BE3 CORP PANAMERICAN
ENVIRONMENT • ENGINEERING • ENERGY

1270 Niagara Street
Buffalo, NY 14213
716.249.6880 be3corp.com

June 25, 2018

Mr. Larry Regan
President
Regan Development Corporation
1055 Saw Mill River Road #204
Ardsley, NY 10502

REPORT: Supplemental Phase II ESA – 19 Doat Street-9 Lansdale Place

Dear Mr. Regan:

BE3 Corp/Panamerican (BE3) is pleased to provide you with a report documenting the supplemental soil assessment for the 19 Doat Street-9 Lansdale Place property, Buffalo, New York (**refer to Figures 1 and 2**).

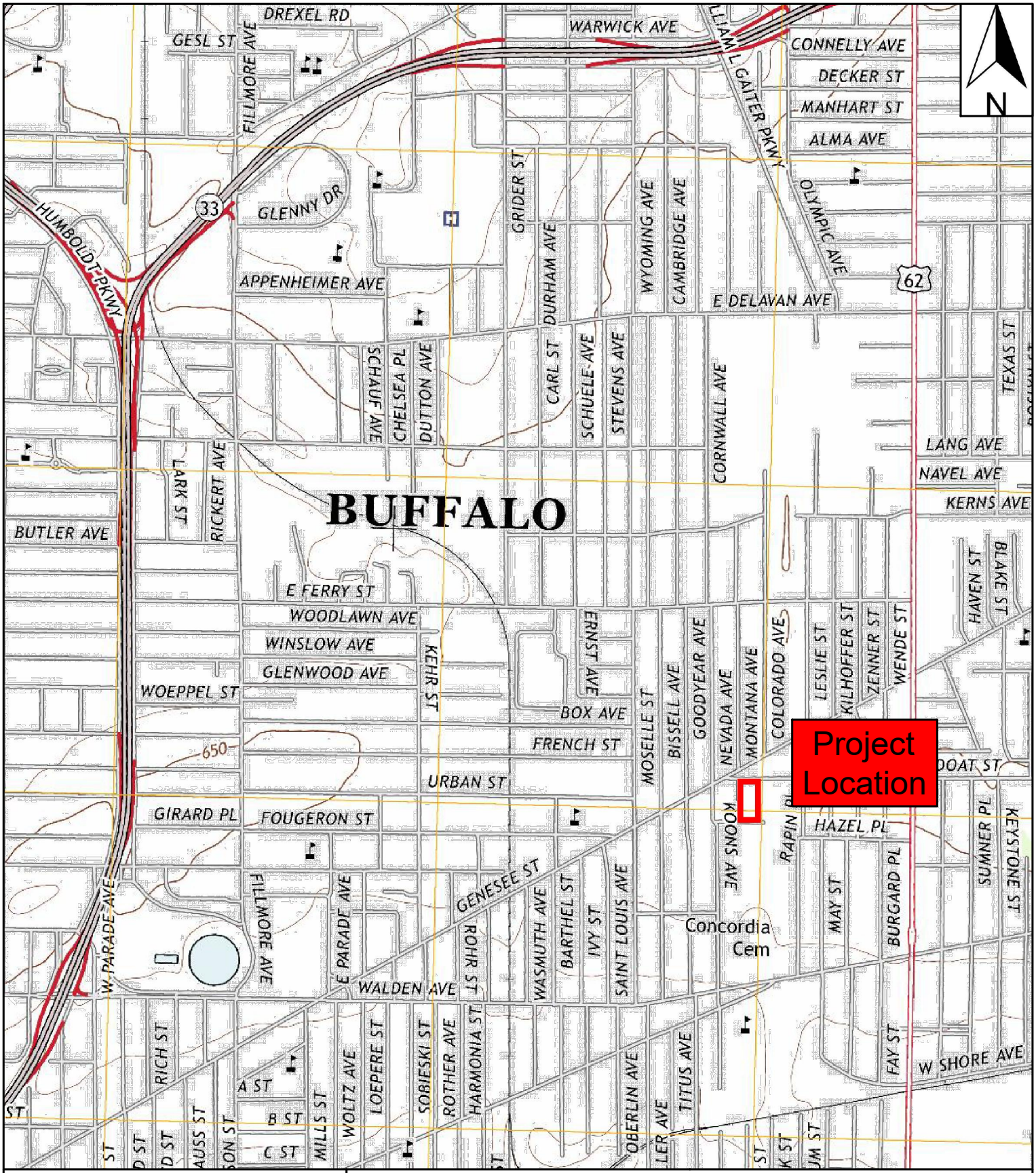
INTRODUCTION

During the Brownfield Cleanup Program (BCP) pre-application meeting with New York State Department of Environmental Conservation (NYSDEC) Region 9 staff it was suggested that additional soil samples/analysis was necessary to qualify the 9 Lansdale parcel as part of the project. A series of surface soil samples across the 9 Lansdale Place parcel was proposed to meet this need.

SCOPE OF WORK

The objective of this supplemental environmental assessment was to collect additional soil samples and complete analysis on the 9 Lansdale Place parcel. Sampling was strategically spread across the property.

To achieve this objective, this supplemental site assessment included the collection of ten (10) surface soil samples at designated locations on the target property (**refer to Figure 3**). For context, Figure 3 also shows the soil sample location from the Phase II ESA program. For this supplemental program, soils from each location were collected and submitted to a New York State approved laboratory. Four of these samples were selected for analysis of NYSDEC NYCRR Part 375 semi-volatile compounds and metals and two also were analyzed for volatile compounds based on field observations indicating potential chemical/petroleum impacts. The four samples selected for analysis were spread across the property to ensure a representation of surface soil conditions. The other six samples were placed on hold at the laboratory and not analyzed pending the analytical results of the other four. Based on the results of the four samples surface soil analyzed, these samples were not analyzed.



BE3CORP PANAMERICAN
ENVIRONMENT • ENGINEERING • ENERGY

Figure 1: Project Location Map

19 Doat Street	2/26/2018
Buffalo, NY	Regan Devlopment

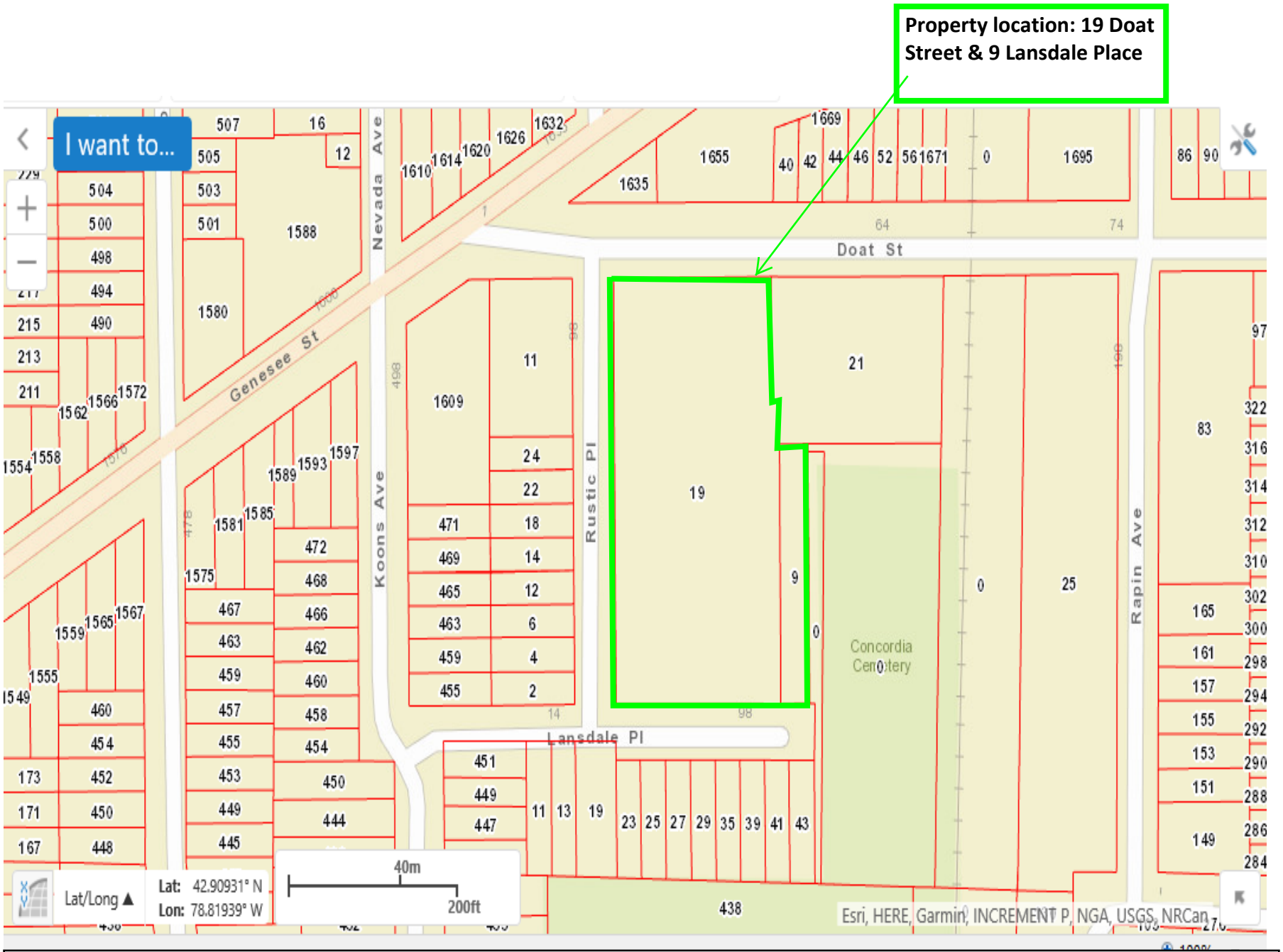


Figure 2: City Assessor Parcel Map - 19 Doat Street & 9 Lansdale Place

LEGEND:

BH-1 Boring/Sampling Location

SS-1 Surface Soil Sample Location

S-01 Supplemental Surface Soil Sample Location

BE3CORP PANAMERICAN
ENVIRONMENT • ENGINEERING • ENERGY
1270 Niagara Street
Buffalo, NY 14213
716.249.6880 be3corp.com

Figure 3: Boring/Sampling Locations

19 Doat Street

Regan Development
1055 Saw Mill River Road #204
Ardsley, NY 10502

01-31-2018 | SCALE: N/A | SHEET 1 OF 1

Analytical Results

The soil cleanup objectives (SCOs) listed in 6 NYCRR Part 375-6.8 pertain to sites governed under a NYSDEC environmental remediation program, and since the potential exists for the target site to be included under the BCP, these SCOs are applicable and appropriate in terms of reporting exceedances. The results of the analysis of the four surface soil samples (4) are summarized in **Table 1** which also provides a comparison to unrestricted, residential, and restricted residential SCOs in Part 375. The complete set of analytical data are attached.

A summary of the results is as follows:

- All surface soil samples have exceedances of metals above unrestricted levels
- One sample – S-06 had an arsenic level above restricted residential SCOs at 28 ppm.
- All samples except S-06 had multiple SVOC exceedances above restricted residential SCOs. Most of these SVOCs were Polycyclic aromatic hydrocarbons (PAHs). PAHs (also known as polyaromatic hydrocarbons or polynuclear aromatic hydrocarbons).

Metals and PAHs are common contaminants found in urban areas due to years of fossil fuel burning and deposition from the atmosphere. These compounds are also typically associated with fill material used in urban areas and fill materials used around railroads. PAHs are a class of chemicals that occur naturally in coal, crude oil, and gasoline. They also are produced when coal, oil, gas, wood, garbage, and tobacco are burned. PAHs generated from these sources can bind to or form small particles in the air.

CONCLUSIONS

The purpose of this assessment was to identify potential contamination at 9 Lansdale Place parcel as a supplement with the data from the adjacent 19 Doat Street property. Both adjacent properties will be part of a BCP application. The results suggest that surface soils across the 9 Lansdale Place parcel are impacted with elevated levels of metals and PAHs.

WARRANTS AND LIMITATIONS

This report is based on information from limited soil sampling and visual observations of the soils on the property. This report is intended exclusively for the purpose outlined herein at the site location and project indicated.

This report is intended for the sole use of Regan Development and others approved by Regan Development. The scope of services performed in this assessment may not be appropriate to satisfy the needs of other users and any use or reuse of this document or the findings, conclusions, or recommendations presented, is at the sole risk of the user.

Table 1
Soil Sample Analytical Results
NYCRR Part 375
Sampling Date: 6-23-18

Contaminants	Sample Identification and Depth				Soil Cleanup Objectives		
	S-01 (0.5-1')	S-03 (0.5-1')	S-06 (0.5-1')	S-09 (0.5-1')	Unrestricted Use	Residential	Restricted Residential
METALS							
Arsenic	7.78	11	28	4.67	13	16	16
Barium	213	364	99.7	72.8	350	350	400
Beryllium	1.58	1.28	0.788	0.403	7.2	14	72
Cadmium	1.57	1.11	1.73	0.976	2.5	2.5	4.3
Chromium, hexavalent [a]	12.3	10.1	12.3	11.3	1	22	110
Copper	29.1	91.7	87.7	27.5	50	270	270
Lead	98.9	104	205	87.7	63	400	400
Manganese	1060	381	261	306	1600	2,000	2,000
Total Mercury [c]	0.0506	0.0949	0.107	0.0302	0.18	0.81	0.81
Nickel	12.7	11.6	18	10.5	30	140	310
Silver	2.79	2.8	3.38	3.11	2	36	180
Zinc	202	285	277	184	109	2200	10,000
SEMIVOLATILE ORGANIC COMPOUNDS							
Acenaphthene	ND	ND	ND	4.21	20	100	100
Anthracene	3.1	4.2	ND	8.87	100	100	100
Benz(a)anthracene	8.31	19	ND	12	1	1	1
Benzo(a)pyrene	6.85	16.2	ND	15.5	1	1	1
Benzo(b)fluoranthene	9.44	21.8	ND	21.4	1	1	1
Benzo(g,h,i)perylene	4.07	10.4	ND	9.62	100	100	100
Benzo(k)fluoranthene	3.23	8.68	ND	9.73	0.8	1	3.9
Chrysene	8.15	17.7	ND	15.9	1	1	3.9
Fluoranthene	19.7	44.3	ND	33.7	100	100	100
Fluorene	ND	ND	ND	4.48	30	100	100
Indeno(1,2,3-cd)pyrene	4.84	12.4	ND	10.5	0.5	0.5	0.5
Phenanthrene	15	22.8	ND	32.5	100	100	100
Pyrene	15.1	34.9	ND	37	100	100	100
VOLATILE ORGANIC COMPOUNDS							
Tetrachloroethene	ND	ND	0.589	ND	1.3	5.5	19

[1] Results and SCOs are in parts per million (ppm).
ND - Non-Detect
NA - Not Applicable
NS - Not Specified, and may be required to calculate the ERSCO
[a] The SCO for this compound (or family of compounds) is considered met if the analysis for the total species of this compound is below the specific SCO.
[b] SCO is the sum of endosulfan I, endosulfan II, and endosulfan sulfate (but not for Eco or GW SCO).
[c] This SCO includes the values for elemental Hg or inorganic salts Hg.

1	= laboratory value exceeds restricted residential SCOs
2	= laboratory value exceeds residential SCOs but does not exceed restricted residential SCOs
3	= laboratory value exceeds unrestricted SCOs but does not exceed residential SCOs

BE3CORP PANAMERICAN ENVIRONMENT • ENGINEERING • ENERGY
1270 Niagara Street
Buffalo, NY 14213
716.249.6880 be3corp.com

The conclusions set forth in this report are based upon, and limited by, the analytical data and other information available. It should be noted that all surface and subsurface environmental assessments are inherently limited in the sense that conclusions are drawn, and recommendations developed from information obtained from limited data and site evaluation at a specific time. The passage of time may result in a change in environmental circumstances at this site and surrounding properties, or petroleum/hazardous materials beneath the surface may be present but undetectable during this limited Phase II assessment.

Opinions and recommendations presented herein apply to the site conditions existing at the time of the subsurface assessment and those reasonably foreseeable. They cannot necessarily apply to site changes, which are not made aware and therefore not been evaluated.

We thank you for the opportunity to be of assistance to you on this project. Please do not hesitate to contact us if you have any questions or require further assistance.

Sincerely,
Peter J. Gorton
Partner, BE3 Corp/Panamerican

EXHIBIT A

PHOTOGRAPHS

BE3/PANAMERICAN Photolog

Date: 5/25/18

1. Location of supplemental surface soil sample 1

2. Location of supplemental surface soil 1

3. Location of supplemental surface soil sample 2

4. Location of supplemental surface soil sample 1

BE3/PANAMERICAN Photolog

Date: 5/25/18

5. Location of supplemental soil sample 3

6. Location of supplemental surface soil sample 3

7. Location of supplemental surface soil sample 4

8. Location of supplemental surface soil sample 4

BE3/PANAMERICAN Photolog

Date: 5/25/18

9. Location of supplemental surface soil sample 5

10. Location of supplemental surface soil sample 5

11. Supplemental surface soil sample 6

12. Location of supplemental surface soil sample 6

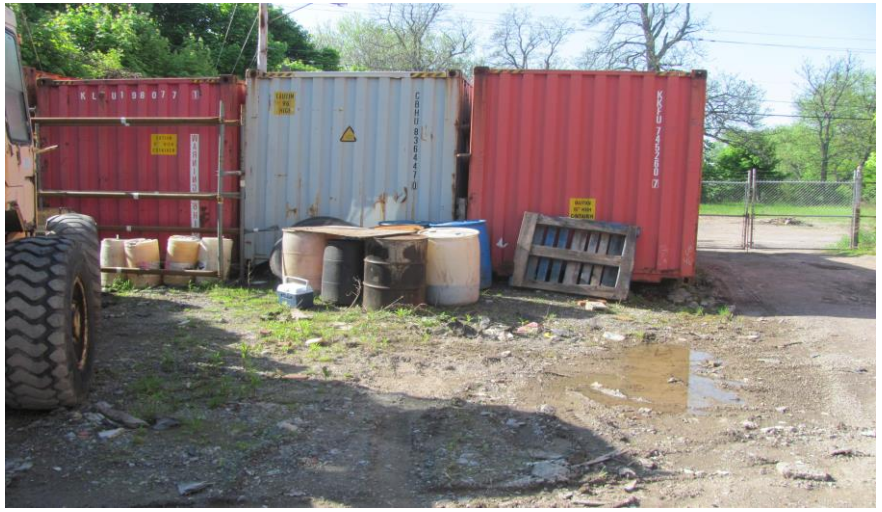
BE3/PANAMERICAN Photolog

Date: 5/25/18

13. Location of supplemental surface soil sample 7

14. Location of supplemental surface soil sample 8

15. Location of supplemental surface soil sample 9



16. Location of supplemental surface soil sample 9

BE3/PANAMERICAN Photolog

Date: 5/25/18

17. Location of supplemental surface soil 10

18. Location of supplemental surface soil 10

EXHIBIT B

LABORATORY DATA

PARADIGM

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Analytical Report For

Panamerican Environmental Consultants

For Lab Project ID

182361

Referencing

19 Doat

Prepared

Monday, June 11, 2018

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

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

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

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182361

Client: **Panamerican Environmental Consultants**

Project Reference: 19 Doat

Sample Identifier: S-01 Depth 0.5-1
Lab Sample ID: 182361-01 **Date Sampled:** 5/25/2018
Matrix: Soil **Date Received:** 5/30/2018

Part 375 Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	**7.78**	mg/Kg		6/9/2018 07:59
Barium	**213**	mg/Kg		6/9/2018 07:59
Beryllium	**1.58**	mg/Kg		6/9/2018 07:59
Cadmium	**1.57**	mg/Kg		6/9/2018 07:59
Chromium	**12.3**	mg/Kg		6/9/2018 07:59
Copper	**29.1**	mg/Kg		6/9/2018 07:59
Lead	**98.9**	mg/Kg		6/9/2018 07:59
Manganese	**1060**	mg/Kg		6/11/2018 12:19
Nickel	**12.7**	mg/Kg		6/9/2018 07:59
Selenium	< 2.31	mg/Kg		6/11/2018 12:19
Silver	**2.79**	mg/Kg		6/9/2018 07:59
Zinc	**202**	mg/Kg		6/9/2018 07:59

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 6/4/2018
Data File: 180609A

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	**0.0506**	mg/Kg		6/6/2018 09:35

Method Reference(s): EPA 7471B
Preparation Date: 6/5/2018
Data File: Hg180606A

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 1660	ug/Kg		6/6/2018 07:23
1,2,4,5-Tetrachlorobenzene	< 1660	ug/Kg		6/6/2018 07:23
1,2,4-Trichlorobenzene	< 1660	ug/Kg		6/6/2018 07:23
1,2-Dichlorobenzene	< 1660	ug/Kg		6/6/2018 07:23
1,3-Dichlorobenzene	< 1660	ug/Kg		6/6/2018 07:23

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182361

Client: **Panamerican Environmental Consultants**

Project Reference: 19 Doat

Sample Identifier:	S-01 Depth 0.5-1		
Lab Sample ID:	182361-01	**Date Sampled:**	5/25/2018
Matrix:	Soil	**Date Received:**	5/30/2018

1,4-Dichlorobenzene	< 1660	ug/Kg	6/6/2018	07:23
2,2-Oxybis (1-chloropropane)	< 1660	ug/Kg	6/6/2018	07:23
2,3,4,6-Tetrachlorophenol	< 1660	ug/Kg	6/6/2018	07:23
2,4,5-Trichlorophenol	< 3320	ug/Kg	6/6/2018	07:23
2,4,6-Trichlorophenol	< 1660	ug/Kg	6/6/2018	07:23
2,4-Dichlorophenol	< 1660	ug/Kg	6/6/2018	07:23
2,4-Dimethylphenol	< 1660	ug/Kg	6/6/2018	07:23
2,4-Dinitrophenol	< 3320	ug/Kg	6/6/2018	07:23
2,4-Dinitrotoluene	< 1660	ug/Kg	6/6/2018	07:23
2,6-Dinitrotoluene	< 1660	ug/Kg	6/6/2018	07:23
2-Chloronaphthalene	< 1660	ug/Kg	6/6/2018	07:23
2-Chlorophenol	< 1660	ug/Kg	6/6/2018	07:23
2-Methylnapthalene	< 1660	ug/Kg	6/6/2018	07:23
2-Methylphenol	< 1660	ug/Kg	6/6/2018	07:23
2-Nitroaniline	< 3320	ug/Kg	6/6/2018	07:23
2-Nitrophenol	< 1660	ug/Kg	6/6/2018	07:23
3&4-Methylphenol	< 1660	ug/Kg	6/6/2018	07:23
3,3'-Dichlorobenzidine	< 1660	ug/Kg	6/6/2018	07:23
3-Nitroaniline	< 3320	ug/Kg	6/6/2018	07:23
4,6-Dinitro-2-methylphenol	< 3320	ug/Kg	6/6/2018	07:23
4-Bromophenyl phenyl ether	< 1660	ug/Kg	6/6/2018	07:23
4-Chloro-3-methylphenol	< 1660	ug/Kg	6/6/2018	07:23
4-Chloroaniline	< 1660	ug/Kg	6/6/2018	07:23
4-Chlorophenyl phenyl ether	< 1660	ug/Kg	6/6/2018	07:23
4-Nitroaniline	< 3320	ug/Kg	6/6/2018	07:23
4-Nitrophenol	< 3320	ug/Kg	6/6/2018	07:23
Acenaphthene	< 1660	ug/Kg	6/6/2018	07:23
Acenaphthylene	< 1660	ug/Kg	6/6/2018	07:23
Acetophenone	< 1660	ug/Kg	6/6/2018	07:23
Anthracene	**3100**	ug/Kg	6/6/2018	07:23
Atrazine	< 1660	ug/Kg	6/6/2018	07:23
Benzaldehyde	< 1660	ug/Kg	6/6/2018	07:23

Lab Project ID: 182361

Client: **Panamerican Environmental Consultants**

Project Reference: 19 Doat

Sample Identifier: S-01 Depth 0.5-1
Lab Sample ID: 182361-01 **Date Sampled:** 5/25/2018
Matrix: Soil **Date Received:** 5/30/2018

Benzo (a) anthracene	**8310**	ug/Kg	6/6/2018	07:23
Benzo (a) pyrene	**6850**	ug/Kg	6/6/2018	07:23
Benzo (b) fluoranthene	**9440**	ug/Kg	6/6/2018	07:23
Benzo (g,h,i) perylene	**4070**	ug/Kg	6/6/2018	07:23
Benzo (k) fluoranthene	**3230**	ug/Kg	6/6/2018	07:23
Bis (2-chloroethoxy) methane	< 1660	ug/Kg	6/6/2018	07:23
Bis (2-chloroethyl) ether	< 1660	ug/Kg	6/6/2018	07:23
Bis (2-ethylhexyl) phthalate	< 1660	ug/Kg	6/6/2018	07:23
Butylbenzylphthalate	< 1660	ug/Kg	6/6/2018	07:23
Caprolactam	< 1660	ug/Kg	6/6/2018	07:23
Carbazole	**2050**	ug/Kg	6/6/2018	07:23
Chrysene	**8150**	ug/Kg	6/6/2018	07:23
Dibenz (a,h) anthracene	< 1660	ug/Kg	6/6/2018	07:23
Dibenzofuran	< 1660	ug/Kg	6/6/2018	07:23
Diethyl phthalate	< 1660	ug/Kg	6/6/2018	07:23
Dimethyl phthalate	< 3320	ug/Kg	6/6/2018	07:23
Di-n-butyl phthalate	< 1660	ug/Kg	6/6/2018	07:23
Di-n-octylphthalate	< 1660	ug/Kg	6/6/2018	07:23
Fluoranthene	**19700**	ug/Kg	6/6/2018	07:23
Fluorene	< 1660	ug/Kg	6/6/2018	07:23
Hexachlorobenzene	< 1660	ug/Kg	6/6/2018	07:23
Hexachlorobutadiene	< 1660	ug/Kg	6/6/2018	07:23
Hexachlorocyclopentadiene	< 1660	ug/Kg	6/6/2018	07:23
Hexachloroethane	< 1660	ug/Kg	6/6/2018	07:23
Indeno (1,2,3-cd) pyrene	**4840**	ug/Kg	6/6/2018	07:23
Isophorone	< 1660	ug/Kg	6/6/2018	07:23
Naphthalene	< 1660	ug/Kg	6/6/2018	07:23
Nitrobenzene	< 1660	ug/Kg	6/6/2018	07:23
N-Nitroso-di-n-propylamine	< 1660	ug/Kg	6/6/2018	07:23
N-Nitrosodiphenylamine	< 1660	ug/Kg	6/6/2018	07:23
Pentachlorophenol	< 3320	ug/Kg	6/6/2018	07:23
Phenanthrene	**15000**	ug/Kg	6/6/2018	07:23

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182361

Client: **Panamerican Environmental Consultants**

Project Reference: 19 Doat

Sample Identifier: S-01 Depth 0.5-1
Lab Sample ID: 182361-01 **Date Sampled:** 5/25/2018
Matrix: Soil **Date Received:** 5/30/2018

Phenol	< 1660	ug/Kg		6/6/2018	07:23
Pyrene	**15100**	ug/Kg		6/6/2018	07:23

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
2,4,6-Tribromophenol	**60.9**	46 - 109		6/6/2018	07:23
2-Fluorobiphenyl	**66.3**	37.7 - 103		6/6/2018	07:23
2-Fluorophenol	**69.3**	39.9 - 92.7		6/6/2018	07:23
Nitrobenzene-d5	**63.4**	38.7 - 92.2		6/6/2018	07:23
Phenol-d5	**71.3**	42.2 - 96.1		6/6/2018	07:23
Terphenyl-d14	**66.6**	69.9 - 113	*	6/6/2018	07:23

Method Reference(s): EPA 8270D
EPA 3550C
Preparation Date: 5/30/2018
Data File: B28150.D

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182361

Client: **Panamerican Environmental Consultants**

Project Reference: 19 Doat

Sample Identifier: S-03 Depth 0.5-1
Lab Sample ID: 182361-02 **Date Sampled:** 5/25/2018
Matrix: Soil **Date Received:** 5/30/2018

Part 375 Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	**11.0**	mg/Kg		6/9/2018 08:03
Barium	**364**	mg/Kg		6/9/2018 08:03
Beryllium	**1.28**	mg/Kg		6/9/2018 08:03
Cadmium	**1.11**	mg/Kg		6/9/2018 08:03
Chromium	**10.1**	mg/Kg		6/9/2018 08:03
Copper	**91.7**	mg/Kg		6/9/2018 08:03
Lead	**104**	mg/Kg		6/9/2018 08:03
Manganese	**381**	mg/Kg		6/9/2018 08:03
Nickel	**11.6**	mg/Kg		6/9/2018 08:03
Selenium	< 2.37	mg/Kg		6/11/2018 12:23
Silver	**2.80**	mg/Kg		6/9/2018 08:03
Zinc	**285**	mg/Kg		6/9/2018 08:03

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 6/4/2018
Data File: 180609A

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	**0.0949**	mg/Kg		6/6/2018 09:38

Method Reference(s): EPA 7471B
Preparation Date: 6/5/2018
Data File: Hg180606A

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 3530	ug/Kg		6/6/2018 07:52
1,2,4,5-Tetrachlorobenzene	< 3530	ug/Kg		6/6/2018 07:52
1,2,4-Trichlorobenzene	< 3530	ug/Kg		6/6/2018 07:52
1,2-Dichlorobenzene	< 3530	ug/Kg		6/6/2018 07:52
1,3-Dichlorobenzene	< 3530	ug/Kg		6/6/2018 07:52

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182361

Client: **Panamerican Environmental Consultants**

Project Reference: 19 Doat

Sample Identifier:	S-03 Depth 0.5-1		
Lab Sample ID:	182361-02	**Date Sampled:**	5/25/2018
Matrix:	Soil	**Date Received:**	5/30/2018

1,4-Dichlorobenzene	< 3530	ug/Kg	6/6/2018	07:52
2,2-Oxybis (1-chloropropane)	< 3530	ug/Kg	6/6/2018	07:52
2,3,4,6-Tetrachlorophenol	< 3530	ug/Kg	6/6/2018	07:52
2,4,5-Trichlorophenol	< 7070	ug/Kg	6/6/2018	07:52
2,4,6-Trichlorophenol	< 3530	ug/Kg	6/6/2018	07:52
2,4-Dichlorophenol	< 3530	ug/Kg	6/6/2018	07:52
2,4-Dimethylphenol	< 3530	ug/Kg	6/6/2018	07:52
2,4-Dinitrophenol	< 7070	ug/Kg	6/6/2018	07:52
2,4-Dinitrotoluene	< 3530	ug/Kg	6/6/2018	07:52
2,6-Dinitrotoluene	< 3530	ug/Kg	6/6/2018	07:52
2-Chloronaphthalene	< 3530	ug/Kg	6/6/2018	07:52
2-Chlorophenol	< 3530	ug/Kg	6/6/2018	07:52
2-Methylnapthalene	< 3530	ug/Kg	6/6/2018	07:52
2-Methylphenol	< 3530	ug/Kg	6/6/2018	07:52
2-Nitroaniline	< 7070	ug/Kg	6/6/2018	07:52
2-Nitrophenol	< 3530	ug/Kg	6/6/2018	07:52
3&4-Methylphenol	< 3530	ug/Kg	6/6/2018	07:52
3,3'-Dichlorobenzidine	< 3530	ug/Kg	6/6/2018	07:52
3-Nitroaniline	< 7070	ug/Kg	6/6/2018	07:52
4,6-Dinitro-2-methylphenol	< 7070	ug/Kg	6/6/2018	07:52
4-Bromophenyl phenyl ether	< 3530	ug/Kg	6/6/2018	07:52
4-Chloro-3-methylphenol	< 3530	ug/Kg	6/6/2018	07:52
4-Chloroaniline	< 3530	ug/Kg	6/6/2018	07:52
4-Chlorophenyl phenyl ether	< 3530	ug/Kg	6/6/2018	07:52
4-Nitroaniline	< 7070	ug/Kg	6/6/2018	07:52
4-Nitrophenol	< 7070	ug/Kg	6/6/2018	07:52
Acenaphthene	< 3530	ug/Kg	6/6/2018	07:52
Acenaphthylene	< 3530	ug/Kg	6/6/2018	07:52
Acetophenone	< 3530	ug/Kg	6/6/2018	07:52
Anthracene	**4200**	ug/Kg	6/6/2018	07:52
Atrazine	< 3530	ug/Kg	6/6/2018	07:52
Benzaldehyde	< 3530	ug/Kg	6/6/2018	07:52

Lab Project ID: 182361

Client: **Panamerican Environmental Consultants**

Project Reference: 19 Doat

Sample Identifier: S-03 Depth 0.5-1
Lab Sample ID: 182361-02 **Date Sampled:** 5/25/2018
Matrix: Soil **Date Received:** 5/30/2018

Benzo (a) anthracene	**19000**	ug/Kg	6/6/2018	07:52
Benzo (a) pyrene	**16200**	ug/Kg	6/6/2018	07:52
Benzo (b) fluoranthene	**21800**	ug/Kg	6/6/2018	07:52
Benzo (g,h,i) perylene	**10400**	ug/Kg	6/6/2018	07:52
Benzo (k) fluoranthene	**8680**	ug/Kg	6/6/2018	07:52
Bis (2-chloroethoxy) methane	< 3530	ug/Kg	6/6/2018	07:52
Bis (2-chloroethyl) ether	< 3530	ug/Kg	6/6/2018	07:52
Bis (2-ethylhexyl) phthalate	< 3530	ug/Kg	6/6/2018	07:52
Butylbenzylphthalate	< 3530	ug/Kg	6/6/2018	07:52
Caprolactam	< 3530	ug/Kg	6/6/2018	07:52
Carbazole	< 3530	ug/Kg	6/6/2018	07:52
Chrysene	**17700**	ug/Kg	6/6/2018	07:52
Dibenz (a,h) anthracene	< 3530	ug/Kg	6/6/2018	07:52
Dibenzofuran	< 3530	ug/Kg	6/6/2018	07:52
Diethyl phthalate	< 3530	ug/Kg	6/6/2018	07:52
Dimethyl phthalate	< 7070	ug/Kg	6/6/2018	07:52
Di-n-butyl phthalate	< 3530	ug/Kg	6/6/2018	07:52
Di-n-octylphthalate	< 3530	ug/Kg	6/6/2018	07:52
Fluoranthene	**44300**	ug/Kg	6/6/2018	07:52
Fluorene	< 3530	ug/Kg	6/6/2018	07:52
Hexachlorobenzene	< 3530	ug/Kg	6/6/2018	07:52
Hexachlorobutadiene	< 3530	ug/Kg	6/6/2018	07:52
Hexachlorocyclopentadiene	< 3530	ug/Kg	6/6/2018	07:52
Hexachloroethane	< 3530	ug/Kg	6/6/2018	07:52
Indeno (1,2,3-cd) pyrene	**12400**	ug/Kg	6/6/2018	07:52
Isophorone	< 3530	ug/Kg	6/6/2018	07:52
Naphthalene	< 3530	ug/Kg	6/6/2018	07:52
Nitrobenzene	< 3530	ug/Kg	6/6/2018	07:52
N-Nitroso-di-n-propylamine	< 3530	ug/Kg	6/6/2018	07:52
N-Nitrosodiphenylamine	< 3530	ug/Kg	6/6/2018	07:52
Pentachlorophenol	< 7070	ug/Kg	6/6/2018	07:52
Phenanthrene	**22800**	ug/Kg	6/6/2018	07:52

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182361

Client: **Panamerican Environmental Consultants**

Project Reference: 19 Doat

Sample Identifier: S-03 Depth 0.5-1
Lab Sample ID: 182361-02 **Date Sampled:** 5/25/2018
Matrix: Soil **Date Received:** 5/30/2018

Phenol	< 3530	ug/Kg		6/6/2018	07:52
Pyrene	**34900**	ug/Kg		6/6/2018	07:52

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
2,4,6-Tribromophenol	NC	46 - 109		6/6/2018	07:52
2-Fluorobiphenyl	NC	37.7 - 103		6/6/2018	07:52
2-Fluorophenol	NC	39.9 - 92.7		6/6/2018	07:52
Nitrobenzene-d5	NC	38.7 - 92.2		6/6/2018	07:52
Phenol-d5	NC	42.2 - 96.1		6/6/2018	07:52
Terphenyl-d14	NC	69.9 - 113		6/6/2018	07:52

Method Reference(s): EPA 8270D
EPA 3550C
Preparation Date: 5/30/2018
Data File: B28151.D

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182361

Client: **Panamerican Environmental Consultants**

Project Reference: 19 Doat

Sample Identifier: S-06 Depth 0.5-1
Lab Sample ID: 182361-03 **Date Sampled:** 5/25/2018
Matrix: Soil **Date Received:** 5/30/2018

Part 375 Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	**28.0**	mg/Kg		6/9/2018 08:14
Barium	**99.7**	mg/Kg		6/9/2018 08:14
Beryllium	**0.788**	mg/Kg		6/9/2018 08:14
Cadmium	**1.73**	mg/Kg		6/9/2018 08:14
Chromium	**12.3**	mg/Kg		6/9/2018 08:14
Copper	**87.7**	mg/Kg		6/9/2018 08:14
Lead	**205**	mg/Kg		6/9/2018 08:14
Manganese	**261**	mg/Kg		6/9/2018 08:14
Nickel	**18.0**	mg/Kg		6/9/2018 08:14
Selenium	< 1.22	mg/Kg		6/9/2018 08:14
Silver	**3.38**	mg/Kg		6/9/2018 08:14
Zinc	**277**	mg/Kg		6/9/2018 08:14

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 6/4/2018
Data File: 180609A

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	**0.107**	mg/Kg		6/6/2018 09:46

Method Reference(s): EPA 7471B
Preparation Date: 6/5/2018
Data File: Hg180606A

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 1720	ug/Kg		6/2/2018 09:17
1,2,4,5-Tetrachlorobenzene	< 1720	ug/Kg		6/2/2018 09:17
1,2,4-Trichlorobenzene	< 1720	ug/Kg		6/2/2018 09:17
1,2-Dichlorobenzene	< 1720	ug/Kg		6/2/2018 09:17
1,3-Dichlorobenzene	< 1720	ug/Kg		6/2/2018 09:17

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182361

Client: **Panamerican Environmental Consultants**

Project Reference: 19 Doat

Sample Identifier:	S-06 Depth 0.5-1		
Lab Sample ID:	182361-03	**Date Sampled:**	5/25/2018
Matrix:	Soil	**Date Received:**	5/30/2018

1,4-Dichlorobenzene	< 1720	ug/Kg	6/2/2018	09:17
2,2-Oxybis (1-chloropropane)	< 1720	ug/Kg	6/2/2018	09:17
2,3,4,6-Tetrachlorophenol	< 1720	ug/Kg	6/2/2018	09:17
2,4,5-Trichlorophenol	< 3450	ug/Kg	6/2/2018	09:17
2,4,6-Trichlorophenol	< 1720	ug/Kg	6/2/2018	09:17
2,4-Dichlorophenol	< 1720	ug/Kg	6/2/2018	09:17
2,4-Dimethylphenol	< 1720	ug/Kg	6/2/2018	09:17
2,4-Dinitrophenol	< 3450	ug/Kg	6/2/2018	09:17
2,4-Dinitrotoluene	< 1720	ug/Kg	6/2/2018	09:17
2,6-Dinitrotoluene	< 1720	ug/Kg	6/2/2018	09:17
2-Chloronaphthalene	< 1720	ug/Kg	6/2/2018	09:17
2-Chlorophenol	< 1720	ug/Kg	6/2/2018	09:17
2-Methylnapthalene	< 1720	ug/Kg	6/2/2018	09:17
2-Methylphenol	< 1720	ug/Kg	6/2/2018	09:17
2-Nitroaniline	< 3450	ug/Kg	6/2/2018	09:17
2-Nitrophenol	< 1720	ug/Kg	6/2/2018	09:17
3&4-Methylphenol	< 1720	ug/Kg	6/2/2018	09:17
3,3'-Dichlorobenzidine	< 1720	ug/Kg	6/2/2018	09:17
3-Nitroaniline	< 3450	ug/Kg	6/2/2018	09:17
4,6-Dinitro-2-methylphenol	< 3450	ug/Kg	6/2/2018	09:17
4-Bromophenyl phenyl ether	< 1720	ug/Kg	6/2/2018	09:17
4-Chloro-3-methylphenol	< 1720	ug/Kg	6/2/2018	09:17
4-Chloroaniline	< 1720	ug/Kg	6/2/2018	09:17
4-Chlorophenyl phenyl ether	< 1720	ug/Kg	6/2/2018	09:17
4-Nitroaniline	< 3450	ug/Kg	6/2/2018	09:17
4-Nitrophenol	< 3450	ug/Kg	6/2/2018	09:17
Acenaphthene	< 1720	ug/Kg	6/2/2018	09:17
Acenaphthylene	< 1720	ug/Kg	6/2/2018	09:17
Acetophenone	< 1720	ug/Kg	6/2/2018	09:17
Anthracene	< 1720	ug/Kg	6/2/2018	09:17
Atrazine	< 1720	ug/Kg	6/2/2018	09:17
Benzaldehyde	< 1720	ug/Kg	6/2/2018	09:17

Sample Identifier:	S-06 Depth 0.5-1		
Lab Sample ID:	182361-03	**Date Sampled:**	5/25/2018
Matrix:	Soil	**Date Received:**	5/30/2018

Benzo (a) anthracene	< 1720	ug/Kg	6/2/2018	09:17
Benzo (a) pyrene	< 1720	ug/Kg	6/2/2018	09:17
Benzo (b) fluoranthene	< 1720	ug/Kg	6/2/2018	09:17
Benzo (g,h,i) perylene	< 1720	ug/Kg	6/2/2018	09:17
Benzo (k) fluoranthene	< 1720	ug/Kg	6/2/2018	09:17
Bis (2-chloroethoxy) methane	< 1720	ug/Kg	6/2/2018	09:17
Bis (2-chloroethyl) ether	< 1720	ug/Kg	6/2/2018	09:17
Bis (2-ethylhexyl) phthalate	**3070**	ug/Kg	6/2/2018	09:17
Butylbenzylphthalate	< 1720	ug/Kg	6/2/2018	09:17
Caprolactam	< 1720	ug/Kg	6/2/2018	09:17
Carbazole	< 1720	ug/Kg	6/2/2018	09:17
Chrysene	< 1720	ug/Kg	6/2/2018	09:17
Dibenz (a,h) anthracene	< 1720	ug/Kg	6/2/2018	09:17
Dibenzofuran	< 1720	ug/Kg	6/2/2018	09:17
Diethyl phthalate	< 1720	ug/Kg	6/2/2018	09:17
Dimethyl phthalate	< 3450	ug/Kg	6/2/2018	09:17
Di-n-butyl phthalate	< 1720	ug/Kg	6/2/2018	09:17
Di-n-octylphthalate	< 1720	ug/Kg	6/2/2018	09:17
Fluoranthene	< 1720	ug/Kg	6/2/2018	09:17
Fluorene	< 1720	ug/Kg	6/2/2018	09:17
Hexachlorobenzene	< 1720	ug/Kg	6/2/2018	09:17
Hexachlorobutadiene	< 1720	ug/Kg	6/2/2018	09:17
Hexachlorocyclopentadiene	< 1720	ug/Kg	6/2/2018	09:17
Hexachloroethane	< 1720	ug/Kg	6/2/2018	09:17
Indeno (1,2,3-cd) pyrene	< 1720	ug/Kg	6/2/2018	09:17
Isophorone	< 1720	ug/Kg	6/2/2018	09:17
Naphthalene	< 1720	ug/Kg	6/2/2018	09:17
Nitrobenzene	< 1720	ug/Kg	6/2/2018	09:17
N-Nitroso-di-n-propylamine	< 1720	ug/Kg	6/2/2018	09:17
N-Nitrosodiphenylamine	< 1720	ug/Kg	6/2/2018	09:17
Pentachlorophenol	< 3450	ug/Kg	6/2/2018	09:17
Phenanthrene	< 1720	ug/Kg	6/2/2018	09:17

Sample Identifier: S-06 Depth 0.5-1
Lab Sample ID: 182361-03 **Date Sampled:** 5/25/2018
Matrix: Soil **Date Received:** 5/30/2018

Phenol	< 1720	ug/Kg			6/2/2018 09:17
Pyrene	< 1720	ug/Kg			6/2/2018 09:17

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	**80.0**	46 - 109		6/2/2018 09:17
2-Fluorobiphenyl	**69.0**	37.7 - 103		6/2/2018 09:17
2-Fluorophenol	**64.0**	39.9 - 92.7		6/2/2018 09:17
Nitrobenzene-d5	**62.1**	38.7 - 92.2		6/2/2018 09:17
Phenol-d5	**67.7**	42.2 - 96.1		6/2/2018 09:17
Terphenyl-d14	**86.7**	69.9 - 113		6/2/2018 09:17

Method Reference(s): EPA 8270D
EPA 3550C
Preparation Date: 5/30/2018
Data File: B28055.D

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 7.88	ug/Kg		6/6/2018 20:46
1,1,2,2-Tetrachloroethane	< 7.88	ug/Kg		6/6/2018 20:46
1,1,2-Trichloroethane	< 7.88	ug/Kg		6/6/2018 20:46
1,1-Dichloroethane	< 7.88	ug/Kg		6/6/2018 20:46
1,1-Dichloroethene	< 7.88	ug/Kg		6/6/2018 20:46
1,2,3-Trichlorobenzene	< 19.7	ug/Kg		6/6/2018 20:46
1,2,4-Trichlorobenzene	< 19.7	ug/Kg		6/6/2018 20:46
1,2,4-Trimethylbenzene	< 7.88	ug/Kg		6/6/2018 20:46
1,2-Dibromo-3-Chloropropane	< 39.4	ug/Kg		6/6/2018 20:46
1,2-Dibromoethane	< 7.88	ug/Kg		6/6/2018 20:46
1,2-Dichlorobenzene	< 7.88	ug/Kg		6/6/2018 20:46
1,2-Dichloroethane	< 7.88	ug/Kg		6/6/2018 20:46
1,2-Dichloropropane	< 7.88	ug/Kg		6/6/2018 20:46
1,3,5-Trimethylbenzene	< 7.88	ug/Kg		6/6/2018 20:46
1,3-Dichlorobenzene	< 7.88	ug/Kg		6/6/2018 20:46
1,4-Dichlorobenzene	< 7.88	ug/Kg		6/6/2018 20:46
1,4-dioxane	< 78.8	ug/Kg		6/6/2018 20:46

Lab Project ID: 182361

Client: **Panamerican Environmental Consultants**

Project Reference: 19 Doat

Sample Identifier:	S-06 Depth 0.5-1		
Lab Sample ID:	182361-03	**Date Sampled:**	5/25/2018
Matrix:	Soil	**Date Received:**	5/30/2018

2-Butanone	< 39.4	ug/Kg	6/6/2018	20:46
2-Hexanone	< 19.7	ug/Kg	6/6/2018	20:46
4-Methyl-2-pentanone	< 19.7	ug/Kg	6/6/2018	20:46
Acetone	< 39.4	ug/Kg	6/6/2018	20:46
Benzene	< 7.88	ug/Kg	6/6/2018	20:46
Bromochloromethane	< 19.7	ug/Kg	6/6/2018	20:46
Bromodichloromethane	< 7.88	ug/Kg	6/6/2018	20:46
Bromoform	< 19.7	ug/Kg	6/6/2018	20:46
Bromomethane	< 7.88	ug/Kg	6/6/2018	20:46
Carbon disulfide	< 7.88	ug/Kg	6/6/2018	20:46
Carbon Tetrachloride	< 7.88	ug/Kg	6/6/2018	20:46
Chlorobenzene	< 7.88	ug/Kg	6/6/2018	20:46
Chloroethane	< 7.88	ug/Kg	6/6/2018	20:46
Chloroform	< 7.88	ug/Kg	6/6/2018	20:46
Chloromethane	< 7.88	ug/Kg	6/6/2018	20:46
cis-1,2-Dichloroethene	< 7.88	ug/Kg	6/6/2018	20:46
cis-1,3-Dichloropropene	< 7.88	ug/Kg	6/6/2018	20:46
Cyclohexane	< 39.4	ug/Kg	6/6/2018	20:46
Dibromochloromethane	< 7.88	ug/Kg	6/6/2018	20:46
Dichlorodifluoromethane	< 7.88	ug/Kg	6/6/2018	20:46
Ethylbenzene	< 7.88	ug/Kg	6/6/2018	20:46
Freon 113	< 7.88	ug/Kg	6/6/2018	20:46
Isopropylbenzene	< 7.88	ug/Kg	6/6/2018	20:46
m,p-Xylene	< 7.88	ug/Kg	6/6/2018	20:46
Methyl acetate	< 7.88	ug/Kg	6/6/2018	20:46
Methyl tert-butyl Ether	< 7.88	ug/Kg	6/6/2018	20:46
Methylcyclohexane	< 7.88	ug/Kg	6/6/2018	20:46
Methylene chloride	< 19.7	ug/Kg	6/6/2018	20:46
Naphthalene	< 19.7	ug/Kg	6/6/2018	20:46
n-Butylbenzene	< 7.88	ug/Kg	6/6/2018	20:46
n-Propylbenzene	< 7.88	ug/Kg	6/6/2018	20:46
o-Xylene	< 7.88	ug/Kg	6/6/2018	20:46

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182361

Client: **Panamerican Environmental Consultants**

Project Reference: 19 Doat

Sample Identifier: S-06 Depth 0.5-1
Lab Sample ID: 182361-03 **Date Sampled:** 5/25/2018
Matrix: Soil **Date Received:** 5/30/2018

p-Isopropyltoluene	< 7.88	ug/Kg	6/6/2018	20:46
sec-Butylbenzene	< 7.88	ug/Kg	6/6/2018	20:46
Styrene	< 19.7	ug/Kg	6/6/2018	20:46
tert-Butylbenzene	< 7.88	ug/Kg	6/6/2018	20:46
Tetrachloroethene	**589**	ug/Kg	6/6/2018	20:46
Toluene	< 7.88	ug/Kg	6/6/2018	20:46
trans-1,2-Dichloroethene	< 7.88	ug/Kg	6/6/2018	20:46
trans-1,3-Dichloropropene	< 7.88	ug/Kg	6/6/2018	20:46
Trichloroethene	< 7.88	ug/Kg	6/6/2018	20:46
Trichlorofluoromethane	< 7.88	ug/Kg	6/6/2018	20:46
Vinyl chloride	< 7.88	ug/Kg	6/6/2018	20:46

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**115**	77.3 - 129		6/6/2018	20:46
4-Bromofluorobenzene	**85.6**	71 - 123		6/6/2018	20:46
Pentafluorobenzene	**86.6**	85.1 - 110		6/6/2018	20:46
Toluene-D8	**90.7**	82.7 - 112		6/6/2018	20:46

Internal standard outliers indicate probable matrix interference

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

Data File: x51438.D

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

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182361

Client: **Panamerican Environmental Consultants**

Project Reference: 19 Doat

Sample Identifier: S-09 Depth 0.5-1
Lab Sample ID: 182361-04 **Date Sampled:** 5/25/2018
Matrix: Soil **Date Received:** 5/30/2018

Part 375 Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	**4.67**	mg/Kg		6/9/2018 08:19
Barium	**72.8**	mg/Kg		6/9/2018 08:19
Beryllium	**0.403**	mg/Kg		6/9/2018 08:19
Cadmium	**0.976**	mg/Kg		6/9/2018 08:19
Chromium	**11.3**	mg/Kg		6/9/2018 08:19
Copper	**27.5**	mg/Kg		6/9/2018 08:19
Lead	**87.7**	mg/Kg		6/9/2018 08:19
Manganese	**306**	mg/Kg		6/9/2018 08:19
Nickel	**10.5**	mg/Kg		6/9/2018 08:19
Selenium	< 0.954	mg/Kg		6/9/2018 08:19
Silver	**3.11**	mg/Kg		6/9/2018 08:19
Zinc	**184**	mg/Kg		6/9/2018 08:19

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 6/4/2018
Data File: 180609A

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	**0.0302**	mg/Kg		6/6/2018 09:49

Method Reference(s): EPA 7471B
Preparation Date: 6/5/2018
Data File: Hg180606A

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 2910	ug/Kg		6/6/2018 08:21
1,2,4,5-Tetrachlorobenzene	< 2910	ug/Kg		6/6/2018 08:21
1,2,4-Trichlorobenzene	< 2910	ug/Kg		6/6/2018 08:21
1,2-Dichlorobenzene	< 2910	ug/Kg		6/6/2018 08:21
1,3-Dichlorobenzene	< 2910	ug/Kg		6/6/2018 08:21

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182361

Client: **Panamerican Environmental Consultants**

Project Reference: 19 Doat

Sample Identifier: S-09 Depth 0.5-1
Lab Sample ID: 182361-04 **Date Sampled:** 5/25/2018
Matrix: Soil **Date Received:** 5/30/2018

1,4-Dichlorobenzene	< 2910	ug/Kg	6/6/2018	08:21
2,2-Oxybis (1-chloropropane)	< 2910	ug/Kg	6/6/2018	08:21
2,3,4,6-Tetrachlorophenol	< 2910	ug/Kg	6/6/2018	08:21
2,4,5-Trichlorophenol	< 5810	ug/Kg	6/6/2018	08:21
2,4,6-Trichlorophenol	< 2910	ug/Kg	6/6/2018	08:21
2,4-Dichlorophenol	< 2910	ug/Kg	6/6/2018	08:21
2,4-Dimethylphenol	< 2910	ug/Kg	6/6/2018	08:21
2,4-Dinitrophenol	< 5810	ug/Kg	6/6/2018	08:21
2,4-Dinitrotoluene	< 2910	ug/Kg	6/6/2018	08:21
2,6-Dinitrotoluene	< 2910	ug/Kg	6/6/2018	08:21
2-Chloronaphthalene	< 2910	ug/Kg	6/6/2018	08:21
2-Chlorophenol	< 2910	ug/Kg	6/6/2018	08:21
2-Methylnapthalene	< 2910	ug/Kg	6/6/2018	08:21
2-Methylphenol	< 2910	ug/Kg	6/6/2018	08:21
2-Nitroaniline	< 5810	ug/Kg	6/6/2018	08:21
2-Nitrophenol	< 2910	ug/Kg	6/6/2018	08:21
3&4-Methylphenol	< 2910	ug/Kg	6/6/2018	08:21
3,3'-Dichlorobenzidine	< 2910	ug/Kg	6/6/2018	08:21
3-Nitroaniline	< 5810	ug/Kg	6/6/2018	08:21
4,6-Dinitro-2-methylphenol	< 5810	ug/Kg	6/6/2018	08:21
4-Bromophenyl phenyl ether	< 2910	ug/Kg	6/6/2018	08:21
4-Chloro-3-methylphenol	< 2910	ug/Kg	6/6/2018	08:21
4-Chloroaniline	< 2910	ug/Kg	6/6/2018	08:21
4-Chlorophenyl phenyl ether	< 2910	ug/Kg	6/6/2018	08:21
4-Nitroaniline	< 5810	ug/Kg	6/6/2018	08:21
4-Nitrophenol	< 5810	ug/Kg	6/6/2018	08:21
Acenaphthene	**4210**	ug/Kg	6/6/2018	08:21
Acenaphthylene	< 2910	ug/Kg	6/6/2018	08:21
Acetophenone	< 2910	ug/Kg	6/6/2018	08:21
Anthracene	**8870**	ug/Kg	6/6/2018	08:21
Atrazine	< 2910	ug/Kg	6/6/2018	08:21
Benzaldehyde	< 2910	ug/Kg	6/6/2018	08:21

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182361

Client: **Panamerican Environmental Consultants**

Project Reference: 19 Doat

Sample Identifier: S-09 Depth 0.5-1
Lab Sample ID: 182361-04 **Date Sampled:** 5/25/2018
Matrix: Soil **Date Received:** 5/30/2018

Benzo (a) anthracene	**12000**	ug/Kg	6/6/2018	08:21
Benzo (a) pyrene	**15500**	ug/Kg	6/6/2018	08:21
Benzo (b) fluoranthene	**21400**	ug/Kg	6/6/2018	08:21
Benzo (g,h,i) perylene	**9620**	ug/Kg	6/6/2018	08:21
Benzo (k) fluoranthene	**9730**	ug/Kg	6/6/2018	08:21
Bis (2-chloroethoxy) methane	< 2910	ug/Kg	6/6/2018	08:21
Bis (2-chloroethyl) ether	< 2910	ug/Kg	6/6/2018	08:21
Bis (2-ethylhexyl) phthalate	< 2910	ug/Kg	6/6/2018	08:21
Butylbenzylphthalate	< 2910	ug/Kg	6/6/2018	08:21
Caprolactam	< 2910	ug/Kg	6/6/2018	08:21
Carbazole	**4760**	ug/Kg	6/6/2018	08:21
Chrysene	**15900**	ug/Kg	6/6/2018	08:21
Dibenz (a,h) anthracene	< 2910	ug/Kg	6/6/2018	08:21
Dibenzofuran	< 2910	ug/Kg	6/6/2018	08:21
Diethyl phthalate	< 2910	ug/Kg	6/6/2018	08:21
Dimethyl phthalate	< 5810	ug/Kg	6/6/2018	08:21
Di-n-butyl phthalate	< 2910	ug/Kg	6/6/2018	08:21
Di-n-octylphthalate	< 2910	ug/Kg	6/6/2018	08:21
Fluoranthene	**33700**	ug/Kg	6/6/2018	08:21
Fluorene	**4480**	ug/Kg	6/6/2018	08:21
Hexachlorobenzene	< 2910	ug/Kg	6/6/2018	08:21
Hexachlorobutadiene	< 2910	ug/Kg	6/6/2018	08:21
Hexachlorocyclopentadiene	< 2910	ug/Kg	6/6/2018	08:21
Hexachloroethane	< 2910	ug/Kg	6/6/2018	08:21
Indeno (1,2,3-cd) pyrene	**10500**	ug/Kg	6/6/2018	08:21
Isophorone	< 2910	ug/Kg	6/6/2018	08:21
Naphthalene	< 2910	ug/Kg	6/6/2018	08:21
Nitrobenzene	< 2910	ug/Kg	6/6/2018	08:21
N-Nitroso-di-n-propylamine	< 2910	ug/Kg	6/6/2018	08:21
N-Nitrosodiphenylamine	< 2910	ug/Kg	6/6/2018	08:21
Pentachlorophenol	< 5810	ug/Kg	6/6/2018	08:21
Phenanthrene	**32500**	ug/Kg	6/6/2018	08:21

Sample Identifier: S-09 Depth 0.5-1
Lab Sample ID: 182361-04 **Date Sampled:** 5/25/2018
Matrix: Soil **Date Received:** 5/30/2018

Phenol	< 2910	ug/Kg		6/6/2018	08:21
Pyrene	**37000**	ug/Kg		6/6/2018	08:21

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
2,4,6-Tribromophenol	**75.0**	46 - 109		6/6/2018	08:21
2-Fluorobiphenyl	**71.6**	37.7 - 103		6/6/2018	08:21
2-Fluorophenol	**12.8**	39.9 - 92.7	*	6/6/2018	08:21
Nitrobenzene-d5	**34.4**	38.7 - 92.2	*	6/6/2018	08:21
Phenol-d5	**29.0**	42.2 - 96.1	*	6/6/2018	08:21
Terphenyl-d14	**102**	69.9 - 113		6/6/2018	08:21

Internal standard outliers indicate probable matrix interference

Method Reference(s): EPA 8270D
EPA 3550C
Preparation Date: 5/30/2018
Data File: B28152.D

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed	
1,1,1-Trichloroethane	< 6.71	ug/Kg		6/6/2018	21:10
1,1,2,2-Tetrachloroethane	< 6.71	ug/Kg		6/6/2018	21:10
1,1,2-Trichloroethane	< 6.71	ug/Kg		6/6/2018	21:10
1,1-Dichloroethane	< 6.71	ug/Kg		6/6/2018	21:10
1,1-Dichloroethene	< 6.71	ug/Kg		6/6/2018	21:10
1,2,3-Trichlorobenzene	< 16.8	ug/Kg		6/6/2018	21:10
1,2,4-Trichlorobenzene	< 16.8	ug/Kg		6/6/2018	21:10
1,2,4-Trimethylbenzene	< 6.71	ug/Kg		6/6/2018	21:10
1,2-Dibromo-3-Chloropropane	< 33.6	ug/Kg		6/6/2018	21:10
1,2-Dibromoethane	< 6.71	ug/Kg		6/6/2018	21:10
1,2-Dichlorobenzene	< 6.71	ug/Kg		6/6/2018	21:10
1,2-Dichloroethane	< 6.71	ug/Kg		6/6/2018	21:10
1,2-Dichloropropane	< 6.71	ug/Kg		6/6/2018	21:10
1,3,5-Trimethylbenzene	< 6.71	ug/Kg		6/6/2018	21:10
1,3-Dichlorobenzene	< 6.71	ug/Kg		6/6/2018	21:10
1,4-Dichlorobenzene	< 6.71	ug/Kg		6/6/2018	21:10

Lab Project ID: 182361

Client: **Panamerican Environmental Consultants**

Project Reference: 19 Doat

Sample Identifier:	S-09 Depth 0.5-1		
Lab Sample ID:	182361-04	**Date Sampled:**	5/25/2018
Matrix:	Soil	**Date Received:**	5/30/2018

1,4-dioxane	< 67.1	ug/Kg	6/6/2018	21:10
2-Butanone	< 33.6	ug/Kg	6/6/2018	21:10
2-Hexanone	< 16.8	ug/Kg	6/6/2018	21:10
4-Methyl-2-pentanone	< 16.8	ug/Kg	6/6/2018	21:10
Acetone	< 33.6	ug/Kg	6/6/2018	21:10
Benzene	< 6.71	ug/Kg	6/6/2018	21:10
Bromochloromethane	< 16.8	ug/Kg	6/6/2018	21:10
Bromodichloromethane	< 6.71	ug/Kg	6/6/2018	21:10
Bromoform	< 16.8	ug/Kg	6/6/2018	21:10
Bromomethane	< 6.71	ug/Kg	6/6/2018	21:10
Carbon disulfide	< 6.71	ug/Kg	6/6/2018	21:10
Carbon Tetrachloride	< 6.71	ug/Kg	6/6/2018	21:10
Chlorobenzene	< 6.71	ug/Kg	6/6/2018	21:10
Chloroethane	< 6.71	ug/Kg	6/6/2018	21:10
Chloroform	< 6.71	ug/Kg	6/6/2018	21:10
Chloromethane	< 6.71	ug/Kg	6/6/2018	21:10
cis-1,2-Dichloroethene	< 6.71	ug/Kg	6/6/2018	21:10
cis-1,3-Dichloropropene	< 6.71	ug/Kg	6/6/2018	21:10
Cyclohexane	< 33.6	ug/Kg	6/6/2018	21:10
Dibromochloromethane	< 6.71	ug/Kg	6/6/2018	21:10
Dichlorodifluoromethane	< 6.71	ug/Kg	6/6/2018	21:10
Ethylbenzene	< 6.71	ug/Kg	6/6/2018	21:10
Freon 113	< 6.71	ug/Kg	6/6/2018	21:10
Isopropylbenzene	< 6.71	ug/Kg	6/6/2018	21:10
m,p-Xylene	< 6.71	ug/Kg	6/6/2018	21:10
Methyl acetate	< 6.71	ug/Kg	6/6/2018	21:10
Methyl tert-butyl Ether	< 6.71	ug/Kg	6/6/2018	21:10
Methylcyclohexane	< 6.71	ug/Kg	6/6/2018	21:10
Methylene chloride	< 16.8	ug/Kg	6/6/2018	21:10
Naphthalene	< 16.8	ug/Kg	6/6/2018	21:10
n-Butylbenzene	< 6.71	ug/Kg	6/6/2018	21:10
n-Propylbenzene	< 6.71	ug/Kg	6/6/2018	21:10

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 182361

Client: **Panamerican Environmental Consultants**

Project Reference: 19 Doat

Sample Identifier: S-09 Depth 0.5-1
Lab Sample ID: 182361-04 **Date Sampled:** 5/25/2018
Matrix: Soil **Date Received:** 5/30/2018

o-Xylene	< 6.71	ug/Kg	6/6/2018	21:10
p-Isopropyltoluene	< 6.71	ug/Kg	6/6/2018	21:10
sec-Butylbenzene	< 6.71	ug/Kg	6/6/2018	21:10
Styrene	< 16.8	ug/Kg	6/6/2018	21:10
tert-Butylbenzene	< 6.71	ug/Kg	6/6/2018	21:10
Tetrachloroethene	< 6.71	ug/Kg	6/6/2018	21:10
Toluene	< 6.71	ug/Kg	6/6/2018	21:10
trans-1,2-Dichloroethene	< 6.71	ug/Kg	6/6/2018	21:10
trans-1,3-Dichloropropene	< 6.71	ug/Kg	6/6/2018	21:10
Trichloroethene	< 6.71	ug/Kg	6/6/2018	21:10
Trichlorofluoromethane	< 6.71	ug/Kg	6/6/2018	21:10
Vinyl chloride	< 6.71	ug/Kg	6/6/2018	21:10

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**128**	77.3 - 129		6/6/2018	21:10
4-Bromofluorobenzene	**80.1**	71 - 123		6/6/2018	21:10
Pentafluorobenzene	**86.6**	85.1 - 110		6/6/2018	21:10
Toluene-D8	**75.2**	82.7 - 112	*	6/6/2018	21:10

Internal standard outliers indicate probable matrix interference

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

Data File: x51439.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.

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.

GENERAL TERMS AND CONDITIONS
LABORATORY SERVICES

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

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

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

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

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

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

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

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

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

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

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

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

PARADIGM
ENVIRONMENTAL SERVICES, INC

CHAIN OF CUSTODY

REPORT TO:		INVOICE TO:		
CLIENT:	BE3 CORP / AMERICAN	CLIENT:		LAB PROJECT ID: 182361
ADDRESS:	1270 NIAGARA STREET	ADDRESS:	SAME	
CITY:	BUFFALO STATE: NY ZIP: 14213	CITY:	STATE: ZIP:	Quotation #:
PHONE:	716-309-8220	PHONE:		Email:
ATTN:	PETER J. GORTON	ATTN:		

PROJECT REFERENCE: 19 DOAT

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

REQUESTED ANALYSIS

DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	DEPTH	MATRIX CODES	NUMBER OF CONTAINERS	8260 SVOCs	8270 METALS	# VOC's CP51								REMARKS	PARADIGM LAB SAMPLE NUMBER
5-25-18	815		X	S-01	0.5-1	SO	1	X	X										01
	830			S-02			1											HOLD	
	835			S-03			1												02
	845			S-04			1											HOLD	
	850			S-05			1											HOLD	
	900			S-06			1			X									03
	910			S-07			1											HOLD	
	920			S-08			1											HOLD	
	930			S-09			1			X								[redacted]	04
	945			S-10			1											HOLD	

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

Sampled By: PETER J. GORTON	Date/Time: 5-25-18 8AM-10AM	Total Cost:
Relinquished By: [signature]	Date/Time: 5-25-18 11:45	
Received By: [signature]	Date/Time: 5-25-18 11:45	P.I.F.
Received @ Lab By: Emily Jackson	Date/Time: 5/30/18 11:21	

5°C iced 5/29/18 15:45

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

See additional page for sample conditions.

Chain of Custody Supplement

Client: Panamerican Environmental **Completed by:** Emily Jackson

Lab Project ID: 182361 **Date:** 5/30/18

Sample Condition Requirements

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

Condition	*NELAC compliance with the sample condition requirements upon receipt* Yes	No	N/A
Container Type	X	X 5035	
Comments			
Transferred to method-compliant container			X
Headspace (<1 mL)			X
Comments			
Preservation			X
Comments			
Chlorine Absent (<0.10 ppm per test strip)			X
Comments			
Holding Time	X		
Comments			
Temperature	X		X metals
Comments	5°C iced		
Sufficient Sample Quantity	X		
Comments			

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