Phase One Environmental Site Assessment

Northwest Corner of Quaker Road and First Avenue
Welland and Thorold, Ontario

Prepared For:

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DS Project No : 21-339-301
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Executive Summary

DS Consultants Ltd. (DS) was retained by Primont (Thorold/Welland) Inc (the Client) to complete a Phase One ESA for three parcels of land with the legal description of PT TWP LT 228 THOROLD BEING PT 2 ON 59R7326 (Parcel A), PT TWP LT 228 THOROLD BEING PT 1 ON 59R7326 (Parcel B) and 436 Quaker Road (Parcel C). The three (3) parcels are located at the northwest corner of the intersection of Quaker Road and First Avenue, within the City of Welland and City of Thorold, Ontario, herein referred to as the "Phase One Property" or "Site". It is DS's understanding that this Phase One ESA has been requested for due diligence purposes, as part of the proposed redevelopment of the Phase One Property for residential purposes.

The Phase One Property is a rectangular shaped 60.8-hectare (150.23 acres) parcel of land situated within a rural neighbourhood. Parcel A and the southern half of Parcel C is within the City of Welland and Parcel B and the northern half of Parcel C is within the City of Thorold. The Phase One Property is bound by Quaker Road to the south, First Avenue to the east, Merritt Road to the north, and an agricultural parcel to the west.

The Phase One ESA was completed to satisfy the intent of the requirements, methodology and practices for a Phase One ESA as described in Ontario Regulation 153/04 (as amended). The objective of the Phase One ESA is to identify the presence or absence of potentially contaminating activities (PCAs) on the Phase One Property and/or within the Phase One Study Area, and to determine if the PCAs identified within the Phase One Study Area are likely to result in an Area of Potential Environmental Concern (APEC) on the Phase One Property. The scope of work included a review of reasonably ascertainable records and reports regarding historical and current use, regulatory information, occupancy, and activities for the Phase One Property, interviews with available individuals having knowledge of current and/or past site activities, an inspection of the Phase One Property, and the activities on the adjacent properties, and evaluation of the information and documentation of the results in the form of a Phase One ESA Report.

The information obtained by the Phase One ESA will be used to assess whether further investigation in the form of a Phase Two ESA is merited. It should be noted that this Phase One ESA does not include any sampling or testing and is based solely on a review of readily available data, and observations made during the Phase One Site Reconnaissance.

Based on the records reviewed as part of the Phase One ESA, DS presents the following findings:

- The Phase One Property has been historically used for agricultural and residential purposes circa the mid-1870s. Two (2) houses were historically located on the southeastern portion of the Site (Parcel A) and were demolished circa the late-1960s.
- The Phase One Property currently includes a two-storey house (Site Building A), located on the southwestern portion of Parcel C. Parcel C also contained a silo, barn, two (2) sheds and

one (1) pool surrounding the residence. One bell communications tower was erected in the mid 2000s and is located approximately 95 m northeast from Site Building A. The land surrounding Site Building A and other structures are use for agricultural purposes. Wetlands are present in the southeastern and northeastern portions of the Phase One Property.

- The topography on the Phase One Property and within the Phase One Study Area is generally flat with a surficial elevation of 225 metres above sea level (masl) and slightly slopes to the east. Based on the local topography, the shallow groundwater flow direction is inferred to be easterly towards tributaries of Welland River and/or Welland Rive. Long term groundwater monitoring would be required in order to confirm the direction of groundwater flow on the Phase One Property;
- Based on a review of the OGS Earth database, the Phase One Property is situated within a "*Haldimand Clay Plain*" physiographic region. The surficial geology within the Phase One Study area is described as "*fine-textured glaciocustrine deposits of silt and clay, minor sand and gravel*", and the bedrock is described as "*sandstone, shale, dolostone and siltstone of the Guelph Formation*". Based on a review of well records, the bedrock in the Phase One Study Area is anticipated to be encountered at an approximate depth range of 30 to 62 metres below ground surface (mbgs);
- The Town of Welland -Official Plan, Schedule C indicated the southeastern portion of the Site as an *"Environmental Protection Area"* and an "*Environmental Conservation Area"*. The City of Thorold – Official Plan, Schedule B, indicated the northern portions of the Site as a *"Provincial Significant Wetland.* A reviewed on the MNRF database also identified that the southeastern and northeast portions of the Site are within a *Provincial Significant Wetland*; additionally, the MNRF database indicated that the northeastern and the southeastern portions of the Site may provide a viable habitat for the Northern Bobwhite and the Eastern Flowering Dogwood, endangered species within the Phase One Property. The northern and southeastern portions of the Phase One Property (where the Provincially Wetlands are located) are considered under O.Reg. 153/04 (as amended) to be areas of natural significance. Based on the presence of the area of natural significance within the Phase One Property, the northern and southeastern portions (southern portion of Parcel A, northern half of Parcel B, and northern portion of Parcel C) of the Phase One Property are considered under O.Reg. 153/04 (as amended) to be environmentally sensitive;
- Based on the 1876 Lincoln and Welland County Atlas and aerial photograph from 1934, two (2) orchards were formerly present in the south portion of the Phase One Property. It is possible that environmentally persistent pesticides were applied to the former orchards (**PCA-1, PCA-2**);
- It is inferred that fill material may have placed within the footprint of the former houses which were demolished in the 1960s (**PCA-6**);

- The neighbouring properties within the Phase One Study Area appear to have been used for residential and agricultural purposes since prior to 1876. Seven off-site PCAs were identified within the Phase One Study Area, however none of these PCAs are considered to be contributing to APECs on the Phase One Property.

In total, ten (10) PCAs were identified on the Phase One Property and within the Phase One Study Area, three (3) of which are considered to be contributing to three (3) APECs in, on, or under the Phase One Property. A summary of the PCAs identified and the associated APECs is provided in Table 1-1 below. Note that the PCA numbers used below are per Table 2, Schedule D of O.Reg. 153/04.

Table E-1: Summary of APECs Identified on Phase One Property

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (on site or off site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground water, soil and/or sediment)
APEC-1	Southwest portion of Parcel C	#40 – Pesticides (including herbicides) manufacturing, processing, bulk storage and large scale application	On Site PCA-1	OCPs, metals, As, Sb, Se, CN-	Soil
APEC-2	Southeast portion of Parcel A	#40 – Pesticides (including herbicides) manufacturing, processing, bulk storage and large-scale application	On Site PCA-2	OCPs, metals, As, Sb, Se, CN-	Soil
APEC-3	Southeast portion of Parcel A	#30 – Importation of Fill Material of Unknown Quality	On Site PCA-6	PHCs, VOCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, electrical conductivity, Cr (VI), Hg, low or high pH, SAR, PAHs	Soil

The PCAs identified in Table E-1 above are considered by the Qualified Person (QP) to be contributing to Areas of Potential Environmental Concern on the Phase One Property. The Potential Contaminants of Concern (PCOCs) identified by the QP include metals and ORPs, PHCs, BTEX, VOCs, PAHs, and OC pesticides. Based on the findings of this Phase One ESA, it is concluded that a Phase Two ESA would be required in order to investigate the aforementioned APECs and to assess the environmental soil and groundwater conditions on the Phase One Property. A Record of Site Condition cannot be filed based on the findings of the Phase One ESA.

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1.0 Introduction

DS Consultants Ltd. (DS) was retained by Primont (Thorold/Welland) Inc (the Client) to complete a Phase One ESA for three parcels of land with the legal description of PT TWP LT 228 THOROLD BEING PT 2 ON 59R7326 (Parcel A), PT TWP LT 228 THOROLD BEING PT 1 ON 59R7326 (Parcel B) and 436 Quaker Road (Parcel C). The three (3) parcels are located at the northwest corner of the intersection of Quaker Road and First Avenue, within the City of Welland and City of Thorold, Ontario, herein referred to as the "Phase One Property" or "Site". It is DS's understanding that this Phase One ESA has been requested for due diligence purposes, as part of the proposed redevelopment of the Phase One Property for residential purposes.

It is the opinion of DS that the intended future residential property use constitutes a more sensitive property use than the current commercial use associated with the cellular communications tower, as defined under O.Reg. 153/04 (as amended). Given that the proposed change in property use is to a more sensitive property use, the filing of a Record of Site Condition (RSC) with the Ontario Ministry of Environment, Conservation and Parks (MECP) will be mandated under O.Reg. 153/04 (as amended).

The Phase One ESA was completed to satisfy the intent of the requirements, methodology and practices for a Phase One ESA as described in Ontario Regulation 153/04 (as amended). The objectives of the Phase One ESA are to identify the presence or absence of potentially contaminating activities (PCAs) on the Phase One Property and/or within the Phase One Study Area, and to determine if the PCAs identified within the Phase One Study Area are likely to result in an Area of Potential Environmental Concern (APEC) on the Phase One Property. The information obtained by the Phase One ESA will be used to assess whether further investigation in the form of a Phase Two ESA is merited. It should be noted that this Phase One ESA does not include any sampling or testing and is based solely on a review of readily available data, and observations made during the Phase One Site Reconnaissance.

1.1 Phase One Property Information

The information for the Phase One Property is provided in the following Table.

Table 1-1: Phase One Property Information

Criteria	Information	Source
Legal Description	**Parcel A**: PT TWP LT 228 THOROLD BEING PT 2 ON 59R7326, Welland **Parcel B:** PT TWP LT 228 THOROLD BEING PT 1 ON 59R7326, Welland **Parcel C:**	Parcel Register

Criteria	Information	Source
	PT TWP LT 174 THOROLD AS IN BB58943, Welland	
Property Identification Number (PIN)	**Parcel A**: 64073-0196 **Parcel B**: 64073-0195 **Parcel C**: 64073-0030	Parcel Register
Municipal Address	**Parcel A**: No municipal address **Parcel B**: No municipal address **Parcel C**: 436 Quaker Road, Welland	Welland Interactive Map
Zoning	**Parcel A**: A1 - Agricultural and Rural Zones EC – Environmental Conservation Overlay **Parcel C**: A1 - Agricultural and Rural Zones	Welland Zoning By-law 2017-117
	Parcel B and C: A – Agriculture FD - Future Development Natural Heritage System	Thorold Zoning By-law (60) 2019
Property Owner	Primont (Thorold/Welland) Inc.	Parcel Register
Property Owner Contact Information	Ian MacPherson 9130 Leslie Street, Suite 301 Richmond Hill, ON, L4B 0B9 Phone: 416-797-8967 Email: ian@primont.com	Client
Current Site Occupants	Robert Borkovsky	Client
Site Area	60.8 hectares (150.23 acres)	Land Registry Office
Centroid UTM Coordinates	Northing: 4765301 Easting: 641432 Zone: 17T	UTM Geo Map

1.2 Site Description

The Phase One Property is a rectangular shaped 60.8-hectare (150.23 acres) parcel of land situated within a rural neighbourhood. Parcel A and the southern half of Parcel C is within the City of Welland and Parcel B and the northern half of Parcel C is within the City of Thorold. The Phase One Property is bound by Quaker Road to the south, First Avenue to the east, Merritt Road to the north, and an agricultural parcel to the west. A Site Location Plan depicting the general location of the Phase One Property is provided in Figure 1.

For the purposes of this report, Quaker Road is assumed to be aligned in an east-west orientation, and First Avenue in a north-south orientation.

The Phase One Property currently includes a two-storey house (Site Building A) with a one (1) level of basement located on the southwestern portion of the Site at Parcel C. Site Building A is made of

concrete block and siding, with basement concrete floors. Parcel C also contains a silo, barn, two (2) sheds and a swimming pool surrounding the residence. A Bell communications tower is present approximately 95 m northeast from Site Building A. The land surrounding Site Building A and other structures are use for agricultural purposes. There are wetlands situated in the northeast and southeast corners of the Phase One Property. The portions of Parcels A and B surrounding the wetlands are used for agricultural purposes.

Two (2) former building footprints were observed within the current wetland on Parcel A. Based on the aerial photographs reviewed (Section 3.3.1) these structures appear to have been demolished in the 1960s and are inferred to have been houses. A Site Plan depicting the orientation of the current and former buildings on-Site is provided in Figure 2. A Plan of Survey for the Phase One Property was not provided.

2.0 Scope of Investigation

The Phase One ESA was completed to satisfy the intent of the requirements, methodology and practices for a Phase One ESA as described in Ontario Regulation 153/04, as amended (Phase One ESA requirements). This included:

- A review of reasonably ascertainable records and reports regarding historical and current use, regulatory information, occupancy, and activities for the Phase One Property, including:
    - Physical setting information such as aerial photographs, topographic mapping, available historical maps and drawings;
    - Company records (e.g., site plans, building plans, permit records, production and maintenance records, asbestos surveys, site utility drawings, emergency response and contingency plans, spill reporting plans and records, inventories of chemicals and their usage (e.g. WHMIS), environmental monitoring data, waste management records, inventory of underground and aboveground tanks, environmental audit reports) provided to DS;
    - Geological and hydrogeological information in published government maps and/or reports;
    - A review of information on file with Ecolog ERIS, a commercial database that provides information from numerous private, provincial, and federal environmental databases/registries;
    - Review of fire insurance plans, municipal directory documentation and available environmental reports that are pertinent to the Phase One Property;
    - Regulatory Information, including such as Permits or Certificates of Approval (pertaining to activities that may impact the condition of the property, orders, control

orders, or complaints related to environmental compliance that may impact the condition of the property, and violations of environmental statutes, regulations, by-laws, and permits that may impact the condition of the property;

- Environmental source information including published and online records from Ministry of Environment, Conservation and Parks (MECP), Environment Canada, Technical Standards and Safety Authority (TSSA), and the City of Toronto; and
- The Ontario Ministry of Natural Resources (MNR) Natural Heritage Information Centre database and the Conservation Authority website for information specific to natural areas, such as locations of environmentally sensitive areas or species.

- Interviews with available individuals having knowledge of current and/or past site activities;
- An inspection of the Phase One Property, and the activities on the adjacent properties, including and assessment of the following:
  - The site operations, processes, and waste management currently carried out on the Phase One Property.
  - The neighbouring land uses (i.e. identification of environmentally sensitive neighbours, as well as an assessment of potential off-site sources of contamination);
  - The source of potable water for the Phase One Property and properties within the Phase One Study Area;
  - The potential presence of existing or former above-ground or underground fuel storage tanks (ASTs or USTs);
  - Possible cut and fill operations that may resulted in the importation of fill material of unknown quality;
  - The presence/absence of floor cracks, hydraulic hoists, elevators, sumps and drains;
  - Areas suspected to contain evidence of surficial and sub-surface impacts (e.g. areas of staining);
  - The potential presence of various Designated Substances and building materials including:
    - Friable and non-friable asbestos
    - Urea formaldehyde foam insulation (UFFI)
    - Chlorofluorocarbons (CFCs) in air conditioning and refrigeration equipment
    - PCB-containing materials and electrical equipment
    - Lead-based paint

- Mould

- The presence/absence of wells, pits and lagoons, drainage sumps and floor drains, sewage and wastewater disposal pipelines; and
- General site conditions, including topography and drainage, standing water, right-of-ways, presence of underground utilities, evidence of stained or odorous soils, and stressed vegetation.

- Evaluation of the information and documentation of the results in the form of a Phase One ESA Report.

The objectives of the Phase One ESA are:

1. To assess the environmental condition of the Phase One Property to develop a preliminary determination of the likelihood that one or more contaminants have affected any land or water on, in, or under the Phase One Property;
2. To identify potentially contaminating activities within the Study Area (i.e., areas within 250 m of the Property), and to assess if Areas of Potential Environmental Concern (APECs) exist on the Phase One Property;
3. To identify the Potential Contaminants of Concern associated with the PCAs identified; and
4. To provide a basis for subsequent investigation, if required, based on the findings of the Phase One ESA.

3.0 Records Review

3.1 General

3.1.1 Phase One Study Area Determination

Based on a review of the available historical records and the observations made during the Phase One Site Reconnaissance, no heavy industrial properties or other relevant potentially contaminating activities were observed which were considered to merit expanding the Phase One Study Area. As such the Phase One Study Area was defined by a 250 metres radius around the Phase One Property boundary, in accordance with O.Reg. 153/04 (as amended).

The properties within 250 m of the Phase One Property generally consist of residential, parkland, and agricultural land uses. An assessment of the historical and current use of all properties within the Phase One Study Area was conducted in order to assess for the presence/absence of potentially contaminating activities. A summary of the potentially contaminating activities identified within the Phase One Study Area is provided under Section 6.2. A plan depicting the Phase One Study Area limits as well as the current land uses is presented in Figure 3 and 4.

3.1.2 First Developed Use Determination

The first developed use of the Phase One Property is considered under O.Reg. 153/04 (as amended) to be either the first use of the Phase One Property in or after 1875 that resulted in the development of a building or structure on the property, or the first potentially contaminating use or activity on the Phase One Property.

The determination of the first developed use of the Phase One Property was based on a review of available aerial photographs, historical maps, city directories, and interviews. Based on the information obtained, the first developed use of the Phase One Property was for residential purposes and occurred prior to the mid-1870s.

3.1.3 Fire Insurance Plans

Fire Insurance Plans (FIPs) were prepared between 1875 and 1923 and revised in some areas until the 1970s. Opta Information Intelligence (Opta) was retained to obtain copies of available FIPs for the Site and adjoining properties. FIPs were reviewed to confirm the building construction, occupancy, and potential fire hazardous with details regarding storage tanks, boilers, transformers, electrical room, etc.

The search found no FIPs for the Phase One Property, or any other properties within the Phase One Study Area. A copy of the Opta response is provided under Appendix C.

3.1.4 Chain of Title

A Chain of Title search was not provided by the Client at the time of the investigation. The Chain of Title will need to be obtained prior to the submission of a Record of Site Condition. Information regarding the historical use of the Site was obtained from alternate sources including the City Directories, aerial photographs, and the Phase One Interview.

3.1.5 Environmental Reports

The following environmental and geotechnical reports were provided for DS to review:

- *Preliminary Geotechnical Investigation, Quaker Road and First Avenue,* December 31, 2021, prepared for Primont Homes, prepared by DS Consultants Ltd (2021 DS Preliminary Geotechnical Investigation).

2021 DS Preliminary Geotechnical Investigation

This geotechnical investigation was undertaken to obtain information regarding the subsurface conditions on the property and make recommendations regarding the geotechnical design of grading, underground utilities, roads and parking, and comment on the foundation conditions for housing construction. Sixteen (16) boreholes (BH21-1 to BH21-16) were drilled between October 27 and 29, 2021 to depths varying between 6.7 m to 7.3 mbgs to assess the subsurface conditions. A total of ten

(10) boreholes were completed as monitoring wells and screened at depths ranging from 3.1 to 6.1 mbgs. The subsurface conditions in the boreholes are summarized below:

Topsoil

A surficial topsoil layer was encountered at the borehole locations. The measured topsoil thickness at the borehole locations ranged from 300 mm to 450mm. Localized thick topsoil deposits and soils rich in organic content may be encountered, especially in depressed areas and/or near water courses. Topsoil quantities should not be calculated from the borehole information, as large variations in depth may exist between boreholes.

Disturbed/Reworked Soils

Underlying the topsoil, a layer of silty sand or clayey silt soils, disturbed by farming activities, were encountered and extended to 0.8 m to 1 m below grade. The disturbed soils contained traces of topsoil or organics and were in loose or soft to firm state.

Silty Clay

Below the topsoil, glaciolacustrine deposits of silty clay were encountered in most of the boreholes. The silty clay contained fine sand seams and silt seams/layers.

Silt, Sandy Silt

Silt to sandy silt deposits were encountered in some boreholes at various depths (BH21-1, BH21-4 to BH21-8, and BH21-10). The silt to sandy silt contained trace clay and trace gravel.

3.1.6 City Directories

DS retained Ecolog ERIS to conduct a search on the City Directories archives and databases for the Phase One Property and surroundings properties within the Phase One Study Area for the years of 1962 to 2012 at approximately 5-year intervals.

The Phase One Property had no municipal address on all the city directories reviewed. All municipal addresses along Quaker Road are listed as residential with the exception of 333 Quaker Road where Quaker Road Public is located. In general, the adjacent properties were listed for residential and commercial purposes.

No potential activities were identified based on the review of City Directories.

3.2 Environmental Source Information

3.2.1 Ecolog Eris Report

EcoLog Environmental Risk Information Services Ltd. (ERIS) is an organization that maintains and searches various government and private databases for property-related environmental information.

DS contacted EcoLog Environmental Risk Information Services Ltd. (EcoLog ERIS), an environmental database and information service company, to request a search of government and private records for information pertaining to the Phase One Property and Phase One Study Area. EcoLog searched 15 Federal databases, 37 Provincial databases and 10 private databases. A summary of the databases provide by ERIS is provided in the Table below:

Table 3-1: Summary of Environmental Databases Reviewed

Federal Government Source Databases	Private Source Databases
Contaminated Sites on Federal Land; Environmental Effects Monitoring; Environmental Issues Inventory System; Federal Convictions; Fisheries & Oceans Fuel Tanks; Indian & Northern Affairs Fuel Tanks; National Analysis of Trends in Emergencies System (NATES); National Defense & Canadian Forces Fuel Tanks; National Defense & Canadian Forces Spills; National Defense & Canadian Forces Waste Disposal Sites; National Environmental Emergencies System (NEES); National PCB Inventory; National Pollutant Release Inventory; Parks Canada Fuel Storage Tanks; and Transport Canada Fuel Storage Tanks.	Anderson's Storage Tanks; Anderson's Waste Disposal Sites; Automobile Wrecking & Supplies; Canadian Mine Locations; Canadian Pulp and Paper; Chemical Register; ERIS Historical Searches; Oil and Gas Wells; Retail Fuel Storage Tanks; and Scott's Manufacturing Directory.
Provincial Government Source Databases	
Abandoned Aggregate Inventory; Abandoned Mine Information System; Aggregate Inventory; Borehole; Certificates of Approval; Certificates of Property Use; Commercial Fuel Oil Tanks; Compliance and Convictions; Drill Hole Database; Environmental Activity and Sector Registry; Environmental Compliance Approval; Environmental Registry; Fuel Storage Tank; Fuel Storage Tank – Historic; Inventory of Coal Gasification Plants and Coal Tar Sites; TSSA Historic Incidents; TSSA Incidents; TSSA Pipeline Incidents; TSSA Variances for Abandonment of Underground Storage Tanks;	Inventory of PCB Storage Sites; Landfill Inventory Management Ontario; List of TSSA Expired Facilities; Mineral Occurrences; Non-Compliance Reports; Ontario Oil and Gas Wells; Ontario Regulation 347 waste Generators Summary; Ontario Regulation 347 Waste Receivers Summary; Ontario Spills; Orders; Permit to Take Water; Pesticide Register; Private and Retail Fuel Storage Tanks; Record of Site Condition; Waste Disposal Sites – MECP 1991 Historical Approval Inventory; Waste Disposal Sites – MECP CA Inventory; Wastewater Discharger Registration Database; and Water Well Information System

The ERIS report indicated that there was one (1) listing for the Phase One Property, and twenty-three (23) listings for the remaining properties within the Phase One Study Area. A copy of the ERIS report has been provided under Appendix B. A summary of the potentially contaminating activities identified in the ERIS report and other pertinent information is provided in the Table below:

Table 3-2: Summary of ERIS Report Findings on Phase One Property

Database/Date	Entry Details	PCA ID No.
Ontario Spills (SPL)	Avertex Utillity Solutions Inc. was listed with one spill of an unknown substance and unknown volume at a swale south of the intersection of First Avenue and Merrit Street. The unknown substance was reported to be discharged into the creek in 2007. The creek is approximately 250 m west of the intersection where the spill is listed, and based on the Site reconnaissance, the soil and surface water were observed to be in good conditions, with no visible impacts. As a result, the listing is considered to be erroneous and not adversely affect the Phase One Property.	No PCA

Table 3-3: Summary of ERIS Report Findings within Phase One Study Area

Database/Date	Entry Details	PCA ID No.
Ontario Regulation 347 Waste Generator Summary (GEN)	District School Board of Niagara, located at 333 Quaker Road, south adjacent to the Phase One Property, was registered from 1998 to 2001 for the generation, use, and/or storage of paint/pigment/coating residues, inorganic laboratory chemicals, waste oils and lubricants, organic laboratory chemicals, and waste compressed gases.	**PCA-7**
	Welland Hydro Electric System Corp., was registered in 2005 for the generation, use, and/or storage of waste oils and lubricants and emulsified oils at 333 Quaker Road, south adjacent to the Site.	**PCA-8**
Certificates of Approval (CA)	Frank Silvestri College Park Subd.PHII and the City of Welland, were listed with an approval for municipal water in the intersection of Quaker Road and First Avenue in 1990 and 1995 respectively.	No PCA
	Cedar Park Estates – pt lot 232, was listed with an approval for municipal water in the intersection of Cedar Park and First Avenue in 1992.	No PCA
	Nineteen (19) Certificates of Approval were listed without locations.	No PCA
Pipeline Incidents (PINC)	One natural gas pipeline hit, and damage was reported at 110 Redwood Crt, in 2018.	No PCA
Ontario Spills (SPL)	A natural gas spill was reported at 110 Redwood Crt. in 2018.	No PCA
	Welland Hydro-Electric System Corp. was reported with a spill of 10 L of transformer oil at 196 Cedar Park Drive in 2013.	**PCA-9**
	Welland Hydro-Electric System Corp. reported a mineral oil spill to land from flooding in 2005 at the school located at 333 Quaker Road.	**PCA-10**

Database/Date	Entry Details	PCA ID No.
	Two (2) spills were reported but no location was given, therefore no PCA was identified.	No PCA
Water Well Information System (WWIS)	Five (5) wells were found within the Phase One Study Area including five (3) domestic water wells, one (1) observation well, and one (1) abandoned well.	No PCA

3.2.2 Ministry of the Environment- Freedom of Information

A request was submitted to the MECP Freedom of Information and Protection of Privacy Office (Appendix C) to determine if there were any environmental incidents or violations associated with the Phase One Property; whether any Control Orders have been issued; whether there have been any other environmental concerns associated with the property such as complaints, inspections, etc.; whether any environmental investigations have been carried out regarding the subject property; and, to determine if the Ministry's Spills Action Centre's (SAC's) files contain any reported spills that had occurred in the site vicinity. Note that the SAC's database dates back only to 1988 and many of the occurrences on file have only been reported voluntarily. In addition, the MECP was requested to search their files (all years) regarding the following parameters: air emissions, water, sewage, wastewater and pesticides.

Files pertinent to this investigation would include, though are not limited to: regulatory permits, records; material safety data sheets; underground utility drawings; inventories of chemicals, chemical usage and chemical storage areas; inventory of aboveground storage tanks and underground storage tanks; monitoring data, including that done at the request of the MECP; historical and current waste management, receiver and generator records; process, production and maintenance documents related to areas of potential environmental concern; spills/discharge records; emergency and contingency plans; environmental audit reports; site plan of facility showing areas of production and manufacturing.

A response has not yet been received from the MECP. The client will be made aware of any records identified by the MECP file search, when a response is received from the Ministry.

3.2.3 Technical Standards and Safety Authority

The Technical Standards and Safety Authority (TSSA) maintain records related to storage tanks for petroleum related products. The TSSA was contacted to review records related to the Property and Study Area. According to the response received on January 31, 2022 from Ms. Mariah of TSSA and February 1, 2022 from Ms. Sherees, no records for the Phase One Property and properties located in the Study Area at following inquired addresses:

- Quaker Road: 436, 419, 333, 314, 294, 452, 456, 462
- Rice Road (Pelham): 450, 494, 502, 510, 516, 520, 524, 528, 538
- First Avenue: 744

A copy of the correspondence with the TSSA has been appended under Appendix C.

3.2.4 Areas of Natural and Scientific Interest

The Natural Heritage Areas database published by the Ministry of Natural Resources and Forestry (MNRF) was reviewed in order to identify the presence/absence of areas of natural significance including provincial parks, conservation reserves, areas of natural and scientific interest, wetlands, environmentally significant areas, habitats of threatened or endangered species, and wilderness areas. The regional and municipal Official Plans were also reviewed as part of this assessment.

A reviewed on the MNRF databases indicated the Northern Bobwhite and Eastern Flowering Dogwood as endangered species, and the White Wood Aster as a threatened species within one kilometer of the Phase One Property. Additionally, the southeastern and northeast portions of the Site were identified to be within a Provincial Significant Wetland.

A review of the City of Welland -Official Plan, Schedule C indicated the southeastern portion of the Site as an *"Environmental Protection Area"* and "*Environmental Conservation Area"*, and the City of Thorold Official Plan, Schedule B, indicated the northern portions of the Site as *"Provincial Significant Wetland"* (referred to Figure 2). More specifically, the Provincially Significant Wetlands are located:

- On the southern portion of Parcel A,
- On the northern half of Parcel B, and
- On the northern portion of Parcel C

The Northern Bobwhite is a quail that habitats grasslands, brushy fencerows and abandoned agricultural fields. The Eastern Flowering Dogwood is a small tree that reaches 3-10 metres in height that inhabits floodplains, slopes, bluffs and ravines, and are found under deciduous or mixed forests. The White Wood Aster is a perennial plant that usually grows 30 to 90 centimetres tall that prefers dry deciduous forests and in full shade. The Phase One Property is a parcel of land used in its majority for agricultural purposes; however, it does present brushy fencerows, floodplain and deciduous and/or mixed forests within the northern and southeastern portions of the Site; as such, the northern and southeastern portions of the Phase One Property may provide a viable habitat for the Northern Bobwhite and the Eastern Flowering Dogwood.

As defined in Section 1 (1) of O.Reg. 153/04, an area of natural significance is:

- "*A wetland identified by the Ministry of Natural Resources as having provincial significance";*
- "*An area identified by the Ministry of Natural Resources as significant habitat of a threatened or endangered species* ";
- "An *area which is habitat of a species that is classified under section 7 of the Endangered Species Act, 2007 as a threatened or endangered species*"; or

- *"An area designated by a municipality in its official plan as environmentally significant, however expressed, including designations of areas as environmentally sensitive, as being of environmental concern and as being ecologically significant".*

Based on the above definitions, portion of the Phase One Property (southern portion of Parcel A, northern half of Parcel B, and northern portion of Parcel C) are located within an area of natural significance.

3.2.5 Niagara Peninsula Conservation Authority (NPCA)

According to the NPCA online mapping system, two (2) tributaries of Welland River are within the Phase One Property. Both tributaries flow from west to east, one is located towards the northern half of the Site, and the second is located towards the southern portion of the Site. Two (2) areas of the Phase One Property, at the northern and southern portion of the Site, are within a regulated area as defined by O. Reg. 155/06: "*Niagara Peninsula Conservation Authority: Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses".* The northeastern and southeastern areas of the Phase One Property are defined as "*Regulation Wetlands*". The Phase One Property is within a The Phase One Property is located in the Niagara River and Central Welland River watersheds.

3.3 Physical Setting Sources

3.3.1 Aerial Photographs and Historical Mapping

Aerial Photographs for the years 1965, 1968, 2000, 2006, 2015, 2018, and 2021 were obtained from the City of Welland Online Mapping and reviewed as part of this assessment. The National Archives was reviewed in order to provide a more historical image from the years 1975 and 1980. The University of Toronto Library aerial photographs were reviewed for the year 1954, and Google Earth was used to review Aerial photographs from the year 1934. The Lincoln and Welland County Atlas was reviewed in order to provide a more historic image from the year 1876. A summary of pertinent information obtained from the aerial photographs reviewed is presented in the Table below. The supporting documents have been appended under Appendix D.

Table 3-4: Summary of Aerial Photographs

Location	Observations	PCA ID No.
1876		
Phase One Property	According to the Lincoln and Welland County Atlas from 1876, the Phase One Property is owned by RR. Garner and Orin Bemis. Two (2) orchards are located on the Site, one at the southwest corner of the Site (Parcel A), and one in the southeast portion of the Site (Parcel C).	PCA-1, PCA-2

Location	Observations	PCA ID No.
	Two (2) farmhouses (Site Building A and Former Building B) are depicted towards the south of the Site. Both farmhouses are depicted adjacent to the orchards at Parcel A and Parcel C.	No PCA
North, East, and West of the Site	The adjacent properties appear to be used for agricultural purposes. The surrounding properties all contain orchards (present-day addresses: 484 Quaker Road and 314 Quaker Road).	PCA-3, PCA-4
South of the Site	A school is depicted on the south adjacent property, present-day 333 Quaker Road.	No PCA
	An orchard is located at the south adjacent property, present-day, 234 Quaker Road (present-day 416 Quaker Road).	PCA-5
1934		
Phase One Property	The Phase One Property is mainly used for agricultural purposes, two (2) orchards are present on the Phase One Property.	PCA-1, PCA-2
	The quality of the aerial photograph does not allow for a detailed description of the Site, but three (3) structures are observed towards the southern portions of the Site. These buildings include Site Building A at Parcel C, Former Building B, and Former Building C, at Parcel A.	No PCA
North, and West of the Site	The adjacent properties appear to be used for agricultural purposes.	No PCA
South of the Site	The South adjacent property appears to be used for agricultural purposes.	No PCA
East of the Site	The East adjacent properties appear to be used for agricultural purposes. An orchard and residential dwelling are observed towards the southwest portion of the east adjacent property.	PCA-4
1954		
Phase One Property	The orchard previously observed on the southwest corner of the site is no longer visible.	No PCA
North, East, South and West	No significant changes.	No PCA
1965		
Phase One Property	The orchard located to the southwestern portion of the Site (at Parcel A) is no longer visible, instead a wooded area has overgrown and occupied the area.	No PCA
West of the Site	Rural residential dwellings have been developed on the west adjacent properties along Quaker Road.	No PCA
North, East and South of the Site	No significant changes.	No PCA
1968		
Phase One Property	Former Building B and C at Parcel C (southeast portion of the Site) have been demolished, grading can be observed at the area they were located. It is inferred fill material may have been used.	PCA-6
North, East and South of the Site	No significant changes.	No PCA
1975		
Phase One Property	Vegetation has overgrown at the areas where Former Site Building B and C was located.	No PCA
North of the Site	No significant changes.	No PCA
South and West of the Site	More residential dwellings were developed along Quaker Road and Rice Road.	No PCA

Location	Observations	PCA ID No.
East of the Site	No significant changes.	No PCA
1980		
Phase One Property	No significant changes.	No PCA
North, East, and West of the Site	No significant changes.	No PCA
2000		
Phase One Property	No significant changes.	No PCA
North, and West of the Site	No significant changes.	No PCA
South and East of the Site	More residential dwellings have been developed to the southeast and east of the Site. The school located at 333 Quaker Road seems to have been constructed.	No PCA
2006		
Phase One Property	A new road from Quaker Road has been constructed and a new has been developed on the south portion of the Site. The structure resembles the bell communication towel observed during the Site reconnaissance.	No PCA
North, South, East, West of the Site	No significant changes.	No PCA
2015		
Phase One Property	No significant changes.	No PCA
North, South, East, West of the Site	No significant changes.	No PCA
2021		
Phase One Property	No significant changes.	No PCA
North, South, East, West of the Site	No significant changes.	No PCA

3.3.2 Topography, Hydrology, Geology

The topography of the Phase One Property is generally flat, with a surface elevation of 225 masl. The topography within the Phase One Study Area generally slopes to the east. The nearest body of water are two (2) tributaries of Welland River traversing from west to east through the northern and southern halves of the Phase One Property. Based on DS's Preliminary Geotechnical investigation completed in January 2022, the depth to groundwater on the Site is between 0.25 to 4.43 mbgs. The shallow groundwater flow direction within the Phase One Study Area is inferred to be easterly towards Welland River.

The Site is situated within a "*Haldimand Clay Plain*" physiographic region. The surficial geology within the Phase One Study area is described as "*fine-textured glaciocustrine deposits of silt and clay, minor sand and gravel*", and the bedrock is described as "*sandstone, shale, dolostone and siltstone of the Guelph Formation*". Based on a review of well records, the bedrock in the Phase One Study Area is anticipated to be encountered at an approximate depth range of 30 to 62 mbgs.

3.3.3 Fill Materials

According to the aerial photographs, two structures (Former Building B and C) at Parcel A were demolished circa the mid-1960s. It is inferred that fill material may have been imported to the Site to infill the footprint of the demolished structures.

PCA Identified:

- **PCA-6**: #30 – Importation of Fill Material of Unknown Quality

3.3.4 Water Bodies and Areas of Natural Significance

During the site visit, standing water was not observed on the Property. The nearest body of water to the Phase One Property is a tribute of the Welland River, traversing east-west through the central portion of the Site. Environmentally Significant Areas are natural areas that have been identified as significant and worthy of protection on three criteria – ecology, hydrology and geology. Municipalities has developed policies to protect natural heritage features. The Region uses Environmentally Significant Areas as a means to protect natural areas like wetlands, fish habitat, woodlands, habitat of rare species, groundwater recharge and discharge areas, and Areas of Natural and Scientific Interest.

A review of the MNRF database indicated that the northeastern and the southeastern portions of the Site may provide a viable habitat for the Northern Bobwhite and the Eastern Flowering Dogwood, and the areas are also situated within a Provincially Significant Wetland.

The Official Plan of the City of Welland indicates the southeastern portions of the Site as an "*Environmental Protection Area*" and an "*Environmental Conservation Area*", and the Official Plan of the City of Thorold indicates that the northeast portion of the Site is a "*Provincial Significant Wetland*" (referred to Figure 2).

As defined in Section 1 (1) of O.Reg. 153/04, an area of natural significance is:

- "*A wetland identified by the Ministry of Natural Resources as having provincial significance";*
- "*An area identified by the Ministry of Natural Resources as significant habitat of a threatened or endangered species* ";
- "An *area which is habitat of a species that is classified under section 7 of the Endangered Species Act, 2007 as a threatened or endangered species*"; or
- "*An area designated by a municipality in its official plan as environmentally significant, however expressed, including designations of areas as environmentally sensitive, as being of environmental concern and as being ecologically significant".*

Per Section 41 of O.Reg. 153/04 (as amended), a property is considered to be environmentally sensitive under the following circumstances:

- The Site is within an area of natural significance

- The Site includes or is adjacent to an area of natural significance of part of such an area, or
- The Site includes land that is within 30 metres of an area of natural significance or part of such an area.

Based on the presence of an area of natural significance within areas of the Phase One Property boundary, the northern and southeast portions (southern portion of Parcel A, northern half of Parcel B, and northern portion of Parcel C) of the Phase One Property are considered under O.Reg. 153/04 (as amended) to be environmentally sensitive. Additional details are provided in Section 3.2.4 above. Additional details are provided in Section 3.2.4 above.

3.3.5 Well Records

Water well records were also searched as part of the EcoLog ERIS database query. No records were available for the Phase One Property. Based on a review of the previous reports available for the Site, five (5) monitoring wells are present on the Phase One Property. Three (3) were identified as domestic water supply wells, one (1) monitoring/observation well, and one (1) abandoned well.

Additional detail regarding the well construction, lithology encountered, and well purpose is included in the ERIS report provided under Appendix B.

3.4 Site Operating Records

The Property includes no structure and has mainly been used for agricultural purposes. No operating records were available.

4.0 Interviews

4.1 Personnel Interviewed

The following persons with the knowledge of the Property were interviewed or provided the required information.

Table 4-1: Summary of Personnel Interviewed

Date	Name	Position	Method of Interview
February 1, 2022	Mr. John Borkovsky	Tenant	In Person Questionnaire

4.2 Interviewee Rationale

Mr. Borkovsky is the current occupant of Parcel C and cultivates the land associated with Parcels A and B. He has been responsible for the site operations at Parcel C since 1967. Mr. Borkovsky is considered to be the most knowledgeable person regarding the historical site operations. The Phase One interview was conducted by Ms. Megan Bender, B.E.S., EPt, under the supervision of Mr. Patrick Fioravanti, B.Sc., P.Geo., QP_{ESA}.

4.3 Results of Interview

The following summarizes the information that was provided by the site representative, based on their knowledge of site activities.

- Mr. Borkovsky mentioned he owned Parcel C from 1967 until 2021, when he sold it to Primont Homes.
- According to Mr. Borkovsky, the Site has been historically used for agriculture purposes.
- Mr. Borkovsky was unaware of any aboveground storage tanks (ASTs) or underground storage tanks (USTs) at Parcel C.
- Mr. Borkovsky was not aware of fill materials been brought to Parcel C.
- Mr. Borkovsky mentioned, the house on-Site had an addition/renovation in the 1970s.
- It was mentioned that the Site contains two (2) wells, a septic tank was planned to be installed, but it never occurred, and Site Building A is heated with natural gas supplied by the township.
- Mr. Borkovsky mentioned that no vehicle maintenance has been completed on Site.
- Mr. Borkovsky is not aware of any spills or fires on site or any adjoining property.
- Mr. Borkovsky said that there is likely, the use of pesticides by the farmer on Site.

Contemporary pesticide practices are not considered to be of potential concern due to the short half-life of the current products which are permitted by the Pesticide Management Regulatory Agency of Health Canada. It should be noted that it is possible that more recalcitrant pesticides/herbicides were applied to the orchards which were formerly present in the southeastern and southwestern portions of the Site, and this historical activity are considered to be PCAs (**PCA-3, PCA-4**).

DS compared the information obtained through the Phase One Interview with the information obtained from the historical records for the Site. The information provided by the interviewee was corroborated by the historical records, as such DS has no concern regarding the accuracy of the information provided.

5.0 Site Reconnaissance

5.1 General Requirements

Table 5-1: Site Reconnaissance Notes

Information	Details
Date of Investigation:	February 1, 2022
Time of Investigation:	10 AM
Weather Conditions:	2°C, overcast
Duration of Investigation:	1.25 hrs
Facility Operation:	Agricultural, residential, and commercial
Name and Qualification of Person(s) conducting the assessment	Ms. Megan Bender, B.E.S., EPt, under the supervision of Mr. Patrick Fioravanti, B.Sc., P.Geo., QP_{ESA}
Limitations	No limitations

5.2 Specific Observations at Phase One Property

The Site Reconnaissance involved a visual assessment of the Phase One Property for the purpose of identifying potential PCAs, and associated APECs. Photographs of the Phase One Property were taken at the time of the Site Reconnaissance, and have been included under Appendix E.

Table 5-2: Summary of Site Reconnaissance Observations

General		
i.	Description of structures and other improvements, including the number and age of buildings	One (1) house (Site Building A) is located on the south portion of the Site including a silo, barn and two (2) sheds in poor condition. The house had an addition/renovation in the 1970s. A bell tower is located on the south portion of the Site. Former foundations (Site Building B and C) are present on the southeast portion of the Site.
ii.	Description of the number, age and depth of below-ground structures	Site Building A contains a basement with concrete floors.
iii.	Details of all tanks, above and below ground at the Phase One Property, including the material and method of construction of the tank, tank age, tank contents, tank volume, and whether in use or not	None observed.
iv.	Potable and non-potable water sources	A well is located to the west of Site Building A, and an abandoned well is located to the northwest of Site Building A.
Underground Utilities and Corridors		

i.	Type and location of underground utility and service corridors, such as sewer, water, electrical or gas lines located on, in or under the Phase One Property.	Gas, sewage, hydro and communication utility lines are present on Site, running from Quaker Road to Site Building A.
Features of Structures and Buildings at the Phase One Property		
i.	Entry and exit points	One laneway connects Site Building A to Quaker Road, and one gravel road connects the Bell towel to Quaker Road.
ii.	Details of existing and former heating systems, including type and fuel source	Site Building A is heated with natural gas.
iii.	Details of cooling systems, including type and fuel source, if any	Not applicable.
iv.	Details of any drains, pits and sumps, including their current use, if any, and former use	A drain exists in the cellar at the basement of Site Building A.
v.	Details of any unidentified substances	None observed.
vi.	Details, including locations of stains or corrosion on floors other than from water, where located near a drain, pit, sump, crack or other potential discharge location	None observed.
vii.	Details, including locations, of current and former wells, including all wells described or defined in or under the *Ontario Water Resources Act* and the *Oil, Gas and Salt Resources Act*	A domestic well services Site Building A, it is located to the west of Site Building A. One abandoned well was located northwest of Site Building A.
viii.	Details of sewage works, including their location	Municipal sewage system.
ix.	Details of ground surface, including type of ground cover, such as grass, gravel, soil or pavement	Grass and gravel laneways cover the surroundings of Site Building A. The remaining areas of the Site consist of agricultural fields. The northeast and southeast portion of the Site are covered by wooded areas.
x.	Details of current or former railway lines or spurs and their locations	None observed.
xi.	Areas of stained soil, vegetation or pavement	None observed.
xii.	Stressed vegetation	None observed.
xiii.	Areas where fill and debris materials appear to have been placed or graded	None observed.
xiv.	Potentially contaminating activity	None observed.
xv.	Details of any unidentified substances found at the Phase One Property	None observed.
Enhanced Investigation Property		

Where subsection 13(3) applies to the Phase One Property, provide the documentation referred to in subsection 13(3)	In order to be classified as an enhanced investigation property, the Phase One Property must be used or have been used in whole or in part for any of the following uses: ◆ Any industrial use ◆ As a garage ◆ As a bulk liquid dispensing facility, including a gasoline outlet ◆ For the operation of dry cleaning equipment There is no indication in the historical records of the Phase One Property being used for any of the aforementioned uses, and as such the Phase One Property is not considered an enhanced investigation property.
Hazardous Materials	
i. Asbestos containing materials	Asbestos and asbestos-containing materials were used as insulation and construction materials until being phased out in the late 1970s. Based on the age of the site building, which was renovated prior to 1980s, there is a potential for asbestos insulation and asbestos-containing construction materials to be present in the site building.
ii. Lead containing materials	The use of lead as a base in paints and plumbing solder was phased out in the late 1970s. Based on the age of the building prior to 1970s, there is a potential for lead solder and paint to be present in the site building.
iii. PCB materials and equipment	Prior to the mid- to late-1970s, PCBs were used in the manufacture of electrical equipment, including fluorescent light ballasts. The Property was constructed prior 1970s.
iv. Urea Formaldehyde Foam Insulation (UFFI)	Urea-Formaldehyde Foam Insulation (UFFI) was introduced in Canada during the 1970s and was banned in 1980. No record of UFFI was available for the subject building. No older foam insulation was noted in the building; therefore, the potential for UFFI to be present on the property is considered to be low.
v. Ozone Depleting Substances (ODS)	None observed.
vi. Herbicides and Pesticides	During the site inspection no material containing herbicides or pesticides were observed to be stored at the building.
vii. Mould	Mould could be present in the basement of the house, based on the observation. However, the investigation, did not include a mould testing.
viii. Mercury	Based on the age of the building, there is potential for mercury to be present in fluorescent lights observed in the building. Mercury with small quantity could be present inside the electrical switches or thermostats observed in the house.

ix.	acrylonitrile, arsenic, benzene, coke oven emissions, ethylene oxide, isocyanates, silica, vinyl chloride	These items were not observed at the Property. The presence of the special attention items in building/construction materials were investigated through observations made by DS and does not necessarily imply adverse impact to the environmental condition of the property.
x.	Pits and Lagoons	None observed.
xi.	Air Emissions	None observed.
xii.	Radioactive Materials & Radon Gas	Based on local geological formations in the area, it is unlikely the site is exposed to natural sources of radiation such as radon or uranium. Manmade sources of radioactive materials were not observed during the site inspection. A radiometric survey was not conducted during this investigation.

5.3 Written Description of Investigation

The site reconnaissance included a visual inspection of the Phase One Property to confirm current conditions and identify any current land uses or activities, which may have or may cause environmental impacts. The adjoining and neighbouring properties were observed from the Phase One Property and publicly accessible areas.

At the time of the Site Reconnaissance the land use within the Phase One Study Area was primarily residential and agricultural as described in the table below:

Table 5-3: Summary of Site Reconnaissance Observations within Phase One Study Area

Observation	Details
Phase One Property	The Phase One Property was occupied by agricultural fields and one residential dwelling (Site Building A) at the time of the site reconnaissance. One Bell communication tower was observed on the southern portion of the Site, approximately 94 m northeast of Site Building A. The majority of the Site was used for agricultural purposes. The orientation of Site Building A and the Bell tower is depicted on Figure 2.
North Adjacent Property	The north adjacent property was undeveloped at the time of the site reconnaissance.
East Adjacent Property	The east adjacent property was occupied by agricultural fields at the time of the site reconnaissance and was used for agricultural purposes.
South Adjacent Property	The south adjacent properties were occupied by agricultural fields and Quaker Road Public School at the time of the site reconnaissance and was used for agricultural and institutional purposes.
West Adjacent Property	The west adjacent Property was occupied by residential houses and agricultural fields at the time of the site reconnaissance.
Water Bodies	A tributary of the Welland River traverses east-west through the southern half of the Site.

Observation	Details
Areas of Natural Significance	The Phase One Property contains two (2) *Provincially Significant Wetlands*, towards the northern and southeast portions of the Site. The Official Plan of the City of Welland indicates the southeastern portions of the Site as an "Environmental Protection Area" and an "Environmental Conservation Area", and the Official Plan of the City of Thorold indicates that the northeast portion of the Site as "Provincial Significant Wetland" (referred to Figure 2). As defined in Section 1 (1) of O.Reg. 153/04, an area of natural significance is: ◆ *"A wetland identified by the Ministry of Natural Resources as having provincial significance";* or ◆ *"An area designated by a municipality in its official plan as environmentally significant, however expressed, including designations of areas as environmentally sensitive, as being of environmental concern and as being ecologically significant".* Based on the above definitions, the Phase One Property is located within an area of natural significance.

Photographs illustrating the Phase One Property and adjacent properties are provided under Appendix E. A summary of the potentially contaminating activities observed is provided in Section 6.2. A visual depiction of the PCAs identified within the Phase One Study Area is provided under Figure 4.

6.0 Review and Evaluation of Information

6.1 Current and Past Uses

Current and past uses of the Phase One Property have been inferred based on the information provided in the aerial photographs, city directories and conversations with the site representative. The Phase One Property has been historically used for agricultural and residential purposes. The Site used to contain two (2) residential dwellings, Site Building A on Parcel C and Former Building B on Parcel A circa the mid-1970s. A third structure was developed circa the early-1930s (Former Building C) on Parcel A. Former Building B and C were demolished circa the late-1960s, and Parcel A become vacant land until present-day. By the mid-2000s a Bell communication tower (commercial property use) was constructed at Parcel A and it has been operating on Site until present-day. Currently, the Site is used for agricultural, commercial, and residential purposes.

6.2 Potentially Contaminating Activity

According to the Table 2, Schedule D, O. Reg. 153/04 as amended, potentially contaminating activities are activities that may be contributing to areas of potential environmental concern on the Phase One Property. The PCAs identified on the Phase One Property and within the Phase One Study Area are summarized in the table below and are illustrated on Figure 4.

Table 6-1: Summary of PCAs

PCA ID No.	PCA Description (Per. Table 2, Schedule D of O.Reg. 153/04)	Description	Contributing to APEC (Y/N)
PCA-1	#40 – Pesticides (including herbicides) manufacturing, processing, bulk storage and large scale application	Based on the 1876 Lincoln and Welland County Atlas, an orchard operated on the southwest portion the Phase One Property.	Yes – APEC-1
PCA-2	#40 – Pesticides (including herbicides) manufacturing, processing, bulk storage and large scale application	Based on the 1876 Lincoln and Welland County Atlas, an orchard operated on the southern portion southwest portion the Phase One Property at Parcel A.	Yes – APEC-2
PCA-3	#40 – Pesticides (including herbicides) manufacturing, processing, bulk storage and large scale application	The west adjacent property historically contained an orchard.	No – Due to low mobility of potential contaminants.
PCA-4	#40 – Pesticides (including herbicides) manufacturing, processing, bulk storage and large scale application	The east adjacent property historically contained an orchard.	No – Due to low mobility of potential contaminants.
PCA-5	#40 – Pesticides (including herbicides) manufacturing, processing, bulk storage and large scale application	The south adjacent property historically contained an orchard.	No – Due to low mobility of potential contaminants.
PCA-6	#30 – Importation of Fill Material of Unknown Quality	Based on the aerial photographs and interview, two structures (Former Building B, and C) on the southeast portion of the Site (Parcel A) were demolished circa 1968. It is inferred that fill material may have been used to infill the area where the structures were located.	Yes – APEC-3
PCA-7	#58: Waste Disposal and Waste Management, including thermal treatment, landfilling and transfer of waste, other than use of biosoils as soil conditioners	Quaker Road Public School, located at 333 Quaker Road was registered for the waste generation, use, and/or storage of paint/pigment/coating residues, inorganic laboratory chemicals, waste oils and lubricants, organic laboratory chemicals, and waste compressed gases.	No – this property is a school, and it is anticipated that minimal volumes of waste are generated.
PCA-8	#58: Waste Disposal and Waste Management, including thermal treatment, landfilling and transfer of waste, other than use of biosoils as soil conditioners	Welland Hydro Electric System Corp., was registered in 2005 for the generation, use, and/or storage of waste oils and lubricants and emulsified oils at 333 Quaker Road, south adjacent to the Site	No – PCA is trans-gradient from the Phase One property
PCA-9	N/S: Spill of transformer oil	A spill of 10 L of transformer oil was reported at 196 Cedar Park Drive in 2013.	No – PCA is more than 100 metres from Site and low mobility of contaminant.
PCA-10	N/S: Spill of mineral oil	A spill of mineral oil was reported at Quaker Road Public School located at 333 Quaker Road in 2005.	No – PCA is trans-gradient

PCA ID No.	PCA Description (Per. Table 2, Schedule D of O.Reg. 153/04)	Description	Contributing to APEC (Y/N)
			from the Phase One property

N/S - not specified in Table 2, Schedule D, of O.Reg. 153/04

6.3 Areas of Potential Environmental Concern

The table of APECs presented in the form as approved by the Director is provided below, in accordance with clause 16(2)(a), Schedule D, O.Reg. 153/04.

Table 6-2: Summary of APECs

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (on site or off site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground water, soil and/or sediment)
APEC-1	Southwest portion of Parcel C	#40 – Pesticides (including herbicides) manufacturing, processing, bulk storage and large scale application	On Site PCA-1	OCPs, metals, As, Sb, Se, CN-	Soil
APEC-2	Southeast portion of Parcel A	#40 – Pesticides (including herbicides) manufacturing, processing, bulk storage and large scale application	On Site PCA-2	OCPs, metals, As, Sb, Se, CN-	Soil
APEC-3	Southeast portion of Parcel A	#30 – Importation of Fill Material of Unknown Quality	On Site PCA-6	PHCs, VOCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, electrical conductivity, Cr (VI), Hg, low or high pH, SAR, PAHs	Soil

The rationale used by the QP in assessing the information obtained through the course of this investigation to determine whether PCAs exist and/or are contributing to an APEC on the Phase One Property has been provided in the proceeding sections. In general, the potential for a PCA to be contributing to an APEC on the Phase One Property was assessed using the likelihood of the source to contaminate the Phase One Property, the possibility of the contaminants to migrate to the Phase One Property based on the hydraulic and geologic conditions, and the inherent properties of the contaminants of concern.

The contaminants of potential concern were determined based on the professional experience of the QP, common industry standards, literature reviews, and the inherent properties of the contaminant.

This investigation was conducted based on the assumption that all information provided to DS was factual and accurate. DS is not aware of any uncertainty factors which would affect the conclusions of this investigation.

6.4 Phase One Conceptual Site Model

A Conceptual Site Model was developed for the Phase One Property, located at the Northwest Corner of Quaker Road and First Avenue, Welland and Thorold, Ontario. The Phase One Conceptual Site Model is presented in Figures 3, 4, and 5 and visually depict the following:

- Any existing buildings and structures
- Water bodies located in whole, or in part, on the Phase One Study Area
- Areas of natural significance located in whole, or in part, on the Phase One Study Area
- Water wells at the Phase One Property or within the Phase One Study Area
- Roads, including names, within the Phase One Study Area
- Uses of properties adjacent to the Phase One Property
- Areas where any PCAs have occurred, including location of any tanks
- Areas of Potential Environmental Concern

6.4.1 Potentially Contaminating Activity Affecting the Phase One Property

All PCAs identified within the Phase One Study Area are presented on Figure 4 and discussed in Section 6.2 above. The PCAs which are considered to contribute to APECs on, in or under the Phase One Property are summarized in the table below:

Table 6-3: Summary of PCAs Contributing to APECs

PCA Item.	PCA Description (Per. Table 2, Schedule D of O.Reg. 153/04)	Description	Rationale
PCA-1	#40 – Pesticides (including herbicides) manufacturing, processing, bulk storage and large scale application	Based on the 1876 Lincoln and Welland County Atlas, an orchard operated on the southwest portion the Phase One Property.	PCA is on the Phase One Property
PCA-2	#40 – Pesticides (including herbicides) manufacturing, processing, bulk storage and large scale application	Based on the 1876 Lincoln and Welland County Atlas, an orchard operated on the southern portion southwest portion the Phase One Property at Parcel A.	PCA is on the Phase One Property
PCA-6	#30 – Importation of Fill Material of Unknown Quality	Based on the aerial photographs and interview, two structures (Former Building B, and Former Site Building C) on the southeast portion of the Site (Parcel A) were demolished circa 1968. It is inferred that fill material may have been used to infill the area where the structures were located.	PCA is on the Phase One Property

N/S - not specified in Table 2, Schedule D, of O.Reg. 153/04

6.4.2 Contaminants of Potential Concern

A summary of the contaminants of potential concern identified for each respective APEC is presented in Table 6-1 above. The following contaminants of potential concern were identified for the Phase One Property: PHCs, VOCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, electrical conductivity, Cr (VI), Hg, low or high pH, SAR, PAHs, and OC pesticides.

6.4.3 Underground Utilities and Contaminant Distribution and Transport

Underground utilities can affect contaminant distribution and transport. Trenches excavated to install utility services, and the associated granular backfill may provide preferential pathways for horizontal contaminant migration in the shallow subsurface.

The depth to groundwater at the Phase One Property is inferred to be approximately 0.25 to 4.43 mbgs. It is possible that the utility corridors may act as preferential pathways for contaminant distribution and transport in the event that shallow subsurface contaminants exist at the Phase One Property; however, groundwater was no identified as a media of potential impact.

6.4.4 Geological and Hydrogeological Information

The topography of the Phase One Property is generally flat, with a surface elevation of 225 masl. The topography within the Phase One Study Area generally slopes to the east. The nearest body of water are two (2) tributaries of Welland River traversing from west to east through the northern and southern halves of the Phase One Property. Based on a Preliminary Geotechnical investigation completed on the Site, the depth to groundwater on the Site is between 0.25 to 4.43 mbgs. The shallow groundwater flow direction within the Phase One Study Area is inferred to be easterly towards the tributaries of Welland River and/or Welland River.

The Site is situated within a "*Haldimand Clay Plain*" physiographic region. The surficial geology within the Phase One Study area is described as "*fine-textured glaciocustrine deposits of silt and clay, minor sand and gravel*", and the bedrock is described as "*sandstone, shale, dolostone and siltstone of the Guelph Formation*". Based on a review of well records, the bedrock in the Phase One Study Area is anticipated to be encountered at an approximate depth range of 30 to 62 mbgs.

6.4.5 Uncertainty and Absence of Information

DS has relied upon information obtained from federal, provincial, municipal, and private databases, in addition to records and summaries provided by EcoLog ERIS. All information obtained was reviewed and assessed for consistency, however the conclusions drawn by DS are subject to the nature and accuracy of the records reviewed.

All reasonable inquiries were made to obtain reasonably accessible information, as mandated by O.Reg.153/04 (as amended). All responses to database requests were received prior to completion of this report, with the exception of the MECP FOI request. If the MECP FOI request produces

information which may alter the conclusions of this report, an addendum will be provided to the Client. This report reflects the best judgement of DS based on the information available at the time of the investigation.

Information used in this report was evaluated based on proximity to the Phase One Property, anticipated direction of local groundwater flow, and the potential environmental impact on the Phase One Property, as a result of potentially contaminating activities.

The QP has determined that the uncertainty does not affect the validity of the Phase One ESA Conceptual Site Model or the conclusions of this report.

7.0 Conclusions

DS conducted a Phase One ESA for the property located at Northwest Corner of Quaker Road and First Avenue, Welland and Thorold, Ontario. The Phase One ESA was completed to satisfy the intent of the requirements, methodology and practices for a Phase One ESA as described in Ontario Regulation 153/04 (as amended). The objectives of the Phase One ESA were to identify the presence or absence of potentially contaminating activities (PCAs) on the Phase One Property and/or within the Phase One Study Area, and to determine if the PCAs identified within the Phase One Study Area are likely to result in an Area of Potential Environmental Concern (APEC) on the Phase One Property.

Based on the information obtained as part of this investigation, it is concluded that ten (10) PCAs were identified within the Phase One Study Area, three (3) of which are considered to be contributing to three (3) APECs on, in or under the Phase One Property.

7.1 Phase Two Environmental Site Assessment Requirement

Further investigation in the form of a Phase Two ESA will be required in order to meet the requirements of O.Reg.153/04 (as amended).

7.2 RSC Based on Phase One Environmental Site Assessment

Record of Site Condition cannot be filed on the basis of the Phase One ESA due to the identification of Areas of Potential Environmental Concern on the Phase One Property.

7.3 Limitations

This report was prepared for the sole use of Primont (Thorold/Welland) Inc and is intended to provide an assessment of the environmental condition on the property located at Northwest Corner of Quaker Road and First Avenue, Welland and Thorold, Ontario. The information presented in this report is based on information collected during the completion of the Phase One Environmental Site Assessment by DS Consultants Ltd. The material in this report reflects DS' judgment in light of the information available at the time of report preparation. This report may not be relied upon by any other person or entity without the written authorization of DS Consultants Ltd. The scope of services

performed in the execution of this investigation may not be appropriate to satisfy the needs of other users, and any use or reuse of this documents or findings, conclusions and recommendations represented herein, is at the sole risk of said users.

The information and conclusions presented in this report are professional opinions in accordance with generally accepted engineering and scientific practices based on a cursory historical search, visual observations and limited information provided by persons knowledgeable about past and current activities on this site. The work completed as per the scope of work is considered sufficient in detail to form a reasonable basis for the findings presented in this report. As such, DS Consultants Ltd. cannot be held responsible for environmental conditions at the site that was not apparent from the available information.

7.4 Qualifications of the Assessors

Megan Bender, B.E.S, EPt

Ms. Bender is an Environmental/Geotechnical Technician with DS Consultants Ltd. Megan holds a Bachelor's degree in Environmental Studies, specializing in environmental assessments, and a minor in geography from the University of Waterloo and a Post Graduate Certificate in Environmental Engineering Applications from Conestoga College. Megan is registered as an Environmental Professional in training (EPt) with ECO Canada. Megan has been involved with Phase One and Phase Two Environmental Site Assessments, data interpretation and reporting.

John Gaviria-Ballen, B. Eng., EIT

Mr. Gaviria-Ballen is an Environmental EIT with DS Consultants Ltd. John holds a bachelor's degree in Environmental Engineering from Carleton University and a Post Graduate Certificate in Environmental Engineering Applications from Conestoga College. John is a registered Engineer in Training (EIT) with Professional Engineers of Ontario (PEO) and has experience in conducting Phase One and Two Environmental Site Assessments, soil and groundwater remediation projects.

Mr. Patrick (Rick) Fioravanti, B.Sc., P.Geo., QP_{ESA}

Mr. Fioravanti is the Manager of Environmental Services with DS Consultants Limited. Patrick holds a Honours Bachelor of Science with distinction in Toxicology from the University of Guelph and is a practicing member of the Association of Professional Geoscientists of Ontario (APGO). Patrick has over ten years of environmental consulting experience and has conducted and/or managed hundreds of projects in his professional experience. Patrick has extensive experience conducting Phase One and Phase Two Environmental Site Assessments in support of brownfields redevelopment in urban settings, and been involved in numerous remediation projects, supported many risk assessments, and successfully filed Records of Site Condition with the Ministry of Environment, Conservation and Parks. He has conducted work across southern and eastern Ontario, and Quebec in his professional experience. Patrick is considered a Qualified Person to conduct Environmental Site Assessments as defined by Ontario Regulation 153/04 (as amended).

7.5 Signatures

DS Consultants Ltd. conducted this Phase One Environmental Site Assessment and confirms the findings and conclusions contained within this report.

Yours truly,

DS Consultants Ltd.

Prepared by:

Megan Bender, B.E.S., EPt
Environmental/Geotechnical Technician

Reviewed by:

John Gaviria-Ballen, B. Eng., EIT
Assistant Project Manager - Environmental

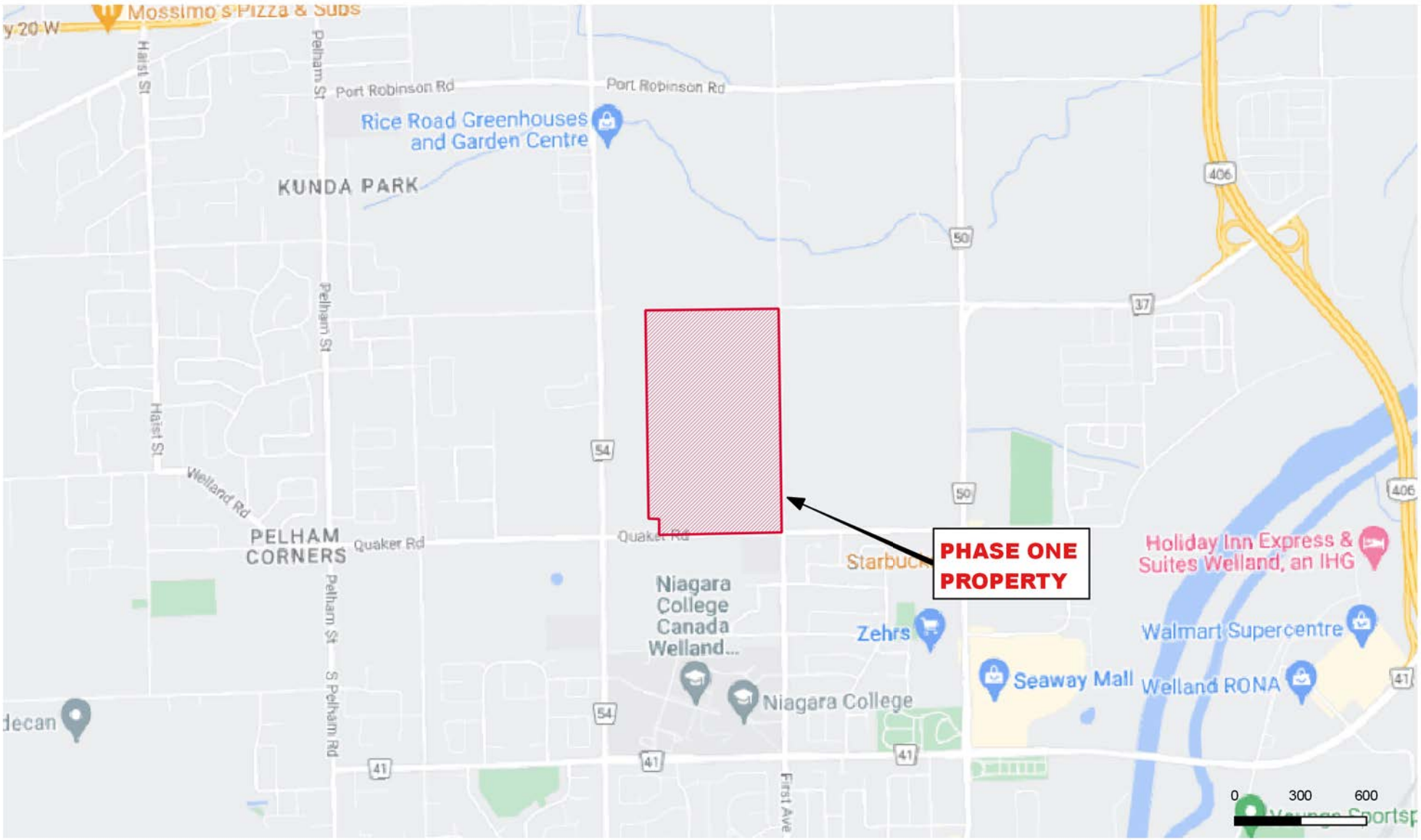
Patrick Fioravanti, B.Sc., P.Geo., QP_{ESA}
Manager – Environmental Services

8.0 References

- Canadian Standards Association (CSA) Document Z768-01 Phase 1 Environmental Site Assessment, Nov. 2001
- Ontario Regulation 153/04 Records of Site Condition — Part Xv.1 of The Act
- Natural Resources Canada Toporama http://atlas.gc.ca/toporama/en/index.html
- Environment Canada, National Pollutant Release Inventory
- Ontario Ministry of the Environment Hazardous Waste Information Network https://www.hwin.ca/hwin/
- Ontario Ministry of the Environment, Certificate of Approval search
- Ontario Ministry of the Environment, Brownfields Environmental Site Registry https://www.ontario.ca/page/ministry-environment-and-climate-change
- Ontario Ministry of the Environment, Inventory of Coal Gasification Plan Waste Sites in Ontario, 1987
- Ontario Ministry of the Environment, Inventory of Industrial Sites Producing or Using Coal Tar and Related Tars in Ontario, 1998
- Ontario Ministry of the Environment, Inventory of PCB Storage Sites, 1994-2004
- Waste Disposal Site Inventory, 1991
- Ministry of Environment, Conservation and Parks-Freedom of Information
- Technical Standards and Safety Authority – Fuel Safety Division inquiry
- Ontario Geological Survey, 2013. Quaternary Geology of Ontario. Ontario Geological Survey, scale 1:100,000.
- Ontario Ministry of Northern Development and Ontario Geological Survey, 1991. Bedrock Geology of Ontario, Southern Sheet; Ontario Geological Survey, Map 2544, scale 1:1,000,000.
- Ontario Ministry of Natural Resources. Quaternary Geology of Toronto and Surrounding Area. Scale 1:100,000. Map number 2204.
- Historical Maps, aerial photos and Ontario Base Map
- City of Toronto online-services
- Environmental Risk Information Services (Ecolog ERIS Report)
- Welland Maps and GIS https://www.welland.ca/Maps/index.asp
- Welland Official Plan https://www.welland.ca/Planning/officialplan.asp
- Thorold Official Plan https://www.thorold.ca/en/city-hall/comprehensive-zoning-by-law.aspx
- University of Toronto Libraries – 1954 Air Photos of Southern Ontario https://mdl.library.utoronto.ca/collections/air-photos/1954-air-photos-southern-ontario/index

Figures

C:\0Sharon\21-339-300 Preliminary Geotechnical Investigation\1-QGIS\Phase One\Figure 1 - Site Location Plan.qgs Apr-04 07:56



Legend

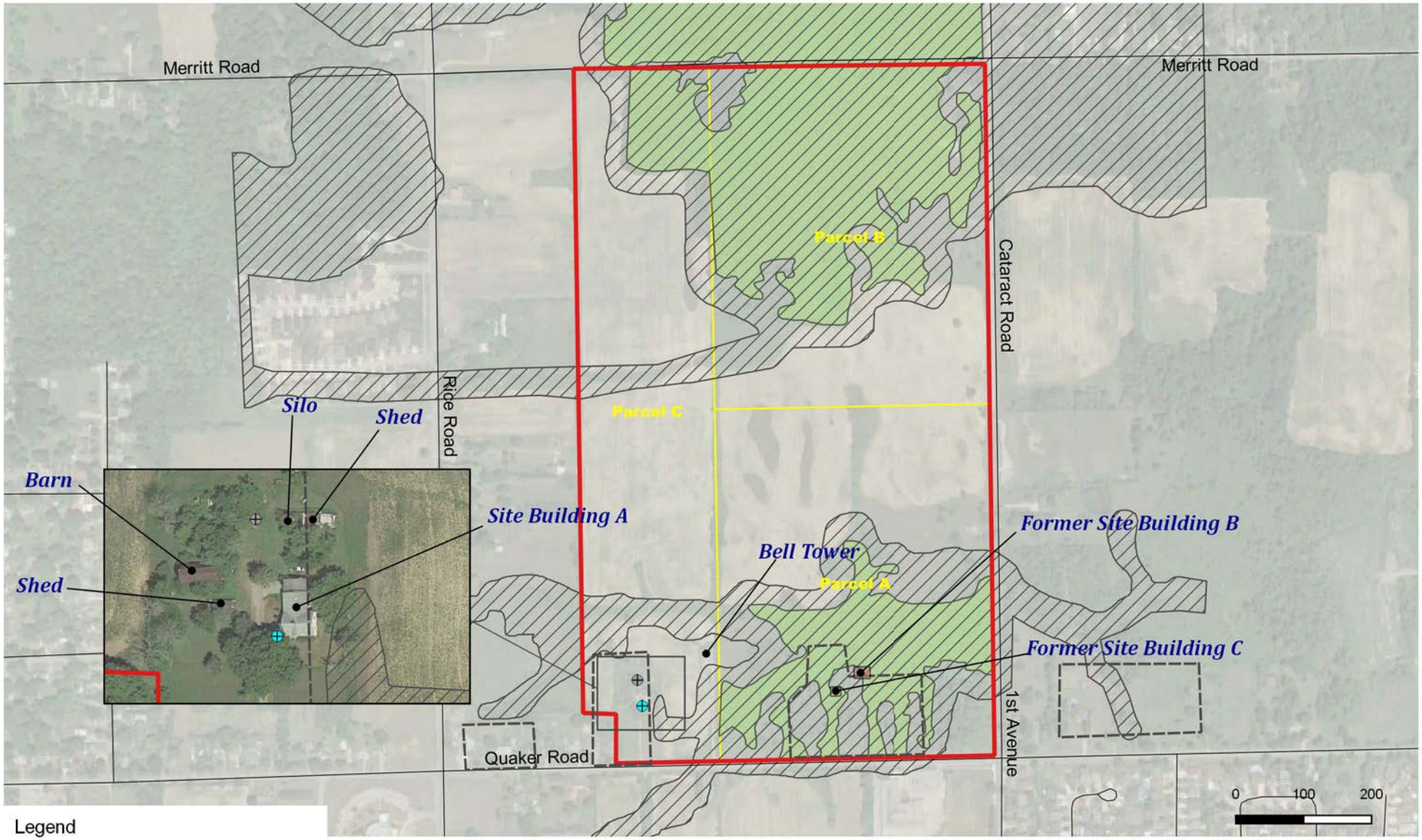
Approx Property Boundary

DS CONSULTANTS LTD.
6221 Highway 7, UNIT 16
Vaughan, Ontario L4H 0K8
Telephone: (905) 264-9393
www.dsconsultants.ca

Project:	PHASE ONE ENVIRONMENTAL SITE ASSESSMENT Quaker Road and First Ave, Welland, ON
Title:	**SITE LOCATION PLAN**
Client:	PRIMONT (THOROLD/WELLAND) INC.

Size: 8.5 x 11	Approved By:	K.C	Drawn By:	S.Y	Date: April 2022
Rev: 0	Scale:	As Shown	Project No.:	21-339-301	Figure No.: 1
	Image/Map Source: *Google Street Map*				

C:\0Sharon\21-339-300 Preliminary Geotechnical Investigation\1-QGIS\Phase One\Figure 2 - Phase One Property Site Plan.qgs Apr-04 13:19



Legend

- Approx Property Boundary
- Former Orchard
- NPCA Regulated Area O.Reg 155/06
- Provincially Significant Wetland
- Current Well
- Former Well

DS CONSULTANTS LTD.
6221 Highway 7, UNIT 16
Vaughan, Ontario L4H 0K8
Telephone: (905) 264-9393
www.dsconsultants.ca

Project: PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
Quaker Road and First Ave, Welland, ON

Title: **PHASE ONE PROPERTY SITE PLAN**

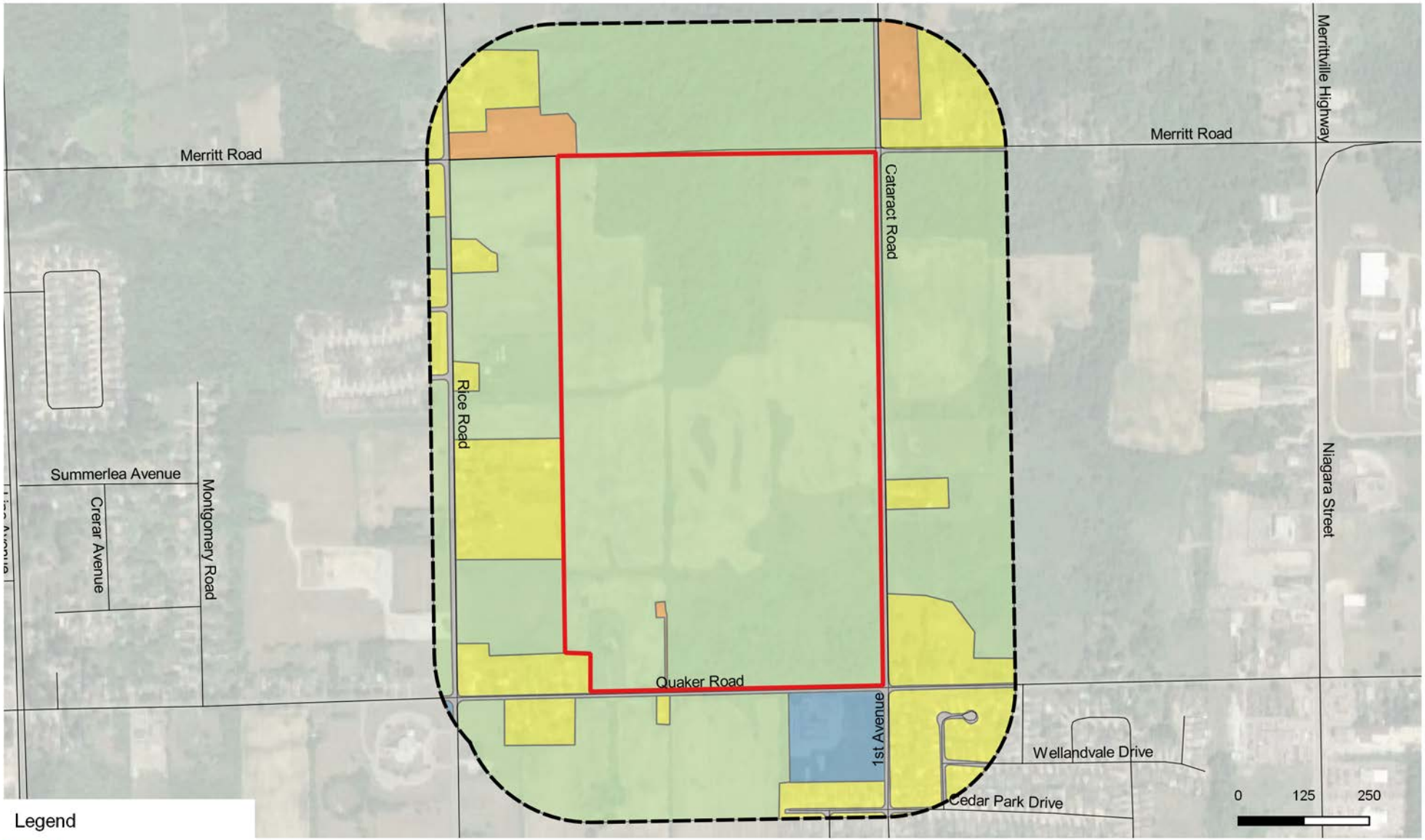
N

Client: PRIMONT (THOROLD/WELLAND) INC.

Size:	Approved By:	Drawn By:	Date:
8.5 x 11	K.C	S.Y	April 2022
Rev: 0	Scale: As Shown	Project No.: 21-339-301	Figure No.: 2

Image/Map Source: *Google Satellite Image*

C:\0Sharon\21-339-300 Preliminary Geotechnical Investigation\1-QGIS\Phase One\Figure 3 - Phase One Study Area.qgs Apr-04 12:00



Legend

- Approx Property Boundary
- 250m Buffer
- Residential
- Commercial
- Institutional
- Open Space/Agricultural

DS CONSULTANTS LTD.
6221 Highway 7, UNIT 16
Vaughan, Ontario L4H 0K8
Telephone: (905) 264-9393
www.dsconsultants.ca

Client: PRIMONT (THOROLD/WELLAND) INC.

Project: PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
Quaker Road and First Ave, Welland, ON

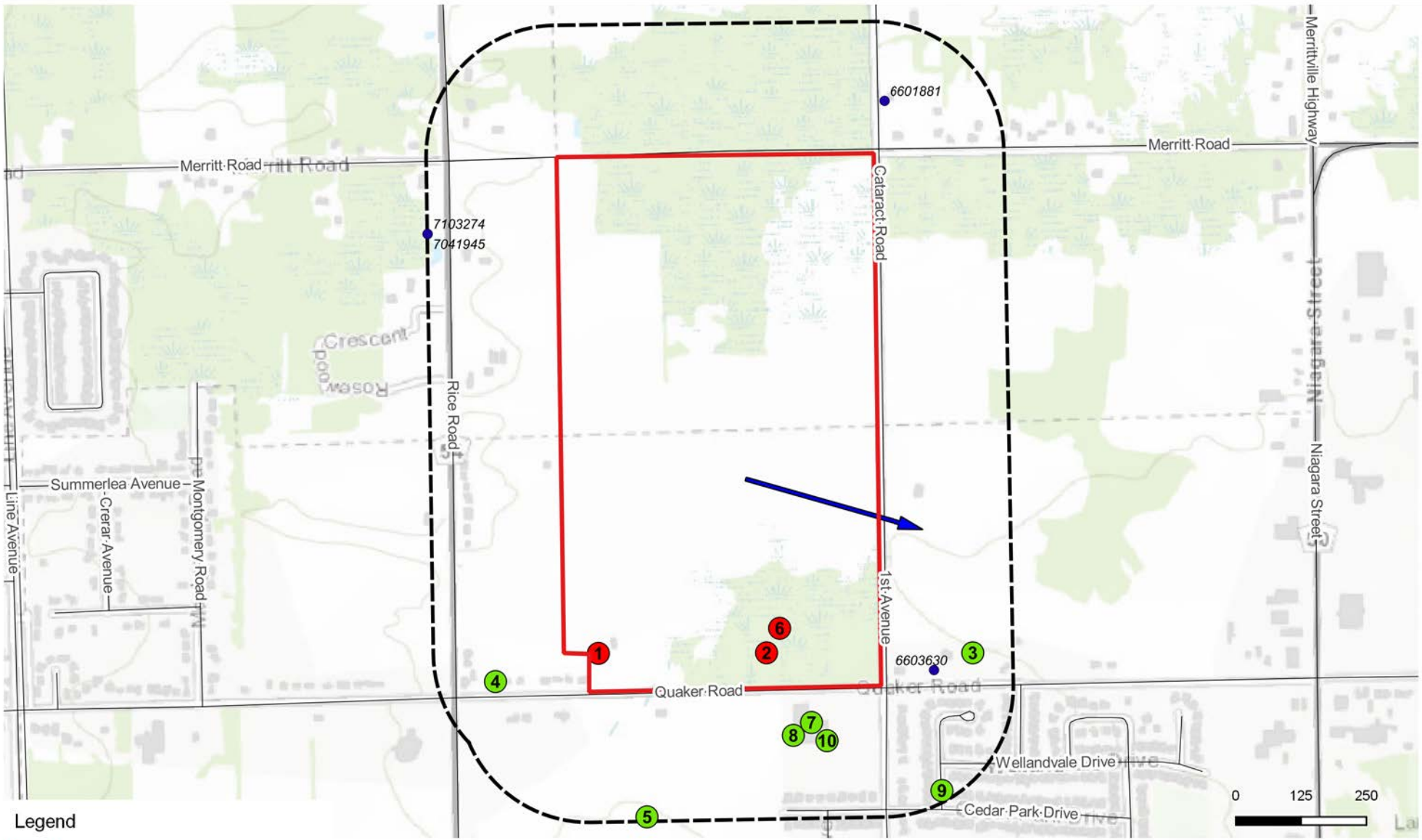
Title: **PHASE ONE STUDY AREA**

N

Size:	Approved By:	Drawn By:	Date:
8.5 x 11	K.C	S.Y	April 2022
Rev: 0	Scale: As Shown	Project No.: 21-339-301	Figure No.: 3

Image/Map Source: *Google Satellite Image*

C:\0Sharon\21-339-300 Preliminary Geotechnical Investigation\1-QGIS\Phase One\Figure 4 - PCA within Phase One Study Area.qgs Apr-04 12:48



Legend

- Approx Property Boundary
- 250m Buffer
- Inferred Groundwater Flow Direction
- Registered Water Well (MECP WWR)
- PCA not contributing to APEC
- PCA contributing to APEC

DS CONSULTANTS LTD.
6221 Highway 7, UNIT 16
Vaughan, Ontario L4H 0K8
Telephone: (905) 264-9393
www.dsconsultants.ca

Project: PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
Quaker Road and First Ave, Welland, ON

Title: **PCA WITHIN PHASE ONE STUDY AREA**

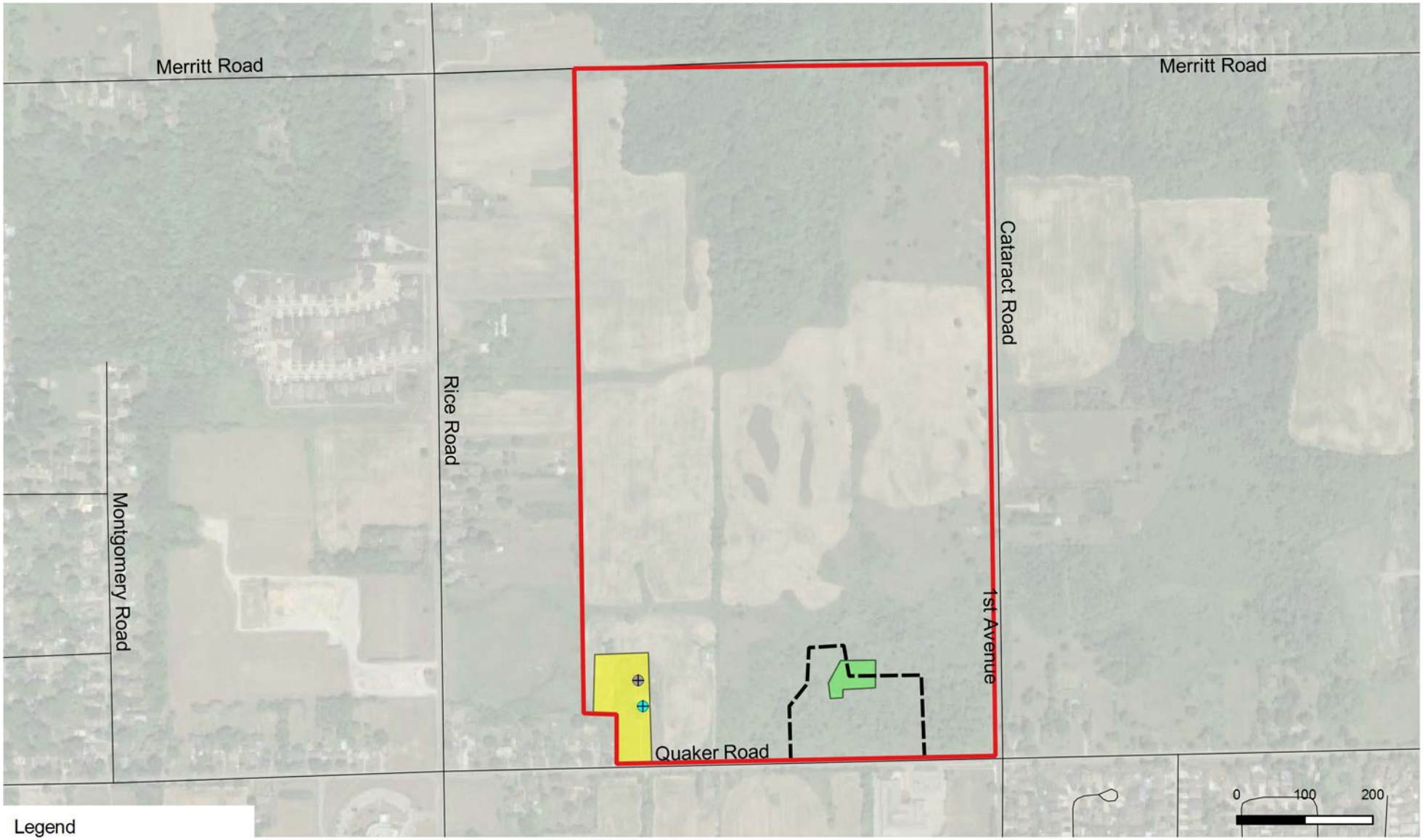
N

Client: PRIMONT (THOROLD/WELLAND) INC.

Size:	Approved By:	Drawn By:	Date:
8.5 x 11	K.C	S.Y	April 2022
Rev: 0	Scale: As Shown	Project No.: 21-339-301	Figure No.: 4

Image/Map Source: *Esri topo Map*

C:\0Sharon\21-339-300 Preliminary Geotechnical Investigation\1-QGIS\Phase One\Figure 5 - Summary of APECs on the Phase One Property.qgs Apr-04 08:00



Legend

- Approx Property Boundary
- APEC-1
- APEC-2
- APEC-3
- Current Well
- Former Well

DS CONSULTANTS LTD.
6221 Highway 7, UNIT 16
Vaughan, Ontario L4H 0K8
Telephone: (905) 264-9393
www.dsconsultants.ca

Client: PRIMONT (THOROLD/WELLAND) INC.

Project: PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
Quaker Road and First Ave, Welland, ON

Title: **SUMMARY OF APECs ON THE PHASE ONE PROPERTY**

N

Size:	Approved By:	Drawn By:	Date:
8.5 x 11	K.C	S.Y	April 2022
Rev: 0	Scale: As Shown	Project No.: 21-339-301	Figure No.: 5

Image/Map Source: *Google Satellite Image*

Appendix A

ENVIRONMENTAL RISK INFORMATION SERVICES

CITY DIRECTORY

Project Property:	*Northwest Corner of Quaker Road and First Avenue, Welland, Ontario*
Report Type:	*City Directory*
Order No:	*22012401207*
Information Source:	*Vernon's Welland, Port Colborne & Fort Erie, Ontario, City Directory (LAC)*
Date Completed:	*2022/03/08*

Environmental Risk Information Services
A division of Glacier Media Inc.
1.866.517.5204 | info@erisinfo.com | erisinfo.com

City Directory Information Source
Vernon's Welland, Port Colborne & Fort Erie, Ontario, City Directory

PROJECT NUMBER: 22012401207	
Site Address:	Northwest Corner of Quaker Road and First Avenue, Welland, Ontario
Year: 2012	
Site Listing:	-No Civic Address
Adjacent Properties:	
Quaker Road (295-500)	-All Residential 333 – Quaker Road Public School
First Avenue (620-750)	-All Residential
Cataract Road (1200-1240)	-Street Not Listed
Merritt Street (225-235)	-No Listings Within Range
Merritt Street (2510-2550)	-No Listings Within Range
Redwood Court (All)	-All Residential

	109 – Regional Janitorial Services Inc 167 – Shaklee Productions
Rice Road (430-1285)	-All Residential 469 – Sparkles Dance Co -Welland Soccer Club
Rosewood Crescent (2-10 even)	-Street Not Listed
Rosewood Crescent (55-60)	-Street Not Listed
Wellandvale Drive (1-20)	-All Residential

PROJECT NUMBER: 22012401207	
Site Address:	Northwest Corner of Quaker Road and First Avenue, Welland, Ontario
Year: 2007/2008	
Site Listing:	-No Civic Address
Adjacent Properties:	
Quaker Road (295-500)	-All Residential

	333 – Quaker Road Public School -YMCA Child Care Services- Quaker Road School
First Avenue (620-750)	-All Residential
Cataract Road (1200-1240)	-Street Not Listed
Merritt Street (225-235)	-No Listings Within Range
Merritt Street (2510-2550)	-No Listings Within Range
Redwood Court (All)	-All Residential 109 – Regional Janitorial Services Inc 167 – Shaklee Productions
Rice Road (430-1285)	-All Residential 469 – Sparkles Dance Co -Welland Soccer Club
Rosewood Crescent (2-10 even)	-Street Not Listed
Rosewood Crescent (55-60)	-Street Not Listed

Wellandvale Drive (1-20)	-All Residential

PROJECT NUMBER: 22012401207	
Site Address:	Northwest Corner of Quaker Road and First Avenue, Welland, Ontario
Year: 2002/2003	
Site Listing:	-No Civic Address
Adjacent Properties:	
Quaker Road (295-500)	-All Residential 333 – Quaker Road Public School
First Avenue (620-750)	-All Residential
Cataract Road (1200-1240)	-Street Not Listed
Merritt Street (225-235)	-No Listings Within Range
Merritt Street (2510-2550)	-No Listings Within Range
Redwood Court (All)	-All Residential

	109 – Regional Janitorial Services Inc
Rice Road (430-1285)	-All Residential 469 – Welland Soccer Club
Rosewood Crescent (2-10 even)	-Street Not Listed
Rosewood Crescent (55-60)	-Street Not Listed
Wellandvale Drive (1-20)	-All Residential

PROJECT NUMBER: 22012401207	
Site Address:	Northwest Corner of Quaker Road and First Avenue, Welland, Ontario
Year: 1997/1998	
Site Listing:	-No Civic Address
Adjacent Properties:	
Quaker Road (295-500)	-All Residential 333 – Quaker Road Public School

	491 – Lucchetta Construction Ltd
First Avenue (620-750)	-All Residential
Cataract Road (1200-1240)	-Street Not Listed
Merritt Street (225-235)	-No Listings Within Range
Merritt Street (2510-2550)	-No Listings Within Range
Redwood Court (All)	-Street Not Listed
Rice Road (430-1285)	-All Residential 469 – Welland Soccer Club
Rosewood Crescent (2-10 even)	-Street Not Listed
Rosewood Crescent (55-60)	-Street Not Listed
Wellandvale Drive (1-20)	-No Listings Within Range

PROJECT NUMBER: 22012401207	
Site Address:	Northwest Corner of Quaker Road and First Avenue, Welland, Ontario

Year: 1992	
Site Listing:	-No Civic Address
Adjacent Properties:	
Quaker Road (295-500)	-All Residential 333 – Quaker Road Public School 491 – Lucchetta Construction Ltd
First Avenue (620-750)	-All Residential
Cataract Road (1200-1240)	-Street Not Listed
Merritt Street (225-235)	-No Listings Within Range
Merritt Street (2510-2550)	-No Listings Within Range
Redwood Court (All)	-Street Not Listed
Rice Road (430-1285)	-All Residential 469 – Welland Soccer Club -Double Dome Indoor Soccer Club

	-Indoor Golf of Niagara
Rosewood Crescent (2-10 even)	-Street Not Listed
Rosewood Crescent (55-60)	-Street Not Listed
Wellandvale Drive (1-20)	-No Listings Within Range

PROJECT NUMBER: 22012401207	
Site Address:	Northwest Corner of Quaker Road and First Avenue, Welland, Ontario
Year: 1987	
Site Listing:	-No Civic Address
Adjacent Properties:	
Quaker Road (295-500)	-All Residential ** – Quaker Road Public School
First Avenue (620-750)	632 – Single-Tenant Residential
Cataract Road (1200-1240)	-Street Not Listed

Merritt Street (225-235)	-No Listings Within Range
Merritt Street (2510-2550)	-No Listings Within Range
Redwood Court (All)	-Street Not Listed
Rice Road (430-1285)	-All Residential 469 – Welland Soccer Club
Rosewood Crescent (2-10 even)	-Street Not Listed
Rosewood Crescent (55-60)	-Street Not Listed
Wellandvale Drive (1-20)	-Street Not Listed

PROJECT NUMBER: 22012401207	
Site Address:	Northwest Corner of Quaker Road and First Avenue, Welland, Ontario
Year: 1982	
Site Listing:	-No Civic Address
Adjacent Properties:	

Quaker Road (295-500)	-All Residential ** – Quaker Road Public School
First Avenue (620-750)	632 – Single-Tenant Residential
Cataract Road (1200-1240)	-Street Not Listed
Merritt Street (225-235)	-No Listings Within Range
Merritt Street (2510-2550)	-No Listings Within Range
Redwood Court (All)	-Street Not Listed
Rice Road (430-1285)	-All Residential
Rosewood Crescent (2-10 even)	-Street Not Listed
Rosewood Crescent (55-60)	-Street Not Listed
Wellandvale Drive (1-20)	-Street Not Listed

PROJECT NUMBER: 22012401207	
Site Address:	Northwest Corner of Quaker Road and First Avenue, Welland, Ontario

Year: 1977	
Site Listing:	-No Civic Address
Adjacent Properties:	
Quaker Road (295-500)	-All Residential ** – Quaker Road Public School
First Avenue (620-750)	632 – Single-Tenant Residential
Cataract Road (1200-1240)	-Street Not Listed
Merritt Street (225-235)	-No Listings Within Range
Merritt Street (2510-2550)	-No Listings Within Range
Redwood Court (All)	-Street Not Listed
Rice Road (430-1285)	-All Residential
Rosewood Crescent (2-10 even)	-Street Not Listed
Rosewood Crescent (55-60)	-Street Not Listed

Wellandvale Drive (1-20)	-Street Not Listed

PROJECT NUMBER: 22012401207	
Site Address:	Northwest Corner of Quaker Road and First Avenue, Welland, Ontario
Year: 1972	
Site Listing:	-No Civic Address
Adjacent Properties:	
Quaker Road (295-500)	-All Residential ** – Quaker Road Public School
First Avenue (620-750)	-No Listings Within Range
Cataract Road (1200-1240)	-Street Not Listed
Merritt Street (225-235)	-No Listings Within Range
Merritt Street (2510-2550)	-No Listings Within Range
Redwood Court (All)	-Street Not Listed

Rice Road (430-1285)	-All Residential
Rosewood Crescent (2-10 even)	-Street Not Listed
Rosewood Crescent (55-60)	-Street Not Listed
Wellandvale Drive (1-20)	-Street Not Listed

PROJECT NUMBER: 22012401207	
Site Address:	Northwest Corner of Quaker Road and First Avenue, Welland, Ontario
Year: 1967	
Site Listing:	-No Civic Address
Adjacent Properties:	
Quaker Road (295-500)	-Street Not Listed
First Avenue (620-750)	-No Listings Within Range
Cataract Road (1200-1240)	-Street Not Listed
Merritt Street (225-235)	-No Listings Within Range

Merritt Street (2510-2550)	-No Listings Within Range
Redwood Court (All)	-Street Not Listed
Rice Road (430-1285)	-No Listings Within Range
Rosewood Crescent (2-10 even)	-Street Not Listed
Rosewood Crescent (55-60)	-Street Not Listed
Wellandvale Drive (1-20)	-Street Not Listed

PROJECT NUMBER: 22012401207	
Site Address:	Northwest Corner of Quaker Road and First Avenue, Welland, Ontario
Year: 1962	
Site Listing:	-No Civic Address
Adjacent Properties:	
Quaker Road (295-500)	-Street Not Listed
First Avenue (620-750)	-No Listings Within Range

Cataract Road (1200-1240)	-Street Not Listed
Merritt Street (225-235)	-No Listings Within Range
Merritt Street (2510-2550)	-No Listings Within Range
Redwood Court (All)	-Street Not Listed
Rice Road (430-1285)	-No Listings Within Range
Rosewood Crescent (2-10 even)	-Street Not Listed
Rosewood Crescent (55-60)	-Street Not Listed
Wellandvale Drive (1-20)	-Street Not Listed

-All listings for businesses were listed as they are in the city directory.

-Listings that are residential are listed as “residential” with the number of tenants. The name of the residential tenant is not listed in the above city directory.

Appendix B

DATABASE REPORT

Project Property:	*Quaker Road and First Avenue, Welland* *Northwest Corner of Quaker Road and First Avenue* *Welland ON*
Project No:	
Report Type:	*Quote - Custom-Build Your Own Report*
Order No:	*22012401207*
Requested by:	*DS Consultants Ltd.*
Date Completed:	*January 27, 2022*

Environmental Risk Information Services
A division of Glacier Media Inc.
1.866.517.5204 | info@erisinfo.com | erisinfo.com

Table of Contents

Executive Summary

Property Information:

Project Property:	*Quaker Road and First Avenue, Welland* *Northwest Corner of Quaker Road and First Avenue Welland ON*
Project No:	

Order Information:

Order No:	*22012401207*
Date Requested:	*January 24, 2022*
Requested by:	*DS Consultants Ltd.*
Report Type:	*Quote - Custom-Build Your Own Report*

Historical/Products:

Aerial Photographs	*Aerials - National Collection*
City Directory Search	*CD - Subject Site plus 250m Radius*
Insurance Products	*Fire Insurance Maps/Inspection Reports/Site Plans*

Executive Summary: Report Summary

Database	Name	Searched	Project Property	Boundary to 0.25km	Total
AAGR	*Abandoned Aggregate Inventory*	Y	0	0	0
AGR	*Aggregate Inventory*	Y	0	0	0
AMIS	*Abandoned Mine Information System*	Y	0	0	0
ANDR	*Anderson's Waste Disposal Sites*	Y	0	0	0
AST	*Aboveground Storage Tanks*	Y	0	0	0
AUWR	*Automobile Wrecking & Supplies*	Y	0	0	0
BORE	*Borehole*	Y	0	5	5
CA	*Certificates of Approval*	Y	0	5	5
CDRY	*Dry Cleaning Facilities*	Y	0	0	0
CFOT	*Commercial Fuel Oil Tanks*	Y	0	0	0
CHEM	*Chemical Manufacturers and Distributors*	Y	0	0	0
CHM	*Chemical Register*	Y	0	0	0
CNG	*Compressed Natural Gas Stations*	Y	0	0	0
COAL	*Inventory of Coal Gasification Plants and Coal Tar Sites*	Y	0	0	0
CONV	*Compliance and Convictions*	Y	0	0	0
CPU	*Certificates of Property Use*	Y	0	0	0
DRL	*Drill Hole Database*	Y	0	0	0
DTNK	*Delisted Fuel Tanks*	Y	0	0	0
EASR	*Environmental Activity and Sector Registry*	Y	0	0	0
EBR	*Environmental Registry*	Y	0	0	0
ECA	*Environmental Compliance Approval*	Y	0	0	0
EEM	*Environmental Effects Monitoring*	Y	0	0	0
EHS	*ERIS Historical Searches*	Y	0	3	3
EIIS	*Environmental Issues Inventory System*	Y	0	0	0
EMHE	*Emergency Management Historical Event*	Y	0	0	0
EPAR	*Environmental Penalty Annual Report*	Y	0	0	0
EXP	*List of Expired Fuels Safety Facilities*	Y	0	0	0
FCON	*Federal Convictions*	Y	0	0	0
FCS	*Contaminated Sites on Federal Land*	Y	0	0	0
FOFT	*Fisheries & Oceans Fuel Tanks*	Y	0	0	0
FRST	*Federal Identification Registry for Storage Tank Systems (FIRSTS)*	Y	0	0	0
FST	*Fuel Storage Tank*	Y	0	0	0
FSTH	*Fuel Storage Tank - Historic*	Y	0	0	0
GEN	*Ontario Regulation 347 Waste Generators Summary*	Y	0	2	2
GHG	*Greenhouse Gas Emissions from Large Facilities*	Y	0	0	0
HINC	*TSSA Historic Incidents*	Y	0	0	0

Database	Name	Searched	Project Property	Boundary to 0.25km	Total
IAFT	Indian & Northern Affairs Fuel Tanks	Y	0	0	0
INC	Fuel Oil Spills and Leaks	Y	0	0	0
LIMO	Landfill Inventory Management Ontario	Y	0	0	0
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	0	0
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	0	0
NPRI	National Pollutant Release Inventory	Y	0	0	0
OGWE	Oil and Gas Wells	Y	0	0	0
OOGW	Ontario Oil and Gas Wells	Y	0	0	0
OPCB	Inventory of PCB Storage Sites	Y	0	0	0
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	Pipeline Incidents	Y	0	1	1
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	0	0
RSC	Record of Site Condition	Y	0	0	0
RST	Retail Fuel Storage Tanks	Y	0	0	0
SCT	Scott's Manufacturing Directory	Y	0	0	0
SPL	Ontario Spills	Y	1	2	3
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	Variances for Abandonment of Underground Storage Tanks	Y	0	0	0
WDS	Waste Disposal Sites - MOE CA Inventory	Y	0	0	0
WDSH	Waste Disposal Sites - MOE 1991 Historical Approval Inventory	Y	0	0	0
WWIS	Water Well Information System	Y	0	5	5
	Total:		1	23	24

Executive Summary: Site Report Summary - Project Property

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev diff (m)	Page Number
1	SPL	Avertex Utility Solutions Inc.	1st Ave North (Cataract) just south of Merritt St Thorold ON	NE/0.0	-0.80	16

Executive Summary: Site Report Summary - Surrounding Properties

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
2	BORE		ON	S/3.5	-0.61	16
3	BORE		ON	SSW/4.6	-0.61	17
4	BORE		ON	SSW/4.7	-0.61	18
5	CA	FRANK SILVESTRI - COLLEGE PARK SUBD.PHII	STREET A QUAKER RD/FIRST AVE. WELLAND CITY ON	SE/12.3	-1.61	19
5	CA	WELLAND CITY	FIRST AVE/QUAKER ROAD WELLAND CITY ON	SE/12.3	-1.61	19
5	CA	FRANK SILVESTRI - COLLEGE PARK SUBD.PHII	STREET A QUAKER RD/FIRST AVE. WELLAND CITY ON	SE/12.3	-1.61	19
6	BORE		ON	SSW/18.0	-0.61	19
7	BORE		ON	S/18.1	-0.06	20
8	GEN	NIAGARA, DISTRICT SCHOOL BOARD OF	QUAKER ROAD ELEMENTARY SCHOOL 333 QUAKER AVENUE WELLAND ON L3C 3G7	SSE/87.7	0.39	21
8	GEN	Welland Hydro Electric System Corp.	333 Quaker Road Welland ON L3C 3G7	SSE/87.7	0.39	22
9	WWIS		lot 227 ON ***Well ID:*** 6603630	SE/103.6	-2.61	22
10	WWIS		lot 221 ON	NE/112.7	-1.61	26

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
			Well ID: 6601881			
11	EHS		744 First Ave Welland ON L3B 5N5	E/125.9	-1.96	30
11	EHS		744 First Ave Welland ON L3B 5N5	E/125.9	-1.96	30
12	SPL		110 Redwood crt Welland ON	SE/162.9	-1.61	30
12	PINC	PIPELINE HIT 1/2"	110 REDWOOD CRT,,WELLAND,ON,L3C 7C4,CA ON	SE/162.9	-1.61	30
13	EHS		450 & 509 Rice Road Welland ON L3C 2W1	WSW/208.7	2.63	31
14	SPL	Welland Hydro-Electric System Corp.	196 Cedar Park Dr. Welland ON	SE/245.0	-1.61	31
15	CA	CEDAR PARK ESTATES - PT. LOT 232	CEDAR PK. DR./FIRST AVE. N. WELLAND CITY ON	SSE/246.3	-0.61	32
15	CA	CEDAR PARK ESTATES - PT. LOT 232	CEDAR PK. DR./ FIRST AVE. N. WELLAND CITY ON	SSE/246.3	-0.61	32
16	WWIS		lot 235 ON ***Well ID:*** 6601899	SW/247.5	2.39	32
17	WWIS		235 MERRIT RD PELHAM ON ***Well ID:*** 7041945	WNW/248.3	3.39	35
17	WWIS		REGIONAL MUNICIPALITY OF NIAGARA PELHAM ON ***Well ID:*** 7103274	WNW/248.3	3.39	38

Executive Summary: Summary By Data Source

BORE - Borehole

A search of the BORE database, dated 1875-Jul 2018 has found that there are 5 BORE site(s) within approximately 0.25 kilometers of the project property.

Site	Address	Distance (m)	Map Key
	ON	3.5	2
	ON	4.6	3
	ON	4.7	4
	ON	18.0	6
	ON	18.1	7

CA - Certificates of Approval

A search of the CA database, dated 1985-Oct 30, 2011* has found that there are 5 CA site(s) within approximately 0.25 kilometers of the project property.

Site	Address	Distance (m)	Map Key
FRANK SILVESTRI - COLLEGE PARK SUBD.PHII	STREET A QUAKER RD/FIRST AVE. WELLAND CITY ON	12.3	5
WELLAND CITY	FIRST AVE/QUAKER ROAD WELLAND CITY ON	12.3	5
FRANK SILVESTRI - COLLEGE PARK SUBD.PHII	STREET A QUAKER RD/FIRST AVE. WELLAND CITY ON	12.3	5

Site	Address	Distance (m)	Map Key
CEDAR PARK ESTATES - PT. LOT 232	CEDAR PK. DR./ FIRST AVE. N. WELLAND CITY ON	246.3	15
CEDAR PARK ESTATES - PT. LOT 232	CEDAR PK. DR./FIRST AVE. N. WELLAND CITY ON	246.3	15

EHS - ERIS Historical Searches

A search of the EHS database, dated 1999-Nov 30, 2021 has found that there are 3 EHS site(s) within approximately 0.25 kilometers of the project property.

Site	Address	Distance (m)	Map Key
	744 First Ave Welland ON L3B 5N5	125.9	11
	744 First Ave Welland ON L3B 5N5	125.9	11
	450 & 509 Rice Road Welland ON L3C 2W1	208.7	13

GEN - Ontario Regulation 347 Waste Generators Summary

A search of the GEN database, dated 1986-Nov 30, 2021 has found that there are 2 GEN site(s) within approximately 0.25 kilometers of the project property.

Site	Address	Distance (m)	Map Key
Welland Hydro Electric System Corp.	333 Quaker Road Welland ON L3C 3G7	87.7	8
NIAGARA, DISTRICT SCHOOL BOARD OF	QUAKER ROAD ELEMENTARY SCHOOL 333 QUAKER AVENUE WELLAND ON L3C 3G7	87.7	8

PINC - Pipeline Incidents

A search of the PINC database, dated May 31, 2021 has found that there are 1 PINC site(s) within approximately 0.25 kilometers of the project property.

Site	Address	Distance (m)	Map Key
PIPELINE HIT 1/2"	110 REDWOOD CRT,,WELLAND,ON,L3C 7C4,CA ON	162.9	12

SPL - Ontario Spills

A search of the SPL database, dated 1988-Sep 2020 has found that there are 3 SPL site(s) within approximately 0.25 kilometers of the project property.

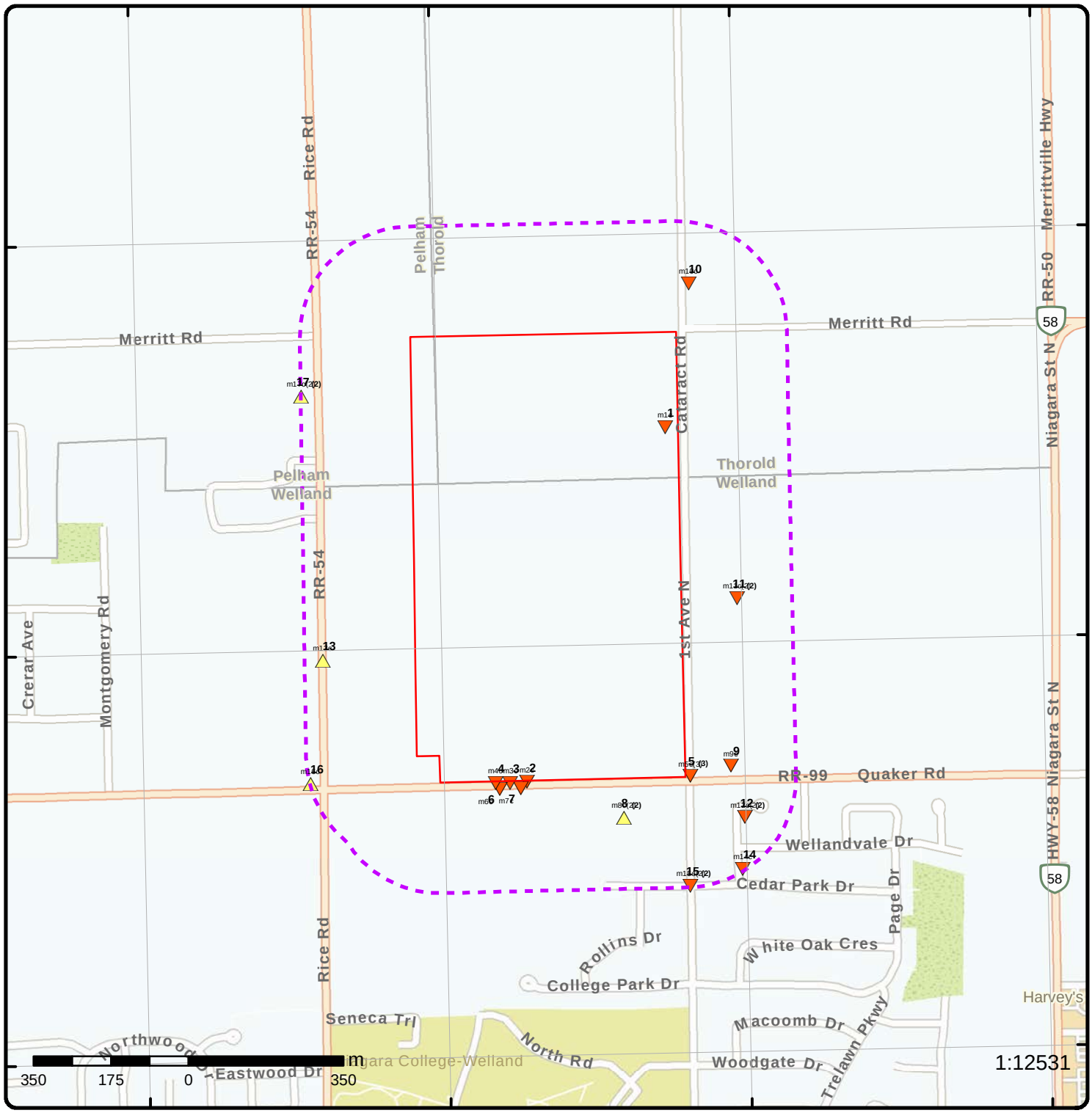
Site	Address	Distance (m)	Map Key
Avertex Utility Solutions Inc.	1st Ave North (Cataract) just south of Merritt St Thorold ON	0.0	1
	110 Redwood crt Welland ON	162.9	12
Welland Hydro-Electric System Corp.	196 Cedar Park Dr. Welland ON	245.0	14

WWIS - Water Well Information System

A search of the WWIS database, dated Apr 30, 2021 has found that there are 5 WWIS site(s) within approximately 0.25 kilometers of the project property.

Site	Address	Distance (m)	Map Key
	lot 227 ON ***Well ID:*** 6603630	103.6	9
	lot 221 ON ***Well ID:*** 6601881	112.7	10
	lot 235 ON ***Well ID:*** 6601899	247.5	16

Site	Address	Distance (m)	Map Key
	235 MERRIT RD PELHAM ON ***Well ID:*** 7041945	248.3	17
	REGIONAL MUNICIPALITY OF NIAGARA PELHAM ON ***Well ID:*** 7103274	248.3	17



Map: 0.25 Kilometer Radius

Order Number: 22012401207

Address: Northwest Corner of Quaker Road and First Avenue, Welland, ON

- Project Property
- Buffer Outline
- Eris Sites with Higher Elevation
- Eris Sites with Same Elevation
- Eris Sites with Lower Elevation
- Eris Sites with Unknown Elevation
- Freeways; Highways
- Traffic Circle; Ramp
- Major Arterial; Minor Arterial
- Local Road
- Service Road; Traffic Circle; Ramp
- Rail
- Beach
- Airport
- Industrial Area
- Military Base
- Aircraft Roads
- Native Reservation
- Hospital
- Shopping & Sports Area
- University/College
- Cemetery; Golf Course
- Parkt (National)
- Park (City/County)

79°16'30"W

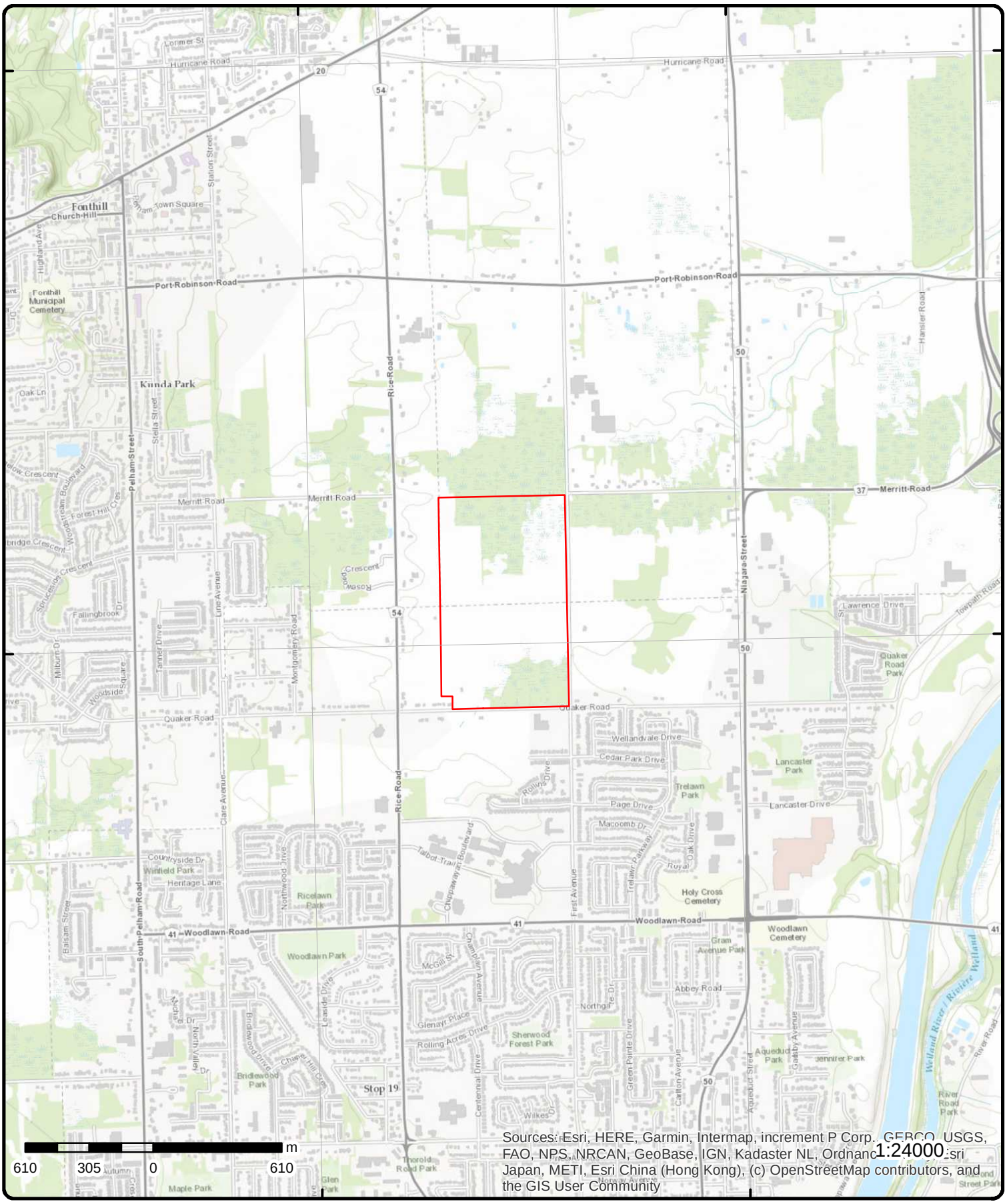
Aerial

Year: 2020

Order Number: 22012401207

Address: Northwest Corner of Quaker Road and First Avenue, Welland, ON

Source: ESRI World Imagery



Topographic Map

Order Number: 22012401207

Address: Northwest Corner of Quaker Road and First Avenue, ON

Source: ESRI World Topographic Map

Detail Report

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
1	1 of 1	NE/0.0	181.6 / -0.80	Avertex Utility Solutions Inc. 1st Ave North (Cataract) just south of Merritt St Thorold ON	SPL

Ref No:	0124-6Z2K87	**Discharger Report:**	
Site No:		**Material Group:**	Other
Incident Dt:		**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Other Discharges	**Sector Type:**	Tank Truck
Incident Event:		**Agency Involved:**	
Contaminant Code:	98	**Nearest Watercourse:**	
Contaminant Name:	UNKNOWN	**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Not Anticipated	**Site Municipality:**	Thorold
Nature of Impact:	Surface Water Pollution	**Site Lot:**	
Receiving Medium:	Water	**Site Conc:**	
Receiving Env:		**Northing:**	4765548
MOE Response:	Priority Field Response	**Easting:**	641726
Dt MOE Arvl on Scn:	3/6/2007	**Site Geo Ref Accu:**	
MOE Reported Dt:	3/6/2007	**Site Map Datum:**	
Dt Document Closed:	6/9/2007	**SAC Action Class:**	
Incident Reason:		**Source Type:**	

Site Name: Unknown Swale at Vacant Land - Duffin Apple Works-Owner<UNOFFICIAL>
Site County/District:
Site Geo Ref Meth:
Incident Summary: Thorold - Discharge unknown substance to creek
Contaminant Qty: 0 Other - see incident Description

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
2	1 of 1	S/3.5	181.8 / -0.61	ON	BORE

Borehole ID:	857586	**Inclin FLG:**	No
OGF ID:	215577584	**SP Status:**	Initial Entry
Status:	Decommissioned	**Surv Elev:**	No
Type:	Borehole	**Piezometer:**	No
Use:	Geotechnical/Geological Investigation	**Primary Name:**	
Completion Date:	27-JAN-1965	**Municipality:**	
Static Water Level:	2.4	**Lot:**	
Primary Water Use:		**Township:**	
Sec. Water Use:		**Latitude DD:**	43.022239
Total Depth m:	30.9	**Longitude DD:**	-79.264429
Depth Ref:	Ground Surface	**UTM Zone:**	17
Depth Elev:		**Easting:**	641414
Drill Method:	Diamond Drill	**Northing:**	4764746
Orig Ground Elev m:	183	**Location Accuracy:**	
Elev Reliabil Note:		**Accuracy:**	Within 10 metres
DEM Ground Elev m:	182		
Concession:			

Location D: Quaker Road and Proposed Hwy.#406, Line 'E', District #4 (Hamilton). Site is located approx. 500 yards North of the City of Welland boundary line in the Township of Thorold, County of Welland
Survey D:

Comments:

Borehole Geology Stratum

Geology Stratum ID:	220432857	***Mat Consistency:***	Firm
Top Depth:	0	***Material Moisture:***	
Bottom Depth:	7	***Material Texture:***	
Material Color:	Brown-Grey	***Non Geo Mat Type:***	
Material 1:	Clay	***Geologic Formation:***	
Material 2:	Silty	***Geologic Group:***	
Material 3:	Clay	***Geologic Period:***	
Material 4:		***Depositional Gen:***	

Gsc Material Description:

Stratum Description: Silty clay to clay. Firm to hard. Brown and grey **Note: Many records provided by the department have a truncated [Stratum Description] field.

Geology Stratum ID:	220432858	***Mat Consistency:***	Loose
Top Depth:	7	***Material Moisture:***	
Bottom Depth:	30.9	***Material Texture:***	
Material Color:	Brown	***Non Geo Mat Type:***	
Material 1:	Silt	***Geologic Formation:***	
Material 2:	Clayey	***Geologic Group:***	
Material 3:	Silt	***Geologic Period:***	
Material 4:	Sand	***Depositional Gen:***	

Gsc Material Description:

Stratum Description: Clayey silt to silt with traces of sand and gravel. Loose to dense. Brown **Note: Many records provided by the department have a truncated [Stratum Description] field.

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3 ***1 of 1*** ***SSW/4.6*** ***181.8 / -0.61*** ***ON*** ***BORE***

Borehole ID:	857588	***Inclin FLG:***	No
OGF ID:	215577586	***SP Status:***	Initial Entry
Status:	Decommissioned	***Surv Elev:***	No
Type:	Borehole	***Piezometer:***	No
Use:	Geotechnical/Geological Investigation	***Primary Name:***	
Completion Date:	14-JAN-1965	***Municipality:***	
Static Water Level:	2.1	***Lot:***	
Primary Water Use:		***Township:***	
Sec. Water Use:		***Latitude DD:***	43.022228
Total Depth m:	9.6	***Longitude DD:***	-79.264896
Depth Ref:	Ground Surface	***UTM Zone:***	17
Depth Elev:		***Easting:***	641376
Drill Method:	Hollow stem auger	***Northing:***	4764744
Orig Ground Elev m:	183	***Location Accuracy:***	
Elev Reliabil Note:		***Accuracy:***	Within 10 metres
DEM Ground Elev m:	182		
Concession:			

Location D: Quaker Road and Proposed Hwy.#406, Line 'E', District #4 (Hamilton). Site is located approx. 500 yards North of the City of Welland boundary line in the Township of Thorold, County of Welland

Survey D:

Comments:

Borehole Geology Stratum

Geology Stratum ID:	220432861	***Mat Consistency:***	Firm
Top Depth:	0	***Material Moisture:***	
Bottom Depth:	7.6	***Material Texture:***	
Material Color:	Brown-Grey	***Non Geo Mat Type:***	
Material 1:	Clay	***Geologic Formation:***	
Material 2:	Silty	***Geologic Group:***	
Material 3:	Clay	***Geologic Period:***	
Material 4:		***Depositional Gen:***	

Gsc Material Description:
Stratum Description: Silty clay to clay. Firm to hard. Brown and grey **Note: Many records provided by the department have a truncated [Stratum Description] field.

Geology Stratum ID:	220432862	**Mat Consistency:**	Loose
Top Depth:	7.6	**Material Moisture:**	
Bottom Depth:	9.6	**Material Texture:**	
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Silt	**Geologic Formation:**	
Material 2:	Clayey	**Geologic Group:**	
Material 3:	Silt	**Geologic Period:**	
Material 4:		**Depositional Gen:**	

Gsc Material Description:
Stratum Description: Clayey silt to silt. Loose. Brown **Note: Many records provided by the department have a truncated [Stratum Description] field.

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4 **1 of 1** **SSW/4.7** **181.8 / -0.61** **ON** **BORE**

Borehole ID:	857590	**Inclin FLG:**	No
OGF ID:	215577588	**SP Status:**	Initial Entry
Status:	Decommissioned	**Surv Elev:**	No
Type:	Borehole	**Piezometer:**	No
Use:	Geotechnical/Geological Investigation	**Primary Name:**	
Completion Date:	20-JAN-1965	**Municipality:**	
Static Water Level:	1.7	**Lot:**	
Primary Water Use:		**Township:**	
Sec. Water Use:		**Latitude DD:**	43.022226
Total Depth m:	21.8	**Longitude DD:**	-79.265301
Depth Ref:	Ground Surface	**UTM Zone:**	17
Depth Elev:		**Easting:**	641343
Drill Method:	Hollow stem auger	**Northing:**	4764743
Orig Ground Elev m:	183	**Location Accuracy:**	
Elev Reliabil Note:		**Accuracy:**	Within 10 metres
DEM Ground Elev m:	182		
Concession:			

Location D: Quaker Road and Proposed Hwy.#406, Line 'E', District #4 (Hamilton). Site is located approx. 500 yards North of the City of Welland boundary line in the Township of Thorold, County of Welland

Survey D:
Comments:

Borehole Geology Stratum

Geology Stratum ID:	220432866	**Mat Consistency:**	Compact
Top Depth:	7	**Material Moisture:**	
Bottom Depth:	21.8	**Material Texture:**	
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Silt	**Geologic Formation:**	
Material 2:	Clayey	**Geologic Group:**	
Material 3:	Sand	**Geologic Period:**	
Material 4:	Gravel	**Depositional Gen:**	

Gsc Material Description:
Stratum Description: Clayey silt with traces of sand and gravel. Compact to very dense. Brown **Note: Many records provided by the department have a truncated [Stratum Description] field.

Geology Stratum ID:	220432865	**Mat Consistency:**	Stiff
Top Depth:	0	**Material Moisture:**	
Bottom Depth:	7	**Material Texture:**	
Material Color:	Brown-Grey	**Non Geo Mat Type:**	
Material 1:	Clay	**Geologic Formation:**	
Material 2:	Silty	**Geologic Group:**	
Material 3:	Calcite	**Geologic Period:**	
Material 4:		**Depositional Gen:**	

Gsc Material Description:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Stratum Description:		Silty clay to clay. Stiff to hard. Brown and grey **Note: Many records provided by the department have a truncated [Stratum Description] field.			
5	*1 of 3*	***SE/12.3***	***180.8 / -1.61***	***FRANK SILVESTRI - COLLEGE PARK SUBD.PHII*** ***STREET A QUAKER RD/FIRST AVE.*** ***WELLAND CITY ON***	***CA***
Certificate #:		3-0141-90-			
Application Year:		90			
Issue Date:		2/9/1990			
Approval Type:		Municipal sewage			
Status:		Approved			
Application Type:					
Client Name:					
Client Address:					
Client City:					
Client Postal Code:					
Project Description:					
Contaminants:					
Emission Control:					
5	*2 of 3*	***SE/12.3***	***180.8 / -1.61***	***WELLAND CITY*** ***FIRST AVE/QUAKER ROAD*** ***WELLAND CITY ON***	***CA***
Certificate #:		3-0335-95-			
Application Year:		95			
Issue Date:		4/18/1995			
Approval Type:		Municipal sewage			
Status:		Approved			
Application Type:					
Client Name:					
Client Address:					
Client City:					
Client Postal Code:					
Project Description:					
Contaminants:					
Emission Control:					
5	*3 of 3*	***SE/12.3***	***180.8 / -1.61***	***FRANK SILVESTRI - COLLEGE PARK SUBD.PHII*** ***STREET A QUAKER RD/FIRST AVE.*** ***WELLAND CITY ON***	***CA***
Certificate #:		7-0109-90-			
Application Year:		90			
Issue Date:		2/9/1990			
Approval Type:		Municipal water			
Status:		Approved			
Application Type:					
Client Name:					
Client Address:					
Client City:					
Client Postal Code:					
Project Description:					
Contaminants:					
Emission Control:					
6	*1 of 1*	***SSW/18.0***	***181.8 / -0.61***	***ON***	***BORE***

Borehole ID:	857589	**Inclin FLG:**	No
OGF ID:	215577587	**SP Status:**	Initial Entry
Status:	Decommissioned	**Surv Elev:**	No
Type:	Borehole	**Piezometer:**	No
Use:	Geotechnical/Geological Investigation	**Primary Name:**	
Completion Date:	13-JAN-1965	**Municipality:**	
Static Water Level:	1.8	**Lot:**	
Primary Water Use:		**Township:**	
Sec. Water Use:		**Latitude DD:**	43.022107
Total Depth m:	9.6	**Longitude DD:**	-79.265182
Depth Ref:	Ground Surface	**UTM Zone:**	17
Depth Elev:		**Easting:**	641353
Drill Method:	Hollow stem auger	**Northing:**	4764730
Orig Ground Elev m:	183	**Location Accuracy:**	
Elev Reliabil Note:		**Accuracy:**	Within 10 metres
DEM Ground Elev m:	182		
Concession:			
Location D:	Quaker Road and Proposed Hwy.#406, Line 'E', District #4 (Hamilton). Site is located approx. 500 yards North of the City of Welland boundary line in the Township of Thorold, County of Welland		
Survey D:			
Comments:			

Borehole Geology Stratum

Geology Stratum ID:	220432864	**Mat Consistency:**	Dense
Top Depth:	7.5	**Material Moisture:**	
Bottom Depth:	9.6	**Material Texture:**	
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Silt	**Geologic Formation:**	
Material 2:	Clayey	**Geologic Group:**	
Material 3:	Silt	**Geologic Period:**	
Material 4:		**Depositional Gen:**	
Gsc Material Description:			
Stratum Description:	Clayey silt to silt. Dense. Brown **Note: Many records provided by the department have a truncated [Stratum Description] field.		

Geology Stratum ID:	220432863	**Mat Consistency:**	Stiff
Top Depth:	0	**Material Moisture:**	
Bottom Depth:	7.5	**Material Texture:**	
Material Color:	Brown-Grey	**Non Geo Mat Type:**	
Material 1:	Clay	**Geologic Formation:**	
Material 2:	Silty	**Geologic Group:**	
Material 3:	Clay	**Geologic Period:**	
Material 4:		**Depositional Gen:**	
Gsc Material Description:			
Stratum Description:	Silty clay to clay. Stiff to hard. Brown and grey **Note: Many records provided by the department have a truncated [Stratum Description] field.		

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7 ***1 of 1*** ***S/18.1*** ***182.4 / -0.06*** ***ON*** ***BORE***

Borehole ID:	857587	**Inclin FLG:**	No
OGF ID:	215577585	**SP Status:**	Initial Entry
Status:	Decommissioned	**Surv Elev:**	No
Type:	Borehole	**Piezometer:**	No
Use:	Geotechnical/Geological Investigation	**Primary Name:**	
Completion Date:	15-JAN-1965	**Municipality:**	
Static Water Level:	0.8	**Lot:**	
Primary Water Use:		**Township:**	
Sec. Water Use:		**Latitude DD:**	43.022107
Total Depth m:	9.1	**Longitude DD:**	-79.264605
Depth Ref:	Ground Surface	**UTM Zone:**	17
Depth Elev:		**Easting:**	641400
Drill Method:	Hollow stem auger	**Northing:**	4764731

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Orig Ground Elev m:	183	**Location Accuracy:**	
Elev Reliabil Note:		**Accuracy:**	Within 10 metres
DEM Ground Elev m:	183		
Concession:			
Location D:	Quaker Road and Proposed Hwy.#406, Line 'E', District #4 (Hamilton). Site is located approx. 500 yards North of the City of Welland boundary line in the Township of Thorold, County of Welland		
Survey D:			
Comments:			

Borehole Geology Stratum

Geology Stratum ID:	220432859	**Mat Consistency:**	Hard
Top Depth:	0	**Material Moisture:**	
Bottom Depth:	7.2	**Material Texture:**	
Material Color:	Grey-Brown	**Non Geo Mat Type:**	
Material 1:	Clay	**Geologic Formation:**	
Material 2:	Silty	**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	
Gsc Material Description:			
Stratum Description:	Silty clay. Hard to stiff. Grey brown **Note: Many records provided by the department have a truncated [Stratum Description] field.		

Geology Stratum ID:	220432860	**Mat Consistency:**	
Top Depth:	7.2	**Material Moisture:**	
Bottom Depth:	9.1	**Material Texture:**	
Material Color:	Brown-Grey	**Non Geo Mat Type:**	
Material 1:	Silt	**Geologic Formation:**	
Material 2:		**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	
Gsc Material Description:			
Stratum Description:	Silt. Brown-grey **Note: Many records provided by the department have a truncated [Stratum Description] field.		

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8 | ***1 of 2*** | ***SSE/87.7*** | ***182.8 / 0.39*** | ***NIAGARA, DISTRICT SCHOOL BOARD OF QUAKER ROAD ELEMENTARY SCHOOL 333 QUAKER AVENUE WELLAND ON L3C 3G7*** | ***GEN***

Generator No:	ON0001762	**Status:**	
SIC Code:	8511	**Co Admin:**	
SIC Description:	ELEMT./SECON. EDUC.	**Choice of Contact:**	
Approval Years:	98,99,00,01	**Phone No Admin:**	
PO Box No:		**Contam. Facility:**	
Country:		**MHSW Facility:**	

Detail(s)

Waste Class:	145
Waste Class Desc:	PAINT/PIGMENT/COATING RESIDUES
Waste Class:	148
Waste Class Desc:	INORGANIC LABORATORY CHEMICALS
Waste Class:	252
Waste Class Desc:	WASTE OILS & LUBRICANTS
Waste Class:	263
Waste Class Desc:	ORGANIC LABORATORY CHEMICALS
Waste Class:	331
Waste Class Desc:	WASTE COMPRESSED GASES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
8	2 of 2	SSE/87.7	182.8 / 0.39	Welland Hydro Electric System Corp. 333 Quaker Road Welland ON L3C 3G7	GEN

Generator No:	ON5530581	**Status:**	
SIC Code:	611110	**Co Admin:**	
SIC Description:	Elementary and Secondary Schools	**Choice of Contact:**	
Approval Years:	05	**Phone No Admin:**	
PO Box No:		**Contam. Facility:**	
Country:		**MHSW Facility:**	

Detail(s)

Waste Class:	252
Waste Class Desc:	WASTE OILS & LUBRICANTS
Waste Class:	253
Waste Class Desc:	EMULSIFIED OILS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	1 of 1	SE/103.6	179.8 / -2.61	lot 227 ON	WWIS

Well ID:	6603630	**Data Entry Status:**	
Construction Date:		**Data Src:**	1
Primary Water Use:	Domestic	**Date Received:**	11/8/1984
Sec. Water Use:	0	**Selected Flag:**	True
Final Well Status:	Water Supply	**Abandonment Rec:**	
Water Type:		**Contractor:**	3640
Casing Material:		**Form Version:**	1
Audit No:		**Owner:**	
Tag:		**Street Name:**	
Construction Method:		**County:**	NIAGARA
Elevation (m):		**Municipality:**	THOROLD TOWN (THOROLD)
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	227
Well Depth:		**Concession:**	
Overburden/Bedrock:		**Concession Name:**	
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/660\6603630.pdf

Additional Detail(s) (Map)

Well Completed Date:	1984/09/20
Year Completed:	1984
Depth (m):	32.6136
Latitude:	43.0224864943446
Longitude:	-79.2587659042631
Path:	660\6603630.pdf

Bore Hole Information

Bore Hole ID:	10463230	**Elevation:**	180.979614
DP2BR:	100.00	**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:	r	**East83:**	641874.90
Code OB Desc:	Bedrock	**North83:**	4764783.00
Open Hole:		**Org CS:**	

Cluster Kind:
Date Completed: 20-Sep-1984 00:00:00
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: p4

Overburden and Bedrock Materials Interval

Formation ID: 932598994
Layer: 2
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2: 79
Mat2 Desc: PACKED
Mat3:
Mat3 Desc:
Formation Top Depth: 4.0
Formation End Depth: 14.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932598998
Layer: 6
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2: 11
Mat2 Desc: GRAVEL
Mat3:
Mat3 Desc:
Formation Top Depth: 85.0
Formation End Depth: 100.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932598997
Layer: 5
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2: 79
Mat2 Desc: PACKED
Mat3:
Mat3 Desc:
Formation Top Depth: 30.0
Formation End Depth: 85.0
Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID:	932598999
Layer:	7
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	100.0
Formation End Depth:	107.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932598995
Layer:	3
Color:	2
General Color:	GREY
Mat1:	05
Most Common Material:	CLAY
Mat2:	66
Mat2 Desc:	DENSE
Mat3:	
Mat3 Desc:	
Formation Top Depth:	14.0
Formation End Depth:	20.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932598993
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	08
Most Common Material:	FINE SAND
Mat2:	66
Mat2 Desc:	DENSE
Mat3:	
Mat3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	4.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932598996
Layer:	4
Color:	6
General Color:	BROWN
Mat1:	08
Most Common Material:	FINE SAND
Mat2:	85
Mat2 Desc:	SOFT
Mat3:	
Mat3 Desc:	

Formation Top Depth:	20.0
Formation End Depth:	30.0
Formation End Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	966603630
Method Construction Code:	1
Method Construction:	Cable Tool
Other Method Construction:	

Pipe Information

Pipe ID:	11011800
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930752603
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	100
Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Casing

Casing ID:	930752604
Layer:	2
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	107
Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Results of Well Yield Testing

Pump Test ID:	996603630
Pump Set At:	
Static Level:	36.0
Final Level After Pumping:	80.0
Recommended Pump Depth:	95.0
Pumping Rate:	8.0
Flowing Rate:	
Recommended Pump Rate:	7.0
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	2
Pumping Duration HR:	3
Pumping Duration MIN:	0
Flowing:	No

Draw Down & Recovery

Pump Test Detail ID:	935129851
Test Type:	Draw Down
Test Duration:	60
Test Level:	80.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934611295
Test Type:	Draw Down
Test Duration:	30
Test Level:	80.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934343519
Test Type:	Draw Down
Test Duration:	15
Test Level:	80.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934865067
Test Type:	Draw Down
Test Duration:	45
Test Level:	80.0
Test Level UOM:	ft

Water Details

Water ID:	933950928
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	101.0
Water Found Depth UOM:	ft

10	*1 of 1*	*NE/112.7*	*180.8 / -1.61*	*lot 221 ON*	*WWIS*

Well ID:	6601881	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Domestic	***Date Received:***	2/22/1966
Sec. Water Use:	0	***Selected Flag:***	True
Final Well Status:	Water Supply	***Abandonment Rec:***	
Water Type:		***Contractor:***	3608
Casing Material:		***Form Version:***	1
Audit No:		***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	NIAGARA
Elevation (m):		***Municipality:***	THOROLD TOWN (THOROLD)
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	221
Well Depth:		***Concession:***	
Overburden/Bedrock:		***Concession Name:***	
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	

Flowing (Y/N): ***Zone:***
Flow Rate: ***UTM Reliability:***
Clear/Cloudy:

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/660\6601881.pdf

Additional Detail(s) (Map)

Well Completed Date: 1965/12/02
Year Completed: 1965
Depth (m): 46.0248
Latitude: 43.0323153765295
Longitude: -79.2596663578377
Path: 660\6601881.pdf

Bore Hole Information

Bore Hole ID: 10461614 ***Elevation:*** 180.446929
DP2BR: 147.00 ***Elevrc:***
Spatial Status: ***Zone:*** 17
Code OB: r ***East83:*** 641778.90
Code OB Desc: Bedrock ***North83:*** 4765873.00
Open Hole: ***Org CS:***
Cluster Kind: ***UTMRC:*** 5
Date Completed: 02-Dec-1965 00:00:00 ***UTMRC Desc:*** margin of error : 100 m - 300 m
Remarks: ***Location Method:*** p5
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Overburden and Bedrock Materials Interval

Formation ID: 932593434
Layer: 5
Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 147.0
Formation End Depth: 151.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932593433
Layer: 4
Color: 7
General Color: RED
Mat1: 11
Most Common Material: GRAVEL
Mat2:
Mat2 Desc:
Mat3:

Mat3 Desc:
Formation Top Depth: 130.0
Formation End Depth: 147.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932593432
Layer: 3
Color: 7
General Color: RED
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 42.0
Formation End Depth: 130.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932593431
Layer: 2
Color:
General Color:
Mat1: 02
Most Common Material: TOPSOIL
Mat2: 09
Mat2 Desc: MEDIUM SAND
Mat3:
Mat3 Desc:
Formation Top Depth: 20.0
Formation End Depth: 42.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932593430
Layer: 1
Color: 3
General Color: BLUE
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 20.0
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 966601881
Method Construction Code: 1
Method Construction: Cable Tool

Other Method Construction:

Pipe Information

Pipe ID: 11010184
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930749900
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 148
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930749901
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 151
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 996601881
Pump Set At:
Static Level: 16.0
Final Level After Pumping: 20.0
Recommended Pump Depth: 65.0
Pumping Rate: 10.0
Flowing Rate:
Recommended Pump Rate: 10.0
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 1
Water State After Test: CLEAR
Pumping Test Method: 1
Pumping Duration HR: 1
Pumping Duration MIN: 0
Flowing: No

Water Details

Water ID: 933949178
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 150.0
Water Found Depth UOM: ft

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
11	1 of 2	E/125.9	180.5 / -1.96	744 First Ave Welland ON L3B 5N5	EHS

Order No:	21061500188	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	RSC Report - Quote	**Client Prov/State:**	ON
Report Date:	18-JUN-21	**Search Radius (km):**	.3
Date Received:	15-JUN-21	**X:**	-79.25849975
Previous Site Name:		**Y:**	43.0258951
Lot/Building Size:			
Additional Info Ordered:	Fire Insur. Maps and/or Site Plans; Aerial Photos		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
11	2 of 2	E/125.9	180.5 / -1.96	744 First Ave Welland ON L3B 5N5	EHS

Order No:	21061500188	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	RSC Report - Quote	**Client Prov/State:**	ON
Report Date:	18-JUN-21	**Search Radius (km):**	.3
Date Received:	15-JUN-21	**X:**	-79.25849975
Previous Site Name:		**Y:**	43.0258951
Lot/Building Size:			
Additional Info Ordered:	Fire Insur. Maps and/or Site Plans; Aerial Photos		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
12	1 of 2	SE/162.9	180.8 / -1.61	110 Redwood crt Welland ON	SPL

Ref No:	2570-AYLLR3	**Discharger Report:**	
Site No:	NA	**Material Group:**	
Incident Dt:	2018/05/02	**Health/Env Conseq:**	2 - Minor Environment
Year:		**Client Type:**	
Incident Cause:		**Sector Type:**	Miscellaneous Industrial
Incident Event:	Leak/Break	**Agency Involved:**	
Contaminant Code:	35	**Nearest Watercourse:**	
Contaminant Name:	NATURAL GAS (METHANE)	**Site Address:**	110 Redwood crt
Contaminant Limit 1:		**Site District Office:**	Niagara
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:	1075	**Site Region:**	West Central
Environment Impact:		**Site Municipality:**	Welland
Nature of Impact:		**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:	Air	**Northing:**	4764535.68
MOE Response:	No	**Easting:**	641884.73
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	2018/05/09	**Site Map Datum:**	
Dt Document Closed:	2018/05/12	**SAC Action Class:**	TSSA - Fuel Safety Branch - Hydrocarbon Fuel Release/Spill
Incident Reason:	Operator/Human Error	**Source Type:**	Pipeline/Components
Site Name:	strike<UNOFFICIAL>		
Site County/District:	Regional Municipality of Niagara		
Site Geo Ref Meth:			
Incident Summary:	TSSA FSB: 0.5" pl IP line strike, made safe		
Contaminant Qty:	0 other - see incident description		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
12	2 of 2	SE/162.9	180.8 / -1.61	PIPELINE HIT 1/2" 110 REDWOOD CRT,,WELLAND,ON,L3C 7C4,CA ON	PINC

Incident ID:		**Pipe Material:**	
Incident No:	2311062	**Fuel Category:**	
Incident Reported Dt:	5/23/2018	**Health Impact:**	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Type:	FS-Pipeline Incident	**Environment Impact:**	
Status Code:		**Property Damage:**	
Tank Status:	Pipeline Damage Reason Est	**Service Interrupt:**	
Task No:		**Enforce Policy:**	
Spills Action Centre:		**Public Relation:**	
Fuel Type:		**Pipeline System:**	
Fuel Occurrence Tp:		**PSIG:**	
Date of Occurrence:		**Attribute Category:**	
Occurrence Start Dt:		**Regulator Location:**	
Depth:		**Method Details:**	
Customer Acct Name:	PIPELINE HIT 1/2"		
Incident Address:	110 REDWOOD CRT,,WELLAND,ON,L3C 7C4,CA		
Operation Type:			
Pipeline Type:			
Regulator Type:			
Summary:			
Reported By:			
Affiliation:			
Occurrence Desc:			
Damage Reason:			
Notes:			

13	1 of 1	WSW/208.7	185.1 / 2.63	**450 & 509 Rice Road** **Welland ON L3C 2W1**	EHS

Order No:	21112600074	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Standard Express Report	**Client Prov/State:**	ON
Report Date:	26-NOV-21	**Search Radius (km):**	.25
Date Received:	26-NOV-21	**X:**	-79.2700223
Previous Site Name:		**Y:**	43.0247969
Lot/Building Size:			
Additional Info Ordered:			

14	1 of 1	SE/245.0	180.8 / -1.61	**Welland Hydro-Electric System Corp.** **196 Cedar Park Dr.** **Welland ON**	SPL

Ref No:	8802-95WJ45	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:	18-MAR-13	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Leak/Break	**Sector Type:**	Transformer
Incident Event:		**Agency Involved:**	
Contaminant Code:	15	**Nearest Watercourse:**	
Contaminant Name:	TRANSFORMER OIL (N.O.S.)	**Site Address:**	196 Cedar Park Dr.
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Confirmed	**Site Municipality:**	Welland
Nature of Impact:	Soil Contamination	**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	
MOE Response:	Planned Field Response	**Easting:**	
Dt MOE Arvl on Scn:	20-MAR-13	**Site Geo Ref Accu:**	
MOE Reported Dt:	18-MAR-13	**Site Map Datum:**	
Dt Document Closed:		**SAC Action Class:**	Land Spills
Incident Reason:	Corrosion	**Source Type:**	
Site Name:	road allowance - pad mount transformer<UNOFFICIAL>		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Welland Hydro: 10L trans oil to gnd.		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Contaminant Qty:		10 L			

15	1 of 2	SSE/246.3	181.8 / -0.61	CEDAR PARK ESTATES - PT. LOT 232 CEDAR PK. DR./FIRST AVE. N. WELLAND CITY ON	CA

Certificate #: 3-0016-92-
Application Year: 92
Issue Date: 1/24/1992
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

15	2 of 2	SSE/246.3	181.8 / -0.61	CEDAR PARK ESTATES - PT. LOT 232 CEDAR PK. DR./ FIRST AVE. N. WELLAND CITY ON	CA

Certificate #: 7-0012-92-
Application Year: 92
Issue Date: 1/24/1992
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

16	1 of 1	SW/247.5	184.8 / 2.39	lot 235 ON	WWIS

Well ID: 6601899
Construction Date:
Primary Water Use: Public
Sec. Water Use: 0
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No:
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:

Data Entry Status:
Data Src: 1
Date Received: 12/13/1950
Selected Flag: True
Abandonment Rec:
Contractor: 3409
Form Version: 1
Owner:
Street Name:
County: NIAGARA
Municipality: WELLAND CITY (THOROLD)
Site Info:
Lot: 235
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Clear/Cloudy:

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/660\6601899.pdf

Additional Detail(s) (Map)

Well Completed Date: 1948/11/20
Year Completed: 1948
Depth (m): 33.8328
Latitude: 43.0223032187704
Longitude: -79.2704301725808
Path: 660\6601899.pdf

Bore Hole Information

Bore Hole ID: 10461632
DP2BR: 107.00
Spatial Status:
Code OB: r
Code OB Desc: Bedrock
Open Hole:
Cluster Kind:
Date Completed: 20-Nov-1948 00:00:00
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 184.767227
Elevrc:
Zone: 17
East83: 640924.90
North83: 4764743.00
Org CS:
UTMRC: 5
UTMRC Desc: margin of error : 100 m - 300 m
Location Method: p5

Overburden and Bedrock Materials Interval

Formation ID: 932593514
Layer: 3
Color:
General Color:
Mat1: 15
Most Common Material: LIMESTONE
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 107.0
Formation End Depth: 111.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932593512
Layer: 1
Color: 3
General Color: BLUE
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0

Formation End Depth:	80.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932593513
Layer:	2
Color:	
General Color:	
Mat1:	08
Most Common Material:	FINE SAND
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	80.0
Formation End Depth:	107.0
Formation End Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	966601899
Method Construction Code:	1
Method Construction:	Cable Tool
Other Method Construction:	

Pipe Information

Pipe ID:	11010202
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930749934
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	107
Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Casing

Casing ID:	930749935
Layer:	2
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	111
Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Results of Well Yield Testing

Pump Test ID:	996601899
Pump Set At:	
Static Level:	35.0
Final Level After Pumping:	80.0
Recommended Pump Depth:	
Pumping Rate:	10.0
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	2
Pumping Duration HR:	
Pumping Duration MIN:	
Flowing:	No

Water Details

Water ID:	933949196
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	109.0
Water Found Depth UOM:	ft

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17 ***1 of 2*** ***WNW/248.3*** ***185.8 / 3.39*** ***235 MERRIT RD PELHAM ON*** ***WWIS***

Well ID:	7041945	**Data Entry Status:**	
Construction Date:		**Data Src:**	
Primary Water Use:		**Date Received:**	3/29/2007
Sec. Water Use:		**Selected Flag:**	True
Final Well Status:	Observation Wells	**Abandonment Rec:**	
Water Type:		**Contractor:**	6988
Casing Material:		**Form Version:**	3
Audit No:	Z53659	**Owner:**	
Tag:	A047420	**Street Name:**	235 MERRIT RD
Construction Method:		**County:**	NIAGARA
Elevation (m):		**Municipality:**	PELHAM TOWN
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	
Well Depth:		**Concession:**	
Overburden/Bedrock:		**Concession Name:**	
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/704\7041945.pdf

Additional Detail(s) (Map)

Well Completed Date:	2006/09/26
Year Completed:	2006
Depth (m):	4.3
Latitude:	43.0301829161722
Longitude:	-79.270465406743
Path:	704\7041945.pdf

Bore Hole Information

Bore Hole ID:	11764448	**Elevation:**	186.047424
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:	o	**East83:**	640904.00
Code OB Desc:	Overburden	**North83:**	4765618.00
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	3
Date Completed:	26-Sep-2006 00:00:00	**UTMRC Desc:**	margin of error : 10 - 30 m
Remarks:		**Location Method:**	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	933095605
Layer:	4
Color:	6
General Color:	BROWN
Mat1:	05
Most Common Material:	CLAY
Mat2:	29
Mat2 Desc:	FINE GRAVEL
Mat3:	06
Mat3 Desc:	SILT
Formation Top Depth:	2.0
Formation End Depth:	3.0
Formation End Depth UOM:	m

Overburden and Bedrock Materials Interval

Formation ID:	933095606
Layer:	5
Color:	6
General Color:	BROWN
Mat1:	05
Most Common Material:	CLAY
Mat2:	06
Mat2 Desc:	SILT
Mat3:	11
Mat3 Desc:	GRAVEL
Formation Top Depth:	3.0
Formation End Depth:	4.300000190734863
Formation End Depth UOM:	m

Overburden and Bedrock Materials Interval

Formation ID:	933095603
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	05
Most Common Material:	CLAY
Mat2:	06
Mat2 Desc:	SILT
Mat3:	66

Mat3 Desc:	DENSE
Formation Top Depth:	0.20000000298023224
Formation End Depth:	1.0
Formation End Depth UOM:	m

Overburden and Bedrock Materials Interval

Formation ID:	933095602
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	02
Most Common Material:	TOPSOIL
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	0.20000000298023224
Formation End Depth UOM:	m

Overburden and Bedrock Materials Interval

Formation ID:	933095604
Layer:	3
Color:	6
General Color:	BROWN
Mat1:	05
Most Common Material:	CLAY
Mat2:	11
Mat2 Desc:	GRAVEL
Mat3:	
Mat3 Desc:	
Formation Top Depth:	1.0
Formation End Depth:	2.0
Formation End Depth UOM:	m

Annular Space/Abandonment Sealing Record

Plug ID:	933316008
Layer:	1
Plug From:	0
Plug To:	0.600000023841858
Plug Depth UOM:	m

Method of Construction & Well Use

Method Construction ID:	967041945
Method Construction Code:	B
Method Construction:	Other Method
Other Method Construction:	

Pipe Information

Pipe ID:	11772168
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930897232
Layer:	1
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	0
Depth To:	0.899999976158142
Casing Diameter:	5.09999990463257
Casing Diameter UOM:	cm
Casing Depth UOM:	m

Construction Record - Screen

Screen ID:	933423714
Layer:	1
Slot:	10
Screen Top Depth:	0.899999976158142
Screen End Depth:	3.70000004768372
Screen Material:	5
Screen Depth UOM:	m
Screen Diameter UOM:	cm
Screen Diameter:	6

Hole Diameter

Hole ID:	11850701
Diameter:	10.199999809265137
Depth From:	0.0
Depth To:	4.300000190734863
Hole Depth UOM:	m
Hole Diameter UOM:	cm

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17 ***2 of 2*** ***WNW/248.3*** ***185.8 / 3.39*** ***REGIONAL MUNICIPALITY OF NIAGARA PELHAM ON*** ***WWIS***

Well ID:	7103274	***Data Entry Status:***	
Construction Date:		***Data Src:***	
Primary Water Use:		***Date Received:***	3/26/2008
Sec. Water Use:		***Selected Flag:***	True
Final Well Status:	Abandoned-Other	***Abandonment Rec:***	Yes
Water Type:		***Contractor:***	1129
Casing Material:		***Form Version:***	4
Audit No:	Z79029	***Owner:***	
Tag:	A047420	***Street Name:***	REGIONAL MUNICIPALITY OF NIAGARA
Construction Method:		***County:***	NIAGARA
Elevation (m):		***Municipality:***	PELHAM TOWN
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	
Well Depth:		***Concession:***	
Overburden/Bedrock:		***Concession Name:***	
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/710\7103274.pdf

Additional Detail(s) (Map)

Well Completed Date:	2007/08/27
Year Completed:	2007
Depth (m):	
Latitude:	43.0301829161722
Longitude:	-79.270465406743
Path:	710\7103274.pdf

Bore Hole Information

Bore Hole ID:	1001554408	**Elevation:**	186.047424
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	640904.00
Code OB Desc:		**North83:**	4765618.00
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	3
Date Completed:	27-Aug-2007 00:00:00	**UTMRC Desc:**	margin of error : 10 - 30 m
Remarks:		**Location Method:**	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1001565603
Layer:	1
Color:	
General Color:	
Mat1:	
Most Common Material:	
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	
Formation End Depth UOM:	m

Method of Construction & Well Use

Method Construction ID:	1001565607
Method Construction Code:	
Method Construction:	
Other Method Construction:	

Pipe Information

Pipe ID:	1001565601
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Screen

Screen ID:	1001565606
Layer:	
Slot:	

Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM:
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID:	1001565602
Pump Set At:	
Static Level:	
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	m
Rate UOM:	LPM
Water State After Test Code:	0
Water State After Test:	
Pumping Test Method:	0
Pumping Duration HR:	
Pumping Duration MIN:	
Flowing:	No

Water Details

Water ID:	1001565605
Layer:	1
Kind Code:	
Kind:	
Water Found Depth:	
Water Found Depth UOM:	m

Unplottable Summary

Total: 29 Unplottable sites

DB	Company Name/Site Name	Address	City	Postal
CA	PARON CONSTRUCTION PRINCE CHARLES DR.	70 UNIT HOTEL ON NIAGARA RD.54	WELLAND CITY ON	
CA	O.A.S. MANAGEMENT GROUP	MERRITT STREET	PELHAM TOWN ON	
CA	LANDREX HOMES (GUELPH) INC.	QUAKER RD./STREET 'A'	PELHAM TOWN ON	
CA	WELLAND COUNTY ROMAN CATHOLIC SEP. SCH.	P.S. RICE RD. 8-2101-89	WELLAND CITY ON	
CA	PARON CONSTRUCTION LTD. PRINCE CHARLES	70 UNIT HOTEL ON NIAGARA RD.54	WELLAND CITY ON	
CA	PARON CONSTRUCTION LIMITED	70 UNIT HOTEL ON NIAGARA RD.54	WELLAND CITY ON	
CA	WELLAND CITY	QUAKER ROAD	WELLAND CITY ON	
CA	WELLAND SOCCER CLUB	EASEMENT & QUAKER RD.	WELLAND CITY ON	
CA	LANDREX HOMES (GUELPH) INC.	QUAKER RD./STREET 'A'	PELHAM TOWN ON	
CA	WELLAND CITY	QUAKER ROAD	WELLAND CITY ON	
CA	RINALDI PROPERTIES (NIAGARA) INC.	CEDAR PK.RD/PAGE RD/REDWOOD CT	WELLAND ON	
CA	RINALDI PROPERTIES (NIAGARA) INC.	CEDAR PK.DR/PAGE RD/REDWOOD CT	WELLAND ON	
CA	BOARD OF GOVERNORS OF NIAGARA COLLEGE	FIRST AVE., WELLAND CAMPUS SWM	WELLAND CITY ON	
CA	THE CITY	RICE RD.	WELLAND ON	
CA	RIVER REALTY DEVELOPMENT (1926)	QUAKER RD.	PELHAM ON	
CA	RIVER REALTY DEVELOPMENT (1926)	QUAKER RD.	PELHAM ON	

CA		Cataract Road	Thorold ON	
CA	LANTANA HOLDINGS BRIAN CHEV. OLDS	EASEMENT QUAKER RD.	WELLAND CITY ON	
CA	WELLAND CITY	FIRST AVE.	WELLAND CITY ON	
EBR	Hert, Inc	Part lot 171 in the Geographic Township of Thorold Fonthill Town of Pelham Regional Municipality of Niagara, Ontario. CITY OF GUELPH	ON	
ECA	Affinity Radio Group Inc.	Cataract Road	Thorold ON	L2R 6Z4
ECA	Hert Inc.	Rosewood Cres	Pelham ON	L0S 1C0
GEN	Wesley- Robins Retirement Village	First Avenue	Welland ON	L3C 7J2
SPL	Welland Hydro-Electric System Corp.	Quaker Road	Welland ON	
SPL		Niagara Street, btwn Merritt Rd & Zehr's parking lot on West side of road	Welland ON	
SPL	s.21	Cataract Rd	Thorold ON	NA
WWIS		lot 227	ON	
WWIS		lot 171	ON	
WWIS		lot 175	ON	

Unplottable Report

Site: ***PARON CONSTRUCTION PRINCE CHARLES DR.***
70 UNIT HOTEL ON NIAGARA RD.54 WELLAND CITY ON

Database: ***CA***

Certificate #:	7-0029-89-
Application Year:	89
Issue Date:	1/24/1989
Approval Type:	Municipal water
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Site: ***O.A.S. MANAGEMENT GROUP***
MERRITT STREET PELHAM TOWN ON

Database: ***CA***

Certificate #:	7-1424-86-
Application Year:	86
Issue Date:	12/1/1986
Approval Type:	Municipal water
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Site: ***LANDREX HOMES (GUELPH) INC.***
QUAKER RD./STREET 'A' PELHAM TOWN ON

Database: ***CA***

Certificate #:	3-1002-93-
Application Year:	93
Issue Date:	9/9/1993
Approval Type:	Municipal sewage
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Site: ***WELLAND COUNTY ROMAN CATHOLIC SEP. SCH.***
P.S. RICE RD. 8-2101-89 WELLAND CITY ON

Database: ***CA***

Certificate #:	3-0713-89-

Application Year: 89
Issue Date: 5/15/1989
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***PARON CONSTRUCTION LTD. PRINCE CHARLES***
70 UNIT HOTEL ON NIAGARA RD.54 WELLAND CITY ON

Database: ***CA***

Certificate #: 3-0033-89-
Application Year: 89
Issue Date: 1/26/1989
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***PARON CONSTRUCTION LIMITED***
70 UNIT HOTEL ON NIAGARA RD.54 WELLAND CITY ON

Database: ***CA***

Certificate #: 3-0061-89-
Application Year: 89
Issue Date: 1/24/1989
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***WELLAND CITY***
QUAKER ROAD WELLAND CITY ON

Database: ***CA***

Certificate #: 3-1368-88-
Application Year: 88
Issue Date: 8/5/1988
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***WELLAND SOCCER CLUB***
EASEMENT & QUAKER RD. WELLAND CITY ON

Database: ***CA***

Certificate #: 3-1088-86-
Application Year: 86
Issue Date: 8/27/1986
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***LANDREX HOMES (GUELPH) INC.***
QUAKER RD./STREET 'A' PELHAM TOWN ON

Database: ***CA***

Certificate #: 7-0793-93-
Application Year: 93
Issue Date: 9/9/1993
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***WELLAND CITY***
QUAKER ROAD WELLAND CITY ON

Database: ***CA***

Certificate #: 7-1177-88-
Application Year: 88
Issue Date: 8/5/1988
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***RINALDI PROPERTIES (NIAGARA) INC.***
CEDAR PK.RD/PAGE RD/REDWOOD CT WELLAND ON

Database: ***CA***

Certificate #: 3-0016-92-
Application Year: 92
Issue Date: //
Approval Type: Municipal sewage
Status: RE1
Application Type:
Client Name:
Client Address:

Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***RINALDI PROPERTIES (NIAGARA) INC.***
CEDAR PK.DR/PAGE RD/REDWOOD CT WELLAND ON

Database: ***CA***

Certificate #: 7-0012-92-
Application Year: 92
Issue Date: //
Approval Type: Municipal water
Status: RE1
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***BOARD OF GOVERNORS OF NIAGARA COLLEGE***
FIRST AVE., WELLAND CAMPUS SWM WELLAND CITY ON

Database: ***CA***

Certificate #: 3-1260-96-
Application Year: 96
Issue Date: 11/28/1996
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***THE CITY***
RICE RD. WELLAND ON

Database: ***CA***

Certificate #: 7-0278-85-006
Application Year: 85
Issue Date: 5/8/85
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***RIVER REALTY DEVELOPMENT (1926)***
QUAKER RD. PELHAM ON

Database: ***CA***

Certificate #: 7-0563-85-006
Application Year: 85

Issue Date: 7/25/85
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***RIVER REALTY DEVELOPMENT (1926)***
QUAKER RD. PELHAM ON

Database: ***CA***

Certificate #: 3-0786-85-006
Application Year: 85
Issue Date: 7/25/85
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site:
Cataract Road Thorold ON

Database: ***CA***

Certificate #: 0223-4T2LZU
Application Year: 01
Issue Date: 1/16/01
Approval Type: Industrial air
Status: Approved
Application Type: New Certificate of Approval
Client Name: Affinity Radio Group Inc.
Client Address: 12 Yates Street
Client City: St. Catharines
Client Postal Code: L2R 6Z4
Project Description: This is an application for an Air Certificate of Approval for a diesel fuel-fired 60 kilo Watt backup generator
Contaminants:
Emission Control: Silencer

Site: ***LANTANA HOLDINGS BRIAN CHEV. OLDS***
EASEMENT QUAKER RD. WELLAND CITY ON

Database: ***CA***

Certificate #: 3-0646-86-
Application Year: 86
Issue Date: 6/27/1986
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***WELLAND CITY***
FIRST AVE. WELLAND CITY ON

Database: ***CA***

Certificate #: 3-1927-87-
Application Year: 87
Issue Date: 11/2/1987
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***Hert, Inc***
Part lot 171 in the Geographic Township of Thorold Fonthill Town of Pelham Regional Municipality of Niagara, Ontario. CITY OF GUELPH ON

Database: ***EBR***

EBR Registry No: 013-4004
Ministry Ref No: MNRF INST 22/10
Notice Type: Instrument Proposal
Notice Stage:
Notice Date: December 07, 2018
Proposal Date: December 07, 2018
Year: 2018
Decision Posted:
Exception Posted:
Section:
Act 1:
Act 2:
Site Location Map:
Instrument Type: Permit for activities with conditions to achieve overall benefit to the species - ESA s.17(2) (c)
Off Instrument Name:
Posted By:
Company Name:
Site Address:
Location Other:
Proponent Name: Hert, Inc
Proponent Address: 273 Welland Road
Fenwick Ontario
Canada L0S 1C0
Comment Period:
URL: http://www.ebr.gov.on.ca/ERS-WEB-External/displaynoticecontent.do?noticeId=MTM2Mzg2&statusId=MjA3ODE5&language=en

Site Location Details:

Part lot 171 in the Geographic Township of Thorold
Fonthill
Town of Pelham
Regional Municipality of Niagara, Ontario.
CITY OF GUELPH

Site: ***Affinity Radio Group Inc.***
Cataract Road Thorold ON L2R 6Z4

Database: ***ECA***

Approval No: 0223-4T2LZU
Approval Date: 2001-01-16
Status: Approved
Record Type: ECA
Link Source: IDS
SWP Area Name:
Approval Type: ECA-AIR
Project Type: AIR
Business Name: Affinity Radio Group Inc.
Address: Cataract Road
Full Address:
MOE District:
City:
Longitude:
Latitude:
Geometry X:
Geometry Y:

Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/1142-4RKRD3-14.pdf
PDF Site Location:

Site: ***Hert Inc.***
Rosewood Cres Pelham ON L0S 1C0

Database: ***ECA***

Approval No: 1968-9K4P6M
Approval Date: 2014-05-20
Status: Revoked and/or Replaced
Record Type: ECA
Link Source: IDS
SWP Area Name:
MOE District:
City:
Longitude:
Latitude:
Geometry X:
Geometry Y:
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Business Name: Hert Inc.
Address: Rosewood Cres
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/0678-9JWQTS-14.pdf
PDF Site Location:

Site: ***Wesley- Robins Retirement Village***
First Avenue Welland ON L3C 7J2

Database: ***GEN***

Generator No: ON9834343
SIC Code:
SIC Description:
Approval Years: As of Dec 2018
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contam. Facility:
MHSW Facility:

Detail(s)

Waste Class: 212 L
Waste Class Desc: Aliphatic solvents and residues

Site: ***Welland Hydro-Electric System Corp.***
Quaker Road Welland ON

Database: ***SPL***

Ref No: 3267-6EB7CU
Site No:
Incident Dt: 7/14/2005
Year:
Incident Cause: Other Discharges
Incident Event:
Contaminant Code:
Contaminant Name: MINERAL OIL
Contaminant Limit 1:
Contam Limit Freq 1:
Contaminant UN No 1:
Environment Impact: Not Anticipated
Nature of Impact:
Receiving Medium: Land
Receiving Env:
MOE Response:
Dt MOE Arvl on Scn:
MOE Reported Dt: 7/14/2005
Dt Document Closed:
Incident Reason: Storm/Flood - Resulting from storm/flood/lightening
Discharger Report: 0
Material Group: Oil
Health/Env Conseq:
Client Type:
Sector Type: Transformer
Agency Involved:
Nearest Watercourse:
Site Address:
Site District Office: Niagara
Site Postal Code:
Site Region:
Site Municipality: Welland
Site Lot:
Site Conc:
Northing:
Easting:
Site Geo Ref Accu:
Site Map Datum:
SAC Action Class: Spills to Land
Source Type:
Site Name: Transformer on Quaker Road School Property<UNOFFICIAL>
Site County/District:
Site Geo Ref Meth:
Incident Summary: Welland Hydro - non-PCB min oil - 175L
Contaminant Qty:

Site: ***Database:*** ***SPL***

Niagara Street, btwn Merritt Rd & Zehr's parking lot on West side of road Welland ON

Ref No:	1237-7WNQD4	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:		***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	Other Discharges	***Sector Type:***	Transport Truck
Incident Event:		***Agency Involved:***	
Contaminant Code:	13	***Nearest Watercourse:***	
Contaminant Name:	DIESEL FUEL	***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	Possible	***Site Municipality:***	
Nature of Impact:	Surface Water Pollution	***Site Lot:***	
Receiving Medium:		***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:	Deferred Field Response	***Easting:***	
Dt MOE Arvl on Scn:	10/9/2009	***Site Geo Ref Accu:***	
MOE Reported Dt:	10/9/2009	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	Watercourse Spills
Incident Reason:	Spill	***Source Type:***	
Site Name:	Niagara Street<UNOFFICIAL>		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Welland: TT spilled diesel to rd, 7 CBs impacted		
Contaminant Qty:	25 L		

Site: ***s.21*** ***Database:*** ***SPL***

Cataract Rd Thorold ON NA

Ref No:	2176-BBDHFM	***Discharger Report:***	
Site No:	1612-4RKRGK	***Material Group:***	
Incident Dt:	4/19/2019	***Health/Env Conseq:***	2 - Minor Environment
Year:		***Client Type:***	Other (Describe)
Incident Cause:		***Sector Type:***	
Incident Event:		***Agency Involved:***	
Contaminant Code:	n/a	***Nearest Watercourse:***	
Contaminant Name:	ODOUR	***Site Address:***	Cataract Rd
Contaminant Limit 1:		***Site District Office:***	Niagara
Contam Limit Freq 1:		***Site Postal Code:***	NA
Contaminant UN No 1:	n/a	***Site Region:***	West Central
Environment Impact:		***Site Municipality:***	Thorold
Nature of Impact:		***Site Lot:***	
Receiving Medium:		***Site Conc:***	NA
Receiving Env:		***Northing:***	NA
MOE Response:	No	***Easting:***	NA
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	NA
MOE Reported Dt:	4/19/2019	***Site Map Datum:***	NA
Dt Document Closed:		***SAC Action Class:***	Pollution Incident Reports (PIRs) and "Other" calls
Incident Reason:		***Source Type:***	
Site Name:	Cataract Road		
Site County/District:	Regional Municipality Of Niagara		
Site Geo Ref Meth:	NA		
Incident Summary:	Cannabis Greenhouse Odour Complaint		
Contaminant Qty:			

Site: ***Database:*** ***WWIS***

lot 227 ON

Well ID:	6603698	***Data Entry Status:***	

Construction Date:
Primary Water Use: Domestic
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No: NA
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Src: 1
Date Received: 9/12/1986
Selected Flag: True
Abandonment Rec:
Contractor: 5417
Form Version: 1
Owner:
Street Name:
County: NIAGARA
Municipality: THOROLD TOWN (THOROLD)
Site Info:
Lot: 227
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 10463298
DP2BR: 136.00
Spatial Status:
Code OB: r
Code OB Desc: Bedrock
Open Hole:
Cluster Kind:
Date Completed: 05-Sep-1986 00:00:00
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 17
East83:
North83:
Org CS:
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: na

Overburden and Bedrock Materials Interval

Formation ID: 932599287
Layer: 1
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2: 81
Mat2 Desc: SANDY
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 136.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932599288
Layer: 2
Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE
Mat2:
Mat2 Desc:

Mat3:
Mat3 Desc:
Formation Top Depth: 136.0
Formation End Depth: 147.0
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 966603698
Method Construction Code: 1
Method Construction: Cable Tool
Other Method Construction:

Pipe Information

Pipe ID: 11011868
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930752707
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 136
Casing Diameter: 5
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930752708
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 147
Casing Diameter:
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 996603698
Pump Set At:
Static Level: 33.0
Final Level After Pumping: 140.0
Recommended Pump Depth: 138.0
Pumping Rate: 3.0
Flowing Rate:
Recommended Pump Rate: 3.0
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 1
Water State After Test: CLEAR
Pumping Test Method: 2
Pumping Duration HR: 1
Pumping Duration MIN: 0
Flowing: No

Draw Down & Recovery

Pump Test Detail ID: 934611326
Test Type:
Test Duration: 30
Test Level: 140.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934343550
Test Type:
Test Duration: 15
Test Level: 140.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934865516
Test Type:
Test Duration: 45
Test Level: 140.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 935129884
Test Type:
Test Duration: 60
Test Level: 140.0
Test Level UOM: ft

Water Details

Water ID: 933951009
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 146.0
Water Found Depth UOM: ft

Site:
lot 171 ON

Database:
WWIS

Well ID: 6603840
Construction Date:
Primary Water Use: Livestock
Sec. Water Use:
Final Well Status:
Water Type:
Casing Material:
Audit No: 20260
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src: 1
Date Received: 2/10/1989
Selected Flag: True
Abandonment Rec:
Contractor: 2123
Form Version: 1
Owner:
Street Name:
County: NIAGARA
Municipality: PELHAM TOWN (PELHAM)
Site Info:
Lot: 171
Concession:
Concession Name: CON
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID:	10463437	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:	o	***East83:***	
Code OB Desc:	Overburden	***North83:***	
Open Hole:		***Org CS:***	
Cluster Kind:		***UTMRC:***	9
Date Completed:	02-Nov-1988 00:00:00	***UTMRC Desc:***	unknown UTM
Remarks:		***Location Method:***	na
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932599938
Layer:	5
Color:	7
General Color:	RED
Mat1:	28
Most Common Material:	SAND
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	195.0
Formation End Depth:	205.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932599937
Layer:	4
Color:	2
General Color:	GREY
Mat1:	05
Most Common Material:	CLAY
Mat2:	28
Mat2 Desc:	SAND
Mat3:	
Mat3 Desc:	
Formation Top Depth:	150.0
Formation End Depth:	195.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932599935
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	05
Most Common Material:	CLAY
Mat2:	02
Mat2 Desc:	TOPSOIL
Mat3:	
Mat3 Desc:	

Formation Top Depth: 12.0
Formation End Depth: 42.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932599936
Layer: 3
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 42.0
Formation End Depth: 150.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932599939
Layer: 6
Color:
General Color:
Mat1: 11
Most Common Material: GRAVEL
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 205.0
Formation End Depth: 212.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932599934
Layer: 1
Color: 6
General Color: BROWN
Mat1: 02
Most Common Material: TOPSOIL
Mat2: 81
Mat2 Desc: SANDY
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 12.0
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 966603840
Method Construction Code: 4
Method Construction: Rotary (Air)
Other Method Construction:

Pipe Information

Pipe ID: 11012007
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930752922
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 212
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 996603840
Pump Set At:
Static Level: 80.0
Final Level After Pumping: 200.0
Recommended Pump Depth: 150.0
Pumping Rate: 30.0
Flowing Rate:
Recommended Pump Rate: 10.0
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR: 2
Pumping Duration MIN: 0
Flowing: No

Water Details

Water ID: 933951161
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 212.0
Water Found Depth UOM: ft

Site:
lot 175 ON

Database:
WWIS

Well ID: 6603719
Construction Date:
Primary Water Use: Domestic
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No: NA
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):

Data Entry Status:
Data Src: 1
Date Received: 3/16/1987
Selected Flag: True
Abandonment Rec:
Contractor: 4207
Form Version: 1
Owner:
Street Name:
County: NIAGARA
Municipality: PELHAM TOWN (PELHAM)
Site Info:
Lot: 175
Concession:
Concession Name: CON
Easting NAD83:
Northing NAD83:
Zone:

Flow Rate:
Clear/Cloudy:

UTM Reliability:

Bore Hole Information

Bore Hole ID: 10463318
DP2BR: 203.00
Spatial Status:
Code OB: r
Code OB Desc: Bedrock
Open Hole:
Cluster Kind:
Date Completed: 06-Aug-1986 00:00:00
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 17
East83:
North83:
Org CS:
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: na

Overburden and Bedrock Materials Interval

Formation ID: 932599364
Layer: 3
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2: 11
Mat2 Desc: GRAVEL
Mat3:
Mat3 Desc:
Formation Top Depth: 135.0
Formation End Depth: 170.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932599365
Layer: 4
Color: 6
General Color: BROWN
Mat1: 11
Most Common Material: GRAVEL
Mat2: 05
Mat2 Desc: CLAY
Mat3: 12
Mat3 Desc: STONES
Formation Top Depth: 170.0
Formation End Depth: 203.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932599362
Layer: 1
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2: 81

Mat2 Desc: SANDY
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 80.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932599363
Layer: 2
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 80.0
Formation End Depth: 135.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932599366
Layer: 5
Color: 6
General Color: BROWN
Mat1: 15
Most Common Material: LIMESTONE
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 203.0
Formation End Depth: 212.0
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 966603719
Method Construction Code: 4
Method Construction: Rotary (Air)
Other Method Construction:

Pipe Information

Pipe ID: 11011888
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930752740
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 203
Casing Diameter: 6

Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930752741
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 212
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 996603719
Pump Set At:
Static Level: 38.0
Final Level After Pumping: 212.0
Recommended Pump Depth: 175.0
Pumping Rate: 12.0
Flowing Rate:
Recommended Pump Rate: 10.0
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 1
Water State After Test: CLEAR
Pumping Test Method: 1
Pumping Duration HR: 1
Pumping Duration MIN: 0
Flowing: No

Draw Down & Recovery

Pump Test Detail ID: 934865530
Test Type:
Test Duration: 45
Test Level: 45.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934343982
Test Type:
Test Duration: 15
Test Level: 105.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 935129898
Test Type:
Test Duration: 60
Test Level: 41.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934611340
Test Type:
Test Duration: 30
Test Level: 55.0

Test Level UOM: ft

Water Details

Water ID: 933951029
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 210.0
Water Found Depth UOM: ft

Appendix: Database Descriptions

Environmental Risk Information Services (ERIS) can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to ERIS at the time of update. ***Note:*** *Databases denoted with " * " indicates that the database will no longer be updated. See the individual database description for more information.*

Abandoned Aggregate Inventory: Provincial AAGR

The MAAP Program maintains a database of abandoned pits and quarries. Please note that the database is only referenced by lot and concession and city/town location. The database provides information regarding the location, type, size, land use, status and general comments.*

Government Publication Date: Sept 2002*

Aggregate Inventory: Provincial AGR

The Ontario Ministry of Natural Resources maintains a database of all active pits and quarries. The database provides information regarding the registered owner/operator, location name, operation type, approval type, and maximum annual tonnage.

Government Publication Date: Up to Nov 2021

Abandoned Mine Information System: Provincial AMIS

The Abandoned Mines Information System contains data on known abandoned and inactive mines located on both Crown and privately held lands. The information was provided by the Ministry of Northern Development and Mines (MNDM), with the following disclaimer: "the database provided has been compiled from various sources, and the Ministry of Northern Development and Mines makes no representation and takes no responsibility that such information is accurate, current or complete". Reported information includes official mine name, status, background information, mine start/end date, primary commodity, mine features, hazards and remediation.

Government Publication Date: 1800-Oct 2018

Anderson's Waste Disposal Sites: Private ANDR

The information provided in this database was collected by examining various historical documents which aimed to characterize the likely position of former waste disposal sites from 1860 to present. The research initiative behind the creation of this database was to identify those sites that are missing from the Ontario MOE Waste Disposal Site Inventory, as well as to provide revisions and corrections to the positions and descriptions of sites currently listed in the MOE inventory. In addition to historic waste disposal facilities, the database also identifies certain auto wreckers and scrap yards that have been extrapolated from documentary sources. Please note that the data is not warranted to be complete, exhaustive or authoritative. The information was collected for research purposes only.

Government Publication Date: 1860s-Present

Aboveground Storage Tanks: Provincial AST

Historical listing of aboveground storage tanks made available by the Department of Natural Resources and Forestry. Includes tanks used to hold water or petroleum. This dataset has been retired as of September 25, 2014 and will no longer be updated.

Government Publication Date: May 31, 2014

Automobile Wrecking & Supplies: Private AUWR

This database provides an inventory of known locations that are involved in the scrap metal, automobile wrecking/recycling, and automobile parts & supplies industry. Information is provided on the company name, location and business type.

Government Publication Date: 1999-Sep 30, 2021

Borehole: Provincial BORE

A borehole is the generalized term for any narrow shaft drilled in the ground, either vertically or horizontally. The information here includes geotechnical investigations or environmental site assessments, mineral exploration, or as a pilot hole for installing piers or underground utilities. Information is from many sources such as the Ministry of Transportation (MTO) boreholes from engineering reports and projects from the 1950 to 1990's in Southern Ontario. Boreholes from the Ontario Geological Survey (OGS) including The Urban Geology Analysis Information System (UGAIS) and the York Peel Durham Toronto (YPDT) database of the Conservation Authority Moraine Coalition. This database will include fields such as location, stratigraphy, depth, elevation, year drilled, etc. For all water well data or oil and gas well data for Ontario please refer to WWIS and OOGW.

Government Publication Date: 1875-Jul 2018

Certificates of Approval: Provincial CA

This database contains the following types of approvals: Air & Noise, Industrial Sewage, Municipal & Private Sewage, Waste Management Systems and Renewable Energy Approvals. The MOE in Ontario states that any facility that releases emissions to the atmosphere, discharges contaminants to ground or surface water, provides potable water supplies, or stores, transports or disposes of waste, must have a Certificate of Approval before it can operate lawfully. Fields include approval number, business name, address, approval date, approval type and status. This database will no longer be updated, as CofA's have been replaced by either Environmental Activity and Sector Registry (EASR) or Environmental Compliance Approval (ECA). Please refer to those individual databases for any information after Oct.31, 2011.

Government Publication Date: 1985-Oct 30, 2011*

Dry Cleaning Facilities: Federal CDRY

List of dry cleaning facilities made available by Environment and Climate Change Canada. Environment and Climate Change Canada's Tetrachloroethylene (Use in Dry Cleaning and Reporting Requirements) Regulations (SOR/2003-79) are intended to reduce releases of tetrachloroethylene to the environment from dry cleaning facilities.

Government Publication Date: Jan 2004-Dec 2019

Commercial Fuel Oil Tanks: Provincial CFOT

Locations of commercial underground fuel oil tanks. This is not a comprehensive or complete inventory of commercial fuel tanks in the province; this listing is a copy of records of registered commercial underground fuel oil tanks obtained under Access to Public Information.
Note that the following types of tanks do not require registration: waste oil tanks in apartments, office buildings, residences, etc.; aboveground gas or diesel tanks. Records are not verified for accuracy or completeness.

Government Publication Date: May 31, 2021

Chemical Manufacturers and Distributors: Private CHEM

This database includes information from both a one time study conducted in 1992 and private source and is a listing of facilities that manufacture or distribute chemicals. The production of these chemical substances may involve one or more chemical reactions and/or chemical separation processes (i.e. fractionation, solvent extraction, crystallization, etc.).

Government Publication Date: 1999-Jan 31, 2020

Chemical Register: Private CHM

This database includes a listing of locations of facilities within the Province or Territory that either manufacture and/or distributes chemicals.

Government Publication Date: 1999-Sep 30, 2021

Compressed Natural Gas Stations: Private CNG

Canada has a network of public access compressed natural gas (CNG) refuelling stations. These stations dispense natural gas in compressed form at 3,000 pounds per square inch (psi), the pressure which is allowed within the current Canadian codes and standards. The majority of natural gas refuelling is located at existing retail gasoline that have a separate refuelling island for natural gas. This list of stations is made available by the Canadian Natural Gas Vehicle Alliance.

Government Publication Date: Dec 2012 -Nov 2021

Inventory of Coal Gasification Plants and Coal Tar Sites: Provincial COAL

This inventory includes both the "Inventory of Coal Gasification Plant Waste Sites in Ontario-April 1987" and the Inventory of Industrial Sites Producing or Using Coal Tar and Related Tars in Ontario-November 1988) collected by the MOE. It identifies industrial sites that produced and continue to produce or use coal tar and other related tars. Detailed information is available and includes: facility type, size, land use, information on adjoining properties, soil condition, site operators/occupants, site description, potential environmental impacts and historic maps available. This was a one-time inventory.*

Government Publication Date: Apr 1987 and Nov 1988*

Compliance and Convictions: Provincial CONV

This database summarizes the fines and convictions handed down by the Ontario courts beginning in 1989. Companies and individuals named here have been found guilty of environmental offenses in Ontario courts of law.

Government Publication Date: 1989-Jul 2021

Certificates of Property Use: Provincial CPU

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include all CPU's on the registry such as (EPA s. 168.6) - Certificate of Property Use.

Government Publication Date: 1994 - Dec 31, 2021

Drill Hole Database: Provincial DRL

The Ontario Drill Hole Database contains information on more than 113,000 percussion, overburden, sonic and diamond drill holes from assessment files on record with the department of Mines and Minerals. Please note that limited data is available for southern Ontario, as it was the last area to be completed. The database was created when surveys submitted to the Ministry were converted in the Assessment File Research Image Database (AFRI) project. However, the degree of accuracy (coordinates) as to the exact location of drill holes is dependent upon the source document submitted to the MNDM. Levels of accuracy used to locate holes are: centering on the mining claim; a sketch of the mining claim; a 1:50,000 map; a detailed company map; or from submitted a "Report of Work".

Government Publication Date: 1886 - Sep 2020

Delisted Fuel Tanks: Provincial DTNK

List of fuel storage tank sites that were once found in - and have since been removed from - the list of fuel storage tanks made available by the regulatory agency under Access to Public Information.

Government Publication Date: May 31, 2021

Environmental Activity and Sector Registry: Provincial EASR

On October 31, 2011, a smarter, faster environmental approvals system came into effect in Ontario. The EASR allows businesses to register certain activities with the ministry, rather than apply for an approval. The registry is available for common systems and processes, to which preset rules of operation can be applied. The EASR is currently available for: heating systems, standby power systems and automotive refinishing. Businesses whose activities aren't subject to the EASR may apply for an ECA (Environmental Compliance Approval), Please see our ECA database.

Government Publication Date: Oct 2011- Nov 30, 2021

Environmental Registry: Provincial EBR

The Environmental Registry lists proposals, decisions and exceptions regarding policies, Acts, instruments, or regulations that could significantly affect the environment. Through the Registry, thirteen provincial ministries notify the public of upcoming proposals and invite their comments. For example, if a local business is requesting a permit, license, or certificate of approval to release substances into the air or water; these are notified on the registry. Data includes: Approval for discharge into the natural environment other than water (i.e. Air) - EPA s. 9, Approval for sewage works - OWRA s. 53(1), and EPA s. 27 - Approval for a waste disposal site. For information regarding Permit to Take Water (PTTW), Certificate of Property Use (CPU) and (ORD) Orders please refer to those individual databases.

Government Publication Date: 1994 - Dec 31, 2021

Environmental Compliance Approval: Provincial ECA

On October 31, 2011, a smarter, faster environmental approvals system came into effect in Ontario. In the past, a business had to apply for multiple approvals (known as certificates of approval) for individual processes and pieces of equipment. Today, a business either registers itself, or applies for a single approval, depending on the types of activities it conducts. Businesses whose activities aren't subject to the EASR may apply for an ECA. A single ECA addresses all of a business's emissions, discharges and wastes. Separate approvals for air, noise and waste are no longer required. This database will also include Renewable Energy Approvals. For certificates of approval prior to Nov 1st, 2011, please refer to the CA database. For all Waste Disposal Sites please refer to the WDS database.

Government Publication Date: Oct 2011- Nov 30, 2021

Environmental Effects Monitoring: Federal EEM

The Environmental Effects Monitoring program assesses the effects of effluent from industrial or other sources on fish, fish habitat and human usage of fisheries resources. Since 1992, pulp and paper mills have been required to conduct EEM studies under the Pulp and Paper Effluent Regulations. This database provides information on the mill name, geographical location and sub-lethal toxicity data.

Government Publication Date: 1992-2007*

ERIS Historical Searches: Private EHS

ERIS has compiled a database of all environmental risk reports completed since March 1999. Available fields for this database include: site location, date of report, type of report, and search radius. As per all other databases, the ERIS database can be referenced on both the map and "Statistical Profile" page.

Government Publication Date: 1999-Nov 30, 2021

Environmental Issues Inventory System: Federal EIIS

The Environmental Issues Inventory System was developed through the implementation of the Environmental Issues and Remediation Plan. This plan was established to determine the location and severity of contaminated sites on inhabited First Nation reserves, and where necessary, to remediate those that posed a risk to health and safety; and to prevent future environmental problems. The EIIS provides information on the reserve under investigation, inventory number, name of site, environmental issue, site action (Remediation, Site Assessment), and date investigation completed.

Government Publication Date: 1992-2001*

Emergency Management Historical Event: Provincial EMHE

List of locations of historical occurrences of emergency events, including those assigned to the Ministry of Natural Resources by Order-In-Council (OIC) under the Emergency Management and Civil Protection Act, as well as events where MNR provided requested emergency response assistance. Many of these events will have involved community evacuations, significant structural loss, and/or involvement of MNR emergency response staff. These events fall into one of ten (10) type categories: Dam Failure; Drought / Low Water; Erosion; Flood; Forest Fire; Soil and Bedrock Instability; Petroleum Resource Center Event, EMO Requested Assistance, Continuity of Operations Event, Other Requested Assistance. EMHE record details are reproduced by ERIS under License with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2017.

Government Publication Date: Dec 31, 2016

Environmental Penalty Annual Report: Provincial EPAR

This database contains data from Ontario's annual environmental penalty report published by the Ministry of the Environment and Climate Change. These reports provide information on environmental penalties for land or water violations issued to companies in one of the nine industrial sectors covered by the Municipal Industrial Strategy for Abatement (MISA) regulations.

Government Publication Date: Jan 1, 2011 - Dec 31, 2020

List of Expired Fuels Safety Facilities: Provincial EXP

List of facilities and tanks for which there was once a fuel registration. This is not a comprehensive or complete inventory of expired tanks/tank facilities in the province; this listing is a copy of previously registered tanks and facilities obtained under Access to Public Information. Includes private fuel outlets, bulk plants, fuel oil tanks, gasoline stations, marinas, propane filling stations, liquid fuel tanks, piping systems, etc; includes tanks which have been removed from the ground.
Notes: registration was not required for private fuel underground/aboveground storage tanks prior to January 1990, nor for furnace oil tanks prior to May 1, 2002; registration is not required for waste oil tanks in apartments, office buildings, residences, etc., or aboveground gas or diesel tanks. Records are not verified for accuracy or completeness.

Government Publication Date: May 31, 2020

Federal Convictions: Federal FCON

Environment Canada maintains a database referred to as the "Environmental Registry" that details prosecutions under the Canadian Environmental Protection Act (CEPA) and the Fisheries Act (FA). Information is provided on the company name, location, charge date, offence and penalty.

Government Publication Date: 1988-Jun 2007*

Contaminated Sites on Federal Land: Federal FCS

The Federal Contaminated Sites Inventory includes information on known federal contaminated sites under the custodianship of departments, agencies and consolidated Crown corporations as well as those that are being or have been investigated to determine whether they have contamination arising from past use that could pose a risk to human health or the environment. The inventory also includes non-federal contaminated sites for which the Government of Canada has accepted some or all financial responsibility. It does not include sites where contamination has been caused by, and which are under the control of, enterprise Crown corporations, private individuals, firms or other levels of government. Includes fire training sites and sites at which Per- and Polyfluoroalkyl Substances (PFAS) are a concern.

Government Publication Date: Jun 2000-Nov 2021

Fisheries & Oceans Fuel Tanks: Federal FOFT

Fisheries & Oceans Canada maintains an inventory of aboveground & underground fuel storage tanks located on Fisheries & Oceans property or controlled by DFO. Our inventory provides information on the site name, location, tank owner, tank operator, facility type, storage tank location, tank contents & capacity, and date of tank installation.

Government Publication Date: 1964-Sep 2019

Federal Identification Registry for Storage Tank Systems (FIRSTS): Federal FRST

A list of federally regulated Storage tanks from the Federal Identification Registry for Storage Tank Systems (FIRSTS). FIRSTS is Environment and Climate Change Canada's database of storage tank systems subject to the Storage Tank for Petroleum Products and Allied Petroleum Products Regulations. The main objective of the Regulations is to prevent soil and groundwater contamination from storage tank systems located on federal and aboriginal lands. Storage tank systems that do not have a valid identification number displayed in a readily visible location on or near the storage tank system may be refused product delivery.

Government Publication Date: May 31, 2018

Fuel Storage Tank: Provincial FST

List of registered private and retail fuel storage tanks. This is not a comprehensive or complete inventory of private and retail fuel storage tanks in the province; this listing is a copy of registered private and retail fuel storage tanks, obtained under Access to Public Information.
Notes: registration was not required for private fuel underground/aboveground storage tanks prior to January 1990, nor for furnace oil tanks prior to May 1, 2002; registration is not required for waste oil tanks in apartments, office buildings, residences, etc., or aboveground gas or diesel tanks. Records are not verified for accuracy or completeness.

Government Publication Date: May 31, 2021

Fuel Storage Tank - Historic: Provincial FSTH

The Fuels Safety Branch of the Ontario Ministry of Consumer and Commercial Relations maintained a database of all registered private fuel storage tanks. Public records of private fuel storage tanks are only available since the registration became effective in September 1989. This information is now collected by the Technical Standards and Safety Authority.

Government Publication Date: Pre-Jan 2010*

Ontario Regulation 347 Waste Generators Summary: Provincial GEN

Regulation 347 of the Ontario EPA defines a waste generation site as any site, equipment and/or operation involved in the production, collection, handling and/or storage of regulated wastes. A generator of regulated waste is required to register the waste generation site and each waste produced, collected, handled, or stored at the site. This database contains the registration number, company name and address of registered generators including the types of hazardous wastes generated. It includes data on waste generating facilities such as: drycleaners, waste treatment and disposal facilities, machine shops, electric power distribution etc. This information is a summary of all years from 1986 including the most currently available data. Some records may contain, within the company name, the phrase "See & Use..." followed by a series of letters and numbers. This occurs when one company is amalgamated with or taken over by another registered company. The number listed as "See & Use", refers to the new ownership and the other identification number refers to the original ownership. This phrase serves as a link between the 2 companies until operations have been fully transferred.

Government Publication Date: 1986-Nov 30, 2021

Greenhouse Gas Emissions from Large Facilities: Federal GHG

List of greenhouse gas emissions from large facilities made available by Environment Canada. Greenhouse gas emissions in kilotonnes of carbon dioxide equivalents (kt CO2 eq).

Government Publication Date: 2013-Dec 2019

TSSA Historic Incidents: Provincial HINC

List of historic incidences of spills and leaks of diesel, fuel oil, gasoline, natural gas, propane, and hydrogen recorded by the TSSA in their previous incident tracking system. The TSSA's Fuels Safety Program administers the Technical Standards & Safety Act 2000, providing fuel-related safety services associated with the safe transportation, storage, handling and use of fuels such as gasoline, diesel, propane, natural gas and hydrogen. Under this Act, the TSSA regulates fuel suppliers, storage facilities, transport trucks, pipelines, contractors and equipment or appliances that use fuels. Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of historical fuel spills and leaks in the province. This listing is a copy of the data captured at one moment in time and is hence limited by the record date provided here.

Government Publication Date: 2006-June 2009*

Indian & Northern Affairs Fuel Tanks: Federal IAFT

The Department of Indian & Northern Affairs Canada (INAC) maintains an inventory of aboveground & underground fuel storage tanks located on both federal and crown land. Our inventory provides information on the reserve name, location, facility type, site/facility name, tank type, material & ID number, tank contents & capacity, and date of tank installation.

Government Publication Date: 1950-Aug 2003*

Fuel Oil Spills and Leaks: Provincial INC

Listing of spills and leaks of diesel, fuel oil, gasoline, natural gas, propane, and hydrogen reported to the Spills Action Centre (SAC). This is not a comprehensive or complete inventory of fuel-related leaks, spills, and incidents in the province; this listing in a copy of incidents reported to the SAC, obtained under Access to Public Information. Includes incidents from fuel-related hazards such as spills, fires, and explosions. Records are not verified for accuracy or completeness.

Government Publication Date: May 31, 2021

Landfill Inventory Management Ontario: Provincial LIMO

The Landfill Inventory Management Ontario (LIMO) database is updated every year, as the Ministry of the Environment, Conservation and Parks compiles new and updated information. Includes small and large landfills currently operating as well as those which are closed and historic. Operators of larger landfills provide landfill information for the previous operating year to the ministry for LIMO including: estimated amount of total waste received, landfill capacity, estimated total remaining landfill capacity, fill rates, engineering designs, reporting and monitoring details, size of location, service area, approved waste types, leachate of site treatment, contaminant attenuation zone and more. The small landfills include information such as site owner, site location and certificate of approval # and status.

Government Publication Date: Feb 28, 2019

Canadian Mine Locations: Private MINE

This information is collected from the Canadian & American Mines Handbook. The Mines database is a national database that provides over 290 listings on mines (listed as public companies) dealing primarily with precious metals and hard rocks. Listed are mines that are currently in operation, closed, suspended, or are still being developed (advanced projects). Their locations are provided as geographic coordinates (x, y and/or longitude, latitude). As of 2002, data pertaining to Canadian smelters and refineries has been appended to this database.

Government Publication Date: 1998-2009*

Mineral Occurrences: Provincial MNR

In the early 70's, the Ministry of Northern Development and Mines created an inventory of approximately 19,000 mineral occurrences in Ontario, in regard to metallic and industrial minerals, as well as some information on building stones and aggregate deposits. Please note that the "Horizontal Positional Accuracy" is approximately +/- 200 m. Many reference elements for each record were derived from field sketches using pace or chain/tape measurements against claim posts or topographic features in the area. The primary limiting factor for the level of positional accuracy is the scale of the source material. The testing of horizontal accuracy of the source materials was accomplished by comparing the plan metric (X and Y) coordinates of that point with the coordinates of the same point as defined from a source of higher accuracy.

Government Publication Date: 1846-Dec 2020

National Analysis of Trends in Emergencies System (NATES): Federal NATE

In 1974 Environment Canada established the National Analysis of Trends in Emergencies System (NATES) database, for the voluntary reporting of significant spill incidents. The data was to be used to assist in directing the work of the emergencies program. NATES ran from 1974 to 1994. Extensive information is available within this database including company names, place where the spill occurred, date of spill, cause, reason and source of spill, damage incurred, and amount, concentration, and volume of materials released.

Government Publication Date: 1974-1994*

Non-Compliance Reports: Provincial NCPL

The Ministry of the Environment provides information about non-compliant discharges of contaminants to air and water that exceed legal allowable limits, from regulated industrial and municipal facilities. A reported non-compliance failure may be in regard to a Control Order, Certificate of Approval, Sectoral Regulation or specific regulation/act.

Government Publication Date: Dec 31, 2019

National Defense & Canadian Forces Fuel Tanks: Federal NDFT

The Department of National Defense and the Canadian Forces maintains an inventory of all aboveground & underground fuel storage tanks located on DND lands. Our inventory provides information on the base name, location, tank type & capacity, tank contents, tank class, date of tank installation, date tank last used, and status of tank as of May 2001. This database will no longer be updated due to the new National Security protocols which have prohibited any release of this database.

Government Publication Date: Up to May 2001*

National Defense & Canadian Forces Spills: Federal NDSP

The Department of National Defense and the Canadian Forces maintains an inventory of spills to land and water. All spill sites have been classified under the "Transportation of Dangerous Goods Act - 1992". Our inventory provides information on the facility name, location, spill ID #, spill date, type of spill, as well as the quantity of substance spilled & recovered.

Government Publication Date: Mar 1999-Apr 2018

National Defence & Canadian Forces Waste Disposal Sites: Federal NDWD

The Department of National Defence and the Canadian Forces maintains an inventory of waste disposal sites located on DND lands. Where available, our inventory provides information on the base name, location, type of waste received, area of site, depth of site, year site opened/closed and status.

Government Publication Date: 2001-Apr 2007*

National Energy Board Pipeline Incidents: Federal NEBI

Locations of pipeline incidents from 2008 to present, made available by the Canada Energy Regulator (CER) - previously the National Energy Board (NEB). Includes incidents reported under the Onshore Pipeline Regulations and the Processing Plant Regulations related to pipelines under federal jurisdiction, does not include incident data related to pipelines under provincial or territorial jurisdiction.

Government Publication Date: 2008-Jun 30, 2021

National Energy Board Wells: Federal NEBP

The NEBW database contains information on onshore & offshore oil and gas wells that are outside provincial jurisdiction(s) and are thereby regulated by the National Energy Board. Data is provided regarding the operator, well name, well ID No./UWI, status, classification, well depth, spud and release date.

Government Publication Date: 1920-Feb 2003*

National Environmental Emergencies System (NEES): Federal NEES

In 2000, the Emergencies program implemented NEES, a reporting system for spills of hazardous substances. For the most part, this system only captured data from the Atlantic Provinces, some from Quebec and Ontario and a portion from British Columbia. Data for Alberta, Saskatchewan, Manitoba and the Territories was not captured. However, NEES is also a repository for previous Environment Canada spill datasets. NEES is composed of the historic datasets ' or Trends ' which dates from approximately 1974 to present. NEES Trends is a compilation of historic databases, which were merged and includes data from NATES (National Analysis of Trends in Emergencies System), ARTS (Atlantic Regional Trends System), and NEES. In 2001, the Emergencies Program determined that variations in reporting regimes and requirements between federal and provincial agencies made national spill reporting and trend analysis difficult to achieve. As a consequence, the department has focused efforts on capturing data on spills of substances which fall under its legislative authority only (CEPA and FA). As such, the NEES database will be decommissioned in December 2004.

Government Publication Date: 1974-2003*

National PCB Inventory: Federal NPCB

Environment Canada's National PCB inventory includes information on in-use PCB containing equipment in Canada including federal, provincial and private facilities. Federal out-of-service PCB containing equipment and PCB waste owned by the federal government or by federally regulated industries such as airlines, railway companies, broadcasting companies, telephone and telecommunications companies, pipeline companies, etc. are also listed. Although it is not Environment Canada's mandate to collect data on non-federal PCB waste, the National PCB inventory includes some information on provincial and private PCB waste and storage sites. Some addresses provided may be Head Office addresses and are not necessarily the location of where the waste is being used or stored.

Government Publication Date: 1988-2008*

National Pollutant Release Inventory: Federal NPRI

Environment Canada has defined the National Pollutant Release Inventory ("NPRI") as a federal government initiative designed to collect comprehensive national data regarding releases to air, water, or land, and waste transfers for recycling for more than 300 listed substances.

Government Publication Date: 1993-May 2017

Oil and Gas Wells: Private OGWE

The Nickle's Energy Group (publisher of the Daily Oil Bulletin) collects information on drilling activity including operator and well statistics. The well information database includes name, location, class, status and depth. The main Nickle's database is updated on a daily basis, however, this database is updated on a monthly basis. More information is available at www.nickles.com.

Government Publication Date: 1988-Nov 30, 2021

Ontario Oil and Gas Wells: Provincial OOGW

In 1998, the MNR handed over to the Ontario Oil, Gas and Salt Resources Corporation, the responsibility of maintaining a database of oil and gas wells drilled in Ontario. The OGSR Library has over 20,000+ wells in their database. Information available for all wells in the ERIS database include well owner/operator, location, permit issue date, and well cap date, license No., status, depth and the primary target (rock unit) of the well being drilled. All geology/stratigraphy table information, plus all water table information is also provide for each well record.

Government Publication Date: 1800-Jan 2021

Inventory of PCB Storage Sites: Provincial OPCB

The Ontario Ministry of Environment, Waste Management Branch, maintains an inventory of PCB storage sites within the province. Ontario Regulation 11/82 (Waste Management - PCB) and Regulation 347 (Generator Waste Management) under the Ontario EPA requires the registration of inactive PCB storage equipment and/or disposal sites of PCB waste with the Ontario Ministry of Environment. This database contains information on: 1) waste quantities; 2) major and minor sites storing liquid or solid waste; and 3) a waste storage inventory.

Government Publication Date: 1987-Oct 2004; 2012-Dec 2013

Orders: Provincial ORD

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include all Orders on the registry such as (EPA s. 17) - Order for remedial work, (EPA s. 18) - Order for preventative measures, (EPA s. 43) - Order for removal of waste and restoration of site, (EPA s. 44) - Order for conformity with Act for waste disposal sites, (EPA s. 136) - Order for performance of environmental measures.

Government Publication Date: 1994 - Dec 31, 2021

Canadian Pulp and Paper: Private PAP

This information is part of the Pulp and Paper Canada Directory. The Directory provides a comprehensive listing of the locations of pulp and paper mills and the products that they produce.

Government Publication Date: 1999, 2002, 2004, 2005, 2009-2014

Parks Canada Fuel Storage Tanks: Federal PCFT

Canadian Heritage maintains an inventory of known fuel storage tanks operated by Parks Canada, in both National Parks and at National Historic Sites. The database details information on site name, location, tank install/removal date, capacity, fuel type, facility type, tank design and owner/operator.

Government Publication Date: 1920-Jan 2005*

Pesticide Register: Provincial PES

The Ontario Ministry of the Environment and Climate Change maintains a database of licensed operators and vendors of registered pesticides.

Government Publication Date: Oct 2011- Nov 30, 2021

Pipeline Incidents: Provincial PINC

List of pipeline incidents (strikes, leaks, spills). This is not a comprehensive or complete inventory of pipeline incidents in the province; this listing in an historical copy of records previously obtained under Access to Public Information. Records are not verified for accuracy or completeness.

Government Publication Date: May 31, 2021

Private and Retail Fuel Storage Tanks: Provincial PRT

The Fuels Safety Branch of the Ontario Ministry of Consumer and Commercial Relations maintained a database of all registered private fuel storage tanks and licensed retail fuel outlets. This database includes an inventory of locations that have gasoline, oil, waste oil, natural gas and/or propane storage tanks on their property. The MCCR no longer collects this information. This information is now collected by the Technical Standards and Safety Authority (TSSA).

Government Publication Date: 1989-1996*

Permit to Take Water: Provincial PTTW

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include all PTTW's on the registry such as OWRA s. 34 - Permit to take water.

Government Publication Date: 1994 - Dec 31, 2021

Ontario Regulation 347 Waste Receivers Summary: Provincial REC

Part V of the Ontario Environmental Protection Act ("EPA") regulates the disposal of regulated waste through an operating waste management system or a waste disposal site operated or used pursuant to the terms and conditions of a Certificate of Approval or a Provisional Certificate of Approval. Regulation 347 of the Ontario EPA defines a waste receiving site as any site or facility to which waste is transferred by a waste carrier. A receiver of regulated waste is required to register the waste receiving facility. This database represents registered receivers of regulated wastes, identified by registration number, company name and address, and includes receivers of waste such as: landfills, incinerators, transfer stations, PCB storage sites, sludge farms and water pollution control plants. This information is a summary of all years from 1986 including the most currently available data.

Government Publication Date: 1986-1990, 1992-2019

Record of Site Condition: Provincial RSC

The Record of Site Condition (RSC) is part of the Ministry of the Environment's Brownfields Environmental Site Registry. Protection from environmental cleanup orders for property owners is contingent upon documentation known as a record of site condition (RSC) being filed in the Environmental Site Registry. In order to file an RSC, the property must have been properly assessed and shown to meet the soil, sediment and groundwater standards appropriate for the use (such as residential) proposed to take place on the property. The Record of Site Condition Regulation (O. Reg. 153/04) details requirements related to site assessment and clean up.
RSCs filed after July 1, 2011 will also be included as part of the new (O.Reg. 511/09).

Government Publication Date: 1997-Sept 2001, Oct 2004-Dec 2021

Retail Fuel Storage Tanks: Private RST

This database includes an inventory of retail fuel outlet locations (including marinas) that have on their property gasoline, oil, waste oil, natural gas and / or propane storage tanks.

Government Publication Date: 1999-Sep 30, 2021

Scott's Manufacturing Directory: Private SCT

Scott's Directories is a data bank containing information on over 200,000 manufacturers across Canada. Even though Scott's listings are voluntary, it is the most comprehensive database of Canadian manufacturers available. Information concerning a company's address, plant size, and main products are included in this database.

Government Publication Date: 1992-Mar 2011*

Ontario Spills: Provincial SPL

List of spills and incidents made available the Ministry of the Environment, Conservation and Parks. This database identifies information such as location (approximate), type and quantity of contaminant, date of spill, environmental impact, cause, nature of impact, etc. Information from 1988-2002 was part of the ORIS (Occurrence Reporting Information System). The SAC (Spills Action Centre) handles all spills reported in Ontario. Regulations for spills in Ontario are part of the MOE's Environmental Protection Act, Part X.

Government Publication Date: 1988-Sep 2020

Wastewater Discharger Registration Database: Provincial SRDS

Information under this heading is combination of the following 2 programs. The Municipal/Industrial Strategy for Abatement (MISA) division of the Ontario Ministry of Environment maintained a database of all direct dischargers of toxic pollutants within nine sectors including: Electric Power Generation; Mining; Petroleum Refining; Organic Chemicals; Inorganic Chemicals; Pulp & Paper; Metal Casting; Iron & Steel; and Quarries. All sampling information is now collected and stored within the Sample Result Data Store (SRDS).

Government Publication Date: 1990-Dec 31, 2018

Anderson's Storage Tanks: Private TANK

The information provided in this database was collected by examining various historical documents, which identified the location of former storage tanks, containing substances such as fuel, water, gas, oil, and other various types of miscellaneous products. Information is available in regard to business operating at tank site, tank location, permit year, permit & installation type, no. of tanks installed & configuration and tank capacity. Data contained within this database pertains only to the city of Toronto and is not warranted to be complete, exhaustive or authoritative. The information was collected for research purposes only.

Government Publication Date: 1915-1953*

Transport Canada Fuel Storage Tanks: Federal TCFT

List of fuel storage tanks currently or previously owned or operated by Transport Canada. This inventory also includes tanks on The Pickering Lands, which refers to 7,530 hectares (18,600 acres) of land in Pickering, Markham, and Uxbridge owned by the Government of Canada since 1972; properties on this land has been leased by the government since 1975, and falls under the Site Management Policy of Transport Canada, but is administered by Public Works and Government Services Canada. This inventory provides information on the site name, location, tank age, capacity and fuel type.

Government Publication Date: 1970 - Dec 2020

Variances for Abandonment of Underground Storage Tanks: Provincial VAR

Listing of variances granted for storage tank abandonment. This is not a comprehensive or complete inventory of tank abandonment variances in the province; this listing is a copy of tank abandonment variance records previously obtained under Access to Public Information. In Ontario, registered underground storage tanks must be removed within two years of disuse; if removal of a tank is not feasible, an application may be sought for a variance from this code requirement.
Records are not verified for accuracy or completeness.

Government Publication Date: May 31, 2021

Waste Disposal Sites - MOE CA Inventory: Provincial WDS

The Ontario Ministry of Environment, Waste Management Branch, maintains an inventory of known open (active or inactive) and closed disposal sites in the Province of Ontario. Active sites maintain a Certificate of Approval, are approved to receive and are receiving waste. Inactive sites maintain Certificate(s) of Approval but are not receiving waste. Closed sites are not receiving waste. The data contained within this database was compiled from the MOE's Certificate of Approval database. Locations of these sites may be cross-referenced to the Anderson database described under ERIS's Private Source Database section, by the CA number. All new Environmental Compliance Approvals handed out after Oct 31, 2011 for Waste Disposal Sites will still be found in this database.

Government Publication Date: Oct 2011- Nov 30, 2021

Waste Disposal Sites - MOE 1991 Historical Approval Inventory: Provincial WDSH

In June 1991, the Ontario Ministry of Environment, Waste Management Branch, published the "June 1991 Waste Disposal Site Inventory", of all known active and closed waste disposal sites as of October 30st, 1990. For each "active" site as of October 31st 1990, information is provided on site location, site/CA number, waste type, site status and site classification. For each "closed" site as of October 31st 1990, information is provided on site location, site/CA number, closure date and site classification. Locations of these sites may be cross-referenced to the Anderson database described under ERIS's Private Source Database section, by the CA number.

Government Publication Date: Up to Oct 1990*

Water Well Information System: Provincial WWIS

This database describes locations and characteristics of water wells found within Ontario in accordance with Regulation 903. It includes such information as coordinates, construction date, well depth, primary and secondary use, pump rate, static water level, well status, etc. Also included are detailed stratigraphy information, approximate depth to bedrock and the approximate depth to the water table.

Government Publication Date: Apr 30, 2021

Definitions

Database Descriptions: This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

Detail Report: This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

Distance: The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries. All values are an approximation.

Direction: The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

Elevation: The elevation value is taken from the location at which the records for the site address have been plotted. All values are an approximation. Source: Google Elevation API.

Executive Summary: This portion of the report is divided into 3 sections:

'Report Summary'- Displays a chart indicating how many records fall on the project property and, within the report search radii.

'Site Report Summary'-Project Property'- This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

Map Key: The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1' if records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

Unplottables: These are records that could not be mapped due to various reasons, including limited geographic information. These records may or may not be in your study area, and are included as reference.

Appendix C

Ministry of the Environment, Conservation and Parks

Access and Privacy Office

12th Floor
40 St. Clair Avenue West
Toronto ON M4V 1M2
Tel: (416) 314-4075
Fax: (416) 314-4285

Ministère de l'Environnement, de la Protection de la nature et des Parcs

Bureau de l'accès à l'information et de la protection de la vie privée

12e étage
40, avenue St. Clair ouest
Toronto ON M4V 1M2
Tél. : (416) 314-4075
Téléc.: (416) 314-4285

Ontario

February 10, 2022

Megan Bender
DS Consultants Ltd
6221 Highway 7, Unit 16
Vaughan, ON L4H 0K8

Dear Megan Bender:

RE: ***Freedom of Information and Protection of Privacy Act* Request**
Our File # A-2022-00759, Your Reference 21-339-100

The Ministry is in receipt of your request made pursuant to the *Freedom of Information and Protection of Privacy Act* and has received your payment in the amount of $5.00 (non-refundable application fee).

The search will be conducted on the following: 436 Quaker Road, Welland.
(*Search will be solely conducted on 436 Quaker Road, Welland*).
If there is any discrepancy please contact us immediately.

You may expect a reply or additional communication as your request is processed. For your information, the Ministry charges for search and preparation time.

Due to the COVID-19 outbreak, requesters may experience some delays with FOI requests at this time.

This is to advise you, we've gone digital! Requests submitted by fax will no longer be accepted starting August 31, 2021. If you submitted requests by fax before August 31, 2021, we'll process it. Please don't re-submit it using the online form or you might get charged twice. The online form can be found on the central forms repository at the following link https://www.forms.ssb.gov.on.ca/mbs/ssb/forms/ssbforms.nsf/FormDetail?OpenForm&ACT=RDR&TAB=PROFILE&SRCH=1&ENV=WWE&TIT=freedom+of+information&NO=012-2146E.

If you have any questions regarding this matter, please contact Nasreen Salar at or nasreen.salar@ontario.ca.

Yours truly,

Original Signed by

Noel Kent
Manager, Access and Privacy

Megan Bender

From: Public Information Services <publicinformationservices@tssa.org>
Sent: Tuesday, February 1, 2022 12:27 PM
To: Megan Bender
Subject: RE: TSSA Request - Pelham

Follow Up Flag: Follow up
Flag Status: Flagged

Please refrain from sending documents to head office and only submit your requests electronically via email along with credit card payment. We are all working remotely and mailing in applications with cheques will lengthen the overall processing time.

NO RECORD FOUND

Hello,

Thank you for your request for confirmation of public information.

- We confirm that there are no records in our database of any fuel storage tanks at the subject addresses.

For a further search in our archives please complete our release of public information form found at https://www.tssa.org/en/about-tssa/release-of-public-information.aspx?_mid_=392 and email the completed form to publicinformationservices@tssa.org along with a fee of $56.50 (including HST) per location. The fee is payable with credit card (Visa or MasterCard).

Although TSSA believes the information provided pursuant to your request is accurate, please note that TSSA does not warrant this information in any way whatsoever.

Kind regards,

Sherees

Public Information Agent
Facilities and Business Services
345 Carlingview Drive
Toronto, Ontario M9W 6N9
Tel: +1-416-734-6222 | Fax: +1-416-734-3568 | E-Mail: publicinformationservices@tssa.org
www.tssa.org

From: Megan Bender <megan.bender@dsconsultants.ca>
Sent: February 1, 2022 8:18 AM
To: Public Information Services <publicinformationservices@tssa.org>
Subject: TSSA Request - Pelham

Good morning,

Could you please perform a search for the following addresses:

- Rice Road: 450, 494, 502, 510, 516, 520, 524, 528, 538, 1131

Thank you!

Megan Bender, BES, EPt
Environmental/Geotechnical Technician
DS Consultants Ltd.
125 McGovern Drive., Unit 4
Cambridge, Ontario, N3H 4R7
Cell: (519) 588-9513
www.dsconsultants.ca

Megan Bender

From: Public Information Services <publicinformationservices@tssa.org>
Sent: Monday, January 31, 2022 11:58 AM
To: Megan Bender
Subject: RE: TSSA Request - Welland

Please refrain from sending documents to head office and only submit your requests electronically via email along with credit card payment. We are all working remotely and mailing in applications with cheques will lengthen the overall processing time.

NO RECORD FOUND

Hello,

Thank you for your request for confirmation of public information.

- We confirm that there are no records in our database of any fuel storage tanks at the subject addresses.

For a further search in our archives please complete our release of public information form found at https://www.tssa.org/en/about-tssa/release-of-public-information.aspx?_mid_=392 and email the completed form to publicinformationservices@tssa.org along with a fee of $56.50 (including HST) per location. The fee is payable with credit card (Visa or MasterCard).

Although TSSA believes the information provided pursuant to your request is accurate, please note that TSSA does not warrant this information in any way whatsoever.

Kind regards,

Mariah

Public Information Agent
Facilities and Business Services
345 Carlingview Drive
Toronto, Ontario M9W 6N9
Tel: +1-416-734-6222 | Fax: +1-416-734-3568 | E-Mail: publicinformationservices@tssa.org
www.tssa.org

From: Megan Bender
<megan.bender@dsconsultants.ca>
Sent: January 31, 2022 11:01 AM
To: Public Information Services <publicinformationservices@tssa.org>
Subject: TSSA Request - Welland

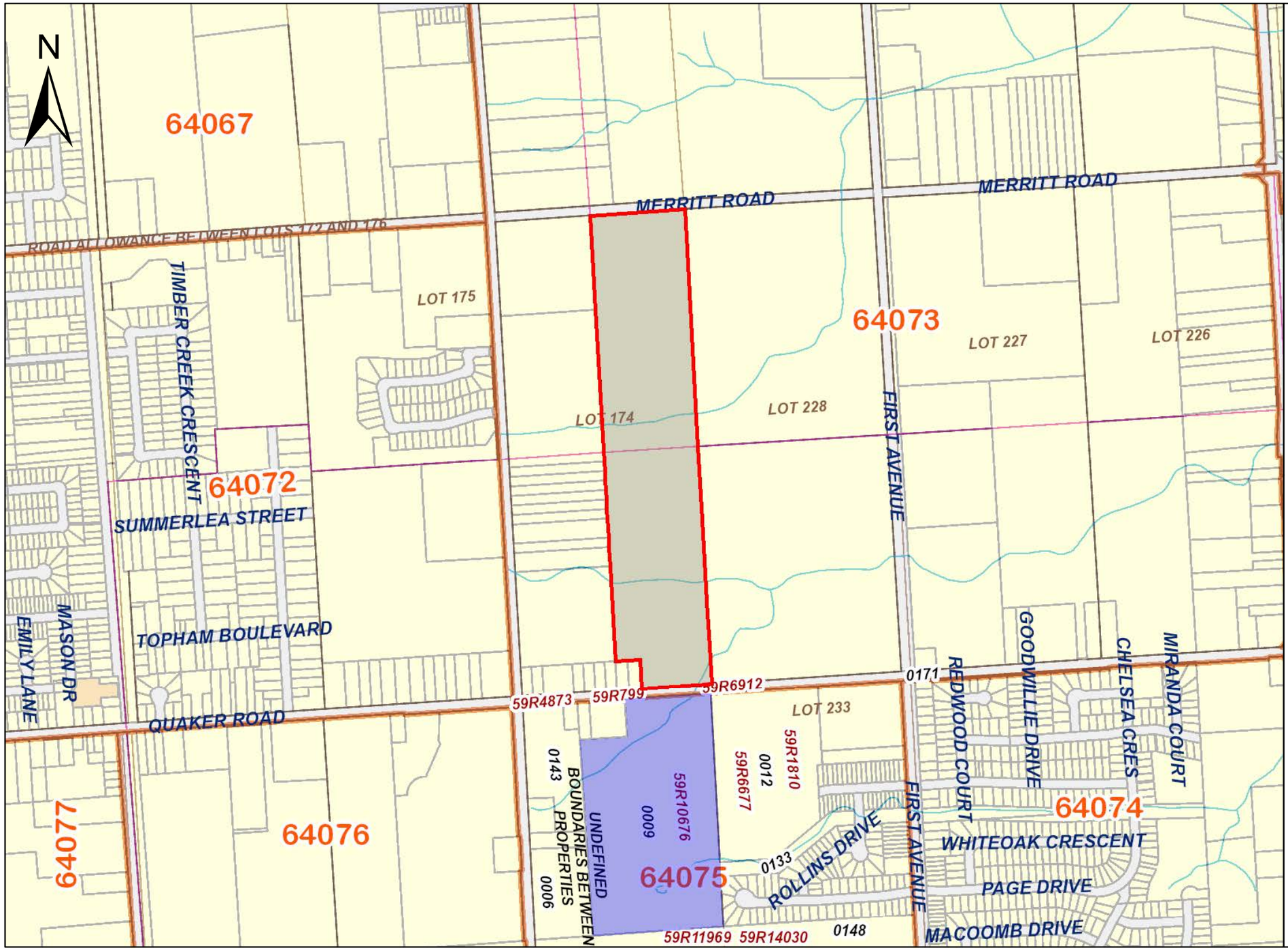
Good morning,

Could you please perform a search for the following addresses:

- First Avenue: 744
- Quaker Road: 436, 419, 333, 314, 294, 452, 456, 462
- Rice Road: 1155

Thank you,

Megan Bender, BES, EPt
Environmental/Geotechnical Technician
DS Consultants Ltd.
125 McGovern Drive., Unit 4
Cambridge, Ontario, N3H 4R7
Cell: (519) 588-9513
www.dsconsultants.ca



ServiceOntario

PRINTED ON 16 FEB, 2022 AT 13:24:48
FOR JOHN

SCALE

0 90 180 270 360 450
meters

PROPERTY INDEX MAP

NIAGARA SOUTH(No. 59)

LEGEND

FREEHOLD PROPERTY	
LEASEHOLD PROPERTY	
LIMITED INTEREST PROPERTY	
CONDOMINIUM PROPERTY	
RETIRED PIN (MAP UPDATE PENDING)	
PROPERTY NUMBER	*0449*
BLOCK NUMBER	**08050**
GEOGRAPHIC FABRIC	
EASEMENT	

THIS IS NOT A PLAN OF SURVEY

NOTES

REVIEW THE TITLE RECORDS FOR COMPLETE PROPERTY INFORMATION AS THIS MAP MAY NOT REFLECT RECENT REGISTRATIONS

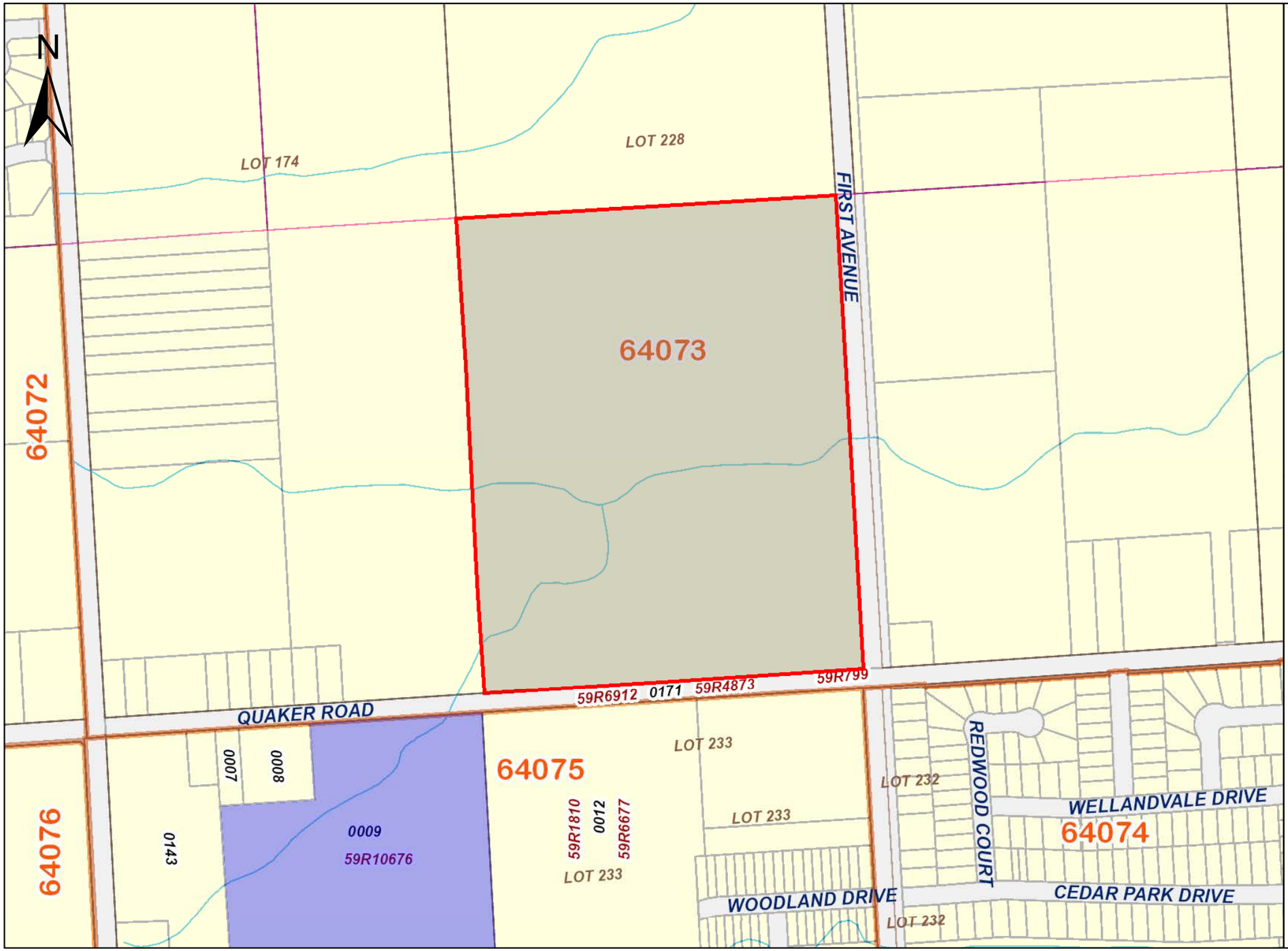
THIS MAP WAS COMPILED FROM PLANS AND DOCUMENTS RECORDED IN THE LAND REGISTRATION SYSTEM AND HAS BEEN PREPARED FOR PROPERTY INDEXING PURPOSES ONLY

FOR DIMENSIONS OF PROPERTIES BOUNDARIES SEE RECORDED PLANS AND DOCUMENTS

ONLY MAJOR EASEMENTS ARE SHOWN

REFERENCE PLANS UNDERLYING MORE RECENT REFERENCE PLANS ARE NOT ILLUSTRATED

Ontario



ServiceOntario

PRINTED ON 16 FEB, 2022 AT 13:28:22
FOR JOHN

SCALE

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meters

PROPERTY INDEX MAP

NIAGARA SOUTH(No. 59)

LEGEND

FREEHOLD PROPERTY	
LEASEHOLD PROPERTY	
LIMITED INTEREST PROPERTY	
CONDOMINIUM PROPERTY	
RETIRED PIN (MAP UPDATE PENDING)	
PROPERTY NUMBER	*0449*
BLOCK NUMBER	**08050**
GEOGRAPHIC FABRIC	
EASEMENT	

THIS IS NOT A PLAN OF SURVEY

NOTES

REVIEW THE TITLE RECORDS FOR COMPLETE PROPERTY INFORMATION AS THIS MAP MAY NOT REFLECT RECENT REGISTRATIONS

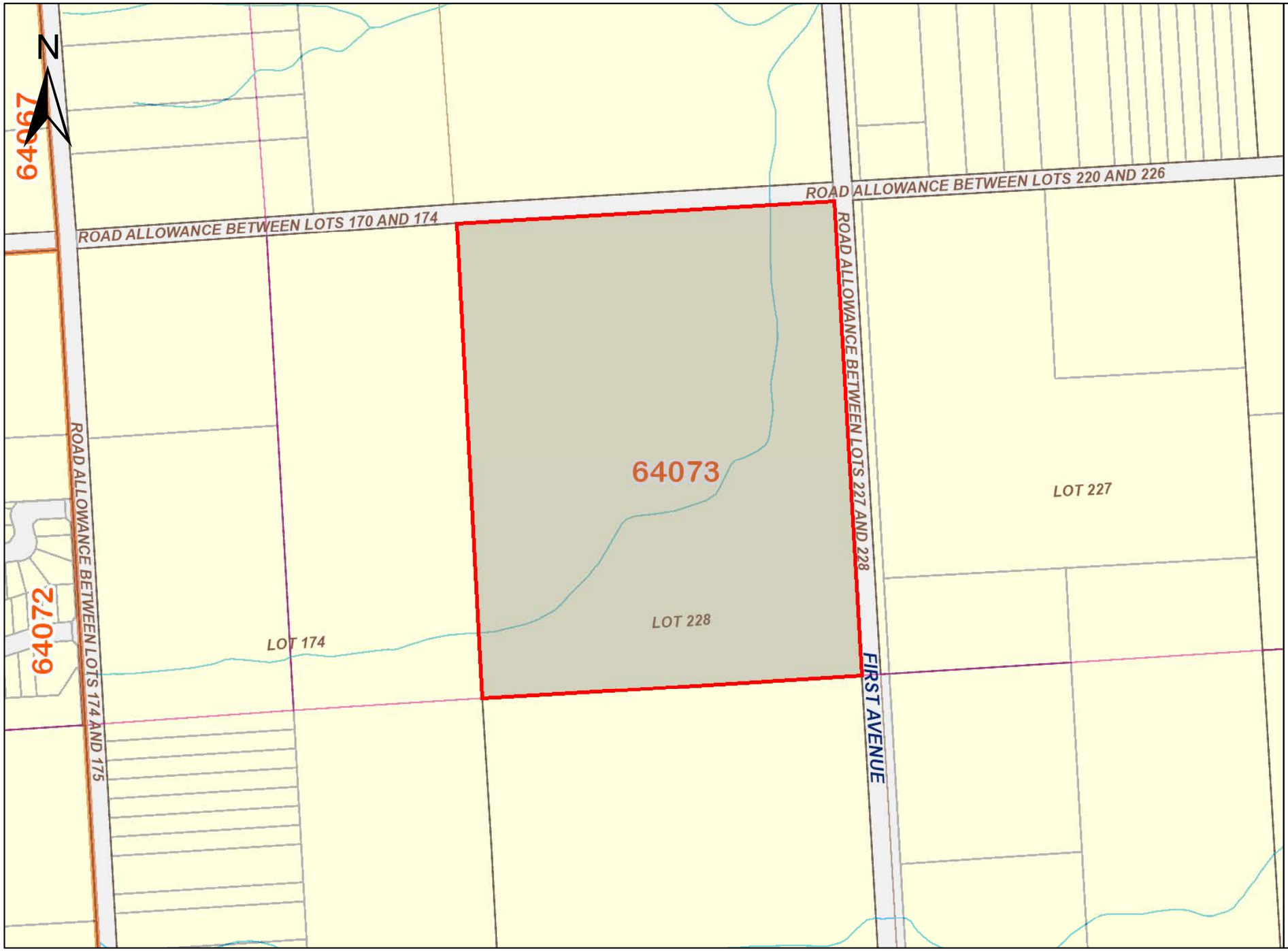
THIS MAP WAS COMPILED FROM PLANS AND DOCUMENTS RECORDED IN THE LAND REGISTRATION SYSTEM AND HAS BEEN PREPARED FOR PROPERTY INDEXING PURPOSES ONLY

FOR DIMENSIONS OF PROPERTIES BOUNDARIES SEE RECORDED PLANS AND DOCUMENTS

ONLY MAJOR EASEMENTS ARE SHOWN

REFERENCE PLANS UNDERLYING MORE RECENT REFERENCE PLANS ARE NOT ILLUSTRATED

Ontario



ServiceOntario

PRINTED ON 16 FEB, 2022 AT 13:27:41
FOR JOHN

SCALE

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meters

PROPERTY INDEX MAP

NIAGARA SOUTH(No. 59)

LEGEND

FREEHOLD PROPERTY	
LEASEHOLD PROPERTY	
LIMITED INTEREST PROPERTY	
CONDOMINIUM PROPERTY	
RETIRED PIN (MAP UPDATE PENDING)	
PROPERTY NUMBER	*0449*
BLOCK NUMBER	**08050**
GEOGRAPHIC FABRIC	
EASEMENT	

THIS IS NOT A PLAN OF SURVEY

NOTES

REVIEW THE TITLE RECORDS FOR COMPLETE PROPERTY INFORMATION AS THIS MAP MAY NOT REFLECT RECENT REGISTRATIONS

THIS MAP WAS COMPILED FROM PLANS AND DOCUMENTS RECORDED IN THE LAND REGISTRATION SYSTEM AND HAS BEEN PREPARED FOR PROPERTY INDEXING PURPOSES ONLY

FOR DIMENSIONS OF PROPERTIES BOUNDARIES SEE RECORDED PLANS AND DOCUMENTS

ONLY MAJOR EASEMENTS ARE SHOWN

REFERENCE PLANS UNDERLYING MORE RECENT REFERENCE PLANS ARE NOT ILLUSTRATED

Ontario

PROPERTY DESCRIPTION: PT TWP LT 174 THOROLD AS IN BB58943 ; WELLAND

PROPERTY REMARKS:

ESTATE/QUALIFIER:
FEE SIMPLE
LT CONVERSION QUALIFIED

RECENTLY:
FIRST CONVERSION FROM BOOK

PIN CREATION DATE:
1998/08/24

OWNERS' NAMES
PRIMONT (THOROLD/WELLAND) INC.

CAPACITY SHARE
ROWN

REG. NUM.	DATE	INSTRUMENT TYPE	AMOUNT	PARTIES FROM	PARTIES TO	CERT/ CHKD
EFFECTIVE 2000/07/29 THE NOTATION OF THE "BLOCK IMPLEMENTATION DATE" OF 1998/08/24 ON THIS PIN						
WAS REPLACED WITH THE "PIN CREATION DATE" OF 1998/08/24						
*** PRINTOUT INCLUDES ALL DOCUMENT TYPES AND DELETED INSTRUMENTS SINCE 1998/08/21 ***						
***SUBJECT, ON FIRST REGISTRATION UNDER THE LAND TITLES ACT, TO:*						
*** SUBSECTION 44(1) OF THE LAND TITLES ACT, EXCEPT PARAGRAPH 11, PARAGRAPH 14, PROVINCIAL SUCCESSION DUTIES **						
*** AND ESCHEATS OR FORFEITURE TO THE CROWN.*						
*** THE RIGHTS OF ANY PERSON WHO WOULD, BUT FOR THE LAND TITLES ACT, BE ENTITLED TO THE LAND OR ANY PART OF*						
*** IT THROUGH LENGTH OF ADVERSE POSSESSION, PRESCRIPTION, MISDESCRIPTION OR BOUNDARIES SETTLED BY*						
*** CONVENTION.*						
*** ANY LEASE TO WHICH THE SUBSECTION 70(2) OF THE REGISTRY ACT APPLIES.*						
***DATE OF CONVERSION TO LAND TITLES: 1998/08/24 ***						
BB58943	1967/02/10	TRANSFER		*** COMPLETELY DELETED ***	BORKOVSKY, JOHN	
59R11501	2001/09/06	PLAN REFERENCE				C
LT247014	2003/06/11	NOTICE OF LEASE		BORKOVSKY, JOHN	BELL MOBILITY INC.	C
SN242698	2009/04/28	TRANSFER		*** COMPLETELY DELETED *** BORKOVSKY, JOHN	BORKOVSKY, JOHN BORKOVSKY, ROBERT JOHN	
SN688995	2021/08/25	TRANSFER	$20,150,000	BORKOVSKY, JOHN BORKOVSKY, ROBERT JOHN	PRIMONT (THOROLD/WELLAND) INC.	C
REMARKS: PLANNING ACT STATEMENTS.						
SN688996	2021/08/25	CHARGE	$15,000,000	PRIMONT (THOROLD/WELLAND) INC.	BORKOVSKY, JOHN	C

NOTE: ADJOINING PROPERTIES SHOULD BE INVESTIGATED TO ASCERTAIN DESCRIPTIVE INCONSISTENCIES, IF ANY, WITH DESCRIPTION REPRESENTED FOR THIS PROPERTY.
NOTE: ENSURE THAT YOUR PRINTOUT STATES THE TOTAL NUMBER OF PAGES AND THAT YOU HAVE PICKED THEM ALL UP.

REG. NUM.	DATE	INSTRUMENT TYPE	AMOUNT	PARTIES FROM	PARTIES TO	CERT/ CHKD
					BORKOVSKY, ROBERT JOHN	

PROPERTY DESCRIPTION: PT TWP LT 228 THOROLD BEING PT 2 ON 59R7326 ; WELLAND

PROPERTY REMARKS:

ESTATE/QUALIFIER:
FEE SIMPLE
LT CONVERSION QUALIFIED

RECENTLY:
DIVISION FROM 64073-0031

PIN CREATION DATE:
2006/08/18

OWNERS' NAMES
PRIMONT (THOROLD/WELLAND) INC.

CAPACITY SHARE
ROWN

REG. NUM.	DATE	INSTRUMENT TYPE	AMOUNT	PARTIES FROM	PARTIES TO	CERT/ CHKD
** PRINTOUT INCLUDES ALL DOCUMENT TYPES AND DELETED INSTRUMENTS SINCE 2006/08/18 **						
**SUBJECT, ON FIRST REGISTRATION UNDER THE LAND TITLES ACT, TO:						
** SUBSECTION 44(1) OF THE LAND TITLES ACT, EXCEPT PARAGRAPH 11, PARAGRAPH 14, PROVINCIAL SUCCESSION DUTIES *						
** AND ESCHEATS OR FORFEITURE TO THE CROWN.						
** THE RIGHTS OF ANY PERSON WHO WOULD, BUT FOR THE LAND TITLES ACT, BE ENTITLED TO THE LAND OR ANY PART OF						
** IT THROUGH LENGTH OF ADVERSE POSSESSION, PRESCRIPTION, MISDESCRIPTION OR BOUNDARIES SETTLED BY						
** CONVENTION.						
** ANY LEASE TO WHICH THE SUBSECTION 70(2) OF THE REGISTRY ACT APPLIES.						
**DATE OF CONVERSION TO LAND TITLES: 1998/08/24 **						
59R7326	1990/10/12	PLAN REFERENCE				C
SN131868	2006/08/10	TRANSFER		*** DELETED AGAINST THIS PROPERTY *** 851924 ONTARIO LIMITED	BOOMERVILLE INC.	
REMARKS: PLANNING ACT STATEMENT PT 2 ON 59R7326						
SN131869	2006/08/10	CHARGE		*** DELETED AGAINST THIS PROPERTY *** BOOMERVILLE INC. WM. DUFFIN HOLDINGS INC.	851924 ONTARIO LIMITED	
SN131877	2006/08/10	CHARGE		*** DELETED AGAINST THIS PROPERTY *** WM. DUFFIN HOLDINGS INC. BOOMERVILLE INC.	EQUIMOR MORTGAGE INVESTMENT CORPORATION	
SN163629	2007/05/15	DISCH OF CHARGE		*** COMPLETELY DELETED *** EQUIMOR MORTGAGE INVESTMENT CORPORATION		
REMARKS: RE: SN131877						
SN198029	2008/02/14	APL COURT ORDER		*** COMPLETELY DELETED ***		

NOTE: ADJOINING PROPERTIES SHOULD BE INVESTIGATED TO ASCERTAIN DESCRIPTIVE INCONSISTENCIES, IF ANY, WITH DESCRIPTION REPRESENTED FOR THIS PROPERTY.
NOTE: ENSURE THAT YOUR PRINTOUT STATES THE TOTAL NUMBER OF PAGES AND THAT YOU HAVE PICKED THEM ALL UP.

REG. NUM.	DATE	INSTRUMENT TYPE	AMOUNT	PARTIES FROM	PARTIES TO	CERT/ CHKD
				PROVINCIAL OFFENCES COURT FOR THE REGIONAL MUNICIPALITY OF NIAGARA	NIAGARA PENINSULA CONSERVATION AUTHORITY	
SN212504	2008/06/26	APL COURT ORDER		*** COMPLETELY DELETED ***		
				PROVINCIAL OFFENCES COURT FOR THE REGIONAL MUNICIPALITY OF NIAGARA	NIAGARA PENINSULA CONSERVATION AUTHORITY	
SN267998	2009/12/23	JDGMT FORECLOSURE		*** COMPLETELY DELETED ***		
				ONTARIO SUPERIOR COURT OF JUSTICE	851924 ONTARIO LIMITED	
	REMARKS: SN131869.					
SN655673	2020/12/22	TRANSFER	$10,150,000	851924 ONTARIO LIMITED	PRIMONT (THOROLD/WELLAND) INC.	C
	REMARKS: PLANNING ACT STATEMENTS.					
SN655674	2020/12/22	CHARGE	$7,150,000	PRIMONT (THOROLD/WELLAND) INC.	851924 ONTARIO LIMITED	C

PROPERTY DESCRIPTION: PT TWP LT 228 THOROLD BEING PT 1 ON 59R7326 ; WELLAND

PROPERTY REMARKS: PLANNING ACT CONSENT AS IN SN131867.

ESTATE/QUALIFIER:
FEE SIMPLE
LT CONVERSION QUALIFIED

RECENTLY:
DIVISION FROM 64073-0031

PIN CREATION DATE:
2006/08/18

OWNERS' NAMES
PRIMONT (THOROLD/WELLAND) INC.

CAPACITY SHARE
ROWN

REG. NUM.	DATE	INSTRUMENT TYPE	AMOUNT	PARTIES FROM	PARTIES TO	CERT/ CHKD
*** PRINTOUT INCLUDES ALL DOCUMENT TYPES AND DELETED INSTRUMENTS SINCE 2006/08/18 **						
**SUBJECT, ON FIRST REGISTRATION UNDER THE LAND TITLES ACT, TO:						
** SUBSECTION 44(1) OF THE LAND TITLES ACT, EXCEPT PARAGRAPH 11, PARAGRAPH 14, PROVINCIAL SUCCESSION DUTIES *						
** AND ESCHEATS OR FORFEITURE TO THE CROWN.						
** THE RIGHTS OF ANY PERSON WHO WOULD, BUT FOR THE LAND TITLES ACT, BE ENTITLED TO THE LAND OR ANY PART OF						
** IT THROUGH LENGTH OF ADVERSE POSSESSION, PRESCRIPTION, MISDESCRIPTION OR BOUNDARIES SETTLED BY						
** CONVENTION.						
** ANY LEASE TO WHICH THE SUBSECTION 70(2) OF THE REGISTRY ACT APPLIES.						
**DATE OF CONVERSION TO LAND TITLES: 1998/08/24 **						
59R7326	1990/10/12	PLAN REFERENCE				C
SN131867	2006/08/10	TRANSFER		*** DELETED AGAINST THIS PROPERTY *** 851924 ONTARIO LIMITED	WM. DUFFIN HOLDINGS INC.	
REMARKS: PT 1 ON 59R7326, PLANNING ACT STATEMENT						
SN131869	2006/08/10	CHARGE		*** DELETED AGAINST THIS PROPERTY *** BOOMERVILLE INC. WM. DUFFIN HOLDINGS INC.	851924 ONTARIO LIMITED	
SN131877	2006/08/10	CHARGE		*** DELETED AGAINST THIS PROPERTY *** WM. DUFFIN HOLDINGS INC. BOOMERVILLE INC.	EQUIMOR MORTGAGE INVESTMENT CORPORATION	
SN163629	2007/05/15	DISCH OF CHARGE		*** COMPLETELY DELETED *** EQUIMOR MORTGAGE INVESTMENT CORPORATION		
REMARKS: RE: SN131877						
SN198029	2008/02/14	APL COURT ORDER		*** COMPLETELY DELETED ***		

NOTE: ADJOINING PROPERTIES SHOULD BE INVESTIGATED TO ASCERTAIN DESCRIPTIVE INCONSISTENCIES, IF ANY, WITH DESCRIPTION REPRESENTED FOR THIS PROPERTY.
NOTE: ENSURE THAT YOUR PRINTOUT STATES THE TOTAL NUMBER OF PAGES AND THAT YOU HAVE PICKED THEM ALL UP.

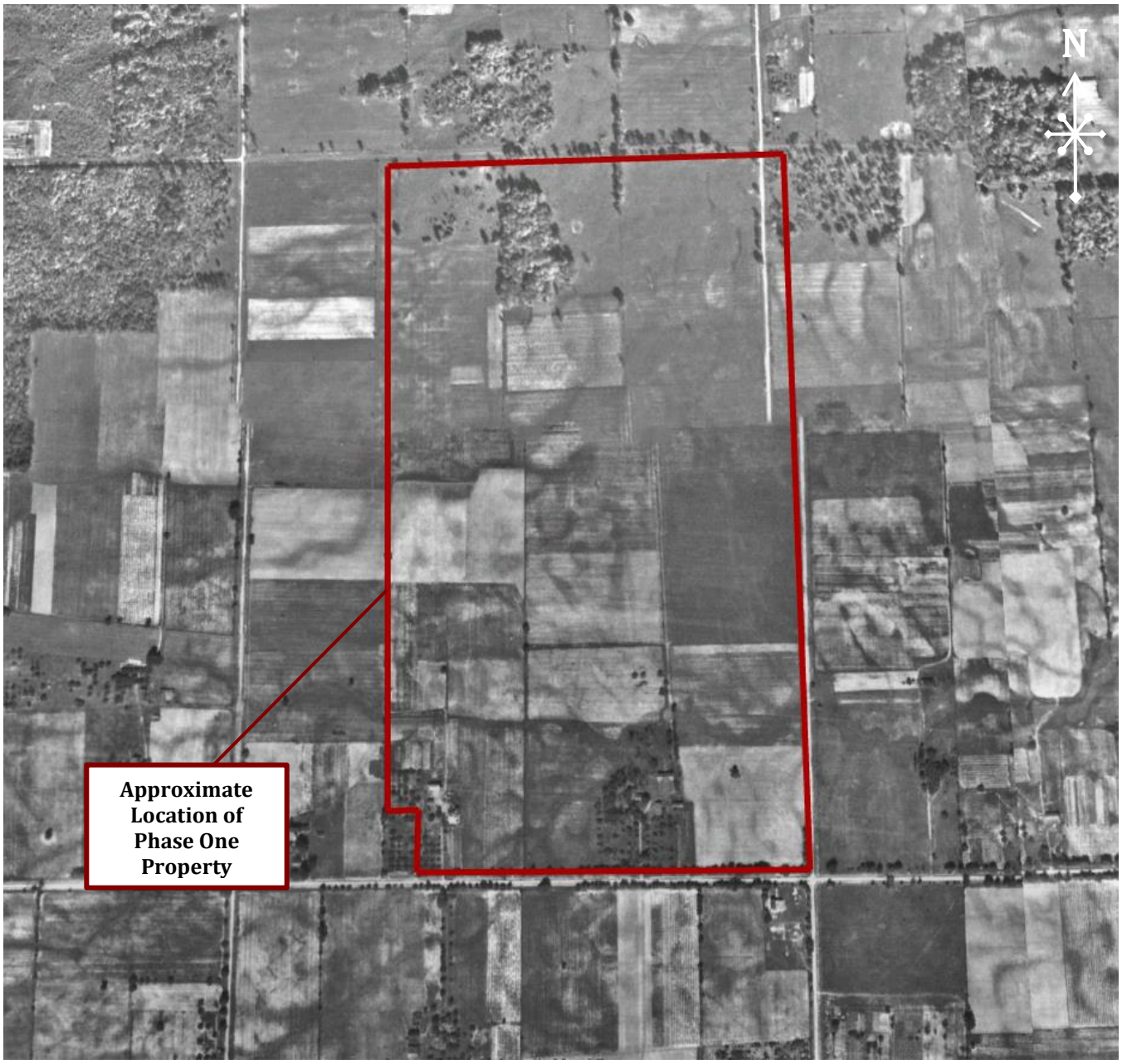
REG. NUM.	DATE	INSTRUMENT TYPE	AMOUNT	PARTIES FROM	PARTIES TO	CERT/ CHKD
				PROVINCIAL OFFENCES COURT FOR THE REGIONAL MUNICIPALITY OF NIAGARA	NIAGARA PENINSULA CONSERVATION AUTHORITY	
SN212504	2008/06/26	APL COURT ORDER		*** COMPLETELY DELETED ***		
				PROVINCIAL OFFENCES COURT FOR THE REGIONAL MUNICIPALITY OF NIAGARA	NIAGARA PENINSULA CONSERVATION AUTHORITY	
SN267998	2009/12/23	JDGMT FORECLOSURE		*** COMPLETELY DELETED ***		
				ONTARIO SUPERIOR COURT OF JUSTICE	851924 ONTARIO LIMITED	
REMARKS: SN131869.						
SN655673	2020/12/22	TRANSFER	$10,150,000	851924 ONTARIO LIMITED	PRIMONT (THOROLD/WELLAND) INC.	C
REMARKS: PLANNING ACT STATEMENTS.						
SN655674	2020/12/22	CHARGE	$7,150,000	PRIMONT (THOROLD/WELLAND) INC.	851924 ONTARIO LIMITED	C

Appendix D

6221 Highway 7
Vaughan, ON L4H 0K8
T: 905-264-9393 F: 905-264-2685

COUNTY ATLAS: 1876

Scale: NTS	**PHASE ONE ENVIRONMENTAL SITE ASSESSMENT**	Prepared By: MB
Date: Feb-22	**Quaker Rd and First Ave, Welland, Ontario**	Reviewed By: JGB
Project: 21-339-300	Prepared For: Primont Homes	Drawing No. **D-1**



© Google Earth

6221 Highway 7
Vaughan, ON L4H 0K8
T: 905-264-9393 F: 905-264-2685

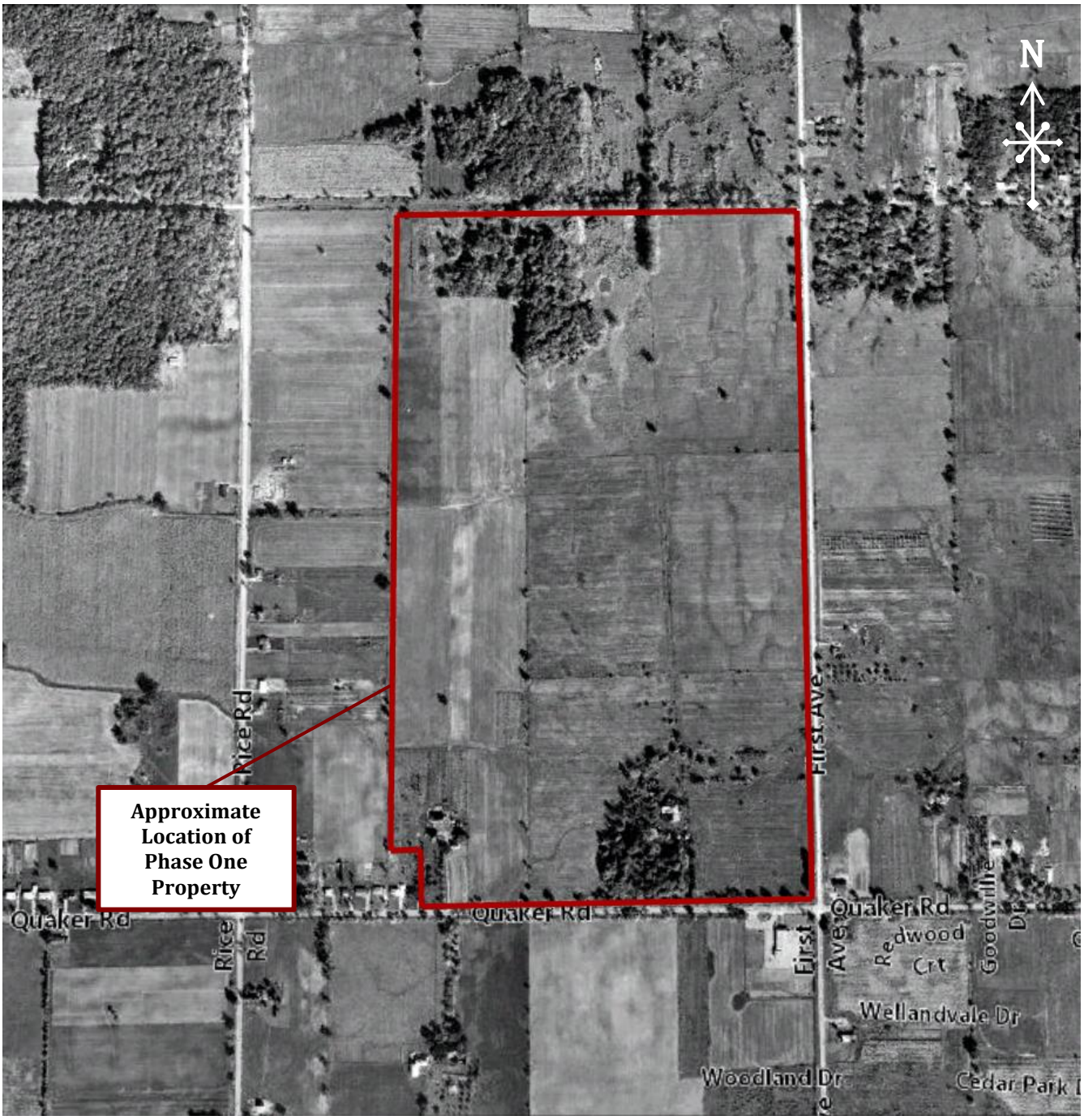
AERIAL PHOTOGRAPH: 1934

Scale: ~1:6400	**PHASE ONE ENVIRONMENTAL SITE ASSESSMENT** **Quaker Rd and First Ave, Welland, Ontario**	Prepared By: MB
Date: Feb-22		Reviewed By: JGB
Project: 21-339-300	Prepared For: Primont Homes	Drawing No. **D-2**

AERIAL PHOTOGRAPH: 1954

6221 Highway 7
Vaughan, ON L4H 0K8
T: 905-264-9393 F: 905-264-2685

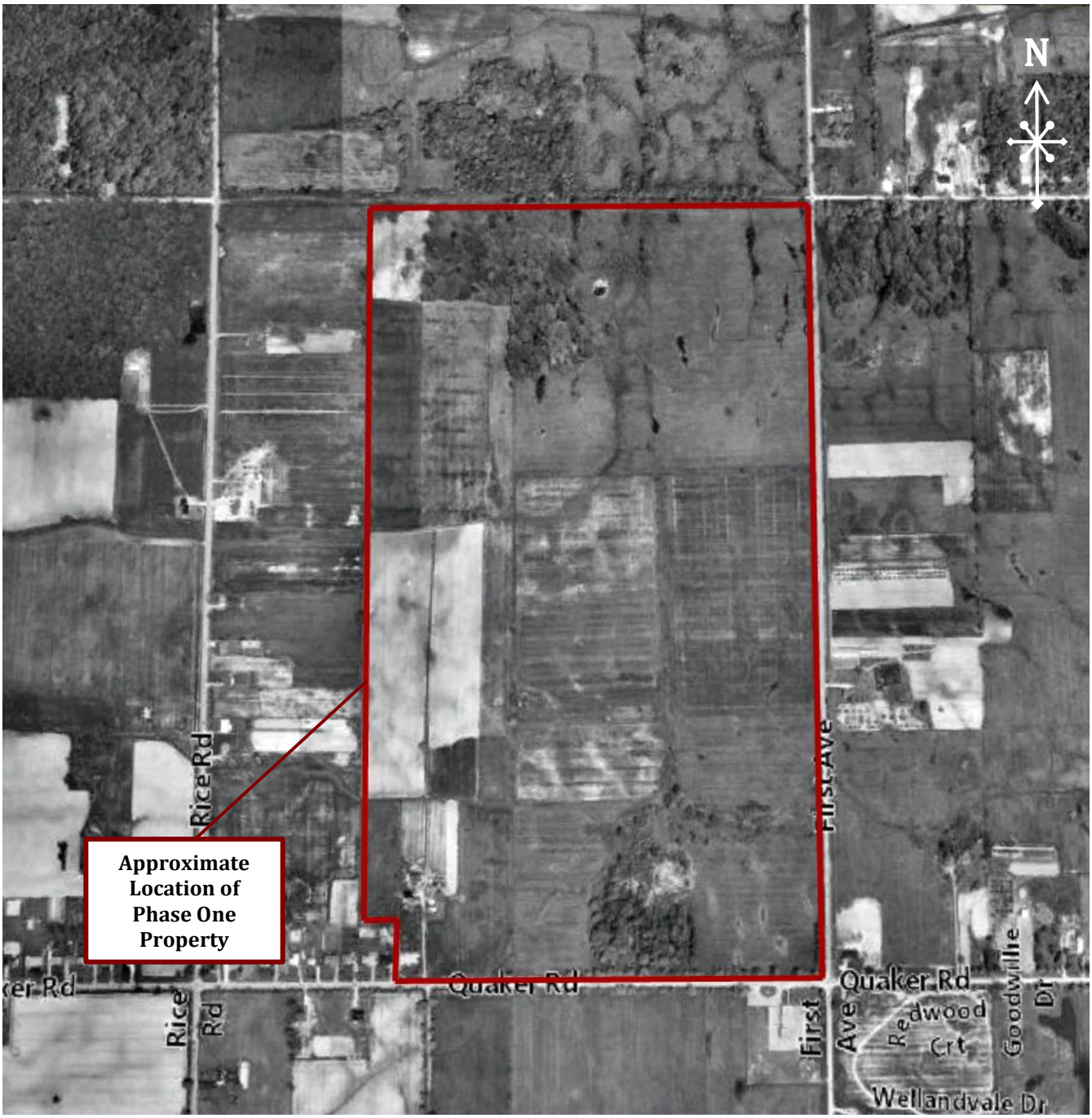
Scale: ~1:14900	**PHASE ONE ENVIRONMENTAL SITE ASSESSMENT Quaker Rd and First Ave, Welland, Ontario**	Prepared By: MB
Date: Feb-22		Reviewed By: JGB
Project: 21-339-300	Prepared For: Primont Homes	Drawing No. **D-3**



AERIAL PHOTOGRAPH: 1965

Scale: ~1:6500	**PHASE ONE ENVIRONMENTAL SITE ASSESSMENT Quaker Rd and First Ave, Welland, Ontario**	Prepared By: MB
Date: Feb-22		Reviewed By: JGB
Project: 21-339-300	Prepared For: Primont Homes	Drawing No. **D-4**

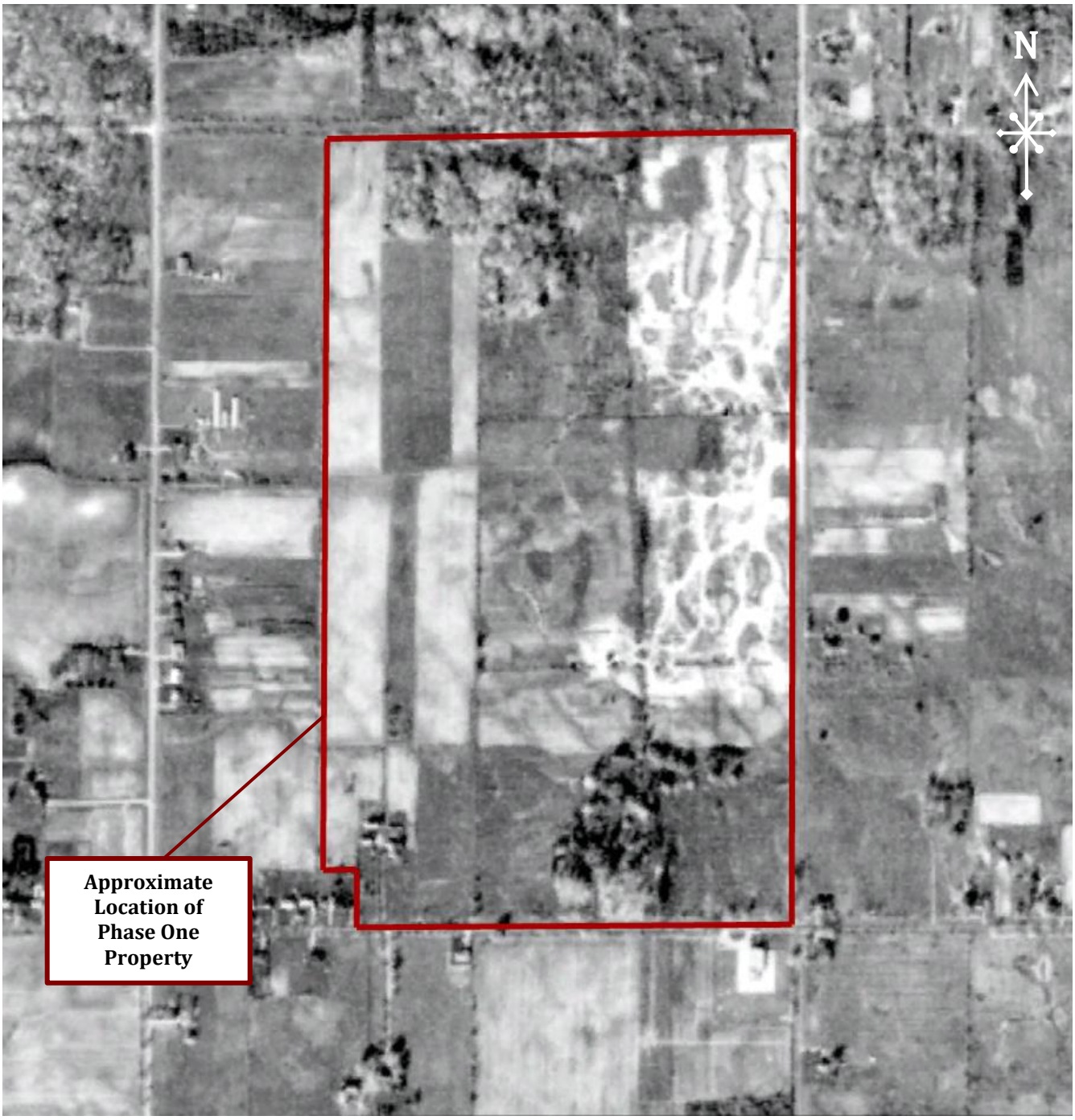
6221 Highway 7
Vaughan, ON L4H 0K8
T: 905-264-9393 F: 905-264-2685



6221 Highway 7
Vaughan, ON L4H 0K8
T: 905-264-9393 F: 905-264-2685

AERIAL PHOTOGRAPH: 1968

Scale: ~1:6000	**PHASE ONE ENVIRONMENTAL SITE ASSESSMENT** **Quaker Rd and First Ave, Welland, Ontario**	Prepared By: MB
Date: Feb-22		Reviewed By: JGB
Project: 21-339-300	Prepared For: Primont Homes	Drawing No. **D-5**



6221 Highway 7
Vaughan, ON L4H 0K8
T: 905-264-9393 F: 905-264-2685

AERIAL PHOTOGRAPH: 1975

Scale: ~1:5800	**PHASE ONE ENVIRONMENTAL SITE ASSESSMENT** **Quaker Rd and First Ave, Welland, Ontario**	Prepared By: MB
Date: Feb-22		Reviewed By: JGB
Project: 21-339-300	Prepared For: Primont Homes	Drawing No. **D-6**

AERIAL PHOTOGRAPH: 1980

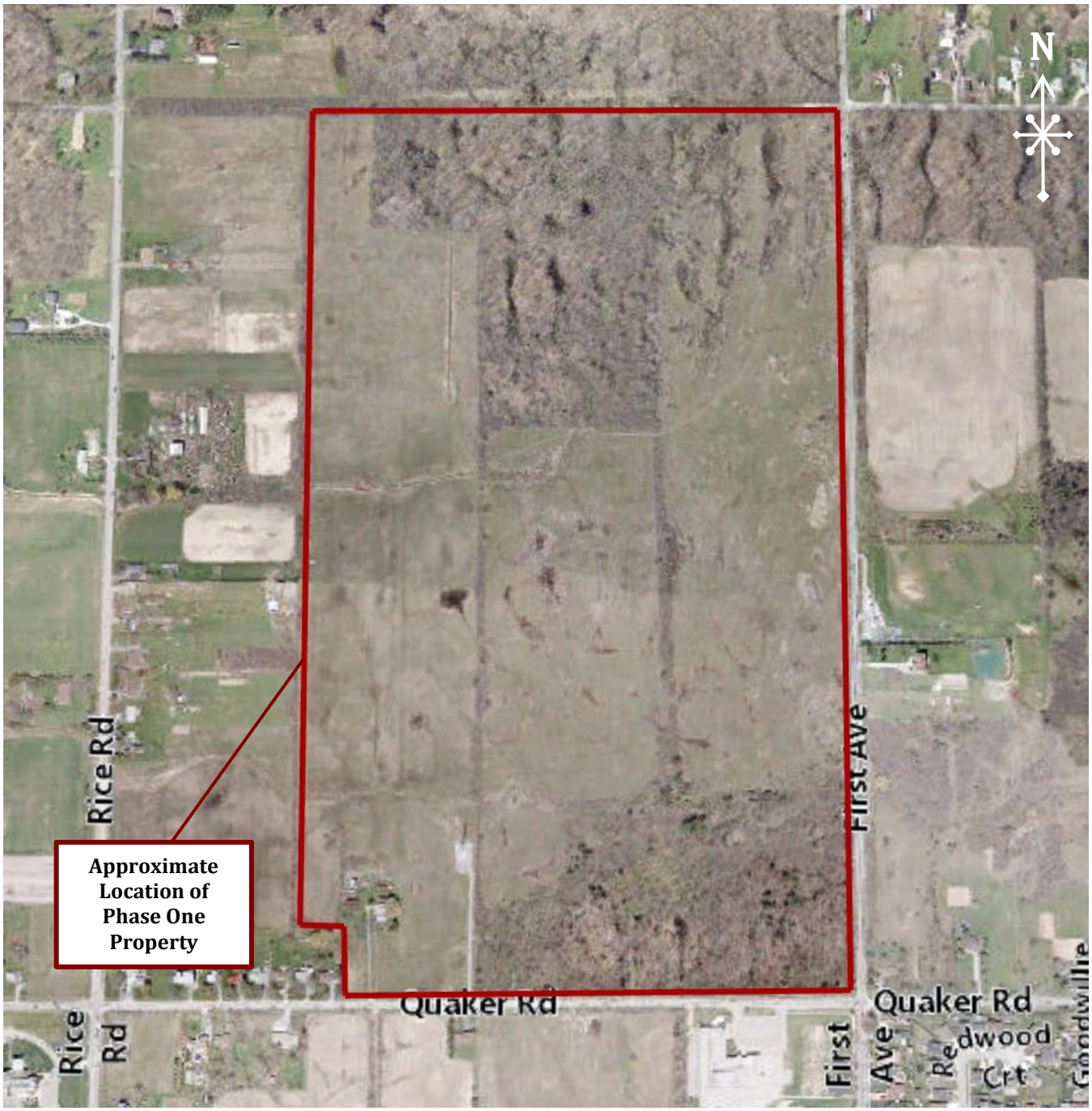
6221 Highway 7
Vaughan, ON L4H 0K8
T: 905-264-9393 F: 905-264-2685

Scale: ~1:5800	**PHASE ONE ENVIRONMENTAL SITE ASSESSMENT** **Quaker Rd and First Ave, Welland, Ontario**	Prepared By: MB
Date: Feb-22		Reviewed By: JGB
Project: 21-339-300	Prepared For: Primont Homes	Drawing No. **D-7**

6221 Highway 7
Vaughan, ON L4H 0K8
T: 905-264-9393 F: 905-264-2685

AERIAL PHOTOGRAPH: 2000

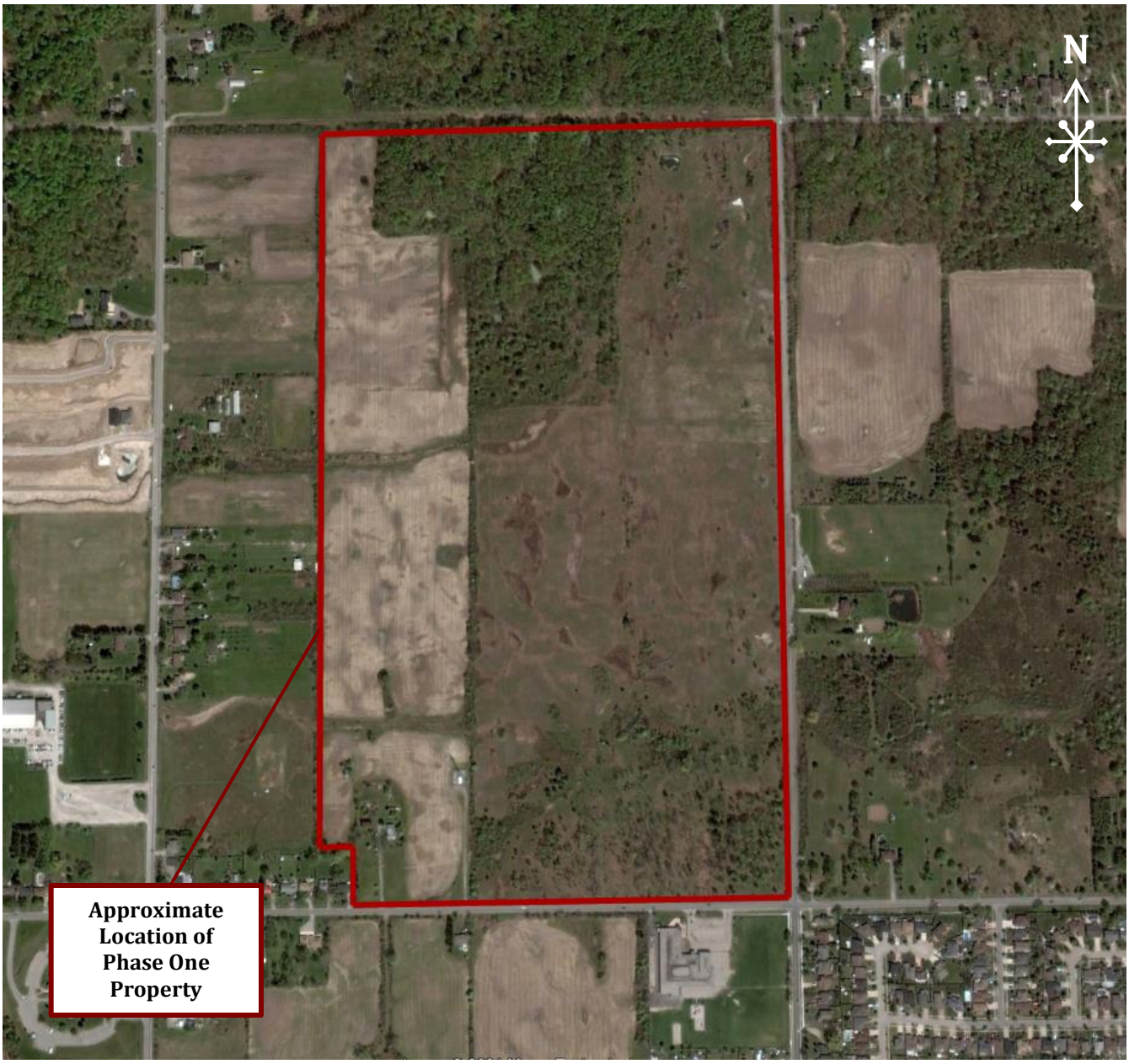
Scale: ~1:5000	**PHASE ONE ENVIRONMENTAL SITE ASSESSMENT Quaker Rd and First Ave, Welland, Ontario**	Prepared By: MB
Date: Feb-22		Reviewed By: JGB
Project: 21-339-300	Prepared For: Primont Homes	Drawing No. **D-8**



6221 Highway 7
Vaughan, ON L4H 0K8
T: 905-264-9393 F: 905-264-2685

AERIAL PHOTOGRAPH: 2006

Scale: ~1:5000	**PHASE ONE ENVIRONMENTAL SITE ASSESSMENT Quaker Rd and First Ave, Welland, Ontario**	Prepared By: MB
Date: Feb-22		Reviewed By: JGB
Project: 21-339-300	Prepared For: Primont Homes	Drawing No. **D-9**



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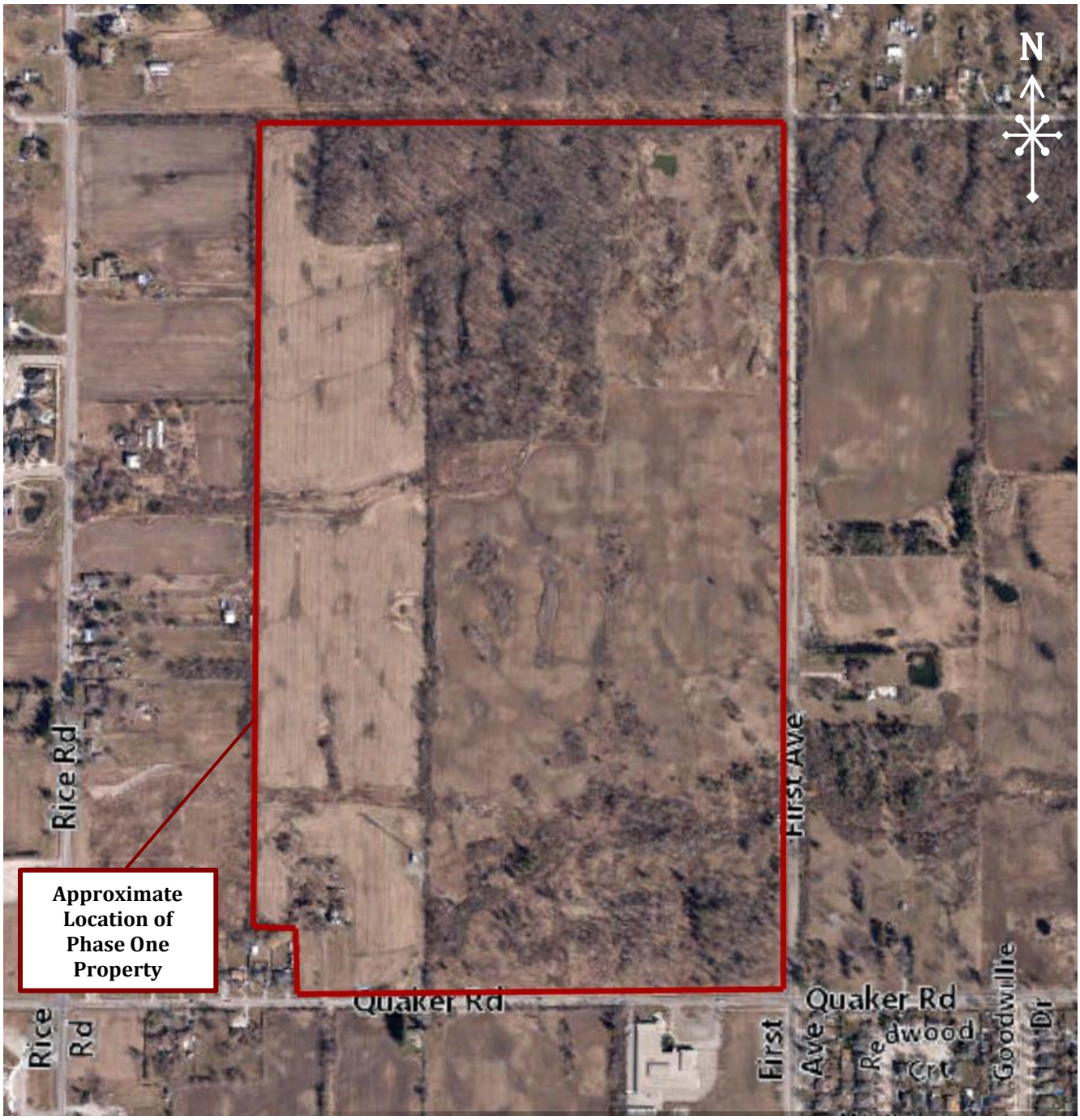
6221 Highway 7
Vaughan, ON L4H 0K8
T: 905-264-9393 F: 905-264-2685

AERIAL PHOTOGRAPH: 2015

Scale: ~1:5900	**PHASE ONE ENVIRONMENTAL SITE ASSESSMENT Quaker Rd and First Ave, Welland, Ontario**	Prepared By: MB
Date: Feb-22		Reviewed By: JGB
Project: 21-339-300	Prepared For: Primont Homes	Drawing No. **D-10**



6221 Highway 7
Vaughan, ON L4H 0K8
T: 905-264-9393 F: 905-264-2685

AERIAL PHOTOGRAPH: 2021

Scale: ~1:5300	**PHASE ONE ENVIRONMENTAL SITE ASSESSMENT** **Quaker Rd and First Ave, Welland, Ontario**	Prepared By: MB
Date: Feb-22		Reviewed By: JGB
Project: 21-339-300	Prepared For: Primont Homes	Drawing No. **D-11**

Appendix E

Picture 1: View of the agricultural land on the west adjacent properties, facing east.

Picture 2: View the northwest adjacent property, facing northeast.

Picture 3: View of the residential use at the southwest adjacent properties, facing east.

Picture 4: View of the southeast corner of the Site, facing west.

Picture 5: View of the east adjacent property, 744 First Ave, facing northeast.

Picture 6: View of the northeast portion of the Site, facing northwest.

Picture 7: View of the east portion of the Site, along First Avenue, facing northwest.

Picture 8: View of the northern portion of the Site, facing northeast.

Picture 9: View of the southern boundary, along Quaker Road, facing east.

Picture 10: View of area where Former Site Building B was located on Site, facing north.

Picture 11: View of the agricultural use on the south adjacent property, south of Quaker Road, facing south.

Picture 12: View of the residential use west of the Site, at 452 Quaker Road, facing west.

Picture 13: View of Site Building A, facing southeast.

Picture 14: View of a cellar on the basements' west portion of Site Building A with drain, facing south.

Picture 15: View of the inside of Site Building A, facing west.

Picture 16: View of the area with an abandoned well, facing north.

Picture 17: View of the current well servicing Site Building A, facing south.

Picture 18: View of the barn to the west of Site Building A, facing northwest.

Picture 19: View of the sheds to the north of Site Building A, facing northwest.

Picture 20: View of the shed to the west of Site Building A, facing west.

Picture 21: View of the silo to the north of Site Building A, facing north.

Picture 22: View of the bell tower located on Site, towards the southern portion of the site, facing east.

Picture 23: View of the west portion of the Site, facing west.

Picture 24: View of the wooded area/Provincially Significant Wetland at Parcel A, southeast of the Site, facing north.