Carbazole	< 314	ug/Kg	8/4/2020	13:03

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier:	BF 1		
Lab Sample ID:	203558-01	Date Sampled:	7/30/2020
Matrix:	Soil	Date Received:	7/30/2020
Chrysene	< 314	ug/Kg	8/4/2020 13:03
Dibenz (a,h) anthracene	< 314	ug/Kg	8/4/2020 13:03
Dibenzofuran	< 314	ug/Kg	8/4/2020 13:03
Diethyl phthalate	< 314	ug/Kg	8/4/2020 13:03
Dimethyl phthalate	< 314	ug/Kg	8/4/2020 13:03
Di-n-butyl phthalate	< 314	ug/Kg	8/4/2020 13:03
Di-n-octylphthalate	< 314	ug/Kg	8/4/2020 13:03
Fluoranthene	< 314	ug/Kg	8/4/2020 13:03
Fluorene	< 314	ug/Kg	8/4/2020 13:03
Hexachlorobenzene	< 314	ug/Kg	8/4/2020 13:03
Hexachlorobutadiene	< 314	ug/Kg	8/4/2020 13:03
Hexachlorocyclopentadiene	< 1260	ug/Kg	8/4/2020 13:03
Hexachloroethane	< 314	ug/Kg	8/4/2020 13:03
Indeno (1,2,3-cd) pyrene	< 314	ug/Kg	8/4/2020 13:03
Isophorone	< 314	ug/Kg	8/4/2020 13:03
Naphthalene	< 314	ug/Kg	8/4/2020 13:03
Nitrobenzene	< 314	ug/Kg	8/4/2020 13:03
N-Nitroso-di-n-propylamine	< 314	ug/Kg	8/4/2020 13:03
N-Nitrosodiphenylamine	< 314	ug/Kg	8/4/2020 13:03
Pentachlorophenol	< 628	ug/Kg	8/4/2020 13:03
Phenanthrene	< 314	ug/Kg	8/4/2020 13:03
Phenol	< 314	ug/Kg	8/4/2020 13:03
Pyrene	< 314	ug/Kg	8/4/2020 13:03

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier: BF 1

Lab Sample ID: 203558-01

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	60.8	37.8 - 85.8		8/4/2020 13:03
2-Fluorobiphenyl	57.0	40.4 - 80.4		8/4/2020 13:03
2-Fluorophenol	56.9	38.8 - 77.4		8/4/2020 13:03
Nitrobenzene-d5	56.8	37.4 - 75.9		8/4/2020 13:03
Phenol-d5	62.7	40.4 - 78		8/4/2020 13:03
Terphenyl-d14	55.1	40.2 - 90		8/4/2020 13:03

Method Reference(s): EPA 8270D

EPA 3546

Preparation Date: 8/3/2020

Data File: B48367.D

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier: BF VOC 1

Lab Sample ID: 203558-02

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.82	ug/Kg		8/7/2020 21:18
1,1,2,2-Tetrachloroethane	< 4.82	ug/Kg		8/7/2020 21:18
1,1,2-Trichloroethane	< 4.82	ug/Kg		8/7/2020 21:18
1,1-Dichloroethane	< 4.82	ug/Kg		8/7/2020 21:18
1,1-Dichloroethene	< 4.82	ug/Kg		8/7/2020 21:18
1,2,3-Trichlorobenzene	< 12.0	ug/Kg		8/7/2020 21:18
1,2,4-Trichlorobenzene	< 12.0	ug/Kg		8/7/2020 21:18
1,2,4-Trimethylbenzene	< 4.82	ug/Kg		8/7/2020 21:18
1,2-Dibromo-3-Chloropropane	< 24.1	ug/Kg		8/7/2020 21:18
1,2-Dibromoethane	< 4.82	ug/Kg		8/7/2020 21:18
1,2-Dichlorobenzene	< 4.82	ug/Kg		8/7/2020 21:18
1,2-Dichloroethane	< 4.82	ug/Kg		8/7/2020 21:18
1,2-Dichloropropane	< 4.82	ug/Kg		8/7/2020 21:18
1,3,5-Trimethylbenzene	< 4.82	ug/Kg		8/7/2020 21:18
1,3-Dichlorobenzene	< 4.82	ug/Kg		8/7/2020 21:18
1,4-Dichlorobenzene	< 4.82	ug/Kg		8/7/2020 21:18
1,4-Dioxane	< 48.2	ug/Kg		8/7/2020 21:18
2-Butanone	< 24.1	ug/Kg		8/7/2020 21:18
2-Hexanone	< 12.0	ug/Kg		8/7/2020 21:18
4-Methyl-2-pentanone	< 12.0	ug/Kg		8/7/2020 21:18
Acetone	< 24.1	ug/Kg		8/7/2020 21:18
Benzene	< 4.82	ug/Kg		8/7/2020 21:18
Bromochloromethane	< 12.0	ug/Kg		8/7/2020 21:18

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier:	BF VOC 1			
Lab Sample ID:	203558-02		Date Sampled:	7/30/2020
Matrix:	Soil		Date Received:	7/30/2020
Bromodichloromethane	< 4.82	ug/Kg		8/7/2020 21:18
Bromoform	< 12.0	ug/Kg		8/7/2020 21:18
Bromomethane	< 4.82	ug/Kg		8/7/2020 21:18
Carbon disulfide	< 4.82	ug/Kg		8/7/2020 21:18
Carbon Tetrachloride	< 4.82	ug/Kg		8/7/2020 21:18
Chlorobenzene	< 4.82	ug/Kg		8/7/2020 21:18
Chloroethane	< 4.82	ug/Kg		8/7/2020 21:18
Chloroform	< 4.82	ug/Kg		8/7/2020 21:18
Chloromethane	< 4.82	ug/Kg		8/7/2020 21:18
cis-1,2-Dichloroethene	< 4.82	ug/Kg		8/7/2020 21:18
cis-1,3-Dichloropropene	< 4.82	ug/Kg		8/7/2020 21:18
Cyclohexane	< 24.1	ug/Kg		8/7/2020 21:18
Dibromochloromethane	< 4.82	ug/Kg		8/7/2020 21:18
Dichlorodifluoromethane	< 4.82	ug/Kg		8/7/2020 21:18
Ethylbenzene	< 4.82	ug/Kg		8/7/2020 21:18
Freon 113	< 4.82	ug/Kg		8/7/2020 21:18
Isopropylbenzene	< 4.82	ug/Kg		8/7/2020 21:18
m,p-Xylene	3.26	ug/Kg	J	8/7/2020 21:18
Methyl acetate	< 4.82	ug/Kg		8/7/2020 21:18
Methyl tert-butyl Ether	< 4.82	ug/Kg		8/7/2020 21:18
Methylcyclohexane	< 4.82	ug/Kg		8/7/2020 21:18
Methylene chloride	< 12.0	ug/Kg		8/7/2020 21:18
Naphthalene	< 12.0	ug/Kg		8/7/2020 21:18
n-Butylbenzene	< 4.82	ug/Kg		8/7/2020 21:18
n-Propylbenzene	< 4.82	ug/Kg		8/7/2020 21:18

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier:	BF VOC 1			Date Sampled:	7/30/2020
Lab Sample ID:	203558-02			Date Received:	7/30/2020
Matrix:	Soil				
o-Xylene	< 4.82	ug/Kg		8/7/2020	21:18
p-Isopropyltoluene	< 4.82	ug/Kg		8/7/2020	21:18
sec-Butylbenzene	< 4.82	ug/Kg		8/7/2020	21:18
Styrene	< 12.0	ug/Kg		8/7/2020	21:18
tert-Butylbenzene	< 4.82	ug/Kg		8/7/2020	21:18
Tetrachloroethene	< 4.82	ug/Kg		8/7/2020	21:18
Toluene	< 4.82	ug/Kg		8/7/2020	21:18
trans-1,2-Dichloroethene	< 4.82	ug/Kg		8/7/2020	21:18
trans-1,3-Dichloropropene	< 4.82	ug/Kg		8/7/2020	21:18
Trichloroethene	< 4.82	ug/Kg		8/7/2020	21:18
Trichlorofluoromethane	< 4.82	ug/Kg		8/7/2020	21:18
Vinyl chloride	< 4.82	ug/Kg		8/7/2020	21:18
Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	123	75 - 134		8/7/2020	21:18
4-Bromofluorobenzene	58.4	59.5 - 129	*	8/7/2020	21:18
Pentafluorobenzene	97.4	88.8 - 118		8/7/2020	21:18
Toluene-D8	80.3	84 - 114	*	8/7/2020	21:18

Internal standard outliers indicate probable matrix interference

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x72391.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.

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier: BF VOC 2

Lab Sample ID: 203558-03

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.54	ug/Kg		8/7/2020 21:41
1,1,2,2-Tetrachloroethane	< 4.54	ug/Kg		8/7/2020 21:41
1,1,2-Trichloroethane	< 4.54	ug/Kg		8/7/2020 21:41
1,1-Dichloroethane	< 4.54	ug/Kg		8/7/2020 21:41
1,1-Dichloroethene	< 4.54	ug/Kg		8/7/2020 21:41
1,2,3-Trichlorobenzene	< 11.3	ug/Kg		8/7/2020 21:41
1,2,4-Trichlorobenzene	< 11.3	ug/Kg		8/7/2020 21:41
1,2,4-Trimethylbenzene	< 4.54	ug/Kg		8/7/2020 21:41
1,2-Dibromo-3-Chloropropane	< 22.7	ug/Kg		8/7/2020 21:41
1,2-Dibromoethane	< 4.54	ug/Kg		8/7/2020 21:41
1,2-Dichlorobenzene	< 4.54	ug/Kg		8/7/2020 21:41
1,2-Dichloroethane	< 4.54	ug/Kg		8/7/2020 21:41
1,2-Dichloropropane	< 4.54	ug/Kg		8/7/2020 21:41
1,3,5-Trimethylbenzene	< 4.54	ug/Kg		8/7/2020 21:41
1,3-Dichlorobenzene	< 4.54	ug/Kg		8/7/2020 21:41
1,4-Dichlorobenzene	< 4.54	ug/Kg		8/7/2020 21:41
1,4-Dioxane	< 45.4	ug/Kg		8/7/2020 21:41
2-Butanone	< 22.7	ug/Kg		8/7/2020 21:41
2-Hexanone	< 11.3	ug/Kg		8/7/2020 21:41
4-Methyl-2-pentanone	< 11.3	ug/Kg		8/7/2020 21:41
Acetone	< 22.7	ug/Kg		8/7/2020 21:41
Benzene	< 4.54	ug/Kg		8/7/2020 21:41
Bromochloromethane	< 11.3	ug/Kg		8/7/2020 21:41

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier:	BF VOC 2			
Lab Sample ID:	203558-03		Date Sampled:	7/30/2020
Matrix:	Soil		Date Received:	7/30/2020
Bromodichloromethane	< 4.54	ug/Kg		8/7/2020 21:41
Bromoform	< 11.3	ug/Kg		8/7/2020 21:41
Bromomethane	< 4.54	ug/Kg		8/7/2020 21:41
Carbon disulfide	< 4.54	ug/Kg		8/7/2020 21:41
Carbon Tetrachloride	< 4.54	ug/Kg		8/7/2020 21:41
Chlorobenzene	< 4.54	ug/Kg		8/7/2020 21:41
Chloroethane	< 4.54	ug/Kg		8/7/2020 21:41
Chloroform	< 4.54	ug/Kg		8/7/2020 21:41
Chloromethane	< 4.54	ug/Kg		8/7/2020 21:41
cis-1,2-Dichloroethene	< 4.54	ug/Kg		8/7/2020 21:41
cis-1,3-Dichloropropene	< 4.54	ug/Kg		8/7/2020 21:41
Cyclohexane	< 22.7	ug/Kg		8/7/2020 21:41
Dibromochloromethane	< 4.54	ug/Kg		8/7/2020 21:41
Dichlorodifluoromethane	< 4.54	ug/Kg		8/7/2020 21:41
Ethylbenzene	< 4.54	ug/Kg		8/7/2020 21:41
Freon 113	< 4.54	ug/Kg		8/7/2020 21:41
Isopropylbenzene	< 4.54	ug/Kg		8/7/2020 21:41
m,p-Xylene	3.13	ug/Kg	J	8/7/2020 21:41
Methyl acetate	< 4.54	ug/Kg		8/7/2020 21:41
Methyl tert-butyl Ether	< 4.54	ug/Kg		8/7/2020 21:41
Methylcyclohexane	< 4.54	ug/Kg		8/7/2020 21:41
Methylene chloride	< 11.3	ug/Kg		8/7/2020 21:41
Naphthalene	< 11.3	ug/Kg		8/7/2020 21:41
n-Butylbenzene	< 4.54	ug/Kg		8/7/2020 21:41
n-Propylbenzene	< 4.54	ug/Kg		8/7/2020 21:41

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier:	BF VOC 2			Date Sampled:	7/30/2020
Lab Sample ID:	203558-03			Date Received:	7/30/2020
Matrix:	Soil				
o-Xylene	< 4.54	ug/Kg		8/7/2020	21:41
p-Isopropyltoluene	< 4.54	ug/Kg		8/7/2020	21:41
sec-Butylbenzene	< 4.54	ug/Kg		8/7/2020	21:41
Styrene	< 11.3	ug/Kg		8/7/2020	21:41
tert-Butylbenzene	< 4.54	ug/Kg		8/7/2020	21:41
Tetrachloroethene	< 4.54	ug/Kg		8/7/2020	21:41
Toluene	< 4.54	ug/Kg		8/7/2020	21:41
trans-1,2-Dichloroethene	< 4.54	ug/Kg		8/7/2020	21:41
trans-1,3-Dichloropropene	< 4.54	ug/Kg		8/7/2020	21:41
Trichloroethene	< 4.54	ug/Kg		8/7/2020	21:41
Trichlorofluoromethane	< 4.54	ug/Kg		8/7/2020	21:41
Vinyl chloride	< 4.54	ug/Kg		8/7/2020	21:41
Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	120	75 - 134		8/7/2020	21:41
4-Bromofluorobenzene	56.2	59.5 - 129	*	8/7/2020	21:41
Pentafluorobenzene	94.1	88.8 - 118		8/7/2020	21:41
Toluene-D8	79.8	84 - 114	*	8/7/2020	21:41

Internal standard outliers indicate probable matrix interference

Method Reference(s): EPA 8260C
EPA 5035A - L
Data File: x72392.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.

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier: BF VOC 3

Lab Sample ID: 203558-04

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.94	ug/Kg		8/7/2020 22:03
1,1,2,2-Tetrachloroethane	< 4.94	ug/Kg		8/7/2020 22:03
1,1,2-Trichloroethane	< 4.94	ug/Kg		8/7/2020 22:03
1,1-Dichloroethane	< 4.94	ug/Kg		8/7/2020 22:03
1,1-Dichloroethene	< 4.94	ug/Kg		8/7/2020 22:03
1,2,3-Trichlorobenzene	< 12.4	ug/Kg		8/7/2020 22:03
1,2,4-Trichlorobenzene	< 12.4	ug/Kg		8/7/2020 22:03
1,2,4-Trimethylbenzene	< 4.94	ug/Kg		8/7/2020 22:03
1,2-Dibromo-3-Chloropropane	< 24.7	ug/Kg		8/7/2020 22:03
1,2-Dibromoethane	< 4.94	ug/Kg		8/7/2020 22:03
1,2-Dichlorobenzene	< 4.94	ug/Kg		8/7/2020 22:03
1,2-Dichloroethane	< 4.94	ug/Kg		8/7/2020 22:03
1,2-Dichloropropane	< 4.94	ug/Kg		8/7/2020 22:03
1,3,5-Trimethylbenzene	< 4.94	ug/Kg		8/7/2020 22:03
1,3-Dichlorobenzene	< 4.94	ug/Kg		8/7/2020 22:03
1,4-Dichlorobenzene	< 4.94	ug/Kg		8/7/2020 22:03
1,4-Dioxane	< 49.4	ug/Kg		8/7/2020 22:03
2-Butanone	< 24.7	ug/Kg		8/7/2020 22:03
2-Hexanone	< 12.4	ug/Kg		8/7/2020 22:03
4-Methyl-2-pentanone	< 12.4	ug/Kg		8/7/2020 22:03
Acetone	< 24.7	ug/Kg		8/7/2020 22:03
Benzene	< 4.94	ug/Kg		8/7/2020 22:03
Bromochloromethane	< 12.4	ug/Kg		8/7/2020 22:03

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier:	BF VOC 3				
Lab Sample ID:	203558-04			Date Sampled:	7/30/2020
Matrix:	Soil			Date Received:	7/30/2020
Bromodichloromethane	< 4.94	ug/Kg		8/7/2020	22:03
Bromoform	< 12.4	ug/Kg		8/7/2020	22:03
Bromomethane	< 4.94	ug/Kg		8/7/2020	22:03
Carbon disulfide	< 4.94	ug/Kg		8/7/2020	22:03
Carbon Tetrachloride	< 4.94	ug/Kg		8/7/2020	22:03
Chlorobenzene	< 4.94	ug/Kg		8/7/2020	22:03
Chloroethane	< 4.94	ug/Kg		8/7/2020	22:03
Chloroform	< 4.94	ug/Kg		8/7/2020	22:03
Chloromethane	< 4.94	ug/Kg		8/7/2020	22:03
cis-1,2-Dichloroethene	< 4.94	ug/Kg		8/7/2020	22:03
cis-1,3-Dichloropropene	< 4.94	ug/Kg		8/7/2020	22:03
Cyclohexane	< 24.7	ug/Kg		8/7/2020	22:03
Dibromochloromethane	< 4.94	ug/Kg		8/7/2020	22:03
Dichlorodifluoromethane	< 4.94	ug/Kg		8/7/2020	22:03
Ethylbenzene	< 4.94	ug/Kg		8/7/2020	22:03
Freon 113	< 4.94	ug/Kg		8/7/2020	22:03
Isopropylbenzene	< 4.94	ug/Kg		8/7/2020	22:03
m,p-Xylene	< 4.94	ug/Kg		8/7/2020	22:03
Methyl acetate	< 4.94	ug/Kg		8/7/2020	22:03
Methyl tert-butyl Ether	< 4.94	ug/Kg		8/7/2020	22:03
Methylcyclohexane	< 4.94	ug/Kg		8/7/2020	22:03
Methylene chloride	< 12.4	ug/Kg		8/7/2020	22:03
Naphthalene	< 12.4	ug/Kg		8/7/2020	22:03
n-Butylbenzene	< 4.94	ug/Kg		8/7/2020	22:03
n-Propylbenzene	< 4.94	ug/Kg		8/7/2020	22:03

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier:	BF VOC 3			Date Sampled:	7/30/2020
Lab Sample ID:	203558-04			Date Received:	7/30/2020
Matrix:	Soil				
o-Xylene	< 4.94	ug/Kg		8/7/2020	22:03
p-Isopropyltoluene	< 4.94	ug/Kg		8/7/2020	22:03
sec-Butylbenzene	< 4.94	ug/Kg		8/7/2020	22:03
Styrene	< 12.4	ug/Kg		8/7/2020	22:03
tert-Butylbenzene	< 4.94	ug/Kg		8/7/2020	22:03
Tetrachloroethene	< 4.94	ug/Kg		8/7/2020	22:03
Toluene	< 4.94	ug/Kg		8/7/2020	22:03
trans-1,2-Dichloroethene	< 4.94	ug/Kg		8/7/2020	22:03
trans-1,3-Dichloropropene	< 4.94	ug/Kg		8/7/2020	22:03
Trichloroethene	< 4.94	ug/Kg		8/7/2020	22:03
Trichlorofluoromethane	< 4.94	ug/Kg		8/7/2020	22:03
Vinyl chloride	< 4.94	ug/Kg		8/7/2020	22:03
Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	127	75 - 134		8/7/2020	22:03
4-Bromofluorobenzene	52.7	59.5 - 129	*	8/7/2020	22:03
Pentafluorobenzene	95.9	88.8 - 118		8/7/2020	22:03
Toluene-D8	75.3	84 - 114	*	8/7/2020	22:03

Internal standard outliers indicate probable matrix interference

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x72393.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.

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier: BF VOC 4

Lab Sample ID: 203558-05

Matrix: Soil

Date Sampled: 7/30/2020

Date Received: 7/30/2020

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.38	ug/Kg		8/7/2020 22:25
1,1,2,2-Tetrachloroethane	< 4.38	ug/Kg		8/7/2020 22:25
1,1,2-Trichloroethane	< 4.38	ug/Kg		8/7/2020 22:25
1,1-Dichloroethane	< 4.38	ug/Kg		8/7/2020 22:25
1,1-Dichloroethene	< 4.38	ug/Kg		8/7/2020 22:25
1,2,3-Trichlorobenzene	< 11.0	ug/Kg		8/7/2020 22:25
1,2,4-Trichlorobenzene	< 11.0	ug/Kg		8/7/2020 22:25
1,2,4-Trimethylbenzene	< 4.38	ug/Kg		8/7/2020 22:25
1,2-Dibromo-3-Chloropropane	< 21.9	ug/Kg		8/7/2020 22:25
1,2-Dibromoethane	< 4.38	ug/Kg		8/7/2020 22:25
1,2-Dichlorobenzene	< 4.38	ug/Kg		8/7/2020 22:25
1,2-Dichloroethane	< 4.38	ug/Kg		8/7/2020 22:25
1,2-Dichloropropane	< 4.38	ug/Kg		8/7/2020 22:25
1,3,5-Trimethylbenzene	< 4.38	ug/Kg		8/7/2020 22:25
1,3-Dichlorobenzene	< 4.38	ug/Kg		8/7/2020 22:25
1,4-Dichlorobenzene	< 4.38	ug/Kg		8/7/2020 22:25
1,4-Dioxane	< 43.8	ug/Kg		8/7/2020 22:25
2-Butanone	< 21.9	ug/Kg		8/7/2020 22:25
2-Hexanone	< 11.0	ug/Kg		8/7/2020 22:25
4-Methyl-2-pentanone	< 11.0	ug/Kg		8/7/2020 22:25
Acetone	< 21.9	ug/Kg		8/7/2020 22:25
Benzene	< 4.38	ug/Kg		8/7/2020 22:25
Bromochloromethane	< 11.0	ug/Kg		8/7/2020 22:25

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier:	BF VOC 4			
Lab Sample ID:	203558-05		Date Sampled:	7/30/2020
Matrix:	Soil		Date Received:	7/30/2020
Bromodichloromethane	< 4.38	ug/Kg		8/7/2020 22:25
Bromoform	< 11.0	ug/Kg		8/7/2020 22:25
Bromomethane	< 4.38	ug/Kg		8/7/2020 22:25
Carbon disulfide	< 4.38	ug/Kg		8/7/2020 22:25
Carbon Tetrachloride	< 4.38	ug/Kg		8/7/2020 22:25
Chlorobenzene	< 4.38	ug/Kg		8/7/2020 22:25
Chloroethane	< 4.38	ug/Kg		8/7/2020 22:25
Chloroform	< 4.38	ug/Kg		8/7/2020 22:25
Chloromethane	< 4.38	ug/Kg		8/7/2020 22:25
cis-1,2-Dichloroethene	< 4.38	ug/Kg		8/7/2020 22:25
cis-1,3-Dichloropropene	< 4.38	ug/Kg		8/7/2020 22:25
Cyclohexane	< 21.9	ug/Kg		8/7/2020 22:25
Dibromochloromethane	< 4.38	ug/Kg		8/7/2020 22:25
Dichlorodifluoromethane	< 4.38	ug/Kg		8/7/2020 22:25
Ethylbenzene	< 4.38	ug/Kg		8/7/2020 22:25
Freon 113	< 4.38	ug/Kg		8/7/2020 22:25
Isopropylbenzene	< 4.38	ug/Kg		8/7/2020 22:25
m,p-Xylene	< 4.38	ug/Kg		8/7/2020 22:25
Methyl acetate	< 4.38	ug/Kg		8/7/2020 22:25
Methyl tert-butyl Ether	< 4.38	ug/Kg		8/7/2020 22:25
Methylcyclohexane	< 4.38	ug/Kg		8/7/2020 22:25
Methylene chloride	6.69	ug/Kg	J	8/7/2020 22:25
Naphthalene	< 11.0	ug/Kg		8/7/2020 22:25
n-Butylbenzene	< 4.38	ug/Kg		8/7/2020 22:25
n-Propylbenzene	< 4.38	ug/Kg		8/7/2020 22:25

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203558

Client: **BE3**

Project Reference: 31/150 Tonawanda BIO-Soil

Sample Identifier:	BF VOC 4			Date Sampled:	7/30/2020
Lab Sample ID:	203558-05			Date Received:	7/30/2020
Matrix:	Soil				
o-Xylene	< 4.38	ug/Kg		8/7/2020	22:25
p-Isopropyltoluene	< 4.38	ug/Kg		8/7/2020	22:25
sec-Butylbenzene	< 4.38	ug/Kg		8/7/2020	22:25
Styrene	< 11.0	ug/Kg		8/7/2020	22:25
tert-Butylbenzene	< 4.38	ug/Kg		8/7/2020	22:25
Tetrachloroethene	< 4.38	ug/Kg		8/7/2020	22:25
Toluene	< 4.38	ug/Kg		8/7/2020	22:25
trans-1,2-Dichloroethene	< 4.38	ug/Kg		8/7/2020	22:25
trans-1,3-Dichloropropene	< 4.38	ug/Kg		8/7/2020	22:25
Trichloroethene	< 4.38	ug/Kg		8/7/2020	22:25
Trichlorofluoromethane	< 4.38	ug/Kg		8/7/2020	22:25
Vinyl chloride	< 4.38	ug/Kg		8/7/2020	22:25
Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	126	75 - 134		8/7/2020	22:25
4-Bromofluorobenzene	62.5	59.5 - 129		8/7/2020	22:25
Pentafluorobenzene	99.9	88.8 - 118		8/7/2020	22:25
Toluene-D8	80.4	84 - 114	*	8/7/2020	22:25

Internal standard outliers indicate probable matrix interference

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x72394.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.

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.

Report Prepared Wednesday, August 19, 2020



Analytical Report Appendix

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

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

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.

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.

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, term 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 will 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 the 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.

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.



CHAIN OF CUSTODY

[illegible]

Turnaround Time		Report Supplements	
Availability contingent upon lab approval; additional fees may apply.			
Standard 5 day	<input type="checkbox"/>	None Required	<input type="checkbox"/>
10 day	<input checked="" type="checkbox"/>	Batch QC	<input type="checkbox"/>
Rush 3 day	<input type="checkbox"/>	Category A	<input checked="" type="checkbox"/>
Rush 2 day	<input type="checkbox"/>	Category B	<input checked="" type="checkbox"/>
Rush 1 day	<input type="checkbox"/>		
Date Needed _____		Other <input type="checkbox"/>	Other EDD <input type="checkbox"/>
please indicate date needed:		please indicate package needed:	please indicate EDD needed:
NOTE - FASTER			

PETER I. GORDON 7-30-20 12:20
 Sampled By Date/Time
 Total Cost:
 Relinquished By 7-30-20
 Date/Time
 B. R. Z. 7-30-20 3:15
 Received By Date/Time
 P.I.F.
 M. J. P. 7/30/2020 1755
 Received @ Lab By Date/Time

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

See additional page for sample conditions.



Chain of Custody Supplement

Client: BE3 Completed by: Molyneux
Lab Project ID: 203558 Date: _____

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	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> 5035	<input type="checkbox"/>
Comments	_____		
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Preservation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> met
Comments	<u>20°C in circulation in field</u>		
Compliant Sample Quantity/Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		

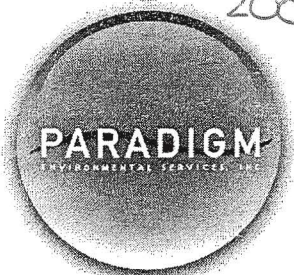
Adirondack Environmental Services, Inc**Date:** 05-Aug-20**CLIENT:** Paradigm Environmental**Client Sample ID:** BF-1**Work Order:** 200731032**Collection Date:** 7/30/2020 12:20:00 PM**Reference:** Sample Analysis / Tonowanda BIO-Soil**Lab Sample ID:** 200731032-001**PO#:****Matrix:** SOIL**Project# :** 203558

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
CHLORINATED HERBICIDES - EPA 8321B						Analyst: KF
(Prep: SW3545A - 7/31/2020)						
2,4,5-TP (Silvex)	ND	344		µg/Kg-dry	1	8/3/2020 5:03:48 PM
Surr: Acifluorfen	178	51.2-145	S	%REC	1	8/3/2020 5:03:48 PM
MERCURY - SW 7471B						Analyst: AVB
(Prep: SW7471B - 8/3/2020)						
Mercury	ND	0.229		µg/g-dry	1	8/3/2020 3:09:35 PM
HEXAVALENT CHROMIUM - SW 7196A (3060A)						Analyst: JW
(Prep: SW3060A - 8/3/2020)						
Chromium, Hexavalent	ND	1.2		µg/g-dry	1	8/3/2020 3:40:00 PM
MOISTURE CONTENT-ASTM D2216 (NOT ELAP CERTIFIED)						Analyst: TSZ
Percent Moisture	12.7	0.1		wt%	1	8/4/2020

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
X - Value exceeds Maximum Contaminant Level
E - Value above quantitation range-Estimate

S - LCS Spike below accepted limits (+ above)
Z - RPD outside accepted recovery limits
N - Matrix Spike below accepted limits (+ above)
T - Tentatively Identified Compound-Estimated Conc.



200731032

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

CHAIN OF CUSTODY

ADIRONDACK: ELAP ID

REPORT TO:		INVOICE TO: NEC	
COMPANY: Paradigm Environmental	COMPANY: Same	LAB PROJECT #:	CLIENT PRO:
ADDRESS:	ADDRESS:	TURNAROUND TIME: (WORKING DAYS)	
CITY: STATE: ZIP:	CITY: STATE: ZIP:	STD	
PHONE: FAX:	PHONE: FAX:	1 2 3 5	
PROJECT NAME/SITE NAME: 31/150 Tonowanda BIO-soil	ATTN: Reporting	ATTN: Accounts Payable	Date Due: 8/7/2020
COMMENTS: Please email results to reporting@paradigmenv.com			

REQUESTED ANALYSIS

DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	CONTAINER	Hex	Silver	T.M.	REMARKS	PAF	SAM
17/30/2020	1220			BFI	Soil	1	X	X	X	203558-01		
2												
3												
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 <input type="checkbox"/> N <input type="checkbox"/>
Comments:	
Preservation:	Y <input type="checkbox"/> N <input type="checkbox"/>
Comments:	
Holding Time:	Y <input type="checkbox"/> N <input type="checkbox"/>
Comments:	
Temperature: 30C	Y <input type="checkbox"/> N <input type="checkbox"/>
Comments:	

Client		Total Cost:
Sampled By	Date/Time	<input type="text"/>
Mollyrail	7/31/2020 0830	
Relinquished By	Date/Time	
Received By		P.I.F.
Krag	7/31/20 446pm	<input type="text"/>
Received @ Lab By	Date/Time	

Sample Receipt Checklist

Client Name: **ALS - ROCHESTER**

Date/Time Received: **05-Aug-20 10:30**

Work Order: **20080315**

Received by: **KRW**

Checklist completed by Keith Wurenga
eSignature

05-Aug-20
Date

Reviewed by: Ehland Bramworth
eSignature

05-Aug-20
Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>2.0/2.0 C</u>		<u>IR3</u>
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>8/5/2020 1:10:59 PM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<u>-</u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier: CF1

Lab Sample ID: 203556-01

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

Metals

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	10.8	mg/Kg		8/4/2020 20:25
Barium	65.8	mg/Kg		8/4/2020 20:25
Beryllium	0.365	mg/Kg		8/4/2020 20:25
Cadmium	2.03	mg/Kg		8/4/2020 20:25
Chromium	17.5	mg/Kg		8/4/2020 20:25
Copper	20.5	mg/Kg		8/4/2020 20:25
Lead	27.9	mg/Kg		8/4/2020 20:25
Manganese	318	mg/Kg		8/4/2020 20:25
Nickel	16.9	mg/Kg		8/4/2020 20:25
Selenium	< 1.07	mg/Kg		8/4/2020 20:25
Silver	< 0.536	mg/Kg		8/4/2020 20:25
Zinc	73.7	mg/Kg		8/5/2020 18:44

Method Reference(s): EPA 6010C

EPA 3050B

Preparation Date: 8/3/2020

Data File: 200804B

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier: CF1

Lab Sample ID: 203556-01

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

PCBs

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
PCB-1016	< 0.0319	mg/Kg		8/3/2020 15:58
PCB-1221	< 0.0319	mg/Kg		8/3/2020 15:58
PCB-1232	< 0.0319	mg/Kg		8/3/2020 15:58
PCB-1242	< 0.0319	mg/Kg		8/3/2020 15:58
PCB-1248	< 0.0319	mg/Kg		8/3/2020 15:58
PCB-1254	< 0.0319	mg/Kg		8/3/2020 15:58
PCB-1260	< 0.0319	mg/Kg		8/3/2020 15:58
PCB-1262	< 0.0319	mg/Kg		8/3/2020 15:58
PCB-1268	< 0.0319	mg/Kg		8/3/2020 15:58

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Tetrachloro-m-xylene	52.4	17.8 - 74		8/3/2020 15:58

Method Reference(s): EPA 8082A

EPA 3546

Preparation Date: 8/3/2020

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier: CF1

Lab Sample ID: 203556-01

Matrix: Soil

Date Sampled: 7/30/2020

Date Received: 7/30/2020

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 3.19	ug/Kg		8/3/2020 15:32
4,4-DDE	< 3.19	ug/Kg		8/3/2020 15:32
4,4-DDT	< 3.19	ug/Kg		8/3/2020 15:32
Aldrin	< 3.19	ug/Kg		8/3/2020 15:32
alpha-BHC	< 3.19	ug/Kg		8/3/2020 15:32
beta-BHC	< 3.19	ug/Kg		8/3/2020 15:32
cis-Chlordane	< 3.19	ug/Kg		8/3/2020 15:32
delta-BHC	< 3.19	ug/Kg		8/3/2020 15:32
Dieldrin	< 3.19	ug/Kg		8/3/2020 15:32
Endosulfan I	< 3.19	ug/Kg		8/3/2020 15:32
Endosulfan II	< 3.19	ug/Kg		8/3/2020 15:32
Endosulfan Sulfate	< 3.19	ug/Kg		8/3/2020 15:32
Endrin	< 3.19	ug/Kg		8/3/2020 15:32
Endrin Aldehyde	< 3.19	ug/Kg		8/3/2020 15:32
Endrin Ketone	2.14	ug/Kg	J	8/3/2020 15:32
gamma-BHC (Lindane)	3.84	ug/Kg		8/3/2020 15:32
Heptachlor	< 3.19	ug/Kg		8/3/2020 15:32
Heptachlor Epoxide	< 3.19	ug/Kg		8/3/2020 15:32
Methoxychlor	< 3.19	ug/Kg		8/3/2020 15:32
Toxaphene	< 31.9	ug/Kg		8/3/2020 15:32
trans-Chlordane	< 3.19	ug/Kg		8/3/2020 15:32

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier: CF1

Lab Sample ID: 203556-01

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
Decachlorobiphenyl (1)	81.3	27.3 - 111		8/3/2020	15:32
Tetrachloro-m-xylene (1)	33.8	28.5 - 102		8/3/2020	15:32

Method Reference(s): EPA 8081B

EPA 3546

Preparation Date: 8/3/2020

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier: CF1

Lab Sample ID: 203556-01

Matrix: Soil

Date Sampled: 7/30/2020

Date Received: 7/30/2020

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 329	ug/Kg		8/4/2020 12:05
1,2,4,5-Tetrachlorobenzene	< 329	ug/Kg		8/4/2020 12:05
1,2,4-Trichlorobenzene	< 329	ug/Kg		8/4/2020 12:05
1,2-Dichlorobenzene	< 329	ug/Kg		8/4/2020 12:05
1,3-Dichlorobenzene	< 329	ug/Kg		8/4/2020 12:05
1,4-Dichlorobenzene	< 329	ug/Kg		8/4/2020 12:05
2,2-Oxybis (1-chloropropane)	< 329	ug/Kg		8/4/2020 12:05
2,3,4,6-Tetrachlorophenol	< 329	ug/Kg		8/4/2020 12:05
2,4,5-Trichlorophenol	< 329	ug/Kg		8/4/2020 12:05
2,4,6-Trichlorophenol	< 329	ug/Kg		8/4/2020 12:05
2,4-Dichlorophenol	< 329	ug/Kg		8/4/2020 12:05
2,4-Dimethylphenol	< 329	ug/Kg		8/4/2020 12:05
2,4-Dinitrophenol	< 1320	ug/Kg		8/4/2020 12:05
2,4-Dinitrotoluene	< 329	ug/Kg		8/4/2020 12:05
2,6-Dinitrotoluene	< 329	ug/Kg		8/4/2020 12:05
2-Chloronaphthalene	< 329	ug/Kg		8/4/2020 12:05
2-Chlorophenol	< 329	ug/Kg		8/4/2020 12:05
2-Methylnapthalene	< 329	ug/Kg		8/4/2020 12:05
2-Methylphenol	< 329	ug/Kg		8/4/2020 12:05
2-Nitroaniline	< 329	ug/Kg		8/4/2020 12:05
2-Nitrophenol	< 329	ug/Kg		8/4/2020 12:05
3&4-Methylphenol	< 329	ug/Kg		8/4/2020 12:05
3,3'-Dichlorobenzidine	< 329	ug/Kg		8/4/2020 12:05

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier:		CF1			
Lab Sample ID:		203556-01		Date Sampled: 7/30/2020	
Matrix:		Soil		Date Received: 7/30/2020	
3-Nitroaniline	< 329	ug/Kg		8/4/2020	12:05
4,6-Dinitro-2-methylphenol	< 659	ug/Kg		8/4/2020	12:05
4-Bromophenyl phenyl ether	< 329	ug/Kg		8/4/2020	12:05
4-Chloro-3-methylphenol	< 329	ug/Kg		8/4/2020	12:05
4-Chloroaniline	< 329	ug/Kg		8/4/2020	12:05
4-Chlorophenyl phenyl ether	< 329	ug/Kg		8/4/2020	12:05
4-Nitroaniline	< 329	ug/Kg		8/4/2020	12:05
4-Nitrophenol	< 329	ug/Kg		8/4/2020	12:05
Acenaphthene	< 329	ug/Kg		8/4/2020	12:05
Acenaphthylene	< 329	ug/Kg		8/4/2020	12:05
Acetophenone	< 329	ug/Kg		8/4/2020	12:05
Anthracene	261	ug/Kg	J	8/4/2020	12:05
Atrazine	< 329	ug/Kg		8/4/2020	12:05
Benzaldehyde	< 329	ug/Kg		8/4/2020	12:05
Benzo (a) anthracene	1080	ug/Kg		8/4/2020	12:05
Benzo (a) pyrene	1210	ug/Kg		8/4/2020	12:05
Benzo (b) fluoranthene	1340	ug/Kg		8/4/2020	12:05
Benzo (g,h,i) perylene	901	ug/Kg		8/4/2020	12:05
Benzo (k) fluoranthene	983	ug/Kg		8/4/2020	12:05
Bis (2-chloroethoxy) methane	< 329	ug/Kg		8/4/2020	12:05
Bis (2-chloroethyl) ether	< 329	ug/Kg		8/4/2020	12:05
Bis (2-ethylhexyl) phthalate	< 329	ug/Kg		8/4/2020	12:05
Butylbenzylphthalate	< 329	ug/Kg		8/4/2020	12:05
Caprolactam	< 329	ug/Kg		8/4/2020	12:05
Carbazole	< 329	ug/Kg		8/4/2020	12:05

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier:	CF1			
Lab Sample ID:	203556-01		Date Sampled:	7/30/2020
Matrix:	Soil		Date Received:	7/30/2020
Chrysene	1250	ug/Kg		8/4/2020 12:05
Dibenz (a,h) anthracene	270	ug/Kg	J	8/4/2020 12:05
Dibenzofuran	< 329	ug/Kg		8/4/2020 12:05
Diethyl phthalate	< 329	ug/Kg		8/4/2020 12:05
Dimethyl phthalate	< 329	ug/Kg		8/4/2020 12:05
Di-n-butyl phthalate	< 329	ug/Kg		8/4/2020 12:05
Di-n-octylphthalate	< 329	ug/Kg		8/4/2020 12:05
Fluoranthene	2510	ug/Kg		8/4/2020 12:05
Fluorene	< 329	ug/Kg		8/4/2020 12:05
Hexachlorobenzene	< 329	ug/Kg		8/4/2020 12:05
Hexachlorobutadiene	< 329	ug/Kg		8/4/2020 12:05
Hexachlorocyclopentadiene	< 1320	ug/Kg		8/4/2020 12:05
Hexachloroethane	< 329	ug/Kg		8/4/2020 12:05
Indeno (1,2,3-cd) pyrene	797	ug/Kg		8/4/2020 12:05
Isophorone	< 329	ug/Kg		8/4/2020 12:05
Naphthalene	< 329	ug/Kg		8/4/2020 12:05
Nitrobenzene	< 329	ug/Kg		8/4/2020 12:05
N-Nitroso-di-n-propylamine	< 329	ug/Kg		8/4/2020 12:05
N-Nitrosodiphenylamine	< 329	ug/Kg		8/4/2020 12:05
Pentachlorophenol	< 659	ug/Kg		8/4/2020 12:05
Phenanthrene	1110	ug/Kg		8/4/2020 12:05
Phenol	< 329	ug/Kg		8/4/2020 12:05
Pyrene	2000	ug/Kg		8/4/2020 12:05

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier: CF1

Lab Sample ID: 203556-01

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	53.8	37.8 - 85.8		8/4/2020 12:05
2-Fluorobiphenyl	52.3	40.4 - 80.4		8/4/2020 12:05
2-Fluorophenol	52.4	38.8 - 77.4		8/4/2020 12:05
Nitrobenzene-d5	51.1	37.4 - 75.9		8/4/2020 12:05
Phenol-d5	57.3	40.4 - 78		8/4/2020 12:05
Terphenyl-d14	50.7	40.2 - 90		8/4/2020 12:05

Method Reference(s): EPA 8270D

EPA 3546

Preparation Date: 8/3/2020

Data File: B48365.D

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier: CF2

Lab Sample ID: 203556-02

Matrix: Soil

Date Sampled: 7/30/2020

Date Received: 7/30/2020

Metals

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	4.32	mg/Kg		8/4/2020 20:30
Barium	102	mg/Kg		8/4/2020 20:30
Beryllium	0.615	mg/Kg		8/4/2020 20:30
Cadmium	2.29	mg/Kg		8/4/2020 20:30
Chromium	14.8	mg/Kg		8/4/2020 20:30
Copper	15.0	mg/Kg		8/4/2020 20:30
Lead	40.4	mg/Kg		8/4/2020 20:30
Manganese	968	mg/Kg		8/5/2020 18:48
Nickel	13.3	mg/Kg		8/4/2020 20:30
Selenium	< 1.10	mg/Kg		8/4/2020 20:30
Silver	< 0.550	mg/Kg		8/4/2020 20:30
Zinc	96.6	mg/Kg		8/5/2020 18:53

Method Reference(s): EPA 6010C

EPA 3050B

Preparation Date: 8/3/2020

Data File: 200804B

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier: CF2

Lab Sample ID: 203556-02

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

PCBs

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
PCB-1016	< 0.0318	mg/Kg		8/3/2020 16:23
PCB-1221	< 0.0318	mg/Kg		8/3/2020 16:23
PCB-1232	< 0.0318	mg/Kg		8/3/2020 16:23
PCB-1242	< 0.0318	mg/Kg		8/3/2020 16:23
PCB-1248	< 0.0318	mg/Kg		8/3/2020 16:23
PCB-1254	< 0.0318	mg/Kg		8/3/2020 16:23
PCB-1260	< 0.0318	mg/Kg		8/3/2020 16:23
PCB-1262	< 0.0318	mg/Kg		8/3/2020 16:23
PCB-1268	< 0.0318	mg/Kg		8/3/2020 16:23

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Tetrachloro-m-xylene	44.4	17.8 - 74		8/3/2020 16:23

Method Reference(s): EPA 8082A

EPA 3546

Preparation Date: 8/3/2020

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier: CF2

Lab Sample ID: 203556-02

Matrix: Soil

Date Sampled: 7/30/2020

Date Received: 7/30/2020

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 3.18	ug/Kg		8/3/2020 15:51
4,4-DDE	11.5	ug/Kg		8/3/2020 15:51
4,4-DDT	< 3.18	ug/Kg		8/3/2020 15:51
Aldrin	< 3.18	ug/Kg		8/3/2020 15:51
alpha-BHC	< 3.18	ug/Kg		8/3/2020 15:51
beta-BHC	< 3.18	ug/Kg		8/3/2020 15:51
cis-Chlordane	< 3.18	ug/Kg		8/3/2020 15:51
delta-BHC	< 3.18	ug/Kg		8/3/2020 15:51
Dieldrin	< 3.18	ug/Kg		8/3/2020 15:51
Endosulfan I	< 3.18	ug/Kg		8/3/2020 15:51
Endosulfan II	< 3.18	ug/Kg		8/3/2020 15:51
Endosulfan Sulfate	< 3.18	ug/Kg		8/3/2020 15:51
Endrin	< 3.18	ug/Kg		8/3/2020 15:51
Endrin Aldehyde	< 3.18	ug/Kg		8/3/2020 15:51
Endrin Ketone	< 3.18	ug/Kg		8/3/2020 15:51
gamma-BHC (Lindane)	< 3.18	ug/Kg		8/3/2020 15:51
Heptachlor	< 3.18	ug/Kg		8/3/2020 15:51
Heptachlor Epoxide	< 3.18	ug/Kg		8/3/2020 15:51
Methoxychlor	< 3.18	ug/Kg		8/3/2020 15:51
Toxaphene	< 31.8	ug/Kg		8/3/2020 15:51
trans-Chlordane	< 3.18	ug/Kg		8/3/2020 15:51

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier: CF2

Lab Sample ID: 203556-02

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>	
Decachlorobiphenyl (1)	42.3	27.3 - 111		8/3/2020	15:51
Tetrachloro-m-xylene (1)	28.0	28.5 - 102	*	8/3/2020	15:51

Method Reference(s): EPA 8081B

EPA 3546

Preparation Date: 8/3/2020

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier: CF2

Lab Sample ID: 203556-02

Matrix: Soil

Date Sampled: 7/30/2020

Date Received: 7/30/2020

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 320	ug/Kg		8/4/2020 12:34
1,2,4,5-Tetrachlorobenzene	< 320	ug/Kg		8/4/2020 12:34
1,2,4-Trichlorobenzene	< 320	ug/Kg		8/4/2020 12:34
1,2-Dichlorobenzene	< 320	ug/Kg		8/4/2020 12:34
1,3-Dichlorobenzene	< 320	ug/Kg		8/4/2020 12:34
1,4-Dichlorobenzene	< 320	ug/Kg		8/4/2020 12:34
2,2-Oxybis (1-chloropropane)	< 320	ug/Kg		8/4/2020 12:34
2,3,4,6-Tetrachlorophenol	< 320	ug/Kg		8/4/2020 12:34
2,4,5-Trichlorophenol	< 320	ug/Kg		8/4/2020 12:34
2,4,6-Trichlorophenol	< 320	ug/Kg		8/4/2020 12:34
2,4-Dichlorophenol	< 320	ug/Kg		8/4/2020 12:34
2,4-Dimethylphenol	< 320	ug/Kg		8/4/2020 12:34
2,4-Dinitrophenol	< 1280	ug/Kg		8/4/2020 12:34
2,4-Dinitrotoluene	< 320	ug/Kg		8/4/2020 12:34
2,6-Dinitrotoluene	< 320	ug/Kg		8/4/2020 12:34
2-Chloronaphthalene	< 320	ug/Kg		8/4/2020 12:34
2-Chlorophenol	< 320	ug/Kg		8/4/2020 12:34
2-Methylnaphthalene	< 320	ug/Kg		8/4/2020 12:34
2-Methylphenol	< 320	ug/Kg		8/4/2020 12:34
2-Nitroaniline	< 320	ug/Kg		8/4/2020 12:34
2-Nitrophenol	< 320	ug/Kg		8/4/2020 12:34
3&4-Methylphenol	< 320	ug/Kg		8/4/2020 12:34
3,3'-Dichlorobenzidine	< 320	ug/Kg		8/4/2020 12:34

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier:	CF2		
Lab Sample ID:	203556-02	Date Sampled:	7/30/2020
Matrix:	Soil	Date Received:	7/30/2020
3-Nitroaniline	< 320	ug/Kg	8/4/2020 12:34
4,6-Dinitro-2-methylphenol	< 639	ug/Kg	8/4/2020 12:34
4-Bromophenyl phenyl ether	< 320	ug/Kg	8/4/2020 12:34
4-Chloro-3-methylphenol	< 320	ug/Kg	8/4/2020 12:34
4-Chloroaniline	< 320	ug/Kg	8/4/2020 12:34
4-Chlorophenyl phenyl ether	< 320	ug/Kg	8/4/2020 12:34
4-Nitroaniline	< 320	ug/Kg	8/4/2020 12:34
4-Nitrophenol	< 320	ug/Kg	8/4/2020 12:34
Acenaphthene	< 320	ug/Kg	8/4/2020 12:34
Acenaphthylene	< 320	ug/Kg	8/4/2020 12:34
Acetophenone	< 320	ug/Kg	8/4/2020 12:34
Anthracene	< 320	ug/Kg	8/4/2020 12:34
Atrazine	< 320	ug/Kg	8/4/2020 12:34
Benzaldehyde	< 320	ug/Kg	8/4/2020 12:34
Benzo (a) anthracene	386	ug/Kg	8/4/2020 12:34
Benzo (a) pyrene	486	ug/Kg	8/4/2020 12:34
Benzo (b) fluoranthene	607	ug/Kg	8/4/2020 12:34
Benzo (g,h,i) perylene	410	ug/Kg	8/4/2020 12:34
Benzo (k) fluoranthene	373	ug/Kg	8/4/2020 12:34
Bis (2-chloroethoxy) methane	< 320	ug/Kg	8/4/2020 12:34
Bis (2-chloroethyl) ether	< 320	ug/Kg	8/4/2020 12:34
Bis (2-ethylhexyl) phthalate	< 320	ug/Kg	8/4/2020 12:34
Butylbenzylphthalate	< 320	ug/Kg	8/4/2020 12:34
Caprolactam	< 320	ug/Kg	8/4/2020 12:34
Carbazole	< 320	ug/Kg	8/4/2020 12:34

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier:	CF2		
Lab Sample ID:	203556-02	Date Sampled:	7/30/2020
Matrix:	Soil	Date Received:	7/30/2020
Chrysene	508	ug/Kg	8/4/2020 12:34
Dibenz (a,h) anthracene	< 320	ug/Kg	8/4/2020 12:34
Dibenzofuran	< 320	ug/Kg	8/4/2020 12:34
Diethyl phthalate	< 320	ug/Kg	8/4/2020 12:34
Dimethyl phthalate	< 320	ug/Kg	8/4/2020 12:34
Di-n-butyl phthalate	< 320	ug/Kg	8/4/2020 12:34
Di-n-octylphthalate	< 320	ug/Kg	8/4/2020 12:34
Fluoranthene	944	ug/Kg	8/4/2020 12:34
Fluorene	< 320	ug/Kg	8/4/2020 12:34
Hexachlorobenzene	< 320	ug/Kg	8/4/2020 12:34
Hexachlorobutadiene	< 320	ug/Kg	8/4/2020 12:34
Hexachlorocyclopentadiene	< 1280	ug/Kg	8/4/2020 12:34
Hexachloroethane	< 320	ug/Kg	8/4/2020 12:34
Indeno (1,2,3-cd) pyrene	336	ug/Kg	8/4/2020 12:34
Isophorone	< 320	ug/Kg	8/4/2020 12:34
Naphthalene	< 320	ug/Kg	8/4/2020 12:34
Nitrobenzene	< 320	ug/Kg	8/4/2020 12:34
N-Nitroso-di-n-propylamine	< 320	ug/Kg	8/4/2020 12:34
N-Nitrosodiphenylamine	< 320	ug/Kg	8/4/2020 12:34
Pentachlorophenol	< 639	ug/Kg	8/4/2020 12:34
Phenanthrene	312	ug/Kg	J 8/4/2020 12:34
Phenol	< 320	ug/Kg	8/4/2020 12:34
Pyrene	735	ug/Kg	8/4/2020 12:34

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier: CF2

Lab Sample ID: 203556-02

Date Sampled: 7/30/2020

Matrix: Soil

Date Received: 7/30/2020

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	59.4	37.8 - 85.8		8/4/2020 12:34
2-Fluorobiphenyl	57.3	40.4 - 80.4		8/4/2020 12:34
2-Fluorophenol	55.4	38.8 - 77.4		8/4/2020 12:34
Nitrobenzene-d5	55.0	37.4 - 75.9		8/4/2020 12:34
Phenol-d5	61.5	40.4 - 78		8/4/2020 12:34
Terphenyl-d14	54.1	40.2 - 90		8/4/2020 12:34

Method Reference(s): EPA 8270D

EPA 3546

Preparation Date: 8/3/2020

Data File: B48366.D

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier: CF VOC 1

Lab Sample ID: 203556-03

Matrix: Soil

Date Sampled: 7/30/2020

Date Received: 7/30/2020

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 3.92	ug/Kg		8/7/2020 19:50
1,1,2,2-Tetrachloroethane	< 3.92	ug/Kg		8/7/2020 19:50
1,1,2-Trichloroethane	< 3.92	ug/Kg		8/7/2020 19:50
1,1-Dichloroethane	< 3.92	ug/Kg		8/7/2020 19:50
1,1-Dichloroethene	< 3.92	ug/Kg		8/7/2020 19:50
1,2,3-Trichlorobenzene	< 9.79	ug/Kg		8/7/2020 19:50
1,2,4-Trichlorobenzene	< 9.79	ug/Kg		8/7/2020 19:50
1,2,4-Trimethylbenzene	< 3.92	ug/Kg		8/7/2020 19:50
1,2-Dibromo-3-Chloropropane	< 19.6	ug/Kg		8/7/2020 19:50
1,2-Dibromoethane	< 3.92	ug/Kg		8/7/2020 19:50
1,2-Dichlorobenzene	< 3.92	ug/Kg		8/7/2020 19:50
1,2-Dichloroethane	< 3.92	ug/Kg		8/7/2020 19:50
1,2-Dichloropropane	< 3.92	ug/Kg		8/7/2020 19:50
1,3,5-Trimethylbenzene	< 3.92	ug/Kg		8/7/2020 19:50
1,3-Dichlorobenzene	< 3.92	ug/Kg		8/7/2020 19:50
1,4-Dichlorobenzene	< 3.92	ug/Kg		8/7/2020 19:50
1,4-Dioxane	< 39.2	ug/Kg		8/7/2020 19:50
2-Butanone	< 19.6	ug/Kg		8/7/2020 19:50
2-Hexanone	< 9.79	ug/Kg		8/7/2020 19:50
4-Methyl-2-pentanone	< 9.79	ug/Kg		8/7/2020 19:50
Acetone	< 19.6	ug/Kg		8/7/2020 19:50
Benzene	< 3.92	ug/Kg		8/7/2020 19:50
Bromochloromethane	< 9.79	ug/Kg		8/7/2020 19:50

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier:	CF VOC 1			
Lab Sample ID:	203556-03		Date Sampled:	7/30/2020
Matrix:	Soil		Date Received:	7/30/2020
Bromodichloromethane	< 3.92	ug/Kg	8/7/2020	19:50
Bromoform	< 9.79	ug/Kg	8/7/2020	19:50
Bromomethane	< 3.92	ug/Kg	8/7/2020	19:50
Carbon disulfide	< 3.92	ug/Kg	8/7/2020	19:50
Carbon Tetrachloride	< 3.92	ug/Kg	8/7/2020	19:50
Chlorobenzene	< 3.92	ug/Kg	8/7/2020	19:50
Chloroethane	< 3.92	ug/Kg	8/7/2020	19:50
Chloroform	< 3.92	ug/Kg	8/7/2020	19:50
Chloromethane	< 3.92	ug/Kg	8/7/2020	19:50
cis-1,2-Dichloroethene	< 3.92	ug/Kg	8/7/2020	19:50
cis-1,3-Dichloropropene	< 3.92	ug/Kg	8/7/2020	19:50
Cyclohexane	< 19.6	ug/Kg	8/7/2020	19:50
Dibromochloromethane	< 3.92	ug/Kg	8/7/2020	19:50
Dichlorodifluoromethane	< 3.92	ug/Kg	8/7/2020	19:50
Ethylbenzene	< 3.92	ug/Kg	8/7/2020	19:50
Freon 113	< 3.92	ug/Kg	8/7/2020	19:50
Isopropylbenzene	< 3.92	ug/Kg	8/7/2020	19:50
m,p-Xylene	< 3.92	ug/Kg	8/7/2020	19:50
Methyl acetate	< 3.92	ug/Kg	8/7/2020	19:50
Methyl tert-butyl Ether	< 3.92	ug/Kg	8/7/2020	19:50
Methylcyclohexane	< 3.92	ug/Kg	8/7/2020	19:50
Methylene chloride	< 9.79	ug/Kg	8/7/2020	19:50
Naphthalene	< 9.79	ug/Kg	8/7/2020	19:50
n-Butylbenzene	< 3.92	ug/Kg	8/7/2020	19:50
n-Propylbenzene	< 3.92	ug/Kg	8/7/2020	19:50

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier:	CF VOC 1				
Lab Sample ID:	203556-03			Date Sampled:	7/30/2020
Matrix:	Soil			Date Received:	7/30/2020
o-Xylene	< 3.92	ug/Kg		8/7/2020	19:50
p-Isopropyltoluene	< 3.92	ug/Kg		8/7/2020	19:50
sec-Butylbenzene	< 3.92	ug/Kg		8/7/2020	19:50
Styrene	< 9.79	ug/Kg		8/7/2020	19:50
tert-Butylbenzene	< 3.92	ug/Kg		8/7/2020	19:50
Tetrachloroethene	< 3.92	ug/Kg		8/7/2020	19:50
Toluene	< 3.92	ug/Kg		8/7/2020	19:50
trans-1,2-Dichloroethene	< 3.92	ug/Kg		8/7/2020	19:50
trans-1,3-Dichloropropene	< 3.92	ug/Kg		8/7/2020	19:50
Trichloroethene	< 3.92	ug/Kg		8/7/2020	19:50
Trichlorofluoromethane	< 3.92	ug/Kg		8/7/2020	19:50
Vinyl chloride	< 3.92	ug/Kg		8/7/2020	19:50
Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	119	75 - 134		8/7/2020	19:50
4-Bromofluorobenzene	58.6	59.5 - 129	*	8/7/2020	19:50
Pentafluorobenzene	98.0	88.8 - 118		8/7/2020	19:50
Toluene-D8	81.0	84 - 114	*	8/7/2020	19:50

Internal standard outliers indicate probable matrix interference

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x72387.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.

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier: CF VOC 2

Lab Sample ID: 203556-04

Matrix: Soil

Date Sampled: 7/30/2020

Date Received: 7/30/2020

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.05	ug/Kg		8/7/2020 20:12
1,1,2,2-Tetrachloroethane	< 4.05	ug/Kg		8/7/2020 20:12
1,1,2-Trichloroethane	< 4.05	ug/Kg		8/7/2020 20:12
1,1-Dichloroethane	< 4.05	ug/Kg		8/7/2020 20:12
1,1-Dichloroethene	< 4.05	ug/Kg		8/7/2020 20:12
1,2,3-Trichlorobenzene	< 10.1	ug/Kg		8/7/2020 20:12
1,2,4-Trichlorobenzene	< 10.1	ug/Kg		8/7/2020 20:12
1,2,4-Trimethylbenzene	< 4.05	ug/Kg		8/7/2020 20:12
1,2-Dibromo-3-Chloropropane	< 20.3	ug/Kg		8/7/2020 20:12
1,2-Dibromoethane	< 4.05	ug/Kg		8/7/2020 20:12
1,2-Dichlorobenzene	< 4.05	ug/Kg		8/7/2020 20:12
1,2-Dichloroethane	< 4.05	ug/Kg		8/7/2020 20:12
1,2-Dichloropropane	< 4.05	ug/Kg		8/7/2020 20:12
1,3,5-Trimethylbenzene	< 4.05	ug/Kg		8/7/2020 20:12
1,3-Dichlorobenzene	< 4.05	ug/Kg		8/7/2020 20:12
1,4-Dichlorobenzene	< 4.05	ug/Kg		8/7/2020 20:12
1,4-Dioxane	< 40.5	ug/Kg		8/7/2020 20:12
2-Butanone	< 20.3	ug/Kg		8/7/2020 20:12
2-Hexanone	< 10.1	ug/Kg		8/7/2020 20:12
4-Methyl-2-pentanone	< 10.1	ug/Kg		8/7/2020 20:12
Acetone	< 20.3	ug/Kg		8/7/2020 20:12
Benzene	< 4.05	ug/Kg		8/7/2020 20:12
Bromochloromethane	< 10.1	ug/Kg		8/7/2020 20:12

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier:	CF VOC 2			
Lab Sample ID:	203556-04		Date Sampled:	7/30/2020
Matrix:	Soil		Date Received:	7/30/2020
Bromodichloromethane	< 4.05	ug/Kg		8/7/2020 20:12
Bromoform	< 10.1	ug/Kg		8/7/2020 20:12
Bromomethane	< 4.05	ug/Kg		8/7/2020 20:12
Carbon disulfide	< 4.05	ug/Kg		8/7/2020 20:12
Carbon Tetrachloride	< 4.05	ug/Kg		8/7/2020 20:12
Chlorobenzene	< 4.05	ug/Kg		8/7/2020 20:12
Chloroethane	< 4.05	ug/Kg		8/7/2020 20:12
Chloroform	< 4.05	ug/Kg		8/7/2020 20:12
Chloromethane	< 4.05	ug/Kg		8/7/2020 20:12
cis-1,2-Dichloroethene	< 4.05	ug/Kg		8/7/2020 20:12
cis-1,3-Dichloropropene	< 4.05	ug/Kg		8/7/2020 20:12
Cyclohexane	< 20.3	ug/Kg		8/7/2020 20:12
Dibromochloromethane	< 4.05	ug/Kg		8/7/2020 20:12
Dichlorodifluoromethane	< 4.05	ug/Kg		8/7/2020 20:12
Ethylbenzene	< 4.05	ug/Kg		8/7/2020 20:12
Freon 113	< 4.05	ug/Kg		8/7/2020 20:12
Isopropylbenzene	< 4.05	ug/Kg		8/7/2020 20:12
m,p-Xylene	2.13	ug/Kg	J	8/7/2020 20:12
Methyl acetate	< 4.05	ug/Kg		8/7/2020 20:12
Methyl tert-butyl Ether	< 4.05	ug/Kg		8/7/2020 20:12
Methylcyclohexane	< 4.05	ug/Kg		8/7/2020 20:12
Methylene chloride	< 10.1	ug/Kg		8/7/2020 20:12
Naphthalene	< 10.1	ug/Kg		8/7/2020 20:12
n-Butylbenzene	< 4.05	ug/Kg		8/7/2020 20:12
n-Propylbenzene	< 4.05	ug/Kg		8/7/2020 20:12

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier:	CF VOC 2			Date Sampled:	7/30/2020
Lab Sample ID:	203556-04			Date Received:	7/30/2020
Matrix:	Soil				
o-Xylene	< 4.05	ug/Kg		8/7/2020	20:12
p-Isopropyltoluene	< 4.05	ug/Kg		8/7/2020	20:12
sec-Butylbenzene	< 4.05	ug/Kg		8/7/2020	20:12
Styrene	< 10.1	ug/Kg		8/7/2020	20:12
tert-Butylbenzene	< 4.05	ug/Kg		8/7/2020	20:12
Tetrachloroethene	< 4.05	ug/Kg		8/7/2020	20:12
Toluene	< 4.05	ug/Kg		8/7/2020	20:12
trans-1,2-Dichloroethene	< 4.05	ug/Kg		8/7/2020	20:12
trans-1,3-Dichloropropene	< 4.05	ug/Kg		8/7/2020	20:12
Trichloroethene	< 4.05	ug/Kg		8/7/2020	20:12
Trichlorofluoromethane	< 4.05	ug/Kg		8/7/2020	20:12
Vinyl chloride	< 4.05	ug/Kg		8/7/2020	20:12
Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	120	75 - 134		8/7/2020	20:12
4-Bromofluorobenzene	58.2	59.5 - 129	*	8/7/2020	20:12
Pentafluorobenzene	99.8	88.8 - 118		8/7/2020	20:12
Toluene-D8	83.1	84 - 114	*	8/7/2020	20:12

Internal standard outliers indicate probable matrix interference

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x72388.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.

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier: CF VOC 3

Lab Sample ID: 203556-05

Matrix: Soil

Date Sampled: 7/30/2020

Date Received: 7/30/2020

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.49	ug/Kg		8/7/2020 20:34
1,1,2,2-Tetrachloroethane	< 4.49	ug/Kg		8/7/2020 20:34
1,1,2-Trichloroethane	< 4.49	ug/Kg		8/7/2020 20:34
1,1-Dichloroethane	< 4.49	ug/Kg		8/7/2020 20:34
1,1-Dichloroethene	< 4.49	ug/Kg		8/7/2020 20:34
1,2,3-Trichlorobenzene	< 11.2	ug/Kg		8/7/2020 20:34
1,2,4-Trichlorobenzene	< 11.2	ug/Kg		8/7/2020 20:34
1,2,4-Trimethylbenzene	< 4.49	ug/Kg		8/7/2020 20:34
1,2-Dibromo-3-Chloropropane	< 22.4	ug/Kg		8/7/2020 20:34
1,2-Dibromoethane	< 4.49	ug/Kg		8/7/2020 20:34
1,2-Dichlorobenzene	< 4.49	ug/Kg		8/7/2020 20:34
1,2-Dichloroethane	< 4.49	ug/Kg		8/7/2020 20:34
1,2-Dichloropropane	< 4.49	ug/Kg		8/7/2020 20:34
1,3,5-Trimethylbenzene	< 4.49	ug/Kg		8/7/2020 20:34
1,3-Dichlorobenzene	< 4.49	ug/Kg		8/7/2020 20:34
1,4-Dichlorobenzene	< 4.49	ug/Kg		8/7/2020 20:34
1,4-Dioxane	< 44.9	ug/Kg		8/7/2020 20:34
2-Butanone	< 22.4	ug/Kg		8/7/2020 20:34
2-Hexanone	< 11.2	ug/Kg		8/7/2020 20:34
4-Methyl-2-pentanone	< 11.2	ug/Kg		8/7/2020 20:34
Acetone	< 22.4	ug/Kg		8/7/2020 20:34
Benzene	< 4.49	ug/Kg		8/7/2020 20:34
Bromochloromethane	< 11.2	ug/Kg		8/7/2020 20:34

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier:	CF VOC 3		
Lab Sample ID:	203556-05	Date Sampled:	7/30/2020
Matrix:	Soil	Date Received:	7/30/2020
Bromodichloromethane	< 4.49	ug/Kg	8/7/2020 20:34
Bromoform	< 11.2	ug/Kg	8/7/2020 20:34
Bromomethane	< 4.49	ug/Kg	8/7/2020 20:34
Carbon disulfide	< 4.49	ug/Kg	8/7/2020 20:34
Carbon Tetrachloride	< 4.49	ug/Kg	8/7/2020 20:34
Chlorobenzene	< 4.49	ug/Kg	8/7/2020 20:34
Chloroethane	< 4.49	ug/Kg	8/7/2020 20:34
Chloroform	< 4.49	ug/Kg	8/7/2020 20:34
Chloromethane	< 4.49	ug/Kg	8/7/2020 20:34
cis-1,2-Dichloroethene	< 4.49	ug/Kg	8/7/2020 20:34
cis-1,3-Dichloropropene	< 4.49	ug/Kg	8/7/2020 20:34
Cyclohexane	< 22.4	ug/Kg	8/7/2020 20:34
Dibromochloromethane	< 4.49	ug/Kg	8/7/2020 20:34
Dichlorodifluoromethane	< 4.49	ug/Kg	8/7/2020 20:34
Ethylbenzene	< 4.49	ug/Kg	8/7/2020 20:34
Freon 113	< 4.49	ug/Kg	8/7/2020 20:34
Isopropylbenzene	< 4.49	ug/Kg	8/7/2020 20:34
m,p-Xylene	< 4.49	ug/Kg	8/7/2020 20:34
Methyl acetate	< 4.49	ug/Kg	8/7/2020 20:34
Methyl tert-butyl Ether	< 4.49	ug/Kg	8/7/2020 20:34
Methylcyclohexane	< 4.49	ug/Kg	8/7/2020 20:34
Methylene chloride	< 11.2	ug/Kg	8/7/2020 20:34
Naphthalene	< 11.2	ug/Kg	8/7/2020 20:34
n-Butylbenzene	< 4.49	ug/Kg	8/7/2020 20:34
n-Propylbenzene	< 4.49	ug/Kg	8/7/2020 20:34

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier:	CF VOC 3			Date Sampled:	7/30/2020
Lab Sample ID:	203556-05			Date Received:	7/30/2020
Matrix:	Soil				
o-Xylene	< 4.49	ug/Kg		8/7/2020	20:34
p-Isopropyltoluene	< 4.49	ug/Kg		8/7/2020	20:34
sec-Butylbenzene	< 4.49	ug/Kg		8/7/2020	20:34
Styrene	< 11.2	ug/Kg		8/7/2020	20:34
tert-Butylbenzene	< 4.49	ug/Kg		8/7/2020	20:34
Tetrachloroethene	< 4.49	ug/Kg		8/7/2020	20:34
Toluene	< 4.49	ug/Kg		8/7/2020	20:34
trans-1,2-Dichloroethene	< 4.49	ug/Kg		8/7/2020	20:34
trans-1,3-Dichloropropene	< 4.49	ug/Kg		8/7/2020	20:34
Trichloroethene	< 4.49	ug/Kg		8/7/2020	20:34
Trichlorofluoromethane	< 4.49	ug/Kg		8/7/2020	20:34
Vinyl chloride	< 4.49	ug/Kg		8/7/2020	20:34
Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	119	75 - 134		8/7/2020	20:34
4-Bromofluorobenzene	59.8	59.5 - 129		8/7/2020	20:34
Pentafluorobenzene	98.6	88.8 - 118		8/7/2020	20:34
Toluene-D8	79.7	84 - 114	*	8/7/2020	20:34

Internal standard outliers indicate probable matrix interference

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x72389.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.

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier: CF VOC 4

Lab Sample ID: 203556-06

Matrix: Soil

Date Sampled: 7/30/2020

Date Received: 7/30/2020

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.40	ug/Kg		8/7/2020 20:56
1,1,2,2-Tetrachloroethane	< 4.40	ug/Kg		8/7/2020 20:56
1,1,2-Trichloroethane	< 4.40	ug/Kg		8/7/2020 20:56
1,1-Dichloroethane	< 4.40	ug/Kg		8/7/2020 20:56
1,1-Dichloroethene	< 4.40	ug/Kg		8/7/2020 20:56
1,2,3-Trichlorobenzene	< 11.0	ug/Kg		8/7/2020 20:56
1,2,4-Trichlorobenzene	< 11.0	ug/Kg		8/7/2020 20:56
1,2,4-Trimethylbenzene	< 4.40	ug/Kg		8/7/2020 20:56
1,2-Dibromo-3-Chloropropane	< 22.0	ug/Kg		8/7/2020 20:56
1,2-Dibromoethane	< 4.40	ug/Kg		8/7/2020 20:56
1,2-Dichlorobenzene	< 4.40	ug/Kg		8/7/2020 20:56
1,2-Dichloroethane	< 4.40	ug/Kg		8/7/2020 20:56
1,2-Dichloropropane	< 4.40	ug/Kg		8/7/2020 20:56
1,3,5-Trimethylbenzene	< 4.40	ug/Kg		8/7/2020 20:56
1,3-Dichlorobenzene	< 4.40	ug/Kg		8/7/2020 20:56
1,4-Dichlorobenzene	< 4.40	ug/Kg		8/7/2020 20:56
1,4-Dioxane	< 44.0	ug/Kg		8/7/2020 20:56
2-Butanone	< 22.0	ug/Kg		8/7/2020 20:56
2-Hexanone	< 11.0	ug/Kg		8/7/2020 20:56
4-Methyl-2-pentanone	< 11.0	ug/Kg		8/7/2020 20:56
Acetone	< 22.0	ug/Kg		8/7/2020 20:56
Benzene	< 4.40	ug/Kg		8/7/2020 20:56
Bromochloromethane	< 11.0	ug/Kg		8/7/2020 20:56

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier:	CF VOC 4			
Lab Sample ID:	203556-06		Date Sampled:	7/30/2020
Matrix:	Soil		Date Received:	7/30/2020
Bromodichloromethane	< 4.40	ug/Kg		8/7/2020 20:56
Bromoform	< 11.0	ug/Kg		8/7/2020 20:56
Bromomethane	< 4.40	ug/Kg		8/7/2020 20:56
Carbon disulfide	< 4.40	ug/Kg		8/7/2020 20:56
Carbon Tetrachloride	< 4.40	ug/Kg		8/7/2020 20:56
Chlorobenzene	< 4.40	ug/Kg		8/7/2020 20:56
Chloroethane	< 4.40	ug/Kg		8/7/2020 20:56
Chloroform	< 4.40	ug/Kg		8/7/2020 20:56
Chloromethane	< 4.40	ug/Kg		8/7/2020 20:56
cis-1,2-Dichloroethene	< 4.40	ug/Kg		8/7/2020 20:56
cis-1,3-Dichloropropene	< 4.40	ug/Kg		8/7/2020 20:56
Cyclohexane	< 22.0	ug/Kg		8/7/2020 20:56
Dibromochloromethane	< 4.40	ug/Kg		8/7/2020 20:56
Dichlorodifluoromethane	< 4.40	ug/Kg		8/7/2020 20:56
Ethylbenzene	< 4.40	ug/Kg		8/7/2020 20:56
Freon 113	< 4.40	ug/Kg		8/7/2020 20:56
Isopropylbenzene	< 4.40	ug/Kg		8/7/2020 20:56
m,p-Xylene	2.40	ug/Kg	J	8/7/2020 20:56
Methyl acetate	< 4.40	ug/Kg		8/7/2020 20:56
Methyl tert-butyl Ether	< 4.40	ug/Kg		8/7/2020 20:56
Methylcyclohexane	< 4.40	ug/Kg		8/7/2020 20:56
Methylene chloride	< 11.0	ug/Kg		8/7/2020 20:56
Naphthalene	< 11.0	ug/Kg		8/7/2020 20:56
n-Butylbenzene	< 4.40	ug/Kg		8/7/2020 20:56
n-Propylbenzene	< 4.40	ug/Kg		8/7/2020 20:56

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.

Report Prepared Wednesday, August 19, 2020



Lab Project ID: 203556

Client: **BE3**

Project Reference: 31/150 Tonawanda Clean Fill

Sample Identifier:	CF VOC 4			Date Sampled:	7/30/2020
Lab Sample ID:	203556-06			Date Received:	7/30/2020
Matrix:	Soil				
o-Xylene	< 4.40	ug/Kg		8/7/2020	20:56
p-Isopropyltoluene	< 4.40	ug/Kg		8/7/2020	20:56
sec-Butylbenzene	< 4.40	ug/Kg		8/7/2020	20:56
Styrene	< 11.0	ug/Kg		8/7/2020	20:56
tert-Butylbenzene	< 4.40	ug/Kg		8/7/2020	20:56
Tetrachloroethene	< 4.40	ug/Kg		8/7/2020	20:56
Toluene	< 4.40	ug/Kg		8/7/2020	20:56
trans-1,2-Dichloroethene	< 4.40	ug/Kg		8/7/2020	20:56
trans-1,3-Dichloropropene	< 4.40	ug/Kg		8/7/2020	20:56
Trichloroethene	< 4.40	ug/Kg		8/7/2020	20:56
Trichlorofluoromethane	< 4.40	ug/Kg		8/7/2020	20:56
Vinyl chloride	< 4.40	ug/Kg		8/7/2020	20:56
Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	119	75 - 134		8/7/2020	20:56
4-Bromofluorobenzene	58.8	59.5 - 129	*	8/7/2020	20:56
Pentafluorobenzene	96.5	88.8 - 118		8/7/2020	20:56
Toluene-D8	81.2	84 - 114	*	8/7/2020	20:56

Internal standard outliers indicate probable matrix interference

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x72390.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.

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.

Report Prepared Wednesday, August 19, 2020



Analytical Report Appendix

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

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

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.

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.

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, term 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 will 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 the 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.

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.



CHAIN OF CUSTODY

PARADIGM ENVIRONMENTAL SERVICES, INC.				REPORT TO:		INVOICE TO:										
				CLIENT:	BE3		CLIENT:									
				ADDRESS:	960 BUSTI SUITE 150-B		ADDRESS:									
				CITY:	BUFFALO	STATE:	N.Y.	ZIP:	14213							
				PHONE:	716-308-8220		PHONE:									
				ATTN:	PETE GORTON		ATTN:									
PROJECT REFERENCE 31/150 TONAWANDA CLEAN FILL				LAB PROJECT ID 203556												
				Quotation #:												
				Email:												
				Matrix Codes:												
				AQ - Aqueous Liquid	WA - Water	DW - Drinking Water	SO - Soil	SD - Solid	WP - Wipe	OL - Oil						
				NQ - Non-Aqueous Liquid	WG - Groundwater	WW - Wastewater	SL - Sludge	PT - Paint	CK - Caulk	AR - Air						
REQUESTED ANALYSIS																
DATE COLLECTED	TIME COLLECTED	COMPOSITE	G R A B	SAMPLE IDENTIFIER	MAT R I X	C O N T A I N E R S	375 Metals	375 VOCs	375 PCBs	375 PAHs	SEMI METALS	HEXACHLOROCYCLOPENTADIENE	P K A S	375 VOCs	REMARKS	PARADIGM LAB SAMPLE NUMBER
7-30-20	1210	X		CF1	SO	4	X	X	X	X	X	X	X			01
				CF2		4	X	X	X	X	X	X	X			02
				CF VOC 1		1								X		03
				CF VOC 2		1								X		04
				CF VOC 3		1								X		05
				CF VOC 4		1								X		06
per visual no 7/30/2020																
CF = CLEAN FILL																
no visible materials included																

Turnaround Time		Report Supplements	
Availability contingent upon lab approval; additional fees may apply.			
Standard 5 day	<input type="checkbox"/>	None Required	<input type="checkbox"/> None Required <input type="checkbox"/>
10 day	<input checked="" type="checkbox"/>	Batch QC	<input type="checkbox"/> Basic EDD <input type="checkbox"/>
Rush 3 day	<input type="checkbox"/>	Category A	<input type="checkbox"/> NYSDEC EDD <input checked="" type="checkbox"/>
Rush 2 day	<input type="checkbox"/>	Category B	<input checked="" type="checkbox"/>
Rush 1 day	<input type="checkbox"/>		
Date Needed _____		Other <input type="checkbox"/>	Other EDD <input type="checkbox"/>
<small>please indicate date needed:</small>		<small>please indicate package needed:</small>	<small>please indicate EDD needed :</small>
NOTE: FASTER THU 11-11-2010		_____	_____

Sampled By <u>A. E. Gorton</u>		Date/Time <u>7-30-20 1710</u>	Total Cost: <u>N/A custody seals already delivered</u>
Relinquished By <u>Poly Gorton</u>		Date/Time <u>7-30-20</u>	
Received By <u>Brian Zund</u>		Date/Time <u>7/30/20 3:15</u>	P.I.F. <input type="checkbox"/>
Received @ Lab By <u>Molyvail</u>		Date/Time <u>7/30/2020 1728</u>	<input type="checkbox"/>

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

See additional page for sample conditions.

2082



Chain of Custody Supplement

Client: BE3 Completed by: molyrail
 Lab Project ID: 203556 Date: 7/3/2020

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	<input checked="" type="checkbox"/>	<input type="checkbox"/> 5035	<input type="checkbox"/>
Comments			
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Preservation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> met
Comments	20°C iced started in field		
Compliant Sample Quantity/Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			

Adirondack Environmental Services, Inc**Date:** 05-Aug-20

CLIENT: Paradigm Environmental
Work Order: 200731035
Reference: Sample Analysis / Project# : 203556
PO#:

Client Sample ID: CF1
Collection Date: 7/30/2020 12:10:00 PM
Lab Sample ID: 200731035-001
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
CHLORINATED HERBICIDES - EPA 8321B						Analyst: KF
(Prep: SW3545A - 7/31/2020)						
2,4,5-TP (Silvex)	ND	358		µg/Kg-dry	1	8/3/2020 4:20:34 PM
Surr: Acifluorfen	135	51.2-145		%REC	1	8/3/2020 4:20:34 PM
MERCURY - SW 7471B						Analyst: AVB
(Prep: SW7471B - 8/3/2020)						
Mercury	ND	0.238		µg/g-dry	1	8/3/2020 3:18:07 PM
HEXAVALENT CHROMIUM - SW 7196A (3060A)						Analyst: JW
(Prep: SW3060A - 8/3/2020)						
Chromium, Hexavalent	ND	1.2		µg/g-dry	1	8/3/2020 3:40:00 PM
MOISTURE CONTENT-ASTM D2216 (NOT ELAP CERTIFIED)						Analyst: TSZ
Percent Moisture	16.1	0.1		wt%	1	8/4/2020

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
X - Value exceeds Maximum Contaminant Level
E - Value above quantitation range-Estimate

S - LCS Spike below accepted limits (+ above)
Z - RPD outside accepted recovery limits
N - Matrix Spike below accepted limits (+ above)
T - Tentatively Identified Compound-Estimated Conc.

Adirondack Environmental Services, Inc**Date:** 05-Aug-20

CLIENT: Paradigm Environmental
Work Order: 200731035
Reference: Sample Analysis / Project# : 203556
PO#:

Client Sample ID: CF2
Collection Date: 7/30/2020 12:10:00 PM
Lab Sample ID: 200731035-002
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
CHLORINATED HERBICIDES - EPA 8321B						Analyst: KF
(Prep: SW3545A - 7/31/2020)						
2,4,5-TP (Silvex)	ND	361		µg/Kg-dry	1	8/3/2020 4:42:11 PM
Surr: Acifluorfen	160	51.2-145	S	%REC	1	8/3/2020 4:42:11 PM
MERCURY - SW 7471B						Analyst: AVB
(Prep: SW7471B - 8/3/2020)						
Mercury	0.095	0.241	J	µg/g-dry	1	8/3/2020 3:23:11 PM
HEXAVALENT CHROMIUM - SW 7196A (3060A)						Analyst: JW
(Prep: SW3060A - 8/3/2020)						
Chromium, Hexavalent	ND	1.2		µg/g-dry	1	8/3/2020 3:40:00 PM
MOISTURE CONTENT-ASTM D2216 (NOT ELAP CERTIFIED)						Analyst: TSZ
Percent Moisture	17.0	0.1		wt%	1	8/4/2020

Qualifiers:	ND - Not Detected at the Reporting Limit J - Analyte detected below quantitation limits B - Analyte detected in the associated Method Blank X - Value exceeds Maximum Contaminant Level E - Value above quantitation range-Estimate	S - LCS Spike below accepted limits (+ above) Z - RPD outside accepted recovery limits N - Matrix Spike below accepted limits (+ above) T - Tentatively Identified Compound-Estimated Conc.
--------------------	---	--



200731035

CHAIN OF CUSTODY

ADIRONDACK: ELAP ID:

REPORT TO:		INVOICE TO:		NEC	
COMPANY:	Paradigm Environmental	COMPANY:	Same	LAB PROJECT #:	CLIENT PROJ:
ADDRESS:		ADDRESS:			
CITY:	STATE: ZIP:	CITY:	STATE: ZIP:	TURNAROUND TIME: (WORKING DAYS)	
PHONE:	FAX:	PHONE:	FAX:		
PROJECT NAME/SITE NAME:	ATTN: Reporting	ATTN: Accounts Payable	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input checked="" type="checkbox"/> 5		
COMMENTS: Please email results to reporting@paradigmenv.com			Date Due: 8/7/2020 STD		

REQUESTED ANALYSIS

DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	CONTAINER	ANALYSIS	REMARKS	PARADIGM SAMPLE NUMBER
11/30/2020	12:10			CF-1	soil	1	silver	report J Flagg	203556-01
2				CF-2	soil	1	Hex Cr	ASPCat B Package Due 8/1	-02
3								report as Dry WT	
4									
5									
6									
7									
8									
9									
10									

****LAB USE ONLY BELOW THIS LINE****

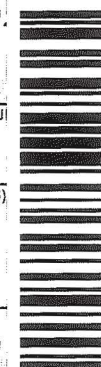
Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance
Container Type:	Y <input type="checkbox"/> N <input type="checkbox"/>
Comments:	
Preservation:	Y <input type="checkbox"/> N <input type="checkbox"/>
Comments:	
Holding Time:	Y <input type="checkbox"/> N <input type="checkbox"/>
Comments:	
Temperature: 3°C	Y <input type="checkbox"/> N <input type="checkbox"/>
Comments:	

Client	
Sampled By	Date/Time
Molly Vail	7/31/2020 0830
Relinquished By	Date/Time
Received By	Date/Time
King	7/31/20 449pm
Received @ Lab By	Date/Time

Total Cost:

P.I.F.



200731035



PARADIGM
ENVIRONMENTAL SERVICES, INC.

Analytical Report For

BE3

For Lab Project ID

203480

Referencing

150 Tonawanda

Prepared

Wednesday, August 5, 2020

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

A handwritten signature in blue ink, appearing to read "R. R. D.", is written over a horizontal line.

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

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.

Page 1 of 11

Report Prepared Wednesday, August 5, 2020



Lab Project ID: 203480

Client: **BE3**

Project Reference: 150 Tonawanda

Sample Identifier: WD-1

Lab Sample ID: 203480-01

Date Sampled: 7/27/2020

Matrix: Soil

Date Received: 7/28/2020

Ignitability

Analyte	Result	Units	Qualifier	Date Analyzed
Ignitability	No Burn	mm / sec		7/30/2020

Method Reference(s): EPA 1030

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.151	mg/Kg		7/29/2020 17:46
PCB-1221	< 0.151	mg/Kg		7/29/2020 17:46
PCB-1232	< 0.151	mg/Kg		7/29/2020 17:46
PCB-1242	< 0.151	mg/Kg		7/29/2020 17:46
PCB-1248	< 0.151	mg/Kg		7/29/2020 17:46
PCB-1254	< 0.151	mg/Kg		7/29/2020 17:46
PCB-1260	0.168	mg/Kg		7/29/2020 17:46
PCB-1262	< 0.151	mg/Kg		7/29/2020 17:46
PCB-1268	< 0.151	mg/Kg		7/29/2020 17:46

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Tetrachloro-m-xylene	81.5	17.8 - 74	*	7/29/2020 17:46

Method Reference(s): EPA 8082A

EPA 3546

Preparation Date: 7/29/2020

pH

Analyte	Result	Units	Qualifier	Date Analyzed
pH	8.32 @ 23.0 C	S.U.		7/30/2020 13:29

Method Reference(s): EPA 9045D

Petroleum Hydrocarbons by GC

Analyte	Result	Units	Qualifier	Date Analyzed
Heavy weight PHC as Lube Oil	223	mg/Kg		7/30/2020 17:31



Lab Project ID: 203480

Client: **BE3**

Project Reference: 150 Tonawanda

Sample Identifier: WD-1

Lab Sample ID: 203480-01

Date Sampled: 7/27/2020

Matrix: Soil

Date Received: 7/28/2020

Method Reference(s): NYSDOH 310.13

Preparation Date: 7/29/2020

ELAP does not offer this test for approval as part of their laboratory certification program.

Reactive Cyanide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Reactivity, Cyanide	<100	mg/Kg		8/4/2020

Method Reference(s): EPA 7.3.3.2

Subcontractor ELAP ID: 10709

ELAP does not offer this test for approval as part of their laboratory certification program.

Reactive Sulfide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Reactivity, Sulfide	<100	mg/Kg		8/5/2020

Method Reference(s): EPA 7.3.4.2

Subcontractor ELAP ID: 10709

ELAP does not offer this test for approval as part of their laboratory certification program.



Lab Project ID: 203480

Client: **BE3**

Project Reference: 150 Tonawanda

Sample Identifier: WD-1

Lab Sample ID: 203480-01A

Date Sampled: 7/27/2020

Matrix: TCLP Extract

Date Received: 7/28/2020

TCLP Semi-Volatile Organics

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,4-Dichlorobenzene	< 40.0	ug/L	7500		7/30/2020 16:21
2,4,5-Trichlorophenol	< 40.0	ug/L	400000		7/30/2020 16:21
2,4,6-Trichlorophenol	< 40.0	ug/L	2000		7/30/2020 16:21
2,4-Dinitrotoluene	< 40.0	ug/L	130		7/30/2020 16:21
Cresols (as m,p,o-Cresol)	< 80.0	ug/L	200000		7/30/2020 16:21
Hexachlorobenzene	< 40.0	ug/L	130		7/30/2020 16:21
Hexachlorobutadiene	< 40.0	ug/L	500		7/30/2020 16:21
Hexachloroethane	< 40.0	ug/L	3000		7/30/2020 16:21
Nitrobenzene	< 40.0	ug/L	2000		7/30/2020 16:21
Pentachlorophenol	< 80.0	ug/L	100000		7/30/2020 16:21
Pyridine	< 40.0	ug/L	5000		7/30/2020 16:21

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	83.8	53.8 - 116		7/30/2020 16:21
2-Fluorobiphenyl	60.7	36.5 - 95.3		7/30/2020 16:21
2-Fluorophenol	67.5	11.1 - 99.3		7/30/2020 16:21
Nitrobenzene-d5	73.2	49.4 - 100		7/30/2020 16:21
Phenol-d5	65.4	10 - 103		7/30/2020 16:21
Terphenyl-d14	79.3	54.3 - 109		7/30/2020 16:21

Method Reference(s): EPA 8270D
EPA 1311 / 3510C
Preparation Date: 7/29/2020
Data File: B48249.D

TCLP Herbicides

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
2,4,5-TP (Silvex)	<0.10	mg/L	1		7/31/2020
2,4-D	<0.50	mg/L	10		7/31/2020

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.



Lab Project ID: 203480

Client: **BE3**

Project Reference: 150 Tonawanda

Sample Identifier: WD-1

Lab Sample ID: 203480-01A

Date Sampled: 7/27/2020

Matrix: TCLP Extract

Date Received: 7/28/2020

Method Reference(s): EPA 8321B

EPA 1311

Subcontractor ELAP ID: 10709

TCLP Mercury

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Mercury	< 0.00200	mg/L	0.2		7/30/2020 12:01

Method Reference(s): EPA 7470A

EPA 1311

Preparation Date: 7/30/2020

Data File: Hg200730A

TCLP Pesticides

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Chlordane	< 2.00	ug/L	30		7/30/2020 11:21
Endrin	< 1.00	ug/L	20		7/30/2020 11:21
gamma-BHC (Lindane)	< 1.00	ug/L	400		7/30/2020 11:21
Heptachlor	< 1.00	ug/L	8		7/30/2020 11:21
Heptachlor Epoxide	< 2.00	ug/L	8		7/30/2020 11:21
Methoxychlor	< 1.00	ug/L	10000		7/30/2020 11:21
Toxaphene	< 20.0	ug/L	500		7/30/2020 11:21

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	107	19.3 - 157		7/30/2020 11:21
Tetrachloro-m-xylene (1)	89.9	33.3 - 107		7/30/2020 11:21

Method Reference(s): EPA 8081B

EPA 1311 / 3510C

Preparation Date: 7/29/2020

TCLP RCRA Metals (ICP)

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Arsenic	< 0.500	mg/L	5		7/30/2020 17:07
Barium	1.12	mg/L	100		7/30/2020 17:07
Cadmium	< 0.0250	mg/L	1		7/30/2020 17:07



Lab Project ID: 203480

Client: **BE3**

Project Reference: 150 Tonawanda

Sample Identifier: WD-1

Lab Sample ID: 203480-01A

Date Sampled: 7/27/2020

Matrix: TCLP Extract

Date Received: 7/28/2020

Chromium	< 0.500	mg/L	5	7/30/2020 17:07
Lead	< 0.500	mg/L	5	7/30/2020 17:07
Selenium	< 0.200	mg/L	1	7/30/2020 17:07
Silver	< 0.500	mg/L	5	7/30/2020 17:07

Method Reference(s): EPA 6010C
EPA 1311 / 3005A
Preparation Date: 7/30/2020
Data File: 200730B

TCLP Volatile Organics

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,1-Dichloroethene	< 20.0	ug/L	700		7/30/2020 19:02
1,2-Dichloroethane	< 20.0	ug/L	500		7/30/2020 19:02
2-Butanone	< 100	ug/L	200000		7/30/2020 19:02
Benzene	< 20.0	ug/L	500		7/30/2020 19:02
Carbon Tetrachloride	< 20.0	ug/L	500		7/30/2020 19:02
Chlorobenzene	< 20.0	ug/L	100000		7/30/2020 19:02
Chloroform	< 20.0	ug/L	6000		7/30/2020 19:02
Tetrachloroethene	< 20.0	ug/L	700		7/30/2020 19:02
Trichloroethene	< 20.0	ug/L	500		7/30/2020 19:02
Vinyl chloride	< 20.0	ug/L	200		7/30/2020 19:02

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	122	70.9 - 139		7/30/2020 19:02
4-Bromofluorobenzene	66.1	59.5 - 129		7/30/2020 19:02
Pentafluorobenzene	108	89.3 - 117		7/30/2020 19:02
Toluene-D8	81.2	82.9 - 115	*	7/30/2020 19:02

Method Reference(s): EPA 8260C
EPA 1311 / 5030C
Data File: x72159.D



Analytical Report Appendix

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

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

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.

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.

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, term 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 will 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 the 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.

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.



CHAIN OF CUSTODY

PROJECT REFERENCE				REPORT TO:		INVOICE TO:		LAB PROJECT ID				
150 TONAWANDA				CLIENT:	SE3 Corp		CLIENT:					
				ADDRESS:	960 BUST ST 150-15		ADDRESS:					
				CITY:	STATE:	ZIP:	CITY:	STATE:	ZIP:			
				PHONE:	716-308-8220		PHONE:					
				ATTN:	PETER GARDON		ATTN:					
Matrix Codes:				AQ - Aqueous Liquid WA - Water DW - Drinking Water SO - Soil NQ - Non-Aqueous Liquid WG - Groundwater WW - Wastewater SL - Sludge								
REQUESTED ANALYSIS												
DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX	CONTAINER	PH	PAH	PCB	REMARKS	PARADIGM LAB SAMPLE NUMBER	
7-27-20	3:15	X		WD-1	40	3	X	X	X	X	X	OIA
				WD-2	3	3	X	X	X	X	X	
HOLD WD-2 until notified to run sample												

Turnaround Time		Report Supplements	
Availability contingent upon lab approval; additional fees may apply.			
Standard 5 day	<input checked="" type="checkbox"/>	None Required	<input checked="" type="checkbox"/>
10 day	<input type="checkbox"/>	Batch QC	<input type="checkbox"/>
Rush 3 day	<input type="checkbox"/>	Category A	<input type="checkbox"/>
Rush 2 day	<input type="checkbox"/>	Category B	<input type="checkbox"/>
Rush 1 day	<input type="checkbox"/>	Other	<input type="checkbox"/>
Date Needed _____		Other	<input type="checkbox"/>
please indicate date needed:		please indicate package needed:	

Peter J Gardon 7-27-20 3:15
 Sampled By Date/Time
 Peter Gardon 7-27-20 4:30
 Relinquished By Date/Time
 Brian Juch 7-27-20 4:30
 Received By Date/Time
 Molly Vail 7/28/2020 15:42
 Received @ Lab By Date/Time
 10 °C iced 7/28/2020 15:29

Total Cost:

P.I.F.

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

See additional page for sample conditions.

2082



Chain of Custody Supplement

Client:

BES

Completed by:

Moly Mail

Lab Project ID:

203480

Date:

7/28/2020

Sample Condition Requirements

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

Condition	<i>NELAC compliance with the sample condition requirements upon receipt</i>		
	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Preservation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
Temperature	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	10°C		
Compliant Sample Quantity/Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			



200730052

CHAIN OF CUSTODY

ADIRONDACK: ELAP ID: 10

REPORT TO:

INVOICE TO:

COMPANY: Paradigm Environmental	COMPANY: Same	LAB PROJECT #:	CLIENT PROJECT #:
ADDRESS:	ADDRESS:		
CITY: STATE: ZIP:	CITY: STATE: ZIP:	TURNAROUND TIME: (WORKING DAYS)	
PHONE: FAX:	PHONE: FAX:	STD	
ATTN: Reporting	ATTN: Accounts Payable	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input checked="" type="checkbox"/> 5	
COMMENTS: Please email results to reporting@paradigmenv.com		Date Due: 8/5/2020	

REQUESTED ANALYSIS

DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	CONTAINER	REMARKS	PARADIGM SAMPLE NUMBER
17/27/2020	1515			203480-01	soil	X	TCL P spun at	
2				203480-01A	TCL P extract	X	Paradigm	
3								
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 <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		
Preservation:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		
Holding Time:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		
Temperature: 2°C	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		

Client

Sampled By: Molykail	Date/Time: 7/30/2020 0830
Relinquished By:	Date/Time:
Received By: Krag	Date/Time: 7/30/20 359pm
Received @ Lab By:	Date/Time:

Total Cost:

P.I.F.



PARADIGM
ENVIRONMENTAL SERVICES, INC.

Analytical Report For

BE3

For Lab Project ID

203997

Referencing

31 Tonawanda Street

Prepared

Thursday, August 27, 2020

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

A handwritten signature in black ink, appearing to read "R. R. D. Oil", is written over a horizontal line.

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



Lab Project ID: 203997

Client: **BE3**

Project Reference: 31 Tonawanda Street

Sample Identifier: WD-8-25-20

Lab Sample ID: 203997-01

Date Sampled: 8/25/2020

Matrix: Soil

Date Received: 8/25/2020

Diesel Range Organics (C10-C28)

Analyte	Result	Units	Qualifier	Date Analyzed
Diesel Range Organics	5050000	ug/Kg		8/26/2020 12:57
Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Nonacosane	NC	10 - 152		8/26/2020 12:57

Sample chromatographic pattern does not match a typical diesel fuel fingerprint.

Method Reference(s): EPA 8015D
EPA 3546
Preparation Date: 8/26/2020
Data File: PHC13721.D

Gasoline Range Organics (C5-C10)

Analyte	Result	Units	Qualifier	Date Analyzed
Gasoline Range Organics	180000	ug/Kg		8/26/2020

Method Reference(s): EPA 8015D (M)

Subcontractor ELAP ID: 11148

Ignitability

Analyte	Result	Units	Qualifier	Date Analyzed
Ignitability	No Burn	mm / sec		8/27/2020

Method Reference(s): EPA 1030

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.180	mg/Kg		8/26/2020 10:09
PCB-1221	< 0.180	mg/Kg		8/26/2020 10:09
PCB-1232	< 0.180	mg/Kg		8/26/2020 10:09
PCB-1242	< 0.180	mg/Kg		8/26/2020 10:09
PCB-1248	< 0.180	mg/Kg		8/26/2020 10:09
PCB-1254	< 0.180	mg/Kg		8/26/2020 10:09
PCB-1260	< 0.180	mg/Kg		8/26/2020 10:09

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.

Report Prepared Thursday, August 27, 2020



Lab Project ID: 203997

Client: **BE3**

Project Reference: 31 Tonawanda Street

Sample Identifier: WD-8-25-20

Lab Sample ID: 203997-01

Date Sampled: 8/25/2020

Matrix: Soil

Date Received: 8/25/2020

PCB-1262	< 0.180	mg/Kg		8/26/2020 10:09
PCB-1268	< 0.180	mg/Kg		8/26/2020 10:09
Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Tetrachloro-m-xylene	75.4	17.8 - 74	*	8/26/2020 10:09

Method Reference(s): EPA 8082A

EPA 3546

Preparation Date: 8/25/2020

pH

Analyte	Result	Units	Qualifier	Date Analyzed
pH	7.57 @ 24.6 C	S.U.		8/27/2020 14:16

Method Reference(s): EPA 9045D

Reactive Cyanide

Analyte	Result	Units	Qualifier	Date Analyzed
Reactivity, Cyanide	<100	mg/Kg		8/26/2020

Method Reference(s): EPA 7.3.3.2

Subcontractor ELAP ID: 11148

ELAP does not offer this test for approval as part of their laboratory certification program.

Reactive Sulfide

Analyte	Result	Units	Qualifier	Date Analyzed
Reactivity, Sulfide	<100	mg/Kg		8/26/2020

Method Reference(s): EPA 7.3.4.2

Subcontractor ELAP ID: 11148

ELAP does not offer this test for approval as part of their laboratory certification program.



Lab Project ID: 203997

Client: **BE3**

Project Reference: 31 Tonawanda Street

Sample Identifier: WD-8-25-20

Lab Sample ID: 203997-01A

Date Sampled: 8/25/2020

Matrix: TCLP Extract

Date Received: 8/25/2020

TCLP Semi-Volatile Organics

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,4-Dichlorobenzene	< 40.0	ug/L	7500		8/26/2020 13:43
2,4,5-Trichlorophenol	< 40.0	ug/L	400000		8/26/2020 13:43
2,4,6-Trichlorophenol	< 40.0	ug/L	2000		8/26/2020 13:43
2,4-Dinitrotoluene	< 40.0	ug/L	130		8/26/2020 13:43
Cresols (as m,p,o-Cresol)	< 80.0	ug/L	200000		8/26/2020 13:43
Hexachlorobenzene	< 40.0	ug/L	130		8/26/2020 13:43
Hexachlorobutadiene	< 40.0	ug/L	500		8/26/2020 13:43
Hexachloroethane	< 40.0	ug/L	3000		8/26/2020 13:43
Nitrobenzene	< 40.0	ug/L	2000		8/26/2020 13:43
Pentachlorophenol	< 80.0	ug/L	100000		8/26/2020 13:43
Pyridine	< 40.0	ug/L	5000		8/26/2020 13:43
Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
2,4,6-Tribromophenol	85.8	53.8 - 116		8/26/2020	13:43
2-Fluorobiphenyl	69.3	36.5 - 95.3		8/26/2020	13:43
2-Fluorophenol	75.0	11.1 - 99.3		8/26/2020	13:43
Nitrobenzene-d5	82.1	49.4 - 100		8/26/2020	13:43
Phenol-d5	71.6	10 - 103		8/26/2020	13:43
Terphenyl-d14	80.4	54.3 - 109		8/26/2020	13:43

Method Reference(s): EPA 8270D
EPA 1311 / 3510C
Preparation Date: 8/26/2020
Data File: B48956.D

TCLP Herbicides

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
2,4,5-TP (Silvex)	<0.05	mg/L	1		8/27/2020
2,4-D	<0.50	mg/L	10		8/27/2020

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.



Lab Project ID: 203997

Client: **BE3**

Project Reference: 31 Tonawanda Street

Sample Identifier: WD-8-25-20

Lab Sample ID: 203997-01A

Date Sampled: 8/25/2020

Matrix: TCLP Extract

Date Received: 8/25/2020

Method Reference(s): EPA 8151A

EPA 1311

Subcontractor ELAP ID: 11148

TCLP Mercury

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Mercury	< 0.00200	mg/L	0.2		8/27/2020 10:53

Method Reference(s): EPA 7470A

EPA 1311

Preparation Date: 8/26/2020

Data File: Hg200827A

TCLP Pesticides

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Chlordane	< 2.00	ug/L	30		8/26/2020 14:58
Endrin	< 1.00	ug/L	20		8/26/2020 14:58
gamma-BHC (Lindane)	< 1.00	ug/L	400		8/26/2020 14:58
Heptachlor	< 1.00	ug/L	8		8/26/2020 14:58
Heptachlor Epoxide	< 2.00	ug/L	8		8/26/2020 14:58
Methoxychlor	< 1.00	ug/L	10000		8/26/2020 14:58
Toxaphene	< 20.0	ug/L	500		8/26/2020 14:58

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	92.0	19.3 - 157		8/26/2020 14:58
Tetrachloro-m-xylene (1)	109	33.3 - 107	*	8/26/2020 14:58

Method Reference(s): EPA 8081B

EPA 1311 / 3510C

Preparation Date: 8/26/2020

TCLP RCRA Metals (ICP)

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Arsenic	< 0.500	mg/L	5		8/27/2020 10:04
Barium	0.739	mg/L	100		8/27/2020 10:04
Cadmium	< 0.0250	mg/L	1		8/27/2020 10:04



Lab Project ID: 203997

Client: **BE3**

Project Reference: 31 Tonawanda Street

Sample Identifier: WD-8-25-20

Lab Sample ID: 203997-01A

Date Sampled: 8/25/2020

Matrix: TCLP Extract

Date Received: 8/25/2020

Chromium	< 0.500	mg/L	5	8/27/2020 10:04
Lead	1.98	mg/L	5	8/27/2020 10:04
Selenium	< 0.200	mg/L	1	8/27/2020 10:04
Silver	< 0.500	mg/L	5	8/27/2020 10:04

Method Reference(s): EPA 6010C
EPA 1311 / 3005A
Preparation Date: 8/27/2020
Data File: 200827A

TCLP Volatile Organics

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,1-Dichloroethene	< 20.0	ug/L	700		8/26/2020 12:45
1,2-Dichloroethane	< 20.0	ug/L	500		8/26/2020 12:45
2-Butanone	< 100	ug/L	200000		8/26/2020 12:45
Benzene	< 20.0	ug/L	500		8/26/2020 12:45
Carbon Tetrachloride	< 20.0	ug/L	500		8/26/2020 12:45
Chlorobenzene	< 20.0	ug/L	100000		8/26/2020 12:45
Chloroform	< 20.0	ug/L	6000		8/26/2020 12:45
Tetrachloroethene	< 20.0	ug/L	700		8/26/2020 12:45
Trichloroethene	< 20.0	ug/L	500		8/26/2020 12:45
Vinyl chloride	< 20.0	ug/L	200		8/26/2020 12:45

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	102	70.9 - 139		8/26/2020 12:45
4-Bromofluorobenzene	74.9	59.5 - 129		8/26/2020 12:45
Pentafluorobenzene	99.7	89.3 - 117		8/26/2020 12:45
Toluene-D8	89.1	82.9 - 115		8/26/2020 12:45

Method Reference(s): EPA 8260C
EPA 1311 / 5030C
Data File: x72818.D



Analytical Report Appendix

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

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

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.

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.

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, term 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 will 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 the 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.

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.



CHAIN OF CUSTODY

[illegible]

Turnaround Time		Report Supplements	
Availability contingent upon lab approval; additional fees may apply.			
Standard 5 day	<input type="checkbox"/>	None Required	<input checked="" type="checkbox"/>
10 day	<input type="checkbox"/>	Batch QC	<input type="checkbox"/>
Rush 3 day	<input type="checkbox"/>	Category A	<input type="checkbox"/>
Rush 2 day	<input checked="" type="checkbox"/>	Category B	<input type="checkbox"/>
Rush 1 day	<input type="checkbox"/>		
Date Needed _____		Other	<input type="checkbox"/>
please indicate date needed:		please indicate package needed:	
_____		_____	

Peter J. Gordon 8-25-2020 9:20
 Sampled By Date/Time Total Cost:
 Peter J. Gordon
 Relinquished By Date/Time
 Brian Zach 8-25-20 10:10
 Received By Date/Time P.I.F.
 SP 8/25/2020 13:30
 Received @ Lab By Date/Time
 8°C iced started in field 8/25/2020 13:20
 By signing this form, client agrees to Paradigm Terms and Conditions (reverse).

See additional page for sample conditions.



2 of 2

Chain of Custody SupplementClient: BE3Completed by: Glenn PezzuloLab Project ID: 203997Date: 8/25/2020**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	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input checked="" type="checkbox"/> TCLP vOA	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Preservation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> metals
Comments	8°		
Compliant Sample Quantity/Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			



CHAIN OF CUSTODY

11148

Page 11 of 11

REPORT TO:		INVOICE TO:	
COMPANY: Paradigm Environmental	COMPANY: Same	LAB PROJECT #:	CLIENT PROJECT #:
ADDRESS: 179 Lake Avenue	ADDRESS:		
CITY: Rochester STATE: NY ZIP: 14608	CITY: STATE: ZIP:	TURNAROUND TIME: (WORKING DAYS)	
PHONE: FAX:	PHONE: FAX:	<input checked="" type="checkbox"/> Rush <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 5 <input type="checkbox"/> STD <input type="checkbox"/> OTHER	
PROJECT NAME/SITE NAME:	ATTN: Reporting	ATTN: Accounts Payable	Date Due: 8/27/2020 3PM
COMMENTS: Please email results to reporting@paradigmenv.com			

REQUESTED ANALYSIS

DATE	TIME	C O M P O S I T E	G R A B	SAMPLE LOCATION/FIELD ID	M A T R I X	C O N T A I N E R	G R O	Reactivity	TEL P Herbicides	REMARKS	PARADIGM LAB SAMPLE NUMBER
1 8/25/2020	09:20	X		203997-01	Soil	1	X	X	X		
2											
3											
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 <input type="checkbox"/> N <input type="checkbox"/>
Comments:	
Preservation:	Y <input type="checkbox"/> N <input type="checkbox"/>
Comments:	
Holding Time:	Y <input type="checkbox"/> N <input type="checkbox"/>
Comments:	
Temperature:	Y <input type="checkbox"/> N <input type="checkbox"/>
Comments:	

Client	
Sampled By	Date/Time
<i>2P</i>	8/25/2020 16:00
Relinquished By	Date/Time
<i>R. Cunningham</i>	8/25/2020 16:15
Received By	Date/Time
<i>R. Cunningham</i>	8/25/2020 16:13
Received By	Date/Time
<i>[Signature]</i>	8/26/2020 09:20
Received @ Lab By	Date/Time

Total Cost:

P.I.F.