

Appendix H Geotechnical and Hydrogeological Investigation Report



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Fort Erie Elevated Tank Class Environmental Assessment - Hydrogeological Investigation

PECG Project #
1805403

Prepared For
Niagara Region

February 4, 2020

February 4, 2020

Derek Falardeau-Mercier, P. Eng.
Niagara Region
Project Manager, Water and Wastewater Engineering
1815 Sir Isaac Brock Way
Thorold, ON
L2V 4Y6

Dear Mr. Falardeau-Mercier:

Re: Fort Erie Elevated Tank Class Environmental Assessment – Hydrogeological Investigation, Fort Erie, Ontario
Project #: 1805403

Palmer is pleased to submit the attached report describing the results of our Hydrogeological Investigation to support the Fort Erie Elevated Tank Schedule B Class Environmental Assessment (EA) for a new Elevated Water Storage Tank and watermain connection in Fort Erie, Ontario. The report provides information on hydrogeological conditions, estimated construction dewatering rates, and an assessment of potential impacts from the project based upon the results from our investigation, laboratory testing, records reviews, and data analysis.

We trust that this report will be satisfactory for your current needs. If you have any questions or require further information, please contact our office at your convenience. This report is subject to the Statement of Limitations provided at the end of this report.

Yours truly,
Palmer Environmental Consulting Group Inc.



Jason Cole, M.Sc., P.Geo.
Principal, Senior Hydrogeologist

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1 Introduction

Palmer was retained by Niagara Region to conduct a Hydrogeological Assessment in support of a Schedule B Class Environmental Assessment (EA) for a new Elevated Water Storage Tank and connecting watermain in Fort Erie, Ontario (the 'project'). The site is located North of Pettit Rd and Bridge Street and currently encompasses a vacant lot with grasses and tree cover (**Figure 1**).

Based on our understanding of the project, Niagara Region has proposed to construct an 8 ML elevated tank using a reinforced raft foundation resting on competent soil or bedrock surface. An approximately 30 m long watermain is proposed to connect the new elevated tank to the existing watermain along Pettit Road. It is expected that both the elevated tank and watermain will be completed using open cut construction methods. A conceptual location figure for the project is presented in **Appendix A**.

This assessment is focused on characterizing hydrogeological conditions for the project to estimate dewatering and permitting requirements, and to assess the potential impacts from the project to support the EA. Dewatering rates exceeding 50,000 L/day require registration on the Environmental Activity and Sector Registry (EASR), and rates exceeding 400,000 L/day require a Permit to Take Water (PTTW) with the Ontario Ministry of the Environment, Conservation and Parks (MECP).

In addition to the hydrogeological field investigations and site reconnaissance conducted by Palmer, information from the following sources was reviewed as part of the study:

- Geotechnical borehole logs and grain distribution results (PECG, 2019);
- Available geology, hydrogeology, and physiography mapping (e.g., Ontario Geological Survey (OGS) Surficial and Quaternary Geology Mapping);
- Waste Disposal Site Report obtained from Environmental Risk Information Services (ERIS) and,
- MECP water well records.

1.1 Scope of Work

The scope of work for the hydrogeological assessment includes:

- Review of subsurface data from two (2) boreholes and one (1) monitoring well completed along the watermain alignment and within the footprint of the elevated tank as part of the Palmer Geotechnical Investigation (2019);
- Water level measurements to characterize groundwater elevation;
- Well development and single well response testing (i.e., slug tests) to measure hydraulic conductivity at the monitoring well location;
- Estimation of construction dewatering rates, the radius of water table drawdown, water discharge criteria, and potential artesian conditions; and,
- Preparation of a hydrogeological assessment report summarizing the findings, and recommendations for dewatering and permitting requirements of the project.

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666100

666200

4755000

4754900

4754800

4754700

PETTIT ROAD

BRIDGE STREET

BH 19-2

MW 19-1

LEGEND:

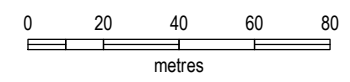


Borehole



Monitoring Well

Imagery (2015) provided by NCPA WMS



PROJECT NO.	1805403	REVISION:	1-1
DATE:	Nov 07, 2019	SCALE:	1:2000
DRAWN:	CV	DATUM:	NAD 1983
CHECKED:	SS	PROJECTION:	UTM zone 17

CLIENT:
Niagara Region

PREPARED BY:
Palmer™

PROJECT: Fort Erie Elevated Tank
Geo & HydroG Investigation

TITLE:
Site Location

Figure 1

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666100

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2 Hydrogeological Conditions

2.1 Regional Conditions

2.1.1 *Physiography and Surficial Geology*

The site is located within the Haldimand Clay Plain physiographic region (Chapman and Putnam, 1984), deposited by the former glacial Lake Warren. This area is a relatively flat glaciolacustrine clay plain that extends across Niagara Region, Hamilton Region, Haldimand County, and Brant County. The dominant soil texture of the region is fine grained clay and silt. Available surficial and quaternary geology mapping by the Ontario Geological Survey (OGS) indicates the native surficial geology is comprised of massive to well laminated fine-textured glaciolacustrine deposits of silt and clay, with minor sand and gravel (**Figure 2**).

Bedrock underlying the site is the Bertie Formation and is Upper Silurian in age. The formation consists of brown to grey dolostones that are argillaceous, laminated, bituminous, and burrowed (Armstrong and Dodge, 2007) (**Figure 3**).

2.1.2 *Hydrogeology*

Hydrostratigraphic units can be subdivided into two distinct groups based on their ability to allow groundwater movement: an aquifer and an aquitard. An aquifer is defined as a layer of soil that is permeable enough to permit a usable supply of water to be extracted. An aquitard is a layer of soil that inhibits groundwater movement due to its low permeability. The major regional hydrostratigraphic units that control groundwater at the site are described below:

Fine-Textured Glaciolacustrine deposits comprised of silt and clay are the native surficial unit within the study area. These soils are often found at surface, or beneath the layer of man-made fill, where present. This unit represents a low energy depositional environment and forms a regional aquitard which limits groundwater flow and infiltration within the study area.

Silty Clay Till is present below the surficial glaciolacustrine deposits. This unit is found throughout Niagara Region and acts as a surficial aquitard limiting groundwater flow and recharge to deeper bedrock aquifers.

The **Bertie Formation** is known to contain karstic porosity. Where solution enhanced fractures are present or along weathered bedding plans, the bedrock acts as an aquifer. Where unfractured, the dolostone is expected to have a low hydraulic conductivity and restrict groundwater flow. Shallow zones near the bedrock/overburden interface can have a relatively high permeability and hydraulic conductivity due to weathering. This shallow unit acts as a thin, unconfined aquifer with sufficient permeability to transit significant volumes of groundwater. These zones are typically found within the upper 2-5 m of the dolostone.



LEGEND:

 Borehole

 Monitoring Well

Surficial Geology

8 Fine-textured glaciolacustrine deposits: silt and clay, minor sand and gravel
8a Massive to well laminated

Source: Ontario Geological Survey 2010 (Mapped at 1:50,000).
Surficial geology of southern Ontario; Ontario Geological Survey,
Miscellaneous Release- Data 128 - Revised

Imagery (2015) provided by NCPA WMS

0 25 50 75 100
metres



PROJECT NO.	1805403	REVISION:	1-1
DATE:	Nov 07, 2019	SCALE:	1:5000
DRAWN:	CV	DATUM:	NAD 1983
CHECKED:	SS	PROJECTION:	UTM zone 17

CLIENT:	PREPARED BY:
Niagara Region	

PROJECT: Fort Erie Elevated Tank
Geo & HydroG Investigation

TITLE:

Surficial Geology

Figure 2

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LEGEND:

- Borehole
- Monitoring Well

Paleozoic Geology¹

- 22: Bertie *dolostone; argillaceous, laminated, bituminous or burrowed*

1. Armstrong, D.K. and Dodge, J.E.P. 2007. Paleozoic geology of southern Ontario; Ontario Geological Survey, Miscellaneous Release--Data 219. Imagery (2015) provided by NCPA WMS

0 25 50 75 100
metres

PROJECT NO.	1805403	REVISION:	1-3
DATE:	Dec 12, 2019	SCALE:	1:5000
DRAWN:	CV	DATUM:	NAD 1983
CHECKED:	SS	PROJECTION:	UTM zone 17

CLIENT:	PREPARED BY:
Niagara Region	

PROJECT: Fort Erie Elevated Tank Geo & HydroG Investigation

TITLE: **Bedrock Geology**

Figure 3

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2.2 Site Specific Conditions

2.2.1 Borehole Drilling and Monitoring Well Installation

On October 18, 2019, PEGC personnel conducted a borehole drilling and groundwater monitoring well installation program at the proposed locations for the elevated tank (BH19-1) and the watermain (BH19-2). Two (2) boreholes (BH19-1 to BH19-2) were advanced at the site using continuous flight auger methods to the top of the bedrock. When bedrock was encountered, HQ coring methods were used. The locations of the boreholes and the monitoring well are provided on **Figure 1**, and borehole logs are provided in **Appendix B**.

Following drilling, a monitoring well was installed in BH19-1 in accordance with Ontario Regulation 903 (Wells Regulation). The monitoring well was completed with 51 mm (2 inch) diameter schedule 40 polyvinyl chloride (PVC) pipe, with a 4.63 m (15 ft) long screened interval at bottom of the well. The monitoring well was sealed using a J-plug and completed with a stick-up casing. Additional details are provided in **Table 1**.

Table 1. Groundwater Monitoring Well and Borehole Details

Monitoring Well ID	Ground Elevation (masl)	Well Depth (mbgs)	Screened Depth Interval (mbgs)	Screened Geology
BH19-1	185.422	9.73	5.1 – 9.73	Bedrock
BH19-2	185.324	-	-	Overburden

Note: mbgs = meters below ground surface

2.2.2 Geology and Soil Profile

The results of the borehole drilling investigations are generally consistent with regional OGS surficial and quaternary geology mapping. The stratigraphy of the site as encountered during borehole drilling is described below.

Topsoil: A layer of topsoil was encountered in all boreholes. The topsoil ranged in thickness from 200 mm (BH19-1) to 250 mm (BH19-2).

Fill Materials: Fill materials consisting of reddish-brown silty clay, organics, sand, and gravel were encountered below the topsoil in both boreholes and extended to depths ranging from 0.7 m (BH19-1) to 1.1 m below the existing ground surface (BH19-2). Soils were stiff and oxidized, and moist soils were noted in both BH19-1 and BH19-2.

Silty Clay: Silty Clay was encountered below the fill materials in BH19-1, and extended to a depth of 1.5 metre below ground surface (mbgs). The composition of the silty clay included traces of sand and gravel. The consistency was very stiff, and the soils were moist.

Silty Clay Till: Silty Clay Till was encountered below the silty clay in BH19-1, and extended down to a depth of 3.3 mbgs. The Silty Clay Till was below the fill materials in BH19-2 and extended to a depth of 6.4 mbgs. The consistency of the till ranged from stiff to very hard, and the till was moist in both boreholes. Grain size analyses was conducted on BH19-1 SS4 and had the following fractions:

Gravel:	2%
Sand:	17%
Silt:	53%
Clay:	28%

Bedrock: Dolostone bedrock was encountered in both boreholes at depths ranging from 3.3 m (BH19-1) to 6.4 m below the existing ground surface (BH19-2). Generally, the upper 3 m is of a significantly poorer quality compared to the deeper portions, which was evident by the rock quality designation (RQD) measured in BH19-1.

2.2.3 Groundwater Level

The stabilized groundwater level at BH19-1 was measured by Palmer personnel on October 18, October 24, and November 14, 2019. The groundwater level at BH19-1 was 3.9 mbgs on October 18, 2019, 3.71 mbgs on October 24, 2019, and 3.67 on November 14, 2019 (or an elevation of 181.5, 181.69, 181.73 metres above sea level (masl) on each date respectively). The groundwater level at BH19-2 was approximately 5.9 mbgs on October 18, 2019 upon completion of drilling. No artesian pressure was found at either well/borehole location. Groundwater flow is expected towards the southeast, but this could not be confirmed as part of this study.

2.2.4 MECP Water Well Records and Contaminant Sources

Based on a review of the MECP Water Well Records (WWR) database, nine (9) well records are present within a 500 m radius of the site (**Figure 4**). Of these wells, three are used for domestic water supply (Borehole ID 10462671, 10462384, 10460241) and the remaining 8 are monitoring and test holes. At Borehole ID 10462384, there no longer is a residential home. However, at Borehole ID 10462671 and 10460241, aerial photography from 2018 displays either a residential or commercial property, and it is unknown whether the two domestic wells are active.

The Bridge Street Waste Management Facility is located approximately 225 m east of the site. While it appears that the site is located upgradient of this facility, should significant dewatering be required, this facility could be a potential source of contamination for the project.

2.2.5 Hydraulic Conductivity

2.2.5.1 Single Well Response Test Analysis

On October 24, 2019, Palmer personnel conducted single well response testing (i.e. slug tests) at well BH19-1 to determine the hydraulic conductivity (K) of the upper bedrock. Both rising read (RH) and falling head (FH) tests were carried out in the screened bedrock interval by creating a head change through the insertion (FH test) or removal (RH test) of a 1-m long slug. The rate of recovery in each well was measured using a datalogger at the bottom of the well to record water levels at a 1-second frequency.



LEGEND:

- Borehole
- Monitoring Well
- Well (MECP) within 500m (by Borehole ID)

Imagery (2015) provided by NCPA WMS

0 25 50 75 100 metres

N

PROJECT NO.	1805403	REVISION:	1-1
DATE:	Nov 07, 2019	SCALE:	1:5000
DRAWN:	CV	DATUM:	NAD 1983
CHECKED:	SS	PROJECTION:	UTM zone 17

CLIENT: Niagara Region

PREPARED BY: **Palmer™**

PROJECT: Fort Erie Elevated Tank Geo & HydroG Investigation

TITLE: **MECP Water Wells within 500 metres**

Figure 4

During the tests, manual water level measurements were also recorded to gauge recovery to equilibrium. Tests were terminated when either 30 minutes had elapsed or an 80% recovery in water level was attained.

Hydraulic conductivity (K) values were then calculated using the displacement-time data and were analysed using the Bouwer-Rice (1976) method for unconfined aquifers, modelled using AqtesolvTM software. The analysis results are presented in **Appendix C**, and the range of calculated hydraulic conductivity values are summarized in **Table 2**. Based on the results, the hydraulic conductivity of the upper bedrock ranged from 3.8×10^{-4} to 4.7×10^{-4} m/s, and the geometric mean was 4.4×10^{-4} m/s.

Table 2. Hydraulic Conductivity Results from BH19-1

Test Type	Hydraulic Conductivity (m/s)			Screened Geology
	Individual	Geomean	90 th	
Falling Head	3.8×10^{-4}	4.4×10^{-4}	4.7×10^{-4}	Fractured Bedrock
Falling Head	4.7×10^{-4}			
Falling Head	4.1×10^{-4}			
Rising Head	4.4×10^{-4}			
Rising Head	4.7×10^{-4}			
Rising Head	4.6×10^{-4}			

2.2.5.2 Empirical Analysis

The hydraulic conductivity of the overburden soils was calculated using empirical relationships derived by Puckett (1985), which utilizes grain size distribution curves of soil samples. One soil sample from the native clayey silt till soils was collected and analysed in BH19-1. A hydraulic conductivity value of 1.7×10^{-7} m/s was determined from the grain size analysis, which is consistent with the expected range of clayey silt till. The completed grain size distribution curves are provided in **Appendix D**, and the results of the empirical analysis are provided in **Table 3**.

$$K \text{ (Puckett, 1985)} = (4.36 \times 10^{-5}) \times e^{-0.1975(\% \text{ Clay})} \text{ m/s}$$

Where K = hydraulic conductivity (m/sec)
 $\% \text{ Clay}$ = percent of total sample finer than 0.002 mm by weight

Table 3. Estimated Empirical Hydraulic Conductivity

Borehole ID	Sample	Geology	Method of Analysis	% Clay	K (m/s)
BH19-1	SS4B	clayey silt till	Puckett	28	1.7×10^{-7}

2.2.6 Groundwater Chemistry

Groundwater chemistry samples were collected on October 24, 2019 from BH19-1 and analyzed for a suite of water quality parameters including TSS, pH, metals, anions, and VOCs. A summary of the

groundwater analysis results is presented in **Table 4**, and the Certificate of Analysis is provided in **Appendix E**. Results were compared against the Niagara Region Sewer Use By-law, which regulates discharges to sanitary and storm sewer systems. The results indicate that water quality did not exceed the Niagara Sanitary Sewer Discharge criteria for any parameters.

When compared to the Provincial Water Quality Objectives (PWQO), concentrations for total phosphorous, phenols, and VOCs (benzene, ethylbenzene, toluene, o-xylene) exceeded the objectives. The sample concentrations for some VOCs (1,2- Dichlorobenzene, 1,4-Dichlorobenzene, 1,1,2,2,-Tetrachloroethane, Tetrachloroethylene, Trichloroethylene), were below the lowest detection limit, however the detection limit exceeded the PWQO criteria.

Table 4. Groundwater Chemistry Results

Parameter	Units	Lowest Detection Limit	Niagara Sanitary Sewer By- Law N. 27- 2014 Limits	Provincial Water Quality Objectives (PWQO)	Sample Concentration
					BH19-1
Physical Tests					
pH	pH units	0.10	6 -> 11	6.5 - 8.5	8.34
Total Suspended Solids	mg/L	2.0	350	-	217
Anions and Nutrients					
Fluoride (F)	mg/L	0.020	10	-	0.915
Total Kjeldahl Nitrogen	mg/L	0.15	100	-	1.26
Phosphorus, Total	mg/L	0.0030	10	0.01	0.0442
Sulfate (SO4)	mg/L	0.30	1500	-	49.9
Sulphide (as S)	mg/L	0.018	-	-	<0.018
Cyanides					
Cyanide, Total	mg/L	0.0020	1	0.005	<0.0020
Total Metals					
Antimony (Sb) – Total	mg/L	0.0010	5	0.02	0.0022
Arsenic (As) – Total	mg/L	0.0010	1	0.1	0.0025
Cadmium (Cd) – Total	mg/L	0.000050	0.7	0.0002	<0.000050
Chromium (Cr) – Total	mg/L	0.0050	3	0.001	<0.0050
Cobalt (Co) – Total	mg/L	0.0010	5	0.009	<0.0010
Copper (Cu) – Total	mg/L	0.010	3	0.005	<0.010
Lead (Pb) – Total	mg/L	0.00050	1	0.001	0.00102
Mercury (Hg) – Total	mg/L	0.0000050	0.01	0.0002	0.0000421
Molybdenum (Mo) – Total	mg/L	0.00050	5	0.04	0.0260
Nickel (Ni) – Total	mg/L	0.0050	2	0.025	<0.0050
Selenium (Se) – Total	mg/L	0.00050	1	0.1	<0.00050
Silver (Ag) – Total	mg/L	0.00050	5	0.0001	<0.00050

Parameter	Units	Lowest Detection Limit	Niagara Sanitary Sewer By- Law N. 27- 2014 Limits	Provincial Water Quality Objectives (PWQO)	Sample Concentration
					BH19-1
Tin (Sn) – Total	mg/L	0.0010	5	-	0.0027
Zinc (Zn) - Total	mg/L	0.030	3	0.03	<0.030
Aggregate Organics					
BOD Carbonaceous	mg/L	2.0	300	-	<2.0
Oil and Grease, Total	mg/L	5.0	-	-	<5.0
Animal/Vegetable Oil and Grease	mg/L	5.0	150	-	<5.0
Mineral Oil and Grease	mg/L	2.5	15	-	<2.5
Phenols (4AAP)	mg/L	0.0010	1	0.001	0.0034
Volatile Organic Compounds					
Benzene	ug/L	0.50	10	0.1	6.31
Chloroform	ug/L	1.0	40	-	8.1
1,2-Dichlorobenzene	ug/L	0.50	50	0.0025	<0.50
1,4-Dichlorobenzene	ug/L	0.50	80	0.004	<0.50
Dichloromethane	ug/L	2.0	210	-	<2.0
Ethylbenzene	ug/L	0.50	160	0.008	2.12
1,1,2,2-Tetrachloroethane	ug/L	0.50	40	0.02	<0.50
Tetrachloroethylene	ug/L	0.50	50	0.05	<0.50
Toluene	ug/L	0.50	200	0.0008	13.5
Trichloroethylene	ug/L	0.50	50	0.02	<0.50
o-Xylene	ug/L	0.50	520	0.04	4.49
4-Bromofluorobenzene	%	-	-	-	101.6
1,4-Difluorobenzene	%	-	-	-	103.4

2.2.7 Waste Disposal Site Assessment

An ERIS Waste Disposal Site Assessment Report (**Appendix F**) was obtained to identify contamination sources within a 500 m radius of the site. The report identified 18 historical spills in the 500 m radius originating from 1731 Pettit Road over the 1995 to 2016 period. Additionally, there are 51 Waste Disposal Sites (WDS) in the radius including the Bridge Street Landfill Site (1300 Bridge Street, located 210 m from the site), Nelwata Industrial Services Inc., and Phillip Services (1731 Pettit Rd). The report identified 89 waste generation sites (GEN), including the Bridge Street Landfill Site, the John C. Gibson Operations Centre (1818 Petit Rd), Truk King Logistics Inc. (1799 Pettit Rd), and Aero-safe Technologies Inc. (1767 Pettit Rd).

3 Dewatering Impact Assessment

3.1 Proposed Design and Construction Methods

At this stage of the EA, a Preliminary Design for the elevated tank or watermain connection are not available. As such, reasonable assumptions have been made to assess the potential dewatering requirements, the risks associated with the dewatering and the expected permitting requirements. A recommendation for a PTTW or an EASR will be made but it must re-assessed during later design stages as the project design progresses to support permitting and project tender.

The highest groundwater level was measured at 3.67 mbgs. As groundwater levels were measured in the fall, the spring high water levels may not be represented. To account for this, 1 m have been added to the highest measured water level for the dewatering rate estimates. Therefore, excavation above approximately 2.67 mbgs are expected to be above the water table and will required only limited dewatering to remove perched water.

It is assumed that the elevated tank foundation will have an excavation footprint of 15 m by 15 m and will be founded on the bedrock surface at approximately 3.3 mbgs. Under this construction scenario, the bedrock will act as a confined aquifer (water level at 2.67 mbgs) and will discharge water to the base of the excavation.

The watermain connection is assumed to be constructed with a trench width of 1.5 m and a depth of 2 m. It is assumed that it will be completed in 30 m or less lengths.

For both the elevated tank and the watermain, to maintain a stable and dry excavation, it has been assumed that the water level will be lowered at least 0.5 m below the proposed maximum depth of the excavation.

3.2 Dewatering Rate Estimate

3.2.1 Dewatering Rate Estimate for Elevated Water Tank

Dewatering rate estimates (Q) for the elevated water tank foundation was calculated using the following equation from Powers et.al (2007) assuming that the bedrock will act as a confined aquifer:

$$Q = n \frac{xKb(H - h)}{L} \quad m^3/s$$

Where	K	=	hydraulic conductivity (m/sec)
	H	=	saturated thickness (m)
	h	=	saturated thickness after dewatering (m)
	x	=	excavation length
	L	=	line source distance
	B	=	aquifer thickness
	n	=	number of sides

Table 5 presents a summary of the estimated dewatering rate and radius of water table drawdown for a 15 m by 15 m squared shaped excavation to the top of the bedrock at 3.3 mbgs. This estimation assumes that no groundwater cut-off structures (i.e. sheet-pile shoring) are present. Calculations used the highest measured groundwater levels between the site visits, plus 1.0 m to account for seasonal variability. Calculations also assume dewatering to 0.5 m below the assumed foundation invert. The 90th percentile hydraulic conductivity value (4.7×10^{-4} m/sec) was used to conservatively estimate the fractured bedrock (**Table 2**). The aquifer thickness was assumed to be 3.3 m from the top of the weathered bedrock to 6.6 m where competent high RQD rock was encountered.

For the elevated tank constructed on top of the bedrock, the dewatering rate was estimated to be 247,250 L/day. Adding a contingency factor of 50,000 L/day, the total estimated dewatering rate is 297,250 L/day. The radius of influence was calculated to be 73.49 m, but may be larger depending upon the interconnectedness of the bedrock fractures. A summary of the dewatering rate calculations is provided in **Table 5**.

These calculations assume that no significant excavation into the bedrock will be required and that the foundation can be placed on the top of the rock. Should additional excavations below 3.3 mbgs be required, then additional dewatering beyond those predicted will be required.

3.2.2 Dewatering Rate Estimate for Watermain

The expected water level depth below the watermain is approximately 2.67 mbgs. If it is assumed that the watermain will only be constructed to 2 m depth to be set below the frost line, then no significant dewatering is expected. The contractor should be prepared to remove rainwater and minor perched seepage from the excavation, estimated at up to 25,000 L/day.

Table 5. Elevated Tank Dewatering Calculations

Dewatering Scenario	Max Invert Depth (mbgs)	a (m)	x (m)	Geology	K (m/s)	Aquifer Base Elevation +0.5 m (masl)	Water Level Elevation +1 m (masl)	H (m)	h (m)	b (m)	R (m)	L (m)	Q (m ³ /sec)	Est. Dewatering Rate		Contingency (L/day)	Total Est. Dewatering Rate (incl. Contingency)	
														L/day	L/s		L/day	L/s
Foundation on Top of bedrock at 3.3 mbgs	3.3	15	15	Bedrock	4.7x10 ⁻⁴	178.8	182.75	3.93	2.8	3.3	73.5	36.7	2.86x10 ⁻³	247,250	2.86	50,000	297,250	3.44

*a – trench width**x – trench length**K – 90th percentile hydraulic conductivity**H – initial head**h – head after drawdown**R – radius of influence**L – line source distance**b – aquifer thickness**Q – dewatering rate*

4 Construction Considerations

4.1 Permitting

Based on our assumed construction scenario it is estimated that 297,250 L/day of dewatering could be required for the elevated tank foundation (**Table 5**). Should additional excavations below 3.3 mbgs into the bedrock be required, then additional dewatering beyond those predicted will be required.

Under the environmental activity and sector registry (EASR) system, water takings that are greater than 50,000 L/day and less than 400,000 L/day do not require a Permit To Take Water (PTTW) from the Ministry of the Environment, Conservation and Parks (MECP). However, as predicted dewatering rates exceed 50,000 L/day, the project must obtain an EASR from the MECP and meet a series of environmental protection criteria.

The watermain connection is expected to be above the water table in low permeability silty clay or clayey silt till soils. No significant dewatering is expected for this part of the project and neither a PTTW nor an EASR would be needed.

4.2 Assessment of Impacts

4.2.1 Groundwater Treatment and Discharge

There is a potential to encounter a source of contamination from the Bridge Street landfill located approximately 210 m to the east of the site. The predicted radius of influence is 73.5 m, so the risk of mobilizing potential contaminants from the landfill is low. However, the groundwater chemistry between the landfill and site is not known.

The groundwater at the site exceeded PWQO criteria for total phosphorous, phenols, and VOCs (benzene, ethylbenzene, toluene, o-xylene). Treatment will be required for these parameters prior to discharge. A groundwater treatment contractor should be retained to confirm the appropriate treatment methods. An assessment against O.Reg 153/03 should be made for these parameters as part of future site planning and design.

It is expected that groundwater discharge will be directed to the roadside ditching along Petit Road. Groundwater must meet Niagara Region sanitary and combined sewer discharge by-law criteria and PWQO criteria prior to discharge.

4.2.2 Natural Environment

No adverse impacts to the natural environment are expected from construction dewatering of the project. No groundwater supported watercourses or wetland were identified in the vicinity of the site, and it is expected that the majority of features are perched on top of the low permeability soils.

4.2.3 Private Water Wells

The MECP Water Well records identified three domestic wells in a 500 m radius of the site. It is expected that one of three wells are abandoned as there is no longer a residential property at the location. However, it is unknown whether the remaining two wells are currently in use. As there is potable water available in the area, the risk to these homes is considered low.

4.2.4 Ground Settlement

Water table drawdown within a 73.5 m radius of the excavation may induce consolidation (i.e. ground settlement) of the surrounding soils. It is expected that settlements should not exceed 25 mm however it is recommended that if concerns regarding impact to surrounding infrastructure or utilities are raised, a geotechnical monitoring program be implemented to address the concerns.

5 Conclusions and Recommendations

Based on the results of the Hydrogeological Investigation, the following summary of conclusions and recommendations are presented:

- The hydrogeological drilling program, conducted by Palmer, comprised of the drilling and installation of two (2) boreholes, with one (1) completed as a monitoring well.
- The geology of the site consists of between 3.3 and 6.4 m of glaciolacustrine silty clay and silty clay till overlying dolostone bedrock of the Bertie Formation. The Bertie Formation is known to exhibit karstic porosity and can be locally waterbearing.
- Groundwater levels were collected over two (2) monitoring events at BH19-1 and revealed a water level range of 3.9 to 3.67 mbgs. It is expected that the spring high water level could be 1 m higher than those measured.
- The results of the single well response testing and empirical grain size calculations indicate an estimated 90th percentile hydraulic conductivity of 4.7×10^{-4} m/s for the fractured bedrock, and 1.7×10^{-7} m/s for the silty clay till.
- Groundwater chemistry samples were collected on October 24, 2019 from BH19-1 and analyzed for TSS, pH, metals, anions, and VOCs. The results were compared against Niagara Sanitary Sewer Discharge criteria and PWQO. No exceedances for the Niagara Sewer Discharge criteria were observed. Concentrations for total phosphorous, phenols, and VOCs (benzene, ethylbenzene, toluene, o-xylene) exceeded PWQO criteria. Concentrations for 1,2-Dichlorobenzene, 1,4-Dichlorobenzene, 1,1,2,2-Tetrachloroethane, Tetrachloroethylene, Trichloroethylene, were below the lowest detection limit, however the detection limit exceeded PWQO criteria.
- An ERIS Waste Disposal Site Assessment Report identified a large number of spills, waste disposal sites and waste generating sites within 500 m of the site. The Bridge Street Landfill is located approximately 210 m to the east of the site.

- Assuming the elevated tank foundation is placed in the top of bedrock at 3.3 mbgs, the dewatering rate was estimated to be 297,250 L/day, including a contingency factor. The radius of influence is estimated to be 73.5 m.
- The watermain is expected to be constructed above the water table in the silty clay till. Significant dewatering for the watermain is not expected.
- A registration on the MECP EASR system will be required for construction dewatering for this project. Should excavations extend beyond 3.3 mbgs, additional dewatering will be required. If dewatering rates exceed 400,00 L/day, a PTTW will be required.
- Due to the presence of elevated VOCs and phenols, additional hydrogeological site investigations are recommended prior to site development. This is expected to include additional monitoring well installations and groundwater chemistry sampling to determine the source and significance of the potential contamination. If levels are beyond MECP Table 1 standards, the MECP may require remediation before development can occur.

6 Limitations of Report

This report was prepared by Palmer for Niagara Region in accordance with the scope of work described in the proposal. The conclusions and recommendations detailed in this report are based upon the information available at the time of preparation of the report. No investigative method eliminates the possibility of obtaining imprecise or incomplete information. Professional judgement was exercised in gathering and analyzing the information obtained and in the formulation of our conclusions and recommendations. The nature of the sampling works makes it possible that contrary conditions may be identified in locations which were not sampled. However, it does suggest that the conditions will be localized and not extensive. The soil boundaries indicated on the borehole logs are inferred from non-continuous sampling and observations made during drilling and therefore should not be interpreted as exact planes of geological change.

The disclosure of any information contained in this report is the sole responsibility of the intended recipient. The material in it reflects Palmer's best judgement in light of the information available to it at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. Palmer accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report. This limitations statement is considered part of this report.

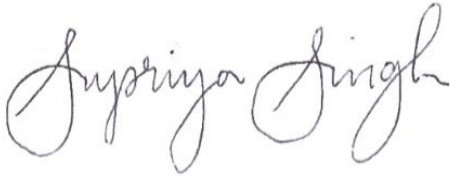
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7 Certification

This report was prepared and reviewed by the undersigned:

Report Prepared By:



Supriya Singh, M.Sc., G.I.T.
Environmental Scientist

Report Reviewed By:



Jason Cole, M.Sc., P.Geo.
Principal, Senior Hydrogeologist

8 References

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Appendix A

Design Drawings

2019

Map of Preferred ET Location For Geotechnical Investigation



Legend

- Assessment Parcel
- Woodland
- Conservation Reserve
- Provincial Park
- Natural Heritage System
- Ecoregion
- Wetland**
 - Provincially Significant Wetland Evaluated
 - Non - Provincially Significant Wetland Evaluated
 - Unevaluated Wetland
- Area of Natural Heritage & Scientific Interest (ANSI)**
 - Provincially Significant Life Science ANSI
 - Provincially Significant Earth Science ANSI
- Greenbelt Plan**
 - Boundary
 - River Valley Connections
- Land Use Designations**
 - Protected Countryside
 - Towns and Villages
 - Hamlets
 - Urban River Valley
 - Specialty Crop Area
- Niagara Escarpment Plan (NEP)**
 - Boundary
 - Parks and Open Space System
- Land Use Designations**
 - Escarpment Natural Area
 - Escarpment Protection Area
 - Escarpment Rural Area
 - Mineral Resource Extraction Area
 - Escarpment Recreation Area
 - Urban Area
 - Minor Urban Centre
- Oak Ridges Moraine Conservation Plan (ORM)**
 - Boundary
- Land Use Designations**
 - Natural Core Area
 - Natural Linkage Area
 - Countryside Area
 - Rural Settlement
 - Palgrave Estates Residential Community
 - Settlement Area

0.1 0 0.04 0.1 Kilometers



This map should not be relied on as a precise indicator of routes or locations, nor as a guide to navigation. The Ontario Ministry of Natural Resources and Forestry(OMNRF) shall not be liable in any way for the use of, or reliance upon, this map or any information on this map.

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Appendix B

Borehole Logs

Palmer, 2019

PROJECT: Geotechnical Investigation - Fort Erie Elevated Tank

CLIENT: Niagara Region

PROJECT LOCATION: Fort Erie, ON

DATUM: Geodetic

BH LOCATION: See Borehole Location Plan

Method: Hollow Stem Augers/HQ Rock Coring

Diameter: 205 mm/63 mm

Date: Oct-18-2019

REF. NO.: 1805403

ENCL NO.: 1

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT				PLASTIC LIMIT NATURAL MOISTURE CONTENT LIQUID LIMIT			POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
(m)	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			SHEAR STRENGTH (kPa)				W _p	W	W _L			
185.4	Ground Surface							20	40	60	80	100					
185.2	TOPSOIL: 250 mm							20	40	60	80	100					
0.3	FILL: silty clay, trace sand, trace gravel, trace rootlets, trace organics, reddish brown, moist, firm		1	SS	6		Concrete										
184.7							185										
0.7	SILTY CLAY: trace sand, trace gravel, reddish brown, oxidized, moist, very stiff		2	SS	18												
184.0							184										
1.5	SILTY CLAY TILL: trace sand, trace gravel, contains cobbles, reddish brown, moist, very stiff to hard		3	SS	22		Holeplug										
			4	SS	23		183										
182.2	some sand, contains layers of sand, contains rock fragments		5	SS	50/50mm		182										
3.3	ROCK CORING STARTS, REFER TO ROCK CORE LOG						182										
							181										
							180										
							179										
							178										
							177										
							176										
175.7	END OF BOREHOLE																
9.7	1. Upon completion of drilling, a 50mm diameter monitoring well was installed in the borehole. 2. Water Level Readings: Date W. L. Depth (mBGS) Oct 24, 2019 3.91 Nov 14, 2019 3.67																

GROUNDWATER ELEVATIONS

Measurement 1st 2nd 3rd 4th

GRAPH NOTES

+ 3, × 3: Numbers refer to Sensitivity

○ = 3% Strain at Failure

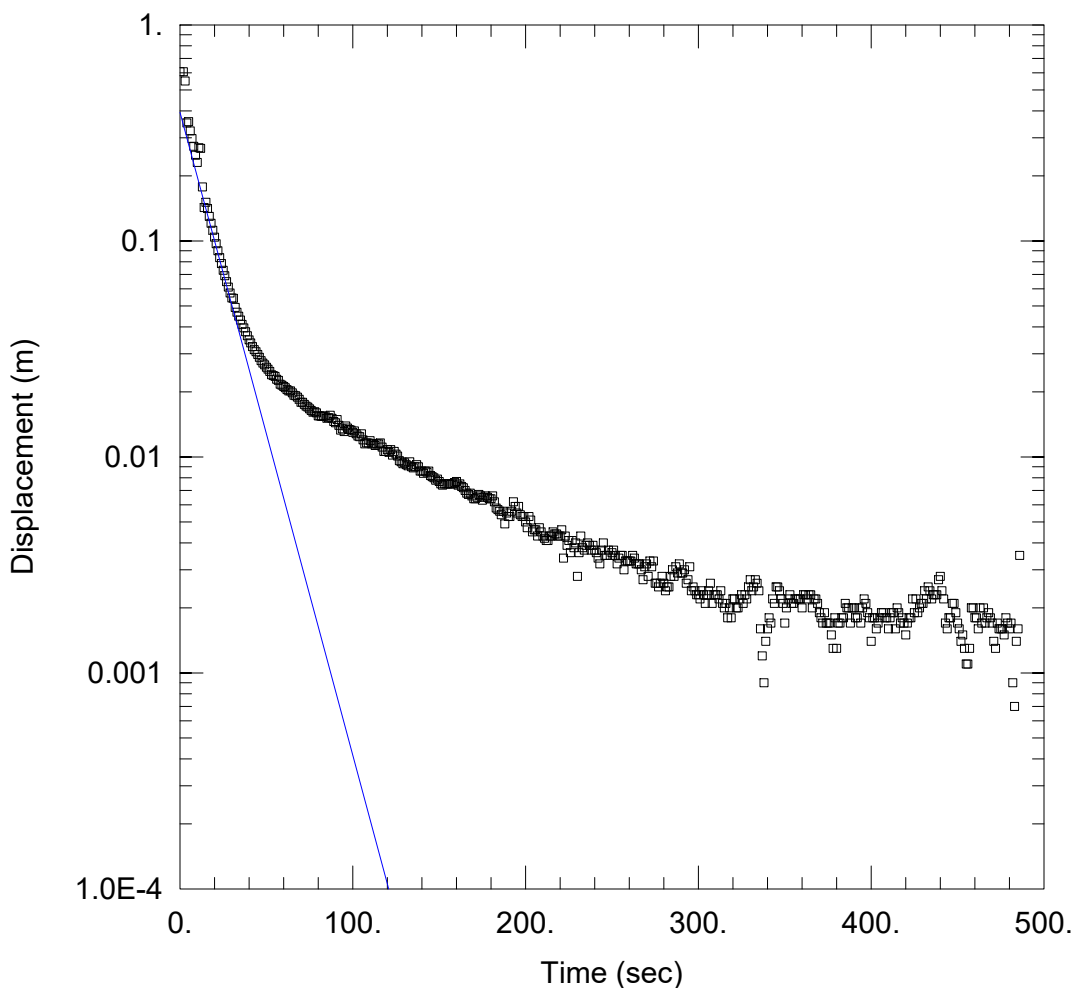
BH LOCATION: See Borehole Location Plan

GRAPH NOTES + 3, X 3: Numbers refer to Sensitivity ○ ● = 3% Strain at Failure

Appendix C

Single Well Response Tests

Palmer, 2019



FALLING HEAD #1

Data Set: C:\...\FallingHead1.aqt

Date: 10/28/19

Time: 15:57:07

PROJECT INFORMATION

Company: Palmer

Client: Niagara Region

Project: 1805403

Location: Ft. Erie

Test Well: BH19-1

Test Date: October 24, 2019

AQUIFER DATA

Saturated Thickness: 2.89 m

Anisotropy Ratio (K_z/K_r): 0.1

WELL DATA (BH19-1)

Initial Displacement: 0.6076 m

Total Well Penetration Depth: 2.89 m

Casing Radius: 0.0254 m

Static Water Column Height: 2.89 m

Screen Length: 1.5 m

Well Radius: 0.0254 m

Gravel Pack Porosity: 0.

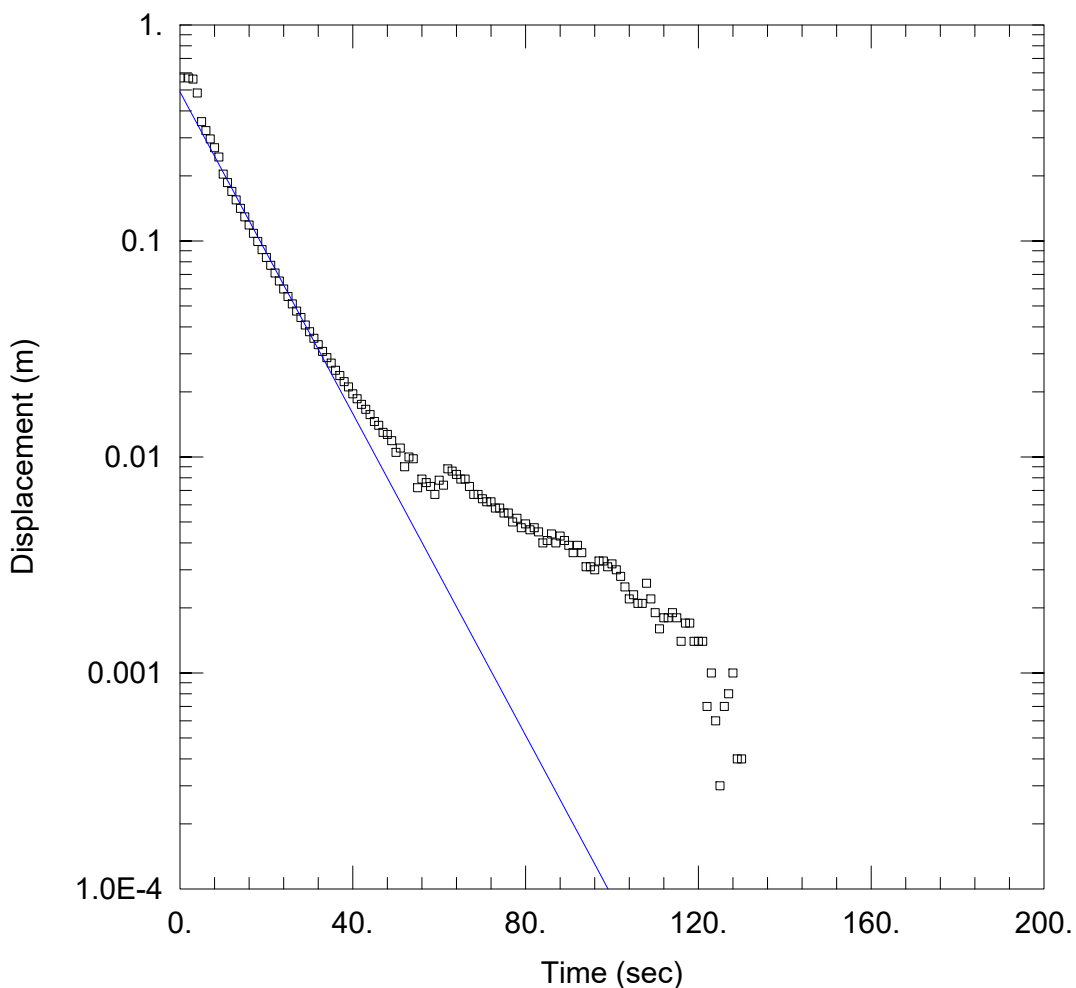
SOLUTION

Aquifer Model: Unconfined

$K = 0.0003794$ m/sec

Solution Method: Bouwer-Rice

$y_0 = 0.3938$ m



FALLING HEAD # 2

Data Set: C:\...\FallingHead2.aqt

Date: 10/29/19

Time: 09:04:09

PROJECT INFORMATION

Company: Palmer

Client: Niagara Region

Project: 1805403

Location: Ft. Erie

Test Well: BH19-1

Test Date: October 24, 2019

AQUIFER DATA

Saturated Thickness: 2.89 m

Anisotropy Ratio (K_z/K_r): 0.1

WELL DATA (BH19-1)

Initial Displacement: 0.5682 m

Total Well Penetration Depth: 2.89 m

Casing Radius: 0.0254 m

Static Water Column Height: 2.89 m

Screen Length: 1.5 m

Well Radius: 0.0254 m

Gravel Pack Porosity: 0.

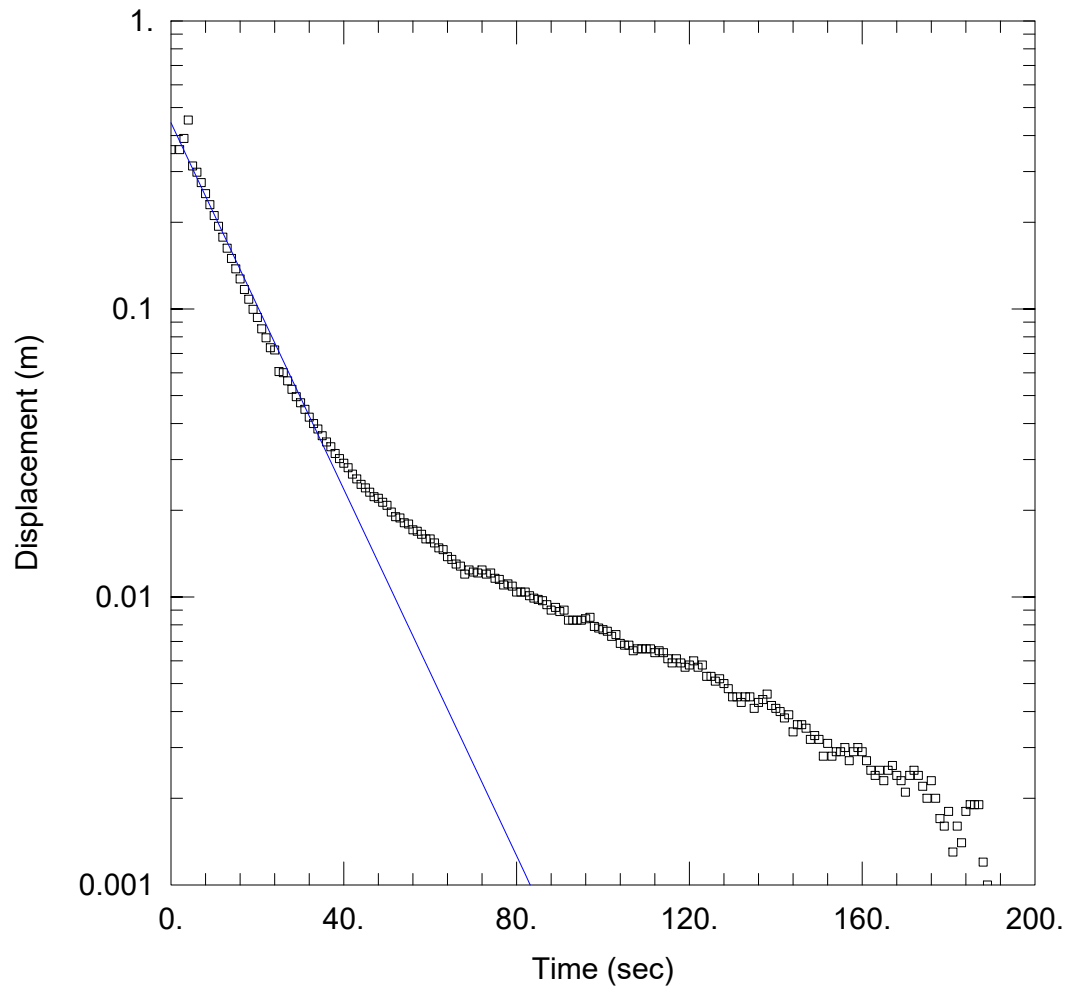
SOLUTION

Aquifer Model: Unconfined

$K = 0.0004746$ m/sec

Solution Method: Bouwer-Rice

$y_0 = 0.4896$ m



FALLING HEAD # 3

Data Set: C:\...\FallingHead3.aqt

Date: 10/29/19

Time: 09:08:01

PROJECT INFORMATION

Company: Palmer

Client: Niagara Region

Project: 1805403

Location: Ft. Erie

Test Well: BH19-1

Test Date: October 24, 2019

AQUIFER DATA

Saturated Thickness: 2.89 m

Anisotropy Ratio (K_z/K_r): 0.1

WELL DATA (BH19-1)

Initial Displacement: 0.3574 m

Total Well Penetration Depth: 2.89 m

Casing Radius: 0.0254 m

Static Water Column Height: 2.89 m

Screen Length: 1.5 m

Well Radius: 0.0254 m

Gravel Pack Porosity: 0.

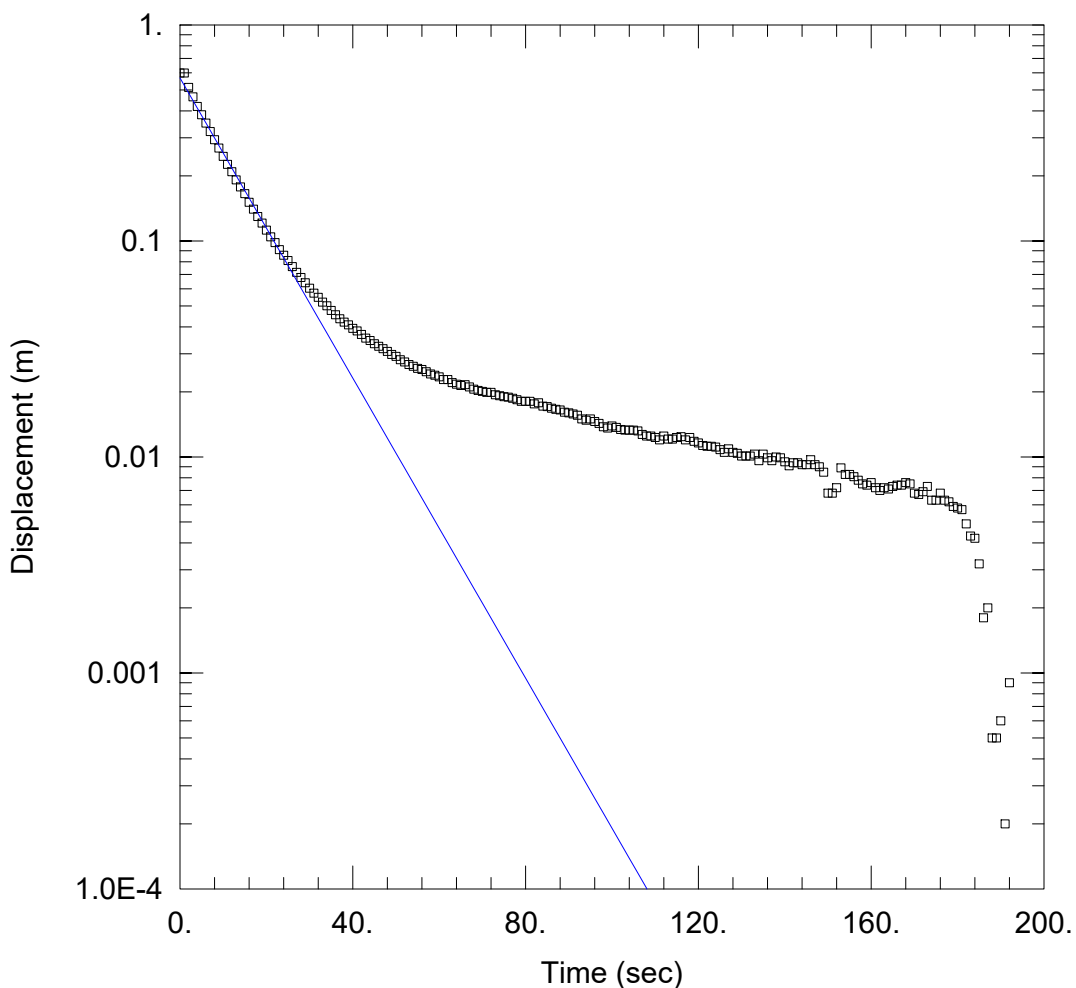
SOLUTION

Aquifer Model: Unconfined

$K = 0.0004055$ m/sec

Solution Method: Bouwer-Rice

$y_0 = 0.4427$ m



RISING HEAD # 1

Data Set: C:\...\RisingHead1.aqt

Date: 10/29/19

Time: 09:10:05

PROJECT INFORMATION

Company: Palmer

Client: Niagara Region

Project: 1805403

Location: Ft. Erie

Test Well: BH19-1

Test Date: October 24, 2019

AQUIFER DATA

Saturated Thickness: 2.89 m

Anisotropy Ratio (K_z/K_r): 0.1

WELL DATA (BH19-1)

Initial Displacement: 0.5986 m

Total Well Penetration Depth: 2.89 m

Casing Radius: 0.0254 m

Static Water Column Height: 2.89 m

Screen Length: 1.5 m

Well Radius: 0.0254 m

Gravel Pack Porosity: 0.

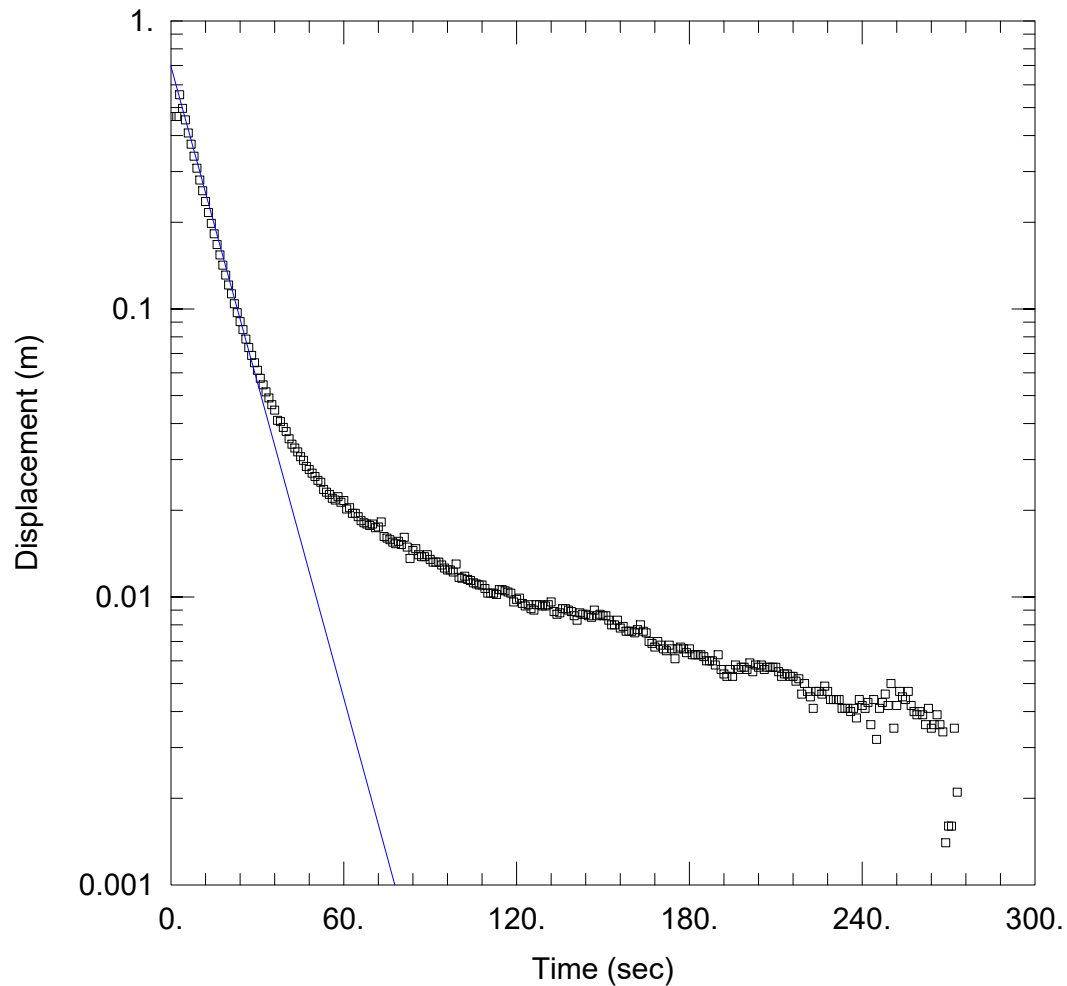
SOLUTION

Aquifer Model: Unconfined

$K = 0.0004427$ m/sec

Solution Method: Bouwer-Rice

$y_0 = 0.568$ m



RISING HEAD # 2

Data Set: C:\...\RisingHead2.aqt

Date: 10/29/19

Time: 09:14:02

PROJECT INFORMATION

Company: Palmer

Client: Niagara Region

Project: 1805403

Location: Ft. Erie

Test Well: BH19-1

Test Date: October 24, 2019

AQUIFER DATA

Saturated Thickness: 2.89 m

Anisotropy Ratio (K_z/K_r): 0.1

WELL DATA (BH19-1)

Initial Displacement: 0.4657 m

Total Well Penetration Depth: 2.89 m

Casing Radius: 0.0254 m

Static Water Column Height: 2.89 m

Screen Length: 1.5 m

Well Radius: 0.0254 m

Gravel Pack Porosity: 0.

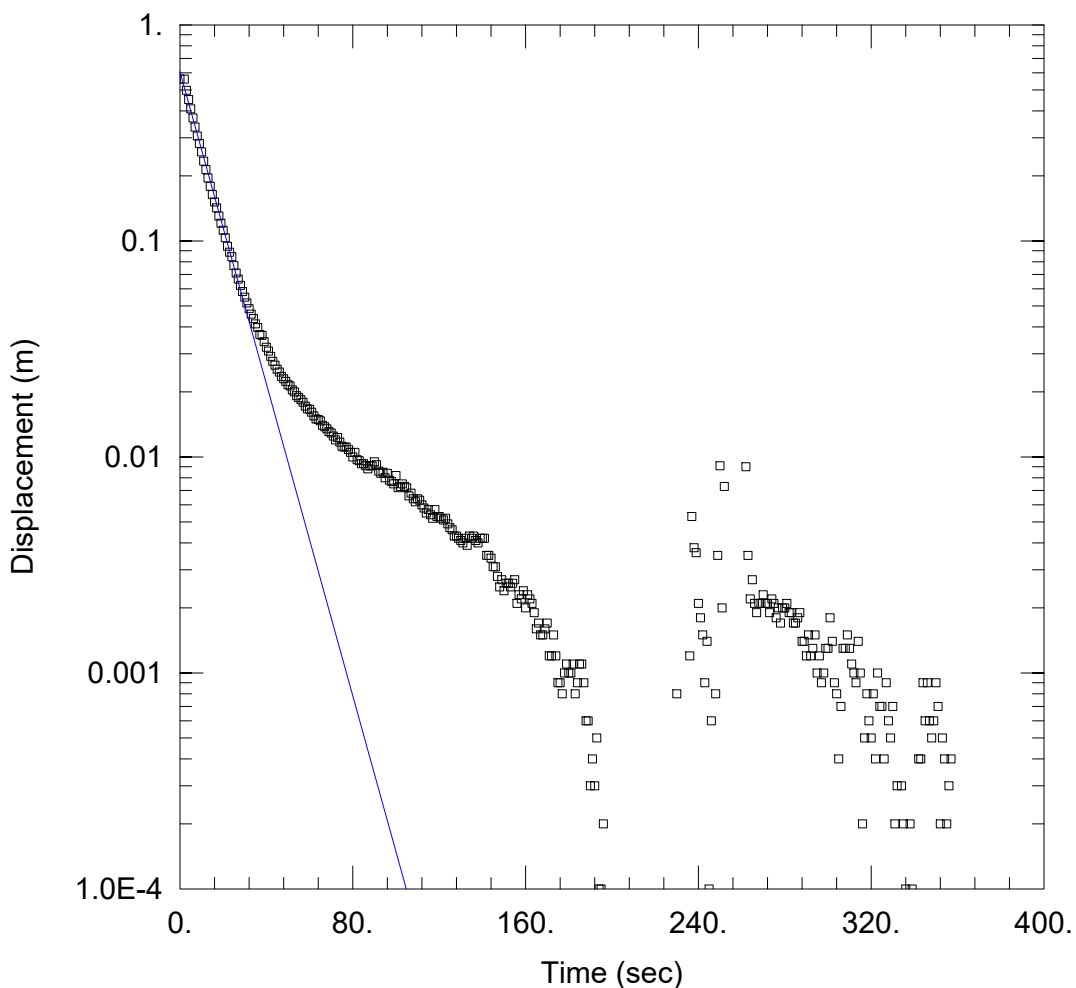
SOLUTION

Aquifer Model: Unconfined

$K = 0.0004659$ m/sec

Solution Method: Bouwer-Rice

$y_0 = 0.6946$ m



RISING HEAD TEST # 3

Data Set: C:\...\RisingHead3.aqt

Date: 10/29/19

Time: 09:15:48

PROJECT INFORMATION

Company: Palmer

Client: Niagara Region

Project: 1805403

Location: Ft. Erie

Test Well: BH19-1

Test Date: October 24, 2019

AQUIFER DATA

Saturated Thickness: 2.89 m

Anisotropy Ratio (K_z/K_r): 0.1

WELL DATA (BH19-1)

Initial Displacement: 0.561 m

Total Well Penetration Depth: 2.89 m

Casing Radius: 0.0254 m

Static Water Column Height: 2.89 m

Screen Length: 1.5 m

Well Radius: 0.0254 m

Gravel Pack Porosity: 0.

SOLUTION

Aquifer Model: Unconfined

$K = 0.0004602$ m/sec

Solution Method: Bouwer-Rice

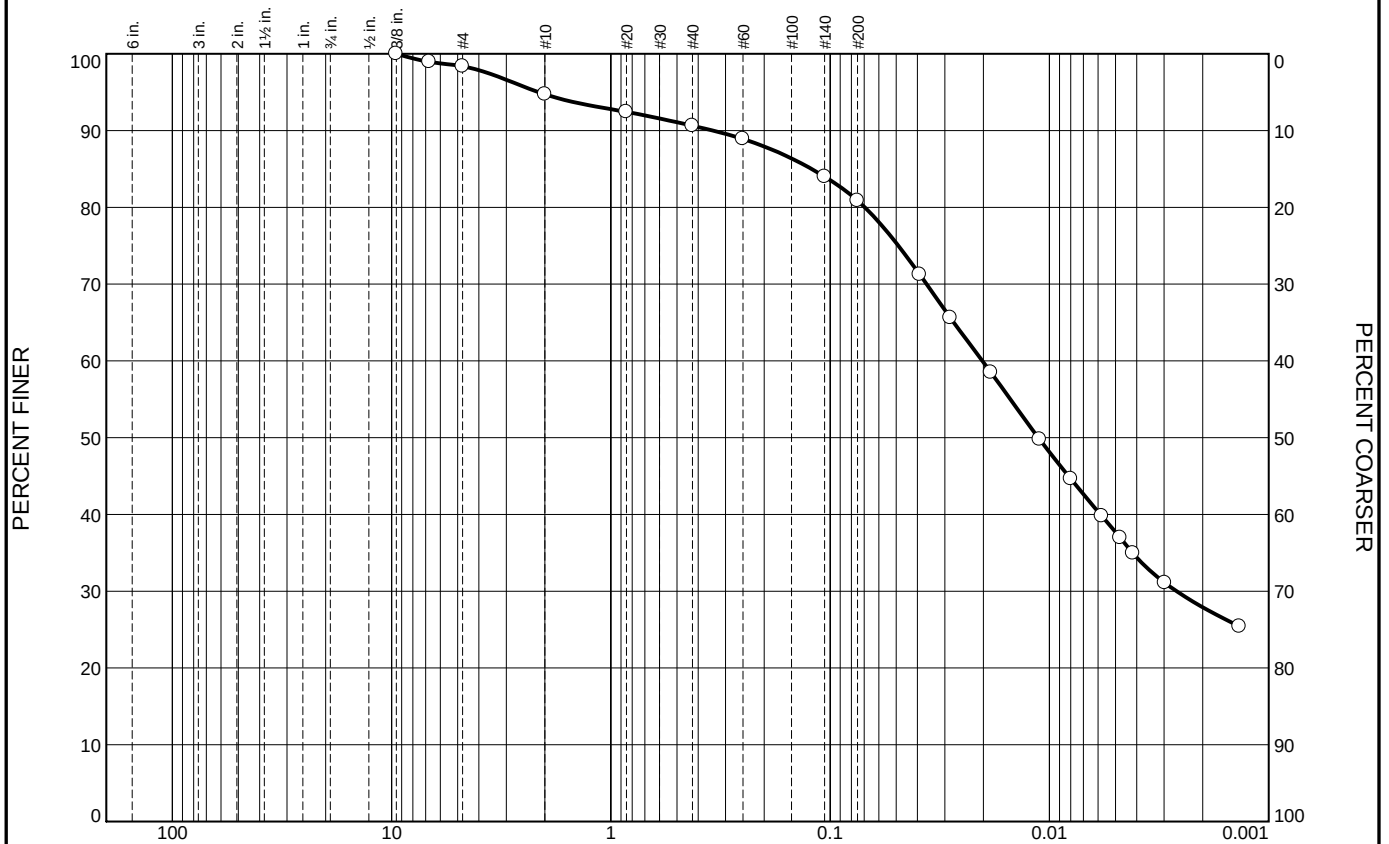
$y_0 = 0.606$ m

Appendix D

Grain Size Distribution Curves

Terrapex, 2019

Grain Size Distribution Report



GRAIN SIZE - mm.

%	+3"	% Gravel		% Sand			% Fines		
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay	
○	0	0	2	3	4	10	53	28	
×	LL	PL	D ₈₅	D ₆₀	D ₅₀	D ₃₀	D ₁₅	D ₁₀	C _c
○			0.1216	0.0202	0.0112	0.0026			

Material Description							USCS	AASHTO
○ CLAYEY SILT, some sand, trace gravel								

Project No. 19-009 Client: Palmer Environmental Consulting Group Inc. (PECG) Project: PECG Lab testing Prj. No. 1805403 ○ Sample Number: BH19-1, Sample SS4	Remarks:
Terrapex	

Figure 1

Tested By: PG Checked By: DM

Appendix E

Certificate of Analysis

ALS, 2019



PALMER ENVIRONMENTAL CONSULTING
GROUP INC. (Richmond Hill)
ATTN: Supriya Singh
74 Berkeley Street
Toronto ON M5V 1E3

Date Received: 24-OCT-19
Report Date: 01-NOV-19 09:49 (MT)
Version: FINAL

Client Phone: 647-795-8153

Certificate of Analysis

Lab Work Order #: L2371700
Project P.O. #: NOT SUBMITTED
Job Reference: 1805403
C of C Numbers: 17-731442
Legal Site Desc:

Amanda Fazekas
Account Manager

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ANALYTICAL GUIDELINE REPORT

L2371700 CONTD....

Page 2 of 5

01-NOV-19 09:49 (MT)

1805403

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte									
L2371700-1	BH19-1									
Sampled By:	CLIENT on 24-OCT-19 @ 08:00									
Matrix:	WATER									
Physical Tests										
pH		8.34		0.10	pH units	26-OCT-19	6.0-11			
Total Suspended Solids		217		2.0	mg/L	30-OCT-19	350			
Anions and Nutrients										
Fluoride (F)		0.915		0.020	mg/L	28-OCT-19	10			
Total Kjeldahl Nitrogen		1.26		0.15	mg/L	31-OCT-19	100			
Phosphorus, Total		0.0442		0.0030	mg/L	31-OCT-19	10			
Sulfate (SO ₄)		49.9		0.30	mg/L	28-OCT-19	1500			
Sulphide (as S)		<0.018		0.018	mg/L	30-OCT-19				
Cyanides										
Cyanide, Total		<0.0020		0.0020	mg/L	25-OCT-19	1			
Total Metals										
Antimony (Sb)-Total		0.0022	DLHC	0.0010	mg/L	25-OCT-19	5			
Arsenic (As)-Total		0.0025	DLHC	0.0010	mg/L	25-OCT-19	1			
Cadmium (Cd)-Total		<0.000050	DLHC	0.000050	mg/L	25-OCT-19	0.7			
Chromium (Cr)-Total		<0.0050	DLHC	0.0050	mg/L	25-OCT-19	3			
Cobalt (Co)-Total		<0.0010	DLHC	0.0010	mg/L	25-OCT-19	5			
Copper (Cu)-Total		<0.010	DLHC	0.010	mg/L	25-OCT-19	3			
Lead (Pb)-Total		0.00102	DLHC	0.00050	mg/L	25-OCT-19	1			
Mercury (Hg)-Total		0.0000421		0.0000050	mg/L	28-OCT-19	0.01			
Molybdenum (Mo)-Total		0.0260	DLHC	0.00050	mg/L	25-OCT-19	5			
Nickel (Ni)-Total		<0.0050	DLHC	0.0050	mg/L	25-OCT-19	2			
Selenium (Se)-Total		<0.00050	DLHC	0.00050	mg/L	25-OCT-19	1			
Silver (Ag)-Total		<0.00050	DLHC	0.00050	mg/L	25-OCT-19	5			
Tin (Sn)-Total		0.0027	DLHC	0.0010	mg/L	25-OCT-19	5			
Zinc (Zn)-Total		<0.030	DLHC	0.030	mg/L	25-OCT-19	3			
Aggregate Organics										
BOD		<2.0		2.0	mg/L	30-OCT-19	300			
Oil and Grease, Total		<5.0		5.0	mg/L	26-OCT-19				
Animal/Veg Oil & Grease		<5.0		5.0	mg/L	28-OCT-19	150			
Mineral Oil and Grease		<2.5		2.5	mg/L	26-OCT-19	15			
Phenols (4AAP)		0.0034		0.0010	mg/L	28-OCT-19	1			
Volatile Organic Compounds										
Benzene		6.31		0.50	ug/L	31-OCT-19	10			
Chloroform		8.1		1.0	ug/L	31-OCT-19	40			
1,2-Dichlorobenzene		<0.50		0.50	ug/L	31-OCT-19	50			
1,4-Dichlorobenzene		<0.50		0.50	ug/L	31-OCT-19	80			
Dichloromethane		<2.0		2.0	ug/L	31-OCT-19	210			
Ethylbenzene		2.12		0.50	ug/L	31-OCT-19	160			
1,1,2,2-Tetrachloroethane		<0.50		0.50	ug/L	31-OCT-19	40			
Tetrachloroethylene		<0.50		0.50	ug/L	31-OCT-19	50			
Toluene		13.5		0.50	ug/L	31-OCT-19	200			
Trichloroethylene		<0.50		0.50	ug/L	31-OCT-19	50			
o-Xylene		4.49		0.50	ug/L	31-OCT-19	520			
Surrogate: 4-Bromofluorobenzene		101.6		70-130	%	31-OCT-19				

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Niagara Sanitary Sewer By-Law No. 27-2014

#1: Ontario Niagara Sanitary Sewer By-Law No. 27-2014



L2371700 CONTD....

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01-NOV-19 09:49 (MT)

1805403

*Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Niagara Sanitary Sewer By-Law No. 27-2014

#1: Ontario Niagara Sanitary Sewer By-Law No. 27-2014

Reference Information

Sample Parameter Qualifier key listed:			
Qualifier	Description		
DLHC	Detection Limit Raised: Dilution required due to high concentration of test analyte(s).		
Methods Listed (if applicable):			
ALS Test Code	Matrix	Test Description	Method Reference***
BOD-WT	Water	BOD	APHA 5210 B
This analysis is carried out using procedures adapted from APHA Method 5210B - "Biochemical Oxygen Demand (BOD)". All forms of biochemical oxygen demand (BOD) are determined by diluting and incubating a sample for a specified time period, and measuring the oxygen depletion using a dissolved oxygen meter. Dissolved BOD (SOLUBLE) is determined by filtering the sample through a glass fibre filter prior to dilution. Carbonaceous BOD (CBOD) is determined by adding a nitrification inhibitor to the diluted sample prior to incubation.			
CN-TOT-WT	Water	Cyanide, Total	ISO 14403-2
Total cyanide is determined by the combination of UV digestion and distillation. Cyanide is converted to cyanogen chloride by reacting with chloramine-T, the cyanogen chloride then reacts with a combination of barbituric acid and isonicotinic acid to form a highly colored complex.			
When using this method, high levels of thiocyanate in samples can cause false positives at ~1-2% of the thiocyanate concentration. For samples with detectable cyanide analyzed by this method, ALS recommends analysis for thiocyanate to check for this potential interference			
EC-SCREEN-WT	Water	Conductivity Screen (Internal Use Only)	APHA 2510
Qualitative analysis of conductivity where required during preparation of other tests - e.g. TDS, metals, etc.			
F-IC-N-WT	Water	Fluoride in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
HG-T-CVAA-WT	Water	Total Mercury in Water by CVAAS	EPA 1631E (mod)
Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.			
MET-T-CCMS-WT	Water	Total Metals in Water by CRC ICPMS	EPA 200.2/6020A (mod)
Water samples are digested with nitric and hydrochloric acids, and analyzed by CRC ICPMS.			
Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.			
Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).			
OGG-SPEC-CALC-WT	Water	Speciated Oil and Grease A/V Calc	CALCULATION
Sample is extracted with hexane, sample speciation into mineral and animal/vegetable fractions is achieved via silica gel separation and is then determined gravimetrically.			
OGG-SPEC-WT	Water	Speciated Oil and Grease-Gravimetric	APHA 5520 B
The procedure involves an extraction of the entire water sample with hexane. Sample speciation into mineral and animal/vegetable fractions is achieved via silica gel separation and is then determined gravimetrically.			
P-T-COL-WT	Water	Total P in Water by Colour	APHA 4500-P PHOSPHORUS
This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Phosphorus is deteremined colourimetrically after persulphate digestion of the sample.			
PH-WT	Water	pH	APHA 4500 H-Electrode
Water samples are analyzed directly by a calibrated pH meter.			
Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011). Holdtime for samples under this regulation is 28 days			
PHENOLS-4AAP-WT	Water	Phenol (4AAP)	EPA 9066
An automated method is used to distill the sample. The distillate is then buffered to pH 9.4 which reacts with 4AAP and potassium ferricyanide to form a red complex which is measured colorimetrically.			
SO4-IC-N-WT	Water	Sulfate in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
SOLIDS-TSS-WT	Water	Suspended solids	APHA 2540 D-Gravimetric
A well-mixed sample is filtered through a weighed standard glass fibre filter and the residue retained is dried in an oven at 104–1°C for a minimum of four hours or until a constant weight is achieved.			

Reference Information

SULPHIDE-WT	Water	Sulphide (as S)	APHA 4500S2D
This analysis is carried out using procedures adapted from APHA Method 4500-S2-D "Methylene Blue Method". Sulphide is determined colourmetrically.			
TKN-WT	Water	Total Kjeldahl Nitrogen	APHA 4500-Norg D
This analysis is carried out using procedures adapted from APHA Method 4500-Norg "Nitrogen (Organic)". Total Kjeldahl Nitrogen is determined by sample digestion at 380 Celsius with analysis using an automated colorimetric method.			
VOC-ROU-HS-WT	Water	Volatile Organic Compounds	SW846 8260
Aqueous samples are analyzed by headspace-GC/MS.			

*** ALS test methods may incorporate modifications from specified reference methods to improve performance.

Chain of Custody numbers:			
17-731442			
The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:			
Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA		

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, fitness for a particular purpose, or non-infringement. ALS assumes no responsibility for errors or omissions in the information. Guideline limits are not adjusted for the hardness, pH or temperature of the sample (the most conservative values are used). Measurement uncertainty is not applied to test results prior to comparison with specified criteria values.

Quality Control Report

Workorder: L2371700

Report Date: 01-NOV-19

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Client: PALMER ENVIRONMENTAL CONSULTING GROUP INC. (Richmond Hill)

74 Berkeley Street

Toronto ON M5V 1E3

Contact: Supriya Singh

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
SOLIDS-TSS-WT		Water						
Batch	R4890030							
WG3204567-3 DUP		L2372267-1						
Total Suspended Solids		8930	8950		mg/L	0.3	20	30-OCT-19
WG3204567-2 LCS								
Total Suspended Solids			100.3		%		85-115	30-OCT-19
WG3204567-1 MB								
Total Suspended Solids			<2.0		mg/L		2	30-OCT-19
SULPHIDE-WT		Water						
Batch	R4889652							
WG3205345-3 DUP		L2371141-4						
Sulphide (as S)		0.033	0.033		mg/L	0.0	20	30-OCT-19
WG3205345-2 LCS								
Sulphide (as S)			89.2		%		75-125	30-OCT-19
WG3205345-1 MB								
Sulphide (as S)			<0.018		mg/L		0.018	30-OCT-19
WG3205345-4 MS		L2371141-4						
Sulphide (as S)			93.7		%		65-135	30-OCT-19
TKN-WT		Water						
Batch	R4892308							
WG3206379-3 DUP		L2370646-1						
Total Kjeldahl Nitrogen		1.31	1.25		mg/L	4.7	20	31-OCT-19
WG3206379-2 LCS								
Total Kjeldahl Nitrogen			101.4		%		75-125	31-OCT-19
WG3206379-1 MB								
Total Kjeldahl Nitrogen			<0.15		mg/L		0.15	31-OCT-19
WG3206379-4 MS		L2370646-1						
Total Kjeldahl Nitrogen			101.5		%		70-130	31-OCT-19
VOC-ROU-HS-WT		Water						
Batch	R4890586							
WG3206333-4 DUP		WG3206333-3						
1,1,2,2-Tetrachloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	31-OCT-19
1,2-Dichlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	31-OCT-19
1,4-Dichlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	31-OCT-19
Benzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	31-OCT-19
Chloroform		<1.0	<1.0	RPD-NA	ug/L	N/A	30	31-OCT-19
Dichloromethane		<2.0	<2.0	RPD-NA	ug/L	N/A	30	31-OCT-19
Ethylbenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	31-OCT-19

Quality Control Report

Workorder: L2371700

Report Date: 01-NOV-19

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Client: PALMER ENVIRONMENTAL CONSULTING GROUP INC. (Richmond Hill)

74 Berkeley Street

Toronto ON M5V 1E3

Contact: Supriya Singh

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-ROU-HS-WT		Water						
Batch	R4890586							
WG3206333-4 DUP		WG3206333-3						
o-Xylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	31-OCT-19
Tetrachloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	31-OCT-19
Toluene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	31-OCT-19
Trichloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	31-OCT-19
WG3206333-1 LCS								
1,1,2,2-Tetrachloroethane			90.5		%		70-130	31-OCT-19
1,2-Dichlorobenzene			101.9		%		70-130	31-OCT-19
1,4-Dichlorobenzene			106.6		%		70-130	31-OCT-19
Benzene			102.0		%		70-130	31-OCT-19
Chloroform			95.4		%		70-130	31-OCT-19
Dichloromethane			84.2		%		70-130	31-OCT-19
Ethylbenzene			118.3		%		70-130	31-OCT-19
o-Xylene			115.5		%		70-130	31-OCT-19
Tetrachloroethylene			103.2		%		70-130	31-OCT-19
Toluene			105.4		%		70-130	31-OCT-19
Trichloroethylene			103.3		%		70-130	31-OCT-19
WG3206333-2 MB								
1,1,2,2-Tetrachloroethane			<0.50		ug/L		0.5	31-OCT-19
1,2-Dichlorobenzene			<0.50		ug/L		0.5	31-OCT-19
1,4-Dichlorobenzene			<0.50		ug/L		0.5	31-OCT-19
Benzene			<0.50		ug/L		0.5	31-OCT-19
Chloroform			<1.0		ug/L		1	31-OCT-19
Dichloromethane			<2.0		ug/L		2	31-OCT-19
Ethylbenzene			<0.50		ug/L		0.5	31-OCT-19
o-Xylene			<0.50		ug/L		0.5	31-OCT-19
Tetrachloroethylene			<0.50		ug/L		0.5	31-OCT-19
Toluene			<0.50		ug/L		0.5	31-OCT-19
Trichloroethylene			<0.50		ug/L		0.5	31-OCT-19
Surrogate: 1,4-Difluorobenzene			103.8		%		70-130	31-OCT-19
Surrogate: 4-Bromofluorobenzene			102.1		%		70-130	31-OCT-19
WG3206333-5 MS		WG3206333-3						
1,1,2,2-Tetrachloroethane			107.1		%		50-150	31-OCT-19
1,2-Dichlorobenzene			102.2		%		50-150	31-OCT-19
1,4-Dichlorobenzene			100.8		%		50-150	31-OCT-19



Quality Control Report

Workorder: L2371700

Report Date: 01-NOV-19

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Client: PALMER ENVIRONMENTAL CONSULTING GROUP INC. (Richmond Hill)
74 Berkeley Street
Toronto ON M5V 1E3

Contact: Supriya Singh

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-ROU-HS-WT	Water							
Batch	R4890586							
WG3206333-5 MS		WG3206333-3						
Benzene			103.1		%		50-150	31-OCT-19
Chloroform			98.4		%		50-150	31-OCT-19
Dichloromethane			87.1		%		50-150	31-OCT-19
Ethylbenzene			113.3		%		50-150	31-OCT-19
o-Xylene			112.3		%		50-150	31-OCT-19
Tetrachloroethylene			97.0		%		50-150	31-OCT-19
Toluene			102.3		%		50-150	31-OCT-19
Trichloroethylene			101.9		%		50-150	31-OCT-19

Quality Control Report

Workorder: L2371700

Report Date: 01-NOV-19

Client: PALMER ENVIRONMENTAL CONSULTING GROUP INC. (Richmond Hill)
74 Berkeley Street
Toronto ON M5V 1E3
Contact: Supriya Singh

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Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
J	Duplicate results and limits are expressed in terms of absolute difference.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Appendix F

Waste Disposal Site Report

ERIS, 2019



DATABASE **REPORT**

Project Property:	<i>Ft. Erie Elevated Tank 1886 Pettit Road Fort Erie ON L2A 5M4</i>
Project No:	<i>1805403</i>
Report Type:	<i>Waste Disposal Site Report</i>
Order No:	<i>20191029228</i>
Requested by:	<i>Palmer Environmental Consulting Group Inc.</i>
Date Completed:	<i>November 1, 2019</i>

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Executive Summary

Property Information:

Project Property: *Ft. Erie Elevated Tank
1886 Pettit Road Fort Erie ON L2A 5M4*

Project No: *1805403*

Coordinates:

Latitude: *42.92745*
Longitude: *-78.965923*
UTM Northing: *4,754,765.44*
UTM Easting: *665,991.77*
UTM Zone: *UTM Zone 17T*

Elevation: *610 FT
185.90 M*

Order Information:

Order No: *20191029228*
Date Requested: *October 29, 2019*
Requested by: *Palmer Environmental Consulting Group Inc.*
Report Type: *Waste Disposal Site Report*

Historical/Products:

Executive Summary: Report Summary

<i>Database</i>	<i>Name</i>	<i>Searched</i>	<i>Project Property</i>	<i>Within 0.50 km</i>	<i>Total</i>
AAGR	<i>Abandoned Aggregate Inventory</i>	Y	0	0	0
AGR	<i>Aggregate Inventory</i>	Y	0	0	0
AMIS	<i>Abandoned Mine Information System</i>	Y	0	0	0
ANDR	<i>Anderson's Waste Disposal Sites</i>	Y	0	4	4
AST	<i>Aboveground Storage Tanks</i>	Y	0	0	0
AUWR	<i>Automobile Wrecking & Supplies</i>	Y	0	0	0
BORE	<i>Borehole</i>	Y	0	0	0
CA	<i>Certificates of Approval</i>	Y	0	17	17
CDRY	<i>Dry Cleaning Facilities</i>	Y	0	0	0
CFOT	<i>Commercial Fuel Oil Tanks</i>	Y	0	0	0
CHEM	<i>Chemical Register</i>	Y	0	0	0
CNG	<i>Compressed Natural Gas Stations</i>	Y	0	1	1
COAL	<i>Inventory of Coal Gasification Plants and Coal Tar Sites</i>	Y	0	0	0
CONV	<i>Compliance and Convictions</i>	Y	0	0	0
CPU	<i>Certificates of Property Use</i>	Y	0	0	0
DRL	<i>Drill Hole Database</i>	Y	0	0	0
EASR	<i>Environmental Activity and Sector Registry</i>	Y	0	0	0
EBR	<i>Environmental Registry</i>	Y	0	11	11
ECA	<i>Environmental Compliance Approval</i>	Y	0	16	16
EEM	<i>Environmental Effects Monitoring</i>	Y	0	0	0
EHS	<i>ERIS Historical Searches</i>	Y	0	11	11
EIS	<i>Environmental Issues Inventory System</i>	Y	0	0	0
EMHE	<i>Emergency Management Historical Event</i>	Y	0	0	0
EPAR	<i>Environmental Penalty Annual Report</i>	Y	0	0	0
EXP	<i>List of TSSA Expired Facilities</i>	Y	0	0	0
FCON	<i>Federal Convictions</i>	Y	0	0	0
FCS	<i>Contaminated Sites on Federal Land</i>	Y	0	0	0
FOFT	<i>Fisheries & Oceans Fuel Tanks</i>	Y	0	0	0
FST	<i>Fuel Storage Tank</i>	Y	0	0	0
FSTH	<i>Fuel Storage Tank - Historic</i>	Y	0	0	0
GEN	<i>Ontario Regulation 347 Waste Generators Summary</i>	Y	0	89	89
GHG	<i>Greenhouse Gas Emissions from Large Facilities</i>	Y	0	1	1
HINC	<i>TSSA Historic Incidents</i>	Y	0	0	0
IAFT	<i>Indian & Northern Affairs Fuel Tanks</i>	Y	0	0	0
INC	<i>TSSA Incidents</i>	Y	0	0	0
LIMO	<i>Landfill Inventory Management Ontario</i>	Y	0	1	1

<i>Database</i>	<i>Name</i>	<i>Searched</i>	<i>Project Property</i>	<i>Within 0.50 km</i>	<i>Total</i>
MINE	Canadian Mine Locations	Y	0	0	0
MNR	Mineral Occurrences	Y	0	0	0
NATE	National Analysis of Trends in Emergencies System (NATES)	Y	0	0	0
NCPL	Non-Compliance Reports	Y	0	1	1
NDFT	National Defense & Canadian Forces Fuel Tanks	Y	0	0	0
NDSP	National Defense & Canadian Forces Spills	Y	0	0	0
NDWD	National Defence & Canadian Forces Waste Disposal Sites	Y	0	0	0
NEBI	National Energy Board Pipeline Incidents	Y	0	0	0
NEBP	National Energy Board Wells	Y	0	0	0
NEES	National Environmental Emergencies System (NEES)	Y	0	0	0
NPCB	National PCB Inventory	Y	0	1	1
NPRI	National Pollutant Release Inventory	Y	0	27	27
OGWE	Oil and Gas Wells	Y	0	0	0
OOGW	Ontario Oil and Gas Wells	Y	0	1	1
OPCB	Inventory of PCB Storage Sites	Y	0	3	3
ORD	Orders	Y	0	0	0
PAP	Canadian Pulp and Paper	Y	0	0	0
PCFT	Parks Canada Fuel Storage Tanks	Y	0	0	0
PES	Pesticide Register	Y	0	0	0
PINC	TSSA Pipeline Incidents	Y	0	0	0
PRT	Private and Retail Fuel Storage Tanks	Y	0	0	0
PTTW	Permit to Take Water	Y	0	0	0
REC	Ontario Regulation 347 Waste Receivers Summary	Y	0	13	13
RSC	Record of Site Condition	Y	0	0	0
RST	Retail Fuel Storage Tanks	Y	0	0	0
SCOT	Scott's Manufacturing Directory	Y	0	2	2
SPL	Ontario Spills	Y	0	18	18
SRDS	Wastewater Discharger Registration Database	Y	0	0	0
TANK	Anderson's Storage Tanks	Y	0	0	0
TCFT	Transport Canada Fuel Storage Tanks	Y	0	0	0
VAR	TSSA Variances for Abandonment of Underground Storage Tanks	Y	0	0	0
WDS	Waste Disposal Sites - MOE CA Inventory	Y	0	51	51
WDSH	Waste Disposal Sites - MOE 1991 Historical Approval Inventory	Y	0	1	1
WWIS	Water Well Information System	Y	0	7	7
		Total:	0	276	276

Executive Summary: Site Report Summary - Project Property

<i>Map Key</i>	<i>DB</i>	<i>Company/Site Name</i>	<i>Address</i>	<i>Dir/Dist (m)</i>	<i>Elev diff (m)</i>	<i>Page Number</i>
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No records found in the selected databases for the project property.

Executive Summary: Site Report Summary - Surrounding Properties

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>1</u>	WWIS		lot 7 con 4 ON Well ID: 6602657	W/36.7	-1.05	<u>58</u>
<u>2</u>	NPRI	REGIONAL MUNICIPALITY OF NIAGARA	1300 BRIDGE Street FORT ERIE ON L2A5M4	SSE/112.3	-1.05	<u>61</u>
<u>2</u>	NPRI	REGIONAL MUNICIPALITY OF NIAGARA	1300 BRIDGE Street FORT ERIE ON L2A5M4	SSE/112.3	-1.05	<u>63</u>
<u>3</u>	CA	CORPORATION OF THE TOWN OF FORT ERIE	PETTIT RD./BRIDGE ST. FORT ERIE TOWN ON	SSW/131.7	-0.85	<u>64</u>
<u>3</u>	CA	FORT ERIE TOWN	PETTIT RD./BRIDGE ST. FORT ERIE TOWN ON	SSW/131.7	-0.85	<u>65</u>
<u>3</u>	CA	FORT ERIE TOWN	PETTIT RD./BRIDGE ST. FORT ERIE TOWN ON	SSW/131.7	-0.85	<u>65</u>
<u>4</u>	NPRI	NEWALTA CORPORATION	1731 PETTIT ROAD NOT AVAILABLE FORT ERIE ON L2A5M4	S/173.1	-0.05	<u>65</u>
<u>5</u>	CA	The Regional Municipality of Niagara	1300 Bridge St Lots 7 and 8, Concession 4 Fort Erie ON	ESE/180.3	-1.05	<u>66</u>
<u>5</u>	ECA	The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON	ESE/180.3	-1.05	<u>66</u>
<u>5</u>	ECA	The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON L2V 4T7	ESE/180.3	-1.05	<u>66</u>
<u>5</u>	ECA	The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON	ESE/180.3	-1.05	<u>67</u>
<u>5</u>	ECA	The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON L2V 4T7	ESE/180.3	-1.05	<u>67</u>

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>5</u>	ECA	The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON L2V 4T7	ESE/180.3	-1.05	<u>67</u>
<u>5</u>	ECA	The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON L2V 4T7	ESE/180.3	-1.05	<u>68</u>
<u>5</u>	ECA	The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON L2V 4T7	ESE/180.3	-1.05	<u>68</u>
<u>5</u>	ECA	The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON L2V 4T7	ESE/180.3	-1.05	<u>68</u>
<u>5</u>	GEN	NIAGARA, REGIONAL MUNICIPALITY OF	BRIDGE STREET LANDFILL SITE 1300 Bridge Street FORT ERIE ON L2A 5M4	ESE/180.3	-1.05	<u>68</u>
<u>5</u>	GEN	MODERN CORPORATION	1300 BRIDGE ST. R.R #1 FORT ERIE ON L2A 5M4	ESE/180.3	-1.05	<u>69</u>
<u>5</u>	GEN	NIAGARA, REGIONAL MUNICIPALITY OF	BRIDGE STREET LANDFILL SITE 1300 Bridge Street FORT ERIE ON L2A 5M4	ESE/180.3	-1.05	<u>69</u>
<u>5</u>	GEN	MODERN CORPORATION	1300 BRIDGE ST. R.R #1 FORT ERIE ON L2A 5M4	ESE/180.3	-1.05	<u>69</u>
<u>5</u>	GEN	NIAGARA, REGIONAL MUNICIPALITY OF	BRIDGE STREET LANDFILL SITE 1300 Bridge Street FORT ERIE ON L2A 5M4	ESE/180.3	-1.05	<u>70</u>
<u>5</u>	GEN	MODERN LANDFILL INC	1300 BRIDGE ST. R.R #1 FORT ERIE ON L2A 5M4	ESE/180.3	-1.05	<u>70</u>
<u>5</u>	GEN	MODERN LANDFILL INC	1300 BRIDGE ST. R.R #1 FORT ERIE ON L2A 5M4	ESE/180.3	-1.05	<u>70</u>
<u>5</u>	GEN	NIAGARA, REGIONAL MUNICIPALITY OF	BRIDGE STREET LANDFILL SITE 1300 Bridge Street FORT ERIE ON L2A 5M4	ESE/180.3	-1.05	<u>70</u>

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>5</u>	GEN	NIAGARA, REGIONAL MUNICIPALITY OF	BRIDGE STREET LANDFILL SITE 1300 Bridge Street FORT ERIE ON L2A 5M4	ESE/180.3	-1.05	<u>71</u>
<u>5</u>	GEN	MODERN LANDFILL INC	1300 BRIDGE ST. R.R #1 FORT ERIE ON L2A 5M4	ESE/180.3	-1.05	<u>71</u>
<u>5</u>	GEN	NIAGARA, REGIONAL MUNICIPALITY OF	BRIDGE STREET LANDFILL SITE 1300 Bridge Street FORT ERIE ON	ESE/180.3	-1.05	<u>71</u>
<u>5</u>	GEN	NIAGARA, REGIONAL MUNICIPALITY OF	BRIDGE STREET LANDFILL SITE 1300 Bridge Street FORT ERIE ON L2A 5M4	ESE/180.3	-1.05	<u>72</u>
<u>5</u>	GEN	NIAGARA, REGIONAL MUNICIPALITY OF	BRIDGE STREET LANDFILL SITE 1300 Bridge Street FORT ERIE ON L2A 5M4	ESE/180.3	-1.05	<u>72</u>
<u>5</u>	GEN	NIAGARA, REGIONAL MUNICIPALITY OF	BRIDGE STREET LANDFILL SITE 1300 Bridge Street FORT ERIE ON L2A 5M4	ESE/180.3	-1.05	<u>72</u>
<u>5</u>	GEN	NIAGARA, REGIONAL MUNICIPALITY OF	BRIDGE STREET LANDFILL SITE 1300 Bridge Street FORT ERIE ON L2A 5M4	ESE/180.3	-1.05	<u>73</u>
<u>5</u>	GEN	NIAGARA, REGIONAL MUNICIPALITY OF	BRIDGE STREET LANDFILL SITE 1300 Bridge Street FORT ERIE ON L2A 5M4	ESE/180.3	-1.05	<u>73</u>
<u>5</u>	GHG	Bridge Street Landfill Site	1300 Bridge Street Fort Erie ON L2A5M4	ESE/180.3	-1.05	<u>73</u>
<u>5</u>	LIMO	The Regional Municipality of Niagara Bridge Street Landfill	1300 Bridge Street Lot 7-8 Concession 3-4 Fort Erie ON	ESE/180.3	-1.05	<u>74</u>
<u>5</u>	NPRI	REGIONAL MUNICIPALITY OF NIAGARA	1300 BRIDGE STREET NOT AVAILABLE FORT ERIE ON L2A5M4	ESE/180.3	-1.05	<u>75</u>
<u>5</u>	NPRI	REGIONAL MUNICIPALITY OF NIAGARA	1300 BRIDGE STREET NOT AVAILABLE FORT ERIE ON L2A5M4	ESE/180.3	-1.05	<u>76</u>
<u>5</u>	NPRI	REGIONAL MUNICIPALITY OF NIAGARA	1300 BRIDGE STREET NOT AVAILABLE FORT ERIE ON L2A5M4	ESE/180.3	-1.05	<u>77</u>

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<u>5</u>	NPRI	REGIONAL MUNICIPALITY OF NIAGARA	1300 BRIDGE STREET NOT AVAILABLE FORT ERIE ON L2A5M4	ESE/180.3	-1.05	<u>79</u>
<u>5</u>	NPRI	Regional Municipality of Niagara	1300 BRIDGE STREET NOT AVAILABLE FORT ERIE ON L2A5M4	ESE/180.3	-1.05	<u>79</u>
<u>5</u>	WDS	The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON	ESE/180.3	-1.05	<u>80</u>
<u>5</u>	WDS	The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON	ESE/180.3	-1.05	<u>81</u>
<u>5</u>	WDS	The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON	ESE/180.3	-1.05	<u>81</u>
<u>5</u>	WDS	The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON L2V 4T7	ESE/180.3	-1.05	<u>82</u>
<u>5</u>	WDS	The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON L2V 4T7	ESE/180.3	-1.05	<u>83</u>
<u>5</u>	WDS	The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON L2V 4T7	ESE/180.3	-1.05	<u>84</u>
<u>5</u>	WDS	The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON L2V 4T7	ESE/180.3	-1.05	<u>84</u>
<u>5</u>	WDS	The Regional Municipality of Niagara	1300 Bridge St, Lot 7, 8, Concession 3, 4 Fort Erie ON	ESE/180.3	-1.05	<u>85</u>
<u>5</u>	WDS	The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON L2V 4T7	ESE/180.3	-1.05	<u>86</u>
<u>5</u>	WDS	The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON L2V 4T7	ESE/180.3	-1.05	<u>86</u>

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<u>5</u>	WDS	The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON L2V 4T7	ESE/180.3	-1.05	<u>87</u>
<u>6</u>	GEN	NIAGARA, THE REGIONAL MUNICIPALITY OF	JOHN C. GIBSON OPERATIONS CENTRE 1818 PETIT ROAD FORT ERIE ON	S/209.2	-0.05	<u>88</u>
<u>6</u>	GEN	NIAGARA, REGIONAL MUNICIPALITY OF	JOHN C. GIBSON OPERATIONS CENTRE 1818 PETIT ROAD FORT ERIE ON	S/209.2	-0.05	<u>89</u>
<u>6</u>	GEN	FORT ERIE, CORP. OF THE TOWN OF	PUBLIC WORKS FACILITY 1818 PETTIT ROAD FORT ERIE ON L2A 5M4	S/209.2	-0.05	<u>89</u>
<u>6</u>	GEN	FORT ERIE, CORP. OF THE TOWN OF 15-699	JOHN L. GIBSON OPERATIONS FACILITY 1818 PETTIT ROAD FORT ERIE ON L2A 5M4	S/209.2	-0.05	<u>90</u>
<u>6</u>	GEN	FORT ERIE, CORPORATION OF THE TOWN OF	PUBLIC WORKS FACILITY 1818 PETTIT ROAD FORT ERIE ON L2A 5M4	S/209.2	-0.05	<u>91</u>
<u>6</u>	GEN	NIAGARA, REGIONAL MUNICIPALITY OF	JOHN C. GIBSON OPERATIONS CENTRE 1818 PETIT ROAD FORT ERIE ON	S/209.2	-0.05	<u>91</u>
<u>6</u>	GEN	FORT ERIE, CORPORATION OF THE TOWN OF	PUBLIC WORKS FACILITY 1818 PETTIT ROAD FORT ERIE ON L2A 5M4	S/209.2	-0.05	<u>92</u>
<u>6</u>	GEN	FORT ERIE, CORPORATION OF THE TOWN OF	PUBLIC WORKS FACILITY 1818 PETTIT ROAD FORT ERIE ON L2A 5M4	S/209.2	-0.05	<u>92</u>
<u>6</u>	GEN	NIAGARA, REGIONAL MUNICIPALITY OF	JOHN C. GIBSON OPERATIONS CENTRE 1818 PETIT ROAD FORT ERIE ON	S/209.2	-0.05	<u>93</u>
<u>6</u>	GEN	NIAGARA, REGIONAL MUNICIPALITY OF	JOHN C. GIBSON OPERATIONS CENTRE 1818 PETIT ROAD FORT ERIE ON	S/209.2	-0.05	<u>94</u>
<u>6</u>	GEN	FORT ERIE, CORPORATION OF THE TOWN OF	PUBLIC WORKS FACILITY 1818 PETTIT ROAD FORT ERIE ON L2A 5M4	S/209.2	-0.05	<u>95</u>

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<u>6</u>	GEN	FORT ERIE, CORPORATION OF THE TOWN OF	PUBLIC WORKS FACILITY 1818 PETTIT ROAD FORT ERIE ON L2A 5M4	S/209.2	-0.05	<u>95</u>
<u>6</u>	GEN	NIAGARA, REGIONAL MUNICIPALITY OF	JOHN C. GIBSON OPERATIONS CENTRE 1818 PETIT ROAD FORT ERIE ON	S/209.2	-0.05	<u>96</u>
<u>6</u>	GEN	NIAGARA, REGIONAL MUNICIPALITY OF	JOHN C. GIBSON OPERATIONS CENTRE 1818 PETIT ROAD FORT ERIE ON	S/209.2	-0.05	<u>96</u>
<u>6</u>	GEN	FORT ERIE, CORPORATION OF THE TOWN OF	PUBLIC WORKS FACILITY 1818 PETTIT ROAD FORT ERIE ON	S/209.2	-0.05	<u>97</u>
<u>6</u>	GEN	FORT ERIE, CORPORATION OF THE TOWN OF	PUBLIC WORKS FACILITY 1818 PETTIT ROAD FORT ERIE ON L2A 2S6	S/209.2	-0.05	<u>98</u>
<u>6</u>	GEN	FORT ERIE, CORPORATION OF THE TOWN OF	PUBLIC WORKS FACILITY 1818 PETTIT ROAD FORT ERIE ON L2A 2S6	S/209.2	-0.05	<u>98</u>
<u>6</u>	GEN	FORT ERIE, CORPORATION OF THE TOWN OF	PUBLIC WORKS FACILITY 1818 PETTIT ROAD FORT ERIE ON L2A 2S6	S/209.2	-0.05	<u>99</u>
<u>6</u>	GEN	FORT ERIE, CORPORATION OF THE TOWN OF	PUBLIC WORKS FACILITY 1818 PETTIT ROAD FORT ERIE ON L2A 2S6	S/209.2	-0.05	<u>99</u>
<u>6</u>	GEN	FORT ERIE, CORPORATION OF THE TOWN OF	PUBLIC WORKS FACILITY 1818 PETTIT ROAD FORT ERIE ON L2A 2S6	S/209.2	-0.05	<u>100</u>
<u>6</u>	NPCB	TOWN OF FORT ERIE	PETIT ROAD OPERATIONS CENTER; PETIT ROAD FORT ERIE ON	S/209.2	-0.05	<u>100</u>
<u>6</u>	OPCB	TOWN OF FORT ERIE	PETIT ROAD OPERATIONS CENTER PETIT ROAD FORT ERIE ON	S/209.2	-0.05	<u>100</u>
<u>6</u>	OPCB	TOWN OF FORT ERIE	PETIT ROAD OPERATIONS CENTER PETIT ROAD FORT ERIE ON	S/209.2	-0.05	<u>101</u>

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<u>6</u>	OPCB	TOWN OF FORT ERIE	PETIT ROAD OPERATIONS CENTER PETIT ROAD FORT ERIE ON	S/209.2	-0.05	<u>101</u>
<u>7</u>	WWIS		Fort Erie ON Well ID: 7107654	SSW/223.1	-1.05	<u>101</u>
<u>8</u>	WWIS		lot 7 con 5 ON Well ID: 6600507	NNW/243.0	-6.05	<u>103</u>
<u>9</u>	WWIS		lot 7 con 5 ON Well ID: 6603053	NNW/244.1	-6.05	<u>106</u>
<u>10</u>	EHS		1818 Petit Road Fort Erie ON L0S 1SO	SE/253.6	-0.05	<u>108</u>
<u>11</u>	WWIS		Fort Erie ON Well ID: 7237341	ENE/295.7	-1.05	<u>109</u>
<u>12</u>	WWIS		lot 6 con 5 FORT ERIE ON Well ID: 7042007	SSW/311.4	-1.05	<u>111</u>
<u>13</u>	CNG	Enbridge - Truk-King	1799 Pettit Rd Fort Erie ON L2A 5M4	SSW/332.4	-1.05	<u>112</u>
<u>13</u>	EHS		1799 Pettit Road Fort Erie ON L2A 5M4	SSW/332.4	-1.05	<u>113</u>
<u>13</u>	GEN	TRUK KING LOGISTICS INC	1799 PETTIT RD FORT ERIE ON	SSW/332.4	-1.05	<u>113</u>
<u>13</u>	GEN	TRUK KING LOGISTICS INC	1799 PETTIT RD FORT ERIE ON L2A 5M4	SSW/332.4	-1.05	<u>113</u>
<u>13</u>	GEN	TRUK KING LOGISTICS INC	1799 PETTIT RD FORT ERIE ON L2A 5M4	SSW/332.4	-1.05	<u>114</u>
<u>13</u>	GEN	TRUK KING LOGISTICS INC	1799 PETTIT RD FORT ERIE ON L2A 5M4	SSW/332.4	-1.05	<u>114</u>

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<u>13</u>	GEN	TRUK KING LOGISTICS INC	1799 PETTIT RD FORT ERIE ON L2A 5M4	SSW/332.4	-1.05	<u>114</u>
<u>13</u>	GEN	TRUK KING LOGISTICS INC	1799 PETTIT RD FORT ERIE ON L2A 5M4	SSW/332.4	-1.05	<u>115</u>
<u>14</u>	ECA	1314438 Ontario Limited	1380 Commerce Parkway Fort Erie ON	SW/359.7	-1.05	<u>115</u>
<u>15</u>	ANDR	Bridge St Dump 1969	Fort Erie ON L2A 5M4	E/372.9	-1.05	<u>115</u>
<u>16</u>	CA	FORT ERIE TOWN - BRIDGE ST. LANDFILL	TREATMENT OF LEACHATE FORT ERIE TOWN ON	E/381.9	-0.05	<u>116</u>
<u>16</u>	CA	TOWN OF FORT ERIE	BRIDGE STREET LANDFILL SITE FORT ERIE TOWN ON	E/381.9	-0.05	<u>116</u>
<u>16</u>	CA	FORT ERIE TOWN - PT.LOTS 7&8, CONC. 4	BRIDGE ST. LANDFILL SITE (SWM) FORT ERIE TOWN ON	E/381.9	-0.05	<u>116</u>
<u>16</u>	WDS	BRIDGE STREET LANDFILL SITE	BRIDGE STREET TOWN OF FORT ERIE ON	E/381.9	-0.05	<u>117</u>
<u>16</u>	WDS	BRIDGE STREET LANDFILL SITE	BRIDGE STREET TOWN OF FORT ERIE ON	E/381.9	-0.05	<u>117</u>
<u>16</u>	WDS	BRIDGE STREET LANDFILL SITE	BRIDGE STREET TOWN OF FORT ERIE ON	E/381.9	-0.05	<u>118</u>
<u>16</u>	WDS	BRIDGE STREET LANDFILL SITE	BRIDGE STREET TOWN OF FORT ERIE ON	E/381.9	-0.05	<u>119</u>
<u>16</u>	WDS	BRIDGE STREET LANDFILL SITE	BRIDGE STREET TOWN OF FORT ERIE ON	E/381.9	-0.05	<u>119</u>
<u>16</u>	WDS	BRIDGE STREET LANDFILL SITE	BRIDGE STREET TOWN OF FORT ERIE ON	E/381.9	-0.05	<u>120</u>

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<u>16</u>	WDS	BRIDGE STREET LANDFILL SITE	BRIDGE STREET TOWN OF FORT ERIE ON	E/381.9	-0.05	<u>121</u>
<u>16</u>	WDS	BRIDGE STREET LANDFILL SITE	BRIDGE STREET TOWN OF FORT ERIE ON	E/381.9	-0.05	<u>122</u>
<u>16</u>	WDS	BRIDGE STREET LANDFILL SITE	BRIDGE STREET TOWN OF FORT ERIE ON	E/381.9	-0.05	<u>122</u>
<u>16</u>	WDS	BRIDGE STREET LANDFILL SITE	BRIDGE STREET TOWN OF FORT ERIE ON	E/381.9	-0.05	<u>123</u>
<u>16</u>	WDS	BRIDGE STREET LANDFILL SITE	BRIDGE STREET TOWN OF FORT ERIE ON	E/381.9	-0.05	<u>124</u>
<u>16</u>	WDS	BRIDGE STREET LANDFILL SITE	BRIDGE STREET TOWN OF FORT ERIE ON	E/381.9	-0.05	<u>125</u>
<u>16</u>	WDS	BRIDGE STREET LANDFILL SITE	BRIDGE STREET FORT ERIE, TOWN OF ON	E/381.9	-0.05	<u>125</u>
<u>16</u>	WDS	BRIDGE STREET LANDFILL SITE	BRIDGE STREET FORT ERIE, TOWN OF ON	E/381.9	-0.05	<u>126</u>
<u>16</u>	WDS	BRIDGE STREET LANDFILL SITE	BRIDGE STREET FORT ERIE, TOWN OF ON	E/381.9	-0.05	<u>127</u>
<u>17</u>	CA	AERO-SAFE TECHNOLOGIES INC.	1767 PETTIT RD., LOT 6/CON.5 FORT ERIE TOWN ON	S/385.7	-0.40	<u>128</u>
<u>17</u>	EHS		1767 Pettit Road Fort Erie ON	S/385.7	-0.40	<u>128</u>
<u>17</u>	GEN	AERO-SAFE TECHNOLOGIES INC.	1767 PETTIT ROAD FORT ERIE ON L2A 5M4	S/385.7	-0.40	<u>128</u>
<u>17</u>	GEN	AERO-SAFE TECHNOLOGIES INC.	1767 PETTIT ROAD FORT ERIE ON	S/385.7	-0.40	<u>129</u>

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<u>17</u>	GEN	AERO-SAFE TECHNOLOGIES INC.	1767 PETTIT ROAD FORT ERIE ON	S/385.7	-0.40	<u>129</u>
<u>17</u>	GEN	AERO-SAFE TECHNOLOGIES INC.	1767 PETTIT ROAD FORT ERIE ON	S/385.7	-0.40	<u>129</u>
<u>17</u>	GEN	AERO-SAFE TECHNOLOGIES INC.	1767 PETTIT ROAD FORT ERIE ON L2A 5M4	S/385.7	-0.40	<u>129</u>
<u>17</u>	GEN	AERO-SAFE TECHNOLOGIES INC.	1767 PETTIT ROAD FORT ERIE ON	S/385.7	-0.40	<u>130</u>
<u>17</u>	GEN	AERO-SAFE TECHNOLOGIES INC.	1767 PETTIT ROAD FORT ERIE ON L2A 5N1	S/385.7	-0.40	<u>130</u>
<u>17</u>	GEN	AERO-SAFE TECHNOLOGIES INC.	1767 PETTIT ROAD FORT ERIE ON L2A 5N1	S/385.7	-0.40	<u>130</u>
<u>17</u>	GEN	AERO-SAFE TECHNOLOGIES INC.	1767 PETTIT ROAD FORT ERIE ON L2A 5N1	S/385.7	-0.40	<u>131</u>
<u>17</u>	GEN	AERO-SAFE TECHNOLOGIES INC.	1767 PETTIT ROAD FORT ERIE ON L2A 5N1	S/385.7	-0.40	<u>131</u>
<u>17</u>	SCT	Aero-Safe Technologies Inc.	1767 Pettit Rd Fort Erie ON L2A 5N1	S/385.7	-0.40	<u>131</u>
<u>18</u>	ANDR	Bridge St Dump 1970	Fort Erie ON L2A 5M4	E/398.5	-1.05	<u>131</u>
<u>19</u>	NPRI	REGIONAL MUNICIPALITY OF NIAGARA	1300 BRIDGE STREET NOT AVAILABLE FORT ERIE ON L2A5M4	ENE/407.6	-1.05	<u>132</u>
<u>20</u>	CA	Aero-Safe Processing Inc.	1360 Commerce Parkway Fort Erie ON	SSW/419.8	-1.05	<u>133</u>
<u>20</u>	CA	Aero-Safe Processing Inc.	1360 Commerce Parkway Fort Erie ON	SSW/419.8	-1.05	<u>133</u>

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<u>20</u>	EBR	Aero-Safe Processing Inc.	1360 Commerce Parkway Fort Erie Ontario Fort Erie ON	SSW/419.8	-1.05	<u>133</u>
<u>20</u>	EBR	Aero-Safe Processing Inc.	1360 Commerce Parkway Fort Erie Ontario Fort Erie ON	SSW/419.8	-1.05	<u>134</u>
<u>20</u>	ECA	Aero-Safe Processing Inc.	1360 Commerce Parkway Fort Erie ON L2A 5N1	SSW/419.8	-1.05	<u>134</u>
<u>20</u>	ECA	Aero-Safe Processing Inc.	1360 Commerce Parkway Fort Erie ON L2A 5N1	SSW/419.8	-1.05	<u>135</u>
<u>20</u>	EHS		1360 Commerce Parkway Fort Erie ON	SSW/419.8	-1.05	<u>135</u>
<u>20</u>	GEN	Aero-safe Processing Inc.	1360 Commerce Parkway Fort Erie ON L2A 5N1	SSW/419.8	-1.05	<u>135</u>
<u>20</u>	GEN	Aerosafe Processing	1360 Commerce Parkway Fort Erie ON L2A 5N1	SSW/419.8	-1.05	<u>136</u>
<u>21</u>	OOGW	Bridge Street Landfill Site	Bertie ON Licence No: F020236	NNE/425.5	-6.05	<u>137</u>
<u>22</u>	WDSH		7 (Bridge St. Fort Erie) 4 NR FORT ERIE ON	ENE/430.3	-1.05	<u>138</u>
<u>23</u>	GEN	aero-safe processing inc.	1360 Commerce Parkway Fort Erie ON L2A 5N1	SSW/441.8	-1.05	<u>138</u>
<u>23</u>	GEN	Aero-safe Processing Inc.	1360 Commerce Parkway Fort Erie ON	SSW/441.8	-1.05	<u>138</u>
<u>23</u>	GEN	Aero-safe Processing Inc.	1360 Commerce Parkway Fort Erie ON	SSW/441.8	-1.05	<u>139</u>
<u>23</u>	GEN	Aero-safe Processing Inc.	1360 Commerce Parkway Fort Erie ON	SSW/441.8	-1.05	<u>140</u>

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<u>23</u>	GEN	Aero-safe Processing Inc.	1360 Commerce Parkway Fort Erie ON L2A 5N1	SSW/441.8	-1.05	<u>140</u>
<u>23</u>	GEN	Aero-safe Processing Inc.	1360 Commerce Parkway Fort Erie ON	SSW/441.8	-1.05	<u>141</u>
<u>23</u>	GEN	Aero-safe Processing Inc.	1360 Commerce Parkway Fort Erie ON L2A 5N1	SSW/441.8	-1.05	<u>141</u>
<u>23</u>	GEN	Aero-safe Processing Inc.	1360 Commerce Parkway Fort Erie ON L2A 5N1	SSW/441.8	-1.05	<u>142</u>
<u>23</u>	GEN	Aero-safe Processing Inc.	1360 Commerce Parkway Fort Erie ON L2A 5N1	SSW/441.8	-1.05	<u>143</u>
<u>24</u>	GEN	REPUBLIC ENVIRONMENTAL SYSTEMS LTD.	1733 PETTIT ROAD FORT ERIE ON L2A 5M4	S/442.1	-0.05	<u>143</u>
<u>25</u>	ANDR	Bridge St Dump 1976	Fort Erie ON L2A 5M4	ENE/442.8	-1.05	<u>144</u>
<u>26</u>	ANDR	Bridge St Dump (official)	Fort Erie ON L2A 5M4	ENE/450.8	-1.05	<u>145</u>
<u>27</u>	CA		1380 Commerce Parkway Fort Erie ON	SW/451.3	-1.05	<u>145</u>
<u>27</u>	GEN	ThermaPan Industries Inc.	1380 Commerce Pkwy Fort Erie ON	SW/451.3	-1.05	<u>145</u>
<u>27</u>	GEN	ThermaPan Industries Inc.	1380 Commerce Pkwy Fort Erie ON	SW/451.3	-1.05	<u>146</u>
<u>27</u>	GEN	ThermaPan Industries Inc.	1380 Commerce Pkwy Fort Erie ON	SW/451.3	-1.05	<u>146</u>
<u>27</u>	GEN	ThermaPan Industries Inc.	1380 Commerce Pkwy Fort Erie ON	SW/451.3	-1.05	<u>147</u>

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<u>27</u>	GEN	ThermaPan Industries Inc.	1380 Commerce Pkwy Fort Erie ON	SW/451.3	-1.05	<u>147</u>
<u>27</u>	GEN	ThermaPan Industries Inc.	1380 Commerce Pkwy Fort Erie ON L2A 5M4	SW/451.3	-1.05	<u>148</u>
<u>27</u>	GEN	ThermaPan Industries Inc.	1380 Commerce Pkwy Fort Erie ON L2A 5M4	SW/451.3	-1.05	<u>148</u>
<u>27</u>	SCT	Thermapan Industries Inc.	1380 Commerce Pky Fort Erie ON L2A 5M4	SW/451.3	-1.05	<u>148</u>
<u>28</u>	ECA	The Regional Municipality of Niagara	Bridge Street Fort Erie ON	ENE/455.1	-1.05	<u>149</u>
<u>28</u>	WDS	The Regional Municipality of Niagara	Part 7,8 RP 59R-3891. Northeast of Pettit Road and Bridge Street Fort Erie ON	ENE/455.1	-1.05	<u>149</u>
<u>28</u>	WDS	The Regional Municipality of Niagara	Part 7,8 RP 59R-3891. Northeast of Pettit Road and Bridge Street Fort Erie ON	ENE/455.1	-1.05	<u>150</u>
<u>28</u>	WDS	The Regional Municipality of Niagara	Part 7,8 RP 59R-3891. Northeast of Pettit Road and Bridge Street Fort Erie ON L2V 4T7	ENE/455.1	-1.05	<u>150</u>
<u>28</u>	WDS	The Regional Municipality of Niagara	Part 7,8 RP 59R-3891. Northeast of Pettit Road and Bridge Street Fort Erie ON	ENE/455.1	-1.05	<u>151</u>
<u>29</u>	WWIS		Fort Erie ON Well ID: 7123798	E/466.2	-0.05	<u>152</u>
<u>30</u>	CA	REPUBLIC ENVIR. SYS. (PORT COLBORNE) LTD	PT.LOT 6/CON.5,BERTIE TWP. SWM FORT ERIE TOWN ON	S/470.3	0.82	<u>164</u>
<u>30</u>	GEN	PHILIP ENTERPRISES INC.	1731-3 PETTIT ROAD FORT ERIE ON L2A 5M4	S/470.3	0.82	<u>164</u>
<u>30</u>	REC	PHILIP ENTERPRISES INC.	LOT #6, CONC. 5, NIAGARA RIVER PART OF PART 14, PLAN 59R-4985 FORT ERIE ON L2A 5M4	S/470.3	0.82	<u>165</u>

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<u>31</u>	EHS		1731 Pettit Rd Fort Erie ON L2A5M4	SSW/490.4	-0.05	<u>166</u>
<u>32</u>	CA		1731 Pettit Road Fort Erie ON	SSW/495.9	-0.05	<u>166</u>
<u>32</u>	CA	1731 Petit Road	1731 Pettit Road Fort Erie ON	SSW/495.9	-0.05	<u>166</u>
<u>32</u>	CA	1731 Petit Road	1731 Pettit Road Fort Erie ON	SSW/495.9	-0.05	<u>167</u>
<u>32</u>	CA		1731 Pettit Road Fort Erie ON	SSW/495.9	-0.05	<u>167</u>
<u>32</u>	CA	Newalta Industrial Services Inc.	1731 Pettit Rd Fort Erie ON	SSW/495.9	-0.05	<u>167</u>
<u>32</u>	EBR	Philip Services Inc.	1731 Pettit Road Fort Erie Ontario Fort Erie ON	SSW/495.9	-0.05	<u>168</u>
<u>32</u>	EBR	Philip Services Inc.	1731 Pettit Road Fort Erie Ontario Fort Erie ON	SSW/495.9	-0.05	<u>168</u>
<u>32</u>	EBR	Philip Services Inc.	1731 Pettit Road Fort Erie Ontario Fort Erie ON	SSW/495.9	-0.05	<u>169</u>
<u>32</u>	EBR	Newalta Industrial Services Inc.	1731 Pettit Road Fort Erie Ontario Fort Erie ON	SSW/495.9	-0.05	<u>169</u>
<u>32</u>	EBR	Newalta Industrial Services Inc.	1731 Pettit Road Fort Erie Ontario Fort Erie ON	SSW/495.9	-0.05	<u>169</u>
<u>32</u>	EBR	Newalta Industrial Services Inc.	1731 Pettit Road Fort Erie Regional Municipality of Niagara TOWN OF FORT ERIE ON	SSW/495.9	-0.05	<u>170</u>
<u>32</u>	EBR	Newalta Corporation	1731 Pettit Road FORT ERIE ON	SSW/495.9	-0.05	<u>170</u>

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<u>32</u>	EBR	Newalta Corporation	1731 Pettit Road Fort Erie, Regional Municipality of Niagara TOWN OF FORT ERIE ON	SSW/495.9	-0.05	<u>171</u>
<u>32</u>	EBR	Revolution Environmental Solutions Acquisition GP Inc.	1731 Pettit Road Fort Erie Regional Municipality of Niagara TOWN OF FORT ERIE ON	SSW/495.9	-0.05	<u>171</u>
<u>32</u>	ECA	Newalta Industrial Services Inc.	1731 Pettit Rd Fort Erie ON L8H 5Y6	SSW/495.9	-0.05	<u>172</u>
<u>32</u>	ECA	Philip Services Inc.	1731 Pettit Road Fort Erie ON L8H 5Y6	SSW/495.9	-0.05	<u>172</u>
<u>32</u>	ECA	Newalta Industrial Services Inc.	1731 Pettit Rd Fort Erie ON L7L 6B2	SSW/495.9	-0.05	<u>172</u>
<u>32</u>	ECA	Philip Services Inc.	1731 Pettit Road Fort Erie ON L8N 4J6	SSW/495.9	-0.05	<u>173</u>
<u>32</u>	EHS		1731 Pettit Rd. Ft. Erie ON	SSW/495.9	-0.05	<u>173</u>
<u>32</u>	EHS		1731 Pettit Road FORT ERIE ON	SSW/495.9	-0.05	<u>173</u>
<u>32</u>	EHS		1731 Pettit Road Fort Erie ON L2A5N9	SSW/495.9	-0.05	<u>173</u>
<u>32</u>	EHS		1731 Pettit Road FORT ERIE ON	SSW/495.9	-0.05	<u>173</u>
<u>32</u>	EHS		1731 Pettit Road Fort Erie ON L2A 5M4	SSW/495.9	-0.05	<u>174</u>
<u>32</u>	EHS		1731 Pettit Rd Fort Erie ON L2A 5M4	SSW/495.9	-0.05	<u>174</u>

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<u>32</u>	GEN	REPUBLIC ENVIRONMENTAL SYSTEMS LTD.	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW/495.9	-0.05	<u>174</u>
<u>32</u>	GEN	REPUBLIC (SEE & USE ON0627218)	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW/495.9	-0.05	<u>175</u>
<u>32</u>	GEN	PHILIP ENTERPRISES INC.	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW/495.9	-0.05	<u>176</u>
<u>32</u>	GEN	PHILIP SERVICES INC.	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW/495.9	-0.05	<u>177</u>
<u>32</u>	GEN	PSC INDUSTRIAL SERVICES CANADA INC	1731 PETTIT ROAD FORT ERIE ON	SSW/495.9	-0.05	<u>178</u>
<u>32</u>	GEN	NEWALTA INDUSTRIAL SERVICES INC	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW/495.9	-0.05	<u>179</u>
<u>32</u>	GEN	NEWALTA CORPORATION	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW/495.9	-0.05	<u>181</u>
<u>32</u>	GEN	NEWALTA CORPORATION	1731 PETTIT ROAD FORT ERIE ON	SSW/495.9	-0.05	<u>183</u>
<u>32</u>	GEN	NEWALTA CORPORATION	1731 PETTIT ROAD FORT ERIE ON	SSW/495.9	-0.05	<u>184</u>
<u>32</u>	GEN	NEWALTA CORPORATION	1731 PETTIT ROAD FORT ERIE ON	SSW/495.9	-0.05	<u>186</u>
<u>32</u>	GEN	NEWALTA CORPORATION	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW/495.9	-0.05	<u>187</u>
<u>32</u>	GEN	NEWALTA CORPORATION	1731 PETTIT ROAD FORT ERIE ON	SSW/495.9	-0.05	<u>189</u>
<u>32</u>	GEN	REVOLUTION ENVIRONMENTAL SOLUTIONS ACQUISITION GP	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW/495.9	-0.05	<u>190</u>

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<u>32</u>	GEN	REVOLUTION ENVIRONMENTAL SOLUTIONS ACQUISITION GP	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW/495.9	-0.05	<u>192</u>
<u>32</u>	GEN	REVOLUTION ENVIRONMENTAL SOLUTIONS ACQUISITION GP	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW/495.9	-0.05	<u>194</u>
<u>32</u>	GEN	REVOLUTION ENVIRONMENTAL SOLUTIONS ACQUISITION GP	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW/495.9	-0.05	<u>196</u>
<u>32</u>	GEN	REVOLUTION ENVIRONMENTAL SOLUTIONS ACQUISITION GP	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW/495.9	-0.05	<u>197</u>
<u>32</u>	NCPL	Newalta Industrial Services Inc. - Fort Erie	1731 Pettit Rd Fort Erie ON	SSW/495.9	-0.05	<u>198</u>
<u>32</u>	NPRI	PHILIP ENTERPRISES INC.	1731 PETTIT ROAD PO BOX 340 FORT ERIE ON L2A5M4	SSW/495.9	-0.05	<u>198</u>
<u>32</u>	NPRI	PHILIP ENTERPRISES INC.	1731 PETTIT ROAD PO BOX 340 FORT ERIE ON L2A5M4	SSW/495.9	-0.05	<u>199</u>
<u>32</u>	NPRI	PHILIP ENTERPRISES INC.	1731 PETTIT ROAD PO BOX 340 FORT ERIE ON L2A5M4	SSW/495.9	-0.05	<u>199</u>
<u>32</u>	NPRI	PHILIP SERVICES INC.	1731 PETTIT ROAD PO BOX 340 FORT ERIE ON L2A5M4	SSW/495.9	-0.05	<u>200</u>
<u>32</u>	NPRI	PHILIP ENTERPRISES INC.	1731 PETTIT ROAD PO BOX 340 FORT ERIE ON L2A5M4	SSW/495.9	-0.05	<u>201</u>
<u>32</u>	NPRI	PHILIP ENTERPRISES INC.	1731 PETTIT ROAD PO BOX 340 FORT ERIE ON L2A5M4	SSW/495.9	-0.05	<u>201</u>
<u>32</u>	NPRI	PHILIP SERVICES INC	1731 PETTIT ROAD PO BOX 340 FORT ERIE ON L2A5M4	SSW/495.9	-0.05	<u>202</u>
<u>32</u>	NPRI	PSC INDUSTRIAL SERVICES CANADA INC.	1731 PETTIT ROAD PO BOX 340 FORT ERIE ON L2A5M4	SSW/495.9	-0.05	<u>203</u>

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<u>32</u>	NPRI	PSC INDUSTRIAL SERVICES CANADA INC.	1731 PETTIT ROAD PO BOX 340 FORT ERIE ON L2A5M4	SSW/495.9	-0.05	<u>203</u>
<u>32</u>	NPRI	NEWALTA CORPORATION	1731 PETTIT ROAD NOT AVAILABLE FORT ERIE ON L2A5M4	SSW/495.9	-0.05	<u>204</u>
<u>32</u>	NPRI	NEWALTA CORPORATION	1731 PETTIT ROAD NOT AVAILABLE FORT ERIE ON L2A5M4	SSW/495.9	-0.05	<u>205</u>
<u>32</u>	NPRI	NEWALTA CORPORATION	1731 PETTIT ROAD NOT AVAILABLE FORT ERIE ON L2A5M4	SSW/495.9	-0.05	<u>205</u>
<u>32</u>	NPRI	NEWALTA CORPORATION	1731 PETTIT ROAD NOT AVAILABLE FORT ERIE ON L2A5M4	SSW/495.9	-0.05	<u>206</u>
<u>32</u>	NPRI	NEWALTA CORPORATION	1731 PETTIT ROAD NOT AVAILABLE FORT ERIE ON L2A5M4	SSW/495.9	-0.05	<u>207</u>
<u>32</u>	NPRI	Newalta Corporation	1731 PETTIT ROAD NOT AVAILABLE FORT ERIE ON L2A5M4	SSW/495.9	-0.05	<u>207</u>
<u>32</u>	NPRI	NEWALTA CORPORATION	1731 PETTIT ROAD NOT AVAILABLE FORT ERIE ON L2A5M4	SSW/495.9	-0.05	<u>208</u>
<u>32</u>	NPRI	NEWALTA CORPORATION	1731 PETTIT ROAD NOT AVAILABLE FORT ERIE ON L2A5M4	SSW/495.9	-0.05	<u>209</u>
<u>32</u>	NPRI	NEWALTA CORPORATION	1731 PETTIT ROAD NOT AVAILABLE FORT ERIE ON L2A5M4	SSW/495.9	-0.05	<u>209</u>
<u>32</u>	REC	REPUBLIC ENVIRONMENTAL SYSTEMS LTD.	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW/495.9	-0.05	<u>210</u>
<u>32</u>	REC	PHILIP ENTERPRISES INC.	LOT 6, CON 5, NIAGARA RIV. PT OF PT 14 1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW/495.9	-0.05	<u>211</u>
<u>32</u>	REC	PSC INDUSTRIAL SERVICES CANADA INC.	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW/495.9	-0.05	<u>212</u>

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<u>32</u>	REC	NEWALTA INDUSTRIAL SERVICES INC.	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW/495.9	-0.05	<u>213</u>
<u>32</u>	REC	NEWALTA CORPORATION	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW/495.9	-0.05	<u>215</u>
<u>32</u>	REC	NEWALTA CORPORATION	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW/495.9	-0.05	<u>216</u>
<u>32</u>	REC	NEWALTA CORPORATION	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW/495.9	-0.05	<u>217</u>
<u>32</u>	REC	NEWALTA CORPORATION	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW/495.9	-0.05	<u>218</u>
<u>32</u>	REC	NEWALTA CORPORATION	1731 PETTIT ROAD FORT ERIE ON	SSW/495.9	-0.05	<u>219</u>
<u>32</u>	REC	REVOLUTION ENVIRONMENTAL SOLUTIONS ACQUISITION GP	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW/495.9	-0.05	<u>221</u>
<u>32</u>	REC	REVOLUTION ENVIRONMENTAL SOLUTIONS ACQUISITION GP	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW/495.9	-0.05	<u>222</u>
<u>32</u>	REC	REVOLUTION ENVIRONMENTAL SOLUTIONS ACQUISITION GP	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW/495.9	-0.05	<u>223</u>
<u>32</u>	SPL	TRANSPORT TRUCK	1731 PETTIT ROAD MOTOR VEHICLE (OPERATING FLUID) FORT ERIE TOWN ON	SSW/495.9	-0.05	<u>224</u>
<u>32</u>	SPL	PHILIP ENTERPRISES	1731 PETTIT RD. TRANSPORT TRUCK (CARGO) FORT ERIE TOWN ON	SSW/495.9	-0.05	<u>225</u>
<u>32</u>	SPL	PHILIP SERVICES INC.	1731 PETTIT RD 1731 PETTIT ROAD,FORT ERIE. FORT ERIE TOWN ON	SSW/495.9	-0.05	<u>225</u>

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<u>32</u>	SPL	PHILIP SERVICES INC.	1731 PETTIT ROAD 1731 PETTIT ROAD,FORT ERIE. FORT ERIE TOWN ON	SSW/495.9	-0.05	<u>226</u>
<u>32</u>	SPL	PHILIP SERVICES INC.	PHILIP, 1731 PETTIT ROAD, FORT ERIE 1731 PETTIT ROAD,FORT ERIE. FORT ERIE TOWN ON	SSW/495.9	-0.05	<u>226</u>
<u>32</u>	SPL	PHILIP SERVICES INC.	1731 PETTIT RD 1731 PETTIT ROAD,FORT ERIE. FORT ERIE TOWN ON	SSW/495.9	-0.05	<u>227</u>
<u>32</u>	SPL	PHILIP SERVICES INC.	1731 PETTIT ROAD 1731 PETTIT ROAD,FORT ERIE. FORT ERIE TOWN ON	SSW/495.9	-0.05	<u>227</u>
<u>32</u>	SPL	PHILIP SERVICES INC.	PHILIPS SERVICES \ 1731 PETTIT ROAD 1731 PETTIT ROAD,FORT ERIE. FORT ERIE TOWN ON	SSW/495.9	-0.05	<u>228</u>
<u>32</u>	SPL	PHILIP SERVICES INC.	1731 PETTIT ROAD 1731 PETTIT ROAD,FORT ERIE. FORT ERIE TOWN ON	SSW/495.9	-0.05	<u>228</u>
<u>32</u>	SPL	Philip Enterprises Inc.	1731 Pettit Road Fort Erie ON	SSW/495.9	-0.05	<u>229</u>
<u>32</u>	SPL	PSC Industrial Services Canada Inc.	1731 Pettit Road Fort Erie ON	SSW/495.9	-0.05	<u>229</u>
<u>32</u>	SPL	PSC Industrial Services Canada Inc.	1731 Pettit Road Fort Erie ON	SSW/495.9	-0.05	<u>230</u>
<u>32</u>	SPL	PSC Industrial Services Canada Inc.	1731 Pettit Road Fort Erie ON	SSW/495.9	-0.05	<u>230</u>
<u>32</u>	SPL	Newalta Industrial Services Inc.	1731 Pettit Rd Fort Erie ON	SSW/495.9	-0.05	<u>231</u>
<u>32</u>	SPL	Newalta Corporation	1731 Petit Road Fort Erie ON	SSW/495.9	-0.05	<u>231</u>
<u>32</u>	SPL	Newalta Corporation	1731 Pettit Rd Fort Erie ON	SSW/495.9	-0.05	<u>232</u>

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<u>32</u>	SPL	Harold Marcus Limited	1731 Pettit Rd Fort Erie ON	SSW/495.9	-0.05	<u>232</u>
<u>32</u>	SPL		1731 Pettit Rd Fort Erie ON	SSW/495.9	-0.05	<u>233</u>
<u>32</u>	WDS	Philip Enterprises Inc.	1731 Pettit Road Fort Erie ON L8H 5Y6	SSW/495.9	-0.05	<u>233</u>
<u>32</u>	WDS	Philip Services Inc.	1731 Pettit Road Fort Erie ON L8H 5Y6	SSW/495.9	-0.05	<u>234</u>
<u>32</u>	WDS		1731 PETTIT ROAD, FORT ERIE FORT ERIE ON	SSW/495.9	-0.05	<u>235</u>
<u>32</u>	WDS	Philip Services Inc.	1731 Pettit Road Fort Erie ON L8H 5Y6	SSW/495.9	-0.05	<u>235</u>
<u>32</u>	WDS	Newalta Industrial Services Inc.	1731 Pettit Road Fort Erie ON	SSW/495.9	-0.05	<u>236</u>
<u>32</u>	WDS	Newalta Industrial Services Inc.	1731 Pettit Road Fort Erie ON L8H 5Y6	SSW/495.9	-0.05	<u>237</u>
<u>32</u>	WDS	Newalta Industrial Services Inc.	1731 Pettit Rd Fort Erie ON	SSW/495.9	-0.05	<u>237</u>
<u>32</u>	WDS	Newalta Industrial Services Inc.	1731 Pettit Rd Fort Erie ON L7L 6B2	SSW/495.9	-0.05	<u>238</u>
<u>32</u>	WDS	Newalta Industrial Services Inc.	1731 Pettit Rd Fort Erie ON L7L 6B2	SSW/495.9	-0.05	<u>239</u>
<u>32</u>	WDS	Newalta Industrial Services Inc.	1731 Pettit Rd Fort Erie ON L7L 6B2	SSW/495.9	-0.05	<u>239</u>
<u>32</u>	WDS	Newalta Industrial Services Inc.	1731 Pettit Rd Fort Erie ON L7L 6B2	SSW/495.9	-0.05	<u>240</u>

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>32</u>	WDS	Newalta Corporation	1731 Pettit Rd Fort Erie ON L7L 6B2	SSW/495.9	-0.05	<u>241</u>
<u>32</u>	WDS	Newalta Corporation	1731 Pettit Rd Fort Erie ON	SSW/495.9	-0.05	<u>241</u>
<u>32</u>	WDS	Newalta Corporation	1731 Pettit Road Fort Erie Town ON	SSW/495.9	-0.05	<u>242</u>
<u>32</u>	WDS	Newalta Corporation	1731 Pettit Rd Fort Erie ON L7L 6B2	SSW/495.9	-0.05	<u>243</u>
<u>32</u>	WDS	Newalta Corporation	1731 Pettit Rd Fort Erie ON L7L 6B2	SSW/495.9	-0.05	<u>244</u>
<u>32</u>	WDS	Newalta Industrial Services Inc.	1731 Pettit Rd Fort Erie ON L7L 6B2	SSW/495.9	-0.05	<u>244</u>
<u>32</u>	WDS	Newalta Industrial Services Inc.	1731 Pettit Rd Fort Erie ON L7L 6B2	SSW/495.9	-0.05	<u>245</u>
<u>32</u>	WDS	Revolution Environmental Solutions Acquisition GP Inc., as general partner for	and on behalf of Revolution Environmental Solutions LP 1731 Pettit Rd Fort Erie ON L7L 6B2	SSW/495.9	-0.05	<u>246</u>
<u>32</u>	WDS	Newalta Industrial Services Inc.	1731 Pettit Rd Fort Erie ON L7L 6B2	SSW/495.9	-0.05	<u>246</u>
<u>32</u>	WDS	Newalta Industrial Services Inc.	1731 Pettit Rd Fort Erie ON L7L 6B2	SSW/495.9	-0.05	<u>247</u>

Executive Summary: Summary By Data Source

ANDR - Anderson's Waste Disposal Sites

A search of the ANDR database, dated 1860s-Present has found that there are 4 ANDR site(s) within approximately 0.50 kilometers of the project property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (m)</u>	<u>Map Key</u>
Bridge St Dump 1969	Fort Erie ON L2A 5M4	E	372.91	<u>15</u>
Bridge St Dump 1970	Fort Erie ON L2A 5M4	E	398.46	<u>18</u>
Bridge St Dump 1976	Fort Erie ON L2A 5M4	ENE	442.79	<u>25</u>
Bridge St Dump (official)	Fort Erie ON L2A 5M4	ENE	450.79	<u>26</u>

CA - Certificates of Approval

A search of the CA database, dated 1985-Oct 30, 2011* has found that there are 17 CA site(s) within approximately 0.50 kilometers of the project property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (m)</u>	<u>Map Key</u>
REPUBLIC ENVIR. SYS. (PORT COLBORNE) LTD	PT.LOT 6/CON.5,BERTIE TWP. SWM FORT ERIE TOWN ON	S	470.32	<u>30</u>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (m)</u>	<u>Map Key</u>
CORPORATION OF THE TOWN OF FORT ERIE	PETTIT RD./BRIDGE ST. FORT ERIE TOWN ON	SSW	131.70	<u>3</u>
FORT ERIE TOWN	PETTIT RD./BRIDGE ST. FORT ERIE TOWN ON	SSW	131.70	<u>3</u>

FORT ERIE TOWN	PETTIT RD./BRIDGE ST. FORT ERIE TOWN ON	SSW	131.70	<u>3</u>
The Regional Municipality of Niagara	1300 Bridge St Lots 7 and 8, Concession 4 Fort Erie ON	ESE	180.27	<u>5</u>
FORT ERIE TOWN - BRIDGE ST. LANDFILL	TREATMENT OF LEACHATE FORT ERIE TOWN ON	E	381.93	<u>16</u>
TOWN OF FORT ERIE	BRIDGE STREET LANDFILL SITE FORT ERIE TOWN ON	E	381.93	<u>16</u>
FORT ERIE TOWN - PT.LOTS 7&8, CONC. 4	BRIDGE ST. LANDFILL SITE (SWM) FORT ERIE TOWN ON	E	381.93	<u>16</u>
AERO-SAFE TECHNOLOGIES INC.	1767 PETTIT RD., LOT 6/CON.5 FORT ERIE TOWN ON	S	385.71	<u>17</u>
Aero-Safe Processing Inc.	1360 Commerce Parkway Fort Erie ON	SSW	419.81	<u>20</u>
Aero-Safe Processing Inc.	1360 Commerce Parkway Fort Erie ON	SSW	419.81	<u>20</u>
	1380 Commerce Parkway Fort Erie ON	SW	451.34	<u>27</u>
Newalta Industrial Services Inc.	1731 Pettit Rd Fort Erie ON	SSW	495.92	<u>32</u>
	1731 Pettit Road Fort Erie ON	SSW	495.92	<u>32</u>
1731 Pettit Road	1731 Pettit Road Fort Erie ON	SSW	495.92	<u>32</u>
1731 Pettit Road	1731 Pettit Road Fort Erie ON	SSW	495.92	<u>32</u>

1731 Pettit Road Fort Erie ON	SSW	495.92	32
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CNG - Compressed Natural Gas Stations

A search of the CNG database, dated Dec 2012 - Aug 2019 has found that there are 1 CNG site(s) within approximately 0.50 kilometers of the project property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (m)</u>	<u>Map Key</u>
Enbridge - Truk-King	1799 Pettit Rd Fort Erie ON L2A 5M4	SSW	332.39	13

EBR - Environmental Registry

A search of the EBR database, dated 1994-Sep 30, 2019 has found that there are 11 EBR site(s) within approximately 0.50 kilometers of the project property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (m)</u>	<u>Map Key</u>
Aero-Safe Processing Inc.	1360 Commerce Parkway Fort Erie Ontario Fort Erie ON	SSW	419.81	20
Aero-Safe Processing Inc.	1360 Commerce Parkway Fort Erie Ontario Fort Erie ON	SSW	419.81	20
Revolution Environmental Solutions Acquisition GP Inc.	1731 Pettit Road Fort Erie Regional Municipality of Niagara TOWN OF FORT ERIE ON	SSW	495.92	32
Newalta Corporation	1731 Pettit Road FORT ERIE ON	SSW	495.92	32
Newalta Corporation	1731 Pettit Road Fort Erie, Regional Municipality of Niagara TOWN OF FORT ERIE ON	SSW	495.92	32
Newalta Industrial Services Inc.	1731 Pettit Road Fort Erie Regional Municipality of Niagara TOWN OF FORT ERIE ON	SSW	495.92	32

Newalta Industrial Services Inc.	1731 Pettit Road Fort Erie Ontario Fort Erie ON	SSW	495.92	32
Newalta Industrial Services Inc.	1731 Pettit Road Fort Erie Ontario Fort Erie ON	SSW	495.92	32
Philip Services Inc.	1731 Pettit Road Fort Erie Ontario Fort Erie ON	SSW	495.92	32
Philip Services Inc.	1731 Pettit Road Fort Erie Ontario Fort Erie ON	SSW	495.92	32
Philip Services Inc.	1731 Pettit Road Fort Erie Ontario Fort Erie ON	SSW	495.92	32

ECA - Environmental Compliance Approval

A search of the ECA database, dated Oct 2011-Sep 30, 2019 has found that there are 16 ECA site(s) within approximately 0.50 kilometers of the project property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (m)</u>	<u>Map Key</u>
The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON	ESE	180.27	5
The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON L2V 4T7	ESE	180.27	5
The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON	ESE	180.27	5
The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON L2V 4T7	ESE	180.27	5
The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON L2V 4T7	ESE	180.27	5
The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON L2V 4T7	ESE	180.27	5

The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON L2V 4T7	ESE	180.27	<u>5</u>
The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON L2V 4T7	ESE	180.27	<u>5</u>
1314438 Ontario Limited	1380 Commerce Parkway Fort Erie ON	SW	359.73	<u>14</u>
Aero-Safe Processing Inc.	1360 Commerce Parkway Fort Erie ON L2A 5N1	SSW	419.81	<u>20</u>
Aero-Safe Processing Inc.	1360 Commerce Parkway Fort Erie ON L2A 5N1	SSW	419.81	<u>20</u>
The Regional Municipality of Niagara	Bridge Street Fort Erie ON	ENE	455.11	<u>28</u>
Newalta Industrial Services Inc.	1731 Pettit Rd Fort Erie ON L7L 6B2	SSW	495.92	<u>32</u>
Philip Services Inc.	1731 Pettit Road Fort Erie ON L8H 5Y6	SSW	495.92	<u>32</u>
Newalta Industrial Services Inc.	1731 Pettit Rd Fort Erie ON L8H 5Y6	SSW	495.92	<u>32</u>
Philip Services Inc.	1731 Pettit Road Fort Erie ON L8N 4J6	SSW	495.92	<u>32</u>

EHS - ERIS Historical Searches

A search of the EHS database, dated 1999-Jul 31, 2019 has found that there are 11 EHS site(s) within approximately 0.50 kilometers of the project property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (m)</u>	<u>Map Key</u>
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1818 Pettit Road Fort Erie ON L0S 1S0	SE	253.58	<u>10</u>
1799 Pettit Road Fort Erie ON L2A 5M4	SSW	332.39	<u>13</u>
1767 Pettit Road Fort Erie ON	S	385.71	<u>17</u>
1360 Commerce Parkway Fort Erie ON	SSW	419.81	<u>20</u>
1731 Pettit Rd Fort Erie ON L2A5M4	SSW	490.45	<u>31</u>
1731 Pettit Road Fort Erie ON L2A 5M4	SSW	495.92	<u>32</u>
1731 Pettit Road FORT ERIE ON	SSW	495.92	<u>32</u>
1731 Pettit Road Fort Erie ON L2A5N9	SSW	495.92	<u>32</u>
1731 Pettit Road FORT ERIE ON	SSW	495.92	<u>32</u>
1731 Pettit Rd. Ft. Erie ON	SSW	495.92	<u>32</u>
1731 Pettit Rd Fort Erie ON L2A 5M4	SSW	495.92	<u>32</u>

GEN - Ontario Regulation 347 Waste Generators Summary

A search of the GEN database, dated 1986-Jul 31, 2019 has found that there are 89 GEN site(s) within approximately 0.50 kilometers of the project property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (m)</u>	<u>Map Key</u>
PHILIP ENTERPRISES INC.	1731-3 PETTIT ROAD FORT ERIE ON L2A 5M4	S	470.32	<u>30</u>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (m)</u>	<u>Map Key</u>
NIAGARA, REGIONAL MUNICIPALITY OF	BRIDGE STREET LANDFILL SITE 1300 Bridge Street FORT ERIE ON L2A 5M4	ESE	180.27	<u>5</u>
MODERN CORPORATION	1300 BRIDGE ST. R.R #1 FORT ERIE ON L2A 5M4	ESE	180.27	<u>5</u>
NIAGARA, REGIONAL MUNICIPALITY OF	BRIDGE STREET LANDFILL SITE 1300 Bridge Street FORT ERIE ON L2A 5M4	ESE	180.27	<u>5</u>
MODERN CORPORATION	1300 BRIDGE ST. R.R #1 FORT ERIE ON L2A 5M4	ESE	180.27	<u>5</u>
NIAGARA, REGIONAL MUNICIPALITY OF	BRIDGE STREET LANDFILL SITE 1300 Bridge Street FORT ERIE ON L2A 5M4	ESE	180.27	<u>5</u>
MODERN LANDFILL INC	1300 BRIDGE ST. R.R #1 FORT ERIE ON L2A 5M4	ESE	180.27	<u>5</u>
MODERN LANDFILL INC	1300 BRIDGE ST. R.R #1 FORT ERIE ON L2A 5M4	ESE	180.27	<u>5</u>
NIAGARA, REGIONAL MUNICIPALITY OF	BRIDGE STREET LANDFILL SITE 1300 Bridge Street FORT ERIE ON L2A 5M4	ESE	180.27	<u>5</u>
NIAGARA, REGIONAL MUNICIPALITY OF	BRIDGE STREET LANDFILL SITE 1300 Bridge Street FORT ERIE ON L2A 5M4	ESE	180.27	<u>5</u>
MODERN LANDFILL INC	1300 BRIDGE ST. R.R #1 FORT ERIE ON L2A 5M4	ESE	180.27	<u>5</u>

NIAGARA, REGIONAL MUNICIPALITY OF	BRIDGE STREET LANDFILL SITE 1300 Bridge Street FORT ERIE ON	ESE	180.27	<u>5</u>
NIAGARA, REGIONAL MUNICIPALITY OF	BRIDGE STREET LANDFILL SITE 1300 Bridge Street FORT ERIE ON L2A 5M4	ESE	180.27	<u>5</u>
NIAGARA, REGIONAL MUNICIPALITY OF	BRIDGE STREET LANDFILL SITE 1300 Bridge Street FORT ERIE ON L2A 5M4	ESE	180.27	<u>5</u>
NIAGARA, REGIONAL MUNICIPALITY OF	BRIDGE STREET LANDFILL SITE 1300 Bridge Street FORT ERIE ON L2A 5M4	ESE	180.27	<u>5</u>
NIAGARA, REGIONAL MUNICIPALITY OF	BRIDGE STREET LANDFILL SITE 1300 Bridge Street FORT ERIE ON L2A 5M4	ESE	180.27	<u>5</u>
NIAGARA, REGIONAL MUNICIPALITY OF	BRIDGE STREET LANDFILL SITE 1300 Bridge Street FORT ERIE ON L2A 5M4	ESE	180.27	<u>5</u>
NIAGARA, THE REGIONAL MUNICIPALITY OF	JOHN C. GIBSON OPERATIONS CENTRE 1818 PETIT ROAD FORT ERIE ON	S	209.23	<u>6</u>
NIAGARA, REGIONAL MUNICIPALITY OF	JOHN C. GIBSON OPERATIONS CENTRE 1818 PETIT ROAD FORT ERIE ON	S	209.23	<u>6</u>
FORT ERIE, CORP. OF THE TOWN OF	PUBLIC WORKS FACILITY 1818 PETTIT ROAD FORT ERIE ON L2A 5M4	S	209.23	<u>6</u>
FORT ERIE, CORP. OF THE TOWN OF 15-699	JOHN L. GIBSON OPERATIONS FACILITY 1818 PETTIT ROAD FORT ERIE ON L2A 5M4	S	209.23	<u>6</u>
FORT ERIE, CORPORATION OF THE TOWN OF	PUBLIC WORKS FACILITY 1818 PETTIT ROAD FORT ERIE ON L2A 5M4	S	209.23	<u>6</u>
NIAGARA, REGIONAL MUNICIPALITY OF	JOHN C. GIBSON OPERATIONS CENTRE 1818 PETIT ROAD FORT ERIE ON	S	209.23	<u>6</u>

FORT ERIE, CORPORATION OF THE TOWN OF	PUBLIC WORKS FACILITY 1818 PETTIT ROAD FORT ERIE ON L2A 5M4	S	209.23	<u>6</u>
FORT ERIE, CORPORATION OF THE TOWN OF	PUBLIC WORKS FACILITY 1818 PETTIT ROAD FORT ERIE ON L2A 5M4	S	209.23	<u>6</u>
NIAGARA, REGIONAL MUNICIPALITY OF	JOHN C. GIBSON OPERATIONS CENTRE 1818 PETIT ROAD FORT ERIE ON	S	209.23	<u>6</u>
NIAGARA, REGIONAL MUNICIPALITY OF	JOHN C. GIBSON OPERATIONS CENTRE 1818 PETIT ROAD FORT ERIE ON	S	209.23	<u>6</u>
FORT ERIE, CORPORATION OF THE TOWN OF	PUBLIC WORKS FACILITY 1818 PETTIT ROAD FORT ERIE ON L2A 5M4	S	209.23	<u>6</u>
FORT ERIE, CORPORATION OF THE TOWN OF	PUBLIC WORKS FACILITY 1818 PETTIT ROAD FORT ERIE ON L2A 5M4	S	209.23	<u>6</u>
NIAGARA, REGIONAL MUNICIPALITY OF	JOHN C. GIBSON OPERATIONS CENTRE 1818 PETIT ROAD FORT ERIE ON	S	209.23	<u>6</u>
NIAGARA, REGIONAL MUNICIPALITY OF	JOHN C. GIBSON OPERATIONS CENTRE 1818 PETIT ROAD FORT ERIE ON	S	209.23	<u>6</u>
FORT ERIE, CORPORATION OF THE TOWN OF	PUBLIC WORKS FACILITY 1818 PETTIT ROAD FORT ERIE ON	S	209.23	<u>6</u>
FORT ERIE, CORPORATION OF THE TOWN OF	PUBLIC WORKS FACILITY 1818 PETTIT ROAD FORT ERIE ON L2A 2S6	S	209.23	<u>6</u>
FORT ERIE, CORPORATION OF THE TOWN OF	PUBLIC WORKS FACILITY 1818 PETTIT ROAD FORT ERIE ON L2A 2S6	S	209.23	<u>6</u>
FORT ERIE, CORPORATION OF THE TOWN OF	PUBLIC WORKS FACILITY 1818 PETTIT ROAD FORT ERIE ON L2A 2S6	S	209.23	<u>6</u>

FORT ERIE, CORPORATION OF THE TOWN OF	PUBLIC WORKS FACILITY 1818 PETTIT ROAD FORT ERIE ON L2A 2S6	S	209.23	<u>6</u>
FORT ERIE, CORPORATION OF THE TOWN OF	PUBLIC WORKS FACILITY 1818 PETTIT ROAD FORT ERIE ON L2A 2S6	S	209.23	<u>6</u>
TRUK KING LOGISTICS INC	1799 PETTIT RD FORT ERIE ON	SSW	332.39	<u>13</u>
TRUK KING LOGISTICS INC	1799 PETTIT RD FORT ERIE ON L2A 5M4	SSW	332.39	<u>13</u>
TRUK KING LOGISTICS INC	1799 PETTIT RD FORT ERIE ON L2A 5M4	SSW	332.39	<u>13</u>
TRUK KING LOGISTICS INC	1799 PETTIT RD FORT ERIE ON L2A 5M4	SSW	332.39	<u>13</u>
TRUK KING LOGISTICS INC	1799 PETTIT RD FORT ERIE ON L2A 5M4	SSW	332.39	<u>13</u>
TRUK KING LOGISTICS INC	1799 PETTIT RD FORT ERIE ON L2A 5M4	SSW	332.39	<u>13</u>
TRUK KING LOGISTICS INC	1799 PETTIT RD FORT ERIE ON L2A 5M4	SSW	332.39	<u>13</u>
AERO-SAFE TECHNOLOGIES INC.	1767 PETTIT ROAD FORT ERIE ON L2A 5M4	S	385.71	<u>17</u>
AERO-SAFE TECHNOLOGIES INC.	1767 PETTIT ROAD FORT ERIE ON	S	385.71	<u>17</u>
AERO-SAFE TECHNOLOGIES INC.	1767 PETTIT ROAD FORT ERIE ON	S	385.71	<u>17</u>
AERO-SAFE TECHNOLOGIES INC.	1767 PETTIT ROAD FORT ERIE ON	S	385.71	<u>17</u>
AERO-SAFE TECHNOLOGIES INC.	1767 PETTIT ROAD FORT ERIE ON L2A 5M4	S	385.71	<u>17</u>

AERO-SAFE TECHNOLOGIES INC.	1767 PETTIT ROAD FORT ERIE ON	S	385.71	<u>17</u>
AERO-SAFE TECHNOLOGIES INC.	1767 PETTIT ROAD FORT ERIE ON L2A 5N1	S	385.71	<u>17</u>
AERO-SAFE TECHNOLOGIES INC.	1767 PETTIT ROAD FORT ERIE ON L2A 5N1	S	385.71	<u>17</u>
AERO-SAFE TECHNOLOGIES INC.	1767 PETTIT ROAD FORT ERIE ON L2A 5N1	S	385.71	<u>17</u>
AERO-SAFE TECHNOLOGIES INC.	1767 PETTIT ROAD FORT ERIE ON L2A 5N1	S	385.71	<u>17</u>
Aerosafe Processing	1360 Commerce Parkway Fort Erie ON L2A 5N1	SSW	419.81	<u>20</u>
Aero-safe Processing Inc.	1360 Commerce Parkway Fort Erie ON L2A 5N1	SSW	419.81	<u>20</u>
aero-safe processing inc.	1360 Commerce Parkway Fort Erie ON L2A 5N1	SSW	441.79	<u>23</u>
Aero-safe Processing Inc.	1360 Commerce Parkway Fort Erie ON	SSW	441.79	<u>23</u>
Aero-safe Processing Inc.	1360 Commerce Parkway Fort Erie ON	SSW	441.79	<u>23</u>
Aero-safe Processing Inc.	1360 Commerce Parkway Fort Erie ON	SSW	441.79	<u>23</u>
Aero-safe Processing Inc.	1360 Commerce Parkway Fort Erie ON L2A 5N1	SSW	441.79	<u>23</u>

Aero-safe Processing Inc.	1360 Commerce Parkway Fort Erie ON	SSW	441.79	<u>23</u>
Aero-safe Processing Inc.	1360 Commerce Parkway Fort Erie ON L2A 5N1	SSW	441.79	<u>23</u>
Aero-safe Processing Inc.	1360 Commerce Parkway Fort Erie ON L2A 5N1	SSW	441.79	<u>23</u>
Aero-safe Processing Inc.	1360 Commerce Parkway Fort Erie ON L2A 5N1	SSW	441.79	<u>23</u>
REPUBLIC ENVIRONMENTAL SYSTEMS LTD.	1733 PETTIT ROAD FORT ERIE ON L2A 5M4	S	442.11	<u>24</u>
ThermaPan Industries Inc.	1380 Commerce Pkwy Fort Erie ON	SW	451.34	<u>27</u>
ThermaPan Industries Inc.	1380 Commerce Pkwy Fort Erie ON	SW	451.34	<u>27</u>
ThermaPan Industries Inc.	1380 Commerce Pkwy Fort Erie ON	SW	451.34	<u>27</u>
ThermaPan Industries Inc.	1380 Commerce Pkwy Fort Erie ON	SW	451.34	<u>27</u>
ThermaPan Industries Inc.	1380 Commerce Pkwy Fort Erie ON	SW	451.34	<u>27</u>
ThermaPan Industries Inc.	1380 Commerce Pkwy Fort Erie ON	SW	451.34	<u>27</u>
ThermaPan Industries Inc.	1380 Commerce Pkwy Fort Erie ON L2A 5M4	SW	451.34	<u>27</u>
ThermaPan Industries Inc.	1380 Commerce Pkwy Fort Erie ON L2A 5M4	SW	451.34	<u>27</u>
REPUBLIC ENVIRONMENTAL SYSTEMS LTD.	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW	495.92	<u>32</u>

REPUBLIC (SEE & USE ON0627218)	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW	495.92	<u>32</u>
PHILIP ENTERPRISES INC.	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW	495.92	<u>32</u>
PHILIP SERVICES INC.	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW	495.92	<u>32</u>
PSC INDUSTRIAL SERVICES CANADA INC	1731 PETTIT ROAD FORT ERIE ON	SSW	495.92	<u>32</u>
NEWALTA INDUSTRIAL SERVICES INC	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW	495.92	<u>32</u>
NEWALTA CORPORATION	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW	495.92	<u>32</u>
NEWALTA CORPORATION	1731 PETTIT ROAD FORT ERIE ON	SSW	495.92	<u>32</u>
NEWALTA CORPORATION	1731 PETTIT ROAD FORT ERIE ON	SSW	495.92	<u>32</u>
NEWALTA CORPORATION	1731 PETTIT ROAD FORT ERIE ON	SSW	495.92	<u>32</u>
NEWALTA CORPORATION	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW	495.92	<u>32</u>
NEWALTA CORPORATION	1731 PETTIT ROAD FORT ERIE ON	SSW	495.92	<u>32</u>
REVOLUTION ENVIRONMENTAL SOLUTIONS ACQUISITION GP	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW	495.92	<u>32</u>

REVOLUTION ENVIRONMENTAL SOLUTIONS ACQUISITION GP	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW	495.92	32
REVOLUTION ENVIRONMENTAL SOLUTIONS ACQUISITION GP	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW	495.92	32
REVOLUTION ENVIRONMENTAL SOLUTIONS ACQUISITION GP	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW	495.92	32
REVOLUTION ENVIRONMENTAL SOLUTIONS ACQUISITION GP	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW	495.92	32

GHG - Greenhouse Gas Emissions from Large Facilities

A search of the GHG database, dated 2013-Dec 2017 has found that there are 1 GHG site(s) within approximately 0.50 kilometers of the project property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (m)</u>	<u>Map Key</u>
Bridge Street Landfill Site	1300 Bridge Street Fort Erie ON L2A5M4	ESE	180.27	5

LIMO - Landfill Inventory Management Ontario

A search of the LIMO database, dated Feb 28, 2019 has found that there are 1 LIMO site(s) within approximately 0.50 kilometers of the project property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (m)</u>	<u>Map Key</u>
The Regional Municipality of Niagara Bridge Street Landfill	1300 Bridge Street Lot 7-8 Concession 3-4 Fort Erie ON	ESE	180.27	5

NCPL - Non-Compliance Reports

A search of the NCPL database, dated Dec 31, 2017 has found that there are 1 NCPL site(s) within approximately 0.50 kilometers of the project property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (m)</u>	<u>Map Key</u>
Newalta Industrial Services Inc. - Fort Erie	1731 Pettit Rd Fort Erie ON	SSW	495.92	32

NPCB - National PCB Inventory

A search of the NPCB database, dated 1988-2008* has found that there are 1 NPCB site(s) within approximately 0.50 kilometers of the project property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (m)</u>	<u>Map Key</u>
TOWN OF FORT ERIE	PETIT ROAD OPERATIONS CENTER; PETIT ROAD FORT ERIE ON	S	209.23	<u>6</u>

NPRI - National Pollutant Release Inventory

A search of the NPRI database, dated 1993-May 2017 has found that there are 27 NPRI site(s) within approximately 0.50 kilometers of the project property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (m)</u>	<u>Map Key</u>
REGIONAL MUNICIPALITY OF NIAGARA	1300 BRIDGE Street FORT ERIE ON L2A5M4	SSE	112.31	<u>2</u>
REGIONAL MUNICIPALITY OF NIAGARA	1300 BRIDGE Street FORT ERIE ON L2A5M4	SSE	112.31	<u>2</u>
NEWALTA CORPORATION	1731 PETTIT ROAD NOT AVAILABLE FORT ERIE ON L2A5M4	S	173.10	<u>4</u>
REGIONAL MUNICIPALITY OF NIAGARA	1300 BRIDGE STREET NOT AVAILABLE FORT ERIE ON L2A5M4	ESE	180.27	<u>5</u>
Regional Municipality of Niagara	1300 BRIDGE STREET NOT AVAILABLE FORT ERIE ON L2A5M4	ESE	180.27	<u>5</u>
REGIONAL MUNICIPALITY OF NIAGARA	1300 BRIDGE STREET NOT AVAILABLE FORT ERIE ON L2A5M4	ESE	180.27	<u>5</u>
REGIONAL MUNICIPALITY OF NIAGARA	1300 BRIDGE STREET NOT AVAILABLE FORT ERIE ON L2A5M4	ESE	180.27	<u>5</u>
REGIONAL MUNICIPALITY OF NIAGARA	1300 BRIDGE STREET NOT AVAILABLE FORT ERIE ON L2A5M4	ESE	180.27	<u>5</u>

REGIONAL MUNICIPALITY OF NIAGARA	1300 BRIDGE STREET NOT AVAILABLE FORT ERIE ON L2A5M4	ENE	407.63	19
PHILIP ENTERPRISES INC.	1731 PETTIT ROAD PO BOX 340 FORT ERIE ON L2A5M4	SSW	495.92	32
PHILIP ENTERPRISES INC.	1731 PETTIT ROAD PO BOX 340 FORT ERIE ON L2A5M4	SSW	495.92	32
PHILIP ENTERPRISES INC.	1731 PETTIT ROAD PO BOX 340 FORT ERIE ON L2A5M4	SSW	495.92	32
PHILIP SERVICES INC.	1731 PETTIT ROAD PO BOX 340 FORT ERIE ON L2A5M4	SSW	495.92	32
PHILIP ENTERPRISES INC.	1731 PETTIT ROAD PO BOX 340 FORT ERIE ON L2A5M4	SSW	495.92	32
PHILIP ENTERPRISES INC.	1731 PETTIT ROAD PO BOX 340 FORT ERIE ON L2A5M4	SSW	495.92	32
PHILIP SERVICES INC	1731 PETTIT ROAD PO BOX 340 FORT ERIE ON L2A5M4	SSW	495.92	32
PSC INDUSTRIAL SERVICES CANADA INC.	1731 PETTIT ROAD PO BOX 340 FORT ERIE ON L2A5M4	SSW	495.92	32
PSC INDUSTRIAL SERVICES CANADA INC.	1731 PETTIT ROAD PO BOX 340 FORT ERIE ON L2A5M4	SSW	495.92	32
NEWALTA CORPORATION	1731 PETTIT ROAD NOT AVAILABLE FORT ERIE ON L2A5M4	SSW	495.92	32
NEWALTA CORPORATION	1731 PETTIT ROAD NOT AVAILABLE FORT ERIE ON L2A5M4	SSW	495.92	32
NEWALTA CORPORATION	1731 PETTIT ROAD NOT AVAILABLE FORT ERIE ON L2A5M4	SSW	495.92	32

NEWALTA CORPORATION	1731 PETTIT ROAD NOT AVAILABLE FORT ERIE ON L2A5M4	SSW	495.92	32
NEWALTA CORPORATION	1731 PETTIT ROAD NOT AVAILABLE FORT ERIE ON L2A5M4	SSW	495.92	32
Newalta Corporation	1731 PETTIT ROAD NOT AVAILABLE FORT ERIE ON L2A5M4	SSW	495.92	32
NEWALTA CORPORATION	1731 PETTIT ROAD NOT AVAILABLE FORT ERIE ON L2A5M4	SSW	495.92	32
NEWALTA CORPORATION	1731 PETTIT ROAD NOT AVAILABLE FORT ERIE ON L2A5M4	SSW	495.92	32
NEWALTA CORPORATION	1731 PETTIT ROAD NOT AVAILABLE FORT ERIE ON L2A5M4	SSW	495.92	32

OOGW - Ontario Oil and Gas Wells

A search of the OOGW database, dated 1800-Jun 2019 has found that there are 1 OOGW site(s) within approximately 0.50 kilometers of the project property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (m)</u>	<u>Map Key</u>
Bridge Street Landfill Site	Bertie ON	NNE	425.46	21
	Licence No: F020236			

OPCB - Inventory of PCB Storage Sites

A search of the OPCB database, dated 1987-Oct 2004; 2012-Dec 2013 has found that there are 3 OPCB site(s) within approximately 0.50 kilometers of the project property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (m)</u>	<u>Map Key</u>
TOWN OF FORT ERIE	PETIT ROAD OPERATIONS CENTER PETIT ROAD FORT ERIE ON	S	209.23	6
TOWN OF FORT ERIE	PETIT ROAD OPERATIONS CENTER PETIT ROAD FORT ERIE ON	S	209.23	6

TOWN OF FORT ERIE	PETIT ROAD OPERATIONS CENTER PETIT ROAD FORT ERIE ON	S	209.23	6
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REC - Ontario Regulation 347 Waste Receivers Summary

A search of the REC database, dated 1986-2016 has found that there are 13 REC site(s) within approximately 0.50 kilometers of the project property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (m)</u>	<u>Map Key</u>
PHILIP ENTERPRISES INC.	LOT #6, CONC. 5, NIAGARA RIVER PART OF PART 14, PLAN 59R-4985 FORT ERIE ON L2A 5M4	S	470.32	30

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (m)</u>	<u>Map Key</u>
REPUBLIC ENVIRONMENTAL SYSTEMS LTD.	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW	495.92	32
PHILIP ENTERPRISES INC.	LOT 6, CON 5, NIAGARA RIV. PT OF PT 14 1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW	495.92	32
PSC INDUSTRIAL SERVICES CANADA INC.	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW	495.92	32
NEWALTA INDUSTRIAL SERVICES INC.	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW	495.92	32
NEWALTA CORPORATION	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW	495.92	32
REVOLUTION ENVIRONMENTAL SOLUTIONS ACQUISITION GP	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW	495.92	32
NEWALTA CORPORATION	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW	495.92	32
NEWALTA CORPORATION	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW	495.92	32

NEWALTA CORPORATION	1731 PETTIT ROAD FORT ERIE ON	SSW	495.92	32
REVOLUTION ENVIRONMENTAL SOLUTIONS ACQUISITION GP	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW	495.92	32
REVOLUTION ENVIRONMENTAL SOLUTIONS ACQUISITION GP	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW	495.92	32
NEWALTA CORPORATION	1731 PETTIT ROAD FORT ERIE ON L2A 5M4	SSW	495.92	32

SCT - Scott's Manufacturing Directory

A search of the SCT database, dated 1992-Mar 2011* has found that there are 2 SCT site(s) within approximately 0.50 kilometers of the project property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (m)</u>	<u>Map Key</u>
Aero-Safe Technologies Inc.	1767 Pettit Rd Fort Erie ON L2A 5N1	S	385.71	17
Thermapan Industries Inc.	1380 Commerce Pky Fort Erie ON L2A 5M4	SW	451.34	27

SPL - Ontario Spills

A search of the SPL database, dated 1988-Feb 2019 has found that there are 18 SPL site(s) within approximately 0.50 kilometers of the project property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (m)</u>	<u>Map Key</u>
	1731 Pettit Rd Fort Erie ON	SSW	495.92	32
TRANSPORT TRUCK	1731 PETTIT ROAD MOTOR VEHICLE (OPERATING FLUID) FORT ERIE TOWN ON	SSW	495.92	32
PHILIP ENTERPRISES	1731 PETTIT RD. TRANSPORT TRUCK (CARGO) FORT ERIE TOWN ON	SSW	495.92	32

PHILIP SERVICES INC.	1731 PETTIT RD 1731 PETTIT ROAD,FORT ERIE. FORT ERIE TOWN ON	SSW	495.92	<u>32</u>
PHILIP SERVICES INC.	1731 PETTIT ROAD 1731 PETTIT ROAD,FORT ERIE. FORT ERIE TOWN ON	SSW	495.92	<u>32</u>
PHILIP SERVICES INC.	PHILIP, 1731 PETTIT ROAD, FORT ERIE 1731 PETTIT ROAD,FORT ERIE. FORT ERIE TOWN ON	SSW	495.92	<u>32</u>
PHILIP SERVICES INC.	1731 PETTIT RD 1731 PETTIT ROAD,FORT ERIE. FORT ERIE TOWN ON	SSW	495.92	<u>32</u>
PHILIP SERVICES INC.	1731 PETTIT ROAD 1731 PETTIT ROAD,FORT ERIE. FORT ERIE TOWN ON	SSW	495.92	<u>32</u>
PHILIP SERVICES INC.	PHILIPS SERVICES \ 1731 PETTIT ROAD 1731 PETTIT ROAD,FORT ERIE. FORT ERIE TOWN ON	SSW	495.92	<u>32</u>
PHILIP SERVICES INC.	1731 PETTIT ROAD 1731 PETTIT ROAD,FORT ERIE. FORT ERIE TOWN ON	SSW	495.92	<u>32</u>
Philip Enterprises Inc.	1731 Pettit Road Fort Erie ON	SSW	495.92	<u>32</u>
PSC Industrial Services Canada Inc.	1731 Pettit Road Fort Erie ON	SSW	495.92	<u>32</u>
PSC Industrial Services Canada Inc.	1731 Pettit Road Fort Erie ON	SSW	495.92	<u>32</u>
PSC Industrial Services Canada Inc.	1731 Pettit Road Fort Erie ON	SSW	495.92	<u>32</u>
Newalta Industrial Services Inc.	1731 Pettit Rd Fort Erie ON	SSW	495.92	<u>32</u>

Newalta Corporation	1731 Pettit Road Fort Erie ON	SSW	495.92	32
Newalta Corporation	1731 Pettit Rd Fort Erie ON	SSW	495.92	32
Harold Marcus Limited	1731 Pettit Rd Fort Erie ON	SSW	495.92	32

WDS - Waste Disposal Sites - MOE CA Inventory

A search of the WDS database, dated Oct 2011-Sep 30, 2019 has found that there are 51 WDS site(s) within approximately 0.50 kilometers of the project property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (m)</u>	<u>Map Key</u>
The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON	ESE	180.27	5
The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON	ESE	180.27	5
The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON	ESE	180.27	5
The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON L2V 4T7	ESE	180.27	5
The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON L2V 4T7	ESE	180.27	5
The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON L2V 4T7	ESE	180.27	5
The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON L2V 4T7	ESE	180.27	5

The Regional Municipality of Niagara	1300 Bridge St, Lot 7, 8, Concession 3, 4 Fort Erie ON	ESE	180.27	<u>5</u>
The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON L2V 4T7	ESE	180.27	<u>5</u>
The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON L2V 4T7	ESE	180.27	<u>5</u>
The Regional Municipality of Niagara	1300 Bridge Street, Part 1 & 2, Reference Plan 11530 Fort Erie ON L2V 4T7	ESE	180.27	<u>5</u>
BRIDGE STREET LANDFILL SITE	BRIDGE STREET FORT ERIE, TOWN OF ON	E	381.93	<u>16</u>
BRIDGE STREET LANDFILL SITE	BRIDGE STREET FORT ERIE, TOWN OF ON	E	381.93	<u>16</u>
BRIDGE STREET LANDFILL SITE	BRIDGE STREET TOWN OF FORT ERIE ON	E	381.93	<u>16</u>
BRIDGE STREET LANDFILL SITE	BRIDGE STREET TOWN OF FORT ERIE ON	E	381.93	<u>16</u>
BRIDGE STREET LANDFILL SITE	BRIDGE STREET TOWN OF FORT ERIE ON	E	381.93	<u>16</u>
BRIDGE STREET LANDFILL SITE	BRIDGE STREET TOWN OF FORT ERIE ON	E	381.93	<u>16</u>
BRIDGE STREET LANDFILL SITE	BRIDGE STREET TOWN OF FORT ERIE ON	E	381.93	<u>16</u>
BRIDGE STREET LANDFILL SITE	BRIDGE STREET TOWN OF FORT ERIE ON	E	381.93	<u>16</u>
BRIDGE STREET LANDFILL SITE	BRIDGE STREET TOWN OF FORT ERIE ON	E	381.93	<u>16</u>
BRIDGE STREET LANDFILL SITE	BRIDGE STREET TOWN OF FORT ERIE ON	E	381.93	<u>16</u>

BRIDGE STREET LANDFILL SITE	BRIDGE STREET TOWN OF FORT ERIE ON	E	381.93	<u>16</u>
BRIDGE STREET LANDFILL SITE	BRIDGE STREET TOWN OF FORT ERIE ON	E	381.93	<u>16</u>
BRIDGE STREET LANDFILL SITE	BRIDGE STREET TOWN OF FORT ERIE ON	E	381.93	<u>16</u>
BRIDGE STREET LANDFILL SITE	BRIDGE STREET TOWN OF FORT ERIE ON	E	381.93	<u>16</u>
BRIDGE STREET LANDFILL SITE	BRIDGE STREET TOWN OF FORT ERIE ON	E	381.93	<u>16</u>
BRIDGE STREET LANDFILL SITE	BRIDGE STREET FORT ERIE, TOWN OF ON	E	381.93	<u>16</u>
The Regional Municipality of Niagara	Part 7,8 RP 59R-3891. Northeast of Pettit Road and Bridge Street Fort Erie ON	ENE	455.11	<u>28</u>
The Regional Municipality of Niagara	Part 7,8 RP 59R-3891. Northeast of Pettit Road and Bridge Street Fort Erie ON L2V 4T7	ENE	455.11	<u>28</u>
The Regional Municipality of Niagara	Part 7,8 RP 59R-3891. Northeast of Pettit Road and Bridge Street Fort Erie ON	ENE	455.11	<u>28</u>
The Regional Municipality of Niagara	Part 7,8 RP 59R-3891. Northeast of Pettit Road and Bridge Street Fort Erie ON	ENE	455.11	<u>28</u>
Newalta Industrial Services Inc.	1731 Pettit Rd Fort Erie ON L7L 6B2	SSW	495.92	<u>32</u>
Newalta Industrial Services Inc.	1731 Pettit Rd Fort Erie ON L7L 6B2	SSW	495.92	<u>32</u>

Philip Enterprises Inc.	1731 Pettit Road Fort Erie ON L8H 5Y6	SSW	495.92	<u>32</u>
Philip Services Inc.	1731 Pettit Road Fort Erie ON L8H 5Y6	SSW	495.92	<u>32</u>
	1731 PETTIT ROAD, FORT ERIE FORT ERIE ON	SSW	495.92	<u>32</u>
Philip Services Inc.	1731 Pettit Road Fort Erie ON L8H 5Y6	SSW	495.92	<u>32</u>
Newalta Industrial Services Inc.	1731 Pettit Road Fort Erie ON	SSW	495.92	<u>32</u>
Newalta Industrial Services Inc.	1731 Pettit Road Fort Erie ON L8H 5Y6	SSW	495.92	<u>32</u>
Newalta Industrial Services Inc.	1731 Pettit Rd Fort Erie ON	SSW	495.92	<u>32</u>
Newalta Industrial Services Inc.	1731 Pettit Rd Fort Erie ON L7L 6B2	SSW	495.92	<u>32</u>
Newalta Industrial Services Inc.	1731 Pettit Rd Fort Erie ON L7L 6B2	SSW	495.92	<u>32</u>
Newalta Industrial Services Inc.	1731 Pettit Rd Fort Erie ON L7L 6B2	SSW	495.92	<u>32</u>
Newalta Industrial Services Inc.	1731 Pettit Rd Fort Erie ON L7L 6B2	SSW	495.92	<u>32</u>
Newalta Corporation	1731 Pettit Rd Fort Erie ON L7L 6B2	SSW	495.92	<u>32</u>
Newalta Corporation	1731 Pettit Rd Fort Erie ON	SSW	495.92	<u>32</u>

Newalta Corporation	1731 Pettit Road Fort Erie Town ON	SSW	495.92	32
Newalta Corporation	1731 Pettit Rd Fort Erie ON L7L 6B2	SSW	495.92	32
Newalta Corporation	1731 Pettit Rd Fort Erie ON L7L 6B2	SSW	495.92	32
Newalta Industrial Services Inc.	1731 Pettit Rd Fort Erie ON L7L 6B2	SSW	495.92	32
Newalta Industrial Services Inc.	1731 Pettit Rd Fort Erie ON L7L 6B2	SSW	495.92	32
Revolution Environmental Solutions Acquisition GP Inc., as general partner for	and on behalf of Revolution Environmental Solutions LP 1731 Pettit Rd Fort Erie ON L7L 6B2	SSW	495.92	32

WDSH - Waste Disposal Sites - MOE 1991 Historical Approval Inventory

A search of the WDSH database, dated Up to Oct 1990* has found that there are 1 WDSH site(s) within approximately 0.50 kilometers of the project property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (m)</u>	<u>Map Key</u>
	7 (Bridge St. Fort Erie) 4 NR FORT ERIE ON	ENE	430.28	22

WWIS - Water Well Information System

A search of the WWIS database, dated Feb 28, 2019 has found that there are 7 WWIS site(s) within approximately 0.50 kilometers of the project property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (m)</u>	<u>Map Key</u>
	lot 7 con 4 ON <i>Well ID:</i> 6602657	W	36.75	1
	Fort Erie ON	SSW	223.06	7

Well ID: 7107654

lot 7 con 5 ON	NNW	242.95	<u>8</u>
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Well ID: 6600507

lot 7 con 5 ON	NNW	244.08	<u>9</u>
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Well ID: 6603053

Fort Erie ON	ENE	295.68	<u>11</u>
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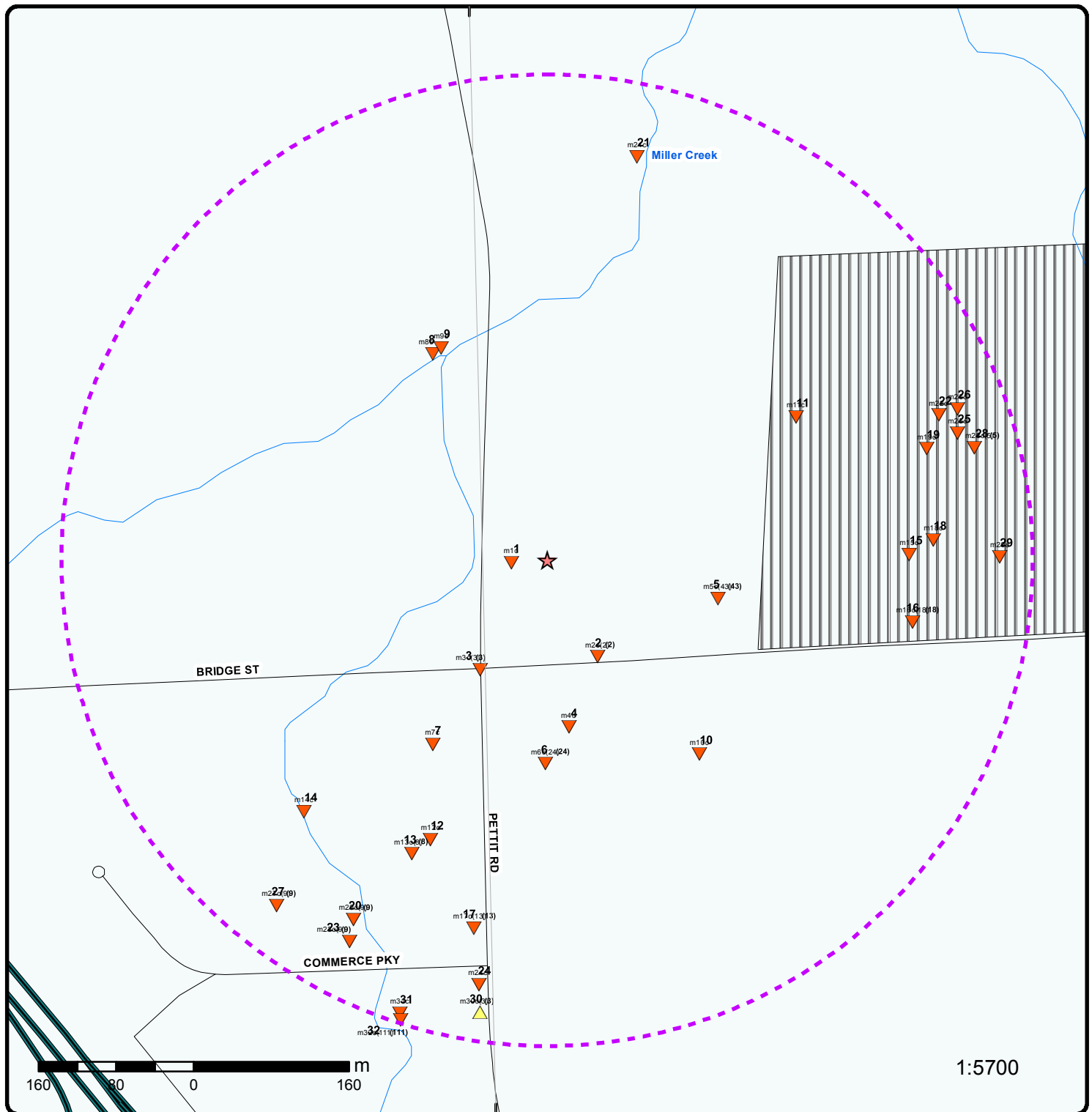
Well ID: 7237341

lot 6 con 5 FORT ERIE ON	SSW	311.40	<u>12</u>
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Well ID: 7042007

Fort Erie ON	E	466.25	<u>29</u>
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Well ID: 7123798



Map : 0.5 Kilometer Radius

Order No: 20191029228

Address: 1886 Pettit Road, Fort Erie, ON, L2A 5M4

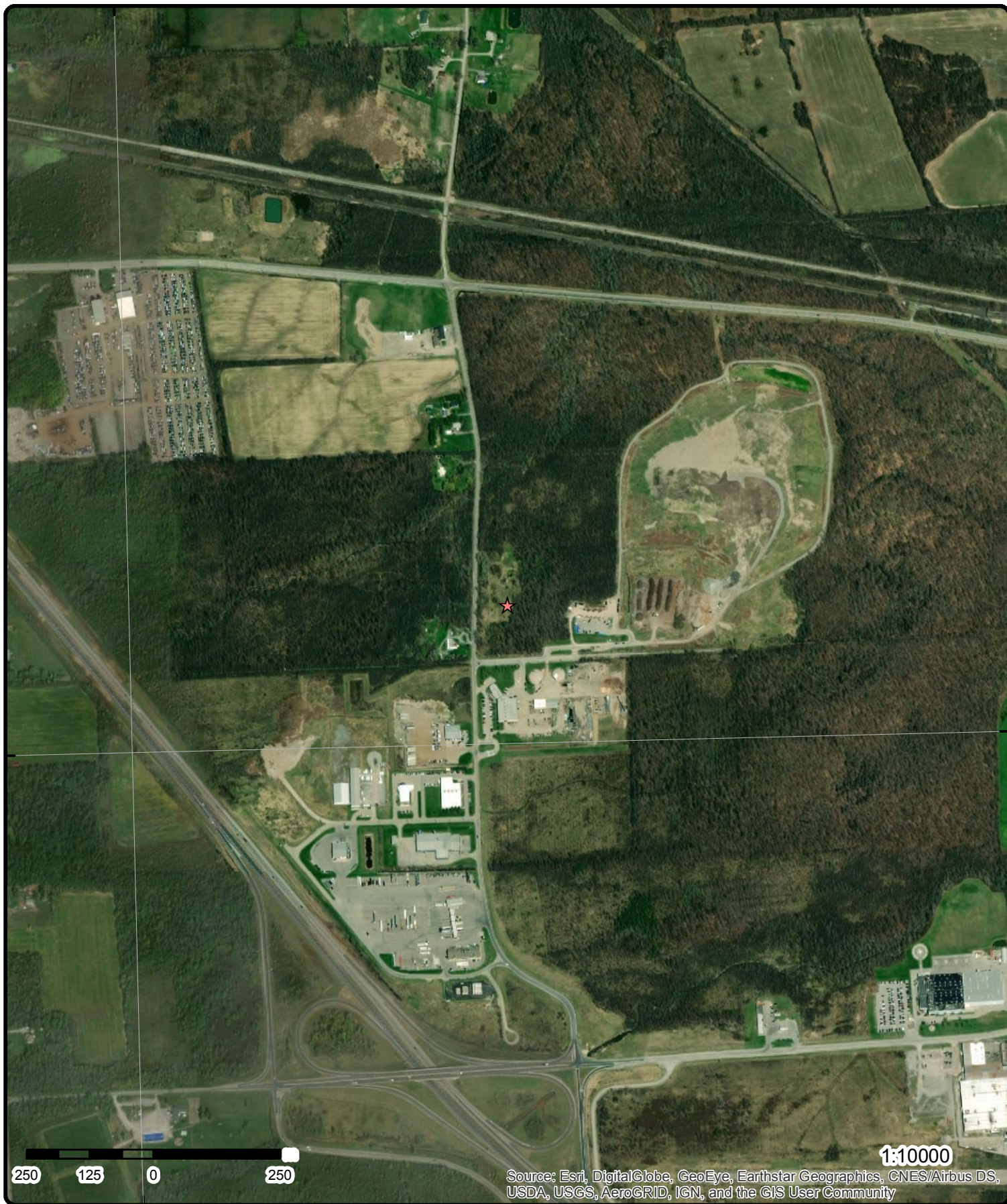


- | | | | |
|-------------------------------------|----------------------|-----------------------------------|--------------------------------|
| ★ Project Property | Expressway | Industrial and Resource - Regions | National Park |
| ○ Buffer Outline | Principal Highway | Main Line | Provincial or Territorial Park |
| △ Eris Sites with Higher Elevation | Secondary Highway | Sidetrack | Other Park |
| □ Eris Sites with Same Elevation | Major Road | Transit Line | Golf Course or Driving Range |
| ▽ Eris Sites with Lower Elevation | Local road | Abandoned Line | Park or Sports Field |
| ○ Eris Sites with Unknown Elevation | Trail | | Other Recreation Area |
| | Proposed Road | | |
| | Ferry Route/Ice Road | | |

78°58'30"W

42°55'30"N

42°55'30"N



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Aerial (2017)

Address: 1886 Pettit Road, Fort Erie, ON, L2A 5M4

Source: ESRI World Imagery

Order No: 20191029228

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES



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