September 2011

REPORT ON

Phase I Environmental Site Assessment
3406/3450 Frank Kenny Road
Ottawa (Orleans), Ontario

Submitted to:
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REPORT

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1 copy - 743120 Ontario Inc.
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Golder Associates

Executive Summary

Golder Associates Ltd. ("Golder") was retained by 743120 Ontario Inc. through J. L. Richards & Associates Ltd. ("JLR") to prepare a Phase I Environmental Site Assessment ("ESA") for the proposed Site of the future Hydro One Networks Inc. (HONI) Orleans Service Centre in Ottawa (Orleans), Ontario. The Site is located in an industrial/agricultural area adjacent to the Village of Navan in Ottawa, Ontario and is comprised of one property with two civic addresses, 3406 and 3450 Frank Kenny Road ("Site").

The Executive Summary highlights key points from the report only; for complete information and findings, as well as the limitations, the reader should examine the complete report.

The following report contains a Phase I ESA completed in general accordance with Ontario Regulation 153/04, as amended on July 1, 2011. This includes, but is not limited to, a review of available current and historical information on the Site and surrounding properties, a Site visit of the property, interviews, and evaluation of readily available information and reporting. This report format follows the mandatory requirements for the Phase I ESA reports (Table 1 within Part 4 of the Regulation).

The Site is 5.32 hectares (13.16 acres) in area and is topographically flat. The northern part of the Site (3406 Frank Kenny Drive) is 2.53 hectares (6.26 acres) in area and is currently occupied by M. L. Bradley Bus Lines ("Bradley"), while the southern portion of the Site (3450 Frank Kenny Drive) is 2.79 hectares (6.9 acres) in area and is occupied by a residential bungalow and agricultural land (leased to a tenant by Bradley). HONI will initially lease a small portion of the south parcel (agricultural land) and a small portion of the northern parcel of the Site (occupied by Bradley). HONI will eventually lease to own the southern 2.79 hectare parcel of the Site. Golder has assessed the property (two municipal addresses) as a whole, however the northern parcel (currently occupied by Bradley) will be considered as an adjacent property to the Site (within the study area) for the purposes of the Phase I ESA.

It is understood that the Phase I ESA is being carried out as required by the City of Ottawa and for due diligence purposes prior to the Site being leased by HONI and redeveloped for the future Hydro One Orleans Service Centre.

Based on the review of available information obtained in the Phase I ESA, the Site was occupied by agricultural properties prior to its development as a residential dwelling in the early 1980s (3450 Frank Kenny Road) and M. L. Bradley Bus Lines in 1991 (3406 Frank Kenny Road). As noted in the introduction, Golder is assessing the two municipal addresses as one property, however the northern parcel (currently occupied by Bradley) will be considered as an adjacent property to the Site for the purposes of the Phase I ESA.

Based on our findings, one on-Site Area of Potential Environmental Concern ("APEC") was identified (potential presence of hazardous building materials); refer to Section 6.1.3 and Figure 4. A Designated Substance Survey would be required to confirm the presence of hazardous building materials (asbestos in attic insulation), lead-based paint and PCBs within the residential dwelling at 3450 Frank Kenny Road prior to its demolition. Also, if the existing water supply well is not required for the HONI's use of the Site, it should be decommissioned as per Ontario Regulation 903. The septic tank/septic field should also be decommissioned according to provincial regulations if it is not needed.

One APEC (considered off-Site as it is related to the northern portion of the Site) was identified at 3406 Frank Kenny Road (removal of underground storage tanks without documentation); refer to Section 5.1.3 and Figure 5. This APEC is considered to be located downgradient (based on a inferred shallow groundwater flow direction to the northwest) from 3450 Frank Kenny Road, a Phase II ESA is not required to address the APEC presented in Figure 5.

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1.0 INTRODUCTION

Golder Associates Ltd. (“Golder”) was retained by 743120 Ontario Inc. through J. L. Richards & Associates Ltd. (“JLR”) to prepare a Phase I Environmental Site Assessment (“ESA”) for the proposed Site of the future Hydro One Networks Inc. (HONI) Orleans Service Centre in Ottawa (Orleans), Ontario. The Site is located in an industrial/agricultural area adjacent to the Village of Navan in Ottawa, Ontario and is comprised of one property with two civic addresses, 3406 and 3450 Frank Kenny Road (“Site”).

The following report contains a Phase I ESA completed in general accordance with Ontario Regulation 153/04, as amended on July 1, 2011 (“The Regulation”). This includes, but is not limited to, a review of available current and historical information on the Site and surrounding properties, a Site visit of the property, interviews, and evaluation of readily available information and reporting. This report format follows the mandatory requirements for the Phase I ESA reports (Table 1 within Part 4 of The Regulation).

The Site is 5.32 hectares (13.16 acres) in area and is topographically flat. The northern part of the Site (3406 Frank Kenny Drive) is 2.53 hectares (6.26 acres) in area and is currently occupied by M. L. Bradley Bus Lines (“Bradley”), while the southern portion of the Site (3450 Frank Kenny Drive) is 2.79 hectares (6.9 acres) in area and is occupied by a residential bungalow and agricultural land (leased to a tenant by Bradley). HONI will initially lease a small portion of the south parcel (agricultural land) and a small portion of the northern parcel of the Site (occupied by Bradley). HONI will eventually lease to own the southern 2.79 hectare parcel of the Site. Golder has assessed the property (two municipal addresses) as a whole, however the northern parcel (currently occupied by Bradley) will be considered as an adjacent property to the Site (within the study area) for the purposes of the Phase I ESA.

It is understood that the Phase I ESA is being carried out as required by the City of Ottawa and for due diligence purposes prior to the Site being leased by HONI and redeveloped for the future Hydro One Orleans Service Centre.

Golder Associates Ltd. (“Golder”) was retained by HONI through J. L. Richards & Associates Ltd. (“JLR”) to prepare a Phase I Environmental Site Assessment (“ESA”) for the proposed Site of the future Hydro One Serving Centre in Ottawa (Orleans), Ontario. The Site is located in a commercial/agricultural area in the Orleans sector of Ottawa and is comprised of two properties with the civic addresses 3406 and 3450 Frank Kenny Road (“Site”).

2.0 SCOPE OF INVESTIGATION

The Phase I ESA was completed in general accordance with Ontario Regulation 153/04, as amended on July 1, 2011 for the requirements of the Rezoning and Site Plan Approval process. This includes, but is not limited to, a review of available current and historical information, Site reconnaissance visit, interviews, the evaluation of readily available information and the current report. Information from the above mentioned sources was used to identify Potentially Contaminating Activities, Areas of Potential Environmental Concern on-Site and within 250 metres of the Site property boundaries and to construct the Phase I ESA property conceptual Site model. Under the Ontario Regulation 511/09, a Potentially Contaminating Activity ("PCA") is defined as "a use or activity set out in Column A of Table 2 of Schedule D that is occurring or has occurred in a phase one study area". Table 2 of Schedule D lists potentially contaminating activities. An Area of Potential Environmental Concern ("APEC") is defined as "the area on, in, or under a phase one property where one or more contaminants are potentially present, as determined through the phase one environmental site assessment, including through:

- Identification of past or present uses on, in or under the phase one property; and,
- Identification of potentially contaminating activity.

PCAs and APECs are identified on-Site and off-Site (within 250 metres of the Site boundary) and presented in Sections 5.1.3 and 6.1.3. The approximate location of APECs identified from associated PCAs are shown in Figure 4 and Figure 5. These sections and Figures 1 through 10 form the Phase I ESA property conceptual Site model.

This report format follows mandatory requirements for the Phase I ESA reports (Table 1 within Part 4 of The Regulation).

2.1 Report Organization

The Phase I ESA report contains a historical review that pertains to the property, the 'Site', with specific findings presented in individual sections. Historical information and a records review, which is applicable to the Site and surrounding properties, is presented in Section 3.0 and interviews and Site reconnaissance findings, which are organized by the current municipal addresses, are presented in Sections 5.0 to 6.0. In general, the discussion is presented for property starting from the north towards the south (3406 to 3450 Frank Kenny Road). Figures 1 through 10 are presented and form the Phase I ESA property conceptual site model. Appendix A contains photographs collected as part of the Site reconnaissance and Appendix B contains regulatory documentation for the Site.

3.0 RECORDS REVIEW

3.1 General

3.1.1 Phase I ESA Study Area Determination

The Phase I ESA study area is composed of one property located along the western side of Frank Kenny Road and north of Colonial Road (see Figures 1 and 2, Key Plan and On-Site Features, respectively). The Phase I ESA study area is defined as the area within 250 metres from the property boundaries.

3.1.2 First Developed Use Determination

Based on the information obtained in the aerial photograph review (Section 3.3.1) the Site was first developed between 1975 and 1993, prior to which the land appeared to be used for agricultural purposes. According to information found through the owner interview, the first building on-Site was located at 3450 Frank Kenny Road (residence).

3.1.3 Review of Fire Insurance Maps and Reports

Based on information provided by Risk Management Services ("RMS"), there are no records related to fire insurance plans, property underwriter's reports and property underwriter's plans.

3.1.4 Chain of Title and History of Ownership

An environmental title search was completed by Wentzell Titles of Ottawa. A summary of historical ownership and occupation is presented below:

Approximate Date of Ownership/Occupation	Ownership/Use	Comment/Source
Up to 1846	Crown	Title Search
1846-1880	Canada Company	Title Search
1880-1994	Multiple private ownership	Title Search
1994-1995	Berton Farms Inc.	Title Search
1995-Present	743120 Ontario Inc.	Title Search

3.1.5 Review of Street Directories

City street directories were reviewed to develop an occupancy history for the Site. Street directories were reviewed for years 1988/89, 1998/99 and 2008/09. A summary of the street directory review is as follows:

Year	Status
1988/89	Frank Kenny Road not listed
1998/99	No listing
2008/09	Residential and M. L. Bradley Limited

Surrounding Areas

On the basis of the review of the street directories, no potential environmental concerns were identified on surrounding properties outside the study area within 250 metres ("m") of the Site.

3.1.6 Environmental Reports

No previous environmental reports were provided for review purposes.

3.2 Environmental Source Information

3.2.1 Ministry of the Environment Correspondence

The Ontario Ministry of Environment ("MOE") was contacted (refer to copy of correspondence in Appendix B) to provide an Index Report with respect to active orders and approvals for the Site as detailed below:

- Active orders under the Environmental Protection Act ("EPA"), the Ontario Water Resources Act ("OWRA"), and the Pesticides Act ("PA"); and,
- Approvals under Sections 9 and 39 of the EPA as well as Sections 52 and 53 of the OWRA.

At the time of issuance of this report Golder had not received a response from the MOE. Once a response has been received, if it indicates an issue of potential environmental concern, it will be forwarded to JLR with a comment and should be appended to the report.

3.2.2 Technical Standards and Safety Authority Correspondence

The Technical Standards and Safety Authority ("TSSA") was contacted via e-mail (refer to copy of correspondence in Appendix B) to determine if any commercial fuel underground storage tanks were registered on the surrounding properties within 250 m of the Site.

Sarah Png of TSSA responded via email on August 4, 2011 and indicated that the TSSA had records for underground storage tanks ("USTs") for the following address:

On-Site

- 3406 Frank Kenny Road, Ottawa. TSSA has record of 2 active USTs.

The Site representative reported that the two former fuel USTs were removed and replaced with steel aboveground storage tanks in approximately 2003. Golder informed the Site representative that TSSA records should be updated to reflect the current situation.

3.2.3 City of Ottawa Correspondence

Golder forwarded a request to the City of Ottawa ("City"), for the following information:

- Reports relating to environmental concerns;
- Records of non-compliance or regulatory concerns;
- Dumping infractions, spills or discharges to the environment;
- Violations of sewer use or environmental by-laws;

- Historic information related to landfill or dump sites on or in proximity to the Site; and,
- Any other environmental information.

At the time of issuance of this report Golder had not received a response from the City of Ottawa. Once a response has been received, if it indicates an issue of potential environmental concern, it will be forwarded to JLR with a comment and should be appended to the report.

3.2.4 City of Ottawa Document Review

Prior to the 2001 amalgamation, the City did not have a consolidated database of environmental concerns for City properties and typically referred all inquiries to the *1988 Mapping and Assessment of Former Industrial Sites, City of Ottawa, Intera Technologies Ltd.* (hereafter known as the "1988 Intera Report"). This report describes an inventory and assessment study of former industrial Sites that were active in the former (prior to the 2001 amalgamation) City of Ottawa from 1850 to 1984 that likely produced or handled hazardous wastes and materials. The Sites were subsequently screened to identify higher priority Sites which were subdivided into Group I, Group II and Group III Sites:

- Group I Sites – Sufficient evidence to indicate that wastes are present on-Site and that there is a high potential for environmental impact;
- Group II Sites – Sufficient evidence to indicate that wastes are likely remnant on-Site; and,
- Group III Sites – Unlikely that large quantities of waste exist at the Site today and therefore the potential for environmental impact is minimal.

As this Site is located outside of the 2001 City of Ottawa limits the 1988 Intera Report did not provide any information for this area.

The review of the 2004 City of Ottawa Waste Disposal Sites Inventory indicated that there was no City of Ottawa Waste Disposal Sites on-Site or on the surrounding properties within 250 m of the nearest point from the boundary of the Site (study area).

3.2.5 MOE Waste Disposal Site Inventory, June 1991

A search of the 1991 MOE *(Waste Disposal Site Inventory)* did not indicate the presence of any MOE Waste Disposal Sites within 250 m of the Site (study area).

3.2.6 Inventory of Coal Gasification Plant Waste Sites in Ontario, April 1987

A review of the *(Inventory of Coal Gasification Plant Waste Sites in Ontario)* (250 m radius from the Site) was carried out. The latter classification includes tar distillation plants, creosoting plants, roofing felt and tarred paper products manufacturers, by-product charcoal and coke oven plants of the iron and steel industry, industrial manufactured gas plants, and wood distillation plants.

The review did not identify any listings within 250 m of the Site.

3.2.7 MOE Database on PCB Storage Sites, 2000

Based on a search (250 m radius from Site) of the MOE database of PCB Storage Sites, the Site is not a registered PCB Storage Site and no registered PCB Storage Sites are known to be located within approximately 250 m of the Site.

3.2.8 MOE Database on Brownfields Environmental Site Registry - Records of Site Condition ("RSC"), October 2004

A search of the brownfields environmental site registry was carried out for the Site to determine whether a record of site condition has been filed for the Site. The search indicated that no RSC has been filed for the Site.

3.2.9 Environment Canada National Pollutant Release Inventory ("NPRI"), 2008

The NPRI provides information for a facility's total releases to air, water and land and also includes any disposal and/or recycling a facility may have. The search of the Environment Canada NPRI (within 250 m of the Site) indicated that no facilities were registered in the NPRI.

3.2.10 EcoLog ERIS

Golder contracted the services of EcoLog Environmental Risk Information Services Ltd. ("EcoLog ERIS") to conduct a search of their federal, provincial and private sector databases for information on the Site and surrounding area within 250 m of the Site. The complete EcoLog ERIS report is a standalone document and is provided in Appendix B. The following is a summary of the noteworthy findings as identified within the EcoLog ERIS report for the Site and for the surrounding properties within the Phase I Study Area:

On-Site

Fuel Storage Tanks

The EcoLog ERIS report listed the following fuel storage tank information on-Site:

Name	Location	Description
M. L. Bradley Ltd.	3406 Frank Kenny Road, Cumberland Township, K4B 1J3	Information pertains to the existence of the two USTs: 13,600 litre diesel and 4,500 litre gasoline. Updated information to be supplied to the TSSA by the Site representative.

Waste Generators

The EcoLog ERIS report listed the following Waste Generator listings on-Site:

Name	Location	Waste Description
M. L. Bradley Ltd.	3406 Frank Kenny Road, Cumberland Township, K4B 1J3	221 – Light Fuels
		252 – Waste Oils & Lubricants

Private and Retail Fuel Storage Tanks

The EcoLog ERIS report listed the following private and retail fuel storage tank information on-Site:

Name	Location	Description
M. L. Bradley Ltd.	3406 Frank Kenny Road, Cumberland Township, K4B 1J3	18,184 litre - private (generally matches the UST volume amounts above)

Water Well Information System

The EcoLog ERIS report listed the following water wells on-Site:

Name	Location	Description
No name provided	Lot 10 Con 8	One water well

Surrounding Areas

Water Well Information System

The EcoLog ERIS report listed the following water wells off-Site:

Name	Location	Description
No names provided	Lot 10 Con 8 & Lot 9 Con 8	Two water wells

Summary of On-Site Ecolog ERIS information:

Two USTs are present on the Site according to the Ecolog ERIS search. The Site representative reported that the two USTs were removed in approximately 2003 (due to issues related to the tanks lifting due to the high water table) and replaced with steel aboveground storage tanks. The Site at M. L. Bradley has a waste generator number (ON1650100) and is a producer of light fuel, waste oil and lubricant/solvent waste. There is a private fuel outlet located at M. L. Bradley used to fuel the school buses. There is one water well shown at the residential property (3450 Frank Kenny Road).

Summary of Off-Site Ecolog ERIS information:

Two water wells are shown on adjacent properties to the west and north of the Site.

3.3 Physical Settings Sources

3.3.1 Aerial Photographs

Golder reviewed aerial photographs dated 1946, 1953, 1975, 1993 and 2002 obtained from the National Air Photo Library in Ottawa. In addition, the City of Ottawa 2008 EMap for the Site and surrounding properties was reviewed. Golder selected aerial photographs based on availability and date intervals, in order to help develop an understanding of the history of the development of the Site and surrounding properties (within 250 m). In addition, aerial photographs were selected based on scale. The information obtained from the aerial photographs is limited by the quality and scale of the available aerial photographs.

Information obtained from the review of relevant aerial photographs is summarized in the table below:

Date	Scale	Site	Surrounding Properties
1946	1:15,000	The Site is occupied by agricultural land.	**North:** Forested land followed by agricultural land; **East:** Frank Kenny Road followed by agricultural land; **South:** Agricultural land followed by Colonial Road; and, **West:** Agricultural land.
1975	1:15,000	As per 1946	**North:** Forested land followed by agricultural land; **East:** Frank Kenny Road followed by agricultural land; **South:** Agricultural land followed by Colonial Road; and, **West:** Agricultural land.
1993	1:15,000	M. L. Bradley Bus Lines and residential house now visible	**North:** Forested land followed by agricultural land; **East:** Frank Kenny Road followed by agricultural land; **South:** Agricultural land followed by Colonial Road; and, **West:** Agricultural land.
2002	1:15,000	As per 1993	**North:** Not visible on air photo; **East:** Frank Kenny Road followed by agricultural land; **South:** Agricultural land followed by Colonial Road; and, **West:** Agricultural land.
2008	1:5,909	As per 2002	**North:** Forested land followed by agricultural land; **East:** Frank Kenny Road followed by agricultural land; **South:** Agricultural land followed by Colonial Road; and, **West:** Agricultural land.

Based on the aerial photograph review, the Site was first developed as an industrial/residential property between 1975 and 1993. The Site has been used as an industrial (M. L. Bradley Bus Lines) and residential property, with no visible changes, since it was initially developed.

3.3.2 Topography, Hydrology, Geology

The Site topography, surficial geology, physiography, bedrock (paleozoic) geology and overburden thickness are shown in Figure 6, 7, 8, 9 and 10, respectively and form, in part, the Phase I ESA property conceptual site model.

The following GIS databases and geotechnical report were reviewed to determine the general geological and topographical conditions in the area of the Site:

- Golder GIS database;
- Water well records; and,
- 1990 Geotechnical Report by Jacques Whitford.

Geological and physical information derived from the above mentioned maps and observations made during the Site visit for the Site and surrounding properties within 250 m is as follows:

Topic	Conditions	Comment/Source
Subsurface Soils	The majority of the Site consists of offshore marine deposits consisting of clay, silty clay & silt over a glacial till composed of clayey sand with some gravel and frequent cobbles.	Golder GIS database and 1990 Geotechnical Report by Jacques Whitford
Type of Bedrock (expected)	Bedrock in the area consists of a mixture of a Lindsay Formation and a Billings Formation.	Golder GIS database
Depth to Bedrock (expected)	3 - 10 m	Golder GIS database and water well records
Depth to Groundwater	0.8 to 1.5 m below ground surface	1990 Geotechnical Report by Jacques Whitford
Slope of Site Ground Surface	Slight slope from the east to the west and from the south to the north	Visual observations
Inferred Near Surface Groundwater Flow	Insufficient information is available to estimate the groundwater flow direction. Regional flow is likely northwest towards a nearby creek, located 300 m to the northwest.	Topograhic map and visual observations
Topography of Site and Surrounding Area	Relatively flat	Topographic map and visual observations
Site Grade Relative to the Adjoining Properties	The Site is generally flat and the adjoining properties to the west, east and north are considered to be flat. Frank Kenny Road to the east is at a higher elevation than the Site.	Topographic map and visual observations

3.3.3 Other Site Features

3.3.3.1 *Fill Materials*

There was a gravel and topsoil fill stockpiles observed along the north side of the tire storage trailer. The only other fill expected is located around the building foundations, septic fields, under the pavement areas and in the gravel parking areas.

3.3.3.2 *Water Bodies and Area(s) of Natural Significance*

The nearest water body to the Site is a drainage ditch located along the north boundary of the Site and a ditch approximately 15 m south of the Site. There is a forest/wetland located adjacent north of the Site that may be considered an area of natural significance. There is also a creek located approximately 300 m northeast of the Site.

3.3.3.3 *Well Records*

The EcoLog ERIS Database report (refer to Appendix B) was searched for information on water wells (location, stratigraphy of the overburden, from ground surface to bedrock, depth to bedrock, depth to water table, drilling date, use). The following represents the findings for both on-Site and on surrounding properties.

On-Site

One water supply well (WWIS-1) was constructed in 1975 at 3450 Frank Kenny Road (residential dwelling) to a depth of 56.4 m into the bedrock.

Surrounding Properties

Two wells (WWIS-2 and WWIS-3) were indicated on the Ecolog ERIS report for the adjoining properties.

One well (WWIS-2) was shown to be located west of the Site but the records only show that this well was drilled in 1998 is not used, as it was drilled as a test hole. There was no further information provided.

A second well (WWIS-3) is shown to be located north of the Site and is indicated to be used for cooling and A/C purpose (ground source well). This well was constructed in 1991 to a depth of 11.3 m into the shale bedrock.

3.3.3.4 *Prominent Physical Features*

At the time of the Site visit (July 27, 2011), an elevated section of the ground was observed along the west side of the M. L. Bradley Bus Lines property. The Site representative indicated that this was the area of the former two fuel underground storage tanks. The Site representative reported that the two former USTs were constantly being lifted due to high groundwater table, and were later removed. There were no other prominent physical features observed or reported on-Site.

Surrounding Properties

No prominent physical features were observed on the surrounding properties.

3.4 Site Operating Records

The following Site operating records were provided for review:

- Copy of a Canadian Linen & Uniform Service Invoice showing an environmental charge related to the cleaning of oil rags used in the bus maintenance garage at M. L. Bradley Bus Lines;
- Copy of a Manifest indicating the pick-up of 873 litres of recyclable waste oil from M. L. Bradley Ltd. on May 26, 2011 by Safety-Kleen Canada Inc;
- Copy of an invoice from Safety-Kleen Canada Inc. for pick-up of liquid waste material (type not indicated);
- Copy of Stewardship Ontario Bill of Lading for Municipal Hazardous or Special Waste ("MHSW") indicating the pick-up of oil filters; and,
- Copy of a Tire Collection Receipt Form from Eco Tire Recovery Inc. on August 23, 2010 indicating the pick-up of thirteen (13) passenger & light truck tires and twenty-five (25) medium truck tires.

3.5 Interviews

An interview was conducted for each of the two municipal addresses on the Site with the current Site owner as part of the Site reconnaissance. Information received as part of the interview is included in the Site Reconnaissance section for individual Sites and copies of the questionnaires can be found in Appendix C.

4.0 SITE RECONNAISSANCE

Golder conducted a Site visit at 3406 and 3450 Frank Kenny Road on July 27, 2011 which included the observation of exterior areas and interior building areas. The Site owner and General Manager, Mr. Gord Both (Site representative) was present and provided access during the Site visit. Full access to the interior and exterior of all buildings on the Site was provided at the time of this Phase I ESA visit.

The Site representative provided additional information during interviews conducted at the time of the Site visit. He also completed a Phase I Environmental Site Assessment Questionnaire for each of the two municipal addresses after completion of the Site visit (Appendix C). The Site visit was documented with photographs provided in Appendix A and additional notes recorded on-Site inspection forms. Information from the Site inspection forms and additional observations are incorporated in Site Reconnaissance Sections 5.0 through 6.0, which provide a detailed description of each municipal address on the Site.

4.1 Surrounding Land Use

North

The Site is bordered by forested land with a watercourse, followed by a residential/industrial/agricultural property.

South

The Site is bordered by agricultural land followed by Colonial Road.

East

The Site is bordered by Frank Kenny Road followed by agricultural land.

West

The Site is bordered by agricultural land followed by a residential subdivision within the Village of Navan.

5.0 3406 FRANK KENNY ROAD – M. L. BRADLEY BUS LINES

5.1 Site Reconnaissance

5.1.1 General Description

The Site reconnaissance of 3406 Frank Kenny Road was carried out on July 27, 2011 by B. G. Sullivan of Golder starting at 9 am and completed at noon. The Site representative (Site owner and General Manager) and occupants were present during the Site visit and interviewed as part of the Site reconnaissance. The weather at the time of the Site visit was sunny and 20 degrees Celsius. All interior and exterior areas were observed.

5.1.2 Specific Observations at the Phase I ESA Property

Observations made during the Site visit of 3406 Frank Kenny Road were documented with field inspection forms, photographs (presented in Appendix A) and additional notes, where warranted. Information obtained as a result of the Site visit and from the Site representative has been summarized and incorporated into the appropriate sections below:

5.1.2.1 *Site Physical Description*

Topic	Observations	Comment / Source
Site Area	2.5 hectares	HONI
Building Area	Office (2 storey) – 251 m^2 Maintenance Garage – 188 m^2 Storage Shed – 223 m^2 Tire Storage Trailer – 56 m^2	Site Owner
Number and Age of Buildings on the Site	Office (2 storey) – built in 1991 Maintenance Garage – built in 1991 Storage Shed – built in 2001 Tire Storage Trailer – placed in 2003	Site Owner
Approximate Floor Space of Site Buildings	718 m^2	Site Owner
Approximate Percentage of Site Covered by Buildings	2.4%	Site Owner
Number of Levels Below Ground Level	No basements.	Visual observations and interview
General construction of buildings	Office (2 storey) – Steel/wood frame, metal cladding, sloped metal roof; Maintenance Garage – Wood frame, metal cladding, sloped metal roof; Storage Shed – Wood frame, vinyl siding, sloped metal roof; and, Tire Storage Trailer – Wood frame, vinyl siding, sloped metal roof.	Site owner and visual observations

Topic	Observations	Comment / Source
Number of Floors (include all levels, whether above or below ground)	Office - 2 storey Maintenance Garage – 1 storey Storage Shed – 1 storey Tire Storage Trailer – 1 storey	
Approximate Percentage of Site Consisting of Paved or Other Sealed Surface Materials	20%	Estimate from air photo
Approximate Percentage of Site Consisting of Landscaped/ Grassed/Bare Ground Areas	30%	Estimate from air photo
Areas of fill and/or debris	Fill is suspected on-Site associated with initial development of the Site. There is gravel fill below the paved portions and also gravel fill in the bus parking area. Fill material was observed in the former UST area and in the septic field area and likely around the foundations of the office/garage building. Some gravel and topsoil stockpiles were observed on the north side of the tire storage trailer. An unused waste oil tank, wood and concrete patio stones were observed on the north side of the tire storage trailer.	Visual observations
Current or former railway lines	None	Visual observations

5.1.2.2 *Site Services and Air Emissions*

Topic	Observations	Comment / Source
Process Exhausts	No process exhausts	Visual observations and Site representatives
Heating and Cooling System(s) (include fuel type / source)	Office (2 storey) – Ground source heating and cooling and secondary electric baseboard heating; Maintenance Garage – Three ceiling mounted propane heaters, no cooling in the garage; Storage Shed – no heating or cooling; and, Tire Storage Trailer – no heating or cooling.	Visual observations
Back-up Generators (include fuel type / source)	No back-up generators were observed or reported	Visual observations and Site owner
Transformers	No transformers were observed	Visual observations
Other Exhausts	None reported	

Topic	Observations	Comment / Source
Odours	None noticed	Site Visit
Visible Emissions	No visible emissions were observed.	
Utility Lines Present (i.e. Electrical, Natural Gas, other)	None observed as the Site is serviced with two domestic wells (used for the ground source heating and cooling), a septic tank & field and underground electrical supply from a supply pole.	Visual observations and Site owner

5.1.2.3 *Water and Wastewater Discharges*

Topic	Observations	Comment/Source
Water Supply Source	Domestic well	
Water Use	At the time of the Site visit, water sources were used for domestic activities, heating and cooling within the office space and bus cleaning purposes.	Visual observations
Wastewater Treatment	No wastewater treatment systems were observed or reported.	Visual observations
Sanitary/Process Wastewater Receptor	Septic tank and field	Visual observations and Site owner
Sanitary Sewer Connection	Not applicable as all sanitary discharges go to the on-Site septic tank and field.	
Septic Systems	Septic tank and field located north of the office building.	
Storm Water Flow	Storm water flow is directed away from the buildings, across paved areas and grassed covered swales towards a wooded area with a creek that runs east-west along the north side of the Site.	Visual observations and Site owner
Storm Sewer Connection	No storm sewers located on the Site. Storm water is discharged by swales, ditches and soil infiltration.	Visual observations
Storm Water Infiltration	There is water infiltration through the grass and gravel covered areas. The Site owner reported no problems with water ponding.	Visual observations
Watercourses, Ditches or Ponded Water	Some swale/ditch areas were observed that allow surface water to discharge off-Site. No ponded water observed.	

5.1.2.4 *Hazardous and Non-Hazardous Waste*

Topic	Observations	Comment/Source
Hazardous Wastes Produced and Originating Processes	Waste oil & lubricants and aliphatic solvents are produced in the bus maintenance garage.	Visual observations, Site owner and HWIN information.
Storage of Hazardous Wastes	■ A waste oil tank is located outside the north elevation of the bus maintenance garage; ■ Used oil filters are drained and stored in a plastic bin outside the north elevation of the bus maintenance garage; and, ■ Small quantities of automotive lubricants, sprays and liquids are stored in a flammable proof cabinet in the bus maintenance garage.	The Site representatives indicated that both waste oil receptors are reportedly emptied or removed from the Site by a licensed waste removal service. The frequency of service could not be confirmed.
Staining or Evidence of Upset in Hazardous Waste Storage Areas	None observed	
Removal of Hazardous Waste	The Site representatives indicated that waste oil, used antifreeze and used oil filters were removed by a licensed waste removal contractor.	Safety-Kleen is contracted to remove all waste oil, used antifreeze and used oil filters
Non-hazardous Wastes	One solid waste garbage dumpster was observed on-Site near the northwest corner of the bus maintenance garage.	Solid waste picked-up by BFI Canada Inc.
Recyclables	Tires	Picked-up by Eco Tire Recovery

5.1.2.5 *Chemical Storage, Waste and Sumps*

Topic	Observations	Comment/Source
Chemical Use and Storage	■ Small volume of automotive cleaning chemicals observed on the mechanic's benches; ■ Small volume of flammable chemicals stored in yellow flammable proof storage cabinet in the garage; ■ Large volume propane tank located outside the north elevation garage wall (used for heating the garage bays);	Visual observations

Topic	Observations	Comment/Source
	■ Bulk oil tank (new oil) located within an steel aboveground storage tank inside the bus maintenance garage; ■ New windshield washer fluid located in the storage shed; and, ■ Gasoline and diesel stored in three large ASTs at M. L. Bradley Bus Lines.	
Number, age, use and depth of In-floor or In-ground Sumps, Trenches or Pits	Full length floor trenches are located along the front of the three bus maintenance bays, these trenches drain (trenches have outlet pipes located about 5 cm above the bottom of the floor trench to allow sand and silt to settle) to one common catchment/sump pit located on the northeast corner of the service bays. The sump pit is approximately 1 metre in depth and a high water level will drain to the septic tank and septic field located north of the garage. At the time of the Site visit there was approximately 60 cm of water in the pit. The water had no hydrocarbon sheen on it and there was no hydrocarbon odour.	Visual observations and Site representatives. The Site representative and the mechanics reported that any oil, gasoline or diesel spill onto the garage floor is immediately soaked with absorbent and cleaned up before reaching the floor trenches or catchment/sump pit.
Grease Traps Present	None reported or observed	
Oil / water Separators Present	None reported or observed	
Hydraulic Hoists Present	Some portable hydraulic hoists for jacking up the buses if needed.	Visual observations and Site representatives
Elevators on-Site (Use and Type)	None reported or observed	
Staining or Evidence of Upset	None reported or observed	Visual observations

5.1.2.6 *Asbestos-Containing Materials ("ACMs")*

Based on the age of the building, early 1990s, ACMs are not expected to be present at the Site.

5.1.2.7 *Polychlorinated Biphenyls ("PCB") Containing Materials and Equipment*

Based on the age of the building, early 1990s, PCB containing equipment is not expected to be present at the Site.

5.1.2.8 *Special Attention Items*

Topic	Observations	Comment/Source
Lead-Based Paints ("LBPs")	Based on the age of the property building (constructed in the 1990s), LBPs are not expected.	Visual observations, Site representative and aerial photograph review
Ozone-Depleting Substances ("ODSs")	■ No air conditioning equipment observed or reported; and, ■ Two portable refrigerators are located in the utility room.	Visual observations and Site representative
Radon Gas	Given that the building has no basement, the accumulation of radon gas is not considered an APEC.	Visual observation
Mould	No obvious evidence of mould was observed during the Site visit.	Visual observations and Site representative.
Pesticides and Herbicides	No herbicide or pesticide mixing or storage was observed during the Site visit.	Visual observations and Site representative.
Mercury Containing Equipment	During the Site visit, no mercury-containing equipment was observed or reported on-Site.	Elemental mercury may be present in thermostats, switch gear, barometers, metal halide light bulbs and fluorescent light tubes. Based on the age of the property building (constructed in the early 1990s), elemental mercury is not expected.
Radioactive materials	None observed or reported	Visual observations and Site representative
Presence of Stressed Vegetation	None observed or reported	Visual observations and Site representative

5.1.2.9 *Storage Tanks*

Aboveground Storage Tanks ("ASTs")

There were seven (7) ASTs observed during the Site visit. No staining was observed around any of the ASTs at the time of the Site visit and the Site owner reported that there were no past spills. No spills were indicated in the Ecolog ERIS Database report.

Liquid/gas stored in the AST	Size of the AST (litres)	Construction Material/Containment	Age	Condition/Location
Propane	Not shown on the label	Metal / None	1980	Good / Back of Garage
Waste Oil	1100	Metal / None	2010	Good / Back of Garage

Liquid/gas stored in the AST	Size of the AST (litres)	Construction Material/Containment	Age	Condition/Location
Waste Oil (no longer used)	1100	Metal / None	Unknown	Poor / Beside the tire trailer
Bulk Oil (new)	1008	Metal / None	2010	Good / In the garage
Gasoline	4550	Metal / Double walled	2010	Good / In the fuel yard
Diesel	4550	Metal / Double walled	2010	Good / In the fuel yard
Diesel	4550	Metal / Double walled	2010	Good / In the fuel yard

Underground Storage Tanks ("USTs")

No current USTs were reported or observed on-Site. No evidence of USTs, fill or vent pipes extending from the ground, were observed during the Site visit. The Site representative reported that two former USTs were removed in approximately 2003 and replaced with ASTs. No reports were provided to discuss the USTs removal.

5.1.2.10 *Spills*

At the time of the Site visit, no evidence of spills was observed and no incidents were reported by the Site representatives. There were no spills indicated on or off-Site in the Ecolog ERIS Database report.

5.1.3 3406 Frank Kenny Road Areas of Potential Environmental Concern ("APEC")

The only APEC identified during the Site visit is related to the former location of two fuel USTs that were removed in 2003.

6.0 3450 FRANK KENNY ROAD – RESIDENTIAL / AGRICULTURAL

6.1 Site Reconnaissance

6.1.1 General Description

The Site reconnaissance of 3450 Frank Kenny Road was carried out on July 27, 2011 by B. G. Sullivan of Golder starting at 1 pm and completed at 2:30 pm. The Site representative (Site owner) and occupant were present during the Site visit and interviewed as part of the Site reconnaissance. The weather at the time of the Site visit was sunny and 26 degrees Celsius. All interior and exterior areas were observed.

6.1.2 Specific Observations at the Phase I ESA Property

Observations made during the Site visit of 3450 Frank Kenny Road were documented with field inspection forms, photographs (presented in Appendix A) and additional notes where warranted. Information obtained as a result of the Site visit and from the Site representative has been summarized and incorporated into the appropriate sections below:

6.1.2.1 *Site Physical Description*

Topic	Observations	Comment / Source
Site Area	2.8 hectares	HONI
Building Area	Bungalow house – 111 m^2	Site Owner
Number and Age of Buildings on the Site	Bungalow house – built in ~ 1982	Site Owner
Approximate Floor Space of Site Building	111 m^2	Site Owner
Approximate Percentage of Site Covered by Buildings	1%	Estimate
Number of Levels Below Ground Level	1	Visual observations
General construction of building	Bungalow – wood frame, clap board cladding, sloped asphalt shingle roof	Site owner and visual observations
Number of Floors (include all levels, whether above or below ground)	Bungalow - 2 levels (ground floor and basement)	
Approximate Percentage of Site Consisting of Paved or Other Sealed Surface Materials	0%	Estimate from air photo
Approximate Percentage of Site Consisting of Landscaped/ Grassed/Bare Ground Areas	1%	Estimate from air photo
Areas of fill and/or debris	Fill is suspected on-Site associated with initial development of the Site. There is gravel fill in the driveway. Fill material was observed in the septic field area and likely around the foundation of the residential building.	Visual observations

Topic	Observations	Comment / Source
Current or former railway lines	None	Visual observations

6.1.2.2 *Site Services and Air Emissions*

Topic	Observations	Comment / Source
Process Exhausts	No process exhausts	Visual observations and Site representatives
Heating and Cooling System (include fuel type / source)	Bungalow – Forced air oil heating. Portable window air conditioner	Visual observations
Back-up Generators (include fuel type / source)	No back-up generators were observed or reported	Visual observations and Site owner
Transformers	No transformers were observed.	Visual observations
Other Exhausts	None reported	
Odours	None noticed	Site Visit
Visible Emissions	No visible emissions were observed	
Utility Lines Present (i.e. Electrical, Natural Gas, other)	None observed as the Site is serviced with one domestic well, a septic tank & field and underground electrical supply.	Visual observations and Site owner

6.1.2.3 *Water and Wastewater Discharges*

Topic	Observations	Comment/Source
Water Supply Source	Domestic well	
Water Use	At the time of the Site visit, water sources were used for domestic activities.	Visual observations
Wastewater Treatment	No wastewater treatment systems were observed or reported.	Visual observations
Sanitary/Process Wastewater Receptor	Septic tank and field	Visual observations and Site owner
Sanitary Sewer Connection	Not applicable as all sanitary discharges go to the on-Site septic tank and field.	
Septic Systems	Septic tank and field located west of the bungalow.	
Storm Water Flow	Storm water flow is directed away from the building, towards the ditch that runs along Frank Kenny Road.	Visual observations and Site owner
Storm Sewer Connection	No storm sewers located on the Site. Storm water is discharged by swales, ditches and soil infiltration.	Visual observations

Topic	Observations	Comment/Source
Storm Water Infiltration	There is water infiltration through the grass, crop and gravel covered areas. The Site owner reported no problems with water ponding.	Visual observations
Watercourses, Ditches or Ponded Water	Ditch areas were observed that allow surface water to discharge off-Site. No ponded water observed.	

6.1.2.4 *Hazardous and Non-Hazardous Waste*

Topic	Observations	Comment/Source
Hazardous Wastes Produced and Originating Processes	None observed	Visual observations and Site owner
Storage of Hazardous Wastes	None	
Staining or Evidence of Upset in Hazardous Waste Storage Areas	None observed	
Removal of Hazardous Waste	Not applicable	
Non-hazardous Wastes	Domestic garbage stored in the kitchen	City of Ottawa picks up domestic waste every week.
Recyclables	Food, paper/cardboard and plastic/cans	City of Ottawa picks up domestic waste every week.

6.1.2.5 *Chemical Storage, Waste and Sumps*

Topic	Observations	Comment/Source
Chemical Use and Storage	■ Cleaning chemicals in the kitchen and bathroom; and, ■ A heating oil tank is located in the basement near the southeast corner of the house.	Visual observations The bungalow was originally electrically heated and the Site owner took the heating oil tank from his house and placed it at this location in approximately 1998 and installed heating ducts and an oil furnace.
Number, age, use and depth of In-floor or In-ground Sumps, Trenches or Pits	There is a sump pit located in the southeast corner of the basement. The water had no hydrocarbon sheen on it and there was no hydrocarbon odour.	Visual observations
Grease Traps Present	None reported or observed	
Oil / water Separators Present	None reported or observed	

Topic	Observations	Comment/Source
Hydraulic Hoists Present	None reported or observed	
Elevators on-Site (Use and Type)	None reported or observed	
Staining or Evidence of Upset	None reported or observed	Visual observations

6.1.2.6 *Asbestos-Containing Materials ("ACMs")*

Based on the age of the building, early 1980s, ACMs may be present in the attic insulation (known as vermiculite asbestos attic insulation). As the interior of the house was recently renovated there were no vinyl tiles or ceiling tiles observed that could contain ACMs.

6.1.2.7 *Polychlorinated Biphenyls ("PCB") Containing Materials and Equipment*

Based on the age of the building, early 1980s, PCB containing equipment such as fluourescent light ballasts may to be present at the Site.

6.1.2.8 *Special Attention Items*

Topic	Observations	Comment/Source
Lead-Based Paints ("LBPs")	Based on the age of the property building (constructed in the 1980s), LBPs may be present in the original paint layers.	Visual observations and Site representative
Ozone-Depleting Substances ("ODSs")	■ One portable window air conditioning unit was observed; and, ■ One refrigerator is located in the kitchen.	Visual observations and Site representative
Radon Gas	Given that the basement has no occupants, the accumulation of radon gas is not considered an APEC.	Visual observation
Mould	No obvious evidence of mould was observed during the Site visit.	Visual observations and Site representative
Pesticides and Herbicides	No herbicide or pesticide mixing or storage was observed during the Site visit. Some pesticides and herbicides may have been used for the soya bean crop area on the Site.	Visual observations and Site representative

Topic	Observations	Comment/Source
Mercury Containing Equipment	During the Site visit, no mercury-containing equipment was observed or reported on-Site.	Elemental mercury may be present in thermostats, switch gear, barometers, metal halide light bulbs and fluorescent light tubes. Based on the age of the property building (constructed in the early 1980s), elemental mercury may be present.
Radioactive materials	None observed or reported	Visual observations and Site representative
Presence of Stressed Vegetation	None observed or reported. Soya beans were planted in the agricultural field around the house area.	Visual observations and Site representative

6.1.2.9 *Storage Tanks*

Aboveground Storage Tanks ("ASTs")

There was one 900 litre heating oil AST observed during the Site visit. No staining was observed under the AST at the time of the Site visit and the Site owner reported that there were no past spills. No spills were indicated in the Ecolog ERIS Database report.

Underground Storage Tanks ("USTs")

No current USTs were reported or observed on-Site. No evidence of USTs, fill or vent pipes extending from the ground, were observed during the Site visit.

6.1.2.10 *Spills*

At the time of the Site visit, no evidence of spills was observed and no incidents were reported by the Site representative. There were no spills indicated on or off-Site in the Ecolog ERIS Database report.

6.1.3 3450 Frank Kenny Road Areas of Potential Environmental Concern ("APEC")

Based on the historical information, interview and the Site visit, the only APECs identified at 3450 Frank Kenny Road is the potential presence of hazardous building materials, i.e. asbestos in the attic insulation, lead-based paint in the original layers of paint and potential PCBs in the fluorescent light ballasts.

The on-Site water supply well and septic field should be decommissioned according to Ontario Regulations if their use is to be discontinued after HONI redevelops the Site.

7.0 CONCLUSIONS

Based on the review of available information, the Phase I ESA Site was occupied by agricultural properties prior to its development as a residential dwelling in the early 1980s (3450 Frank Kenny Road) and M. L. Bradley Bus Lines in 1991 (3406 Frank Kenny Road). As noted in the introduction, Golder is assessing the two municipal addresses as one property, however the northern parcel (currently occupied by Bradley) will be considered as an adjacent property to the Site for the purposes of the Phase I ESA.

Based on our findings, one on-Site Area of Potential Environmental Concern ("APEC") was identified (potential presence of hazardous building materials); refer to Section 6.1.3 and Figure 4. A Designated Substance Survey would be required to confirm the presence of hazardous building materials (asbestos in attic insulation), lead-based paint and PCBs within the residential dwelling at 3450 Frank Kenny Road prior to its demolition. Also, if the existing water supply well is not required for the HONI's use of the Site, it should be decommissioned as per Ontario Regulation 903. The septic tank/septic field should also be decommissioned according to provincial regulations if it is not needed.

One APEC (considered off-Site as it is related to the northern portion of the Site) was identified at 3406 Frank Kenny Road (removal of underground storage tanks without documentation); refer to Section 5.1.3 and Figure 5. This APEC is considered to be located downgradient (based on a inferred shallow groundwater flow direction to the northwest) from 3450 Frank Kenny Road, a Phase II ESA is not required to address the APEC presented in Figure 5.

8.0 LIMITATIONS AND USE OF REPORT

This report was prepared for the exclusive use of J. L. Richards and Associates c/o 743120 Ontario Inc. and Hydro One Networks Inc (HONI). This report is intended to provide an assessment of the potential environmental conditions of the two municipal addresses on the Site located at 3406 and 3450 Frank Kenny Road, Ottawa, Ontario. Any use which another party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of said party. Should additional parties require reliance on this report, written authorization from Golder Associates Ltd. is required. No assurance is made regarding the accuracy and completeness of these data. Golder Associates Ltd. disclaims responsibility for consequential financial effects on transactions or property values, or requirements for follow-up actions and costs.

The Report summarizes Golder's review of available data in accordance with Ontario Regulation 153/04 as amended for the purposes of pre-acquisition due diligence and to obtain rezoning and Site Plan Approval. The Report is based on data and information collected at the time of this Assessment, and must be considered in its entirety. It is based solely on the conditions on the Site encountered at the time of the Site visits as reported herein. Except as otherwise may be requested, Golder disclaims any obligation to update this Report for events taking place, or with respect to information that becomes available to Golder after the time during which Golder conducted the work. No soil, water, liquid, gas, product or chemical sampling and analytical testing other than that described herein at or in the vicinity of the Site was conducted as part of this work.

In evaluating the property, Golder has relied in good faith on information provided by other individuals, companies or government agencies noted in the Report. Golder has assumed that the information provided is factual and accurate and Golder has not independently verified the accuracy or completeness of such information. Golder accepts no responsibility for any deficiency, misstatement or inaccuracy contained in this Report as a result of omissions, misinterpretations or fraudulent acts of persons interviewed or contacted. Golder makes no other representations whatsoever, including those concerning the legal significance of its findings, or as to other legal matters touched on in this Report, including, but not limited to, ownership of any property, or the application of any law to the facts set forth herein. With respect to regulatory compliance issues, regulatory statutes are subject to periodic amendment. In addition, regulatory statutes are subject to interpretation and these interpretations may change over time.

Any use which a third party makes of this Report, or any reliance on or decisions to be made based on it, are the sole responsibility of the third parties. Should additional parties require reliance on this Report, written authorization from Golder will be required. Golder disclaims responsibility of consequential financial effects on transactions or property values, or requirements for follow-up actions and costs.

Should you have any questions concerning this report, or the limitations set herein, please do not hesitate to contact our office.

9.0 CLOSURE

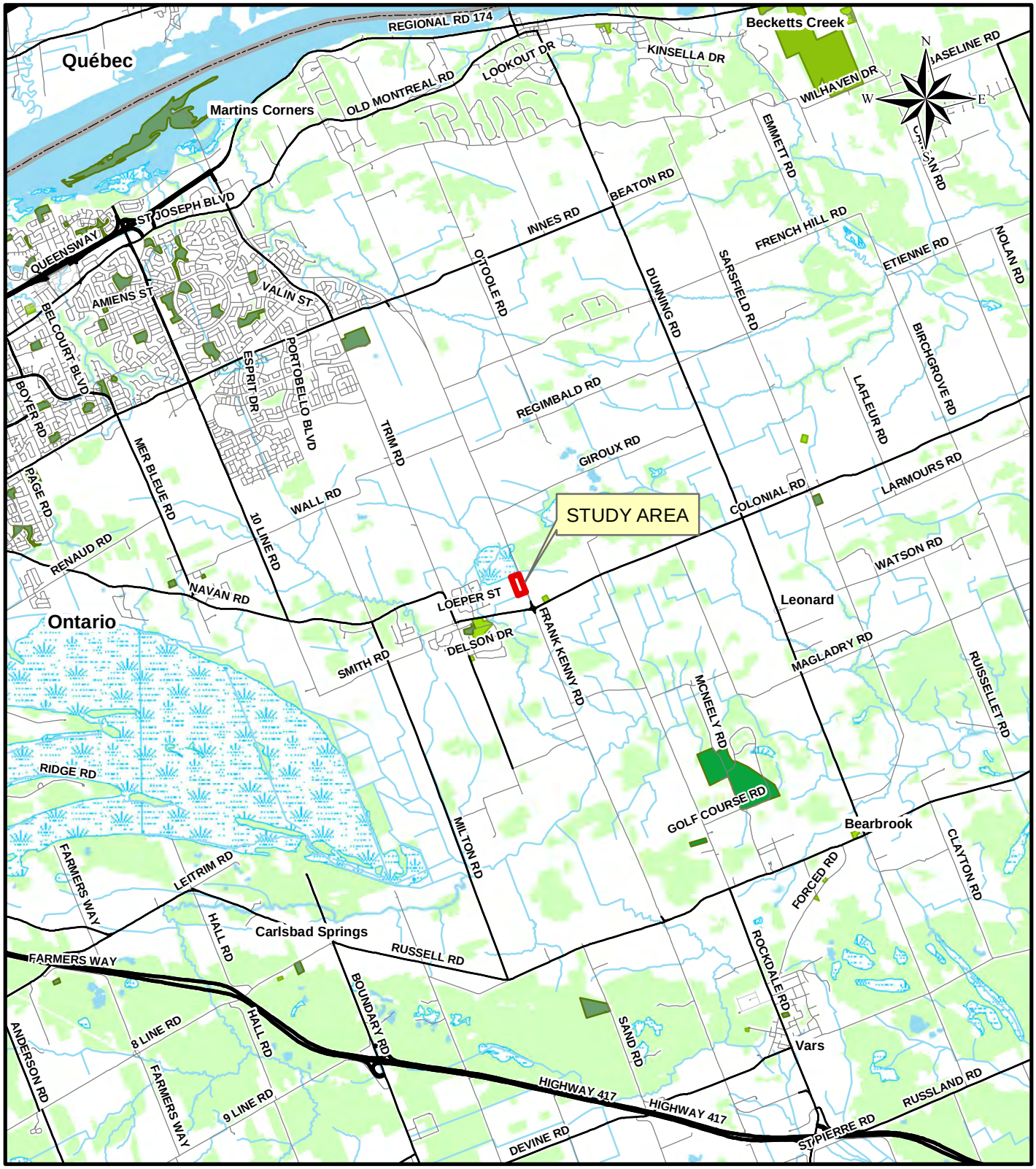
We trust that this report meets your current needs. If you have any questions, or if we may be of further assistance, please do not hesitate to contact the undersigned.

GOLDER ASSOCIATES LTD.

B.G. Sullivan, CET
Senior Due Diligence Assessor

Don Plenderleith, P.Eng.
Associate

BGS/DHP/kg
n:\active\2011\1122 - contaminated lands\11-1122-0129 hydro one frank kenny road\phase i esa folder\report\final rpt01_phase i esa_september2011.docx



NOTE

THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 10-1122-0129/1000

REFERENCE

DIGITAL BASE MAP DATA SUPPLIED BY DMTI SPATIAL INC. CANMAP, 2008
PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83 COORDINATE SYSTEM: MTM ZONE 9

2,500 0 2,500
SCALE 1:100,000 METRES

Golder Associates
Ottawa, Ontario

PROJECT No.	11-1122-0129
SCALE	AS SHOWN
REV.	0
DATE	Aug. 2011
DESIGN	BGS
GIS	BJ
CHECK	BGS
REVIEW	DHP

TITLE

KEY PLAN

PROJECT PHASE I ENVIRONMENTAL ASSESSMENT - 3450 FRANK KENNY ROAD, OTTAWA, ONTARIO

FIGURE 1

NOTE

THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD.' REPORT NO. 11-1122-0129.

REFERENCE

DIGITAL BASE MAP DATA SUPPLIED BY ESRI CANADA 2011.
PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83 COORDINATE SYSTEM: UTM ZONE 18

100 0 100
SCALE 1:4,000 METRES

Golder Associates
Ottawa, Ontario

PROJECT No.	11-1122-0129
SCALE	AS SHOWN
REV.	0
DATE	Aug. 2011
DESIGN	BGS
GIS	BJ
CHECK	BGS
REVIEW	DHP

TITLE

ON-SITE FEATURES

PROJECT PHASE I ENVIRONMENTAL ASSESSMENT - 3450 FRANK KENNY ROAD, OTTAWA, ONTARIO

FIGURE 2

Path: N:\Active\2011\1122 - Contaminated Lands\11-1122-0129 Hydro One Frank Kenny Road\Spatial_IMMXD\1111220129-1000-02.mxd

LEGEND

- SURROUNDING LAND USE 250m BUFFER
- STUDY AREA
- SEPTIC FIELD
- FORMER UNDERGROUND STORAGE TANK

150 0 150

SCALE 1:5,000 METRES

REFERENCE

BASE DATA - DATA PROVIDED BY ESRI CANADA, 2010.
Projection: Transverse Mercator Datum: NAD 83 Coordinate System: UTM Zone 18

NOTE

THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 11-1122-0129/1000.

PROJECT
PHASE I ENVIRONMENTAL ASSESSMENT -
3450 FRANK KENNY ROAD, OTTAWA, ONTARIO

TITLE
PHASE I ESA STUDY AREA AND SURROUNDING LAND USE

Golder Associates
Ottawa, Ontario

PROJECT No. 11-1122-0094			SCALE AS SHOWN	REV. 0.0
DESIGN	BGS	Aug. 2011	FIGURE 3	
GIS	BJ	Aug. 2011		
CHECK	BGS	Sep. 2011		
REVIEW	DHP	Sep. 2011		

Path: N:\Active\2011\1122 - Contaminated Lands\11-1122-0129 Hydro One Frank Kenny Road\Spatial_IM\MXD\1111220129-1000-03.mxd

LEGEND

STUDY AREA

AREAS OF POTENTIAL ENVIRONMENTAL CONCERN

1 POTENTIAL ASBESTOS, LEAD-BASED PAINT AND PCBs

100 0 100

SCALE 1:2,500 METRES

REFERENCE

BASE DATA - DATA PROVIDED BY ESRI CANADA, 2010.
Projection: Transverse Mercator Datum: NAD 83 Coordinate System: UTM Zone 18

NOTE

THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 11-1122-0129/1000.

PROJECT
PHASE I ENVIRONMENTAL ASSESSMENT -
3450 FRANK KENNY ROAD, OTTAWA, ONTARIO

TITLE
ON-SITE AREAS OF POTENTIAL
AND KNOWN ENVIRONMENTAL CONCERN

Golder Associates
Ottawa, Ontario

PROJECT No. 11-1122-0129			SCALE AS SHOWN	REV. 0.0
DESIGN	BGS	Aug. 2011	FIGURE 4	
GIS	BJ	Aug. 2011		
CHECK	BGS	Sep. 2011		
REVIEW	DHP	Sep. 2011		

Path: N:\Active\2011\1122 - Contaminated Lands\11-1122-0129 Hydro One Frank Kenny Road\Spatial IMMXD\1111220129-1000-04.mxd

LEGEND

- STUDY AREA
- FORMER UNDERGROUND STORAGE TANKS

REFERENCE

BASE DATA - DATA PROVIDED BY ESRI CANADA, 2010.
Projection: Transverse Mercator Datum: NAD 83 Coordinate System: UTM Zone 18

NOTE

THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 11-1122-0129/1000.

PROJECT
PHASE I ENVIRONMENTAL ASSESSMENT -
3450 FRANK KENNY ROAD, OTTAWA, ONTARIO

TITLE
OFF-SITE AREAS OF POTENTIAL
AND KNOWN ENVIRONMENTAL CONCERN

Golder Associates
Ottawa, Ontario

PROJECT No. 11-1122-0129			SCALE AS SHOWN	REV. 0.0
DESIGN	BGS	Aug. 2011	FIGURE 5	
GIS	BJ	Aug. 2011		
CHECK	BGS	Sep. 2011		
REVIEW	DHP	Sep. 2011		

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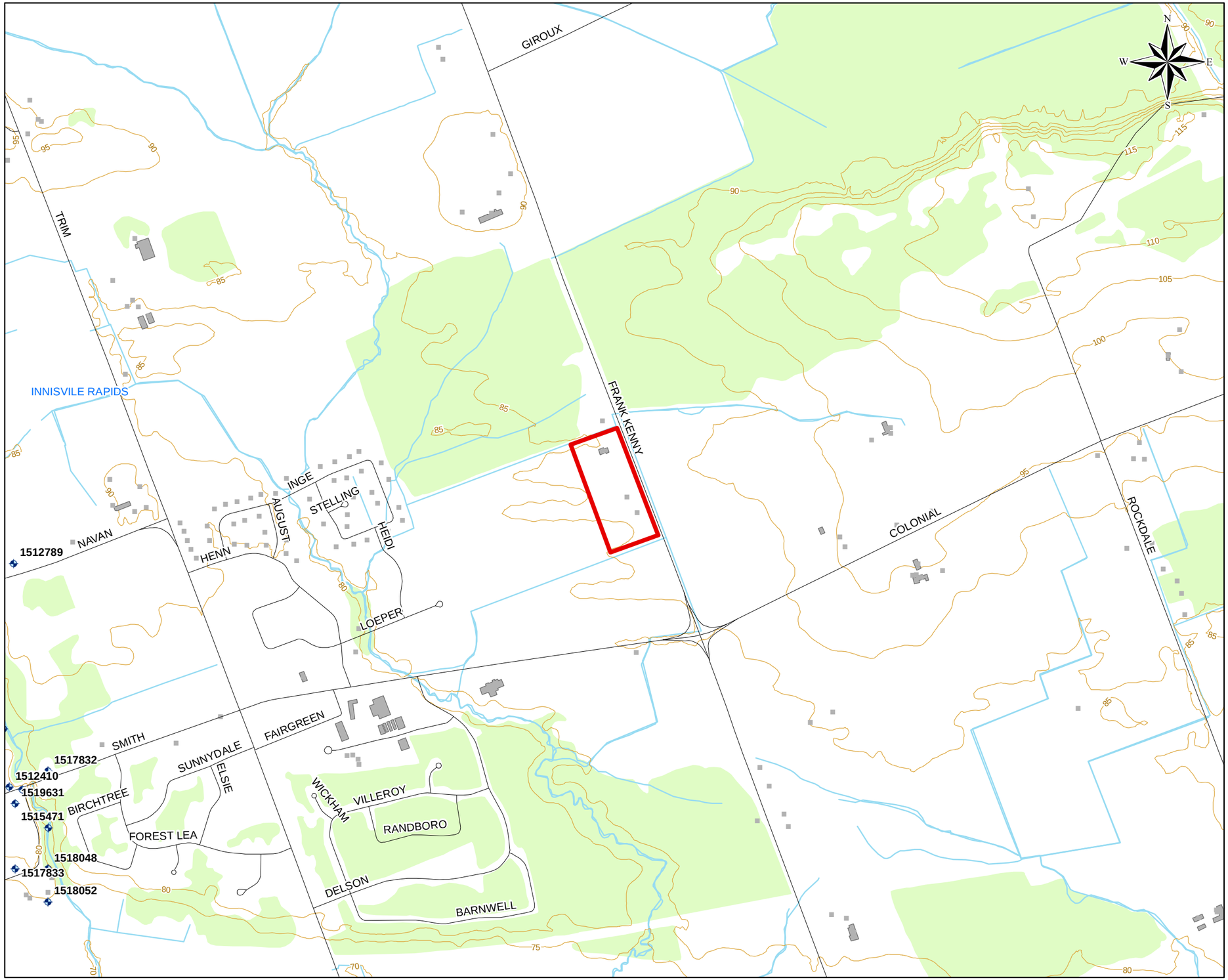


LEGEND

- MOE WATER WELL
- ROADS
- CONTOUR LINE 5m
- RIVER/STREAM
- WATERBODY
- STUDY AREA
- BUILDING
- WOODED AREA

NOTE

THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 11-1122-0129/1000.

REFERENCE

DIGITAL BASE MAP DATA SUPPLIED BY DMTI SPATIAL INC. CANMAP, 2009, MOE WATER WELLS, SOUTHERN ONTARIO, COPYRIGHT © QUEEN'S PRINTER FOR ONTARIO, 2009.
Projection: Transverse Mercator: Datum: NAD 83 Coordinate System: UTM Zone 18

400 0 400
SCALE 1:12,000 METRES

PROJECT
PHASE I ENVIRONMENTAL SITE ASSESSMENT,
3450 FRANK KENNY ROAD, OTTAWA, ONTARIO

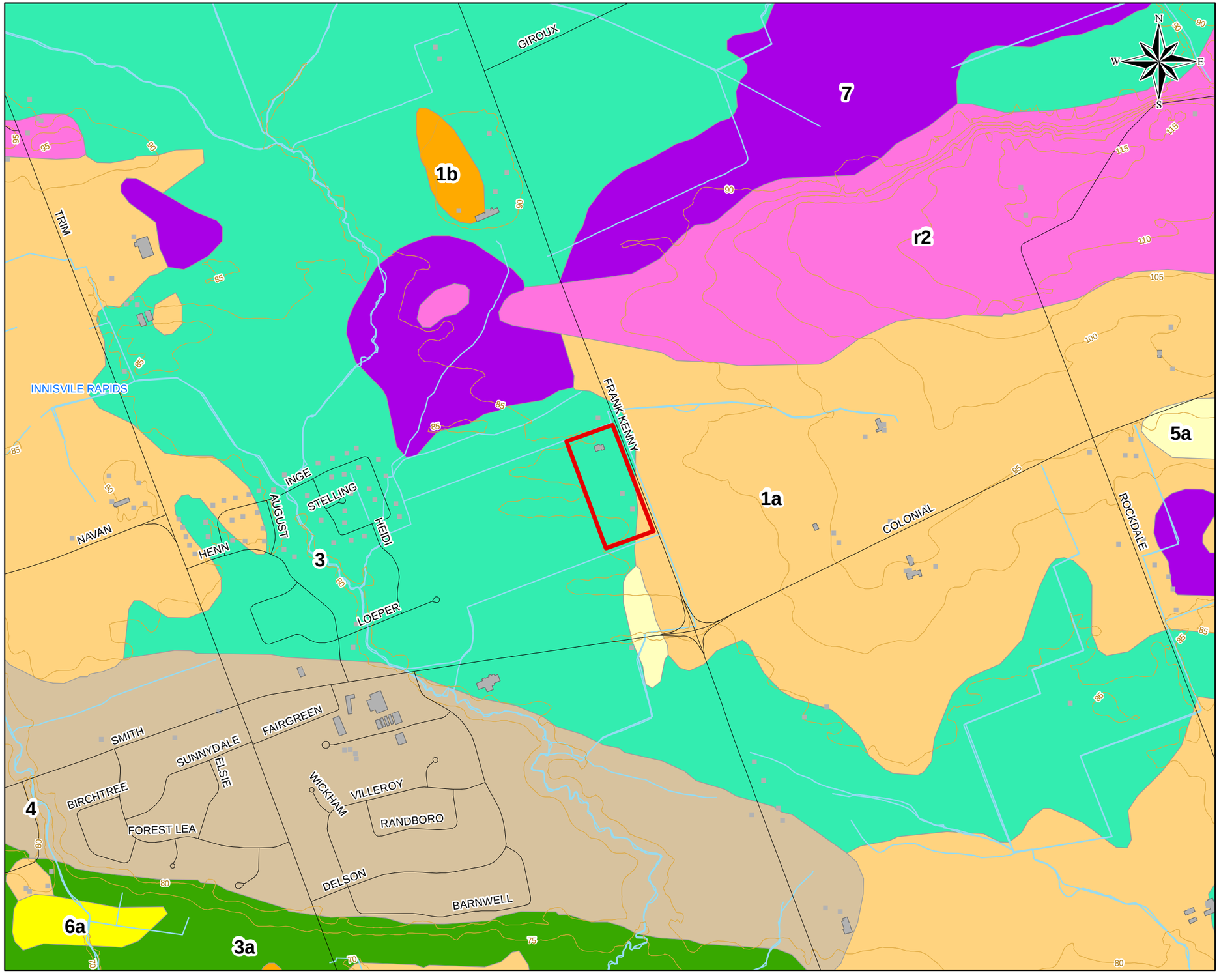
TITLE
TOPOGRAPHIC MAP

Golder Associates
Ottawa, Ontario

PROJECT No. 11-1122-0129			SCALE AS SHOWN	REV. 0
DESIGN	BGS	Aug. 2011		
GIS	BJ	Aug. 2011		
CHECK	BGS	Sep. 2011		
REVIEW	DHP	Sep. 2011		

FIGURE 6

Path: N:\Active\2011\1122 - Contaminated Lands\11-1122-0129 Hydro One Frank Kenny Road\Spatial_IM\MXD\1111220129-1000-08.mxd



LEGEND

- ROADS
- RIVER/STREAM
- WATERBODY
- STUDY AREA

SURFICIAL GEOLOGY

- 1a — TILL, PLAIN WITH LOCAL RELIEF <5m
- 1b — TILL, DRUMLINIZED
- 3 — OFFSHORE MARINE DEPOSITS: CLAY, SILTY CLAY & SILT
- 3a — OFFSHORE MARINE DEPOSITS: CLAY & SILT UNDERLYING EROSIONAL TERRACES
- 4 — DELTAIC AND ESTUARY DEPOSITS: MEDIUM TO FINE GRAINED SAND
- 5a — NEARSHORE SEDIMENTS: GRAVEL, SAND & BOULDERS
- 6a — ALLUVIAL DEPOSITS: SILTY SAND, SILT, SAND & CLAY
- 7 — ORGANIC DEPOSITS: MUCK & PEAT
- r2 — BEDROCK: LIMESTONE, DOLOMITE, SANDSTONE & LOCAL SHALE

NOTE

THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 11-1122-0129/1000.

REFERENCE

DIGITAL BASE MAP DATA SUPPLIED BY DMTI SPATIAL INC. CANMAP, 2009, MOE WATER WELLS, SOUTHERN ONTARIO, COPYRIGHT © QUEEN'S PRINTER FOR ONTARIO, 2009.
Projection: Transverse Mercator: Datum: NAD 83 Coordinate System: UTM Zone 18

400 0 400
SCALE 1:12,000 METRES

PROJECT
PHASE I ENVIRONMENTAL SITE ASSESSMENT, 3450 FRANK KENNY ROAD, OTTAWA, ONTARIO

TITLE
SURFICIAL GEOGRAPHY

Golder Associates
Ottawa, Ontario

PROJECT No. 11-1122-0129			SCALE AS SHOWN	REV. 0
DESIGN	BGS	Aug. 2011	FIGURE 7	
GIS	BJ	Aug. 2011		
CHECK	BGS	Sep. 2011		
REVIEW	DHP	Sep. 2011		

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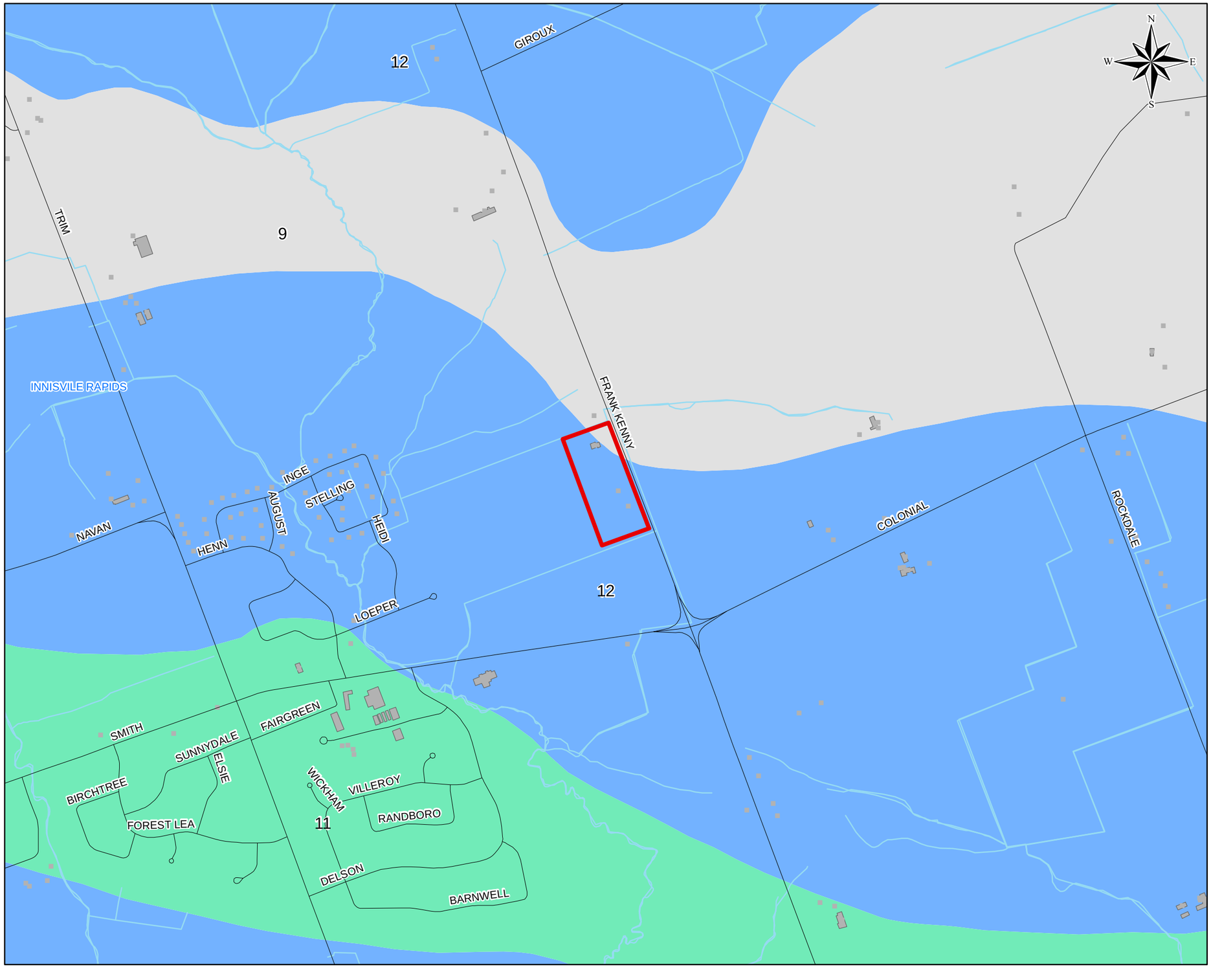


LEGEND

- ROADS
- RIVER/STREAM
- WATERBODY
- BUILDING
- STUDY AREA

PHYSIOGRAPHY DESCRIPTION

- 9: LIMESTONE PLAINS
- 11: SAND PLAINS
- 12: CLAY PLAINS

NOTE

THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 11-1122-0129/1000.

REFERENCE

DIGITAL BASE MAP DATA SUPPLIED BY DMTI SPATIAL INC. CANMAP, 2009, MOE WATER WELLS, SOUTHERN ONTARIO, COPYRIGHT © QUEEN'S PRINTER FOR ONTARIO, 2009.
Projection: Transverse Mercator: Datum: NAD 83 Coordinate System: UTM Zone 18

400 0 400
SCALE 1:12,000 METRES

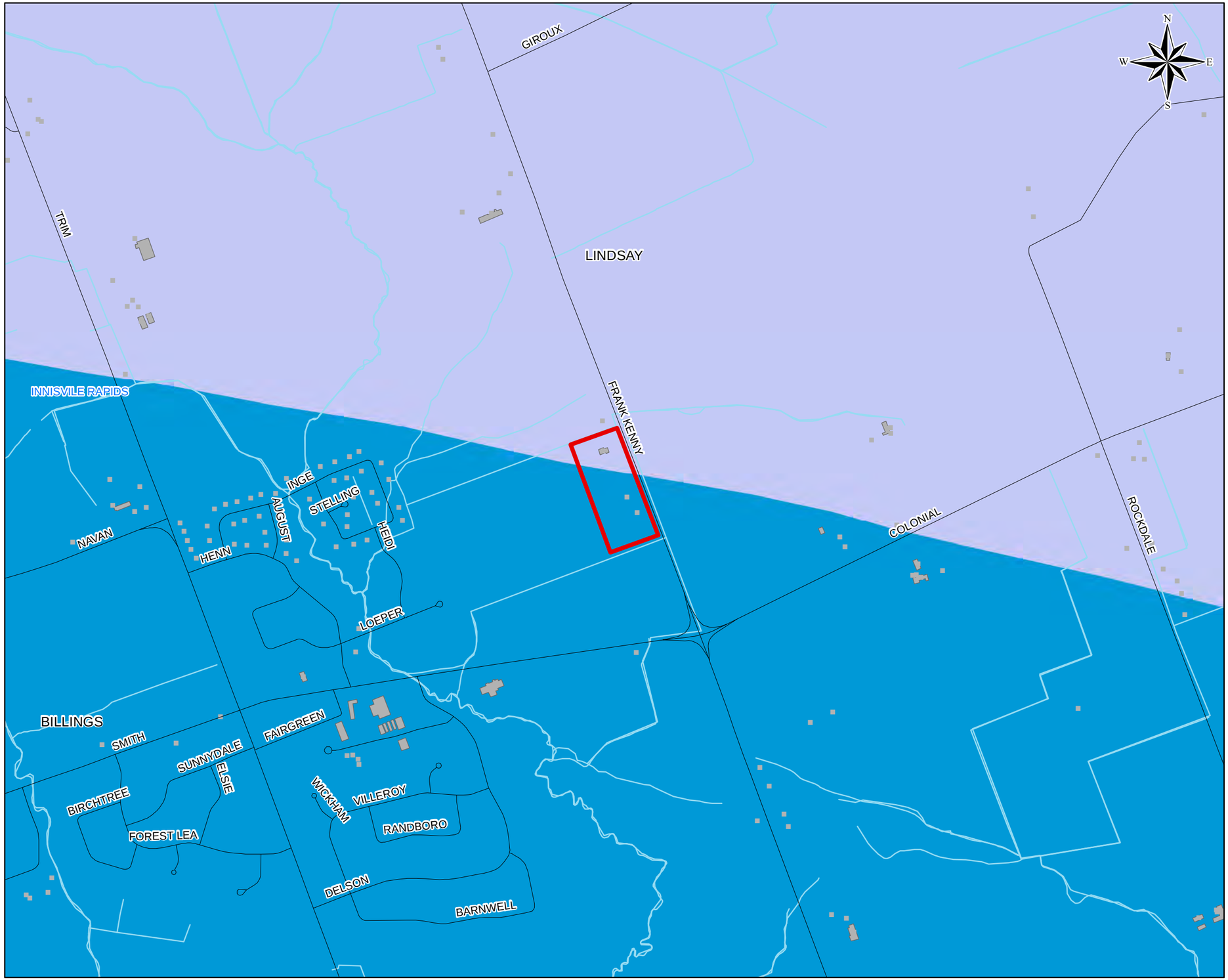
PROJECT
PHASE I ENVIRONMENTAL SITE ASSESSMENT, 3450 FRANK KENNY ROAD, OTTAWA, ONTARIO

TITLE
PHYSIOGRAPHY MAP

Golder Associates
Ottawa, Ontario

PROJECT No. 11-1122-0129			SCALE AS SHOWN	REV. 0
DESIGN	BSG	Aug. 2011	FIGURE 8	
GIS	BJ	Aug. 2011		
CHECK	BSG	Sep. 2011		
REVIEW	DHP	Sep. 2011		

Path: N:\Active\2011\1122 - Contaminated Lands\11-1122-0129 Hydro One Frank Kenny Road\Spatial_IM\MXD\1111220129-1000-09.mxd



LEGEND

- ROADS
- RIVER/STREAM
- WATERBODY
- BUILDING
- STUDY AREA

PALEOZOIC FORMATION

- BILLINGS
- LINDSAY

NOTE

THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 11-1122-0129/1000.

REFERENCE

DIGITAL BASE MAP DATA SUPPLIED BY DMTI SPATIAL INC. CANMAP, 2009
PALEOZOIC GEOLOGY PROVIDED BY THE ONTARIO MINISTRY OF NORTHERN DEVELOPMENT AND MINES© QUEEN'S PRINTER OF ONTARIO, 2000.
Projection: Transverse Mercator: Datum: NAD 83 Coordinate System: UTM Zone 18

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SCALE 1:12,000 METRES

PROJECT
PHASE I ENVIRONMENTAL SITE ASSESSMENT, 3450 FRANK KENNY ROAD, OTTAWA, ONTARIO

TITLE
PALEOZOIC GEOLOGY

Golder Associates
Ottawa, Ontario

PROJECT No. 11-1122-0129			SCALE AS SHOWN	REV. 0
DESIGN	BGS	Aug. 2011	FIGURE 9	
GIS	BJ	Aug. 2011		
CHECK	BGS	Sep. 2011		
REVIEW	DHP	Sep. 2011		

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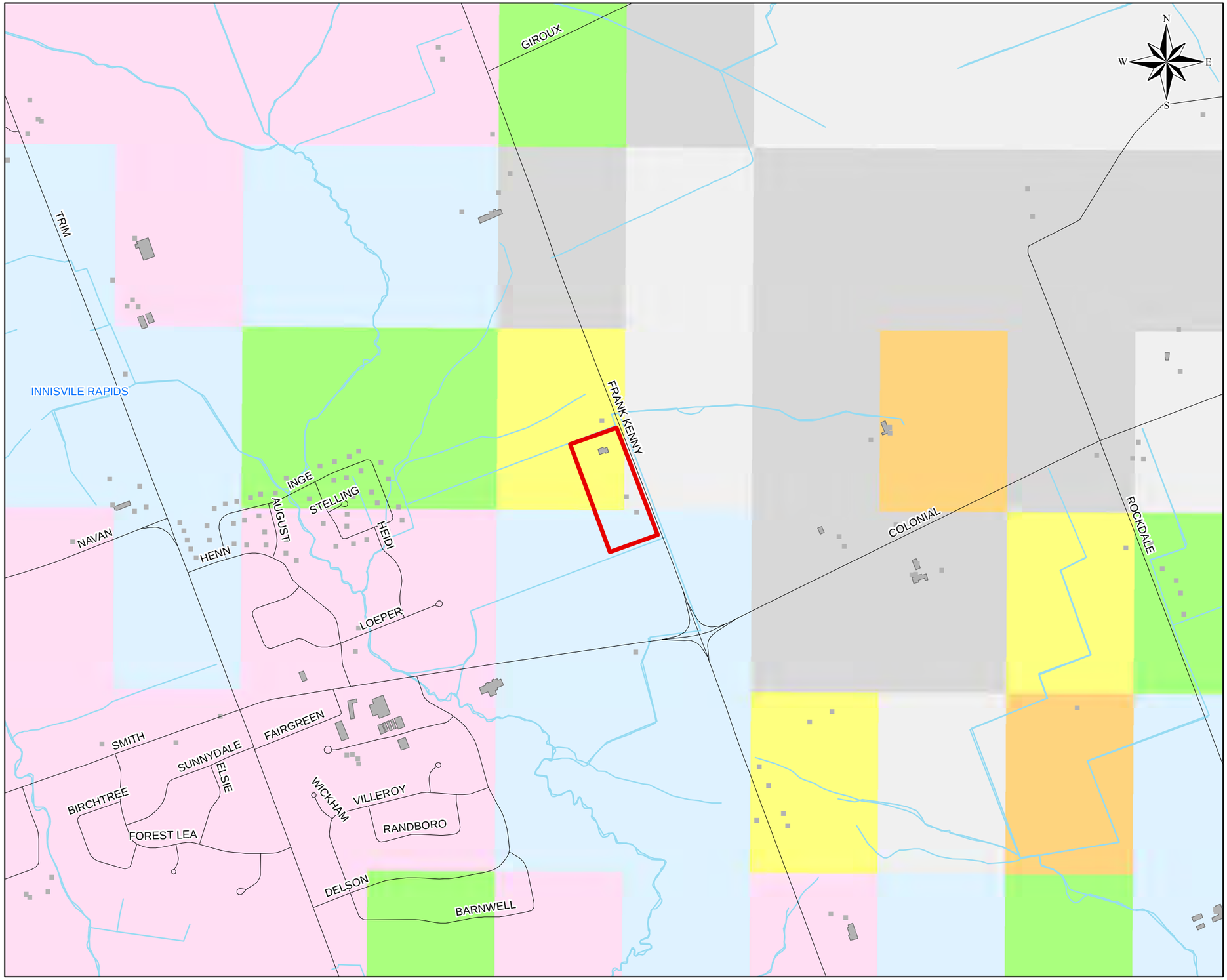


LEGEND

- ROADS
- RIVER/STREAM
- WATERBODY
- BUILDING
- STUDY AREA

TREND IN DEPTH TO BEDROCK (METRES)

- 0
- >0 - 2
- 2 - 3
- 3- 5
- 5 - 10
- 10 - 15
- 15 - 25
- 25 - 50
- 50 - 150
- 150 - 262

NOTE

THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 11-1122-0129/1000.

REFERENCE

DIGITAL BASE MAP DATA SUPPLIED BY DMTI SPATIAL INC. CANMAP, 2009, MOE WATER WELLS, SOUTHERN ONTARIO, COPYRIGHT © QUEEN'S PRINTER FOR ONTARIO, 2009.
Projection: Transverse Mercator: Datum: NAD 83 Coordinate System: UTM Zone 18

400 0 400
SCALE 1:12,000 METRES

PROJECT
PHASE I ENVIRONMENTAL SITE ASSESSMENT, 3450 FRANK KENNY ROAD, OTTAWA, ONTARIO

TITLE
TREND IN DEPTH TO BEDROCK

Golder Associates
Ottawa, Ontario

PROJECT No. 11-1122-0129			SCALE AS SHOWN	REV. 0
DESIGN	BSG	Aug. 2011	FIGURE 10	
GIS	BJ	Aug. 2011		
CHECK	BSG	Sep. 2011		
REVIEW	DHP	Sep. 2011		

APPENDIX A

Site Photographs

Site Photographs
3406 Frank Kenny Road

Photograph 1: Front entrance to the M. L. Bradley Site at 3406 Frank Kenny Road in Ottawa, Ontario.

Photograph 2: Used oil tank (white) and used oil filter bin (blue).

Photograph 3: Three ASTs located in the fuelling area.

Photograph 4: Location of former underground storage tanks (west side of the Site).

Photograph 5: Former waste oil tank located along the north wall of the tire storage trailer.

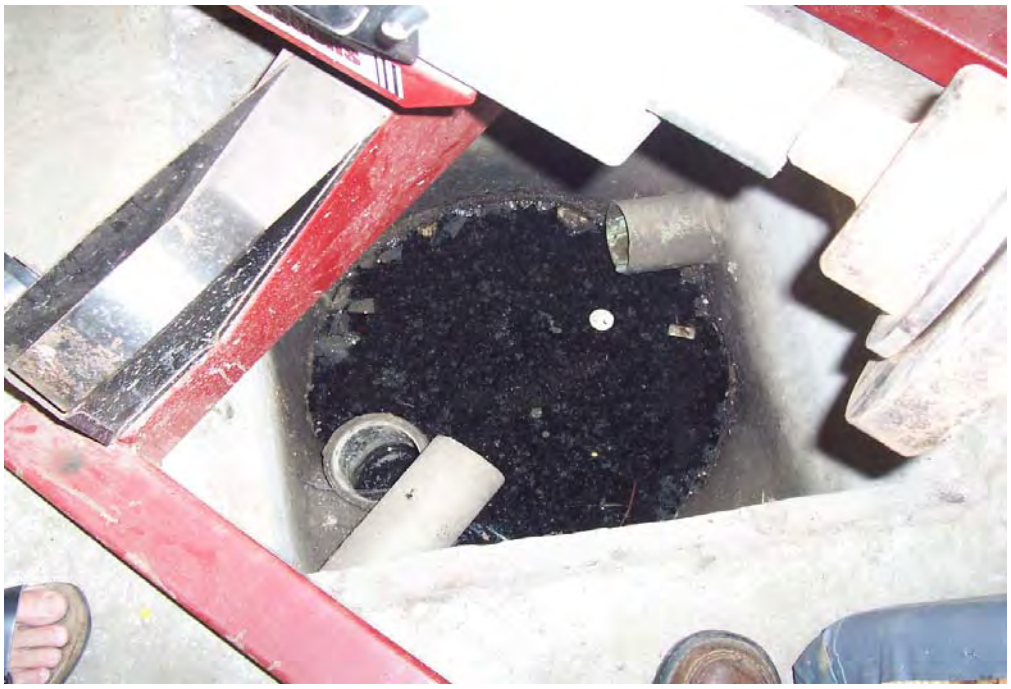
Photograph 6: Waste dumpster located near the northwest corner of the maintenance garage.

Photograph 7: Stockpiled gravel and topsoil located near the tire storage trailer. Some wood and concrete block storage in the background.

Photograph 8: Bulk new oil storage tank located in the maintenance garage.

Photograph 9: Propane tank located north of the maintenance garage with the septic tank and septic field in the background.

Photograph 10: One of two ground-source wells located at M. L. Bradley.



Photograph 11: Collector pit in the maintenance garage. There was no indication of oil or odours in the pit.

Photograph 12: Swale that allows surface water to drain to the west off-site.

Site Photographs
3450 Frank Kenny Road

Photograph 1: Front of the house at 3450 Frank Kenny Road in Ottawa, Ontario.

Photograph 2: Oil tank in the basement. No leakage or spills observed under the tank.

Photograph 3: Fill and vent pipe for the basement heating oil tank.

Photograph 4: Sump pit in the basement. No hydrocarbon issues with the water observed in the pit.

Photograph 5: Domestic well located southeast of the residential house.

Photograph 6: Ditch located along the west side of Frank Kenny Road.

APPENDIX B

Regulatory Documentation, Ecolog ERIS Database Report, HEIRS Response, HWIN Response

Sullivan, Basil

From: spng@tssa.org on behalf of publicinformationservices@tssa.org
Sent: August 4, 2011 4:33 PM
To: Sullivan, Basil
Subject: Re: Request for Registered UST information - 11-1122-0129 (1000)

Hi Sully,

Thank you for your inquiry.

I have searched the below noted address (addresses) and I have located the following record.

3406 Frankenney Rd, Cumberland has record of 2 active underground tanks.

For a more detailed report including underground fuel storage tank details and copies of all inspection reports, please submit your request in writing to Public Information Services via e-mail (publicinformationservices@tssa.org) or through mail along with a fee of $56.50 (including HST) per location. The fee is payable with credit card (Visa or MasterCard) or with a cheque made payable to TSSA.

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

Thank you and have a great day!

Sarah Png
Public Information Services

"Putting Public Safety First"

Technical Standards and Safety Authority
14th Floor, Centre Tower
3300 Bloor Street West
Toronto, ON M8X 2X4

Toll-Free: 1-877-682-8772
Email: publicinformationservices@tssa.org
Web Site: www.tssa.org

"Sullivan, Basil" <Basil_Sullivan@golder.com>

08/04/2011 04:01 PM

To "publicinformationservices@tssa.org" <publicinformationservices@tssa.org>
cc
Subject Request for Registered UST information - 11-1122-0129 (1000)

To Whom It May Concern;

Can you please check your files for information related to registered underground storage tanks at the following addresses:

3372, 3406 and 3450 Frank Kenny Road; and,

1700 and 1740 Colonial Road in Ottawa (Gloucester/Cumberland), Ontario.

Thank you, Sully

B. G. (Sully) Sullivan (CET) | Senior Due Diligence Environmental Assessor | **Golder Associates Ltd.**
32 Steacie Drive, Kanata, Ontario, Canada K2K 2A9
T: +1 (613) 592 9600 | **D:** +1 613 592 9600 ext. 4240 | **F:** +1 (613) 592 9601 | **C:** +1 613 880-4595 | **E:** bsullivan@golder.com | **www.golder.com**

Work Safe, Home Safe

Golder Associates

FACSIMILE

DATE July 28, 2011

TO Ministry of the Environment

CC

FROM B. G. Sullivan

PROJECT No. 11-1122-0129 (1000)

FAX No. 613-521-5437

TOTAL PAGES 1 (Including cover sheet)

EMAIL bsullivan@golder

REQUEST FOR ENVIRONMENTAL INFORMATION FOR A PHASE I ENVIRONMENTAL SITE ASSESSMENT, 3406 AND 3450 FRANK KENNY ROAD, OTTAWA, ONTARIO

We are in the process of preparing a Phase I Environmental Site Assessment for the sites noted above.

It is requested that the Ministry provide an Index Review Report with respect to the following:

- Active Orders under the Environmental Protection Act (EPA), the Ontario Water Resources Act (OWRA), and the Pesticides Act (PA); and,
- Approvals under Sections 9 and 39 of the EPA as well as Sections 52 and 53 of the OWRA.

Your usual prompt attention to this matter is appreciated. Should you have any questions please contact our office.

Golder Associates Ltd.

BGS

Hard copy to follow by mail: ☐ Yes ☑ No

N:\Active\2011\1122 - Contaminated Lands\11-1122-0129 Hydro One Frank Kenny Road\Phase I ESA Folder\Reg Requests\Fax-001 MOE Request - 28July11.doc

Golder Associates Ltd.
32 Steacie Drive, Kanata, Ontario, Canada K2K 2A9
Tel: +1 (613) 592 9600 Fax: +1 (613) 592 9601 www.golder.com
Golder Associates: Operations in Africa, Asia, Australasia, Europe, North America and South America

Golder Associates

FACSIMILE

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N:\Active\2011\1122 - Contaminated Lands\11-1122-0129 Hydro One Frank Kenny Road\Phase I ESA Folder\Reg Requests\Fax-001 MOE Request - 28July11.doc

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*************** -COMM. JOURNAL- *********************** DATE JUL-28-2011 ***** TIME 16:47 ********

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***** UF-7000 V2 ********************** - ***** - *********

Golder Associates

FACSIMILE

DATE July 29, 2011

TO City of Ottawa
Development Approvals Division

CC

FROM B. G. Sullivan

PROJECT No. 11-1122-0129 (1000)

FAX No. 613-560-6006

TOTAL PAGES 5 (Including cover sheet)

EMAIL bsullivan@golder.com

REQUEST FOR ENVIRONMENTAL INFORMATION FOR A PHASE I ENVIRONMENTAL SITE ASSESSMENT, 3406 AND 3450 FRANK KENNY ROAD, OTTAWA (ORLEANS), ONTARIO

We are in the process of preparing a Phase I Environmental Site Assessment for the sites noted above and are requesting that the City provide information from their files with respect to this site.

As per your requirements we have included the Request for Information – Phase I Environmental Site Assessment form, a disclaimer form, property owner authorization and key plan.

The information that we are requesting includes, but is not limited to, the following:

- Active Orders under the Environmental Protection Act (EPA), the Ontario Water Resources Act (OWRA), and the Pesticides Act (PA)
- Approvals
- Reports relating to environmental concerns
- Records of non-compliance or regulatory concerns
- Dumping infractions, spills or discharges to the environment
- Violations of sewer use or environmental by-laws
- Historic information related to landfill or dumpsites on or in proximity to the property
- Any other environmental information

Your usual prompt attention to this matter is appreciated. Should you have any questions please contact our office.

Golder Associates Ltd.

Hard copy to follow by mail:

☐ Yes ☑ No

Golder Associates Ltd.
32 Steacie Drive, Kanata, Ontario, Canada K2K 2A9
Tel: +1 (613) 592 9600 Fax: +1 (613) 592 9601 www.golder.com
Golder Associates: Operations in Africa, Asia, Australasia, Europe, North America and South America

File No.: 11-1122-0129
Deadline for Response: Aug. 12/11

Phase 1-Environmental Site Assessment

Request for Information

(Informal Request)*

1. REQUESTER INFORMATION

a) Name of Requester: GOLDER ASSOCIATES
b) Address of Requester: 32 STEACIE DR, KANATA, ON
c) Telephone Number: 613 592-9600
d) Site Address: Lot- 3406/3450 Concession: _____
Street: FRANK KENNY ROAD City/Town: OTTAWA
Postal Code: _____
e) Legal Plan Attached: Yes ( ) No (✓)
f) Site Owner: 743120 ONTARIO INC
g) Adjacent Property Owners: _____

h) Date of Ownership: 1991
Previous Owner(s): _____

i) Type of Site: ( ) vacant land, (✓) residential, (✓) commercial, ( ) other(specify)_____
j) Requester's Relationship to Site: CONSULTANT
k) Date of Previous Request: _____
l) Date of Previous ESA: _____
m) Information Requested: As per fax cover sheet

2. CONFIDENTIALITY

a) Consent Required: (✓) Owner ( ) Tenant ( ) Purchaser ( ) Legal*
b) Consent Obtained: (✓) Owner ( ) Tenant ( ) Purchaser ( ) Legal*

*(Consent letters must contain the information required, give authorization to requestor, and be dated and signed.)
**(If formal MFIPPA request, please forward to Corporate Access and Privacy Coordinator, Clerk's Department)

DISCLAIMER

For use with HLUI Database

CITY OF OTTAWA ("the City") is the owner of the HISTORICAL LAND USE INVENTORY ("HLUI"), a database of information on the type and location of land uses within the geographic area of Ottawa, which had or have the potential to cause contamination in soil, groundwater or surface water.

The City, in providing information from the HLUI, to GOLDER ASSOCIATES ("the Requester") does so only under the following conditions and understanding:

1. This is a free service offered by the City.

2. The information which is contained in the HLUI has been compiled from publicly available records and other sources of information. The HLUI may contain erroneous information given that such records and sources of information may be flawed. Changes in municipal addresses over time may have introduced error in such records and sources of information. The City is not responsible for any errors or omissions in the HLUI and reserves the right to change and update the HLUI without further notice. The City does not, however, make any commitment to update the HLUI. Accordingly, all information from the HLUI is provided on an "as is" basis with no representation or warranty by the City with respect to the information's accuracy or exhaustiveness in responding to the request.

3. City staff will perform a search of the HLUI based on the information given by the Requester. City staff will make every effort to be accurate, however, the City does not provide an assurance, guarantee, warranty, representation (express or implied), as to the availability, accuracy, completeness or currency of information which will be provided to the Requester. The HLUI in no way confirms the presence or absence of contamination or pollution of any kind. The information provided by the City to the Requester is provided on the assumption that it will not be relied upon by any person whatsoever. The City denies all liability to any such persons attempting to rely on any information provided from the HLUI database.

4. The City, its employees, servants, agents, boards, officials or contractors take no responsibility for any actions, claims, losses, liability, judgments, demands, expenses, costs, damages or harm suffered by any person whatsoever including negligence in compiling or disseminating information in the HLUI.

5. Copyright is reserved to the City.

6. Any use of the information provided from the HLUI which a third party makes, or any reliance on or decisions to be based on it, are the responsibilities of such third parties. The City, its employees, servants, agents, boards, officials or contractors accept no responsibility for any damages, if any, suffered by a third party as a result of decisions made as a result of an information search of the HLUI.

7. Any use of this service by the Requestor indicates an acknowledgement, acceptance and limits of this disclaimer.

8. All information collected under this request and all records provided in response to this request are subject to the provisions of the *Municipal Freedom of Information and Protection of Privacy Act*, R.S.O. 1990, c. M.56, as amended.

Signed: _____ Dated: July 28, 2011

Per: R. G. Sullivan
(Please print name)

Title: Assessor

Company: GOLDER ASSOCIATES

3406 Frank Kenny Rd, Ottawa, ON
Frank Kenny Rd
6.9 ACRES
FINAL PLAN

3406 Frank Kenny Rd, Ottawa, ON
Frank Kenny Rd
2.5 ACRES
HONI PARKING
INTERIM PLAN

This form has been prepared by Golder Associates, for client use, with regard to submissions to the City of Ottawa ("City") for environmental related information on the property noted below. It will be used by Golder Associates, who have been retained to carry out a Phase I Environmental Site Assessment.

This form is to be completed by the property owner/agent and forwarded to Golder Associates Ltd. who will then append it with a request for information to the City. The intent of the form is to notify the City that Golder Associates Ltd. is authorised to access the requested environmental information.

Property Location Information:

Civic Address 3406 & 3450 Frank Kenny Road
Ottawa, ON

Legal Description

Property Contact Information:

Owner 743120 ONT. INC.

Phone Number 613 835 2498

Fax Number 613 835 4112

Owner Representative GORDON BOTH

Owner Representative Signature

Date July 27/11

Golder Associates

FACSIMILE

DATE July 29, 2011

PROJECT No. 11-1122-0129 (1000)

TO City of Ottawa
Development Approvals Division

FAX No. 613-560-6006

CC

TOTAL PAGES 5 (Including cover sheet)

FROM B. G. Sullivan

EMAIL bsullivan@golder.com

REQUEST FOR ENVIRONMENTAL INFORMATION FOR A PHASE I ENVIRONMENTAL SITE ASSESSMENT, 3406 AND 3450 FRANK KENNY ROAD, OTTAWA (ORLEANS), ONTARIO

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- Approvals
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- Violations of sewer use or environmental by-laws
- Historic information related to landfill or dumpsites on or in proximity to the property
- Any other environmental information

Your usual prompt attention to this matter is appreciated. Should you have any questions please contact our office.

Golder Associates Ltd.

Hard copy to follow by mail:

☐ Yes ☑ No

Golder Associates Ltd.
32 Steacie Drive, Kanata, Ontario, Canada K2K 2A9
Tel: +1 (613) 592 9600 Fax: +1 (613) 592 9601 www.golder.com
Golder Associates: Operations in Africa, Asia, Australasia, Europe, North America and South America

********** - ***** UF-7000 V2 ********** - ***** - **********

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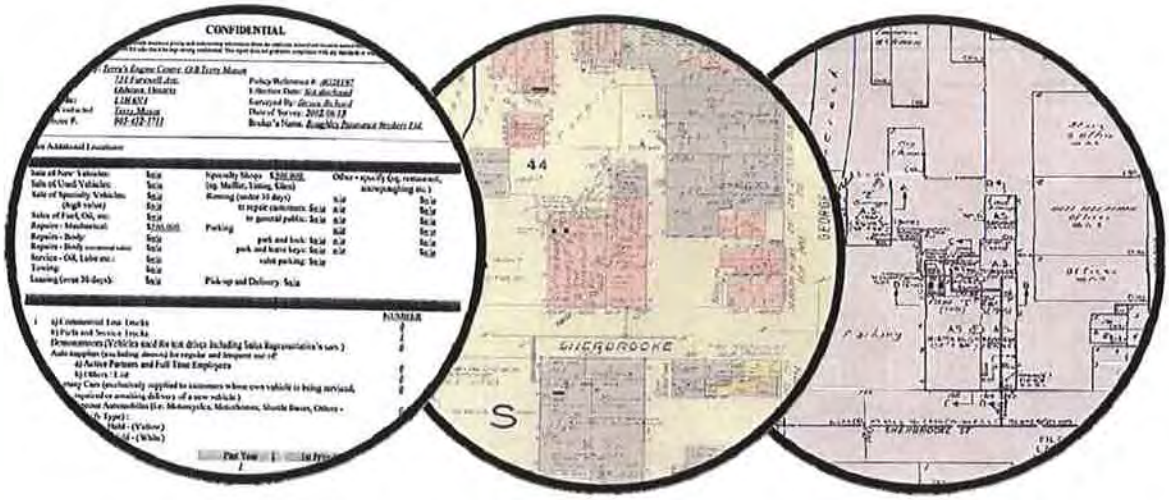
HEIRS™

Historical
Environmental
Information
Reporting
System



rms

RISK MANAGEMENT SERVICES
An **SCM** Company

150 Commerce Valley Drive W
Thornhill, ON L3T 7Z3
Tel: (905) 882-6300 ext 5210
www.scm-rms.ca

Report Completed By:
Devon Mallay

Site Address:
3450 Frank Kenny Road,
Orleans, ON

Project No:
20110727034

Requested by:
Eleanor Goolab
Ecolog Eris

Date Completed:
August 8, 2011

HEIRS™

Historical
Environmental
Information
Reporting
System

NO RECORDS FOUND

Site Address:
3450 Frank Kenny Road,
Orleans, ON

Project No:
20110727034

RISK MANAGEMENT SERVICES

ISO 9001 Certified

Risk Management Services
150 Commerce Valley Drive W
8th Floor
Markham, ON
L3T 7Z3

Tel: (905) 882-6300 x5210
Fax: (905) 695-6543

Historical Environmental Information Reporting System (HEIRS™)

Eleanor Goolab
EcologERIS
12 Concorde Place, Suite 800
Toronto, ON
M3C 4J2

August 8, 2011

Regarding: 3450 Frank Kenny Road, Orleans - 20110727034

As requested, we have searched our records concerning the above site and the following information as listed below is appended hereto:

Information	Date(s)
Fire Insurance Plan(s)	NRF
Property Underwriters' Report(s)	NRF
Property Underwriters' Plan(s)	NRF

NRF: No Records Found NO: Not Ordered

Our invoice in the amount of $45.00 (+ HST) for the information provided will follow in due course.

Thank you for employing our services.

Devon Mallay
Environmental Services

New Website – www.scm-rms.ca

hwin

Registered HWIN Generators

FAQ's by Keyword Ask

The HWIN Registered Generator List is a list of all generators registered in HWIN. For each generator, waste classes registered by the generator are displayed. Please note that HWIN will not let a generator enter into a manifest transaction for a specific waste class unless that generator has registered that waste class in HWIN. A generator may, however, add a new waste class at any time (on My HWIN page, click Administration, then Waste Information, then follow the simple instructions).

The Registered Generator List also identifies the status of each generator as "In Good Standing" or "Not in Good Standing". A generator "In Good Standing" has met all obligations for payments associated with registration fees, waste tonnage fees (on-site and off-site) and manifest fees.

It is important to note that a generator's status may change based on the generator's transactions. For example, a generator may make a waste shipment that incurs fees greater than the generator's prepaid account causing the account to have a negative balance. At the time of this transaction, the generator's status in HWIN will change from "In Good Standing" to "Not In Good Standing".

Beginning in September, the Ministry began the transfer of paper manifest data generated during 2002 into HWIN. The Ministry temporarily suspended the "In Good Standing"/"Not In Good Standing" designation on the HWIN Registered Generator List to allow generators time to make payments for paper manifest transactions that had accumulated during the year. To allow generators to fulfill their full obligations under HWIN, including reconciliation of accounts for 2002 and the registration renewal process for 2003, the "In Good Standing"/"Not In Good Standing" designation will remain temporarily suspended. Notice will be provided by the Ministry prior to reactivation of the "In Good Standing"/"Not In Good Standing" designation later in 2003.

Generators with a negative account balance in HWIN after this time will be identified as "Not In Good Standing". Such generators will be in a position of not fulfilling their requirements under Regulation 347. Generators should ensure that their accounts are paid in full to enable them to make any manifest transactions. Please note that HWIN will not allow a generator that is "Not In Good Standing" to enter into a manifest transaction.

For information on the payment of fees associated with paper manifests and registration renewal for 2003, click on the appropriate links on the HWIN home page.

You may view an individual generator's status by typing in the generator's number below and clicking the search button. This search will provide you with the current status of the generator from the HWIN database

Generator number	ON1650100
Company name	M. L. Bradley

Submit Reset

Generator Number	Generator Name	Address	Waste Class	Status
ON1650100	M. L. BRADLEY LTD.	3406 Frank Kenny Road Navan, Ottawa Carlton (Rm), Ontario - K4b 1j3 Canada	View	Registered

You may also download the entire HWIN Registered Generator list. The list is in an XML file in a zip format, and is approximately 1.5 MB in size. The download will take several minutes. To avoid heavy loads on HWIN during registration, the Ministry will only allow downloads of the entire HWIN Registered Generator list between the hours of 6:00 pm EST and

Canada's Primary Environmental Risk Information Service

Project Site:	Un-named 3450 Frank Kenny Rd Orleans, ON
Client:	Basil Sullivan Golder Associates Ltd. 32 Steacie Drive Kanata, ON K2K2A9
ERIS Project No:	20110727034
Report Type:	**Custom Report - .25km Search Radius**
Prepared By:	Shermin Haider shaider@eris.ca
Date:	August 08, 2011

12 Concorde Place, Suite 800 Toronto, Ontario M3C 4J2
416-510-5204 • Fax: 416-510-5133 Toll Free: 1-866-517-5204 • www.eris.ca • info@eris.ca

Table of Contents

Order Number: 20110727034
Site Name: Un-named
Site Address: 3450 Frank Kenny Rd Orleans, ON
Report Type: Custom Report, 0.25 km Search Radius

Report Summary

Order Number: 20110727034
Site Name: Un-named
Site Address: 3450 Frank Kenny Rd Orleans, ON
Report Type: Custom Report, 0.25 km Search Radius

Number of Mappable Records Surrounding the Site

Database		Selected	On-site	Within 0.25	0.25km to 0.25km	Total
AAGR	Abandoned Aggregate Inventory	Y	0	0	0	0
AGR	Aggregate Inventory	Y	0	0	0	0
AMIS	Abandoned Mine Information System	Y	0	0	0	0
ANDR	Andersen's Waste Disposal Sites	Y	0	0	0	0
AUWR	Automobile Wrecking & Supplies	Y	0	0	0	0
BORE	Borehole	Y	0	0	0	0
CA	Certificates of Approval	Y	0	0	0	0
CFOT	Commercial Fuel Oil Tanks	Y	0	0	0	0
CHEM	Chemical Register	Y	0	0	0	0
COAL	Coal Gasification Plants	Y	0	0	0	0
CONV	Compliance and Convictions	Y	0	0	0	0
DRL	Drill Hole Database	Y	0	0	0	0
EBR	Environmental Registry	Y	0	0	0	0
EEM	Environmental Effects Monitoring	Y	0	0	0	0
EHS	ERIS Historical Searches	Y	0	0	0	0
EIIS	Environmental Issues Information System	Y	0	0	0	0
FCON	Federal Convictions	Y	0	0	0	0
FCS	Contaminated Sites on Federal Land	Y	0	0	0	0
FOFT	Fisheries & Oceans Fuel Storage Tanks	Y	0	0	0	0
FST	Fuel Storage Tank	Y	5	5	0	5
GEN	Ontario Regulation 347 Waste Generators Summary	Y	4	4	0	4
IAFT	Indian & Northern Affairs Fuel Tanks	Y	0	0	0	0
MINE	Canadian Mine Locations	Y	0	0	0	0
MNR	Mineral Occurrences	Y	0	0	0	0
NATE	National Analysis of Trends in Emergencies System (NATES)	Y	0	0	0	0
NCPL	Non-Compliance Reports	Y	0	0	0	0
NDFT	National Defence & Canadian Forces Fuel Storage Tanks	Y	0	0	0	0
NDSP	National Defence & Canadian Forces Spills	Y	0	0	0	0
NDWD	National Defence & Canadian Forces Waste Disposal Sites	Y	0	0	0	0
NEES	National Environmental Emergencies System (NEES)	Y	0	0	0	0
NPCB	National PCB Inventory	Y	0	0	0	0
NPRI	National Pollutant Release Inventory	Y	0	0	0	0
OGW	Oil and Gas Wells	Y	0	0	0	0
OOGW	Ontario Oil and Gas Wells	Y	0	0	0	0
OPCB	Inventory of PCB Storage Sites	Y	0	0	0	0
PAP	Canadian Pulp and Paper	Y	0	0	0	0
PCFT	Parks Canada Fuel Storage Tanks	Y	0	0	0	0
PES	Pesticide Register	Y	0	0	0	0
PRT	Private and Retail Fuel Storage Tanks	Y	1	1	0	1
REC	Ontario Regulation 347 Waste Receivers Summary	Y	0	0	0	0
RSC	Record of Site Condition	Y	0	0	0	0
RST	Retail Fuel Storage Tanks	Y	0	0	0	0

Report Summary

Order Number: 20110727034
Site Name: Un-named
Site Address: 3450 Frank Kenny Rd Orleans, ON
Report Type: Custom Report, 0.25 km Search Radius

Database		Selected	On-site	Within 0.25	0.25km to 0.25km	Total
SCT	Scott's Manufacturing Directory	Y	0	0	0	0
SPL	Ontario Spills	Y	0	0	0	0
SRDS	Wastewater Discharger Registration Database	Y	0	0	0	0
TANK	Anderson's Storage Tanks	Y	0	0	0	0
TCFT	Transport Canada Fuel Storage Tanks	Y	0	0	0	0
WDS	Waste Disposal Sites - MOE CA Inventory	Y	0	0	0	0
WDSH	Waste Disposal Sites - MOE 1991 Historical Approval Inventory	Y	0	0	0	0
WWIS	Water Well Information System	Y	1	3	0	3
		TOTAL	11	13	0	13

The databases chosen by the client as per the submitted order form are denoted in the 'Selected' column in the above table. Counts have been provided outside the primary buffer area for cursory examination only. These records have not been examined or verified, therefore, they are subject to change.

SITE DIAGRAM

ECOLOG ERIS
Pinpointing Your Environmental Risks
12 Concorde Pl, Suite 800 North York, ON M3C 4J2
416-510-5204

Project Property: Un-named
3450 Frank Kenny Rd
Orleans, ON

ERIS Project #: 20110727034

Date: AUG-08-2011

LEGEND

- Project Property
- Database Location

Points of Interest
- Chimney
- Silo

Pipe & Transmission Lines
- Pipeline
- Transmission Line
- Transmission Tower
- Transformer Station

Rail
- Railway - Main
- Railway - Sidetrack
- Railway - Abandoned
- Bridge
- Tunnel

Transportation - Other
- Embankment
- Trail
- Runway

Hydrographic Features
- Permanent Waterway
- Intermittent Waterway
- Open Reservoir
- Dyke/Levee
- Dam
- Breakwall
- Wetland

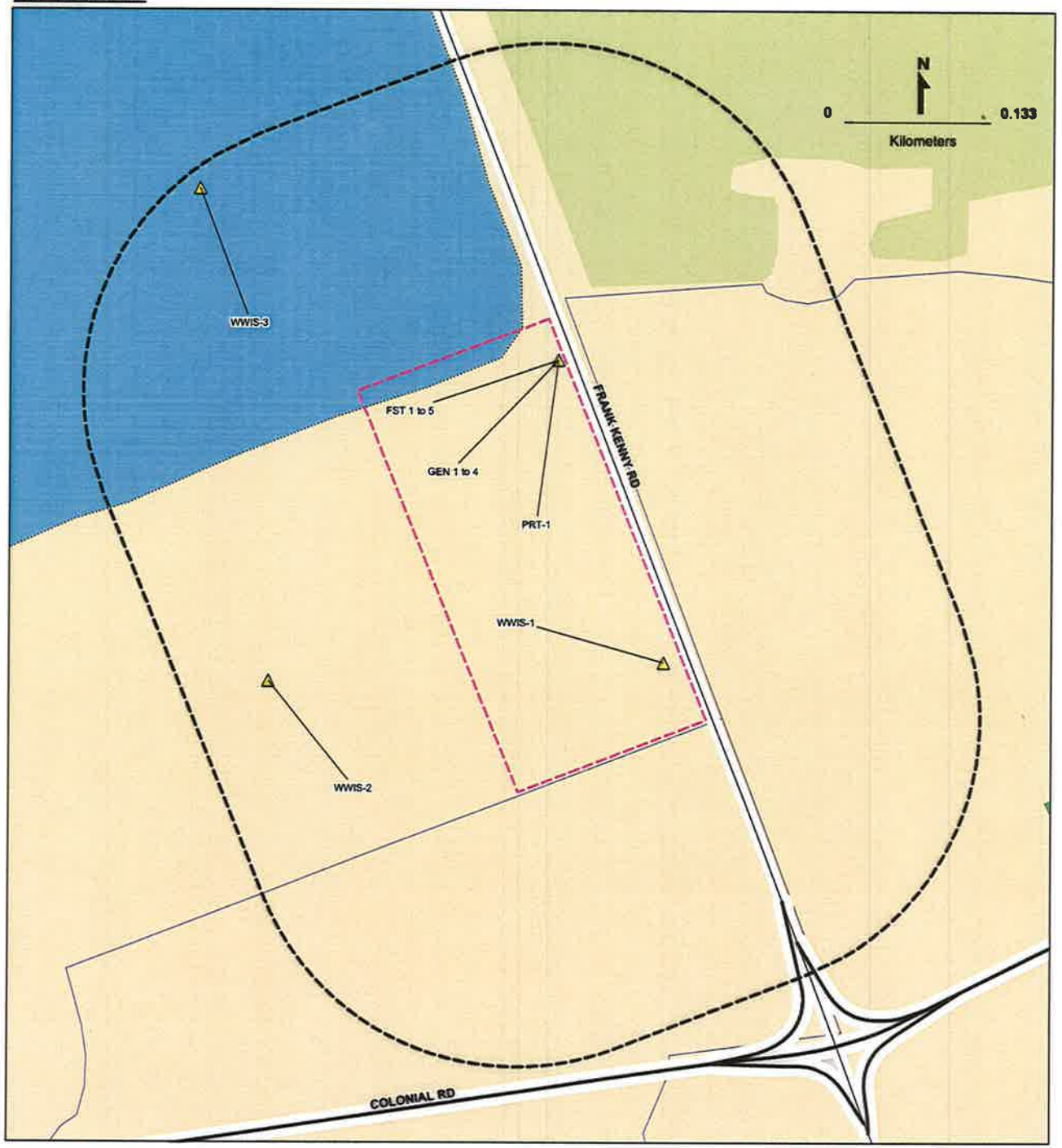
Landuse Classifications
- Open Area
- Residential
- Commercial
- Resource and Industrial
- Government and Institutional
- Parks and Recreational
- Waterbody

Recreation
- Golf Course/Driving Range
- Park/Sports Field
- Other Recreation Area
- Sports/Race Track
- Cemetery
- Campground

Vegetation
- Wooded Area
- Orchard
- Vineyard

Industrial Resources
- Conveyor
- Crane: Moveable
- Crane: Stationary
- Tank
- Rock Cut
- Auto Wrecker
- Lumber Yard
- Pit

This diagram is to be used solely for relative street location purposes. It may not accurately portray street or site positions.



Site Report

Order Number: 20110727034
Site Name: Un-named
Site Address: 3450 Frank Kenny Rd Orleans, ON
Report Type: Custom Report, 0.25 km Search Radius

FOR COMPLETE INFORMATION, REFER TO DETAIL REPORT

Fuel Storage Tank

Map Key	Company Name	Address	City	Postal Code
FST-1	M L BRADLEY	3406 FRANKENNEY RD	CUMBERLAND TWP	
FST-2	M L BRADLEY	3406 FRANKENNEY RD	CUMBERLAND TWP	K4B 1J3
FST-3	M L BRADLEY	3406 FRANKENNEY RD	CUMBERLAND TWP	
FST-4	M L BRADLEY	3406 FRANKENNEY RD	CUMBERLAND TWP	K4B 1J3
FST-5	M L BRADLEY	3406 FRANKENNEY RD	CUMBERLAND TWP	K4B 1J3

Ontario Regulation 347 Waste Generators Summary

Map Key	Company Name		Address	City	Postal Code
GEN-1	M. L. BRADLEY LTD.		3406 FRANK KENNY ROAD	NAVAN	K4B 1H9
GEN-2	M. L. BRADLEY LTD.		3406 FRANK KENNY ROAD	NAVAN	K4B 1J3
GEN-3	M.L. BRADLEY LTD.	27-598	3406 FRANK KENNY ROAD NAVAN	CUMBERLAND	K4B 1J3
GEN-4	M.L. BRADLEY LTD		3406 FRANK KENNY ROAD	NAVAN	K4B 1J3

Water Well Information System

Map Key	Company Name	Address	City	Postal Code
WWIS-1		lot 10 con 8		

Private and Retail Fuel Storage Tanks

Map Key	Company Name	Address	City	Postal Code
PRT-1	M L BRADLEY	3406 FRANKENNEY RD	CUMBERLAND TWP	

Detail Report

Order Number: 20110727034
Site Name: Un-named
Site Address: 3450 Frank Kenny Rd Orleans ON
Report Type: Custom Report, 0.25 km Search Radius

If information is required for sites located beyond the selected address, please contact your ERIS representative.

Certificates of Approval

Fuel Storage Tank

Ontario Regulation 347 Waste Generators Summary

Private and Retail Fuel Storage Tanks

Water Well Information System

Certificates of Approval

Map Key	Company	Address	Certificate #	Application Year	Issue Date	Approval Type	Status	Application Type
n/a	Ottawa-Carleton District School Board	Part of Lot 10, Concession 8, Geographic Township of Cumberland Ottawa	2170-6ARMNA	2005	3/31/2005	Municipal and Private Sewage Works	Approved	

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

Fuel Storage Tank

Map Key	Company	Address	License Issue Date	Tank Status	Tank Status As Of	Operation Type	Facility Type
FST-1	M L BRADLEY	3406 FRANKENNEY RD CUMBERLAND TWP	8/1/1991	Licensed	August 2007	Private Fuel Outlet	Gasoline Station - Self Serve

Status	Capacity (L)	Year of Installation	Corrosion Protection	Tank Fuel Type
Active	4500	1991		Liquid Fuel Single Wall UST - Gasoline
Active	13600	1991		Liquid Fuel Single Wall UST - Diesel

Map Key	Company	Address	License Issue Date	Tank Status	Tank Status As Of	Operation Type	Facility Type
FST-2	M L BRADLEY	3406 FRANKENNEY RD CUMBERLAND TWP K4B 1J3			January 2010	Private Fuel Outlet	FS PRIVATE FUEL OUTLET - SELF SERVE

Status	Capacity (L)	Year of Installation	Corrosion Protection	Tank Fuel Type
Active	13600	1991	Sacrificial anode	Liquid Fuel Single Wall UST - Diesel
Active	4500	1991	Sacrificial anode	Liquid Fuel Single Wall UST - Gasoline

Map Key	Company	Address	License Issue Date	Tank Status	Tank Status As Of	Operation Type	Facility Type
FST-3	M L BRADLEY	3406 FRANKENNEY RD CUMBERLAND TWP	8/1/1991	Licensed	December 2008	Private Fuel Outlet	Gasoline Station - Self Serve

Status	Capacity (L)	Year of Installation	Corrosion Protection	Tank Fuel Type
Active	4500	1991		Liquid Fuel Single Wall UST - Gasoline
Active	13600	1991		Liquid Fuel Single Wall UST - Diesel

Map Key	Company	Address	License Issue Date	Tank Status	Tank Status As Of	Operation Type	Facility Type
FST-4	M L BRADLEY	3406 FRANKENNEY RD CUMBERLAND TWP K4B 1J3			June 2011	Private Fuel Outlet	FS PRIVATE FUEL OUTLET - SELF SERVE

Status	Capacity (L)	Year of Installation	Corrosion Protection	Tank Fuel Type
Active	4500	1991	Sacrificial anode	Liquid Fuel Single Wall UST - Gasoline
Active	13600	1991	Sacrificial anode	Liquid Fuel Single Wall UST - Diesel

Fuel Storage Tank

Map Key	Company	Address	License Issue Date	Tank Status	Tank Status As Of	Operation Type	Facility Type
FST-5	M L BRADLEY	3406 FRANKENNEY RD CUMBERLAND TWP K4B 1J3			June 2010	Private Fuel Outlet	FS PRIVATE FUEL OUTLET - SELF SERVE

Status	Capacity (L)	Year of Installation	Corrosion Protection	Tank Fuel Type
Active	13600	1991	Sacrificial anode	Liquid Fuel Single Wall UST - Diesel
Active	4500	1991	Sacrificial anode	Liquid Fuel Single Wall UST - Gasoline

Ontario Regulation 347 Waste Generators Summary

Map Key	Company	Address	SIC Code	SIC Description	Waste Code	Waste Description
GEN-1	M. L. BRADLEY LTD.	3406 FRANK KENNY ROAD NAVAN K4B 1H9			252	Waste crankcase oils and lubricants
			Generator #:	ON1650100		
			Approval Yrs:	As of Oct 2010		
GEN-2	M. L. BRADLEY LTD.	3406 FRANK KENNY ROAD NAVAN K4B 1J3	3241	TRUCK & BUS BODY	252	WASTE OILS & LUBRICANTS
			Generator #:	ON1650100	221	LIGHT FUELS
			Approval Yrs:	99,00,01,02,03,04,05,06,07,08		
GEN-3	M.L. BRADLEY LTD.	27-598 3406 FRANK KENNY ROAD NAVAN CUMBERLAND K4B 1J3	3241	TRUCK & BUS BODY	252	WASTE OILS & LUBRICANTS
			Generator #:	ON1650100		
			Approval Yrs:	94,95,96		
GEN-4	M.L. BRADLEY LTD	3406 FRANK KENNY ROAD NAVAN K4B 1J3	3241	TRUCK & BUS BODY	252	WASTE OILS & LUBRICANTS
			Generator #:	ON1650100		
			Approval Yrs:	92,93,97,98		

Private and Retail Fuel Storage Tanks

Map Key	Company	Address	Location ID	Type	Expiry Date	Capacity (L)	License #
PRT-1	M L BRADLEY	3406 FRANKENNEY RD CUMBERLAND TWP	17603	private		18184.00	0001069836
n/a	JT BRADLEYS COUNTRY CONVENIENCE INC	PRT LOT 10 CON 8 CUMBERLAND TWP	3675	retail	1995-06-30	13638	0076414655

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-1		lot 10 con 8	1515217	010	08	CON	OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83: 467870.9
Northing Nad83: 5030387
Zone: 18
Utm Reliability: margin of error : 30 m - 100 m
Construction Date: 3/18/1975
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 185 ft
Pump Rate: 30 GPM
Static Water Level: 3 ft
Flow Rate:
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Rotary (Air)
Flowing (y/n): N
Elevation (m): 86.066474
Elevation Reliability:
Depth to Bedrock: 14
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
14 ft	14 ft	BLUE	CLAY
36 ft	50 ft	GREY	SLATE
135 ft	185 ft	BLUE	ROCK

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-2		lot 10 con 8	1530018	010	08	CON	OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83: 467508.9
Northing Nad83: 5030372
Zone: 18
Utm Reliability: margin of error : 100 m - 300 m
Construction Date: 5/22/1998
Primary Water Use: Not Used
Secondary Water Use:
Well Depth:
Pump Rate:
Static Water Level:
Flow Rate:
Clear/Cloudy:
Specific Capacity:
Final Well Status: Test Hole
Construction Method: Other Method
Flowing (y/n):
Elevation (m): 84.56123
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock: No formation data
Water Type:
Casing Material:

Thickness	Original Depth	Material Colour	Material

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-3		lot 9 con 8	1525401	009	08	CON	OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83: 467446.9
Northing Nad83: 5030619
Zone: 18
Utm Reliability: margin of error : 100 m - 300 m
Construction Date: 4/23/1991
Primary Water Use: Cooling And A/C
Secondary Water Use:
Well Depth: 37 ft
Pump Rate: 22 GPM
Static Water Level: 5 ft
Flow Rate:
Clear/Cloudy: CLOUDY
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m): 85.286047
Elevation Reliability:
Depth to Bedrock: 31
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
18 ft	18 ft	BROWN	CLAY
13 ft	31 ft	BLACK	HARDPAN
6 ft	37 ft	BLACK	SHALE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 10	1516907	010			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 8/28/1978
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 305 ft
Pump Rate: 12 GPM
Static Water Level: 125 ft
Flow Rate:
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Rotary (Air)
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 9
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
9 ft	9 ft	BROWN	HARDPAN
139 ft	148 ft	GREY	LIMESTONE
12 ft	160 ft	BROWN	SLATE
6 ft	166 ft	GREEN	LIMESTONE
19 ft	185 ft	BROWN	SLATE
120 ft	305 ft	GREY	LIMESTONE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 9	1517298	009			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 4/29/1980
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 42 ft
Pump Rate: 20 GPM
Static Water Level: 4 ft
Flow Rate:
Clear/Cloudy: CLOUDY
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 16
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
10 ft	10 ft	BROWN	TOPSOIL, SANDY
6 ft	16 ft	GREY	HARDPAN, STONES, SAND
26 ft	42 ft	GREY	LIMESTONE, ROCK

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 10	1520440	010			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 9/14/1985
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 75 ft
Pump Rate: 20 GPM
Static Water Level: 20 ft
Flow Rate:
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 55
Overburden/Bedrock: Bedrock
Water Type: SULPHUR
Casing Material: STEEL, OPEN HOLE

Thickness	Original Depth	Material Colour	Material
50 ft	50 ft	BROWN	HARDPAN, BOULDERS, HARD
5 ft	55 ft	BROWN	GRAVEL, SAND, LOOSE
20 ft	75 ft	BLACK	SHALE, SOFT

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 10	1520443	010			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 11/4/1985
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 210 ft
Pump Rate: 20 GPM
Static Water Level: 10 ft
Flow Rate:
Clear/Cloudy: CLOUDY
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock: Overburden
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
12 ft	12 ft	BROWN	SAND, CLAY, SOFT
98 ft	110 ft	GREY	CLAY, SAND, SOFT
90 ft	200 ft	GREY	QUICKSAND, LOOSE
10 ft	210 ft	GREY	GRAVEL, LOOSE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 9	1520775	009			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 8/11/1986
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 62 ft
Pump Rate: 14 GPM
Static Water Level: 34 ft
Flow Rate:
Clear/Cloudy: CLOUDY
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock: Overburden
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
9 ft	9 ft	YELLOW	SAND
48 ft	57 ft	BLUE	CLAY
5 ft	62 ft	BLACK	GRAVEL, SAND

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 9	1521093	009			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 9/5/1986
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 293 ft
Pump Rate: 20 GPM
Static Water Level: 103 ft
Flow Rate:
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Rotary (Air)
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 28
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL, OPEN HOLE

Thickness	Original Depth	Material Colour	Material
5 ft	5 ft	BROWN	CLAY
23 ft	28 ft		CLAY, SAND, GRAVEL
85 ft	113 ft	GREY	LIMESTONE
180 ft	293 ft		SANDSTONE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 9	1521099	009			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 9/3/1986
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 142 ft
Pump Rate: 4 GPM
Static Water Level: 100 ft
Flow Rate:
Clear/Cloudy: CLOUDY
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Rotary (Air)
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 18
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL, OPEN HOLE

Thickness	Original Depth	Material Colour	Material
3 ft	3 ft	BROWN	CLAY
15 ft	18 ft		CLAY, SAND, GRAVEL
110 ft	128 ft	GREY	LIMESTONE
14 ft	142 ft		SANDSTONE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 9	1521450	009			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 5/13/1967
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 57 ft
Pump Rate: 30 GPM
Static Water Level: 24 ft
Flow Rate:
Clear/Cloudy: CLOUDY
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock: Overburden
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
4 ft	4 ft	BROWN	SAND
15 ft	19 ft	RED	CLAY
28 ft	47 ft	BLUE	CLAY
10 ft	57 ft	BLACK	GRAVEL

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 9	1521464	009			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 6/23/1967
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 245 ft
Pump Rate: 12 GPM
Static Water Level:
Flow Rate:
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Rotary (Convent.)
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 243
Overburden/Bedrock: Bedrock
Water Type: SALTY
Casing Material: STEEL, OPEN HOLE

Thickness	Original Depth	Material Colour	Material
4 ft	4 ft	BROWN	SAND
237 ft	241 ft	GREY	CLAY
2 ft	243 ft	GREY	SAND
2 ft	245 ft	GREY	LIMESTONE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 10	1521572	010			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 6/30/1987
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 24 ft
Pump Rate: 35 GPM
Static Water Level: 7 ft
Flow Rate:
Clear/Cloudy: CLOUDY
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock: Overburden
Water Type: SULPHUR
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
21 ft	21 ft	BROWN	HARDPAN
3 ft	24 ft	BLACK	GRAVEL, COARSE GRAVEL

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 9	1521766	009			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 8/3/1987
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 185 ft
Pump Rate: 8 GPM
Static Water Level: 50 ft
Flow Rate:
Clear/Cloudy:
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 0
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
6 ft	6 ft	GREY	SHALE, ROCK, TOPSOIL
179 ft	185 ft	GREY	LIMESTONE, ROCK

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 10	1521936	010			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 10/15/1987
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 72 ft
Pump Rate: 25 GPM
Static Water Level: 26 ft
Flow Rate:
Clear/Cloudy: CLOUDY
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock: Overburden
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
9 ft	9 ft	BROWN	SAND
52 ft	61 ft	BLUE	CLAY
11 ft	72 ft	BLACK	GRAVEL

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 9	1522235	009			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 4/17/1967
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 241 ft
Pump Rate: 10 GPM
Static Water Level: 8 ft
Flow Rate:
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Rotary (Convent.)
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 238
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: OPEN HOLE, STEEL

Thickness	Original Depth	Material Colour	Material
11 ft	11 ft	BROWN	SAND, CLAY, SANDY
223 ft	234 ft	GREY	CLAY
4 ft	238 ft	GREY	SAND, SILT, GRAVEL
3 ft	241 ft	GREY	LIMESTONE, SHALE, FRACTURED

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 10	1522236	010			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 4/15/1987
Primary Water Use:
Secondary Water Use:
Well Depth:
Pump Rate:
Static Water Level:
Flow Rate:
Clear/Cloudy:
Specific Capacity:
Final Well Status: Abandoned-Supply
Construction Method: Not Known
Flowing (y/n):
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock: No formation data
Water Type: SALTY
Casing Material:

Thickness	Original Depth	Material Colour	Material

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 9	1522271	009			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 3/23/1968
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 245 ft
Pump Rate: 4 GPM
Static Water Level: 20 ft
Flow Rate:
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 7
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL, OPEN HOLE

Thickness	Original Depth	Material Colour	Material
5 ft	5 ft	BROWN	HARDPAN, BOULDERS, HARD
2 ft	7 ft	GREY	GRAVEL, BOULDERS, LOOSE
238 ft	245 ft	GREY	LIMESTONE, ROCK, HARD

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 10	1522530	010			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 7/6/1988
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 270 ft
Pump Rate: 5 GPM
Static Water Level: 146 ft
Flow Rate:
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 4
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
4 ft	4 ft	BROWN	HARDPAN, CLAY
266 ft	270 ft	GREY	LIMESTONE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 9	1523002	009			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 10/13/1988
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 90 ft
Pump Rate: 8 GPM
Static Water Level: 19 ft
Flow Rate:
Clear/Cloudy: CLOUDY
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock: Overburden
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
2 ft	2 ft	BROWN	FILL
7 ft	9 ft	RED	CLAY
62 ft	71 ft	BLUE	CLAY
16 ft	87 ft	GREY	SAND, COARSE SAND
3 ft	90 ft	GREY	GRAVEL, COARSE GRAVEL

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 9	1523051	009			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 10/14/1988
Primary Water Use: Domestic
Secondary Water Use: Cooling And A/C
Well Depth: 328 ft
Pump Rate: 20 GPM
Static Water Level: 165 ft
Flow Rate:
Clear/Cloudy: CLOUDY
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Rotary (Air)
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 8
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
1 ft	1 ft	BLACK	TOPSOIL, UNKNOWN TYPE, LOOSE
7 ft	8 ft	BROWN	GRAVEL, SAND, UNKNOWN TYPE
320 ft	328 ft	GREY	LIMESTONE, HARD

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 9	1523052	009			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 10/16/1986
Primary Water Use: Cooling And A/C
Secondary Water Use:
Well Depth: 253 ft
Pump Rate: 12 GPM
Static Water Level: 165 ft
Flow Rate:
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Rotary (Air)
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 10
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
1 ft	1 ft	BLACK	TOPSOIL, UNKNOWN TYPE, LOOSE
9 ft	10 ft	BROWN	GRAVEL, SAND, STONES
243 ft	253 ft	GREY	LIMESTONE, HARD

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 9	1523161	009			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 1/20/1969
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 91 ft
Pump Rate: 6 GPM
Static Water Level: 9 ft
Flow Rate:
Clear/Cloudy: CLOUDY
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 18
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
18 ft	18 ft	BROWN	HARDPAN
73 ft	91 ft	BLACK	SHALE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 10	1523526	010			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 5/26/1989
Primary Water Use: Domestic
Secondary Water Use: Commerical
Well Depth: 85 ft
Pump Rate: 14 GPM
Static Water Level: 21 ft
Flow Rate:
Clear/Cloudy: CLOUDY
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Not Known
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 64
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
31 ft	31 ft	BROWN	CLAY
33 ft	64 ft	BROWN	CLAY, SAND
3 ft	67 ft	BLACK	SHALE
18 ft	85 ft	BLACK	LIMESTONE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 9	1523557	009			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 6/7/1989
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 75 ft
Pump Rate: 11 GPM
Static Water Level: 14 ft
Flow Rate:
Clear/Cloudy: CLOUDY
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock: Overburden
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
29 ft	29 ft	RED	CLAY
44 ft	73 ft	GREY	SAND, FINE SAND
2 ft	75 ft	BLACK	GRAVEL

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 9	1523764	009			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 7/12/1989
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 340 ft
Pump Rate: 8 GPM
Static Water Level: 34 ft
Flow Rate:
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 4
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
1 ft	1 ft	BLACK	TOPSOIL, SAND, LOOSE
3 ft	4 ft	BROWN	GRAVEL, SAND
336 ft	340 ft	GREY	LIMESTONE, HARD

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 9	1523916	009			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 9/5/1989
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 330 ft
Pump Rate: 10 GPM
Static Water Level: 196 ft
Flow Rate:
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Rotary (Air)
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 18
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
18 ft	18 ft	BROWN	STONES, BOULDERS, SAND
312 ft	330 ft	GREY	LIMESTONE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 10	1524274	010			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 12/16/1969
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 300 ft
Pump Rate: 8 GPM
Static Water Level: 85 ft
Flow Rate:
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 0
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
4 ft	4 ft	BROWN	ROCK, FILL, LOOSE
296 ft	300 ft	GREY	LIMESTONE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 9	1524471	009			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 3/8/1990
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 327 ft
Pump Rate: 10 GPM
Static Water Level: 150 ft
Flow Rate:
Clear/Cloudy: CLOUDY
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 6
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
6 ft	6 ft	BROWN	CLAY, STONES, SAND
89 ft	95 ft	GREY	LIMESTONE
15 ft	110 ft	BLACK	LIMESTONE
217 ft	327 ft	BROWN	LIMESTONE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 10	1524474	010			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 3/7/1990
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 325 ft
Pump Rate: 5 GPM
Static Water Level: 180 ft
Flow Rate:
Clear/Cloudy:
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 6
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
3 ft	3 ft	BROWN	CLAY
3 ft	6 ft	BROWN	SAND, STONES, CLAY
84 ft	90 ft	GREY	LIMESTONE
30 ft	120 ft	BLACK	LIMESTONE
205 ft	325 ft	BROWN	LIMESTONE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 10	1524531	010			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 6/5/1990
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 62 ft
Pump Rate: 10 GPM
Static Water Level:
Flow Rate:
Clear/Cloudy:
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 58
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
8 ft	8 ft	BROWN	SAND
42 ft	50 ft	GREY	CLAY
5 ft	55 ft	BLACK	GRAVEL
3 ft	58 ft	BLACK	SAND
4 ft	62 ft	BLACK	LIMESTONE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 9	1525048	009			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 9/21/1990
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 95 ft
Pump Rate: 30 GPM
Static Water Level: 25 ft
Flow Rate:
Clear/Cloudy: CLOUDY
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 68
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
8 ft	8 ft	BROWN	SAND, PACKED
42 ft	50 ft	GREY	CLAY, UNKNOWN TYPE
9 ft	59 ft	GREY	CLAY, THICK
9 ft	68 ft	BLACK	SAND, GRAVEL, PACKED
27 ft	95 ft	BLACK	SHALE, MEDIUM-GRAINED

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 9	1525087	009			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 9/25/1990
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 130 ft
Pump Rate: 30 GPM
Static Water Level: 6 ft
Flow Rate:
Clear/Cloudy:
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 28
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
10 ft	10 ft	BROWN	CLAY
18 ft	28 ft	BROWN	HARDPAN, GRAVEL
32 ft	60 ft	BLACK	SHALE
70 ft	130 ft	BLACK	LIMESTONE, SOFT

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 9	1525565	009			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 7/8/1991
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 25 ft
Pump Rate: 19 GPM
Static Water Level: 11 ft
Flow Rate:
Clear/Cloudy: CLOUDY
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 23
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
23 ft	23 ft	BROWN	HARDPAN
2 ft	25 ft	BLUE	SHALE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 10	1525586	010			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 7/9/1991
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 74 ft
Pump Rate: 14 GPM
Static Water Level: 31 ft
Flow Rate:
Clear/Cloudy: CLOUDY
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock: Overburden
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
11 ft	11 ft	BROWN	SAND
57 ft	68 ft	BLUE	CLAY
6 ft	74 ft	BLACK	GRAVEL

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 10	1525783	010		CON	OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 8/16/1991
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 75 ft
Pump Rate: 8 GPM
Static Water Level: 40 ft
Flow Rate:
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 66
Overburden/Bedrock: Bedrock
Water Type: SULPHUR
Casing Material: STEEL, OPEN HOLE

Thickness	Original Depth	Material Colour	Material
7 ft	7 ft	YELLOW	SAND, SOFT
8 ft	15 ft	GREY	CLAY, SAND, SOFT
27 ft	42 ft	BLUE	CLAY, SAND, SOFT
22 ft	64 ft	GREY	GRAVEL, SAND, SOFT
2 ft	66 ft	BLACK	GRAVEL, SAND, SOFT
1 ft	67 ft	BLACK	SHALE, POROUS, HARD
8 ft	75 ft	BLACK	SHALE, HARD

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 10	1525890	010			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 11/9/1991
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 293 ft
Pump Rate: 30 GPM
Static Water Level: 35 ft
Flow Rate:
Clear/Cloudy: CLOUDY
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Rotary (Air)
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock: Overburden
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
2 ft	2 ft	BROWN	TOPSOIL, LOOSE
148 ft	150 ft	GREY	CLAY, SOFT
136 ft	286 ft	BLUE	CLAY, SILT, LOOSE
7 ft	293 ft	GREY	GRAVEL, WATER-BEARING

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 10	1525891	010			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 10/8/1991
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 75 ft
Pump Rate: 10 GPM
Static Water Level: 25 ft
Flow Rate:
Clear/Cloudy:
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 67
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
1 ft	1 ft	BROWN	SAND, LOOSE
14 ft	15 ft	GREY	CLAY, THICK
44 ft	59 ft	GREY	CLAY
8 ft	67 ft	BLACK	SAND, GRAVEL, PACKED
8 ft	75 ft	BLACK	SHALE, MEDIUM-GRAINED, HARD

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 9	1525964	009			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 9/23/1990
Primary Water Use: Domestic
Secondary Water Use: Cooling And A/C
Well Depth: 91 ft
Pump Rate: 24 GPM
Static Water Level: 30 ft
Flow Rate:
Clear/Cloudy: CLOUDY
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 69
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
9 ft	9 ft	BROWN	SAND, PACKED
6 ft	58 ft	GREY	CLAY, THICK
11 ft	69 ft	BLACK	SAND, GRAVEL
22 ft	91 ft	BLACK	SHALE
43 ft	52 ft	GREY	CLAY, UNKNOWN TYPE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 10	1526145	010			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 5/5/1992
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 267 ft
Pump Rate: 7 GPM
Static Water Level: 22 ft
Flow Rate:
Clear/Cloudy: CLOUDY
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 4
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
4 ft	4 ft	BROWN	HARDPAN
257 ft	261 ft	BLUE	SHALE
6 ft	267 ft	BLACK	SHALE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 10	1526355	010			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 6/26/1992
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 41 ft
Pump Rate: 37 GPM
Static Water Level: 5 ft
Flow Rate:
Clear/Cloudy: CLOUDY
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock: Overburden
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
28 ft	28 ft	BROWN	CLAY
12 ft	40 ft	BLACK	HARDPAN, BOULDERS
1 ft	41 ft	BLACK	GRAVEL

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 10	1526356	010			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 6/29/1992
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 43 ft
Pump Rate: 19 GPM
Static Water Level: 5 ft
Flow Rate:
Clear/Cloudy:
Specific Capacity:
Final Well Status: Recharge Well
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 42
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
42 ft	42 ft	BROWN	CLAY
1 ft	43 ft	BLACK	SHALE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 9	1526654	009			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 10/14/1992
Primary Water Use: Domestic
Secondary Water Use: Cooling And A/C
Well Depth: 77 ft
Pump Rate: 25 GPM
Static Water Level: 6 ft
Flow Rate:
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Rotary (Air)
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 45
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL, OPEN HOLE

Thickness	Original Depth	Material Colour	Material
3 ft	3 ft	BROWN	TOPSOIL, SOFT
32 ft	35 ft	GREY	CLAY, SOFT
10 ft	45 ft	BLACK	HARDPAN, SOFT
2 ft	47 ft	BLACK	SHALE, POROUS
30 ft	77 ft	BLACK	SHALE, SOFT

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 9	1526655	009			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 10/14/1992
Primary Water Use: Cooling And A/C
Secondary Water Use:
Well Depth: 77 ft
Pump Rate: 12 GPM
Static Water Level: 6 ft
Flow Rate:
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Rotary (Air)
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 45
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL, OPEN HOLE

Thickness	Original Depth	Material Colour	Material
3 ft	3 ft	BROWN	TOPSOIL, SOFT
32 ft	35 ft	GREY	CLAY, SOFT
10 ft	45 ft	BLACK	HARDPAN, SOFT
7 ft	52 ft	BLACK	SHALE, POROUS
25 ft	77 ft	BLACK	SHALE, SOFT

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 10	1527591	010			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 11/16/1993
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 203 ft
Pump Rate: 25 GPM
Static Water Level: 50 ft
Flow Rate:
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Rotary (Air)
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 12
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: OPEN HOLE, STEEL

Thickness	Original Depth	Material Colour	Material
6 ft	6 ft	GREY	FILL, BOULDERS, PACKED
6 ft	12 ft	BROWN	HARDPAN, BOULDERS, HARD
178 ft	190 ft	GREY	LIMESTONE, HARD
13 ft	203 ft	BLACK	LIMESTONE, HARD

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 9	1528092	009			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 8/16/1994
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 293 ft
Pump Rate: 40 GPM
Static Water Level: 22 ft
Flow Rate:
Clear/Cloudy: CLOUDY
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 290
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
18 ft	18 ft	BROWN	CLAY, SAND
142 ft	160 ft	GREY	CLAY, SAND
67 ft	227 ft	BLUE	CLAY, SAND
13 ft	240 ft	GREY	CLAY, SAND
40 ft	280 ft	GREY	QUICKSAND
10 ft	290 ft	GREY	GRAVEL, SAND
3 ft	293 ft	GREY	LIMESTONE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 9	1528100	009			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 8/4/1994
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 56 ft
Pump Rate: 20 GPM
Static Water Level: 30 ft
Flow Rate:
Clear/Cloudy: CLOUDY
Specific Capacity:
Final Well Status: Recharge Well
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 45
Overburden/Bedrock: Bedrock
Water Type: SULPHUR
Casing Material: OPEN HOLE

Thickness	Original Depth	Material Colour	Material
2 ft	2 ft	BROWN	SAND, LOOSE
43 ft	45 ft	GREY	CLAY, LOOSE
11 ft	56 ft	BROWN	SHALE, PACKED

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 9	1528101	009			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 8/4/1994
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 58 ft
Pump Rate: 20 GPM
Static Water Level: 26 ft
Flow Rate:
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 53
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL, OPEN HOLE

Thickness	Original Depth	Material Colour	Material
3 ft	3 ft	BROWN	SAND, LOOSE
48 ft	51 ft	GREY	CLAY, LOOSE
2 ft	53 ft	BROWN	TILL, PACKED
5 ft	58 ft	BROWN	SHALE, PACKED

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 9	1530386	009			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 10/15/1998
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 335 ft
Pump Rate: 3 GPM
Static Water Level: 40 ft
Flow Rate:
Clear/Cloudy: CLOUDY
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Rotary (Air)
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 0
Overburden/Bedrock: Mixed in a Layer
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
2 ft	2 ft	BROWN	TOPSOIL, ROCK, PACKED
333 ft	335 ft	GREY	LIMESTONE

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 10	1530507	010			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 1/30/1999
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 61 ft
Pump Rate: 8 GPM
Static Water Level: 20 ft
Flow Rate:
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 54
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL, OPEN HOLE

Thickness	Original Depth	Material Colour	Material
14 ft	14 ft	BROWN	CLAY, SOFT
21 ft	35 ft	BLUE	CLAY, SOFT
19 ft	54 ft	GREY	GRAVEL, BOULDERS, HARD
7 ft	61 ft	BROWN	SHALE, HARD

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 10	1530573	010			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 5/17/1999
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 69 ft
Pump Rate: 12 GPM
Static Water Level: 22 ft
Flow Rate:
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 57
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL, OPEN HOLE

Thickness	Original Depth	Material Colour	Material
12 ft	12 ft	BROWN	CLAY, SOFT
33 ft	45 ft	BLUE	CLAY, SOFT
12 ft	57 ft	GREY	GRAVEL, SOFT
12 ft	69 ft	BROWN	SHALE, HARD

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 9	1530687	009			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 6/21/1999
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 54 ft
Pump Rate: 11 GPM
Static Water Level: 25 ft
Flow Rate:
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Rotary (Air)
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 48
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL, OPEN HOLE

Thickness	Original Depth	Material Colour	Material
10 ft	10 ft	RED	CLAY, SOFT
5 ft	15 ft	GREY	CLAY, SOFT
25 ft	40 ft	BLACK	CLAY, SOFT
8 ft	48 ft	BROWN	GRAVEL, SOFT
6 ft	54 ft	BROWN	SHALE, POROUS

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 10	1531868	010			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 3/9/2001
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 180 ft
Pump Rate: 20 GPM
Static Water Level: 26 ft
Flow Rate:
Clear/Cloudy: CLOUDY
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 176
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
6 ft	6 ft	BROWN	TOPSOIL, SANDY, CLAY
12 ft	18 ft	BROWN	CLAY
62 ft	80 ft	GREY	CLAY
87 ft	167 ft	BLUE	CLAY
9 ft	176 ft	GREY	GRAVEL, SAND
4 ft	180 ft	GREY	LIMESTONE, ROCK

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 9	1532739	009			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 4/5/2002
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 202 ft
Pump Rate: 6 GPM
Static Water Level: 12 ft
Flow Rate:
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 4
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL, OPEN HOLE

Thickness	Original Depth	Material Colour	Material
4 ft	4 ft	BROWN	CLAY, BOULDERS, LOOSE
198 ft	202 ft	GREY	LIMESTONE, HARD

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 9	1532816	009			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 5/8/2002
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 77 ft
Pump Rate: 20 GPM
Static Water Level: 10 ft
Flow Rate:
Clear/Cloudy: CLOUDY
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 72
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
21 ft	21 ft	BROWN	HARDPAN, STONES, GRAVEL
51 ft	72 ft	BROWN	SAND, GRAVEL
5 ft	77 ft	GREY	ROCK, HARD

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 10	1533131	010			OTTAWA-CARLETON	CUMBERLAND TOWNSHIP

Easting Nad83:
Northing Nad83:
Zone: 18
Utm Reliability: unknown UTM
Construction Date: 8/22/2002
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 121 ft
Pump Rate: 25 GPM
Static Water Level: 30 ft
Flow Rate:
Clear/Cloudy: CLOUDY
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Cable Tool
Flowing (y/n): N
Elevation (m):
Elevation Reliability:
Depth to Bedrock: 34
Overburden/Bedrock: Bedrock
Water Type: FRESH
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material
30 ft	30 ft	BROWN	CLAY
4 ft	34 ft	GREY	HARDPAN, GRAVEL
87 ft	121 ft	GREY	LIMESTONE, ROCK

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 10	1535825	010			OTTAWA-CARLETON	OTTAWA CITY

Easting Nad83:
Northing Nad83:
Zone:
Utm Reliability:
Construction Date: 9/22/2005
Primary Water Use:
Secondary Water Use:
Well Depth: 77 ft
Pump Rate:
Static Water Level:
Flow Rate:
Clear/Cloudy:
Specific Capacity:
Final Well Status:
Construction Method: Other Method
Flowing (y/n):
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock: all layers are unknown type
Water Type:
Casing Material:

Thickness	Original Depth	Material Colour	Material
58 ft	77 ft		
19 ft	19 ft		

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
n/a		lot 10 con 7	7107725	010	07		OTTAWA-CARLETON	OTTAWA CITY

Easting Nad83: 919315
Northing Nad83: 5037494
Zone: 18
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 4/17/2008
Primary Water Use: Domestic
Secondary Water Use:
Well Depth: 37.2 m
Pump Rate: 18 LPM
Static Water Level: 4.52 m
Flow Rate:
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Water Supply
Construction Method: Air Precussion
Plowing (y/n):
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock:
Water Type: Not stated
Casing Material: STEEL, OPEN HOLE

Thickness	Original Depth	Material Colour	Material
0.62 m	0.62 m	BROWN	SAND
36.58 m	37.2 m	GREY	LIMESTONE

Appendix: Ontario Database Descriptions

EcoLog Environmental Risk Information Services Ltd 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 EcoLog ERIS at the time of update. **Note: Databases denoted with "*" indicates that th**e database will no longer be updated. See the individual database descriptions for more information.

Provincial Government Source Databases:

Abandoned Aggregate Inventory **Up to Sept 2002** **AAGR**

The MAAP Program maintains a database of all 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.

Aggregate Inventory **Up to Jun 2010** **AGR**

The Ontario Ministry of Natural Resources maintains a database of all active pits and quarries. Please note that the database **is only referenced by lot\concession and city/town location.** The database provides information regarding the registered owner/operator, location, status, licence type, and maximum tonnage.

Abandoned Mines Information System **1800-2005** **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.

Borehole **1875-Sept 2010** **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.

Certificates of Approval **1985-Jun 2011** **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.

TSSA Commercial Fuel Oil Tanks **1948-Aug 2010** **CFOT**

Since May 2002, Ontario developed a new act where it became mandatory for fuel oil tanks to be registered with Technical Standards & Safety Authority (TSSA). This data would include all commercial underground fuel oil tanks in Ontario with fields such as location, registration number, tank material, age of tank and tank size.

Coal Gasification Plants and Coal Tar Sites **April 1987 and November 1988*** **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.*

Compliance and Convictions **1989-Jun 2011** **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.

Drill Holes **1886-2005** **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".**

Environmental Registry **1994-Jun 2011** **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, licence, or certificate of approval to release substances into the air or water; these are notified on the registry. Data includes things like; Approval for discharge into the natural environment other than water (i.e. Air), Permit to Take Water (PTTW), Certificate of Property Use (CPU), Approval for a waste disposal site, Order for preventative measures.(EPA s. 18), Order for conformity with Act for waste disposal sites.(EPA s. 44), Order for remedial work.(EPA s. 17) and many more.

TSSA Fuel Storage Tanks **Current to Jun 2011** **FST**

The Technical Standards & Safety Authority (TSSA), under the *Technical Standards & Safety Act* of 2000 maintains a database of registered private and retail fuel storage tanks in Ontario with fields such as location, tank status, license date, tank type, tank capacity, fuel type, installation year and facility type.

Ontario Regulation 347 Waste Generators Summary **1986-Oct 2010** **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.

Mineral Occurrences **1846-Nov 2010** **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 planimetric (X and Y) coordinates of that point with the coordinates of the same point as defined from a source of higher accuracy.

Non-Compliance Reports **1992(water only), 1994-2009** **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.

Ontario Oil and Gas Wells **1800-Jun 2011** **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, well cap date, licence 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.

Ontario Inventory of PCB Storage Sites **1987-Oct 2004** **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.

Pesticide Register **1988-Mar 2011** **PES**

The Ontario Ministry of Environment maintains a database of all manufacturers and vendors of registered pesticides.

Private and Retail Fuel Storage Tanks **1989-1996*** **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).

Ontario Regulation 347 Waste Receivers Summary **1986-2008** **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.

Record of Site Condition **1997-Sept 2001, Oct 2004-Jun 2011** **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. Information available includes Registration Number, Filing Owner, Property Address, Filing Date and Municipality.

Ontario Spills **1988-Nov 2010** **SPL**

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.**

Wastewater Discharger Registration Database **1990-2009** **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).

Waste Disposal Sites - MOE CA Inventory **1970-Jun 2011** **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. For more current information for Waste Disposal Sites please see the EBR database, which will include information such as 'Approval for a waste disposal site (EPA s.27)' and 'Approval for use of a former waste disposal site (EPA s.46)'.

Waste Disposal Sites - MOE 1991 Historical Approval Inventory **Up to Oct 1990*** **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.

Water Well Information System **1955-Mar 2011** **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.

Federal Government Source Databases: **Diagram Identifier:**

Environmental Effects Monitoring **1992-2007*** **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.

Environmental Issues Inventory System **1992-2001*** **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.

Federal Convictions **1988-Jun 2007** **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.

Contaminated Sites on Federal Land **June 2000-May 2011** **FCS**

The Treasury Board of Canada Secretariat maintains an inventory of all known contaminated sites held by various Federal departments and agencies. This inventory does not include properties owned by Crown corporations, but does contain non-federal sites for which the Government of Canada has accepted some or all financial responsibility. All sites have been classified through a system developed by the Canadian Council of Ministers of the Environment. The database provides information on company name, location, site ID #, property use, classification, current status, contaminant type and plan of action for site remediation.

Fisheries & Oceans Fuel Tanks **1964-Sept 2003** **FOFT**

Fisheries & Oceans Canada maintains an inventory of all 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.

Indian & Northern Affairs Fuel Tanks **1950-Aug 2003** **IAFT**

The Department of Indian & Northern Affairs Canada (INAC) maintains an inventory of all 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.

National Analysis of Trends in Emergencies System (NATES) **1974-1994*** **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.

National Defence & Canadian Forces Fuel Tanks **Up to May 2001*** **NDFT**

The Department of National Defence 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.

National Defence & Canadian Forces Spills **Mar 1999-Aug 2010** **NDSP**

The Department of National Defence 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.

National Defence & Canadian Forces Waste Disposal Sites **2001-April 2007** **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.

National Environmental Emergencies System (NEES) **1974-2003** **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 all 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.

National PCB Inventory **1988-2008** **NPCB**

Environment Canada's National PCB inventory includes information on in-use PCB containing equipment in Canada including federal, provincial and private facilities. All federal out-of-service PCB containing equipment and all 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-fede**ral PCB waste, the National PCB inventory includes some information on provincial and private PCB waste and storage sites.

National Pollutant Release Inventory **1993-2009** **NPRI**

Environment Canada has defined the Na**tional 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.

Parks Canada Fuel Storage Tanks **1920-Jan 2005** **PCFT**

Canadian Heritage maintains an inventory of all 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.

Transport Canada Fuel Storage Tanks **1970-March 2007** **TCFT**

With the provinces of BC, MB, NB, NF, ON, PE, and QC; Transport Canada currently owns and operates 90 fuel storage tanks. This inventory will also include The Pickering Lands, which refers to the 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, falls under the Site Management Policy of Transport Canada, but administered by Public Works and Government Services Canada. Our inventory provides information on the site name, location, tank age, capacity and fuel type.

Private Source Databases:

Anderson's Waste Disposal Sites **1860s-Present** **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 authoritive. The information was collected for research purposes only.*

Automobile Wrecking & Supplies 2001-Jun 2010 **AUWR**

This database provides an inventory of all 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.

Chemical Register 1992, 1999-Jun 2010 **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.).

ERIS Historical Searches 1999-Apr 2011 **EHS**

EcoLog 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.**

Canadian Mine Locations 1998-2009 **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.

Oil and Gas Wells Oct 2001-Jun 2011 **OGW**

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 Nickles'** database is updated on a daily basis, however, this database is updated on a monthly basis. More information is available at www.nickles.com.

Canadian Pulp and Paper 1999, 2002, 2004, 2005, 2009 **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.

Retail Fuel Storage Tanks 2000-Jun 2010 **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. Information is provided on company name, location and type of business.

Scott's Manufacturing Directory 1992-Mar 2011 **SCT**

Scott's Directories is a data bank containing information on over 70,000 manufacturers in Ontario. Even though Scott's listings are voluntary, it is the most comprehensive database of Ontario manufacturers available. Information concerning a **company's address, plant size, and main products are included in** this database. This database begins with 1992 information and is updated annually.

Anderson's Storage Tanks 1915-1953* **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.*

APPENDIX C

Responses to Questionnaires

PHASE I ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE

This questionnaire will assist Golder Associates Ltd. in preparing a Phase I Environmental Site Assessment at the Site described below. Please perform the following:

- Complete this form as soon as possible but no later than within 48 hours of receipt;
- Sign the last page and e-mail it to bsullivan@golder.com
- Or fax to 1-613-592-9601 Att: B. G. Sullivan
- Complete all questions, if necessary, respond with an "N/A" if the question does not apply;
- Call our office at (613) 592-9600 if you have questions about how to answer;
- Attach additional pages to this form if more room is required.

PROJECT AND CONTACT INFORMATION		
Date:	Fri. July 28 2011	
Property Name:	Parts of Lots 9 and 10 Concession 8	
Property Address:	3406 Frank Kenny Rd. NAVAN	
Property Owner:	743120 Ontario Inc.	
	Tel: 6138352488	**Fax:** 613 8354112
Building Manager:	Gordon Both Cel 613 297 4472	
	Tel: 613 835 2488	**Fax:** 613 835 4112
Contact for Access:	Gordon Both Cel 6132974472	
	Tel: 613 835 2488	**Fax:** 613 8354112
GOLDER INFORMATION		
Field Reviewer:	**B. G. (Sully) Sullivan**	
Project #:		
Date of Inspection:		
Sub Consultant:		

(A) GENERAL SITE AND COMPANY INFORMATION

1. General description of Site use/operation: School bus Service
Bus parking, Office and General Maintenance

2. Number of employees at this Site: 75 Production: _____
Office: 10 Other: (NOTE 65 of 75 are part time)

3. Year current operations commenced: 1991

4. Year Site constructed: 1990

5. Size of property: 13 acre's (5 are used for bus operation)

6. Number of free-standing buildings on the Site: 3 Total square footage: 9000

7 Size of buildings (footprint area): 60x40 10x60 (2 storeys 30x45 / garage 45x45)

8. Year of most recent expansion or major modification of Site: 2001 add 40x60 shed.

9. Can you provide a detailed plan indicating:
- Site boundaries ☑ Yes ☐ No
- the location of all Site buildings ☑ Yes ☐ No
- a roof plan(s) of all air emission points ☐ Yes ☑ No
- a Site plan showing sanitary and storm sewer locations ☐ Yes ☑ No

10. Can you provide production flow diagrams showing basic process operations, waste generation points and air emission points? ☑ Yes ☐ No

11. What was the historical use of the Site and what type of activities were taking place at the Site?
agricultural / School bus service

12. Have any building(s) ever been historically at the Site? ☐ Yes ☒ No

If yes, what type of buildings and how were they heated?

13. When the Site was developed for first time? 1990-91

(B) ASBESTOS

1. Has a survey or study ever been conducted to assess the type, amount, location, condition, and/or cost or desirability of removal or encapsulation of asbestos? ☐ Yes ☒ No

2. Are any buildings or other materials located on the property known or suspected to contain asbestos? ☐ Yes ☒ No

3. Is an Asbestos Management Plan in place at the Site? ☐Yes ☒No

(C) POLYCHLORINATED BIPHENYLS (PCBs)

1. Has there been a survey or study on PCBs for the Site? ☐Yes ☒No

2. Are any electrical transformers, capacitors, fluorescent light ballasts or other equipment, such as which may contain PCBs present on the Site? ☐Yes ☒No

3. Is the subject Site used as a storage Site for PCBs? ☐Yes ☒No

(D) STORAGE TANKS

Are there any underground storage tanks (USTs) located on the Site? ☐Yes ☒No

If so, please describe:

Tank ID	Size (gallons)	Construction (steel, fibreglass, concrete etc.)	Double or Single Wall	Age	Product Stored (gas, diesel, solvent, etc.)

2. Are there tightness testing reports available for the USTs? ☐Yes ☒No

3. Are there any permanent above-ground storage tanks (ASTs) located on the property? ☒Yes ☐No

If so, please describe:

Tank ID	Size (gallons)	Construction (steel, fibreglass, concrete etc.)	Double or Single Wall	Age	Product Stored (gas, diesel, solvent, etc.)
Diesel 1	1000	Steel	D	14yr	Diesel
Diesel 2	1000	Steel	D	14yr	Diesel
No lead	1000	Steel	D	14yr	No lead

4. Have any USTs or ASTs ever been historically present at the Site? ☒Yes ☐No

5. Is any class of petroleum product stored in drums or other containers (other than USTs or ASTs) on the Site? ☑Yes ☐No

Waste oil

(E) AIR EMISSIONS

1. Has an Air Emission inventory been completed for the Site? ☐Yes ☒No
2. How many air emissions permits/approvals does the Site have? NONE
3. Are the air emissions permits/approvals readily available for review? ☐Yes ☒No

(F) WASTE

1. Does the Site generate waste material? ☒Yes ☐No

   If so, what type of material & quantity: oil
2. Is the Site a generator of hazardous waste? ☐Yes ☐No

   If so, please provide Identification Number: _____

(G) WATER AND WASTEWATER

1. What is the source of water supply for the Site?

   City Municipal _____ On-Site well ✓ Surface Water ____ Other (describe) _____
2. Are there water withdrawal permits? ☐Yes ☑No
3. Has the Site been the subject of Discharge Violations/Stop Orders? ☐Yes ☑No
4. Is the Site connected to municipal sanitary sewers? ☐Yes ☑No
5. Does the Site have an overstrength agreement for sewer discharges? ☐Yes ☑No
6. Is the Site's sewer use agreement readily available for review? ☐Yes ☑No
7. Is the Site connected to municipal storm sewers? ☐Yes ☑No
8. Does the Site discharge any process water directly to the environment? ☐Yes ☑No
9. Does the Site discharge stormwater to creeks or other waterways? ☐Yes ☑No

(H) OZONE DEPLETING SUBSTANCES (ODSs)

1. Are ODSs known to be present at the Site? ☐Yes ☐No
2. Are ODSs used for production purposes? ☐Yes ☐No

3. Who is contractor that services this type of equipment? _____

4. Is the servicing contractor licensed? ☐Yes ☐No

(I) ENERGY

1. Is comfort heating for the Site provided by burning natural gas? ☐Yes ☑No

2. a) Is comfort heating for the Site provided by burning oil? ☐Yes ☑No

   Are the oil storage tanks located above ground? ☐Yes ☐No N/A

   Are the oil storage tanks located underground? ☐Yes ☐No N/A

3. Is propane used at the Site (i.e. propane-powered lift trucks)? ☑Yes ☐No

(J) PESTICIDES/HERBICIDES AND AGRICULTURAL CHEMICALS

1. Have pesticides, herbicides, or other agricultural chemicals ever been applied to the property? ☑Yes ☐No

2. Have pesticides, herbicides, or other agricultural chemicals ever been mixed, formulated, rinsed or disposed of on the property? ☐Yes ☑No

(K) RADON

1. Have radon levels been monitored at the property or any information gathered concerning potential for radon accumulation? ☐Yes ☑No

(L) ENVIRONMENTAL STUDIES, CITATIONS, ENFORCEMENT AND CLEAN-UP ACTIONS

1. Have any environmental assessment studies been performed for the Site with respect to soil, groundwater, air or Site facilities and processes? ☐Yes ☑No

2. Has any public agency ever investigated or cited the property for violation or possible violation of any environmental law or commenced enforcement or clean-up action under environmental law with respect to the property? ☐Yes ☑No

3. Has any public agency ever listed the property as a Site requiring or qualifying for clean-up under any environmental law? ☐Yes ☑No

(M) OTHER

1. Are radioactive substances or equipment used/stored or have they ever been used/stored at the Site? ☐Yes ☑No
2. Are there any issues with regard to the presence of mould at the Site? ☐Yes ☑No
3. Have vehicle fuelling and/or repairs ever been taking place on the Site? ☑Yes ☐No
4. Have any spills of chemical products, liquid waste or hydrocarbons ever been occurred on the Site? ☐Yes ☑No
5. Has storage, handling or management of chemicals ever been taking place at the Site? ☐Yes ☑No
6. Are there issues with mould or water infiltration in the Site building? ☐Yes ☑No

General Remarks:

I have completed the above survey to the best of my knowledge of this Site,

Signature: 

Name: GORDON D. BOOTH

Title: Manager / owner

Date: Aug. 1st /11

PHASE I ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE

This questionnaire will assist Golder Associates Ltd. in preparing a Phase I Environmental Site Assessment at the Site described below. Please perform the following:

- Complete this form as soon as possible but no later than within 48 hours of receipt;
- Sign the last page and e-mail it to bsullivan@golder.com
- Or fax to 1-613-592-9601 Att: B. G. Sullivan
- Complete all questions, if necessary, respond with an "N/A" if the question does not apply;
- Call our office at (613) 592-9600 if you have questions about how to answer;
- Attach additional pages to this form if more room is required.

PROJECT AND CONTACT INFORMATION		
Date:	Fri July 28, 2011	
Property Name:	Parts of Lots 9 & 10 Concession 8	
Property Address:	3450 Frank Kenny Rd. NAUAN	
Property Owner:	743120 Ont. Inc.	
	Tel: 6138352488	**Fax:** 613 835 4112
Building Manager:	Gordon Both Cel 613 297 4472	
	Tel : 6138352488	**Fax:** 613 835 4112
Contact for Access:	Gordon Both Cel 613 297 4472	
	Tel: 6138352488	**Fax:** 613 835 4112
GOLDER INFORMATION		
Field Reviewer:	**B. G. (Sully) Sullivan**	
Project #:		
Date of Inspection:		
Sub Consultant:		

(A) GENERAL SITE AND COMPANY INFORMATION

1. General description of Site use/operation: Residencial / agricultural / storage

2. Number of employees at this Site: 0 Production: 0
   Office: 0 Other: family of 4

3. Year current operations commenced: 1991

4. Year Site constructed: Seventies

5. Size of property: 7 acres of 13 acre property.

6. Number of free-standing buildings on the Site: 1 Total square footage: 1200

7. Size of buildings (footprint area): 30 x 40

8. Year of most recent expansion or major modification of Site: None

9. Can you provide a detailed plan indicating:
   - Site boundaries ☑ Yes ☐ No
   - the location of all Site buildings ☑ Yes ☐ No
   - a roof plan(s) of all air emission points ☐ Yes ☑ No
   - a Site plan showing sanitary and storm sewer locations ☐ Yes ☑ No

10. Can you provide production flow diagrams showing basic process operations, waste generation points and air emission points? ☐ Yes ☑ No

11. What was the historical use of the Site and what type of activities were taking place at the Site?
    Farming / Residential / storage / horse stable

12. Have any building(s) ever been historically at the Site? ☑ Yes ☐ No

If yes, what type of buildings and how were they heated?
Small horse stable (2 horses) heat source electric

13. When the Site was developed for first time?
    Seventies

(B) ASBESTOS

1. Has a survey or study ever been conducted to assess the type, amount, location, condition, and/or cost or desirability of removal or encapsulation of asbestos? ☐ Yes ☑ No

2. Are any buildings or other materials located on the property known or suspected to contain asbestos? ☐ Yes ☑ No

3. Is an Asbestos Management Plan in place at the Site? ☐Yes ☑No

(C) POLYCHLORINATED BIPHENYLS (PCBs)

1. Has there been a survey or study on PCBs for the Site? ☐Yes ☑No
2. Are any electrical transformers, capacitors, fluorescent light ballasts or other equipment, such as which may contain PCBs present on the Site? ☐Yes ☑No
3. Is the subject Site used as a storage Site for PCBs? ☐Yes ☑No

(D) STORAGE TANKS

Are there any underground storage tanks (USTs) located on the Site? ☐Yes ☑No

If so, please describe:

Tank ID	Size (gallons)	Construction (steel, fibreglass, concrete etc.)	Double or Single Wall	Age	Product Stored (gas, diesel, solvent, etc.)

2. Are there tightness testing reports available for the USTs? N/A ☐Yes ☐No
3. Are there any permanent above-ground storage tanks (ASTs) located on the property? ☐Yes ☑No

If so, please describe:

Tank ID	Size (gallons)	Construction (steel, fibreglass, concrete etc.)	Double or Single Wall	Age	Product Stored (gas, diesel, solvent, etc.)

4. Have any USTs or ASTs ever been historically present at the Site? ☐Yes ☑No
5. Is any class of petroleum product stored in drums or other containers (other than USTs or ASTs) on the Site? ☐Yes ☑No

(E) AIR EMISSIONS

1. Has an Air Emission inventory been completed for the Site? ☐Yes ☑No
2. How many air emissions permits/approvals does the Site have? NONE
3. Are the air emissions permits/approvals readily available for review? ☐Yes ☑No

(F) WASTE

1. Does the Site generate waste material? ☐Yes ☑No

   If so, what type of material & quantity:_____

2. Is the Site a generator of hazardous waste? ☐Yes ☑No

   If so, please provide Identification Number:_____

(G) WATER AND WASTEWATER

1. What is the source of water supply for the Site?

   City Municipal _____ On-Site well ✓ Surface Water ____ Other (describe) _____

2. Are there water withdrawal permits? ☐Yes ☑No
3. Has the Site been the subject of Discharge Violations/Stop Orders? ☐Yes ☑No
4. Is the Site connected to municipal sanitary sewers? ☐Yes ☑No
5. Does the Site have an overstrength agreement for sewer discharges? ☐Yes ☑No
6. Is the Site's sewer use agreement readily available for review? ☐Yes ☑No
7. Is the Site connected to municipal storm sewers? ☐Yes ☑No
8. Does the Site discharge any process water directly to the environment? ☐Yes ☑No
9. Does the Site discharge stormwater to creeks or other waterways? ☐Yes ☑No

(H) OZONE DEPLETING SUBSTANCES (ODSs)

1. Are ODSs known to be present at the Site? ☐Yes ☑No
2. Are ODSs used for production purposes? ☐Yes ☑No

3. Who is contractor that services this type of equipment? N/A

4. Is the servicing contractor licensed? N/A ☐Yes ☐No

(I) ENERGY

1. Is comfort heating for the Site provided by burning natural gas? ☐Yes ☑No

2. a) Is comfort heating for the Site provided by burning oil? ☑Yes ☐No

   Are the oil storage tanks located above ground? ☑Yes ☐No

   Are the oil storage tanks located underground? ☐Yes ☑No

3. Is propane used at the Site (i.e. propane-powered lift trucks)? ☐Yes ☑No

(J) PESTICIDES/HERBICIDES AND AGRICULTURAL CHEMICALS

1. Have pesticides, herbicides, or other agricultural chemicals ever been applied to the property? ☐Yes ☑No

2. Have pesticides, herbicides, or other agricultural chemicals ever been mixed, formulated, rinsed or disposed of on the property? May have had agricultural chemicals ☑Yes ☐No

(K) RADON

1. Have radon levels been monitored at the property or any information gathered concerning potential for radon accumulation? ☐Yes ☑No

(L) ENVIRONMENTAL STUDIES, CITATIONS, ENFORCEMENT AND CLEAN-UP ACTIONS

1. Have any environmental assessment studies been performed for the Site with respect to soil, groundwater, air or Site facilities and processes? ☐Yes ☑No

2. Has any public agency ever investigated or cited the property for violation or possible violation of any environmental law or commenced enforcement or clean-up action under environmental law with respect to the property? ☐Yes ☑No

3. Has any public agency ever listed the property as a Site requiring or qualifying for clean-up under any environmental law? ☐Yes ☑No

(M) OTHER

1. Are radioactive substances or equipment used/stored or have they ever been used/stored at the Site? ☐Yes ☑No
2. Are there any issues with regard to the presence of mould at the Site? ☐Yes ☑No
3. Have vehicle fuelling and/or repairs ever been taking place on the Site? ☐Yes ☑No
4. Have any spills of chemical products, liquid waste or hydrocarbons ever been occurred on the Site? ☐Yes ☑No
5. Has storage, handling or management of chemicals ever been taking place at the Site? ☐Yes ☑No
6. Are there issues with mould or water infiltration in the Site building? ☐Yes ☑No

General Remarks:

I have completed the above survey to the best of my knowledge of this Site,

Signature: _____

Name: Gordon D. Both

Title: Manager / owner

Date: Aug 1/11

APPENDIX D

Qualifications of Assessors

Education

Business Management, University of Ottawa, Ottawa, Ontario, 1981

Diploma Civil Engineering Technology, Ryerson Polytechnical Institute, Toronto, Ontario, 1980

Certifications

Certified Engineering Technologist (CET) with the Ontario Association of Certified Engineering Technicians and Technologists (OACETT) since 1990 (Building and Construction Division), 1990

Golder Associates Ltd. – Ottawa

Career Summary - Environmental Due Diligence

B.G. (Sully) Sullivan is an Environmental/Property Assessor specialist with Golder Associates who assists clients with their real estate needs in due diligence assessments, property condition assessments, designated substance surveys, air quality hygiene assessments and compliance auditing. He has over 25 years of experience working on projects across North America and Europe. Sully has been a Certified Engineering Technologist (CET) with the Ontario Association of Certified Engineering Technicians and Technologists (OACETT) since 1990. He has managed and coordinated Phase I, II and III Environmental Site Assessments (ESA), Property Condition Assessments (PCA), Designated Substance Surveys (DSS), Respirable Quartz and Wood Dust Hygiene Assessments and compliance audits to address the management and documentation of Ozone Depleting Substances (ODS). Sully has worked with clientele including financial institutions, pension fund managers, land and building developers, federal/provincial/municipal governments, petroleum companies, waste management companies, large multi-national companies, Canadian Blue Chip Corporations and small business owners. Heavily involved with marketing and promotional events, Sully is the Ottawa Golder representative to the Building Owners and Managers Association of Canada (BOMA) and the Ottawa Executive Association (OXA).

Employment History

Golder Associates Ltd. – Ottawa, Ontario

Environmental Due Diligence (EDD) Discipline Leader, Senior Environmental Due Diligence Assessor (2001 to Present)

Project Management and Co-ordinator for:
Phase I Environmental Site Assessments (ESAs) involving proposal preparation, site inspections and interviews, air photo reviews, report writing and project co-ordination for sites across Canada, the USA and Europe; Phase II ESAs involving project management, proposal preparation, project co-ordination and field supervision for sites across Canada; Environmental Health & Safety Assessments (designated substance surveys, asbestos surveys and mould assessments); Compliance audits for Canadian and American Regulations relating to Ozone Depleting Substances; and, Environmental Assessment Screening for Public Works and Government Services Canada (PWGSC) on federal lands.

Allcet Environmental Consulting – Nepean, Ontario

Environmental/Civil Technologist (Owner) (1996 to 2001)

Self employed – contracted by several environmental/civil engineering consultants and general contractors to provide complete project management of Phase I, II and III Environmental Site Assessments and civil engineering project management in British Columbia, Alberta, Northwest Territories, Ontario, Quebec and the Maritime provinces.

Fondex Limited – Nepean, Ontario
Senior Technologist (1989 to 1996)

Field Manager for civil, geotechnical, environmental and construction related projects. Duties included coordination of materials testing, surveying, environmental site assessments, building inspections, structural appraisals, drainage design, hydro-geological studies, preblast surveys, foundation piling inspections and subgrade inspections.

PROJECT EXPERIENCE – ENVIRONMENTAL DUE DILIGENCE

Phase I ESA North America and Europe	Project Manager for Phase I ESAs throughout North America and Europe. Clients include government organizations, development companies, small property owners and financial institutions.
PCAs Canada	Project Manager for Phase II ESAs for a variety of land use applications including industrial and commercial facilities. Some projects included large multi-disciplinary teams such as geotechnical, hydrogeology and risk assessment professionals as part of the Phase II ESA assessment.
Phase I ESA/PWGSC/Environment Canada Central and Northern Ontario, Canada	Phase I ESA with archaeology and biology components. Assess potential sites for installation of Environment Canada acid rain monitoring stations. This included a full Phase I ESA with provisions for endangered species and archaeological potential.
Phase I ESA Portfolio/GE Realty Great Britain	Phase I ESAs to determine environmental issues related to a multi-building portfolio purchase throughout Great Britain.
Ozone Depleting Substance (ODS) Compliance Audits/Nexacor North America	Site audits to determine compliance related to management of ODSs in facilities throughout North America. Provided training to client facility managers as well as Golder personnel involved with site ODS audits across Canada.

PROJECT EXPERIENCE – ENVIRONMENTAL HEALTH AND SAFETY

4210 Labelle Street – GWLRA Ottawa, Ontario	Project Manager for an asbestos abatement project at the Value Village store located in the former commercial mall building.
Various Locations Across the City – GWLRA Ottawa, Ontario	Annual preventative mould inspections on 11 GWLRA buildings sites across the City of Ottawa to determine the most susceptible locations for mould to occur.
Nicholas/ Rideau Street Building – PCL Ottawa, Ontario	Project Manager of a designated substance survey to determine the location and quantity of all designated substances prior to demolition of the building.
10 Rideau Street – Rideau Centre Ottawa, Ontario	Project Manager of a mould assessment of the top 8 floors of the building to determine locations of mould impact and indoor air quality.

SUPPLEMENTAL SKILLS

Guest Lecturer

Attended Carleton University as a guest lecturer to provide career opportunities in environmental due diligence and present project experience that Golder Associates has obtained in this field.

PROFESSIONAL AFFILIATIONS

BOMA - Golder representative to the Building Owners and Managers Association of Ottawa

OXA - Alternate Golder representative to the Ottawa Executive Association

Education

B.Eng. Geological Engineering, Ecole Polytechnique de Montreal, Montreal, Quebec, 1990

M.Sc. Geophysics, Specialization in Earth Electrical Resistivity, University of British Columbia, Vancouver, British Columbia, 1983

B.Sc. Geophysics, Honours, University of British Columbia, Vancouver, British Columbia, 1980

Certifications

Registered as ing. with l'Ordre des ingénieurs du Québec (OIQ)

Registered as P.Eng. with the Professional Engineers of Ontario (PEO)

Languages

English – Fluent

French – Fluent

Golder Associates Ltd. – Ottawa

Career Summary

Mr. Don Plenderleith, is an Associate and senior project manager at Golder, Ottawa with 16 years of experience in conducting assessment and remediation of contaminated sites. He is a geological engineer with a M.Sc. in geophysics. He has worked extensively on federal sites throughout his career, and manages approximately 10 environmental projects per year under Golder's Standing Offer Agreement with PWGSC-Environmental Services in the National Capital Region. His experience related to drinking water includes preparing a manual for use at the Department of Foreign Affairs' diplomatic properties that treat their own potable water. The manual includes drinking water sampling procedures, water lab set-up, procedures for using a Hach Portable Water Test Lab, and appropriate actions to take when various parameters exceed their limits. Mr. Plenderleith leads Golder's national client service team for the federal government. Mr. Plenderleith has his Secret Security Clearance.

Employment History

Golder Associates Ltd. – Ottawa, Ontario

Associate, Senior Project Manager and Federal Client Service Team Leader (2000 to Present)

Responsible for: federal government client development, project management and technical direction of a variety of environmental projects from the Ottawa office. Mr. Plenderleith's key expertise includes: contaminated site assessment and remediation, peer-reviews of contaminated site work, environmental compliance audits, and providing advice to property managers regarding property acquisition and divestitures. Mr. Plenderleith is Golder Associates' Ottawa coordinator for projects with the Canadian federal government. Contaminated site experience includes: Phase I and II ESAs and site remediation projects at military bases, power generating facilities, petroleum sites, residential properties, railway lands, and other industrial and commercial properties.

Conor Pacific Environmental Technologies Inc. – Ottawa, Ontario

Project Manager (1995 to 2000)

Responsibilities included managing personnel on environmental assessments, managing several key client accounts and developing new business in the National Capital Region, performing environmental compliance audits and Certificate of Approval related work at a variety of industrial facilities in Ontario and Québec, providing technical review of projects (hydrogeology, site assessment, and remediation).

Lupien, Rosenberg & Associates Inc. – Montreal & Ottawa

Branch Manager/Project Manager (1993 to 1995)

Responsibilities included new business development, and participating in environmental investigations at major rail yards in North Bay, Sudbury, Hamilton,

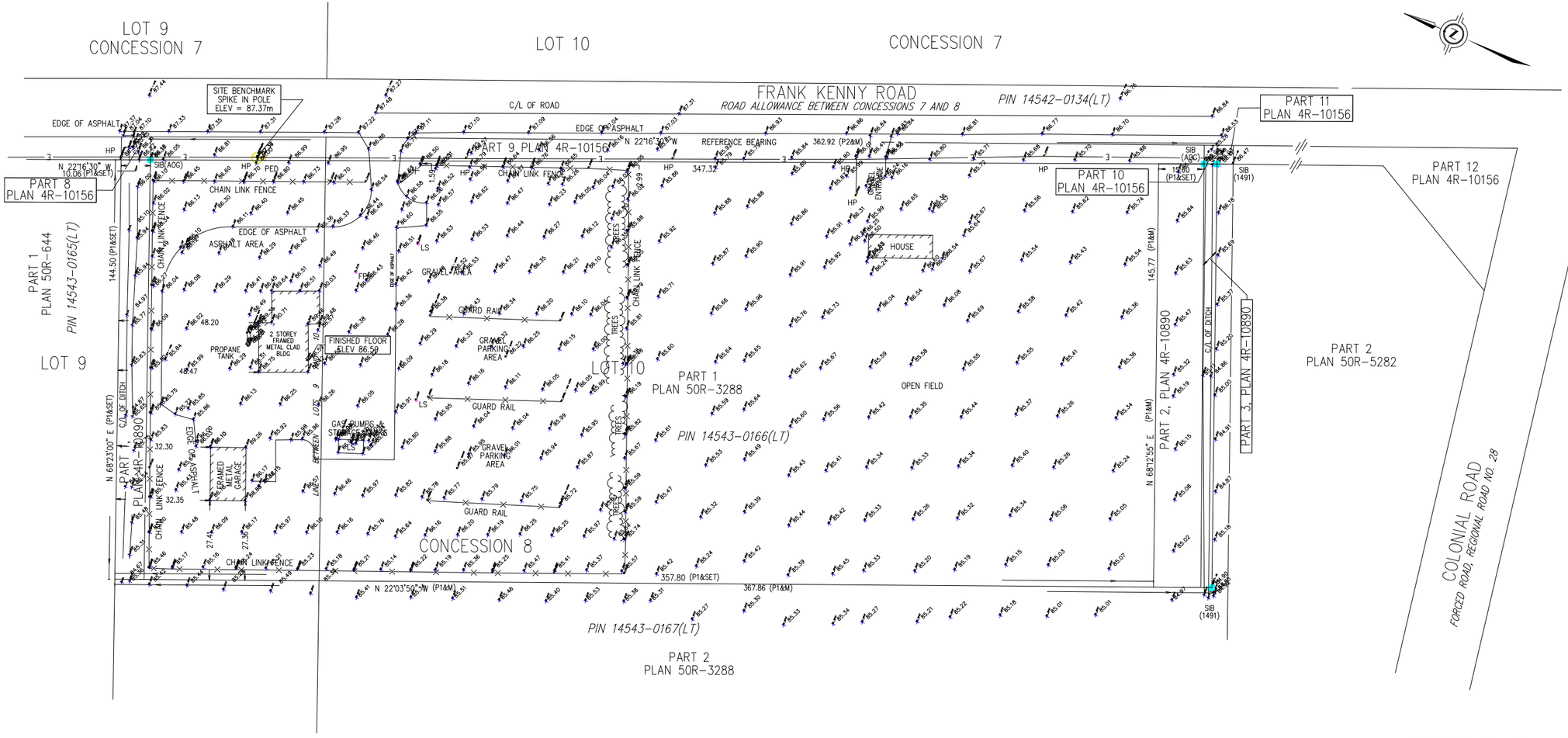
and Montreal. Also performed a mercury vapour survey and formulated a mercury remediation and decommissioning program at a dental alloys plant.

Hydrosult Inc. – Montreal, Canada & Jakarta, Indonesia
Project Engineer (1991 to 1992)

Worked on international development projects for Canadian International Development Agency (CIDA) in a building within the Ministry of Public Works capacity - Water Resources Sector, Government of Indonesia. Responsibilities included analyzing precipitation, stream flow, and water use data to develop the water balance for two Indonesian provinces. Throughout the project Mr. Plenderleith was partnered with an Indonesian engineer.

APPENDIX E

Topographical Survey of Part of Lots 9 and 10 Concession 8 (Informational Purposes Only)



TOPOGRAPHICAL SURVEY OF
PART OF LOTS 9 AND 10 CONCESSION 8
(TOWNSHIP OF CUMBERLAND)
CITY OF OTTAWA

SCALE 1 : 1000

20 0 20 40 60 metres

J. D. BARNES LIMITED

METRIC DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

NOTES

BEARINGS ARE GRID AND ARE DERIVED FROM THE WESTERLY LIMIT OF PARTS 9 AND 10, PLAN 4R-10156, HAVING A BEARING OF N 22°16'30" W.

■	DENOTES	SURVEY MONUMENT FOUND
□	DENOTES	SURVEY MONUMENT SET
SIB	DENOTES	STANDARD IRON BAR
IB	DENOTES	IRON BAR
P1	DENOTES	PLAN 4R-10890
P2	DENOTES	PLAN 4R-10156
M	DENOTES	MEASURED
◦ FP	DENOTES	FLAG POLE
◦ HP	DENOTES	HYDRO POLE
◦ LS	DENOTES	LIGHT STANDARD
▭ PED	DENOTES	TELEPHONE PEDESTAL

ALL BUILDING TIES ARE TAKEN TO CONCRETE FOUNDATION

THE LIMITS OF ASPHALT SHOWN ON THIS PLAN ARE ONLY APPROXIMATE DUE TO THE EXISTING SNOW COVERAGE AT THE TIME OF THE SURVEY

SURVEYOR'S CERTIFICATE

I CERTIFY THAT:

1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT AND THE REGULATIONS MADE UNDER THEM.
2. THE SURVEY WAS COMPLETED ON FEBRUARY 8, 2008.

DATE MARCH 3, 2008

MART HIMMA
ONTARIO LAND SURVEYOR

PREPARED FOR: NICOLINI ASSOCIATES (2008)

J.D.BARNES LIMITED
SURVEYING PLANNING MAPPING GIS
LAND INFORMATION SPECIALISTS
15-2460 LANCASTER ROAD OTTAWA, ON K1B 5N3
T: (613) 731-7244 F: (613) 731-8955
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DRAWN	PS
CHECKED	MH
DATED:	03/03/08
Ref. No.	08-10-900-00

$FILE$
$DATE$
PLOTTED

At Golder Associates we strive to be the most respected global company providing consulting, design, and construction services in earth, environment, and related areas of energy. Employee owned since our formation in 1960, our focus, unique culture and operating environment offer opportunities and the freedom to excel, which attracts the leading specialists in our fields. Golder professionals take the time to build an understanding of client needs and of the specific environments in which they operate. We continue to expand our technical capabilities and have experienced steady growth with employees who operate from offices located throughout Africa, Asia, Australasia, Europe, North America, and South America.

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