PHASE II ENVIRONMENTAL SITE ASSESSMENT

68 TONAWANDA STREET

CITY OF BUFFALO, ERIE COUNTY, NEW YORK

Prepared for:

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February 2017

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1.0 INTRODUCTION AND BACKGROUND

1.1 INTRODUCTION AND PURPOSE

This Phase II Environmental Site Assessment (ESA) report performed for 68 Tonawanda Street located in the City of Buffalo, New York (refer to Figure 1) combines the findings of two separate investigations completed at different times by Panamerican Environmental, Inc./ Brydges-environment, engineering, and energy (PEI/BE3) at the property. The scope of work for both investigations was based on the findings of a Phase I ESA completed on the property ("*Phase I Environmental Site Assessment 120 (68) Tonawanda Street and Adjacent Vacant Rail Road Property City of Buffalo, Erie County, New York"* Completed by PEI for Mr. Ed Hogel in February 2013). The first assessment resulted in a letter report *("Limited Phase II Environmental Site Assessment– 120 (68) Tonawanda Street, Buffalo, New York* Completed by PEI for Mr. Ed Hogel and Mr. Wayne Bacon, March 2014). The second Phase II ESA completed in January-February 2017 built upon the findings of the first assessment and its findings are presented in this report. The purpose of the scope was to complete due diligence for property acquisition and to collect additional information for potential entry into the New York Department of Environmental Conservation (NYSDEC) Brownfields Cleanup Program (BCP).

Currently the property is owned by 120 Tonawanda Street, Inc. and occupied by Atlas Steel and Steel Crazy Iron Art. Additional information on operational use of the property is provided in Section 1.3 below.

1.2 SCOPE

The scope of work included the following tasks:

- Detailed review of historical information to finalize the specific Phase II tasks;
- Complete subsurface soil assessment;
- Describe shallow geology across the property; and
- Preparation of an assessment (Phase II ESA) report

1.3 BACKGROUND

The 68 Tonawanda Street property is approximately 1.75-acres and located in the Black Rock area of the City of Buffalo. The property is located within the City of Buffalo Tonawanda Street Corridor Brownfield Opportunity Area (BOA). The Tonawanda Street Corridor BOA is comprised of 514 acres of primarily under-utilized industrial brownfields in northwest Buffalo stretching from Scajaquada Creek (Creek) to just south of the Tonawanda municipal boundary, and along Chandler Street.

The area and property have a long historic use and is located in what was formerly a highly industrial area. Commercial use of the general area occurred in the early 1800's situated around Black Rock. Located just north and across Tonawanda Street from the corner of West and

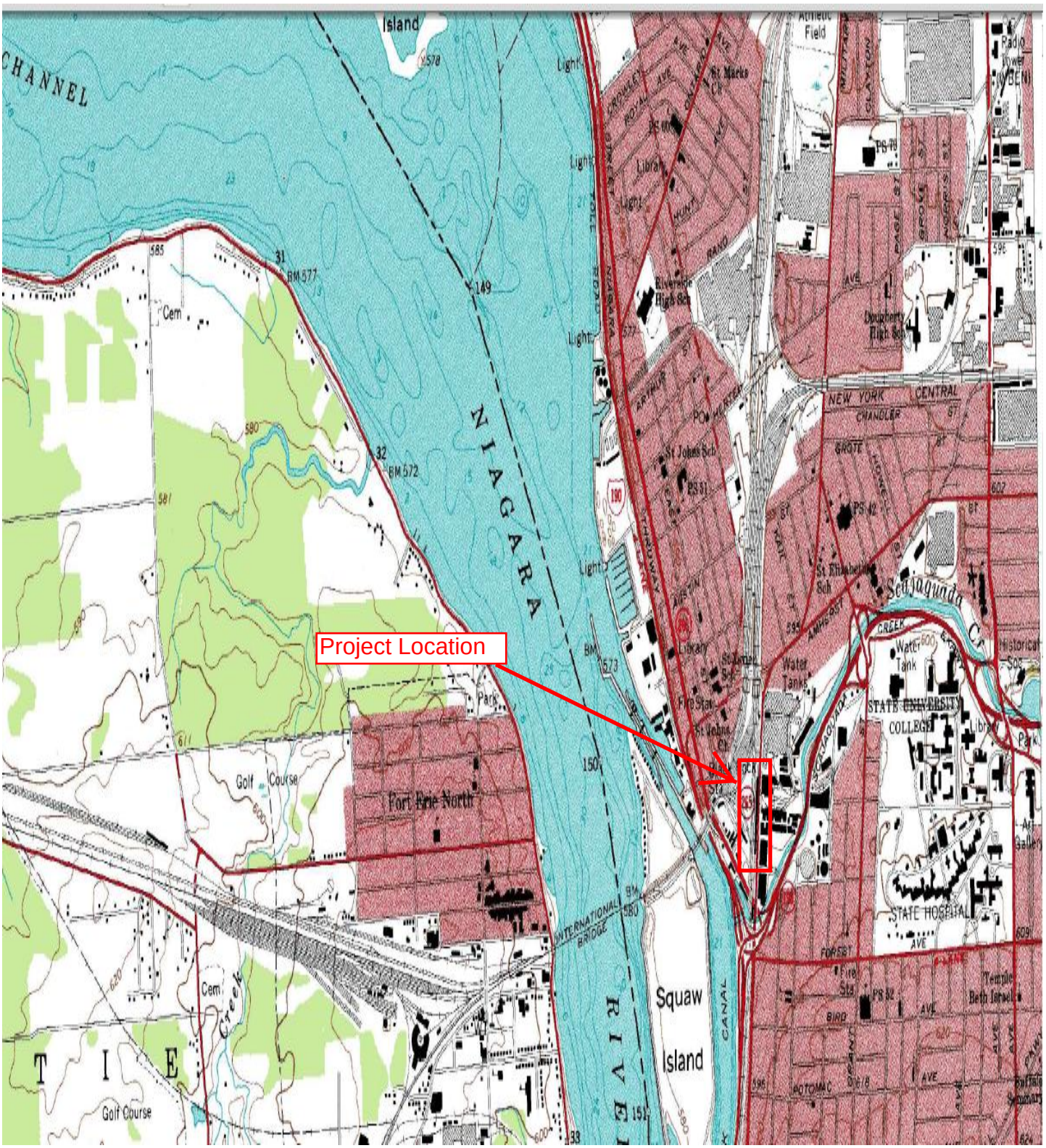

Figure - Project Location. Source: US Department of Interior Geological Survey. Buffalo NW Quad. New York-Ontario. 7.5 Minute Series

Tonawanda Streets, the elongated subject 68 Tonawanda Street property is situated between the active rail lines and Tonawanda Street. The property contains the former ***New York Central Freight House and Office***. This long narrow 1½-story brick freight house structure was constructed in the early 1900s. The structure does not contain a basement. The building has been recommended as National Register Eligible for its association with the transportation and industrial history of the City of Buffalo at the local, national and international levels.

Historical information and maps suggest that by 1889 the Black Rock Passenger Station was located in the southern part of the parcel with some sheds and other disconnected buildings including freight platforms and separate smaller freight houses extending north where the freight house is currently. By 1916 the Freight house building was located on the parcel and rail tracts extended across the adjacent northern rail parcel. A review of 1916 historic maps suggests that the structure included a freight office. The former freight house building is currently being used by EB Atlas Steel Corp. and Steel Crazy Iron Art which specialize in steel construction, architectural and ornamental metal work. The structure contains eight separate bays. Floors are cement and lighting is a combination mercury and florescent. Various materials associated with steel construction and architectural art are found throughout the building including steel/metal, various steel working machines, welding equipment etc. Small quantities of paints and lacquers are also contained in the structure in 55-gallon drums or smaller containers. The building uses cooking grease and fry oil as a fuel for heating. This material is contained in 55-gallon drums and other size containers and fed into a heating system. North of the building contains a lay-down area where steel and other materials are stored. This lay-down area extends north onto the adjoining rail parcel. The rail parcel is vacant land beyond the lay-down section. A few 55-gallon drums were observed during the Phase I ESA in the lay-down area and behind the building. The 55-gallon drums at this facility are reportedly associated with three different purposes including storage of the vegetable oil used for heating system or they contain primer paint or sand used in the metal work. A covered section attached to the western side of the building is located along the northern end. This area has steel I-beams and other materials and appears to be used for both storage and manufacturing activities.

The subject parcel has been associated with rail operations since the mid-late 1800's. By the late 1800's the property contained freight platforms and separate freight depots. As a freight depot, much of the raw and manufactured products that supported the surrounding industry and residential community were probably temporarily stored at this location. Materials where on/off loaded from freight trains on the western rail side of the property and off/on loaded to vehicles on the eastern Tonawanda Street side of the property.

Rail tracts are located immediately adjacent to the west and a vacant undeveloped "triangle shaped" area is further west. Immediately south of the property is a vacant residential/restaurant structure and a vehicle repair shop towards the intersection of Niagara and Tonawanda Streets. Historically the property immediately south had a series of small store and residential structures. Tenements were indicated on the southern adjacent property during the early 1900's and by the 1950's these properties were restaurant and filling station/auto repair facilities. The area immediately north was mostly rail with an office and later a restaurant north of Parish Street at Tonawanda Street. Now mostly vacant, major manufacturing complexes including production of paint and lacquers, automotive parts, metal machining, brick and sewer pipe, and steel foundry

operations were located east of the property across Tonawanda Street.

The following potential recognized environmental conditions were noted in the Phase I ESA:

- The property has been associated with rail use and freight storage since the mid-late 1800's. In general, railroad operations have historically produced low level contamination of surrounding areas and therefore the possibility of soil contamination associated with the former railroad operations cannot be discounted. Railroad environmental issues sometimes involve diesel fuel and other petroleum products and rail areas have also been associated with other contaminants such as heavy metals, chlorinated hydrocarbons, and PAHs above NYSDEC guidelines. In general, soils at former rail road property typically consists of fill near the surface which is typically a black cindery fill layer consistent with materials typically found at rail yards including cinder, gravel, coal and sometimes slag. The fill typically contains elevated concentrations of a few PAHs and metals which may slightly exceed the New York State Department of Environmental Conservation (NYSDEC) soil cleanup guidance values. PAH and metal compounds are common constituents of fill material found in urban environments and are typically associated with rail yards and particularly with the cindery fill used at rail yards.
- The Fedders-Quigan Corporation occupied the southern portion of the freight house by at least 1950. The main Fedders complex was located across Tonawanda Street. Indications were that the subject property was used for freight warehousing products/raw materials. It is unknown if Fedders conducted any manufacturing in the subject property.
- The property has been associated with steel fabrication in the recent past. Depending on the extent of the fabrication, various materials such as metal shavings and metallic dust are likely present. Use of metal cleaning/polishing compounds, and abrasives as well as any fuel may have contributed to environmental impacts.
- Soil mounds and a small number of drums were observed in the rear of the property. These reportedly are empty drums that previously contained either paint primer, sand or used cooking grease/vegetable oil.
- Foundry and machine shop operations were located adjacent to the subject property. Environmental impacts associated with these facilities include elevated levels of lead and other metals in soils and wastes associated with slag/foundry sands such as phenols. Other contaminants, including solvents and petroleum products were associated with these adjacent properties. The large Pratt & Lambert paint; resin and lacquer facility which included above ground and underground storage of chemicals and petroleum in numerous tanks, drums and vessels was located adjacent to the property. It is possible that releases from these facilities have impacted area surface and near-surface soils above "normal" urban background with regard to metals and polycyclic aromatic hydrocarbons (PAH) as well as other organic compounds.
- A former Manufacturing Gas Plant (MGP) was located east and nearby the property during the early 1900's until the 1950's. Another MGP plant was located southeast across the creek in the early 1900's. The distance from the subject properties and these facility was most likely too far to have a significant environmental effect on the subject parcels
- The adjacent Fedders complex properties have a history of chemical and petroleum use and storage. Industrial wastes were reported to include solder dross, degreasing still bottoms

including trichloroethylene (TCE) and tetrachloroethene compounds, petroleum-based lubricating fluids and other products and wastes. However, it is likely based on topography and groundwater flow that this facility is mostly either cross/down-gradient of the subject properties.

- A gasoline service station and auto repair facility was located adjacent/nearby to the south. However, it is likely based on topography and groundwater flow that this property is cross/down-gradient of the property.

Due to the property use history and adjacent property uses, PEI believes potential vapor concerns may also exist. More detailed information of the history of the properties is contained in the separate Phase I ESA report identified in Section 1.1.

2.0 FIELD INVESTIGATIONS

The purpose of the Phase II ESA is to assess the potential for environmental impacts indicated by historical use at/adjacent to the subject property. The objective of this assessment was to perform a field verification concerning subsurface conditions relative to the potential recognized environmental conditions identified in the Phase I ESA and previous limited Phase II ESA as summarized in Section 1.1. The assessment was focused on the subsurface soil media and data collected is intended to be used for Brownfield redevelopment.

Field work was completed at the property on March 5, 2014 and January 26, 2017. Weather conditions included cold temperatures, with mostly clear skies during the 2014 event and rain during the 2017 event. A summary of the field investigation methodology and findings is presented below.

2.1 DETAILED ASSESSMENT OF HISTORICAL INFORMATION

PEI completed a detailed review of historical information compiled in the Phase I and II ESAs as described in Section 1.3 including a review of historic Sanborn maps, aerial photographs other records and filed data. Based on this information, a subsurface soil investigation was developed to collect soil data across the property.

2.2 SUBSURFACE SOIL/SOIL GAS ASSESSMENT

PEI completed a field soil screening using a total organic vapor monitor (PID) and soil sampling using Geoprobe® direct push technology to investigate subsurface conditions at the property. A total of seventeen (17) Geoprobe borings were advanced in an array around the western, northern and southern perimeter of the 68 Tonawanda Street structure (refer to Figure). Three borings were placed along the eastern side of the building during the 2014 field investigation. These included Boreholes BH-6, BH-7 and BH-8. These are not associated with this property and therefore not covered in this Phase II ESA report but are mentioned to explain why they are missing from the figures, table and discussion. The eastern perimeter of the property is the structures eastern wall (refer to Figure). Borings were advanced to an average depth of 8 feet below ground surface (refer to borehole logs in Appendix C). At each boring location, continuous soil sampling was conducted

Figure 2: Approximate Location of Bore Holes West Side

Key: ● **BH-1** **Borehole/Sample Location - 2014 Event**

● **BH-1A** **Borehole/Sample Location - 2017 Event**

using the Geoprobe® with a two-inch diameter sampler with four-foot lengths resulting in two to three distinct sample cores (i.e., 0-4', 4-8', 8-12').

Also, at each location, visual observations were recorded and field screening of soil for volatile organic compound (VOC) concentrations using a photoionization detector (PID - MiniRae with a 10.2 eV Lamp) was completed. Note, due to the rainy weather conditions encountered during the January 2017 event, the PID was limited and not working for the last two boreholes.

The field observations and PID readings indicated that urban fill material (fill) exists at the property to a depth that varies form about two (2) to six feet (6) below ground surface (bgs) with fill below these depths observed in the mid to southern end of the property. Fill was deepest in borehole BH-4 where fill may be as deep as eleven (11) feet bgs. Both BH-4 and BH-9A encountered soil impacted with petroleum compounds especially at the six to eight foot depth. The property owner indicated to PEI/BE3 that fill may be deep in places and that buried rail lines are located along the building associated with the off- and on-loading of freight. The fill mainly consisted of black and grey ash/cherty sand and gravel with some silt, sand, wood, brick and cement. Reddish-Brown clay or silty clay was observed below the fill level.

Elevated PID readings and minor odors were observed at two locations during the 2014 event; borehole BH-4 at a depth of 4-8 feet bgs and in borehole BH-9 at a depth of between 3-4 feet. Borehole 4 was located in the southwest corner of the property and borehole BH-9 was located in the northwest portion of the property adjacent to six 55-gallon drums which are no longer present at the property at that location. Stronger petroleum odor was observed at borehole BH-9A during the 2017 sampling event at between 6-8 feet. Borehole BH-9A is located just south of BH-4 and probably represents the same petroleum impacts observed at that borehole.

A total of ten soil samples were collected for laboratory analysis; three (3) soil samples were collected during the 2014 event and seven (7) were collected from the 2017 field event. This included soil samples collected as follows:

- fill material from borehole BH-3 from 0-2 feet bgs;
- a sample from borehole BH-4 from soil that had a petroleum odor and an elevated PID reading (30 ppm total organic vapor) at 5-6 feet bgs;
- a sample from borehole BH-9 that had an odor and an elevated PID reading (15 ppm) at 3-4 feet bgs;
- Fill material from BH-1A from 1-4 feet bgs;
- Fill material from BH-2A from 1-3 feet bgs;
- Fill material from BH-4A from 1-6 feet bgs;
- Fill material from BH-5A from 1-6 feet bgs;
- Fill material from BH-6A from 0-3 feet bgs;
- Fill material from BH-8A from 0-4 feet bgs; and
- A sample from borehole BH-9A that had a petroleum odor at 6-8 feet bgs.

The soil samples were submitted to Paradigm Environmental Services, Inc. laboratory for analysis. Samples were analyzed for the full brownfields list – metals, volatile and semi-volatile organic compounds, pesticides and PCBs (see 375 parameter list) minus hexavalent chromium and Silvex in all samples except BH-6A, BH-8A and BH-9A. Samples from BH-6A and BH-8A had the full brownfield list analysis minus volatile organic compounds and the sample from BH-9A was only analyzed for volatile organic compounds plus Tentatively Identified Compounds (TICs).

A further description of soil is presented in each borehole log. At completion, all probe holes were filled with indigenous soil. Photographs of field activities are contained in Attachment A. Prior to conducting the subsurface investigation, all utilities were located and areas identified. The locations of the soil borings were field located and were subject to accessibility and the location of underground utility lines. All soil borings were advanced at a minimum distance of 2.5 feet away from marked utilities, where present, to reduce the possibility of accidentally damaging an underground line. All sampling tools were cleaned with Alconox, double rinsed with tap water and rinsed with distilled water between sample collection points.

Photoionization Detection (PID)

During the drilling process, field screening of volatile organic compound (VOC) concentrations was performed using a Photo Ionization Detector (PID) (PID MiniRae 2000). The PID is used mostly to detect VOCs in soil, sediment, air and water. It is often used to detect contaminants in ambient air and soil during drilling activities and during spills to identify potential problems. As described elevated levels were observed only in borehole BH-4 and Borehole BH-9 at the specific depths identified. None of the other boreholes had any readings of VOCs above background. The PID was not responding due to weather conditions during the drilling of Boreholes BH-8A and BH-9A.

The PID is a portable vapor and gas detector that detects a variety of organic compounds. Photo ionization occurs when an atom or molecule absorbs light of sufficient energy to cause an electron to leave and create a positive ion. The PID is comprised of an ultraviolet lamp that emits photons that are absorbed by the compound in an ionization chamber. Ions (atoms or molecules that have gained or lost electrons and thus have a net positive or negative charge) produced during this process are collected by electrodes. The current generated provides a measure of the analyte concentration. A PID sensor works differently than other sensors. The PID contains a lamp that is rated to a specific ionization potential measured in electron volts (eV). Some common lamps available are 9.8 eV, 10.6 eV, and 11.7 eV. A 10.6 eV lamp was used on this project. When the lamp ignites and a gas molecule passes through the light emitted from it, the molecule is ionized (if the ionization potential of the molecule is less than the ionization potential of the lamp) or nothing happens (if the molecule's ionization potential is above that of the lamp). Once ionized, positive and negative ions are collected on electrodes, which produce a signal that is directly proportional to the amount of ions present at the electrodes. The signal is then displayed in parts per million on the instrument display.

Limitations of PIDs - Because a PID ionizes any molecule with an ionization potential less than the ionization potential of its lamp, the detector is not specific to any gas. The detector itself

measures the amount of positive and negative ions detected on the electrodes. These ions can come from any compound that was ionized. Unless a specific VOC is known to be the only VOC present in a certain area or to be a byproduct of a specific process, the PID will be able only to accurately inform the user that a compound has been ionized. It will not be able to distinguish what the compound actually is.

Another limitation of a PID is that many of them respond to humidity. If a high-humidity sample is taken, the water vapor can cause false positive readings. Also, a PID is not suitable for the detection of semi-volatile organic compounds or metals and only indicates if volatile compounds may be present. A sample analyzed at a laboratory is necessary to identify any specific compounds.

2.3 LABORATORY ANALYTICAL RESULTS

The analytical results from the sample collection are summarized in Table 1, which presents all ten samples sent for analyses including those from 2014 and 2017. The table compares the results with NYS standards, specifically, the residential and restricted residential NYSDEC Soil Cleanup Objectives (SCOs) as presented in 6 NYCRR Part 375-6.8 (b). The complete set of analytical data is provided in Appendix B. Summary results are also provided on Figure 3. A summary review of the results follows:

Volatile Organic Compounds (VOCs)

No VOCs were identified in the samples above the Part 375 SCOs. A number of borehole soil samples did have minor VOC findings well below guidance values. However, Boreholes BH-4, BH9 and BH-9A had positive response on the field instrument of ±30 ppm and or a distinct petroleum based odor. BH-4 and BH-9A are both associated with the southwest corner of the building and BH-9 was located in the northern portion of the property. No significant VOCs were detected in the laboratory analysis of the samples from these locations. However each had a number of tentatively identified VOCs. Tentatively Identified Compounds (TICs) – a TIC is a compound that can be seen by the analytical testing method, but its identity and concentration cannot be confirmed without further analytical investigation. At this property it is possible that the TICs from BH-4 and BH9A are associated with a very old/weathered petroleum impact in the south west corner of the property of either gasoline or heating oil. The weathering of the fuel in old releases tends to produce conventional chromatograph or non-conventional analysis "signatures" that do not quite match against a distinct petroleum compound "signature" peak but close enough to identify it as a petroleum type compound.

Semi-Volatile Organic Compounds (SVOCs)

A number of SVOCs consisting primarily of polynuclear aromatic hydrocarbons (PAHs) were detected above residential/restricted residential SCOs in five (5) of the ten (10) samples collected and analyzed. Borehole sample results and individual compound concentrations are provided on Table 1.

TABLE 1 - 68 TONAWANDA STREET - PHASE 2 ESA SOIL SAMPLE ANALTICAL RESULTS SUMMARY

Sampling Program	PEI - Phase 2 ESA SOIL BORING SAMPLING PROGRAM													
Sample Number	**BH 3**	**BH 4**	**BH 9**	**BH 1A**	**BH 2A**	**BH 4A**	**BH 5A**	**BH 6A**	**BH 8A**	**BH 9A**	**NYSDEC**	**NYSDEC**	**NYSDEC**	**NYSDEC**
Sample Date	**3/5/2014**	**3/5/2014**	**3/5/2014**	**1/26/2017**	**1/26/2017**	**1/26/2017**	**1/26/2017**	**1/26/2017**	**1/26/2017**	**1/26/2017**	**PART 375**	**PART 375**	**CP-51**	**CP-51**
Sample depth (bgs)	**0' - 2'**	**5' - 6'**	**3' - 4'**	**1' - 4'**	**1' - 3'**	**1' - 6'**	**1' - 6'**	**0' - 3'**	**0' - 4'**	**6' - 8'**	**Residential**	**Restrict Res**	**Residential**	**Fuel Oil**
Compounds	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**(a)**	**(b)**	**(c)**	**(d)**
Metals														
Mercury	0.2	0.03	0.3	0.09	0.31	0.14	0.38	0.052	ND	0.207	0.81	1	NA	NA
Arsenic	6.70	3.7	13.8	4.83	10.3	6.93	**25.7 (a) (b)**	14.7	1.27	9.89	16	16	NA	NA
Barium	78.3	85	58.9	42.3	138	48.2	94.4	528	Nd	82.4	350	400	NA	NA
Beryllium	ND	ND	ND	0.26	0.57	NA	0.67	ND	ND	1.55	14	72	NA	NA
Cadmium	ND	ND	ND	0.627	1.14	1.23	**6 (a)(b)**	**11.7 (a)(b)**	0.356	1.07	2.5	4.3	NA	NA
Chromium	**85.7 (a)**	13.4	17.6	7.57	14.8	17.1	15.1	**191 (a) (b)**	**161 (a)**	12	36	180	NA	NA
Copper	**1960 (a) (b)**	**690 (a) (b)**	**829 (a)(b)**	40.2	67.4	**35.5**	**139**	**455 (a) (b)**	**161**	**224**	270	270	NA	NA
Lead (Axial)	221.0	65.7	88.6	80.8	**428 (a)(b)**	183	189	355	4.93	117	400	400	NA	NA
Magnesium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	N/A	NA	NA
Manganese	448	140	285	110	261	430	318	**2090 (a) (b)**	297	371	2000	2000	NA	NA
Nickel	**45.9**	16	14.4	8.31	15.2	9.64	27.6	**153 (a)**	71.7	9.02	140	310	NA	NA
Selenium	ND	ND	ND	2.5	3.96	5.75	6.59	26.8	ND	3.75	36	180	NA	NA
Silver	ND	ND	ND	0.66	1.1	ND	3.22	ND	ND	ND	36	180	NA	NA
Zinc	228	296	149	96	165	193	1450	**3960 (a)**	112	118	2200	10000	NA	NA
Total Cyanide	NA	NA	NA	ND	ND	0.548	ND	ND	ND	ND	27	27	NA	NA
PCBS														
PCB-1248	0.3	ND	ND	0.1	ND	ND	0.566	ND	ND	ND	1	1	NA	NA
PCB-1260	0.3	ND	ND	0.1	ND	**5.52 (a)(b)**	ND	0.698	ND	ND	1	1	NA	NA
Pesticides														
4,4-DDT	ND	ND	ND	0.016	ND	0.48	0.045	0.049	ND	ND	1.7	7.9	NA	NA
Aldrin	ND	ND	ND	0.005	ND	ND	0.004	ND	ND	ND	0.019	0.097	NA	NA
alpha-BHC	ND	ND	ND	0.003	ND	ND	ND	ND	ND	ND	0.097	0.48	NA	NA
beta BHC	ND	ND	ND	ND	ND	ND	ND	0.008	ND	ND	0.072	0.36	NA	NA
delta BHC	ND	ND	ND	0.004	ND	ND	ND	0.029	ND	ND	100	100	NA	NA
Endosulfan I	ND	ND	ND	0.004	ND	ND	ND	ND	ND	ND	4.8	24	NA	NA
Endosulfan II	ND	ND	ND	ND	ND	0.033	0.014	0.014	ND	ND	4.8	24	NA	NA
Endosulfan Sulfate	ND	ND	ND	0.019	ND	0.086	0.049	0.05	ND	0.007	4.8	24	NA	NA
Lindane	ND	ND	ND	0.014	ND	ND	ND	0.007	ND	0.01	0.28	1.3	NA	NA
Dieldrin	ND	ND	ND	0.007	ND	0.037	0.009	0.01	ND	0.004	0.039	0.2	NA	NA
Endrin	ND	ND	ND	0.009	ND	0.4	0.036	0.005	ND	ND	2.2	11	NA	NA
VOCs														
Acetone	ND	ND	ND	0.9	1.19	0.114	ND	ND	ND	ND	100	100	NA	NA
Carbon disulfide	ND	ND	ND	ND	ND	0.0069	ND	ND	ND	ND	NA	NA	100	NA
Naphthalene	ND	ND	ND	0.02	0.96	0.092	ND	ND	ND	ND	100	100	NA	12
m, p Xylene	ND	ND	ND	ND	ND	0.00766	ND	ND	ND	ND	100	100	NA	0.26
n-Butylbenzene	ND	0.5	ND	ND	ND	ND	ND	ND	ND	0.398	NA	ND	NA	12
n-propylbenzene	ND	0.2	ND	ND	ND	ND	ND	ND	ND	0.14	100	100	NA	3.9
Isopropylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0526	NA	NA	100	2.3
Toluene	ND	ND	ND	ND	ND	0.0108	ND	ND	ND	ND	100	100	NA	0.7
Sec-Butylbenzene	ND	0.2	ND	ND	ND	ND	ND	ND	ND	0.19	100	100	NA	11
1,2,4 Trimethylbenzene	ND	1.7	ND	ND	ND	ND	ND	ND	ND	0.428	47	52	NA	3.6
1,3,5 Trimethylbenzene	ND	ND	0.4	ND	ND	ND	ND	ND	ND	ND	47	52	NA	8.4
TICs (Total)	0.03	66.9	128.4	ND	ND	ND	ND	ND	ND	35.9	N/A	N/A	NA	NA
SVOCs														
Anthracene	ND	ND	ND	5.3	2.00	ND	ND	ND	ND	ND	100	100	NA	NA
Benzo(a)anthracene	**1.3 (a)(b)(d)**	ND	ND	**16.2(a)(b)(d)**	ND	ND	**1.130(a)(b)(d)**	0.371	ND	0.419	1	1	NA	1
Benzo(a)pyrene	**1.4 (a)(b)(d)**	ND	ND	**18.9(a)(b)(d)**	ND	ND	0.782	0.317	ND	0.368	1	1	NA	1
Benzo(b)fluoranthene	**1.1 (a)(b)(d)**	ND	ND	**19.9(a)(b)(d)**	ND	ND	0.885	0.399	ND	0.417	1	1	NA	1
Benzo(g,h,I)perylene	1	ND	ND	**13.5**	ND	ND	0.544	0.403	ND	ND	100	100	NA	100
Benzo(k)fluoranthene	**1.1 (a)(d)**	ND	ND	**9.9(a)(b)**	ND	ND	0.555	ND	ND	ND	1	3.9	NA	0.8
Carbazole	ND	ND	ND	**3.4(a)(b)**	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Chrysene	**1.4 (a)(d)**	ND	ND	**17.5(a)(b)(d)**	ND	ND	**1.07 (a)(d)**	0.385	ND	0.42	1	3.9	NA	1
Bis (2-ethylhexyl) phthalate	12	ND	ND	ND	ND	ND	ND	0.475	ND	ND	NA	NA	NA	50
Dibenzofuran	ND	ND	ND	ND	1.8	ND	ND	ND	ND	ND	NA	NA	NA	NA
2-methyl-naphthalene	ND	**4.8 (c)**	ND	ND	**2.7 (c)**	ND	ND	ND	ND	ND	NA	NA	0.41	NA
Fluoranthene	2.8	ND	ND	47.4	3.34	ND	2.49	0.711	ND	0.752	100	100	NA	NA
Fluorene	ND	ND	ND	ND	2.1	ND	ND	ND	ND	ND	100	100	NA	NA
Indeno(1,2,3-cd)pyrene	**1.1 (a)(b)**	ND	ND	ND	ND	ND	0.554	0.402	ND	ND	0.5	0.5	NA	NA
Phenanthrene	1.9	4.4	ND	23.2	5.00	ND	1.2	ND	ND	0.792	100	100	NA	NA
Pyrene	2.4	ND	ND	38.4	2.5	ND	1.71	0.483	ND	0.641	100	100	NA	NA
TICs (Total)	17.9	167.5	515	ND	ND	ND	ND	ND	ND	ND	N/A	N/A	NA	NA

ND - Non-Detect NA - Not Available
Shaded Value - Exceeds Part 375 and/or CP-51 SCOs
TICs - Tentitively Identified Compounds

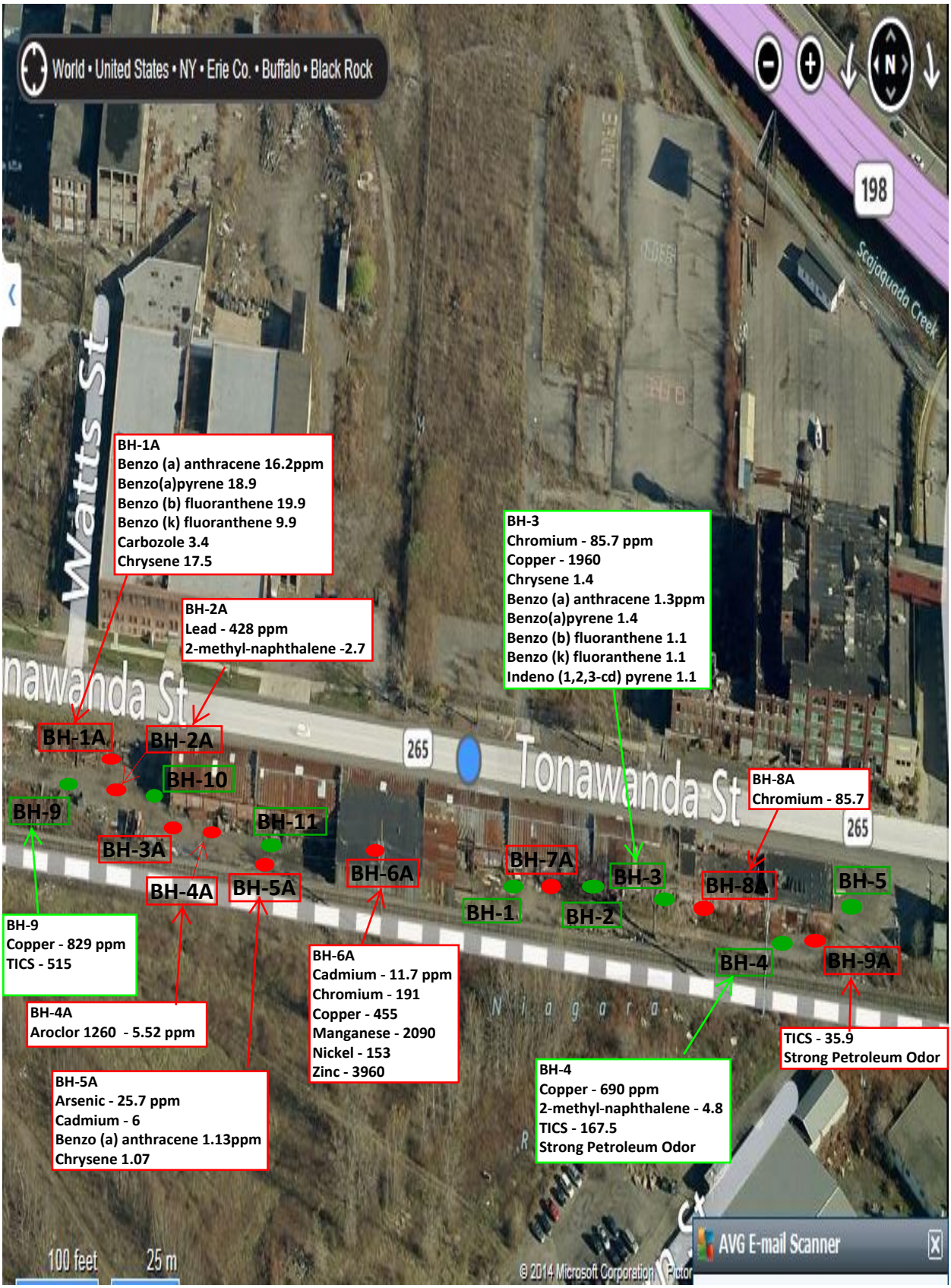

Figure 2: Approximate Location of Bore Holes With Results Above Guidance Values

Key: ● **BH-1** Borehole/Sample Location - 2014 Event

● **BH-1A** Borehole/Sample Location - 2017 Event

PAHs are a group of chemicals that are formed during incomplete burning of wood, coal, gas, garbage or other organic substances and are widely distributed in the environment and particularly in older urban environments where coal, gas, and petroleum were burned for heat and other energy uses. PAH compounds are common constituents of fill material found in urban environments, and are typically associated with both fill material, coal tar and asphalt based materials or ash.

Metals

Metal compounds were detected in all ten (10) soil samples analyzed, and seven (7) of the ten (10) samples exceeded residential/restricted residential SCOs for several metal compounds. The arsenic SCO was exceeded in one (1) of the ten (10) samples (borings BH-5A). Cadmium was exceeded in two soil samples (BH-5A and BH 6A). The Chromium SCO was exceeded in three (3) of the ten (10) locations in BH-3, BH-6A, BH-8A. Cadmium, Copper was elevated above SCOs in four sample locations (BH-3, BH4, BH9 and BH-6A). Lead was elevated in the sample from location BH-2A and Manganese, Nickle and Zinc were elevated above restricted residential/residential SCOs in the soil sample from BH-6A.

PCBs/Pesticides

Low levels of pesticides were detected in a number of the soil samples well below SCOs. PCBs were detected in five (5) soil samples. The PCB concentration in BH-4A was about five (5) times higher than residential/restricted residential SCOs.

3.0 CONCLUSIONS

The 68 Tonawanda Street property has a long history of rail and varied commercial/industrial use which includes over 100 years up to its present use as steel fabricating operation. The results of the Phase II ESA indicate that SVOCs (primarily PAHs) and metal compounds were detected throughout the site at variable levels above residential and restricted residential SCOs in the soil fill that pose a potential risk to construction workers and future residents. Additionally, results indicate that volatile compounds and PCB/Pesticides were detected in concentrations below SCOs in various locations across the property indicating potential impact from previous property operations. The potential of a petroleum impacted area in the southwest corner of the property was also identified.

This Phase II ESA was limited in the number of soil borings and samples collected. Additional sampling and more wide-spread environmental assessment may result in additional elevated concentrations of compounds being detected.

4.0 WARRANTS AND LIMITATIONS

This report is based on information from a limited soil sampling and soil screening assessment. This report is intended exclusively for the purpose outlined herein at the site location and project indicated. The property and this site assessment are limited to the footprint of the lot.

This report is intended for the sole use of The Frizlen Group, Architects and Common Bond Real Estate LLC. The scope of services performed in this assessment may not be appropriate to satisfy the needs of other users and any use or re-use of this document or the findings, conclusions, or recommendations presented, is at the sole risk of the user.

The conclusions set forth in this report are based upon, and limited by, the analytical data and other information available to PEI/BE3. 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 hazardous materials beneath the surface may be present but undetectable during this limited subsurface 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 of which PEI/BE3 is not aware and has not had the opportunity to evaluate.

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Appendix A

Site Photographs

1. Location of boring BH-1 facing east -2014

2. Location of BH-1 facing north - 2014

3. Location of BH-1 facing south - 2014

4. View of soil cores BH-1 - 2014

5. Location of BH-2 facing east - 2014

6 Location of BH-2 facing south - 2014

7. View of BH-2 facing north - 2014

8. BH-2 soil cores - 2014

9. Location of boring BH-3 facing east - 2014

10. Location of BH-3 facing south - 2014

11. View of BH-3 facing north - 2014

12. Soil cores BH-3 - 2014

13. Location of boring BH-4 facing east - 2014

14. View of BH-4 facing south - 2014

15. Location of BH-4 facing north - 2014

16. Soil cores BH-4 - 2014

17. Location of boring BH-5 facing north - 2014

18. Location of BH-5 facing west - 2014

19. Location of BH-5 facing east - 2014

20. Soil cores BH-5 - 2014

21. Location of boring BH- 9 facing south - 2014

22. Location of BH-9 facing east - 2014

23. Location of BH-9 facing north - 2014

24. Location of boring BH-10 facing south - 2014

25. Location of BH-10 facing west - 2014

26. Location of BH-10 facing east - 2014

27. Soil Cores BH-10 - 2014

28. Location of boring BH-11 - 2014

29. Location of BH-11 facing south - 2014

30. Location of BH-11 facing north - 2014

31. Soil cores BH-11 - 2014

32. Location of Borehole BH-1A facing south from north -2017

33. Location of BH-1A facing east from west - 2017

34. Soil cores from BH-1A - 2017

35. Borehole BH-2A location facing south - 2017

36. BH-2A facing east -2017

37. Soil cores from boring BH-2A - 2017

38. Borehole location BH-3A facing east - 2017

39. Borehole BH-3A location facing south - 2017

40. Soil cores from borehole BH-3A -2017

41. Location of Borehole BH-4A facing north - 2017

42. Borehole location BH-4A facing east - 2017

43. Borehole BH-4A soil cores - 2017

44. Location of Borehole BH-5A facing northwest -2017

45. Location of Borehole BH-5A facing south - 2017

46. Borehole location BH-5A facing southwest - 2017

47. Borehole BH-5A soil cores - 2017

48. Location of Borehole BH-6A under overhang facing east -2017

49. Location of Borehole BH-6A facing south - 2017

50. Soil Cores from Borehole BH-6A - 2017

51. Location of Borehole BH-7A facing north - 2017

52. Location of Borehole BH-7A facing east -2017

53. Soil cores from BH-7A - 2017

54. Location of Borehole 8A facing south - 2017

55. Location of Borehole BH-8A facing north - 2017

56. Soil cores from BH-8A -2017

57. Location of Borehole 9A facing north - 2017

58. Location of Borehole 9A facing east - 2017

59. Soil cores from BH-9A - 2017

Appendix B

Laboratory Results

PARADIGM

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Analytical Report For

Panamerican Environmental Consultants

For Lab Project ID

170316

Referencing

68 Tonawanda

Prepared

Monday, February 13, 2017

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

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

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier:	BH-1A Sample Depth 1-4ft		
Lab Sample ID:	170316-01	**Date Sampled:**	1/26/2017
Matrix:	Soil	**Date Received:**	1/27/2017

Part 375 Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	**4.83**	mg/Kg		2/1/2017 18:22
Barium	**42.3**	mg/Kg		2/1/2017 18:22
Beryllium	**0.255**	mg/Kg		2/1/2017 18:22
Cadmium	**0.627**	mg/Kg		2/1/2017 18:22
Chromium	**7.57**	mg/Kg		2/1/2017 18:22
Copper	**40.2**	mg/Kg		2/1/2017 18:22
Lead	**80.8**	mg/Kg		2/1/2017 18:22
Manganese	**110**	mg/Kg		2/1/2017 18:22
Nickel	**8.31**	mg/Kg		2/1/2017 18:22
Selenium	**2.50**	mg/Kg		2/1/2017 18:22
Silver	**0.664**	mg/Kg		2/1/2017 18:22
Zinc	**96.0**	mg/Kg		2/1/2017 18:22

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 1/27/2017
Data File: 020117c

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	**0.0937**	mg/Kg		2/1/2017 18:22

Method Reference(s): EPA 7471B
Preparation Date: 2/1/2017
Data File: Hg170201D

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0312	mg/Kg		2/7/2017 15:31
PCB-1221	< 0.0312	mg/Kg		2/7/2017 15:31
PCB-1232	< 0.0312	mg/Kg		2/7/2017 15:31
PCB-1242	< 0.0312	mg/Kg		2/7/2017 15:31
PCB-1248	**0.0955**	mg/Kg		2/7/2017 15:31

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

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier: BH-1A Sample Depth 1-4ft
Lab Sample ID: 170316-01 **Date Sampled:** 1/26/2017
Matrix: Soil **Date Received:** 1/27/2017

PCB-1254	< 0.0312	mg/Kg		2/7/2017 15:31
PCB-1260	**0.179**	mg/Kg		2/7/2017 15:31
PCB-1262	< 0.0312	mg/Kg		2/7/2017 15:31
PCB-1268	< 0.0312	mg/Kg		2/7/2017 15:31

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl	**48.3**	10 - 142		2/7/2017 15:31
Tetrachloro-m-xylene	**38.9**	10 - 136		2/7/2017 15:31

Method Reference(s): EPA 8082A
EPA 3550C
Preparation Date: 2/7/2017

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 3.12	ug/Kg		2/11/2017 00:40
4,4-DDE	< 3.12	ug/Kg		2/11/2017 00:40
4,4-DDT	**15.8**	ug/Kg		2/11/2017 00:40
Aldrin	**5.47**	ug/Kg		2/11/2017 00:40
alpha-BHC	**3.30**	ug/Kg		2/11/2017 00:40
beta-BHC	< 3.12	ug/Kg		2/11/2017 00:40
cis-Chlordane	**62.3**	ug/Kg		2/11/2017 00:40
delta-BHC	**4.37**	ug/Kg		2/11/2017 00:40
Dieldrin	**7.27**	ug/Kg	P	2/11/2017 00:40
Endosulfan I	**4.66**	ug/Kg		2/11/2017 00:40
Endosulfan II	< 3.12	ug/Kg		2/11/2017 00:40
Endosulfan Sulfate	**19.2**	ug/Kg	P	2/11/2017 00:40
Endrin	**8.83**	ug/Kg	P	2/11/2017 00:40
Endrin Aldehyde	**10.7**	ug/Kg		2/11/2017 00:40
Endrin Ketone	**7.58**	ug/Kg	P	2/11/2017 00:40
gamma-BHC (Lindane)	**13.7**	ug/Kg	P	2/11/2017 00:40
Heptachlor	< 3.12	ug/Kg		2/11/2017 00:40
Heptachlor Epoxide	**4.47**	ug/Kg	P	2/11/2017 00:40
Methoxychlor	**39.1**	ug/Kg	P	2/11/2017 00:40
Toxaphene	< 31.2	ug/Kg		2/11/2017 00:40

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier: BH-1A Sample Depth 1-4ft
Lab Sample ID: 170316-01 **Date Sampled:** 1/26/2017
Matrix: Soil **Date Received:** 1/27/2017

trans-Chlordane	**8.34**	ug/Kg			2/11/2017 00:40

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	**309**	10 - 152	*	2/11/2017 00:40
Tetrachloro-m-xylene (1)	**37.3**	10 - 91.1		2/11/2017 00:40

Method Reference(s): EPA 8081B
EPA 3550C
Preparation Date: 2/7/2017

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 3100	ug/Kg		2/6/2017 15:38
1,2,4,5-Tetrachlorobenzene	< 3100	ug/Kg		2/6/2017 15:38
1,2,4-Trichlorobenzene	< 3100	ug/Kg		2/6/2017 15:38
1,2-Dichlorobenzene	< 3100	ug/Kg		2/6/2017 15:38
1,3-Dichlorobenzene	< 3100	ug/Kg		2/6/2017 15:38
1,4-Dichlorobenzene	< 3100	ug/Kg		2/6/2017 15:38
2,2-Oxybis (1-chloropropane)	< 3100	ug/Kg		2/6/2017 15:38
2,3,4,6-Tetrachlorophenol	< 3100	ug/Kg		2/6/2017 15:38
2,4,5-Trichlorophenol	< 6200	ug/Kg		2/6/2017 15:38
2,4,6-Trichlorophenol	< 3100	ug/Kg		2/6/2017 15:38
2,4-Dichlorophenol	< 3100	ug/Kg		2/6/2017 15:38
2,4-Dimethylphenol	< 3100	ug/Kg		2/6/2017 15:38
2,4-Dinitrophenol	< 6200	ug/Kg		2/6/2017 15:38
2,4-Dinitrotoluene	< 3100	ug/Kg		2/6/2017 15:38
2,6-Dinitrotoluene	< 3100	ug/Kg		2/6/2017 15:38
2-Chloronaphthalene	< 3100	ug/Kg		2/6/2017 15:38
2-Chlorophenol	< 3100	ug/Kg		2/6/2017 15:38
2-Methylnapthalene	< 3100	ug/Kg		2/6/2017 15:38
2-Methylphenol	< 3100	ug/Kg		2/6/2017 15:38
2-Nitroaniline	< 6200	ug/Kg		2/6/2017 15:38
2-Nitrophenol	< 3100	ug/Kg		2/6/2017 15:38
3&4-Methylphenol	< 3100	ug/Kg		2/6/2017 15:38
3,3'-Dichlorobenzidine	< 3100	ug/Kg		2/6/2017 15:38

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier: BH-1A Sample Depth 1-4ft
Lab Sample ID: 170316-01 **Date Sampled:** 1/26/2017
Matrix: Soil **Date Received:** 1/27/2017

3-Nitroaniline	< 6200	ug/Kg	2/6/2017	15:38
4,6-Dinitro-2-methylphenol	< 6200	ug/Kg	2/6/2017	15:38
4-Bromophenyl phenyl ether	< 3100	ug/Kg	2/6/2017	15:38
4-Chloro-3-methylphenol	< 3100	ug/Kg	2/6/2017	15:38
4-Chloroaniline	< 3100	ug/Kg	2/6/2017	15:38
4-Chlorophenyl phenyl ether	< 3100	ug/Kg	2/6/2017	15:38
4-Nitroaniline	< 6200	ug/Kg	2/6/2017	15:38
4-Nitrophenol	< 6200	ug/Kg	2/6/2017	15:38
Acenaphthene	< 3100	ug/Kg	2/6/2017	15:38
Acenaphthylene	< 3100	ug/Kg	2/6/2017	15:38
Acetophenone	< 3100	ug/Kg	2/6/2017	15:38
Anthracene	**5270**	ug/Kg	2/6/2017	15:38
Atrazine	< 3100	ug/Kg	2/6/2017	15:38
Benzaldehyde	< 3100	ug/Kg	2/6/2017	15:38
Benzo (a) anthracene	**16200**	ug/Kg	2/6/2017	15:38
Benzo (a) pyrene	**18900**	ug/Kg	2/6/2017	15:38
Benzo (b) fluoranthene	**19900**	ug/Kg	2/6/2017	15:38
Benzo (g,h,i) perylene	**13500**	ug/Kg	2/6/2017	15:38
Benzo (k) fluoranthene	**9900**	ug/Kg	2/6/2017	15:38
Bis (2-chloroethoxy) methane	< 3100	ug/Kg	2/6/2017	15:38
Bis (2-chloroethyl) ether	< 3100	ug/Kg	2/6/2017	15:38
Bis (2-ethylhexyl) phthalate	< 3100	ug/Kg	2/6/2017	15:38
Butylbenzylphthalate	< 3100	ug/Kg	2/6/2017	15:38
Caprolactam	< 3100	ug/Kg	2/6/2017	15:38
Carbazole	**3420**	ug/Kg	2/6/2017	15:38
Chrysene	**17500**	ug/Kg	2/6/2017	15:38
Dibenz (a,h) anthracene	< 3100	ug/Kg	2/6/2017	15:38
Dibenzofuran	< 3100	ug/Kg	2/6/2017	15:38
Diethyl phthalate	< 3100	ug/Kg	2/6/2017	15:38
Dimethyl phthalate	< 6200	ug/Kg	2/6/2017	15:38
Di-n-butyl phthalate	< 3100	ug/Kg	2/6/2017	15:38
Di-n-octylphthalate	< 3100	ug/Kg	2/6/2017	15:38

Sample Identifier: BH-1A Sample Depth 1-4ft
Lab Sample ID: 170316-01 **Date Sampled:** 1/26/2017
Matrix: Soil **Date Received:** 1/27/2017

Fluoranthene	**47400**	ug/Kg		2/6/2017 15:38
Fluorene	< 3100	ug/Kg		2/6/2017 15:38
Hexachlorobenzene	< 3100	ug/Kg		2/6/2017 15:38
Hexachlorobutadiene	< 3100	ug/Kg		2/6/2017 15:38
Hexachlorocyclopentadiene	< 3100	ug/Kg		2/6/2017 15:38
Hexachloroethane	< 3100	ug/Kg		2/6/2017 15:38
Indeno (1,2,3-cd) pyrene	**14400**	ug/Kg		2/6/2017 15:38
Isophorone	< 3100	ug/Kg		2/6/2017 15:38
Naphthalene	< 3100	ug/Kg		2/6/2017 15:38
Nitrobenzene	< 3100	ug/Kg		2/6/2017 15:38
N-Nitroso-di-n-propylamine	< 3100	ug/Kg		2/6/2017 15:38
N-Nitrosodiphenylamine	< 3100	ug/Kg		2/6/2017 15:38
Pentachlorophenol	< 6200	ug/Kg		2/6/2017 15:38
Phenanthrene	**23200**	ug/Kg		2/6/2017 15:38
Phenol	< 3100	ug/Kg		2/6/2017 15:38
Pyrene	**38400**	ug/Kg		2/6/2017 15:38

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	NC	43 - 120		2/6/2017 15:38
2-Fluorobiphenyl	NC	33.7 - 113		2/6/2017 15:38
2-Fluorophenol	NC	36.5 - 88.1		2/6/2017 15:38
Nitrobenzene-d5	NC	33.3 - 91.5		2/6/2017 15:38
Phenol-d5	NC	38.4 - 94.6		2/6/2017 15:38
Terphenyl-d14	NC	66.1 - 113		2/6/2017 15:38

Method Reference(s): EPA 8270D
EPA 3550C
Preparation Date: 2/3/2017
Data File: B16911.D

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 6.20	ug/Kg		2/3/2017 17:46
1,1,2,2-Tetrachloroethane	< 6.20	ug/Kg		2/3/2017 17:46
1,1,2-Trichloroethane	< 6.20	ug/Kg		2/3/2017 17:46

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier: BH-1A Sample Depth 1-4ft
Lab Sample ID: 170316-01 **Date Sampled:** 1/26/2017
Matrix: Soil **Date Received:** 1/27/2017

1,1-Dichloroethane	< 6.20	ug/Kg	2/3/2017	17:46
1,1-Dichloroethene	< 6.20	ug/Kg	2/3/2017	17:46
1,2,3-Trichlorobenzene	< 15.5	ug/Kg	2/3/2017	17:46
1,2,4-Trichlorobenzene	< 15.5	ug/Kg	2/3/2017	17:46
1,2,4-Trimethylbenzene	< 6.20	ug/Kg	2/3/2017	17:46
1,2-Dibromo-3-Chloropropane	< 31.0	ug/Kg	2/3/2017	17:46
1,2-Dibromoethane	< 6.20	ug/Kg	2/3/2017	17:46
1,2-Dichlorobenzene	< 6.20	ug/Kg	2/3/2017	17:46
1,2-Dichloroethane	< 6.20	ug/Kg	2/3/2017	17:46
1,2-Dichloropropane	< 6.20	ug/Kg	2/3/2017	17:46
1,3,5-Trimethylbenzene	< 6.20	ug/Kg	2/3/2017	17:46
1,3-Dichlorobenzene	< 6.20	ug/Kg	2/3/2017	17:46
1,4-Dichlorobenzene	< 6.20	ug/Kg	2/3/2017	17:46
1,4-dioxane	< 62.0	ug/Kg	2/3/2017	17:46
2-Butanone	< 31.0	ug/Kg	2/3/2017	17:46
2-Hexanone	< 15.5	ug/Kg	2/3/2017	17:46
4-Methyl-2-pentanone	< 15.5	ug/Kg	2/3/2017	17:46
Acetone	**89.5**	ug/Kg	2/3/2017	17:46
Benzene	< 6.20	ug/Kg	2/3/2017	17:46
Bromochloromethane	< 15.5	ug/Kg	2/3/2017	17:46
Bromodichloromethane	< 6.20	ug/Kg	2/3/2017	17:46
Bromoform	< 15.5	ug/Kg	2/3/2017	17:46
Bromomethane	< 6.20	ug/Kg	2/3/2017	17:46
Carbon disulfide	< 6.20	ug/Kg	2/3/2017	17:46
Carbon Tetrachloride	< 6.20	ug/Kg	2/3/2017	17:46
Chlorobenzene	< 6.20	ug/Kg	2/3/2017	17:46
Chloroethane	< 6.20	ug/Kg	2/3/2017	17:46
Chloroform	< 6.20	ug/Kg	2/3/2017	17:46
Chloromethane	< 6.20	ug/Kg	2/3/2017	17:46
cis-1,2-Dichloroethene	< 6.20	ug/Kg	2/3/2017	17:46
cis-1,3-Dichloropropene	< 6.20	ug/Kg	2/3/2017	17:46
Cyclohexane	< 31.0	ug/Kg	2/3/2017	17:46

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier: BH-1A Sample Depth 1-4ft
Lab Sample ID: 170316-01 **Date Sampled:** 1/26/2017
Matrix: Soil **Date Received:** 1/27/2017

Dibromochloromethane	< 6.20	ug/Kg	2/3/2017	17:46
Dichlorodifluoromethane	< 6.20	ug/Kg	2/3/2017	17:46
Ethylbenzene	< 6.20	ug/Kg	2/3/2017	17:46
Freon 113	< 6.20	ug/Kg	2/3/2017	17:46
Isopropylbenzene	< 6.20	ug/Kg	2/3/2017	17:46
m,p-Xylene	< 6.20	ug/Kg	2/3/2017	17:46
Methyl acetate	< 6.20	ug/Kg	2/3/2017	17:46
Methyl tert-butyl Ether	< 6.20	ug/Kg	2/3/2017	17:46
Methylcyclohexane	< 6.20	ug/Kg	2/3/2017	17:46
Methylene chloride	< 15.5	ug/Kg	2/3/2017	17:46
Naphthalene	**17.7**	ug/Kg	2/3/2017	17:46
n-Butylbenzene	< 6.20	ug/Kg	2/3/2017	17:46
n-Propylbenzene	< 6.20	ug/Kg	2/3/2017	17:46
o-Xylene	< 6.20	ug/Kg	2/3/2017	17:46
p-Isopropyltoluene	< 6.20	ug/Kg	2/3/2017	17:46
sec-Butylbenzene	< 6.20	ug/Kg	2/3/2017	17:46
Styrene	< 15.5	ug/Kg	2/3/2017	17:46
tert-Butylbenzene	< 6.20	ug/Kg	2/3/2017	17:46
Tetrachloroethene	< 6.20	ug/Kg	2/3/2017	17:46
Toluene	< 6.20	ug/Kg	2/3/2017	17:46
trans-1,2-Dichloroethene	< 6.20	ug/Kg	2/3/2017	17:46
trans-1,3-Dichloropropene	< 6.20	ug/Kg	2/3/2017	17:46
Trichloroethene	< 6.20	ug/Kg	2/3/2017	17:46
Trichlorofluoromethane	< 6.20	ug/Kg	2/3/2017	17:46
Vinyl chloride	< 6.20	ug/Kg	2/3/2017	17:46

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: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier: BH-1A Sample Depth 1-4ft

Lab Sample ID: 170316-01 **Date Sampled:** 1/26/2017

Matrix: Soil **Date Received:** 1/27/2017

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**115**	82.1 - 123		2/3/2017 17:46
4-Bromofluorobenzene	**91.1**	84.6 - 112		2/3/2017 17:46
Pentafluorobenzene	**99.9**	91.4 - 111		2/3/2017 17:46
Toluene-D8	**98.3**	90.3 - 108		2/3/2017 17:46

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

Data File: x38926.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.

Total Cyanide

Analyte	Result	Units	Qualifier	Date Analyzed
Cyanide, Total	< 0.501	mg/Kg		2/8/2017

Method Reference(s): EPA 9014

Preparation Date: 2/7/2017

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier:	BH-2A Sample Depth 1-3ft		
Lab Sample ID:	170316-02	**Date Sampled:**	1/26/2017
Matrix:	Soil	**Date Received:**	1/27/2017

Part 375 Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	**10.3**	mg/Kg		2/1/2017 18:26
Barium	**138**	mg/Kg		2/1/2017 18:26
Beryllium	**0.569**	mg/Kg		2/1/2017 18:26
Cadmium	**1.14**	mg/Kg		2/1/2017 18:26
Chromium	**14.8**	mg/Kg		2/1/2017 18:26
Copper	**67.4**	mg/Kg		2/1/2017 18:26
Lead	**428**	mg/Kg		2/1/2017 18:26
Manganese	**261**	mg/Kg		2/1/2017 18:26
Nickel	**15.2**	mg/Kg		2/1/2017 18:26
Selenium	**3.96**	mg/Kg		2/1/2017 18:26
Silver	**1.05**	mg/Kg		2/1/2017 18:26
Zinc	**165**	mg/Kg		2/1/2017 18:26

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 1/27/2017
Data File: 020117c

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	**0.312**	mg/Kg		2/1/2017 18:33

Method Reference(s): EPA 7471B
Preparation Date: 2/1/2017
Data File: Hg170201D

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0334	mg/Kg		2/7/2017 15:53
PCB-1221	< 0.0334	mg/Kg		2/7/2017 15:53
PCB-1232	< 0.0334	mg/Kg		2/7/2017 15:53
PCB-1242	< 0.0334	mg/Kg		2/7/2017 15:53
PCB-1248	< 0.0334	mg/Kg		2/7/2017 15:53

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

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier: BH-2A Sample Depth 1-3ft
Lab Sample ID: 170316-02 **Date Sampled:** 1/26/2017
Matrix: Soil **Date Received:** 1/27/2017

PCB-1254	< 0.0334	mg/Kg		2/7/2017 15:53
PCB-1260	< 0.0334	mg/Kg		2/7/2017 15:53
PCB-1262	< 0.0334	mg/Kg		2/7/2017 15:53
PCB-1268	< 0.0334	mg/Kg		2/7/2017 15:53

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl	**67.5**	10 - 142		2/7/2017 15:53
Tetrachloro-m-xylene	**52.2**	10 - 136		2/7/2017 15:53

Method Reference(s): EPA 8082A
EPA 3550C
Preparation Date: 2/7/2017

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 3.34	ug/Kg		2/11/2017 00:16
4,4-DDE	< 3.34	ug/Kg		2/11/2017 00:16
4,4-DDT	< 3.34	ug/Kg		2/11/2017 00:16
Aldrin	< 3.34	ug/Kg		2/11/2017 00:16
alpha-BHC	< 3.34	ug/Kg		2/11/2017 00:16
beta-BHC	< 3.34	ug/Kg		2/11/2017 00:16
cis-Chlordane	**5.57**	ug/Kg		2/11/2017 00:16
delta-BHC	< 3.34	ug/Kg		2/11/2017 00:16
Dieldrin	< 3.34	ug/Kg		2/11/2017 00:16
Endosulfan I	< 3.34	ug/Kg		2/11/2017 00:16
Endosulfan II	< 3.34	ug/Kg		2/11/2017 00:16
Endosulfan Sulfate	< 3.34	ug/Kg		2/11/2017 00:16
Endrin	< 3.34	ug/Kg		2/11/2017 00:16
Endrin Aldehyde	**4.89**	ug/Kg		2/11/2017 00:16
Endrin Ketone	< 3.34	ug/Kg		2/11/2017 00:16
gamma-BHC (Lindane)	< 3.34	ug/Kg		2/11/2017 00:16
Heptachlor	< 3.34	ug/Kg		2/11/2017 00:16
Heptachlor Epoxide	< 3.34	ug/Kg		2/11/2017 00:16
Methoxychlor	**10.6**	ug/Kg		2/11/2017 00:16
Toxaphene	< 33.4	ug/Kg		2/11/2017 00:16

Sample Identifier: BH-2A Sample Depth 1-3ft
Lab Sample ID: 170316-02 **Date Sampled:** 1/26/2017
Matrix: Soil **Date Received:** 1/27/2017

trans-Chlordane	< 3.34	ug/Kg			2/11/2017 00:16

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	**76.9**	10 - 152		2/11/2017 00:16
Tetrachloro-m-xylene (1)	**51.4**	10 - 91.1		2/11/2017 00:16

Method Reference(s): EPA 8081B
EPA 3550C
Preparation Date: 2/7/2017

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 1670	ug/Kg		2/6/2017 17:06
1,2,4,5-Tetrachlorobenzene	< 1670	ug/Kg		2/6/2017 17:06
1,2,4-Trichlorobenzene	< 1670	ug/Kg		2/6/2017 17:06
1,2-Dichlorobenzene	< 1670	ug/Kg		2/6/2017 17:06
1,3-Dichlorobenzene	< 1670	ug/Kg		2/6/2017 17:06
1,4-Dichlorobenzene	< 1670	ug/Kg		2/6/2017 17:06
2,2-Oxybis (1-chloropropane)	< 1670	ug/Kg		2/6/2017 17:06
2,3,4,6-Tetrachlorophenol	< 1670	ug/Kg		2/6/2017 17:06
2,4,5-Trichlorophenol	< 3340	ug/Kg		2/6/2017 17:06
2,4,6-Trichlorophenol	< 1670	ug/Kg		2/6/2017 17:06
2,4-Dichlorophenol	< 1670	ug/Kg		2/6/2017 17:06
2,4-Dimethylphenol	< 1670	ug/Kg		2/6/2017 17:06
2,4-Dinitrophenol	< 3340	ug/Kg		2/6/2017 17:06
2,4-Dinitrotoluene	< 1670	ug/Kg		2/6/2017 17:06
2,6-Dinitrotoluene	< 1670	ug/Kg		2/6/2017 17:06
2-Chloronaphthalene	< 1670	ug/Kg		2/6/2017 17:06
2-Chlorophenol	< 1670	ug/Kg		2/6/2017 17:06
2-Methylnapthalene	**2730**	ug/Kg		2/6/2017 17:06
2-Methylphenol	< 1670	ug/Kg		2/6/2017 17:06
2-Nitroaniline	< 3340	ug/Kg		2/6/2017 17:06
2-Nitrophenol	< 1670	ug/Kg		2/6/2017 17:06
3&4-Methylphenol	< 1670	ug/Kg		2/6/2017 17:06
3,3'-Dichlorobenzidine	< 1670	ug/Kg		2/6/2017 17:06

Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier:	BH-2A Sample Depth 1-3ft		
Lab Sample ID:	170316-02	**Date Sampled:**	1/26/2017
Matrix:	Soil	**Date Received:**	1/27/2017

3-Nitroaniline	< 3340	ug/Kg	2/6/2017 17:06
4,6-Dinitro-2-methylphenol	< 3340	ug/Kg	2/6/2017 17:06
4-Bromophenyl phenyl ether	< 1670	ug/Kg	2/6/2017 17:06
4-Chloro-3-methylphenol	< 1670	ug/Kg	2/6/2017 17:06
4-Chloroaniline	< 1670	ug/Kg	2/6/2017 17:06
4-Chlorophenyl phenyl ether	< 1670	ug/Kg	2/6/2017 17:06
4-Nitroaniline	< 3340	ug/Kg	2/6/2017 17:06
4-Nitrophenol	< 3340	ug/Kg	2/6/2017 17:06
Acenaphthene	**2010**	ug/Kg	2/6/2017 17:06
Acenaphthylene	< 1670	ug/Kg	2/6/2017 17:06
Acetophenone	< 1670	ug/Kg	2/6/2017 17:06
Anthracene	< 1670	ug/Kg	2/6/2017 17:06
Atrazine	< 1670	ug/Kg	2/6/2017 17:06
Benzaldehyde	< 1670	ug/Kg	2/6/2017 17:06
Benzo (a) anthracene	< 1670	ug/Kg	2/6/2017 17:06
Benzo (a) pyrene	< 1670	ug/Kg	2/6/2017 17:06
Benzo (b) fluoranthene	< 1670	ug/Kg	2/6/2017 17:06
Benzo (g,h,i) perylene	< 1670	ug/Kg	2/6/2017 17:06
Benzo (k) fluoranthene	< 1670	ug/Kg	2/6/2017 17:06
Bis (2-chloroethoxy) methane	< 1670	ug/Kg	2/6/2017 17:06
Bis (2-chloroethyl) ether	< 1670	ug/Kg	2/6/2017 17:06
Bis (2-ethylhexyl) phthalate	< 1670	ug/Kg	2/6/2017 17:06
Butylbenzylphthalate	< 1670	ug/Kg	2/6/2017 17:06
Caprolactam	< 1670	ug/Kg	2/6/2017 17:06
Carbazole	< 1670	ug/Kg	2/6/2017 17:06
Chrysene	< 1670	ug/Kg	2/6/2017 17:06
Dibenz (a,h) anthracene	< 1670	ug/Kg	2/6/2017 17:06
Dibenzofuran	**1820**	ug/Kg	2/6/2017 17:06
Diethyl phthalate	< 1670	ug/Kg	2/6/2017 17:06
Dimethyl phthalate	< 3340	ug/Kg	2/6/2017 17:06
Di-n-butyl phthalate	< 1670	ug/Kg	2/6/2017 17:06
Di-n-octylphthalate	< 1670	ug/Kg	2/6/2017 17:06

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier: BH-2A Sample Depth 1-3ft
Lab Sample ID: 170316-02 **Date Sampled:** 1/26/2017
Matrix: Soil **Date Received:** 1/27/2017

Fluoranthene	**3340**	ug/Kg		2/6/2017 17:06
Fluorene	**2120**	ug/Kg		2/6/2017 17:06
Hexachlorobenzene	< 1670	ug/Kg		2/6/2017 17:06
Hexachlorobutadiene	< 1670	ug/Kg		2/6/2017 17:06
Hexachlorocyclopentadiene	< 1670	ug/Kg		2/6/2017 17:06
Hexachloroethane	< 1670	ug/Kg		2/6/2017 17:06
Indeno (1,2,3-cd) pyrene	< 1670	ug/Kg		2/6/2017 17:06
Isophorone	< 1670	ug/Kg		2/6/2017 17:06
Naphthalene	**12600**	ug/Kg		2/6/2017 17:06
Nitrobenzene	< 1670	ug/Kg		2/6/2017 17:06
N-Nitroso-di-n-propylamine	< 1670	ug/Kg		2/6/2017 17:06
N-Nitrosodiphenylamine	< 1670	ug/Kg		2/6/2017 17:06
Pentachlorophenol	< 3340	ug/Kg		2/6/2017 17:06
Phenanthrene	**4990**	ug/Kg		2/6/2017 17:06
Phenol	< 1670	ug/Kg		2/6/2017 17:06
Pyrene	**2490**	ug/Kg		2/6/2017 17:06

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	**51.8**	43 - 120		2/6/2017 17:06
2-Fluorobiphenyl	**59.4**	33.7 - 113		2/6/2017 17:06
2-Fluorophenol	**50.0**	36.5 - 88.1		2/6/2017 17:06
Nitrobenzene-d5	**54.3**	33.3 - 91.5		2/6/2017 17:06
Phenol-d5	**55.4**	38.4 - 94.6		2/6/2017 17:06
Terphenyl-d14	**55.6**	66.1 - 113	*	2/6/2017 17:06

Method Reference(s): EPA 8270D
EPA 3550C
Preparation Date: 2/3/2017
Data File: B16914.D

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 55.2	ug/Kg		2/3/2017 16:59
1,1,2,2-Tetrachloroethane	< 55.2	ug/Kg		2/3/2017 16:59
1,1,2-Trichloroethane	< 55.2	ug/Kg		2/3/2017 16:59

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier: BH-2A Sample Depth 1-3ft
Lab Sample ID: 170316-02 **Date Sampled:** 1/26/2017
Matrix: Soil **Date Received:** 1/27/2017

1,1-Dichloroethane	< 55.2	ug/Kg	2/3/2017	16:59
1,1-Dichloroethene	< 55.2	ug/Kg	2/3/2017	16:59
1,2,3-Trichlorobenzene	< 138	ug/Kg	2/3/2017	16:59
1,2,4-Trichlorobenzene	< 138	ug/Kg	2/3/2017	16:59
1,2,4-Trimethylbenzene	< 55.2	ug/Kg	2/3/2017	16:59
1,2-Dibromo-3-Chloropropane	< 276	ug/Kg	2/3/2017	16:59
1,2-Dibromoethane	< 55.2	ug/Kg	2/3/2017	16:59
1,2-Dichlorobenzene	< 55.2	ug/Kg	2/3/2017	16:59
1,2-Dichloroethane	< 55.2	ug/Kg	2/3/2017	16:59
1,2-Dichloropropane	< 55.2	ug/Kg	2/3/2017	16:59
1,3,5-Trimethylbenzene	< 55.2	ug/Kg	2/3/2017	16:59
1,3-Dichlorobenzene	< 55.2	ug/Kg	2/3/2017	16:59
1,4-Dichlorobenzene	< 55.2	ug/Kg	2/3/2017	16:59
1,4-dioxane	< 552	ug/Kg	2/3/2017	16:59
2-Butanone	< 276	ug/Kg	2/3/2017	16:59
2-Hexanone	< 138	ug/Kg	2/3/2017	16:59
4-Methyl-2-pentanone	< 138	ug/Kg	2/3/2017	16:59
Acetone	**1190**	ug/Kg	2/3/2017	16:59
Benzene	< 55.2	ug/Kg	2/3/2017	16:59
Bromochloromethane	< 138	ug/Kg	2/3/2017	16:59
Bromodichloromethane	< 55.2	ug/Kg	2/3/2017	16:59
Bromoform	< 138	ug/Kg	2/3/2017	16:59
Bromomethane	< 55.2	ug/Kg	2/3/2017	16:59
Carbon disulfide	< 55.2	ug/Kg	2/3/2017	16:59
Carbon Tetrachloride	< 55.2	ug/Kg	2/3/2017	16:59
Chlorobenzene	< 55.2	ug/Kg	2/3/2017	16:59
Chloroethane	< 55.2	ug/Kg	2/3/2017	16:59
Chloroform	< 55.2	ug/Kg	2/3/2017	16:59
Chloromethane	< 55.2	ug/Kg	2/3/2017	16:59
cis-1,2-Dichloroethene	< 55.2	ug/Kg	2/3/2017	16:59
cis-1,3-Dichloropropene	< 55.2	ug/Kg	2/3/2017	16:59
Cyclohexane	< 276	ug/Kg	2/3/2017	16:59

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier: BH-2A Sample Depth 1-3ft
Lab Sample ID: 170316-02 **Date Sampled:** 1/26/2017
Matrix: Soil **Date Received:** 1/27/2017

Dibromochloromethane	< 55.2	ug/Kg	2/3/2017	16:59
Dichlorodifluoromethane	< 55.2	ug/Kg	2/3/2017	16:59
Ethylbenzene	< 55.2	ug/Kg	2/3/2017	16:59
Freon 113	< 55.2	ug/Kg	2/3/2017	16:59
Isopropylbenzene	< 55.2	ug/Kg	2/3/2017	16:59
m,p-Xylene	< 55.2	ug/Kg	2/3/2017	16:59
Methyl acetate	< 55.2	ug/Kg	2/3/2017	16:59
Methyl tert-butyl Ether	< 55.2	ug/Kg	2/3/2017	16:59
Methylcyclohexane	< 55.2	ug/Kg	2/3/2017	16:59
Methylene chloride	< 138	ug/Kg	2/3/2017	16:59
Naphthalene	**958**	ug/Kg	2/3/2017	16:59
n-Butylbenzene	< 55.2	ug/Kg	2/3/2017	16:59
n-Propylbenzene	< 55.2	ug/Kg	2/3/2017	16:59
o-Xylene	< 55.2	ug/Kg	2/3/2017	16:59
p-Isopropyltoluene	< 55.2	ug/Kg	2/3/2017	16:59
sec-Butylbenzene	< 55.2	ug/Kg	2/3/2017	16:59
Styrene	< 138	ug/Kg	2/3/2017	16:59
tert-Butylbenzene	< 55.2	ug/Kg	2/3/2017	16:59
Tetrachloroethene	< 55.2	ug/Kg	2/3/2017	16:59
Toluene	< 55.2	ug/Kg	2/3/2017	16:59
trans-1,2-Dichloroethene	< 55.2	ug/Kg	2/3/2017	16:59
trans-1,3-Dichloropropene	< 55.2	ug/Kg	2/3/2017	16:59
Trichloroethene	< 55.2	ug/Kg	2/3/2017	16:59
Trichlorofluoromethane	< 55.2	ug/Kg	2/3/2017	16:59
Vinyl chloride	< 55.2	ug/Kg	2/3/2017	16:59

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

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier: BH-2A Sample Depth 1-3ft

Lab Sample ID: 170316-02 **Date Sampled:** 1/26/2017

Matrix: Soil **Date Received:** 1/27/2017

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**111**	82.1 - 123		2/3/2017	16:59
4-Bromofluorobenzene	**95.1**	84.6 - 112		2/3/2017	16:59
Pentafluorobenzene	**102**	91.4 - 111		2/3/2017	16:59
Toluene-D8	**103**	90.3 - 108		2/3/2017	16:59

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

Data File: x38924.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.

Total Cyanide

Analyte	Result	Units	Qualifier	Date Analyzed
Cyanide, Total	< 0.532	mg/Kg		2/8/2017

Method Reference(s): EPA 9014

Preparation Date: 2/7/2017

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier: BH-4A Sample Depth 1-6ft
Lab Sample ID: 170316-03 **Date Sampled:** 1/26/2017
Matrix: Soil **Date Received:** 1/27/2017

Part 375 Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	**6.93**	mg/Kg		2/1/2017 18:39
Barium	**48.2**	mg/Kg		2/1/2017 18:39
Beryllium	< 0.280	mg/Kg		2/1/2017 18:39
Cadmium	**1.23**	mg/Kg		2/1/2017 18:39
Chromium	**17.1**	mg/Kg		2/1/2017 18:39
Copper	**35.5**	mg/Kg		2/1/2017 18:39
Lead	**183**	mg/Kg		2/1/2017 18:39
Manganese	**430**	mg/Kg		2/1/2017 18:39
Nickel	**9.64**	mg/Kg		2/1/2017 18:39
Selenium	**5.75**	mg/Kg		2/1/2017 18:39
Silver	< 0.561	mg/Kg		2/1/2017 18:39
Zinc	**193**	mg/Kg		2/1/2017 18:39

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 1/27/2017
Data File: 020117c

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	**0.135**	mg/Kg		2/1/2017 18:30

Method Reference(s): EPA 7471B
Preparation Date: 2/1/2017
Data File: Hg170201D

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 1.68	mg/Kg		2/8/2017 11:34
PCB-1221	< 1.68	mg/Kg		2/8/2017 11:34
PCB-1232	< 1.68	mg/Kg		2/8/2017 11:34
PCB-1242	< 1.68	mg/Kg		2/8/2017 11:34
PCB-1248	< 1.68	mg/Kg		2/8/2017 11:34

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.

Sample Identifier: BH-4A Sample Depth 1-6ft
Lab Sample ID: 170316-03 **Date Sampled:** 1/26/2017
Matrix: Soil **Date Received:** 1/27/2017

PCB-1254	< 1.68	mg/Kg		2/8/2017 11:34
PCB-1260	**5.52**	mg/Kg		2/8/2017 11:34
PCB-1262	< 1.68	mg/Kg		2/8/2017 11:34
PCB-1268	< 1.68	mg/Kg		2/8/2017 11:34

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl	NC	10 - 142		2/8/2017 11:34
Tetrachloro-m-xylene	NC	10 - 136		2/8/2017 11:34

Method Reference(s): EPA 8082A
EPA 3550C
Preparation Date: 2/7/2017

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 16.8	ug/Kg		2/11/2017 00:28
4,4-DDE	< 16.8	ug/Kg		2/11/2017 00:28
4,4-DDT	**484**	ug/Kg		2/11/2017 00:28
Aldrin	< 16.8	ug/Kg		2/11/2017 00:28
alpha-BHC	< 16.8	ug/Kg		2/11/2017 00:28
beta-BHC	< 16.8	ug/Kg		2/11/2017 00:28
cis-Chlordane	< 16.8	ug/Kg		2/11/2017 00:28
delta-BHC	< 16.8	ug/Kg		2/11/2017 00:28
Dieldrin	**37.9**	ug/Kg	P	2/11/2017 00:28
Endosulfan I	< 16.8	ug/Kg		2/11/2017 00:28
Endosulfan II	**32.7**	ug/Kg	P	2/11/2017 00:28
Endosulfan Sulfate	**86.3**	ug/Kg	P	2/11/2017 00:28
Endrin	**402**	ug/Kg		2/11/2017 00:28
Endrin Aldehyde	**57.7**	ug/Kg	P	2/11/2017 00:28
Endrin Ketone	**94.4**	ug/Kg	P	2/11/2017 00:28
gamma-BHC (Lindane)	< 16.8	ug/Kg		2/11/2017 00:28
Heptachlor	< 16.8	ug/Kg		2/11/2017 00:28
Heptachlor Epoxide	< 16.8	ug/Kg		2/11/2017 00:28
Methoxychlor	**78.4**	ug/Kg	P	2/11/2017 00:28
Toxaphene	< 168	ug/Kg		2/11/2017 00:28

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier: BH-4A Sample Depth 1-6ft
Lab Sample ID: 170316-03 **Date Sampled:** 1/26/2017
Matrix: Soil **Date Received:** 1/27/2017

trans-Chlordane	< 16.8	ug/Kg			2/11/2017 00:28

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	**112**	10 - 152		2/11/2017 00:28
Tetrachloro-m-xylene (1)	**95.8**	10 - 91.1	*	2/11/2017 00:28

Method Reference(s): EPA 8081B
EPA 3550C
Preparation Date: 2/7/2017

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 1710	ug/Kg		2/3/2017 20:13
1,2,4,5-Tetrachlorobenzene	< 1710	ug/Kg		2/3/2017 20:13
1,2,4-Trichlorobenzene	< 1710	ug/Kg		2/3/2017 20:13
1,2-Dichlorobenzene	< 1710	ug/Kg		2/3/2017 20:13
1,3-Dichlorobenzene	< 1710	ug/Kg		2/3/2017 20:13
1,4-Dichlorobenzene	< 1710	ug/Kg		2/3/2017 20:13
2,2-Oxybis (1-chloropropane)	< 1710	ug/Kg		2/3/2017 20:13
2,3,4,6-Tetrachlorophenol	< 1710	ug/Kg		2/3/2017 20:13
2,4,5-Trichlorophenol	< 3420	ug/Kg		2/3/2017 20:13
2,4,6-Trichlorophenol	< 1710	ug/Kg		2/3/2017 20:13
2,4-Dichlorophenol	< 1710	ug/Kg		2/3/2017 20:13
2,4-Dimethylphenol	< 1710	ug/Kg		2/3/2017 20:13
2,4-Dinitrophenol	< 3420	ug/Kg		2/3/2017 20:13
2,4-Dinitrotoluene	< 1710	ug/Kg		2/3/2017 20:13
2,6-Dinitrotoluene	< 1710	ug/Kg		2/3/2017 20:13
2-Chloronaphthalene	< 1710	ug/Kg		2/3/2017 20:13
2-Chlorophenol	< 1710	ug/Kg		2/3/2017 20:13
2-Methylnapthalene	< 1710	ug/Kg		2/3/2017 20:13
2-Methylphenol	< 1710	ug/Kg		2/3/2017 20:13
2-Nitroaniline	< 3420	ug/Kg		2/3/2017 20:13
2-Nitrophenol	< 1710	ug/Kg		2/3/2017 20:13
3&4-Methylphenol	< 1710	ug/Kg		2/3/2017 20:13
3,3'-Dichlorobenzidine	< 1710	ug/Kg		2/3/2017 20:13

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier:	BH-4A Sample Depth 1-6ft		
Lab Sample ID:	170316-03	**Date Sampled:**	1/26/2017
Matrix:	Soil	**Date Received:**	1/27/2017

3-Nitroaniline	< 3420	ug/Kg	2/3/2017	20:13
4,6-Dinitro-2-methylphenol	< 3420	ug/Kg	2/3/2017	20:13
4-Bromophenyl phenyl ether	< 1710	ug/Kg	2/3/2017	20:13
4-Chloro-3-methylphenol	< 1710	ug/Kg	2/3/2017	20:13
4-Chloroaniline	< 1710	ug/Kg	2/3/2017	20:13
4-Chlorophenyl phenyl ether	< 1710	ug/Kg	2/3/2017	20:13
4-Nitroaniline	< 3420	ug/Kg	2/3/2017	20:13
4-Nitrophenol	< 3420	ug/Kg	2/3/2017	20:13
Acenaphthene	< 1710	ug/Kg	2/3/2017	20:13
Acenaphthylene	< 1710	ug/Kg	2/3/2017	20:13
Acetophenone	< 1710	ug/Kg	2/3/2017	20:13
Anthracene	< 1710	ug/Kg	2/3/2017	20:13
Atrazine	< 1710	ug/Kg	2/3/2017	20:13
Benzaldehyde	< 1710	ug/Kg	2/3/2017	20:13
Benzo (a) anthracene	< 1710	ug/Kg	2/3/2017	20:13
Benzo (a) pyrene	< 1710	ug/Kg	2/3/2017	20:13
Benzo (b) fluoranthene	< 1710	ug/Kg	2/3/2017	20:13
Benzo (g,h,i) perylene	< 1710	ug/Kg	2/3/2017	20:13
Benzo (k) fluoranthene	< 1710	ug/Kg	2/3/2017	20:13
Bis (2-chloroethoxy) methane	< 1710	ug/Kg	2/3/2017	20:13
Bis (2-chloroethyl) ether	< 1710	ug/Kg	2/3/2017	20:13
Bis (2-ethylhexyl) phthalate	< 1710	ug/Kg	2/3/2017	20:13
Butylbenzylphthalate	< 1710	ug/Kg	2/3/2017	20:13
Caprolactam	< 1710	ug/Kg	2/3/2017	20:13
Carbazole	< 1710	ug/Kg	2/3/2017	20:13
Chrysene	< 1710	ug/Kg	2/3/2017	20:13
Dibenz (a,h) anthracene	< 1710	ug/Kg	2/3/2017	20:13
Dibenzofuran	< 1710	ug/Kg	2/3/2017	20:13
Diethyl phthalate	< 1710	ug/Kg	2/3/2017	20:13
Dimethyl phthalate	< 3420	ug/Kg	2/3/2017	20:13
Di-n-butyl phthalate	< 1710	ug/Kg	2/3/2017	20:13
Di-n-octylphthalate	< 1710	ug/Kg	2/3/2017	20:13

Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier: BH-4A Sample Depth 1-6ft
Lab Sample ID: 170316-03 **Date Sampled:** 1/26/2017
Matrix: Soil **Date Received:** 1/27/2017

Fluoranthene	< 1710	ug/Kg		2/3/2017	20:13
Fluorene	< 1710	ug/Kg		2/3/2017	20:13
Hexachlorobenzene	< 1710	ug/Kg		2/3/2017	20:13
Hexachlorobutadiene	< 1710	ug/Kg		2/3/2017	20:13
Hexachlorocyclopentadiene	< 1710	ug/Kg		2/3/2017	20:13
Hexachloroethane	< 1710	ug/Kg		2/3/2017	20:13
Indeno (1,2,3-cd) pyrene	< 1710	ug/Kg		2/3/2017	20:13
Isophorone	< 1710	ug/Kg		2/3/2017	20:13
Naphthalene	< 1710	ug/Kg		2/3/2017	20:13
Nitrobenzene	< 1710	ug/Kg		2/3/2017	20:13
N-Nitroso-di-n-propylamine	< 1710	ug/Kg		2/3/2017	20:13
N-Nitrosodiphenylamine	< 1710	ug/Kg		2/3/2017	20:13
Pentachlorophenol	< 3420	ug/Kg		2/3/2017	20:13
Phenanthrene	< 1710	ug/Kg		2/3/2017	20:13
Phenol	< 1710	ug/Kg		2/3/2017	20:13
Pyrene	< 1710	ug/Kg		2/3/2017	20:13

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
2,4,6-Tribromophenol	**47.1**	43 - 120		2/3/2017	20:13
2-Fluorobiphenyl	**45.8**	33.7 - 113		2/3/2017	20:13
2-Fluorophenol	**43.9**	36.5 - 88.1		2/3/2017	20:13
Nitrobenzene-d5	**44.3**	33.3 - 91.5		2/3/2017	20:13
Phenol-d5	**43.7**	38.4 - 94.6		2/3/2017	20:13
Terphenyl-d14	**48.2**	66.1 - 113	*	2/3/2017	20:13

Method Reference(s): EPA 8270D
EPA 3550C
Preparation Date: 2/3/2017
Data File: B16877.D

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed	
1,1,1-Trichloroethane	< 6.39	ug/Kg		2/3/2017	18:34
1,1,2,2-Tetrachloroethane	< 6.39	ug/Kg		2/3/2017	18:34
1,1,2-Trichloroethane	< 6.39	ug/Kg		2/3/2017	18:34

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier:	BH-4A Sample Depth 1-6ft		
Lab Sample ID:	170316-03	**Date Sampled:**	1/26/2017
Matrix:	Soil	**Date Received:**	1/27/2017

1,1-Dichloroethane	< 6.39	ug/Kg	2/3/2017	18:34
1,1-Dichloroethene	< 6.39	ug/Kg	2/3/2017	18:34
1,2,3-Trichlorobenzene	< 16.0	ug/Kg	2/3/2017	18:34
1,2,4-Trichlorobenzene	< 16.0	ug/Kg	2/3/2017	18:34
1,2,4-Trimethylbenzene	< 6.39	ug/Kg	2/3/2017	18:34
1,2-Dibromo-3-Chloropropane	< 31.9	ug/Kg	2/3/2017	18:34
1,2-Dibromoethane	< 6.39	ug/Kg	2/3/2017	18:34
1,2-Dichlorobenzene	< 6.39	ug/Kg	2/3/2017	18:34
1,2-Dichloroethane	< 6.39	ug/Kg	2/3/2017	18:34
1,2-Dichloropropane	< 6.39	ug/Kg	2/3/2017	18:34
1,3,5-Trimethylbenzene	< 6.39	ug/Kg	2/3/2017	18:34
1,3-Dichlorobenzene	< 6.39	ug/Kg	2/3/2017	18:34
1,4-Dichlorobenzene	< 6.39	ug/Kg	2/3/2017	18:34
1,4-dioxane	< 63.9	ug/Kg	2/3/2017	18:34
2-Butanone	< 31.9	ug/Kg	2/3/2017	18:34
2-Hexanone	< 16.0	ug/Kg	2/3/2017	18:34
4-Methyl-2-pentanone	< 16.0	ug/Kg	2/3/2017	18:34
Acetone	**114**	ug/Kg	2/3/2017	18:34
Benzene	< 6.39	ug/Kg	2/3/2017	18:34
Bromochloromethane	< 16.0	ug/Kg	2/3/2017	18:34
Bromodichloromethane	< 6.39	ug/Kg	2/3/2017	18:34
Bromoform	< 16.0	ug/Kg	2/3/2017	18:34
Bromomethane	< 6.39	ug/Kg	2/3/2017	18:34
Carbon disulfide	**6.90**	ug/Kg	2/3/2017	18:34
Carbon Tetrachloride	< 6.39	ug/Kg	2/3/2017	18:34
Chlorobenzene	< 6.39	ug/Kg	2/3/2017	18:34
Chloroethane	< 6.39	ug/Kg	2/3/2017	18:34
Chloroform	< 6.39	ug/Kg	2/3/2017	18:34
Chloromethane	< 6.39	ug/Kg	2/3/2017	18:34
cis-1,2-Dichloroethene	< 6.39	ug/Kg	2/3/2017	18:34
cis-1,3-Dichloropropene	< 6.39	ug/Kg	2/3/2017	18:34
Cyclohexane	< 31.9	ug/Kg	2/3/2017	18:34

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier: BH-4A Sample Depth 1-6ft
Lab Sample ID: 170316-03 **Date Sampled:** 1/26/2017
Matrix: Soil **Date Received:** 1/27/2017

Dibromochloromethane	< 6.39	ug/Kg	2/3/2017	18:34
Dichlorodifluoromethane	< 6.39	ug/Kg	2/3/2017	18:34
Ethylbenzene	< 6.39	ug/Kg	2/3/2017	18:34
Freon 113	< 6.39	ug/Kg	2/3/2017	18:34
Isopropylbenzene	< 6.39	ug/Kg	2/3/2017	18:34
m,p-Xylene	**7.66**	ug/Kg	2/3/2017	18:34
Methyl acetate	< 6.39	ug/Kg	2/3/2017	18:34
Methyl tert-butyl Ether	< 6.39	ug/Kg	2/3/2017	18:34
Methylcyclohexane	**9.73**	ug/Kg	2/3/2017	18:34
Methylene chloride	< 16.0	ug/Kg	2/3/2017	18:34
Naphthalene	**91.9**	ug/Kg	2/3/2017	18:34
n-Butylbenzene	< 6.39	ug/Kg	2/3/2017	18:34
n-Propylbenzene	< 6.39	ug/Kg	2/3/2017	18:34
o-Xylene	< 6.39	ug/Kg	2/3/2017	18:34
p-Isopropyltoluene	< 6.39	ug/Kg	2/3/2017	18:34
sec-Butylbenzene	< 6.39	ug/Kg	2/3/2017	18:34
Styrene	< 16.0	ug/Kg	2/3/2017	18:34
tert-Butylbenzene	< 6.39	ug/Kg	2/3/2017	18:34
Tetrachloroethene	< 6.39	ug/Kg	2/3/2017	18:34
Toluene	**10.8**	ug/Kg	2/3/2017	18:34
trans-1,2-Dichloroethene	< 6.39	ug/Kg	2/3/2017	18:34
trans-1,3-Dichloropropene	< 6.39	ug/Kg	2/3/2017	18:34
Trichloroethene	< 6.39	ug/Kg	2/3/2017	18:34
Trichlorofluoromethane	< 6.39	ug/Kg	2/3/2017	18:34
Vinyl chloride	< 6.39	ug/Kg	2/3/2017	18:34

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Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier: BH-4A Sample Depth 1-6ft
Lab Sample ID: 170316-03 **Date Sampled:** 1/26/2017
Matrix: Soil **Date Received:** 1/27/2017

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**114**	82.1 - 123		2/3/2017 18:34
4-Bromofluorobenzene	**88.7**	84.6 - 112		2/3/2017 18:34
Pentafluorobenzene	**99.5**	91.4 - 111		2/3/2017 18:34
Toluene-D8	**99.9**	90.3 - 108		2/3/2017 18:34

Method Reference(s): EPA 8260C
EPA 5035A - L
Data File: x38928.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.

Total Cyanide

Analyte	Result	Units	Qualifier	Date Analyzed
Cyanide, Total	**0.548**	mg/Kg		2/8/2017

Method Reference(s): EPA 9014
Preparation Date: 2/7/2017

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier:	BH-5A Sample Depth 1-6ft		
Lab Sample ID:	170316-04	**Date Sampled:**	1/26/2017
Matrix:	Soil	**Date Received:**	1/27/2017

Part 375 Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	**25.7**	mg/Kg		2/1/2017 18:43
Barium	**94.4**	mg/Kg		2/1/2017 18:43
Beryllium	**0.674**	mg/Kg		2/1/2017 18:43
Cadmium	**6.00**	mg/Kg		2/1/2017 18:43
Chromium	**15.1**	mg/Kg		2/1/2017 18:43
Copper	**139**	mg/Kg		2/1/2017 18:43
Lead	**189**	mg/Kg		2/1/2017 18:43
Manganese	**318**	mg/Kg		2/1/2017 18:43
Nickel	**27.6**	mg/Kg		2/1/2017 18:43
Selenium	**6.59**	mg/Kg		2/1/2017 18:43
Silver	**3.22**	mg/Kg		2/1/2017 18:43
Zinc	**1450**	mg/Kg		2/2/2017 17:06

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 1/27/2017
Data File: 020117c

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	**0.377**	mg/Kg		2/1/2017 19:27

Method Reference(s): EPA 7471B
Preparation Date: 2/1/2017
Data File: Hg170201E

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0780	mg/Kg		2/8/2017 11:56
PCB-1221	< 0.0780	mg/Kg		2/8/2017 11:56
PCB-1232	< 0.0780	mg/Kg		2/8/2017 11:56
PCB-1242	< 0.0780	mg/Kg		2/8/2017 11:56
PCB-1248	< 0.0780	mg/Kg		2/8/2017 11:56

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: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier: BH-5A Sample Depth 1-6ft
Lab Sample ID: 170316-04 **Date Sampled:** 1/26/2017
Matrix: Soil **Date Received:** 1/27/2017

PCB-1254	< 0.0780	mg/Kg		2/8/2017 11:56
PCB-1260	**0.599**	mg/Kg		2/8/2017 11:56
PCB-1262	< 0.0780	mg/Kg		2/8/2017 11:56
PCB-1268	< 0.0780	mg/Kg		2/8/2017 11:56

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl	**64.0**	10 - 142		2/8/2017 11:56
Tetrachloro-m-xylene	**49.2**	10 - 136		2/8/2017 11:56

Method Reference(s): EPA 8082A
EPA 3550C
Preparation Date: 2/7/2017

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 3.90	ug/Kg		2/11/2017 00:52
4,4-DDE	< 3.90	ug/Kg		2/11/2017 00:52
4,4-DDT	**43.6**	ug/Kg		2/11/2017 00:52
Aldrin	**4.44**	ug/Kg	P	2/11/2017 00:52
alpha-BHC	< 3.90	ug/Kg		2/11/2017 00:52
beta-BHC	< 3.90	ug/Kg		2/11/2017 00:52
cis-Chlordane	**8.66**	ug/Kg	P	2/11/2017 00:52
delta-BHC	< 3.90	ug/Kg		2/11/2017 00:52
Dieldrin	**8.84**	ug/Kg	P	2/11/2017 00:52
Endosulfan I	< 3.90	ug/Kg		2/11/2017 00:52
Endosulfan II	**14.2**	ug/Kg		2/11/2017 00:52
Endosulfan Sulfate	**48.7**	ug/Kg		2/11/2017 00:52
Endrin	**36.1**	ug/Kg	P	2/11/2017 00:52
Endrin Aldehyde	**13.7**	ug/Kg	P	2/11/2017 00:52
Endrin Ketone	**7.54**	ug/Kg	P	2/11/2017 00:52
gamma-BHC (Lindane)	< 3.90	ug/Kg		2/11/2017 00:52
Heptachlor	< 3.90	ug/Kg		2/11/2017 00:52
Heptachlor Epoxide	< 3.90	ug/Kg		2/11/2017 00:52
Methoxychlor	**18.0**	ug/Kg	P	2/11/2017 00:52
Toxaphene	< 39.0	ug/Kg		2/11/2017 00:52

Sample Identifier: BH-5A Sample Depth 1-6ft
Lab Sample ID: 170316-04 **Date Sampled:** 1/26/2017
Matrix: Soil **Date Received:** 1/27/2017

trans-Chlordane	< 3.90	ug/Kg			2/11/2017 00:52

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	**85.1**	10 - 152		2/11/2017 00:52
Tetrachloro-m-xylene (1)	**112**	10 - 91.1	*	2/11/2017 00:52

Method Reference(s): EPA 8081B
EPA 3550C
Preparation Date: 2/7/2017

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 393	ug/Kg		2/3/2017 20:42
1,2,4,5-Tetrachlorobenzene	< 393	ug/Kg		2/3/2017 20:42
1,2,4-Trichlorobenzene	< 393	ug/Kg		2/3/2017 20:42
1,2-Dichlorobenzene	< 393	ug/Kg		2/3/2017 20:42
1,3-Dichlorobenzene	< 393	ug/Kg		2/3/2017 20:42
1,4-Dichlorobenzene	< 393	ug/Kg		2/3/2017 20:42
2,2-Oxybis (1-chloropropane)	< 393	ug/Kg		2/3/2017 20:42
2,3,4,6-Tetrachlorophenol	< 393	ug/Kg		2/3/2017 20:42
2,4,5-Trichlorophenol	< 787	ug/Kg		2/3/2017 20:42
2,4,6-Trichlorophenol	< 393	ug/Kg		2/3/2017 20:42
2,4-Dichlorophenol	< 393	ug/Kg		2/3/2017 20:42
2,4-Dimethylphenol	< 393	ug/Kg		2/3/2017 20:42
2,4-Dinitrophenol	< 787	ug/Kg		2/3/2017 20:42
2,4-Dinitrotoluene	< 393	ug/Kg		2/3/2017 20:42
2,6-Dinitrotoluene	< 393	ug/Kg		2/3/2017 20:42
2-Chloronaphthalene	< 393	ug/Kg		2/3/2017 20:42
2-Chlorophenol	< 393	ug/Kg		2/3/2017 20:42
2-Methylnapthalene	< 393	ug/Kg		2/3/2017 20:42
2-Methylphenol	< 393	ug/Kg		2/3/2017 20:42
2-Nitroaniline	< 787	ug/Kg		2/3/2017 20:42
2-Nitrophenol	< 393	ug/Kg		2/3/2017 20:42
3&4-Methylphenol	< 393	ug/Kg		2/3/2017 20:42
3,3'-Dichlorobenzidine	< 393	ug/Kg		2/3/2017 20:42

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier:	BH-5A Sample Depth 1-6ft		
Lab Sample ID:	170316-04	**Date Sampled:**	1/26/2017
Matrix:	Soil	**Date Received:**	1/27/2017

3-Nitroaniline	< 787	ug/Kg	2/3/2017 20:42
4,6-Dinitro-2-methylphenol	< 787	ug/Kg	2/3/2017 20:42
4-Bromophenyl phenyl ether	< 393	ug/Kg	2/3/2017 20:42
4-Chloro-3-methylphenol	< 393	ug/Kg	2/3/2017 20:42
4-Chloroaniline	< 393	ug/Kg	2/3/2017 20:42
4-Chlorophenyl phenyl ether	< 393	ug/Kg	2/3/2017 20:42
4-Nitroaniline	< 787	ug/Kg	2/3/2017 20:42
4-Nitrophenol	< 787	ug/Kg	2/3/2017 20:42
Acenaphthene	< 393	ug/Kg	2/3/2017 20:42
Acenaphthylene	< 393	ug/Kg	2/3/2017 20:42
Acetophenone	< 393	ug/Kg	2/3/2017 20:42
Anthracene	< 393	ug/Kg	2/3/2017 20:42
Atrazine	< 393	ug/Kg	2/3/2017 20:42
Benzaldehyde	< 393	ug/Kg	2/3/2017 20:42
Benzo (a) anthracene	**1130**	ug/Kg	2/3/2017 20:42
Benzo (a) pyrene	**782**	ug/Kg	2/3/2017 20:42
Benzo (b) fluoranthene	**885**	ug/Kg	2/3/2017 20:42
Benzo (g,h,i) perylene	**544**	ug/Kg	2/3/2017 20:42
Benzo (k) fluoranthene	**555**	ug/Kg	2/3/2017 20:42
Bis (2-chloroethoxy) methane	< 393	ug/Kg	2/3/2017 20:42
Bis (2-chloroethyl) ether	< 393	ug/Kg	2/3/2017 20:42
Bis (2-ethylhexyl) phthalate	< 393	ug/Kg	2/3/2017 20:42
Butylbenzylphthalate	< 393	ug/Kg	2/3/2017 20:42
Caprolactam	< 393	ug/Kg	2/3/2017 20:42
Carbazole	< 393	ug/Kg	2/3/2017 20:42
Chrysene	**1070**	ug/Kg	2/3/2017 20:42
Dibenz (a,h) anthracene	< 393	ug/Kg	2/3/2017 20:42
Dibenzofuran	< 393	ug/Kg	2/3/2017 20:42
Diethyl phthalate	< 393	ug/Kg	2/3/2017 20:42
Dimethyl phthalate	< 787	ug/Kg	2/3/2017 20:42
Di-n-butyl phthalate	< 393	ug/Kg	2/3/2017 20:42
Di-n-octylphthalate	< 393	ug/Kg	2/3/2017 20:42

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Sample Identifier: BH-5A Sample Depth 1-6ft
Lab Sample ID: 170316-04 **Date Sampled:** 1/26/2017
Matrix: Soil **Date Received:** 1/27/2017

Fluoranthene	**2490**	ug/Kg		2/3/2017 20:42
Fluorene	< 393	ug/Kg		2/3/2017 20:42
Hexachlorobenzene	< 393	ug/Kg		2/3/2017 20:42
Hexachlorobutadiene	< 393	ug/Kg		2/3/2017 20:42
Hexachlorocyclopentadiene	< 393	ug/Kg		2/3/2017 20:42
Hexachloroethane	< 393	ug/Kg		2/3/2017 20:42
Indeno (1,2,3-cd) pyrene	**554**	ug/Kg		2/3/2017 20:42
Isophorone	< 393	ug/Kg		2/3/2017 20:42
Naphthalene	< 393	ug/Kg		2/3/2017 20:42
Nitrobenzene	< 393	ug/Kg		2/3/2017 20:42
N-Nitroso-di-n-propylamine	< 393	ug/Kg		2/3/2017 20:42
N-Nitrosodiphenylamine	< 393	ug/Kg		2/3/2017 20:42
Pentachlorophenol	< 787	ug/Kg		2/3/2017 20:42
Phenanthrene	**1200**	ug/Kg		2/3/2017 20:42
Phenol	< 393	ug/Kg		2/3/2017 20:42
Pyrene	**1710**	ug/Kg		2/3/2017 20:42

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	**52.9**	43 - 120		2/3/2017 20:42
2-Fluorobiphenyl	**44.1**	33.7 - 113		2/3/2017 20:42
2-Fluorophenol	**31.8**	36.5 - 88.1	*	2/3/2017 20:42
Nitrobenzene-d5	**33.0**	33.3 - 91.5	*	2/3/2017 20:42
Phenol-d5	**36.8**	38.4 - 94.6	*	2/3/2017 20:42
Terphenyl-d14	**48.6**	66.1 - 113	*	2/3/2017 20:42

Method Reference(s): EPA 8270D
EPA 3550C
Preparation Date: 2/3/2017
Data File: B16878.D

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 7.78	ug/Kg		2/3/2017 18:10
1,1,2,2-Tetrachloroethane	< 7.78	ug/Kg		2/3/2017 18:10
1,1,2-Trichloroethane	< 7.78	ug/Kg		2/3/2017 18:10

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier:	BH-5A Sample Depth 1-6ft		
Lab Sample ID:	170316-04	**Date Sampled:**	1/26/2017
Matrix:	Soil	**Date Received:**	1/27/2017

1,1-Dichloroethane	< 7.78	ug/Kg	2/3/2017	18:10
1,1-Dichloroethene	< 7.78	ug/Kg	2/3/2017	18:10
1,2,3-Trichlorobenzene	< 19.5	ug/Kg	2/3/2017	18:10
1,2,4-Trichlorobenzene	< 19.5	ug/Kg	2/3/2017	18:10
1,2,4-Trimethylbenzene	< 7.78	ug/Kg	2/3/2017	18:10
1,2-Dibromo-3-Chloropropane	< 38.9	ug/Kg	2/3/2017	18:10
1,2-Dibromoethane	< 7.78	ug/Kg	2/3/2017	18:10
1,2-Dichlorobenzene	< 7.78	ug/Kg	2/3/2017	18:10
1,2-Dichloroethane	< 7.78	ug/Kg	2/3/2017	18:10
1,2-Dichloropropane	< 7.78	ug/Kg	2/3/2017	18:10
1,3,5-Trimethylbenzene	< 7.78	ug/Kg	2/3/2017	18:10
1,3-Dichlorobenzene	< 7.78	ug/Kg	2/3/2017	18:10
1,4-Dichlorobenzene	< 7.78	ug/Kg	2/3/2017	18:10
1,4-dioxane	< 77.8	ug/Kg	2/3/2017	18:10
2-Butanone	< 38.9	ug/Kg	2/3/2017	18:10
2-Hexanone	< 19.5	ug/Kg	2/3/2017	18:10
4-Methyl-2-pentanone	< 19.5	ug/Kg	2/3/2017	18:10
Acetone	< 38.9	ug/Kg	2/3/2017	18:10
Benzene	< 7.78	ug/Kg	2/3/2017	18:10
Bromochloromethane	< 19.5	ug/Kg	2/3/2017	18:10
Bromodichloromethane	< 7.78	ug/Kg	2/3/2017	18:10
Bromoform	< 19.5	ug/Kg	2/3/2017	18:10
Bromomethane	< 7.78	ug/Kg	2/3/2017	18:10
Carbon disulfide	< 7.78	ug/Kg	2/3/2017	18:10
Carbon Tetrachloride	< 7.78	ug/Kg	2/3/2017	18:10
Chlorobenzene	< 7.78	ug/Kg	2/3/2017	18:10
Chloroethane	< 7.78	ug/Kg	2/3/2017	18:10
Chloroform	< 7.78	ug/Kg	2/3/2017	18:10
Chloromethane	< 7.78	ug/Kg	2/3/2017	18:10
cis-1,2-Dichloroethene	< 7.78	ug/Kg	2/3/2017	18:10
cis-1,3-Dichloropropene	< 7.78	ug/Kg	2/3/2017	18:10
Cyclohexane	< 38.9	ug/Kg	2/3/2017	18:10

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier: BH-5A Sample Depth 1-6ft
Lab Sample ID: 170316-04 **Date Sampled:** 1/26/2017
Matrix: Soil **Date Received:** 1/27/2017

Dibromochloromethane	< 7.78	ug/Kg	2/3/2017	18:10
Dichlorodifluoromethane	< 7.78	ug/Kg	2/3/2017	18:10
Ethylbenzene	< 7.78	ug/Kg	2/3/2017	18:10
Freon 113	< 7.78	ug/Kg	2/3/2017	18:10
Isopropylbenzene	< 7.78	ug/Kg	2/3/2017	18:10
m,p-Xylene	< 7.78	ug/Kg	2/3/2017	18:10
Methyl acetate	< 7.78	ug/Kg	2/3/2017	18:10
Methyl tert-butyl Ether	< 7.78	ug/Kg	2/3/2017	18:10
Methylcyclohexane	< 7.78	ug/Kg	2/3/2017	18:10
Methylene chloride	< 19.5	ug/Kg	2/3/2017	18:10
Naphthalene	< 19.5	ug/Kg	2/3/2017	18:10
n-Butylbenzene	< 7.78	ug/Kg	2/3/2017	18:10
n-Propylbenzene	< 7.78	ug/Kg	2/3/2017	18:10
o-Xylene	< 7.78	ug/Kg	2/3/2017	18:10
p-Isopropyltoluene	< 7.78	ug/Kg	2/3/2017	18:10
sec-Butylbenzene	< 7.78	ug/Kg	2/3/2017	18:10
Styrene	< 19.5	ug/Kg	2/3/2017	18:10
tert-Butylbenzene	< 7.78	ug/Kg	2/3/2017	18:10
Tetrachloroethene	< 7.78	ug/Kg	2/3/2017	18:10
Toluene	< 7.78	ug/Kg	2/3/2017	18:10
trans-1,2-Dichloroethene	< 7.78	ug/Kg	2/3/2017	18:10
trans-1,3-Dichloropropene	< 7.78	ug/Kg	2/3/2017	18:10
Trichloroethene	< 7.78	ug/Kg	2/3/2017	18:10
Trichlorofluoromethane	< 7.78	ug/Kg	2/3/2017	18:10
Vinyl chloride	< 7.78	ug/Kg	2/3/2017	18:10

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PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier: BH-5A Sample Depth 1-6ft

Lab Sample ID: 170316-04 **Date Sampled:** 1/26/2017

Matrix: Soil **Date Received:** 1/27/2017

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**111**	82.1 - 123		2/3/2017	18:10
4-Bromofluorobenzene	**97.8**	84.6 - 112		2/3/2017	18:10
Pentafluorobenzene	**101**	91.4 - 111		2/3/2017	18:10
Toluene-D8	**103**	90.3 - 108		2/3/2017	18:10

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

Data File: x38927.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.

Total Cyanide

Analyte	Result	Units	Qualifier	Date Analyzed
Cyanide, Total	< 0.529	mg/Kg		2/8/2017

Method Reference(s): EPA 9014

Preparation Date: 2/7/2017

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier:	BH-6A Sample Depth 0-3ft		
Lab Sample ID:	170316-05	**Date Sampled:**	1/26/2017
Matrix:	Soil	**Date Received:**	1/27/2017

Part 375 Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	**14.7**	mg/Kg		2/1/2017 18:47
Barium	**528**	mg/Kg		2/1/2017 18:47
Beryllium	< 0.256	mg/Kg		2/1/2017 18:47
Cadmium	**11.7**	mg/Kg		2/1/2017 18:47
Chromium	**191**	mg/Kg		2/1/2017 18:47
Copper	**455**	mg/Kg		2/1/2017 18:51
Lead	**355**	mg/Kg		2/1/2017 18:47
Manganese	**2090**	mg/Kg		2/1/2017 18:51
Nickel	**153**	mg/Kg		2/1/2017 18:47
Selenium	**26.8**	mg/Kg		2/1/2017 18:47
Silver	< 10.3	mg/Kg		2/3/2017 13:19
Zinc	**3960**	mg/Kg		2/1/2017 18:51

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 1/27/2017
Data File: 020117c

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	**0.0519**	mg/Kg		2/1/2017 19:30

Method Reference(s): EPA 7471B
Preparation Date: 2/1/2017
Data File: Hg170201E

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.157	mg/Kg		2/8/2017 12:18
PCB-1221	< 0.157	mg/Kg		2/8/2017 12:18
PCB-1232	< 0.157	mg/Kg		2/8/2017 12:18
PCB-1242	< 0.157	mg/Kg		2/8/2017 12:18
PCB-1248	**0.566**	mg/Kg		2/8/2017 12:18

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Sample Identifier: BH-6A Sample Depth 0-3ft
Lab Sample ID: 170316-05 **Date Sampled:** 1/26/2017
Matrix: Soil **Date Received:** 1/27/2017

PCB-1254	< 0.157	mg/Kg		2/8/2017 12:18
PCB-1260	**0.698**	mg/Kg		2/8/2017 12:18
PCB-1262	< 0.157	mg/Kg		2/8/2017 12:18
PCB-1268	< 0.157	mg/Kg		2/8/2017 12:18

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl	**46.1**	10 - 142		2/8/2017 12:18
Tetrachloro-m-xylene	**38.9**	10 - 136		2/8/2017 12:18

Method Reference(s): EPA 8082A
EPA 3550C
Preparation Date: 2/7/2017

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 3.14	ug/Kg		2/11/2017 01:03
4,4-DDE	< 3.14	ug/Kg		2/11/2017 01:03
4,4-DDT	**48.5**	ug/Kg		2/11/2017 01:03
Aldrin	< 3.14	ug/Kg		2/11/2017 01:03
alpha-BHC	< 3.14	ug/Kg		2/11/2017 01:03
beta-BHC	**7.98**	ug/Kg	P	2/11/2017 01:03
cis-Chlordane	**4.84**	ug/Kg		2/11/2017 01:03
delta-BHC	**29.1**	ug/Kg	P	2/11/2017 01:03
Dieldrin	**9.52**	ug/Kg	P	2/11/2017 01:03
Endosulfan I	< 3.14	ug/Kg		2/11/2017 01:03
Endosulfan II	**13.9**	ug/Kg		2/11/2017 01:03
Endosulfan Sulfate	**50.9**	ug/Kg		2/11/2017 01:03
Endrin	**4.92**	ug/Kg	P	2/11/2017 01:03
Endrin Aldehyde	**7.37**	ug/Kg	P	2/11/2017 01:03
Endrin Ketone	**6.64**	ug/Kg	P	2/11/2017 01:03
gamma-BHC (Lindane)	**6.91**	ug/Kg		2/11/2017 01:03
Heptachlor	**4.53**	ug/Kg	P	2/11/2017 01:03
Heptachlor Epoxide	< 3.14	ug/Kg		2/11/2017 01:03
Methoxychlor	**7.92**	ug/Kg	P	2/11/2017 01:03
Toxaphene	< 31.4	ug/Kg		2/11/2017 01:03

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier: BH-6A Sample Depth 0-3ft
Lab Sample ID: 170316-05 **Date Sampled:** 1/26/2017
Matrix: Soil **Date Received:** 1/27/2017

trans-Chlordane	**10.0**	ug/Kg			2/11/2017 01:03

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	**49.2**	10 - 152		2/11/2017 01:03
Tetrachloro-m-xylene (1)	**31.3**	10 - 91.1		2/11/2017 01:03

Method Reference(s): EPA 8081B
EPA 3550C
Preparation Date: 2/7/2017

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 314	ug/Kg		2/3/2017 21:11
1,2,4,5-Tetrachlorobenzene	< 314	ug/Kg		2/3/2017 21:11
1,2,4-Trichlorobenzene	< 314	ug/Kg		2/3/2017 21:11
1,2-Dichlorobenzene	< 314	ug/Kg		2/3/2017 21:11
1,3-Dichlorobenzene	< 314	ug/Kg		2/3/2017 21:11
1,4-Dichlorobenzene	< 314	ug/Kg		2/3/2017 21:11
2,2-Oxybis (1-chloropropane)	< 314	ug/Kg		2/3/2017 21:11
2,3,4,6-Tetrachlorophenol	< 314	ug/Kg		2/3/2017 21:11
2,4,5-Trichlorophenol	< 627	ug/Kg		2/3/2017 21:11
2,4,6-Trichlorophenol	< 314	ug/Kg		2/3/2017 21:11
2,4-Dichlorophenol	< 314	ug/Kg		2/3/2017 21:11
2,4-Dimethylphenol	< 314	ug/Kg		2/3/2017 21:11
2,4-Dinitrophenol	< 627	ug/Kg		2/3/2017 21:11
2,4-Dinitrotoluene	< 314	ug/Kg		2/3/2017 21:11
2,6-Dinitrotoluene	< 314	ug/Kg		2/3/2017 21:11
2-Chloronaphthalene	< 314	ug/Kg		2/3/2017 21:11
2-Chlorophenol	< 314	ug/Kg		2/3/2017 21:11
2-Methylnapthalene	< 314	ug/Kg		2/3/2017 21:11
2-Methylphenol	< 314	ug/Kg		2/3/2017 21:11
2-Nitroaniline	< 627	ug/Kg		2/3/2017 21:11
2-Nitrophenol	< 314	ug/Kg		2/3/2017 21:11
3&4-Methylphenol	< 314	ug/Kg		2/3/2017 21:11
3,3'-Dichlorobenzidine	< 314	ug/Kg		2/3/2017 21:11

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier:	BH-6A Sample Depth 0-3ft		
Lab Sample ID:	170316-05	**Date Sampled:**	1/26/2017
Matrix:	Soil	**Date Received:**	1/27/2017

3-Nitroaniline	< 627	ug/Kg	2/3/2017 21:11
4,6-Dinitro-2-methylphenol	< 627	ug/Kg	2/3/2017 21:11
4-Bromophenyl phenyl ether	< 314	ug/Kg	2/3/2017 21:11
4-Chloro-3-methylphenol	< 314	ug/Kg	2/3/2017 21:11
4-Chloroaniline	< 314	ug/Kg	2/3/2017 21:11
4-Chlorophenyl phenyl ether	< 314	ug/Kg	2/3/2017 21:11
4-Nitroaniline	< 627	ug/Kg	2/3/2017 21:11
4-Nitrophenol	< 627	ug/Kg	2/3/2017 21:11
Acenaphthene	< 314	ug/Kg	2/3/2017 21:11
Acenaphthylene	< 314	ug/Kg	2/3/2017 21:11
Acetophenone	< 314	ug/Kg	2/3/2017 21:11
Anthracene	< 314	ug/Kg	2/3/2017 21:11
Atrazine	< 314	ug/Kg	2/3/2017 21:11
Benzaldehyde	< 314	ug/Kg	2/3/2017 21:11
Benzo (a) anthracene	**371**	ug/Kg	2/3/2017 21:11
Benzo (a) pyrene	**317**	ug/Kg	2/3/2017 21:11
Benzo (b) fluoranthene	**399**	ug/Kg	2/3/2017 21:11
Benzo (g,h,i) perylene	**403**	ug/Kg	2/3/2017 21:11
Benzo (k) fluoranthene	< 314	ug/Kg	2/3/2017 21:11
Bis (2-chloroethoxy) methane	< 314	ug/Kg	2/3/2017 21:11
Bis (2-chloroethyl) ether	< 314	ug/Kg	2/3/2017 21:11
Bis (2-ethylhexyl) phthalate	**475**	ug/Kg	2/3/2017 21:11
Butylbenzylphthalate	< 314	ug/Kg	2/3/2017 21:11
Caprolactam	< 314	ug/Kg	2/3/2017 21:11
Carbazole	< 314	ug/Kg	2/3/2017 21:11
Chrysene	**385**	ug/Kg	2/3/2017 21:11
Dibenz (a,h) anthracene	< 314	ug/Kg	2/3/2017 21:11
Dibenzofuran	< 314	ug/Kg	2/3/2017 21:11
Diethyl phthalate	< 314	ug/Kg	2/3/2017 21:11
Dimethyl phthalate	< 627	ug/Kg	2/3/2017 21:11
Di-n-butyl phthalate	< 314	ug/Kg	2/3/2017 21:11
Di-n-octylphthalate	< 314	ug/Kg	2/3/2017 21:11

Sample Identifier: BH-6A Sample Depth 0-3ft
Lab Sample ID: 170316-05 **Date Sampled:** 1/26/2017
Matrix: Soil **Date Received:** 1/27/2017

Fluoranthene	**711**	ug/Kg		2/3/2017 21:11
Fluorene	< 314	ug/Kg		2/3/2017 21:11
Hexachlorobenzene	< 314	ug/Kg		2/3/2017 21:11
Hexachlorobutadiene	< 314	ug/Kg		2/3/2017 21:11
Hexachlorocyclopentadiene	< 314	ug/Kg		2/3/2017 21:11
Hexachloroethane	< 314	ug/Kg		2/3/2017 21:11
Indeno (1,2,3-cd) pyrene	**402**	ug/Kg		2/3/2017 21:11
Isophorone	< 314	ug/Kg		2/3/2017 21:11
Naphthalene	< 314	ug/Kg		2/3/2017 21:11
Nitrobenzene	< 314	ug/Kg		2/3/2017 21:11
N-Nitroso-di-n-propylamine	< 314	ug/Kg		2/3/2017 21:11
N-Nitrosodiphenylamine	< 314	ug/Kg		2/3/2017 21:11
Pentachlorophenol	< 627	ug/Kg		2/3/2017 21:11
Phenanthrene	< 314	ug/Kg		2/3/2017 21:11
Phenol	< 314	ug/Kg		2/3/2017 21:11
Pyrene	**483**	ug/Kg		2/3/2017 21:11

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	**27.7**	43 - 120	*	2/3/2017 21:11
2-Fluorobiphenyl	**35.6**	33.7 - 113		2/3/2017 21:11
2-Fluorophenol	**35.8**	36.5 - 88.1	*	2/3/2017 21:11
Nitrobenzene-d5	**34.5**	33.3 - 91.5		2/3/2017 21:11
Phenol-d5	**35.9**	38.4 - 94.6	*	2/3/2017 21:11
Terphenyl-d14	**33.3**	66.1 - 113	*	2/3/2017 21:11

Method Reference(s): EPA 8270D
EPA 3550C
Preparation Date: 2/3/2017
Data File: B16879.D

Total Cyanide

Analyte	Result	Units	Qualifier	Date Analyzed
Cyanide, Total	< 0.439	mg/Kg		2/8/2017

Method Reference(s): EPA 9014
Preparation Date: 2/7/2017

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier:	BH-8A Sample Depth 0-4ft		
Lab Sample ID:	170316-06	**Date Sampled:**	1/26/2017
Matrix:	Soil	**Date Received:**	1/27/2017

Part 375 Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	**1.27**	mg/Kg		2/1/2017 18:56
Barium	< 5.12	mg/Kg		2/1/2017 18:56
Beryllium	< 0.256	mg/Kg		2/1/2017 18:56
Cadmium	**0.356**	mg/Kg		2/1/2017 18:56
Chromium	**161**	mg/Kg		2/1/2017 18:56
Copper	**161**	mg/Kg		2/1/2017 18:56
Lead	**4.93**	mg/Kg		2/1/2017 18:56
Manganese	**297**	mg/Kg		2/1/2017 18:56
Nickel	**71.7**	mg/Kg		2/1/2017 18:56
Selenium	< 0.512	mg/Kg		2/2/2017 17:15
Silver	< 0.512	mg/Kg		2/1/2017 18:56
Zinc	**112**	mg/Kg		2/1/2017 18:56

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 1/27/2017
Data File: 020117c

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	< 0.00834	mg/Kg		2/1/2017 19:34

Method Reference(s): EPA 7471B
Preparation Date: 2/1/2017
Data File: Hg170201E

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0320	mg/Kg		2/7/2017 17:23
PCB-1221	< 0.0320	mg/Kg		2/7/2017 17:23
PCB-1232	< 0.0320	mg/Kg		2/7/2017 17:23
PCB-1242	< 0.0320	mg/Kg		2/7/2017 17:23
PCB-1248	< 0.0320	mg/Kg		2/7/2017 17:23

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.

Sample Identifier: BH-8A Sample Depth 0-4ft
Lab Sample ID: 170316-06 **Date Sampled:** 1/26/2017
Matrix: Soil **Date Received:** 1/27/2017

PCB-1254	< 0.0320	mg/Kg		2/7/2017 17:23
PCB-1260	< 0.0320	mg/Kg		2/7/2017 17:23
PCB-1262	< 0.0320	mg/Kg		2/7/2017 17:23
PCB-1268	< 0.0320	mg/Kg		2/7/2017 17:23

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl	**68.7**	10 - 142		2/7/2017 17:23
Tetrachloro-m-xylene	**30.2**	10 - 136		2/7/2017 17:23

Method Reference(s): EPA 8082A
EPA 3550C
Preparation Date: 2/7/2017

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 3.20	ug/Kg		2/11/2017 01:15
4,4-DDE	< 3.20	ug/Kg		2/11/2017 01:15
4,4-DDT	< 3.20	ug/Kg		2/11/2017 01:15
Aldrin	< 3.20	ug/Kg		2/11/2017 01:15
alpha-BHC	< 3.20	ug/Kg		2/11/2017 01:15
beta-BHC	< 3.20	ug/Kg		2/11/2017 01:15
cis-Chlordane	< 3.20	ug/Kg		2/11/2017 01:15
delta-BHC	< 3.20	ug/Kg		2/11/2017 01:15
Dieldrin	< 3.20	ug/Kg		2/11/2017 01:15
Endosulfan I	< 3.20	ug/Kg		2/11/2017 01:15
Endosulfan II	< 3.20	ug/Kg		2/11/2017 01:15
Endosulfan Sulfate	< 3.20	ug/Kg		2/11/2017 01:15
Endrin	< 3.20	ug/Kg		2/11/2017 01:15
Endrin Aldehyde	< 3.20	ug/Kg		2/11/2017 01:15
Endrin Ketone	< 3.20	ug/Kg		2/11/2017 01:15
gamma-BHC (Lindane)	< 3.20	ug/Kg		2/11/2017 01:15
Heptachlor	< 3.20	ug/Kg		2/11/2017 01:15
Heptachlor Epoxide	< 3.20	ug/Kg		2/11/2017 01:15
Methoxychlor	< 3.20	ug/Kg		2/11/2017 01:15
Toxaphene	< 32.0	ug/Kg		2/11/2017 01:15

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier: BH-8A Sample Depth 0-4ft
Lab Sample ID: 170316-06 **Date Sampled:** 1/26/2017
Matrix: Soil **Date Received:** 1/27/2017

trans-Chlordane	< 3.20	ug/Kg			2/11/2017 01:15

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	**48.1**	10 - 152		2/11/2017 01:15
Tetrachloro-m-xylene (1)	**27.9**	10 - 91.1		2/11/2017 01:15

Method Reference(s): EPA 8081B
EPA 3550C
Preparation Date: 2/7/2017

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 316	ug/Kg		2/3/2017 21:40
1,2,4,5-Tetrachlorobenzene	< 316	ug/Kg		2/3/2017 21:40
1,2,4-Trichlorobenzene	< 316	ug/Kg		2/3/2017 21:40
1,2-Dichlorobenzene	< 316	ug/Kg		2/3/2017 21:40
1,3-Dichlorobenzene	< 316	ug/Kg		2/3/2017 21:40
1,4-Dichlorobenzene	< 316	ug/Kg		2/3/2017 21:40
2,2-Oxybis (1-chloropropane)	< 316	ug/Kg		2/3/2017 21:40
2,3,4,6-Tetrachlorophenol	< 316	ug/Kg		2/3/2017 21:40
2,4,5-Trichlorophenol	< 632	ug/Kg		2/3/2017 21:40
2,4,6-Trichlorophenol	< 316	ug/Kg		2/3/2017 21:40
2,4-Dichlorophenol	< 316	ug/Kg		2/3/2017 21:40
2,4-Dimethylphenol	< 316	ug/Kg		2/3/2017 21:40
2,4-Dinitrophenol	< 632	ug/Kg		2/3/2017 21:40
2,4-Dinitrotoluene	< 316	ug/Kg		2/3/2017 21:40
2,6-Dinitrotoluene	< 316	ug/Kg		2/3/2017 21:40
2-Chloronaphthalene	< 316	ug/Kg		2/3/2017 21:40
2-Chlorophenol	< 316	ug/Kg		2/3/2017 21:40
2-Methylnapthalene	< 316	ug/Kg		2/3/2017 21:40
2-Methylphenol	< 316	ug/Kg		2/3/2017 21:40
2-Nitroaniline	< 632	ug/Kg		2/3/2017 21:40
2-Nitrophenol	< 316	ug/Kg		2/3/2017 21:40
3&4-Methylphenol	< 316	ug/Kg		2/3/2017 21:40
3,3'-Dichlorobenzidine	< 316	ug/Kg		2/3/2017 21:40

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier:	BH-8A Sample Depth 0-4ft		
Lab Sample ID:	170316-06	**Date Sampled:**	1/26/2017
Matrix:	Soil	**Date Received:**	1/27/2017

3-Nitroaniline	< 632	ug/Kg	2/3/2017 21:40
4,6-Dinitro-2-methylphenol	< 632	ug/Kg	2/3/2017 21:40
4-Bromophenyl phenyl ether	< 316	ug/Kg	2/3/2017 21:40
4-Chloro-3-methylphenol	< 316	ug/Kg	2/3/2017 21:40
4-Chloroaniline	< 316	ug/Kg	2/3/2017 21:40
4-Chlorophenyl phenyl ether	< 316	ug/Kg	2/3/2017 21:40
4-Nitroaniline	< 632	ug/Kg	2/3/2017 21:40
4-Nitrophenol	< 632	ug/Kg	2/3/2017 21:40
Acenaphthene	< 316	ug/Kg	2/3/2017 21:40
Acenaphthylene	< 316	ug/Kg	2/3/2017 21:40
Acetophenone	< 316	ug/Kg	2/3/2017 21:40
Anthracene	< 316	ug/Kg	2/3/2017 21:40
Atrazine	< 316	ug/Kg	2/3/2017 21:40
Benzaldehyde	< 316	ug/Kg	2/3/2017 21:40
Benzo (a) anthracene	< 316	ug/Kg	2/3/2017 21:40
Benzo (a) pyrene	< 316	ug/Kg	2/3/2017 21:40
Benzo (b) fluoranthene	< 316	ug/Kg	2/3/2017 21:40
Benzo (g,h,i) perylene	< 316	ug/Kg	2/3/2017 21:40
Benzo (k) fluoranthene	< 316	ug/Kg	2/3/2017 21:40
Bis (2-chloroethoxy) methane	< 316	ug/Kg	2/3/2017 21:40
Bis (2-chloroethyl) ether	< 316	ug/Kg	2/3/2017 21:40
Bis (2-ethylhexyl) phthalate	< 316	ug/Kg	2/3/2017 21:40
Butylbenzylphthalate	< 316	ug/Kg	2/3/2017 21:40
Caprolactam	< 316	ug/Kg	2/3/2017 21:40
Carbazole	< 316	ug/Kg	2/3/2017 21:40
Chrysene	< 316	ug/Kg	2/3/2017 21:40
Dibenz (a,h) anthracene	< 316	ug/Kg	2/3/2017 21:40
Dibenzofuran	< 316	ug/Kg	2/3/2017 21:40
Diethyl phthalate	< 316	ug/Kg	2/3/2017 21:40
Dimethyl phthalate	< 632	ug/Kg	2/3/2017 21:40
Di-n-butyl phthalate	< 316	ug/Kg	2/3/2017 21:40
Di-n-octylphthalate	< 316	ug/Kg	2/3/2017 21:40

Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier: BH-8A Sample Depth 0-4ft
Lab Sample ID: 170316-06 **Date Sampled:** 1/26/2017
Matrix: Soil **Date Received:** 1/27/2017

Fluoranthene	< 316	ug/Kg		2/3/2017	21:40
Fluorene	< 316	ug/Kg		2/3/2017	21:40
Hexachlorobenzene	< 316	ug/Kg		2/3/2017	21:40
Hexachlorobutadiene	< 316	ug/Kg		2/3/2017	21:40
Hexachlorocyclopentadiene	< 316	ug/Kg		2/3/2017	21:40
Hexachloroethane	< 316	ug/Kg		2/3/2017	21:40
Indeno (1,2,3-cd) pyrene	< 316	ug/Kg		2/3/2017	21:40
Isophorone	< 316	ug/Kg		2/3/2017	21:40
Naphthalene	< 316	ug/Kg		2/3/2017	21:40
Nitrobenzene	< 316	ug/Kg		2/3/2017	21:40
N-Nitroso-di-n-propylamine	< 316	ug/Kg		2/3/2017	21:40
N-Nitrosodiphenylamine	< 316	ug/Kg		2/3/2017	21:40
Pentachlorophenol	< 632	ug/Kg		2/3/2017	21:40
Phenanthrene	< 316	ug/Kg		2/3/2017	21:40
Phenol	< 316	ug/Kg		2/3/2017	21:40
Pyrene	< 316	ug/Kg		2/3/2017	21:40

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
2,4,6-Tribromophenol	**54.5**	43 - 120		2/3/2017	21:40
2-Fluorobiphenyl	**41.8**	33.7 - 113		2/3/2017	21:40
2-Fluorophenol	**39.6**	36.5 - 88.1		2/3/2017	21:40
Nitrobenzene-d5	**36.8**	33.3 - 91.5		2/3/2017	21:40
Phenol-d5	**39.6**	38.4 - 94.6		2/3/2017	21:40
Terphenyl-d14	**55.4**	66.1 - 113	*	2/3/2017	21:40

Method Reference(s): EPA 8270D
EPA 3550C
Preparation Date: 2/3/2017
Data File: B16880.D

Total Cyanide

Analyte	Result	Units	Qualifier	Date Analyzed
Cyanide, Total	< 0.379	mg/Kg		2/8/2017

Method Reference(s): EPA 9014
Preparation Date: 2/7/2017

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

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier:	BH-9A VOC Sample at 6-8ft SVOC Sample at 2-6ft		
Lab Sample ID:	170316-07	**Date Sampled:**	1/26/2017
Matrix:	Soil	**Date Received:**	1/27/2017

Part 375 Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	**9.89**	mg/Kg		2/1/2017 19:00
Barium	**82.4**	mg/Kg		2/1/2017 19:00
Beryllium	**1.55**	mg/Kg		2/1/2017 19:00
Cadmium	**1.07**	mg/Kg		2/1/2017 19:00
Chromium	**12.0**	mg/Kg		2/1/2017 19:00
Copper	**224**	mg/Kg		2/1/2017 19:00
Lead	**117**	mg/Kg		2/1/2017 19:00
Manganese	**371**	mg/Kg		2/1/2017 19:00
Nickel	**9.02**	mg/Kg		2/1/2017 19:00
Selenium	**3.75**	mg/Kg		2/1/2017 19:00
Silver	< 0.606	mg/Kg		2/1/2017 19:00
Zinc	**118**	mg/Kg		2/1/2017 19:00

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 1/27/2017
Data File: 020117c

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	**0.207**	mg/Kg		2/1/2017 19:45

Method Reference(s): EPA 7471B
Preparation Date: 2/1/2017
Data File: Hg170201E

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0356	mg/Kg		2/7/2017 17:46
PCB-1221	< 0.0356	mg/Kg		2/7/2017 17:46
PCB-1232	< 0.0356	mg/Kg		2/7/2017 17:46
PCB-1242	< 0.0356	mg/Kg		2/7/2017 17:46
PCB-1248	< 0.0356	mg/Kg		2/7/2017 17:46

Sample Identifier: BH-9A VOC Sample at 6-8ft SVOC Sample at 2-6ft
Lab Sample ID: 170316-07 **Date Sampled:** 1/26/2017
Matrix: Soil **Date Received:** 1/27/2017

PCB-1254	< 0.0356	mg/Kg		2/7/2017 17:46
PCB-1260	< 0.0356	mg/Kg		2/7/2017 17:46
PCB-1262	< 0.0356	mg/Kg		2/7/2017 17:46
PCB-1268	< 0.0356	mg/Kg		2/7/2017 17:46

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl	**64.9**	10 - 142		2/7/2017 17:46
Tetrachloro-m-xylene	**48.4**	10 - 136		2/7/2017 17:46

Method Reference(s): EPA 8082A
EPA 3550C
Preparation Date: 2/7/2017

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 3.56	ug/Kg		2/11/2017 01:27
4,4-DDE	< 3.56	ug/Kg		2/11/2017 01:27
4,4-DDT	< 3.56	ug/Kg		2/11/2017 01:27
Aldrin	< 3.56	ug/Kg		2/11/2017 01:27
alpha-BHC	< 3.56	ug/Kg		2/11/2017 01:27
beta-BHC	< 3.56	ug/Kg		2/11/2017 01:27
cis-Chlordane	**3.82**	ug/Kg	P	2/11/2017 01:27
delta-BHC	< 3.56	ug/Kg		2/11/2017 01:27
Dieldrin	**3.66**	ug/Kg	P	2/11/2017 01:27
Endosulfan I	< 3.56	ug/Kg		2/11/2017 01:27
Endosulfan II	< 3.56	ug/Kg		2/11/2017 01:27
Endosulfan Sulfate	**6.99**	ug/Kg	P	2/11/2017 01:27
Endrin	< 3.56	ug/Kg		2/11/2017 01:27
Endrin Aldehyde	**4.33**	ug/Kg	P	2/11/2017 01:27
Endrin Ketone	< 3.56	ug/Kg		2/11/2017 01:27
gamma-BHC (Lindane)	**9.75**	ug/Kg		2/11/2017 01:27
Heptachlor	< 3.56	ug/Kg		2/11/2017 01:27
Heptachlor Epoxide	< 3.56	ug/Kg		2/11/2017 01:27
Methoxychlor	**9.27**	ug/Kg		2/11/2017 01:27
Toxaphene	< 35.6	ug/Kg		2/11/2017 01:27

Sample Identifier: BH-9A VOC Sample at 6-8ft SVOC Sample at 2-6ft
Lab Sample ID: 170316-07 **Date Sampled:** 1/26/2017
Matrix: Soil **Date Received:** 1/27/2017

trans-Chlordane	< 3.56	ug/Kg			2/11/2017 01:27

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	**85.6**	10 - 152		2/11/2017 01:27
Tetrachloro-m-xylene (1)	**78.0**	10 - 91.1		2/11/2017 01:27

Method Reference(s): EPA 8081B
EPA 3550C
Preparation Date: 2/7/2017

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 351	ug/Kg		2/3/2017 22:10
1,2,4,5-Tetrachlorobenzene	< 351	ug/Kg		2/3/2017 22:10
1,2,4-Trichlorobenzene	< 351	ug/Kg		2/3/2017 22:10
1,2-Dichlorobenzene	< 351	ug/Kg		2/3/2017 22:10
1,3-Dichlorobenzene	< 351	ug/Kg		2/3/2017 22:10
1,4-Dichlorobenzene	< 351	ug/Kg		2/3/2017 22:10
2,2-Oxybis (1-chloropropane)	< 351	ug/Kg		2/3/2017 22:10
2,3,4,6-Tetrachlorophenol	< 351	ug/Kg		2/3/2017 22:10
2,4,5-Trichlorophenol	< 701	ug/Kg		2/3/2017 22:10
2,4,6-Trichlorophenol	< 351	ug/Kg		2/3/2017 22:10
2,4-Dichlorophenol	< 351	ug/Kg		2/3/2017 22:10
2,4-Dimethylphenol	< 351	ug/Kg		2/3/2017 22:10
2,4-Dinitrophenol	< 701	ug/Kg		2/3/2017 22:10
2,4-Dinitrotoluene	< 351	ug/Kg		2/3/2017 22:10
2,6-Dinitrotoluene	< 351	ug/Kg		2/3/2017 22:10
2-Chloronaphthalene	< 351	ug/Kg		2/3/2017 22:10
2-Chlorophenol	< 351	ug/Kg		2/3/2017 22:10
2-Methylnapthalene	< 351	ug/Kg		2/3/2017 22:10
2-Methylphenol	< 351	ug/Kg		2/3/2017 22:10
2-Nitroaniline	< 701	ug/Kg		2/3/2017 22:10
2-Nitrophenol	< 351	ug/Kg		2/3/2017 22:10
3&4-Methylphenol	< 351	ug/Kg		2/3/2017 22:10
3,3'-Dichlorobenzidine	< 351	ug/Kg		2/3/2017 22:10

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier:	BH-9A VOC Sample at 6-8ft SVOC Sample at 2-6ft		
Lab Sample ID:	170316-07	**Date Sampled:**	1/26/2017
Matrix:	Soil	**Date Received:**	1/27/2017

3-Nitroaniline	< 701	ug/Kg	2/3/2017	22:10
4,6-Dinitro-2-methylphenol	< 701	ug/Kg	2/3/2017	22:10
4-Bromophenyl phenyl ether	< 351	ug/Kg	2/3/2017	22:10
4-Chloro-3-methylphenol	< 351	ug/Kg	2/3/2017	22:10
4-Chloroaniline	< 351	ug/Kg	2/3/2017	22:10
4-Chlorophenyl phenyl ether	< 351	ug/Kg	2/3/2017	22:10
4-Nitroaniline	< 701	ug/Kg	2/3/2017	22:10
4-Nitrophenol	< 701	ug/Kg	2/3/2017	22:10
Acenaphthene	< 351	ug/Kg	2/3/2017	22:10
Acenaphthylene	< 351	ug/Kg	2/3/2017	22:10
Acetophenone	< 351	ug/Kg	2/3/2017	22:10
Anthracene	< 351	ug/Kg	2/3/2017	22:10
Atrazine	< 351	ug/Kg	2/3/2017	22:10
Benzaldehyde	< 351	ug/Kg	2/3/2017	22:10
Benzo (a) anthracene	**419**	ug/Kg	2/3/2017	22:10
Benzo (a) pyrene	**368**	ug/Kg	2/3/2017	22:10
Benzo (b) fluoranthene	**417**	ug/Kg	2/3/2017	22:10
Benzo (g,h,i) perylene	< 351	ug/Kg	2/3/2017	22:10
Benzo (k) fluoranthene	< 351	ug/Kg	2/3/2017	22:10
Bis (2-chloroethoxy) methane	< 351	ug/Kg	2/3/2017	22:10
Bis (2-chloroethyl) ether	< 351	ug/Kg	2/3/2017	22:10
Bis (2-ethylhexyl) phthalate	< 351	ug/Kg	2/3/2017	22:10
Butylbenzylphthalate	< 351	ug/Kg	2/3/2017	22:10
Caprolactam	< 351	ug/Kg	2/3/2017	22:10
Carbazole	< 351	ug/Kg	2/3/2017	22:10
Chrysene	**420**	ug/Kg	2/3/2017	22:10
Dibenz (a,h) anthracene	< 351	ug/Kg	2/3/2017	22:10
Dibenzofuran	< 351	ug/Kg	2/3/2017	22:10
Diethyl phthalate	< 351	ug/Kg	2/3/2017	22:10
Dimethyl phthalate	< 701	ug/Kg	2/3/2017	22:10
Di-n-butyl phthalate	< 351	ug/Kg	2/3/2017	22:10
Di-n-octylphthalate	< 351	ug/Kg	2/3/2017	22:10

Sample Identifier: BH-9A VOC Sample at 6-8ft SVOC Sample at 2-6ft
Lab Sample ID: 170316-07 **Date Sampled:** 1/26/2017
Matrix: Soil **Date Received:** 1/27/2017

Fluoranthene	**752**	ug/Kg		2/3/2017 22:10
Fluorene	< 351	ug/Kg		2/3/2017 22:10
Hexachlorobenzene	< 351	ug/Kg		2/3/2017 22:10
Hexachlorobutadiene	< 351	ug/Kg		2/3/2017 22:10
Hexachlorocyclopentadiene	< 351	ug/Kg		2/3/2017 22:10
Hexachloroethane	< 351	ug/Kg		2/3/2017 22:10
Indeno (1,2,3-cd) pyrene	< 351	ug/Kg		2/3/2017 22:10
Isophorone	< 351	ug/Kg		2/3/2017 22:10
Naphthalene	< 351	ug/Kg		2/3/2017 22:10
Nitrobenzene	< 351	ug/Kg		2/3/2017 22:10
N-Nitroso-di-n-propylamine	< 351	ug/Kg		2/3/2017 22:10
N-Nitrosodiphenylamine	< 351	ug/Kg		2/3/2017 22:10
Pentachlorophenol	< 701	ug/Kg		2/3/2017 22:10
Phenanthrene	**792**	ug/Kg		2/3/2017 22:10
Phenol	< 351	ug/Kg		2/3/2017 22:10
Pyrene	**641**	ug/Kg		2/3/2017 22:10

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	**52.2**	43 - 120		2/3/2017 22:10
2-Fluorobiphenyl	**46.6**	33.7 - 113		2/3/2017 22:10
2-Fluorophenol	**36.6**	36.5 - 88.1		2/3/2017 22:10
Nitrobenzene-d5	**36.9**	33.3 - 91.5		2/3/2017 22:10
Phenol-d5	**44.3**	38.4 - 94.6		2/3/2017 22:10
Terphenyl-d14	**54.7**	66.1 - 113	*	2/3/2017 22:10

Method Reference(s): EPA 8270D
EPA 3550C
Preparation Date: 2/3/2017
Data File: B16881.D

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 44.1	ug/Kg		2/3/2017 16:34
1,1,2,2-Tetrachloroethane	< 44.1	ug/Kg		2/3/2017 16:34
1,1,2-Trichloroethane	< 44.1	ug/Kg		2/3/2017 16:34

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier:	BH-9A VOC Sample at 6-8ft SVOC Sample at 2-6ft		
Lab Sample ID:	170316-07	**Date Sampled:**	1/26/2017
Matrix:	Soil	**Date Received:**	1/27/2017

1,1-Dichloroethane	< 44.1	ug/Kg	2/3/2017	16:34
1,1-Dichloroethene	< 44.1	ug/Kg	2/3/2017	16:34
1,2,3-Trichlorobenzene	< 110	ug/Kg	2/3/2017	16:34
1,2,4-Trichlorobenzene	< 110	ug/Kg	2/3/2017	16:34
1,2,4-Trimethylbenzene	**428**	ug/Kg	2/3/2017	16:34
1,2-Dibromo-3-Chloropropane	< 221	ug/Kg	2/3/2017	16:34
1,2-Dibromoethane	< 44.1	ug/Kg	2/3/2017	16:34
1,2-Dichlorobenzene	< 44.1	ug/Kg	2/3/2017	16:34
1,2-Dichloroethane	< 44.1	ug/Kg	2/3/2017	16:34
1,2-Dichloropropane	< 44.1	ug/Kg	2/3/2017	16:34
1,3,5-Trimethylbenzene	< 44.1	ug/Kg	2/3/2017	16:34
1,3-Dichlorobenzene	< 44.1	ug/Kg	2/3/2017	16:34
1,4-Dichlorobenzene	< 44.1	ug/Kg	2/3/2017	16:34
1,4-dioxane	< 441	ug/Kg	2/3/2017	16:34
2-Butanone	< 221	ug/Kg	2/3/2017	16:34
2-Hexanone	< 110	ug/Kg	2/3/2017	16:34
4-Methyl-2-pentanone	< 110	ug/Kg	2/3/2017	16:34
Acetone	< 221	ug/Kg	2/3/2017	16:34
Benzene	< 44.1	ug/Kg	2/3/2017	16:34
Bromochloromethane	< 110	ug/Kg	2/3/2017	16:34
Bromodichloromethane	< 44.1	ug/Kg	2/3/2017	16:34
Bromoform	< 110	ug/Kg	2/3/2017	16:34
Bromomethane	< 44.1	ug/Kg	2/3/2017	16:34
Carbon disulfide	< 44.1	ug/Kg	2/3/2017	16:34
Carbon Tetrachloride	< 44.1	ug/Kg	2/3/2017	16:34
Chlorobenzene	< 44.1	ug/Kg	2/3/2017	16:34
Chloroethane	< 44.1	ug/Kg	2/3/2017	16:34
Chloroform	< 44.1	ug/Kg	2/3/2017	16:34
Chloromethane	< 44.1	ug/Kg	2/3/2017	16:34
cis-1,2-Dichloroethene	< 44.1	ug/Kg	2/3/2017	16:34
cis-1,3-Dichloropropene	< 44.1	ug/Kg	2/3/2017	16:34
Cyclohexane	< 221	ug/Kg	2/3/2017	16:34

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier: BH-9A VOC Sample at 6-8ft SVOC Sample at 2-6ft

Lab Sample ID: 170316-07 **Date Sampled:** 1/26/2017

Matrix: Soil **Date Received:** 1/27/2017

Dibromochloromethane	< 44.1	ug/Kg	2/3/2017	16:34
Dichlorodifluoromethane	< 44.1	ug/Kg	2/3/2017	16:34
Ethylbenzene	< 44.1	ug/Kg	2/3/2017	16:34
Freon 113	< 44.1	ug/Kg	2/3/2017	16:34
Isopropylbenzene	**52.6**	ug/Kg	2/3/2017	16:34
m,p-Xylene	< 44.1	ug/Kg	2/3/2017	16:34
Methyl acetate	< 44.1	ug/Kg	2/3/2017	16:34
Methyl tert-butyl Ether	< 44.1	ug/Kg	2/3/2017	16:34
Methylcyclohexane	< 44.1	ug/Kg	2/3/2017	16:34
Methylene chloride	< 110	ug/Kg	2/3/2017	16:34
Naphthalene	< 110	ug/Kg	2/3/2017	16:34
n-Butylbenzene	**398**	ug/Kg	2/3/2017	16:34
n-Propylbenzene	**140**	ug/Kg	2/3/2017	16:34
o-Xylene	< 44.1	ug/Kg	2/3/2017	16:34
p-Isopropyltoluene	< 44.1	ug/Kg	2/3/2017	16:34
sec-Butylbenzene	**190**	ug/Kg	2/3/2017	16:34
Styrene	< 110	ug/Kg	2/3/2017	16:34
tert-Butylbenzene	< 44.1	ug/Kg	2/3/2017	16:34
Tetrachloroethene	< 44.1	ug/Kg	2/3/2017	16:34
Toluene	< 44.1	ug/Kg	2/3/2017	16:34
trans-1,2-Dichloroethene	< 44.1	ug/Kg	2/3/2017	16:34
trans-1,3-Dichloropropene	< 44.1	ug/Kg	2/3/2017	16:34
Trichloroethene	< 44.1	ug/Kg	2/3/2017	16:34
Trichlorofluoromethane	< 44.1	ug/Kg	2/3/2017	16:34
Vinyl chloride	< 44.1	ug/Kg	2/3/2017	16:34

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier: BH-9A VOC Sample at 6-8ft SVOC Sample at 2-6ft

Lab Sample ID: 170316-07 **Date Sampled:** 1/26/2017

Matrix: Soil **Date Received:** 1/27/2017

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**112**	82.1 - 123		2/3/2017	16:34
4-Bromofluorobenzene	**110**	84.6 - 112		2/3/2017	16:34
Pentafluorobenzene	**99.5**	91.4 - 111		2/3/2017	16:34
Toluene-D8	**108**	90.3 - 108		2/3/2017	16:34

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

Data File: x38923.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.

Volatile Tentatively Identified Compounds

Analyte	Result	Units	Qualifier	Date Analyzed
Tentatively Identified Compound #1	**1150**	ug/Kg		2/3/2017
Tentatively Identified Compound #10	**2770**	ug/Kg		2/3/2017
Tentatively Identified Compound #11	**1540**	ug/Kg		2/3/2017
Tentatively Identified Compound #12	**1780**	ug/Kg		2/3/2017
Tentatively Identified Compound #13	**1550**	ug/Kg		2/3/2017
Tentatively Identified Compound #14	**1810**	ug/Kg		2/3/2017
Tentatively Identified Compound #15	**1860**	ug/Kg		2/3/2017
Tentatively Identified Compound #16	**1560**	ug/Kg		2/3/2017
Tentatively Identified Compound #17	**2520**	ug/Kg		2/3/2017
Tentatively Identified Compound #18	**1340**	ug/Kg		2/3/2017
Tentatively Identified Compound #19	**1540**	ug/Kg		2/3/2017
Tentatively Identified Compound #2	**1070**	ug/Kg		2/3/2017
Tentatively Identified Compound #20	**1350**	ug/Kg		2/3/2017
Tentatively Identified Compound #3	**1740**	ug/Kg		2/3/2017
Tentatively Identified Compound #4	**1500**	ug/Kg		2/3/2017
Tentatively Identified Compound #5	**1750**	ug/Kg		2/3/2017
Tentatively Identified Compound #6	**1810**	ug/Kg		2/3/2017
Tentatively Identified Compound #7	**2250**	ug/Kg		2/3/2017
Tentatively Identified Compound #8	**1070**	ug/Kg		2/3/2017

Lab Project ID: 170316

Client: **Panamerican Environmental Consultants**

Project Reference: 68 Tonawanda

Sample Identifier: BH-9A VOC Sample at 6-8ft SVOC Sample at 2-6ft
Lab Sample ID: 170316-07 **Date Sampled:** 1/26/2017
Matrix: Soil **Date Received:** 1/27/2017

Tentatively Identified Compound #9	**3970**	ug/Kg	2/3/2017
Total Reported TICS	**35900**	ug/Kg	2/3/2017

Unknown Alkane

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

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.

Total Cyanide

Analyte	Result	Units	Qualifier	Date Analyzed
Cyanide, Total	< 0.443	mg/Kg		2/8/2017

Method Reference(s): EPA 9014
Preparation Date: 2/7/2017

Analytical Report Appendix

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

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

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

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

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

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

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

GENERAL TERMS AND CONDITIONS
LABORATORY SERVICES

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

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

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

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

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

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

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

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

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

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

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

PARADIGM ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

CHAIN OF CUSTODY

REPORT TO:		INVOICE TO:		
CLIENT:	PANAMERICAN ENV.	CLIENT:	Same	LAB PROJECT ID: 170316
ADDRESS:	2390 CLINTON ST	ADDRESS:		
CITY:	BUFFALO STATE: NY ZIP: 14227	CITY:	STATE: ZIP:	Quotation #:
PHONE:	716-821-1650	PHONE:		Email:
ATTN:	PETER J. GORTON	ATTN:		

PROJECT REFERENCE: 68 TONAWANDA

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

REQUESTED ANALYSIS

DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX CODES	NUMBER OF CONTAINERS	375 VOC	SVOC	METALS	PCB	TCN	PEST	VOC TICS				REMARKS	PARADIGM LAB SAMPLE NUMBER
1-26-17	850		X	BH-1A	SO	2	X	X	X	X	X	X					SAMPLE DEPTH 1-4FT	01
	930			BH-2A MA 4A		2	X	X	X	X	X	X					1-3FT	02
	1040			BH-~~3A~~ 4A		2	X	X	X	X	X	X					0-6FT	03
	1110			BH-5A		2	X	X	X	X	X	X					1-6FT	04
	1130			BH-6A		1		X	X	X	X	X					0-3FT	05
	1230			BH-8A		1		X	X	X	X	X					0-4FT	06
	1245			BH-9A		2	X	X	X	X	X	X	X				VOC SAMPLE AT 6-8FT	07
													per PG				SVOC SAMPLE AT 2-6FT	
													GP 1/27/17					

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: 1-26-17 8AM-1245PM	Total Cost:
Relinquished By: Peter Gorton	Date/Time: 1-26-17 3:40	
Received By: James Steenis	Date/Time: 1-26-17 3:40PM	P.I.F.
Received @ Lab By: Mol Ward	Date/Time: 1/27/17 11:40	

4°C iced 1/27/17 11:08

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

See additional page for sample conditions.

Chain of Custody Supplement

Client: Panamerican **Completed by:** Molly Vail

Lab Project ID: 170316 **Date:** 1/27/2017

Sample Condition Requirements

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

Condition	*NELAC compliance with the sample condition requirements upon receipt* Yes	No	N/A
Container Type	x	5035	
Comments			
Transferred to method-compliant container			x
Headspace (<1 mL)			x
Comments			
Preservation			x
Comments			
Chlorine Absent (<0.10 ppm per test strip)			x
Comments			
Holding Time	x		
Comments			
Temperature	x		x met
Comments	4C iced 1/27/17 11:08		
Sufficient Sample Quantity	x		
Comments			

PARADIGM

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ENVIRONMENTAL SERVICES, INC

Analytical Report For

Panamerican Environmental Consultants

For Lab Project ID

140818

Referencing

100 Tonawanda

Prepared

Tuesday, March 18, 2014

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

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

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 140818

Client: **Panamerican Environmental Consultants**

Project Reference: 100 Tonawanda

Sample Identifier: BH3 0-2FT
Lab Sample ID: 140818-01 **Date Sampled:** 3/5/2014
Matrix: Soil **Date Received:** 3/7/2014

Part 375 Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	**6.73**	mg/Kg		3/10/2014 17:28
Barium	**78.3**	mg/Kg		3/10/2014 17:28
Beryllium	< 0.777	mg/Kg		3/10/2014 17:28
Cadmium	< 0.777	mg/Kg		3/10/2014 17:28
Chromium	**85.7**	mg/Kg		3/10/2014 17:28
Copper	**1460**	mg/Kg		3/10/2014 17:28
Lead	**221**	mg/Kg		3/10/2014 17:28
Manganese	**448**	mg/Kg		3/10/2014 17:28
Nickel	**45.9**	mg/Kg		3/10/2014 17:28
Selenium	< 1.55	mg/Kg		3/10/2014 17:28
Silver	< 1.55	mg/Kg		3/10/2014 17:28
Zinc	**228**	mg/Kg		3/10/2014 17:28

Method Reference(s): EPA 6010C
EPA 3050
Data File: 031014b

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	**0.205**	mg/Kg		3/11/2014 11:03

Method Reference(s): EPA 7471B
Data File: Hg140311A

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0370	mg/Kg		3/11/2014 14:17
PCB-1221	< 0.0370	mg/Kg		3/11/2014 14:17
PCB-1232	< 0.0370	mg/Kg		3/11/2014 14:17

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PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 140818

Client: **Panamerican Environmental Consultants**

Project Reference: 100 Tonawanda

Sample Identifier: BH3 0-2FT
Lab Sample ID: 140818-01 **Date Sampled:** 3/5/2014
Matrix: Soil **Date Received:** 3/7/2014

PCB-1242	< 0.0370	mg/Kg		3/11/2014	14:17
PCB-1248	< 0.0370	mg/Kg		3/11/2014	14:17
PCB-1254	< 0.0370	mg/Kg		3/11/2014	14:17
PCB-1260	< 0.0370	mg/Kg		3/11/2014	14:17
PCB-1262	< 0.0370	mg/Kg		3/11/2014	14:17
PCB-1268	**0.282**	mg/Kg		3/11/2014	14:17

Method Reference(s): EPA 8082A
EPA 3550C

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed	
1,1-Biphenyl	< 822	ug/Kg		3/11/2014	11:42
1,2,4,5-Tetrachlorobenzene	< 822	ug/Kg		3/11/2014	11:42
1,2,4-Trichlorobenzene	< 822	ug/Kg		3/11/2014	11:42
1,2-Dichlorobenzene	< 822	ug/Kg		3/11/2014	11:42
1,3-Dichlorobenzene	< 822	ug/Kg		3/11/2014	11:42
1,4-Dichlorobenzene	< 822	ug/Kg		3/11/2014	11:42
2,3,4,6-Tetrachlorophenol	< 822	ug/Kg		3/11/2014	11:42
2,4,5-Trichlorophenol	< 1640	ug/Kg		3/11/2014	11:42
2,4,6-Trichlorophenol	< 822	ug/Kg		3/11/2014	11:42
2,4-Dichlorophenol	< 822	ug/Kg		3/11/2014	11:42
2,4-Dimethylphenol	< 822	ug/Kg		3/11/2014	11:42
2,4-Dinitrophenol	< 1640	ug/Kg		3/11/2014	11:42
2,4-Dinitrotoluene	< 822	ug/Kg		3/11/2014	11:42
2,6-Dinitrotoluene	< 822	ug/Kg		3/11/2014	11:42
2-Chloronaphthalene	< 822	ug/Kg		3/11/2014	11:42
2-Chlorophenol	< 822	ug/Kg		3/11/2014	11:42
2-Methylnapthalene	< 822	ug/Kg		3/11/2014	11:42
2-Methylphenol	< 822	ug/Kg		3/11/2014	11:42

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PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 140818

Client: **Panamerican Environmental Consultants**

Project Reference: 100 Tonawanda

Sample Identifier: BH3 0-2FT
Lab Sample ID: 140818-01 **Date Sampled:** 3/5/2014
Matrix: Soil **Date Received:** 3/7/2014

2-Nitroaniline	< 1640	ug/Kg	3/11/2014	11:42
2-Nitrophenol	< 822	ug/Kg	3/11/2014	11:42
3&4-Methylphenol	< 822	ug/Kg	3/11/2014	11:42
3,3'-Dichlorobenzidine	< 822	ug/Kg	3/11/2014	11:42
3-Nitroaniline	< 1640	ug/Kg	3/11/2014	11:42
4,6-Dinitro-2-methylphenol	< 1640	ug/Kg	3/11/2014	11:42
4-Bromophenyl phenyl ether	< 822	ug/Kg	3/11/2014	11:42
4-Chloro-3-methylphenol	< 822	ug/Kg	3/11/2014	11:42
4-Chloroaniline	< 822	ug/Kg	3/11/2014	11:42
4-Chlorophenyl phenyl ether	< 822	ug/Kg	3/11/2014	11:42
4-Nitroaniline	< 1640	ug/Kg	3/11/2014	11:42
4-Nitrophenol	< 1640	ug/Kg	3/11/2014	11:42
Acenaphthene	< 822	ug/Kg	3/11/2014	11:42
Acenaphthylene	< 822	ug/Kg	3/11/2014	11:42
Acetophenone	< 822	ug/Kg	3/11/2014	11:42
Anthracene	< 822	ug/Kg	3/11/2014	11:42
Atrazine	< 822	ug/Kg	3/11/2014	11:42
Benzaldehyde	< 822	ug/Kg	3/11/2014	11:42
Benzo (a) anthracene	**1330**	ug/Kg	3/11/2014	11:42
Benzo (a) pyrene	**1370**	ug/Kg	3/11/2014	11:42
Benzo (b) fluoranthene	**1130**	ug/Kg	3/11/2014	11:42
Benzo (g,h,i) perylene	**957**	ug/Kg	3/11/2014	11:42
Benzo (k) fluoranthene	**1110**	ug/Kg	3/11/2014	11:42
Bis (2-chloroethoxy) methane	< 822	ug/Kg	3/11/2014	11:42
Bis (2-chloroethyl) ether	< 822	ug/Kg	3/11/2014	11:42
Bis (2-chloroisopropyl) ether	< 822	ug/Kg	3/11/2014	11:42
Bis (2-ethylhexyl) phthalate	**12000**	ug/Kg	3/11/2014	11:42
Butylbenzylphthalate	< 822	ug/Kg	3/11/2014	11:42

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PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 140818

Client: **Panamerican Environmental Consultants**

Project Reference: 100 Tonawanda

Sample Identifier: BH3 0-2FT
Lab Sample ID: 140818-01 **Date Sampled:** 3/5/2014
Matrix: Soil **Date Received:** 3/7/2014

Caprolactam	< 822	ug/Kg	3/11/2014	11:42
Carbazole	< 822	ug/Kg	3/11/2014	11:42
Chrysene	**1430**	ug/Kg	3/11/2014	11:42
Dibenz (a,h) anthracene	< 822	ug/Kg	3/11/2014	11:42
Dibenzofuran	< 822	ug/Kg	3/11/2014	11:42
Diethyl phthalate	< 822	ug/Kg	3/11/2014	11:42
Dimethyl phthalate	< 1640	ug/Kg	3/11/2014	11:42
Di-n-butyl phthalate	< 822	ug/Kg	3/11/2014	11:42
Di-n-octylphthalate	< 822	ug/Kg	3/11/2014	11:42
Fluoranthene	**2870**	ug/Kg	3/11/2014	11:42
Fluorene	< 822	ug/Kg	3/11/2014	11:42
Hexachlorobenzene	< 822	ug/Kg	3/11/2014	11:42
Hexachlorobutadiene	< 822	ug/Kg	3/11/2014	11:42
Hexachlorocyclopentadiene	< 822	ug/Kg	3/11/2014	11:42
Hexachloroethane	< 822	ug/Kg	3/11/2014	11:42
Indeno (1,2,3-cd) pyrene	**1160**	ug/Kg	3/11/2014	11:42
Isophorone	< 822	ug/Kg	3/11/2014	11:42
Naphthalene	< 822	ug/Kg	3/11/2014	11:42
Nitrobenzene	< 822	ug/Kg	3/11/2014	11:42
N-Nitroso-di-n-propylamine	< 822	ug/Kg	3/11/2014	11:42
N-Nitrosodiphenylamine	< 822	ug/Kg	3/11/2014	11:42
Pentachlorophenol	< 1640	ug/Kg	3/11/2014	11:42
Phenanthrene	**1900**	ug/Kg	3/11/2014	11:42
Phenol	< 822	ug/Kg	3/11/2014	11:42
Pyrene	**2410**	ug/Kg	3/11/2014	11:42

Method Reference(s): EPA 8270D
EPA 3550C
Data File: S75397.D

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PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 140818

Client: **Panamerican Environmental Consultants**

Project Reference: 100 Tonawanda

Sample Identifier: BH3 0-2FT
Lab Sample ID: 140818-01 **Date Sampled:** 3/5/2014
Matrix: Soil **Date Received:** 3/7/2014

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	<16	ug/Kg		3/13/2014
4,4-DDE	<225	ug/Kg		3/13/2014
4,4-DDT	<16	ug/Kg	E	3/13/2014
Aldrin	<16	ug/Kg		3/13/2014
alpha-BHC	<16	ug/Kg		3/13/2014
beta-BHC	<16	ug/Kg		3/13/2014
Chlordane	<120	ug/Kg		3/13/2014
delta-BHC	<16	ug/Kg		3/13/2014
Dieldrin	<225	ug/Kg		3/13/2014
Endosulfan I	<16	ug/Kg		3/13/2014
Endosulfan II	<16	ug/Kg		3/13/2014
Endosulfan Sulfate	<16	ug/Kg		3/13/2014
Endrin	<50	ug/Kg		3/13/2014
Endrin Aldehyde	<16	ug/Kg		3/13/2014
Endrin Ketone	<16	ug/Kg		3/13/2014
gamma-BHC (Lindane)	<16	ug/Kg		3/13/2014
Heptachlor	<16	ug/Kg		3/13/2014
Heptachlor Epoxide	<16	ug/Kg		3/13/2014
Methoxychlor	<16	ug/Kg	E	3/13/2014
Toxaphene	<1200	ug/Kg		3/13/2014

E flags indicate analytes with CCV outliers due to matrix interference.

Method Reference(s): EPA 8081B
EPA 3510C
Subcontractor ELAP ID: 11862

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PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 140818

Client: **Panamerican Environmental Consultants**

Project Reference: 100 Tonawanda

Sample Identifier: BH3 0-2FT
Lab Sample ID: 140818-01 **Date Sampled:** 3/5/2014
Matrix: Soil **Date Received:** 3/7/2014

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed	
1,1,1-Trichloroethane	< 7.83	ug/Kg		3/10/2014	14:35
1,1,2,2-Tetrachloroethane	< 7.83	ug/Kg		3/10/2014	14:35
1,1,2-Trichloroethane	< 7.83	ug/Kg		3/10/2014	14:35
1,1-Dichloroethane	< 7.83	ug/Kg		3/10/2014	14:35
1,1-Dichloroethene	< 7.83	ug/Kg		3/10/2014	14:35
1,2,3-Trichlorobenzene	< 19.6	ug/Kg		3/10/2014	14:35
1,2,4-Trichlorobenzene	< 19.6	ug/Kg		3/10/2014	14:35
1,2,4-Trimethylbenzene	< 7.83	ug/Kg		3/10/2014	14:35
1,2-Dibromo-3-Chloropropane	< 39.2	ug/Kg		3/10/2014	14:35
1,2-Dibromoethane	< 7.83	ug/Kg		3/10/2014	14:35
1,2-Dichlorobenzene	< 7.83	ug/Kg		3/10/2014	14:35
1,2-Dichloroethane	< 7.83	ug/Kg		3/10/2014	14:35
1,2-Dichloropropane	< 7.83	ug/Kg		3/10/2014	14:35
1,3,5-Trimethylbenzene	< 7.83	ug/Kg		3/10/2014	14:35
1,3-Dichlorobenzene	< 7.83	ug/Kg		3/10/2014	14:35
1,4-Dichlorobenzene	< 7.83	ug/Kg		3/10/2014	14:35
1,4-dioxane	< 78.3	ug/Kg		3/10/2014	14:35
2-Butanone	< 39.2	ug/Kg		3/10/2014	14:35
2-Hexanone	< 19.6	ug/Kg		3/10/2014	14:35
4-Methyl-2-pentanone	< 19.6	ug/Kg		3/10/2014	14:35
Acetone	< 39.2	ug/Kg		3/10/2014	14:35
Benzene	< 7.83	ug/Kg		3/10/2014	14:35
Bromochloromethane	< 19.6	ug/Kg		3/10/2014	14:35
Bromodichloromethane	< 7.83	ug/Kg		3/10/2014	14:35
Bromoform	< 19.6	ug/Kg		3/10/2014	14:35
Bromomethane	< 7.83	ug/Kg		3/10/2014	14:35

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PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 140818

Client: **Panamerican Environmental Consultants**

Project Reference: 100 Tonawanda

Sample Identifier:	BH3 0-2FT		
Lab Sample ID:	140818-01	**Date Sampled:**	3/5/2014
Matrix:	Soil	**Date Received:**	3/7/2014

Carbon disulfide	< 7.83	ug/Kg	3/10/2014	14:35
Carbon Tetrachloride	< 7.83	ug/Kg	3/10/2014	14:35
Chlorobenzene	< 7.83	ug/Kg	3/10/2014	14:35
Chloroethane	< 7.83	ug/Kg	3/10/2014	14:35
Chloroform	< 7.83	ug/Kg	3/10/2014	14:35
Chloromethane	< 7.83	ug/Kg	3/10/2014	14:35
cis-1,2-Dichloroethene	< 7.83	ug/Kg	3/10/2014	14:35
cis-1,3-Dichloropropene	< 7.83	ug/Kg	3/10/2014	14:35
Cyclohexane	< 39.2	ug/Kg	3/10/2014	14:35
Dibromochloromethane	< 7.83	ug/Kg	3/10/2014	14:35
Dichlorodifluoromethane	< 7.83	ug/Kg	3/10/2014	14:35
Ethylbenzene	< 7.83	ug/Kg	3/10/2014	14:35
Freon 113	< 7.83	ug/Kg	3/10/2014	14:35
Isopropylbenzene	< 7.83	ug/Kg	3/10/2014	14:35
m,p-Xylene	< 7.83	ug/Kg	3/10/2014	14:35
Methyl acetate	< 7.83	ug/Kg	3/10/2014	14:35
Methyl tert-butyl Ether	< 7.83	ug/Kg	3/10/2014	14:35
Methylcyclohexane	< 7.83	ug/Kg	3/10/2014	14:35
Methylene chloride	< 19.6	ug/Kg	3/10/2014	14:35
Naphthalene	< 19.6	ug/Kg	3/10/2014	14:35
n-Butylbenzene	< 7.83	ug/Kg	3/10/2014	14:35
n-Propylbenzene	< 7.83	ug/Kg	3/10/2014	14:35
o-Xylene	< 7.83	ug/Kg	3/10/2014	14:35
p-Isopropyltoluene	< 7.83	ug/Kg	3/10/2014	14:35
sec-Butylbenzene	< 7.83	ug/Kg	3/10/2014	14:35
Styrene	< 19.6	ug/Kg	3/10/2014	14:35
tert-Butylbenzene	< 7.83	ug/Kg	3/10/2014	14:35
Tetrachloroethene	< 7.83	ug/Kg	3/10/2014	14:35

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PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 140818

Client: **Panamerican Environmental Consultants**

Project Reference: 100 Tonawanda

Sample Identifier:	BH3 0-2FT		
Lab Sample ID:	140818-01	**Date Sampled:**	3/5/2014
Matrix:	Soil	**Date Received:**	3/7/2014

Toluene	< 7.83	ug/Kg	3/10/2014	14:35
trans-1,2-Dichloroethene	< 7.83	ug/Kg	3/10/2014	14:35
trans-1,3-Dichloropropene	< 7.83	ug/Kg	3/10/2014	14:35
Trichloroethene	< 7.83	ug/Kg	3/10/2014	14:35
Trichlorofluoromethane	< 7.83	ug/Kg	3/10/2014	14:35
Vinyl chloride	< 7.83	ug/Kg	3/10/2014	14:35

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

Data File: x11718.D

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.

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PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 140818

Client: **Panamerican Environmental Consultants**

Project Reference: 100 Tonawanda

Sample Identifier: BH4 5-6FT
Lab Sample ID: 140818-02 **Date Sampled:** 3/5/2014
Matrix: Soil **Date Received:** 3/7/2014

Part 375 Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	**3.70**	mg/Kg		3/10/2014 17:33
Barium	**85.0**	mg/Kg		3/10/2014 17:33
Beryllium	< 0.594	mg/Kg		3/10/2014 17:33
Cadmium	< 0.594	mg/Kg		3/10/2014 17:33
Chromium	**13.4**	mg/Kg		3/10/2014 17:33
Copper	**690**	mg/Kg		3/10/2014 17:33
Lead	**65.6**	mg/Kg		3/10/2014 17:33
Manganese	**140**	mg/Kg		3/10/2014 17:33
Nickel	**16.0**	mg/Kg		3/10/2014 17:33
Selenium	< 1.19	mg/Kg		3/10/2014 17:33
Silver	< 1.19	mg/Kg		3/10/2014 17:33
Zinc	**296**	mg/Kg		3/10/2014 17:33

Method Reference(s): EPA 6010C
EPA 3050
Data File: 031014b

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	**0.0271**	mg/Kg		3/11/2014 11:06

Method Reference(s): EPA 7471B
Data File: Hg140311A

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0310	mg/Kg		3/11/2014 14:40
PCB-1221	< 0.0310	mg/Kg		3/11/2014 14:40
PCB-1232	< 0.0310	mg/Kg		3/11/2014 14:40

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Sample Identifier: BH4 5-6FT
Lab Sample ID: 140818-02 **Date Sampled:** 3/5/2014
Matrix: Soil **Date Received:** 3/7/2014

PCB-1242	< 0.0310	mg/Kg		3/11/2014	14:40
PCB-1248	< 0.0310	mg/Kg		3/11/2014	14:40
PCB-1254	< 0.0310	mg/Kg		3/11/2014	14:40
PCB-1260	< 0.0310	mg/Kg		3/11/2014	14:40
PCB-1262	< 0.0310	mg/Kg		3/11/2014	14:40
PCB-1268	< 0.0310	mg/Kg		3/11/2014	14:40

Surrogate outliers indicate probable matrix interference.

Method Reference(s): EPA 8082A
EPA 3550C

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed	
1,1-Biphenyl	< 289	ug/Kg		3/10/2014	20:43
1,2,4,5-Tetrachlorobenzene	< 289	ug/Kg		3/10/2014	20:43
1,2,4-Trichlorobenzene	< 289	ug/Kg		3/10/2014	20:43
1,2-Dichlorobenzene	< 289	ug/Kg		3/10/2014	20:43
1,3-Dichlorobenzene	< 289	ug/Kg		3/10/2014	20:43
1,4-Dichlorobenzene	< 289	ug/Kg		3/10/2014	20:43
2,3,4,6-Tetrachlorophenol	< 289	ug/Kg		3/10/2014	20:43
2,4,5-Trichlorophenol	< 579	ug/Kg		3/10/2014	20:43
2,4,6-Trichlorophenol	< 289	ug/Kg		3/10/2014	20:43
2,4-Dichlorophenol	< 289	ug/Kg		3/10/2014	20:43
2,4-Dimethylphenol	< 289	ug/Kg		3/10/2014	20:43
2,4-Dinitrophenol	< 579	ug/Kg		3/10/2014	20:43
2,4-Dinitrotoluene	< 289	ug/Kg		3/10/2014	20:43
2,6-Dinitrotoluene	< 289	ug/Kg		3/10/2014	20:43
2-Chloronaphthalene	< 289	ug/Kg		3/10/2014	20:43
2-Chlorophenol	< 289	ug/Kg		3/10/2014	20:43
2-Methylnapthalene	**4790**	ug/Kg		3/10/2014	20:43

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PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 140818

Client: **Panamerican Environmental Consultants**

Project Reference: 100 Tonawanda

Sample Identifier:	BH4 5-6FT		
Lab Sample ID:	140818-02	**Date Sampled:**	3/5/2014
Matrix:	Soil	**Date Received:**	3/7/2014

2-Methylphenol	< 289	ug/Kg	3/10/2014	20:43
2-Nitroaniline	< 579	ug/Kg	3/10/2014	20:43
2-Nitrophenol	< 289	ug/Kg	3/10/2014	20:43
3&4-Methylphenol	< 289	ug/Kg	3/10/2014	20:43
3,3'-Dichlorobenzidine	< 289	ug/Kg	3/10/2014	20:43
3-Nitroaniline	< 579	ug/Kg	3/10/2014	20:43
4,6-Dinitro-2-methylphenol	< 579	ug/Kg	3/10/2014	20:43
4-Bromophenyl phenyl ether	< 289	ug/Kg	3/10/2014	20:43
4-Chloro-3-methylphenol	< 289	ug/Kg	3/10/2014	20:43
4-Chloroaniline	< 289	ug/Kg	3/10/2014	20:43
4-Chlorophenyl phenyl ether	< 289	ug/Kg	3/10/2014	20:43
4-Nitroaniline	< 579	ug/Kg	3/10/2014	20:43
4-Nitrophenol	< 579	ug/Kg	3/10/2014	20:43
Acenaphthene	**1450**	ug/Kg	3/10/2014	20:43
Acenaphthylene	< 289	ug/Kg	3/10/2014	20:43
Acetophenone	< 289	ug/Kg	3/10/2014	20:43
Anthracene	**295**	ug/Kg	3/10/2014	20:43
Atrazine	< 289	ug/Kg	3/10/2014	20:43
Benzaldehyde	< 289	ug/Kg	3/10/2014	20:43
Benzo (a) anthracene	< 289	ug/Kg	3/10/2014	20:43
Benzo (a) pyrene	< 289	ug/Kg	3/10/2014	20:43
Benzo (b) fluoranthene	< 289	ug/Kg	3/10/2014	20:43
Benzo (g,h,i) perylene	< 289	ug/Kg	3/10/2014	20:43
Benzo (k) fluoranthene	< 289	ug/Kg	3/10/2014	20:43
Bis (2-chloroethoxy) methane	< 289	ug/Kg	3/10/2014	20:43
Bis (2-chloroethyl) ether	< 289	ug/Kg	3/10/2014	20:43
Bis (2-chloroisopropyl) ether	< 289	ug/Kg	3/10/2014	20:43
Bis (2-ethylhexyl) phthalate	< 289	ug/Kg	3/10/2014	20:43

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PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 140818

Client: **Panamerican Environmental Consultants**

Project Reference: 100 Tonawanda

Sample Identifier: BH4 5-6FT
Lab Sample ID: 140818-02 **Date Sampled:** 3/5/2014
Matrix: Soil **Date Received:** 3/7/2014

Butylbenzylphthalate	< 289	ug/Kg	3/10/2014	20:43
Caprolactam	< 289	ug/Kg	3/10/2014	20:43
Carbazole	< 289	ug/Kg	3/10/2014	20:43
Chrysene	< 289	ug/Kg	3/10/2014	20:43
Dibenz (a,h) anthracene	< 289	ug/Kg	3/10/2014	20:43
Dibenzofuran	**642**	ug/Kg	3/10/2014	20:43
Diethyl phthalate	< 289	ug/Kg	3/10/2014	20:43
Dimethyl phthalate	< 579	ug/Kg	3/10/2014	20:43
Di-n-butyl phthalate	< 289	ug/Kg	3/10/2014	20:43
Di-n-octylphthalate	< 289	ug/Kg	3/10/2014	20:43
Fluoranthene	< 289	ug/Kg	3/10/2014	20:43
Fluorene	**1730**	ug/Kg	3/10/2014	20:43
Hexachlorobenzene	< 289	ug/Kg	3/10/2014	20:43
Hexachlorobutadiene	< 289	ug/Kg	3/10/2014	20:43
Hexachlorocyclopentadiene	< 289	ug/Kg	3/10/2014	20:43
Hexachloroethane	< 289	ug/Kg	3/10/2014	20:43
Indeno (1,2,3-cd) pyrene	< 289	ug/Kg	3/10/2014	20:43
Isophorone	< 289	ug/Kg	3/10/2014	20:43
Naphthalene	**905**	ug/Kg	3/10/2014	20:43
Nitrobenzene	< 289	ug/Kg	3/10/2014	20:43
N-Nitroso-di-n-propylamine	< 289	ug/Kg	3/10/2014	20:43
N-Nitrosodiphenylamine	< 289	ug/Kg	3/10/2014	20:43
Pentachlorophenol	< 579	ug/Kg	3/10/2014	20:43
Phenanthrene	**4390**	ug/Kg	3/10/2014	20:43
Phenol	< 289	ug/Kg	3/10/2014	20:43
Pyrene	< 289	ug/Kg	3/10/2014	20:43

Method Reference(s): EPA 8270D
EPA 3550C
Data File: S75384.D

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PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 140818

Client: **Panamerican Environmental Consultants**

Project Reference: 100 Tonawanda

Sample Identifier: BH4 5-6FT
Lab Sample ID: 140818-02 **Date Sampled:** 3/5/2014
Matrix: Soil **Date Received:** 3/7/2014

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	<8	ug/Kg		3/13/2014
4,4-DDE	<8	ug/Kg		3/13/2014
4,4-DDT	<8	ug/Kg	E	3/13/2014
Aldrin	<8	ug/Kg		3/13/2014
alpha-BHC	<8	ug/Kg		3/13/2014
beta-BHC	<8	ug/Kg		3/13/2014
Chlordane	<60	ug/Kg		3/13/2014
delta-BHC	<8	ug/Kg		3/13/2014
Dieldrin	<8	ug/Kg		3/13/2014
Endosulfan I	<8	ug/Kg		3/13/2014
Endosulfan II	<8	ug/Kg		3/13/2014
Endosulfan Sulfate	<8	ug/Kg		3/13/2014
Endrin	<8	ug/Kg		3/13/2014
Endrin Aldehyde	<8	ug/Kg		3/13/2014
Endrin Ketone	<8	ug/Kg		3/13/2014
gamma-BHC (Lindane)	<8	ug/Kg		3/13/2014
Heptachlor	<8	ug/Kg		3/13/2014
Heptachlor Epoxide	<8	ug/Kg		3/13/2014
Methoxychlor	<8	ug/Kg	E	3/13/2014
Toxaphene	<600	ug/Kg		3/13/2014

E flags indicate analytes with CCV outliers due to matrix interference.

Method Reference(s): EPA 8081B
EPA 3510C
Subcontractor ELAP ID: 11862

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PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 140818

Client: **Panamerican Environmental Consultants**

Project Reference: 100 Tonawanda

Sample Identifier: BH4 5-6FT
Lab Sample ID: 140818-02 **Date Sampled:** 3/5/2014
Matrix: Soil **Date Received:** 3/7/2014

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed	
1,1,1-Trichloroethane	< 84.2	ug/Kg		3/10/2014	14:59
1,1,2,2-Tetrachloroethane	< 84.2	ug/Kg		3/10/2014	14:59
1,1,2-Trichloroethane	< 84.2	ug/Kg		3/10/2014	14:59
1,1-Dichloroethane	< 84.2	ug/Kg		3/10/2014	14:59
1,1-Dichloroethene	< 84.2	ug/Kg		3/10/2014	14:59
1,2,3-Trichlorobenzene	< 211	ug/Kg		3/10/2014	14:59
1,2,4-Trichlorobenzene	< 211	ug/Kg		3/10/2014	14:59
1,2,4-Trimethylbenzene	**1780**	ug/Kg		3/10/2014	14:59
1,2-Dibromo-3-Chloropropane	< 421	ug/Kg		3/10/2014	14:59
1,2-Dibromoethane	< 84.2	ug/Kg		3/10/2014	14:59
1,2-Dichlorobenzene	< 84.2	ug/Kg		3/10/2014	14:59
1,2-Dichloroethane	< 84.2	ug/Kg		3/10/2014	14:59
1,2-Dichloropropane	< 84.2	ug/Kg		3/10/2014	14:59
1,3,5-Trimethylbenzene	< 84.2	ug/Kg		3/10/2014	14:59
1,3-Dichlorobenzene	< 84.2	ug/Kg		3/10/2014	14:59
1,4-Dichlorobenzene	< 84.2	ug/Kg		3/10/2014	14:59
1,4-dioxane	< 842	ug/Kg		3/10/2014	14:59
2-Butanone	< 421	ug/Kg		3/10/2014	14:59
2-Hexanone	< 211	ug/Kg		3/10/2014	14:59
4-Methyl-2-pentanone	< 211	ug/Kg		3/10/2014	14:59
Acetone	< 421	ug/Kg		3/10/2014	14:59
Benzene	< 84.2	ug/Kg		3/10/2014	14:59
Bromochloromethane	< 211	ug/Kg		3/10/2014	14:59
Bromodichloromethane	< 84.2	ug/Kg		3/10/2014	14:59
Bromoform	< 211	ug/Kg		3/10/2014	14:59
Bromomethane	< 84.2	ug/Kg		3/10/2014	14:59

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PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 140818

Client: **Panamerican Environmental Consultants**

Project Reference: 100 Tonawanda

Sample Identifier:	BH4 5-6FT		
Lab Sample ID:	140818-02	**Date Sampled:**	3/5/2014
Matrix:	Soil	**Date Received:**	3/7/2014

Carbon disulfide	< 84.2	ug/Kg	3/10/2014	14:59
Carbon Tetrachloride	< 84.2	ug/Kg	3/10/2014	14:59
Chlorobenzene	< 84.2	ug/Kg	3/10/2014	14:59
Chloroethane	< 84.2	ug/Kg	3/10/2014	14:59
Chloroform	< 84.2	ug/Kg	3/10/2014	14:59
Chloromethane	< 84.2	ug/Kg	3/10/2014	14:59
cis-1,2-Dichloroethene	< 84.2	ug/Kg	3/10/2014	14:59
cis-1,3-Dichloropropene	< 84.2	ug/Kg	3/10/2014	14:59
Cyclohexane	< 421	ug/Kg	3/10/2014	14:59
Dibromochloromethane	< 84.2	ug/Kg	3/10/2014	14:59
Dichlorodifluoromethane	< 84.2	ug/Kg	3/10/2014	14:59
Ethylbenzene	< 84.2	ug/Kg	3/10/2014	14:59
Freon 113	< 84.2	ug/Kg	3/10/2014	14:59
Isopropylbenzene	< 84.2	ug/Kg	3/10/2014	14:59
m,p-Xylene	< 84.2	ug/Kg	3/10/2014	14:59
Methyl acetate	< 84.2	ug/Kg	3/10/2014	14:59
Methyl tert-butyl Ether	< 84.2	ug/Kg	3/10/2014	14:59
Methylcyclohexane	**92.1**	ug/Kg	3/10/2014	14:59
Methylene chloride	< 211	ug/Kg	3/10/2014	14:59
Naphthalene	**920**	ug/Kg	3/10/2014	14:59
n-Butylbenzene	**467**	ug/Kg	3/10/2014	14:59
n-Propylbenzene	**206**	ug/Kg	3/10/2014	14:59
o-Xylene	< 84.2	ug/Kg	3/10/2014	14:59
p-Isopropyltoluene	< 84.2	ug/Kg	3/10/2014	14:59
sec-Butylbenzene	**190**	ug/Kg	3/10/2014	14:59
Styrene	< 211	ug/Kg	3/10/2014	14:59
tert-Butylbenzene	< 84.2	ug/Kg	3/10/2014	14:59
Tetrachloroethene	< 84.2	ug/Kg	3/10/2014	14:59

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PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 140818

Client: **Panamerican Environmental Consultants**

Project Reference: 100 Tonawanda

Sample Identifier:	BH4 5-6FT		
Lab Sample ID:	140818-02	**Date Sampled:**	3/5/2014
Matrix:	Soil	**Date Received:**	3/7/2014

Toluene	< 84.2	ug/Kg	3/10/2014	14:59
trans-1,2-Dichloroethene	< 84.2	ug/Kg	3/10/2014	14:59
trans-1,3-Dichloropropene	< 84.2	ug/Kg	3/10/2014	14:59
Trichloroethene	< 84.2	ug/Kg	3/10/2014	14:59
Trichlorofluoromethane	< 84.2	ug/Kg	3/10/2014	14:59
Vinyl chloride	< 84.2	ug/Kg	3/10/2014	14:59

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

Data File: x11719.D

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.

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PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 140818

Client: **Panamerican Environmental Consultants**

Project Reference: 100 Tonawanda

Sample Identifier: BH9 3-4FT
Lab Sample ID: 140818-03 **Date Sampled:** 3/5/2014
Matrix: Soil **Date Received:** 3/7/2014

Part 375 Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	**13.8**	mg/Kg		3/10/2014 17:37
Barium	**58.9**	mg/Kg		3/10/2014 17:37
Beryllium	< 0.800	mg/Kg		3/10/2014 17:37
Cadmium	< 0.800	mg/Kg		3/10/2014 17:37
Chromium	**17.6**	mg/Kg		3/10/2014 17:37
Copper	**82.9**	mg/Kg		3/10/2014 17:37
Lead	**88.6**	mg/Kg		3/10/2014 17:37
Manganese	**285**	mg/Kg		3/10/2014 17:37
Nickel	**14.4**	mg/Kg		3/10/2014 17:37
Selenium	< 1.60	mg/Kg		3/10/2014 17:37
Silver	< 1.60	mg/Kg		3/10/2014 17:37
Zinc	**149**	mg/Kg		3/10/2014 17:37

Method Reference(s): EPA 6010C
EPA 3050
Data File: 031014b

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	**0.342**	mg/Kg		3/11/2014 11:09

Method Reference(s): EPA 7471B
Data File: Hg140311A

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0375	mg/Kg		3/11/2014 15:03
PCB-1221	< 0.0375	mg/Kg		3/11/2014 15:03
PCB-1232	< 0.0375	mg/Kg		3/11/2014 15:03

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PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 140818

Client: **Panamerican Environmental Consultants**

Project Reference: 100 Tonawanda

Sample Identifier: BH9 3-4FT
Lab Sample ID: 140818-03 **Date Sampled:** 3/5/2014
Matrix: Soil **Date Received:** 3/7/2014

PCB-1242	< 0.0375	mg/Kg	3/11/2014	15:03
PCB-1248	< 0.0375	mg/Kg	3/11/2014	15:03
PCB-1254	< 0.0375	mg/Kg	3/11/2014	15:03
PCB-1260	< 0.0375	mg/Kg	3/11/2014	15:03
PCB-1262	< 0.0375	mg/Kg	3/11/2014	15:03
PCB-1268	< 0.0375	mg/Kg	3/11/2014	15:03

Surrogate outliers indicate probable matrix interference.

Method Reference(s): EPA 8082A
EPA 3550C

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed	
1,1-Biphenyl	< 2110	ug/Kg		3/11/2014	19:21
1,2,4,5-Tetrachlorobenzene	< 2110	ug/Kg		3/11/2014	19:21
1,2,4-Trichlorobenzene	< 2110	ug/Kg		3/11/2014	19:21
1,2-Dichlorobenzene	< 2110	ug/Kg		3/11/2014	19:21
1,3-Dichlorobenzene	< 2110	ug/Kg		3/11/2014	19:21
1,4-Dichlorobenzene	< 2110	ug/Kg		3/11/2014	19:21
2,3,4,6-Tetrachlorophenol	< 2110	ug/Kg		3/11/2014	19:21
2,4,5-Trichlorophenol	< 4210	ug/Kg		3/11/2014	19:21
2,4,6-Trichlorophenol	< 2110	ug/Kg		3/11/2014	19:21
2,4-Dichlorophenol	< 2110	ug/Kg		3/11/2014	19:21
2,4-Dimethylphenol	< 2110	ug/Kg		3/11/2014	19:21
2,4-Dinitrophenol	< 4210	ug/Kg		3/11/2014	19:21
2,4-Dinitrotoluene	< 2110	ug/Kg		3/11/2014	19:21
2,6-Dinitrotoluene	< 2110	ug/Kg		3/11/2014	19:21
2-Chloronaphthalene	< 2110	ug/Kg		3/11/2014	19:21
2-Chlorophenol	< 2110	ug/Kg		3/11/2014	19:21
2-Methylnapthalene	< 2110	ug/Kg		3/11/2014	19:21

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PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 140818

Client: **Panamerican Environmental Consultants**

Project Reference: 100 Tonawanda

Sample Identifier:	BH9 3-4FT		
Lab Sample ID:	140818-03	**Date Sampled:**	3/5/2014
Matrix:	Soil	**Date Received:**	3/7/2014

2-Methylphenol	< 2110	ug/Kg	3/11/2014	19:21
2-Nitroaniline	< 4210	ug/Kg	3/11/2014	19:21
2-Nitrophenol	< 2110	ug/Kg	3/11/2014	19:21
3&4-Methylphenol	< 2110	ug/Kg	3/11/2014	19:21
3,3'-Dichlorobenzidine	< 2110	ug/Kg	3/11/2014	19:21
3-Nitroaniline	< 4210	ug/Kg	3/11/2014	19:21
4,6-Dinitro-2-methylphenol	< 4210	ug/Kg	3/11/2014	19:21
4-Bromophenyl phenyl ether	< 2110	ug/Kg	3/11/2014	19:21
4-Chloro-3-methylphenol	< 2110	ug/Kg	3/11/2014	19:21
4-Chloroaniline	< 2110	ug/Kg	3/11/2014	19:21
4-Chlorophenyl phenyl ether	< 2110	ug/Kg	3/11/2014	19:21
4-Nitroaniline	< 4210	ug/Kg	3/11/2014	19:21
4-Nitrophenol	< 4210	ug/Kg	3/11/2014	19:21
Acenaphthene	< 2110	ug/Kg	3/11/2014	19:21
Acenaphthylene	< 2110	ug/Kg	3/11/2014	19:21
Acetophenone	< 2110	ug/Kg	3/11/2014	19:21
Anthracene	< 2110	ug/Kg	3/11/2014	19:21
Atrazine	< 2110	ug/Kg	3/11/2014	19:21
Benzaldehyde	< 2110	ug/Kg	3/11/2014	19:21
Benzo (a) anthracene	< 2110	ug/Kg	3/11/2014	19:21
Benzo (a) pyrene	< 2110	ug/Kg	3/11/2014	19:21
Benzo (b) fluoranthene	< 2110	ug/Kg	3/11/2014	19:21
Benzo (g,h,i) perylene	< 2110	ug/Kg	3/11/2014	19:21
Benzo (k) fluoranthene	< 2110	ug/Kg	3/11/2014	19:21
Bis (2-chloroethoxy) methane	< 2110	ug/Kg	3/11/2014	19:21
Bis (2-chloroethyl) ether	< 2110	ug/Kg	3/11/2014	19:21
Bis (2-chloroisopropyl) ether	< 2110	ug/Kg	3/11/2014	19:21
Bis (2-ethylhexyl) phthalate	< 2110	ug/Kg	3/11/2014	19:21

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PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 140818

Client: **Panamerican Environmental Consultants**

Project Reference: 100 Tonawanda

Sample Identifier: BH9 3-4FT
Lab Sample ID: 140818-03 **Date Sampled:** 3/5/2014
Matrix: Soil **Date Received:** 3/7/2014

Butylbenzylphthalate	< 2110	ug/Kg	3/11/2014	19:21
Caprolactam	< 2110	ug/Kg	3/11/2014	19:21
Carbazole	< 2110	ug/Kg	3/11/2014	19:21
Chrysene	< 2110	ug/Kg	3/11/2014	19:21
Dibenz (a,h) anthracene	< 2110	ug/Kg	3/11/2014	19:21
Dibenzofuran	< 2110	ug/Kg	3/11/2014	19:21
Diethyl phthalate	< 2110	ug/Kg	3/11/2014	19:21
Dimethyl phthalate	< 4210	ug/Kg	3/11/2014	19:21
Di-n-butyl phthalate	< 2110	ug/Kg	3/11/2014	19:21
Di-n-octylphthalate	< 2110	ug/Kg	3/11/2014	19:21
Fluoranthene	< 2110	ug/Kg	3/11/2014	19:21
Fluorene	< 2110	ug/Kg	3/11/2014	19:21
Hexachlorobenzene	< 2110	ug/Kg	3/11/2014	19:21
Hexachlorobutadiene	< 2110	ug/Kg	3/11/2014	19:21
Hexachlorocyclopentadiene	< 2110	ug/Kg	3/11/2014	19:21
Hexachloroethane	< 2110	ug/Kg	3/11/2014	19:21
Indeno (1,2,3-cd) pyrene	< 2110	ug/Kg	3/11/2014	19:21
Isophorone	< 2110	ug/Kg	3/11/2014	19:21
Naphthalene	< 2110	ug/Kg	3/11/2014	19:21
Nitrobenzene	< 2110	ug/Kg	3/11/2014	19:21
N-Nitroso-di-n-propylamine	< 2110	ug/Kg	3/11/2014	19:21
N-Nitrosodiphenylamine	< 2110	ug/Kg	3/11/2014	19:21
Pentachlorophenol	< 4210	ug/Kg	3/11/2014	19:21
Phenanthrene	< 2110	ug/Kg	3/11/2014	19:21
Phenol	< 2110	ug/Kg	3/11/2014	19:21
Pyrene	< 2110	ug/Kg	3/11/2014	19:21

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PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 140818

Client: **Panamerican Environmental Consultants**

Project Reference: 100 Tonawanda

Sample Identifier:	BH9 3-4FT		
Lab Sample ID:	140818-03	**Date Sampled:**	3/5/2014
Matrix:	Soil	**Date Received:**	3/7/2014

Reporting limit elevated due to sample matrix

Method Reference(s): EPA 8270D
EPA 3550C

Data File: S75410.D

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	<4	ug/Kg		3/13/2014
4,4-DDE	<4	ug/Kg		3/13/2014
4,4-DDT	<4	ug/Kg	E	3/13/2014
Aldrin	<4	ug/Kg		3/13/2014
alpha-BHC	<4	ug/Kg		3/13/2014
beta-BHC	<4	ug/Kg		3/13/2014
Chlordane	<30	ug/Kg		3/13/2014
delta-BHC	<4	ug/Kg		3/13/2014
Dieldrin	<4	ug/Kg		3/13/2014
Endosulfan I	<4	ug/Kg		3/13/2014
Endosulfan II	<4	ug/Kg		3/13/2014
Endosulfan Sulfate	<4	ug/Kg		3/13/2014
Endrin	<4	ug/Kg		3/13/2014
Endrin Aldehyde	<4	ug/Kg		3/13/2014
Endrin Ketone	<4	ug/Kg		3/13/2014
gamma-BHC (Lindane)	<4	ug/Kg		3/13/2014
Heptachlor	<4	ug/Kg		3/13/2014
Heptachlor Epoxide	<4	ug/Kg		3/13/2014
Methoxychlor	<4	ug/Kg	E	3/13/2014
Toxaphene	<300	ug/Kg		3/13/2014

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PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 140818

Client: **Panamerican Environmental Consultants**

Project Reference: 100 Tonawanda

Sample Identifier:	BH9 3-4FT		
Lab Sample ID:	140818-03	**Date Sampled:**	3/5/2014
Matrix:	Soil	**Date Received:**	3/7/2014

E flags indicate analytes with CCV outliers due to matrix interference.

Method Reference(s): EPA 8081B
EPA 3510C

Subcontractor ELAP ID: 11862

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed	
1,1,1-Trichloroethane	< 126	ug/Kg		3/10/2014	15:22
1,1,2,2-Tetrachloroethane	< 126	ug/Kg		3/10/2014	15:22
1,1,2-Trichloroethane	< 126	ug/Kg		3/10/2014	15:22
1,1-Dichloroethane	< 126	ug/Kg		3/10/2014	15:22
1,1-Dichloroethene	< 126	ug/Kg		3/10/2014	15:22
1,2,3-Trichlorobenzene	< 316	ug/Kg		3/10/2014	15:22
1,2,4-Trichlorobenzene	< 316	ug/Kg		3/10/2014	15:22
1,2,4-Trimethylbenzene	< 126	ug/Kg		3/10/2014	15:22
1,2-Dibromo-3-Chloropropane	< 632	ug/Kg		3/10/2014	15:22
1,2-Dibromoethane	< 126	ug/Kg		3/10/2014	15:22
1,2-Dichlorobenzene	< 126	ug/Kg		3/10/2014	15:22
1,2-Dichloroethane	< 126	ug/Kg		3/10/2014	15:22
1,2-Dichloropropane	< 126	ug/Kg		3/10/2014	15:22
1,3,5-Trimethylbenzene	**367**	ug/Kg		3/10/2014	15:22
1,3-Dichlorobenzene	< 126	ug/Kg		3/10/2014	15:22
1,4-Dichlorobenzene	< 126	ug/Kg		3/10/2014	15:22
1,4-dioxane	< 1260	ug/Kg		3/10/2014	15:22
2-Butanone	< 632	ug/Kg		3/10/2014	15:22
2-Hexanone	< 316	ug/Kg		3/10/2014	15:22
4-Methyl-2-pentanone	< 316	ug/Kg		3/10/2014	15:22
Acetone	< 632	ug/Kg		3/10/2014	15:22
Benzene	< 126	ug/Kg		3/10/2014	15:22

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

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 140818

Client: **Panamerican Environmental Consultants**

Project Reference: 100 Tonawanda

Sample Identifier:	BH9 3-4FT		
Lab Sample ID:	140818-03	**Date Sampled:**	3/5/2014
Matrix:	Soil	**Date Received:**	3/7/2014

Bromochloromethane	< 316	ug/Kg	3/10/2014	15:22
Bromodichloromethane	< 126	ug/Kg	3/10/2014	15:22
Bromoform	< 316	ug/Kg	3/10/2014	15:22
Bromomethane	< 126	ug/Kg	3/10/2014	15:22
Carbon disulfide	< 126	ug/Kg	3/10/2014	15:22
Carbon Tetrachloride	< 126	ug/Kg	3/10/2014	15:22
Chlorobenzene	< 126	ug/Kg	3/10/2014	15:22
Chloroethane	< 126	ug/Kg	3/10/2014	15:22
Chloroform	< 126	ug/Kg	3/10/2014	15:22
Chloromethane	< 126	ug/Kg	3/10/2014	15:22
cis-1,2-Dichloroethene	< 126	ug/Kg	3/10/2014	15:22
cis-1,3-Dichloropropene	< 126	ug/Kg	3/10/2014	15:22
Cyclohexane	< 632	ug/Kg	3/10/2014	15:22
Dibromochloromethane	< 126	ug/Kg	3/10/2014	15:22
Dichlorodifluoromethane	< 126	ug/Kg	3/10/2014	15:22
Ethylbenzene	< 126	ug/Kg	3/10/2014	15:22
Freon 113	< 126	ug/Kg	3/10/2014	15:22
Isopropylbenzene	< 126	ug/Kg	3/10/2014	15:22
m,p-Xylene	< 126	ug/Kg	3/10/2014	15:22
Methyl acetate	< 126	ug/Kg	3/10/2014	15:22
Methyl tert-butyl Ether	< 126	ug/Kg	3/10/2014	15:22
Methylcyclohexane	**203**	ug/Kg	3/10/2014	15:22
Methylene chloride	< 316	ug/Kg	3/10/2014	15:22
Naphthalene	< 316	ug/Kg	3/10/2014	15:22
n-Butylbenzene	< 126	ug/Kg	3/10/2014	15:22
n-Propylbenzene	< 126	ug/Kg	3/10/2014	15:22
o-Xylene	< 126	ug/Kg	3/10/2014	15:22
p-Isopropyltoluene	< 126	ug/Kg	3/10/2014	15:22

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PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 140818

Client: **Panamerican Environmental Consultants**

Project Reference: 100 Tonawanda

Sample Identifier:	BH9 3-4FT		
Lab Sample ID:	140818-03	**Date Sampled:**	3/5/2014
Matrix:	Soil	**Date Received:**	3/7/2014

sec-Butylbenzene	< 126	ug/Kg	3/10/2014	15:22
Styrene	< 316	ug/Kg	3/10/2014	15:22
tert-Butylbenzene	< 126	ug/Kg	3/10/2014	15:22
Tetrachloroethene	< 126	ug/Kg	3/10/2014	15:22
Toluene	< 126	ug/Kg	3/10/2014	15:22
trans-1,2-Dichloroethene	< 126	ug/Kg	3/10/2014	15:22
trans-1,3-Dichloropropene	< 126	ug/Kg	3/10/2014	15:22
Trichloroethene	< 126	ug/Kg	3/10/2014	15:22
Trichlorofluoromethane	< 126	ug/Kg	3/10/2014	15:22
Vinyl chloride	< 126	ug/Kg	3/10/2014	15:22

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

Data File: x11720.D

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.

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 140818

Client: **Panamerican Environmental Consultants**

Project Reference: 100 Tonawanda

Sample Identifier: BH3 0-2FT
Lab Sample ID: 140818-01 **Date Sampled:** 3/5/2014
Matrix: Soil **Date Received:** 3/7/2014

Semi-Volatile Tentatively Identified Compounds

Tentatively Identified Compound	Result	Units	Qualifier	Date Analyzed
Unknown	**411**	ug/Kg		3/11/2014
Unknown organic acid	**699**	ug/Kg		3/11/2014
Sulfur	**493**	ug/Kg		3/11/2014
Unknown	**378**	ug/Kg		3/11/2014
Unknown	**1110**	ug/Kg		3/11/2014
Unknown	**551**	ug/Kg		3/11/2014
Unknown	**1440**	ug/Kg		3/11/2014
Unknown	**2870**	ug/Kg		3/11/2014
Unknown	**748**	ug/Kg		3/11/2014
Unknown	**781**	ug/Kg		3/11/2014
Unknown	**559**	ug/Kg		3/11/2014
Unknown	**452**	ug/Kg		3/11/2014
Unknown PAH	**1070**	ug/Kg		3/11/2014
Unknown	**1590**	ug/Kg		3/11/2014
Unknown	**1320**	ug/Kg		3/11/2014
Unknown	**2090**	ug/Kg		3/11/2014
Unknown	**477**	ug/Kg		3/11/2014
Unknown	**395**	ug/Kg		3/11/2014
n,n:n,n-dibenzopyrene	**469**	ug/Kg		3/11/2014
Unknown	**460**	ug/Kg		3/11/2014

Method Reference(s): EPA 8270D
EPA 3550C

Tentatively Identified Compound results are estimated values, based on Internal Standard response factors.

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PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 140818

Client: **Panamerican Environmental Consultants**

Project Reference: 100 Tonawanda

Sample Identifier: BH3 0-2FT
Lab Sample ID: 140818-01 **Date Sampled:** 3/5/2014
Matrix: Soil **Date Received:** 3/7/2014

Volatile Tentatively Identified Compounds

Tentatively Identified Compound	Result	Units	Qualifier	Date Analyzed
Chlorodifluoromethane	**32.6**	ug/Kg	B	3/10/2014

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

Tentatively Identified Compound results are estimated values, based on Internal Standard response factors.

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PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 140818

Client: **Panamerican Environmental Consultants**

Project Reference: 100 Tonawanda

Sample Identifier: BH4 5-6FT
Lab Sample ID: 140818-02 **Date Sampled:** 3/5/2014
Matrix: Soil **Date Received:** 3/7/2014

Semi-Volatile Tentatively Identified Compounds

Tentatively Identified Compound	Result	Units	Qualifier	Date Analyzed
Unknown cyclohexane	**6760**	ug/Kg		3/10/2014
Unknown alkane	**6590**	ug/Kg		3/10/2014
Unknown naphthalene	**6680**	ug/Kg		3/10/2014
n,n-dimethylnaphthalene	**11700**	ug/Kg		3/10/2014
n,n-dimethylnaphthalene	**18000**	ug/Kg		3/10/2014
n,n-dimethylnaphthalene	**7140**	ug/Kg		3/10/2014
n,n-dimethylnaphthalene	**8360**	ug/Kg		3/10/2014
Unknown	**3750**	ug/Kg		3/10/2014
n,n-dimethylnaphthalene	**7500**	ug/Kg		3/10/2014
Unknown	**4230**	ug/Kg		3/10/2014
n,n,n-trimethylnaphthalene	**12400**	ug/Kg		3/10/2014
n,n,n-trimethylnaphthalene	**8150**	ug/Kg		3/10/2014
Unknown PAH	**8520**	ug/Kg		3/10/2014
n,n,n-trimethylnaphthalene	**6390**	ug/Kg		3/10/2014
n,n,n-trimethylnaphthalene	**8670**	ug/Kg		3/10/2014
Unknown	**11800**	ug/Kg		3/10/2014
n-methyl-1,1'-biphenyl	**6660**	ug/Kg		3/10/2014
Unknown alkane	**9080**	ug/Kg		3/10/2014
Unknown	**4840**	ug/Kg		3/10/2014
Sulfur	**10300**	ug/Kg		3/10/2014

Method Reference(s): EPA 8270D
EPA 3550C

Tentatively Identified Compound results are estimated values, based on Internal Standard response factors.

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

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 140818

Client: **Panamerican Environmental Consultants**

Project Reference: 100 Tonawanda

Sample Identifier: BH4 5-6FT
Lab Sample ID: 140818-02 **Date Sampled:** 3/5/2014
Matrix: Soil **Date Received:** 3/7/2014

Volatile Tentatively Identified Compounds

Tentatively Identified Compound	Result	Units	Qualifier	Date Analyzed
Unknown Aromatic	**2520**	ug/Kg		3/10/2014
Unknown Cyclohexane	**1650**	ug/Kg		3/10/2014
Unknown Aromatic	**4170**	ug/Kg		3/10/2014
Unknown Aromatic	**1390**	ug/Kg		3/10/2014
Unknown Aromatic	**6900**	ug/Kg		3/10/2014
Unknown Alkane	**1520**	ug/Kg		3/10/2014
Unknown Aromatic	**1630**	ug/Kg		3/10/2014
Unknown Aromatic	**2020**	ug/Kg		3/10/2014
Unknown Aromatic	**3300**	ug/Kg		3/10/2014
Unknown Alkane	**2940**	ug/Kg		3/10/2014
Unknown	**2960**	ug/Kg		3/10/2014
Unknown Aromatic	**3510**	ug/Kg		3/10/2014
Unknown Aromatic	**6190**	ug/Kg		3/10/2014
Unknown	**2040**	ug/Kg		3/10/2014
Unknown	**3540**	ug/Kg		3/10/2014
Unknown Aromatic	**1630**	ug/Kg		3/10/2014
Unknown	**3860**	ug/Kg		3/10/2014
n-methylnaphthalene	**6610**	ug/Kg		3/10/2014
Unknown	**1700**	ug/Kg		3/10/2014
Unknown	**6790**	ug/Kg		3/10/2014

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

Tentatively Identified Compound results are estimated values, based on Internal Standard response factors.

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Report Prepared Tuesday, March 18, 2014

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 140818

Client: **Panamerican Environmental Consultants**

Project Reference: 100 Tonawanda

Sample Identifier: BH9 3-4FT
Lab Sample ID: 140818-03 **Date Sampled:** 3/5/2014
Matrix: Soil **Date Received:** 3/7/2014

Semi-Volatile Tentatively Identified Compounds

Tentatively Identified Compound	Result	Units	Qualifier	Date Analyzed
Unknown alkane	**14800**	ug/Kg		3/11/2014
Unknown alkane	**15400**	ug/Kg		3/11/2014
Unknown	**28000**	ug/Kg		3/11/2014
Unknown	**19000**	ug/Kg		3/11/2014
Unknown cyclohexane	**27200**	ug/Kg		3/11/2014
n,n,n-trimethyldodecane	**33700**	ug/Kg		3/11/2014
Unknown alkane	**15000**	ug/Kg		3/11/2014
Unknown alkane	**19400**	ug/Kg		3/11/2014
Unknown cyclohexane	**36600**	ug/Kg		3/11/2014
Unknown alkane	**56200**	ug/Kg		3/11/2014
Unknown	**32300**	ug/Kg		3/11/2014
Unknown alkane	**29900**	ug/Kg		3/11/2014
Unknown alkane	**15000**	ug/Kg		3/11/2014
n,n,n-trimethylnaphthalene	**18800**	ug/Kg		3/11/2014
Unknown	**26700**	ug/Kg		3/11/2014
Unknown alkane	**33700**	ug/Kg		3/11/2014
Unknown	**14700**	ug/Kg		3/11/2014
Unknown alkane	**15900**	ug/Kg		3/11/2014
Unknown alkane	**40000**	ug/Kg		3/11/2014
Unknown alkane	**23000**	ug/Kg		3/11/2014

Method Reference(s): EPA 8270D
EPA 3550C

Tentatively Identified Compound results are estimated values, based on Internal Standard response factors.

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Report Prepared Tuesday, March 18, 2014

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 140818

Client: **Panamerican Environmental Consultants**

Project Reference: 100 Tonawanda

Sample Identifier: BH9 3-4FT
Lab Sample ID: 140818-03 **Date Sampled:** 3/5/2014
Matrix: Soil **Date Received:** 3/7/2014

Volatile Tentatively Identified Compounds

Tentatively Identified Compound	Result	Units	Qualifier	Date Analyzed
Unknown Cyclohexane	**4620**	ug/Kg		3/10/2014
Unknown Alkane	**6120**	ug/Kg		3/10/2014
Unknown Alkane	**10700**	ug/Kg		3/10/2014
Unknown Cyclohexane	**6950**	ug/Kg		3/10/2014
Unknown Alkane	**6230**	ug/Kg		3/10/2014
Unknown	**13800**	ug/Kg		3/10/2014
Unknown	**4200**	ug/Kg		3/10/2014
Unknown	**4520**	ug/Kg		3/10/2014
Butylcyclohexane	**3480**	ug/Kg		3/10/2014
Unknown Naphthalene	**5460**	ug/Kg		3/10/2014
Unknown	**4390**	ug/Kg		3/10/2014
Unknown Alkane	**3910**	ug/Kg		3/10/2014
Unknown	**8950**	ug/Kg		3/10/2014
Unknown Cyclohexane	**7810**	ug/Kg		3/10/2014
Unknown Aromatic	**5350**	ug/Kg		3/10/2014
Unknown	**3480**	ug/Kg		3/10/2014
Unknown Cyclohexane	**8840**	ug/Kg		3/10/2014
n,n'-dimethylundecane	**4550**	ug/Kg		3/10/2014
Unknown Cyclohexane	**6980**	ug/Kg		3/10/2014
Unknown Alkane	**8070**	ug/Kg		3/10/2014

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

Tentatively Identified Compound results are estimated values, based on Internal Standard response factors.

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Report Prepared Tuesday, March 18, 2014

PARADIGM

PARADIGM
ENVIRONMENTAL SERVICES, INC

Method Blank Report

Client: **Panamerican Environmental Consultants**
Project Reference: 100 Tonawanda
Lab Project ID: 140818
Matrix: Soil

Volatile Tentatively Identified Compounds

Analyte	Result	Units	Qualifier	Date Analyzed
Chlorodifluoromethane	**23.7**	ug/Kg		3/10/2014

Method Reference(s): EPA 8260C
EPA 5035A
QC Batch ID: voats031014
QC Number: 1

Tentatively Identified Compound results are estimated values, based on Internal Standard response factors.

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Report Prepared Tuesday, March 18, 2014

Analytical Report Appendix

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

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

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

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

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

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

"<" = Analyzed for but not detected at or above the quantitation limit.
"E" = Result has been estimated, calibration limit exceeded.
"Z" = See case narrative.
"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.
"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.
"B" = Method blank contained trace levels of analyte. Refer to included method blank report.
"J" = Result estimated between the quantitation limit and half the quantitation limit.
"L" = Laboratory Control Sample recovery outside accepted QC limits.
"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.

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

CHAIN OF CUSTODY

PARADIGM ENVIRONMENTAL SERVICES, INC.

REPORT TO:		INVOICE TO:		LAB PROJECT ID
CLIENT:	PANAMERICAN ENV.	CLIENT:	SAME	140818
ADDRESS:	2390 CLINTON ST.	ADDRESS:		Quotation #:
CITY:	BUFFALO STATE: NY ZIP: 14227	CITY: STATE: ZIP:		Email:
PHONE:	716-821-1650	PHONE:		
ATTN:	PETER J. GORTON	ATTN:		

PROJECT REFERENCE

100 TONAWANDA

Matrix Codes:

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

REQUESTED ANALYSIS

	DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX CODES	NUMBER OF CONTAINERS	Part 375 VOC	8270 TCL Part 375 Met	Pesticides	PCB	REMARKS	PARADIGM LAB SAMPLE NUMBER
1	3-5-14	10:50		X	BH3 0-2 FT	SO.1	2	X	X	X	X	PER JH need data by 3/12 OK KRH 3/10/14	01
2	3-5-14	11:10		X	BH4 5-6 FT	↓	2	X	X	X	X	PETROLEUM ODOR	02
3	3-5-14	3:10		X	BH9 3-4 FT	↓	2	X	X	X	X	ODOR	03
4													
5												UPC JH add VOA + SVOA TICS KRH 3/10/14	
6													
7													
8													
9													
10													

Turnaround Time		Report Supplements			
Availability contingent upon lab approval; additional fees may apply.					
Standard 5 day	X	Batch QC		Basic EDD	
Rush 3 day		Category A		NYSDEC EDD	
Rush 2 day		Category B			
Rush 1 day					
Other please indicate:		Other please indicate:		Other EDD please indicate:	

Sampled By	3/6/14 3 Date/Time	Total Cost:
Relinquished By	3/6/14 7 Date/Time	
Received By	3/6/14 Date/Time	P.I.F.
Received @ Lab By	3/7/14 13.57 Date/Time	

Chain of Custody Supplement

Client: Pan Am **Completed by:** Mail

Lab Project ID: 140818 **Date:** 3/7/14

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 5935	
Comments	63		
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 4°C		X not lab
Comments			
Sufficient Sample Quantity	X		
Comments			

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

CHAIN OF CUSTODY

ISLE CHEM: ELAP ID: 11862

REPORT TO:		INVOICE TO:			
COMPANY:	Paradigm Environmental	COMPANY:	Same	LAB PROJECT #:	CLIENT PROJECT #:
ADDRESS:		ADDRESS:		NY.403c40	.0.38398
CITY: STATE: ZIP:		CITY: STATE: ZIP:		TURNAROUND TIME: (WORKING DAYS)	
PHONE: FAX:		PHONE: FAX:			STD / OTHER
ATTN:	Jane Daloia	ATTN:	Meridith Dillman		1 / 2 / 3 / X 5 /
COMMENTS:	Please email results to khansen@paradigmenv.com and jdaloia@paradigmenv.com			Date Due:	

PROJECT NAME/SITE NAME: 100 Tonawanda

REQUESTED ANALYSIS

DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	NUMBER CONTAINERS	Pesticides	REMARKS	PARADIGM LAB SAMPLE NUMBER
3/5/14	10:50 AM		X	BH3 0-2 Feet	SO	1	X	270609	
3/5/14	11:10 AM		X	BH4 5-6 Feet	SO	1	X	270610	
3/5/14	3:10 PM		X	BH9 3-4 Feet	SO	1	X	270611	

LAB USE ONLY BELOW THIS LINE

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

Receipt Parameter	NELAC Compliance	
Container Type:	Y ☐	N ☐
Comments:		
Preservation:	Y ☐	N ☐
Comments:		
Holding Time:	Y ☐	N ☐
Comments:		
Temperature: 4°C	Y ☐	N ☐
Comments: PER Isle Chem KRH 3/11/14		

Client Sampled By	3/5/14 Date/Time	Total Cost:
Relinquished By	3/7/14 Date/Time	
Received By	Date/Time	P.I.F.
Received @ Lab By	3/7/14 10:35 Date/Time	

Appendix C

Boring Logs

Bore Hole Log

Panamerican Environmental, Inc
2391 Clinton Street
Buffalo, NY 14227
(716) 821-1650

Project: 68 Tonawanda Street	Sheet: 1 of 1
Client: Wayne Bacon & Ed Hogel	Location: See Associated Figure
Contractor: Natures Way	Ground Elevation:
Date Started: 3-5-14	Operator:
Date Completed: 3-5-14	Geologist/Technician: Pete Gorton
Bore Hole Number: **BH-1**	Ground Water:

Depth (FT)	Sample NO	Sample TYPE	Description
0			
1			
			0-2 - fill - black, gravely, sand and ash
2			
3			2-4 - sand and gravel
4			
			4-6 - fill - black silty sand with gravel
5			
6			6
7			6-8 - red clay soft to firm towards 8 feet
8			
9			8-12 - reddish-brown clay
10			
11			
12			Borehole ends at 12 foot

Comments: No sample collected. No PID readings observed and No odor

Bore Hole Log

Panamerican Environmental, Inc
2391 Clinton Street
Buffalo, NY 14227
(716) 821-1650

Project: 68 Tonawanda Street	Sheet: 1 of 1
Client: Yots & Frizlen	Location: See Associated Figure
Contractor: SJB	Ground Elevation: N42.933026 W78.897231
Date Started: 1-26-17	Operator:
Date Completed: 1-26-17	Geologist/Technician: Pete Gorton
Bore Hole Number: **BH-1A**	Ground Water:

Depth (FT)	Sample NO	Sample TYPE	Description
0			
1			
2			
			0-4 - Fill consisting of black sandy with some gravel and ash - possible foundry sand
3			
4			
5			
6			4-8 - Reddish brown clay; stiff
7			
8			
9			
			8-12 - Reddish brown clay; stiff wet
10			
11			
12			End of Boring

Comments: Collected sample at 1-4 feet. Hole filled with water

Bore Hole Log

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Project: 68 Tonawanda Street	Sheet: 1 of 1
Client: Wayne Bacon & Ed Hogel	Location: See Associated Figure
Contractor: Natures Way	Ground Elevation:
Date Started: 3-5-14	Operator:
Date Completed: 3-5-14	Geologist/Technician: Pete Gorton
Bore Hole Number: **BH-2**	Ground Water:

Depth (FT)	Sample NO	Sample TYPE	Description
0			
1			
			0-2 - fill - sandy silt
2			
3			2-3.5 - black ash/cinder fill with wood
4			
			4-6 - fill - black silty sand with gravel
5			
6			3.5-8 - red clay
7			
8			End of boring
9			
10			
11			
12			Borehole ends at 12 foot

Comments: No sample collected. No PID readings observed and No odor

Bore Hole Log

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Project: 68 Tonawanda Street	Sheet: 1 of 1
Client: Yots & Frizlen	Location: See Associated Figure
Contractor: SJB	Ground Elevation: N42.932889 W78.897244
Date Started: 1-26-17	Operator:
Date Completed: 1-26-17	Geologist/Technician: Pete Gorton
Bore Hole Number: **BH-2A**	Ground Water:

Depth (FT)	Sample NO	Sample TYPE	Description
0			
1			
2			
			0-3.5 - Fill consisting of black chert with light gray and black sand
3			with piecs of brick and wood
4			
5			
6			
7			
8			
9			
			3.5-12 - Reddish brown clay; stiff
10			
11			
12			End of Boring

Comments: Collected sample at 1-3 feet.

Bore Hole Log

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Project: 68 Tonawanda Street	Sheet: 1 of 1
Client: Wayne Bacon & Ed Hogel	Location: See Associated Figure
Contractor: Natures Way	Ground Elevation:
Date Started: 3-5-14	Operator:
Date Completed: 3-5-14	Geologist/Technician: Pete Gorton
Bore Hole Number: **BH-3**	Ground Water:

Depth (FT)	Sample NO	Sample TYPE	Description
0			
1			0-1 - fill - black sandy silty gravel with cinder
2			1-2 - brick
3			2-2.5 - grey sandy with gravel
4			2.5-4 - red clay. Borehole end at 4 feet
5			
6			
7			
8			
9			
10			
11			
12			

Comments: Collected sample from 0-2 feet. No PID readings observed and No odor

Bore Hole Log

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Project: 68 Tonawanda Street	Sheet: 1 of 1
Client: Yots & Frizlen	Location: See Associated Figure
Contractor: SJB	Ground Elevation: N42.932785 W78.897391
Date Started: 1-26-17	Operator:
Date Completed: 1-26-17	Geologist/Technician: Pete Gorton
Bore Hole Number: **BH-3A**	Ground Water:

Depth (FT)	Sample NO	Sample TYPE	Description
0			
1			
2			
			0-4 - Fill consisting of brown-grey silty sand
3			with piecs of brick, gravel and black chert
4			
5			4-6 - fill with brick, gravel, black sandy chert - wet
6			
			6-7 - reddish brown clay
7			
8			
9			
			7-12 - Reddish brown clay; very wet
10			
11			
12			End of Boring

Comments: No sample collected

Bore Hole Log

Panamerican Environmental, Inc
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Project: 68 Tonawanda Street	Sheet: 1 of 1
Client: Wayne Bacon & Ed Hogel	Location: See Associated Figure
Contractor: Natures Way	Ground Elevation:
Date Started: 3-5-14	Operator:
Date Completed: 3-5-14	Geologist/Technician: Pete Gorton
Bore Hole Number: **BH-4**	Ground Water:

Depth (FT)	Sample NO	Sample TYPE	Description
0			
1			0-1 - fill - dark brown sandy silt
2			1-2 - Fill - brown silty sand with gravel
3			2-3 - Fill - black cherty
			3-3.5 - brick
4			3.5-4 - clayey silt
5			4-6 - silty clay - petroleum odor - PID 14-15 ppm
6			
7			6-8 - black sand - petroleum odor - PID 28-30 ppm
8			
9			8-11 - black silty sand
10			
11			
			11-12 - red clay
12			boring end

Comments: Collected sample from 5-7 feet. PID 14-30 ppm and petroleum odor

Bore Hole Log

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Project: 68 Tonawanda Street	Sheet: 1 of 1
Client: Yots & Frizlen	Location: See Associated Figure
Contractor: SJB	Ground Elevation: N42.932727 W78.897440
Date Started: 1-26-17	Operator:
Date Completed: 1-26-17	Geologist/Technician: Pete Gorton
Bore Hole Number: **BH-4A**	Ground Water:

Depth (FT)	Sample NO	Sample TYPE	Description
0			
1			
2			
			0-4 - Fill - oily at surface - consisting of brown-grey-black silty sand and gravel
3			
4			
5			
6			4-9 - wet black, gravely, sandy silt - very wet
7			
8			
9			
			9-12 - Reddish brown clay; very wet
10			
11			
12			End of Boring

Comments: Sample collected from 0-6 feet

Bore Hole Log

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Project: 68 Tonawanda Street	Sheet: 1 of 1
Client: Wayne Bacon & Ed Hogel	Location: See Associated Figure
Contractor: Natures Way	Ground Elevation:
Date Started: 3-5-14	Operator:
Date Completed: 3-5-14	Geologist/Technician: Pete Gorton
Bore Hole Number: **BH-5**	Ground Water:

Depth (FT)	Sample NO	Sample TYPE	Description
0			
1			0-1 - fill - silty gravel
2			1-3 - red-black sandy-ash fill
3			3-3.5 - cement
4			
5			
			3.5-7 - red clay
6			
7			Boreing end
8			
9			
10			
11			
12			

Comments: No sample collected. No PID readings observed and No odor

Bore Hole Log

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Project: 68 Tonawanda Street	Sheet: 1 of 1
Client: Yots & Frizlen	Location: See Associated Figure
Contractor: SJB	Ground Elevation: N42.932511 W78.897565
Date Started: 1-26-17	Operator:
Date Completed: 1-26-17	Geologist/Technician: Pete Gorton
Bore Hole Number: **BH-5A**	Ground Water:

Depth (FT)	Sample NO	Sample TYPE	Description
0			
1			
2			
			0-4 - Fill - Silty, clayey sand with brick, stone and cement
3			
4			
5			
6			4-6- brown-black, gravely, sandy silt
7			
8			
9			
			6-12 - Reddish brown clay; very wet
10			
11			
12			End of Boring

Comments: Sample collected from 1-6 feet

Bore Hole Log

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Project: 68 Tonawanda Street	Sheet: 1 of 1
Client: Yots & Frizlen	Location: See Associated Figure
Contractor: SJB	Ground Elevation: N42.932134 W78.897330
Date Started: 1-26-17	Operator:
Date Completed: 1-26-17	Geologist/Technician: Pete Gorton
Bore Hole Number: **BH-6A**	Ground Water:

Depth (FT)	Sample NO	Sample TYPE	Description
0			
1			
2			
			0-4 - Fill - sand with ash, brick, stone and cement
3			
4			
5			
6			4-8- brown-black, gravely, sandy silt - wet
7			
8			Borehole ended at 8 feet refusal
9			
10			
11			
12			

Comments: Sample collected from 0-3 feet

Bore Hole Log

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Project: 68 Tonawanda Street	Sheet: 1 of 1
Client: Yots & Frizlen	Location: See Associated Figure
Contractor: SJB	Ground Elevation: N42.931753 W78.897628
Date Started: 1-26-17	Operator:
Date Completed: 1-26-17	Geologist/Technician: Pete Gorton
Bore Hole Number: **BH-7A**	Ground Water:

Depth (FT)	Sample NO	Sample TYPE	Description
0			
1			
2			
			0-4 - Fill - sand with ash, brick, stone and cement
3			
4			
5			
6			4-8- reddish-brown clay
7			
8			Borehole ended at 8 feet
9			
10			
11			
12			

Comments: No sample collected

Bore Hole Log

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Project: 68 Tonawanda Street	Sheet: 1 of 1
Client: Yots & Frizlen	Location: See Associated Figure
Contractor: SJB	Ground Elevation: N42.931228 W78.897542
Date Started: 1-26-17	Operator:
Date Completed: 1-26-17	Geologist/Technician: Pete Gorton
Bore Hole Number: **BH-8A**	Ground Water:

Depth (FT)	Sample NO	Sample TYPE	Description
0			
1			
2			
			0-4 - Fill - pink and brown sand
3			
4			
5			
6			4-8- reddish-brown clay
7			
8			Borehole ended at 8 feet
9			
10			
11			
12			

Comments: Sample collected from 0-4 feet

Bore Hole Log

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Project: 68 Tonawanda Street	Sheet: 1 of 1
Client: Wayne Bacon & Ed Hogel	Location: See Associated Figure
Contractor: Natures Way	Ground Elevation:
Date Started: 3-5-14	Operator:
Date Completed: 3-5-14	Geologist/Technician: Pete Gorton
Bore Hole Number: **BH-9**	Ground Water:

Depth (FT)	Sample NO	Sample TYPE	Description
0			0-0.5 - stone
1			0-1 - fill - silty gravel
2			1-3 - red-black sandy-ash fill
3			0.5-3 - silty fill with gravel
4			3-4 - black gravel sandy fill with chert
			Boring end at 4 feet
5			
6			
7			
8			
9			
10			
11			
12			

Comments: Sample collected at 3-4 feet. PID 16 ppm odor

Bore Hole Log

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Project: 68 Tonawanda Street	Sheet: 1 of 1
Client: Yots & Frizlen	Location: See Associated Figure
Contractor: SJB	Ground Elevation: N42.930781 W78.897763
Date Started: 1-26-17	Operator:
Date Completed: 1-26-17	Geologist/Technician: Pete Gorton
Bore Hole Number: **BH-9A**	Ground Water:

Depth (FT)	Sample NO	Sample TYPE	Description
0			
1			
2			
			0-3.5 - Fill - stone, brick, silty clay
3			
			3.5 - dark silty clay with petroleum odor
4			
			4-6 - silty clay
5			
6			
7			6-8 - Black sand with strong petroleum odor
8			Borehole ended at 8 feet
9			
10			
11			
12			

Comments: SVOC Sample collected from 2-6 feet and VOC sample collected from 6-8 feet. PID not functioning due to rain

Bore Hole Log

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Project: 68 Tonawanda Street	Sheet: 1 of 1
Client: Wayne Bacon & Ed Hogel	Location: See Associated Figure
Contractor: Natures Way	Ground Elevation:
Date Started: 3-5-14	Operator:
Date Completed: 3-5-14	Geologist/Technician: Pete Gorton
Bore Hole Number: **BH-10**	Ground Water:

Depth (FT)	Sample NO	Sample TYPE	Description
0			0-0.5 - gravely silty fill
1			
2			
3			0.5-4 - gravel-cherty fill
4			
5			
6			4-8 - clay
7			
8			
9			
10			
11			
12			

Comments: No sample collected. No PID readings observed and No odor

Bore Hole Log

Panamerican Environmental, Inc
2391 Clinton Street
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Project: 68 Tonawanda Street	Sheet: 1 of 1
Client: Wayne Bacon & Ed Hogel	Location: See Associated Figure
Contractor: Natures Way	Ground Elevation:
Date Started: 3-5-14	Operator:
Date Completed: 3-5-14	Geologist/Technician: Pete Gorton
Bore Hole Number: **BH-11**	Ground Water:

Depth (FT)	Sample NO	Sample TYPE	Description
0			
1			
			0-2 feet - black sandy gravely fill
2			
			2-3 - cement
3			
4			3-5 - black sandy gravely fill with wood
5			
6			5-8 - red clay
7			
8			
9			
10			
11			
12			

Comments: No sample collected. No PID readings observed and No odor