Phase One Environmental Site Assessment
6659 Franktown Road, Ottawa, Ontario

Client:
Air Rock Drilling

Type of Document:
Final

Project Name:
Phase One Environmental Site Assessment

Project Number:
OTT-00243705-B0

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Date Submitted:
August 9, 2023

Legal Notification

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Executive Summary

EXP Services Inc. (EXP) was retained by Jeremy Hanna of Air Rock Drilling Co. Ltd. to complete a Phase I Environmental Site Assessment (ESA) and Phase II ESA of the property located at 6659 Franktown Road in Ottawa, Ontario, referred to as the 'Phase One property'.

A Phase One ESA is a systematic qualitative process to assess the environmental condition of a site based on its historical and current uses. This Phase One ESA was conducted in accordance with the Phase One ESA standard as defined by Ontario Regulation 153/04, as amended, and in accordance with generally accepted professional practices. Subject to this standard of care, EXP makes no express or implied warranties regarding its services and no third-party beneficiaries are intended. Limitation of liability, scope of report and third-party reliance are outlined in Section 9 of this report.

The purpose of this Phase One ESA is to determine if past or present site activities have resulted in actual or potential contamination at the Phase One property. It is understood that the report will be used to support a site plan application with the City of Ottawa.

The Phase One property is located on the north side of Franktown Road, at 6659 Franktown Road in Ottawa. The Phase One property has an area of approximately 1.22 hectares and is currently occupied by one residential structure, one workshop / office building and a Quonset hut all associated with the on Site well drilling company (Air Rock Drilling Company Ltd.).

Based on a review of historical aerial photographs, historical maps, and other records, the Phase One property was first developed with the residential structure some time around 2000, and the outbuildings were constructed sometime around 2005.

The subject property is in a rural countryside zoned area. The local groundwater flow direction is unknown, although based on regional topography, groundwater flow is anticipated to be southeast toward the Jock River.

The following PCAs were identified on the Phase One property:

- PCA #10 – Commercial autobody shop
    - On site – 6659 Franktown Road (Air Rock Drilling ltd.)
- PCA #28 – Gasoline and associated products storage in fixed tanks
    - On site – 6659 Franktown Road (Air Rock Drilling ltd.)

No off-site PCAs were identified.

The following APECs were identified:

Table EX-1: **Areas of Potential Environmental Concern**

Area of Potential Environmental Concern (APEC)	Location of APEC on Phase One Property	Potentially Contaminating Activity (PCA)	Location of PCA (On-Site or Off-Site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, Soil and/or Sediment)
APEC #1	Workshop shop sump discharge (sump discharges to ground just outside workshop building, south side)	PCA #10 – Gasoline and Associated Products Storage in Fixed Tanks	On-site	Benzene, toluene, ethylbenzene, xylene (BTEX), and petroleum hydrocarbons (PHC), metals	Soil and groundwater

Area of Potential Environmental Concern (APEC)	Location of APEC on Phase One Property	Potentially Contaminating Activity (PCA)	Location of PCA (On-Site or Off-Site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, Soil and/or Sediment)
APEC #2	Above ground storage tanks for furnace oil and fuel	PCA #28 – Gasoline and Associated Products Storage in Fixed Tanks	On-site	BTEX and PHC	Soil and groundwater

The Qualified Person who oversaw this work, Mark McCalla, P.Geo., recommends that a Phase Two ESA be conducted to address the APEC identified.

The Qualified Person can confirm that the Phase One Environmental Site Assessment was conducted per the requirements of Ontario Regulation 153/04, as amended, and in accordance with generally accepted professional practices.

This executive summary is a brief synopsis of the report and should not be read in lieu of reading the report in its entirety.

1.0 Introduction

EXP Services Inc. (EXP) was retained by Air Rock Drilling Co. Ltd. to complete a Phase One Environmental Site Assessment (ESA) for the property located at 6659 Franktown Road, Ottawa, Ontario hereinafter referred to as the 'Site'. At the time of the investigation, the Phase One property was occupied by one (1) residential structure, one workshop / office building and a Quonset Hut associated with the on-site well drilling company (Air Rock Drilling Company Ltd.).

A Phase One ESA is a systematic qualitative process to assess the environmental condition of a site based on its historical and current uses. This Phase One ESA was conducted in accordance with the Phase One ESA standard as defined by Ontario Regulation 153/04, as amended, and in accordance with generally accepted professional practices. Subject to this standard of care, EXP makes no express or implied warranties regarding its services and no third-party beneficiaries are intended. Limitation of liability, scope of report and third-party reliance are outlined in Section 9 of this report.

Please note that general environmental management and housekeeping practices were reviewed as part of this assessment insofar as they could impact the environmental condition of the property, however, a detailed review of regulatory compliance issues was beyond the scope of our investigation. This Phase One ESA does not constitute an audit of environmental management practices, indicate geotechnical conditions or identify geologic hazards.

1.1 Objective

The purpose of this Phase One and Two ESA is to determine if past or present site activities have resulted in actual or potential contamination at the Phase One property.

EXP understands that this report is being conducted in support of a zoning amendment and will not be used to submit a Record of Site Condition (RSC).

EXP personnel who conducted assessment work for this project included Mark McCalla, P.Geo., and Mackenzie Russell, M.Sc.. An outline of their qualifications is provided in Appendix A.

1.2 Phase One Property Information

The Phase One property is located on the north side of Franktown Road, at 6659 Franktown Road in Ottawa, just west of the village of Richmond. The Phase One property is rectangular in shape with am area of approximately 1.22 hectares and is currently occupied by one (1) residential structure, one workshop / office building and a Quonset Hut associated with the on-Site well drilling company (Air Rock Drilling Company Ltd.). Asphalt parking area and access-way is present along the east side of the Phase One property. The remainder of the Phase One property is landscaped. The residential structure was constructed in 2002 and the Quonset Building and Workshop/Office were constructed around 2005.

Topographically, the Phase One property is relatively flat and the surrounding area has a slight downward slope towards the southeast. The closest body of water is the Jock River, located approximately 2.3 km to the southeast of the Phase One property.

The Phase One property is legally described as CON 4 E PT LOT 19 RP;4R-14477 PART 2. The PIN for the Phase One property is 044390239. The approximate centroid coordinates are NAD83 18T 432048 m E and 5003159 m N.

The Phase One property is owned by Air Rock Drilling Company Ltd. Authorization to proceed with this investigation was provided by Mr. Jeremy Hanna.

A Site plan is provided in Figure 2 of Appendix B.

2.0 Scope of Investigation

The scope of work for the Phase One ESA consisted of the following activities:

- Reviewing the historical occupancy of the Phase One property through the use of available archived and relevant municipal and business directories, fire insurance plans (FIPs), topographical maps, and aerial photographs;
- Reviewing municipal and provincial records to determine whether activities that have occurred within the Phase One study area pose a potential environmental concern to the Phase One property;
- Obtaining an EcoLog Environmental Risk Information Services Ltd. (ERIS) report for the Phase One property and surrounding properties within a 250-metre radius of the Phase One property;
- Reviewing available geological maps, well records and utility maps for the vicinity of the Phase One property;
- Obtaining a search of land title and assessment rolls for the Phase One property;
- Conducting at least one reconnaissance of the Phase One property and surrounding properties within a 250-metre radius of the Phase One property in order to identify the presence of actual and/or potential environmental contaminants or concerns of significance;
- Conducting interviews with designated representative(s) as a resource for current and historical information;
- Reviewing the current use of the Phase One property and any land use practices that may have impacted its environmental condition;
- Reviewing the current use of the surrounding properties and any land use practices that may have impacted the environmental condition of the Phase One property; and,
- Preparing a report to document the findings.

In completing the scope of work, EXP did not conduct any intrusive investigations, including sampling, analyses, or monitoring. EXP has confirmed neither the completeness nor the accuracy of any of the records that were obtained or of any of the statements made by others.

3.0 Records Review

3.1 Phase One ESA Study Area Determination

The Phase One study area comprises the Phase One property and surrounding properties wholly or partly within 250 metres of the property boundaries. The 250-metre radius was used to gain an understanding of the current and past uses of surrounding properties to determine whether such uses may have contributed to subsurface environmental impacts at the Phase One property. At the time of the site reconnaissance, land usage within 250 metres of the Phase One property was primarily rural (RU) including the Phase One property, as well as rural institutional (RI). An environmental protection zone (EP3 – allowing residential and agricultural use) is located approximately 75 m North of the Phase One property boundary, and an open space and parks (O10 -Trans Canada Pipeline Subzone) is present approximately 230 m southwest of the Phase One property.

The Phase One study area is shown on Figure 2 in Appendix B.

3.2 First Developed Use Determination

Based on a review of historical aerial photographs, historical maps, and other records review, it appears that the Phase One property was initially agricultural land dating back to the 1970's (1976) up to the early 2000's (2002) when the property was developed in its current configuration.

3.3 Fire Insurance Plans

The Catalogue of Canadian Fire Insurance Plans 1875 – 1975 (Catalogue) was used to determine if fire insurance plans (FIPs) for the subject Site exist. FIPs for the Phase One study area were not available for review.

3.4 Chain of Title

A chain of title search provides a list of property owners and the dates when they owned them. A chain of title was requested from Read Abstracts Limited for The Phase One property. To date chain of title information has not been received.

A GeoWarehouse search of 6659 Franktown Road, Ottawa, Ontario conducted on July 13, 2023 indicated that title of the property was transferred to Air Rock Drilling Company in 2011.

3.5 Environmental Reports

The following previous environmental reports were provided to EXP for review:

1. EXP, *Phase I and II Environmental Site Assessment, 6659 Franktown Road, Ottawa, Ontario*, November 2017.

The Phase I and II ESA was conducted for due diligence purposes by EXP. The property owner at the time of the investigation indicated that the Phase One property was first developed in the 2000s with a residence and workshop and office building, as well as Quonset hut. Three PCAs resulting in APECs were identified on the Phase One property. A Phase II ESA was recommended to assess the APECs. Based on the laboratory analyses, the concentrations of PHC, BTEX and metals measured in the analysed soil and groundwater samples were less than the MOECC 2011 Table 2 SCS, with the exception of the sample collected from TP5, which was found to have soil exceedances for PHC F1 and PHC F2 when compared to the Ministry of Environment and Climate Change (MOECC) Table 2 site conditions standards (SCS). The impacts of TP5 were delineated in all four cardinal directions. No elevated PHC and / or BTEX concentrations were detected in the three water samples collected and the water quality met the applicable current MECP Table 2 SCS. Therefore, the minor soil impact from TP5 had not impacted the groundwater from MW3 (which was located immediately next to TP5).

3.6 Environmental Source Information

Information pertaining to the Phase One property was obtained by reviewing documents that are available to the public through municipal and provincial sources. EXP did not identify the need to contact any federal agencies.

Written responses from regulatory agencies and copies of documents obtained via searches are provided in Appendix D.

3.6.1 Ontario Ministry of the Environment, Conservation and Parks Records

Records pertaining to the Phase One property were requested from the Ministry of the Environment, Conservation and Parks (MECP) through the *Freedom of Information and Protection of Privacy Act* (FOI). No records pertaining to the Phase One property were identified. A copy of the response is included in Appendix C of this report.

3.6.2 Historical Land Use Inventory

Records pertaining to the Phase One property and study area were requested from the City of Ottawa Hazardous Land Use Inventory (HLUI) database. The following properties of interest were noted:

- 6659 Franktown Road (Air Rock Drilling Co ltd.); Water well drilling and service (2001, 2017), Phase One property.
- 6685 Franktown Road (ACORN Property Maintenance); Service Industries Incidental to Air Transport (2001), adjacent to the west of the Phase One property.
- 6731 Franktown Road (TRANS Canada); Pipeline(s), approximately 230 m west-southwest of the Phase One property.

3.6.3 Environmental Registry

On July 13, 2023, the MECP Environmental Registry website was searched for postings in the vicinity of the Phase One property.

- One Permit to Take Water (PTTW) were issued for properties in the Phase One study area for dewatering operations associated with construction activities.

None of the records are considered an environmental concern to the Phase One property.

3.6.4 Environmental Access

On July 13, 2023, the MECP Environmental Access website was searched for postings within the Phase One study area. The following records were found:

- Four Permits to Take Water (PTTW) were issued for properties in the Phase One study area for dewatering operations associated with construction activities.

None of the records are considered an environmental concern to the Phase One property.

3.6.5 Hazardous Waste Information Network

On July 13, 2023, the Resource Productivity and recovery Authority (RPRA) Hazardous Waste Program (HWP) Registry website was searched for registered waste generators within the Phase I study area. The HWP registry replaced the MECP Hazardous Waste Information Network (HWIN) as of January 1, 2023.

No records were found within the Phase One study area.

3.6.6 Records of Site Condition

On July 13, 2023, the MECP Brownfields Registry website was searched for postings of Records of Site Condition within the Phase One study area.

No records were found within the Phase One study area.

3.6.7 Coal Gasification Plants

Documents entitled *Inventory of Industrial Sites Producing or Using Coal Tar and Related Tars in Ontario* prepared by the MECP and *Inventory of Coal Gasification Plant Waste Sites in Ontario* prepared by Intera Technologies Ltd. were reviewed. There were no coal gasification plants identified within the Phase One study area.

3.6.8 PCB Storage Sites

Documents entitled *National Inventory of PCBs in Use and PCB Wastes in Storage in Canada*, *2003 Annual Report* prepared by Environment Canada and *Ontario Inventory of PCB Storage Sites* prepared by the MECP were reviewed. No records pertaining to PCB storage sites were identified within the Phase One study area.

3.6.9 Waste Disposal Sites

Documents entitled *Old Landfill Management Strategy, Phase 1, Identification of Sites, City of Ottawa, Ontario* prepared by Golder Associates Ltd. and *Waste Disposal Site Inventory* prepared by the MECP were reviewed. No former landfills or waste disposal sites were identified within the Phase One study area.

3.6.10 Former Industrial Sites

The document entitled *Mapping and Assessment of Former Industrial Sites; City of Ottawa* prepared by Intera Inc. was reviewed. No former industrial sites were identified within the Phase One study area:

3.7 EcoLog ERIS Database Search

A search of provincial and federal databases for records pertaining to the subject Site and properties within 250 metres of the subject Site was conducted by EcoLog Environmental Risk Information Services (or EcoLog ERIS). EcoLog ERIS is an environmental database and information service provider. EXP has confirmed neither the completeness nor the accuracy of the records that were provided. A summary of the more significant findings is provided below. A copy of the EcoLog ERIS report is provided in Appendix C.

Based on the review of the database, there were 2 Environmental Compliance Approvals issued to Air Rock Drilling Co. ltd. There were Certificates of Approval for various sites in Richmond, Ontario for air and noise in 2012. All remaining entries identified were either boreholes, domestic water supply wells or permits to take water. No APECs were identified.

17 records for registered National Defense and Canadian Forces fuel tanks, currently active as of 2001, were identified along Franktown Road in Richmond, but were un-plottable, suspected to be outside the Phase One study area. A copy of the EcoLog ERIS report is provided in Appendix D.

3.8 Physical Setting Sources

3.8.1 Aerial Photographs

Aerial photographs dated 1976, 1991, 1999, 2002, 2005, 2011 and 2017, and 2021 were available for review on the City of Ottawa website. The following table summarizes the development and land use history of the Phase One property and adjacent properties as depicted on the reviewed aerial photographs. Copies of the aerial photographs are provided in Appendix E.

Aerial Photograph (year)	Details
1976	The Phase One property was agricultural in nature. Residential development (single family homes) are present to the east and west of the Phase One property.
1991	The Phase One property appears similar to the 1976 aerial photograph. However, The Phase One property is no longer being used for agricultural purposes. The Phase One property is shown to be populated with small trees and shrubs. The surrounding properties remain unchanged.
1999	The Phase One property and study area appear similar to the 1991 aerial photograph.
2002	The Phase One property has been developed with a residential structure and a works yard at the northern extent of The Phase One property. The surrounding properties remain unchanged.
2005	Further development has occurred at the Phase One property in the form of a Quonset building and a permanent workshop/office building similar to current configuration. Fuel storage tanks can be seen along the access road (western side) to the rear of the Phase One property. The surrounding properties remain unchanged.
2011	The Phase One property and surrounding properties remain unchanged.
2017	The Phase One property and surrounding properties remain unchanged.
2021	The Phase One property and surrounding properties remain unchanged.

No potential environmental concerns were identified in the aerial photographs.

3.8.2 Topography, Hydrology, Geology

Bedrock and surficial geology were reviewed via the Google Earth applications published by the Ontario Ministry of Energy, Northern Development and Mines. The bedrock geology application is available via www.mndm.gov.on.ca/en/mines-and-minerals/applications/ogsearth/bedrock-geology and was last modified on March 19, 2018. The surficial geology application is available via www.mndm.gov.on.ca/en/mines-and-minerals/applications/ogsearth/surficial-geology and was last modified on May 23, 2017.

Based on local mapping, beneath any fill, the surficial geology of the Phase One property is characterised by sand, gravel, silt and clay. The bedrock geology underlying the subject site consists of Ottawa Formation, limestone, dolostone, and shale. The local MECP water well records and geotechnical boreholes indicate local geology is sand over limestone bedrock.

A topographical map available from Natural Resources Canada (atlas.gc.ca/toporama/en/) was also reviewed. The general topography of the Phase One property and study area sloped to the southeast, the generic groundwater flow is anticipated to be southeast towards the Jock River.

3.8.3 Fill Materials

It is unlikely that significant quantities of fill material are present at the Phase One property.

3.8.4 Water Bodies and Areas of Natural Significance

There are no water bodies on the Phase One property. The closest body of water is the Jock River approximately 2.3 km to the southeast. The inferred groundwater flow direction is to the southeast towards the Jock River.

There are no Area of Natural Significance (ANSI) within the Phase One study area, according to the Ministry of Natural Resources and Forestry Natural Heritage website (www.gisapplication.lrc.gov.on.ca/mamnh/Index.html).

3.8.5 Well Records

The Ontario well records website (www.ontario.ca /map-well-records water wells) was accessed. Fifteen well records were identified within the Phase One study area, including 6 records for monitoring wells on the Phase One property. Three of the remaining well records were for monitoring wells and/or monitoring well abandonment, and six were for domestic water supply wells. Well records indicate surficial soil consists of sand and sandy clay. Limestone bedrock was present approximately 1.0 to 9.0 metres below ground surface.

There are no oil, gas, or salt wells within the Phase One study area, according to the Oil, Gas & Salt Resources Library (maps.ogsrlibrary.com/wells/).

3.9 Site Operating Records

No site operating records were provided to EXP for review.

3.10 Summary of Records Review

Based on a review of the available records, the following PCAs were identified:

- PCA #10 – Commercial autobody shop
    - On site – 6659 Franktown Road (Air Rock Drilling ltd.)
- PCA #28 – Gasoline and associated products storage in fixed tanks
    - On site – 6659 Franktown Road (Air Rock Drilling ltd.)

The PCAs identified were determined to result in areas of potential environmental concern (APEC) on the Phase One property.

4.0 Interviews

Interviews were conducted by EXP with the individuals identified to be the most knowledgeable about both the current and historical Site uses. The purpose of interviews is to obtain information to assist in identifying areas of potential environmental concern and identify details of potentially contaminating activities or potential contaminant pathways, in, on or below the Phase One property.

Mr. Jeremy Hanna, president of operations, was interviewed during the site visit on Jul 11, 2023. Mr. Hanna was unaware of any environmental issues regarding The Phase One property apart from those identified in previous Phase One and Two Environmental Site Assessment (ESA), including ASTs along the access-way, and behind the workshop and office building, as well as the sump discharge from the workshop to the ground surface behind the workshop and office building. The sump effluent is now filtered prior to discharge.

Responses to other questions were made during site reconnaissance and are discussed in section 5.0.

5.0 Site Reconnaissance

5.1 General Requirements

On July 11, 2023, Ms. Mackenzie Russell., of EXP conducted the site visit in accordance with EXP's internal health and safety protocols and with the Ministry of Labour health and safety regulations. The weather was sunny with an approximate temperature of 30 degrees Celsius. The site visit lasted approximately 60 minutes. The purpose of the site visit was to assess the current conditions of the Phase One property.

Observations of the Phase One property and surrounding properties within the Phase One study area were conducted. Adjoining properties were observed from within the grounds of the Phase One property and from public roads.

Photographs were taken at the Phase One property on July 11, 2023, and pertinent photographs are included in Appendix G.

5.2 Specific Observations at the Phase One Property

5.2.1 Buildings and Structures

The Phase One property was occupied by one residential dwelling, a workshop / office for the site operations and a Quonset building, which are summarized below:

- Residence – Two-storey (with basement) single unit residential dwelling complete with basement. This building was constructed in 2002.
- Quonset Building – Single-storey pre-fabricated Quonset building with dirt floor. This building was constructed in 2005 and is used to store the drilling rigs and the associated equipment.
- Workshop/office – This single-storey metal and wood framed, metal sided building with concrete floor, was constructed in 2005. There is no basement to the building. The southern portion of this building is utilized as an office area and the north portion is utilized as a workshop space.

5.2.2 Site Utilities and Services

Heating within the residence is provided by geothermal heating and cooling is provided by a central air conditioning unit. The workshop area was observed to be heated with a waste oil heater, the office area was found to be heated by propane. The office portion of the building was also observed to be cooled by a central air conditioning unit. Heating or cooling sources were not observed within the Quonset building, the building is ventilated by passive vent openings on either end.

The Phase One property was observed to be serviced with electrical and telephone. Wastewater disposal is privately services and is directed to a holding tank and septic bed. Potable water is provided to the Phase One property through the on-Site private domestic water well.

5.3 Storage Tanks

5.3.1 Underground Storage Tanks

EXP did not observe any evidence of USTs, such as vent and fill pipes, during the site reconnaissance. Furthermore, the historical review did not identify any former USTs at the Phase One property.

5.3.2 Above Ground Storage Tanks

The identified above ground storage tanks (ASTs) are summarized in the table below.

Table 5.1: Summary of Aboveground Storage Tanks

AST#	Location	Type	Volume	Contents	Year	
			Litres		Installed	Removed
AST-1	Rear of workshop	Single wall steel	2295	Waste oil	2009	Present
AST-2	Rear of workshop	Single wall steel	910	Furnace oil	2004	Present
AST-3	Fueling station	Double wall steel	2270	Gasoline	2005	Present
AST-4	Fueling station	Double wall steel	2270 (No Tag Present)	Diesel (coloured) (empty)	2005	Present
AST-5	Fueling station	Double wall steel	2270	Diesel	2001	Present
AST-6	Fueling station	Double wall steel	4540	Diesel (coloured)	2005	Present
AST-7	Workshop interior	Single wall steel	No tag present	New Oil	2005	Present
AST-8	Workshop interior	Single wall steel	No tag present	New Oil	2005	Present

The following AST observations were made during the Phase One property visit:

- ASTs 1 and 2: These tanks were observed to be installed on undersized concrete pads with gravel, which were observed to be in good condition with no evident staining. However, the small nature of the concrete pads and the lack of secondary containment pose an APEC (APEC 2)
- AST-3 to AST-6: These tanks were observed to be installed on the west side of the access road on gravel. However, the fueling area (where vehicles would park during refuelling) was observed to be a concrete pad that was in good condition with minor staining observed. During the site visit, evidence of minor diesel spills was observed on some of the ASTs. Based on the observed staining combined with the eighteen year operation of the ASTs with a lack of proper secondary containment, results in these ASTs being considered APECs (APEC 3, AST-3 to AST-6).
- ASTs 7 and 8: These tanks were observed to be in the workshop building and installed on a concrete pad. Staining was not observed around the tanks and therefore they do not represent an APEC to the Phase One property.

5.4 Chemical Storage

Chemical storage on the property was limited to retail sized containers of lubricants, oils, and cleaners were observed to be stored on shelves and/or within cabinets.

All chemicals observed on the Phase One property were stored in small quantities and in their original retail packaging or approved containers. As such, the potential environmental concern to the subsurface environmental conditions of the Phase One property from the use of chemicals is considered to be low.

5.5 Areas of Stained Soil, Pavement or Stressed Vegetation

Minor staining was observed on concrete and paved surfaces but does not represent an APEC. Stressed vegetation was not observed during The Phase One property visit.

5.6 Fill and Debris

The subject Site is at approximately the same elevation as the surrounding properties, therefore no significant amount of fill or debris is anticipated to be present at the Phase One property.

5.7 Air Emissions

Regulatory control of air emissions in Ontario is the responsibility of the MECP. According to the Environmental Protection Act (EPA), an ECA (Air) is required for the ongoing operation of any equipment that may discharge a contaminant into the natural environment if the equipment was installed, modified or altered after June 29, 1988.

No air emissions were identified at the time of the site visit.

5.8 Odours

No strong odours were present during the site visit.

5.9 Noise

No excessive noise was heard during the site visit.

5.10 Other Observations

There were no pits and lagoons, no railways or spurs and no unidentified substances observed on the Phase One property.

5.11 Special Attention Items, Hazardous Building Materials and Designated Substances

5.11.1 Asbestos

Asbestos-containing materials (ACM) are fibrous hydrated silicates and can be found in building materials as either "unbound" or "bound" asbestos. Friable asbestos refers to materials where the asbestos fibres can be separated from the material with which it is associated. Non-Friable asbestos refers to asbestos that is associated with a binding agent (such as tar or cement). Friable asbestos is commonly found in boiler and pipe insulation. Non-Friable asbestos is typically found in roofing tars, floor and ceiling tiles, and asbestos-containing cement.

ACM in the workplace are defined as a Designated Substance under the Ontario Occupational Health and Safety Act (OHSA). Under OHSA, persons in the workplace are required to be notified of the presence of ACMs once they are suspected to be present, and if there is a potential for workers to be exposed. The use of ACM was discontinued in Canada in the late 1970s/early 1980s, although non-friable asbestos can still be found in recently constructed buildings.

Based on the date of construction (constructed 2002-2005), it is unlikely for ACMs to have been used during the construction of the Phase One property buildings.

5.11.2 Ozone Depleting Substances (ODSs)

Chlorofluorocarbons (CFC), often referred to as freons, ceased production in Canada in 1993 as a result of their ozone-depleting characteristics. Under the Montreal Protocol, importation of CFCs into Canada ceased in 1997 and all developed countries agreed to a total ban on their use by 2030.

Refrigerant containing equipment was limited to residential freezers and refrigerators, and window A/C units. Maintenance of refrigerant containing equipment should continue to be completed by a licensed refrigeration contractor. The equipment should only be repaired, removed, or serviced by an appropriately licensed contractor.

5.11.3 Lead

Lead has frequently been used in oil-based paints, roofing materials, cornices, tank linings, electrical conduits and soft solders for tinplate and plumbing. The use of lead-based paints (LBPs) was phased out *circa* 1976. Paint that was produced or used between 1976 and 1980 may contain small amounts of lead. Paint that was produced or used prior to 1950 may contain higher levels of lead. The main concern regarding lead paint is its potential to become lead dust or chips either through deterioration and/or mechanical means (i.e., sanding, abrasion, etc.). Exposure to lead dust or chips occurs by ingestion or inhalation.

Based on the date of construction (constructed 2002-2005), it is unlikely for LBPs to be contained within the Phase One property building.

5.11.4 Mercury

Mercury could be found in some batteries, light bulbs, old paints, thermostats, old mirrors, etc. Based on an investigation by Consumer and Corporate Affairs Canada, and an assessment of potential health risks by Health and Welfare Canada, in 1991 the decision was made to eliminate the use of mercury compounds in indoor latex paints. The Canadian Paint and Coatings Association (CPCA) supported the withdrawal and all Canadian manufacturers and formulators of the preservative voluntarily agreed to remove “interior uses” from their product labels.

Based on the date of construction (constructed 2002-2005), it is unlikely for that mercury-based paints to be contained within the Phase One property buildings. Mercury containing thermostats and/or equipment was not observed during the site visit.

5.11.5 Polychlorinated Biphenyls (PCB)

The manufacture of PCB in North America was prohibited under the Toxic Substances Control Act (1977). Their use as a constituent of new products manufactured in or imported into Canada was prohibited by regulations in 1977 and 1980. As such, sites developed or significantly renovated after 1980 are unlikely to have PCB-containing equipment on the Phase One property. Potential equipment, which could contain PCB include fluorescent mercury and sodium vapour light ballasts, oil filled capacitors and transformers. Any electrical equipment containing PCB must be disposed of in accordance with Ontario Regulation 362 when it is removed from service. Ongoing operation of equipment containing PCB is permissible.

Based on the date of construction (constructed 2002-2005), it is unlikely that PCB containing equipment is present within The Phase One property buildings.

One pole-mounted transformer was observed on the south side of Franktown Road approximately adjacent to the southwest corner of the Phase One property.

5.11.6 Urea Formaldehyde Foam Insulation

Formaldehyde is a pungent, colourless gas commonly used in water solution as a preservative and disinfectant. It is also a basis for major plastics, including durable adhesives. It occurs naturally in the human body and in the outdoor environment. Formaldehyde is used to bond plywood, particleboard, carpets, and fabrics, and it contributes to "that new house smell."

Formaldehyde is also a by-product of combustion; it is found in tobacco smoke, vehicle exhaust and the fumes from furnaces, fireplaces and wood stoves. While small amounts of formaldehyde are harmless, it is an irritating and toxic gas in significant concentrations. Symptoms of overexposure to formaldehyde include irritation to eyes, nose, and throat; persistent cough and respiratory distress; skin irritation; nausea; headache; and dizziness.

Urea-formaldehyde foam insulation (UFFI) was developed in Europe in the 1950s as an improved means of insulating difficult-to-reach cavities in the walls. It is typically made at a construction site from a mixture of urea-formaldehyde resin, a foaming agent and compressed air. When the mixture is injected into the wall, urea and formaldehyde unite and "cure" into an insulating foam plastic.

During the 1970s, when concerns about energy efficiency led to efforts to improve building insulation in Canada, UFFI became an important insulation product for existing buildings. The further use of UFFI was banned in Canada in 1980.

No evidence of UFFI was observed during the site visit.

5.11.7 Radon

Radon is a colourless, odourless, radioactive gas that occurs naturally in the environment. It comes from the natural breakdown of uranium in soils and rocks. Exposure to high levels of radon increases the risk of developing lung cancer. This relationship has prompted concern that radon levels in some Canadian buildings may pose a health risk. Radon gas can move through small spaces in the soil and rock and seep into a building through cracks in concrete, sumps, joints, and basement drains. Concrete-block walls are particularly porous to radon and radon trapped in water from wells can be released into the air when the water is used.

Due to the potential health concerns associated with radon, Health Canada released a guideline in June 2007 for a maximum acceptable level of radon gas of 200 Becquerels per cubic metre (Bq/m^3) where radon gas is present and the annual radon concentration exceeds 200 Bq/m^3 in the normal occupancy area.

A radon gas assessment was beyond the scope of this Phase One ESA, and as such, radon gas was not assessed. The Radon Potential Map of Ontario created by Radon Environmental indicates that the Phase One property is located in Zone 3 – Guarded, which has the lowest potential for radon. The zones are identified based on regional geologic conditions. It is noted that although the property is located in Zone 3, a wide spectrum of readings can occur in all zones.

5.11.8 Mould

Mould is found in the natural environment and is required for the breakdown of plant debris such as leaves and wood. Mould spores are found in the air in both the indoor and outdoor environments. In order for mould to grow, a food source (i.e. gypsum wallboard, wallpaper, wood, etc.) and moist conditions are required. Mould can have an impact on human health depending on the species and concentration of the airborne mould spores. Health effects can include allergies and mucous membrane irritation.

Currently there are no regulations governing mould; however, there are several guidelines addressing mould assessments and abatement. At the moment, the industry standards include the Canadian Construction Association (CCA) document 82-2004 titled “mould guidelines for the Canadian construction industry” and the Environmental Abatement Council of Ontario (EACO) guidelines titled “EACO Mould Abatement Guidelines, Edition 3 (2015).”

It is important to note that the Ministry of Labour (MOL) has governed protecting workers under the Occupational Health and Safety Act, which states that employers are required to take every precaution reasonable to protect their workers. This includes protecting workers from mould within workplace buildings.

No evidence of mould was observed in the accessed areas at the time of the site visit.

5.12 Other Substances

No other special attention substances (such as acrylonitrile or isocyanates) were suspected to be present at the Phase One property at the time of site reconnaissance.

5.13 Processing and Manufacturing Operations

No processing or manufacturing operations were observed at the Phase One property.

5.14 Hazardous Materials Use and Storage

Aside from limited amounts of lubricants and cleaning products, no hazardous materials are used or stored at the Phase One property.

5.15 Vehicle and Equipment Maintenance Areas

The workshop present at the Phase One property is currently used for vehicle and equipment maintenance. The floor within the workshop was observed to be concrete with limited staining. The floor was observed to be installed with a trench drain which discharges into the sump pit located within the workshop. The sump discharges to the ground outside the workshop after being filtered, it represents an APEC (APEC 1).

5.16 Oil/Water Separators

No oil/water separators were present at the Phase One property.

5.17 Sewage and Wastewater Disposal

The sewage from the residential dwelling is directed to a septic tank and field bed. Waste water from the workshop was directed to a sump pit that discharges to surface behind the workshop after being filtered, which poses and APEC (APEC 1).

5.18 Solid Waste Generation, Storage & Disposal

General garbage is picked up on a routine basis. Combustible (cardboard/wood) wastes are burned within two (2) burn barrels located at The Phase One property. No ashes and / or associated products were observed outside of these burn barrels.

5.19 Liquid Waste Generation, Storage & Disposal

Liquid wastes generated at the Phase One property were observed to be limited to oils and lubricants. The waste oil is then used as the heating oil for the workshop.

5.20 Unidentified Substances

No unidentified substances were observed on the Phase One property at the time of the site visit. No dumping or any other deleterious materials were identified.

5.21 Hydraulic Lift Equipment

No hydraulic equipment was observed at the Phase One property.

5.22 Mechanical Equipment

No mechanical equipment of concern was observed at the Phase One property. Large scale heavy equipment was limited to well drilling rigs.

On-site equipment consist of equipment associated with the well drilling operations (metal lathe, welding machines, compressors). The equipment appears to be well maintained and significant staining was not observed to be associated with the storage of this equipment.

5.23 Abandoned and Existing Wells

Three monitoring wells were present; two behind the workshop and one east of the access-way adjacent to the ASTs.

5.24 Roads, Parking Facilities and Right of Ways

The Phase One property has road access from Franktown Road. Parking areas are limited to the driveway to the west of the residence as well as a small parking area to the west of the workshop/office building. All driveways and parking areas are paved with asphalt.

5.25 Adjacent and Surrounding Properties

A visual inspection of the adjacent properties and properties within 250 m of the Phase One property was conducted from publicly accessible areas to identify the occupants and document the uses and sources of potential environmental concerns that may impact the Phase One property. Refer to Figure 3 in Appendix C for the adjacent land uses.

The following land uses border the Phase One property:

- North: Vacant (woodlot);
- West: Residential;
- East: Residential; and
- South: Franktown Road, followed by Vacant (woodlot).

No environmental concerns relating to the adjacent properties were found at the time of the site visit.

5.13 Enhanced Investigation Property

Ontario Regulation 153/04 defines an enhanced investigation property as a “property that is used, or has ever been used, in whole or in part for an industrial use or any of the following commercial uses: a garage; a bulk liquid dispensing facility, including a gasoline outlet; or, for the operation of dry-cleaning equipment.”

Therefore, in accordance with Regulation 153/04, the property is considered to be an enhanced investigation property.

5.14 Summary and Written Description of Investigation

The following additional PCAs were identified following the site visit:

- PCA #10 – Commercial autobody shop

- Sump in workshop discharges to ground behind workshop. So sheen or petroleum odours were observed.

- PCA #28 – Gasoline and associated products storage in fixed tanks
  - Above ground storage tanks were observed along the access-way and behind the workshop building on The Phase One property. No staining was observed in this area.

6.0 Review and Evaluation of Information

6.1 Current and Past Uses

Based on a review of historical aerial photographs, fire insurance plans and other records review, it appears the subject site was first developed for residential use circa 1970, and was developed with workshop/office building and Quonset hut as in current configuration circa 2000.

6.2 Potentially Contaminating Activity

Ontario Regulation (O. Reg.) 153/04 defines a Potential Contaminating Activity (PCA) as one of fifty-nine (59) industrial operations set out in Table 2 of Schedule D that occurs or has occurred in the Phase One study area.

The following PCA were identified in the Phase One study area:

- PCA #10 – Commercial autobody shop
    - Sump in workshop discharges to ground behind workshop. So sheen or petroleum odours were observed.
- PCA #28 – Gasoline and associated products storage in fixed tanks
    - Above ground storage tanks were observed along the access-way and behind the workshop building on The Phase One property. No staining was observed in this area

Multiple PCAs were identified on the Phase One property including fuel storage tanks. These PCAs result in APECs on the Phase One property.

6.3 Areas of Potential Environmental Concern

Ontario Regulation 153/04 defines an APEC as an area on a property where one or more contaminants are potentially present. Based on this Phase One ESA, the following APECs were identified:

Table EX-1: Areas of Potential Environmental Concern

Area of Potential Environmental Concern (APEC)	Location of APEC on Phase One Property	Potentially Contaminating Activity (PCA)	Location of PCA (On-Site or Off-Site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, Soil and/or Sediment)
APEC #1	Workshop shop sump discharge (sump discharges to ground just outside workshop building, south side)	PCA #10 – Gasoline and Associated Products Storage in Fixed Tanks	On-site	Benzene, toluene, ethylbenzene, xylene (BTEX), and petroleum hydrocarbons (PHC), metals	Soil and groundwater
APEC #2	Above ground storage tanks for furnace oil and fuel	PCA #28 – Gasoline and Associated Products Storage in Fixed Tanks	On-site	BTEX and PHC	Soil and groundwater

6.4 Phase One Conceptual Site Model

To develop a conceptual model for the Phase One property, the following physical characteristics and pathways were considered. A conceptual site model (CSM) showing the topography of The Phase One property, inferred groundwater flow, general site features, APEC, and PCA is shown in Figure 2.

6.4.1 Buildings and Structures

The Phase One property was occupied by one two-storey residential structure, one one-storey workshop / office building and a Quonset Hut associated with the on-Site well drilling company (Air Rock Drilling Company Ltd.). Asphalt parking area and access-way is present along the east side of the Phase One property. The remainder of the Phase One property is landscaped. The residential structure was constructed in 2002 and the Quonset Building and Workshop/Office were constructed around 2005.

6.4.2 Water Bodies and Groundwater Flow Direction

There are no water bodies on the Phase One property. The closest body of water is Jock River approximately 2.3 km to the southeast. The inferred groundwater flow direction is to the southeast towards Jock River.

6.4.3 Areas of Natural Significance

There are no ANSI within the Phase One study area.

6.4.4 Water Wells

Fifteen well records were identified within the Phase One study area. Six well records for monitoring wells on the Phase One property, three well records were for monitoring wells and/or monitoring well abandonment, and six were for domestic water supply wells. Well records indicate surficial soil consists of sand and sandy clay. Limestone bedrock was present approximately 1.0 to 9.0 metres below ground surface.

6.4.5 Potentially Contaminating Activity

Based on a review of the available records, the following PCAs were identified:

- PCA #10 – Commercial autobody shop
    - 6659 Franktown Road– Air Rock Drill ltd.; on-site vehicle and equipment maintenance
- PCA #28 – Gasoline and associated products storage in fixed tanks
    - 6659 Franktown Road – Air Rock Drill ltd.; on-site fuel oil tanks (ASTs)

These PCAs were determined to result in APECs on the Phase One property. No off-site PCA were identified.

6.4.6 Areas of Potential Environmental Concern

The following APECs were identified:

Area of Potential Environmental Concern (APEC)	Location of APEC on Phase One Property	Potentially Contaminating Activity (PCA)	Location of PCA (On-Site or Off-Site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, Soil and/or Sediment)
APEC #1	Workshop shop sump discharge (sump discharges to ground just outside workshop building, south side)	PCA #10 – Gasoline and Associated Products Storage in Fixed Tanks	On-site	Benzene, toluene, ethylbenzene, xylene (BTEX), and petroleum hydrocarbons (PHC), metals	Soil and groundwater
APEC #2	Above ground storage tanks for furnace oil and fuel	PCA #28 – Gasoline and Associated Products Storage in Fixed Tanks	On-site	BTEX and PHC	Soil and groundwater

6.4.7 Subsurface Stratigraphy

Bedrock in the general area of the Phase One property consists of limestone and shale of the Simcoe Group. Native surficial soil consists of sand and silt glacial till. Based on local mapping, beneath any fill, the surficial geology of The Phase One property is characterised by sand, gravel, silt and clay. The bedrock geology underlying the subject Site consists of Ottawa Formation, limestone, dolostone, and shale. The local MECP water well records and geotechnical boreholes indicate local geology is sand over limestone bedrock. Bedrock is anticipated approximately 1.0 to 9 metres below ground surface. The general topography of the Phase One property and study area slopes down to the southeast towards Jock River.

6.4.8 Uncertainty Analysis

The CSM aims to provide a description and assessment of any areas where potentially contaminating activity that occurred within the Phase One study area may have adversely affected the Phase One property. All information collected during this investigation, including records, interviews, and site reconnaissance, has contributed to the formulation of the CSM.

Information was assessed for consistency, however EXP has confirmed neither the completeness nor the accuracy of any of the records that were obtained or of any of the statements made by others. All reasonable inquiries to obtain accessible information were made, as required by Schedule D, Table 1, Mandatory Requirements for Phase One Environmental Site Assessment Reports. The CSM reflects our best interpretation of the information that was available during this investigation.

7.0 Conclusions

The Qualified Person who oversaw this work, Mark McCalla, P.Geo., recommends that a Phase Two ESA be conducted to address the APECs that were identified.

The Qualified Person can confirm that the Phase One Environmental Site Assessment was conducted per the requirements of Ontario Regulation 153/04, as amended, and in accordance with generally accepted professional practices.

8.0 References

- City of Ottawa, GeoOttawa online mapping tool, (maps.ottawa.ca/geoottawa).
- Dubreuil, L. and C. Woods, *Catalogue of Canadian Fire Insurance Plans, 1875 – 1975,* 2002.
- Environment Canada, *National Inventory of PCBs in Use and PCB Wastes in Storage in Canada*, 2003 Annual Report, 2004.
- EXP Services Inc., *Phase I and II Environmental Site Assessment, 6659 Franktown Road, Ottawa, Ontario*, November 2017.
- Golder Associates Ltd., *Old Landfill Management Strategy, Phase 1, Identification of Sites, City of Ottawa, Ontario*, October 2004.
- Intera Technologies Ltd., *Inventory of Coal Gasification Plant Waste Sites in Ontario, Volume II*, April 1987.
- Natural Resources Canada, The Atlas of Canada – Toporama website (atlas.gc.ca/toporama/en/)
- Oil, Gas & Salt Resources Library, website (maps.ogsrlibrary.com/wells).
- Ontario Ministry of Energy, Northern Development and Mines, Bedrock Geology Application (www.mndm.gov.on.ca/en/mines-and-minerals/applications/ogsearth/bedrock-geology), March 19, 2018.
- Ontario Ministry of Energy, Northern Development and Mines, Surficial Geology Application (www.mndm.gov.on.ca/en/mines-and-minerals/applications/ogsearth/surficial-geology), May 23, 2017.
- Ontario Ministry of the Environment, Conservation and Parks, *Access Environment website (www.accessenvironment.ene.gov.on.ca).*
- Ontario Ministry of the Environment, Conservation and Parks, *Environmental Registry website (www.ebr.gov.on.ca/ERS-WEB-External).*
- Ontario Ministry of the Environment, Conservation and Parks, *Guide for Completing Phase One Environmental Site Assessments under Ontario Regulation 153/04*, June 2011.
- Ontario Ministry of the Environment, Conservation and Parks *Hazardous Waste Information Network website* (www.hwin.ca).
- Ontario Ministry of the Environment, Conservation and Parks, *Inventory of Industrial Sites Producing or Using Coal Tar and Related Tars in Ontario*, November 1988.
- Ontario Ministry of the Environment, Conservation and Parks, *Ontario Inventory of PCB Storage Sites*, October 1995.
- Ontario Ministry of the Environment, Conservation and Parks, *Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act*, July 1, 2011.
- Ontario Ministry of the Environment, Conservation and Parks, Records of Site Condition website (www.lrcsde.lrc.gov.on.ca).
- Ontario Ministry of the Environment, Conservation and Parks, *Waste Disposal Site Inventory*, June 1991.
- Ontario Ministry of the Environment, Conservation and Parks, Water Wells website (www.ontario.ca/environment-and-energy/map-well-records water wells).
- Ontario Ministry of Labour, *Occupational Health and Safety Act*, R.S.O. 1990.
- Ontario Ministry of Natural Resources and Forestry, Natural Heritage website (www.gisapplication.lrc.gov.on.ca/mamnh/Index.html).

9.0 Limitation of Liability, Scope of Report, and Third Party Reliance

Basis of Report

This report ("Report") is based on site conditions known or inferred by the investigation undertaken as of the date of the Report. Should changes occur which potentially impact the condition of The Phase One property the recommendations of EXP may require re-evaluation. Where special concerns exist, or Air Rock Drilling Inc. ("the Client") has special considerations or requirements, these should be disclosed to EXP to allow for additional or special investigations to be undertaken not otherwise within the scope of investigation conducted for the purpose of the Report.

Reliance on Information Provided

The evaluation and conclusions contained in the Report are based on conditions in evidence at the time of site inspections and information provided to EXP by the Client and others. The Report has been prepared for the specific site, development, building, design or building assessment objectives and purpose as communicated by the Client. EXP has relied in good faith upon such representations, information and instructions and accepts no responsibility for any deficiency, misstatement or inaccuracy contained in the Report as a result of any misstatements, omissions, misrepresentation or fraudulent acts of persons providing information. Unless specifically stated otherwise, the applicability and reliability of the findings, recommendations, suggestions or opinions expressed in the Report are only valid to the extent that there has been no material alteration to or variation from any of the information provided to exp. If new information about the environmental conditions at The Phase One property is found, the information should be provided to EXP so that it can be reviewed and revisions to the conclusions and/or recommendations can be made, if warranted.

Standard of Care

The Report has been prepared in a manner consistent with the degree of care and skill exercised by engineering consultants currently practicing under similar circumstances and locale. No other warranty, expressed or implied, is made. Unless specifically stated otherwise, the Report does not contain environmental consulting advice.

Complete Report

All documents, records, data and files, whether electronic or otherwise, generated as part of this assignment form part of the Report. This material includes, but is not limited to, the terms of reference given to EXP by the Client, communications between EXP and the Client, other reports, proposals or documents prepared by EXP for the Client in connection with The Phase One property described in the Report. In order to properly understand the suggestions, recommendations and opinions expressed in the Report, reference must be made to the Report in its entirety. EXP is not responsible for use by any party of portions of the Report.

Use of Report

The information and opinions expressed in the Report, or any document forming part of the Report, are for the sole benefit of the Client. No other party may use or rely upon the Report in whole or in part without the written consent of EXP. Any use of the Report, or any portion of the Report, by a third party are the sole responsibility of such third party. EXP is not responsible for damages suffered by any third party resulting from unauthorised use of the Report.

Report Format

Where EXP has submitted both electronic file and a hard copy of the Report, or any document forming part of the Report, only the signed and sealed hard copy shall be the original documents for record and working purposes. In the event of a dispute or discrepancy, the hard copy shall govern. Electronic files transmitted by EXP utilize specific software and hardware systems. EXP makes no representation about the compatibility of these files with the Client's current or future software and hardware systems. Regardless of format, the documents described herein are EXP's instruments of professional service and shall not be altered without the written consent of EXP.

10.0 Signatures

We trust this report meets your current needs. If you have any questions pertaining to the investigation undertaken by EXP, please do not hesitate to contact the undersigned. The Qualified Person can confirm that the Phase One Environmental Site Assessment was conducted per the requirements of Ontario Regulation 153/04, as amended, and in accordance with generally accepted professional practices.

Mackenzie Russell, M.Sc.
Environmental Technician
Earth and Environment

Mark McCalla, P.Geo.
Senior Project Manager
Earth and Environment

PROFESSIONAL GEOSCIENTIST
MARK G. McCALLA
PRACTISING MEMBER
0451
Aug 9/23.
ONTARIO

Appendix A: Qualifications of Assessors

Qualifications of Assessors

EXP provides a full range of environmental services through a full-time Environmental Services Group. EXP's Earth and Environment Group has developed a strong working relationship with clients in both the private and public sectors and has developed a positive relationship with Ontario Ministry of the Environment, Conservation and Parks. Personnel in the numerous branch offices form part of a large network of full-time dedicated environmental professionals in the EXP organization.

Mackenzie Russell, M. Sc., has two years of experience in the environmental consulting field. She has worked on numerous Phase I Environmental Site Assessments (ESA); Phase II ESAs, completing soil and groundwater sampling, soil vapour sampling, assisting in report preparation and data entry and analysis.

Mark McCalla, P.Geo., is a senior Environmental Scientist with EXP who has over 30 years of experience in the environmental consulting field. His technical undertakings have including work in the following fields: Phase I and II Environmental Site Assessments; Site Specific Risk Assessments; Petroleum and chlorinated hydrocarbon contaminated sites; Soil and groundwater remediation technologies; Hydrogeological, Terrain Analysis and Aggregate Assessments; Preparation of Ontario Ministry of Environment Certificate of Approvals and Records of Site Condition. Mr. McCalla is a Qualified Person for completing Phase I and II Environmental Site Assessments as per O.Reg. 153/04.

Appendix B: Figures

0 150m 300m 600m

HORIZONTAL 1:15,000

EXP Services Inc. www.exp.com
t: +1.613.688.1899 | f: +1.613.225.7337
2650 Queensview Drive, Suite 100
Ottawa, ON K2B 8H6, Canada

DATE: AUGUST 2023	PROJECT: PHASE ONE ENVIRONMENTAL SITE ASSESSMENT	project no. OTT-00243705-B0
DESIGN: MM / CHECKED: CK	CLIENT: 6659 FRANKTOWN ROAD, OTTAWA, ONTARIO	scale 1:15,000
DRAWN BY: AS	TITLE: SITE LOCATION PLAN	FIG 1

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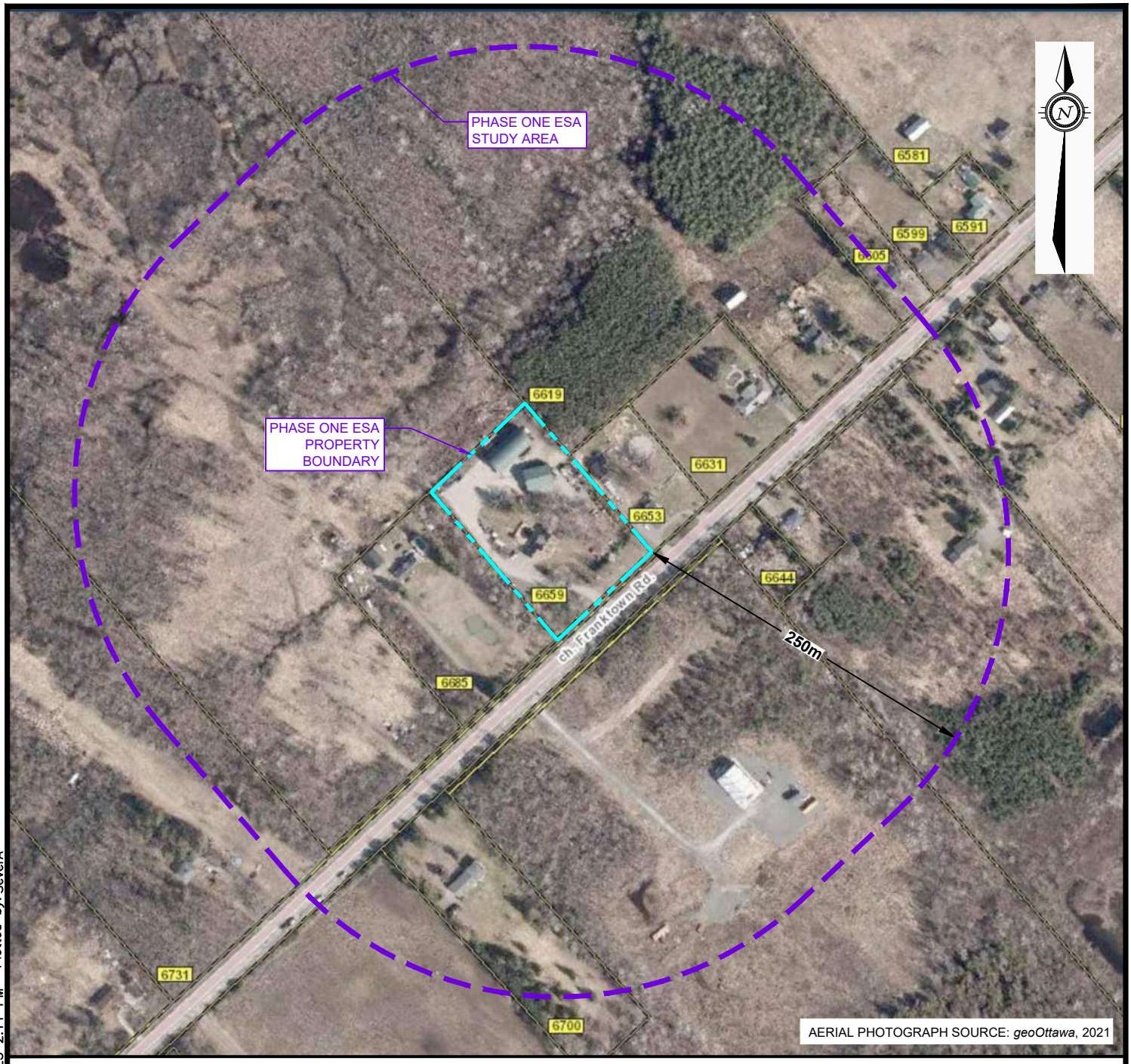

LEGEND

- PROPERTY BOUNDARY
- PHASE ONE ESA STUDY AREA (250 m)
- INFERRED GROUNDWATER FLOW DIRECTION
- 1 POTENTIALLY CONTAMINATING ACTIVITY (PCA) RESULTING IN APECS
- 2 POTENTIALLY CONTAMINATING ACTIVITY (PCA) NOT RESULTING IN APECS

0 40m 80m 160m

HORIZONTAL 1:4,000

EXP Services Inc. www.exp.com
t: +1.613.688.1899 | f: +1.613.225.7337
2650 Queensview Drive, Suite 100
Ottawa, ON K2B 8H6, Canada

DATE: AUGUST 2023	PROJECT: PHASE ONE ENVIRONMENTAL SITE ASSESSMENT	project no. OTT-00243705-B0
DESIGN: MM / CHECKED: CK	CLIENT: 6659 FRANKTOWN ROAD, OTTAWA, ONTARIO	scale 1:4,000
DRAWN BY: AS	TITLE: PHASE ONE STUDY AREA	FIG 2

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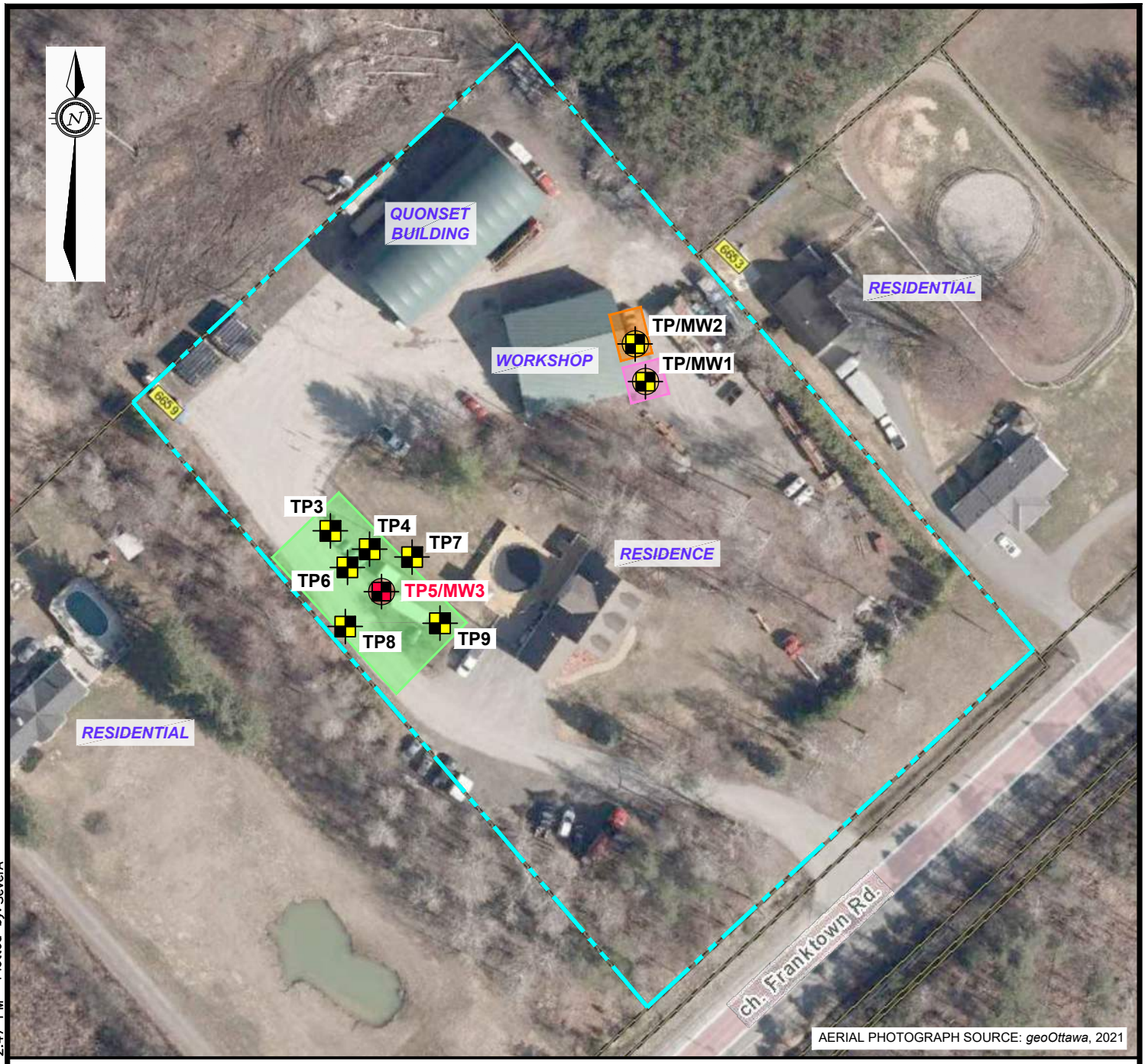
Last Saved: Aug 9, 2023 2:10 PM Last Plotted: Aug 9, 2023 2:11 PM Plotted by: SeverA



LEGEND

- PROPERTY BOUNDARY
- AREA OF POTENTIAL ENVIRONMENTAL CONCERN 1 (APEC-1) - SUMP PIT DISCHARGE
- AREA OF POTENTIAL ENVIRONMENTAL CONCERN 2 (APEC-2) - TWO (2) ASTs*
- AREA OF POTENTIAL ENVIRONMENTAL CONCERN 3 (APEC-3) - FOUR (4) ASTs

- TP3 — TEST PIT NO. AND LOCATION (*EXP*, 2017)
- TP/MW1 — TEST PIT & MONITORING WELL NO. AND LOCATION (*EXP*, 2017)
- TP5/MW3 — TEST PIT & MONITORING WELL NO. AND LOCATION (*EXP*, 2017) WITH SOIL AND GROUNDWATER EXCEEDENCE

*AST = ABOVEGROUND STORAGE TANK

0 10m 20m 40m

HORIZONTAL 1:1000

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2650 Queensview Drive, Suite 100
Ottawa, ON K2B 8H6, Canada

DATE: AUGUST 2023	PROJECT: PHASE ONE ENVIRONMENTAL SITE ASSESSMENT	project no. OTT-00243705-B0
DESIGN: MM / CHECKED: CK	CLIENT: 6659 FRANKTOWN ROAD, OTTAWA, ONTARIO	scale 1:1,000
DRAWN BY: AS	TITLE: TEST HOLE LOCATION PLAN	FIG 3

Appendix C: Title Search, Municipal Records & Provincial Records

File Number: D06-03-23-0109

July 28, 2023

Leah Wells
EXP Services

Sent via email leah.wells@exp.com

Dear Leah,

Re: Information Request
6659 Franktown Road, Ottawa, Ontario ("Subject Property")

Internal Department Circulation:

The Planning, Infrastructure and Economic Development Department has the following information in response to your request for information regarding the Subject Property:

- **Environmental Remediation Unit:** No records for this property
- **Ottawa Public Health - Environmental Health:** all public inspection results are publicly available on the Ottawa Public Health website: https://www.ottawapublichealth.ca/en/public-health-services/public-health-inspections.aspx
- **Sewer Use Program:** No records for this property
- **Solid Waste Services:** No records for this property

Documents Provided:

HLUI Summary Report and HLUI Map

The HLUI Summary Report Excel spreadsheet identifies HLUI area, point and line features within 250 metres of the Subject Property, as shown on the provided HLUI Map PDF. Within 500 metres of the Subject Property, landfills and Environmental Risk Management Area (ERMA) are also identified if applicable.

For more information on how to interpret the HLUI data identified in the attached excel sheet ('ADDRESS – HLUI Summary report.xlsx'), please refer to the Overview and User Guide."

Additional information may be obtained by contacting:

Ontario's Environmental Registry

The Environmental Registry found at https://ero.ontario.ca/ contains "public notices" about environmental matters being proposed by all government ministries covered by the Environmental Bill of Rights. The public notices may contain information about proposed new laws, regulations, policies and programs or about proposals to change or eliminate existing ones. By using keys words i.e. name of proponent/owner and the address one can ascertain if there is any information on the proponent and address under the following categories: Ministry, keywords, notice types, Notice Status, Acts, Instruments and published date (all years).

The Ontario Land Registry Office

Registration of real property is recorded in the Ontario Land Registry Office through the Land Titles Act or the Registry Act. Documents relating to title and other agreements that may affect your property are available to the public for a fee. It is recommended that a property search at the Land Registry Office be included in any investigation as to the historic use of your property. The City of Ottawa cannot comment on any documents to which it is not a party.

Court House
161 Elgin Street 4th Floor
Ottawa ON K2P 2K1
Tel: (613) 239-1230
Fax: (613) 239-1422

Ottawa Public Health

Ottawa Public Health inspects many different types of establishments. To view inspection results, please visit the Ottawa Public Health website: Public Health Inspections - Ottawa Public Health

Please note that Ottawa Public Health is not the lead agency on land use contamination in the City of Ottawa – contact the Ministry of Environment Conservation and Parks (MECP) for further information.

Please note, as per the HLUI Disclaimer, that the information contained in the HLUI database has been compiled from publicly available records and other sources of information. The HLUI may contain erroneous information given that the records used as sources of information may be flawed. For instance, changes in municipal addresses over time may introduce error. Accordingly, all information from the HLUI database is provided on an "as is" basis with no representation or warranty by the City with respect to the information's accuracy or exhaustiveness in responding to the request.

Furthermore, the HLUI database and the results of this search in no way confirm the presence or absence of contamination or pollution of any kind. This information is provided on the assumption that it will not be relied upon by any person for any

purpose whatsoever. The City of Ottawa denies all liability to any persons attempting to rely on any information provided from the HLUI database.

Please note that in responding to your request, the City of Ottawa does not guarantee or comment on the environmental condition of the Subject Property. You may wish to contact the Ontario Ministry of Environment and Climate Change for additional information.

If you have any further questions or comments, please contact HLUI@ottawa.ca.

Sincerely,

Sinan Bertan
Student Planner

Per:

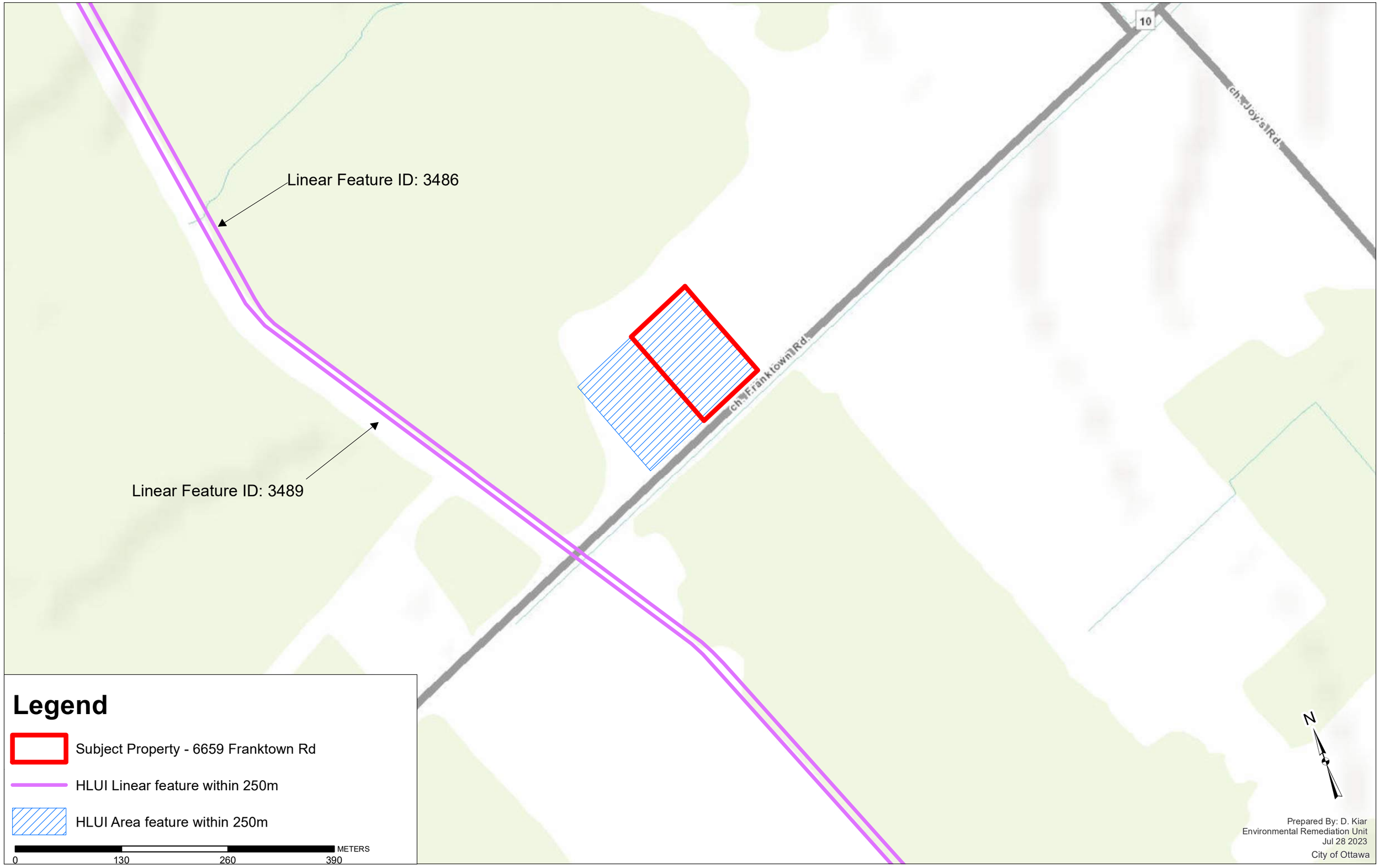
Michael Boughton, MCIP, RPP
Senior Planner
Development Review East
Planning Services
Planning, Infrastructure and Economic Development Department

MB / SB

Enclosures: (2)
1. HLUI Map
2. HLUI Summary Report

cc: File no. D06-03-23-0109

HISTORIC LAND USE INVENTORY (HLUI) - REPORT REFERENCE MAP



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

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

July 18, 2023

Leah Wells
EXP Services Inc.
2560 Queensview Drive, Unit 100
Ottawa, Ontario K2B 8H6
leah.wells@exp.com

Dear Leah Wells:

RE: **MECP FOI A-2023-04065, Your Reference OTT-00243705-B0 – Decision Letter**

This letter is in response to your request made pursuant to the Freedom of Information and Protection of Privacy Act (the Act) relating to 6659 Franktown Road, Ottawa.

After a thorough search through the files of the ministry's Ottawa District Office, Environmental Assessment and Permissions Division (EAPD), Environmental Monitoring and Reporting Branch (EMRB), Environmental Investigations and Enforcement Branch (EIEB), and Safe Drinking Water Branch (SDW) no records were located responsive to your request. **This file is now closed.**

You may request a review of my decision within 30 days from the date of this letter by contacting the Information and Privacy Commissioner/Ontario at http://www.ipc.on.ca. Please note there may be a fee associated with submitting the appeal.

If you have any questions, please contact Tolani Abraham at Tolani.Abraham2@ontario.ca.

Yours truly,

ORIGINAL SIGNED BY

Josephine DeSouza
Manager (A), Access and Privacy Office

Appendix D: EcoLog ERIS Report

DATABASE REPORT

Project Property:	*Phase One ESA* *6659 Franktown Road* *Richmond ON K0A 2Z0*
Project No:	*OTT-00243705-B0_Mark.McCalla*
Report Type:	*Standard Report*
Order No:	*23062900328*
Requested by:	*exp Services Inc.*
Date Completed:	*June 30, 2023*

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:	*Phase One ESA* *6659 Franktown Road Richmond ON K0A 2Z0*
Project No:	*OTT-00243705-B0_Mark.McCalla*

Coordinates:

Latitude:	*45.1785478*
Longitude:	*-75.8648768*
UTM Northing:	*5,003,148.91*
UTM Easting:	*432,046.53*
UTM Zone:	*18T*

Elevation: *328 FT*
99.88 M

Order Information:

Order No:	*23062900328*
Date Requested:	*June 29, 2023*
Requested by:	*exp Services Inc.*
Report Type:	*Standard Report*

Historical/Products:

ERIS Xplorer

Executive Summary: Report Summary

Database	Name	Searched	Project Property	Within 0.25 km	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	2	2
CA	*Certificates of Approval*	Y	0	0	0
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	1	0	1
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	0	0
GHG	*Greenhouse Gas Emissions from Large Facilities*	Y	0	0	0
HINC	*TSSA Historic Incidents*	Y	0	0	0
IAFT	*Indian & Northern Affairs Fuel Tanks*	Y	0	0	0

Database	Name	Searched	Project Property	Within 0.25 km	Total
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	0	0
PRT	Private and Retail Fuel Storage Tanks	Y	0	0	0
PTTW	Permit to Take Water	Y	0	1	1
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	0	0	0
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	9	9
	Total:		1	12	13

Executive Summary: Site Report Summary - Project Property

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev diff (m)	Page Number
1	EHS		6659 Franktown Rd Ottawa ON K0A2Z0	NNE/16.0	0.00	14

Executive Summary: Site Report Summary - Surrounding Properties

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
2	WWIS		6685 FRANKTOWN ROAD lot 19 con 4 RICHMOND ON **Well ID:** 7248774	SSW/69.9	0.00	14
3	WWIS		lot 19 con 4 ON **Well ID:** 1516119	WSW/72.9	0.00	21
4	WWIS		lot 19 con 4 ON **Well ID:** 1515832	ENE/110.1	0.00	24
5	WWIS		6688 FRANKTOWN RD lot 19 con 3 RICHMOND ON **Well ID:** 7318079	S/120.0	0.00	27
5	PTTW	Bing Professional Engineering Inc.	6688 Franktown Road Ottawa, ON K0A 2Z0 Canada ON	S/120.0	0.00	34
6	WWIS		lot 20 con 3 ON **Well ID:** 1502410	E/145.2	0.00	35
7	BORE		ON	E/155.9	0.00	37
8	WWIS		lot 20 con 3 ON **Well ID:** 1502409	E/155.9	0.00	38
9	WWIS		lot 20 con 4 ON **Well ID:** 1502428	ENE/177.2	0.00	41
10	WWIS		lot 20 con 4 ON **Well ID:** 1502429	ENE/216.1	0.00	43
11	BORE		ON	ENE/243.6	0.00	46
12	WWIS		6619 FRANKTOWN RD. lot 20 con 4 RICHMOND ON	ENE/244.0	0.00	47

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number

Well ID: 7145846

Executive Summary: Summary By Data Source

BORE - Borehole

A search of the BORE database, dated 1875-Jul 2018 has found that there are 2 BORE site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
	ON	E	155.86	7
	ON	ENE	243.61	11

EHS - ERIS Historical Searches

A search of the EHS database, dated 1999-Mar 31, 2023 has found that there are 1 EHS site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
	6659 Franktown Rd Ottawa ON K0A2Z0	NNE	16.00	1

PTTW - Permit to Take Water

A search of the PTTW database, dated 1994 - May 31, 2023 has found that there are 1 PTTW site(s) within approximately 0.25 kilometers of the project property.

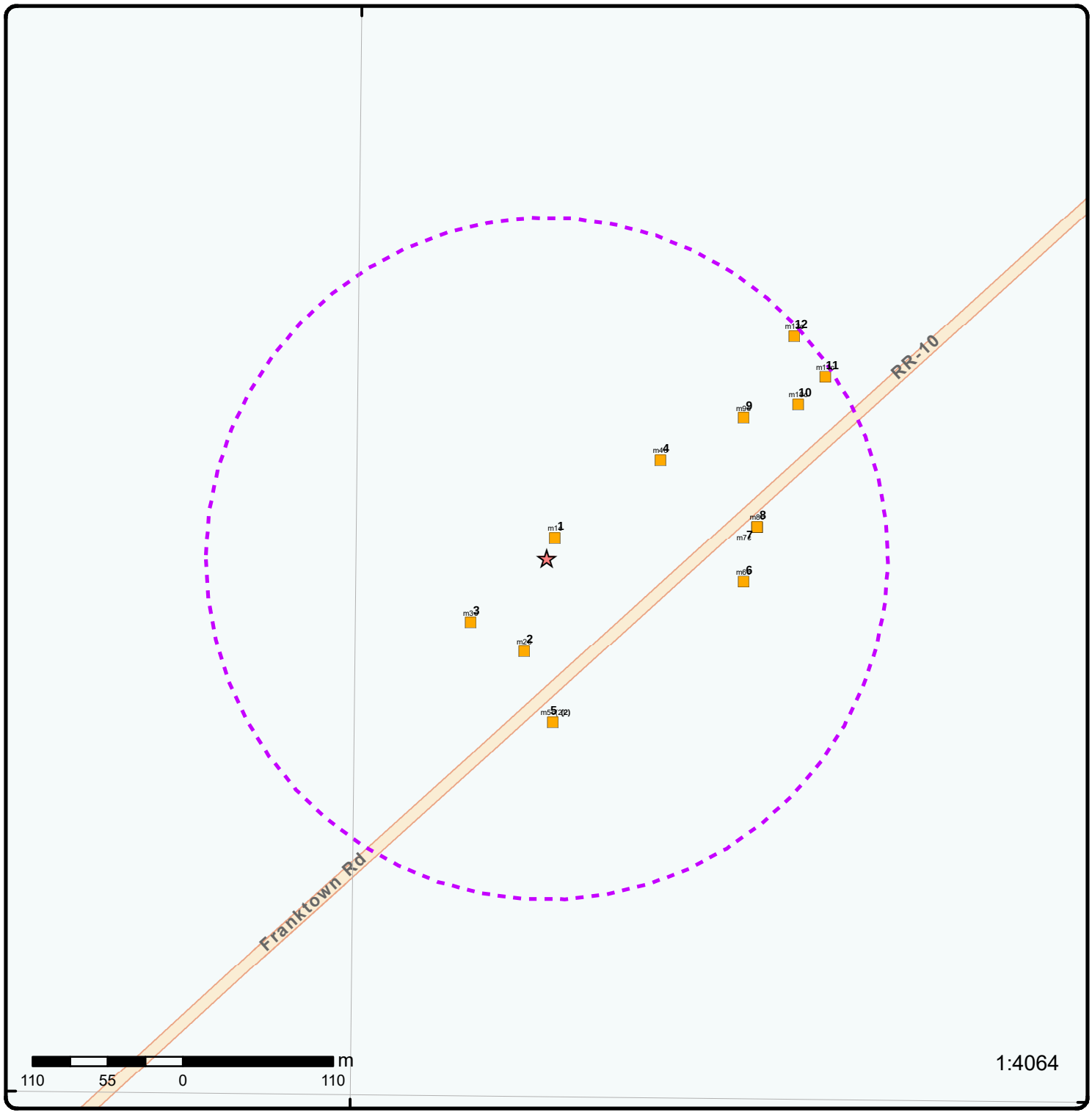
Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
Bing Professional Engineering Inc.	6688 Franktown Road Ottawa, ON K0A 2Z0 Canada ON	S	119.99	5

WWIS - Water Well Information System

A search of the WWIS database, dated Mar 31 2023 has found that there are 9 WWIS site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
	6685 FRANKTOWN ROAD lot 19 con 4 RICHMOND ON	SSW	69.89	2

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
	Well ID: 7248774			
	lot 19 con 4 ON ***Well ID:*** 1516119	WSW	72.92	3
	lot 19 con 4 ON ***Well ID:*** 1515832	ENE	110.06	4
	6688 FRANKTOWN RD lot 19 con 3 RICHMOND ON ***Well ID:*** 7318079	S	119.99	5
	lot 20 con 3 ON ***Well ID:*** 1502410	E	145.16	6
	lot 20 con 3 ON ***Well ID:*** 1502409	E	155.89	8
	lot 20 con 4 ON ***Well ID:*** 1502428	ENE	177.24	9
	lot 20 con 4 ON ***Well ID:*** 1502429	ENE	216.12	10
	6619 FRANKTOWN RD. lot 20 con 4 RICHMOND ON ***Well ID:*** 7145846	ENE	243.99	12

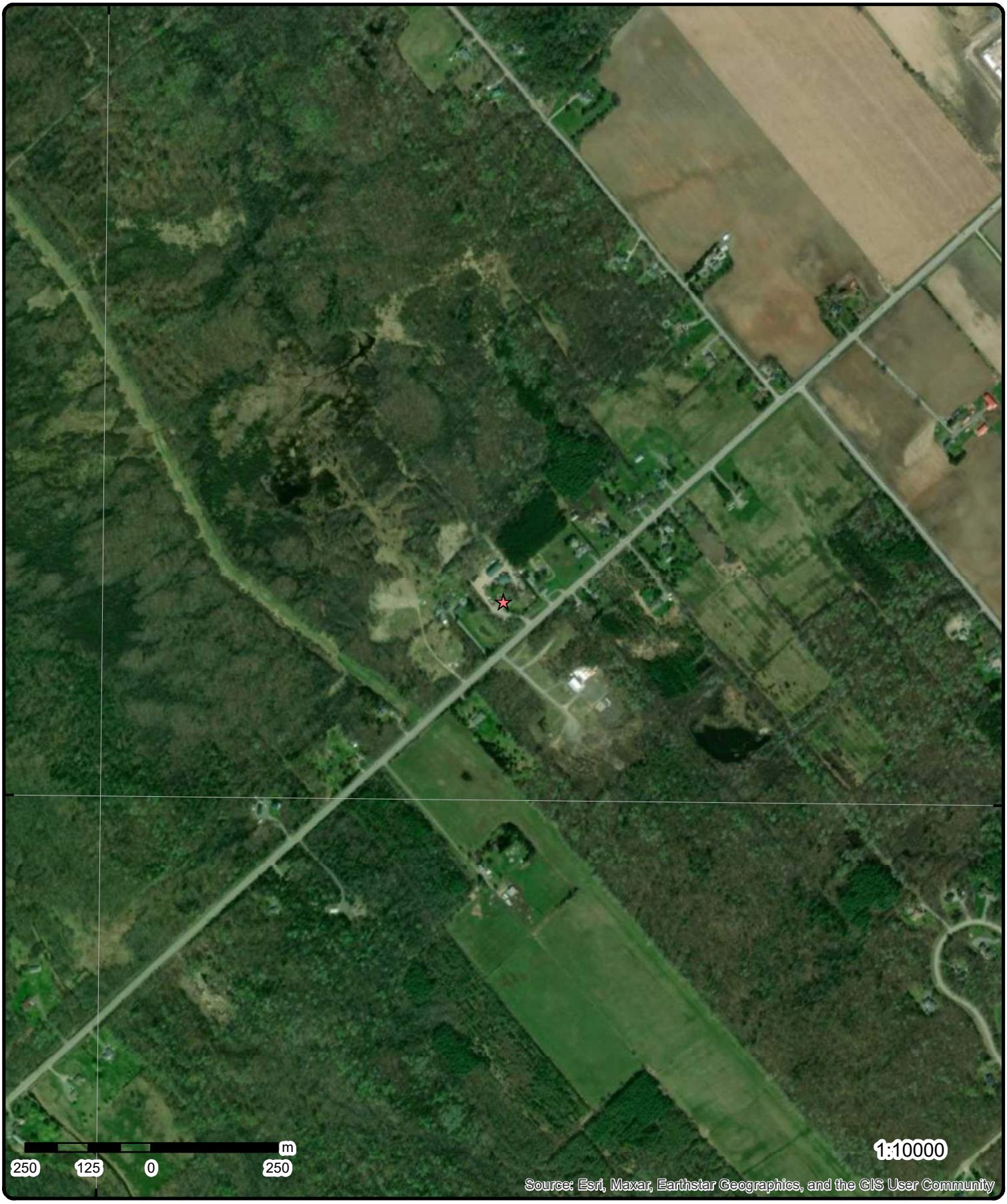


Map: 0.25 Kilometer Radius

Order Number: 23062900328

Address: 6659 Franktown Road, Richmond, 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)

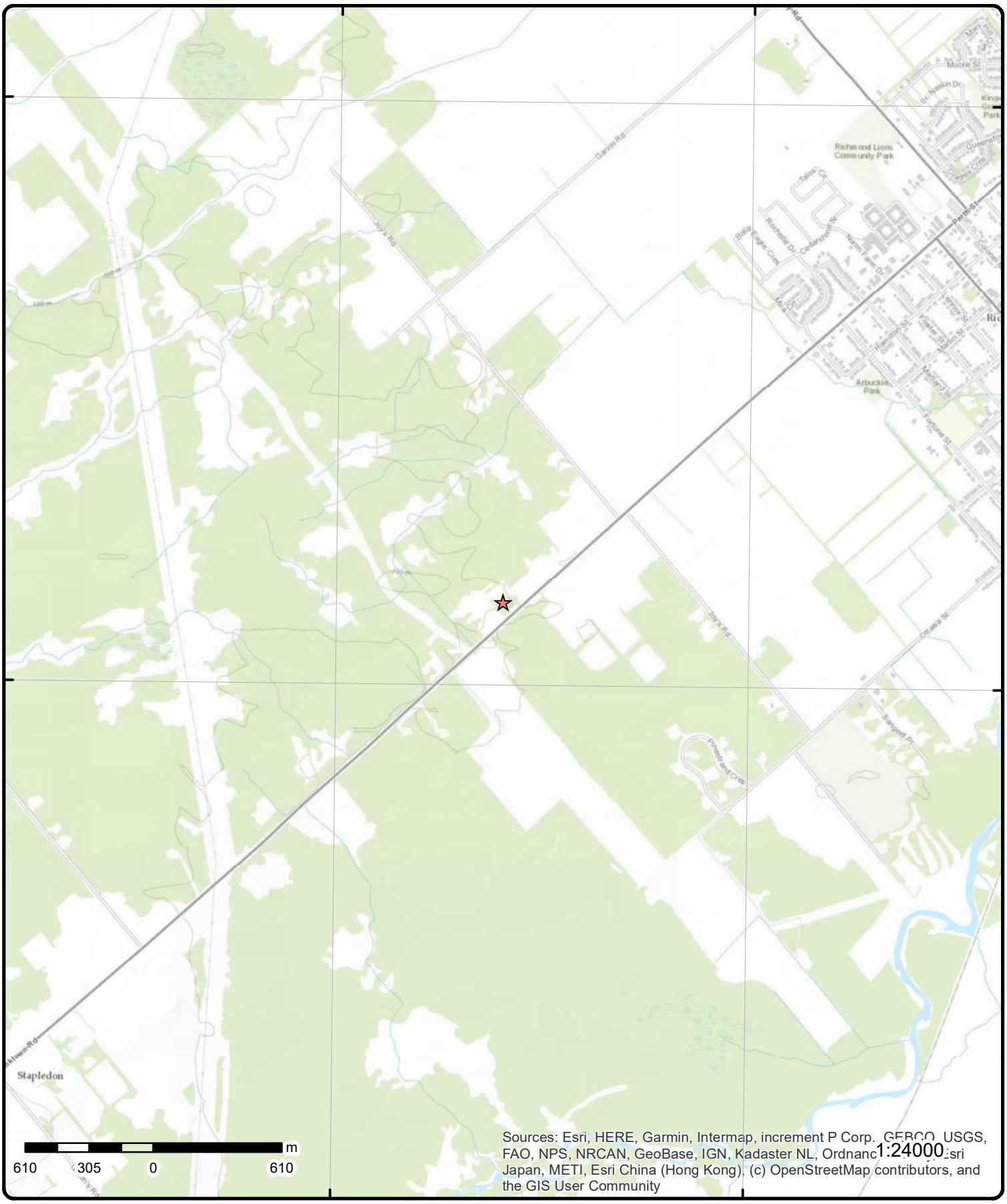


Aerial **Year: 2022**

Order Number: 23062900328

Address: 6659 Franktown Road, Richmond, ON

Source: ESRI World Imagery



Topographic Map

Order Number: 23062900328

Address: 6659 Franktown Road, 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	NNE/16.0	99.9 / 0.00	6659 Franktown Rd Ottawa ON K0A2Z0	EHS

Order No:	20171110157	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Standard Report	**Client Prov/State:**	ON
Report Date:	17-NOV-17	**Search Radius (km):**	.25
Date Received:	10-NOV-17	**X:**	-75.864803
Previous Site Name:		**Y:**	45.178682
Lot/Building Size:			
Additional Info Ordered:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
2	1 of 1	SSW/69.9	99.9 / 0.00	6685 FRANKTOWN ROAD lot 19 con 4 RICHMOND ON	WWIS

Well ID:	7248774	**Flowing (Y/N):**	
Construction Date:		**Flow Rate:**	
Use 1st:	Domestic	**Data Entry Status:**	
Use 2nd:		**Data Src:**	
Final Well Status:	Water Supply	**Date Received:**	09/22/2015
Water Type:		**Selected Flag:**	TRUE
Casing Material:		**Abandonment Rec:**	
Audit No:	Z191564	**Contractor:**	1119
Tag:	A186910	**Form Version:**	7
Constructn Method:		**Owner:**	
Elevation (m):		**County:**	OTTAWA-CARLETON
Elevatn Reliabilty:		**Lot:**	019
Depth to Bedrock:		**Concession:**	04
Well Depth:		**Concession Name:**	CON
Overburden/Bedrock:		**Easting NAD83:**	
Pump Rate:		**Northing NAD83:**	
Static Water Level:		**Zone:**	
Clear/Cloudy:		**UTM Reliability:**	
Municipality:	GOULBOURN TOWNSHIP		
Site Info:	PART 1 & 2		

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/724\7248774.pdf

Additional Detail(s) (Map)

Well Completed Date:	08/03/2015
Year Completed:	2015
Depth (m):	42.672
Latitude:	45.1779349740068
Longitude:	-75.8650779132113
Path:	724\7248774.pdf

Bore Hole Information

Bore Hole ID:	1005699380	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	18
Code OB:		**East83:**	432030.00

Code OB Desc:		**North83:**	5003081.00
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	4
Date Completed:	08/03/2015	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	gis
Loc Method Desc:	from gis		
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1005726909
Layer:	1
Color:	
General Color:	
Mat1:	05
Most Common Material:	CLAY
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	16.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1005726911
Layer:	3
Color:	1
General Color:	WHITE
Mat1:	18
Most Common Material:	SANDSTONE
Mat2:	15
Mat2 Desc:	LIMESTONE
Mat3:	
Mat3 Desc:	
Formation Top Depth:	100.0
Formation End Depth:	130.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1005726912
Layer:	4
Color:	1
General Color:	WHITE
Mat1:	18
Most Common Material:	SANDSTONE
Mat2:	15
Mat2 Desc:	LIMESTONE
Mat3:	
Mat3 Desc:	
Formation Top Depth:	130.0
Formation End Depth:	140.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1005726910
Layer:	2
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	16.0
Formation End Depth:	100.0
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1005726948
Layer:	2
Plug From:	12.0
Plug To:	0.0
Plug Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1005726947
Layer:	1
Plug From:	22.0
Plug To:	122.0
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	1005726946
Method Construction Code:	5
Method Construction:	Air Percussion
Other Method Construction:	

Pipe Information

Pipe ID:	1005726907
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1005726917
Layer:	2
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	22.0
Depth To:	140.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch

Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 1005726916
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From: -2.0
Depth To: 22.0
Casing Diameter: 6.25
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 1005726918
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter:

Results of Well Yield Testing

Pumping Test Method Desc:
Pump Test ID: 1005726908
Pump Set At: 120.0
Static Level: 14.25
Final Level After Pumping: 43.66999816894531
Recommended Pump Depth: 120.0
Pumping Rate: 20.0
Flowing Rate:
Recommended Pump Rate: 20.0
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 0
Water State After Test:
Pumping Test Method: 0
Pumping Duration HR: 1
Pumping Duration MIN:
Flowing:

Draw Down & Recovery

Pump Test Detail ID: 1005726920
Test Type: Recovery
Test Duration: 1
Test Level: 43.66699981689453
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1005726924
Test Type: Recovery
Test Duration: 3
Test Level: 30.16699981689453
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1005726925
Test Type: Draw Down
Test Duration: 4
Test Level: 31.5
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1005726930
Test Type: Recovery
Test Duration: 10
Test Level: 14.25
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1005726921
Test Type: Draw Down
Test Duration: 2
Test Level: 24.58300018310547
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1005726933
Test Type: Draw Down
Test Duration: 20
Test Level: 41.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1005726931
Test Type: Draw Down
Test Duration: 15
Test Level: 40.41699981689453
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1005726935
Test Type: Draw Down
Test Duration: 25
Test Level: 43.16699981689453
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1005726936
Test Type: Recovery
Test Duration: 25
Test Level: 14.25
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1005726942

Test Type: Recovery
Test Duration: 50
Test Level: 14.25
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1005726943
Test Type: Draw Down
Test Duration: 60
Test Level: 43.66699981689453
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1005726923
Test Type: Draw Down
Test Duration: 3
Test Level: 28.08300018310547
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1005726927
Test Type: Draw Down
Test Duration: 5
Test Level: 33.16699981689453
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1005726929
Test Type: Draw Down
Test Duration: 10
Test Level: 37.66699981689453
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1005726937
Test Type: Draw Down
Test Duration: 30
Test Level: 43.5
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1005726926
Test Type: Recovery
Test Duration: 4
Test Level: 19.08300018310547
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1005726940
Test Type: Recovery
Test Duration: 40
Test Level: 14.25
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1005726934
Test Type: Recovery
Test Duration: 20
Test Level: 14.25
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1005726938
Test Type: Recovery
Test Duration: 30
Test Level: 14.25
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1005726922
Test Type: Recovery
Test Duration: 2
Test Level: 30.08300018310547
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1005726932
Test Type: Recovery
Test Duration: 15
Test Level: 14.25
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1005726944
Test Type: Recovery
Test Duration: 60
Test Level: 14.25
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1005726928
Test Type: Recovery
Test Duration: 5
Test Level: 17.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1005726939
Test Type: Draw Down
Test Duration: 40
Test Level: 43.66699981689453
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID:	1005726941
Test Type:	Draw Down
Test Duration:	50
Test Level:	43.66699981689453
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	1005726919
Test Type:	Draw Down
Test Duration:	1
Test Level:	21.0
Test Level UOM:	ft

Water Details

Water ID:	1005726915
Layer:	1
Kind Code:	8
Kind:	Untested
Water Found Depth:	130.0
Water Found Depth UOM:	ft

Hole Diameter

Hole ID:	1005726913
Diameter:	9.75
Depth From:	0.0
Depth To:	22.0
Hole Depth UOM:	ft
Hole Diameter UOM:	inch

Hole Diameter

Hole ID:	1005726914
Diameter:	6.0
Depth From:	22.0
Depth To:	140.0
Hole Depth UOM:	ft
Hole Diameter UOM:	inch

Links

Bore Hole ID:	1005699380	**Tag No:**	A186910
Depth M:	42.672	**Contractor:**	1119
Year Completed:	2015	**Latitude:**	45.1779349740068
Well Completed Dt:	08/03/2015	**Longitude:**	-75.8650779132113
Audit No:	Z191564	**Y:**	45.17793496717516
Path:	724\7248774.pdf	**X:**	-75.86507775188312

3 ***1 of 1*** ***WSW/72.9*** ***99.9 / 0.00*** ***lot 19 con 4 ON*** ***WWIS***

Well ID:	1516119	**Flowing (Y/N):**	
Construction Date:		**Flow Rate:**	
Use 1st:	Domestic	**Data Entry Status:**	
Use 2nd:	0	**Data Src:**	1
Final Well Status:	Water Supply	**Date Received:**	08/25/1977
Water Type:		**Selected Flag:**	TRUE
Casing Material:		**Abandonment Rec:**	
Audit No:		**Contractor:**	3644

Tag:		**Form Version:**	1
Constructn Method:		**Owner:**	
Elevation (m):		**County:**	OTTAWA-CARLETON
Elevatn Reliabilty:		**Lot:**	019
Depth to Bedrock:		**Concession:**	04
Well Depth:		**Concession Name:**	CON
Overburden/Bedrock:		**Easting NAD83:**	
Pump Rate:		**Northing NAD83:**	
Static Water Level:		**Zone:**	
Clear/Cloudy:		**UTM Reliability:**	
Municipality:	GOULBOURN TOWNSHIP		
Site Info:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/151\1516119.pdf

Additional Detail(s) (Map)

Well Completed Date:	07/27/1977
Year Completed:	1977
Depth (m):	32.004
Latitude:	45.1781201974184
Longitude:	-75.8655809046732
Path:	151\1516119.pdf

Bore Hole Information

Bore Hole ID:	10038054	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	18
Code OB:		**East83:**	431990.70
Code OB Desc:		**North83:**	5003102.00
Open Hole:		**Org CS:**	
Cluster Kind:		**UTMRC:**	4
Date Completed:	07/27/1977	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	p4
Loc Method Desc:	Original Pre1985 UTM Rel Code 4: margin of error : 30 m - 100 m		
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	931031209
Layer:	1
Color:	2
General Color:	GREY
Mat1:	28
Most Common Material:	SAND
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	15.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	931031210
Layer:	2
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	15.0
Formation End Depth:	105.0
Formation End Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	961516119
Method Construction Code:	5
Method Construction:	Air Percussion
Other Method Construction:	

Pipe Information

Pipe ID:	10586624
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930066995
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	25.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Results of Well Yield Testing

Pumping Test Method Desc:	PUMP
Pump Test ID:	991516119
Pump Set At:	
Static Level:	6.0
Final Level After Pumping:	25.0
Recommended Pump Depth:	25.0
Pumping Rate:	20.0
Flowing Rate:	
Recommended Pump Rate:	10.0
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	2
Water State After Test:	CLOUDY
Pumping Test Method:	1
Pumping Duration HR:	1
Pumping Duration MIN:	0
Flowing:	No

Draw Down & Recovery

Pump Test Detail ID:	934379272
Test Type:	Draw Down
Test Duration:	30
Test Level:	25.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934640786
Test Type:	Draw Down
Test Duration:	45
Test Level:	25.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934898270
Test Type:	Draw Down
Test Duration:	60
Test Level:	25.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934101661
Test Type:	Draw Down
Test Duration:	15
Test Level:	25.0
Test Level UOM:	ft

Water Details

Water ID:	933472358
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	102.0
Water Found Depth UOM:	ft

Links

Bore Hole ID:	10038054	***Tag No:***	
Depth M:	32.004	***Contractor:***	3644
Year Completed:	1977	***Latitude:***	45.1781201974184
Well Completed Dt:	07/27/1977	***Longitude:***	-75.8655809046732
Audit No:		***Y:***	45.178120190147524
Path:	151\1516119.pdf	***X:***	-75.86558074448001

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4 ***1 of 1*** ***ENE/110.1*** ***99.9 / 0.00*** ***lot 19 con 4 ON*** ***WWIS***

Well ID:	1515832	***Flowing (Y/N):***	
Construction Date:		***Flow Rate:***	
Use 1st:	Domestic	***Data Entry Status:***	
Use 2nd:	0	***Data Src:***	1
Final Well Status:	Water Supply	***Date Received:***	01/19/1977
Water Type:		***Selected Flag:***	TRUE
Casing Material:		***Abandonment Rec:***	
Audit No:		***Contractor:***	3644

Tag:		**Form Version:**	1
Constructn Method:		**Owner:**	
Elevation (m):		**County:**	OTTAWA-CARLETON
Elevatn Reliabilty:		**Lot:**	019
Depth to Bedrock:		**Concession:**	04
Well Depth:		**Concession Name:**	CON
Overburden/Bedrock:		**Easting NAD83:**	
Pump Rate:		**Northing NAD83:**	
Static Water Level:		**Zone:**	
Clear/Cloudy:		**UTM Reliability:**	
Municipality:	GOULBOURN TOWNSHIP		
Site Info:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/151\1515832.pdf

Additional Detail(s) (Map)

Well Completed Date:	11/18/1976
Year Completed:	1976
Depth (m):	19.5072
Latitude:	45.1792046645923
Longitude:	-75.863828195399
Path:	151\1515832.pdf

Bore Hole Information

Bore Hole ID:	10037772	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	18
Code OB:		**East83:**	432129.70
Code OB Desc:		**North83:**	5003221.00
Open Hole:		**Org CS:**	
Cluster Kind:		**UTMRC:**	4
Date Completed:	11/18/1976	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	p4
Loc Method Desc:	Original Pre1985 UTM Rel Code 4: margin of error : 30 m - 100 m		
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	931030349
Layer:	2
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	12.0
Formation End Depth:	64.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID: 931030348
Layer: 1
Color: 2
General Color: GREY
Mat1: 28
Most Common Material: SAND
Mat2:
Mat2 Desc:
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: 961515832
Method Construction Code: 5
Method Construction: Air Percussion
Other Method Construction:

Pipe Information

Pipe ID: 10586342
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930066567
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 25.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pumping Test Method Desc: PUMP
Pump Test ID: 991515832
Pump Set At:
Static Level: 0.0
Final Level After Pumping: 50.0
Recommended Pump Depth: 50.0
Pumping Rate: 6.0
Flowing Rate:
Recommended Pump Rate: 5.0
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 2
Water State After Test: CLOUDY
Pumping Test Method: 1
Pumping Duration HR: 1
Pumping Duration MIN: 0
Flowing: No

Draw Down & Recovery

Pump Test Detail ID:	934639693
Test Type:	Draw Down
Test Duration:	45
Test Level:	50.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934101401
Test Type:	Draw Down
Test Duration:	15
Test Level:	50.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934378173
Test Type:	Draw Down
Test Duration:	30
Test Level:	50.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934897176
Test Type:	Draw Down
Test Duration:	60
Test Level:	50.0
Test Level UOM:	ft

Water Details

Water ID:	933472011
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	62.0
Water Found Depth UOM:	ft

Links

Bore Hole ID:	10037772	***Tag No:***	
Depth M:	19.5072	***Contractor:***	3644
Year Completed:	1976	***Latitude:***	45.1792046645923
Well Completed Dt:	11/18/1976	***Longitude:***	-75.863828195399
Audit No:		***Y:***	45.17920465796225
Path:	151\1515832.pdf	***X:***	-75.86382803393204

5 ***1 of 2*** ***S/120.0*** ***99.9 / 0.00*** ***6688 FRANKTOWN RD lot 19 con 3 RICHMOND ON*** ***WWIS***

Well ID:	7318079	***Flowing (Y/N):***	
Construction Date:		***Flow Rate:***	
Use 1st:	Domestic	***Data Entry Status:***	
Use 2nd:		***Data Src:***	
Final Well Status:	Water Supply	***Date Received:***	09/10/2018
Water Type:		***Selected Flag:***	TRUE
Casing Material:		***Abandonment Rec:***	
Audit No:	Z276984	***Contractor:***	1119

Tag:	A252856	**Form Version:**	7
Constructn Method:		**Owner:**	
Elevation (m):		**County:**	OTTAWA-CARLETON
Elevatn Reliabilty:		**Lot:**	019
Depth to Bedrock:		**Concession:**	03
Well Depth:		**Concession Name:**	CON
Overburden/Bedrock:		**Easting NAD83:**	
Pump Rate:		**Northing NAD83:**	
Static Water Level:		**Zone:**	
Clear/Cloudy:		**UTM Reliability:**	
Municipality:	GOULBOURN TOWNSHIP		
Site Info:			

PDF URL (Map):

Additional Detail(s) (Map)

Well Completed Date:	07/11/2018
Year Completed:	2018
Depth (m):	60.96
Latitude:	45.1774689658753
Longitude:	-75.8648035843043
Path:	

Bore Hole Information

Bore Hole ID:	1007285584	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	18
Code OB:		**East83:**	432051.00
Code OB Desc:		**North83:**	5003029.00
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	4
Date Completed:	07/11/2018	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Loc Method Desc:	on Water Well Record		
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1007465067
Layer:	2
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	10.0
Formation End Depth:	200.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID: 1007465066
Layer: 1
Color:
General Color:
Mat1: 05
Most Common Material: CLAY
Mat2: 81
Mat2 Desc: SANDY
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 10.0
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1007465102
Layer: 1
Plug From: 0.0
Plug To: 20.0
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 1007465101
Method Construction Code: 5
Method Construction: Air Percussion
Other Method Construction:

Pipe Information

Pipe ID: 1007465064
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1007465071
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From: -2.0
Depth To: 20.0
Casing Diameter: 6.25
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 1007465072
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From: 20.0
Depth To: 200.0
Casing Diameter: 6.25
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID:	1007465073
Layer:	
Slot:	
Screen Top Depth:	
Screen End Depth:	
Screen Material:	
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	

Results of Well Yield Testing

Pumping Test Method Desc:	
Pump Test ID:	1007465065
Pump Set At:	150.0
Static Level:	14.199999809265137
Final Level After Pumping:	15.5
Recommended Pump Depth:	100.0
Pumping Rate:	20.0
Flowing Rate:	
Recommended Pump Rate:	20.0
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	0
Water State After Test:	
Pumping Test Method:	0
Pumping Duration HR:	1
Pumping Duration MIN:	
Flowing:	

Draw Down & Recovery

Pump Test Detail ID:	1007465092
Test Type:	Draw Down
Test Duration:	30
Test Level:	15.5
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	1007465083
Test Type:	Recovery
Test Duration:	5
Test Level:	14.199999809265137
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	1007465084
Test Type:	Draw Down
Test Duration:	10
Test Level:	15.399999618530273
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	1007465089
Test Type:	Recovery

Test Duration: 20
Test Level: 14.199999809265137
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1007465078
Test Type: Draw Down
Test Duration: 3
Test Level: 15.399999618530273
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1007465081
Test Type: Recovery
Test Duration: 4
Test Level: 14.199999809265137
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1007465082
Test Type: Draw Down
Test Duration: 5
Test Level: 15.399999618530273
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1007465087
Test Type: Recovery
Test Duration: 15
Test Level: 14.199999809265137
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1007465077
Test Type: Recovery
Test Duration: 2
Test Level: 14.199999809265137
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1007465079
Test Type: Recovery
Test Duration: 3
Test Level: 14.199999809265137
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1007465088
Test Type: Draw Down
Test Duration: 20
Test Level: 15.5
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1007465099
Test Type: Recovery
Test Duration: 60
Test Level: 14.199999809265137
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1007465075
Test Type: Recovery
Test Duration: 1
Test Level: 14.199999809265137
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1007465076
Test Type: Draw Down
Test Duration: 2
Test Level: 15.399999618530273
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1007465080
Test Type: Draw Down
Test Duration: 4
Test Level: 15.399999618530273
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1007465095
Test Type: Recovery
Test Duration: 40
Test Level: 14.199999809265137
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1007465096
Test Type: Draw Down
Test Duration: 50
Test Level: 15.5
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1007465085
Test Type: Recovery
Test Duration: 10
Test Level: 14.199999809265137
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1007465093

Test Type: Recovery
Test Duration: 30
Test Level: 14.199999809265137
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1007465094
Test Type: Draw Down
Test Duration: 40
Test Level: 15.5
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1007465098
Test Type: Draw Down
Test Duration: 60
Test Level: 15.5
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1007465074
Test Type: Draw Down
Test Duration: 1
Test Level: 15.399999618530273
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1007465086
Test Type: Draw Down
Test Duration: 15
Test Level: 15.5
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1007465090
Test Type: Draw Down
Test Duration: 25
Test Level: 15.5
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1007465091
Test Type: Recovery
Test Duration: 25
Test Level: 14.199999809265137
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1007465097
Test Type: Recovery
Test Duration: 50
Test Level: 14.199999809265137
Test Level UOM: ft

Water Details

Water ID:	1007465070
Layer:	1
Kind Code:	8
Kind:	Untested
Water Found Depth:	73.0
Water Found Depth UOM:	ft

Hole Diameter

Hole ID:	1007465068
Diameter:	9.75
Depth From:	0.0
Depth To:	20.0
Hole Depth UOM:	ft
Hole Diameter UOM:	inch

Hole Diameter

Hole ID:	1007465069
Diameter:	6.25
Depth From:	20.0
Depth To:	200.0
Hole Depth UOM:	ft
Hole Diameter UOM:	inch

Links

Bore Hole ID:	1007285584	***Tag No:***	A252856
Depth M:	60.96	***Contractor:***	1119
Year Completed:	2018	***Latitude:***	45.1774689658753
Well Completed Dt:	07/11/2018	***Longitude:***	-75.8648035843043
Audit No:	Z276984	***Y:***	45.17746895944522
Path:	731\7318079.pdf	***X:***	-75.86480342359332

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
5	2 of 2	S/120.0	99.9 / 0.00	***Bing Professional Engineering Inc.*** ***6688 Franktown Road Ottawa, ON K0A 2Z0*** ***Canada*** ***ON***	***PTTW***

EBR Registry No:	019-0757	***Decision Posted:***	April 2, 2020
Ministry Ref No:	0324-BGHGE5	***Exception Posted:***	
Notice Type:	Instrument	***Section:***	Section 34
Notice Stage:	Decision	***Act 1:***	Ontario Water Resources Act, R.S.O. 1990
Notice Date:		***Act 2:***	Ontario Water Resources Act
Proposal Date:	October 25, 2019	***Site Location Map:***	45.177469,-75.864803
Year:	2019		

Instrument Type:	Permit to take water
Off Instrument Name:	Permit to Take Water (OWRA s. 34)
Posted By:	Ministry of the Environment, Conservation and Parks
Company Name:	
Site Address:	6688 Franktown Road Ottawa, ON K0A 2Z0 Canada
Location Other:	
Proponent Name:	Bing Professional Engineering Inc.
Proponent Address:	248 Huntsville Drive Huntsville, ON K2T 0C3 Canada
Comment Period:	October 25, 2019 - November 24, 2019 (30 days) Closed
URL:	https://ero.ontario.ca/notice/019-0757

Site Location Details:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
6	1 of 1	E/145.2	99.9 / 0.00	lot 20 con 3 ON	WWIS

Well ID:	1502410	**Flowing (Y/N):**	
Construction Date:		**Flow Rate:**	
Use 1st:	Domestic	**Data Entry Status:**	
Use 2nd:	0	**Data Src:**	1
Final Well Status:	Water Supply	**Date Received:**	09/18/1967
Water Type:		**Selected Flag:**	TRUE
Casing Material:		**Abandonment Rec:**	
Audit No:		**Contractor:**	3503
Tag:		**Form Version:**	1
Constructn Method:		**Owner:**	
Elevation (m):		**County:**	OTTAWA-CARLETON
Elevatn Reliabilty:		**Lot:**	020
Depth to Bedrock:		**Concession:**	03
Well Depth:		**Concession Name:**	CON
Overburden/Bedrock:		**Easting NAD83:**	
Pump Rate:		**Northing NAD83:**	
Static Water Level:		**Zone:**	
Clear/Cloudy:		**UTM Reliability:**	

Municipality: GOULBOURN TOWNSHIP
Site Info:

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/150\1502410.pdf

Additional Detail(s) (Map)

Well Completed Date: 06/12/1967
Year Completed: 1967
Depth (m): 6.7056
Latitude: 45.1784094785759
Longitude: -75.8630397960186
Path: 150\1502410.pdf

Bore Hole Information

Bore Hole ID:	10024453	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	18
Code OB:		**East83:**	432190.70
Code OB Desc:		**North83:**	5003132.00
Open Hole:		**Org CS:**	
Cluster Kind:		**UTMRC:**	5
Date Completed:	06/12/1967	**UTMRC Desc:**	margin of error : 100 m - 300 m
Remarks:		**Location Method:**	p5

Loc Method Desc: Original Pre1985 UTM Rel Code 5: margin of error : 100 m - 300 m
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Overburden and Bedrock Materials Interval

Formation ID: 930994452
Layer: 2
Color:

General Color:
Mat1: 11
Most Common Material: GRAVEL
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 20.0
Formation End Depth: 22.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 930994451
Layer: 1
Color:
General Color:
Mat1: 02
Most Common Material: TOPSOIL
Mat2: 13
Mat2 Desc: BOULDERS
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: 961502410
Method Construction Code: 1
Method Construction: Cable Tool
Other Method Construction:

Pipe Information

Pipe ID: 10573023
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930041675
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 22.0
Casing Diameter: 5.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pumping Test Method Desc: PUMP
Pump Test ID: 991502410
Pump Set At:
Static Level: 8.0
Final Level After Pumping: 12.0

Recommended Pump Depth:	18.0
Pumping Rate:	5.0
Flowing Rate:	
Recommended Pump Rate:	5.0
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:	933455193
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	22.0
Water Found Depth UOM:	ft

Links

Bore Hole ID:	10024453	***Tag No:***	
Depth M:	6.7056	***Contractor:***	3503
Year Completed:	1967	***Latitude:***	45.1784094785759
Well Completed Dt:	06/12/1967	***Longitude:***	-75.8630397960186
Audit No:		***Y:***	45.17840947202152
Path:	150\1502410.pdf	***X:***	-75.86303963503704

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7 ***1 of 1*** ***E/155.9*** ***99.9 / 0.00*** ***ON*** ***BORE***

Borehole ID:	610281	***Inclin FLG:***	No
OGF ID:	215511797	***SP Status:***	Initial Entry
Status:		***Surv Elev:***	No
Type:	Borehole	***Piezometer:***	No
Use:		***Primary Name:***	
Completion Date:	AUG-1964	***Municipality:***	
Static Water Level:		***Lot:***	
Primary Water Use:		***Township:***	
Sec. Water Use:		***Latitude DD:***	45.178769
Total Depth m:	19.8	***Longitude DD:***	-75.862918
Depth Ref:	Ground Surface	***UTM Zone:***	18
Depth Elev:		***Easting:***	432201
Drill Method:		***Northing:***	5003172
Orig Ground Elev m:	99.1	***Location Accuracy:***	
Elev Reliabil Note:		***Accuracy:***	Not Applicable
DEM Ground Elev m:	100		
Concession:			
Location D:			
Survey D:			
Comments:			

Borehole Geology Stratum

Geology Stratum ID:	218385168	***Mat Consistency:***	
Top Depth:	0	***Material Moisture:***	
Bottom Depth:	2.4	***Material Texture:***	
Material Color:		***Non Geo Mat Type:***	
Material 1:	Clay	***Geologic Formation:***	

Material 2:	Soil	**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	
Gsc Material Description:			
Stratum Description:	CLAY,SOIL.		

Geology Stratum ID:	218385169	**Mat Consistency:**	Dense
Top Depth:	2.4	**Material Moisture:**	
Bottom Depth:	19.8	**Material Texture:**	
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Sandstone	**Geologic Formation:**	
Material 2:		**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	
Gsc Material Description:			
Stratum Description:	SANDSTONE. 00060EY. 0010000060. GREY. 00064STONE. TILL. BROWN,DENSE. 00040035 **Note: Many records provided by the department have a truncated [Stratum Description] field.		

Source

Source Type:	Data Survey	**Source Appl:**	Spatial/Tabular
Source Orig:	Geological Survey of Canada	**Source Iden:**	1
Source Date:	1956-1972	**Scale or Res:**	Varies
Confidence:		**Horizontal:**	NAD27
Observatio:		**Verticalda:**	Mean Average Sea Level
Source Name:	Urban Geology Automated Information System (UGAIS)		
Source Details:	File: OTTAWA1.txt RecordID: 02789 NTS_Sheet:		
Confiden 1:			

Source List

Source Identifier:	1	**Horizontal Datum:**	NAD27
Source Type:	Data Survey	**Vertical Datum:**	Mean Average Sea Level
Source Date:	1956-1972	**Projection Name:**	Universal Transverse Mercator
Scale or Resolution:	Varies		
Source Name:	Urban Geology Automated Information System (UGAIS)		
Source Originators:	Geological Survey of Canada		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
8	1 of 1	E/155.9	99.9 / 0.00	lot 20 con 3 ON	WWIS

Well ID:	1502409	**Flowing (Y/N):**	
Construction Date:		**Flow Rate:**	
Use 1st:	Domestic	**Data Entry Status:**	
Use 2nd:	0	**Data Src:**	1
Final Well Status:	Water Supply	**Date Received:**	08/31/1964
Water Type:		**Selected Flag:**	TRUE
Casing Material:		**Abandonment Rec:**	
Audit No:		**Contractor:**	3503
Tag:		**Form Version:**	1
Constructn Method:		**Owner:**	
Elevation (m):		**County:**	OTTAWA-CARLETON
Elevatn Reliabilty:		**Lot:**	020
Depth to Bedrock:		**Concession:**	03
Well Depth:		**Concession Name:**	CON
Overburden/Bedrock:		**Easting NAD83:**	
Pump Rate:		**Northing NAD83:**	
Static Water Level:		**Zone:**	
Clear/Cloudy:		**UTM Reliability:**	
Municipality:	GOULBOURN TOWNSHIP		
Site Info:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/150\1502409.pdf

Additional Detail(s) (Map)

Well Completed Date: 08/15/1964
Year Completed: 1964
Depth (m): 19.812
Latitude: 45.1787704650944
Longitude: -75.8629179742947
Path: 150\1502409.pdf

Bore Hole Information

Bore Hole ID: 10024452
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 08/15/1964
Remarks:
Loc Method Desc: Original Pre1985 UTM Rel Code 5: margin of error : 100 m - 300 m
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation:
Elevrc:
Zone: 18
East83: 432200.70
North83: 5003172.00
Org CS:
UTMRC: 5
UTMRC Desc: margin of error : 100 m - 300 m
Location Method: p5

Overburden and Bedrock Materials Interval

Formation ID: 930994449
Layer: 1
Color:
General Color:
Mat1: 05
Most Common Material: CLAY
Mat2: 02
Mat2 Desc: TOPSOIL
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 8.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 930994450
Layer: 2
Color:
General Color:
Mat1: 18
Most Common Material: SANDSTONE
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 8.0
Formation End Depth: 65.0
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID:	961502409
Method Construction Code:	1
Method Construction:	Cable Tool
Other Method Construction:	

Pipe Information

Pipe ID:	10573022
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930041674
Layer:	2
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	65.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Casing

Casing ID:	930041673
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	10.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Results of Well Yield Testing

Pumping Test Method Desc:	PUMP
Pump Test ID:	991502409
Pump Set At:	
Static Level:	4.0
Final Level After Pumping:	28.0
Recommended Pump Depth:	52.0
Pumping Rate:	10.0
Flowing Rate:	
Recommended Pump Rate:	5.0
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	1
Pumping Duration HR:	0
Pumping Duration MIN:	30
Flowing:	No

Water Details

Water ID: 933455192
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 60.0
Water Found Depth UOM: ft

Links

Bore Hole ID:	10024452	**Tag No:**	
Depth M:	19.812	**Contractor:**	3503
Year Completed:	1964	**Latitude:**	45.1787704650944
Well Completed Dt:	08/15/1964	**Longitude:**	-75.8629179742947
Audit No:		**Y:**	45.17877045836144
Path:	150\1502409.pdf	**X:**	-75.86291781361287

9	1 of 1	ENE/177.2	99.9 / 0.00	lot 20 con 4 ON	WWIS

Well ID:	1502428	**Flowing (Y/N):**	
Construction Date:		**Flow Rate:**	
Use 1st:	Domestic	**Data Entry Status:**	
Use 2nd:	0	**Data Src:**	1
Final Well Status:	Water Supply	**Date Received:**	12/21/1949
Water Type:		**Selected Flag:**	TRUE
Casing Material:		**Abandonment Rec:**	
Audit No:		**Contractor:**	4824
Tag:		**Form Version:**	1
Constructn Method:		**Owner:**	
Elevation (m):		**County:**	OTTAWA-CARLETON
Elevatn Reliabilty:		**Lot:**	020
Depth to Bedrock:		**Concession:**	04
Well Depth:		**Concession Name:**	CON
Overburden/Bedrock:		**Easting NAD83:**	
Pump Rate:		**Northing NAD83:**	
Static Water Level:		**Zone:**	
Clear/Cloudy:		**UTM Reliability:**	

Municipality: GOULBOURN TOWNSHIP
Site Info:

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/150\1502428.pdf

Additional Detail(s) (Map)

Well Completed Date: 06/16/1948
Year Completed: 1948
Depth (m): 18.288
Latitude: 45.1794895530901
Longitude: -75.8630561137575
Path: 150\1502428.pdf

Bore Hole Information

Bore Hole ID:	10024471	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	18
Code OB:		**East83:**	432190.70
Code OB Desc:		**North83:**	5003252.00
Open Hole:		**Org CS:**	
Cluster Kind:		**UTMRC:**	9
Date Completed:	06/16/1948	**UTMRC Desc:**	unknown UTM

Remarks: ***Location Method:*** p9
Loc Method Desc: Original Pre1985 UTM Rel Code 9: unknown UTM
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Overburden and Bedrock Materials Interval

Formation ID: 930994491
Layer: 1
Color:
General Color:
Mat1: 11
Most Common Material: GRAVEL
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 30.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 930994492
Layer: 2
Color:
General Color:
Mat1: 15
Most Common Material: LIMESTONE
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 30.0
Formation End Depth: 60.0
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 961502428
Method Construction Code: 1
Method Construction: Cable Tool
Other Method Construction:

Pipe Information

Pipe ID: 10573041
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930041711
Layer: 1

Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	30.0
Casing Diameter:	4.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Casing

Casing ID:	930041712
Layer:	2
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	60.0
Casing Diameter:	4.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Results of Well Yield Testing

Pumping Test Method Desc:	PUMP
Pump Test ID:	991502428
Pump Set At:	
Static Level:	15.0
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
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:	1
Pumping Duration HR:	1
Pumping Duration MIN:	0
Flowing:	No

Water Details

Water ID:	933455212
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	60.0
Water Found Depth UOM:	ft

Links

Bore Hole ID:	10024471	**Tag No:**	
Depth M:	18.288	**Contractor:**	4824
Year Completed:	1948	**Latitude:**	45.1794895530901
Well Completed Dt:	06/16/1948	**Longitude:**	-75.8630561137575
Audit No:		**Y:**	45.179489546244994
Path:	150\1502428.pdf	**X:**	-75.8630559528377

10	***1 of 1***	***ENE/216.1***	***99.9 / 0.00***	***lot 20 con 4 ON***	***WWIS***

Well ID:	1502429	**Flowing (Y/N):**	

Construction Date:		**Flow Rate:**	
Use 1st:	Domestic	**Data Entry Status:**	
Use 2nd:	0	**Data Src:**	1
Final Well Status:	Water Supply	**Date Received:**	10/06/1958
Water Type:		**Selected Flag:**	TRUE
Casing Material:		**Abandonment Rec:**	
Audit No:		**Contractor:**	1301
Tag:		**Form Version:**	1
Constructn Method:		**Owner:**	
Elevation (m):		**County:**	OTTAWA-CARLETON
Elevatn Reliabilty:		**Lot:**	020
Depth to Bedrock:		**Concession:**	04
Well Depth:		**Concession Name:**	CON
Overburden/Bedrock:		**Easting NAD83:**	
Pump Rate:		**Northing NAD83:**	
Static Water Level:		**Zone:**	
Clear/Cloudy:		**UTM Reliability:**	

Municipality: GOULBOURN TOWNSHIP
Site Info:

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/150\1502429.pdf

Additional Detail(s) (Map)

Well Completed Date: 07/28/1958
Year Completed: 1958
Depth (m): 27.7368
Latitude: 45.1795834051759
Longitude: -75.8625484228851
Path: 150\1502429.pdf

Bore Hole Information

Bore Hole ID:	10024472	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	18
Code OB:		**East83:**	432230.70
Code OB Desc:		**North83:**	5003262.00
Open Hole:		**Org CS:**	
Cluster Kind:		**UTMRC:**	5
Date Completed:	07/28/1958	**UTMRC Desc:**	margin of error : 100 m - 300 m
Remarks:		**Location Method:**	p5

Loc Method Desc: Original Pre1985 UTM Rel Code 5: margin of error : 100 m - 300 m
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Overburden and Bedrock Materials Interval

Formation ID: 930994494
Layer: 2
Color:
General Color:
Mat1: 15
Most Common Material: LIMESTONE
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:

Formation Top Depth:	9.0
Formation End Depth:	91.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	930994493
Layer:	1
Color:	
General Color:	
Mat1:	05
Most Common Material:	CLAY
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	9.0
Formation End Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	961502429
Method Construction Code:	1
Method Construction:	Cable Tool
Other Method Construction:	

Pipe Information

Pipe ID:	10573042
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930041713
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	9.0
Casing Diameter:	2.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Casing

Casing ID:	930041714
Layer:	2
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	91.0
Casing Diameter:	2.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Results of Well Yield Testing

Pumping Test Method Desc:	PUMP
Pump Test ID:	991502429
Pump Set At:	
Static Level:	
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	100.0
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:	1
Pumping Duration HR:	
Pumping Duration MIN:	
Flowing:	Yes

Water Details

Water ID:	933455213
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	91.0
Water Found Depth UOM:	ft

Links

Bore Hole ID:	10024472	**Tag No:**	
Depth M:	27.7368	**Contractor:**	1301
Year Completed:	1958	**Latitude:**	45.1795834051759
Well Completed Dt:	07/28/1958	**Longitude:**	-75.8625484228851
Audit No:		**Y:**	45.17958339823831
Path:	150\1502429.pdf	**X:**	-75.86254826202989

11 ***1 of 1*** ***ENE/243.6*** ***99.9 / 0.00*** ***ON*** ***BORE***

Borehole ID:	610285	**Inclin FLG:**	No
OGF ID:	215511801	**SP Status:**	Initial Entry
Status:		**Surv Elev:**	No
Type:	Borehole	**Piezometer:**	No
Use:		**Primary Name:**	
Completion Date:		**Municipality:**	
Static Water Level:		**Lot:**	
Primary Water Use:		**Township:**	
Sec. Water Use:		**Latitude DD:**	45.179764
Total Depth m:	-999	**Longitude DD:**	-75.862297
Depth Ref:	Ground Surface	**UTM Zone:**	18
Depth Elev:		**Easting:**	432251
Drill Method:		**Northing:**	5003282
Orig Ground Elev m:	99.1	**Location Accuracy:**	
Elev Reliabil Note:		**Accuracy:**	Not Applicable
DEM Ground Elev m:	100		
Concession:			
Location D:			
Survey D:			
Comments:			

Borehole Geology Stratum

Geology Stratum ID: 218385176
Top Depth: 0
Bottom Depth: 2.7
Material Color:
Material 1: Clay
Material 2:
Material 3:
Material 4:
Gsc Material Description:
Stratum Description: CLAY.

Mat Consistency:
Material Moisture:
Material Texture:
Non Geo Mat Type:
Geologic Formation:
Geologic Group:
Geologic Period:
Depositional Gen:

Geology Stratum ID: 218385177
Top Depth: 2.7
Bottom Depth:
Material Color: Brown
Material 1: Bedrock
Material 2: Limestone
Material 3:
Material 4:
Gsc Material Description:
Stratum Description: BEDROCK,LIMESTONE. 025E. 0000060. GREY. 00064STONE. TILL. BROWN,DENSE. 000 **Note: Many records provided by the department have a truncated [Stratum Description] field.

Mat Consistency: Dense
Material Moisture:
Material Texture:
Non Geo Mat Type:
Geologic Formation:
Geologic Group:
Geologic Period:
Depositional Gen:

Source

Source Type: Data Survey
Source Orig: Geological Survey of Canada
Source Date: 1956-1972
Confidence: M
Observatio:
Source Name: Urban Geology Automated Information System (UGAIS)
Source Details: File: OTTAWA1.txt RecordID: 027930 NTS_Sheet: 31G04F
Confiden 1: Reliable information but incomplete.

Source Appl: Spatial/Tabular
Source Iden: 1
Scale or Res: Varies
Horizontal: NAD27
Verticalda: Mean Average Sea Level

Source List

Source Identifier: 1
Source Type: Data Survey
Source Date: 1956-1972
Scale or Resolution: Varies
Source Name: Urban Geology Automated Information System (UGAIS)
Source Originators: Geological Survey of Canada

Horizontal Datum: NAD27
Vertical Datum: Mean Average Sea Level
Projection Name: Universal Transverse Mercator

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12 | ***1 of 1*** | ***ENE/244.0*** | ***99.9 / 0.00*** | ***6619 FRANKTOWN RD. lot 20 con 4 RICHMOND ON*** | ***WWIS***

Well ID: 7145846
Construction Date:
Use 1st: Domestic
Use 2nd:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No: Z108249
Tag: A095968
Constructn Method:
Elevation (m):
Elevatn Reliabilty:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:

Flowing (Y/N):
Flow Rate:
Data Entry Status:
Data Src:
Date Received: 06/01/2010
Selected Flag: TRUE
Abandonment Rec:
Contractor: 1119
Form Version: 7
Owner:
County: OTTAWA-CARLETON
Lot: 020
Concession: 04
Concession Name: CON
Easting NAD83:
Northing NAD83:

Static Water Level:		**Zone:**	
Clear/Cloudy:		**UTM Reliability:**	
Municipality:	GOULBOURN TOWNSHIP		
Site Info:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/714\7145846.pdf

Additional Detail(s) (Map)

Well Completed Date:	03/19/2010
Year Completed:	2010
Depth (m):	71.9328
Latitude:	45.1800331766843
Longitude:	-75.8625895794359
Path:	714\7145846.pdf

Bore Hole Information

Bore Hole ID:	1002987488	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	18
Code OB:		**East83:**	432228.00
Code OB Desc:		**North83:**	5003312.00
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	4
Date Completed:	03/19/2010	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Loc Method Desc:	on Water Well Record		
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1003083642
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	22.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1003083643
Layer:	2
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	

Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 22.0
Formation End Depth: 172.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 1003083644
Layer: 3
Color: 2
General Color: GREY
Mat1: 18
Most Common Material: SANDSTONE
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 172.0
Formation End Depth: 236.0
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1003083646
Layer: 1
Plug From: 28.0
Plug To: 0.0
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 1003083679
Method Construction Code: 5
Method Construction: Air Percussion
Other Method Construction:

Pipe Information

Pipe ID: 1003083640
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1003083649
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From: -2.0
Depth To: 28.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 1003083650
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From: 28.0
Depth To: 236.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 1003083651
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter:

Results of Well Yield Testing

Pumping Test Method Desc:
Pump Test ID: 1003083641
Pump Set At: 160.0
Static Level: 6.599999904632568
Final Level After Pumping: 6.699999809265137
Recommended Pump Depth: 100.0
Pumping Rate: 20.0
Flowing Rate:
Recommended Pump Rate: 20.0
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 3
Water State After Test: OTHER
Pumping Test Method: 0
Pumping Duration HR: 1
Pumping Duration MIN: 0
Flowing:

Draw Down & Recovery

Pump Test Detail ID: 1003083652
Test Type: Draw Down
Test Duration: 1
Test Level: 6.699999809265137
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1003083676
Test Type: Draw Down
Test Duration: 60
Test Level: 6.699999809265137
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1003083653

Test Type: Recovery
Test Duration: 1
Test Level: 6.599999904632568
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1003083657
Test Type: Recovery
Test Duration: 3
Test Level: 6.599999904632568
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1003083669
Test Type: Recovery
Test Duration: 25
Test Level: 6.599999904632568
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1003083673
Test Type: Recovery
Test Duration: 40
Test Level: 6.599999904632568
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1003083656
Test Type: Draw Down
Test Duration: 3
Test Level: 6.699999809265137
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1003083665
Test Type: Recovery
Test Duration: 15
Test Level: 6.599999904632568
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1003083675
Test Type: Recovery
Test Duration: 50
Test Level: 6.599999904632568
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1003083654
Test Type: Draw Down
Test Duration: 2
Test Level: 6.699999809265137
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1003083658
Test Type: Draw Down
Test Duration: 4
Test Level: 6.699999809265137
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1003083659
Test Type: Recovery
Test Duration: 4
Test Level: 6.599999904632568
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1003083660
Test Type: Draw Down
Test Duration: 5
Test Level: 6.699999809265137
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1003083663
Test Type: Recovery
Test Duration: 10
Test Level: 6.599999904632568
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1003083674
Test Type: Draw Down
Test Duration: 50
Test Level: 6.699999809265137
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1003083668
Test Type: Draw Down
Test Duration: 25
Test Level: 6.699999809265137
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1003083661
Test Type: Recovery
Test Duration: 5
Test Level: 6.599999904632568
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1003083662
Test Type: Draw Down
Test Duration: 10
Test Level: 6.699999809265137
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1003083671
Test Type: Recovery
Test Duration: 30
Test Level: 6.599999904632568
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1003083677
Test Type: Recovery
Test Duration: 60
Test Level: 6.599999904632568
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1003083655
Test Type: Recovery
Test Duration: 2
Test Level: 6.599999904632568
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1003083664
Test Type: Draw Down
Test Duration: 15
Test Level: 6.699999809265137
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1003083666
Test Type: Draw Down
Test Duration: 20
Test Level: 6.699999809265137
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1003083667
Test Type: Recovery
Test Duration: 20
Test Level: 6.599999904632568
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1003083670
Test Type: Draw Down
Test Duration: 30
Test Level: 6.699999809265137

Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1003083672
Test Type: Draw Down
Test Duration: 40
Test Level: 6.699999809265137
Test Level UOM: ft

Water Details

Water ID: 1003083648
Layer: 2
Kind Code: 8
Kind: Untested
Water Found Depth: 229.0
Water Found Depth UOM: ft

Water Details

Water ID: 1003083647
Layer: 1
Kind Code: 8
Kind: Untested
Water Found Depth: 227.0
Water Found Depth UOM: ft

Hole Diameter

Hole ID: 1003083645
Diameter: 6.0
Depth From: 0.0
Depth To: 236.0
Hole Depth UOM: ft
Hole Diameter UOM: inch

Links

Bore Hole ID: 1002987488
Depth M: 71.9328
Year Completed: 2010
Well Completed Dt: 03/19/2010
Audit No: Z108249
Path: 714\7145846.pdf
Tag No: A095968
Contractor: 1119
Latitude: 45.1800331766843
Longitude: -75.8625895794359
Y: 45.18003317036188
X: -75.86258941829311

Unplottable Summary

Total: 19 Unplottable sites

DB	Company Name/Site Name	Address	City	Postal
ECA	Air Rock Drilling Co. Ltd.	Multiple Sites in Ontario Richmond	Ottawa ON	K0A 2Z0
ECA	Air Rock Drilling Co. Ltd.	Multiple Sites in Ontario Richmond	Ottawa ON	
GEN	GVT. OF CAN.-R.C.M.P.	DWYER HILL TRAINING CENTRE RR#1 FRANKTOWN ROAD	RICHMOND ON	K0A 2Z0
NDFT		FRANKTOWN RD., RICHMOND, ON	ON	
NDFT		FRANKTOWN RD., RICHMOND, ON	ON	
NDFT		FRANKTOWN RD., RICHMOND, ON	ON	
NDFT		FRANKTOWN RD., RICHMOND, ON	ON	
NDFT		FRANKTOWN RD., RICHMOND, ON	ON	
NDFT		FRANKTOWN RD., RICHMOND, ON	ON	
NDFT		FRANKTOWN RD., RICHMOND, ON	ON	
NDFT		FRANKTOWN RD., RICHMOND, ON	ON	
NDFT		FRANKTOWN RD., RICHMOND, ON	ON	
NDFT		FRANKTOWN RD., RICHMOND, ON	ON	
NDFT		FRANKTOWN RD., RICHMOND, ON	ON	
NDFT		FRANKTOWN RD., RICHMOND, ON	ON	
NDFT		FRANKTOWN RD., RICHMOND, ON	ON	
NDFT		FRANKTOWN RD., RICHMOND, ON	ON	
NDFT		FRANKTOWN RD., RICHMOND, ON	ON	
NDFT		FRANKTOWN RD., RICHMOND, ON	ON	

Unplottable Report

Site: ***Air Rock Drilling Co. Ltd.***
Multiple Sites in Ontario Richmond Ottawa ON K0A 2Z0

Database: ***ECA***

Approval No:	5645-8XTKGR	***MOE District:***	
Approval Date:	2012-09-05	***City:***	
Status:	Approved	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	
Approval Type:	ECA-AIR		
Project Type:	AIR		
Business Name:	Air Rock Drilling Co. Ltd.		
Address:	Multiple Sites in Ontario Richmond		
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/0724-8VPS5T-14.pdf		
PDF Site Location:			

Site: ***Air Rock Drilling Co. Ltd.***
Multiple Sites in Ontario Richmond Ottawa ON

Database: ***ECA***

Approval No:	5645-8XTKGR	***MOE District:***	
Approval Date:	9/5/2012	***City:***	Ottawa
Status:	Approved	***Longitude:***	
Record Type:		***Latitude:***	
Link Source:		***Geometry X:***	
SWP Area Name:		***Geometry Y:***	
Approval Type:			
Project Type:	Air/Noise		
Business Name:			
Address:			
Full Address:			
Full PDF Link:			
PDF Site Location:			

Site: ***GVT. OF CAN.-R.C.M.P.***
DWYER HILL TRAINING CENTRE RR#1 FRANKTOWN ROAD RICHMOND ON K0A 2Z0

Database: ***GEN***

Generator No:	ON0283140
SIC Code:	8123
SIC Description:	POLICE SERVICES
Approval Years:	88,89
PO Box No:	
Country:	
Status:	
Co Admin:	
Choice of Contact:	
Phone No Admin:	
Contaminated Facility:	
MHSW Facility:	

Detail(s)

Waste Class:	213
Waste Class Name:	PETROLEUM DISTILLATES
Waste Class:	252

Waste Class Name: WASTE OILS & LUBRICANTS

Site:
FRANKTOWN RD., RICHMOND, ON ON

Database: ***NDFT***

Property Id: K6189
Base Name: (0002) CF SUPPORT UNIT (OTTAWA)
Status: Tank currently active
Status As Of: May 25, 2001
Tank Class: Operating tank for heating or emergency power generator
Install Year: 1998
Tank Type: More Info Needed
Last Year Used:
Tank Contents: Diesel
Capacity (L): 18897

Site:
FRANKTOWN RD., RICHMOND, ON ON

Database: ***NDFT***

Property Id: K6190
Base Name: (0002) CF SUPPORT UNIT (OTTAWA)
Status: Tank currently active
Status As Of: May 25, 2001
Tank Class: Operating tank for heating or emergency power generator
Install Year: 1996
Tank Type: More Info Needed
Last Year Used:
Tank Contents: Diesel
Capacity (L): 910

Site:
FRANKTOWN RD., RICHMOND, ON ON

Database: ***NDFT***

Property Id: K6191
Base Name: (0002) CF SUPPORT UNIT (OTTAWA)
Status: Tank currently active
Status As Of: May 25, 2001
Tank Class: Operating tank for heating or emergency power generator
Install Year: 1995
Tank Type: More Info Needed
Last Year Used:
Tank Contents: Heating fuel / furnace oil
Capacity (L): 1135

Site:
FRANKTOWN RD., RICHMOND, ON ON

Database: ***NDFT***

Property Id: K6192
Base Name: (0002) CF SUPPORT UNIT (OTTAWA)
Status: Tank currently active
Status As Of: May 25, 2001
Tank Class: Operating tank for heating or emergency power generator
Install Year: 1995
Tank Type: More Info Needed
Last Year Used:
Tank Contents: Heating fuel / furnace oil
Capacity (L): 1135

Site:
FRANKTOWN RD., RICHMOND, ON ON

Database: ***NDFT***

Property Id: K6203
Base Name: (0002) CF SUPPORT UNIT (OTTAWA)

Status: Tank currently active
Status As Of: May 25, 2001
Tank Class: Operating tank for heating or emergency power generator
Install Year: 1995
Tank Type: More Info Needed
Last Year Used:
Tank Contents: Diesel
Capacity (L): 2270

Site:
FRANKTOWN RD., RICHMOND, ON ON

Database: ***NDFT***

Property Id: K6202
Base Name: (0002) CF SUPPORT UNIT (OTTAWA)
Status: Tank currently active
Status As Of: May 25, 2001
Tank Class: Operating tank for heating or emergency power generator
Install Year: 1997
Tank Type: More Info Needed
Last Year Used:
Tank Contents: Diesel
Capacity (L): 5000

Site:
FRANKTOWN RD., RICHMOND, ON ON

Database: ***NDFT***

Property Id: K6201
Base Name: (0002) CF SUPPORT UNIT (OTTAWA)
Status: Tank currently active
Status As Of: May 25, 2001
Tank Class: Operating tank for heating or emergency power generator
Install Year: 1997
Tank Type: More Info Needed
Last Year Used:
Tank Contents: Heating fuel / furnace oil
Capacity (L): 1135

Site:
FRANKTOWN RD., RICHMOND, ON ON

Database: ***NDFT***

Property Id: K6188
Base Name: (0002) CF SUPPORT UNIT (OTTAWA)
Status: Tank currently active
Status As Of: May 25, 2001
Tank Class: Operating tank for heating or emergency power generator
Install Year: 1998
Tank Type: More Info Needed
Last Year Used:
Tank Contents: Diesel
Capacity (L): 25000

Site:
FRANKTOWN RD., RICHMOND, ON ON

Database: ***NDFT***

Property Id: K6200
Base Name: (0002) CF SUPPORT UNIT (OTTAWA)
Status: Tank currently active
Status As Of: May 25, 2001
Tank Class: Operating tank for heating or emergency power generator
Install Year: 1995
Tank Type: More Info Needed
Last Year Used:
Tank Contents: Heating fuel / furnace oil

Capacity (L): 910

Site:
FRANKTOWN RD., RICHMOND, ON ON

Database: ***NDFT***

Property Id: K6199
Base Name: (0002) CF SUPPORT UNIT (OTTAWA)
Status: Tank currently active
Status As Of: May 25, 2001
Tank Class: Operating tank for heating or emergency power generator
Install Year: 1995
Tank Type: More Info Needed
Last Year Used:
Tank Contents: Heating fuel / furnace oil
Capacity (L): 910

Site:
FRANKTOWN RD., RICHMOND, ON ON

Database: ***NDFT***

Property Id: K6198
Base Name: (0002) CF SUPPORT UNIT (OTTAWA)
Status: Tank currently active
Status As Of: May 25, 2001
Tank Class: Operating tank for heating or emergency power generator
Install Year: 1996
Tank Type: More Info Needed
Last Year Used:
Tank Contents: Heating fuel / furnace oil
Capacity (L): 1135

Site:
FRANKTOWN RD., RICHMOND, ON ON

Database: ***NDFT***

Property Id: K6197
Base Name: (0002) CF SUPPORT UNIT (OTTAWA)
Status: Tank currently active
Status As Of: May 25, 2001
Tank Class: Operating tank for heating or emergency power generator
Install Year: 1996
Tank Type: More Info Needed
Last Year Used:
Tank Contents: Heating fuel / furnace oil
Capacity (L): 1135

Site:
FRANKTOWN RD., RICHMOND, ON ON

Database: ***NDFT***

Property Id: K6196
Base Name: (0002) CF SUPPORT UNIT (OTTAWA)
Status: Tank currently active
Status As Of: May 25, 2001
Tank Class: Operating tank for heating or emergency power generator
Install Year: 1998
Tank Type: More Info Needed
Last Year Used:
Tank Contents: Diesel
Capacity (L): 4540

Site:
FRANKTOWN RD., RICHMOND, ON ON

Database: ***NDFT***

Property Id: K6195

Base Name: (0002) CF SUPPORT UNIT (OTTAWA)
Status: Tank currently active
Status As Of: May 25, 2001
Tank Class: Operating tank for heating or emergency power generator
Install Year: 1997
Tank Type: More Info Needed
Last Year Used:
Tank Contents: Heating fuel / furnace oil
Capacity (L): 13600

Site:
FRANKTOWN RD., RICHMOND, ON ON

Database: ***NDFT***

Property Id: K6194
Base Name: (0002) CF SUPPORT UNIT (OTTAWA)
Status: Tank currently active
Status As Of: May 25, 2001
Tank Class: Operating tank for heating or emergency power generator
Install Year: 1996
Tank Type: More Info Needed
Last Year Used:
Tank Contents: Heating fuel / furnace oil
Capacity (L): 1135

Site:
FRANKTOWN RD., RICHMOND, ON ON

Database: ***NDFT***

Property Id: K6193
Base Name: (0002) CF SUPPORT UNIT (OTTAWA)
Status: Tank currently active
Status As Of: May 25, 2001
Tank Class: Operating tank for heating or emergency power generator
Install Year: 1996
Tank Type: More Info Needed
Last Year Used:
Tank Contents: Heating fuel / furnace oil
Capacity (L): 1135

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 Northern Development, Mines, Natural Resources and Forestry (ONDMNRF) maintains this database of 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 Oct 2022

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-Mar 2022

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-Feb 28, 2022

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 2021

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: Feb 28, 2022

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-Feb 28, 2023

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 -May 2023

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-Apr 2023

Certificates of Property Use: Provincial CPU

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

Government Publication Date: 1994 - May 31, 2023

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 - Oct 2022

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: Feb 28, 2022

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- Apr 30, 2023

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 - May 31, 2023

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- Apr 30, 2023

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-Mar 31, 2023

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: Apr 30, 2022

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, 2022

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: Feb 28, 2022

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-Mar 2023

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: Feb 28, 2022

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-Oct 31, 2022

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: Feb 28, 2022

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: Mar 21, 2022

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-Feb 2023

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, 2021

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-May 31, 2023

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-Aug 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 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 - May 31, 2023

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- Apr 30, 2023

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: Feb 28, 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 PTTW's on the registry such as OWRA s. 34 - Permit to take water.

Government Publication Date: 1994 - May 31, 2023

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, 1992-2021

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-Apr 2023

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-Feb 28, 2023

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. The Ministry of the Environment, Conservation and Parks cites the coronavirus pandemic as an explanation for delays in releasing data pursuant to requests.

Government Publication Date: 1988-Oct 2021

Wastewater Discharger Registration Database: Provincial SRDS

Facilities that report either municipal treated wastewater effluent or industrial wastewater discharges under the Effluent Monitoring and Effluent Limits (EMEL) and Municipal/Industrial Strategy for Abatement Regulations. The Municipal/Industrial Strategy for Abatement (MISA) division of the Ontario Ministry of Environment keeps record of 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.

Government Publication Date: 1990-Dec 31, 2020

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 - Apr 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: Feb 28, 2022

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- Apr 30, 2023

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: Mar 31 2023

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.

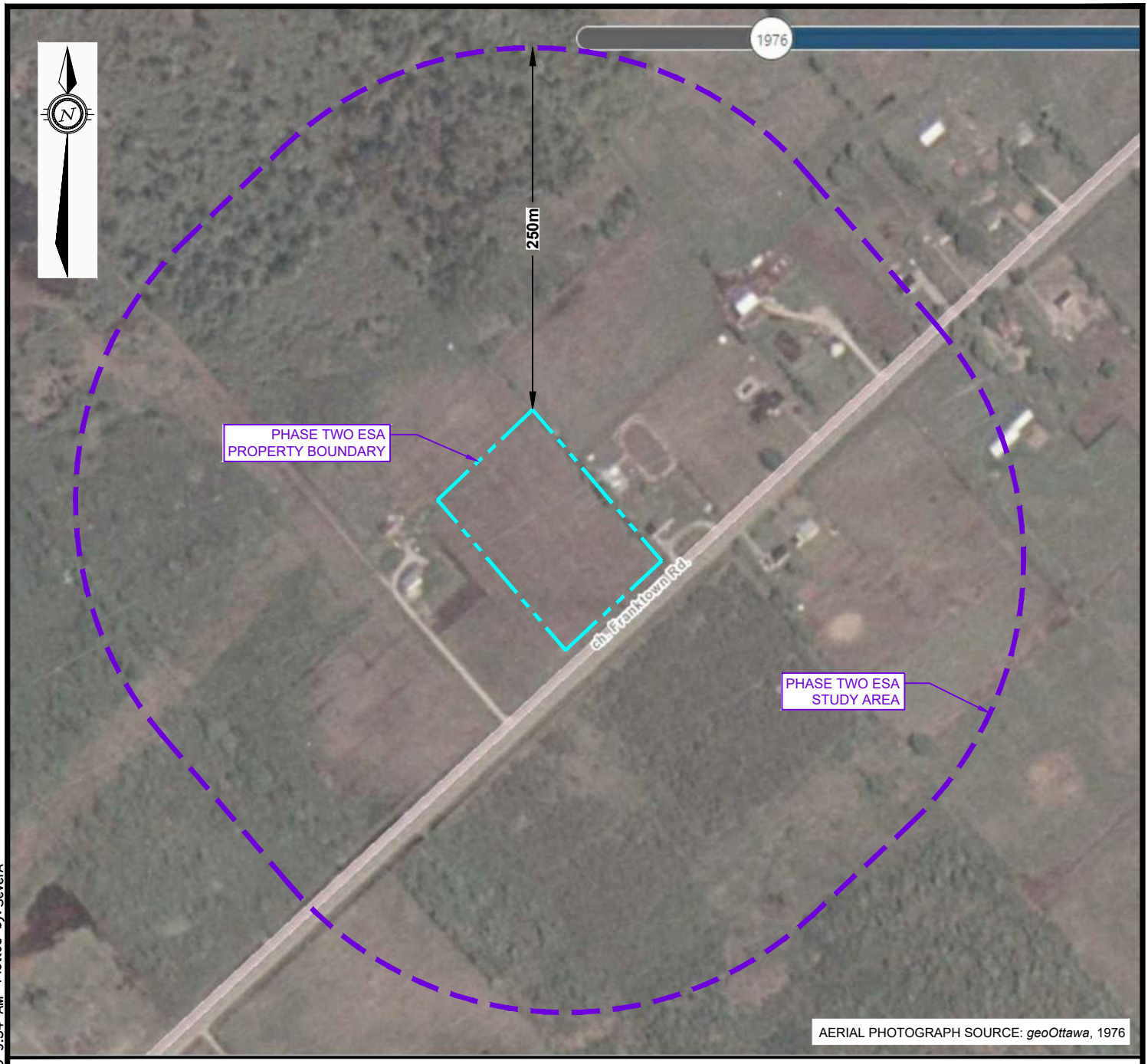
'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

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 E: Aerial Photographs



LEGEND

PROPERTY BOUNDARY

PHASE TWO ESA
STUDY AREA (250 m)

0 40m 80m 160m

HORIZONTAL 1:4,000

EXP Services Inc. www.exp.com
t: +1.613.688.1899 | f: +1.613.225.7337
2650 Queensview Drive, Suite 100
Ottawa, ON K2B 8H6, Canada

DATE: AUGUST 2023	PROJECT: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT	project no. OTT-00243705-B0
DESIGN: MM / CHECKED: CK	ADDRESS: 6659 FRANKTOWN ROAD, OTTAWA, ONTARIO	scale 1:4,000
DRAWN BY: AS	TITLE: 1976 AERIAL PHOTOGRAPHY	FIG F-1

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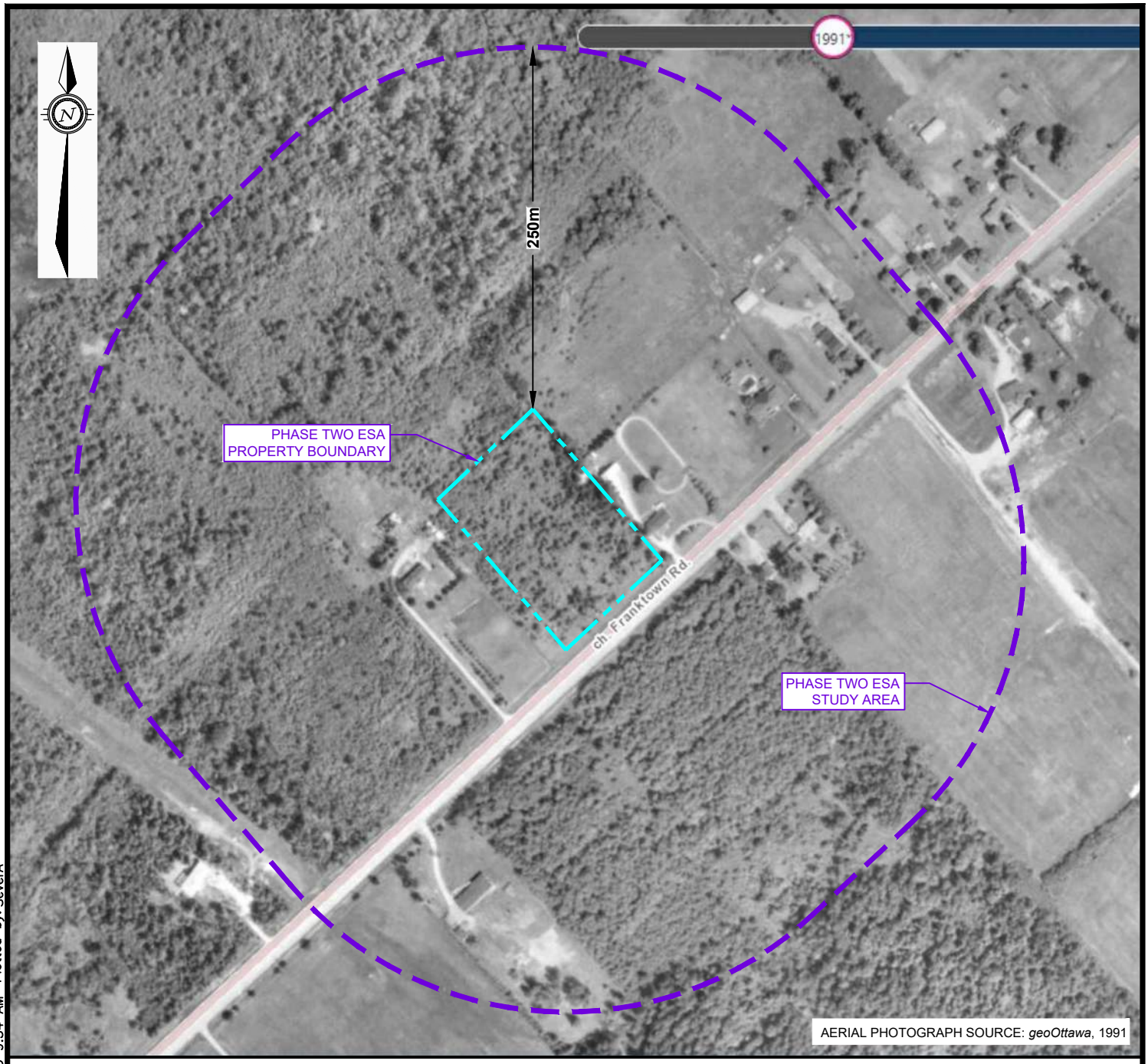

LEGEND

PROPERTY BOUNDARY

PHASE TWO ESA
STUDY AREA (250 m)

0 40m 80m 160m

HORIZONTAL 1:4,000

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t: +1.613.688.1899 | f: +1.613.225.7337
2650 Queensview Drive, Suite 100
Ottawa, ON K2B 8H6, Canada

DATE: AUGUST 2023	PROJECT: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT	project no. OTT-00243705-B0
DESIGN: MM / CHECKED: CK	ADDRESS: 6659 FRANKTOWN ROAD, OTTAWA, ONTARIO	scale 1:4,000
DRAWN BY: AS	TITLE: 1991 AERIAL PHOTOGRAPH	FIG F-2

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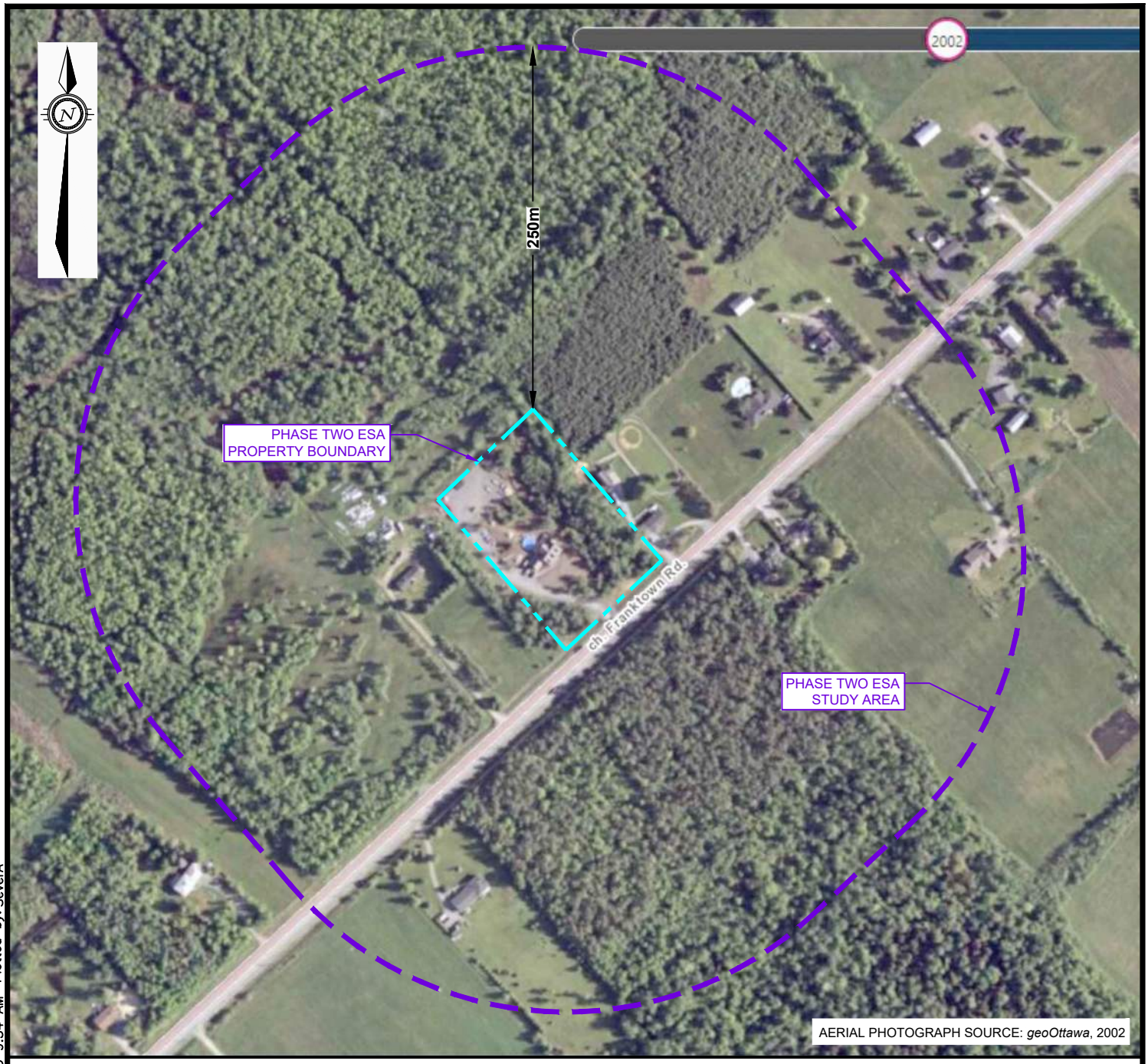

LEGEND

PROPERTY BOUNDARY

PHASE TWO ESA
STUDY AREA (250 m)

0 40m 80m 160m

HORIZONTAL 1:4,000

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2650 Queensview Drive, Suite 100
Ottawa, ON K2B 8H6, Canada

DATE: AUGUST 2023	PROJECT: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT	project no. OTT-00243705-B0
DESIGN: MM / CHECKED: CK	ADDRESS: 6659 FRANKTOWN ROAD, OTTAWA, ONTARIO	scale 1:4,000
DRAWN BY: AS	TITLE: 2002 AERIAL PHOTOGRAPH	FIG F-3

Filename: P:\Projects\Environmental\240000s\243000\243705-B0 PhOne&TwoESA 6659 Franktown Rd\Phase Two ESA\Drawings\OTT-00243705-B0_Ph-2_Appendix-F.dwg
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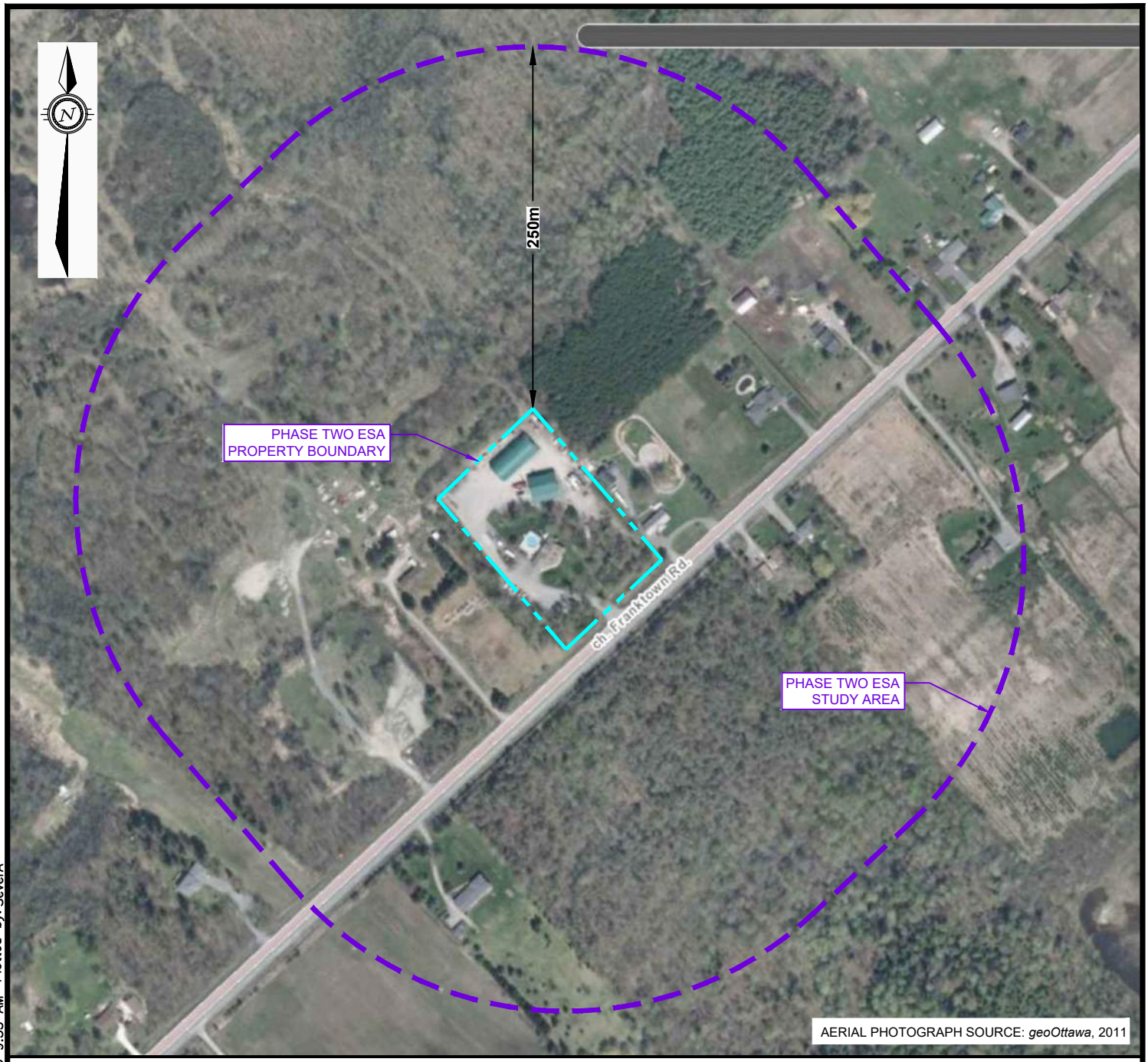

LEGEND

PROPERTY BOUNDARY

PHASE TWO ESA
STUDY AREA (250 m)

0 40m 80m 160m

HORIZONTAL 1:4,000

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t: +1.613.688.1899 | f: +1.613.225.7337
2650 Queensview Drive, Suite 100
Ottawa, ON K2B 8H6, Canada

DATE: AUGUST 2023	PROJECT: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT	project no. OTT-00243705-B0
DESIGN: MM / CHECKED: CK	ADDRESS: 6659 FRANKTOWN ROAD, OTTAWA, ONTARIO	scale 1:4,000
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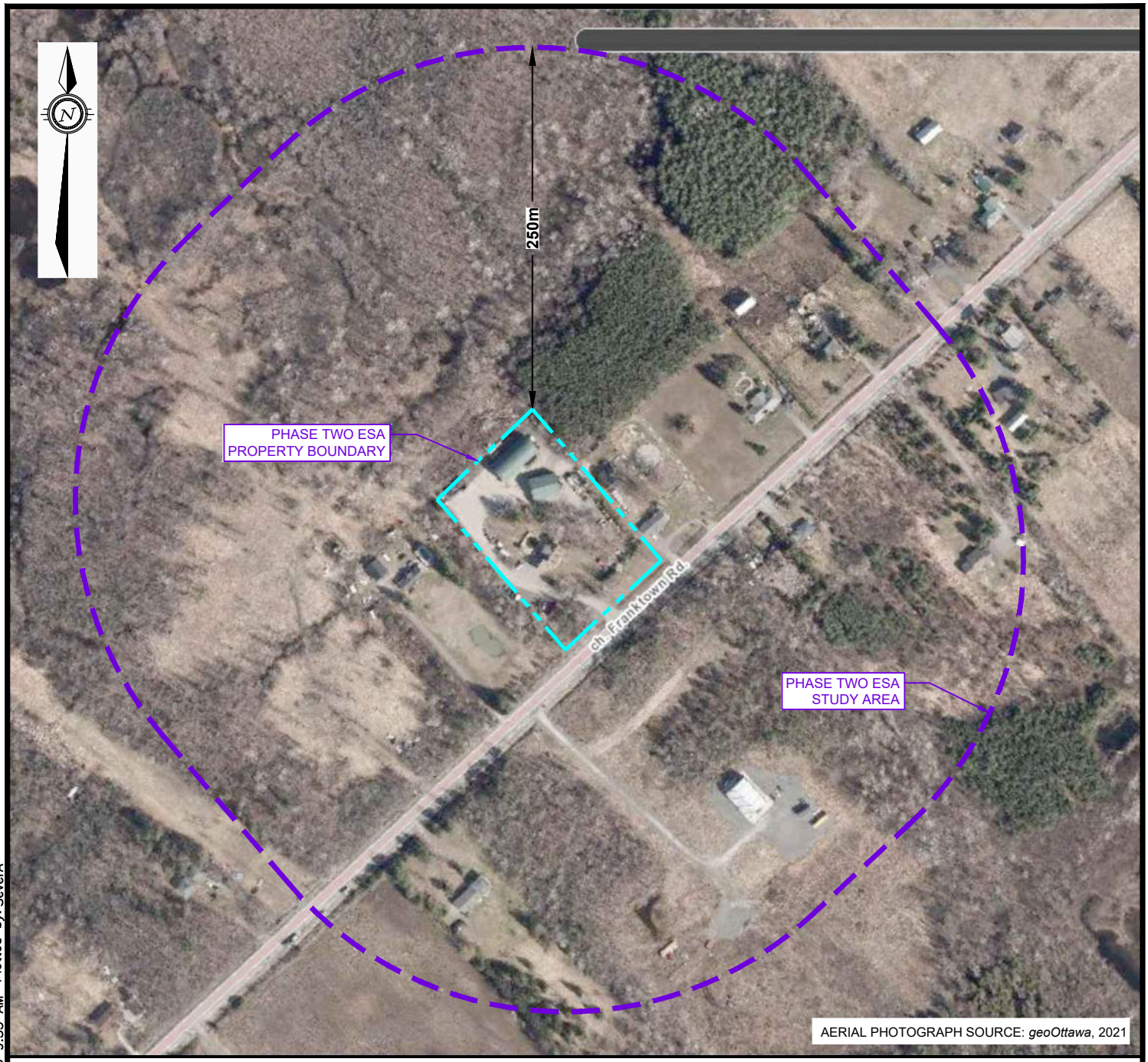

LEGEND

PROPERTY BOUNDARY

PHASE TWO ESA
STUDY AREA (250 m)

0 40m 80m 160m

HORIZONTAL 1:4,000

EXP Services Inc. **www.exp.com**
t: +1.613.688.1899 | f: +1.613.225.7337
2650 Queensview Drive, Suite 100
Ottawa, ON K2B 8H6, Canada

DATE: AUGUST 2023	PROJECT: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT	project no. OTT-00243705-B0
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Last Saved: Aug 11, 2023 9:53 AM Last Plotted: Aug 11, 2023 9:55 AM Plotted by: SeverA

Appendix F: Site Photographs

Photograph No. 1

View of the residence

Photograph No. 2

View of the workshop and office exterior

Photograph No. 3

View of the workshop interior

Photograph No. 4

View of the Quonset hut exterior

Photograph No. 5

View of the Quonset hut interior

Photograph No. 6

View of the workshop sump pump (APEC-1)

Photograph No. 7

View of workshop sump discharge (APEC 1)

Photograph No. 8

View of workshop sump filter

Photograph No. 9

View of the AST 1-2

Photograph No. 10

View of AST 3-6

Photograph No. 11

View of abandoned AST

Photograph No. 12

View of A/C unit and propane tanks outside (SE) of workshop and office building

Photograph No. 13

View of Franktown Road looking Northeast

Photograph No. 14

View of Franktown Road looking Southwest

Photograph No. 15

View of property use North of the Phase One property