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Phase I Environmental Site Assessment
135 Lusk Street
Ottawa, Ontario

KS1076

August 31, 2021

CM3 Environmental Inc.
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EXECUTIVE SUMMARY

CM3 Environmental was retained by Yuri Mendez Engineering (for 2441736 Ontario Inc.) to carry out a Phase I Environmental Site Assessment (ESA) for the property located at 135 Lusk Street, Ottawa, Ontario (`site_ or `subject property_). The objective of the Phase I ESA was to identify potential or actual environmental concerns and/or liabilities on the site associated with activities at the site and/or from activities on surrounding properties. The Phase I ESA was completed for the pending development of the property. The Phase I ESA was not completed in support of the filing of a record of site condition (RSC).

The Phase I ESA was completed following the requirements of the Canadian Standards Association (CSA) Standard Z768-01 and Ontario Regulation (O. Reg.) 153/04. The Phase I ESA was completed under the supervision of Mr. Bruce Cochrane. Mr. Cochrane is a Professional Geologist (P.Geo), certified Environmental Practitioner (EP) and Ontario Ministry of Environment, Conservation and Parks, (MECP) Qualified Person (QP) who has practised in environmental site assessment and remediation for over 29 years.

The Phase I ESA was completed through a site inspection, interviews, and a records review consisting of aerial photographs, fire insurance plans, chain of title searches, Freedom of Information requests, and an Environmental Risk Information Services database search.

The subject property is irregular in shape and is bounded by Lusk Street to the north, a developed commercial property to the east (Hampton Inn & Suites), storm water management ponds and designated parks/open space area to the west and Fallowfield Road to the south. The total area of the subject property is approximately 6195 m^2 (0.62 ha). A portion of the subject lot was used during the construction of the adjacent property to the east (124 Lusk Street). There were several large stockpiles of fill, various construction materials, multiple steel storage containers and a mobile construction trailer on-site during the initial site assessment.

The historic records research did not identify any potentially contaminating activities (PCAs) at the subject property. The on-site assessment revealed multiple stockpiles of excess fill materials. The source and quality of the stockpiled material could not be confirmed and therefore they are considered PCAs. PCAs were not identified within the Phase I study area. PCAs were evaluated with respect to the location of the PCA, the associated contaminants of concern, (COCs), and the potential pathways/migration relative to the subject property. Consideration was also given to higher risk PCAs with respect to potential environmental liability. Areas of potential environmental concern (APEC) and COCs for the subject site were established based on the available information.

CM3 is recommending that a Phase II ESA be completed at the subject site for the on-site PCA. Contamination may be present due to the unknown quality of stockpiled fill that remains on-site. The stockpiled materials were considered the APECs. Metals, petroleum hydrocarbons (PHCs) in the F1 to F4 fractions, volatile organic compounds (VOCs) and polycyclic aromatic hydrocarbons were selected as the COCs.

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1 INTRODUCTION

CM3 Environmental was retained by Yuri Mendez Engineering (for 2441736 Ontario Inc.) to carry out a Phase I ESA for the property located at 135 Lusk Street, Ottawa, Ontario (`site_ or `subject property_).

The objective of the Phase I ESA was to identify potential or actual environmental concerns and/or liabilities on the site associated with activities at the site and/or from activities on surrounding properties. The Phase I ESA was completed for the development of the subject site. The Phase I ESA was not completed in support of the filing of a record of site condition (RSC).

1.1 Phase I Property Information

The subject site is located on the south side of a cul-de-sac at the west end of Lusk Street in Ottawa, Ontario. The property is located between a newly developed commercial property (Hampton Inn & Suites) to the east and storm water management ponds and designated area for parks and open space to the west. Fallowfield Road boarders the south limits of the property. The civic address for the subject property is 135 Lusk Street, Ottawa, Ontario. The geoOttawa online mapping tool identifies the zoning information as IP ¯ Business Park, Industrial Zone. A site survey plan was not provided for this Phase I ESA. The site location is provided as Figure 1. Photographs of the site are provided in Appendix A.

At the time of the August 2021 Phase I ESA, the owner of the property was 2441736 Ontario Inc. The contact for 2441736 Ontario Inc is Mr. Raj Patel. Mr. Patel's contact information is:

2441736 Ontario Inc.
44 Manning Court
Ottawa, Ontario
K2K 3N3
613-307-0412

CM3 was retained by Mr. Yuri Mendez from Yuri Mendez Engineering. The contact information for Mr. Mendez is:

Yuri Mendez Engineering
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Ottawa, Ontario
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613-899-0834

2 SCOPE OF INVESTIGATION

The Phase I ESA was completed at the request of Yuri Mendez Engineering in support of the development of the subject property. The Phase I ESA was not completed in support of filing an RSC. The objective of the Phase I ESA was to evaluate the environmental condition of the subject property and properties within a 250 m radius of the property boundary (Phase I study area). The Phase I ESA included a review of current activities and historic activities/information for the subject property and Phase I study area to identify potentially contaminating activities (PCAs). If a PCA was identified, they were evaluated based on the site conditions to assess if they represented an area of potential environmental concern (APEC) at the subject property.

CM3 completed the Phase I ESA following the general requirements of the Canadian Standards Association (CSA) Standard Z768-01 (R2012) and with Ontario Regulation (O. Reg.) 153/04. The scope of work for the Phase I ESA included:

- A review of readily available historical documents, aerial photographs, and geology/soils maps,
- A review of records from municipal, provincial, and federal agencies and private source databases,
- Reconnaissance of the subject property,
- Interviews with persons knowledgeable of the history of the subject property, if available, and
- The evaluation of the information and preparation of the Phase I ESA report.

3 RECORDS REVIEW

3.1 General

CM3 completed a review of historical records relevant to the subject property, including historical databases, geological maps, aerial photographs, and readily available reports. A radius of 250 m from the subject property was investigated to identify PCAs as provided by O. Reg. 153/04. Environmental Risk Information Services (ERIS), a private environmental information service, provided the majority of the historical records. A standard ERIS historical report was requested to provide records from governmental (Federal and Provincial) databases, and private source records, as outline in O. Reg. 153/04. An ERIS physical setting report (PSR) was also requested to provide physical information about the Phase I study area, including physiography, topography, surficial and bedrock geology and information about areas of natural and scientific interest. The ERIS request included an Opta Enviroscan report to provide fire insurance information relevant to the subject property. The findings of the historical records review are incorporated into the following sections.

3.1.1 Phase I Study Area

The Phase I study area included the subject property and all properties partly or wholly within a 250 m radius of the property boundary. A radius of 250 m was selected based on the requirements provided by O. Reg. 153/04. The 250 m radius from the subject property boundary was determined to be sufficient. The Phase I study area did not include any properties beyond the 250 m radius. The Phase I study area is illustrated on Figure 2.

3.1.2 First Developed Use Determination

The first developed land use was determined based on the historical records search and historical aerial photographs from 1948 to 2019. The site remained undeveloped prior to the August 2021 Phase I ESA. The adjacent properties began development as commercial properties after 2017.

3.1.3 Fire Insurance Plans

A fire insurance plan (FIP) search was requested from ERIS. No records were available within the Phase I Study area. The fire insurance documents are provided in Appendix B.

3.1.4 Chain of Title

A chain of title search was requested from ERIS. Records have been ordered but have not been received prior to this report being issued. If additional information becomes available that may affect the findings of this Phase I ESA, CM3 will provide an addendum to this report updating the findings.

3.1.5 City Directory Search

A city directory search was requested for the subject property but could not be completed due to Covid-19 building access restrictions. ERIS did not have any in-house coverage for this search selection.

3.1.6 Environmental Reports

CM3 was not provided and is unaware of any environmental reports for the subject property.

3.2 Environmental Source Information

Freedom of Information Request

CM3 completed a freedom of information request for the property from the Ontario Ministry of Environment, Conservation and Parks (MECP). Records have been ordered but have not been received prior to this report being issued. If additional information becomes available that may affect the findings of this Phase I ESA, CM3 will provide an addendum to this report updating the findings. The freedom of information request is provided in Appendix C.

ERIS Records Review

An ERIS historical records database search was requested for the site and the surrounding properties within a 250 m radius to cover the Phase I study area. The databases that were searched are listed in the ERIS documents, Appendix D. The search identified 34 records within the Phase I study area as of August 9, 2021. The records are summarized as follows:

Subject Property

No records were listed for the subject property.

Phase I Study Area (Surrounding Properties within 250 m radius)

- One borehole (BORE),
- Eleven Environmental Compliance Approvals (ECA),
- Thirteen ERIS historical searches (EHS),
- One Ontario Regulation 347 Waste Generators Summary (GEN), and
- Eight well records in the Water Well Information System (WWIS).

Details of the above are included in the ERIS documents, Appendix D.

All 35 of the off-site records were evaluated and determined to not represent PCAs.

A total of thirty-nine database search items were identified within the search radius but were unplottable sites (i.e., location unknown). The unplottable summary is provided in the ERIS report, Appendix D, and included:

- Seven Certificates of Approvals (CA),
- One Compliance and Convictions (CONV),
- Four Delisted Fuel Tanks (DTNK),
- Two Environmental Registry (EBR),
- Two Environmental Compliance Approvals (ECA),
- One ERIS Historical Searches (EHS),
- Three Ontario Regulation 347 Waste Generators Summaries (GEN),
- One National Pollutant Release Inventory (NPRI),
- Two Private and Retail Fuel Storage Tanks (PRT),
- Two Permit to take water (PTTW),
- Six Ontario Spills (SPL),
- One Wastewater Discharger Registration Database (SRDS), and
- Seven Water Well Information System (WWIS).

PCAs for the unplottable sites were not identified since the locations of the occurrences could not be confirmed. It is not anticipated the unplotted sites would have any negative environmental impact on the subject site.

3.3 Physical Setting Sources

3.3.1 Aerial Photographs

Aerial photographs were obtained from the City of Ottawa geoOttawa GIS web application and LGI Copy Service. Air photographs from 1948, 1965, 1976, 1991, 1999, 2002, 2005, 2007, 2008, 2011, 2014, 2015, 2017 and 2019 were reviewed as part of this assessment. Photographs prior to 1948 were not reviewed. Observations from the aerial photographs are provided in the following table:

Table 1: Aerial Photographs

Property	Date(s)	Observations
Subject Property	1948 ¯ 1991	Site is undeveloped vacant land suspected agricultural land.
	1999	The site appeared to have been used during the construction of Hwy 416 and Fallowfield Road.
	2019	Site appears to be used during the construction of the adjacent site at 125 Lusk Street. Visible stockpiles of fill and storage containers and mobile construction offices and vehicles are visible in the 2019 photograph.
North	1948-2017	Adjacent land undeveloped vacant land and suspected agricultural use.
	1991	Sometime after 1991 Fallowfield Road was converted to O'Keefe Cresent during the development of Highway 416 to the west (visible in the 1999 photo). A sports field is visible in the 1991 air photograph at the west end of O'Keefe Cresent. A residential development is also visible in the 1991 photo to present.
	2019	Lusk Street is visible in the 2019 photo.

Table 1: Aerial Photographs		
Property	Date(s)	Observations
East	1948-2017	Adjacent land undeveloped vacant with a rectangular wooded area.
	1999	Beyond the adjacent property, Fallowfield Road was diverted towards the south and resumes towards Highway 416 to the west prior to the 1999 photo.
	2015	Beyond Fallowfield Road, ongoing residential development has begun.
	2019	Commercial development on the adjacent property (Hampton Inn & Suites).
South	1948 - 1991	Undeveloped vacant land and suspected agricultural adjacent and beyond.
	1999	Fallowfield Road is visible running east to west.
	2015	Beyond Fallowfield Road, Citygate Drive and Cross Key Place are visible.
	2017 ¯ Present	Commercial buildings and parking lots are visible beyond Fallowfield Road.
West	1948 ¯ 1991	Undeveloped vacant land and suspected agricultural use.
	1999	The area appeared to be to have been used during the construction of Hwy 416 and Fallowfield Road.
	2019	Storm water management system appears to be constructed.

The on-site stockpiles of unknow fill were identified as a PCAs. The air photograph from 1948 is provided in Appendix E. The geoOttawa GIS maps can be found at https:/maps.ca/geoottawa/. Air photographs from geoOttawa are not provided due to copyright laws.

3.3.2 Topography, Hydrology and Geology

The site is relatively flat lying at an approximate elevation of 102.89 m above sea level (m asl) and slopes south-south-west. The topography is shown on the Ontario Base map provided in the ERIS PSR, Appendix F.

The PSR hydrologic information shows that all identified wetlands were beyond the Study area. The location of the wetland/swamp areas are shown on the Ontario Base map provided in the ERIS PSR, Appendix F.

The regional groundwater flow direction was inferred based on the topography at the subject property and surrounding area and the presence of local water bodies. The regional groundwater flow is inferred to be southeast towards the Jock River that flows east towards the Rideau River. The Jock River and Rideau River are located beyond the study area.

The surficial geology of the subject property was interpreted from the Ontario Geological Survey, 2010, Surficial Geology of Southern Ontario (Miscellaneous Releases) summarized in the ERIS PSR. The surficial geology at the subject property is described as offshore marine deposits, quaternary (Champlain Sea). Materials consist of clay, silty clay and silt, commonly calcareous and fossiliferous; locally overlain by thin sand. Upper parts are generally molted or laminated reddish brown and bluish grey and may contain lenses and pockets of sand, but at depth the clay

is uniform and blue grey. The surficial geology and soils maps are provided in the ERIS PSR, Appendix F.

The bedrock geology of the subject property was interpreted from the Bedrock Geology of Ontario (Miscellaneous Releases) summarized in the ERIS PSR. The subject site is in Unit ID 19237 and consists of limestone, dolostone, shale, arkose, sandstone, Ottawa Group; Simcoe Group; Shadow Lake Formation. The bedrock geology map is provided in the ERIS PSR, Appendix F.

3.3.3 Fill Materials

Information regarding fill materials was not available. However, it is assumed that fill may have been imported from off-site in the 1990's during the development of Highway 416 and Fallowfield Road and during the recent construction of the adjacent property at 124 Lusk Street.

3.3.4 Water Bodies, ANSI and Ground Water Information

There are no water bodies within the Phase I study area. The Jock River is located approximately 2.5 km south of the subject property and flows east to the Rideau River. The Rideau River is approximately 6.8 m east of the site.

The watercourses are visible in the 1976 to 2019 aerial photographs.

Areas of natural and scientific interest (ANSI) were not identified within the Phase I study area.

3.4 Well Records

Eight well records for the Phase I study area were identified in the Ontario Water Well Information System. The well information is summarized in the following table:

Table 2: Well Records

Well Record	Use/ Status	Location Relative to Site	Stratigraphy		Depth to Bedrock (m)	Depth to Water (m)
			Depth (m)	Description		
1535406	Observation Well	East-Southeast 141.2 m	0 ? 6	Silty, Sandy, Brown Silt, Clayey, Grey Boulders	No Information	No Information
1527488	Public Cooling and A/C Water Supply	South Southwest 143.5 m	0 - 7.62 7.62 - 44.2 44.2 - 91.4	Clay, Boulders, Grey Limestone, Grey Sandstone	7.62	2.4
1527489	Public Cooling and A/C Water Supply	South Southwest 143.5 m	0 - 7 7 - 44.2 44.2 - 88.4	Clay, Boulders, Grey Limestone, Grey Sandstone	7	2.7
1527903	Cooling and A/C Water Test Hole	South Southwest 143.5 m	0 - 5.2 5.2 - 36 36 - 119.8	Clay, Boulders, Grey Limestone, Grey Sandstone, Limestone Fractured	5.2	No Information

Table 2: Well Records						
Well Record	Use/ Status	Location Relative to Site	Stratigraphy		Depth to Bedrock (m)	Depth to Water (m)
			Depth (m)	Description		
1528157	Commercial Cooling and A/C Water Supply	South Southwest 143.5 m	0 - 5.4 5.4 - 48.8 48.8 - 83.8	Stones, Brown Limestone, Grey Sandstone, Limestone, Layered	5.4	2.7
1534314	Not used Abandoned-Quality	South Southwest 144.4 m	No Information	No Information	No Information	No Information
1534317	Not used Abandoned-Quality	South Southwest 144.4 m	No Information	No Information	No Information	No Information
7337709	Domestic Water Supply	South Southwest 144.4 m	0 - 1.2 1.2 - 4.3 4.3 - 93	Sand, Clay, Boulders, Brown Sand, Gravel, Brown Limestone, Layered, Medium-Grained, Grey	4.3	7.3

The well records are summarized in the ERIS Report, Appendix D.

3.5 Site Operating Records

General information regarding site operations was gathered during the site investigation. The information is incorporated into the appropriate sections of this report.

4 INTERVIEWS

CM3 interviewed Mr. Yuri Mendez from Yuri Mendez Engineering by telephone, e-mail and on-site conversations. Mr. Mendez retained CM3 Environmental to complete a Phase I ESA at the subject site. The following information was obtained during the interviews:

- At the time of the August 2021 Phase I ESA, the subject site (135 Lusk Street) and adjacent site at (125 Lusk Street) were owned by 2441736 Ontario Inc.,
- The site was used as a staging area during the development of the adjacent site to the east (125 Lusk/Hampton Inn & Suites),
- Mr. Mendez was unaware of any previous development and/or environmental site assessment completed at the subject site, and
- Mr. Mendez indicated that the Phase I ESA and geotechnical assessment were being completed for a proposed development of a six-storey hotel building at the site.

5 SITE RECONNAISSANCE

5.1 General Requirements

The site is currently undeveloped and appeared to be used during the construction of the Hampton Hotel & Suites on the adjacent property to the east. It appeared to be used for storage, staging and the location of the on-site mobile office.

Based on the past and current land use, the site would not be considered as an enhanced investigation property.

CM3 personnel conducted the initial site visits on August 12, 2021, between 1 pm and 3 pm. The site investigation was conducted by Mr. Kris Snider. Mr. Snider has over 14 years of experience in the environmental consulting industry. The Phase One ESA was supervised by Mr. Bruce Cochrane, P.Geo of CM3. The curriculum vitae for Kris and Bruce are provided in Appendix G.

On August 12, 2021, the weather was 25 degrees Celsius (°C) and partly sunny. CM3 inspected the entire site and adjacent properties. The Phase I study area and surrounding area were included in the site visit.

Photographs taken during the Phase I site investigation are included in Appendix A.

5.1.1 Subject Property Description

The subject property is irregular in shape and is bounded by Lusk Street to the north, a developed commercial property to the east (124 Lusk St. / Hampton Inn & Suites), storm water management ponds and designated parks/open space area to the west and Fallowfield Road to the south. The total area of the subject property is approximately 6195 m^2 (0.62 ha). A portion of the subject lot was used during the recent construction of the adjacent property to the east (Hampton Inn & Suites). There were several large stockpiles of fill, assorted construction materials, four steel storage containers and a mobile construction office trailer on-site.

The northern portion of the property used during the construction of the adjacent was cleared of vegetation and was mainly covered by silty sand, clay and cobbles. The area surrounding the mobile construction office was covered with imported gravel fill. Electrical service had been installed near the northeast corner of the property, providing power to the mobile office trailer. Several separate stockpiles of fill (mix of sand, silt, clay, organic vegetation, cobbles and boulders were located on-site). The south and west portion of the property was primarily covered with trees and vegetation.

The property sits slightly lower than the adjacent properties to the north and east and slopes to the south towards Fallowfield Road and towards the storm water control area to the west.

A site plan is provided as Figure 3. Photographs of the subject property are provided in Appendix A.

5.1.2 Adjacent Properties

The subject property is in an area zoned as business park industrial and parks and open space. The properties adjacent to, and surrounding the subject property are provided on Figure 4 and described in the following table:

Table 3: Adjacent Property Use	
Direction	Description
North adjacent	Dead End/Cul-De-Sac of Tusk Street.
North beyond	Undeveloped business park industrial property ¯ residential beyond
East adjacent	Hampton Inn & Suites
East beyond	Undeveloped business park industrial property ¯ Fallowfield Road beyond, residential beyond
South adjacent	Fallowfield Road
South beyond	Commercial, business park industrial properties
West adjacent	Undeveloped land and storm water management ponds
West beyond	Undeveloped land and storm water management ponds ¯ Hwy 416 beyond

Photographs of the adjacent properties are provided in Appendix A.

5.2 Specific Observations at the Phase I Property

Structures and Buildings

There were four steel shipping containers and on mobile construction office trailer on-site during the Phase I ESA site investigation. No permanent structures were located on the subject property. Photographs of the property and surrounding land uses are included in Appendix A.

Below Ground Structures

No below ground structures were observed during the Phase I ESA site investigation.

Storage Tanks

No aboveground or underground storage tanks were observed on the subject property during the Phase I ESA site investigation.

Water Supply

The water supply for surrounding area is provided by City of Ottawa municipal water supply. However, the site is not currently serviced by a water supply.

The approximate location of the municipal and private water supply lines is illustrated on Figure 3, Site Plan.

Underground Utilities

The subject property is undeveloped, however electrical service has been installed at the northeast corner of the property to service the mobile construction office trailer. There were no private water or sewer lines hooked up to the City of Ottawa municipal systems at the time of the Phase I ESA site investigation.

The approximate locations of the municipal and private underground utilities are illustrated on Figure 3 Site Plan.

Features of On-Site Structures and Buildings

There were five steel shipping containers and one mobile construction office trailer on-site during the Phase I ESA site investigation. No permanent structures were located on the subject property. Photographs of the property and surrounding land uses are included in Appendix A. CM3 did not observe any obvious areas of obvious staining and/or unidentified substances surrounding the structures.

Photographs of the building are included in Appendix A.

Wells

CM3 noted three borehole locations where a hight density polyethylene tube was installed. The boreholes and tubing were likely completed during a previous geotechnical survey of the property. CM3 is unaware of the results from any site assessment completed at the site. No other wells were observed on the subject property during the Phase I ESA site investigation.

Sewage Works and Wastewater

Sewage and wastewater for the surrounding area is discharged to the City of Ottawa municipal sewer system. The subject property was not serviced by the City of Ottawa municipal sewage works at the time of the Phase I ESA site investigation.

Ground Surface

Ground cover at the site include several trees, ground vegetation (various weeds and grasses), areas of exposed soil (sand silt clay, cobbles, boulders) and imported gravel surrounding the mobile construction office trailer. Photographs of the ground cover are provided in Appendix A.

Surface Water or Wetlands

Surface water and wetlands were identified within the Phase I study area. Several small puddles of water were observed on site, but no swamps, pond or wetlands were present on the subject property. Hydrologic information is provided in in the ERIS PSR, Appendix F.

Railway Lines or Spurs

There were no railway lines or spurs at the subject property or within the Phase I study area.

Areas of Stained Soil, Vegetation or Pavement

Areas of stained soil or vegetation were not identified during the Phase I ESA site investigation.
Stressed Vegetation

Areas of stressed vegetation were not identified during the Phase I ESA site investigation.

Fill or Debris

Several stockpiles of fill were identified during the Phase I ESA site visit and are illustrated on Figure 3, Site Plan.

Potentially Contaminating Activities

Potentially contaminating activities (PCAs) are listed and numbered in O. Reg. 153/04, Schedule D; Table 2. Several areas of stockpiled soils were observed at the subject site. O. Reg. 153/04, Schedule D; Table 2 Item #30 identifies that importation of fill material of unknown quality is considered a PCA. CM3 is unaware of any documentation showing the quality of on-site stockpiled fill material and therefore the stockpiles are considered a PCA.

Unidentified Substances

Unidentified substances were not observed at the subject property.

Solid (Non-hazardous) Waste

Solid waste concerns were not observed at the subject property during the Phase I ESA site investigation.

Hazardous Waste

Hazardous wastes were not observed at the subject property.

Existing Groundwater Issues

Evidence of adverse groundwater conditions were not observed at the subject property.

Air Emissions

Negative air emissions were not observed at the subject property.

Designated Substances

Evidence of designated substances were not observed at the subject property.

Polychlorinated Biphenyls (PCBs)

Evidence of PCBs were not observed at the subject property.

Ozone-Depleting Materials

Evidence of Ozone depleting substances (ODSs) were not observed at the subject property.

Urea Foam Formaldehyde Insulation

Evidence of Urea foam formaldehyde insulation (UFFI) was not observed at the subject property.

Mould

Mould was not a concern with the undeveloped property.

Radon

The radon risk was considered high as indicated in the ERIS PSR, Appendix F. However, radon testing would be required to conclusively rule out radon impacts.

Herbicides and Pesticides

Herbicides and pesticides were not observed at the subject property.

Dry-Cleaning Operations

Dry-cleaning operations were not observed at the subject property or within the Phase I study area.

5.2.1 Enhanced Investigation Property

The subject property was not considered an enhanced investigation property per O. Reg. 153/04.

6 REVIEW AND EVALUATION OF FINDINGS

6.1 Current and Past Uses

The subject property was likely used for agricultural purposes prior to the development of Highway 416 in the 1990's. The historic and current property uses are provided in the following table:

Table 4: Current and Past Property Uses

Year	Property Use	Source(s)
1965 - 1990	Undeveloped, possible agricultural use	Aerial photographs
1990- 1999	Possibly used during the construction of Highway 416	Aerial photograph
2002 - 2017	Undeveloped	Aerial photographs
2019	Used during the construction of the Hampton Inn & Suites at 125 Lusk Street	Aerial photograph

The past property uses prior to 1965 are not an environmental concern.

6.2 Potentially Contaminating Activity

Potentially Contaminating Activities (PCAs) are listed and numbered in O.Reg 153/04, Schedule D; Table 2. The PCAs identified at the subject property are provided in the following table and on Figure 5:

Table 5: Subject Property Potentially Contaminating Activities

MECP 153/04 Ref. No.	CM3 Loc. Ref. No.	PCA	Phase One ESA Source	Description of Activity and Location
30	1	Importation of Fill Material of Unknow Quality	Site investigation and historic photographs	Possible use in the 1990's during the development of highway 416. The entire lot appeared to be used as a staging area and possibly stripped and/or backfilled.
30	2	Importation of Fill Material of Unknow Quality	Site Investigation and historic photographs	Used during the construction of the adjacent property to the east (Hampton Inn & Suites). Stockpiles of fill material on the north, west and south of the property.

The PCAs identified on adjacent or off-site properties within the Phase I Study Area are provided in the following table and on Figure 5:

Table 6: Phase I Study Area Potentially Contaminating Activities				
MECP 153/04 Ref. No.	CM3 Loc. Ref. No.	PCA	Phase One ESA Source	Description of Activity and Location
30	3	Importation of Fill Material of Unknow Quality	Site Investigation and historic photographs	Construction of the adjacent property to the east (Hampton Inn & Suites).

6.3 Areas of Potential Environmental Concern

Areas of potential environmental concern (APECs) were identified based on the findings of this Phase I ESA. The above PCAs were evaluated with respect to the location (source) of the PCA and the potential pathways/migration relative to the subject property and receptors at the subject property. The following APEC and contaminants of concern (COCs) were identified:

Table 7: Areas of Potential Environmental Concern			
APEC	Location	Cause of Concern	COC
1	Subject Site	Unknown Fill Quality	VOCs, PHCs F1 - F4, PAHs and metals

VOCs Volatile organic compounds
PHCs Petroleum Hydrocarbons F1 to F4 Fractions
PAHs Polycyclic Aromatic Hydrocarbons

The location of the APEC is provided on Figure 6.

6.4 Phase I Conceptual Site Model

A Phase I conceptual site model (CSM) was developed based on the information collected as part of the investigation. The surficial geology of the subject property is likely a sand, silt and clay with cobbles and boulders overlaying the limestone bedrock. The groundwater flow at the site is estimated to be west based on topography and the introduction of stormwater control ponds on the adjacent property to the west.

CM3 identified one PCA that was considered to create an APEC at the site due to unknown fill quality.

7 CONCLUSIONS

The findings of the Phase I ESA identified two Potentially Contaminating Activities (PCAs) on-site and one PCA off-site within the subject study area. All three PCAs were related to the unknown quality of fill materials. The PCAs were evaluated with respect to the condition, location (source) of the PCA and the potential pathways/migration relative to the subject property. Consideration was also given to higher risk PCAs with respect to potential environmental liability. Areas of potential environmental concern (APEC) and contaminants of concern (COCs) were established based on the available information. The two on-site PCAs were considered APECs due to the unknown quality of fill material that may have been used and or stockpiled on-site.

Based on the above, CM3 is recommending a Phase II ESA for 135 Lusk Street to address the concerns of potential soil and groundwater contamination related to the unknown fill quality used and or stockpiled on-site.

7.1 Requirement for a Phase II ESA

The Phase II would include laboratory testing of soil and groundwater at the APECs located on the subject site for VOCs, PHCs F1 to F4, PAHs and metals.

8 REFERENCES

This Phase One Environmental Site Assessment report was prepared based on the following:

Ontario Ministry of Environment. Ontario Regulation 153/04 – Records of Site Condition - Part XV.1 of the Environmental Protection Act. Consolidated July 1, 2020.

Ontario Ministry of Environment, Conservation and Parks. Guide for completing phase one environmental site assessments under Ontario Regulation 153/04.

Canadian Standards Association Document Z768-01 (R2012). Phase I Environmental Site Assessment.

City of Ottawa geoOttawa GIS web application. https://maps.ottawa.ca/geoottawa/

9 LIMITATIONS

This report has been prepared and the work referred to in this report has been undertaken by CM3 Environmental Inc. for 2441736 Ontario Inc. It is intended for the sole and exclusive use of 2441736 Ontario Inc., its affiliated companies and partners and their respective insurers, agents, employees and advisors. Any use, reliance on, or decision made by any person other than 2441736 Ontario Inc. based on this report is the sole responsibility of such other person. CM3 Environmental Inc. and 2441736 Ontario Inc. make no representation or warranty to any other person with regard to this report and the work referred to in this report, and they accept no duty of care to any other person or any liability or responsibility whatsoever for any losses, expenses, damages, fines, penalties or other harm that may be suffered or incurred by any other person as a result of the use of, reliance on, any decision made or any action taken based on this report or the work referred to in this report.

The investigation undertaken by CM3 Environmental Inc. with respect to this report and any conclusions or recommendations made in this report reflect CM3 Environmental Inc.'s judgement based on the site conditions observed at the time of the site inspection on the date(s) set out in this report and on information available at the time of preparation of this report. This report has been prepared for specific application to this site and it is based, in part, upon visual observation of the site, subsurface investigation at discrete locations and depths, and specific analysis of specific chemical parameters and materials during a specific time interval, all as described in this report. Unless otherwise stated, the findings cannot be extended to previous or future site conditions, portions of the site which were unavailable for direct investigation, subsurface locations which were not investigated directly, or chemical parameters, materials or analysis which were not addressed. Substances other than those addressed by the investigation described in this report may exist within the site, substances addressed by the investigation may exist in areas of the site not investigated and concentrations of substances addressed which are different than those reported may exist in areas other than the location from which samples were taken.

If site conditions or applicable standards change or if any additional information becomes available at a future date, modifications to the findings, conclusions and recommendations in this report may be necessary.

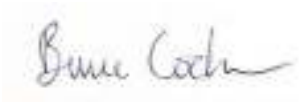
Other than by 2441736 Ontario Inc., copying or distribution of this report or use of or reliance on the information contained herein, in whole or in part, is not permitted without the express written permission of CM3 Environmental Inc. Nothing in this report is intended to constitute or provide a legal opinion.

We trust that the above is satisfactory for your purposes at this time. Please feel free to contact the undersigned if you have any questions.

Yours sincerely,

CM3 Environmental Inc.

Kris Snider
Project Manager



Bruce Cochrane, P.Geo., QP, EP
Principal

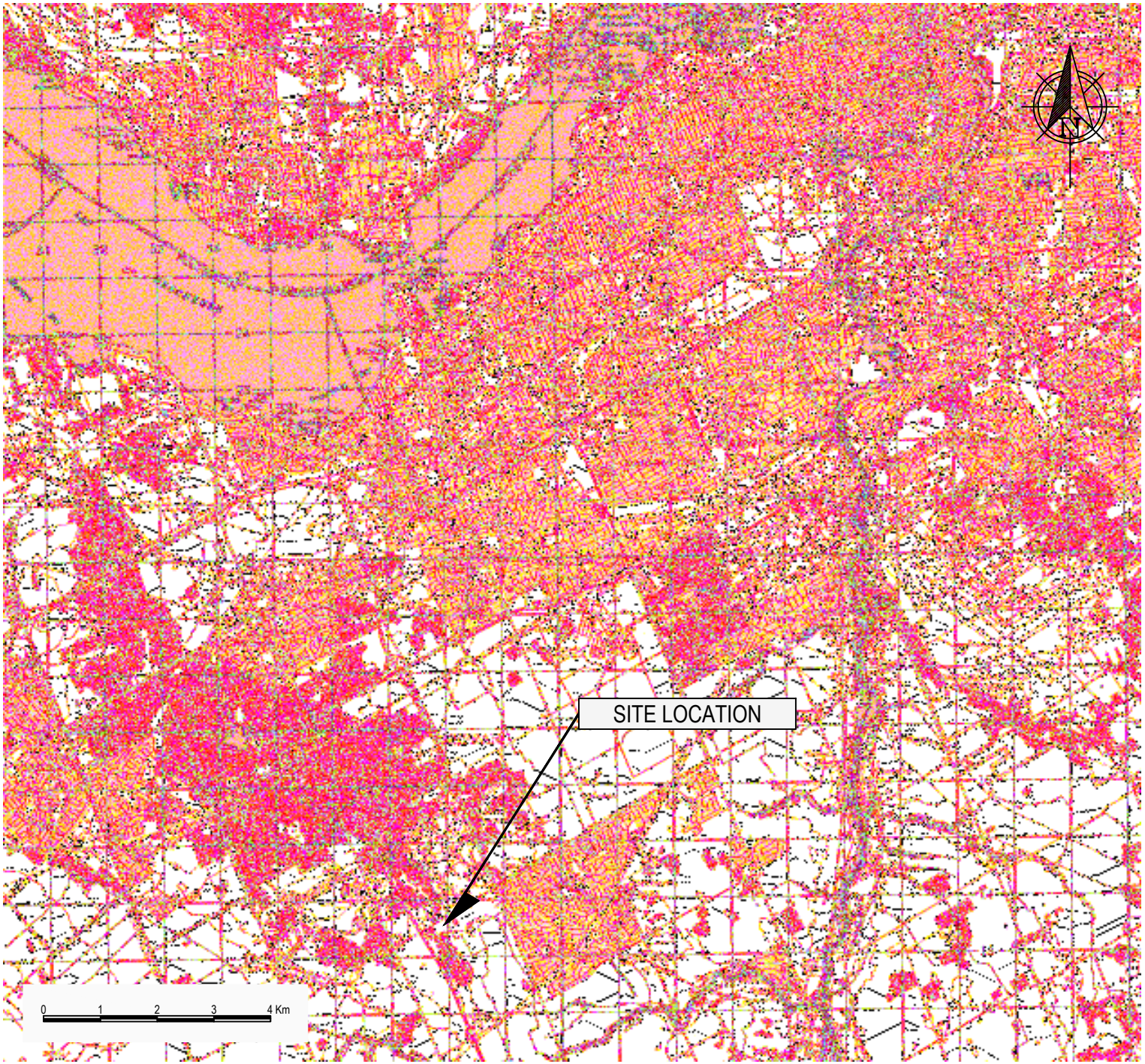
FIGURES

Phase I Environmental Site Assessment

135 Lusk Street

Ottawa, Ontario

KS1076



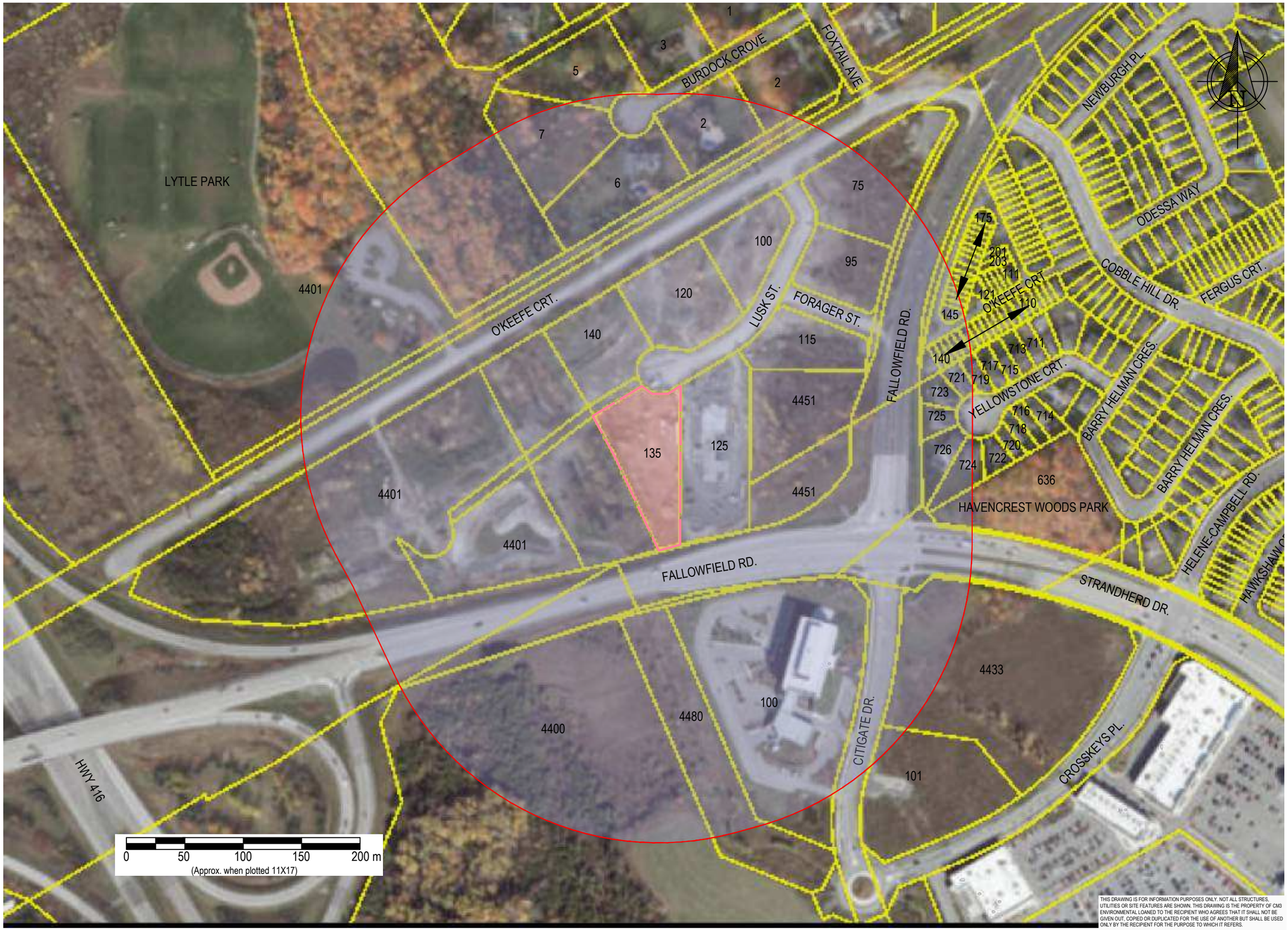
CM3 ENVIRONMENTAL
5710 AKINS ROAD, OTTAWA, ON
K2S 1B8

2441736 ONTARIO INC.

PHASE I ENVIRONMENTAL SITE ASSESSMENT
135 LUSK STREET, OTTAWA ONTARIO

SITE LOCATION

Project: KS1076	Drawn By: KS
Date: AUGUST 2021	Reviewed By: BDC
Scale: AS SHOWN	Figure: 1



THIS DRAWING IS FOR INFORMATION PURPOSES ONLY. NOT ALL STRUCTURES, UTILITIES OR SITE FEATURES ARE SHOWN. THIS DRAWING IS THE PROPERTY OF CM3 ENVIRONMENTAL LOANED TO THE RECIPIENT WHO AGREES THAT IT SHALL NOT BE GIVEN OUT, COPIED OR DUPLICATED FOR THE USE OF ANOTHER BUT SHALL BE USED ONLY BY THE RECIPIENT FOR THE PURPOSE TO WHICH IT REFERS.

LEGEND

- PROPERTY BOUNDARY
- SITE
- PHASE I STUDY AREA (250 m)

cm3 environmental

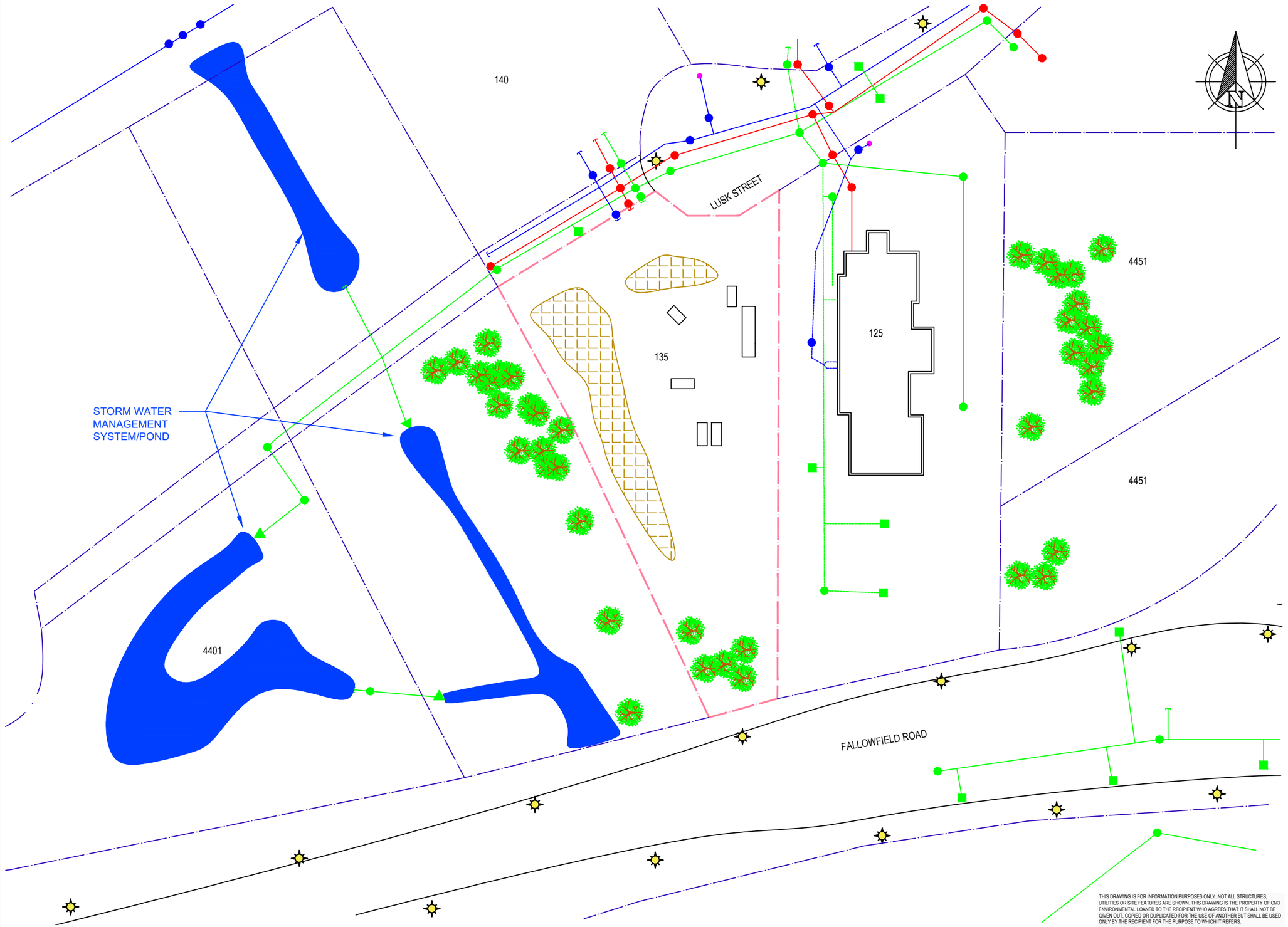
CM3 ENVIRONMENTAL
5710 AKINS ROAD, OTTAWA, ON
K2S 1B8

2441736 ONTARIO INC.

PHASE I ENVIRONMENTAL SITE ASSESSMENT
135 LUSK STREET, OTTAWA ONTARIO

PHASE I STUDY AREA

Project:	Drawn By:
KS1076	KS
Date:	Reviewed By:
AUGUST 2021	BDC
Scale:	Figure:
AS SHOWN	2



LEGEND

- PROPERTY BOUNDARY
- SITE
- BUILDING
- PRIVATE SANITARY SEWER
- PUBLIC SANITARY SEWER
- SANITARY MANHOLE
- PRIVATE WATER MAINS
- PUBLIC WATER MAINS
- WATER MAIN VALVES
- PUBLIC STORM SEWER
- STORM MANHOLE
- STORM INLET
- STORM OUTLET
- STREET LIGHT & HYDRO POLE
- ON-SITE MOBILE CONSTRUCTION TRAILER AND/OR STEEL SHIPING CONTAINERS
- ESTIMATED AREA OF STOCKPILE FILL MATERIAL

Scale 1:1000

0 10 20 30 40 m

(Approx. When plotted 11x17)

CM3 ENVIRONMENTAL
5710 AKINS ROAD, OTTAWA, ON
K2S 1B8

2441736 ONTARIO INC.

PHASE I ENVIRONMENTAL SITE ASSESSMENT
135 LUSK STREET, OTTAWA ONTARIO

PHASE I SITE PLAN

Project: KS1076	Drawn By: KS
Date: AUGUST 2021	Reviewed By: BDC
Scale: 1:1000	Figure: 3

THIS DRAWING IS FOR INFORMATION PURPOSES ONLY. NOT ALL STRUCTURES, UTILITIES OR SITE FEATURES ARE SHOWN. THIS DRAWING IS THE PROPERTY OF CM3 ENVIRONMENTAL LOANED TO THE RECIPIENT WHO AGREES THAT IT SHALL NOT BE GIVEN OUT, COPIED OR DUPLICATED FOR THE USE OF ANOTHER BUT SHALL BE USED ONLY BY THE RECIPIENT FOR THE PURPOSE TO WHICH IT REFERS.

LEGEND

PROPERTY BOUNDARY
SITE
BUILDING

PROPERTY ZONING

(IP) BUSINESS PARK INDUSTRIAL
(O1) PARKS AND OPEN SPACE

CURRENT PROPERTY USE

-V- VACANT UNDEVELOPED
-C- COMMERCIAL

Scale 1:1000

0 10 20 30 40 m

(Approx. When plotted 11x17)

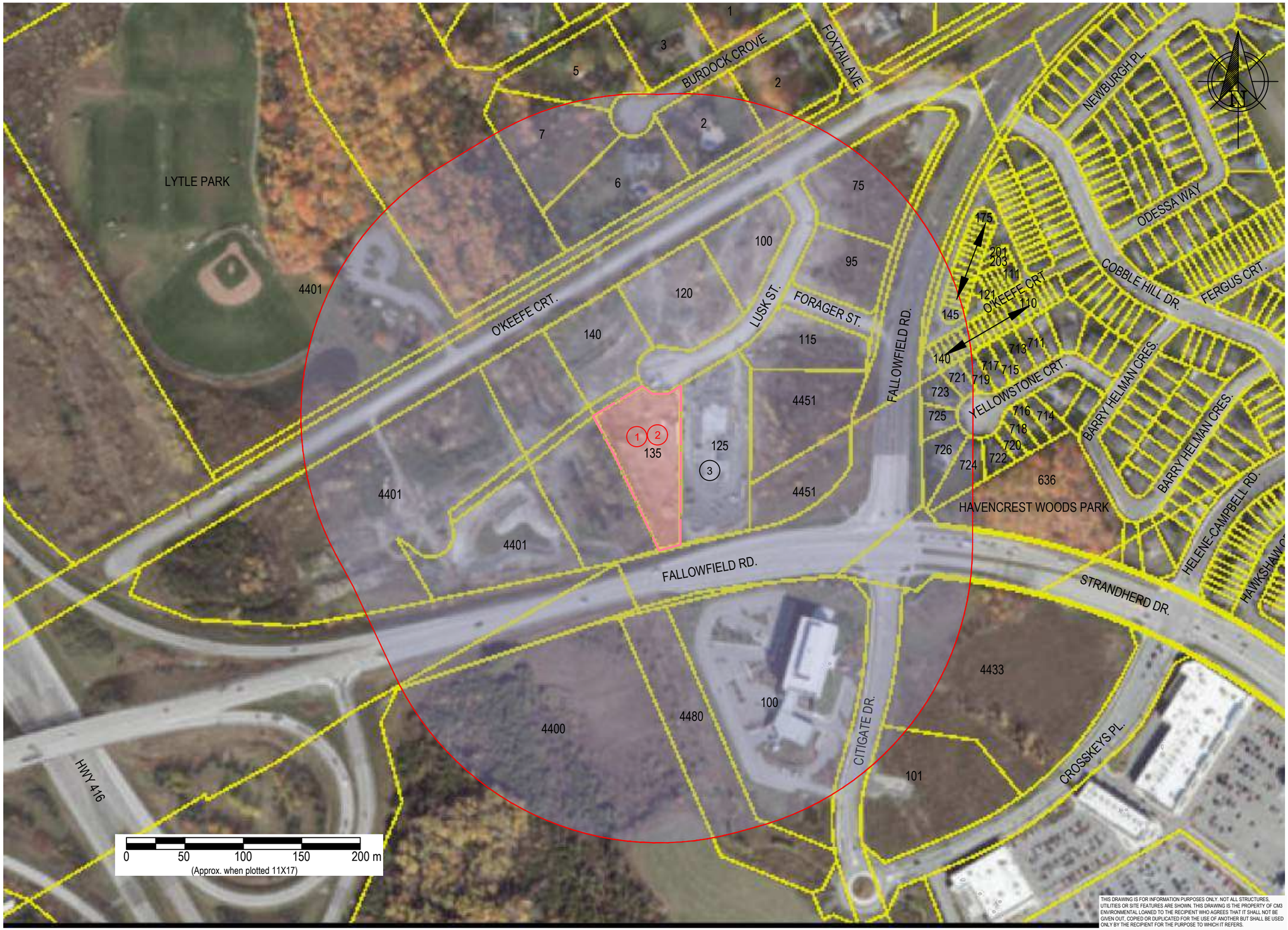
CM3 ENVIRONMENTAL
5710 AKINS ROAD, OTTAWA, ON
K2S 1B8

2441736 ONTARIO INC.

PHASE I ENVIRONMENTAL SITE ASSESSMENT
135 LUSK STREET, OTTAWA ONTARIO

PHASE I SURROUNDING LAND USE AND ZONING

Project: KS1076	Drawn By: KS
Date: AUGUST 2021	Reviewed By: BDC
Scale: 1:1000	Figure: 4



LEGEND

- PROPERTY BOUNDARY
- SITE
- PHASE I STUDY AREA (250 m)

PCAs

- (1) PCA CREATING A HIGH RISK FOR APEC TO THE SUBJECT PROPERTY
- (1) PCA LESS LIKELY TO CREATE AN APEC TO THE SUBJECT PROPERTY

LIST OF PCAs

- (1) IMPORTED FILL - DURING THE 1990's
- (2) IMPORTED FILL - DURING THE CONSTRUCTION AT 124 LUSK ST.
- (3) IMPORTED FILL DURING THE CONSTRUCTION OF THE HAMPTON INN & SUITES AT 124 LUSK ST.

cm3 environmental

CM3 ENVIRONMENTAL
5710 AKINS ROAD, OTTAWA, ON
K2S 1B8

2441736 ONTARIO INC.

PHASE I ENVIRONMENTAL SITE ASSESSMENT
135 LUSK STREET, OTTAWA ONTARIO

PHASE I STUDY AREA PCAs

Project: KS1076	Drawn By: KS
Date: AUGUST 2021	Reviewed By: BDC
Scale: AS SHOWN	Figure: 5

LEGEND

- PROPERTY BOUNDARY
- SITE
- BUILDING
- ON-SITE MOBILE CONSTRUCTION TRAILER AND/OR STEEL SHIPING CONTAINERS
- ESTIMATED AREA OF STOCKPILE FILL MATERIAL

APECs

- 1 (PCA 1 & 2 UNKNOWN FILL QUALITY)

Scale 1:750

0 5 10 15 20 25 m

(Approx. When plotted 11x17)

CM3 ENVIRONMENTAL
5710 AKINS ROAD, OTTAWA, ON
K2S 1B8

2441736 ONTARIO INC.

PHASE I ENVIRONMENTAL SITE ASSESSMENT
135 LUSK STREET, OTTAWA ONTARIO

PHASE I APECs

Project:	Drawn By:
KS1076	KS
Date:	Reviewed By:
AUGUST 2021	BDC
Scale:	Figure:
1:750	6

APPENDIX A

PHOTOGRAPHS

Phase I Environmental Site Assessment

135 Lusk Street

Ottawa, Ontario

KS1076

APPENDIX A PHOTOGRAPHS	
Client: 2441736 Ontario Inc.	**Job Number:** KS1076
Site Name: 135 Lusk Street, Ottawa, Ontario	**Location:** 135 Lusk Street Ottawa, Ontario K2J 6S5
Photographer: Kris Snider	**Date:** August 12, 2021

Photograph 1: Subject property view from cul-de-sac west end of Lusk St. (Photo facing south)

Photograph 2: Subject property view facing south from sidewalk.

APPENDIX A PHOTOGRAPHS	
Client: 2441736 Ontario Inc.	**Job Number:** KS1076
Site Name: 135 Lusk Street, Ottawa, Ontario	**Location:** 135 Lusk Street Ottawa, Ontario K2J 6S5
Photographer: Kris Snider	**Date:** August 12, 2021

Photograph 3: Subject property view of two on-site steel shipping containers. (Photo facing south)

Photograph 4: Subject property view facing north.

APPENDIX A PHOTOGRAPHS	
Client: 2441736 Ontario Inc.	**Job Number:** KS1076
Site Name: 135 Lusk Street, Ottawa, Ontario	**Location:** 135 Lusk Street Ottawa, Ontario K2J 6S5
Photographer: Kris Snider	**Date:** August 12, 2021

Photograph 5: Subject property fill material stockpile on north end of property. (Photo facing southeast)

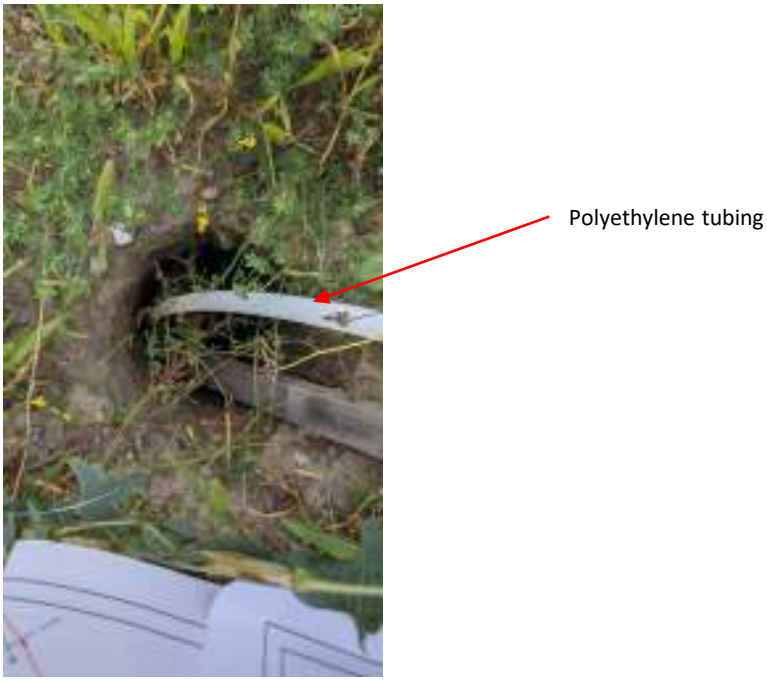
Photograph 6: Subject property fill material stockpile west side of property. (Photo facing north)

APPENDIX A PHOTOGRAPHS	
Client: 2441736 Ontario Inc.	**Job Number:** KS1076
Site Name: 135 Lusk Street, Ottawa, Ontario	**Location:** 135 Lusk Street Ottawa, Ontario K2J 6S5
Photographer: Kris Snider	**Date:** August 12, 2021

Photograph 7: Subject property west property line, chain-link fence separating site from storm water management area. (Photo facing southwest)

Photograph 8: Subject property south end of lot. View of slope towards Fallowfield Rd.

APPENDIX A PHOTOGRAPHS	
Client: 2441736 Ontario Inc.	**Job Number:** KS1076
Site Name: 135 Lusk Street, Ottawa, Ontario	**Location:** 135 Lusk Street Ottawa, Ontario K2J 6S5
Photographer: Kris Snider	**Date:** August 12, 2021



Photograph 9: One of several on-site former boreholes with high density polyethylene tubing .

Photograph 10: On-site electrical service located on northeast corner of property adjacent to mobile office trailer.

APPENDIX A PHOTOGRAPHS	
Client: 2441736 Ontario Inc.	**Job Number:** KS1076
Site Name: 135 Lusk Street, Ottawa, Ontario	**Location:** 135 Lusk Street Ottawa, Ontario K2J 6S5
Photographer: Kris Snider	**Date:** August 12, 2021

Photograph 11: Front entrance of Hampton Inn & Suites adjacent property to the east at 124 Lusk St. (Photo facing southeast)

Photograph 12: Hampton Inn & Suites 124 Lusk St. (Photo facing northeast)

APPENDIX A PHOTOGRAPHS	
Client: 2441736 Ontario Inc.	**Job Number:** KS1076
Site Name: 135 Lusk Street, Ottawa, Ontario	**Location:** 135 Lusk Street Ottawa, Ontario K2J 6S5
Photographer: Kris Snider	**Date:** August 12, 2021

Photograph 13: Lusk St. facing east from cul-de-sac..

Photograph 14: Path leading west from cul-de-sac towards park and storm management system ponds.

APPENDIX A PHOTOGRAPHS	
Client: 2441736 Ontario Inc.	**Job Number:** KS1076
Site Name: 135 Lusk Street, Ottawa, Ontario	**Location:** 135 Lusk Street Ottawa, Ontario K2J 6S5
Photographer: Kris Snider	**Date:** August 12, 2021

Photograph 15: Stormwater management pond adjacent to the west side of the subject site. (Photo facing south)

Photograph 16: Stormwater management pond adjacent to the west side of the subject site. (Photo facing west).

APPENDIX A PHOTOGRAPHS	
Client: 2441736 Ontario Inc.	**Job Number:** KS1076
Site Name: 135 Lusk Street, Ottawa, Ontario	**Location:** 135 Lusk Street Ottawa, Ontario K2J 6S5
Photographer: Kris Snider	**Date:** August 12, 2021

Photograph 17: Fallowfield Rd. adjacent to the south side of the property. (Photo facing west towards Hwy. 416)

Photograph 18: Fallowfield Rd. adjacent to the south side of the property.
(Photo facing east towards intersection of Fallowfield Rd. & Strandherd Dr.)

APPENDIX A PHOTOGRAPHS	
Client: 2441736 Ontario Inc.	**Job Number:** KS1076
Site Name: 135 Lusk Street, Ottawa, Ontario	**Location:** 135 Lusk Street Ottawa, Ontario K2J 6S5
Photographer: Kris Snider	**Date:** August 12, 2021

Photograph 19: New office construction south beyond Fallowfield Rd.

Photograph 20: Undeveloped lot north side of Lusk St. across from subject site.
(Photo facing north)

APPENDIX A PHOTOGRAPHS	
Client: 2441736 Ontario Inc.	**Job Number:** KS1076
Site Name: 135 Lusk Street, Ottawa, Ontario	**Location:** 135 Lusk Street Ottawa, Ontario K2J 6S5
Photographer: Kris Snider	**Date:** August 12, 2021

Photograph 21: Beyond east side Hampton Inn & Suites along Lusk St. Undeveloped land with stockpiles of fill. (Photo facing northeast on Lusk St.)

Photograph 22: View of residential development east side of Fallowfield Rd. (Photo facing east at the intersection of Lusk and Fallowfield Rd.)

APPENDIX B

FIRE INSURANCE PLANS

Phase I Environmental Site Assessment

135 Lusk Street

Ottawa, Ontario

KS1076

opta
INFORMATION INTELLIGENCE

enviroscan



An SCM Company

175 Commerce Valley Drive W
Markham, Ontario L3T 7Z3

T: 905-882-6300
W: www.optaintel.ca

Report Completed By:

Midori

Site Address:

135 Lusk Street, Ottawa, ON

Project No:

21071900557

Opta Order ID:

93622

Requested by:

Eleanor Goolab
ERIS

Date Completed:

8/11/2021 7:49:46 AM

Project Name: 135 Lusk Street
Ottawa Ontario Phase I ESA

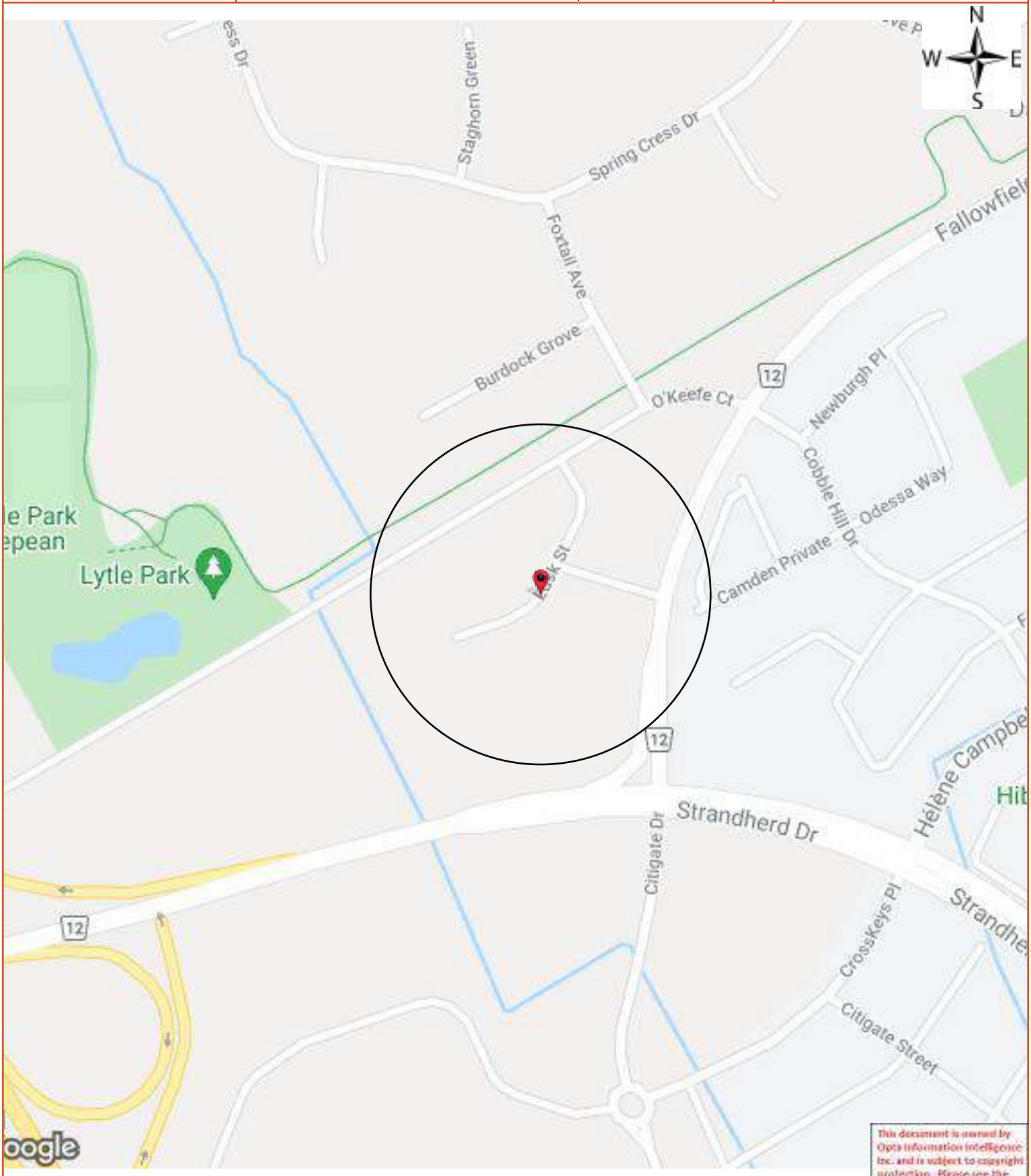
Project #: 21071900557
P.O. #: KS1076

ENVIROSCAN Report

Search Area: 135 Lusk Street, Ottawa, ON

Requested by:
Eleanor Goolab
Date Completed: 08/11/2021 07:49:46

enviroscan
OPTA INFORMATION INTELLIGENCE



Opta Historical Environmental Services Enviroscan™ Terms and Conditions

Report

The documents (hereinafter referred to as the "Documents") to be released as part of the report (hereinafter referred to as the "Report") to be delivered to the purchaser as set out above are documents in Opta's records relating to the described property (hereinafter referred to as the "Property"). Opta makes no representations or warranties respecting the Documents whatsoever, including, without limitation, with respect to the completeness, accuracy or usefulness of the Documents, and does not represent or warrant that these are the only plans and reports prepared in association with the Property or in Opta's possession at the time of Report delivery to the purchaser. The Documents are current as of the date(s) indicated on them. Interpretation of the Documents, if any, is by inference based upon the information which is apparent and obvious on the face of the Documents only. Opta does not represent, warrant or guarantee that interpretations other than those referred to do not exist from other sources. The Report will be prepared for use by the purchaser of the services as shown above hereof only.

Disclaimer

Opta disclaims responsibility for any losses or damages of any kind whatsoever, whether consequential or other, however caused, incurred or suffered, arising directly or indirectly as a result of the services (which services include, but are not limited to, the preparation of the Report provided hereunder), including but not limited to, any losses or damages arising directly or indirectly from any breach of contract, fundamental or otherwise, from reliance on Opta Reports or from any tortious acts or omissions of Opta's agents, employees or representatives.

Entire Agreement

The parties hereto acknowledge and agree to be bound by the terms and conditions hereof. The request form constitutes the entire agreement between the parties pertaining to the subject matter hereof and supersedes all prior and contemporaneous agreements, negotiations and discussions, whether oral or written, and there are no representations or warranties, or other agreements between the parties in connection with the subject matter hereof except as specifically set forth herein. No supplement, modification, waiver, or termination of the request shall be binding, unless confirmed in writing by the parties hereto.

Governing Document

In the event of any conflicts or inconsistencies between the provisions hereof and the Reports, the rights and obligations of the parties shall be deemed to be governed by the request form, which shall be the paramount document.

Law

This agreement shall be governed by and construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein.

Project Name: 135 Lusk Street
Ottawa Ontario Phase I ESA

Project #: 21071900557
P.O. #: KS1076

ENVIROSCAN Report

No Records Found

Requested by:
Eleanor Goolab
Date Completed: 08/11/2021 07:49:46

enviroscan
OPTA INFORMATION INTELLIGENCE

No Records Found

APPENDIX C

FREEDOM OF INFORMATION REQUEST

Phase I Environmental Site Assessment

135 Lusk Street

Ottawa, Ontario

KS1076

Ministry of the Environment, Conservation and Parks

Access and Privacy Office

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

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

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

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

Ontario

July 23, 2021

Kris Snider
CM3 Environmental Inc
5710 Akins Rd
Ottawa, ON K2S 1B8

Dear Kris Snider:

RE: **Freedom of Information and Protection of Privacy Act Request**
Our File # A-2021-03603, Your Reference KS1076 /20210723093250478

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

The search will be conducted on the following: 135 Lusk Street, Barrhaven, Ottawa. If there is any discrepancy please contact us immediately.

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

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

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

Yours truly,

Original signed by

Noel Kent
Manager, Access and Privacy

APPENDIX D

ERIS REPORT

Phase I Environmental Site Assessment

135 Lusk Street

Ottawa, Ontario

KS1076

DATABASE REPORT

Project Property:	*135 Lusk Street, Ottawa Ontario Phase I ESA* *135 Lusk Street* *Ottawa ON K2J*
Project No:	*KS1076*
Report Type:	*Standard Report*
Order No:	*21071900557*
Requested by:	*CM3 Environmental Inc.*
Date Completed:	*August 9, 2021*

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:	*135 Lusk Street, Ottawa Ontario Phase I ESA* *135 Lusk Street Ottawa ON K2J*
Project No:	*KS1076*

Coordinates:

Latitude:	*45.274091*
Longitude:	*-75.7883888*
UTM Northing:	*5,013,627.01*
UTM Easting:	*438,052.69*
UTM Zone:	*18T*

Elevation:	*331 FT* *100.91 M*

Order Information:

Order No:	*21071900557*
Date Requested:	*July 19, 2021*
Requested by:	*CM3 Environmental Inc.*
Report Type:	*Standard Report*

Historical/Products:

Aerial Photographs	*Aerials - National Collection*
City Directory Search	*CD - Subject Site*
Insurance Products	*Fire Insurance Maps/Inspection Reports/Site Plans*
Land Title Search	*Historical Land Title Search*
Land Title Search	*Current Land Title Search*
Physical Setting Report (PSR)	*PSR*

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	1	1
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	11	11
EEM	Environmental Effects Monitoring	Y	0	0	0
EHS	ERIS Historical Searches	Y	0	13	13
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	1	1
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	0	0
REC	Ontario Regulation 347 Waste Receivers Summary	Y	0	0	0
RSC	Record of Site Condition	Y	0	0	0
RST	Retail Fuel Storage Tanks	Y	0	0	0
SCT	Scott's Manufacturing Directory	Y	0	0	0
SPL	Ontario Spills	Y	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	8	8
	Total:		0	34	34

Executive Summary: Site Report Summary - Project Property

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

No records found in the selected databases for the project property.

Executive Summary: Site Report Summary - Surrounding Properties

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
1	EHS		O'keefe Crt Ottawa On Ottawa ON	E/83.8	-0.06	17
2	BORE		ON	WNW/98.7	-0.03	17
3	ECA	2116885 Ontario Inc.	4401 Fallowfield Rd (Part Lot 20, Concession 4) Ottawa ON K2E 6T8	SE/139.4	-0.23	18
3	EHS		4401 Fallowfield Road Nepean ON K2R	SE/139.4	-0.23	18
4	WWIS		FALLOWFIELD RD OTTAWA ON ***Well ID:*** 1535406	ESE/141.2	-0.03	19
5	WWIS		lot 20 con 4 ON ***Well ID:*** 1527488	SSW/143.5	-1.03	21
5	WWIS		lot 20 con 4 ON ***Well ID:*** 1527489	SSW/143.5	-1.03	25
5	WWIS		lot 20 con 4 ON ***Well ID:*** 1527903	SSW/143.5	-1.03	29
5	WWIS		lot 20 con 4 ON ***Well ID:*** 1528157	SSW/143.5	-1.03	32
6	WWIS		lot 20 con 4 ON ***Well ID:*** 1534314	SSW/144.4	-1.03	37
6	WWIS		lot 20 con 4 ON ***Well ID:*** 1534317	SSW/144.4	-1.03	38
7	WWIS		lot 20 con 4 ON	SSW/144.4	-1.03	39

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
			Well ID: 1520817			
8	EHS		4451 Fallowfield Rd Nepean ON	ESE/146.5	-0.03	42
9	ECA	City of Ottawa	Lots 20 and 21, Concession 4 Ottawa ON K1P 1J1	SSW/150.0	-1.03	43
10	EHS		100 Lusk Street Ottawa ON K2R	NE/165.5	1.97	43
10	EHS		100 Lusk Street Ottawa ON K2R	NE/165.5	1.97	43
10	EHS		100 Lusk Street Ottawa ON K2R	NE/165.5	1.97	43
10	EHS		100 Lusk Street Ottawa ON K2R	NE/165.5	1.97	44
11	EHS		115 Lusk St Nepean ON K2J 4S2	ENE/169.3	1.97	44
11	EHS		115 Lusk St Nepean ON K2J 4S2	ENE/169.3	1.97	44
11	EHS		115 Lusk St Nepean ON K2J 4S2	ENE/169.3	1.97	44
11	EHS		115 Lusk St Nepean ON K2J 4S2	ENE/169.3	1.97	44
11	EHS		115 Lusk St Nepean ON K2J 4S2	ENE/169.3	1.97	45
12	EHS		Fallowfield Rd & Strandherd Dr Ottawa ON	ESE/205.1	0.66	45
13	ECA	Strandherd Road Inc.	4123, 4225, 4337, 4433, and 4501 Strandherd Dr Ottawa ON K2C 0P9	SE/232.3	-1.34	45

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
13	ECA	Strandherd Road Inc.	4123, 4225, 4337, 4433, and 4501 Strandherd Dr Nortel Dr, Crosskey Place, Systemhouse St, Dealership St, Philsar st Ottawa ON K2C 0P9	SE/232.3	-1.34	45
13	ECA	Strandherd Road Inc.	4123, 4225, 4337, 4433, and 4501 Strandherd Dr Ottawa ON K2C 0P9	SE/232.3	-1.34	46
13	ECA	Strandherd Road Inc.	4123, 4225, 4337, 4433, and 4501 Strandherd Dr Ottawa ON K2C 0P9	SE/232.3	-1.34	46
13	ECA	Strandherd Road Inc.	4123, 4225, 4337, 4433, and 4501 Strandherd Dr Ottawa ON K2C 0P9	SE/232.3	-1.34	46
13	ECA	Zena Investment Corporation	4123, 4225, 4337, 4433, and 4501 Strandherd Dr Ottawa ON K2C 0A6	SE/232.3	-1.34	46
13	ECA	Strandherd Road Inc.	4123, 4225, 4337, 4433, and 4501 Strandherd Dr 4175 Strandherd Drive for Sanitary and Storm Amendment Ottawa ON K2C 0P9	SE/232.3	-1.34	47
13	GEN	R.W. TOMLINSON LTD.	100 CITIGATE DRIVE OTTAWA ON K2J6K7	SE/232.3	-1.34	47
13	ECA	Strandherd Road Inc.	4123, 4225, 4337, 4433, and 4501 Strandherd Dr 4175 Strandherd Drive for Sanitary and Storm Amendment Ottawa ON K2C 0P9	SE/232.3	-1.34	47
14	ECA	Strandherd Road Inc.	Strandherd Dr and Fallowfield Road Ottawa ON K2C 0P9	ESE/249.9	-0.75	48

Executive Summary: Summary By Data Source

BORE - Borehole

A search of the BORE database, dated 1875-Jul 2018 has found that there are 1 BORE site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
	ON	WNW	98.71	2

ECA - Environmental Compliance Approval

A search of the ECA database, dated Oct 2011- Jun 30, 2021 has found that there are 11 ECA site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
2116885 Ontario Inc.	4401 Fallowfield Rd (Part Lot 20, Concession 4) Ottawa ON K2E 6T8	SE	139.40	3
City of Ottawa	Lots 20 and 21, Concession 4 Ottawa ON K1P 1J1	SSW	149.99	9
Strandherd Road Inc.	4123, 4225, 4337, 4433, and 4501 Strandherd Dr 4175 Strandherd Drive for Sanitary and Storm Amendment Ottawa ON K2C 0P9	SE	232.31	13
Strandherd Road Inc.	4123, 4225, 4337, 4433, and 4501 Strandherd Dr 4175 Strandherd Drive for Sanitary and Storm Amendment Ottawa ON K2C 0P9	SE	232.31	13
Zena Investment Corporation	4123, 4225, 4337, 4433, and 4501 Strandherd Dr Ottawa ON K2C 0A6	SE	232.31	13
Strandherd Road Inc.	4123, 4225, 4337, 4433, and 4501 Strandherd Dr Ottawa ON K2C 0P9	SE	232.31	13
Strandherd Road Inc.	4123, 4225, 4337, 4433, and 4501 Strandherd Dr Ottawa ON K2C 0P9	SE	232.31	13

Strandherd Road Inc.	4123, 4225, 4337, 4433, and 4501 Strandherd Dr Ottawa ON K2C 0P9	SE	232.31	13
Strandherd Road Inc.	4123, 4225, 4337, 4433, and 4501 Strandherd Dr Nortel Dr, Crosskey Place, Systemhouse St, Dealership St, Philsar st Ottawa ON K2C 0P9	SE	232.31	13
Strandherd Road Inc.	4123, 4225, 4337, 4433, and 4501 Strandherd Dr Ottawa ON K2C 0P9	SE	232.31	13
Strandherd Road Inc.	Strandherd Dr and Fallowfield Road Ottawa ON K2C 0P9	ESE	249.89	14

EHS - ERIS Historical Searches

A search of the EHS database, dated 1999-Jun 30, 2021 has found that there are 13 EHS site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
	100 Lusk Street Ottawa ON K2R	NE	165.53	10
	100 Lusk Street Ottawa ON K2R	NE	165.53	10
	100 Lusk Street Ottawa ON K2R	NE	165.53	10
	100 Lusk Street Ottawa ON K2R	NE	165.53	10
	115 Lusk St Nepean ON K2J 4S2	ENE	169.34	11
	115 Lusk St Nepean ON K2J 4S2	ENE	169.34	11

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
	115 Lusk St Nepean ON K2J 4S2	ENE	169.34	11
	115 Lusk St Nepean ON K2J 4S2	ENE	169.34	11
	115 Lusk St Nepean ON K2J 4S2	ENE	169.34	11
	Fallowfield Rd & Strandherd Dr Ottawa ON	ESE	205.15	12

Lower Elevation	Address	Direction	Distance (m)	Map Key
	O'keefe Crt Ottawa On Ottawa ON	E	83.78	1
	4401 Fallowfield Road Nepean ON K2R	SE	139.40	3
	4451 Fallowfield Rd Nepean ON	ESE	146.52	8

GEN - Ontario Regulation 347 Waste Generators Summary

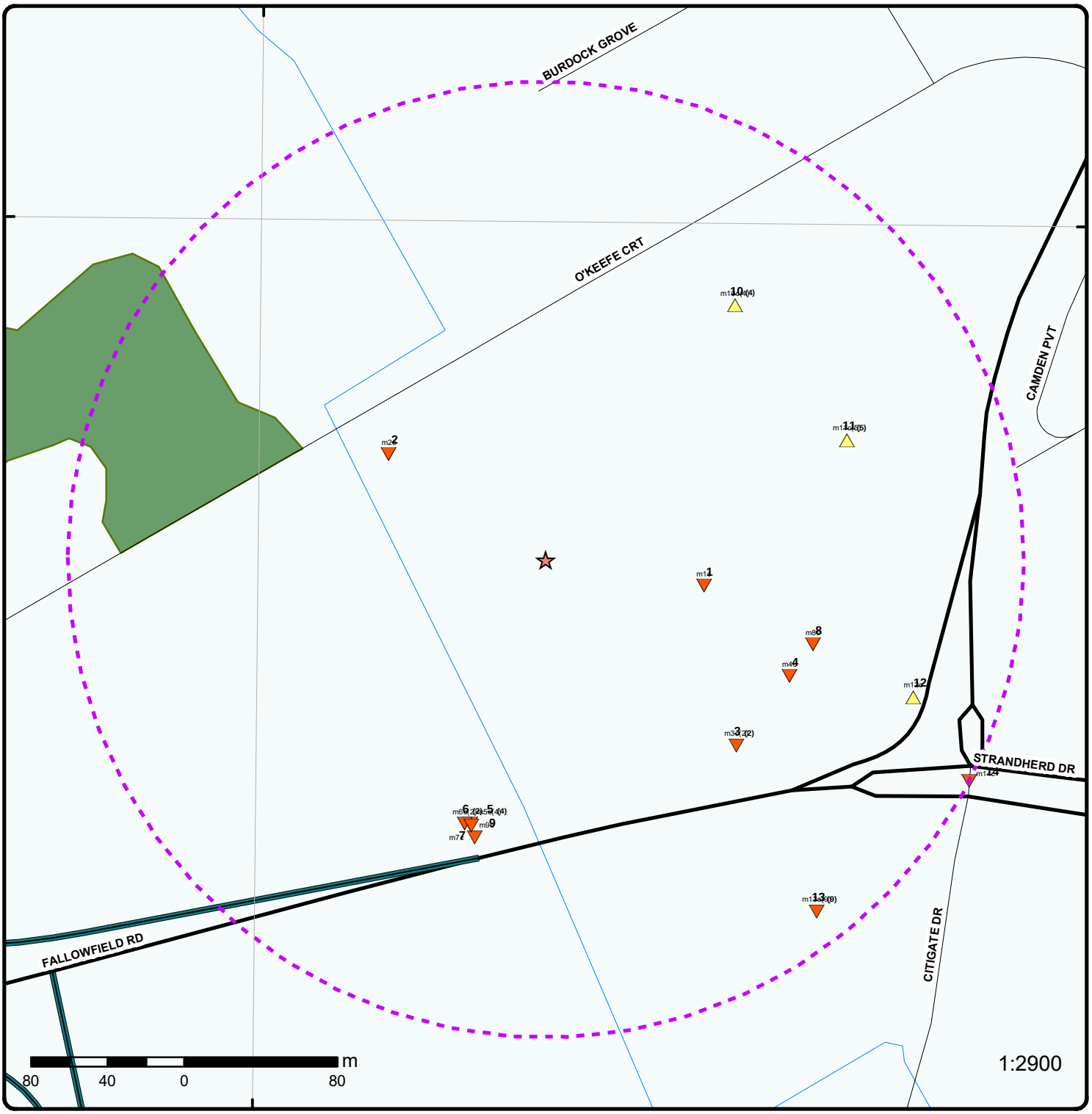
A search of the GEN database, dated 1986-Apr 30, 2021 has found that there are 1 GEN site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
R.W. TOMLINSON LTD.	100 CITIGATE DRIVE OTTAWA ON K2J6K7	SE	232.31	13

WWIS - Water Well Information System

A search of the WWIS database, dated Apr 30, 2021 has found that there are 8 WWIS site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
	FALLOWFIELD RD OTTAWA ON ***Well ID:*** 1535406	ESE	141.18	4
	lot 20 con 4 ON ***Well ID:*** 1527489	SSW	143.52	5
	lot 20 con 4 ON ***Well ID:*** 1527903	SSW	143.52	5
	lot 20 con 4 ON ***Well ID:*** 1528157	SSW	143.52	5
	lot 20 con 4 ON ***Well ID:*** 1527488	SSW	143.52	5
	lot 20 con 4 ON ***Well ID:*** 1534317	SSW	144.38	6
	lot 20 con 4 ON ***Well ID:*** 1534314	SSW	144.38	6
	lot 20 con 4 ON ***Well ID:*** 1520817	SSW	144.38	7

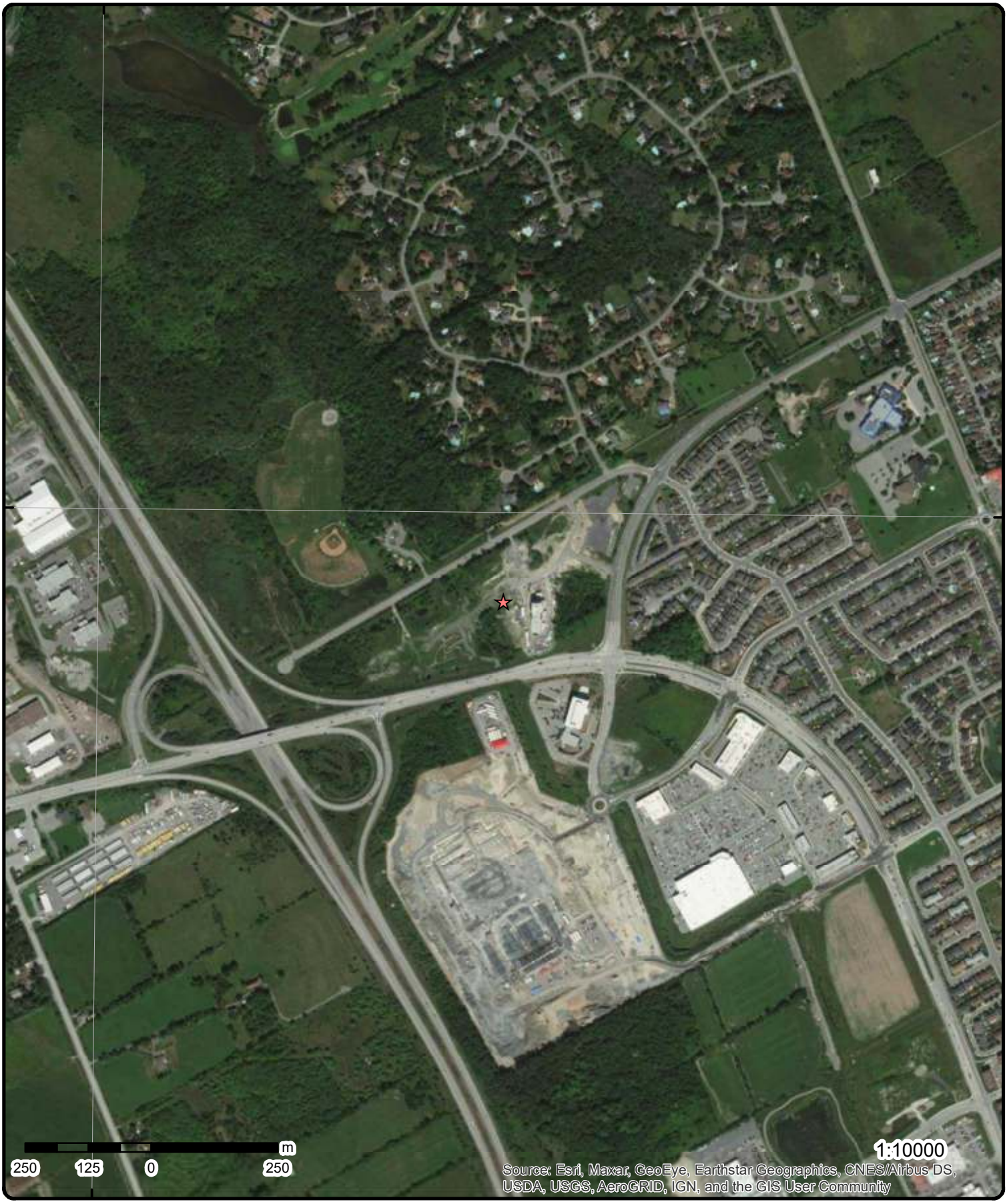


Map: 0.25 Kilometer Radius

Order Number: 21071900557

Address: 135 Lusk Street, Ottawa, 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
- Expressway
- Principal Highway
- Secondary Highway
- Major Road
- Local road
- Trail
- Proposed Road
- Ferry Route/Ice Road
- Industrial and Resource - Regions
- Main Line
- Sidetrack
- Transit Line
- Abandoned Line
- National Park
- Provincial or Territorial Park
- Other Park
- Golf Course or Driving Range
- Park or Sports Field
- Other Recreation Area

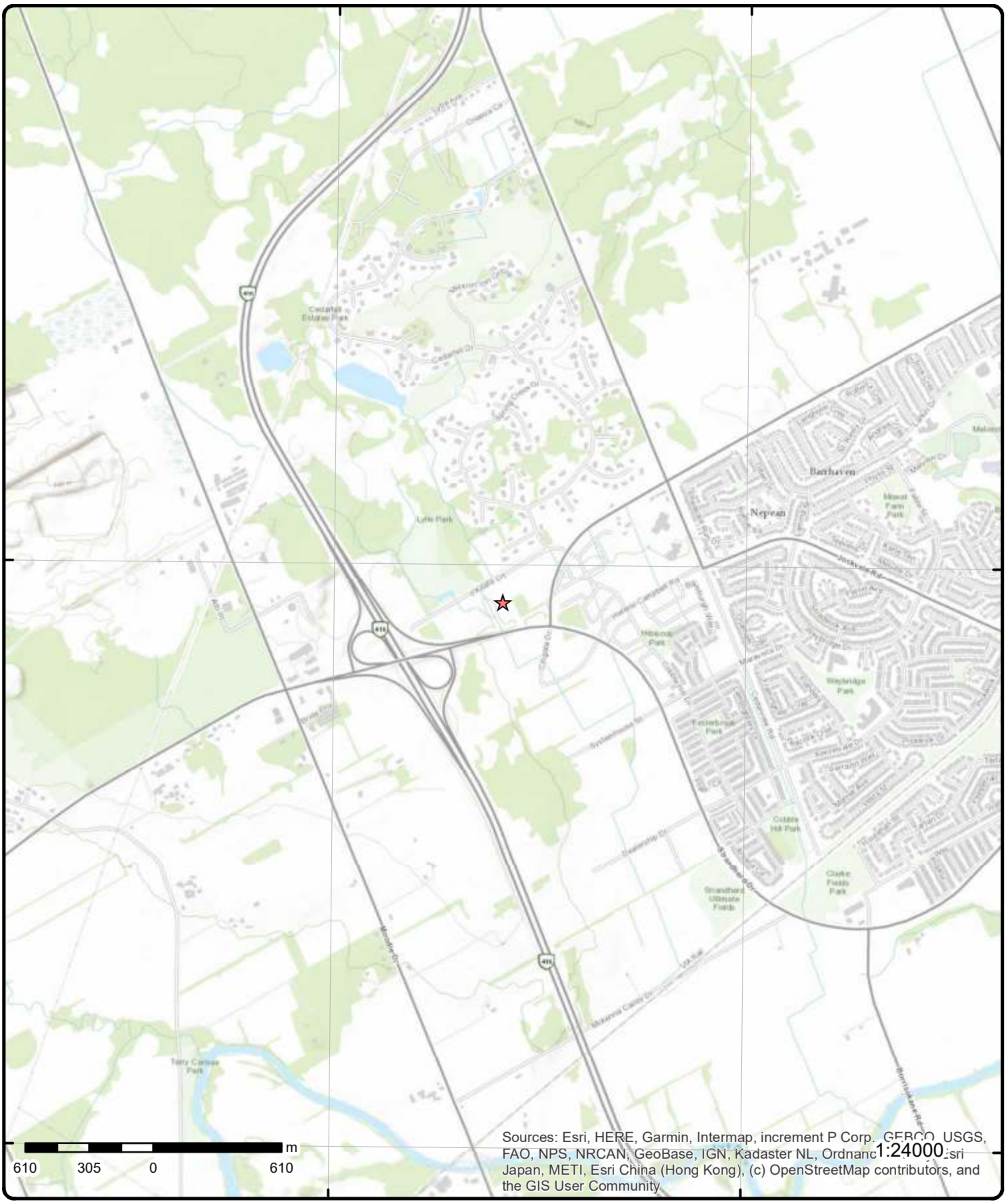


Aerial **Year: 2020**

Order Number: 21071900557

Address: 135 Lusk Street, Ottawa, ON

Source: ESRI World Imagery



Topographic Map

Address: 135 Lusk Street, ON

Source: ESRI World Topographic Map

Order Number: 21071900557

Detail Report

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
1	1 of 1	E/83.8	100.8 / -0.06	O'keefe Crt Ottawa On Ottawa ON	EHS

Order No:	20170127001	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Standard Report	**Client Prov/State:**	ON
Report Date:	02-FEB-17	**Search Radius (km):**	.25
Date Received:	27-JAN-17	**X:**	-75.788691
Previous Site Name:		**Y:**	45.273294
Lot/Building Size:	36 acres		

Additional Info Ordered: Fire Insur. Maps and/or Site Plans; Topographic Maps; Aerial Photos

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Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
2	1 of 1	WNW/98.7	100.9 / -0.03	ON	BORE

Borehole ID:	610530	**Inclin FLG:**	No
OGF ID:	215512043	**SP Status:**	Initial Entry
Status:		**Surv Elev:**	No
Type:	Borehole	**Piezometer:**	No
Use:		**Primary Name:**	
Completion Date:	AUG-1970	**Municipality:**	
Static Water Level:		**Lot:**	
Primary Water Use:		**Township:**	
Sec. Water Use:		**Latitude DD:**	45.273899
Total Depth m:	-999	**Longitude DD:**	-75.790798
Depth Ref:	Ground Surface	**UTM Zone:**	18
Depth Elev:		**Easting:**	437971
Drill Method:		**Northing:**	5013682
Orig Ground Elev m:	100	**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:	218385823	**Mat Consistency:**	
Top Depth:	1.2	**Material Moisture:**	
Bottom Depth:	4.3	**Material Texture:**	
Material Color:		**Non Geo Mat Type:**	
Material 1:	Unknown	**Geologic Formation:**	
Material 2:		**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	
Gsc Material Description:			

Stratum Description: UNSPECIFIED. SEISMIC VELOCITY = 2200.

Geology Stratum ID:	218385822	**Mat Consistency:**	
Top Depth:	0	**Material Moisture:**	
Bottom Depth:	1.2	**Material Texture:**	
Material Color:		**Non Geo Mat Type:**	

Material 1:	Unknown	**Geologic Formation:**	
Material 2:		**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	
Gsc Material Description:			
Stratum Description:	UNSPECIFIED. SEISMIC VELOCITY = 1000.		

Geology Stratum ID:	218385824	**Mat Consistency:**	Firm
Top Depth:	4.3	**Material Moisture:**	
Bottom Depth:		**Material Texture:**	
Material Color:	Grey	**Non Geo Mat Type:**	
Material 1:	Bedrock	**Geologic Formation:**	
Material 2:		**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	
Gsc Material Description:			
Stratum Description:	BEDROCK. SEISMIC VELOCITY = 13000. SILT. GREY,FIRM. 00035004. 000080110010000200128 **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:	L	**Horizontal:**	NAD27
Observatio:		**Verticalda:**	Mean Average Sea Level
Source Name:	Urban Geology Automated Information System (UGAIS)		
Source Details:	File: OTTAWA1.txt RecordID: 03038 NTS_Sheet:		
Confiden 1:	Gives some indication of sub-surface condition but material is unknown.		

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
3	1 of 2	SE/139.4	100.7 / -0.23	**2116885 Ontario Inc.** **4401 Fallowfield Rd (Part Lot 20, Concession 4)** **Ottawa ON K2E 6T8**	ECA

Approval No:	3871-B3PKE8	**MOE District:**	
Approval Date:	2018-08-28	**City:**	
Status:	Approved	**Longitude:**	
Record Type:	ECA	**Latitude:**	
Link Source:	IDS	**Geometry X:**	
SWP Area Name:		**Geometry Y:**	
Approval Type:	ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS		
Project Type:	MUNICIPAL AND PRIVATE SEWAGE WORKS		
Business Name:	2116885 Ontario Inc.		
Address:	4401 Fallowfield Rd (Part Lot 20, Concession 4)		
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/1242-B3FJW7-14.pdf		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
3	2 of 2	SE/139.4	100.7 / -0.23	**4401 Fallowfield Road** **Nepean ON K2R**	EHS

Order No:	20181217027	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Standard Report	**Client Prov/State:**	ON

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

Report Date:	18-DEC-18	**Search Radius (km):**	.25
Date Received:	17-DEC-18	**X:**	-75.78857
Previous Site Name:		**Y:**	45.273255
Lot/Building Size:			
Additional Info Ordered:			

4 **1 of 1** **ESE/141.2** **100.9 / -0.03** **FALLOWFIELD RD OTTAWA ON** **WWIS**

Well ID:	1535406	**Data Entry Status:**	
Construction Date:		**Data Src:**	
Primary Water Use:		**Date Received:**	3/23/2005
Sec. Water Use:		**Selected Flag:**	True
Final Well Status:	Observation Wells	**Abandonment Rec:**	
Water Type:		**Contractor:**	1844
Casing Material:		**Form Version:**	3
Audit No:	Z27107	**Owner:**	
Tag:	A020615	**Street Name:**	FALLOWFIELD RD
Construction Method:		**County:**	OTTAWA
Elevation (m):		**Municipality:**	NEPEAN TOWNSHIP
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	
Well Depth:		**Concession:**	
Overburden/Bedrock:		**Concession Name:**	
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/153\1535406.pdf

Additional Detail(s) (Map)

Well Completed Date:	2005/03/05
Year Completed:	2005
Depth (m):	6
Latitude:	45.2728735392024
Longitude:	-75.7881155149896
Path:	153\1535406.pdf

Bore Hole Information

Bore Hole ID:	11315945	**Elevation:**	101.941482
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	18
Code OB:	o	**East83:**	438180.00
Code OB Desc:	Overburden	**North83:**	5013566.00
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	4
Date Completed:	05-Mar-2005 00:00:00	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID: 932996251
Layer: 1
Color: 6
General Color: BROWN
Mat1: 06
Most Common Material: SILT
Mat2: 81
Mat2 Desc: SANDY
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth:
Formation End Depth UOM: m

Overburden and Bedrock Materials Interval

Formation ID: 932996253
Layer: 3
Color:
General Color:
Mat1: 13
Most Common Material: BOULDERS
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth:
Formation End Depth: 6.0
Formation End Depth UOM: m

Overburden and Bedrock Materials Interval

Formation ID: 932996252
Layer: 2
Color: 2
General Color: GREY
Mat1: 06
Most Common Material: SILT
Mat2: 61
Mat2 Desc: CLAYEY
Mat3:
Mat3 Desc:
Formation Top Depth:
Formation End Depth:
Formation End Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 933266318
Layer: 1
Plug From: 0
Plug To: 1
Plug Depth UOM: m

Method of Construction & Well Use

Method Construction ID: 961535406

Method Construction Code:	B
Method Construction:	Other Method
Other Method Construction:	

Pipe Information

Pipe ID:	11330800
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930855170
Layer:	1
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	0
Depth To:	1.25
Casing Diameter:	5
Casing Diameter UOM:	cm
Casing Depth UOM:	m

Construction Record - Screen

Screen ID:	933412084
Layer:	1
Slot:	#10
Screen Top Depth:	1.25
Screen End Depth:	6
Screen Material:	
Screen Depth UOM:	m
Screen Diameter UOM:	cm
Screen Diameter:	6.5

Hole Diameter

Hole ID:	11533421
Diameter:	21.0
Depth From:	0.0
Depth To:	6.0
Hole Depth UOM:	m
Hole Diameter UOM:	cm

5 | ***1 of 4*** | ***SSW/143.5*** | ***99.9 / -1.03*** | ***lot 20 con 4 ON*** | ***WWIS***

Well ID:	1527488	**Data Entry Status:**	
Construction Date:		**Data Src:**	1
Primary Water Use:	Public	**Date Received:**	10/6/1993
Sec. Water Use:	Cooling And A/C	**Selected Flag:**	True
Final Well Status:	Water Supply	**Abandonment Rec:**	
Water Type:		**Contractor:**	4006
Casing Material:		**Form Version:**	1
Audit No:	126285	**Owner:**	
Tag:		**Street Name:**	
Construction Method:		**County:**	OTTAWA
Elevation (m):		**Municipality:**	NEPEAN TOWNSHIP
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	020
Well Depth:		**Concession:**	04
Overburden/Bedrock:		**Concession Name:**	RF

Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/152\1527488.pdf

Additional Detail(s) (Map)

Well Completed Date: 1993/09/24
Year Completed: 1993
Depth (m): 91.44
Latitude: 45.2721658064668
Longitude: -75.7902308774097
Path: 152\1527488.pdf

Bore Hole Information

Bore Hole ID: 10049127
DP2BR: 25.00
Spatial Status:
Code OB: r
Code OB Desc: Bedrock
Open Hole:
Cluster Kind:
Date Completed: 24-Sep-1993 00:00:00
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 99.607299
Elevrc:
Zone: 18
East83: 438013.30
North83: 5013489.00
Org CS:
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: lot

Overburden and Bedrock Materials Interval

Formation ID: 931066801
Layer: 1
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2: 13
Mat2 Desc: BOULDERS
Mat3: 79
Mat3 Desc: PACKED
Formation Top Depth: 0.0
Formation End Depth: 25.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931066802
Layer: 2
Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE
Mat2: 73

Mat2 Desc: HARD
Mat3:
Mat3 Desc:
Formation Top Depth: 25.0
Formation End Depth: 145.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931066803
Layer: 3
Color:
General Color:
Mat1: 18
Most Common Material: SANDSTONE
Mat2: 73
Mat2 Desc: HARD
Mat3:
Mat3 Desc:
Formation Top Depth: 145.0
Formation End Depth: 300.0
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933112494
Layer: 1
Plug From: 0
Plug To: 29
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 961527488
Method Construction Code: 4
Method Construction: Rotary (Air)
Other Method Construction:

Pipe Information

Pipe ID: 10597697
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930085792
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 29
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930085794
Layer: 3
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 300
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930085793
Layer: 2
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 29
Casing Diameter: 8
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 991527488
Pump Set At:
Static Level: 8.0
Final Level After Pumping: 20.0
Recommended Pump Depth: 175.0
Pumping Rate: 90.0
Flowing Rate:
Recommended Pump Rate: 90.0
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 1
Water State After Test: CLEAR
Pumping Test Method: 1
Pumping Duration HR: 6
Pumping Duration MIN: 0
Flowing: No

Draw Down & Recovery

Pump Test Detail ID: 934903663
Test Type: Draw Down
Test Duration: 60
Test Level: 20.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934385543
Test Type: Draw Down
Test Duration: 30
Test Level: 17.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934654869
Test Type: Draw Down

Test Duration: 45
Test Level: 19.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934110728
Test Type: Draw Down
Test Duration: 15
Test Level: 12.0
Test Level UOM: ft

Water Details

Water ID: 933486959
Layer: 2
Kind Code: 5
Kind: Not stated
Water Found Depth: 145.0
Water Found Depth UOM: ft

Water Details

Water ID: 933486958
Layer: 1
Kind Code: 5
Kind: Not stated
Water Found Depth: 75.0
Water Found Depth UOM: ft

Water Details

Water ID: 933486960
Layer: 3
Kind Code: 5
Kind: Not stated
Water Found Depth: 275.0
Water Found Depth UOM: ft

---

5 | **2 of 4** | **SSW/143.5** | **99.9 / -1.03** | **lot 20 con 4 ON** | **WWIS**

Well ID: 1527489
Construction Date:
Primary Water Use: Public
Sec. Water Use: Cooling And A/C
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No: 126284
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src: 1
Date Received: 10/6/1993
Selected Flag: True
Abandonment Rec:
Contractor: 4006
Form Version: 1
Owner:
Street Name:
County: OTTAWA
Municipality: NEPEAN TOWNSHIP
Site Info:
Lot: 020
Concession: 04
Concession Name: RF
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/152\1527489.pdf

Additional Detail(s) (Map)

Well Completed Date: 1993/09/24
Year Completed: 1993
Depth (m): 88.392
Latitude: 45.2721658064668
Longitude: -75.7902308774097
Path: 152\1527489.pdf

Bore Hole Information

Bore Hole ID: 10049128
DP2BR: 23.00
Spatial Status:
Code OB: r
Code OB Desc: Bedrock
Open Hole:
Cluster Kind:
Date Completed: 24-Sep-1993 00:00:00
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 99.607299
Elevrc:
Zone: 18
East83: 438013.30
North83: 5013489.00
Org CS:
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: lot

Overburden and Bedrock Materials Interval

Formation ID: 931066806
Layer: 3
Color:
General Color:
Mat1: 18
Most Common Material: SANDSTONE
Mat2: 73
Mat2 Desc: HARD
Mat3:
Mat3 Desc:
Formation Top Depth: 145.0
Formation End Depth: 290.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931066805
Layer: 2
Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE
Mat2: 73
Mat2 Desc: HARD
Mat3:
Mat3 Desc:
Formation Top Depth: 23.0
Formation End Depth: 145.0

Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931066804
Layer: 1
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2: 13
Mat2 Desc: BOULDERS
Mat3: 79
Mat3 Desc: PACKED
Formation Top Depth: 0.0
Formation End Depth: 23.0
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933112495
Layer: 1
Plug From: 0
Plug To: 27
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 961527489
Method Construction Code: 4
Method Construction: Rotary (Air)
Other Method Construction:

Pipe Information

Pipe ID: 10597698
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930085797
Layer: 3
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 290
Casing Diameter: 10
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930085796
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE

Depth From:	
Depth To:	27
Casing Diameter:	15
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Casing

Casing ID:	930085795
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	27
Casing Diameter:	10
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Results of Well Yield Testing

Pump Test ID:	991527489
Pump Set At:	
Static Level:	9.0
Final Level After Pumping:	112.0
Recommended Pump Depth:	250.0
Pumping Rate:	200.0
Flowing Rate:	
Recommended Pump Rate:	200.0
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	1
Pumping Duration HR:	8
Pumping Duration MIN:	0
Flowing:	No

Draw Down & Recovery

Pump Test Detail ID:	934110729
Test Type:	
Test Duration:	15
Test Level:	20.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934654870
Test Type:	
Test Duration:	45
Test Level:	75.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934903664
Test Type:	
Test Duration:	60
Test Level:	110.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934385544
Test Type:	
Test Duration:	30
Test Level:	50.0
Test Level UOM:	ft

Water Details

Water ID:	933486961
Layer:	1
Kind Code:	5
Kind:	Not stated
Water Found Depth:	75.0
Water Found Depth UOM:	ft

Water Details

Water ID:	933486962
Layer:	2
Kind Code:	5
Kind:	Not stated
Water Found Depth:	145.0
Water Found Depth UOM:	ft

Water Details

Water ID:	933486963
Layer:	3
Kind Code:	5
Kind:	Not stated
Water Found Depth:	275.0
Water Found Depth UOM:	ft

5 ***3 of 4*** ***SSW/143.5*** ***99.9 / -1.03*** ***lot 20 con 4 ON*** ***WWIS***

Well ID:	1527903	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Cooling And A/C	***Date Received:***	4/25/1994
Sec. Water Use:		***Selected Flag:***	True
Final Well Status:	Test Hole	***Abandonment Rec:***	
Water Type:		***Contractor:***	6004
Casing Material:		***Form Version:***	1
Audit No:	126272	***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	OTTAWA
Elevation (m):		***Municipality:***	NEPEAN TOWNSHIP
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	020
Well Depth:		***Concession:***	04
Overburden/Bedrock:		***Concession Name:***	RF
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/152\1527903.pdf

Additional Detail(s) (Map)

Well Completed Date:	1994/09/24
Year Completed:	1994
Depth (m):	119.7864
Latitude:	45.2721658064668
Longitude:	-75.7902308774097
Path:	152\1527903.pdf

Bore Hole Information

Bore Hole ID:	10049458	***Elevation:***	99.607299
DP2BR:	17.00	***Elevrc:***	
Spatial Status:		***Zone:***	18
Code OB:	r	***East83:***	438013.30
Code OB Desc:	Bedrock	***North83:***	5013489.00
Open Hole:		***Org CS:***	
Cluster Kind:		***UTMRC:***	9
Date Completed:	24-Sep-1994 00:00:00	***UTMRC Desc:***	unknown UTM
Remarks:		***Location Method:***	lot
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	931067953
Layer:	3
Color:	
General Color:	
Mat1:	18
Most Common Material:	SANDSTONE
Mat2:	15
Mat2 Desc:	LIMESTONE
Mat3:	71
Mat3 Desc:	FRACTURED
Formation Top Depth:	120.0
Formation End Depth:	393.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	931067952
Layer:	2
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	17
Mat2 Desc:	SHALE
Mat3:	68
Mat3 Desc:	DRY
Formation Top Depth:	17.0
Formation End Depth:	120.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	931067951
Layer:	1
Color:	2
General Color:	GREY
Mat1:	05
Most Common Material:	CLAY
Mat2:	13
Mat2 Desc:	BOULDERS
Mat3:	79
Mat3 Desc:	PACKED
Formation Top Depth:	0.0
Formation End Depth:	17.0
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	933112780
Layer:	1
Plug From:	0
Plug To:	25
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	961527903
Method Construction Code:	5
Method Construction:	Air Percussion
Other Method Construction:	

Pipe Information

Pipe ID:	10598028
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930086400
Layer:	2
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	25
Casing Diameter:	10
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Casing

Casing ID:	930086401
Layer:	3
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	393
Casing Diameter:	10
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Casing

Casing ID:	930086399
Layer:	1
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	25
Casing Diameter:	15
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Water Details

Water ID:	933487447
Layer:	1
Kind Code:	5
Kind:	Not stated
Water Found Depth:	175.0
Water Found Depth UOM:	ft

---

5 ***4 of 4*** ***SSW/143.5*** ***99.9 / -1.03*** ***lot 20 con 4 ON*** ***WWIS***

Well ID:	1528157	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Commerical	***Date Received:***	9/27/1994
Sec. Water Use:	Cooling And A/C	***Selected Flag:***	True
Final Well Status:	Water Supply	***Abandonment Rec:***	
Water Type:		***Contractor:***	4006
Casing Material:		***Form Version:***	1
Audit No:	126243	***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	OTTAWA
Elevation (m):		***Municipality:***	NEPEAN TOWNSHIP
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	020
Well Depth:		***Concession:***	04
Overburden/Bedrock:		***Concession Name:***	RF
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/152\1528157.pdf

Additional Detail(s) (Map)

Well Completed Date:	1994/08/25
Year Completed:	1994
Depth (m):	90.5256
Latitude:	45.2721658064668
Longitude:	-75.7902308774097
Path:	152\1528157.pdf

Bore Hole Information

Bore Hole ID:	10049696	***Elevation:***	99.607299
DP2BR:	18.00	***Elevrc:***	
Spatial Status:		***Zone:***	18

Code OB:	r	**East83:**	438013.30
Code OB Desc:	Bedrock	**North83:**	5013489.00
Open Hole:		**Org CS:**	
Cluster Kind:		**UTMRC:**	9
Date Completed:	25-Aug-1994 00:00:00	**UTMRC Desc:**	unknown UTM
Remarks:		**Location Method:**	lot
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	931068763
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	25
Most Common Material:	OVERBURDEN
Mat2:	12
Mat2 Desc:	STONES
Mat3:	
Mat3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	18.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	931068769
Layer:	7
Color:	1
General Color:	WHITE
Mat1:	18
Most Common Material:	SANDSTONE
Mat2:	78
Mat2 Desc:	MEDIUM-GRAINED
Mat3:	
Mat3 Desc:	
Formation Top Depth:	275.0
Formation End Depth:	297.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	931068764
Layer:	2
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	71
Mat2 Desc:	FRACTURED
Mat3:	
Mat3 Desc:	
Formation Top Depth:	18.0
Formation End Depth:	27.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	931068767
Layer:	5
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	90
Mat2 Desc:	VERY
Mat3:	73
Mat3 Desc:	HARD
Formation Top Depth:	140.0
Formation End Depth:	160.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	931068768
Layer:	6
Color:	2
General Color:	GREY
Mat1:	18
Most Common Material:	SANDSTONE
Mat2:	15
Mat2 Desc:	LIMESTONE
Mat3:	74
Mat3 Desc:	LAYERED
Formation Top Depth:	160.0
Formation End Depth:	275.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	931068765
Layer:	3
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	78
Mat2 Desc:	MEDIUM-GRAINED
Mat3:	
Mat3 Desc:	
Formation Top Depth:	27.0
Formation End Depth:	85.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	931068766
Layer:	4
Color:	2
General Color:	GREY
Mat1:	18
Most Common Material:	SANDSTONE
Mat2:	15

Mat2 Desc: LIMESTONE
Mat3:
Mat3 Desc:
Formation Top Depth: 85.0
Formation End Depth: 140.0
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933113012
Layer: 1
Plug From: 0
Plug To: 33
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 961528157
Method Construction Code: 5
Method Construction: Air Percussion
Other Method Construction:

Pipe Information

Pipe ID: 10598266
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930086856
Layer: 1
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 33
Casing Diameter: 15
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930086857
Layer: 2
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 33
Casing Diameter: 10
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930086858
Layer: 3
Material: 4
Open Hole or Material: OPEN HOLE

Depth From:
Depth To: 297
Casing Diameter: 10
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 991528157
Pump Set At:
Static Level: 9.0
Final Level After Pumping: 111.0
Recommended Pump Depth: 250.0
Pumping Rate: 200.0
Flowing Rate:
Recommended Pump Rate: 200.0
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 1
Water State After Test: CLEAR
Pumping Test Method: 1
Pumping Duration HR: 8
Pumping Duration MIN: 0
Flowing: No

Draw Down & Recovery

Pump Test Detail ID: 934112413
Test Type:
Test Duration: 15
Test Level: 22.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934656550
Test Type:
Test Duration: 45
Test Level: 72.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934387222
Test Type:
Test Duration: 30
Test Level: 53.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934905342
Test Type:
Test Duration: 60
Test Level: 111.0
Test Level UOM: ft

Water Details

Water ID: 933487747
Layer: 2

Kind Code: 5
Kind: Not stated
Water Found Depth: 275.0
Water Found Depth UOM: ft

Water Details

Water ID: 933487746
Layer: 1
Kind Code: 5
Kind: Not stated
Water Found Depth: 50.0
Water Found Depth UOM: ft

---

6 ***1 of 2*** ***SSW/144.4*** ***99.9 / -1.03*** ***lot 20 con 4 ON*** ***WWIS***

Well ID: 1534314
Construction Date:
Primary Water Use: Not Used
Sec. Water Use:
Final Well Status: Abandoned-Quality
Water Type:
Casing Material:
Audit No: 267001
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src: 1
Date Received: 11/13/2003
Selected Flag: True
Abandonment Rec:
Contractor: 1558
Form Version: 2
Owner:
Street Name:
County: OTTAWA
Municipality: NEPEAN TOWNSHIP
Site Info:
Lot: 020
Concession: 04
Concession Name: RF
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/153\1534314.pdf

Additional Detail(s) (Map)

Well Completed Date: 2003/09/23
Year Completed: 2003
Depth (m):
Latitude: 45.2721655418592
Longitude: -75.7902691189386
Path: 153\1534314.pdf

Bore Hole Information

Bore Hole ID: 11097364
DP2BR:
Spatial Status:
Code OB: _
Code OB Desc: No formation data
Open Hole:
Cluster Kind:
Date Completed: 23-Sep-2003 00:00:00
Remarks:
Elevrc Desc:
Location Source Date:

Elevation: 99.736259
Elevrc:
Zone: 18
East83: 438010.30
North83: 5013489.00
Org CS:
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: lot

Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Method of Construction & Well Use

Method Construction ID: 961534314
Method Construction Code: 0
Method Construction: Not Known
Other Method Construction:

Pipe Information

Pipe ID: 11101079
Casing No: 1
Comment:
Alt Name:

---

6 | ***2 of 2*** | ***SSW/144.4*** | ***99.9 / -1.03*** | ***lot 20 con 4 ON*** | ***WWIS***

Well ID: 1534317
Construction Date:
Primary Water Use: Not Used
Sec. Water Use:
Final Well Status: Abandoned-Other
Water Type:
Casing Material:
Audit No: 267006
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src: 1
Date Received: 11/13/2003
Selected Flag: True
Abandonment Rec:
Contractor: 1558
Form Version: 2
Owner:
Street Name:
County: OTTAWA
Municipality: NEPEAN TOWNSHIP
Site Info:
Lot: 020
Concession: 04
Concession Name: RF
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/153\1534317.pdf

Additional Detail(s) (Map)

Well Completed Date: 2003/11/05
Year Completed: 2003
Depth (m):
Latitude: 45.2721655418592
Longitude: -75.7902691189386
Path: 153\1534317.pdf

Bore Hole Information

Bore Hole ID: 11097367
DP2BR:
Spatial Status:
Code OB: _
Code OB Desc: No formation data

Elevation: 99.736259
Elevrc:
Zone: 18
East83: 438010.30
North83: 5013489.00

Open Hole:		**Org CS:**	
Cluster Kind:		**UTMRC:**	9
Date Completed:	05-Nov-2003 00:00:00	**UTMRC Desc:**	unknown UTM
Remarks:		**Location Method:**	lot
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Method of Construction & Well Use

Method Construction ID:	961534317
Method Construction Code:	0
Method Construction:	Not Known
Other Method Construction:	

Pipe Information

Pipe ID:	11101082
Casing No:	1
Comment:	
Alt Name:	

---

7 **1 of 1** **SSW/144.4** **99.9 / -1.03** **lot 20 con 4 ON** **WWIS**

Well ID:	1520817	**Data Entry Status:**	
Construction Date:		**Data Src:**	1
Primary Water Use:	Domestic	**Date Received:**	9/5/1986
Sec. Water Use:		**Selected Flag:**	True
Final Well Status:	Water Supply	**Abandonment Rec:**	
Water Type:		**Contractor:**	1558
Casing Material:		**Form Version:**	1
Audit No:	NA	**Owner:**	
Tag:		**Street Name:**	
Construction Method:		**County:**	OTTAWA
Elevation (m):		**Municipality:**	NEPEAN TOWNSHIP
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	020
Well Depth:		**Concession:**	04
Overburden/Bedrock:		**Concession Name:**	CON
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/152\1520817.pdf

Additional Detail(s) (Map)

Well Completed Date:	1986/03/21
Year Completed:	1986
Depth (m):	92.964
Latitude:	45.2721568411081
Longitude:	-75.790225653626
Path:	152\1520817.pdf

Bore Hole Information

Bore Hole ID:	10042658	***Elevation:***	99.600891
DP2BR:	14.00	***Elevrc:***	
Spatial Status:		***Zone:***	18
Code OB:	r	***East83:***	438013.70
Code OB Desc:	Bedrock	***North83:***	5013488.00
Open Hole:		***Org CS:***	
Cluster Kind:		***UTMRC:***	9
Date Completed:	21-Mar-1986 00:00:00	***UTMRC Desc:***	unknown UTM
Remarks:		***Location Method:***	lot
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	931045913
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	05
Mat2 Desc:	CLAY
Mat3:	13
Mat3 Desc:	BOULDERS
Formation Top Depth:	0.0
Formation End Depth:	4.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	931045915
Layer:	3
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	74
Mat2 Desc:	LAYERED
Mat3:	78
Mat3 Desc:	MEDIUM-GRAINED
Formation Top Depth:	14.0
Formation End Depth:	305.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	931045914
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	11
Mat2 Desc:	GRAVEL
Mat3:	79

Mat3 Desc: PACKED
Formation Top Depth: 4.0
Formation End Depth: 14.0
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 961520817
Method Construction Code: 1
Method Construction: Cable Tool
Other Method Construction:

Pipe Information

Pipe ID: 10591228
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930074456
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 22
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930074457
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 305
Casing Diameter: 5
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 991520817
Pump Set At:
Static Level: 24.0
Final Level After Pumping: 120.0
Recommended Pump Depth: 200.0
Pumping Rate: 20.0
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:	934104857
Test Type:	Draw Down
Test Duration:	15
Test Level:	55.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934906634
Test Type:	Draw Down
Test Duration:	60
Test Level:	120.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934388396
Test Type:	Draw Down
Test Duration:	30
Test Level:	120.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934649553
Test Type:	Draw Down
Test Duration:	45
Test Level:	120.0
Test Level UOM:	ft

Water Details

Water ID:	933478184
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	195.0
Water Found Depth UOM:	ft

Water Details

Water ID:	933478185
Layer:	2
Kind Code:	1
Kind:	FRESH
Water Found Depth:	297.0
Water Found Depth UOM:	ft

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
8	1 of 1	ESE/146.5	100.9 / -0.03	4451 Fallowfield Rd Nepean ON	EHS

Order No:	20150508123	***Nearest Intersection:***	
Status:	C	***Municipality:***	
Report Type:	Standard Report	***Client Prov/State:***	ON
Report Date:	14-MAY-15	***Search Radius (km):***	.25
Date Received:	08-MAY-15	***X:***	-75.787961
Previous Site Name:		***Y:***	45.273023

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Lot/Building Size:					
Additional Info Ordered:					

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9 | **1 of 1** | **SSW/150.0** | **99.9 / -1.03** | **City of Ottawa**
Lots 20 and 21, Concession 4
Ottawa ON K1P 1J1 | **ECA**

Approval No:	1308-4WQSW8	**MOE District:**	Ottawa
Approval Date:	2001-05-18	**City:**	
Status:	Approved	**Longitude:**	-75.7902
Record Type:	ECA	**Latitude:**	45.2721
Link Source:	IDS	**Geometry X:**	
SWP Area Name:	Rideau Valley	**Geometry Y:**	
Approval Type:	ECA-Municipal and Private Water Works		
Project Type:	Municipal and Private Water Works		
Business Name:	City of Ottawa		
Address:	Lots 20 and 21, Concession 4		
Full Address:			
Full PDF Link:			

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10 | **1 of 4** | **NE/165.5** | **102.9 / 1.97** | **100 Lusk Street**
Ottawa ON K2R | **EHS**

Order No:	20200721215	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Standard Report	**Client Prov/State:**	ON
Report Date:	24-JUL-20	**Search Radius (km):**	.25
Date Received:	21-JUL-20	**X:**	-75.7885019
Previous Site Name:		**Y:**	45.274615
Lot/Building Size:			
Additional Info Ordered:			

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10 | **2 of 4** | **NE/165.5** | **102.9 / 1.97** | **100 Lusk Street**
Ottawa ON K2R | **EHS**

Order No:	20200721215	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Standard Report	**Client Prov/State:**	ON
Report Date:	24-JUL-20	**Search Radius (km):**	.25
Date Received:	21-JUL-20	**X:**	-75.7885019
Previous Site Name:		**Y:**	45.274615
Lot/Building Size:			
Additional Info Ordered:			

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10 | **3 of 4** | **NE/165.5** | **102.9 / 1.97** | **100 Lusk Street**
Ottawa ON K2R | **EHS**

Order No:	20200721215	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Standard Report	**Client Prov/State:**	ON
Report Date:	24-JUL-20	**Search Radius (km):**	.25
Date Received:	21-JUL-20	**X:**	-75.7885019
Previous Site Name:		**Y:**	45.274615
Lot/Building Size:			
Additional Info Ordered:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
10	4 of 4	NE/165.5	102.9 / 1.97	100 Lusk Street Ottawa ON K2R	EHS

Order No:	20200721215	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Standard Report	**Client Prov/State:**	ON
Report Date:	24-JUL-20	**Search Radius (km):**	.25
Date Received:	21-JUL-20	**X:**	-75.7885019
Previous Site Name:		**Y:**	45.274615
Lot/Building Size:			
Additional Info Ordered:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
11	1 of 5	ENE/169.3	102.9 / 1.97	115 Lusk St Nepean ON K2J 4S2	EHS

Order No:	20200406070	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Standard Report	**Client Prov/State:**	ON
Report Date:	09-APR-20	**Search Radius (km):**	.25
Date Received:	06-APR-20	**X:**	-75.7877465
Previous Site Name:		**Y:**	45.273986
Lot/Building Size:			
Additional Info Ordered:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
11	2 of 5	ENE/169.3	102.9 / 1.97	115 Lusk St Nepean ON K2J 4S2	EHS

Order No:	20200406070	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Standard Report	**Client Prov/State:**	ON
Report Date:	09-APR-20	**Search Radius (km):**	.25
Date Received:	06-APR-20	**X:**	-75.7877465
Previous Site Name:		**Y:**	45.273986
Lot/Building Size:			
Additional Info Ordered:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
11	3 of 5	ENE/169.3	102.9 / 1.97	115 Lusk St Nepean ON K2J 4S2	EHS

Order No:	20200406070	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Standard Report	**Client Prov/State:**	ON
Report Date:	09-APR-20	**Search Radius (km):**	.25
Date Received:	06-APR-20	**X:**	-75.7877465
Previous Site Name:		**Y:**	45.273986
Lot/Building Size:			
Additional Info Ordered:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
11	4 of 5	ENE/169.3	102.9 / 1.97	115 Lusk St Nepean ON K2J 4S2	EHS

Order No:	20200406070	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Standard Report	**Client Prov/State:**	ON
Report Date:	09-APR-20	**Search Radius (km):**	.25
Date Received:	06-APR-20	**X:**	-75.7877465
Previous Site Name:		**Y:**	45.273986
Lot/Building Size:			
Additional Info Ordered:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
11	5 of 5	ENE/169.3	102.9 / 1.97	115 Lusk St Nepean ON K2J 4S2	EHS

Order No:	20200406070	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Standard Report	**Client Prov/State:**	ON
Report Date:	09-APR-20	**Search Radius (km):**	.25
Date Received:	06-APR-20	**X:**	-75.7877465
Previous Site Name:		**Y:**	45.273986
Lot/Building Size:			
Additional Info Ordered:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
12	1 of 1	ESE/205.1	101.6 / 0.66	Fallowfield Rd & Strandherd Dr Ottawa ON	EHS

Order No:	20050222008	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:		**Client Prov/State:**	ON
Report Date:	2/28/2005	**Search Radius (km):**	0.25
Date Received:	2/22/2005	**X:**	-75.787289
Previous Site Name:		**Y:**	45.272779
Lot/Building Size:			
Additional Info Ordered:	Fire Insur. Maps and/or Site Plans		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	1 of 9	SE/232.3	99.6 / -1.34	Strandherd Road Inc. 4123, 4225, 4337, 4433, and 4501 Strandherd Dr Ottawa ON K2C 0P9	ECA

Approval No:	7146-9PNJXJ	**MOE District:**	Ottawa
Approval Date:	2014-10-07	**City:**	
Status:	Revoked and/or Replaced	**Longitude:**	-75.77895
Record Type:	ECA	**Latitude:**	45.27079
Link Source:	IDS	**Geometry X:**	
SWP Area Name:	Rideau Valley	**Geometry Y:**	
Approval Type:	ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS		
Project Type:	MUNICIPAL AND PRIVATE SEWAGE WORKS		
Business Name:	Strandherd Road Inc.		
Address:	4123, 4225, 4337, 4433, and 4501 Strandherd Dr		
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/8421-9PMGPP-14.pdf		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	2 of 9	SE/232.3	99.6 / -1.34	Strandherd Road Inc. 4123, 4225, 4337, 4433, and 4501 Strandherd Dr Nortel Dr, Crosskey Place, Systemhouse St, Dealership St, Philsar st Ottawa ON K2C 0P9	ECA

Approval No:	1671-9RXT6P	**MOE District:**	
Approval Date:	2014-12-19	**City:**	
Status:	Approved	**Longitude:**	
Record Type:	ECA	**Latitude:**	
Link Source:	IDS	**Geometry X:**	
SWP Area Name:		**Geometry Y:**	
Approval Type:	ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS		
Project Type:	MUNICIPAL AND PRIVATE SEWAGE WORKS		
Business Name:	Strandherd Road Inc.		
Address:	4123, 4225, 4337, 4433, and 4501 Strandherd Dr Nortel Dr, Crosskey Place, Systemhouse St, Dealership St, Philsar st		

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

Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/7870-9PAJ8J-14.pdf

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13 **3 of 9** **SE/232.3** **99.6 / -1.34** **Strandherd Road Inc.**
4123, 4225, 4337, 4433, and 4501 Strandherd Dr
Ottawa ON K2C 0P9 **ECA**

Approval No: 9988-9SPJL7
Approval Date: 2015-01-14
Status: Approved
Record Type: ECA
Link Source: IDS
SWP Area Name: Rideau Valley
MOE District: Ottawa
City:
Longitude: -75.77895
Latitude: 45.27079
Geometry X:
Geometry Y:
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Business Name: Strandherd Road Inc.
Address: 4123, 4225, 4337, 4433, and 4501 Strandherd Dr
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/4246-9PXRH5-14.pdf

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13 **4 of 9** **SE/232.3** **99.6 / -1.34** **Strandherd Road Inc.**
4123, 4225, 4337, 4433, and 4501 Strandherd Dr
Ottawa ON K2C 0P9 **ECA**

Approval No: 3899-9SLPAP
Approval Date: 2015-01-14
Status: Approved
Record Type: ECA
Link Source: IDS
SWP Area Name: Rideau Valley
MOE District: Ottawa
City:
Longitude: -75.77895
Latitude: 45.27079
Geometry X:
Geometry Y:
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Business Name: Strandherd Road Inc.
Address: 4123, 4225, 4337, 4433, and 4501 Strandherd Dr
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/4016-9PXRD7-14.pdf

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13 **5 of 9** **SE/232.3** **99.6 / -1.34** **Strandherd Road Inc.**
4123, 4225, 4337, 4433, and 4501 Strandherd Dr
Ottawa ON K2C 0P9 **ECA**

Approval No: 3156-9SPPR3
Approval Date: 2015-01-14
Status: Revoked and/or Replaced
Record Type: ECA
Link Source: IDS
SWP Area Name: Rideau Valley
MOE District: Ottawa
City:
Longitude: -75.77895
Latitude: 45.27079
Geometry X:
Geometry Y:
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Business Name: Strandherd Road Inc.
Address: 4123, 4225, 4337, 4433, and 4501 Strandherd Dr
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/2089-9PVKCA-14.pdf

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13 **6 of 9** **SE/232.3** **99.6 / -1.34** **Zena Investment Corporation**
4123, 4225, 4337, 4433, and 4501 Strandherd Dr
Ottawa ON K2C 0A6 **ECA**

Approval No: 8156-9YNRQG
MOE District: Ottawa

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

Approval Date:	2015-07-23	**City:**	
Status:	Revoked and/or Replaced	**Longitude:**	-75.77895
Record Type:	ECA	**Latitude:**	45.27079
Link Source:	IDS	**Geometry X:**	
SWP Area Name:	Rideau Valley	**Geometry Y:**	
Approval Type:	ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS		
Project Type:	MUNICIPAL AND PRIVATE SEWAGE WORKS		
Business Name:	Zena Investment Corporation		
Address:	4123, 4225, 4337, 4433, and 4501 Strandherd Dr		
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/8463-9WPP6T-14.pdf		

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13 | ***7 of 9*** | ***SE/232.3*** | ***99.6 / -1.34*** | ***Strandherd Road Inc.*** ***4123, 4225, 4337, 4433, and 4501 Strandherd Dr*** ***4175 Strandherd Drive for Sanitary and Storm Amendment*** ***Ottawa ON K2C 0P9*** | ***ECA***

Approval No:	3198-AY8KJJ	**MOE District:**	Ottawa
Approval Date:	2018-05-22	**City:**	
Status:	Revoked and/or Replaced	**Longitude:**	-75.77895
Record Type:	ECA	**Latitude:**	45.27079
Link Source:	IDS	**Geometry X:**	
SWP Area Name:	Rideau Valley	**Geometry Y:**	
Approval Type:	ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS		
Project Type:	MUNICIPAL AND PRIVATE SEWAGE WORKS		
Business Name:	Strandherd Road Inc.		
Address:	4123, 4225, 4337, 4433, and 4501 Strandherd Dr 4175 Strandherd Drive for Sanitary and Storm Amendment		
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/2489-AXSHE6-14.pdf		

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13 | ***8 of 9*** | ***SE/232.3*** | ***99.6 / -1.34*** | ***R.W. TOMLINSON LTD.*** ***100 CITIGATE DRIVE*** ***OTTAWA ON K2J6K7*** | ***GEN***

Generator No:	ON6160447	**PO Box No:**	
Status:	Registered	**Country:**	Canada
Approval Years:	As of Dec 2018	**Choice of Contact:**	
Contam. Facility:		**Co Admin:**	
MHSW Facility:		**Phone No Admin:**	
SIC Code:			
SIC Description:			

Detail(s)

Waste Class:	241 H
Waste Class Desc:	Halogenated solvents and residues

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13 | ***9 of 9*** | ***SE/232.3*** | ***99.6 / -1.34*** | ***Strandherd Road Inc.*** ***4123, 4225, 4337, 4433, and 4501 Strandherd Dr*** ***4175 Strandherd Drive for Sanitary and Storm Amendment*** ***Ottawa ON K2C 0P9*** | ***ECA***

Approval No:	1689-BPZPFP	**MOE District:**	Ottawa
Approval Date:	2020-06-02	**City:**	
Status:	Approved	**Longitude:**	-75.77895
Record Type:	ECA	**Latitude:**	45.27079
Link Source:	IDS	**Geometry X:**	
SWP Area Name:	Rideau Valley	**Geometry Y:**	
Approval Type:	ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS		

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

Project Type:	MUNICIPAL AND PRIVATE SEWAGE WORKS
Business Name:	Strandherd Road Inc.
Address:	4123, 4225, 4337, 4433, and 4501 Strandherd Dr 4175 Strandherd Drive for Sanitary and Storm Amendment
Full Address:	
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/9962-BPMPMP-14.pdf

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14 | **1 of 1** | **ESE/249.9** | **100.2 / -0.75** | **Strandherd Road Inc.**
Strandherd Dr and Fallowfield Road
Ottawa ON K2C 0P9 | **ECA**

Approval No:	2386-9SZJ6S	**MOE District:**	
Approval Date:	2015-01-26	**City:**	
Status:	Revoked and/or Replaced	**Longitude:**	
Record Type:	ECA	**Latitude:**	
Link Source:	IDS	**Geometry X:**	
SWP Area Name:		**Geometry Y:**	
Approval Type:	ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS		
Project Type:	MUNICIPAL AND PRIVATE SEWAGE WORKS		
Business Name:	Strandherd Road Inc.		
Address:	Strandherd Dr and Fallowfield Road		
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/6723-9PAHWZ-14.pdf		

Unplottable Summary

Total: 39 Unplottable sites

DB	Company Name/Site Name	Address	City	Postal
CA	PUBLIC WORKS CANADA	FALLOWFIELD RD.	NEPEAN CITY ON	
CA	DCR/PHOENIX DEVELOPMENMT CORP.	STRANDHERD DRIVE	NEPEAN CITY ON	
CA	PETRO-CANADA PRODUCTS	FALLOWFIELD RD., BLK.113 (SWM)	NEPEAN CITY ON	
CA	TDL GROUP LIMITED	BLK. 114 FALLOWFIELD RD., SWM	NEPEAN ON	
CA	City of Ottawa	Strandherd Drive	Ottawa ON	
CA	R.W. Tomlinson Limited	Mobile Facility	Ottawa ON	
CA	City of Ottawa	Strandherd Drive	Ottawa ON	
CONV	R.W. TOMLINSON LIMITED		ON	
DTNK	SUPERIOR PROPANE INC	FALLOWFIELD RD	OTTAWA ON	
DTNK	SUPERIOR PROPANE ATTN WARREN HAYES	FALLOWFIELD RD PRT LOT 20 4 RF	OTTAWA ON	
DTNK	SUPERIOR PROPANE INC	FALLOWFIELD RD	NEPEAN ON	
DTNK	Bell Canada	Strandherd Dr, Nepean (Jockvale) ON	NEPEAN ON	
EBR	Regional Group of Companies Inc.	Lots 18-20, Concession 4, Geographic Township of Nepean East side of Highway 416, south of Fallowfield Road, west of Strandherd Drive. CITY OF OTTAWA	ON	
EBR	R.W. Tomlinson Limited	Mobile Facility Ottawa CITY OF OTTAWA	ON	
ECA	City of Ottawa	Strandherd Drive	Ottawa ON	K2G 6J8
ECA	R.W. Tomlinson Limited	Mobile Facility	Ottawa ON	K1G 3N4
EHS		Fallowfield Road	Ottawa (Former Township of Goulburn) ON	
GEN	R.W Tomlinson Heavy Civil	Alta Vista Hospital Link Jobsite	Ottawa ON	K1G 3N4

GEN	R.W Tomlinson	Alta Vista Hospital Link Jobsite	Ottawa ON	K1G 3N4
GEN	R.W Tomlinson	Alta Vista Hospital Link Jobsite	Ottawa ON	K1G 3N4
NPRI	R.W. TOMLINSON LIMITED		Ottawa ON	
PRT	I C G PROPANE INC	FALLOWFIELD RD PRT LOT 20 4 RF	OTTAWA ON	
PRT	SUPERIOR PROPANE	FALLOWFIELD RD	NEPEAN ON	
PTTW	R.W. Tomlinson Limited		ON	
PTTW	Findlay Creek Properties Ltd. and 1374537 Ontario Ltd.	Lots 19, 20, Concession 4 and Lot 20, Concession 5, Ottawa	ON	
SPL	Geo. W. Drummond Excavating Inc<UNOFFICIAL>	Strandherd Dr and Temporary	Ottawa ON	
SPL	R.W. Tomlinson Limited		Ottawa ON	
SPL	OC Transpo/ City of Ottawa<UNOFFICIAL>	@ Fallowfield	Ottawa ON	
SPL	DEPARTMENT OF AGRICULTURE	ANIMAL DISEASE CONTROL CENTRE FALLOWFIELD ROAD	OTTAWA CITY ON	
SPL	PUBLIC WORKS CANADA	AGRICULTURE CANADA FALLOWFIELD ROAD STORAGE TANK	NEPEAN CITY ON	
SPL	PRIVATE OWNER	GENERAL WELDING, FALLOWFIELD RD. STITTSVILLE STORAGE TANK/BARREL	OTTAWA CITY ON	
SRDS	R.W. TOMLINSON LTD.		ON	
WWIS		lot 20 con 4	ON	
WWIS		FALLOWFIELD RD	OTTAWA ON	
WWIS		lot 20 con 4	ON	
WWIS		lot 21	ON	
WWIS		lot 21	ON	
WWIS		lot 20 con 4	ON	
WWIS		lot 20	ON	

Unplottable Report

Site: ***PUBLIC WORKS CANADA***
FALLOWFIELD RD. NEPEAN CITY ON

Database: ***CA***

Certificate #:	8-4023-88-
Application Year:	88
Issue Date:	9/12/1988
Approval Type:	Industrial air
Status:	Cancelled
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	CHEMICAL STORAGE FAC.
Contaminants:	
Emission Control:	

Site: ***DCR/PHOENIX DEVELOPMENMT CORP.***
STRANDHERD DRIVE NEPEAN CITY ON

Database: ***CA***

Certificate #:	3-1122-90-
Application Year:	90
Issue Date:	6/26/1990
Approval Type:	Municipal sewage
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Site: ***PETRO-CANADA PRODUCTS***
FALLOWFIELD RD., BLK.113 (SWM) NEPEAN CITY ON

Database: ***CA***

Certificate #:	3-1223-94-
Application Year:	94
Issue Date:	10/5/1994
Approval Type:	Municipal sewage
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Site: ***TDL GROUP LIMITED***
BLK. 114 FALLOWFIELD RD., SWM NEPEAN ON

Database: ***CA***

Certificate #:	3-0846-98-
Application Year:	98

Issue Date: 7/22/1998
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***City of Ottawa***
Strandherd Drive Ottawa ON

Database: ***CA***

Certificate #: 1254-73VKL4
Application Year: 2007
Issue Date: 6/17/2007
Approval Type: Municipal and Private Sewage Works
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***R.W. Tomlinson Limited***
Mobile Facility Ottawa ON

Database: ***CA***

Certificate #: 4667-7VVM63
Application Year: 2009
Issue Date: 10/30/2009
Approval Type: Air
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***City of Ottawa***
Strandherd Drive Ottawa ON

Database: ***CA***

Certificate #: 5791-77LJ85
Application Year: 2007
Issue Date: 10/2/2007
Approval Type: Municipal and Private Sewage Works
Status: Revoked and/or Replaced
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***R.W. TOMLINSON LIMITED ON***

Database: ***CONV***

File No:
Crown Brief No: 01-0198-0415
Court Location:
Publication City:
Publication Title:
Act:
Act(s):
First Matter:
Second Matter:
Investigation 1:
Investigation 2:
Penalty Imposed:
Description: FAIL TO COMPLY SAFETY TRAINING, FAIL TO SUBMIT REPORTS TO DIRECTOR, COMMIT OFFENCE OF TRANSFERRING WASTE OIL WITHOUT GEN. REG. DOCUMENT
Background:
URL:

Location:
Region: EASTERN REGION
Ministry District: OTTAWA

Additional Details

Publication Date:
Count: 1
Act: EPA
Regulation: 347
Section: 18 (1)
Act/Regulation/Section: EPA 347 18 (1)
Date of Offence:
Date of Conviction:
Date Charged: 2/25/2003
Charge Disposition: FINED
Fine: $3500
Synopsis:

Site: ***SUPERIOR PROPANE INC FALLOWFIELD RD OTTAWA ON***

Database: ***DTNK***

Delisted Expired Fuel Safety Facilities

Instance No: 9558985
Status: EXPIRED
Instance ID: 390259
Instance Type: FS Facility
Description: Fuels Safety Propane Filling Plant > 5000 USW
TSSA Program Area:
Maximum Hazard Rank:
Facility Type:
Expired Date:
Original Source: EXP
Record Date: Up to Mar 2012

Site: ***SUPERIOR PROPANE ATTN WARREN HAYES FALLOWFIELD RD PRT LOT 20 4 RF OTTAWA ON***

Database: ***DTNK***

Delisted Expired Fuel Safety Facilities

Instance No: 9631753
Status: EXPIRED
Instance ID: 391550
Instance Type: FS Facility
Description: Fuels Safety Propane Filling Plant > 5000 USW

TSSA Program Area:
Maximum Hazard Rank:
Facility Type:
Expired Date:
Original Source: EXP
Record Date: Up to Mar 2012

Site: ***SUPERIOR PROPANE INC***
FALLOWFIELD RD NEPEAN ON

Database: ***DTNK***

Delisted Expired Fuel Safety Facilities

Instance No: 9669823
Status: EXPIRED
Instance ID: 392708
Instance Type: FS Facility
Description: FS Propane Vehicle Conv Centre
TSSA Program Area:
Maximum Hazard Rank:
Facility Type:
Expired Date:
Original Source: EXP
Record Date: Up to Mar 2012

Site: ***Bell Canada***
Strandherd Dr, Nepean (Jockvale) ON NEPEAN ON

Database: ***DTNK***

Delisted Commercial Fuel Oil Tanks

Licence No:
Registration No: 200204-1515
Posse File No:
Posse Reg No:
Instance No:
Status Name:
Tank Type:
Tank Size: 5072 L
Tank Material: Fiberglass reinforced plastic
Instance Install Date:
Description:
Item Description:
Item:
Context:
Instance Creation Date:
Device Installed Location:
Tk Age (as of 05/1992): 9 yrs
Tank Address: Strandherd Dr, Nepean (Jockvale) ON
Distributor: Esso
Contact Name: c/o Alain Naud
Contact Address: 3685 Aylmer - Bureau 200
Contact Address2:
Contact Suite:
Contact City: Montreal
Contact Prov: QC
Contact Postal: H2X 2C5
Comments:

Facility Type:
Letter Sent:
Corrosion Protection:
Fuel Type:
Province:
Nbr:
Instance Type:
Original Source: CFOT
Record Date: Up to Apr 2013

Site: ***Regional Group of Companies Inc.***
Lots 18-20, Concession 4, Geographic Township of Nepean East side of Highway 416, south of Fallowfield Road, west of Strandherd Drive. CITY OF OTTAWA ON

Database: ***EBR***

EBR Registry No: 012-4505
Decision Posted:

Ministry Ref No: MNRF INST 51/15
Notice Type: Instrument Decision
Notice Stage:
Notice Date: December 13, 2016
Proposal Date: July 02, 2015
Year: 2015
Instrument Type: (ESA s.17(2) (c)) - Permit for activities with conditions to achieve overall benefit to the species
Off Instrument Name:
Posted By:
Company Name: Regional Group of Companies Inc.
Site Address:
Location Other:
Proponent Name:
Proponent Address: 1737 Woodward Drive, 2nd Floor, Ottawa Ontario, Canada K2C 0P9
Comment Period:
URL:

Exception Posted:
Section:
Act 1:
Act 2:
Site Location Map:

Site Location Details:

Lots 18-20, Concession 4, Geographic Township of Nepean East side of Highway 416, south of Fallowfield Road, west of Strandherd Drive. CITY OF OTTAWA

Site: ***R.W. Tomlinson Limited***
Mobile Facility Ottawa CITY OF OTTAWA ON

Database: ***EBR***

EBR Registry No: 010-4078
Ministry Ref No: 2891-7FVQ5M
Notice Type: Instrument Decision
Notice Stage:
Notice Date: November 06, 2009
Proposal Date: July 03, 2008
Year: 2008
Instrument Type: (EPA s. 9) - Approval for discharge into the natural environment other than water (i.e. Air)
Off Instrument Name:
Posted By:
Company Name: R.W. Tomlinson Limited
Site Address:
Location Other:
Proponent Name:
Proponent Address: 5597 Power Road, Ottawa Ontario, Canada K1G 3N4
Comment Period:
URL:

Decision Posted:
Exception Posted:
Section:
Act 1:
Act 2:
Site Location Map:

Site Location Details:

Mobile Facility Ottawa CITY OF OTTAWA

Site: ***City of Ottawa***
Strandherd Drive Ottawa ON K2G 6J8

Database: ***ECA***

Approval No: 2068-BQ6RQX
Approval Date: 2020-06-04
Status: Approved
Record Type: ECA
Link Source: IDS
SWP Area Name:
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Business Name: City of Ottawa
Address: Strandherd Drive
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/4653-BPDQTP-14.pdf

MOE District:
City:
Longitude:
Latitude:
Geometry X:
Geometry Y:

Site: ***R.W. Tomlinson Limited***
Mobile Facility Ottawa ON K1G 3N4

Database: ***ECA***

Approval No:	4667-7VVM63	***MOE District:***	
Approval Date:	2009-10-30	***City:***	
Status:	Revoked and/or Replaced	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	
Approval Type:	ECA-AIR		
Project Type:	AIR		
Business Name:	R.W. Tomlinson Limited		
Address:	Mobile Facility		
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/2891-7FVQ5M-14.pdf		

Site:
Fallowfield Road Ottawa (Former Township of Goulburn) ON

Database: ***EHS***

Order No:	20060922004	***Nearest Intersection:***	
Status:	C	***Municipality:***	
Report Type:	Complete Report	***Client Prov/State:***	ON
Report Date:	9/25/2006	***Search Radius (km):***	0.25
Date Received:	9/22/2006	***X:***	0
Previous Site Name:		***Y:***	0
Lot/Building Size:			
Additional Info Ordered:			

Site: ***R.W Tomlinson Heavy Civil***
Alta Vista Hospital Link Jobsite Ottawa ON K1G 3N4

Database: ***GEN***

Generator No:	ON8156580	***PO Box No:***	
Status:	Registered	***Country:***	Canada
Approval Years:	As of Dec 2017	***Choice of Contact:***	
Contam. Facility:		***Co Admin:***	
MHSW Facility:		***Phone No Admin:***	
SIC Code:			
SIC Description:			

Detail(s)

Waste Class:	146 L
Waste Class Desc:	Other specified inorganic sludges, slurries or solids

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Site: ***R.W Tomlinson***
Alta Vista Hospital Link Jobsite Ottawa ON K1G 3N4

Database: ***GEN***

Generator No:	ON8156580	***PO Box No:***	
Status:		***Country:***	Canada
Approval Years:	2016	***Choice of Contact:***	CO_ADMIN
Contam. Facility:	No	***Co Admin:***	nick gianetto
MHSW Facility:	No	***Phone No Admin:***	6139132412 Ext.
SIC Code:	237310		
SIC Description:	HIGHWAY, STREET AND BRIDGE CONSTRUCTION		

Detail(s)

Waste Class:	146
Waste Class Desc:	OTHER SPECIFIED INORGANICS

Site: ***R.W Tomlinson***
Alta Vista Hospital Link Jobsite Ottawa ON K1G 3N4

Database: ***GEN***

Generator No:	ON8156580	***PO Box No:***	

Status:		***Country:***	Canada
Approval Years:	2015	***Choice of Contact:***	CO_ADMIN
Contam. Facility:	No	***Co Admin:***	nick gianetto
MHSW Facility:	No	***Phone No Admin:***	6139132412 Ext.
SIC Code:	237310		
SIC Description:	HIGHWAY, STREET AND BRIDGE CONSTRUCTION		

Detail(s)

Waste Class:	146
Waste Class Desc:	OTHER SPECIFIED INORGANICS

Site: ***R.W. TOMLINSON LIMITED***
Ottawa ON

Database: ***NPRI***

NPRI ID:	7200011897	***Org ID:***	
Other ID:		***Submit Date:***	
No Other ID:		***Last Modified:***	
Track ID:		***Contact ID:***	
Report ID:	826	***Cont Type:***	MED
Report Type:		***Contact Title:***	
Rpt Type ID:		***Cont First Name:***	
Report Year:	2011	***Cont Last Name:***	
Not-Current Rpt?:		***Contact Position:***	
Yr of Last Filed Rpt:		***Contact Fax:***	
Fac ID:		***Contact Ph.:***	
Fac Name:	CRM CARP	***Cont Area Code:***	
Fac Address1:		***Contact Tel.:***	
Fac Address2:		***Contact Ext.:***	
Fac Postal Zip:		***Cont Fax Area Cde:***	
Facility Lat:		***Contact Fax:***	
Facility Long:		***Contact Email:***	
DLS (Last Filed Rpt):		***Latitude:***	
Facility DLS:		***Longitude:***	
Datum:		***UTM Zone:***	
Facility Cmnts:		***UTM Northing:***	
URL:		***UTM Easting:***	
No of Empl.:	8	***Waste Streams:***	
Parent Co.:		***No Streams:***	
No Parent Co.:		***Waste Off Sites:***	
Pollut Prev Cmnts:		***No Off Sites:***	
Stacks:		***Shutdown:***	
No of Stacks:		***No of Shutdown:***	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	32		
NAICS 2 Description:	Manufacturing		
NAICS Code (4 digit):	3273		
NAICS 4 Description:	Cement and Concrete Product Manufacturing		
NAICS Code (6 digit):	327320		
NAICS 6 Description:	Ready-Mix Concrete Manufacturing		

Site: ***I C G PROPANE INC***
FALLOWFIELD RD PRT LOT 20 4 RF OTTAWA ON

Database: ***PRT***

Location ID:	11051
Type:	retail
Expiry Date:	1990-12-31
Capacity (L):	30000
Licence #:	0033255001

Site: ***SUPERIOR PROPANE***
FALLOWFIELD RD NEPEAN ON

Database: ***PRT***

Location ID: 9601
Type: private
Expiry Date: 1992-01-31
Capacity (L): 0.00
Licence #: 0038379001

Site: ***R.W. Tomlinson Limited ON***

Database: ***PTTW***

EBR Registry No: 010-5329
Ministry Ref No: 3248-7LXR8J
Notice Type: Instrument Decision
Notice Stage:
Notice Date: April 14, 2009
Proposal Date: December 04, 2008
Year: 2008
Instrument Type: (OWRA s. 34) - Permit to Take Water
Off Instrument Name:
Posted By:
Company Name: R.W. Tomlinson Limited
Site Address:
Location Other:
Proponent Name:
Proponent Address: 5597 Power Road, Ottawa Ontario, Canada K1G 3N4
Comment Period:
URL:

Decision Posted:
Exception Posted:
Section:
Act 1:
Act 2:
Site Location Map:

Site Location Details:

R.W. Tomlinson Limited Address: Lot: 20, Concession: 7, Ottawa, City District Office: Ottawa GeoReference: Map Datum: NAD83, Zone: 18, Accuracy Estimate: 10-30 metres eg. Medium Quality GPS, Method: Map, UTM Easting: 470954, UTM Northing: 5024837 CITY OF OTTAWA

Site: ***Findlay Creek Properties Ltd. and 1374537 Ontario Ltd. Lots 19, 20, Concession 4 and Lot 20, Concession 5, Ottawa ON***

Database: ***PTTW***

EBR Registry No: IA06E1038
Ministry Ref No: 6114-6SQHA7
Notice Type: Instrument Final Decision
Notice Stage:
Notice Date: November 30, 2006
Proposal Date: August 17, 2006
Year: 2006
Instrument Type: (OWRA s. 34) - Permit to Take Water
Off Instrument Name:
Posted By:
Company Name: Findlay Creek Properties Ltd. and 1374537 Ontario Ltd.
Site Address:
Location Other:
Proponent Name:
Proponent Address:
Comment Period:
URL:

Decision Posted:
Exception Posted:
Section:
Act 1:
Act 2:
Site Location Map:

Site Location Details:

Lots 19, 20, Concession 4 and Lot 20, Concession 5, Ottawa

Site: ***Geo. W. Drummond Excavating Inc<UNOFFICIAL> Strandherd Dr and Temporary Ottawa ON***

Database: ***SPL***

Ref No: 6067-6EASVT
Site No:
Incident Dt: 7/14/2005

Discharger Report: 0
Material Group: Oil
Health/Env Conseq:

Year:		***Client Type:***	
Incident Cause:	Overturn - Truck Or Trailer	***Sector Type:***	Other Motor Vehicle
Incident Event:		***Agency Involved:***	
Contaminant Code:		***Nearest Watercourse:***	
Contaminant Name:	DIESEL FUEL	***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	Ottawa
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	Not Anticipated	***Site Municipality:***	Ottawa
Nature of Impact:	Soil Contamination	***Site Lot:***	
Receiving Medium:	Land	***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:		***Easting:***	
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	7/14/2005	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	Spills to Highways (usually highway accidents)
Incident Reason:		***Source Type:***	
Site Name:	Roadway<UNOFFICIAL>		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Ottawa: MVA 300 L diesel to road, cleaning		
Contaminant Qty:	unknown L		

Site: ***R.W. Tomlinson Limited Ottawa ON*** ***Database:*** ***SPL***

Ref No:	5848-9W4RW6	***Discharger Report:***	
Site No:	NA	***Material Group:***	
Incident Dt:	5/1/2015	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	Leak/Break	***Sector Type:***	
Incident Event:		***Agency Involved:***	
Contaminant Code:		***Nearest Watercourse:***	
Contaminant Name:		***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:		***Site Municipality:***	Ottawa
Nature of Impact:	Land	***Site Lot:***	
Receiving Medium:		***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:	N	***Easting:***	
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	5/1/2015	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	Land Spills
Incident Reason:	Operator/Human Error	***Source Type:***	
Site Name:	Bearbrook bridge on Hwy 417 east bound<UNOFFICIAL>		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	R.W. Tomlinson: Sediment release to Bearbrook tributary		
Contaminant Qty:			

Site: ***OC Transpo/ City of Ottawa<UNOFFICIAL> @ Fallowfield Ottawa ON*** ***Database:*** ***SPL***

Ref No:	0663-9BQ7ZM	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:	2013/09/20	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	Unknown / N/A	***Sector Type:***	Unknown / N/A
Incident Event:		***Agency Involved:***	
Contaminant Code:	15	***Nearest Watercourse:***	
Contaminant Name:	HYDRAULIC OIL	***Site Address:***	@ Fallowfield
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	Not Anticipated	***Site Municipality:***	Ottawa

Nature of Impact:	Other Impact(s)	***Site Lot:***	
Receiving Medium:		***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:	No Field Response	***Easting:***	
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	2013/09/20	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	Land Spills
Incident Reason:	Unknown / N/A	***Source Type:***	
Site Name:	Woodroffe Transitway<UNOFFICIAL>		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	OC Transpo: Bus accident, EGR requested		
Contaminant Qty:	300 L		

Site: ***DEPARTMENT OF AGRICULTURE***
ANIMAL DISEASE CONTROL CENTRE FALLOWFIELD ROAD OTTAWA CITY ON

Database: ***SPL***

Ref No:	44068	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:	11/26/1990	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	UNDERGROUND TANK LEAK	***Sector Type:***	
Incident Event:		***Agency Involved:***	
Contaminant Code:		***Nearest Watercourse:***	
Contaminant Name:		***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	POSSIBLE	***Site Municipality:***	20101
Nature of Impact:	Soil contamination	***Site Lot:***	
Receiving Medium:	LAND	***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:		***Easting:***	ENVIRONMENT CANADA
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	11/29/1990	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	
Incident Reason:	CORROSION	***Source Type:***	
Site Name:			
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	DEPARTMENT OF AGRICULTURE-UNDERGROUND FURNACE OIL TANK LEAKING.		
Contaminant Qty:			

Site: ***PUBLIC WORKS CANADA***
AGRICULTURE CANADA FALLOWFIELD ROAD STORAGE TANK NEPEAN CITY ON

Database: ***SPL***

Ref No:	79801	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:	//	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	UNDERGROUND TANK LEAK	***Sector Type:***	
Incident Event:		***Agency Involved:***	
Contaminant Code:		***Nearest Watercourse:***	
Contaminant Name:		***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	CONFIRMED	***Site Municipality:***	20104
Nature of Impact:	Soil contamination	***Site Lot:***	
Receiving Medium:	LAND	***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:		***Easting:***	
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	12/11/1992	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	
Incident Reason:	CORROSION	***Source Type:***	
Site Name:			

Site County/District:
Site Geo Ref Meth:
Incident Summary: AGRICULTURE CANADA - SOIL CONTAMINATION DUE TO UNDERGROUND TANKS
Contaminant Qty:

Site: ***PRIVATE OWNER***
GENERAL WELDING, FALLOWFIELD RD. STITTSVILLE STORAGE TANK/BARREL OTTAWA CITY ON

Database: ***SPL***

Ref No:	213503	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:	10/10/2001	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	OTHER CONTAINER LEAK	**Sector Type:**	
Incident Event:		**Agency Involved:**	
Contaminant Code:		**Nearest Watercourse:**	
Contaminant Name:		**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Possible	**Site Municipality:**	20107
Nature of Impact:	Soil contamination	**Site Lot:**	
Receiving Medium:	Land	**Site Conc:**	
Receiving Env:		**Northing:**	
MOE Response:		**Easting:**	
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	10/10/2001	**Site Map Datum:**	
Dt Document Closed:		**SAC Action Class:**	
Incident Reason:	OTHER	**Source Type:**	

Site Name:
Site County/District:
Site Geo Ref Meth:
Incident Summary: SPILL OF 2 -3 L FUEL OIL TO GROUND FROM TANK. CLEANED.
Contaminant Qty:

Site: ***R.W. TOMLINSON LTD.***
ON

Database: ***SRDS***

Company Code:		**Sector:**	
Works ID:		**Region:**	
SIC:		**District:**	
SIC1:		**UTM Zone:**	
SIC1 Desc:		**UTM Easting:**	
SIC2:		**UTM Northing:**	
SIC2 Desc:		**UTM Precision:**	
SIC3:		**Minor Basin:**	
SIC3 Desc:		**Major Basin:**	
Body of Water:		**Report Year:**	1990-1994
Terminal Stream:			
SIC Desc:			
Mailing Address:	NEPEAN		
Corp Address:			

Site:
lot 20 con 4 ON

Database: ***WWIS***

Well ID:	1536188	**Data Entry Status:**	
Construction Date:		**Data Src:**	
Primary Water Use:		**Date Received:**	1/17/2006
Sec. Water Use:		**Selected Flag:**	True
Final Well Status:		**Abandonment Rec:**	
Water Type:		**Contractor:**	6907
Casing Material:		**Form Version:**	3
Audit No:	Z17661	**Owner:**	
Tag:		**Street Name:**	
Construction Method:		**County:**	OTTAWA
Elevation (m):		**Municipality:**	NEPEAN TOWNSHIP

Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Site Info:
Lot: 020
Concession: 04
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 11550254
DP2BR:
Spatial Status:
Code OB: u
Code OB Desc: all layers are unknown type
Open Hole:
Cluster Kind:
Date Completed: 22-Dec-2005 00:00:00
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

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

Overburden and Bedrock Materials Interval

Formation ID: 933043020
Layer: 1
Color:
General Color:
Mat1:
Most Common Material:
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 80.0
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 961536188
Method Construction Code: B
Method Construction: Other Method
Other Method Construction:

Pipe Information

Pipe ID: 11559861
Casing No: 1
Comment:
Alt Name:

Results of Well Yield Testing

Pump Test ID: 11569337
Pump Set At: 75.0
Static Level: 12.0
Final Level After Pumping:

Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Site:
FALLOWFIELD RD OTTAWA ON

Database: ***WWIS***

Well ID: 1535676
Construction Date:
Primary Water Use:
Sec. Water Use:
Final Well Status: Abandoned-Other
Water Type:
Casing Material:
Audit No: Z33652
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src:
Date Received: 8/4/2005
Selected Flag: True
Abandonment Rec: Yes
Contractor: 6894
Form Version: 3
Owner:
Street Name: FALLOWFIELD RD
County: OTTAWA
Municipality: OTTAWA CITY
Site Info:
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 11316215
DP2BR:
Spatial Status:
Code OB: _
Code OB Desc: No formation data
Open Hole:
Cluster Kind:
Date Completed: 08-Jun-2005 00:00:00
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone:
East83:
North83:
Org CS:
UTMRC:
UTMRC Desc:
Location Method: na

Annular Space/Abandonment Sealing Record

Plug ID: 933273995
Layer: 1
Plug From: 14
Plug To: 1.89999997615814
Plug Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 933273996
Layer: 2
Plug From: 1.89999997615814
Plug To: 0
Plug Depth UOM: m

Method of Construction & Well Use

Method Construction ID: 961535676
Method Construction Code:
Method Construction:
Other Method Construction:

Pipe Information

Pipe ID: 11331070
Casing No: 1
Comment:
Alt Name:

Hole Diameter

Hole ID: 11533760
Diameter: 20.0
Depth From: 0.0
Depth To: 18.0
Hole Depth UOM: m
Hole Diameter UOM: cm

Hole Diameter

Hole ID: 11533761
Diameter: 6.0
Depth From: 0.0
Depth To: 7.0
Hole Depth UOM: m
Hole Diameter UOM: cm

Site:
lot 20 con 4 ON

Database: ***WWIS***

Well ID: 1534313
Construction Date:
Primary Water Use: Not Used
Sec. Water Use:
Final Well Status: Abandoned-Quality
Water Type:
Casing Material:
Audit No: 267002
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src: 1
Date Received: 11/13/2003
Selected Flag: True
Abandonment Rec:
Contractor: 1558
Form Version: 2
Owner:
Street Name:
County: OTTAWA
Municipality: NEPEAN TOWNSHIP
Site Info:
Lot: 020
Concession: 04
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID:	11097363	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	18
Code OB:	_	***East83:***	
Code OB Desc:	No formation data	***North83:***	
Open Hole:		***Org CS:***	
Cluster Kind:		***UTMRC:***	9
Date Completed:	18-Sep-2003 00:00:00	***UTMRC Desc:***	unknown UTM
Remarks:		***Location Method:***	na
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Method of Construction & Well Use

Method Construction ID:	961534313
Method Construction Code:	0
Method Construction:	Not Known
Other Method Construction:	

Pipe Information

Pipe ID:	11101078
Casing No:	1
Comment:	
Alt Name:	

Site:
lot 21 ON

Database: ***WWIS***

Well ID:	1519738	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Domestic	***Date Received:***	6/24/1985
Sec. Water Use:		***Selected Flag:***	True
Final Well Status:	Water Supply	***Abandonment Rec:***	
Water Type:		***Contractor:***	3644
Casing Material:		***Form Version:***	1
Audit No:		***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	OTTAWA
Elevation (m):		***Municipality:***	NEPEAN TOWNSHIP
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	021
Well Depth:		***Concession:***	
Overburden/Bedrock:		***Concession Name:***	
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10041591	***Elevation:***	
DP2BR:	112.00	***Elevrc:***	
Spatial Status:		***Zone:***	18
Code OB:	r	***East83:***	
Code OB Desc:	Bedrock	***North83:***	
Open Hole:		***Org CS:***	
Cluster Kind:		***UTMRC:***	9
Date Completed:	03-Jun-1985 00:00:00	***UTMRC Desc:***	unknown UTM
Remarks:		***Location Method:***	na
Elevrc Desc:			

Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Overburden and Bedrock Materials Interval

Formation ID: 931042558
Layer: 1
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 88.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931042560
Layer: 3
Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 112.0
Formation End Depth: 165.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931042559
Layer: 2
Color: 2
General Color: GREY
Mat1: 14
Most Common Material: HARDPAN
Mat2: 12
Mat2 Desc: STONES
Mat3:
Mat3 Desc:
Formation Top Depth: 88.0
Formation End Depth: 112.0
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 961519738
Method Construction Code: 5
Method Construction: Air Percussion
Other Method Construction:

Pipe Information

Pipe ID: 10590161
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930072629
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 113
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930072630
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 165
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 991519738
Pump Set At:
Static Level:
Final Level After Pumping: 30.0
Recommended Pump Depth: 30.0
Pumping Rate: 10.0
Flowing Rate:
Recommended Pump Rate: 6.0
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: 934894680
Test Type:
Test Duration: 60
Test Level: 30.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934654896
Test Type:
Test Duration: 45
Test Level: 30.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID:	934384356
Test Type:	
Test Duration:	30
Test Level:	30.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934108646
Test Type:	
Test Duration:	15
Test Level:	30.0
Test Level UOM:	ft

Water Details

Water ID:	933476797
Layer:	2
Kind Code:	1
Kind:	FRESH
Water Found Depth:	160.0
Water Found Depth UOM:	ft

Water Details

Water ID:	933476796
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	140.0
Water Found Depth UOM:	ft

Site:
lot 21 ON

Database:
WWIS

Well ID:	1519741	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Domestic	***Date Received:***	6/3/1985
Sec. Water Use:		***Selected Flag:***	True
Final Well Status:	Water Supply	***Abandonment Rec:***	
Water Type:		***Contractor:***	3142
Casing Material:		***Form Version:***	1
Audit No:		***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	OTTAWA
Elevation (m):		***Municipality:***	NEPEAN TOWNSHIP
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	021
Well Depth:		***Concession:***	
Overburden/Bedrock:		***Concession Name:***	
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10041594	***Elevation:***	
DP2BR:	81.00	***Elevrc:***	
Spatial Status:		***Zone:***	18
Code OB:	r	***East83:***	
Code OB Desc:	Bedrock	***North83:***	
Open Hole:		***Org CS:***	

Cluster Kind:
Date Completed: 16-May-1985 00:00:00
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: na

Overburden and Bedrock Materials Interval

Formation ID: 931042567
Layer: 1
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2: 79
Mat2 Desc: PACKED
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: 931042568
Layer: 2
Color: 3
General Color: BLUE
Mat1: 05
Most Common Material: CLAY
Mat2: 77
Mat2 Desc: LOOSE
Mat3:
Mat3 Desc:
Formation Top Depth: 16.0
Formation End Depth: 65.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931042569
Layer: 3
Color: 2
General Color: GREY
Mat1: 28
Most Common Material: SAND
Mat2: 11
Mat2 Desc: GRAVEL
Mat3: 13
Mat3 Desc: BOULDERS
Formation Top Depth: 65.0
Formation End Depth: 81.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931042570
Layer: 4

Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 81.0
Formation End Depth: 84.0
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 961519741
Method Construction Code: 1
Method Construction: Cable Tool
Other Method Construction:

Pipe Information

Pipe ID: 10590164
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930072634
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To:
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930072633
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 86
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 991519741
Pump Set At:
Static Level: 0.0
Final Level After Pumping: 0.0
Recommended Pump Depth: 30.0
Pumping Rate: 30.0
Flowing Rate:
Recommended Pump Rate: 8.0
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 1
Water State After Test: CLEAR
Pumping Test Method: 2

Pumping Duration HR: 2
Pumping Duration MIN: 0
Flowing: No

Draw Down & Recovery

Pump Test Detail ID: 934654899
Test Type:
Test Duration: 45
Test Level: 0.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934894683
Test Type:
Test Duration: 60
Test Level: 0.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934108649
Test Type:
Test Duration: 15
Test Level: 0.0
Test Level UOM: ft

Water Details

Water ID: 933476800
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 84.0
Water Found Depth UOM: ft

Site:
lot 20 con 4 ON

Database:
WWIS

Well ID: 1521188
Construction Date:
Primary Water Use: Domestic
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No: 07417
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src: 1
Date Received: 2/18/1987
Selected Flag: True
Abandonment Rec:
Contractor: 3142
Form Version: 1
Owner:
Street Name:
County: OTTAWA
Municipality: NEPEAN TOWNSHIP
Site Info:
Lot: 020
Concession: 04
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 10043024
DP2BR: 23.00
Elevation:
Elevrc:

Spatial Status:
Code OB: r
Code OB Desc: Bedrock
Open Hole:
Cluster Kind:
Date Completed: 17-Jan-1987 00:00:00
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Zone: 18
East83:
North83:
Org CS:
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: na

Overburden and Bedrock Materials Interval

Formation ID: 931047128
Layer: 2
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2: 13
Mat2 Desc: BOULDERS
Mat3:
Mat3 Desc:
Formation Top Depth: 8.0
Formation End Depth: 16.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931047127
Layer: 1
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2: 79
Mat2 Desc: PACKED
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: 931047129
Layer: 3
Color: 2
General Color: GREY
Mat1: 14
Most Common Material: HARDPAN
Mat2: 13
Mat2 Desc: BOULDERS
Mat3:
Mat3 Desc:
Formation Top Depth: 16.0
Formation End Depth: 23.0
Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID:	931047130
Layer:	4
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	23.0
Formation End Depth:	78.0
Formation End Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	961521188
Method Construction Code:	1
Method Construction:	Cable Tool
Other Method Construction:	

Pipe Information

Pipe ID:	10591594
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930075103
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	24
Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Casing

Casing ID:	930075104
Layer:	2
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	78
Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Results of Well Yield Testing

Pump Test ID:	991521188
Pump Set At:	
Static Level:	4.0
Final Level After Pumping:	18.0
Recommended Pump Depth:	50.0
Pumping Rate:	40.0
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: 2
Pumping Duration HR: 1
Pumping Duration MIN: 0
Flowing: No

Draw Down & Recovery

Pump Test Detail ID: 934651135
Test Type:
Test Duration: 45
Test Level: 18.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934908364
Test Type:
Test Duration: 60
Test Level: 18.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934389007
Test Type:
Test Duration: 30
Test Level: 18.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934105888
Test Type:
Test Duration: 15
Test Level: 18.0
Test Level UOM: ft

Water Details

Water ID: 933478675
Layer: 2
Kind Code: 1
Kind: FRESH
Water Found Depth: 76.0
Water Found Depth UOM: ft

Water Details

Water ID: 933478674
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 40.0
Water Found Depth UOM: ft

Site:
lot 20 ON

Database: ***WWIS***

Well ID: 1527942
Construction Date:
Primary Water Use:

Data Entry Status:
Data Src: 1
Date Received: 6/9/1994

Sec. Water Use:		***Selected Flag:***	True
Final Well Status:		***Abandonment Rec:***	
Water Type:		***Contractor:***	3142
Casing Material:		***Form Version:***	1
Audit No:	139317	***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	OTTAWA
Elevation (m):		***Municipality:***	NEPEAN TOWNSHIP
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	020
Well Depth:		***Concession:***	
Overburden/Bedrock:		***Concession Name:***	
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10049484	***Elevation:***	
DP2BR:	16.00	***Elevrc:***	
Spatial Status:		***Zone:***	18
Code OB:	r	***East83:***	
Code OB Desc:	Bedrock	***North83:***	
Open Hole:		***Org CS:***	
Cluster Kind:		***UTMRC:***	9
Date Completed:	03-Jun-1994 00:00:00	***UTMRC Desc:***	unknown UTM
Remarks:		***Location Method:***	na
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	931068040
Layer:	1
Color:	2
General Color:	GREY
Mat1:	05
Most Common Material:	CLAY
Mat2:	13
Mat2 Desc:	BOULDERS
Mat3:	79
Mat3 Desc:	PACKED
Formation Top Depth:	0.0
Formation End Depth:	16.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	931068041
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: 70.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931068042
Layer: 3
Color: 8
General Color: BLACK
Mat1: 15
Most Common Material: LIMESTONE
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 70.0
Formation End Depth: 97.0
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933112804
Layer: 1
Plug From: 0
Plug To: 21
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 961527942
Method Construction Code: 0
Method Construction: Not Known
Other Method Construction:

Pipe Information

Pipe ID: 10598054
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930086442
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 22
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930086443
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 97
Casing Diameter: 6

Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 991527942
Pump Set At:
Static Level: 4.0
Final Level After Pumping: 60.0
Recommended Pump Depth: 80.0
Pumping Rate: 25.0
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: 2
Pumping Duration HR: 1
Pumping Duration MIN: 0
Flowing: No

Draw Down & Recovery

Pump Test Detail ID: 934386620
Test Type:
Test Duration: 30
Test Level: 60.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934655949
Test Type:
Test Duration: 45
Test Level: 60.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934904319
Test Type:
Test Duration: 60
Test Level: 60.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934111811
Test Type:
Test Duration: 15
Test Level: 60.0
Test Level UOM: ft

Water Details

Water ID: 933487482
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 84.0
Water Found Depth UOM: ft

Water Details

Water ID:	933487483
Layer:	2
Kind Code:	1
Kind:	FRESH
Water Found Depth:	93.0
Water Found Depth UOM:	ft

Appendix: Database Descriptions

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

Abandoned Aggregate Inventory: Provincial AAGR

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

Government Publication Date: Sept 2002*

Aggregate Inventory: Provincial AGR

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

Government Publication Date: Up to Sep 2020

Abandoned Mine Information System: Provincial AMIS

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

Government Publication Date: 1800-Oct 2018

Anderson's Waste Disposal Sites: Private ANDR

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

Government Publication Date: 1860s-Present

Aboveground Storage Tanks: Provincial AST

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

Government Publication Date: May 31, 2014

Automobile Wrecking & Supplies: Private AUWR

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

Government Publication Date: 1999-Dec 31, 2020

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 2018

Commercial Fuel Oil Tanks: Provincial CFOT

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

Government Publication Date: May 31, 2021

Chemical Manufacturers and Distributors: Private CHEM

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

Government Publication Date: 1999-Jan 31, 2020

Chemical Register: Private CHM

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

Government Publication Date: 1999-Dec 31, 2020

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 -Apr 2021

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

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

Government Publication Date: Apr 1987 and Nov 1988*

Compliance and Convictions: Provincial CONV

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

Government Publication Date: 1989-Nov 2020

Certificates of Property Use: Provincial CPU

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

Government Publication Date: 1994- Jun 30, 2021

Drill Hole Database: Provincial DRL

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

Government Publication Date: 1886 - Sep 2020

Delisted Fuel Tanks: Provincial DTNK

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

Government Publication Date: May 31, 2021

Environmental Activity and Sector Registry: Provincial EASR

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

Government Publication Date: Oct 2011- Jun 30, 2021

Environmental Registry: Provincial EBR

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

Government Publication Date: 1994- Jun 30, 2021

Environmental Compliance Approval: Provincial ECA

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

Government Publication Date: Oct 2011- Jun 30, 2021

Environmental Effects Monitoring: Federal EEM

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

Government Publication Date: 1992-2007*

ERIS Historical Searches: Private EHS

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

Government Publication Date: 1999-Jun 30, 2021

Environmental Issues Inventory System: Federal EIIS

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

Government Publication Date: 1992-2001*

Emergency Management Historical Event: Provincial EMHE

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

Government Publication Date: Dec 31, 2016

Environmental Penalty Annual Report: Provincial EPAR

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

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

List of Expired Fuels Safety Facilities: Provincial EXP

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

Government Publication Date: Jul 31, 2020

Federal Convictions: Federal FCON

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

Government Publication Date: 1988-Jun 2007*

Contaminated Sites on Federal Land: Federal FCS

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

Government Publication Date: Jun 2000-Apr 2021

Fisheries & Oceans Fuel Tanks: Federal FOFT

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

Government Publication Date: 1964-Sep 2019

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

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

Government Publication Date: May 31, 2018

Fuel Storage Tank: Provincial FST

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

Government Publication Date: Jul 31, 2020

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-Apr 30, 2021

Greenhouse Gas Emissions from Large Facilities: Federal GHG

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

Government Publication Date: 2013-Dec 2019

TSSA Historic Incidents: Provincial HINC

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

Government Publication Date: 2006-June 2009*

Indian & Northern Affairs Fuel Tanks: Federal IAFT

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

Government Publication Date: 1950-Aug 2003*

Fuel Oil Spills and Leaks: Provincial INC

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

Government Publication Date: May 31, 2021

Landfill Inventory Management Ontario: Provincial LIMO

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

Government Publication Date: Feb 28, 2019

Canadian Mine Locations: Private MINE

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

Government Publication Date: 1998-2009*

Mineral Occurrences: Provincial MNR

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

Government Publication Date: 1846-Dec 2020

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

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

Government Publication Date: 1974-1994*

Non-Compliance Reports: Provincial NCPL

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

Government Publication Date: Dec 31, 2019

National Defense & Canadian Forces Fuel Tanks: Federal NDFT

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

Government Publication Date: Up to May 2001*

National Defense & Canadian Forces Spills: Federal NDSP

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

Government Publication Date: Mar 1999-Apr 2018

National Defence & Canadian Forces Waste Disposal Sites: Federal NDWD

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

Government Publication Date: 2001-Apr 2007*

National Energy Board Pipeline Incidents: Federal NEBI

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

Government Publication Date: 2008-Mar 31, 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-Feb 28, 2021

Ontario Oil and Gas Wells: Provincial OOGW

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

Government Publication Date: 1800-Jun 2020

Inventory of PCB Storage Sites: Provincial OPCB

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

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

Orders: Provincial ORD

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

Government Publication Date: 1994-Apr 30, 2021

Canadian Pulp and Paper: Private PAP

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

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

Parks Canada Fuel Storage Tanks: Federal PCFT

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

Government Publication Date: 1920-Jan 2005*

Pesticide Register: Provincial PES

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

Government Publication Date: Oct 2011- Jun 30, 2021

Pipeline Incidents: Provincial PINC

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

Government Publication Date: May 31, 2021

Private and Retail Fuel Storage Tanks: Provincial PRT

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

Government Publication Date: 1989-1996*

Permit to Take Water: Provincial PTTW

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

Government Publication Date: 1994- Jun 30, 2021

Ontario Regulation 347 Waste Receivers Summary: Provincial REC

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

Government Publication Date: 1986-1990, 1992-2018

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-Jun 2021

Retail Fuel Storage Tanks: Private RST

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

Government Publication Date: 1999-Dec 31, 2020

Scott's Manufacturing Directory: Private SCT

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

Government Publication Date: 1992-Mar 2011*

Ontario Spills: Provincial SPL

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

Government Publication Date: 1988-Aug 2020

Wastewater Discharger Registration Database: Provincial SRDS

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

Government Publication Date: 1990-Dec 31, 2018

Anderson's Storage Tanks: Private TANK

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

Government Publication Date: 1915-1953*

Transport Canada Fuel Storage Tanks: Federal TCFT

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

Government Publication Date: 1970 - Dec 2020

Variances for Abandonment of Underground Storage Tanks: Provincial VAR

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

Government Publication Date: May 31, 2021

Waste Disposal Sites - MOE CA Inventory: Provincial WDS

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

Government Publication Date: Oct 2011- Jun 30, 2021

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

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

Government Publication Date: Up to Oct 1990*

Water Well Information System: Provincial WWIS

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

Government Publication Date: Apr 30, 2021

Definitions

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

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

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

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

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

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

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

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

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

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

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

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

APPENDIX E

AERIAL PHOTOGRAPHS

Phase I Environmental Site Assessment

135 Lusk Street

Ottawa, Ontario

KS1076

HISTORICAL AERIALS

Project Property:	135 Lusk Street, Ottawa Ontario Phase I ESA 135 Lusk Street Ottawa ON K2J
Project No:	KS1076
Requested By:	CM3 Environmental Inc.
Order No:	21071900557
Date Completed:	July 20, 2021

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

Decade	Year	Image Scale	Source
1940	1945	15000	NAPL

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

0 0.125 0.25 0.5
Kilometers

Order Number: 21071900557

Year: 1945
Source: NAPL
Map Scale: 1: 10000
Comments:

ERIS

APPENDIX F

ERIS PHYSICAL SETTING REPORT AND MAPS

Phase I Environmental Site Assessment

135 Lusk Street

Ottawa, Ontario

KS1076

PSR
PHYSICAL SETTING REPORT

Property Information

Order Number:		21071900557p
Date Completed:		July 22, 2021
Project Number:		KS1076
Project Property:		135 Lusk Street, Ottawa Ontario Phase I ESA 135 Lusk Street Ottawa ON K2J
Coordinates:		
	Latitude:	45.274091
	Longitude:	-75.7883888
	UTM Northing:	5013701.4603 Metres
	UTM Easting:	438159.885769 Metres
	UTM Zone:	UTM Zone 18T
	Elevation:	102.89 m
	Slope Direction:	SSW

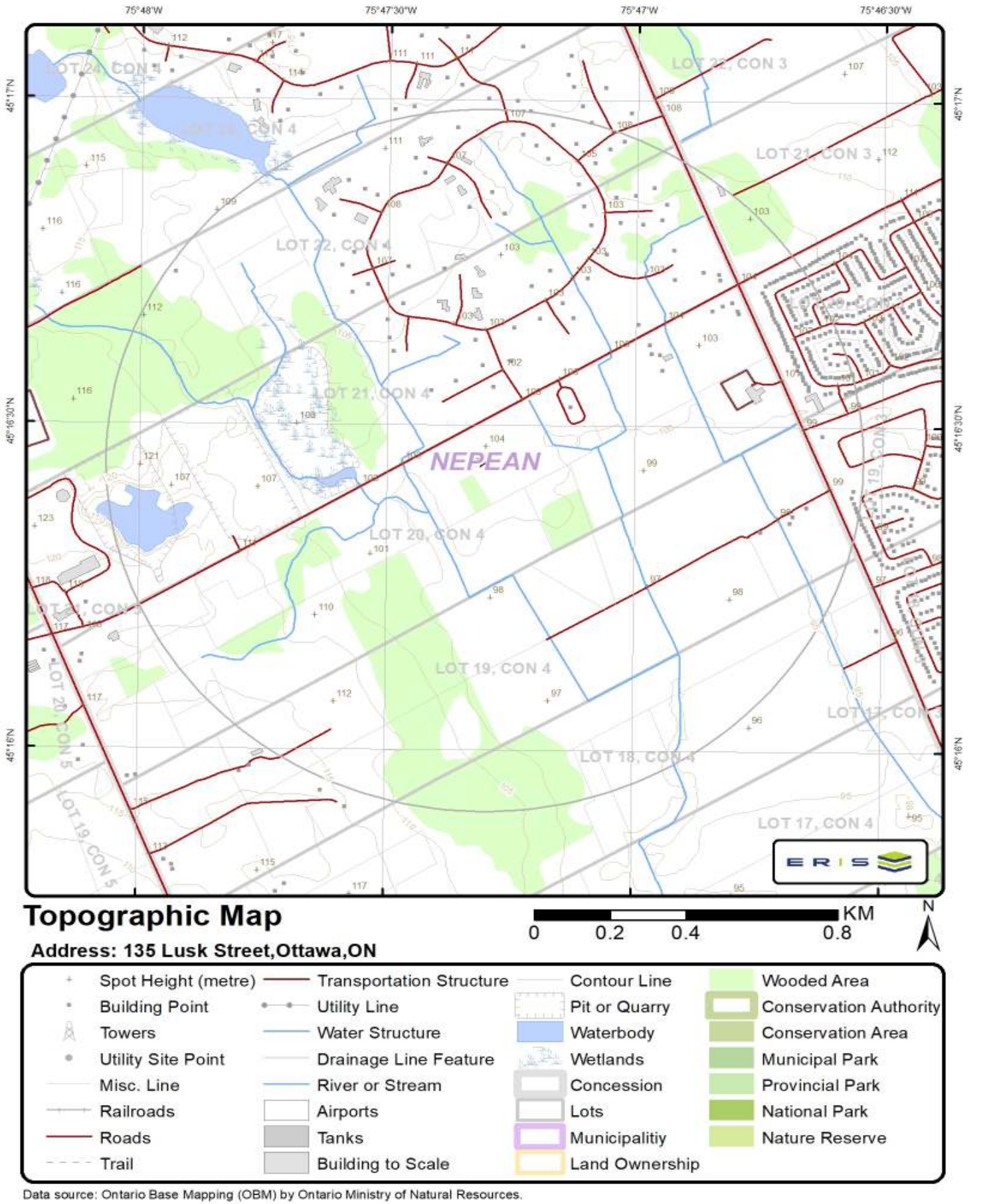
The ERIS ***Physical Setting Report - PSR*** provides comprehensive information about the physical setting around a site and includes a complete overview of topography as well as hydrologic, geologic and soil characteristics. The location and detailed attributes of oil and gas wells, water wells, and radon are also included for review.

The compilation of both physical characteristics of a site and additional attribute data is useful in assessing the impact of migration of contaminants and subsequent impact on soils and groundwater.

Disclaimer

This Report does not provide a full environmental evaluation for the site or adjacent properties. Please see the terms and disclaimer at the end of the Report for greater detail.

Topographic Information



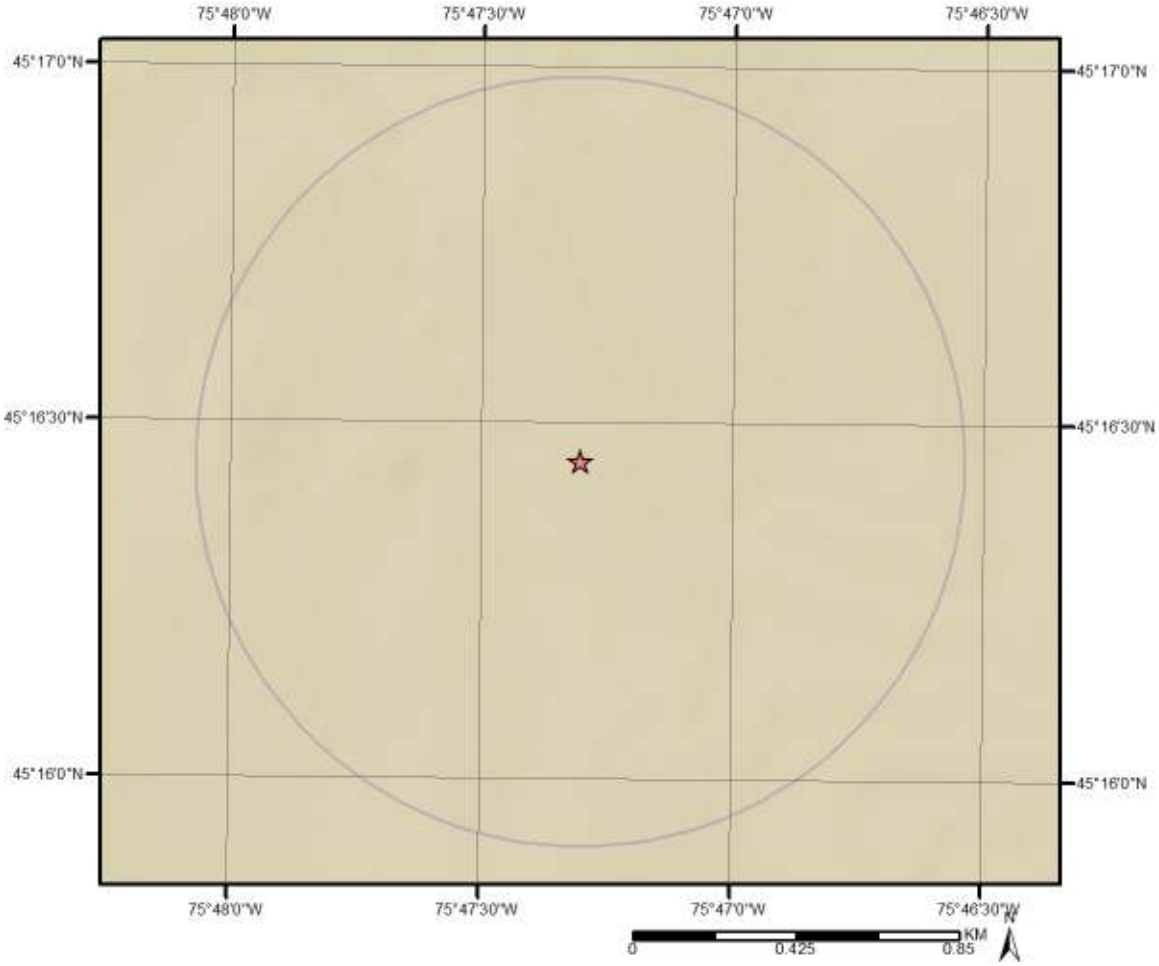
Data source: Ontario Base Mapping (OBM) by Ontario Ministry of Natural Resources.

Topographic Information

The previous topographic map(s) show general topographic information in the surrounding area of the project property, using Toporama data or a provincial source when available. Below are shaded relief map(s), derived from Digital Elevation data to depict terrain in further detail.

Topographic information at project property:

Elevation:	102.89 m
Slope Direction:	SSW



Hydrologic Information

Wetland

This map shows wetland existence. Data coverage is shown to the right. Gray indicates no data available in the area.

Evaluated PSW

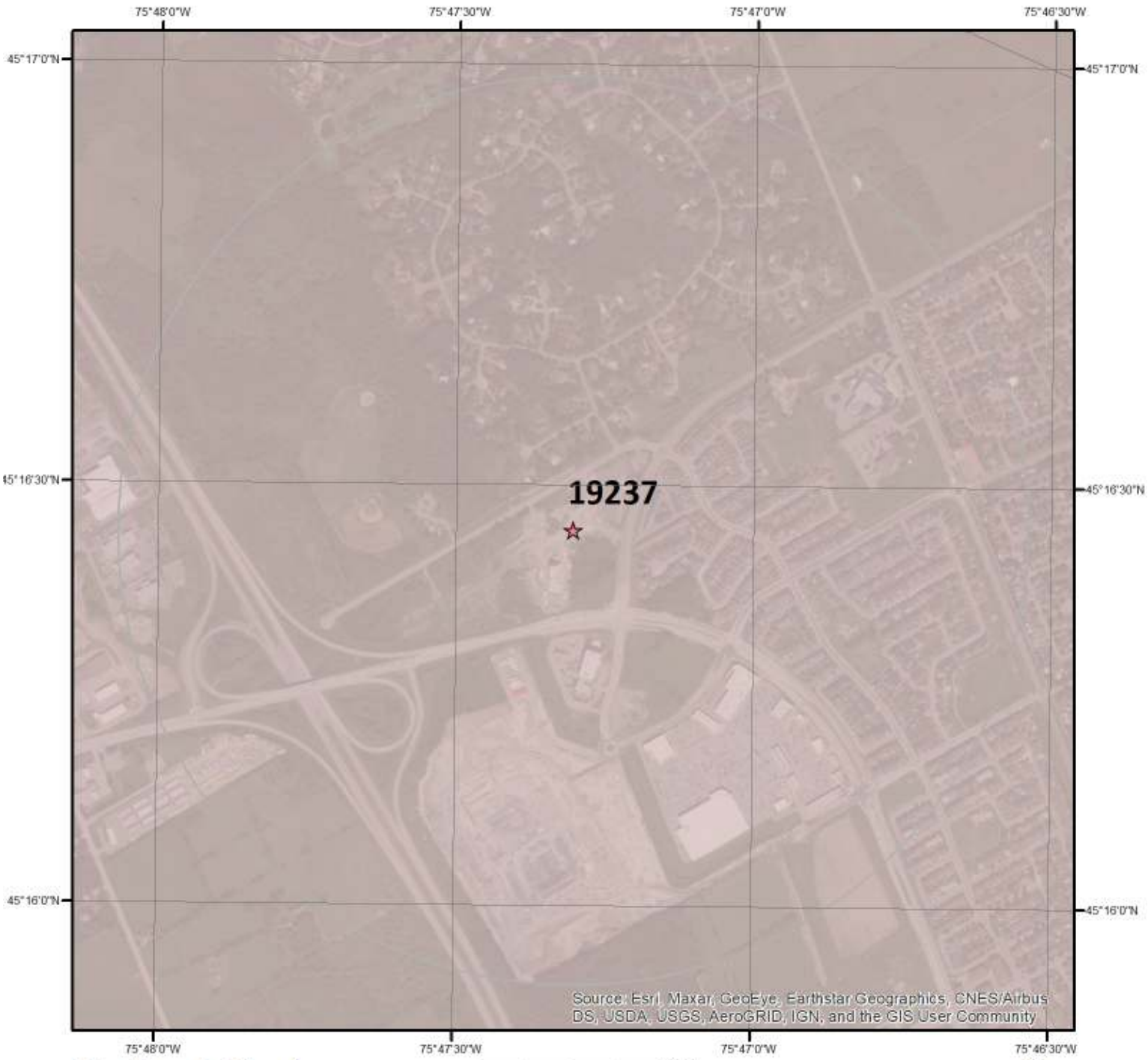
Unknown

Marsh

Swamp

ERIS

Geologic Information



Bedrock Geology

0 0.2 0.4 KM

N

This map shows bedrock geologic units in the area. Please refer to the report for detailed descriptions. Data coverage is shown to the right. Gray indicates no data available in the area.

ERIS

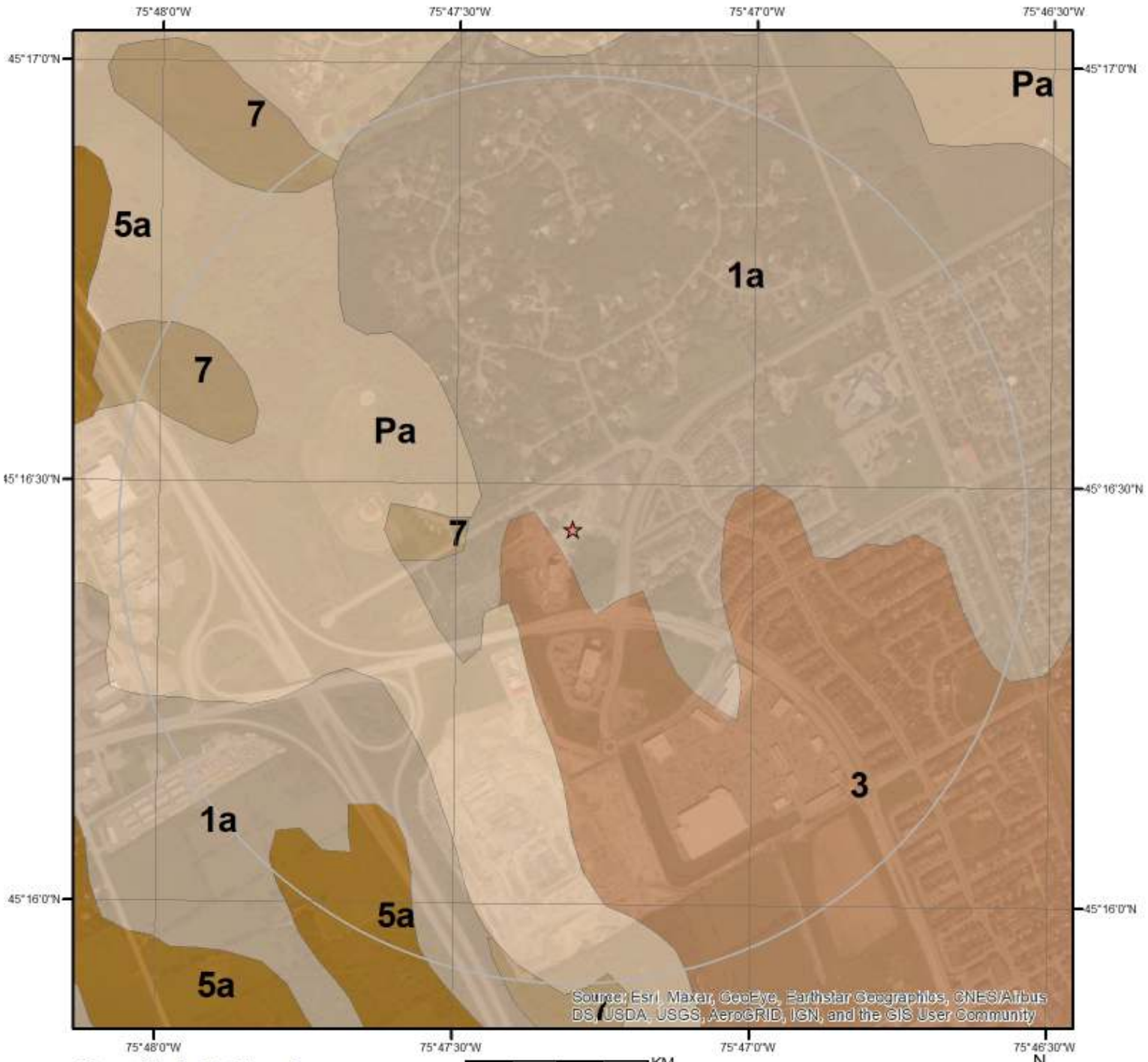
Geologic Information

Detailed bedrock geology information about each unit within the search radius is provided below.

Unit ID 19237

Unit Name:	
Rock Type:	Limestone, dolostone, shale, arkose, sandstone
Strata:	Ottawa Group; Simcoe Group; Shadow Lake Formation
Super Eon:	
Eon:	PHANEROZOIC (Present to 542.0 Ma)
Era:	PALEOZOIC (251.0 Ma to 542.0 Ma)
Period:	ORDOVICIAN (443.7 Ma to 488.3 Ma)
Epoch:	MIDDLE ORDOVICIAN (now considered UPPER DEVONIAN)
Province:	
Tectonic Zone:	

Geologic Information



Surficial Geology

This map shows surficial geologic labels in the area. Please refer to the report for detailed descriptions. Data coverage is shown to the right. Gray indicates no data available in the area.

Geologic Information

Detailed surficial geology information about each unit within the search radius is provided below.

Unit ID Pa

Geological Deposit:	Bedrock
Deposit Age:	Paleozoic
Primary Material:	Paleozoic Bedrock
Secondary Material:	
Primary General:	
Primary General Modifier:	
Veneer:	clay, silt, sand, gravel, diamicton
Episode:	
Sub Episode:	
Strata Modifier:	Surface
Provenance:	
Carbon Content:	
Formation:	
Permeability:	Variable
Material Description:	Limestone, dolomite, sandstone, and locally shale; relatively flat lying; mainly occuring as bare, tabular outcrops; includes areas thinly veneered by unconsolidated Quaternary sediments up to 1 m (3 ft) thick.

Unit ID 1a

Geological Deposit:	Till
Deposit Age:	Quaternary
Primary Material:	diamicton
Secondary Material:	
Primary General:	glacial
Primary General Modifier:	
Veneer:	
Episode:	Wisconsin
Sub Episode:	Michigan
Strata Modifier:	Surface
Provenance:	N-NE
Carbon Content:	
Formation:	Undifferentiated silty-sandy till on Paleozoic terrain
Permeability:	Low-Medium
Material Description:	Sandy and silty compact diamicton, grey at depth but brown where oxidized; calcareous where derived from sedimentary rocks and not leached; consists dominantly of lodgment till. In areas that lie below marine limit (198 m a.s.l.) it is overlain by a discontinuous lag consisting of gravel, sand and boulders

Unit ID 5a

Geological Deposit:	Nearshore sediments
Deposit Age:	Quaternary (Champlain Sea)

Geologic Information

Primary Material:	sand, gravel
Secondary Material:	
Primary General:	glaciomarine
Primary General Modifier:	littoral/foreshore
Veneer:	
Episode:	Wisconsin
Sub Episode:	Michigan
Strata Modifier:	Surface
Provenance:	
Carbon Content:	
Formation:	
Permeability:	High
Material Description:	Gravel, sand and boulders; beaches commonly fossiliferous; nature of sediment controlled by underlying material (gravel, sand and boulders where developed from till and glaciofluvial deposits; slabs and shingles where developed from sedimentary bedrock).

Unit ID 7

Geological Deposit:	Organic deposits
Deposit Age:	Recent
Primary Material:	organic deposits
Secondary Material:	
Primary General:	wetland
Primary General Modifier:	
Veneer:	
Episode:	Hudson
Sub Episode:	
Strata Modifier:	Surface
Provenance:	
Carbon Content:	
Formation:	
Permeability:	High
Material Description:	Mainly muck and peat in bogs, fens, swamps and poorly drained areas.

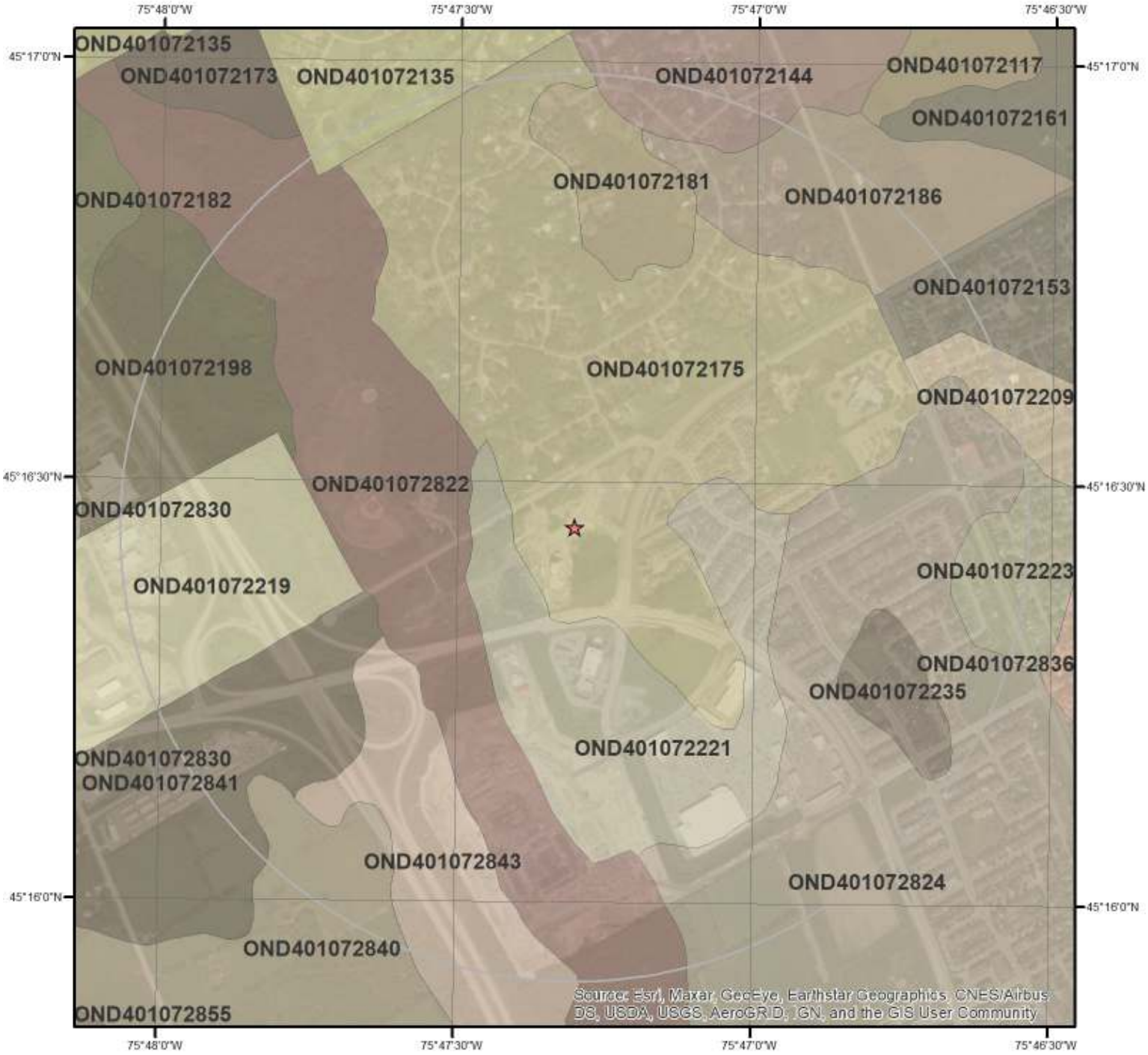
Unit ID 3

Geological Deposit:	Offshore marine deposits
Deposit Age:	Quaternary (Champlain Sea)
Primary Material:	clay, silt
Secondary Material:	sand
Primary General:	glaciomarine
Primary General Modifier:	foreshore/basinal
Veneer:	
Episode:	Wisconsin
Sub Episode:	Michigan
Strata Modifier:	Surface
Provenance:	
Carbon Content:	

Geologic Information

Formation:	
Permeability:	Low
Material Description:	Clay, silty clay and silt, commonly calcareous and fossiliferous; locally overlain by thin sands. Upper parts are generally mottled or laminated reddish brown and bluish grey and may contain lenses and pockets of sand, but at depth the clay is uniform and blue-grey.

Soil Information



Soil Map

0 0.2 0.4 0.8 KM

N

This map shows soil units around the target property. Please refer to the report for detailed soil descriptions.

ERIS

Soil Information

Detailed soil information about each unit within the search radius is provided below.

Ontario Detailed Soil Survey (DSS3)

Polygon ID: OND401072840

Component

Component ID:	OND40107284001	**Components(%):**	100
Soil Name ID:	ONOKA~~~~~A	**Slope Steepness(%):**	7
Component No:	1	**Slope Length(m):**	-9
Surface Stoniness Class:	Slightly stony		

Component Rating

Field Crops Capability:	Severe limitations on use for crops.
First CLI Limitation Subclass:	Low inherent soil Fertility
Second CLI Limitation Subclass:	Low inherent Moisture holding capacity
Drainage:	Well
Soil Texture of A Horizon:	
Hydrological Soil Groups:	Soils that have a low runoff potential and high infiltration rate, as the soils typically are sands and gravel.

Soil Name

Soil Name:	OKA
Kind of Surface Material:	Mineral
Soil Drainage Class:	Well drained
Water Table Charateristics:	Never
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Very Coarse; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Marine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	**Very Fine Sand(%):**	9
Horizon:	Apk	**Total Sand(%):**	70

Soil Information

Depth(cm):	0-12	**Total Silt(%):**	22
pH in Calc Chloride:	6.9	**Total Clay(%):**	8
Saturated Hydraulic Conductivity(cm/h):	5.409	**Organic Carbon(%):**	4
Electrical Conductivity (dS/m):	0		
Layer No:	2	**Very Fine Sand(%):**	9
Horizon:	Bmk	**Total Sand(%):**	71
Depth(cm):	12-30	**Total Silt(%):**	20
pH in Calc Chloride:	7.2	**Total Clay(%):**	9
Saturated Hydraulic Conductivity(cm/h):	3.079	**Organic Carbon(%):**	0.6
Electrical Conductivity (dS/m):	0		
Layer No:	3	**Very Fine Sand(%):**	3
Horizon:	Ck	**Total Sand(%):**	91
Depth(cm):	30-100	**Total Silt(%):**	6
pH in Calc Chloride:	7.3	**Total Clay(%):**	3
Saturated Hydraulic Conductivity(cm/h):	6.109	**Organic Carbon(%):**	0.1
Electrical Conductivity (dS/m):	0		

Polygon ID: OND401072175

Component

Component ID:	OND40107217501	**Components(%):**	70
Soil Name ID:	ONGVI~~~~~A	**Slope Steepness(%):**	3.5
Component No:	1	**Slope Length(m):**	-9
Surface Stoniness Class:	Moderately stony		

Component Rating

Field Crops Capability:	moderate limitations on use for crops
First CLI Limitation Subclass:	Presence of surface stones > 15 cm diameter.
Second CLI Limitation Subclass:	Presence of adverse Topography
Drainage:	Well
Soil Texture of A Horizon:	medium - moderately fine loam
Hydrological Soil Groups:	Soils with moderate infiltration rates when completely wetted. Soils are sandy loam soils with moderately fine to moderately coarse textures.

Soil Name

Soil Information

Soil Name:	GRENVILLE
Kind of Surface Material:	Mineral
Soil Drainage Class:	Well drained
Water Table Charateristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Medium; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Till (Morainal); Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	**Very Fine Sand(%):**	18
Horizon:	Ap	**Total Sand(%):**	59
Depth(cm):	0-19	**Total Silt(%):**	30
pH in Calc Chloride:	7.2	**Total Clay(%):**	11
Saturated Hydraulic Conductivity(cm/h):	2.565	**Organic Carbon(%):**	2.3
Electrical Conductivity (dS/m):	0		

Layer No:	2	**Very Fine Sand(%):**	18
Horizon:	Ap	**Total Sand(%):**	62
Depth(cm):	19-35	**Total Silt(%):**	33
pH in Calc Chloride:	7.4	**Total Clay(%):**	5
Saturated Hydraulic Conductivity(cm/h):	5.087	**Organic Carbon(%):**	1.5
Electrical Conductivity (dS/m):	0		

Layer No:	3	**Very Fine Sand(%):**	21
Horizon:	Ae	**Total Sand(%):**	63
Depth(cm):	35-55	**Total Silt(%):**	32
pH in Calc Chloride:	7.4	**Total Clay(%):**	5
Saturated Hydraulic Conductivity(cm/h):	4.441	**Organic Carbon(%):**	0.5
Electrical Conductivity (dS/m):	0		

Layer No:	4	**Very Fine Sand(%):**	19
Horizon:	Bt	**Total Sand(%):**	56
Depth(cm):	55-77	**Total Silt(%):**	26
pH in Calc Chloride:	7.1	**Total Clay(%):**	18
Saturated Hydraulic Conductivity(cm/h):	0.856	**Organic Carbon(%):**	0.4
Electrical Conductivity (dS/m):	0		

Soil Information

Layer No:	5	**Very Fine Sand(%):**	20
Horizon:	BC	**Total Sand(%):**	61
Depth(cm):	77-92	**Total Silt(%):**	28
pH in Calc Chloride:	7.3	**Total Clay(%):**	11
Saturated Hydraulic Conductivity(cm/h):	1.805	**Organic Carbon(%):**	0.3
Electrical Conductivity (dS/m):	0		

Layer No:	6	**Very Fine Sand(%):**	22
Horizon:	Ck	**Total Sand(%):**	65
Depth(cm):	92-100	**Total Silt(%):**	30
pH in Calc Chloride:	7.6	**Total Clay(%):**	5
Saturated Hydraulic Conductivity(cm/h):	3.082	**Organic Carbon(%):**	0
Electrical Conductivity (dS/m):	0		

Component

Component ID:	OND40107217502	**Components(%):**	30
Soil Name ID:	ONMTDSH~~~A	**Slope Steepness(%):**	1.2
Component No:	2	**Slope Length(m):**	-9
Surface Stoniness Class:	Moderately stony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	Presence of consolidated bedrock within one metre of the soil surface
Second CLI Limitation Subclass:	
Drainage:	Imperfectly
Soil Texture of A Horizon:	medium - moderately fine loam
Hydrological Soil Groups:	Soils with moderate infiltration rates when completely wetted. Soils are sandy loam soils with moderately fine to moderately coarse textures.

Soil Name

Soil Name:	MATILDA
Kind of Surface Material:	Mineral
Soil Drainage Class:	Imperfectly drained
Water Table Charateristics:	Always
Layer that Restricts Root Growth:	No root restricting layer

Soil Information

Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Medium; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Till (Morainal); Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	**Very Fine Sand(%):**	15
Horizon:	Ap	**Total Sand(%):**	41
Depth(cm):	0-17	**Total Silt(%):**	38
pH in Calc Chloride:	6.5	**Total Clay(%):**	21
Saturated Hydraulic Conductivity(cm/h):	0.88	**Organic Carbon(%):**	3.3
Electrical Conductivity (dS/m):	0		

Layer No:	2	**Very Fine Sand(%):**	10
Horizon:	Bmg	**Total Sand(%):**	29
Depth(cm):	17-38	**Total Silt(%):**	43
pH in Calc Chloride:	6.8	**Total Clay(%):**	28
Saturated Hydraulic Conductivity(cm/h):	0.341	**Organic Carbon(%):**	0.8
Electrical Conductivity (dS/m):	0		

Layer No:	3	**Very Fine Sand(%):**	11
Horizon:	BCg	**Total Sand(%):**	39
Depth(cm):	38-50	**Total Silt(%):**	38
pH in Calc Chloride:	7	**Total Clay(%):**	23
Saturated Hydraulic Conductivity(cm/h):	0.407	**Organic Carbon(%):**	1.5
Electrical Conductivity (dS/m):	0		

Layer No:	4	**Very Fine Sand(%):**	-9
Horizon:	R	**Total Sand(%):**	-9
Depth(cm):	50-100	**Total Silt(%):**	-9
pH in Calc Chloride:	Not applicable	**Total Clay(%):**	-9
Saturated Hydraulic Conductivity(cm/h):	Not applicable	**Organic Carbon(%):**	Not applicable
Electrical Conductivity (dS/m):	Not applicable		

Polygon ID: OND401072843

Component

Soil Information

Component ID:	OND40107284301	**Components(%):**	100
Soil Name ID:	ONGVI~~~~~A	**Slope Steepness(%):**	3.5
Component No:	1	**Slope Length(m):**	-9
Surface Stoniness Class:	Moderately stony		

Component Rating

Field Crops Capability:	moderate limitations on use for crops
First CLI Limitation Subclass:	Presence of surface stones > 15 cm diameter.
Second CLI Limitation Subclass:	Presence of adverse Topography
Drainage:	Well
Soil Texture of A Horizon:	medium - moderately fine loam
Hydrological Soil Groups:	Soils with moderate infiltration rates when completely wetted. Soils are sandy loam soils with moderately fine to moderately coarse textures.

Soil Name

Soil Name:	GRENVILLE
Kind of Surface Material:	Mineral
Soil Drainage Class:	Well drained
Water Table Charateristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Medium; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Till (Morainal); Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	**Very Fine Sand(%):**	18
Horizon:	Ap	**Total Sand(%):**	59
Depth(cm):	0-19	**Total Silt(%):**	30
pH in Calc Chloride:	7.2	**Total Clay(%):**	11
Saturated Hydraulic Conductivity(cm/h):	2.565	**Organic Carbon(%):**	2.3
Electrical Conductivity (dS/m):	0		

Layer No:	2	**Very Fine Sand(%):**	18
Horizon:	Ap	**Total Sand(%):**	62
Depth(cm):	19-35	**Total Silt(%):**	33

Soil Information

pH in Calc Chloride:	7.4	**Total Clay(%):**	5
Saturated Hydraulic Conductivity(cm/h):	5.087	**Organic Carbon(%):**	1.5
Electrical Conductivity (dS/m):	0		

Layer No:	3	**Very Fine Sand(%):**	21
Horizon:	Ae	**Total Sand(%):**	63
Depth(cm):	35-55	**Total Silt(%):**	32
pH in Calc Chloride:	7.4	**Total Clay(%):**	5
Saturated Hydraulic Conductivity(cm/h):	4.441	**Organic Carbon(%):**	0.5
Electrical Conductivity (dS/m):	0		

Layer No:	4	**Very Fine Sand(%):**	19
Horizon:	Bt	**Total Sand(%):**	56
Depth(cm):	55-77	**Total Silt(%):**	26
pH in Calc Chloride:	7.1	**Total Clay(%):**	18
Saturated Hydraulic Conductivity(cm/h):	0.856	**Organic Carbon(%):**	0.4
Electrical Conductivity (dS/m):	0		

Layer No:	5	**Very Fine Sand(%):**	20
Horizon:	BC	**Total Sand(%):**	61
Depth(cm):	77-92	**Total Silt(%):**	28
pH in Calc Chloride:	7.3	**Total Clay(%):**	11
Saturated Hydraulic Conductivity(cm/h):	1.805	**Organic Carbon(%):**	0.3
Electrical Conductivity (dS/m):	0		

Layer No:	6	**Very Fine Sand(%):**	22
Horizon:	Ck	**Total Sand(%):**	65
Depth(cm):	92-100	**Total Silt(%):**	30
pH in Calc Chloride:	7.6	**Total Clay(%):**	5
Saturated Hydraulic Conductivity(cm/h):	3.082	**Organic Carbon(%):**	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND401072144

Component

Component ID:	ONDA0107214401	**Components(%):**	70
Soil Name ID:	ONZUN~~~~~N	**Slope Steepness(%):**	3.5
Component No:	1	**Slope Length(m):**	-9
Surface Stoniness Class:	Very stony		

Soil Information

Component Rating

Field Crops Capability:	Natural grazing only; no improvements feasible.
First CLI Limitation Subclass:	Presence of consolidated bedrock within one metre of the soil surface
Second CLI Limitation Subclass:	
Drainage:	Well
Soil Texture of A Horizon:	
Hydrological Soil Groups:	Soils with moderate infiltration rates when completely wetted. Soils are sandy loam soils with moderately fine to moderately coarse textures.

Soil Name

Soil Name:	UNCLASSIFIED
Kind of Surface Material:	Unclassified
Soil Drainage Class:	Not applicable
Water Table Charateristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Not Applicable; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Not Applicable; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Not Applicable; Not Applicable; Not Applicable

Component

Component ID:	OND40107214402	**Components(%):**	30
Soil Name ID:	ONFWF~~~~~N	**Slope Steepness(%):**	3.5
Component No:	2	**Slope Length(m):**	-9
Surface Stoniness Class:	Very stony		

Component Rating

Field Crops Capability:	Natural grazing only; no improvements feasible.
First CLI Limitation Subclass:	Presence of consolidated bedrock within one metre of the soil surface
Second CLI Limitation Subclass:	
Drainage:	Imperfectly
Soil Texture of A Horizon:	
Hydrological Soil	Soils with moderate infiltration rates when completely wetted. Soils are sandy loam soils with moderately

Soil Information

Groups: fine to moderately coarse textures.

Soil Name

Soil Name:	FALLOWFIELD
Kind of Surface Material:	Mineral
Soil Drainage Class:	Imperfectly drained
Water Table Charateristics:	Growing season
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Fragmental; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Till (Morainal); Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Medium Acid to Neutral; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	**Very Fine Sand(%):**	9
Horizon:	Ah	**Total Sand(%):**	56
Depth(cm):	0-22	**Total Silt(%):**	35
pH in Calc Chloride:	6.3	**Total Clay(%):**	9
Saturated Hydraulic Conductivity(cm/h):	3.33	**Organic Carbon(%):**	2.8
Electrical Conductivity (dS/m):	0		

Layer No:	2	**Very Fine Sand(%):**	8
Horizon:	Bm	**Total Sand(%):**	53
Depth(cm):	22-38	**Total Silt(%):**	36
pH in Calc Chloride:	6.9	**Total Clay(%):**	11
Saturated Hydraulic Conductivity(cm/h):	1.748	**Organic Carbon(%):**	1.1
Electrical Conductivity (dS/m):	0		

Layer No:	3	**Very Fine Sand(%):**	17
Horizon:	Bmgj	**Total Sand(%):**	70
Depth(cm):	38-56	**Total Silt(%):**	22
pH in Calc Chloride:	7.2	**Total Clay(%):**	8
Saturated Hydraulic Conductivity(cm/h):	3.405	**Organic Carbon(%):**	0.5
Electrical Conductivity (dS/m):	0		

Layer No:	4	**Very Fine Sand(%):**	16
Horizon:	Cg	**Total Sand(%):**	71

Soil Information

Depth(cm):	56-60	**Total Silt(%):**	22
pH in Calc Chloride:	7.3	**Total Clay(%):**	7
Saturated Hydraulic Conductivity(cm/h):	2.494	**Organic Carbon(%):**	0.5
Electrical Conductivity (dS/m):	0		

Layer No:	5	**Very Fine Sand(%):**	-9
Horizon:	R	**Total Sand(%):**	-9
Depth(cm):	60-100	**Total Silt(%):**	-9
pH in Calc Chloride:	Not applicable	**Total Clay(%):**	-9
Saturated Hydraulic Conductivity(cm/h):	Not applicable	**Organic Carbon(%):**	Not applicable
Electrical Conductivity (dS/m):	Not applicable		

Polygon ID: ONDA01072135

Component

Component ID:	ONDA0107213501	**Components(%):**	100
Soil Name ID:	ONZUN~~~~~N	**Slope Steepness(%):**	Unknown or Not applicable
Component No:	1	**Slope Length(m):**	-9
Surface Stoniness Class:	Not Applicable		

Component Rating

Field Crops Capability:	
First CLI Limitation Subclass:	
Second CLI Limitation Subclass:	
Drainage:	Not Applicable
Soil Texture of A Horizon:	
Hydrological Soil Groups:	

Soil Name

Soil Name:	UNCLASSIFIED
Kind of Surface Material:	Unclassified
Soil Drainage Class:	Not applicable
Water Table Charateristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a

Soil Information

Parent Material 1, 2, 3:	Not Applicable; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Not Applicable; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Not Applicable; Not Applicable; Not Applicable

Polygon ID: OND401072841

Component

Component ID:	ONDA0107284101	**Components(%):**	70
Soil Name ID:	ONMTD~~~~~A	**Slope Steepness(%):**	1.2
Component No:	1	**Slope Length(m):**	-9
Surface Stoniness Class:	Moderately stony		

Component Rating

Field Crops Capability:	moderate limitations on use for crops
First CLI Limitation Subclass:	Presence of surface stones > 15 cm diameter.
Second CLI Limitation Subclass:	
Drainage:	Imperfectly
Soil Texture of A Horizon:	medium - moderately fine loam
Hydrological Soil Groups:	Soils with moderate infiltration rates when completely wetted. Soils are sandy loam soils with moderately fine to moderately coarse textures.

Soil Name

Soil Name:	MATILDA
Kind of Surface Material:	Mineral
Soil Drainage Class:	Imperfectly drained
Water Table Charateristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Medium; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Till (Morainal); Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	**Very Fine Sand(%):**	35

Soil Information

Horizon:	Ap	**Total Sand(%):**	47
Depth(cm):	0-22	**Total Silt(%):**	39
pH in Calc Chloride:	7.3	**Total Clay(%):**	14
Saturated Hydraulic Conductivity(cm/h):	1.383	**Organic Carbon(%):**	2.1
Electrical Conductivity (dS/m):	0		

Layer No:	2	**Very Fine Sand(%):**	34
Horizon:	Bmgj	**Total Sand(%):**	49
Depth(cm):	22-35	**Total Silt(%):**	43
pH in Calc Chloride:	7.6	**Total Clay(%):**	8
Saturated Hydraulic Conductivity(cm/h):	2.361	**Organic Carbon(%):**	0.4
Electrical Conductivity (dS/m):	0		

Layer No:	3	**Very Fine Sand(%):**	12
Horizon:	Ckgj	**Total Sand(%):**	48
Depth(cm):	35-100	**Total Silt(%):**	44
pH in Calc Chloride:	7.7	**Total Clay(%):**	8
Saturated Hydraulic Conductivity(cm/h):	1.46	**Organic Carbon(%):**	0.3
Electrical Conductivity (dS/m):	0		

Component

Component ID:	OND40107284102	**Components(%):**	30
Soil Name ID:	ONLYS~~~~~A	**Slope Steepness(%):**	1.2
Component No:	2	**Slope Length(m):**	-9
Surface Stoniness Class:	Moderately stony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	
Second CLI Limitation Subclass:	
Drainage:	Poorly
Soil Texture of A Horizon:	medium - moderately fine loam
Hydrological Soil Groups:	Soils with slow infiltration rates when thoroughly wetted and these soils typically are silty-loam soils with an impeding layer or soils with moderately fine to fine texture.

Soil Name

Soil Information

Soil Name:	LYONS
Kind of Surface Material:	Mineral
Soil Drainage Class:	Poorly drained
Water Table Charateristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Medium; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Till (Morainal); Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	**Very Fine Sand(%):**	9
Horizon:	Ap	**Total Sand(%):**	69
Depth(cm):	0-15	**Total Silt(%):**	20
pH in Calc Chloride:	7.1	**Total Clay(%):**	11
Saturated Hydraulic Conductivity(cm/h):	3.066	**Organic Carbon(%):**	2.3
Electrical Conductivity (dS/m):	0		

Layer No:	2	**Very Fine Sand(%):**	8
Horizon:	Ap	**Total Sand(%):**	72
Depth(cm):	15-23	**Total Silt(%):**	22
pH in Calc Chloride:	7.3	**Total Clay(%):**	6
Saturated Hydraulic Conductivity(cm/h):	4.797	**Organic Carbon(%):**	1.3
Electrical Conductivity (dS/m):	0		

Layer No:	3	**Very Fine Sand(%):**	11
Horizon:	Bmgj	**Total Sand(%):**	73
Depth(cm):	23-35	**Total Silt(%):**	20
pH in Calc Chloride:	7.5	**Total Clay(%):**	7
Saturated Hydraulic Conductivity(cm/h):	3.985	**Organic Carbon(%):**	0.4
Electrical Conductivity (dS/m):	0		

Layer No:	4	**Very Fine Sand(%):**	16
Horizon:	Ckg	**Total Sand(%):**	59
Depth(cm):	35-100	**Total Silt(%):**	34
pH in Calc Chloride:	7.6	**Total Clay(%):**	7
Saturated Hydraulic Conductivity(cm/h):	2.123	**Organic Carbon(%):**	0.1
Electrical Conductivity (dS/m):	0		

Soil Information

Polygon ID: OND401072209

Component

Component ID:	OND40107220901	**Components(%):**	70
Soil Name ID:	ONGVI~~~~~A	**Slope Steepness(%):**	3.5
Component No:	1	**Slope Length(m):**	-9
Surface Stoniness Class:	Moderately stony		

Component Rating

Field Crops Capability:	moderate limitations on use for crops
First CLI Limitation Subclass:	Presence of surface stones > 15 cm diameter.
Second CLI Limitation Subclass:	Presence of adverse Topography
Drainage:	Well
Soil Texture of A Horizon:	medium - moderately fine loam
Hydrological Soil Groups:	Soils with moderate infiltration rates when completely wetted. Soils are sandy loam soils with moderately fine to moderately coarse textures.

Soil Name

Soil Name:	GRENVILLE
Kind of Surface Material:	Mineral
Soil Drainage Class:	Well drained
Water Table Charateristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Medium; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Till (Morainal); Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	**Very Fine Sand(%):**	18
Horizon:	Ap	**Total Sand(%):**	59
Depth(cm):	0-19	**Total Silt(%):**	30
pH in Calc Chloride:	7.2	**Total Clay(%):**	11
Saturated Hydraulic Conductivity(cm/h):	2.565	**Organic Carbon(%):**	2.3

Soil Information

Electrical Conductivity (dS/m):	0

Layer No:	2	**Very Fine Sand(%):**	18
Horizon:	Ap	**Total Sand(%):**	62
Depth(cm):	19-35	**Total Silt(%):**	33
pH in Calc Chloride:	7.4	**Total Clay(%):**	5
Saturated Hydraulic Conductivity(cm/h):	5.087	**Organic Carbon(%):**	1.5
Electrical Conductivity (dS/m):	0		

Layer No:	3	**Very Fine Sand(%):**	21
Horizon:	Ae	**Total Sand(%):**	63
Depth(cm):	35-55	**Total Silt(%):**	32
pH in Calc Chloride:	7.4	**Total Clay(%):**	5
Saturated Hydraulic Conductivity(cm/h):	4.441	**Organic Carbon(%):**	0.5
Electrical Conductivity (dS/m):	0		

Layer No:	4	**Very Fine Sand(%):**	19
Horizon:	Bt	**Total Sand(%):**	56
Depth(cm):	55-77	**Total Silt(%):**	26
pH in Calc Chloride:	7.1	**Total Clay(%):**	18
Saturated Hydraulic Conductivity(cm/h):	0.856	**Organic Carbon(%):**	0.4
Electrical Conductivity (dS/m):	0		

Layer No:	5	**Very Fine Sand(%):**	20
Horizon:	BC	**Total Sand(%):**	61
Depth(cm):	77-92	**Total Silt(%):**	28
pH in Calc Chloride:	7.3	**Total Clay(%):**	11
Saturated Hydraulic Conductivity(cm/h):	1.805	**Organic Carbon(%):**	0.3
Electrical Conductivity (dS/m):	0		

Layer No:	6	**Very Fine Sand(%):**	22
Horizon:	Ck	**Total Sand(%):**	65
Depth(cm):	92-100	**Total Silt(%):**	30
pH in Calc Chloride:	7.6	**Total Clay(%):**	5
Saturated Hydraulic Conductivity(cm/h):	3.082	**Organic Carbon(%):**	0
Electrical Conductivity (dS/m):	0		

Component

Component ID:	OND40107220902	**Components(%):**	30

Soil Information

Soil Name ID:	ONGVI~~~~~A	**Slope Steepness(%):**	1.2
Component No:	2	**Slope Length(m):**	-9
Surface Stoniness Class:	Moderately stony		

Component Rating

Field Crops Capability:	moderate limitations on use for crops
First CLI Limitation Subclass:	Presence of surface stones > 15 cm diameter.
Second CLI Limitation Subclass:	
Drainage:	Well
Soil Texture of A Horizon:	medium - moderately fine loam
Hydrological Soil Groups:	Soils with moderate infiltration rates when completely wetted. Soils are sandy loam soils with moderately fine to moderately coarse textures.

Soil Name

Soil Name:	GRENVILLE
Kind of Surface Material:	Mineral
Soil Drainage Class:	Well drained
Water Table Charateristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Medium; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Till (Morainal); Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	**Very Fine Sand(%):**	18
Horizon:	Ap	**Total Sand(%):**	59
Depth(cm):	0-19	**Total Silt(%):**	30
pH in Calc Chloride:	7.2	**Total Clay(%):**	11
Saturated Hydraulic Conductivity(cm/h):	2.565	**Organic Carbon(%):**	2.3
Electrical Conductivity (dS/m):	0		

Layer No:	2	**Very Fine Sand(%):**	18
Horizon:	Ap	**Total Sand(%):**	62
Depth(cm):	19-35	**Total Silt(%):**	33
pH in Calc Chloride:	7.4	**Total Clay(%):**	5

Soil Information

Saturated Hydraulic Conductivity(cm/h):	5.087	**Organic Carbon(%):**	1.5
Electrical Conductivity (dS/m):	0		

Layer No:	3	**Very Fine Sand(%):**	21
Horizon:	Ae	**Total Sand(%):**	63
Depth(cm):	35-55	**Total Silt(%):**	32
pH in Calc Chloride:	7.4	**Total Clay(%):**	5
Saturated Hydraulic Conductivity(cm/h):	4.441	**Organic Carbon(%):**	0.5
Electrical Conductivity (dS/m):	0		

Layer No:	4	**Very Fine Sand(%):**	19
Horizon:	Bt	**Total Sand(%):**	56
Depth(cm):	55-77	**Total Silt(%):**	26
pH in Calc Chloride:	7.1	**Total Clay(%):**	18
Saturated Hydraulic Conductivity(cm/h):	0.856	**Organic Carbon(%):**	0.4
Electrical Conductivity (dS/m):	0		

Layer No:	5	**Very Fine Sand(%):**	20
Horizon:	BC	**Total Sand(%):**	61
Depth(cm):	77-92	**Total Silt(%):**	28
pH in Calc Chloride:	7.3	**Total Clay(%):**	11
Saturated Hydraulic Conductivity(cm/h):	1.805	**Organic Carbon(%):**	0.3
Electrical Conductivity (dS/m):	0		

Layer No:	6	**Very Fine Sand(%):**	22
Horizon:	Ck	**Total Sand(%):**	65
Depth(cm):	92-100	**Total Silt(%):**	30
pH in Calc Chloride:	7.6	**Total Clay(%):**	5
Saturated Hydraulic Conductivity(cm/h):	3.082	**Organic Carbon(%):**	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND401072822

Component

Component ID:	ONDV40107282201	**Components(%):**	70
Soil Name ID:	ONGVISH~~~A	**Slope Steepness(%):**	3.5
Component No:	1	**Slope Length(m):**	-9
Surface Stoniness Class:	Moderately stony		

Soil Information

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	Presence of consolidated bedrock within one metre of the soil surface
Second CLI Limitation Subclass:	
Drainage:	Well
Soil Texture of A Horizon:	medium - moderately fine loam
Hydrological Soil Groups:	Soils with moderate infiltration rates when completely wetted. Soils are sandy loam soils with moderately fine to moderately coarse textures.

Soil Name

Soil Name:	GRENVILLE
Kind of Surface Material:	Mineral
Soil Drainage Class:	Well drained
Water Table Charateristics:	Never
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Medium; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Till (Morainal); Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	**Very Fine Sand(%):**	15
Horizon:	Ap	**Total Sand(%):**	61
Depth(cm):	0-37	**Total Silt(%):**	31
pH in Calc Chloride:	7.2	**Total Clay(%):**	8
Saturated Hydraulic Conductivity(cm/h):	3.765	**Organic Carbon(%):**	2.4
Electrical Conductivity (dS/m):	0		

Layer No:	2	**Very Fine Sand(%):**	15
Horizon:	Bm	**Total Sand(%):**	59
Depth(cm):	37-53	**Total Silt(%):**	33
pH in Calc Chloride:	7.3	**Total Clay(%):**	8
Saturated Hydraulic Conductivity(cm/h):	2.843	**Organic Carbon(%):**	1.1
Electrical Conductivity (dS/m):	0		

Layer No:	3	**Very Fine Sand(%):**	15

Soil Information

Horizon:	CK	**Total Sand(%):**	45
Depth(cm):	53-70	**Total Silt(%):**	48
pH in Calc Chloride:	7.5	**Total Clay(%):**	7
Saturated Hydraulic Conductivity(cm/h):	1.568	**Organic Carbon(%):**	0.6
Electrical Conductivity (dS/m):	0		

Layer No:	4	**Very Fine Sand(%):**	-9
Horizon:	R	**Total Sand(%):**	-9
Depth(cm):	70-100	**Total Silt(%):**	-9
pH in Calc Chloride:	Not applicable	**Total Clay(%):**	-9
Saturated Hydraulic Conductivity(cm/h):	Not applicable	**Organic Carbon(%):**	Not applicable
Electrical Conductivity (dS/m):	Not applicable		

Component

Component ID:	OND40107282202	**Components(%):**	30
Soil Name ID:	ONMTDSH~~~A	**Slope Steepness(%):**	1.2
Component No:	2	**Slope Length(m):**	-9
Surface Stoniness Class:	Moderately stony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	Presence of consolidated bedrock within one metre of the soil surface
Second CLI Limitation Subclass:	
Drainage:	Imperfectly
Soil Texture of A Horizon:	medium - moderately fine loam
Hydrological Soil Groups:	Soils with moderate infiltration rates when completely wetted. Soils are sandy loam soils with moderately fine to moderately coarse textures.

Soil Name

Soil Name:	MATILDA
Kind of Surface Material:	Mineral
Soil Drainage Class:	Imperfectly drained
Water Table Charateristics:	Always
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Medium; Not Applicable; Not Applicable

Soil Information

Mode of Deposition 1,2,3:	Till (Morainal); Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	**Very Fine Sand(%):**	15
Horizon:	Ap	**Total Sand(%):**	41
Depth(cm):	0-17	**Total Silt(%):**	38
pH in Calc Chloride:	6.5	**Total Clay(%):**	21
Saturated Hydraulic Conductivity(cm/h):	0.88	**Organic Carbon(%):**	3.3
Electrical Conductivity (dS/m):	0		

Layer No:	2	**Very Fine Sand(%):**	10
Horizon:	Bmg	**Total Sand(%):**	29
Depth(cm):	17-38	**Total Silt(%):**	43
pH in Calc Chloride:	6.8	**Total Clay(%):**	28
Saturated Hydraulic Conductivity(cm/h):	0.341	**Organic Carbon(%):**	0.8
Electrical Conductivity (dS/m):	0		

Layer No:	3	**Very Fine Sand(%):**	11
Horizon:	BCg	**Total Sand(%):**	39
Depth(cm):	38-50	**Total Silt(%):**	38
pH in Calc Chloride:	7	**Total Clay(%):**	23
Saturated Hydraulic Conductivity(cm/h):	0.407	**Organic Carbon(%):**	1.5
Electrical Conductivity (dS/m):	0		

Layer No:	4	**Very Fine Sand(%):**	-9
Horizon:	R	**Total Sand(%):**	-9
Depth(cm):	50-100	**Total Silt(%):**	-9
pH in Calc Chloride:	Not applicable	**Total Clay(%):**	-9
Saturated Hydraulic Conductivity(cm/h):	Not applicable	**Organic Carbon(%):**	Not applicable
Electrical Conductivity (dS/m):	Not applicable		

Polygon ID: OND401072223

Component

Component ID:	ONDD40107222301	**Components(%):**	70
Soil Name ID:	ONGVI~~~~~A	**Slope Steepness(%):**	1.2
Component No:	1	**Slope Length(m):**	-9

Soil Information

Surface Stoniness Class:	Moderately stony

Component Rating

Field Crops Capability:	moderate limitations on use for crops
First CLI Limitation Subclass:	Presence of surface stones > 15 cm diameter.
Second CLI Limitation Subclass:	
Drainage:	Well
Soil Texture of A Horizon:	medium - moderately fine loam
Hydrological Soil Groups:	Soils with moderate infiltration rates when completely wetted. Soils are sandy loam soils with moderately fine to moderately coarse textures.

Soil Name

Soil Name:	GRENVILLE
Kind of Surface Material:	Mineral
Soil Drainage Class:	Well drained
Water Table Charateristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Medium; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Till (Morainal); Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	**Very Fine Sand(%):**	18
Horizon:	Ap	**Total Sand(%):**	59
Depth(cm):	0-19	**Total Silt(%):**	30
pH in Calc Chloride:	7.2	**Total Clay(%):**	11
Saturated Hydraulic Conductivity(cm/h):	2.565	**Organic Carbon(%):**	2.3
Electrical Conductivity (dS/m):	0		

Layer No:	2	**Very Fine Sand(%):**	18
Horizon:	Ap	**Total Sand(%):**	62
Depth(cm):	19-35	**Total Silt(%):**	33
pH in Calc Chloride:	7.4	**Total Clay(%):**	5
Saturated Hydraulic Conductivity(cm/h):	5.087	**Organic Carbon(%):**	1.5
Electrical Conductivity	0		

Soil Information

(dS/m):

Layer No:	3	**Very Fine Sand(%):**	21
Horizon:	Ae	**Total Sand(%):**	63
Depth(cm):	35-55	**Total Silt(%):**	32
pH in Calc Chloride:	7.4	**Total Clay(%):**	5
Saturated Hydraulic Conductivity(cm/h):	4.441	**Organic Carbon(%):**	0.5
Electrical Conductivity (dS/m):	0		

Layer No:	4	**Very Fine Sand(%):**	19
Horizon:	Bt	**Total Sand(%):**	56
Depth(cm):	55-77	**Total Silt(%):**	26
pH in Calc Chloride:	7.1	**Total Clay(%):**	18
Saturated Hydraulic Conductivity(cm/h):	0.856	**Organic Carbon(%):**	0.4
Electrical Conductivity (dS/m):	0		

Layer No:	5	**Very Fine Sand(%):**	20
Horizon:	BC	**Total Sand(%):**	61
Depth(cm):	77-92	**Total Silt(%):**	28
pH in Calc Chloride:	7.3	**Total Clay(%):**	11
Saturated Hydraulic Conductivity(cm/h):	1.805	**Organic Carbon(%):**	0.3
Electrical Conductivity (dS/m):	0		

Layer No:	6	**Very Fine Sand(%):**	22
Horizon:	Ck	**Total Sand(%):**	65
Depth(cm):	92-100	**Total Silt(%):**	30
pH in Calc Chloride:	7.6	**Total Clay(%):**	5
Saturated Hydraulic Conductivity(cm/h):	3.082	**Organic Carbon(%):**	0
Electrical Conductivity (dS/m):	0		

Component

Component ID:	OND40107222302	**Components(%):**	30
Soil Name ID:	ONNGW~~~~~A	**Slope Steepness(%):**	1.2
Component No:	2	**Slope Length(m):**	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability: moderate limitations on use for crops

Soil Information

First CLI Limitation Subclass:	
Second CLI Limitation Subclass:	
Drainage:	Poorly
Soil Texture of A Horizon:	silt loam
Hydrological Soil Groups:	Soils have a high runoff potential and very slow infiltration rate when thoroughly wetted. Soils include clay soils with high swelling potential, soils in a permanent high water table and shallow soils over nearly impervious material.

Soil Name

Soil Name:	NORTH GOWER
Kind of Surface Material:	Mineral
Soil Drainage Class:	Poorly drained
Water Table Charateristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Marine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	**Very Fine Sand(%):**	9
Horizon:	Ap	**Total Sand(%):**	43
Depth(cm):	0-25	**Total Silt(%):**	41
pH in Calc Chloride:	7.3	**Total Clay(%):**	16
Saturated Hydraulic Conductivity(cm/h):	1.375	**Organic Carbon(%):**	3.9
Electrical Conductivity (dS/m):	0		

Layer No:	2	**Very Fine Sand(%):**	9
Horizon:	Bgj	**Total Sand(%):**	45
Depth(cm):	25-37	**Total Silt(%):**	40
pH in Calc Chloride:	7.4	**Total Clay(%):**	15
Saturated Hydraulic Conductivity(cm/h):	0.752	**Organic Carbon(%):**	3.3
Electrical Conductivity (dS/m):	0		

Layer No:	3	**Very Fine Sand(%):**	5
Horizon:	Cg	**Total Sand(%):**	20
Depth(cm):	37-100	**Total Silt(%):**	63
pH in Calc Chloride:	7.3	**Total Clay(%):**	17

Soil Information

Saturated Hydraulic Conductivity(cm/h):	0.29	**Organic Carbon(%):**	0.5
Electrical Conductivity (dS/m):	0		

Polygon ID: OND401072221

Component

Component ID:	OND40107222101	**Components(%):**	100
Soil Name ID:	ONNGW~~~~~A	**Slope Steepness(%):**	1.2
Component No:	1	**Slope Length(m):**	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderate limitations on use for crops
First CLI Limitation Subclass:	
Second CLI Limitation Subclass:	
Drainage:	Poorly
Soil Texture of A Horizon:	silt loam
Hydrological Soil Groups:	Soils have a high runoff potential and very slow infiltration rate when thoroughly wetted. Soils include clay soils with high swelling potential, soils in a permanent high water table and shallow soils over nearly impervious material.

Soil Name

Soil Name:	NORTH GOWER
Kind of Surface Material:	Mineral
Soil Drainage Class:	Poorly drained
Water Table Charateristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Marine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	**Very Fine Sand(%):**	9

Soil Information

Horizon:	Ap	**Total Sand(%):**	43
Depth(cm):	0-25	**Total Silt(%):**	41
pH in Calc Chloride:	7.3	**Total Clay(%):**	16
Saturated Hydraulic Conductivity(cm/h):	1.375	**Organic Carbon(%):**	3.9
Electrical Conductivity (dS/m):	0		

Layer No:	2	**Very Fine Sand(%):**	9
Horizon:	Bgj	**Total Sand(%):**	45
Depth(cm):	25-37	**Total Silt(%):**	40
pH in Calc Chloride:	7.4	**Total Clay(%):**	15
Saturated Hydraulic Conductivity(cm/h):	0.752	**Organic Carbon(%):**	3.3
Electrical Conductivity (dS/m):	0		

Layer No:	3	**Very Fine Sand(%):**	5
Horizon:	Cg	**Total Sand(%):**	20
Depth(cm):	37-100	**Total Silt(%):**	63
pH in Calc Chloride:	7.3	**Total Clay(%):**	17
Saturated Hydraulic Conductivity(cm/h):	0.29	**Organic Carbon(%):**	0.5
Electrical Conductivity (dS/m):	0		

Polygon ID: ONDA01072219

Component

Component ID:	ONDA0107221901	**Components(%):**	100
Soil Name ID:	ONZUN~~~~~N	**Slope Steepness(%):**	Unknown or Not applicable
Component No:	1	**Slope Length(m):**	-9
Surface Stoniness Class:	Not Applicable		

Component Rating

Field Crops Capability:	
First CLI Limitation Subclass:	
Second CLI Limitation Subclass:	
Drainage:	Not Applicable
Soil Texture of A Horizon:	
Hydrological Soil Groups:	

Soil Information

Soil Name

Soil Name:	UNCLASSIFIED
Kind of Surface Material:	Unclassified
Soil Drainage Class:	Not applicable
Water Table Charateristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Not Applicable; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Not Applicable; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Not Applicable; Not Applicable; Not Applicable

Polygon ID: ONDA01072153

Component

Component ID:	ONDA0107215301	**Components(%):**	100
Soil Name ID:	ONZUN~~~~~N	**Slope Steepness(%):**	Unknown or Not applicable
Component No:	1	**Slope Length(m):**	-9
Surface Stoniness Class:	Not Applicable		

Component Rating

Field Crops Capability:	
First CLI Limitation Subclass:	
Second CLI Limitation Subclass:	
Drainage:	Not Applicable
Soil Texture of A Horizon:	
Hydrological Soil Groups:	

Soil Name

Soil Name:	UNCLASSIFIED
Kind of Surface Material:	Unclassified
Soil Drainage Class:	Not applicable
Water Table Charateristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a

Soil Information

Parent Material 1, 2, 3:	Not Applicable; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Not Applicable; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Not Applicable; Not Applicable; Not Applicable

Polygon ID: ONDA401072186

Component

Component ID:	ONDA40107218601	**Components(%):**	70
Soil Name ID:	ONGVISH~~~A	**Slope Steepness(%):**	1.2
Component No:	1	**Slope Length(m):**	-9
Surface Stoniness Class:	Moderately stony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	Presence of consolidated bedrock within one metre of the soil surface
Second CLI Limitation Subclass:	
Drainage:	Well
Soil Texture of A Horizon:	medium - moderately fine loam
Hydrological Soil Groups:	Soils with moderate infiltration rates when completely wetted. Soils are sandy loam soils with moderately fine to moderately coarse textures.

Soil Name

Soil Name:	GRENVILLE
Kind of Surface Material:	Mineral
Soil Drainage Class:	Well drained
Water Table Charateristics:	Never
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Medium; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Till (Morainal); Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	**Very Fine Sand(%):**	15

Soil Information

Horizon:	Ap	**Total Sand(%):**	61
Depth(cm):	0-37	**Total Silt(%):**	31
pH in Calc Chloride:	7.2	**Total Clay(%):**	8
Saturated Hydraulic Conductivity(cm/h):	3.765	**Organic Carbon(%):**	2.4
Electrical Conductivity (dS/m):	0		

Layer No:	2	**Very Fine Sand(%):**	15
Horizon:	Bm	**Total Sand(%):**	59
Depth(cm):	37-53	**Total Silt(%):**	33
pH in Calc Chloride:	7.3	**Total Clay(%):**	8
Saturated Hydraulic Conductivity(cm/h):	2.843	**Organic Carbon(%):**	1.1
Electrical Conductivity (dS/m):	0		

Layer No:	3	**Very Fine Sand(%):**	15
Horizon:	CK	**Total Sand(%):**	45
Depth(cm):	53-70	**Total Silt(%):**	48
pH in Calc Chloride:	7.5	**Total Clay(%):**	7
Saturated Hydraulic Conductivity(cm/h):	1.568	**Organic Carbon(%):**	0.6
Electrical Conductivity (dS/m):	0		

Layer No:	4	**Very Fine Sand(%):**	-9
Horizon:	R	**Total Sand(%):**	-9
Depth(cm):	70-100	**Total Silt(%):**	-9
pH in Calc Chloride:	Not applicable	**Total Clay(%):**	-9
Saturated Hydraulic Conductivity(cm/h):	Not applicable	**Organic Carbon(%):**	Not applicable
Electrical Conductivity (dS/m):	Not applicable		

Component

Component ID:	OND40107218602	**Components(%):**	30
Soil Name ID:	ONQWYSH~~~A	**Slope Steepness(%):**	3.5
Component No:	2	**Slope Length(m):**	-9
Surface Stoniness Class:	Slightly stony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	Presence of consolidated bedrock within one metre of the soil surface
Second CLI Limitation Subclass:	

Soil Information

Drainage:	Well
Soil Texture of A Horizon:	moderately coarse sandy loam
Hydrological Soil Groups:	Soils with moderate infiltration rates when completely wetted. Soils are sandy loam soils with moderately fine to moderately coarse textures.

Soil Name

Soil Name:	QUEENSWAY
Kind of Surface Material:	Mineral
Soil Drainage Class:	Well drained
Water Table Charateristics:	Never
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Fragmental; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Till (Morainal); Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Medium Acid to Neutral; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	**Very Fine Sand(%):**	15
Horizon:	Ap	**Total Sand(%):**	61
Depth(cm):	0-37	**Total Silt(%):**	31
pH in Calc Chloride:	7.2	**Total Clay(%):**	8
Saturated Hydraulic Conductivity(cm/h):	3.765	**Organic Carbon(%):**	2.4
Electrical Conductivity (dS/m):	0		

Layer No:	2	**Very Fine Sand(%):**	15
Horizon:	Bm	**Total Sand(%):**	59
Depth(cm):	37-53	**Total Silt(%):**	33
pH in Calc Chloride:	7.3	**Total Clay(%):**	8
Saturated Hydraulic Conductivity(cm/h):	2.843	**Organic Carbon(%):**	1.1
Electrical Conductivity (dS/m):	0		

Layer No:	3	**Very Fine Sand(%):**	15
Horizon:	CK	**Total Sand(%):**	46
Depth(cm):	53-70	**Total Silt(%):**	47
pH in Calc Chloride:	7.5	**Total Clay(%):**	7
Saturated Hydraulic Conductivity(cm/h):	1.568	**Organic Carbon(%):**	0.6
Electrical Conductivity (dS/m):	0		

Soil Information

Layer No:	4	**Very Fine Sand(%):**	-9
Horizon:	R	**Total Sand(%):**	-9
Depth(cm):	70-100	**Total Silt(%):**	-9
pH in Calc Chloride:	Not applicable	**Total Clay(%):**	-9
Saturated Hydraulic Conductivity(cm/h):	Not applicable	**Organic Carbon(%):**	Not applicable
Electrical Conductivity (dS/m):	Not applicable		

Polygon ID: OND401072235

Component

Component ID:	OND40107223501	**Components(%):**	100
Soil Name ID:	ONCEGM~~~~A	**Slope Steepness(%):**	1.2
Component No:	1	**Slope Length(m):**	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	No significant limitations in use for Crops
First CLI Limitation Subclass:	
Second CLI Limitation Subclass:	
Drainage:	Imperfectly
Soil Texture of A Horizon:	silt loam
Hydrological Soil Groups:	Soils with moderate infiltration rates when completely wetted. Soils are sandy loam soils with moderately fine to moderately coarse textures.

Soil Name

Soil Name:	CHATEAUGUAY
Kind of Surface Material:	Mineral
Soil Drainage Class:	Imperfectly drained
Water Table Charateristics:	Non growing season
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Medium; Fine; Not Applicable
Mode of Deposition 1,2,3:	Glaciofluvial; Till (Morainal); Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Medium Acid to Neutral; Not Applicable

Soil Information

Soil Layer

Layer No:	1	**Very Fine Sand(%):**	8
Horizon:	Ah	**Total Sand(%):**	17
Depth(cm):	0-28	**Total Silt(%):**	48
pH in Calc Chloride:	6.8	**Total Clay(%):**	35
Saturated Hydraulic Conductivity(cm/h):	0.404	**Organic Carbon(%):**	2.8
Electrical Conductivity (dS/m):	0		

Layer No:	2	**Very Fine Sand(%):**	5
Horizon:	Bm	**Total Sand(%):**	20
Depth(cm):	28-45	**Total Silt(%):**	55
pH in Calc Chloride:	6.3	**Total Clay(%):**	25
Saturated Hydraulic Conductivity(cm/h):	0.293	**Organic Carbon(%):**	1.9
Electrical Conductivity (dS/m):	0		

Layer No:	3	**Very Fine Sand(%):**	0
Horizon:	Ae	**Total Sand(%):**	19
Depth(cm):	45-56	**Total Silt(%):**	64
pH in Calc Chloride:	6	**Total Clay(%):**	17
Saturated Hydraulic Conductivity(cm/h):	0.306	**Organic Carbon(%):**	4.2
Electrical Conductivity (dS/m):	0		

Layer No:	4	**Very Fine Sand(%):**	6
Horizon:	Btj	**Total Sand(%):**	21
Depth(cm):	56-69	**Total Silt(%):**	69
pH in Calc Chloride:	6	**Total Clay(%):**	10
Saturated Hydraulic Conductivity(cm/h):	0.504	**Organic Carbon(%):**	1.6
Electrical Conductivity (dS/m):	0		

Layer No:	5	**Very Fine Sand(%):**	5
Horizon:	BCg	**Total Sand(%):**	16
Depth(cm):	69-85	**Total Silt(%):**	64
pH in Calc Chloride:	6.9	**Total Clay(%):**	20
Saturated Hydraulic Conductivity(cm/h):	0.248	**Organic Carbon(%):**	0.7
Electrical Conductivity (dS/m):	0		

Layer No:	6	**Very Fine Sand(%):**	6
Horizon:	Cg	**Total Sand(%):**	10
Depth(cm):	85-100	**Total Silt(%):**	77
pH in Calc Chloride:	7.4	**Total Clay(%):**	13
Saturated Hydraulic	0.237	**Organic Carbon(%):**	0.1

Soil Information

Conductivity(cm/h):	
Electrical Conductivity (dS/m):	0

Polygon ID: ONDA01072824

Component

Component ID:	ONDA0107282401	**Components(%):**	100
Soil Name ID:	ONBDO~~~~~A	**Slope Steepness(%):**	1.2
Component No:	1	**Slope Length(m):**	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	
Second CLI Limitation Subclass:	
Drainage:	Poorly
Soil Texture of A Horizon:	
Hydrological Soil Groups:	Soils have a high runoff potential and very slow infiltration rate when thoroughly wetted. Soils include clay soils with high swelling potential, soils in a permanent high water table and shallow soils over nearly impervious material.

Soil Name

Soil Name:	BRANDON
Kind of Surface Material:	Mineral
Soil Drainage Class:	Poorly drained
Water Table Charateristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Moderately Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Marine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Medium Acid to Neutral; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	**Very Fine Sand(%):**	11
Horizon:	Apg	**Total Sand(%):**	14

Soil Information

Depth(cm):	0-12	**Total Silt(%):**	52
pH in Calc Chloride:	5.7	**Total Clay(%):**	34
Saturated Hydraulic Conductivity(cm/h):	0.223	**Organic Carbon(%):**	2.1
Electrical Conductivity (dS/m):	0		

Layer No:	2	**Very Fine Sand(%):**	7
Horizon:	Bg	**Total Sand(%):**	11
Depth(cm):	12-38	**Total Silt(%):**	46
pH in Calc Chloride:	6.6	**Total Clay(%):**	43
Saturated Hydraulic Conductivity(cm/h):	0.211	**Organic Carbon(%):**	0.5
Electrical Conductivity (dS/m):	0		

Layer No:	3	**Very Fine Sand(%):**	7
Horizon:	Bg	**Total Sand(%):**	11
Depth(cm):	38-70	**Total Silt(%):**	47
pH in Calc Chloride:	6.9	**Total Clay(%):**	42
Saturated Hydraulic Conductivity(cm/h):	0.211	**Organic Carbon(%):**	0.2
Electrical Conductivity (dS/m):	0		

Layer No:	4	**Very Fine Sand(%):**	0
Horizon:	Cg	**Total Sand(%):**	8
Depth(cm):	70-105	**Total Silt(%):**	45
pH in Calc Chloride:	7.1	**Total Clay(%):**	47
Saturated Hydraulic Conductivity(cm/h):	0.197	**Organic Carbon(%):**	0.2
Electrical Conductivity (dS/m):	0		

Polygon ID: ONDA01072198

Component

Component ID:	ONDA0107219801	**Components(%):**	70
Soil Name ID:	ONFRM~~~~~N	**Slope Steepness(%):**	1.2
Component No:	1	**Slope Length(m):**	-9
Surface Stoniness Class:	Moderately stony		

Component Rating

Field Crops Capability:	Natural grazing only; no improvements feasible.
First CLI Limitation Subclass:	Presence of consolidated bedrock within one metre of the soil surface
Second CLI Limitation	

Soil Information

Subclass:	
Drainage:	Well
Soil Texture of A Horizon:	medium - moderately fine loam
Hydrological Soil Groups:	Soils with moderate infiltration rates when completely wetted. Soils are sandy loam soils with moderately fine to moderately coarse textures.

Soil Name

Soil Name:	FARMINGTON
Kind of Surface Material:	Mineral
Soil Drainage Class:	Well drained
Water Table Charateristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Fragmental; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Till (Morainal); Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	**Very Fine Sand(%):**	19
Horizon:	Ah	**Total Sand(%):**	44
Depth(cm):	0-21	**Total Silt(%):**	44
pH in Calc Chloride:	7.2	**Total Clay(%):**	12
Saturated Hydraulic Conductivity(cm/h):	1.969	**Organic Carbon(%):**	3.7
Electrical Conductivity (dS/m):	0		

Layer No:	2	**Very Fine Sand(%):**	13
Horizon:	Bm	**Total Sand(%):**	49
Depth(cm):	21-38	**Total Silt(%):**	45
pH in Calc Chloride:	7.1	**Total Clay(%):**	6
Saturated Hydraulic Conductivity(cm/h):	3.014	**Organic Carbon(%):**	3.1
Electrical Conductivity (dS/m):	0		

Layer No:	3	**Very Fine Sand(%):**	19
Horizon:	C	**Total Sand(%):**	57
Depth(cm):	38-50	**Total Silt(%):**	36
pH in Calc Chloride:	7	**Total Clay(%):**	7
Saturated Hydraulic Conductivity(cm/h):	1.979	**Organic Carbon(%):**	1.3
Electrical Conductivity (dS/m):	0		

Soil Information

Layer No:	4	**Very Fine Sand(%):**	-9
Horizon:	R	**Total Sand(%):**	-9
Depth(cm):	50-100	**Total Silt(%):**	-9
pH in Calc Chloride:	Not applicable	**Total Clay(%):**	-9
Saturated Hydraulic Conductivity(cm/h):	Not applicable	**Organic Carbon(%):**	Not applicable
Electrical Conductivity (dS/m):	Not applicable		

Component

Component ID:	OND40107219802	**Components(%):**	30
Soil Name ID:	ONZUN~~~~~N	**Slope Steepness(%):**	1.2
Component No:	2	**Slope Length(m):**	-9
Surface Stoniness Class:	Moderately stony		

Component Rating

Field Crops Capability:	Natural grazing only; no improvements feasible.
First CLI Limitation Subclass:	Presence of consolidated bedrock within one metre of the soil surface
Second CLI Limitation Subclass:	
Drainage:	Imperfectly
Soil Texture of A Horizon:	medium - moderately fine loam
Hydrological Soil Groups:	Soils with moderate infiltration rates when completely wetted. Soils are sandy loam soils with moderately fine to moderately coarse textures.

Soil Name

Soil Name:	UNCLASSIFIED
Kind of Surface Material:	Unclassified
Soil Drainage Class:	Not applicable
Water Table Charateristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Not Applicable; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Not Applicable; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Not Applicable; Not Applicable; Not Applicable

Polygon ID: OND401072181

Soil Information

Component

Component ID:	OND40107218101	**Components(%):**	100
Soil Name ID:	ONNGW~~~~~A	**Slope Steepness(%):**	1.2
Component No:	1	**Slope Length(m):**	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderate limitations on use for crops
First CLI Limitation Subclass:	
Second CLI Limitation Subclass:	
Drainage:	Poorly
Soil Texture of A Horizon:	silt loam
Hydrological Soil Groups:	Soils have a high runoff potential and very slow infiltration rate when thoroughly wetted. Soils include clay soils with high swelling potential, soils in a permanent high water table and shallow soils over nearly impervious material.

Soil Name

Soil Name:	NORTH GOWER
Kind of Surface Material:	Mineral
Soil Drainage Class:	Poorly drained
Water Table Charateristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Marine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	**Very Fine Sand(%):**	9
Horizon:	Ap	**Total Sand(%):**	43
Depth(cm):	0-25	**Total Silt(%):**	41
pH in Calc Chloride:	7.3	**Total Clay(%):**	16
Saturated Hydraulic Conductivity(cm/h):	1.375	**Organic Carbon(%):**	3.9
Electrical Conductivity (dS/m):	0		

Soil Information

Layer No:	2	**Very Fine Sand(%):**	9
Horizon:	Bgj	**Total Sand(%):**	45
Depth(cm):	25-37	**Total Silt(%):**	40
pH in Calc Chloride:	7.4	**Total Clay(%):**	15
Saturated Hydraulic Conductivity(cm/h):	0.752	**Organic Carbon(%):**	3.3
Electrical Conductivity (dS/m):	0		

Layer No:	3	**Very Fine Sand(%):**	5
Horizon:	Cg	**Total Sand(%):**	20
Depth(cm):	37-100	**Total Silt(%):**	63
pH in Calc Chloride:	7.3	**Total Clay(%):**	17
Saturated Hydraulic Conductivity(cm/h):	0.29	**Organic Carbon(%):**	0.5
Electrical Conductivity (dS/m):	0		

Wells and Additional Sources

Wells & Additional Sources

KM
0 0.05 0.1 0.2

N

- Project Property
- Buffer
- Buffer
- Buffer
- Buffer
- Buffer
- Sites with Higher Elevation
- Sites with Same Elevation
- Sites with Lower Elevation
- Sites with Unknown Elevation

ERIS

Wells and Additional Sources Summary

Federal Sources

National Energy Board Wells

Map Key	ID	Distance (m)	Direction
	No records found		

Provincial Sources

Ontario Oil and Gas Wells

Map Key	ID	Distance (m)	Direction
	No records found		

Provincial Groundwater Monitoring Network

Map Key	ID	Distance (m)	Direction
	No records found		

Water Well Information System

Map Key	Well ID	Distance (m)	Direction
1	1535406	136.95	S

Private Sources

Oil and Gas Wells

Map Key	ID	Distance (m)	Direction
	No records found		

Water Well Information System

Map Key	Direction	Distance (km)	Distance (m)	Elevation (m)	DB
1	S	0.14	136.95	100.88	WWIS

Well ID:	1535406	Data Entry Status:	
Construction Date:		Data Src:	
Primary Water Use:		Date Received:	3/23/2005
Sec. Water Use:		Selected Flag:	True
Final Well Status:	Observation Wells	Abandonment Rec:	
Water Type:		Contractor:	1844
Casing Material:		Form Version:	3
Audit No:	Z27107	Owner:	
Tag:	A020615	Street Name:	FALLOWFIELD RD
Construction Method:		County:	OTTAWA
Elevation (m):		Municipality:	NEPEAN TOWNSHIP
Elevation Reliability:		Site Info:	
Depth to Bedrock:		Lot:	
Well Depth:		Concession:	
Overburden/Bedrock:		Concession Name:	
Pump Rate:		Easting NAD83:	
Static Water Level:		Northing NAD83:	
Flowing (Y/N):		Zone:	
Flow Rate:		UTM Reliability:	
Clear/Cloudy:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/153\1535406.pdf

Well Completed Date:	2005/03/05
Year Completed:	2005
Depth (m):	6
Latitude:	45.2728735392024
Longitude:	-75.7881155149896
Path:	153\1535406.pdf

Bore Hole ID:	11315945	Elevation:	101.941482
DP2BR:		Elevrc:	
Spatial Status:		Zone:	18
Code OB:	o	East83:	438180.00
Code OB Desc:	Overburden	North83:	5013566.00
Open Hole:		Org CS:	UTM83
Cluster Kind:		UTMRC:	4
Date Completed:	05-Mar-2005 00:00:00	UTMRC Desc:	margin of error : 30 m - 100 m
Remarks:		Location Method:	wwr

Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Formation ID:	932996251
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	06
Most Common Material:	SILT
Mat2:	81
Mat2 Desc:	SANDY
Mat3:	
Mat3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	
Formation End Depth UOM:	m

Formation ID:	932996253
Layer:	3
Color:	
General Color:	
Mat1:	13
Most Common Material:	BOULDERS
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	
Formation End Depth:	6.0
Formation End Depth UOM:	m

Formation ID:	932996252
Layer:	2
Color:	2
General Color:	GREY
Mat1:	06
Most Common Material:	SILT
Mat2:	61

Mat2 Desc:	CLAYEY
Mat3:	
Mat3 Desc:	
Formation Top Depth:	
Formation End Depth:	
Formation End Depth UOM:	m

Plug ID:	933266318
Layer:	1
Plug From:	0
Plug To:	1
Plug Depth UOM:	m

Method Construction ID:	961535406
Method Construction Code:	B
Method Construction:	Other Method
Other Method Construction:	

Pipe ID:	11330800
Casing No:	1
Comment:	
Alt Name:	

Casing ID:	930855170
Layer:	1
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	0
Depth To:	1.25
Casing Diameter:	5
Casing Diameter UOM:	cm
Casing Depth UOM:	m

Screen ID:	933412084
Layer:	1
Slot:	#10
Screen Top Depth:	1.25
Screen End Depth:	6
Screen Material:	
Screen Depth UOM:	m
Screen Diameter UOM:	cm

Screen Diameter:	6.5

Hole ID:	11533421
Diameter:	21.0
Depth From:	0.0
Depth To:	6.0
Hole Depth UOM:	m
Hole Diameter UOM:	cm

Radon Information

Detailed radon information for the project property is provided below.

Radon Zone Information

ID:	144850	**Radon Rank:**	HIGH

Health Canada Radon Information

Health Region:	3551
Health Region Name:	City of Ottawa Health Unit
Province or Territory:	ON
Number Homes in Survey:	64
% Below 200 Bq/m3:	93.8
% Above 200 Bq/m3:	6.2
200 to 600 Bq/m3:	6.2
% Above 600 Bq/m3:	0

Area of Natural and Scientific Interest Information

There is no ANSI unit available in this area.

Area of Natural and Scientific Interest Information

Detailed ANSI information is provided below.

No records found for the project property or surrounding properties.

Appendix

Federal Sources

Bedrock Geology of Canada — **BEDROCK GEOLOGY**

The Geological Map of Canada is scaled at 1:5,000,000. This map is created by Geological Survey of Canada and published by Natural Resources Canada.

Health Canada Radon Information — **RADON**

This source is the results from the Cross-Canada Survey of Radon Concentrations in Homes, a two-year study conducted by Health Canada's National Radon Program. The aims of this study were to obtain an estimate of the proportion of the Canadian population living in homes with radon gas levels above the guideline of 200 Bq/m3, to identify previously unknown areas where radon gas exposure may constitute a health risk, and to build, over time, a map of indoor radon gas exposure levels across Canada.

National Energy Board Wells — **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.

Soil Landscapes of Canada (SLC) — **SLC**

Major characteristics of soil and land such as surface form, slope, water table depth, permafrost and lakes.

Surficial Geology of Canada — **SURFICIAL GEOLOGY**

This map contains information on surficial materials and associated landforms left by the retreat of the last glaciers and non glacial environments. It is based on compilation of existing maps. This data was authored by the Geological Survey of Canada and published by Natural Resources Canada.

Toporama — **TOPORAMA**

Toporama covers the entire area of Canada's landmass and provides topographic, geo-referenced, and symbolic information in a raster format at 1:50,000 scale. This is a digital topographic reference product made available by Natural Resources Canada (NRCan).

Provincial Sources

Area of Natural and Scientific Interest — **ANSI**

Areas of Natural and Scientific Interest (ANSIs) are lands and waters with features that are important for natural heritage protection, appreciation, scientific study or education. This dataset is made available by Ontario Ministry of Natural Resources.

Bedrock Geology of Ontario — **BEDROCK GEOLOGY**

The Bedrock Geology layer shows the distribution of bedrock units underlying Ontario at a 1:250,000 scale. The geology of the province consists of Precambrian rocks of the Canadian Shield and Phanerozoic sedimentary rocks that overlie the Canadian Shield. This layer was compiled by the Precambrian Geoscience Section of Ontario Geological Survey.

Ontario Detailed Soil Survey (DSS3) — **SOIL SURVEY**

Soil surveys have been published for most of the agricultural areas, and many surrounding areas, across Canada. Data from these surveys comprise the most detailed soil inventory information in the National Soil DataBase. Data is made available by Agriculture and Agri-Food Canada

Ontario Oil and Gas Wells — **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.

Provincial Groundwater Monitoring Network — **GROUNDWATER**

Appendix

Groundwater level and chemistry data from monitoring wells that are part of the Provincial Groundwater Monitoring Network (PGMN) Program. Precipitation data (rain) is also available for some sites. This data is provided by 'Ontario Ministry of Environment and Climate Change.

Surficial Geology of Ontario — **SURFICIAL GEOLOGY**

The Surficial Geology dataset contains a layer depicting the distribution and characteristics of surficial deposits across southern Ontario. This data set is authored by the Ontario Geological Survey.

Topographic Map of Ontario — **TOPOGRAPHIC MAP**

The Ontario Basic Mapping program provides a relationship between topographic information and the provincial geographical referencing grid, thereby forming the foundation for a comprehensive provincial geographical referencing system. This data is made available by the Ontario Ministry of Natural Resources and Forestry. This is ERIS self-designed topographic map template at 1:10,000.

Water Well Information System — **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.

Wetlands of Ontario — **WETLAND**

The Ministry of Natural Resources and Forestry has made available a database of wetlands in Ontario. Certain attributes identify wetlands that have been evaluated with the Ontario Wetland Evaluation System (OWES), and of those which ones have been designated as Provincially Significant Wetlands (PSW).

Private Sources

Oil and Gas Wells — **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.

Radon Zone Information — **RADON**

The Radon Potential Map is developed by Radon Environmental Management Corporation. Its objective was to illustrate the relative variation of radon risk across the country, and in 2011 it published its first geologic Radon Potential Map of Canada.

Liability Notice

Reliance on information in Report: The Physical Setting Report (PSR) DOES NOT replace a full Phase I Environmental Site Assessment but is solely intended to be used as a review of environmental databases and physical characteristics for the site or adjacent properties.

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APPENDIX G

CURRICULUM VITAE 2021

Phase I Environmental Site Assessment

135 Lusk Street

Ottawa, Ontario

KS1076

Bruce Cochrane, B.Sc., P.Geo
Principal Consultant
Bruce@cm3environmental.com
613.979.2093 (mobile)

EDUCATION

- B.Sc. Geology, Saint Mary's University Halifax, Nova Scotia 1988

YEARS OF EXPERIENCE

- 30 years of experience
- 10 years with CM3

TRAINING

- Bioremediation: Feasibility, Design and Applications, International Network for Environmental Training, San Diego, September 10-11, 1993
- Bioventing; Principles, Applications and Case Studies, International Network for Environmental Training, San Diego, April 28-29, 1995
- LPST Corrective Action Project Manager, Texas Natural Resource Conservation Commission, San Antonio, December 8, 1995

HEALTH AND SAFETY TRAINING

- OSHA 40 Hour Training for Hazardous Waste, Groundwater Technology, Orlando, November 16, 1990
- First Aid, CPR, WHMIS, TDG, Petroleum Oriented Safety Training

PROFESSIONAL AFFILIATIONS

- Professional Geologist, Associations of Professional Geoscientists of Ontario, Toronto, March 19, 2003

CERTIFICATION

- Environmental Professional, Environmental Careers Organization of Canada, Calgary, December 28, 2011

LANGUAGES

- English

ROLE

- Overall Project Management and QA/QC oversight of all project deliverables,
- Health and Safety
- Providing expert technical guidance and expertise to field staff including subcontractors
- Senior Review, Budget Control

EXPERTISE

- Phase I & II Environmental Site Assessments
- Remedial Option Evaluation
- Remediation Design and Project Oversight / Management
- Environmental Assessments in support of Site Control Plans and Demolition Control Permits
- Litigative Support as Expert Witness
- Hydrogeological Investigation

RELEVANT INDUSTRY EXPERIENCE

- Insurance
- Real Estate
- Federal, Provincial and Municipal Government
- Property Management
- Health Care Facilities
- Educational Facilities

PROFESSIONAL PROFILE

Mr. Cochrane is a principal consultant with 30 years of experience in the environmental consulting industry. He has designed and implemented Phase I and II Environmental Site Assessments and remediation projects for contaminated sites in the Ottawa area since 1994 (26 years).

Experienced with chemical oxidation, ex situ and in situ bioremediation techniques, bioslurping or dual phase extraction, free product recovery, pump and treat, bioventing, soil vapour extraction, air sparging and intrinsic remediation or natural attenuation.

Bruce Cochrane, B.Sc., P.Geo
Principal Consultant
Bruce@cm3environmental.com
613.979.2093 (mobile)

PROJECT EXPERIENCE

Phase I/II ESA Project Experience

Mr. Cochrane has managed and completed field work for environmental site assessments since 1991. This work has been completed across Canada, the southern United States and Alaska. Mr. Cochrane has worked in Ontario since 1992 and has completed hundreds of projects in the National Capital Region since he moved here in 1994. The work has included Phase I and II environmental site assessments (ESAs) following the Canadian Standards Association Z768-01 and Z769-00 documents and Phase One and Two ESAs Ontario Regulation 153/04. Mr. Cochrane prefers to conduct the site interviews and field inspections for all Phase I ESAs he manages so he can gain a fell for the property and fully evaluate potentially contaminating activities (PCAs) and areas of potential environmental concern (APECs). Mr. Cochrane has extensive experience in assessing petroleum hydrocarbon contamination but has also worked with metals, chlorinated solvents and Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS). Mr. Cochrane prepares work plans for ESAs and QA/QC programs to ensure that the data is accurate and reliable. A list of environmental site assessment experience is as follows:

Senior Consultant – Phase I and II Environmental Site Assessments for a former steel fabrication facility in support of a real estate transaction. Completed Phase I ESA site visit and interviews, assisted with Phase I ESA report preparation and development of Phase II ESA program. Assisted with recommendations for remediation and provided final review of Phase II ESA report. Cornwall, Ontario. Completed 2018.

Senior Project Manager – Phase II environmental site assessment to delineate the extent of a petroleum hydrocarbon contamination extending across two properties in Arnprior, Ontario. The initial work involved the use of traditional test pits, boreholes and monitoring well installations to delineate the horizontal and vertical extent of the five-meter-deep and estimated 570 square meter area of petroleum impacted soil. The project was under a strict schedule and the remediation contractor and client needed to know the exact boundaries of the contamination for the planned remedial excavation as it was under one building and potentially under a second. CM3 employed high resolution site characterization (HRSC) techniques using Laser Induced Fluorescence (LIF) to rapidly determine the edges of the contamination. The HRSC work clearly identified that the contaminated soil was under both buildings to the extent that both buildings would have to be removed for the excavation work to proceed safely. The HRSC work was completed in June of 2016 and the site remediation was completed in May of 2019.

Senior Project Manager – Phase II environmental site assessment of Apartment Complex consisting of Ten Properties. Developed a Conceptual Site Model (CSM) from forty-seven environmental reports by other consultants to determine source(s) of petroleum hydrocarbon contamination on the subject site from the adjacent properties. The CSM identified several areas of known environmental concern and several Areas of Potential Environmental Concern (APECs) related to petroleum hydrocarbon Potentially Contaminating Activities (PCAs) on the subject site and three adjacent properties to the south of the subject site. Developed a Phase II ESA program to fill in data gaps identified by the CSM. Coordinated the field activities and directed the on-time and on-budget completion of the ESA. The ESA refined CSM was used to identify the most likely sources of the on-site PHC contaminated soil and groundwater. Ranges of potential environmental liabilities were provided based on the several different remedial approaches. Carling-Queensway area, Ottawa, Ontario. Completed in 2018.

Senior Consultant – Phase II environmental site investigation and remediation of a former gas station and automotive repair garage that had been developed into a commercial restaurant. Completed Phase I ESA site visit and interviews, assisted with Phase I ESA report preparation. Assisted with development of the site investigation to address multiple on and off-site PCAs that represent several APECs on the site. Assisted with Phase I ESA report preparation and provided final review of Phase II ESA report, (issued in draft). Arnprior, Ontario. Completed 2020.

Senior Project Manager/Consultant – Phase I and II Environmental Site Assessments for two adjacent properties, one commercial automotive repair in support of sale, and other one vacant former industrial lot in support of RSC filing and sale. Identified several PCAs on and off-site and multiple APECs to be addressed for both properties. Conducted Phase II ESA for commercial property that reported no contaminants of concern (COCs) above the site condition standards (SCSs). This Phase II ESA report was used to sell the property in 2017. Conducted a Phase Two ESA and remedial program for the vacant industrial property in support of filing a Record of Site Condition (RSC). The RSC 227193 was filed on October 14, 2020. Arnprior, Ontario.

Senior Project Manager/Consultant – Phase II Environmental Site Assessment and Remedial program for 3 not-in-use large PCB oil containing hydro transformers at an active high school. The Phase II ESA was completed to delineate the extent of the contamination from the leaking transformers and provide remedial options. Developed a technical specification for tender package for the transformer removal and site remediation program. Managed the technical aspects of the remedial program and oversaw the final soil and confirmatory groundwater sampling program. Provided technical review of final report and all liaison with client. Eganville, Ontario. Completed 2019.

Senior Project Manager/Consultant –Phase I and II Site Assessments, Designated Substance Surveys, Demolition Control Plans and Tree Protection Plans for the redevelopment of two residential properties. Provided review of Phase I ESA reports that identified two similar PCAs and two APECs on the properties. Provided technical direction and management of Phase II ESA, DSS, DCP and TPP. Glebe area, Ottawa, Ontario. Started December 2016 and completed October 2020.

Remediation and Monitoring Project Experience

Mr. Cochrane's remedial experience includes the design, pilot testing, full-scale implementation, maintenance and operation and of various remedial systems including multi-phase extraction, passive petroleum hydrocarbon recovery, air sparging and soil vapour extraction. Mr. Cochrane also has experience with *in situ* and *ex situ* technologies including, chemical oxidation, enhanced bioremediation, landfarming, bio-piles, and excavation. A list of recent remediation experience is as follows

Senior Consultant – Senior consultant for chemical oxidation/bioremediation remediation of contaminated bedrock and groundwater. A recalcitrant clay lens located at depth within the bedrock aquifer was a residual source of localized groundwater contamination and Mr. Cochrane evaluated the use of more aggressive oxidants to address the clay lens and evaluate other remedial options. Groundwater monitoring completed in January 2020 has shown compliance with the MECP Standards and site closure is pending MECP review of the risk assessment.

Senior Consultant – Mr. Cochrane is the alternate contact, senior project manager and senior consultant for CM3's SOA with the OCDSB since June 2011 to conduct ESAs, remediation consulting services, indoor air quality testing and site monitoring. The ESAs are conducted to the CSA and O.Reg 153/04 Standards often in support of property divestures and Site Control Plan applications. The site monitoring and IAQ testing is completed for nine Board owned contaminated properties where contaminated management plans involving groundwater monitoring, IAQ testing,

liquid phase hydrocarbon (LPH) recovery and in situ remediation by oxygen releasing compound (ORC) sock maintenance.

Senior Project Manager/Consultant –Phase II ESA for former dry-cleaning facility to delineate groundwater contamination and ongoing monitoring and treatment of chlorinated solvent contaminated groundwater. In situ oxidation techniques were used to decrease trichloroethylene concentrations to non-detectable and in situ liquid activated carbon injections are planned for November 2020 to treat residual chloroform concentrations to site condition standards. Project started in 2015 and is anticipated to be completed by the end of 2021, Merivale Road, Ottawa.

Senior Consultant – CM3 was retained by an Ottawa based retail auto parts dealer to provide environmental consulting services in advance of the sale of their property, historically used as a gasoline and automotive service station. A prior consultant completed a Phase I ESA, partial delineation of contamination, and in situ remediation. Post remediation monitoring indicated that the selected approach did not meet the remedial goal. Mr. Cochrane was the client contact, project manager and senior technical consultant for the project and his roles and responsibilities included the review of previous environmental work to develop a Conceptual Site Model (CSM) and identify data gaps. Development of a Phase II ESA to delineate the extent of contamination and define the site geology and hydrogeological conditions with the goal of addressing the data gaps to update the CSM and provide an effective remedial solution. Supervision of the Phase II ESA including coordination of CM3 staff, field work and subtrades. Updated the client weekly and at the completion of major project milestones, regarding the work progress and project budget. Interpretation of the results of the Phase II ESA and updated CSM, showing that the previous remedial actions limited the migration of contaminants in groundwater but were not effective at treating the soil contamination due to the type of soil at the site. Senior review of the Phase II ESA report and the preparation of a remedial options evaluation with cost estimates. Remedial options included excavation, risk assessment, contaminant management and site monitoring. The Phase II ESA was completed in a short timeframe and within the client's budget. The updated CSM and remedial options were provided to the client on time and at budget. Merivale Road, Ottawa – Auto Parts Dealer – 29-Nov-2019 to 14-Feb-2020

Senior Consultant –CM3 was retained by the property insurer to delineate and remediate petroleum hydrocarbon contamination at a site in response to a TSSA order. CM3's work included a Phase II ESA, the oversight of the preferred remedial option and post-remediation monitoring. The contamination was present beneath the on-site building within the soil and in bedrock. Mr. Cochrane was the client contact, project manager and senior technical consultant for the project and his roles and responsibilities included the preparation of work plans for each stage of the project including a Phase II ESA, remedial action plan and post monitoring plan with specified goals for the closure of the site. Technical oversight of all aspects of the field work, including the preparation of specifications for the preferred remedial approach of source area excavation, LPH recovery and in situ chemical oxidation and biodegradation. Review of all outgoing correspondence and reports. Communication with the property owner, client and the TSSA. Project status updates were provided to the client and TSSA following each stage of work and each groundwater monitoring event. The client was also provided regular budget updates. Braeside, Ontario – Excavation and in situ Remediation – 18-Nov-2014 to 17-Apr-2020.

Senior Project Manager/Consultant – Liquid phase hydrocarbon (LPH) recovery and enhanced in situ bioremediation of fuel oil impacted bedrock aquifer using oxidation techniques. The project was in a small rural community of rural Ontario in a shallow bedrock situation with multiple water supply wells being impacted or at risk from the release. Mr. Cochrane developed the local well monitoring program and site-specific remedial program while working in conjunction with the local MECP representatives and MECP hydrogeologist. The project was completed with final groundwater monitoring in the fall of 2009.

Senior Project Manager/Consultant - Source removal by excavation with enhanced oxidation techniques for a fuel oil release at a shallow bedrock and potable water site in rural Ontario. The delineation assessment had shown that the released fuel oil was trapped within the soil and upper bedrock horizon beneath a residential dwelling following an accidental fuel release. The initial remediation phase involved the removal of the residential structure and affected soils and underlying bedrock. The bedrock was removed with large hydraulic breakers and excavation equipment to the shallow water table located at an approximate depth of two metres below grade. The initial work was successful in removing over 90% of the contaminant and the remaining impacts were treated in place with oxygen releasing compounds (ORC). An on-site monitoring program was completed to ensure the safety of the on-site potable water source. This project was started in 2007 and was completed in the summer of 2009.

Senior Project Manager and Remediation Specialist – Source removal by excavation, LPH recovery followed by ORC injections at a non-potable bedrock site. The results of the delineation work at this fuel spill site were used to develop a conceptual site model (CSM) of the distribution of the spill within the soil, bedrock, and local water table. Mass balance calculations indicated that most of the fuel was resident in the upper shallow soils with limited LPH present with the bedrock water table. Bedrock fracture mapping was used to determine best possible monitoring well locations. The groundwater monitoring well network was used to document that most of the impact was contained to a series of interconnected vertical bedrock fractures. Initial LPH recovery was undertaken with vacuum methods to remove the LPH from the fractures and then hydro-excavation techniques were used to clean out the up to 30 cm wide bedrock fractures that were primarily filled with soil and loose rock. The bedrock fractures were sealed, and percolation piping was set in the bedrock for ORC application. This site is currently under post remediation groundwater monitoring with the last round of water samples to be collected in December 2020.

Senior Project Manager and Remediation Specialist – Familiar with various remediation technologies and requirements of pilot testing. Has significant experience working with geotechnical and structural consultants with respect to excavations and excavation around/beneath structures.

Project Manager and Remediation Specialist - Used risk assessment techniques to evaluate the actual environmental risk and negotiate technically sound and responsible remedial objectives. Experience dates to 1997 to 1999 in South Texas under their Leaking Petroleum Storage Tank (LPST) state program where Risk Based Corrective Action (RBCA) risk assessments were used to develop site specific goals and remedial standards.

Project Manager and Remediation Specialist - Monitored remedial systems, developed effective remediation plans and the use of mass balance calculations for them.

Kris Snider
Senior Field Technician
Kris@cm3environmental.com
613.979.7974 (mobile)

EDUCATION

- Horticulture 1995, Algonquin College, Ottawa, Ontario

YEARS OF EXPERIENCE

- 14 years of experience
- 10 years with CM3

TRAINING

- Project Management Workshop (SLR Consulting), 2010
- Contaminated and Hazardous Waste Site Management Course (Gowen Environmental), Toronto, 2011
- Introduction to AutoCAD, Algonquin College, Ottawa, 2019

HEALTH AND SAFETY TRAINING

- Hazardous Waste Operations and Emergency Response OSHA 1910.120 (HAZWOPER)
- First Aid, CPR, TDG and WHIMIS
- Working at Heights and Fall Arrest

LANGUAGES

- English
- French (limited)

PROPOSED ROLE AND RESPONSIBILITIES

Senior Field Technician, Project Manager, Draftsperson

- Media sampling including soil, groundwater, and sediments
- Groundwater and LPH monitoring
- Air and soil gas sampling
- Direction of subcontractors and CM3 Staff for field sampling and remedial activities
- Data compilation and report preparation
- Report preparation and drafting
- Project management

EXPERTISE

- Phase I, II and III Environmental Site Assessments
- Oversight/management of field activities for Remediation Projects
- Indoor Air Quality Assessments
- Soil Gas Sampling

RELEVANT INDUSTRY EXPERIENCE

- Federal, Provincial, Municipal and Indigenous Governments and Agencies
- Insurance, Property Management
- Federal, Provincial and Municipal Government
- Health Care Facilities
- Educational Facilities

PROFESSIONAL PROFILE

Mr. Snider has been involved with over 350 contaminated site projects, including Phase I and Phase II Environmental Site Assessments, numerous underground storage tank removals, a multitude of large loss petroleum claims, landfill monitoring, hydro transformer releases and field sampling in support of risk assessments.

Mr. Snider has work closely with Federal and Provincial agencies as well as Indigenous communities in Ontario to ensure that projects remain on schedule and comply with the applicable standards and guidelines.

Kris Snider
Senior Field Technician
Kris@cm3environmental.com
613.979.7974 (mobile)

PROJECT EXPERIENCE

Phase I/Phase II ESA Experience

Senior Environmental Technician – Phase I and II Environmental Site Assessments for two adjacent properties, one commercial automotive repair in support of sale, and other one vacant former industrial lot in support of RSC filing and sale. Conducted groundwater sampling and surveying for a Phase Two ESA for industrial property in support of filing a Record of Site Condition (RSC). The RSC 227193 was filed on October 14, 2020. Arnprior, Ontario, (**RFSO Project Example 2**).

Project Manager and Senior Environmental Field Technician - Phase I ESA, Ottawa, Ontario 2019. Served a main contact with client. Reviewed relevant and historical documents, performed site survey/inspection of the mixed residential and commercial property. Prepared a detailed Phase I report identifying areas of potential environmental concern (APEC). The project was completed in preparation for a potential real estate transaction.

Project Manager and Senior Environmental Field Technician - Phase II ESA, Ottawa, Ontario 2019-2020. Developed a cost-conscious budget and work plan based on APECs identified in a Phase I ESA. Coordinating multiple subcontractors, supervised field testing, borehole drilling, test pitting, soil sampling and groundwater monitoring. Assessed analytical data and prepared a Phase II ESA report along with a remedial action plan based on the discovery of subsurface PHC and metal contamination.

Senior Environmental Field Technician – Phase II ESA, various location Eastern Ontario 2006 -2020. Completed hundreds of petroleum spill investigations and site remediations for Insurance clients. Tasked with site assessment, impact delineation and soil and groundwater remediation. Coordinated with project managers, stakeholders, subcontractors and regulatory agencies. Helped to develop site specific monitoring and remediation options based on field testing and analytical data. Provided on-site supervision of multiple subcontractors and junior staff to ensure QA/QC.

Project Manager and Senior Environmental Field Technician – Phase II ESA, Athens, Ontario, 2020. On and off-site environmental assessment gasoline impacts. Coordinated with municipal and county agencies to secure permits and approvals for subsurface testing. Assessed potential off-site migration through borehole and monitoring well drilling. Logging of soil quality, field screening samples for combustible vapors and selecting samples for laboratory analysis for contaminates of concern (COCs). Prepared a Phase II report along with recommendations.

Site Remediation Experience

Assistant Project Manager and Senior Environmental Field Technician - PCB containing Hydro transformer release and subsequent remediation, Cobden Ontario, 2018. Assessed the condition of the several disconnected hydro transformers, collected samples for each unit, provide containment solutions and organizing the removal of the PCB containing waste. Supervised borehole drilling and monitoring well installation. Collected soil and groundwater samples, presented cost-effective remedial solutions, supervised the remedial excavation and conducted post remedial soil and groundwater sampling. Prepared drafting and final reporting.

Senior Environmental Field Technician – Phase II ESA Williamsburg, Ontario. Involved with of the delineation of impacts through the installation of groundwater monitoring wells in a bedrock situation. Supervised on-site activities,

completed borehole logging and field sampling and prepared figures for Phase II ESA and site monitoring, (**RFSO Project Example 3**).

Senior Environmental Field Technician - Site remediation, emergency spill actions -gasoline tanker spill 2017. Performed the initial site assessment, determined the level for immediate environmental concern. Conducted site meetings with the client, contractors, the Ontario Ministry of the Environment (MECP) and the TSSA. Oversaw on-site staff during field activities. Coordinating and directed environmental drilling, delineation and remedial activities. Tested soil and groundwater quality throughout the delineation and remedial work. Ensured that all health and safety protocols were being observed. Conducted daily correspondence with project manager, and other stakeholders to ensure schedules and budgets were maintained.

Project Manager, Senior Environmental Field Technician – Glasgow Station, Ontario site remediation 2017- 2018. Responsibilities included coordinating site meetings, managing a common schedule with out of town contractors and accredited landfill sites. Delineated PHC impacts through borehole drilling and test pit excavations. Guided the remedial excavation of impacted soil, supervised the enhanced bioremediation/In-Situ remediation for groundwater impacts. Tested soil and groundwater throughout the delineation and remedial activities. Drafted site models and site plans and prepared the final report preparation 2016 - 2019.

Senior Environmental Field Technician – Remediation of a former gasoline service station Elgin, Ontario, 2019. Completed field activities developed by the project manager that included directing the remedial excavation of contaminated overburden and guidance and confirmatory sampling for COCs.

Site Monitoring Experience

For 14 years, Mr. Snider has continually been involved with a variety of site monitoring programs. His experience extends from field sampling and site evaluation to overseeing the entire projects. Sites have ranged from small residential site to large commercial and school board properties. Most of the projects have included monitoring of groundwater and/or indoor air quality due to existing contamination.

Senior Environmental Field Technician – Monitoring and remediation Ottawa 2006-2020. Completed scheduled indoor air and completed groundwater monitoring for multiple schoolboard properties. Responsibilities have included the collection of indoor air quality samples, groundwater quality samples, hydrogeological pump tests, data analysis, preparing figures for conceptual site models and reporting. The monitoring was completed for due diligence, in support of contaminant management plans, (**RFSO Project Example 4**).

Project Manager and Senior Environmental Field Technician – Former gasoline service station Elgin, Ontario, 2019. Conducted on and off-site groundwater monitoring to satisfy MECP requirements. Tasks included elevation surveys, groundwater elevation measurements, liquid phase hydrocarbon (LPH) measurements, sample collection for analysis and reporting.

Senior Environmental Field Technician – Conducted multiple indoor air quality (IAQ) monitoring, multiple sites eastern Ontario, 2018 -2020 . The process included the acquisition of proper sampling equipment and sampling media to ensure accurate results. Collecting indoor samples and a background for comparative analysis for contaminates of concern. Assessed all results to the applicable regulatory standard and reporting.

Senior Environmental Field Technician – Risk assessment Ottawa 2018-2019. Completed site assessment for a multi-unit residential building following the discovery of subsurface petroleum contamination below the building. Conducted

all field work and sampling, scheduled supervised multiple sub-contractors, recorded field data prepared figures and report for risk assessment, (**RFSO Project Example 5**).

Senior Environmental Technician – Remediation and Close-Out Monitoring; Conducted groundwater sampling and monitoring of field parameters including Redox, temperature and dissolved oxygen in support of a chemical oxidation/biodegradation of petroleum contaminated groundwater within bedrock. Completed soil gas monitoring of carbon dioxide, oxygen and total combustible vapours to monitor the remedial progress and conducted quarterly groundwater sampling for PAHs, BTEX and PHCs for the 27 groundwater monitoring wells on-site. Braeside, Ontario 2015 to 2020.

Project Management

Mr. Snider has managed less complex Phase I and Phase II ESAs, subsurface environmental assessments following above ground and below ground storage tank decommissioning and oil spills since 2006. Mr. Snider's responsibilities have included full personal responsibility for the delivery of Phase I and Phase II ESAs, serving as a main contact with the client and regulatory agencies, devising and presenting comprehensive workplans and budgets, coordinating field staff and sub-contractors, ensuring schedules and deliverables are maintained, reviewing analytical data and providing technical and support. Technical direction for Kris's projects is provided by CM3 QP's (ESA) as required for projects under TSSA orders and O.Reg 153/04.