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PANAMERICAN

March 24, 2015

Mr. Wayne Bacon
Mr. Jack Ruh
148 Middlesex
Buffalo, New York

Subject: Limited Sub-Slab Soil/Subsurface Assessment– 31Tonawanda Street, Buffalo, New York

Dear Mr. Bacon and Mr. Ruh:

Panamerican Environmental, Inc. (PEI) is pleased to provide you with this report which presents the findings of a limited sub-slab, subsurface soil assessment at 31Tonawanda Street, Buffalo, New York. The work is a follow-up to the Phase II Environmental Site Assessment (ESA) in October 2014 which was completed outside of the building.

INTRODUCTION AND BACKGROUND

Introduction and Purpose

PEI completed the sub-floor, subsurface soil assessment at the southeast corner of the 31 Tonawanda Street property located in the City of Buffalo, New York (Figure 1). The scope of work was based on the findings of previous assessments of the property including a Phase I ESA completed on the property *("Phase I Environmental Site Assessment 31 Tonawanda Street; City of Buffalo, Erie County, New York" Completed by PEI for* Buffalo Niagara RIVERKEEPER and The Buffalo Niagara River Land Trust *in May 2011*) and follow-up Phase II ESA *("Phase II Environmental Site Assessment– 31 Tonawanda Street, Buffalo, New York" Completed by PEI for Wayne Bacon/Jack Ruh in October 2014).* The Phase II ESA indicated elevated concentrations of solvents in subsurface soils along the eastern-southern portion of the property. The purpose of the scope was to assess if a plume or potential source of the solvents found during the Phase II ESA exists under the building slab in the southeastern portion of the building. During the Phase II investigation elevated levels of Trichloroethylene (TCE) were indicated along the eastern side of the property (see attached figure) at a depth of between 9 and 12 feet.

Scope

The scope of work was conducted in general accordance with ASTM Standard E 1903-11 (Standard Practice for Environmental Site Assessments; Phase II Environmental Site Assessment Process). This standard covers a process for conducting a Phase II ESA of a parcel of property with respect to evaluating the presence or likely presence of chemical and petroleum

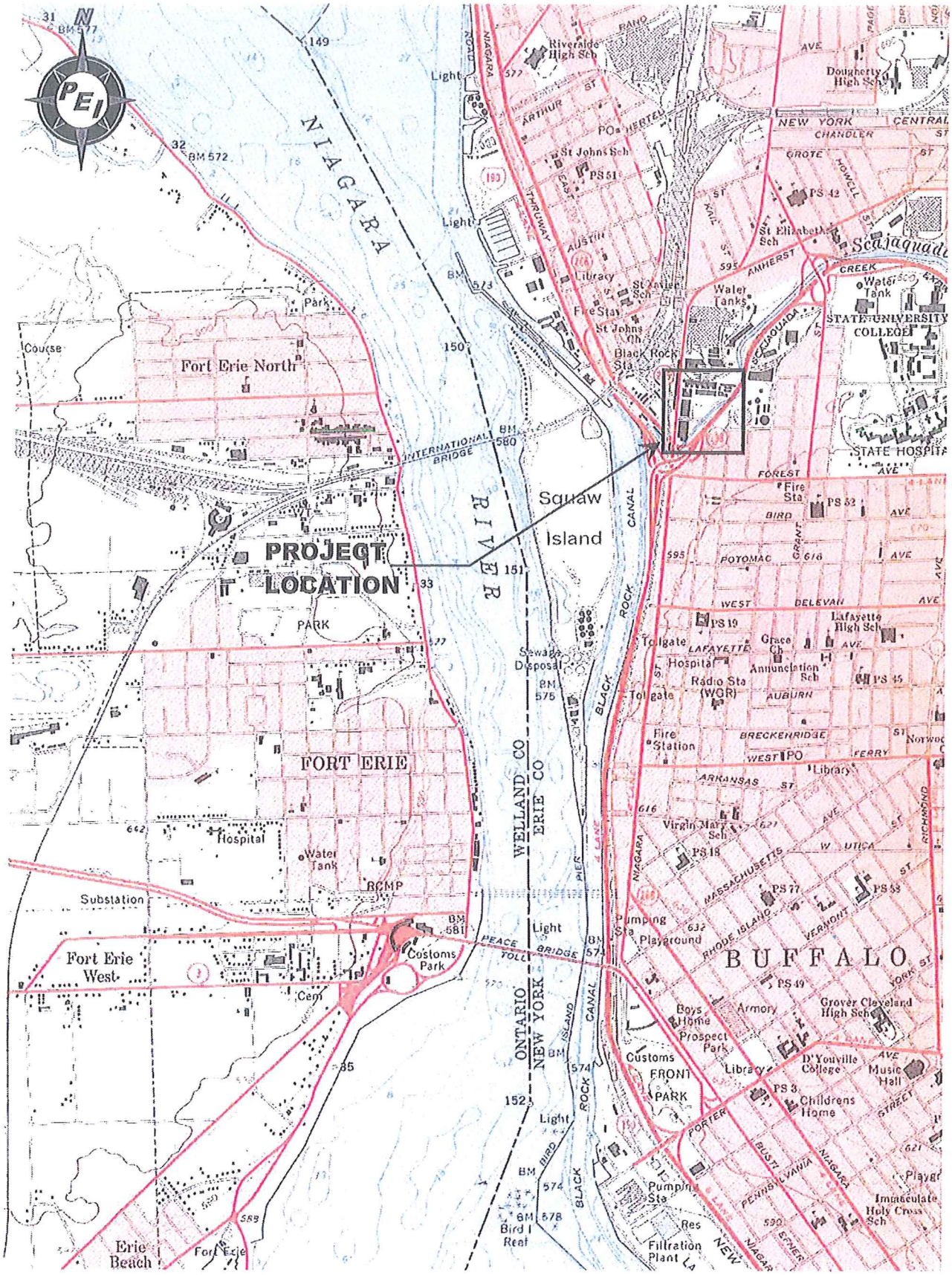


Figure 1. Project areas location in City of Buffalo, Erie County, New York *(USGS 7.5' Quadrangle, Buffalo NW, NY 1986 [1965]).*

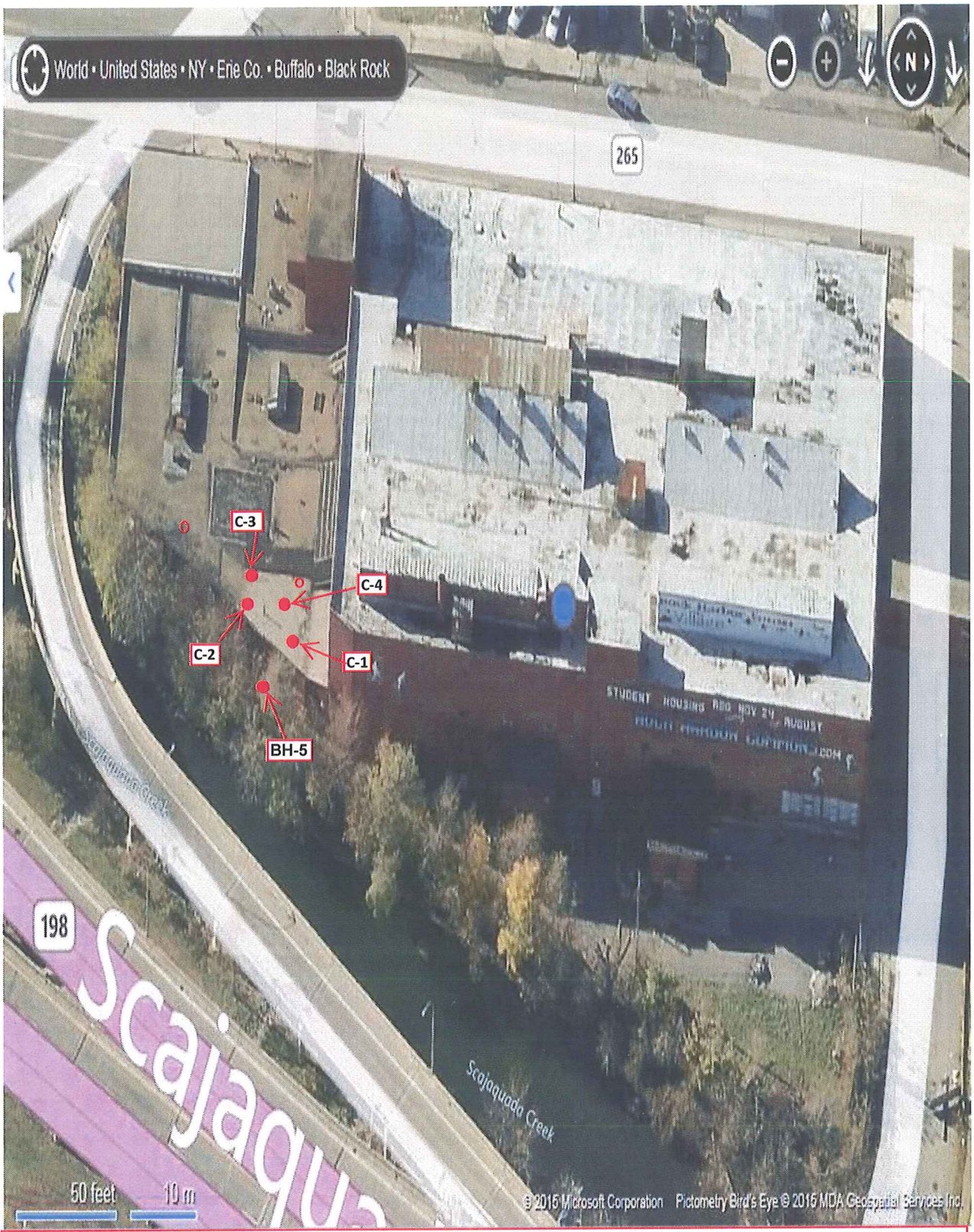


Figure: Inside Floor Core/Boring Locations

● Completed Cores/Borings

O Not Completed Cores/Borings

substances. The standard specifies procedures based on the scientific method to characterize property conditions in an objective, representative, repeatable, and defensible manner.

The ASTM standard contemplates that the user (client) and the assessor (PEI) will consult to define the scope and objectives of the investigation in light of relevant factors, such as property history or a portion of the property or specific concerns to be investigated; the specific questions to be answered to satisfy the user's business needs; the degree of confidence needed or desired in the results; the degree of investigatory sampling needed to achieve such confidence and any time and resource constraints. As such Phase II ESA and follow-up scopes can vary. The standard does not require full site characterization in every instance, but may be used to conduct an investigation that is sufficient to meet the user's objective. This focused assessment was completed with a specific scope of work directed at the examination of subsurface conditions at the property and the collection of soil samples.

The objective of the scope was to conduct a soil screening and limited sampling below the floor slab in the southeast corner of the building. The purpose was to investigate subsurface conditions under the slab adjacent to where the impacted soil was found outside the building. A total of four cores and borings were completed over a two day period. Additionally, three more cores were attempted but were abandoned due to inability to access the subsurface soil either due to refusal or floor design (described further below).

Work progressed as follows: first the floor was cored using a concrete coring device to gain access to the soil below the slab; then soil borings were completed using a small Geoprobe® unit to bore to approximately 8-12 feet below the floor slab. Visual observations and a PID were used to determine if soil impacts exist and soil samples were collected from three of the four borings to document if chemical impacts exist. The borings inside the building were advanced at locations near/adjacent to Phase II Bore Hole BH-5 and arrayed westward (refer to Figure 2). The soil samples were analyzed for VOCs only including solvents to match the findings of the Phase II ESA.

Background

The approximately 1.9-acre 31 Tonawanda Street property is located immediately adjacent to Scajaquada Creek in the Black Rock area of the City of Buffalo. The subject property contains an irregularly shaped, approximately 114,731 square foot, 1-3 story building. The property is bounded by Scajaquada Creek ("Creek") and the off ramp of the Scajaquada Expressway (State Highway 198) to the south and east; Tonawanda Street to the west and West Street to the north. The building complex occupies the majority of the parcel with some grass/vegetation/asphalt covered areas towards the Creek (Refer to Figures). The existing building complex was initially constructed in the early 1900's as Fedder Manufacturing Company (building permits indicate that brick factories were constructed in 1907-1915 at 53 Tonawanda Street).

The area and property have a long historic commercial/industrial use. Commercial/industrial use of the general area occurred in the early 1800's situated around Black Rock. It appears that many of the different industrial facilities along Tonawanda Street and the Creek may have operated in a somewhat symbiotic relationship revolving around common products or raw materials (clay pipes and bricks, metal manufacturing and machining, energy production). The industrial history of the property and adjacent properties has had a significant effect on the environmental impacts affecting both the area and the property.

In the late 1800s, the United States Electric Light and Power Company of Buffalo (later called the Buffalo General Electric Company) had a plant for arc lighting on the southern portion of the subject parcel. The Thompsons Shingle Mill was located on the northern portion. The electric company was an experimental station of the National High Temperature Furnace Company. At that time the property had a large coal shed. Sometime after 1900 the Fedders Manufacturing Company (under various names) occupied the parcel until it sold the complex to Black Rock Trade Center, Inc., in 2005. The Fedders complex was initially located on the subject parcel and eventually expanded across West Street to also occupy the adjacent northern parcel along Tonawanda Street (57 and 71 Tonawanda Street). Fedders began as a metalworking shop started by Theodore C. Fedders in 1896.

At first Fedders made milk cans and kerosene tanks for Standard Oil Co. and bread pans for National Biscuit Co. Shortly after the turn of the century Fedders converted the plant to making radiators for such automobile makers as Pierce-Arrow and the Thomas Five and, in time, other automobile makers as well. During World War I the company also made radiators for airplanes and manufactured appliances for heating and electrical refrigeration. During World War II Fedders received contracts to make links and clips for machine-gun belts and garand-rifle bullets. In 1949 Fedders family sold a majority interest in the firm to Frank J. Quigan, Inc. (world's leading manufacturer of handbag frames) and the company was renamed Fedders-Quigan Corp. In the late 1940's, Fedders-Quigan started making room air conditioners and electric water coolers. The company also made heaters, radiators, and radiator cores for Chrysler Corporation automobiles and home radiators, convectors, hot-water boilers and women's handbag frames. Fedders-Quigan shortened its name to Fedders in 1958. By 1964 Fedders products included air conditioners; automobile radiators, heater cores, and oil coolers (still principally for Chrysler); and heat-transfer equipment, including convectors, condensers, evaporators, and dehumidifiers. In 1987 Fedders spun off the compressor and automotive-components divisions into a company named NYCOR, Inc. This company remained under Fedders management until it sold the automotive-components business (FEDCO) in 1990. FEDCO manufactured automobile heating equipment.

The Fedders complex which expanded across West Street did have a history of using various chemicals, oils, solvents and other materials in their manufacturing process. Numerous investigations have been conducted on the various properties along the Creek mostly focused on those properties north of the subject parcel. .A review of these investigation reports indicated that

potential environmental impacts exist at the various properties from past activities. Reports suggested that Fedders manufactured automotive components including radiators, heaters, and transmission oil coolers. The report further suggested that processes at the property included metal stamping, soldering, brazing, welding, painting, acid washing and degreasing. Industrial wastes were reported to include solder dross, degreasing still bottoms including trichloroethylene (TCE) and tetrachloroethene, petroleum-based lubricating fluids and other products and wastes. Additionally, the adjacent/nearby industrial properties were significant potential contributors to area environmental impacts which effected both the Creek sediments and fill along the creek. One potential major contributor was the The USHCO, U. S. Hame Co. Pratt & Letchworth facility. The facility was a very large iron and steel works located on 38-acres north of the subject property along Tonawanda Street and the Creek. The Pratt & Letchworth and associated facilities included large foundry and machine shops. Documentation from between 1949 and 1965 indicates that approximately 19,000 tons of foundry sand, 16,000 tons of slag and cement and furnace brick waste was landfilled on-site and along the banks of the Creek. **It is important to note that much of the fill on the subject property including that under the floor appears to include foundry sand.** A review of investigation reports completed on the adjacent properties indicates that metals, semi-volatiles and solvents are associated with creek sediments, groundwater and soils along the creek.

The results of the Phase II ESA indicated that elevated PAHs and metals are associated with fill materials at the property especially along the eastern portion of the property. Additionally, it indicated that elevated levels of chlorinated solvents were identified in subsurface soils at 9-12 feet below ground surface (bgs) at specific locations on the eastern side of the property structure; mainly at and north of the exit door and stairs located in the southeast side.

It was noted in the Phase II ESA that other past investigation reports completed for adjacent and nearby properties along the Creek (north along Tonawanda Street) indicated that elevated chlorinated solvents exists in fill materials along the creek including creek sediments and soils adjacent to the creek. In addition, a Manufactured Gas Plants (MGP) historically existed along Dart/Bradley Streets and at the former Brystal-Meters Squibb facility east of the subject property.

The Phase II ESA suggested that the possible source of the solvent impacts at the 31 Tonawanda Street property could be one of the following (though there may be other possibilities):

- The 31 Tonawanda facility Operations. The facility used solvents and the likely groundwater flow is towards the creek. All the other investigations completed in the area for other properties identify the groundwater as flowing southeast towards the creek;

- Contaminated fill materials brought in from the metal forging operations north of the property: During the installation of the borings there appeared to be a retaining wall along the top of the creek bank. It is possible that this wall was placed when the building was

constructed in the early 1900s and fill material brought in to backfill behind the wall and under the building;

- The Creek itself: Prior to any fill brought in to the site some migration of current creek sediments could have occurred. The Niagara River may have some hydraulic pull towards the west. Additionally, there appears to be seche events (reverse flow in the creek) which might affect localized groundwater. Also, the Creek was much wider prior to the construction of industrial buildings along the Creek and there are reports of filling using foundry sand – certainly north of the property. It is possible that the building was built over portions of the original creek that had been filled in.

Based on these results this follow-up subfloor assessment was conducted to gain a better assessment of conditions below the southeast corner of the building.

SUBFLOOR ASSESSMENT

The subfloor assessment was completed in the southeast corner area of the building. PEI completed the subfloor assessment on two separate days; February 18, 2015 and March 5, 2015. The scope included: coring through the cement/wood floor and advancing soil borings using Geoprobe® direct push technology; soil screening using a total organic vapor monitor/photoionization detector (PID); and limited sampling to assess the sub-slab, subsurface soil conditions at the property. The soil borings were advanced with a skid-steer mounted Geoprobe® unit to access the inside area of the building and inside tight areas. The use of direct push technology allows for rapid sampling, observation and characterization. The Geoprobe® technology uses a four-foot MarcoCore sampler with disposable polyethylene sleeves for observation and sampling.

A total of four Geoprobe® borings were advanced in an array in the southeast portion of the building. The first two cores/borings were placed adjacent to the east wall and closest to where subsurface soil impacts were encountered during the Phase II ESA. The second two cores/borings were placed deeper towards the west, inside the building in the southeast area (refer to Figure 2 and Photographs showing the core/boring locations).

Borings were advanced to an average depth of 12 feet below ground surface (bgs) with some deeper so as to develop a fill vs assumed native soil profile (refer to Table 1 – Soil Description). It should be noted that the building has multiple floors and contains a basement section under the central-east and northeast end. The southeast end where the scope was directed contains only one floor and no basement. A void or crawl space was observed to be under the floor. Based on the results of this scope, the floor and subfloor appears to be variable. Thick cement flooring is located in the northern and northeastern section of this portion of the building. Wood beams and flooring over a crawl space was observed in the north central portion of this area and wood flooring over a void and then secondary cement floor was observed in the southern portion of this

Table 1
31 TONAWANDA STREET SITE – SUB-SLAB SOIL

BORINGS	BH-5	C-1	C-2	C-3	C-4
	Outside Phase II Soil Boring	Sub-Floor Northeast Corner of Southeast Section of Building	Sub-Floor Adjacent to Outside Door– Southeast Section of Building	Sub-Floor – West Wall of Southeast Section of Building	Sub-Floor North-Middle Section of Southeast Section of Building
Total Depth	16 feet	12 feet	12 feet	16 feet	16 feet
General Geology	0-0.5 – black gravelly, sandy, silt fill 0.5-3 ft – silty clay with brick 3-4 ft – black sandy silt fill with sandstone 4-6 ft – dark sand – possibly foundry sand 6-7 ft – red-brown silty clay 7-8 ft – black gravely silt - wet 8-12 – red-black silty, gravely sand. Odor 12-16 – black silty clay – wet, with sheen and odor PID – 50-400ppm at 8-16 feet 1 soil sample from 9-12 interval	0-4 – black gravelly, sandy, silt fill possible foundry sand with stone, cement, brick, ash 4-8 ft – silty clay soil; odor 8-10 ft – black sandy gravel silt silt, odor 40 ppm on PID 10-12 – black sandy silty clay – wet, with odor- PID –20 ppm 1 soil sample – 8 feet	0-4 – black gravelly, sandy, silt fill possible foundry sand with stone, cement, brick, ash 4-10 ft – silty clay soil red-brown; 10-12 – black sandy silty – wet, with odor- PID –12 ppm	0-6 – black sandy fill possible foundry sand with stone, cement, brick, ash 6-8 ft – black sand and ash fill; 6-11 ppm PID 11-12 – black silty clay– sticky- PID –0 ppm 12-16 – clay - PID –0 ppm 1 soil sample – 6-8 feet	0-4 – black sandy fill possible foundry sand 4-8 ft – black sand and ash fill with brick; 3-7 ppm PID 8-9 ft – black sand fill ; 10 ppm PID 9-12 – brown silty clay– sticky- PID –0 ppm 12-16 – grey clay - PID –0 ppm 1 soil sample – 6-8 feet
PID Readings (ppm)	400ppm at 8-12 feet 60ppm at 12-16 feet	40 ppm at 8-10 feet 20 ppm at 10-12 feet	12 ppm at 10-12 feet	6-11 ppm at 6-8 feet	3-10 ppm at 6-9 feet
Odor	Strong indistinguishable odor	indistinguishable odor starting at 8 feet	indistinguishable odor	No odor noticed	No odor noticed

building area. Of note, the floor appears to be slightly pitched towards the eastern wall where the doorway to the outside is located. Two additional cores/borings were initiated and abandoned due to subfloor conditions as follows:

- A core was initiated in the southwest corner of the room near the man door entrance. The Geoprobe® was unable to complete any boring into the subsurface in that area and the boring was abandoned.
- A core was initiated in the southern portion of the room through the wood floor. A void of a few feet was observed below the wood above a secondary cement floor. This was too deep for the core device to reach and the core/borehole was abandoned.

At each boring location, continuous soil sampling was conducted 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', 12-16'). Also, at each location, cores were retrieved in four-foot sections and cut open for observations. Visual observations were recorded and field screening of soil for volatile organic compound (VOC) concentrations using the PID was completed (refer to Table 1).

The field observations indicated that fill consisting of sand (possibly foundry sand), ash and brick was located to about 8-9 feet bgs in all the borings. In the borings completed along the eastern wall wet to very wet silty sandy clay with gravel was observed below the fill. A chemical odor and elevated PID readings (40 ppm total organic vapors) were also observed in these borings at that depth. The soil profile was similar to that found outside the building in that area. The two borings further west into the building had clay (soft/sticky) below the fill layer starting at about 9 feet. Slightly elevated PID total organic vapor measurements (3-7 ppm above background) were observed in the fill zone above the clay in these borings.

A total of three (3) soil samples were collected for laboratory analysis. These included: a sample from the 8-12 foot depth bgs from Core/Boring C-1 (odor and elevated PID of 40+ ppm); a sample from Core/Boring C-3 from the 6-8 foot depth bgs (slightly elevated PID results); and a soil sample from C-4 at 6-8 feet bgs (slightly elevated PID readings). The soil samples were submitted to Accutest Laboratories for analysis. The requested analysis was for the full NYSDEC Part 375 Brownfields volatile parameter list.

A description of soil is presented in Table 1. At completion, all probe holes were filled with indigenous soil and where possible a cement cap was place on top to floor level. 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 cores/soil borings were field located and were subject to accessibility and the location in the building. 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.

Photoionization Detection (PID)

During the drilling process, field screening of volatile organic compound (VOC) concentrations was performed using a Photo Ionization Detector (PID). The results are summarized in Table 1. 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. Results are summarized in Table 1. As described, elevated PID levels were observed in boreholes; however the results in C-1 and C-2 were significantly higher than C-3 and C-4.

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, which 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.

Soil Analytical Results

Analytical results from the Phase II ESA program are provided in Table 2. These are provided for comparison purposes to examine against the analytical results of the sub-slab soil samples. Based on the Phase II results and the objective of this assessment, the sub-slab soil samples were analyzed for volatile organic compounds (VOC) only. The analytical results from the sub-slab soil sampling program are summarized in Table 3. The tables present a summary of the soil sample analytical results data for all detected compounds and provides a comparison with the New York State Department of Environmental Conservation (NYSDEC) Final Restricted Use Soil Cleanup Objectives (SCOs) as presented in 6 NYCRR Part 375-6.8 (b). The complete set of soil analytical data is provided in Appendix B and is discussed below.

Volatile Organic Compounds (VOCs)

Based on the finding of the Phase II ESA, the focus of the sub-slab soil samples was on VOCs and in particular chlorinated solvents. The following table provides a summary comparison of the analytical results of the boring completed outside and adjacent to the southeastern side of the building and the three samples collected sub-slab under the southeastern portion of the building. A number of chlorinated solvents were detected in the subsurface soils below the building slab. Two of these solvents; 1,1,1 Trichloroethane (in boring C-1) and Trichloroethene (in borings C-3 and C-4) were detected at levels above commercial clean-up object numbers listed in Part 375 Commercial. These are lower than but correspond to the levels detected in boring BH-5 outside and adjacent to this area of the building (refer to attached figures).

Contaminant	BH-5 9-12 Ft bgs	C-1 8-12 ft bgs	C-3 6-8 ft bgs	C-4 6-8 ft bgs	NYSDEC SCO
cis-1,2-Dichloroethene	**880 ppm**	72.8	1.5	0.6	500ppm Commercial
1,1-Dichloroethane	ND	**31.5**	0.3	0.9	240
1,1-Dichloroethene	ND	17.7	ND	ND	500
1,1,1 -Trichloroethane	ND	**670**	4.3	8	500
Tetrachloroethene	ND	ND	0.3	ND	150
Trichloroethene	**6,960**	15.1	**1630**	**244**	200

CONCLUSIONS

A number of chlorinated solvents, some in excess of NYSDEC recommended clean-up levels, were identified both in soil samples from under the slab and outside the building adjacent to the structure on the eastern side of the property. A review of the soil stratigraphy suggests that at the 9-12 feet bgs level a very wet silty-gravelly-sand exists outside and adjacent to the creek. This is possibly at the same depth of creek sediments. The two boreholes completed inside the building

TABLE 2 - 31 TONAWANDA STREET - PHASE 2 ESA SOIL SAMPLE ANALTICAL RESULTS SUMMARY						
Sampling Program	**PEI - Phase 2 ESA SOIL BORING SAMPLING PROGRAM**					
Sample Number	**BH 5**	**BH 7**	**BH 8**	**NYSDEC**	**NYSDEC**	**NYSDEC**
Sample Date	**4/11/2014**	**4/11/2014**	**4/11/2014**	**PART 375**	**PART 375**	**PART 375**
Sample depth (bgs)	**9' - 12'**	**9' - 12'**	**5' - 8'**	**Residential**	**Restrict Res**	**Comercial**
Compounds	**ppm**	**ppm**	**ppm**	**(a)**	**(b)**	**(c)**
Metals						
Mercury	**1.2**	0.51	0.04	0.81	1	2.8
Arsenic	12.10	11.5	8.5	16	16	16
Barium	340.0	137	34.4	350	400	400
Beryllium	ND	0.84	ND	14	72	590
Cadmium	2.40	ND	0.94	2.5	4.3	9.3
Chromium	28.5	28.8	**202**	36	180	1500
Copper	**911**	**747**	**9550**	270	270	270
Lead	**876**	263	130	400	400	1000
Manganese	200	502	**7780**	2000	2000	10000
Nickel	20.9	36.3	14.3	140	310	310
Selenium	ND	ND	5.8	36	180	1500
Silver	ND	ND	ND	36	180	1500
Zinc	1410	202	518	2200	10000	10000
PCBS						
PCBS	ND	ND	ND	1	1	1
Pesticides						
4,4-DDT	0,009	ND	ND	1.7	N	47.0
4,4 DDD	0.005	ND	ND	2.6	13	92.0
4,4-DDE	0.01	ND	ND	1.8	8.9	62.0
Endrin Aldehyde	0.021	ND	ND	N/A	N/A	N/A
alpha-BHC	0.009	ND	ND	0.097	0.48	3.4
beta BHC	0.009	ND	ND	0.072	0.36	3
delta BHC	0.021	ND	ND	100	100	500
Endosulfan I	0.005	ND	ND	4.8	24	200
Endosulfan Ii	0.009	ND	ND	4.8	24	200
Endosulfan Sulfate	0.01	ND	ND	4.8	24	200
Endrin	0.007	ND	ND	2.2	11	89.00
Endrin Ketone	0.011	ND	ND	N/A	N/A	N/A
cis-Chlordane	0.014	ND	ND	N/A	N/A	N/A
Dieldrin	0.011	ND	ND	0.039	0.2	1.40
gamma-BHC	0.013	ND	ND	0.28	1.3	9.20
Heptachlor	0.026	ND	ND	0.42	2.1	15.00
Heptachlor-Chlordane	0.009	ND	ND	N/A	N/A	N/A
VOCs						
cis-1,2-Dichloroethene	**880**	ND	0.023	59	100	500
Trichloroethene	**6960**	ND	0.17	10	21	200
SVOCs						
Acenaphthene	6.2	ND	ND	100	100	500
Benzo(a)anthracene	**6.02**	ND	ND	1	1	5.6
Benzo(b)fluoranthene	**5.7**	ND	ND	1	1	5.6
Chrysene	**7.74**	ND	ND	1	3.9	56
Fluoranthene	11	ND	0.45	100	100	500
Phenanthrene	17.1	ND	0.34	100	100	500
Pyrene	15	ND	0.36	100	100	500

ND - Non-Detect NA - Not Available
Shaded Value - Exceeds Part 375 SCOs

TABLE 3- 31 TONAWANDA STREET - FLOOR BORING SAMPLES - ANALTICAL RESULTS SUMMARY REV 3-19-15

Sampling Program	PEI - SUB_SLAB SOIL BORING SAMPLING PROGRAM					
Sample/Boring Number	C-1	C-3	C-4	NYSDEC	NYSDEC	NYSDEC
Sample Date	2/18/2015	3/5/2015	3/5/2015	PART 375	PART 375	PART 375
Sample depth (bgs)	8' - 12'	6' - 8'	6' - 8'	Residential	Restrict Res	Commercial
Compounds	ppm	ppm	ppm	(a)	(b)	(c)
VOCs						
cis-1,2-Dichloroethene	72.8 (a)	1.5	0.6	59	100	500
1,1-Dichloroethane	31.5 (a)(b)	0.3	0.9	19	26	240
1,1-Dichloroethene	17.7	ND	ND	100	100	500
1,1,1 -Trichloroethane	670 (a)(b)(c)	4.3	8	100	100	500
Tetrachloroethene	ND	0.3	ND	5.5	19	150
Trichloroethene	15.1 (a)	1630 (a)(b)(c)	244 (a)(b)(c)	10	21	200

ND - Non-Detect NA - Not Available or Not analyzed for
Shaded Value - Exceeds Part 375 SCOs

under the slab adjacent to the eastern wall had similar stratigraphy at the 8-12 feet bgs depth. This stratigraphy was not observed in the two sub-slab borings further west in the building suggesting that creek sediments may not extend that far under the building. It is important to note, that the creek location and width was very different prior to the original development in this area. It is possible that a portion of the building was constructed over what was originally the creek that was later filled either naturally or during urbanization/industrialization of the area.

Both Boring BH-5 located outside the building and the two borings (C-3 and C-4) located furthest west inside the building had elevated levels of Trichloroethene. The sample from boring C-1 however, which was closer to the outside wall and to BH-5, did not have significant levels of Trichloroethene even though the stratigraphy and appearance/odor was similar in these borings and BH-5. Additionally, the levels outside the building were significantly higher than those found below the slab in the further west sub-slab boring soil samples. The samples from borings C-3 and C-4 were also collected within a different stratigraphy at a higher level than BH-5.

The purpose of the scope was to assess if a plume or potential source of the solvents found during the Phase II ESA (BH-5) exists under the building slab in the southeastern portion of the building. Unfortunately, while this sub-slab assessment confirmed that solvents exist under the slab of the building, the results did not definitively determine if the building was the source or possibly influenced from an outside source. The results, however, suggest that the building may be the source based on the depths and location at which solvents were found and based on the different stratigraphy. However, the small sample size does not permit this hypothesis conclusively.

Outside of the chlorinated solvents use as drying agents such as in dry-cleaning, perhaps the greatest use of these solvents has been as a degreaser for metal parts. The most prominent solvent found, Trichloroethene (also known as trichloroethylene and TCE) is used as a solvent to remove grease from metal and has also been used as a paint stripper, adhesive solvent, as an ingredient in paints and varnishes, and in the manufacture of other organic chemicals. Based on the industrial history, these potential uses were associated with the subject property and with adjacent and nearby properties all along the creek. These solvents are common soil contaminants associated with these types of industry. With a specific gravity greater than 1, these solvents will be present as a dense nonaqueous phase liquid or DNAPL and are normally detected at higher concentrations below the water table. This also suggests that the building is the potential source of some of the solvents found since the solvents were detected in the sub-slab soils above the water table zone in samples from C-3 and C-4.

WARRANT AND LIMITATIONS

This report is based on information from a focused sub-surface assessment whose scope of work was formulated based on a previous Phase I and II ESAs on the parcel. The field investigations themselves which comprise this focused assessment consisted of the installation of shallow borings below the slab in the southeastern portion of the 31 Tonawanda Street complex.

This report is intended exclusively for the purpose outlined herein at the site location and for the project indicated. The property and this ESA are limited to the footprint of the parcel.

This report is intended for the sole use of Mr. Wayne Bacon and Mr. Jack Ruh and others with which they choose to share this report. 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. It should be noted that all surface and subsurface environmental assessments are inherently limited in the sense that conclusions are drawn 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 a focused/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 can't necessarily apply to site changes of which PEI is not aware and has not had the opportunity to evaluate.

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

Sincerely,

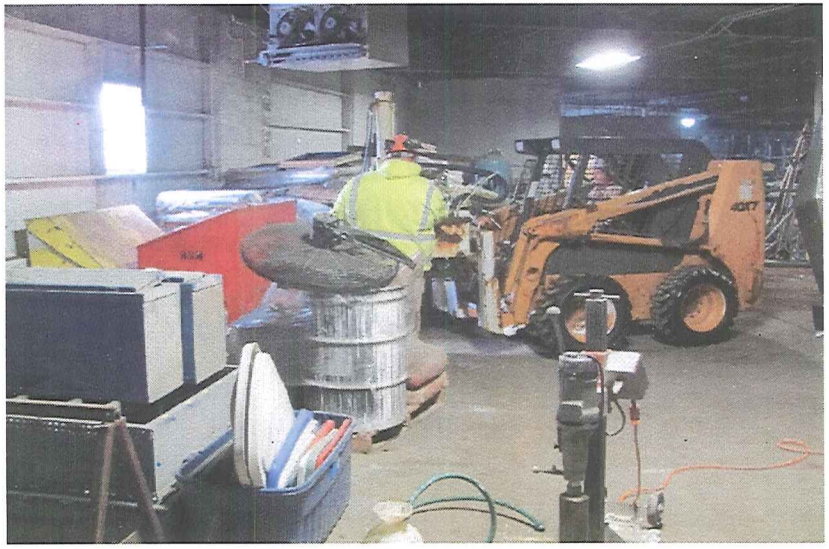
Peter J. Gorton,
President
Panamerican Environmental, Inc.

Attachments: A Site Photographs
B. Laboratory Results

ATTACHMENT A
PHOTOGRAPHS

1. Location of Coring C-1

2. Location of C-1 facing east towards creek



3. Location of C-1

4. Cement core and soil core from 0-4 feet below ground surface at C-1

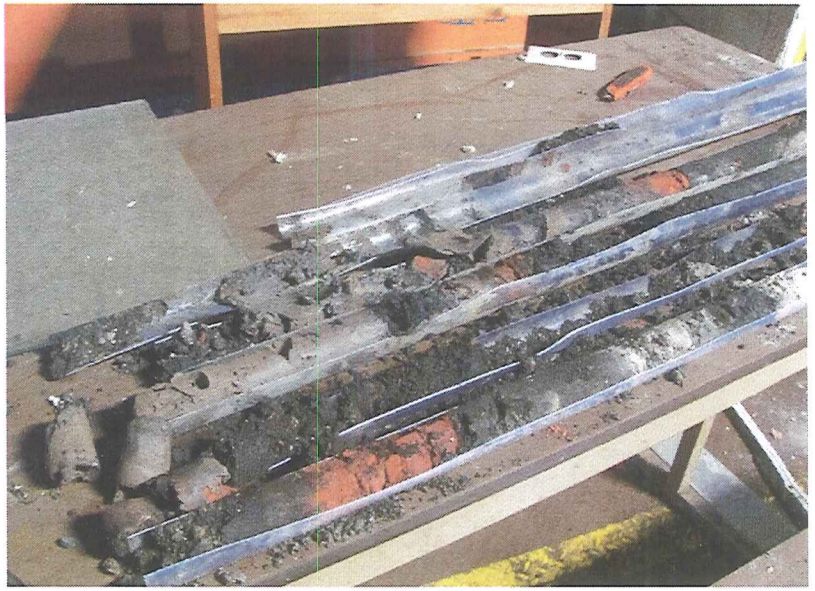
5. C-1 soil core from 4-8 feet below ground surface

6. Location of coring C-2

7. Location of C-2 facing east towards the creek

8. Location of coring C-3

9. Location of C-3



10. Soil cores from C-3

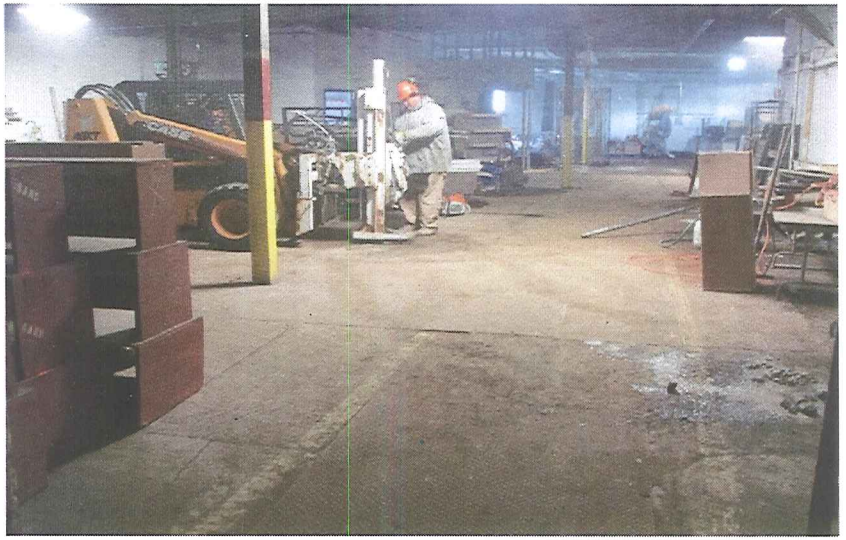
11. Attempted Lcore location with refusal

12. Attempted core location with refusal

13. Core location C-3

14. Cutting metal for core location C-4

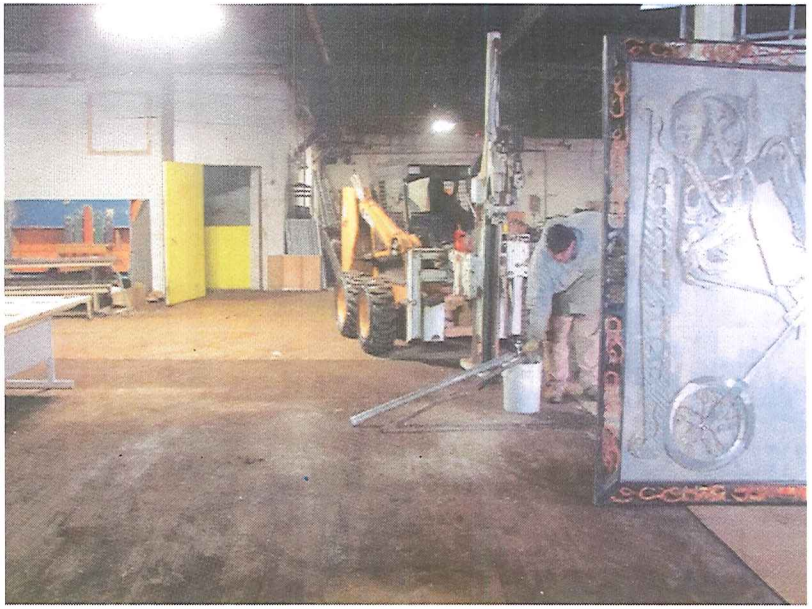
15. Core location C-4



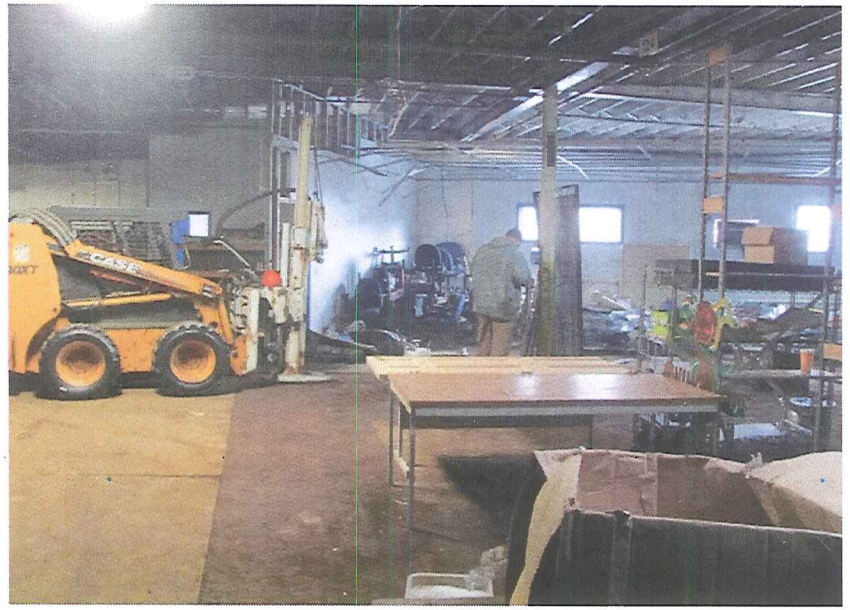
16. Location of C-4 facing south

17. Location C-4 facing north

18. Soil Cores from C-4



19. Attempted core location that had refusal; south side



20. Attempted core location that had refusal; south side facing east

ATTACHMENT B
ANALYTICAL DATA

e-Hardcopy 2.0
Automated Report

New England ACCUTEST LABORATORIES

03/04/15

Technical Report for

Panamerican Environmental, Inc.

31 Tonawanda Street, Buffalo, NY

Accutest Job Number: MC37003

Sampling Date: 02/18/15

Report to:

Panamerican Environmental, Inc.
2390 Clinton Street
Buffalo, NY 14227
pgorton@panamconsultants.com

ATTN: Peter J. Gorton

Total number of pages in report: 23

NELAP ACCREDITED TNI LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Reza Tand
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (lı-A-B L2235)

Test results relate only to samples analyzed.

Table of Contents

Sections: 1 2 3 4 5

Accutest Laboratories

Sample Summary

Panamerican Environmental, Inc.

31 Tonawanda Street, Buffalo, NY

Job No: MC37003

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
MC37003-1	02/18/15	11:50	PG	02/23/15	SO	Soil	FLOOR BORING 1

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Summary of Hits

Job Number: MC37003
Account: Panamerican Environmental, Inc.
Project: 31 Tonawanda Street, Buffalo, NY
Collected: 02/18/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC37003-1	FLOOR BORING 1					
1,1-Dichloroethane		31500	4100		ug/kg	SW846 8260C
1,1-Dichloroethene		17700	4100		ug/kg	SW846 8260C
cis-1,2-Dichloroethene		72800	4100		ug/kg	SW846 8260C
1,1,1-Trichloroethane		670000	4100		ug/kg	SW846 8260C
Trichloroethene		15100	4100		ug/kg	SW846 8260C

New England ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	FLOOR BORING 1		
Lab Sample ID:	MC37003-1	**Date Sampled:**	02/18/15
Matrix:	SO - Soil	**Date Received:**	02/23/15
Method:	SW846 8260C	**Percent Solids:**	67.1
Project:	31 Tonawanda Street, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K85756.D	1	02/27/15	JM	n/a	n/a	MSK2682
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	9.65 g	10.0 ml	5.0 ul
Run #2			

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20000	ug/kg	
71-43-2	Benzene	ND	1000	ug/kg	
108-86-1	Bromobenzene	ND	10000	ug/kg	
74-97-5	Bromochloromethane	ND	10000	ug/kg	
75-27-4	Bromodichloromethane	ND	4100	ug/kg	
75-25-2	Bromoform	ND	4100	ug/kg	
74-83-9	Bromomethane	ND	4100	ug/kg	
78-93-3	2-Butanone (MEK)	ND	20000	ug/kg	
104-51-8	n-Butylbenzene	ND	10000	ug/kg	
135-98-8	sec-Butylbenzene	ND	10000	ug/kg	
98-06-6	tert-Butylbenzene	ND	10000	ug/kg	
75-15-0	Carbon disulfide	ND	10000	ug/kg	
56-23-5	Carbon tetrachloride	ND	4100	ug/kg	
108-90-7	Chlorobenzene	ND	4100	ug/kg	
75-00-3	Chloroethane	ND	10000	ug/kg	
67-66-3	Chloroform	ND	4100	ug/kg	
74-87-3	Chloromethane	ND	10000	ug/kg	
95-49-8	o-Chlorotoluene	ND	10000	ug/kg	
106-43-4	p-Chlorotoluene	ND	10000	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10000	ug/kg	
124-48-1	Dibromochloromethane	ND	4100	ug/kg	
106-93-4	1,2-Dibromoethane	ND	4100	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	4100	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	4100	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	4100	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	4100	ug/kg	
75-34-3	1,1-Dichloroethane	31500	4100	ug/kg	
107-06-2	1,2-Dichloroethane	ND	4100	ug/kg	
75-35-4	1,1-Dichloroethene	17700	4100	ug/kg	
156-59-2	cis-1,2-Dichloroethene	72800	4100	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	4100	ug/kg	
78-87-5	1,2-Dichloropropane	ND	4100	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FLOOR BORING 1		
Lab Sample ID:	MC37003-1	**Date Sampled:**	02/18/15
Matrix:	SO - Soil	**Date Received:**	02/23/15
Method:	SW846 8260C	**Percent Solids:**	67.1
Project:	31 Tonawanda Street, Buffalo, NY		

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	10000	ug/kg	
594-20-7	2,2-Dichloropropane	ND	10000	ug/kg	
563-58-6	1,1-Dichloropropene	ND	10000	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	4100	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	4100	ug/kg	
100-41-4	Ethylbenzene	ND	4100	ug/kg	
87-68-3	Hexachlorobutadiene	ND	10000	ug/kg	
591-78-6	2-Hexanone	ND	20000	ug/kg	
74-88-4	Iodomethane	ND	10000	ug/kg	
98-82-8	Isopropylbenzene	ND	10000	ug/kg	
99-87-6	p-Isopropyltoluene	ND	10000	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	4100	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	10000	ug/kg	
74-95-3	Methylene bromide	ND	10000	ug/kg	
75-09-2	Methylene chloride	ND	4100	ug/kg	
91-20-3	Naphthalene	ND	10000	ug/kg	
103-65-1	n-Propylbenzene	ND	10000	ug/kg	
100-42-5	Styrene	ND	10000	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	10000	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	4100	ug/kg	
127-18-4	Tetrachloroethene	ND	4100	ug/kg	
108-88-3	Toluene	ND	10000	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	10000	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	10000	ug/kg	
71-55-6	1,1,1-Trichloroethane	670000	4100	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	4100	ug/kg	
79-01-6	Trichloroethene	15100	4100	ug/kg	
75-69-4	Trichlorofluoromethane	ND	4100	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	10000	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	10000	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	10000	ug/kg	
108-05-4	Vinyl Acetate	ND	10000	ug/kg	
75-01-4	Vinyl chloride	ND	4100	ug/kg	
	m,p-Xylene	ND	4100	ug/kg	
95-47-6	o-Xylene	ND	4100	ug/kg	
1330-20-7	Xylene (total)	ND	4100	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		65-141%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FLOOR BORING 1		
Lab Sample ID:	MC37003-1	**Date Sampled:**	02/18/15
Matrix:	SO - Soil	**Date Received:**	02/23/15
Method:	SW846 8260C	**Percent Solids:**	67.1
Project:	31 Tonawanda Street, Buffalo, NY		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	97%		65-129%
460-00-4	4-Bromofluorobenzene	96%		63-137%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

New England ACCUTEST LABORATORIES

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Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

Accutest Laboratories of New England
495 Technology Center West, Building One
TEL. 508-481-6200 FAX: 508-481-7753
www.accutest.com

PAGE 1 OF 1

Accutest Job #: MC37003

Client / Reporting Information

Company Name: PANAMERICAN ENV.
Street Address: 2390 CLINTON ST
City: BUFFALO State: NY Zip: 14227
Project Contact: PETER J. GORTON
Phone #: 716-821-1650 Fax #: 716-821-1607
Sampler(s) Name(s): P. GORTON

Project Information

Project Name: 31 TONAWANDA STREET
Street: 31 TONAWANDA ST
City: BUFFALO, N.Y.
Project Manager: PETER GORTON

Billing Information (If different from Report to)

Requested Analysis: VOCs PLUS CHLORINATED SOLVENTS

Accutest Sample #	Field ID / Point of Collection	Date	Time	Sampled by	Matrix	# of bottles
-1	FLOOR BORING 1	2-18-15	1150	P/bm	SO	2

Matrix Codes: DW - Drinking Water, GW - Ground Water, WW - Water, SW - Surface Water, SO - Soil, SL - Sludge, SED - Sediment, OI - Oil, LIQ - Other Liquid, AIR - Air, SOL - Other Solid, WP - Wipe, FB - Field Blank, EB - Equipment Blank, RB - Rinse Blank, TB - Trip Blank

LAB USE ONLY: 105

Turnaround Time (Business days): Std. 10 Business Days; Std. 5 Business Days (By Contract only); 5 Day RUSH; 3 Day EMERGENCY; 2 Day EMERGENCY; 1 Day EMERGENCY

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information: Commercial "A" (Level 1); Commercial "B" (Level 2); FULLT1 (Level 3+4); CT RCP; MA MCP; NYASP Category A; NYASP Category B; State Forms; EDD Format; Other

Commercial "A" = Results Only; Commercial "B" = Results + QC Summary

Comments / Special Instructions: VOC'S PLUS SOLVENTS CHLORINATED SOLVENTS

ACCUTEST SYRACUSE-SC

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by	Date Time	Received By
1	Peter J. Gorton	2-19-15 / 6:00 PM	1
2	FEDEX	2-23-15 / 0930	3 [signature]

On Ice: 4.1°C Cooler Temp.

MC37003: Chain of Custody
Page 1 of 3

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC37003 **Client:** panamerican **Immediate Client Services Action Required:** No

Date / Time Received: 2/23/2015 10:30:00 AM **Delivery Method:** FedEx

Project: 31 tonawanda street **No. Coolers:** **Airbill #'s:**

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:			
3. Cooler media:			

Quality Control Preservation	Y	N	N/A
1. Trip Blank present / cooler:	☐	☑	
2. Trip Blank listed on COC:	☐	☑	
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☐	☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample rec'd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☐	☑	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume rec'd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

no analysis checked off

4.1
4

Accutest Laboratories
V:508.481.6200
495 Technology Center West, Bldg One
F: 508.481.7753
Marlborough, MA
www.accutest.com

Sample Receipt Summary - Problem Resolution

Accutest Job Number: MC37003

CSR: Jeremy Vienneau **Response Date:** 2/23/2015

Response: The client confirmed that they would like to run V8260STD for this sample. See email in file.

4.1
4

Accutest Laboratories
V:508.481.6200
495 Technology Center West, Bldg One
F: 508.481.7753
Marlborough, MA
www.accutest.com

New England ACCUTEST LABORATORIES

GC/MS Volatiles

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QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC37003
Account: PAENYB Panamerican Environmental, Inc.
Project: 31 Tonawanda Street, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2682-MB	K85755.D	1	02/27/15	JM	n/a	n/a	MSK2682

The QC reported here applies to the following samples: Method: SW846 8260C

MC37003-1

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	500	ug/kg	
71-43-2	Benzene	ND	25	ug/kg	
108-86-1	Bromobenzene	ND	250	ug/kg	
74-97-5	Bromochloromethane	ND	250	ug/kg	
75-27-4	Bromodichloromethane	ND	100	ug/kg	
75-25-2	Bromoform	ND	100	ug/kg	
74-83-9	Bromomethane	ND	100	ug/kg	
78-93-3	2-Butanone (MEK)	ND	500	ug/kg	
104-51-8	n-Butylbenzene	ND	250	ug/kg	
135-98-8	sec-Butylbenzene	ND	250	ug/kg	
98-06-6	tert-Butylbenzene	ND	250	ug/kg	
75-15-0	Carbon disulfide	ND	250	ug/kg	
56-23-5	Carbon tetrachloride	ND	100	ug/kg	
108-90-7	Chlorobenzene	ND	100	ug/kg	
75-00-3	Chloroethane	ND	250	ug/kg	
67-66-3	Chloroform	ND	100	ug/kg	
74-87-3	Chloromethane	ND	250	ug/kg	
95-49-8	o-Chlorotoluene	ND	250	ug/kg	
106-43-4	p-Chlorotoluene	ND	250	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	250	ug/kg	
124-48-1	Dibromochloromethane	ND	100	ug/kg	
106-93-4	1,2-Dibromoethane	ND	100	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	100	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	100	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	100	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	100	ug/kg	
75-34-3	1,1-Dichloroethane	ND	100	ug/kg	
107-06-2	1,2-Dichloroethane	ND	100	ug/kg	
75-35-4	1,1-Dichloroethene	ND	100	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	100	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	100	ug/kg	
78-87-5	1,2-Dichloropropane	ND	100	ug/kg	
142-28-9	1,3-Dichloropropane	ND	250	ug/kg	
594-20-7	2,2-Dichloropropane	ND	250	ug/kg	
563-58-6	1,1-Dichloropropene	ND	250	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	100	ug/kg	

Method Blank Summary

Job Number: MC37003
Account: PAENYB Panamerican Environmental, Inc.
Project: 31 Tonawanda Street, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2682-MB	K85755.D	1	02/27/15	JM	n/a	n/a	MSK2682

5.1.1

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The QC reported here applies to the following samples: Method: SW846 8260C

MC37003-1

CAS No.	Compound	Result	RL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	100	ug/kg	
100-41-4	Ethylbenzene	ND	100	ug/kg	
87-68-3	Hexachlorobutadiene	ND	250	ug/kg	
591-78-6	2-Hexanone	ND	500	ug/kg	
74-88-4	Iodomethane	ND	250	ug/kg	
98-82-8	Isopropylbenzene	ND	250	ug/kg	
99-87-6	p-Isopropyltoluene	ND	250	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	100	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	250	ug/kg	
74-95-3	Methylene bromide	ND	250	ug/kg	
75-09-2	Methylene chloride	ND	100	ug/kg	
91-20-3	Naphthalene	ND	250	ug/kg	
103-65-1	n-Propylbenzene	ND	250	ug/kg	
100-42-5	Styrene	ND	250	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	250	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	100	ug/kg	
127-18-4	Tetrachloroethene	ND	100	ug/kg	
108-88-3	Toluene	ND	250	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	250	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	250	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	100	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	100	ug/kg	
79-01-6	Trichloroethene	ND	100	ug/kg	
75-69-4	Trichlorofluoromethane	ND	100	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	250	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	250	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	250	ug/kg	
108-05-4	Vinyl Acetate	ND	250	ug/kg	
75-01-4	Vinyl chloride	ND	100	ug/kg	
	m,p-Xylene	ND	100	ug/kg	
95-47-6	o-Xylene	ND	100	ug/kg	
1330-20-7	Xylene (total)	ND	100	ug/kg	

Method Blank Summary

Job Number: MC37003
Account: PAENYB Panamerican Environmental, Inc.
Project: 31 Tonawanda Street, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2682-MB	K85755.D	1	02/27/15	JM	n/a	n/a	MSK2682

5.1.1

5

The QC reported here applies to the following samples: Method: SW846 8260C

MC37003-1

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	102%	65-141%
2037-26-5	Toluene-D8	91%	65-129%
460-00-4	4-Bromofluorobenzene	95%	63-137%

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC37003
Account: PAENYB Panamerican Environmental, Inc.
Project: 31 Tonawanda Street, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2682-BS	K85752.D	1	02/27/15	JM	n/a	n/a	MSK2682
MSK2682-BSD	K85753.D	1	02/27/15	JM	n/a	n/a	MSK2682

The QC reported here applies to the following samples: Method: SW846 8260C

MC37003-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	2500	2180	87	2610	104	18	18-185/25
71-43-2	Benzene	2500	2350	94	2280	91	3	67-124/25
108-86-1	Bromobenzene	2500	2510	100	2480	99	1	78-121/25
74-97-5	Bromochloromethane	2500	2370	95	2370	95	0	78-128/25
75-27-4	Bromodichloromethane	2500	2450	98	2400	96	2	75-136/25
75-25-2	Bromoform	2500	2410	96	2430	97	1	64-154/25
74-83-9	Bromomethane	2500	2270	91	2070	83	9	55-141/25
78-93-3	2-Butanone (MEK)	2500	2030	81	2240	90	10	24-181/25
104-51-8	n-Butylbenzene	2500	2490	100	2470	99	1	68-129/25
135-98-8	sec-Butylbenzene	2500	2560	102	2530	101	1	71-128/25
98-06-6	tert-Butylbenzene	2500	2610	104	2570	103	2	67-128/25
75-15-0	Carbon disulfide	2500	3000	120	2770	111	8	46-150/25
56-23-5	Carbon tetrachloride	2500	2430	97	2360	94	3	60-146/25
108-90-7	Chlorobenzene	2500	2410	96	2360	94	2	79-122/25
75-00-3	Chloroethane	2500	2740	110	2720	109	1	53-165/25
67-66-3	Chloroform	2500	2310	92	2260	90	2	68-130/25
74-87-3	Chloromethane	2500	2270	91	2090	84	8	44-154/25
95-49-8	o-Chlorotoluene	2500	2400	96	2360	94	2	71-122/25
106-43-4	p-Chlorotoluene	2500	2350	94	2310	92	2	72-119/25
96-12-8	1,2-Dibromo-3-chloropropane	2500	2520	101	2490	100	1	53-138/25
124-48-1	Dibromochloromethane	2500	2510	100	2560	102	2	73-143/25
106-93-4	1,2-Dibromoethane	2500	2590	104	2550	102	2	77-125/25
95-50-1	1,2-Dichlorobenzene	2500	2390	96	2400	96	0	77-123/25
541-73-1	1,3-Dichlorobenzene	2500	2360	94	2380	95	1	76-120/25
106-46-7	1,4-Dichlorobenzene	2500	2370	95	2410	96	2	75-122/25
75-71-8	Dichlorodifluoromethane	2500	3070	123	2720	109	12	25-168/25
75-34-3	1,1-Dichloroethane	2500	2290	92	2190	88	4	67-134/25
107-06-2	1,2-Dichloroethane	2500	2410	96	2400	96	0	66-134/25
75-35-4	1,1-Dichloroethene	2500	3010	120	2800	112	7	57-141/25
156-59-2	cis-1,2-Dichloroethene	2500	2470	99	2420	97	2	68-129/25
156-60-5	trans-1,2-Dichloroethene	2500	2360	94	2300	92	3	66-132/25
78-87-5	1,2-Dichloropropane	2500	2540	102	2500	100	2	68-132/25
142-28-9	1,3-Dichloropropane	2500	2740	110	2790	112	2	78-119/25
594-20-7	2,2-Dichloropropane	2500	3130	125	2910	116	7	52-153/25
563-58-6	1,1-Dichloropropene	2500	2320	93	2290	92	1	73-129/25
10061-01-5	cis-1,3-Dichloropropene	2500	2600	104	2630	105	1	80-125/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC37003
Account: PAENYB Panamerican Environmental, Inc.
Project: 31 Tonawanda Street, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2682-BS	K85752.D	1	02/27/15	JM	n/a	n/a	MSK2682
MSK2682-BSD	K85753.D	1	02/27/15	JM	n/a	n/a	MSK2682

The QC reported here applies to the following samples: Method: SW846 8260C

MC37003-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	2500	2540	102	2460	98	3	80-134/25
100-41-4	Ethylbenzene	2500	2530	101	2480	99	2	75-120/25
87-68-3	Hexachlorobutadiene	2500	2920	117	2840	114	3	68-137/25
591-78-6	2-Hexanone	2500	1940	78	2010	80	4	38-152/25
74-88-4	Iodomethane	2500	3110	124	2940	118	6	64-133/25
98-82-8	Isopropylbenzene	2500	2540	102	2490	100	2	70-129/25
99-87-6	p-Isopropyltoluene	2500	2600	104	2540	102	2	73-126/25
1634-04-4	Methyl Tert Butyl Ether	2500	3080	123	2970	119	4	64-126/25
108-10-1	4-Methyl-2-pentanone (MIBK)	2500	2520	101	2520	101	0	63-126/25
74-95-3	Methylene bromide	2500	2430	97	2390	96	2	81-123/25
75-09-2	Methylene chloride	2500	2730	109	2640	106	3	52-144/25
91-20-3	Naphthalene	2500	2630	105	2560	102	3	51-164/25
103-65-1	n-Propylbenzene	2500	2360	94	2340	94	1	68-129/25
100-42-5	Styrene	2500	2440	98	2420	97	1	77-126/25
630-20-6	1,1,1,2-Tetrachloroethane	2500	2670	107	2680	107	0	72-141/25
79-34-5	1,1,2,2-Tetrachloroethane	2500	2650	106	2620	105	1	65-130/25
127-18-4	Tetrachloroethene	2500	2640	106	2590	104	2	71-128/25
108-88-3	Toluene	2500	2460	98	2330	93	5	76-122/25
87-61-6	1,2,3-Trichlorobenzene	2500	2880	115	2790	112	3	44-162/25
120-82-1	1,2,4-Trichlorobenzene	2500	2770	111	2700	108	3	60-147/25
71-55-6	1,1,1-Trichloroethane	2500	2600	104	2480	99	5	64-138/25
79-00-5	1,1,2-Trichloroethane	2500	2500	100	2430	97	3	76-122/25
79-01-6	Trichloroethene	2500	2510	100	2470	99	2	73-123/25
75-69-4	Trichlorofluoromethane	2500	4450	178* [a]	4010	160* [a]	10	57-141/25
96-18-4	1,2,3-Trichloropropane	2500	2580	103	2590	104	0	69-124/25
95-63-6	1,2,4-Trimethylbenzene	2500	2450	98	2420	97	1	73-124/25
108-67-8	1,3,5-Trimethylbenzene	2500	2660	106	2600	104	2	69-122/25
108-05-4	Vinyl Acetate	2500	4730	189* [a]	4600	184	3	10-186/25
75-01-4	Vinyl chloride	2500	3650	146	2860	114	24	31-170/25
	m,p-Xylene	5000	4830	97	4770	95	1	77-121/25
95-47-6	o-Xylene	2500	2410	96	2390	96	1	78-122/25
1330-20-7	Xylene (total)	7500	7240	97	7160	95	1	78-121/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC37003
Account: PAENYB Panamerican Environmental, Inc.
Project: 31 Tonawanda Street, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2682-BS	K85752.D	1	02/27/15	JM	n/a	n/a	MSK2682
MSK2682-BSD	K85753.D	1	02/27/15	JM	n/a	n/a	MSK2682

5.2.1

5

The QC reported here applies to the following samples: Method: SW846 8260C

MC37003-1

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	98%	97%	65-141%
2037-26-5	Toluene-D8	101%	100%	65-129%
460-00-4	4-Bromofluorobenzene	101%	100%	63-137%

(a) Outside control limits. Associated samples are non-detect for this compound.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37003
Account: PAENYB Panamerican Environmental, Inc.
Project: 31 Tonawanda Street, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC36980-1MS	K85763.D	1	02/27/15	JM	n/a	n/a	MSK2682
MC36980-1MSD	K85764.D	1	02/27/15	JM	n/a	n/a	MSK2682
MC36980-1	K85757.D	1	02/27/15	JM	n/a	n/a	MSK2682

5.3.1

5

The QC reported here applies to the following samples: Method: SW846 8260C

MC37003-1

CAS No.	Compound	MC36980-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		4110	3460	84	4110	5670	138	48* [a]	10-200/30
71-43-2	Benzene	ND		4110	3880	94	4110	3690	90	5	34-139/30
108-86-1	Bromobenzene	ND		4110	4110	100	4110	4070	99	1	10-157/30
74-97-5	Bromochloromethane	ND		4110	3800	92	4110	3830	93	1	46-143/30
75-27-4	Bromodichloromethane	ND		4110	3990	97	4110	3850	94	4	37-153/30
75-25-2	Bromoform	ND		4110	3820	93	4110	4020	98	5	20-168/30
74-83-9	Bromomethane	ND		4110	3430	83	4110	3410	83	1	31-147/30
78-93-3	2-Butanone (MEK)	ND		4110	3880	94	4110	4280	104	10	10-200/30
104-51-8	n-Butylbenzene	2100		4110	6370	104	4110	5950	94	7	10-164/30
135-98-8	sec-Butylbenzene	433		4110	4570	101	4110	4500	99	2	15-160/30
98-06-6	tert-Butylbenzene	ND		4110	4210	102	4110	4280	104	2	16-158/30
75-15-0	Carbon disulfide	ND		4110	4170	101	4110	4790	117	14	21-159/30
56-23-5	Carbon tetrachloride	ND		4110	3930	96	4110	3760	91	4	37-154/30
108-90-7	Chlorobenzene	ND		4110	3930	96	4110	3890	95	1	20-150/30
75-00-3	Chloroethane	ND		4110	4590	112	4110	4290	104	7	30-173/30
67-66-3	Chloroform	ND		4110	3650	89	4110	3620	88	1	44-138/30
74-87-3	Chloromethane	ND		4110	3370	82	4110	3620	88	7	25-157/30
95-49-8	o-Chlorotoluene	ND		4110	5170	126	4110	4920	120	5	10-160/30
106-43-4	p-Chlorotoluene	ND		4110	3940	96	4110	3800	92	4	10-153/30
96-12-8	1,2-Dibromo-3-chloropropane	ND		4110	4280	104	4110	5060	123	17	10-168/30
124-48-1	Dibromochloromethane	ND		4110	4000	97	4110	4180	102	4	32-157/30
106-93-4	1,2-Dibromoethane	ND		4110	3950	96	4110	4290	104	8	26-153/30
95-50-1	1,2-Dichlorobenzene	ND		4110	3900	95	4110	3790	92	3	10-160/30
541-73-1	1,3-Dichlorobenzene	ND		4110	3840	93	4110	3720	91	3	10-156/30
106-46-7	1,4-Dichlorobenzene	ND		4110	3870	94	4110	3780	92	2	10-159/30
75-71-8	Dichlorodifluoromethane	ND		4110	5270	128	4110	4770	116	10	10-169/30
75-34-3	1,1-Dichloroethane	ND		4110	3580	87	4110	3550	86	1	45-145/30
107-06-2	1,2-Dichloroethane	ND		4110	3930	96	4110	3920	95	0	40-144/30
75-35-4	1,1-Dichloroethene	ND		4110	4110	100	4110	4920	120	18	35-153/30
156-59-2	cis-1,2-Dichloroethene	ND		4110	3970	97	4110	3890	95	2	33-146/30
156-60-5	trans-1,2-Dichloroethene	ND		4110	3530	86	4110	3700	90	5	35-147/30
78-87-5	1,2-Dichloropropane	ND		4110	4220	103	4110	4060	99	4	38-146/30
142-28-9	1,3-Dichloropropane	ND		4110	4310	105	4110	4470	109	4	31-146/30
594-20-7	2,2-Dichloropropane	ND		4110	4740	115	4110	4450	108	6	26-159/30
563-58-6	1,1-Dichloropropene	ND		4110	3830	93	4110	3630	88	5	40-146/30
10061-01-5	cis-1,3-Dichloropropene	ND		4110	4400	107	4110	4360	106	1	29-150/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37003
Account: PAENYB Panamerican Environmental, Inc.
Project: 31 Tonawanda Street, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC36980-1MS	K85763.D	1	02/27/15	JM	n/a	n/a	MSK2682
MC36980-1MSD	K85764.D	1	02/27/15	JM	n/a	n/a	MSK2682
MC36980-1	K85757.D	1	02/27/15	JM	n/a	n/a	MSK2682

The QC reported here applies to the following samples: Method: SW846 8260C

MC37003-1

CAS No.	Compound	MC36980-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	ND		4110	4110	100	4110	4170	101	1	22-163/30
100-41-4	Ethylbenzene	1470		4110	5780	105	4110	5490	98	5	24-146/30
87-68-3	Hexachlorobutadiene	ND		4110	5580	136	4110	6080	148	9	10-167/30
591-78-6	2-Hexanone	ND		4110	4190	102	4110	4800	117	14	10-177/30
74-88-4	Iodomethane	ND		4110	4470	109	4110	5020	122	12	41-141/30
98-82-8	Isopropylbenzene	447		4110	4540	100	4110	4390	96	3	20-158/30
99-87-6	p-Isopropyltoluene	290		4110	4670	107	4110	4600	105	2	12-161/30
1634-04-4	Methyl Tert Butyl Ether	ND		4110	4850	118	4110	5110	124	5	47-138/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		4110	4750	116	4110	5160	126	8	34-166/30
74-95-3	Methylene bromide	ND		4110	3820	93	4110	3950	96	3	39-147/30
75-09-2	Methylene chloride	ND		4110	3940	96	4110	4520	110	14	36-147/30
91-20-3	Naphthalene	3020		4110	6290	80	4110	7540	110	18	10-188/30
103-65-1	n-Propylbenzene	1670		4110	5700	98	4110	5380	90	6	10-167/30
100-42-5	Styrene	ND		4110	4210	102	4110	4030	98	4	10-165/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		4110	4360	106	4110	4160	101	5	32-154/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		4110	4110	100	4110	4650	113	12	16-161/30
127-18-4	Tetrachloroethene	ND		4110	4150	101	4110	4120	100	1	30-148/30
108-88-3	Toluene	101		4110	4230	100	4110	3990	95	6	30-147/30
87-61-6	1,2,3-Trichlorobenzene	ND		4110	3230	79	4110	5000	122	43* [a]	10-169/30
120-82-1	1,2,4-Trichlorobenzene	ND		4110	3820	93	4110	4490	109	16	10-170/30
71-55-6	1,1,1-Trichloroethane	ND		4110	4280	104	4110	4100	100	4	42-148/30
79-00-5	1,1,2-Trichloroethane	ND		4110	4250	103	4110	4270	104	0	35-150/30
79-01-6	Trichloroethene	ND		4110	4170	101	4110	4000	97	4	22-163/30
75-69-4	Trichlorofluoromethane	ND		4110	6750	164* [b]	4110	6920	168* [b]	2	32-146/30
96-18-4	1,2,3-Trichloropropane	ND		4110	3850	94	4110	4330	105	12	23-154/30
95-63-6	1,2,4-Trimethylbenzene	15600		4110	19900	105	4110	18600	73	7	10-173/30
108-67-8	1,3,5-Trimethylbenzene	4400		4110	8900	109	4110	8460	99	5	10-161/30
108-05-4	Vinyl Acetate	ND		4110	7030	171	4110	7210	175	3	10-187/30
75-01-4	Vinyl chloride	ND		4110	7720	188* [c]	4110	5330	130	37* [a]	10-182/30
	m,p-Xylene	5900		8220	14000	99	8220	13200	89	6	25-147/30
95-47-6	o-Xylene	1040		4110	5310	104	4110	4920	94	8	24-147/30
1330-20-7	Xylene (total)	6940		12300	19300	100	12300	18100	91	6	25-147/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC37003
Account: PAENYB Panamerican Environmental, Inc.
Project: 31 Tonawanda Street, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC36980-1MS	K85763.D	1	02/27/15	JM	n/a	n/a	MSK2682
MC36980-1MSD	K85764.D	1	02/27/15	JM	n/a	n/a	MSK2682
MC36980-1	K85757.D	1	02/27/15	JM	n/a	n/a	MSK2682

The QC reported here applies to the following samples: Method: SW846 8260C

MC37003-1

CAS No.	Surrogate Recoveries	MS	MSD	MC36980-1	Limits
1868-53-7	Dibromofluoromethane	97%	96%	100%	65-141%
2037-26-5	Toluene-D8	105%	102%	96%	65-129%
460-00-4	4-Bromofluorobenzene	102%	107%	103%	63-137%

(a) High RPD due to possible matrix interference and/or sample non-homogeneity.
(b) Outside control limits. Associated samples are non-detect for this compound.
(c) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

Volatile Surrogate Recovery Summary

Job Number: MC37003
Account: PAENYB Panamerican Environmental, Inc.
Project: 31 Tonawanda Street, Buffalo, NY

Method: SW846 8260C Matrix: SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC37003-1	K85756.D	102	97	96
MC36980-1MS	K85763.D	97	105	102
MC36980-1MSD	K85764.D	96	102	107
MSK2682-BS	K85752.D	98	101	101
MSK2682-BSD	K85753.D	97	100	100
MSK2682-MB	K85755.D	102	91	95

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	65-141%
S2 = Toluene-D8	65-129%
S3 = 4-Bromofluorobenzene	63-137%

e-Hardcopy 2.0
Automated Report

New England ACCUTEST LABORATORIES

03/19/15

Technical Report for

Panamerican Environmental, Inc.

31 Tonawanda Street, Buffalo, NY

Accutest Job Number: MC37195

Sampling Date: 03/05/15

Report to:

Panamerican Environmental, Inc.
2390 Clinton Street
Buffalo, NY 14227
pgorton@panamconsultants.com

ATTN: Peter J. Gorton

Total number of pages in report: 14

NELAP ACCREDITED TNI LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Reza Fand
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

Test results relate only to samples analyzed.

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Accutest Laboratories

Sample Summary

Panamerican Environmental, Inc.

31 Tonawanda Street, Buffalo, NY

Job No: MC37195

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
MC37195-1	03/05/15	10:20 PG	03/07/15	SO	Soil	C-3
MC37195-2	03/05/15	11:50 PG	03/07/15	SO	Soil	C-4

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Summary of Hits

Job Number: MC37195
Account: Panamerican Environmental, Inc.
Project: 31 Tonawanda Street, Buffalo, NY
Collected: 03/05/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC37195-1	C-3					
1,1-Dichloroethane		298	110		ug/kg	SW846 8260C
cis-1,2-Dichloroethene		1540	110		ug/kg	SW846 8260C
Tetrachloroethene		128	110		ug/kg	SW846 8260C
1,1,1-Trichloroethane		4290	110		ug/kg	SW846 8260C
Trichloroethene		1630000	45000		ug/kg	SW846 8260C
MC37195-2	C-4					
1,1-Dichloroethane		873	130		ug/kg	SW846 8260C
cis-1,2-Dichloroethene		569	130		ug/kg	SW846 8260C
1,1,1-Trichloroethane		8000	130		ug/kg	SW846 8260C
Trichloroethene		244000	1300		ug/kg	SW846 8260C

New England ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	C-3		
Lab Sample ID:	MC37195-1	Date Sampled:	03/05/15
Matrix:	SO - Soil	Date Received:	03/07/15
Method:	SW846 8260C	Percent Solids:	89.4
Project:	31 Tonawanda Street, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K85938.D	1	03/10/15	JM	n/a	n/a	MSK2687
Run #2	K85987.D	1	03/16/15	JM	n/a	n/a	MSK2689

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	11.0 g	10.0 ml	100 ul
Run #2	11.0 g	10.0 ml	0.25 ul

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	570	ug/kg	
71-43-2	Benzene	ND	28	ug/kg	
108-86-1	Bromobenzene	ND	280	ug/kg	
74-97-5	Bromochloromethane	ND	280	ug/kg	
75-27-4	Bromodichloromethane	ND	110	ug/kg	
75-25-2	Bromoform	ND	110	ug/kg	
74-83-9	Bromomethane	ND	110	ug/kg	
78-93-3	2-Butanone (MEK)	ND	570	ug/kg	
104-51-8	n-Butylbenzene	ND	280	ug/kg	
135-98-8	sec-Butylbenzene	ND	280	ug/kg	
98-06-6	tert-Butylbenzene	ND	280	ug/kg	
75-15-0	Carbon disulfide	ND	280	ug/kg	
56-23-5	Carbon tetrachloride	ND	110	ug/kg	
108-90-7	Chlorobenzene	ND	110	ug/kg	
75-00-3	Chloroethane	ND	280	ug/kg	
67-66-3	Chloroform	ND	110	ug/kg	
74-87-3	Chloromethane	ND	280	ug/kg	
95-49-8	o-Chlorotoluene	ND	280	ug/kg	
106-43-4	p-Chlorotoluene	ND	280	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	280	ug/kg	
124-48-1	Dibromochloromethane	ND	110	ug/kg	
106-93-4	1,2-Dibromoethane	ND	110	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	110	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	110	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	110	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	110	ug/kg	
75-34-3	1,1-Dichloroethane	298	110	ug/kg	
107-06-2	1,2-Dichloroethane	ND	110	ug/kg	
75-35-4	1,1-Dichloroethene	ND	110	ug/kg	
156-59-2	cis-1,2-Dichloroethene	1540	110	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	110	ug/kg	
78-87-5	1,2-Dichloropropane	ND	110	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	C-3		
Lab Sample ID:	MC37195-1	**Date Sampled:**	03/05/15
Matrix:	SO - Soil	**Date Received:**	03/07/15
Method:	SW846 8260C	**Percent Solids:**	89.4
Project:	31 Tonawanda Street, Buffalo, NY		

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	280	ug/kg	
594-20-7	2,2-Dichloropropane	ND	280	ug/kg	
563-58-6	1,1-Dichloropropene	ND	280	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	110	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	110	ug/kg	
100-41-4	Ethylbenzene	ND	110	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	ug/kg	
591-78-6	2-Hexanone	ND	570	ug/kg	
74-88-4	Iodomethane	ND	280	ug/kg	
98-82-8	Isopropylbenzene	ND	280	ug/kg	
99-87-6	p-Isopropyltoluene	ND	280	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	110	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	280	ug/kg	
74-95-3	Methylene bromide	ND	280	ug/kg	
75-09-2	Methylene chloride	ND	110	ug/kg	
91-20-3	Naphthalene	ND	280	ug/kg	
103-65-1	n-Propylbenzene	ND	280	ug/kg	
100-42-5	Styrene	ND	280	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	280	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	110	ug/kg	
127-18-4	Tetrachloroethene	128	110	ug/kg	
108-88-3	Toluene	ND	280	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	280	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	280	ug/kg	
71-55-6	1,1,1-Trichloroethane	4290	110	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	110	ug/kg	
79-01-6	Trichloroethene	1630000 [a]	45000	ug/kg	
75-69-4	Trichlorofluoromethane	ND	110	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	280	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	280	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	280	ug/kg	
108-05-4	Vinyl Acetate	ND	280	ug/kg	
75-01-4	Vinyl chloride	ND	110	ug/kg	
	m,p-Xylene	ND	110	ug/kg	
95-47-6	o-Xylene	ND	110	ug/kg	
1330-20-7	Xylene (total)	ND	110	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%	104%	65-141%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	C-3		
Lab Sample ID:	MC37195-1	**Date Sampled:**	03/05/15
Matrix:	SO - Soil	**Date Received:**	03/07/15
Method:	SW846 8260C	**Percent Solids:**	89.4
Project:	31 Tonawanda Street, Buffalo, NY		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	92%	94%	65-129%
460-00-4	4-Bromofluorobenzene	95%	99%	63-137%

(a) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	C-4		
Lab Sample ID:	MC37195-2	**Date Sampled:**	03/05/15
Matrix:	SO - Soil	**Date Received:**	03/07/15
Method:	SW846 8260C	**Percent Solids:**	89.8
Project:	31 Tonawanda Street, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K85939.D	1	03/10/15	JM	n/a	n/a	MSK2687
Run #2	K85956.D	1	03/12/15	JM	n/a	n/a	MSK2688

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	9.75 g	10.0 ml	100 ul
Run #2	9.75 g	10.0 ml	10.0 ul

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	630	ug/kg	
71-43-2	Benzene	ND	31	ug/kg	
108-86-1	Bromobenzene	ND	310	ug/kg	
74-97-5	Bromochloromethane	ND	310	ug/kg	
75-27-4	Bromodichloromethane	ND	130	ug/kg	
75-25-2	Bromoform	ND	130	ug/kg	
74-83-9	Bromomethane	ND	130	ug/kg	
78-93-3	2-Butanone (MEK)	ND	630	ug/kg	
104-51-8	n-Butylbenzene	ND	310	ug/kg	
135-98-8	sec-Butylbenzene	ND	310	ug/kg	
98-06-6	tert-Butylbenzene	ND	310	ug/kg	
75-15-0	Carbon disulfide	ND	310	ug/kg	
56-23-5	Carbon tetrachloride	ND	130	ug/kg	
108-90-7	Chlorobenzene	ND	130	ug/kg	
75-00-3	Chloroethane	ND	310	ug/kg	
67-66-3	Chloroform	ND	130	ug/kg	
74-87-3	Chloromethane	ND	310	ug/kg	
95-49-8	o-Chlorotoluene	ND	310	ug/kg	
106-43-4	p-Chlorotoluene	ND	310	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	310	ug/kg	
124-48-1	Dibromochloromethane	ND	130	ug/kg	
106-93-4	1,2-Dibromoethane	ND	130	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	130	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	130	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	130	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	130	ug/kg	
75-34-3	1,1-Dichloroethane	873	130	ug/kg	
107-06-2	1,2-Dichloroethane	ND	130	ug/kg	
75-35-4	1,1-Dichloroethene	ND	130	ug/kg	
156-59-2	cis-1,2-Dichloroethene	569	130	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	130	ug/kg	
78-87-5	1,2-Dichloropropane	ND	130	ug/kg	

ND = Not detected
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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	C-4		
Lab Sample ID:	MC37195-2	**Date Sampled:**	03/05/15
Matrix:	SO - Soil	**Date Received:**	03/07/15
Method:	SW846 8260C	**Percent Solids:**	89.8
Project:	31 Tonawanda Street, Buffalo, NY		

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	310	ug/kg	
594-20-7	2,2-Dichloropropane	ND	310	ug/kg	
563-58-6	1,1-Dichloropropene	ND	310	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	130	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	130	ug/kg	
100-41-4	Ethylbenzene	ND	130	ug/kg	
87-68-3	Hexachlorobutadiene	ND	310	ug/kg	
591-78-6	2-Hexanone	ND	630	ug/kg	
74-88-4	Iodomethane	ND	310	ug/kg	
98-82-8	Isopropylbenzene	ND	310	ug/kg	
99-87-6	p-Isopropyltoluene	ND	310	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	130	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	310	ug/kg	
74-95-3	Methylene bromide	ND	310	ug/kg	
75-09-2	Methylene chloride	ND	130	ug/kg	
91-20-3	Naphthalene	ND	310	ug/kg	
103-65-1	n-Propylbenzene	ND	310	ug/kg	
100-42-5	Styrene	ND	310	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	310	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	130	ug/kg	
127-18-4	Tetrachloroethene	ND	130	ug/kg	
108-88-3	Toluene	ND	310	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	310	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	310	ug/kg	
71-55-6	1,1,1-Trichloroethane	8000	130	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	130	ug/kg	
79-01-6	Trichloroethene	244000 [a]	1300	ug/kg	
75-69-4	Trichlorofluoromethane	ND	130	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	310	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	310	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	310	ug/kg	
108-05-4	Vinyl Acetate	ND	310	ug/kg	
75-01-4	Vinyl chloride	ND	130	ug/kg	
	m,p-Xylene	ND	130	ug/kg	
95-47-6	o-Xylene	ND	130	ug/kg	
1330-20-7	Xylene (total)	ND	130	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%	108%	65-141%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	C-4		
Lab Sample ID:	MC37195-2	**Date Sampled:**	03/05/15
Matrix:	SO - Soil	**Date Received:**	03/07/15
Method:	SW846 8260C	**Percent Solids:**	89.8
Project:	31 Tonawanda Street, Buffalo, NY		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	92%	91%	65-129%
460-00-4	4-Bromofluorobenzene	96%	95%	63-137%

(a) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

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New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

ACCUTEST Laboratories

495 Technology Center West, Building One, Marlborough, MA 01752
Phone: 508-481-6200

Accutest Job #: MC37195

Client / Reporting Information

Company Name: Panamerican Env.
Address: 2390 Clinton Street
City: Buffalo State: NY Zip: 14227
Project Contact: 716-821-1650
Phone #:
Email:
Sampler Info: P. Gorton

Project Information

Project Name: 31 Tonawanda Street
Street: 31 Tonawanda Street
City: Buffalo State: NY
Project #:
Fax #:
Client Purchase Order #:

Accutest Sample #	Field ID / Point of Collection	MEOH Vial #	Date	Time	Sampled by	Matrix	# of bottles	VOCs plus Chl. Solvents (VE8260STD, VMS + MTBE)
-1	C-3		5-Mar	1020		So	1	X
-2	C-4		5-Mar	1150		So	1	X

LAB USE ONLY: loc 6F3

Turnaround Time (Business days): [X] Standard 5-10 Business Days

Data Deliverable Information: [X] Commercial "A"

Emergency T/A data available VIA Lablink

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by	Date Time	Received By
1	[signature]	3/5/15 1pm	FX
2	FX	3/7/15 1300	[signature]

Syracuse Service Center

Cooler Temp.: 1.3°C

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC37195 Client: PANAMERICAN Project: TONAWANDA

Date / Time Received: 3/7/2015 12:00:00 PM Delivery Method: Airbill #'s:

Cooler Temps (Initial/Adjusted): #1: (1.3/1.3);

Cooler Security	Y	N
1. Custody Seals Present:	☑	☐
2. Custody Seals Intact:	☑	☐
3. COC Present:	☑	☐
4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	N
1. Temp criteria achieved:	☑	☐
2. Thermometer ID:	G1;	
3. Cooler media:	Ice (Bag)	
4. No. Coolers:	1	

Quality Control Preservation	Y	N	N/A
1. Trip Blank present / cooler:	☐	☑	☐
2. Trip Blank listed on COC:	☐	☑	☐
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☐	☐	☑

Sample Integrity - Documentation	Y	N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

Accutest Laboratories V:(508) 481-6200 | 495 Technology Center West, Bldg One F: (508) 481-7753 | Marlborough, MA 01752 www/accutest.com