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PHASE I
ENVIRONMENTAL SITE ASSESSMENT

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Project No. FE 25-14744

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Issued to:	Jonathan Sequin and Marshall Paton
Contact:	4641 Malden Road Windsor, Ontario N9E 3T4
Project Name:	Phase I Environmental Site Assessment
Project Address:	4641 Malden Road, Windsor, Ontario
Project Number:	FE 25-14744
Issued on:	May 28, 2025

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TABLE OF CONTENTS

GLOSSARY OF ACRONYMS

ACM	Asbestos-Containing Material
asl:	Above Sea Level
AST:	Aboveground Storage Tank
bgs:	Below Ground Surface
BTEX:	Benzene, Toluene, Ethylbenzene and Xylenes
CA:	Certificate of Approval
CPC:	Contaminant of Potential Concern
CSA:	Canadian Standards Association
EASR:	Environmental Activity and Sector Registry
EBR:	Environmental Registry
ECA:	Environmental Compliance Approval
EPA:	Environmental Protection Act
ESA:	Environmental Site Assessment
FIP:	Fire Insurance Plan
HVAC:	Heating, Ventilation, and Air Conditioning
MECP:	Ministry of the Environment, Conservation and Parks
MNRF:	Ministry of Natural Resources and Forestry
MOE:	Ministry of the Environment
MOL:	Ministry of Labour
NPRI:	National Pollutant Release Inventory
NAD:	North American Datum
O. Reg.:	Ontario Regulation
ODS:	Ozone Depleting Substance
OHSA:	Occupational Health and Safety Act
PAHs:	Polycyclic Aromatic (Polyaromatic) Hydrocarbons
PCA:	Potentially Contaminating Activity
PCBs:	Polychlorinated Biphenyls
PHC (F1-F4):	Petroleum Hydrocarbons Fractions F1 to F4
RSC:	Record of Site Condition
TSSA:	Technical Standards and Safety Authority
UFFI:	Urea Formaldehyde Foam Insulation
UST:	Underground Storage Tank
VOCs:	Volatile Organic Compounds

1. EXECUTIVE SUMMARY

Fisher Engineering Limited (Fisher) was retained by Jonathan Sequin and Marshall Paton to conduct a Phase I Environmental Site Assessment (ESA) of the property located at 4641 Malden Road, Windsor, Ontario, herein referred to as the "Site". The purpose of the Phase I ESA was to conduct an environmental due diligence and liability assessment in support of City of Windsor approval for redevelopment of the Site.

The Phase I ESA was conducted in general accordance with the Canadian Standards Association (CSA) Standard Z768-01 (reaffirmed 2022), *Phase I Environmental Site Assessment*.

The Site is located on the northeast corner of Malden Road and former Halliday Avenue. It has an area of approximately 1,500 m^2. The Site is bounded by residential properties to the north and south, undeveloped land to the east and Malden Road, followed by undeveloped land, to the west.

Historical records available for the Site and properties within 250 m surrounding the Site (the "phase I study area") were reviewed. Findings from the records review indicated that the Site was undeveloped land, and was developed for the current residential use, prior to 1953.

Based on our Site reconnaissance on May 12, 2025, the southeastern portion of the Site is occupied by a two-storey residential dwelling with a basement (the "subject building"). There is a concrete pad, south of the subject building, which leads to a dirt road (former Halliday Avenue). The remaining areas of the Site are covered with landscaped or overgrown grass and trees.

The potential presence of asbestos or lead containing building materials are not considered of concern provided they are not disturbed or properly managed and disposed of. However, a designated substance survey (DSS) should be conducted at the Site prior to any demolition or significant renovation of the building.

The findings of the current Phase I ESA have revealed no evidence of actual and/or potential surface or sub-surface contamination associated with the Site and other properties within the phase I study area. It is expected that the Site could continue to be used for residential purposes.

For the purpose of this Phase I ESA, no further investigation is recommended at this time.

2. INTRODUCTION

2.1. Objectives

Fisher Engineering Limited (Fisher) was retained by Jonathan Sequin and Marshall Paton (the "Client") to conduct a Phase I Environmental Site Assessment (ESA) of the property located at 4641 Malden Road, Windsor, Ontario, herein referred to as the "Site". The purpose of the Phase I ESA was to conduct an environmental due diligence and liability assessment in support of City of Windsor approval for redevelopment of the Site.

The Phase I ESA was conducted to develop a preliminary determination of the likelihood that one or more contaminants have affected any land or water on, in or under the Site, and to determine the need and provide the basis for carrying out any Phase II ESA, if required.

2.2. Regulatory Framework

The Phase I ESA carried out by Fisher on the Site was conducted in general accordance with the Canadian Standards Association (CSA) Standard Z768-01 (reaffirmed 2022), *Phase I Environmental Site Assessment*. A Phase I ESA is the systematic preliminary process by which an assessor seeks to determine whether a particular property is subject to actual or potential contamination. A Phase I ESA does not involve the investigative procedures of sampling, analyzing, and measuring, unless enhancements are agreed upon between the Client and the assessor.

The roles and powers of the Ministry of the Environment, Conservation and Parks (MECP) when dealing with contaminated sites are outlined primarily in the Environmental Protection Act (EPA), R.S.O. 1990. The MECP has a mandate to address conditions where there is an adverse effect, or the likelihood of an adverse effect, associated with the presence or discharge of a contaminant. Ontario Regulation (O. Reg.) 153/04 (Records of Site Condition – Part XV.1 of the EPA), as amended, provides roles and responsibilities to property owners and consultants to use when assessing the environmental condition of a property, when determining whether or not restoration is required, and in determining the kind of restoration needed to allow continued use or reuse of the property. The O. Reg. 153/04, as amended, also establishes a standard work program for conducting Phase I ESA in support of filing a Record of Site Condition (RSC) in the Environmental Site Registry for proposed changes in property use to more sensitive land use.

Since it is not the Client's intention to file a RSC for the Site, this Phase I ESA conducted for the Site does not meet all requirements of the O. Reg. 153/04, as amended, and cannot be used to support the filing of RSC.

2.3. Scope of Work

The scope of work for this Phase I ESA consisted of the following:

1. A records review;
2. Site reconnaissance;
3. Interviews;
4. Identification of recognized environmental conditions at the Site;
5. Evaluation of collected information;
6. Preparation of a written report; and
7. Submission of the report to the Client (Jonathan Sequin and Marshall Paton).

3. CURRENT SITE DESCRIPTION

The Site is located on the northeast corner of Malden Road and former Halliday Avenue. It has an area of approximately 1,500 m^2. The Site is bounded by residential properties to the north and south, undeveloped land to the east and Malden Road, followed by undeveloped land, to the west. Please refer to Appendix A for the Site Location Map (Figure A).

Based on our Site reconnaissance on May 12, 2025, the southeastern portion of the Site is occupied by a two-storey residential dwelling with a basement (the "subject building"). There is a concrete pad, south of the subject building, which leads to a dirt road (former Halliday Avenue). The remaining areas of the Site are covered with landscaped or overgrown grass and trees.

A general description of the Site is presented in the following table:

TABLE 1: Site Information	
Municipal Address:	4641 Malden Road, Windsor, Ontario N9E 3T4
Legal Description:	Not provided
Geographical Coordinates of the Centroid of the Site:	Universal Transverse Mercator (UTM) Grid Coordinates, based on North American Datum of 1983 (NAD83): 17T 330230 m Easting 4681751 m Northing
Site Area:	Approximately 1,500 m^2

TABLE 1: Site Information	
Utility Providers:	Water: City of Windsor
	Sanitary Sewer: Private septic system
	Electricity: Enwin Utilities Ltd.
	Natural gas: Enbridge
Building Area:	Approximately 120 m²
Number of Levels:	2
Basement:	Yes
Year Built:	Prior to 1953
General Construction:	Concrete block and metal siding, concrete foundation with basement, shingled roof
Building Use:	Residential

4. RECORDS REVIEW

The specific objectives of a records review are to obtain information on the current and past uses of, and activities at, or affecting the Site in order to determine if a recognized environmental condition exists at the Site and to interpret any recognized environmental condition at the Site. Additionally, a review of records that relate to neighbouring properties, determines if a recognized environmental condition exists at the Site and assists interpretation of any recognized environmental condition at the Site.

4.1 Documentation of Sources and Search Distances

The applicable search distance for records review included the Site, properties located, wholly or partly, within 250 m from the nearest point on a boundary of the Site (the “phase I study area”), and other neighbouring properties where activities considered to be potential sources of environmental contamination, were apparent.

4.1.1. Aerial Photographs

Aerial photographs of various years from 1962 to 2023 were obtained from Environmental Risk Information Services (ERIS). A copy of the aerial photographs (Figures E.1 to E.4) is included in Appendix A. The aerial photographs were examined stereoscopically to assess Site conditions and were described below:

TABLE 2: Description of Aerial Photographs		
Year	Site	Surrounding Area
1962	Developed with a residential building.	North and South: Developed with a residential building. East: Undeveloped land West: Developed with residential buildings and undeveloped land
1970	Same as in 1962	Same as in 1962
1992	Same as in 1970	Same as in 1970
2023	Same as in 1992	Same as in 1992, however only undeveloped land to the west

Based on a review of aerial photographs, no potential sources of environmental concern were noted at the Site or neighbouring properties within the phase I study area.

4.1.2. Fire Insurance Plans

Fire Insurance Plans (FIPs) were originally created to provide insurance companies with detailed information so that they could assess insurance risks as a fire hazard.

ERIS was contacted to obtain FIPs related to the Site and surrounding properties through a Verisk Enviroscan™ report. A 1953 FIP was available for review. Please refer to Appendix B for a copy of the FIP included in the Verisk Enviroscan™ report. The FIP was reviewed and described below:

TABLE 3: Description of FIPs		
Year	Site	Surrounding Area
1953	The Site is north of Halliday Avenue, and was developed with a two-storey residential dwelling.	Surrounding areas were mainly developed with residential dwellings. A store was located 165 m south of the Site, a gasoline station with two gasoline USTs was located 205 m south and a machine shop was a gasoline UST was located 205 m north of the Site.

Based on a review of the FIP, no potential sources of environmental concern were noted at the Site. Due to the nature of operations, intervening distances and downgradient locations from the Site, other properties within the phase I study area are considered unlikely to represent a source of contamination on and/or under the Site.

4.1.3. Municipal Directories

A review of municipal directories was conducted to obtain a listing of previous occupants for the Site and areas within 250 m surrounding the Site. This information is useful in determining the past and/or present uses and associated environmental risks in the phase I study area.

Since the Site and other properties within the phase I study area had always been predominantly used for residential purposes, a municipal directory search was determined not to be particularly useful nor necessary to meet the objective of this investigation, and therefore was not performed.

4.1.4. Title Search and Assessment Rolls

A title or assessment roll search was not performed as part of this assessment.

4.1.5. Previous Environmental, Geological and Geotechnical Reports

No previous reports were available for review.

4.1.6. Company Records

No company records were available for review.

4.1.7. Environmental Source Information

Reasonable accessible information and documents pertaining to the Site and other properties within the phase I study area have been searched by making inquiries to various Federal and Provincial environmental sources, including an ERIS Database Report that assists in the assessment and evaluation of environmental risks. Please refer to the ERIS Database Report attached in Appendix B. Relevant results from the search are presented as follows:

TABLE 4A: Environmental Sources of Information – Site

Source	Relevant Findings
National Pollutant Release Inventory (NPRI) information maintained by Environment Canada	Based on the ERIS report, the Site was not listed in the database.
Ontario Inventory of PCB Storage Sites (OPCB), October 2004 and December 2013, and National Inventory of PCB in Use and PCB Wastes in Storage in Canada (NPCB), information maintained by Environmental Canada 2008	Based on the ERIS report, the Site was not listed in the databases.

TABLE 4A: Environmental Sources of Information – Site	
Source	Relevant Findings
Certificates of Approval (CA), Environmental Bill of Rights Registry (EBR), Environmental Compliance Approval (ECA), Chemical Manufacturers and Distributors (CHEM), Chemical Register (CHM), Permit to Take Water (PTTW), Certificates of Property Use (CPU) or similar instruments	Based on the ERIS report, no records of any CA, EBR, ECA, CHEM, CHM, PTTW, CPU or similar instruments were listed for the Site.
Inventory of Coal Gasification Plant Waste Sites in Ontario, MOE, April 1987	The Site was not listed as a former coal gasification plant waste site.
Compliance and conviction records regarding environmental notices, orders, offences, spills and inspection reports of the Ministry, or submitted to the Ministry	Based on the ERIS report, no spill records were reported for the Site.
Private and retail fuel storage tanks and other information maintained by the Technical Standards and Safety Authority (TSSA) Fuels Safety Division of TSSA did not register private USTs or ASTs for fuel prior to January 1990 or furnace oil tanks prior to May 1, 2002.	Based on the ERIS report, no records of fuel tanks were reported for the Site. A reply to Fisher's electronic inquiry to TSSA, indicated that no records of fuel storage tanks were found for the Site. A copy of the TSSA response is provided in Appendix B.
MECP Regulation 347 Public Information Data Set and the MOE's Hazardous Waste Information Network (HWIN)	Based on the ERIS report, the Site was not listed in the HWIN database.
Waste Disposal Site Inventories, MOE, June 1991; Anderson's Waste Disposal Sites, O. Reg. 347 Waste Receiver.	Based on the ERIS Report, the Site was not listed as a waste disposal site.
Notices and instruments, including Record of Site Condition (RSC), posted in the Environmental Site Registry	Based on the ERIS Report, no RSC, under O. Reg. 153/04 (Part XV.1 of the EPA), had been registered for the Site.
Well head protection areas (WHPA) information from planning authorities	Based on the MECP - Source Protection Information Atlas, the Site and phase I study area is located within the vicinity of the Essex Source Protection Area. The Site is not located within a WHPA. Areas east and west of the Site are located within an event based area. A copy of the map is provided in Appendix B.
Information on areas of natural significance maintained by the Ministry of Natural Resources and Forestry (MNRF)	The MNRF Natural Heritage Areas online interface was used to identify any areas of natural significance in or around the phase I study area. Woodlands and provincially significant wetlands are situated southwest of the Site. A copy of the MNRF Natural Heritage Area Map is provided in Appendix B.

Databases reported for other properties and the unplottable records were reviewed. Based on a review of records from the ERIS report and various environmental sources, no potential sources of environmental concern were noted at the Site or other properties within the phase I study area.

4.1.8. Topographical, Geological and Hydrogeological Sources

Regional Topographical, Geological and Hydrogeological Conditions are presented in the following table:

TABLE 5: Topographical, Geological and Hydrogeological Sources	
Topography and Drainage	
Source:	Natural Resources Canada – The Atlas of Canada online topography map; Google Earth.
Regional Conditions:	Grade elevation is all directions from the Site is relatively flat at approximately 181 m above sea level (asl).
Site Conditions:	The Site area is generally flat. Run-off drainage is expected to be directed towards ditches along the roadways or infiltration at unpaved areas.
Surficial Geology	
Source:	Surficial Geology of Southern Ontario, Ontario Geological Survey 2010; ERIS report MECP Water Well Records.
Regional Stratigraphic Conditions:	Coarse-textured Lacustrine Deposits: sand, gravel, minor silt and clay. A review of the well records listed within the phase I study area indicated that the local stratigraphy generally consists of brown sand fill and topsoil (0 – 0.61 m below ground surface, bgs) overlying clay till (0.31 – 31.08 m bgs) and limestone (31.08 – 36.57 m bgs).
Site Conditions:	It is expected that subsurface soil conditions at the Site approach regional stratigraphic conditions.
Bedrock Geology	
Source:	Bedrock Geology of Ontario, Ontario Geological Survey 2011; Bedrock Topography and Overburden Thickness Mapping, Southern Ontario, Figure A-6, Sediment Geoscience Section, Ontario Geological Survey, 2006; ERIS report MECP Water Well Records.
Regional Bedrock Conditions:	Limestone, dolostone, shale. Dundee Formation. Approximate depth to bedrock in the area is approximately 30 m bgs. A review of MECP Well Records available for the phase I study area indicated that the bedrock was encountered at 31.08 m bgs.
Site Conditions:	It is expected that bedrock conditions underlying the Site approach regional stratigraphic conditions.

TABLE 5: Topographical, Geological and Hydrogeological Sources	
Hydrogeology	
Source:	Freeze and Cheery 1979; Holtz and Kovacs 1981;
Regional Conditions:	The surficial deposits within the study area consist mainly of clay till, with a typical range of hydraulic conductivity of 10^{-7} – 10^{-10} cm/sec.
Site Conditions:	It is expected that hydrogeological conditions underlying the Site approach regional conditions.
Nearest Open Water Body:	A tributary of Turkey Creek, located approximately 380 m west of the Site. Detroit River is located 3.35 km west of the Site.
Inferred Groundwater Flow Direction:	West, based on proximity to nearest open water body.

Regional Topographical and Geological Maps (Figures B, C and D) that include the phase I study area are attached in Appendix A.

4.2 Other Available Records

No other records pertaining to the phase I study area were available for review.

5. SITE RECONNAISSANCE

A visit at the Site, and at remaining publicly accessible phase I study area, was conducted by Sean Fisher of Fisher on May 12, 2025. The assessor was not accompanied during the Site visit. Selected photographs taken at the phase I study area visit are included in Appendix C.

5.1. General

The objectives of the site reconnaissance are to determine if recognized environmental conditions exist on, in or under the Site, and to identify details of potential contaminants of concern, potential contaminant pathways and potential source areas of contamination on, in or under the Site.

5.1.1. Methodology

Methodology of the site reconnaissance is presented in the following table:

TABLE 6: Site Reconnaissance Methodology	
Date and Time of Investigation:	May 12, 2025, 1:00 p.m.
Weather Conditions:	Sunny, 10°C
Duration of the Investigation:	½ hour
Operational Industrial or Commercial Facility:	No, Residential
Observation Methods:	Visual assessment and photographs of the Site's features.
Name and Qualifications of Assessor:	Sean Fisher, M.Env.Sc.

5.1.2. Limitations

Fisher was permitted access to all exterior areas of the Site, but not within the subject building. The roof was not accessed, as it was not part of the scope of work for this investigation.

5.1.3. Current Property Use and Activities

The southeastern portion of the Site is occupied by a two-storey residential dwelling with a basement. The remaining areas of the Site are covered with landscaped or overgrown grass and trees. No current Site activities representing a potential environmental concern to the Site were identified at the time of the Site visit.

5.1.4. Hazardous Materials Inventory

No hazardous materials were identified at the time of our visit.

5.1.5. Fuels and Chemicals

No fuels or chemicals were observed at the time of our visit.

5.1.6. Waste Generation and Storage

No waste materials, other than domestic wastes, are generated at the Site, which are collected in household garbage bins provided by the municipality.

5.1.7. Unidentified Substances

No unidentified substances or unidentified substances storage were noted at the time of our visit.

5.1.8. Air Discharges and Odours

No sources of air emissions that are suspected to result in residual contamination to the property were identified on the Site. Furthermore, no strong, pungent, or unusual odours were identified during the Site visit.

5.1.9. Potable Water Supply

Properties within the phase I study area rely on municipal water obtained from surface water bodies as a source of drinking water.

5.2. Exterior Observations

5.2.1. Exterior of Building and Structures

The Site has an area of approximately 1,500 m^2. The southeastern portion of the Site is occupied by a two-storey residential dwelling with a basement. There is a concrete pad, south of the subject building, which leads to a dirt road (former Halliday Avenue). The remaining areas of the Site are covered with landscaped or overgrown grass and trees.

The exterior concrete and metal siding walls, as well as shingled roof, were in good condition, with no evident signs of cracks, structural damage or staining.

5.2.2. Wells, Pits, Lagoons, Watercourses, Ditches or Standing Water

No evidence of abandoned or existing wells, pits, lagoons, watercourses, ditches or standing water was identified on the Site.

5.2.3. Sewage and Waste Water Disposal

Storm water accumulated on the paved areas is draining by overland flow towards ditches along Malden Road to the west. No wastewater discharges, other than domestic wastewater, were identified to be produced on the Site at the time of the visit. Domestic wastewater is inferred to be discharged into the on-site septic bed located east of the subject building.

5.2.4. Stained Materials, Stressed Vegetation and Fill Materials

No stained material or stressed vegetation was observed at the Site.

The grade of the Site is similar to adjacent properties. No evidence of imported fill materials was noted. Considering the on-site property use, it is unlikely that significant quantities of fill materials from uncontrolled sources were brought onto the Site prior to or during Site development.

5.3. Interior Observations

5.3.1. Interior of Building and Structures

The two-storey single-family residential building, has an area of approximately 120 m². Fisher had no access to the inside of the building during the Site visit, and therefore, the building materials were not observed, other than through a basement window.

5.3.2. Heating and Cooling

The building is provided with heating by a natural gas fired furnace and provided with cooling by an electric air conditioning unit.

5.3.3. Hydraulic Equipment

No hydraulic equipment related to building systems and/or on-site operations was identified.

5.3.4. Designated Substances and Other Special Attention Items

The Occupational Health and Safety Act, R.S.O. 1990 defines a toxic substance as a chemical, biological or physical agent whose presence or use in the workplace may endanger the health and safety of a worker. The parts of the Act that deals with toxic substances are intended to:

1) ensure that worker exposure to toxic substances is controlled;
2) ensure that toxic substances in the workplace are clearly identified and that workers receive enough information about them to be able to handle them safely; and
3) provide the general public with access to information about toxic substances used by industry in their communities.

The Act allows a toxic substance to be “designated”, and its use in the workplace to be either prohibited or strictly controlled. Designation is reserved for substances that are particularly hazardous. The assessment for potential presence of hazardous building materials was based on the age of the building. No sampling of materials was conducted.

TABLE 7: Designated Substances and Other Special Attention Items				
Designated Substances and Other Special Attention Items	Matrix/ Source	Present On-Site	Location On-Site	Source Condition
Friable Asbestos-Containing Materials (ACMs)	Drywall Joint Compound, Plaster	Potentially	Interior of building	Not observed
Non-friable ACMs	Vinyl Floor Tiles	Potentially	Interior of building	Not observed
Polychlorinated Biphenyls (PCBs)	Fluorescent Light Ballasts	No	Not Applicable	Not Applicable
Lead-Based Material	Interior Paint	Potentially	Interior of building	Not observed
Urea Formaldehyde Foam Insulation (UFFI)	Wall Insulation	No	Not Applicable	Not Applicable
Ozone-Depleting Substances (ODSs)	Air Conditioner	No	Not Applicable	Not Applicable
Mould	Interior Walls, Ceilings	No	Not Applicable	Not Applicable
Radon Gas	Uranium rich Black shale and/or granite bedrock	No	Not Applicable	Not tested
Noise and Vibration	Not Applicable	No	Not Applicable	Not Applicable

Potential concerns and recommendations related to potential designated substances are listed and described in the following table:

TABLE 8: Potential Concerns & Recommendations Associated with Designated Substances				
Matrix/ Source	Potentially Impacted Media	Potential Concern	Comments	Relative Degree of Environmental Risk and Recommendations
Plaster and Drywall Joint Compound in subject building	Air	Friable ACMs	All building materials installed prior to 1980 should be presumed to contain asbestos unless conclusive sampling and analysis reveals otherwise.	Moderate If tests are positive, and removal or disturbance of the any ACM is required, then prior asbestos abatement works should be undertaken in accordance to O. Reg. 278/05.

TABLE 8: Potential Concerns & Recommendations Associated with Designated Substances				
Matrix/ Source	Potentially Impacted Media	Potential Concern	Comments	Relative Degree of Environmental Risk and Recommendations
Vinyl floor tiles in subject building	Air	Non-friable ACMs	All vinyl tiles installed prior to the mid-1980's should be presumed to contain asbestos unless conclusive sampling and analysis reveals otherwise.	Low The removal of vinyl asbestos tile would require the use of Ontario MOL Type I or II procedures dependent upon removal practices undertaken.
Interior paint	Air	Lead-Based Materials	In 1976, the lead content in interior paint was limited to 0.5% by weight under the Federal Hazardous Products Act; however, exterior paint was not included in this legislative act.	Low If renovation/ demolition is planned, lead containing paint removal should be conducted in accordance to O. Reg. 843 made under the Ontario OHSA, and 2004 MOL Lead on Construction Projects.

The potential presence of asbestos or lead containing building materials are not considered of concern provided they are not disturbed or properly managed and disposed of. However, a designated substance survey (DSS) should be conducted at the Site prior to any demolition or significant renovation of the building.

5.4. Adjoining Properties Observation and Information

Surrounding properties to the Site observed at the time of the visit were identified as follows:

TABLE 9: Current Use of Neighbouring Properties			
Direction/Distance from/to Site	Address	Occupant	Across
North/ 0 m	4615 Malden Road	Dwelling	N/A
East/ 0 m	N/A	Undeveloped land	N/A
South / 0 m	4657 Malden Road	Dwelling	N/A
West / 15 m	4626 and 4632 Malden Road	Undeveloped land	Malden Road

Based on the nature of property use, operations on surrounding properties within the phase I study area are unlikely to represent a source of contamination on and/or under the Site.

6. INTERVIEWS

Interviews with persons relevant to the objectives of the Phase I ESA are conducted to obtain information determining if a recognized environmental condition exists at the Site, and to identify details of potentially contaminating activities or potential pathways in, on or under the Site.

6.1. Methodology

Fisher's Standard Questionnaire was used to conduct interviews with the Site owner. Interviews were conducted in writing by electronic mail.

6.2. Limitations

All interview participants answered the asked questions to the best of their knowledge.

6.3. Interview Participants

a. **Property Owner:** Marshall Paton

The date, time, duration, method and place of the interview, name of interviewed person and reason for person selection, key questions and answers for each of the topics of the interview are included in Documentation of Interview form in Appendix D.

7. CONCLUSIONS AND RECOMMENDATIONS

The findings of the current Phase I ESA have revealed no evidence of actual and/or potential surface or sub-surface contamination associated with the Site and other properties within the phase I study area. It is expected that the Site could continue to be used for residential purposes.

For the purpose of this Phase I ESA, no further investigation is recommended at this time.

8. LIMITATIONS

This report was prepared for use by Jonathan Sequin and Marshall Paton and is based on the work as described in the Scope of Work. The conclusions presented in this report reflect existing Site conditions within the scope of this assignment.

As conducted, the current investigation may lack information that are specific requirements for the purpose of filling a Record of Site Condition (RSC). Should a RSC be required, then complementary investigations should be undertaken under the RSC filing process.

There is no warranty, expressed or implied, by Fisher Engineering Limited that this environmental assessment has identified all potential sources of contaminants or contaminants at the Site or adjacent properties, or that the Site is free from any and all contamination from past or current practices other than that noted, nor that all issues of environmental compliance have been addressed.

It should be clearly understood that the scope of work of the Phase I ESA (CSA Standard), as well as the findings and conclusions of this report, will not fully satisfy all of the requirements related to characterization of site soils for the purpose of off-site relocation and/or disposal of such soils, whether as part of future site redevelopment or site remediation works. If such activities are planned or possible at the site, additional site characterization and reporting works are necessary, in accordance with the Rules for Soil Management and Excess Soil Quality Standards adopted by reference in O. Reg. 406/19 (On-Site and Excess Soil Management) made under the *Environmental Protection Act*. A separate cost estimate for conducting Excess Soil Characterization and Excess Soil Management works will be provided upon client's written request.

Some information presented in this report was provided through existing documents and interviews. Although attempts were made, whenever possible, to consult alternative sources of information, in certain cases Fisher Engineering Limited has been required to assume that the information provided is accurate. We accept no responsibility for any deficiency, misstatements or inaccuracies contained in this report as a result of omissions, misinterpretations or fraudulent acts of the persons contacted.

No investigation method can eliminate the possibility of obtaining partially imprecise or incomplete information; it can only reduce the possibility to an acceptable level. Professional judgment was exercised in gathering and analyzing the information obtained and the formulation of the conclusions and recommendations. Like all professional persons rendering advice, we do not act as absolute insurers of the conclusions reached, but commit ourselves to care and competence in reaching those conclusions. No warranty, whether expressed or implied, is included or intended in this report.

The scope of services performed may not be appropriate for the purposes of other users. This report should not be used in contexts other than pertaining to the evaluation of the property at the current time. Written authorization must be obtained from Fisher Engineering Limited prior to use by any other parties, or any future use of this document or its findings, conclusions, or recommendations represented herein. Any use that a third party makes of this report, or any reliance on or decisions made on the basis of it, are the responsibility of the third parties. Fisher Engineering Limited accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

9. QUALIFICATIONS OF THE ASSESSOR

The Site visit was conducted by Mr. Sean Fisher. The current investigation was conducted and managed by Mrs. Lena Johnston, CET, who has been trained and has 11 years of experience in conducting Phase I ESAs in accordance with the CSA Standard. Mrs. Johnston has conducted more than 400 Phase I ESAs for commercial/industrial/residential clients and government agencies and is routinely engaged in this field.

This report was reviewed by Ms. Yvonne Hoogeveen, P.Eng., who is a Professional Engineer with Professional Engineers of Ontario and has over 18 years of experience in conducting, management and supervision of Phase I ESAs.

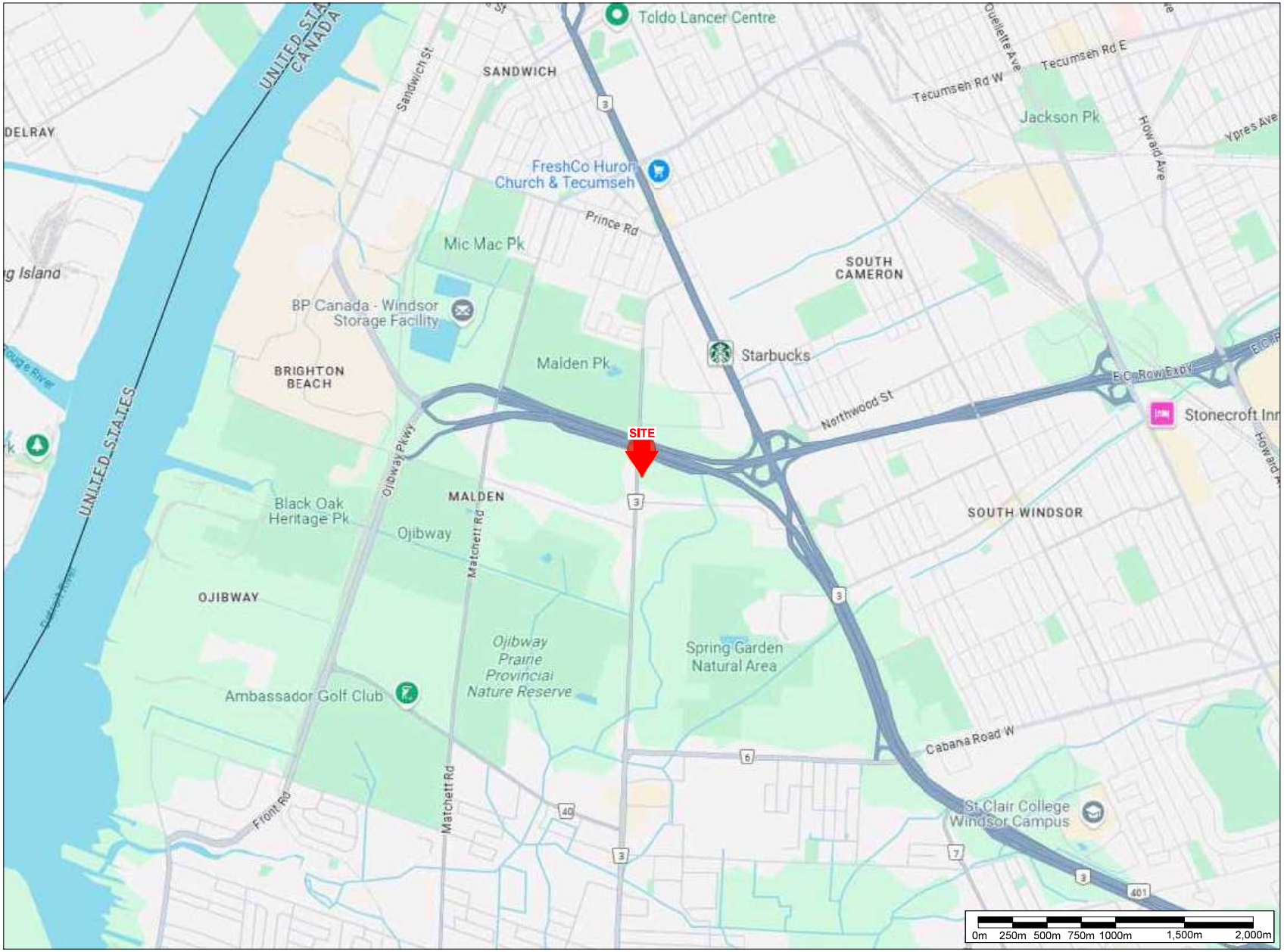
As a Qualified Person who conducts and supervises Phase I ESAs, Mr. David Fisher, president of Fisher Engineering Limited, is a senior Managerial and Environmental Engineering Specialist with over 30 years of progressive, innovative experience in the Petrochemical and Environmental Engineering Industry. Mr. Fisher is responsible for the development and management of a progressive environmental consulting engineering company specializing in environmental site assessments and remediation, geotechnical and hydrogeological investigations, tank removals, PCB waste treatment, land reclamation, recycling, hazardous waste disposal, and associated laboratory analytical practices.

Fisher Engineering Limited has been established as a team of engineers and consultants since 1989, and continues to develop a strong, wide client base. The company is staffed with personnel holding graduate or postgraduate qualifications at the Toronto headquarters, as well as specialist associates offering a broad range of expertise and knowledge in environmental consulting. With a background in the petroleum industry, extensive experience has been gained in the prevention and cleanup of contamination in air, water and soil.

10. REFERENCES

- Canadian Standards Association (CSA) Standard Z768-01 (reaffirmed in 2022), *Phase I Environmental Site Assessment*;
- Ontario Regulation 153/04 (Records of Site Condition – Part XV.1 of the EPA), as amended;
- Occupational Health and Safety Act (OHSA), R.S.O. 1990, Ministry of Labour;
- ERIS Aerial Photograph Database, Aerial Photographs 1962, 1970, 1992 and 2023;
- Google Earth Maps, Aerial Photographs 2024;
- Verisk Analytics (Verisk) – Enviroscan™ Report, Fire Insurance Plans;
- ERIS Database Report, Project No. 25050601097, dated May 9, 2025;
- Technical Standards and Safety Authority (TSSA);
- Ontario Environmental Site Registry;
- Ministry of Natural Resources and Forestry (MNRF) Natural Heritage Map;
- Natural Resources Canada – The Atlas of Canada online topography map;
- *Surficial Geology of Southern Ontario,* Ontario Geological Survey, 2010;
- *Bedrock Geology of Ontario,* Ontario Geological Survey 2011;
- *Groundwater,* Freeze and Cherry 1979; and
- *An Introduction to Geotechnical Engineering,* Holtz and Kovacs 1981.

APPENDIX A – FIGURES



FISHER ENGINEERING
400 Esna Park Dr., #15
Markham, Ontario
L3R 3K2
Tel: 905 475-7755

NORTH

LEGEND

PROJECT NAME AND ADDRESS

PHASE I ESA

4641 Malden Road,
Windsor, ON

FIGURE A:

SITE LOCATION MAP

PROJECT NO.	SHEET NO.
FE 25-14744	A
DATE: 20 May, 2025	
SCALE: AS SHOWN	

FISHER ENGINEERING
400 Esna Park Dr., #15
Markham, Ontario
L3R 3K2
Tel: 905 475-7755

NORTH

LEGEND

SITE BOUNDARY

PROJECT NAME AND ADDRESS

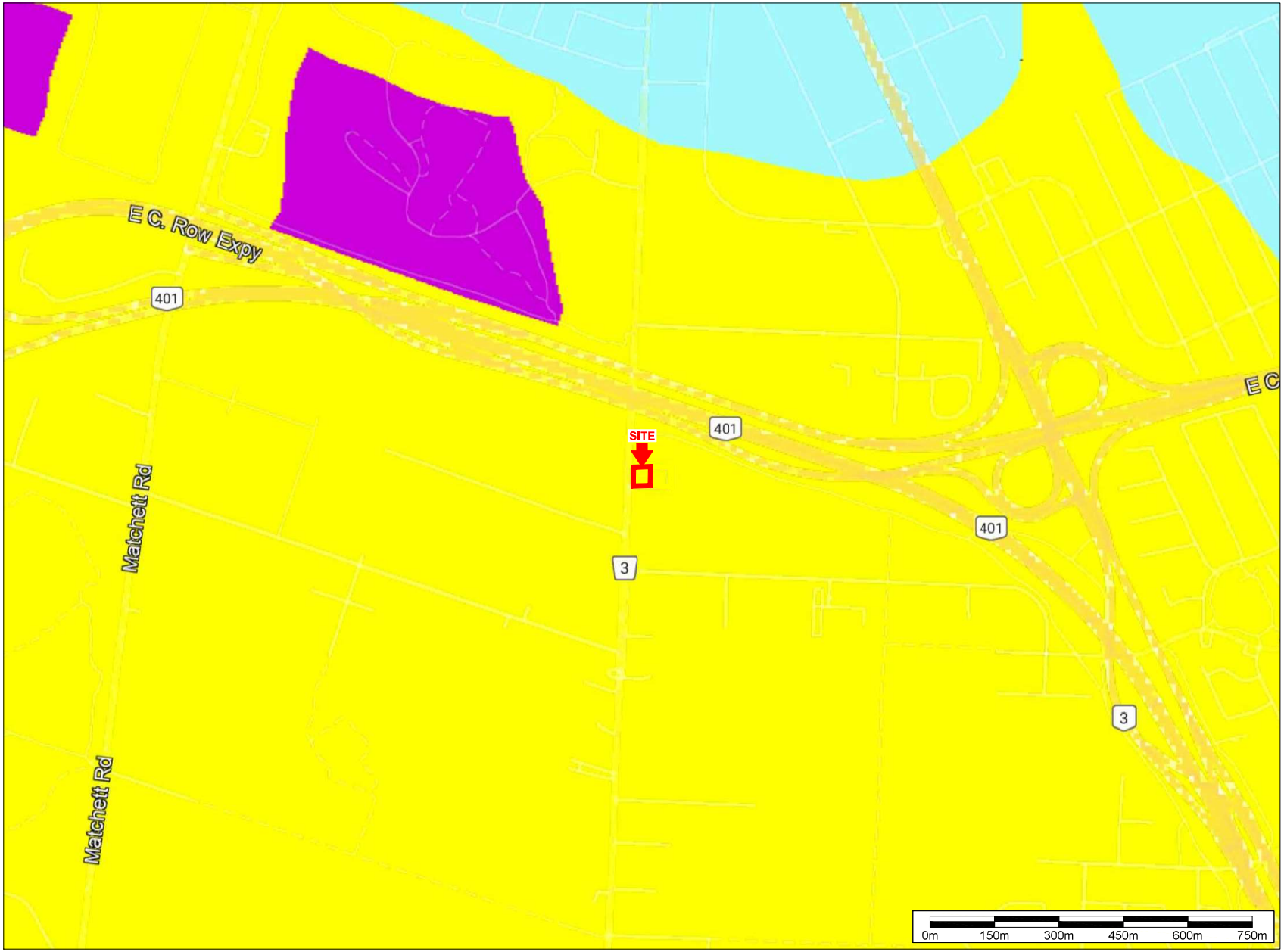
PHASE I ESA

4641 Malden Road,
Windsor, ON

FIGURE B:

TOPOGRAPHICAL MAP

PROJECT NO.	SHEET NO.
FE 25-14744	B
DATE: 20 May, 2025	
SCALE: AS SHOWN	



FISHER ENGINEERING
400 Esna Park Dr., #15
Markham, Ontario
L3R 3K2
Tel: 905 475-7755

NORTH

N

LEGEND

8A FINE-TEXTURED GLACIOLACUSTRINE DEPOSITS
Silt and clay, minor sand and gravel
Massive to well laminated

14B COARSE-TEXTURED LACUSTRINE DEPOSITS
Sand, gravel, minor silt and clay
Littoral deposits

21 MAN-MADE DEPOSITS
Fill, sewage lagoon, landfill, urban development

PROJECT NAME AND ADDRESS

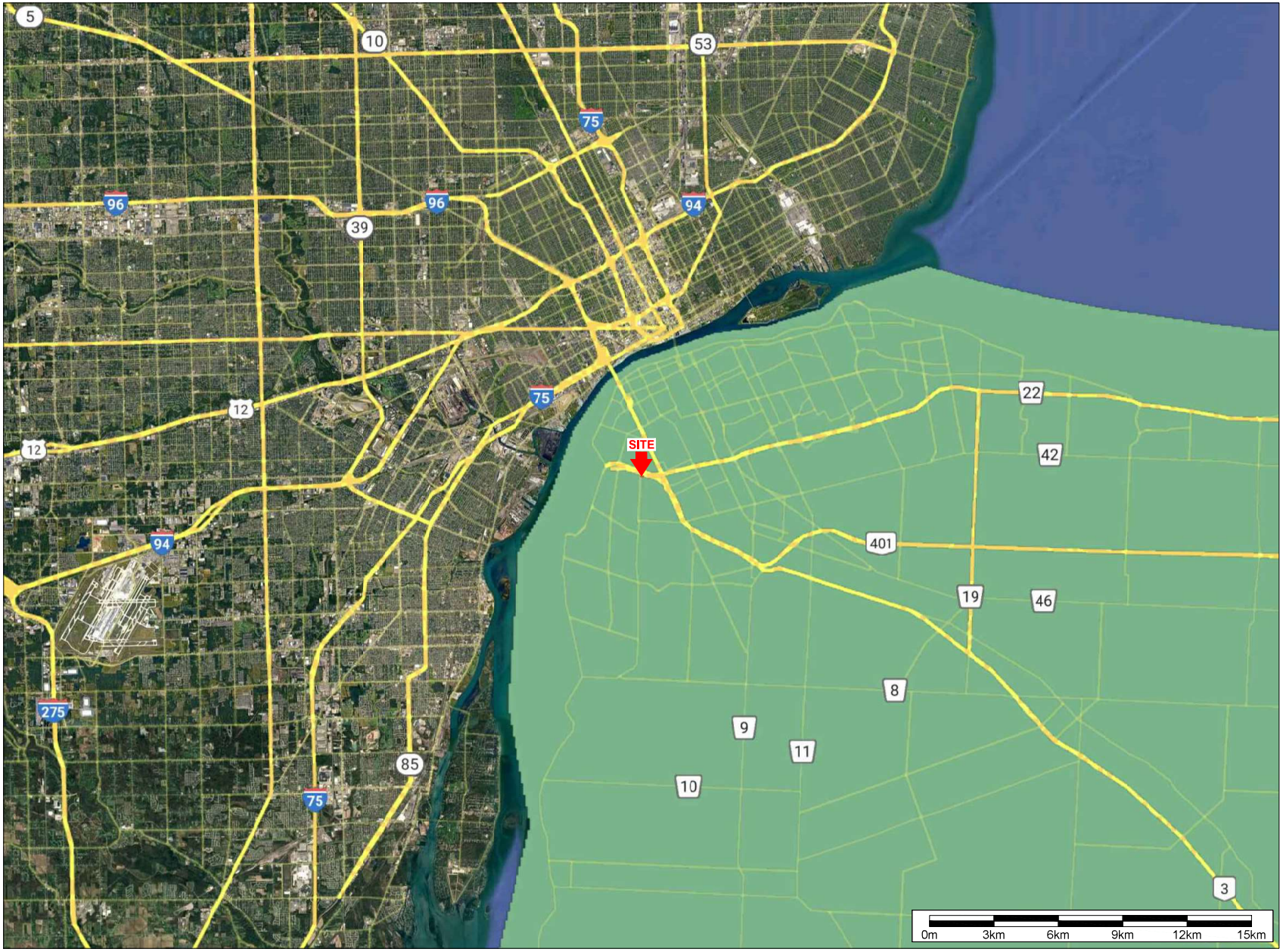
PHASE I ESA

4641 Malden Road,
Windsor, ON

FIGURE C:

SURFICIAL GEOLOGY

PROJECT NO.	SHEET NO.
FE 25-14744	C
DATE: 20 May, 2025	
SCALE: AS SHOWN	



FISHER ENGINEERING

400 Esna Park Dr., #15
Markham,Ontario
L3R 3K2

Tel: 905 475-7755

NORTH

N

LEGEND

- **59A:** Limestone, dolostone, shale
  Hamilton Group
- **59C:** Limestone, dolostone, shale
  Dundee Formation
- **59D:** Limestone, dolostone, shale
  Detroit River Group; Onondaga Formation

PROJECT NAME AND ADDRESS

PHASE I ESA

4641 Malden Road,
Windsor, ON

FIGURE D:

BEDROCK GEOLOGY

PROJECT NO.	SHEET NO.
FE 25-14744	D
DATE: 20 May, 2025	
SCALE: AS SHOWN	

FISHER ENGINEERING

400 Esna Park Dr., #15
Markham,Ontario
L3R 3K2

Tel: 905 475-7755

NORTH

N

LEGEND

SITE BOUNDARY

PROJECT NAME AND ADDRESS

PHASE I ESA

4641 Malden Road,
Windsor, ON

FIGURE E.1:

AERIAL PHOTOGRAPH 1962

PROJECT NO.	SHEET NO.
FE 25-14744	E.1
DATE: 20 May, 2025	
SCALE: AS SHOWN	

FISHER ENGINEERING

400 Esna Park Dr., #15
Markham, Ontario
L3R 3K2

Tel: 905 475-7755

NORTH

N

LEGEND

SITE BOUNDARY

PROJECT NAME AND ADDRESS

PHASE I ESA

4641 Malden Road,
Windsor, ON

FIGURE E.2:

AERIAL PHOTOGRAPH 1970

PROJECT NO.	SHEET NO.
FE 25-14744	E.2
DATE: 20 May, 2025	
SCALE: AS SHOWN	

FISHER ENGINEERING

400 Esna Park Dr., #15
Markham, Ontario
L3R 3K2

Tel: 905 475-7755

NORTH

N

LEGEND

SITE BOUNDARY

PROJECT NAME AND ADDRESS

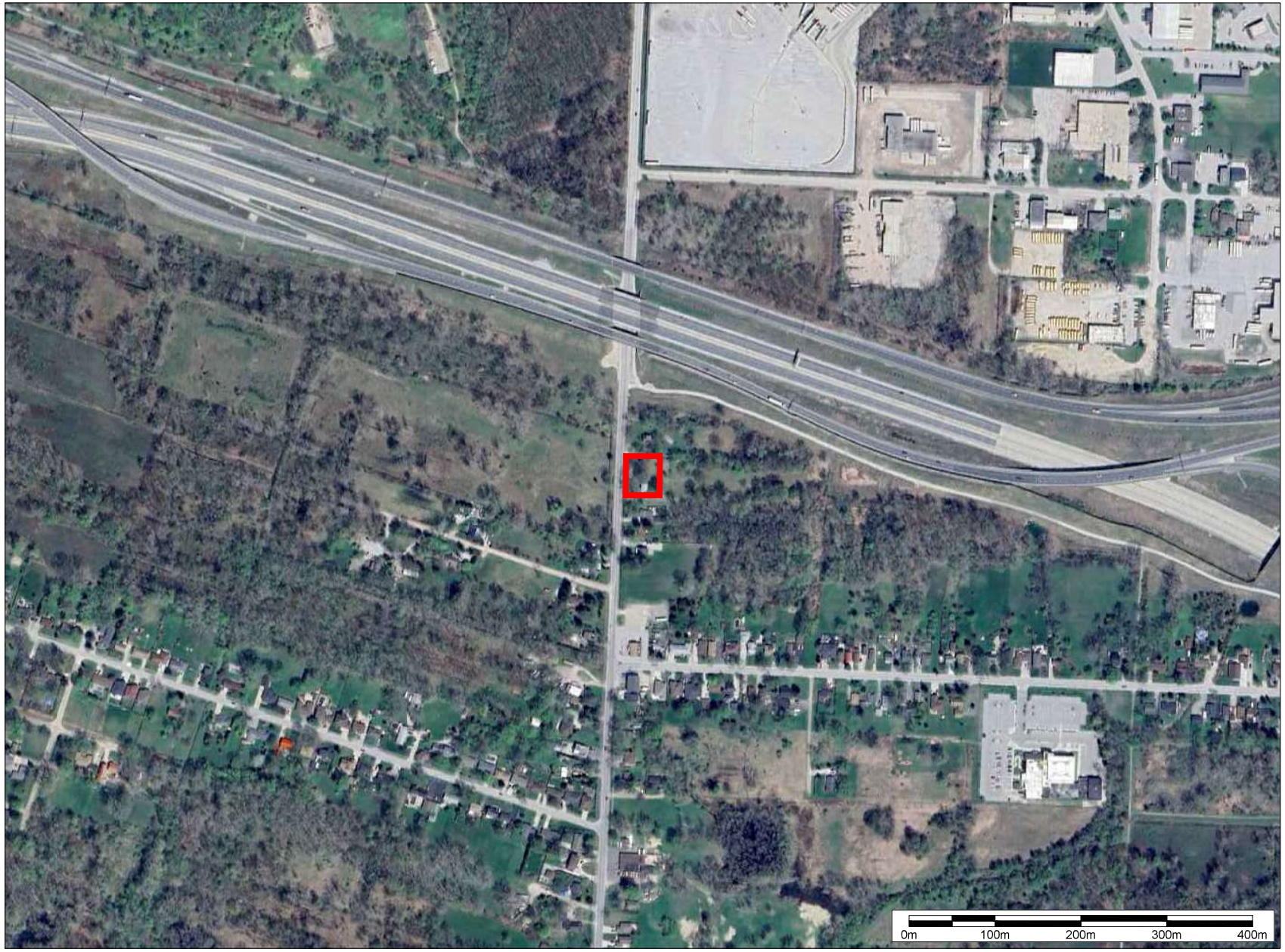
PHASE I ESA

4641 Malden Road,
Windsor, ON

FIGURE E.3:

AERIAL PHOTOGRAPH 1992

PROJECT NO.	SHEET NO.
FE 25-14744	E.3
DATE: 20 May, 2025	
SCALE: AS SHOWN	



FISHER ENGINEERING

400 Esna Park Dr., #15
Markham, Ontario
L3R 3K2

Tel: 905 475-7755

NORTH

N

LEGEND

SITE BOUNDARY

PROJECT NAME AND ADDRESS

PHASE I ESA

4641 Malden Road,
Windsor, ON

FIGURE E.4:

AERIAL PHOTOGRAPH 2024

PROJECT NO.	SHEET NO.
FE 25-14744	E.4
DATE: 20 May, 2025	
SCALE: AS SHOWN	

APPENDIX B – RECORDS REVIEW DOCUMENTS

DATABASE REPORT

Project Property:	*Phase I ESA* *4641 Malden Road* *Windsor ON N9E 3T4*
Project No:	
Report Type:	*Standard Report*
Order No:	*25050601097*
Requested by:	*Fisher Engineering Limited*
Date Completed:	*May 9, 2025*

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

Table of Contents

Executive Summary

Property Information:

Project Property:		*Phase I ESA* *4641 Malden Road Windsor ON N9E 3T4*
Project No:		
Coordinates:		
	Latitude:	*42.2698052*
	Longitude:	*-83.0591746*
	UTM Northing:	*4,681,786.11*
	UTM Easting:	*330,182.80*
	UTM Zone:	*17T*
Elevation:		*600 FT* *182.85 M*

Order Information:

Order No:	*25050601097*
Date Requested:	*May 6, 2025*
Requested by:	*Fisher Engineering Limited*
Report Type:	*Standard Report*

Historical/Products:

Aerial Photographs	*Aerials - National Collection*
ERIS Xplorer	*ERIS Xplorer*
Insurance Products	*Fire Insurance Maps/Inspection Reports/Site Plans*

Executive Summary: Report Summary

Database	Name	Searched	Project Property	Within 0.25 km	Total
AAGR	*Abandoned Aggregate Inventory*	Y	0	0	0
AGR	*Aggregate Inventory*	Y	0	0	0
AMIS	*Abandoned Mine Information System*	Y	0	0	0
ANDR	*Anderson's Waste Disposal Sites*	Y	0	0	0
AST	*Aboveground Storage Tanks*	Y	0	0	0
AUWR	*Automobile Wrecking & Supplies*	Y	0	0	0
BORE	*Borehole*	Y	0	7	7
CA	*Certificates of Approval*	Y	0	0	0
CDRY	*Dry Cleaning Facilities*	Y	0	0	0
CFOT	*Commercial Fuel Oil Tanks*	Y	0	0	0
CHEM	*Chemical Manufacturers and Distributors*	Y	0	0	0
CHM	*Chemical Register*	Y	0	0	0
CNG	*Compressed Natural Gas Stations*	Y	0	0	0
COAL	*Inventory of Coal Gasification Plants and Coal Tar Sites*	Y	0	0	0
CONV	*Compliance and Convictions*	Y	0	0	0
CPU	*Certificates of Property Use*	Y	0	0	0
DRL	*Drill Hole Database*	Y	0	0	0
DTNK	*Delisted Fuel Tanks*	Y	0	0	0
EASR	*Environmental Activity and Sector Registry*	Y	0	0	0
EBR	*Environmental Registry*	Y	0	0	0
ECA	*Environmental Compliance Approval*	Y	0	0	0
EEM	*Environmental Effects Monitoring*	Y	0	0	0
EHS	*ERIS Historical Searches*	Y	0	0	0
EIIS	*Environmental Issues Inventory System*	Y	0	0	0
EMHE	*Emergency Management Historical Event*	Y	0	0	0
EPAR	*Environmental Penalty Annual Report*	Y	0	0	0
EXP	*List of Expired Fuels Safety Facilities*	Y	0	0	0
FCON	*Federal Convictions*	Y	0	0	0
FCS	*Contaminated Sites on Federal Land*	Y	0	0	0
FOFT	*Fisheries & Oceans Fuel Tanks*	Y	0	0	0
FRST	*Federal Identification Registry for Storage Tank Systems (FIRSTS)*	Y	0	0	0
FST	*Fuel Storage Tank*	Y	0	0	0
FSTH	*Fuel Storage Tank - Historic*	Y	0	0	0
GEN	*Ontario Regulation 347 Waste Generators Summary*	Y	0	0	0
GHG	*Greenhouse Gas Emissions from Large Facilities*	Y	0	0	0
HINC	*TSSA Historic Incidents*	Y	0	0	0
IAFT	*Indian & Northern Affairs Fuel Tanks*	Y	0	0	0

Database	Name	Searched	Project Property	Within 0.25 km	Total
INC	Fuel Oil Spills and Leaks	Y	0	0	0
LIMO	Landfill Inventory Management Ontario	Y	0	0	0
MINE	Canadian Mine Locations	Y	0	0	0
MNR	Mineral Occurrences	Y	0	0	0
NATE	National Analysis of Trends in Emergencies System (NATES)	Y	0	0	0
NCPL	Non-Compliance Reports	Y	0	0	0
NDFT	National Defense & Canadian Forces Fuel Tanks	Y	0	0	0
NDSP	National Defense & Canadian Forces Spills	Y	0	0	0
NDWD	National Defence & Canadian Forces Waste Disposal Sites	Y	0	0	0
NEBI	National Energy Board Pipeline Incidents	Y	0	0	0
NEBP	National Energy Board Wells	Y	0	0	0
NEES	National Environmental Emergencies System (NEES)	Y	0	0	0
NPCB	National PCB Inventory	Y	0	0	0
NPR2	National Pollutant Release Inventory	Y	0	0	0
NPRI	National Pollutant Release Inventory - Historic	Y	0	0	0
OGWE	Oil and Gas Wells	Y	0	0	0
OOGW	Ontario Oil and Gas Wells	Y	0	0	0
OPCB	Inventory of PCB Storage Sites	Y	0	0	0
ORD	Orders	Y	0	0	0
PAP	Canadian Pulp and Paper	Y	0	0	0
PCFT	Parks Canada Fuel Storage Tanks	Y	0	0	0
PES	Pesticide Register	Y	0	0	0
PFAS	Ontario PFAS Spills	Y	0	0	0
PFCH	NPRI Reporters - PFAS Substances	Y	0	0	0
PFHA	Potential PFAS Handlers from NPRI	Y	0	0	0
PINC	Pipeline Incidents	Y	0	0	0
PPHA	Potential PFAS Handlers from EASR	Y	0	0	0
PRT	Private and Retail Fuel Storage Tanks	Y	0	0	0
PTTW	Permit to Take Water	Y	0	0	0
REC	Ontario Regulation 347 Waste Receivers Summary	Y	0	0	0
RSC	Record of Site Condition	Y	0	0	0
RST	Retail Fuel Storage Tanks	Y	0	0	0
SCT	Scott's Manufacturing Directory	Y	0	0	0
SPL	Ontario Spills	Y	0	1	1
SRDS	Wastewater Discharger Registration Database	Y	0	0	0
TANK	Anderson's Storage Tanks	Y	0	0	0
TCFT	Transport Canada Fuel Storage Tanks	Y	0	0	0
VAR	Variances for Abandonment of Underground Storage Tanks	Y	0	0	0
WDS	Waste Disposal Sites - MOE CA Inventory	Y	0	0	0
WDSH	Waste Disposal Sites - MOE 1991 Historical Approval Inventory	Y	0	0	0
WWIS	Water Well Information System	Y	0	2	2

Database	Name	Searched	Project Property	Within 0.25 km	Total
Total:		0		10	10

Executive Summary: Site Report Summary - Project Property

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

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

Executive Summary: Site Report Summary - Surrounding Properties

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
1	SPL	THE CORPORATION OF THE CITY OF WINDSOR	42.27117153240688, -83.05989526940184 WINDSOR ON	NNW/163.0	1.00	14
2	WWIS		EC ROW EXPWY & MALDEN ROAD Windsor ON ***Well ID:*** 7112328	N/174.1	1.32	15
3	WWIS		ON ***Well ID:*** 7175412	N/174.5	1.85	19
4	BORE		ON	N/205.2	2.00	20
4	BORE		ON	N/205.2	2.00	21
5	BORE		ON	N/219.6	2.00	22
5	BORE		ON	N/219.6	2.00	23
6	BORE		ON	N/235.7	2.00	24
7	BORE		ON	N/239.9	2.00	26
7	BORE		ON	N/239.9	2.00	26

Executive Summary: Summary By Data Source

BORE - Borehole

A search of the BORE database, dated 1875-Jul 2018 has found that there are 7 BORE site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
	ON	N	205.20	4
	ON	N	205.20	4
	ON	N	219.57	5
	ON	N	219.57	5
	ON	N	235.68	6
	ON	N	239.92	7
	ON	N	239.92	7

SPL - Ontario Spills

A search of the SPL database, dated 1988-Jun 2024; Aug-Jan 2025 has found that there are 1 SPL site(s) within approximately 0.25 kilometers of the project property.

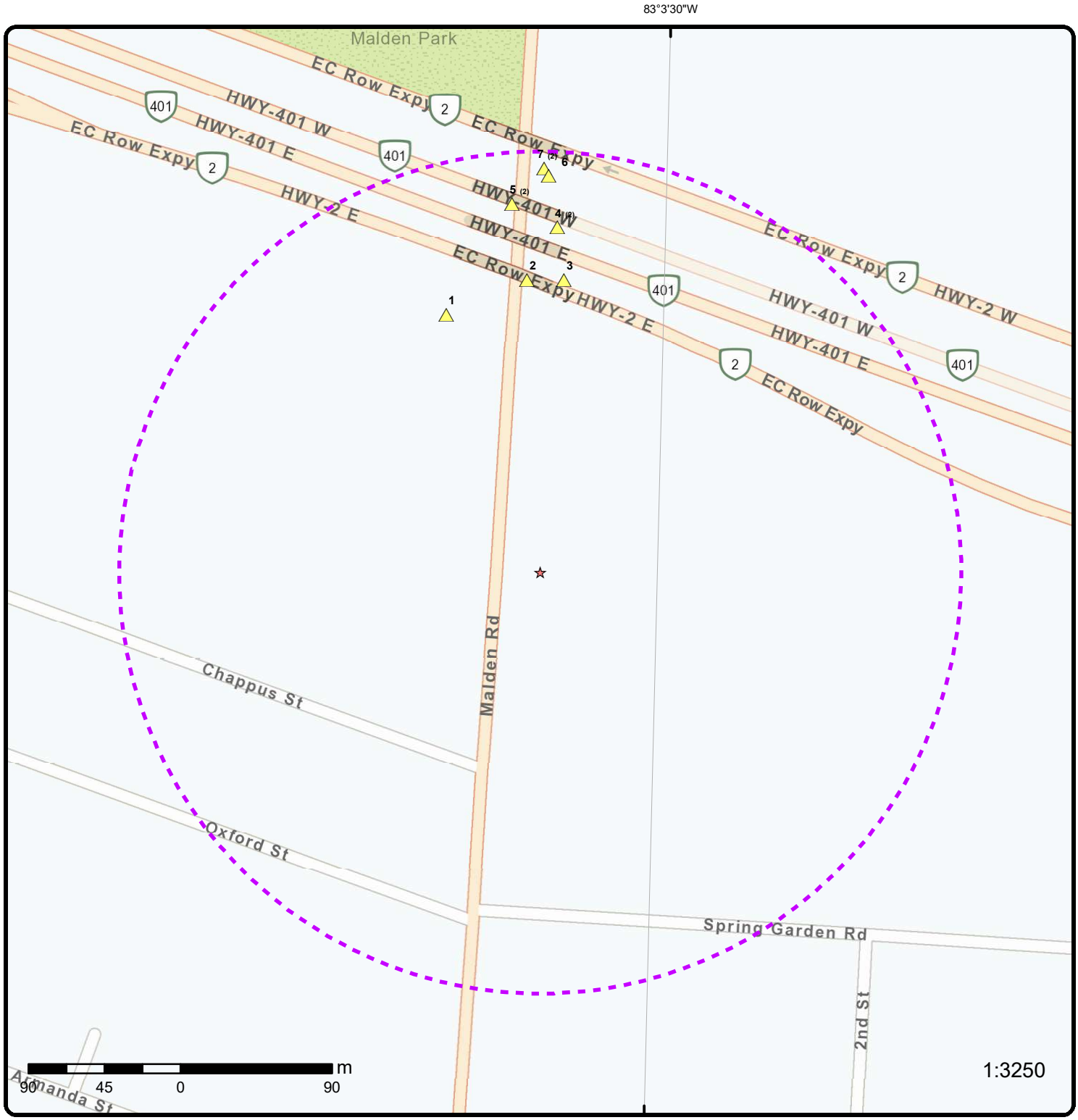
Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
THE CORPORATION OF THE CITY OF WINDSOR	42.27117153240688, -83.05989526940184 WINDSOR ON	NNW	162.99	1

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key

WWIS - Water Well Information System

A search of the WWIS database, dated Dec 31 2023 has found that there are 2 WWIS site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
	EC ROW EXPWY & MALDEN ROAD Windsor ON ***Well ID:*** 7112328	N	174.07	2
	ON ***Well ID:*** 7175412	N	174.47	3



Map: 0.25 Kilometer Radius

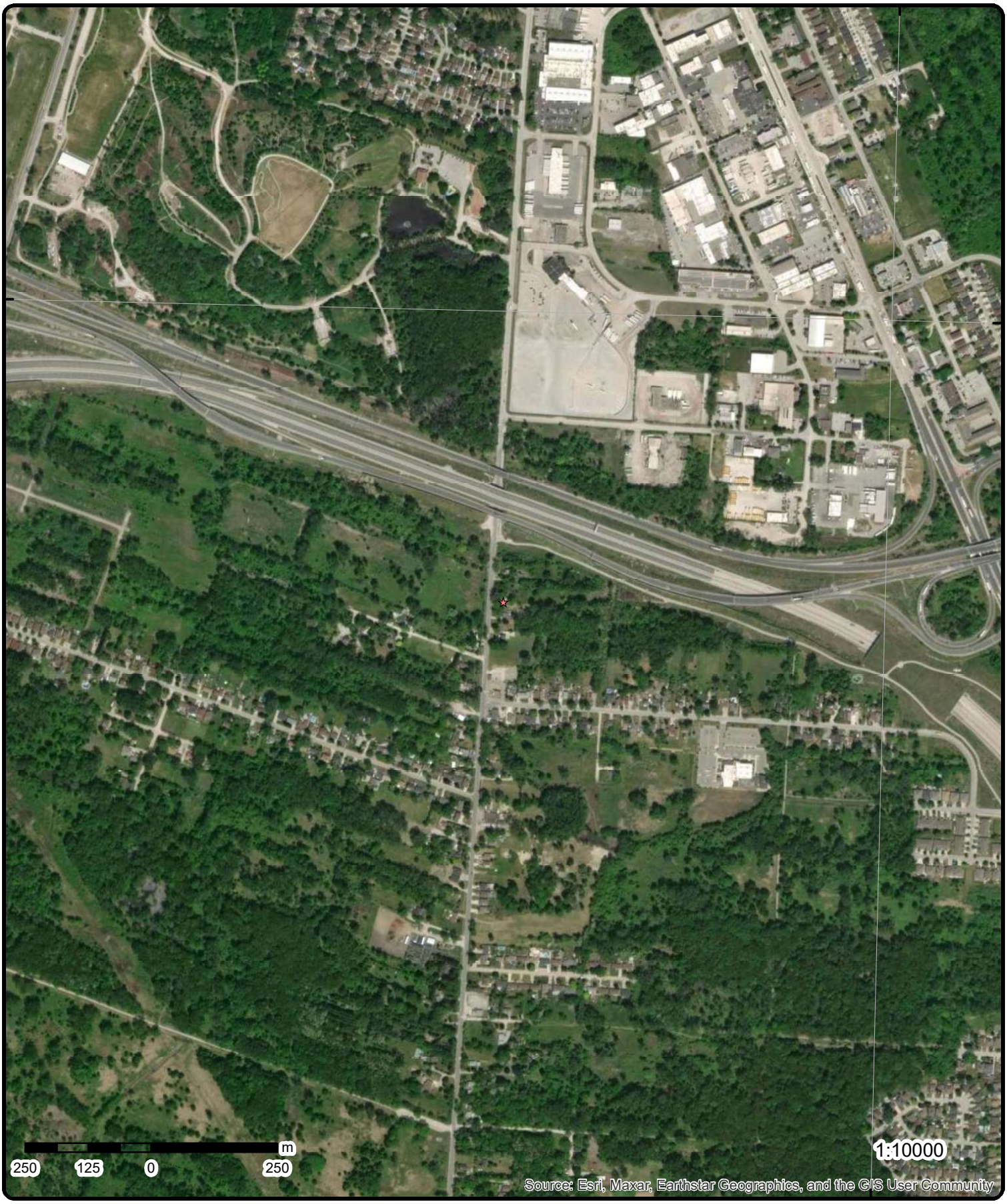
Order Number: 25050601097

Address: 4641 Malden Road, Windsor, ON

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

83°3'W

42°16'30"N



42°16'30"N

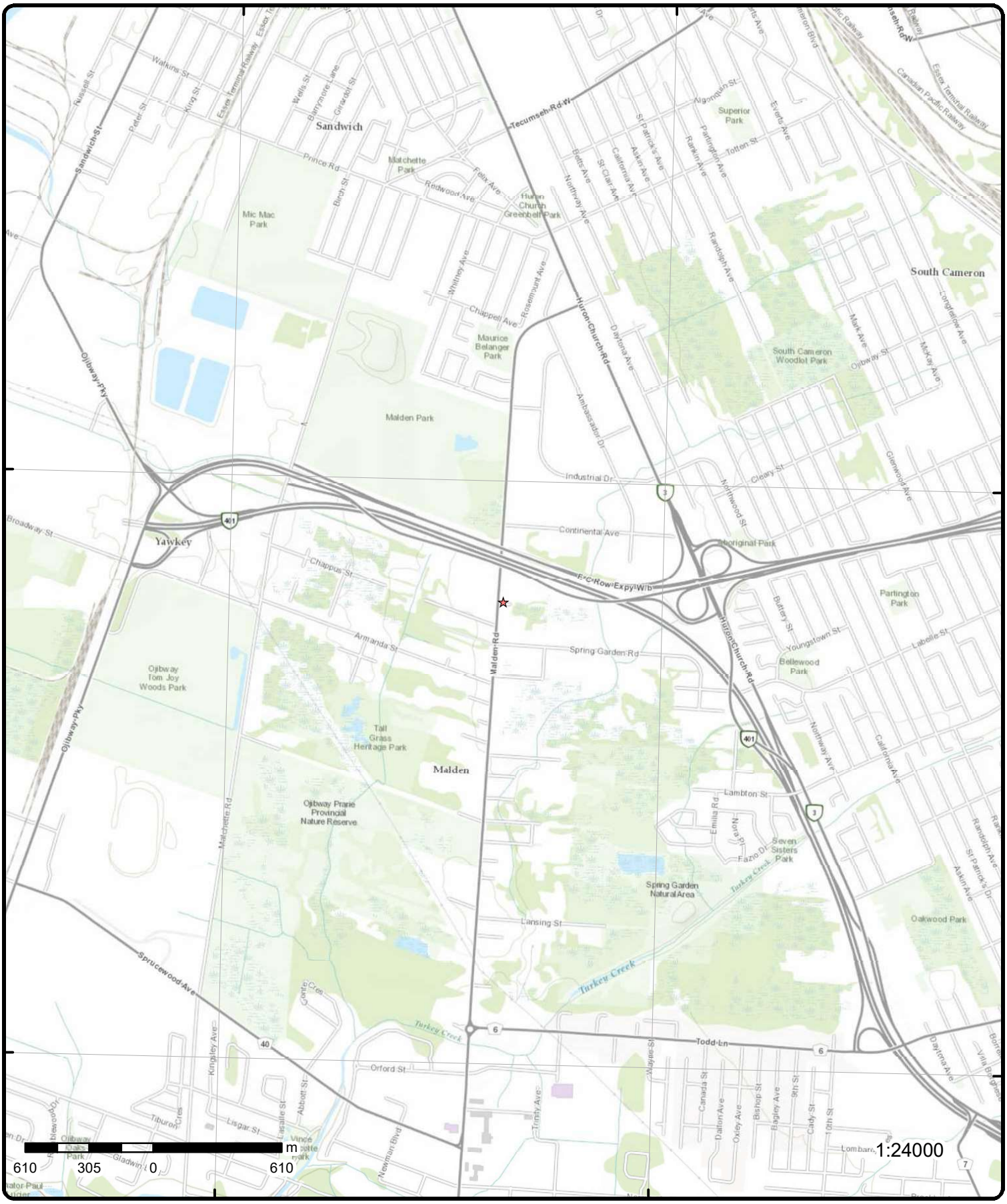
Aerial

Year: 2023

Order Number: 25050601097

Address: 4641 Malden Road, Windsor, ON

Source: ESRI World Imagery



Topographic Map

Order Number: 25050601097

Address: 4641 Malden Road, ON

Source: ESRI World Topographic Map

Detail Report

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
1	1 of 1	NNW/163.0	183.9 / 1.00	THE CORPORATION OF THE CITY OF WINDSOR 42.27117153240688, -83.05989526940184 WINDSOR ON	SPL

Ref No:	1-DNDJZZ	**Municipality No:**	
Year:		**Nature of Damage:**	
Incident Dt:	Nov 15,2024 10:04:44 AM	**Discharger Report:**	
Dt MOE Arvl on Scn:		**Material Group:**	
MOE Reported Dt:	Nov 20,2024 04:41:45 PM	**Impact to Health:**	
Dt Document Closed:		**Agency Involved:**	

Site No:	
MOE Response:	Field Response
Site County/District:	
Site Geo Ref Meth:	
Site District Office:	Windsor Area Office
Nearest Watercourse:	could impact Turkey Creek
Site Name:	
Site Address:	42.27117153240688, -83.05989526940184
Site Region:	
Site Municipality:	WINDSOR
Site Lot:	
Site Conc:	
Site Geo Ref Accu:	
Site Map Datum:	
Northing:	
Easting:	
Entity Operating Name:	
Client Name:	THE CORPORATION OF THE CITY OF WINDSOR
Client Type:	Government, Municipal
Source Type:	Unknown / N/A
Incident Cause:	
Incident Preceding Spill:	Weather Event
Incident Reason:	Unknown
Incident Summary:	City of Windsor reporting late oil spill to ditch, unknown vol, ongoing , cntd
Environment Impact:	
Health Env Consequence:	Moderate
Nature of Impact:	
Contaminant Qty:	0 other - see notes
Contaminant Qty 1:	
Contaminant Unit:	
Contaminant Code:	
Contaminant Name:	% OIL
Contaminant Limit 1:	
Contam Limit Freq 1:	
Contaminant UN No 1:	
Receiving Medium:	Land
Activity Preceding Spill:	Other (specify)
Property 2nd Watershed:	02G | Northern Lake Erie
Property Tertiary Watershed:	02GHA | Detroit River
Sector Type:	MUNICIPAL REGULATORY SERVICES
SAC Action Class:	
Call Report Locatn Geodata:	{"integration_ids":["PR00000245883"],"wkts":["POINT (-83.0598952694 42.2711715324)"],"creation_date":"2024-11-20"}
Time Reported:	
System Facility Address:	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
2	1 of 1	N/174.1	184.2 / 1.32	EC ROW EXPWY & MALDEN ROAD Windsor ON	WWIS

Well ID: 7112328
Construction Date:
Use 1st: Monitoring and Test Hole
Use 2nd: 0
Final Well Status: Monitoring and Test Hole
Water Type:
Casing Material:
Audit No: Z82827
Tag: A066755
Constructn Method:
Elevation (m):
Elevatn Reliabilty:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Clear/Cloudy:
Municipality: WINDSOR CITY
Site Info:

Flowing (Y/N):
Flow Rate:
Data Entry Status:
Data Src:
Date Received: 09/15/2008
Selected Flag: TRUE
Abandonment Rec:
Contractor: 6809
Form Version: 7
Owner:
County: ESSEX
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/711\7112328.pdf

Additional Detail(s) (Map)

Well Completed Date: 07/25/2008
Year Completed: 2008
Depth (m): 36.576
Latitude: 42.2713685869639
Longitude: -83.0593200885708
X: -83.05931994868236
Y: 42.27136858880338
Path: 711\7112328.pdf

Bore Hole Information

Bore Hole ID: 1001825782
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 07/25/2008
Remarks:
Location Method Desc: on Water Well Record
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 17
East83: 330175.00
North83: 4681960.00
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Overburden and Bedrock Materials Interval

Formation ID: 1001960586
Layer: 2

Color:	6
General Color:	BROWN
Material 1:	28
Material 1 Desc:	SAND
Material 2:	
Material 2 Desc:	
Material 3:	
Material 3 Desc:	
Formation Top Depth:	0.5
Formation End Depth:	2.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1001960587
Layer:	3
Color:	6
General Color:	BROWN
Material 1:	05
Material 1 Desc:	CLAY
Material 2:	34
Material 2 Desc:	TILL
Material 3:	
Material 3 Desc:	
Formation Top Depth:	2.0
Formation End Depth:	12.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1001960585
Layer:	1
Color:	8
General Color:	BLACK
Material 1:	02
Material 1 Desc:	TOPSOIL
Material 2:	
Material 2 Desc:	
Material 3:	
Material 3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	0.5
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1001960588
Layer:	4
Color:	2
General Color:	GREY
Material 1:	05
Material 1 Desc:	CLAY
Material 2:	34
Material 2 Desc:	TILL
Material 3:	
Material 3 Desc:	
Formation Top Depth:	12.0
Formation End Depth:	52.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1001960589
Layer:	5
Color:	2
General Color:	GREY
Material 1:	28
Material 1 Desc:	SAND
Material 2:	
Material 2 Desc:	
Material 3:	
Material 3 Desc:	
Formation Top Depth:	52.0
Formation End Depth:	60.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1001960590
Layer:	6
Color:	2
General Color:	GREY
Material 1:	05
Material 1 Desc:	CLAY
Material 2:	34
Material 2 Desc:	TILL
Material 3:	
Material 3 Desc:	
Formation Top Depth:	60.0
Formation End Depth:	102.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1001960591
Layer:	7
Color:	2
General Color:	GREY
Material 1:	15
Material 1 Desc:	LIMESTONE
Material 2:	26
Material 2 Desc:	ROCK
Material 3:	
Material 3 Desc:	
Formation Top Depth:	102.0
Formation End Depth:	120.0
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1001960596
Layer:	3
Plug From:	98.0
Plug To:	120.0
Plug Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID: 1001960594
Layer: 1
Plug From: 0.0
Plug To: 5.0
Plug Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1001960595
Layer: 2
Plug From: 5.0
Plug To: 98.0
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 1001960603
Method Construction Code: E
Method Construction: Auger
Other Method Construction:

Pipe Information

Pipe ID: 1001960584
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1001960598
Layer: 1
Material: 5
Open Hole or Material: PLASTIC
Depth From: 0.0
Depth To: 100.0
Casing Diameter: 1.25
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 1001960599
Layer: 2
Material: 5
Open Hole or Material: PLASTIC
Depth From: 110.0
Depth To: 120.0
Casing Diameter: 1.25
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 1001960600
Layer: 1
Slot: 10
Screen Top Depth: 100.0

Screen End Depth:	110.0
Screen Material:	5
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	1.25

Water Details

Water ID:	1001960597
Layer:	
Kind Code:	
Kind:	
Water Found Depth:	
Water Found Depth UOM:	ft

Hole Diameter

Hole ID:	1001960593
Diameter:	3.5
Depth From:	5.0
Depth To:	120.0
Hole Depth UOM:	ft
Hole Diameter UOM:	inch

Hole Diameter

Hole ID:	1001960592
Diameter:	8.0
Depth From:	0.0
Depth To:	5.0
Hole Depth UOM:	ft
Hole Diameter UOM:	inch

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3 | ***1 of 1*** | ***N/174.5*** | ***184.7 / 1.85*** | ***ON*** | ***WWIS***

Well ID:	7175412	**Flowing (Y/N):**	
Construction Date:		**Flow Rate:**	
Use 1st:		**Data Entry Status:**	Yes
Use 2nd:		**Data Src:**	
Final Well Status:		**Date Received:**	01/20/2012
Water Type:		**Selected Flag:**	TRUE
Casing Material:		**Abandonment Rec:**	
Audit No:	M10032	**Contractor:**	6894
Tag:	A066755	**Form Version:**	5
Constructn Method:		**Owner:**	
Elevation (m):		**County:**	ESSEX
Elevatn Reliabilty:		**Lot:**	
Depth to Bedrock:		**Concession:**	
Well Depth:		**Concession Name:**	
Overburden/Bedrock:		**Easting NAD83:**	
Pump Rate:		**Northing NAD83:**	
Static Water Level:		**Zone:**	
Clear/Cloudy:		**UTM Reliability:**	
Municipality:	WINDSOR CITY		
Site Info:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/717\7175412.pdf

Additional Detail(s) (Map)

Well Completed Date: 12/01/2011

Year Completed:	2011
Depth (m):	
Latitude:	42.2713733758105
Longitude:	-83.0590534807478
X:	-83.05905334046558
Y:	42.271373377459724
Path:	717\7175412.pdf

Bore Hole Information

Bore Hole ID:	1003635774	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	330197.00
Code OB Desc:		**North83:**	4681960.00
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	4
Date Completed:	12/01/2011	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Location Method Desc:	on Water Well Record		
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

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4 | ***1 of 2*** | ***N/205.2*** | ***184.9 / 2.00*** | ***ON*** | ***BORE***

Borehole ID:	830185	**Inclin FLG:**	No
OGF ID:	215571542	**SP Status:**	Initial Entry
Status:	Decommissioned	**Surv Elev:**	No
Type:	Borehole	**Piezometer:**	No
Use:	Geotechnical/Geological Investigation	**Primary Name:**	
Completion Date:	22-FEB-1968	**Municipality:**	
Static Water Level:	0.6	**Lot:**	
Primary Water Use:		**Township:**	
Sec. Water Use:		**Latitude DD:**	42.271652
Total Depth m:	33	**Longitude DD:**	-83.059111
Depth Ref:	Ground Surface	**UTM Zone:**	17
Depth Elev:		**Easting:**	330193
Drill Method:	Hollow stem auger	**Northing:**	4681991
Orig Ground Elev m:	180	**Location Accuracy:**	
Elev Reliabil Note:		**Accuracy:**	Within 10 metres
DEM Ground Elev m:	185		
Concession:			
Location D:	E.C.ROW EXPWY. HWY 18 TO DOMINION BLVD *STRUCTURES		
Survey D:			
Comments:			

Borehole Geology Stratum

Geology Stratum ID:	218610188	**Mat Consistency:**	
Top Depth:	31.3	**Material Moisture:**	
Bottom Depth:	33	**Material Texture:**	
Material Color:		**Non Geo Mat Type:**	
Material 1:	Bedrock	**Geologic Formation:**	
Material 2:	Limestone	**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	
Gsc Material Description:			
Stratum Description:	Limestone bedrock **Note: Many records provided by the department have a truncated [Stratum Description] field.		

Geology Stratum ID:	218610185	**Mat Consistency:**	
Top Depth:	0	**Material Moisture:**	
Bottom Depth:	1.2	**Material Texture:**	
Material Color:		**Non Geo Mat Type:**	
Material 1:	Sand	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	
Gsc Material Description:			
Stratum Description:	Silty sand **Note: Many records provided by the department have a truncated [Stratum Description] field.		

Geology Stratum ID:	218610187	**Mat Consistency:**	Very Dense
Top Depth:	28.4	**Material Moisture:**	
Bottom Depth:	31.3	**Material Texture:**	
Material Color:		**Non Geo Mat Type:**	
Material 1:	Silt	**Geologic Formation:**	
Material 2:	Sand	**Geologic Group:**	
Material 3:	Gravel	**Geologic Period:**	
Material 4:		**Depositional Gen:**	
Gsc Material Description:			
Stratum Description:	Sandy silt, some gravel, very dense **Note: Many records provided by the department have a truncated [Stratum Description] field.		

Geology Stratum ID:	218610186	**Mat Consistency:**	Firm
Top Depth:	1.2	**Material Moisture:**	
Bottom Depth:	28.4	**Material Texture:**	
Material Color:		**Non Geo Mat Type:**	
Material 1:	Silt	**Geologic Formation:**	
Material 2:	Clay	**Geologic Group:**	
Material 3:	Sand	**Geologic Period:**	
Material 4:	Gravel	**Depositional Gen:**	
Gsc Material Description:			
Stratum Description:	Clayey silt, some sand and trace of gravel, firm to very stiff **Note: Many records provided by the department have a truncated [Stratum Description] field.		

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4 **2 of 2** **N/205.2** **184.9 / 2.00** **ON** **BORE**

Borehole ID:	830261	**Inclin FLG:**	No
OGF ID:	215571614	**SP Status:**	Initial Entry
Status:	Decommissioned	**Surv Elev:**	No
Type:	Borehole	**Piezometer:**	No
Use:	Geotechnical/Geological Investigation	**Primary Name:**	
Completion Date:	22-FEB-1968	**Municipality:**	
Static Water Level:	0.4	**Lot:**	
Primary Water Use:		**Township:**	
Sec. Water Use:		**Latitude DD:**	42.271652
Total Depth m:	33	**Longitude DD:**	-83.059111
Depth Ref:	Ground Surface	**UTM Zone:**	17
Depth Elev:		**Easting:**	330193
Drill Method:	Hollow stem auger	**Northing:**	4681991
Orig Ground Elev m:	180	**Location Accuracy:**	
Elev Reliabil Note:		**Accuracy:**	Within 10 metres
DEM Ground Elev m:	185		
Concession:			
Location D:	E.C.ROW EXPWY & MALDEN RD; 1.2 MI E OF HWY 18 - WINDSOR		
Survey D:			
Comments:			

Borehole Geology Stratum

Geology Stratum ID:	218610364	**Mat Consistency:**	
Top Depth:	31.3	**Material Moisture:**	

Bottom Depth:	33	**Material Texture:**	
Material Color:		**Non Geo Mat Type:**	
Material 1:	Bedrock	**Geologic Formation:**	
Material 2:	Limestone	**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	
Gsc Material Description:			
Stratum Description:	Limestone bedrock, sound **Note: Many records provided by the department have a truncated [Stratum Description] field.		

Geology Stratum ID:	218610362	**Mat Consistency:**	Firm
Top Depth:	1.2	**Material Moisture:**	
Bottom Depth:	28.4	**Material Texture:**	
Material Color:		**Non Geo Mat Type:**	
Material 1:	Clay	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:	Sand	**Geologic Period:**	
Material 4:	Gravel	**Depositional Gen:**	
Gsc Material Description:			
Stratum Description:	Silty clay to clayey silt, some sand, trace of gravel, firm to very stiff **Note: Many records provided by the department have a truncated [Stratum Description] field.		

Geology Stratum ID:	218610363	**Mat Consistency:**	Very Dense
Top Depth:	28.4	**Material Moisture:**	
Bottom Depth:	31.3	**Material Texture:**	
Material Color:		**Non Geo Mat Type:**	
Material 1:	Silt	**Geologic Formation:**	
Material 2:	Sand	**Geologic Group:**	
Material 3:	Gravel	**Geologic Period:**	
Material 4:		**Depositional Gen:**	
Gsc Material Description:			
Stratum Description:	Sandy silt, some gravel, very dense **Note: Many records provided by the department have a truncated [Stratum Description] field.		

Geology Stratum ID:	218610361	**Mat Consistency:**	Compact
Top Depth:	0	**Material Moisture:**	
Bottom Depth:	1.2	**Material Texture:**	
Material Color:		**Non Geo Mat Type:**	
Material 1:	Sand	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	
Gsc Material Description:			
Stratum Description:	Silty sand, compact **Note: Many records provided by the department have a truncated [Stratum Description] field.		

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5 | **1 of 2** | **N/219.6** | **184.9 / 2.00** | **ON** | **BORE**

Borehole ID:	830188	**Inclin FLG:**	No
OGF ID:	215571545	**SP Status:**	Initial Entry
Status:	Decommissioned	**Surv Elev:**	No
Type:	Borehole	**Piezometer:**	No
Use:	Geotechnical/Geological Investigation	**Primary Name:**	
Completion Date:	27-FEB-1968	**Municipality:**	
Static Water Level:		**Lot:**	
Primary Water Use:		**Township:**	
Sec. Water Use:		**Latitude DD:**	42.271772
Total Depth m:	13.1	**Longitude DD:**	-83.059442
Depth Ref:	Ground Surface	**UTM Zone:**	17
Depth Elev:		**Easting:**	330166
Drill Method:	Hollow stem auger	**Northing:**	4682005
Orig Ground Elev m:	180	**Location Accuracy:**	
Elev Reliabil Note:		**Accuracy:**	Within 10 metres
DEM Ground Elev m:	186		
Concession:			

Location D: E.C.ROW EXPWY. HWY 18 TO DOMINION BLVD *STRUCTURES
Survey D:
Comments:

Borehole Geology Stratum

Geology Stratum ID:	218610195	**Mat Consistency:**	Firm
Top Depth:	1.2	**Material Moisture:**	
Bottom Depth:	13.1	**Material Texture:**	
Material Color:		**Non Geo Mat Type:**	
Material 1:	Clay	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:	Sand	**Geologic Period:**	
Material 4:	Gravel	**Depositional Gen:**	

Gsc Material Description:
Stratum Description: Silty clay, some sand, trace of gravel, firm **Note: Many records provided by the department have a truncated [Stratum Description] field.

Geology Stratum ID:	218610194	**Mat Consistency:**	
Top Depth:	0	**Material Moisture:**	
Bottom Depth:	1.2	**Material Texture:**	
Material Color:		**Non Geo Mat Type:**	
Material 1:	Sand	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	

Gsc Material Description:
Stratum Description: Silty sand **Note: Many records provided by the department have a truncated [Stratum Description] field.

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5 **2 of 2** **N/219.6** **184.9 / 2.00** **ON** **BORE**

Borehole ID:	830264	**Inclin FLG:**	No
OGF ID:	215571617	**SP Status:**	Initial Entry
Status:	Decommissioned	**Surv Elev:**	No
Type:	Borehole	**Piezometer:**	No
Use:	Geotechnical/Geological Investigation	**Primary Name:**	
Completion Date:	27-FEB-1968	**Municipality:**	
Static Water Level:		**Lot:**	
Primary Water Use:		**Township:**	
Sec. Water Use:		**Latitude DD:**	42.271772
Total Depth m:	13.1	**Longitude DD:**	-83.059442
Depth Ref:	Ground Surface	**UTM Zone:**	17
Depth Elev:		**Easting:**	330166
Drill Method:	Hollow stem auger	**Northing:**	4682005
Orig Ground Elev m:	180	**Location Accuracy:**	
Elev Reliabil Note:		**Accuracy:**	Within 10 metres
DEM Ground Elev m:	186		

Concession:
Location D: E.C.ROW EXPWY & MALDEN RD; 1.2 MI E OF HWY 18 - WINDSOR
Survey D:
Comments: Water level not established

Borehole Geology Stratum

Geology Stratum ID:	218610370	**Mat Consistency:**	Compact
Top Depth:	0	**Material Moisture:**	
Bottom Depth:	1.2	**Material Texture:**	
Material Color:		**Non Geo Mat Type:**	
Material 1:	Sand	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	

Gsc Material Description:
Stratum Description: Silty sand, compact **Note: Many records provided by the department have a truncated [Stratum Description] field.

Geology Stratum ID:	218610371	**Mat Consistency:**	Firm
Top Depth:	1.2	**Material Moisture:**	
Bottom Depth:	13.1	**Material Texture:**	
Material Color:		**Non Geo Mat Type:**	
Material 1:	Clay	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:	Sand	**Geologic Period:**	
Material 4:	Gravel	**Depositional Gen:**	

Gsc Material Description:
Stratum Description: Silty clay to clayey silt, some sand, trace of gravel, firm to stiff **Note: Many records provided by the department have a truncated [Stratum Description] field.

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6 | ***1 of 1*** | ***N/235.7*** | ***184.9 / 2.00*** | ***ON*** | ***BORE***

Borehole ID:	603696	**Inclin FLG:**	No
OGF ID:	215505505	**SP Status:**	Initial Entry
Status:		**Surv Elev:**	No
Type:	Borehole	**Piezometer:**	No
Use:	Geotechnical/Geological Investigation	**Primary Name:**	
Completion Date:	FEB-1968	**Municipality:**	
Static Water Level:	0.1	**Lot:**	
Primary Water Use:	Not Used	**Township:**	
Sec. Water Use:		**Latitude DD:**	42.271927
Total Depth m:	33	**Longitude DD:**	-83.059183
Depth Ref:	Ground Surface	**UTM Zone:**	17
Depth Elev:		**Easting:**	330188
Drill Method:	Power auger	**Northing:**	4682022
Orig Ground Elev m:	180	**Location Accuracy:**	
Elev Reliabil Note:		**Accuracy:**	Not Applicable
DEM Ground Elev m:	185		
Concession:			
Location D:			
Survey D:			
Comments:			

Borehole Geology Stratum

Geology Stratum ID:	218362026	**Mat Consistency:**	Loose
Top Depth:	0	**Material Moisture:**	
Bottom Depth:	1.2	**Material Texture:**	
Material Color:		**Non Geo Mat Type:**	
Material 1:	Sand	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	

Gsc Material Description:
Stratum Description: SAND,SILT. VERY LOOSE.

Geology Stratum ID:	218362027	**Mat Consistency:**	Firm
Top Depth:	1.2	**Material Moisture:**	
Bottom Depth:	2.4	**Material Texture:**	
Material Color:		**Non Geo Mat Type:**	
Material 1:	Silt	**Geologic Formation:**	
Material 2:	Clay	**Geologic Group:**	
Material 3:	Sand	**Geologic Period:**	
Material 4:	Gravel	**Depositional Gen:**	

Gsc Material Description:
Stratum Description: SILT,CLAY,SAND, GRAVEL. FIRM, WATER STABLE AT 592.6 FEET.

Geology Stratum ID:	218362030	**Mat Consistency:**	Dense

Top Depth:	28.3	**Material Moisture:**	
Bottom Depth:	31.3	**Material Texture:**	
Material Color:		**Non Geo Mat Type:**	
Material 1:	Silt	**Geologic Formation:**	
Material 2:	Sand	**Geologic Group:**	
Material 3:	Gravel	**Geologic Period:**	
Material 4:		**Depositional Gen:**	

Gsc Material Description:
Stratum Description: SILT,SAND,GRAVEL. VERY DENSE.

Geology Stratum ID:	218362029	**Mat Consistency:**	Firm
Top Depth:	5.2	**Material Moisture:**	
Bottom Depth:	28.3	**Material Texture:**	
Material Color:		**Non Geo Mat Type:**	
Material 1:	Silt	**Geologic Formation:**	
Material 2:	Clay	**Geologic Group:**	
Material 3:	Sand	**Geologic Period:**	
Material 4:	Gravel	**Depositional Gen:**	

Gsc Material Description:
Stratum Description: SILT(48),CLAY(30), SAND(21),GRAVEL. FIRM.

Geology Stratum ID:	218362031	**Mat Consistency:**	
Top Depth:	31.3	**Material Moisture:**	
Bottom Depth:	33	**Material Texture:**	
Material Color:		**Non Geo Mat Type:**	
Material 1:	Bedrock	**Geologic Formation:**	
Material 2:	Limestone	**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	

Gsc Material Description:
Stratum Description: BEDROCK,LIMESTONE. 024 015019031 0180220300004000500080019 **Note: Many records provided by the department have a truncated [Stratum Description] field.

Geology Stratum ID:	218362028	**Mat Consistency:**	Stiff
Top Depth:	2.4	**Material Moisture:**	
Bottom Depth:	5.2	**Material Texture:**	
Material Color:		**Non Geo Mat Type:**	
Material 1:	Silt	**Geologic Formation:**	
Material 2:	Clay	**Geologic Group:**	
Material 3:	Sand	**Geologic Period:**	
Material 4:	Gravel	**Depositional Gen:**	

Gsc Material Description:
Stratum Description: SILT(44),CLAY(39), SAND(16),GRAVEL. STIFF.

Source

Source Type:	Data Survey	**Source Appl:**	Spatial/Tabular
Source Orig:	Geological Survey of Canada	**Source Iden:**	1
Source Date:	1956-1972	**Scale or Res:**	Varies
Confidence:	H	**Horizontal:**	NAD27
Observatio:		**Verticalda:**	Mean Average Sea Level

Source Name: Urban Geology Automated Information System (UGAIS)
Source Details: File: NIAGARA.txt RecordID: 011090 NTS_Sheet: 40J06A
Confiden 1: Logged by professional. Exact and complete description of material and properties.

Source List

Source Identifier:	1	**Horizontal Datum:**	NAD27
Source Type:	Data Survey	**Vertical Datum:**	Mean Average Sea Level
Source Date:	1956-1972	**Projection Name:**	Universal Transverse Mercator
Scale or Resolution:	Varies		

Source Name: Urban Geology Automated Information System (UGAIS)
Source Originators: Geological Survey of Canada

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
7	1 of 2	N/239.9	184.9 / 2.00	ON	BORE

Borehole ID:	830186	**Inclin FLG:**	No
OGF ID:	215571543	**SP Status:**	Initial Entry
Status:	Decommissioned	**Surv Elev:**	No
Type:	Borehole	**Piezometer:**	No
Use:	Geotechnical/Geological Investigation	**Primary Name:**	
Completion Date:	23-FEB-1968	**Municipality:**	
Static Water Level:	0.8	**Lot:**	
Primary Water Use:		**Township:**	
Sec. Water Use:		**Latitude DD:**	42.271965
Total Depth m:	12.6	**Longitude DD:**	-83.059218
Depth Ref:	Ground Surface	**UTM Zone:**	17
Depth Elev:		**Easting:**	330185
Drill Method:	Hollow stem auger	**Northing:**	4682026
Orig Ground Elev m:	180	**Location Accuracy:**	
Elev Reliabil Note:		**Accuracy:**	Within 10 metres
DEM Ground Elev m:	186		
Concession:			
Location D:	E.C.ROW EXPWY. HWY 18 TO DOMINION BLVD *STRUCTURES		
Survey D:			
Comments:			

Borehole Geology Stratum

Geology Stratum ID:	218610190	**Mat Consistency:**	Firm
Top Depth:	1.2	**Material Moisture:**	
Bottom Depth:	12.6	**Material Texture:**	
Material Color:		**Non Geo Mat Type:**	
Material 1:	Silt	**Geologic Formation:**	
Material 2:	Clay	**Geologic Group:**	
Material 3:	Sand	**Geologic Period:**	
Material 4:	Gravel	**Depositional Gen:**	
Gsc Material Description:			
Stratum Description:	Clayey silt, some sand, trace of gravel, firm **Note: Many records provided by the department have a truncated [Stratum Description] field.		

Geology Stratum ID:	218610189	**Mat Consistency:**	
Top Depth:	0	**Material Moisture:**	
Bottom Depth:	1.2	**Material Texture:**	
Material Color:		**Non Geo Mat Type:**	
Material 1:	Sand	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	
Gsc Material Description:			
Stratum Description:	Silty sand **Note: Many records provided by the department have a truncated [Stratum Description] field.		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
7	2 of 2	N/239.9	184.9 / 2.00	ON	BORE

Borehole ID:	830262	**Inclin FLG:**	No
OGF ID:	215571615	**SP Status:**	Initial Entry
Status:	Decommissioned	**Surv Elev:**	No
Type:	Borehole	**Piezometer:**	No
Use:	Geotechnical/Geological Investigation	**Primary Name:**	
Completion Date:	23-FEB-1968	**Municipality:**	
Static Water Level:	0.6	**Lot:**	
Primary Water Use:		**Township:**	
Sec. Water Use:		**Latitude DD:**	42.271965
Total Depth m:	12.6	**Longitude DD:**	-83.059218
Depth Ref:	Ground Surface	**UTM Zone:**	17

Depth Elev:		**Easting:**	330185
Drill Method:	Hollow stem auger	**Northing:**	4682026
Orig Ground Elev m:	180	**Location Accuracy:**	
Elev Reliabil Note:		**Accuracy:**	Within 10 metres
DEM Ground Elev m:	186		
Concession:			
Location D:	E.C.ROW EXPWY & MALDEN RD; 1.2 MI E OF HWY 18 - WINDSOR		
Survey D:			
Comments:			

Borehole Geology Stratum

Geology Stratum ID:	218610366	**Mat Consistency:**	Firm
Top Depth:	1.2	**Material Moisture:**	
Bottom Depth:	12.6	**Material Texture:**	
Material Color:		**Non Geo Mat Type:**	
Material 1:	Clay	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:	Sand	**Geologic Period:**	
Material 4:	Gravel	**Depositional Gen:**	
Gsc Material Description:			
Stratum Description:	Silty clay to clayey silt, some sand, trace of gravel, firm to very stiff **Note: Many records provided by the department have a truncated [Stratum Description] field.		

Geology Stratum ID:	218610365	**Mat Consistency:**	Compact
Top Depth:	0	**Material Moisture:**	
Bottom Depth:	1.2	**Material Texture:**	
Material Color:		**Non Geo Mat Type:**	
Material 1:	Sand	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	
Gsc Material Description:			
Stratum Description:	Silty sand, compact **Note: Many records provided by the department have a truncated [Stratum Description] field.		

Unplottable Summary

Total: 11 Unplottable sites

DB	Company Name/Site Name	Address	City	Postal
CA	2029078 Ontario Inc.	Chappus Street	Windsor ON	
CA		Chappus Street	Windsor ON	
EHS		Chappus St	Windsor ON	
LIMO		Lot 58 Concession 1 PETITE COTE SANDWICH Windsor	ON	
LIMO		Lot 58 Concession 1 PETITE COTE SANDWICH, Malden Park Landfill Windsor	ON	
SPL	Parkway Infrastructure Constructors	off Spring Garden Rd	Windsor ON	
SPL	AMEC Earth & Environmental Limited; AMEC	Spring Garden Road	Windsor ON	
SPL		Malden Rd	Windsor ON	
WDS	The Corporation of the City of Windsor	Malden Rd	Windsor ON	N9C 4A5
WDS	The Corporation of the City of Windsor	Malden Rd	Windsor ON	N9C 4A5
WDS	The Corporation of the City of Windsor	Malden Rd	Windsor ON	N9C 4A5

Unplottable Report

Site: *2029078 Ontario Inc.*
Chappus Street Windsor ON

Database: *CA*

Certificate #:	5684-654QWE
Application Year:	2004
Issue Date:	9/23/2004
Approval Type:	Municipal and Private Sewage Works
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Site:
Chappus Street Windsor ON

Database: *CA*

Certificate #:	4996-5ATNQZ
Application Year:	02
Issue Date:	6/10/02
Approval Type:	Municipal & Private water
Status:	Approved
Application Type:	New Certificate of Approval
Client Name:	Ontario Power Generation Inc.
Client Address:	700 University Avenue
Client City:	Toronto
Client Postal Code:	M5G 1X6
Project Description:	Construction of watermains
Contaminants:	
Emission Control:	

Site:
Chappus St Windsor ON

Database: *EHS*

Order No:	20090612020	***Nearest Intersection:***	
Status:	C	***Municipality:***	
Report Type:	Custom Report	***Client Prov/State:***	ON
Report Date:	6/22/2009	***Search Radius (km):***	0.5
Date Received:	6/12/2009	***X:***	-83.080329
Previous Site Name:		***Y:***	1
Lot/Building Size:			
Additional Info Ordered:	Fire Insur. Maps and/or Sire Plans; City Directory		

Site:
Lot 58 Concession 1 PETITE COTE SANDWICH Windsor ON

Database: *LIMO*

ECA/Instrument No:	X6058	***Natural Attenuation:***	
Operation Status:	Historic	***Liners:***	
C of A Issue Date:		***Cover Material:***	
C of A Issued to:		***Leachate Off-Site:***	
Lndfl Gas Mgmt (P):		***Leachate On Site:***	
Lndfl Gas Mgmt (F):		***Req Coll Lndfll Gas:***	
Lndfl Gas Mgmt (E):		***Lndfll Gas Coll:***	

Lndfl Gas Mgmt Sys:
Landfill Gas Mntr:
Leachate Coll Sys:
ERC Est Vol (m3):
ERC Volume Unit:
ERC Dt Last Det:
Landfill Type:
Source File Type: Historic and Closed Landfills
Fill Rate:
Fill Rate Unit:
Tot Fill Area (ha):
Tot Site Area (ha):
Footprint:
Tot Apprv Cap (m3):
Contam Atten Zone:
Grndwtr Mntr:
Surf Wtr Mntr:
Air Emis Monitor:
Approved Waste Type:
Client Site Name:
ERC Methodology:
Site Name:
Site Location Details: Lot 58 Concession 1 PETITE COTE SANDWICH

Windsor
Service Area:
Page URL:

Total Waste Rec:
TWR Methodology:
TWR Unit:
Tot Aprv Cap Unit:
Financial Assurance:
Last Report Year:
Region:
District Office:
Site County:
Lot:
Concession:
Latitude:
Longitude:
Easting:
Northing:
UTM Zone:
Data Source:

Site: ***Lot 58 Concession 1 PETITE COTE SANDWICH, Malden Park Landfill Windsor ON***

Database: ***LIMO***

ECA/Instrument No: X6056
Operation Status: Historic
C of A Issue Date:
C of A Issued to:
Lndfl Gas Mgmt (P):
Lndfl Gas Mgmt (F):
Lndfl Gas Mgmt (E):
Lndfl Gas Mgmt Sys:
Landfill Gas Mntr:
Leachate Coll Sys:
ERC Est Vol (m3):
ERC Volume Unit:
ERC Dt Last Det:
Landfill Type:
Source File Type: Historic and Closed Landfills
Fill Rate:
Fill Rate Unit:
Tot Fill Area (ha):
Tot Site Area (ha):
Footprint:
Tot Apprv Cap (m3):
Contam Atten Zone:
Grndwtr Mntr:
Surf Wtr Mntr:
Air Emis Monitor:
Approved Waste Type:
Client Site Name:
ERC Methodology:
Site Name:
Site Location Details: Lot 58 Concession 1 PETITE COTE SANDWICH, Malden Park Landfill

Windsor
Service Area:
Page URL:

Natural Attenuation:
Liners:
Cover Material:
Leachate Off-Site:
Leachate On Site:
Req Coll Lndfll Gas:
Lndfll Gas Coll:
Total Waste Rec:
TWR Methodology:
TWR Unit:
Tot Aprv Cap Unit:
Financial Assurance:
Last Report Year:
Region:
District Office:
Site County:
Lot:
Concession:
Latitude:
Longitude:
Easting:
Northing:
UTM Zone:
Data Source:

Site: ***Parkway Infrastructure Constructors*** ***Database:***

off Spring Garden Rd Windsor ON **SPL**

Ref No:	0211-9RRNW7	***Municipality No:***	
Year:		***Nature of Damage:***	
Incident Dt:	2014/12/13	***Discharger Report:***	
Dt MOE Arvl on Scn:		***Material Group:***	
MOE Reported Dt:	2014/12/13	***Impact to Health:***	
Dt Document Closed:	2014/12/15	***Agency Involved:***	
Site No:	NA		
MOE Response:	N		
Site County/District:			
Site Geo Ref Meth:			
Site District Office:			
Nearest Watercourse:			
Site Name:	Herb Grey Parkway<UNOFFICIAL>		
Site Address:	off Spring Garden Rd		
Site Region:			
Site Municipality:	Windsor		
Site Lot:			
Site Conc:			
Site Geo Ref Accu:			
Site Map Datum:			
Northing:			
Easting:			
Entity Operating Name:			
Client Name:	Parkway Infrastructure Constructors		
Client Type:			
Source Type:			
Incident Cause:	Operator/Human error		
Incident Preceding Spill:			
Incident Reason:	Unknown / N/A		
Incident Summary:	AMEC: 5 L of diesel from generator to asphalt, contained		
Environment Impact:			
Health Env Consequence:			
Nature of Impact:	Land		
Contaminant Qty:	20 L		
Contaminant Qty 1:	20		
Contaminant Unit:	L		
Contaminant Code:	13		
Contaminant Name:	DIESEL FUEL		
Contaminant Limit 1:			
Contam Limit Freq 1:			
Contaminant UN No 1:			
Receiving Medium:			
Activity Preceding Spill:			
Property 2nd Watershed:			
Property Tertiary Watershed:			
Sector Type:	Tank - Above Ground		
SAC Action Class:	Land Spills		
Call Report Locatn Geodata:			
Time Reported:			
System Facility Address:			

Site: ***AMEC Earth & Environmental Limited; AMEC Spring Garden Road Windsor ON*** ***Database:*** ***SPL***

Ref No:	8662-9TGKD3	***Municipality No:***	
Year:		***Nature of Damage:***	
Incident Dt:	2/6/2015	***Discharger Report:***	
Dt MOE Arvl on Scn:		***Material Group:***	
MOE Reported Dt:	2/6/2015	***Impact to Health:***	
Dt Document Closed:	3/30/2015	***Agency Involved:***	
Site No:	NA		
MOE Response:	N		
Site County/District:			
Site Geo Ref Meth:			
Site District Office:			
Nearest Watercourse:			

Site Name:	Amec - Tunnel 1<UNOFFICIAL>
Site Address:	Spring Garden Road
Site Region:	
Site Municipality:	Windsor
Site Lot:	
Site Conc:	
Site Geo Ref Accu:	
Site Map Datum:	
Northing:	
Easting:	
Entity Operating Name:	
Client Name:	AMEC Earth & Environmental Limited; AMEC
Client Type:	
Source Type:	
Incident Cause:	Leak/Break
Incident Preceding Spill:	
Incident Reason:	Equipment Failure
Incident Summary:	Amec: 10L propylene glycol to groung -cleaned-
Environment Impact:	
Health Env Consequence:	
Nature of Impact:	Land
Contaminant Qty:	10 L
Contaminant Qty 1:	10
Contaminant Unit:	L
Contaminant Code:	24
Contaminant Name:	PROPYLENE GLYCOL
Contaminant Limit 1:	
Contam Limit Freq 1:	
Contaminant UN No 1:	
Receiving Medium:	
Activity Preceding Spill:	
Property 2nd Watershed:	
Property Tertiary Watershed:	
Sector Type:	
SAC Action Class:	Land Spills
Call Report Locatn Geodata:	
Time Reported:	
System Facility Address:	

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

Malden Rd Windsor ON

Ref No:	5238-BCNNFD	***Municipality No:***	
Year:		***Nature of Damage:***	
Incident Dt:	5/30/2019	***Discharger Report:***	
Dt MOE Arvl on Scn:		***Material Group:***	
MOE Reported Dt:	5/30/2019	***Impact to Health:***	2 - Minor Environment
Dt Document Closed:		***Agency Involved:***	

Site No:	NA
MOE Response:	No
Site County/District:	County of Essex
Site Geo Ref Meth:	
Site District Office:	Windsor
Nearest Watercourse:	
Site Name:	MTO Project<UNOFFICIAL>
Site Address:	Malden Rd
Site Region:	Southwestern
Site Municipality:	Windsor
Site Lot:	
Site Conc:	
Site Geo Ref Accu:	
Site Map Datum:	
Northing:	
Easting:	
Entity Operating Name:	
Client Name:	
Client Type:	
Source Type:	

Incident Cause:	
Incident Preceding Spill:	Unknown / N/A
Incident Reason:	Unknown / N/A
Incident Summary:	MTO Project trail system: oil in culvert
Environment Impact:	
Health Env Consequence:	
Nature of Impact:	
Contaminant Qty:	0 other - see incident description
Contaminant Qty 1:	0
Contaminant Unit:	other - see incident description
Contaminant Code:	15
Contaminant Name:	MOTOR OIL
Contaminant Limit 1:	
Contam Limit Freq 1:	
Contaminant UN No 1:	1993
Receiving Medium:	Land
Activity Preceding Spill:	
Property 2nd Watershed:	
Property Tertiary Watershed:	
Sector Type:	
SAC Action Class:	Land Spills
Call Report Locatn Geodata:	
Time Reported:	
System Facility Address:	

Site: ***The Corporation of the City of Windsor***
Malden Rd Windsor ON N9C 4A5

Database: ***WDS***

Approval No:	A010103	***Total Area (ha):***	
Mob Unit Cert No:		***Landfill Cap (m^3):***	
EBR Registry No:		***Transfer Area (ha):***	
Status:	Revoked and/or Replaced	***Transfer Cap (m^3):***	
Facility Type:		***Transfer Cert No:***	
Record Type:	ECA	***Inciner. Area (ha):***	
Link Source:	IDS	***Inciner. Cap (t):***	
Project Type:	WASTE DISPOSAL SITES	***Process Area (m^3):***	
Application Status:		***Process Cap (m^3/d):***	
Issue Date:	2008-03-14	***Process Vol (m^3):***	
Input Date:		***Process Feed (m^3):***	
Date Received:		***Site Concession:***	
Est Closure Date:		***Site Region/County:***	
Mobile Capacity:		***SWP Area Name:***	
Mobile Units:		***MOE District:***	
Mobile Description:		***District Office:***	
Prop City:		***Latitude:***	
Prop Postal:		***Longitude:***	
Prop Phone:		***Geometry X:***	
Serial Link:		***Geometry Y:***	
Approval Type:	ECA-WASTE DISPOSAL SITES		
Proponent:			
Prop Address:			
Proponent County/District:			
Full Address:	Malden Rd		
Site Lot:			
Waste Class Code:			
Waste Class:			
Waste Type:			
Waste Type Other:			
Waste Description:			
Landfill Monitoring:			
Landfill Ctrl Type:			
Site Closing Description:			
Project Description:			
Municipalities Served:			
Approval Description:			
Other Approvals/Permits:			
PDF URL:			
PDF Site Location:			

Site: ***The Corporation of the City of Windsor***
Malden Rd Windsor ON N9C 4A5

Database: ***WDS***

Approval No:	A010103	***Total Area (ha):***	
Mob Unit Cert No:		***Landfill Cap (m³):***	
EBR Registry No:		***Transfer Area (ha):***	
Status:	Revoked and/or Replaced	***Transfer Cap (m³):***	
Facility Type:		***Transfer Cert No:***	
Record Type:	ECA	***Inciner. Area (ha):***	
Link Source:	IDS	***Inciner. Cap (t):***	
Project Type:	WASTE DISPOSAL SITES	***Process Area (m³):***	
Application Status:		***Process Cap (m³/d):***	
Issue Date:	2008-10-30	***Process Vol (m³):***	
Input Date:		***Process Feed (m³):***	
Date Received:		***Site Concession:***	
Est Closure Date:		***Site Region/County:***	
Mobile Capacity:		***SWP Area Name:***	
Mobile Units:		***MOE District:***	
Mobile Description:		***District Office:***	
Prop City:		***Latitude:***	
Prop Postal:		***Longitude:***	
Prop Phone:		***Geometry X:***	
Serial Link:		***Geometry Y:***	
Approval Type:	ECA-WASTE DISPOSAL SITES		
Proponent:			
Prop Address:			
Proponent County/District:			
Full Address:	Malden Rd		
Site Lot:			
Waste Class Code:			
Waste Class:			
Waste Type:			
Waste Type Other:			
Waste Description:			
Landfill Monitoring:			
Landfill Ctrl Type:			
Site Closing Description:			
Project Description:			
Municipalities Served:			
Approval Description:			
Other Approvals/Permits:			
PDF URL:	https://www.accessenvironment.ene.gov.on.ca/instruments/7540-7CHNFN-14.pdf		
PDF Site Location:			

Site: ***The Corporation of the City of Windsor***
Malden Rd Windsor ON N9C 4A5

Database: ***WDS***

Approval No:	A010103	***Total Area (ha):***	
Mob Unit Cert No:		***Landfill Cap (m³):***	
EBR Registry No:		***Transfer Area (ha):***	
Status:	Amended	***Transfer Cap (m³):***	
Facility Type:		***Transfer Cert No:***	
Record Type:	ECA	***Inciner. Area (ha):***	
Link Source:	IDS	***Inciner. Cap (t):***	
Project Type:	WASTE DISPOSAL SITES	***Process Area (m³):***	
Application Status:		***Process Cap (m³/d):***	
Issue Date:	2014-02-26	***Process Vol (m³):***	
Input Date:		***Process Feed (m³):***	
Date Received:		***Site Concession:***	
Est Closure Date:		***Site Region/County:***	
Mobile Capacity:		***SWP Area Name:***	
Mobile Units:		***MOE District:***	
Mobile Description:		***District Office:***	
Prop City:		***Latitude:***	
Prop Postal:		***Longitude:***	
Prop Phone:		***Geometry X:***	

Serial Link: ***Geometry Y:***
Approval Type: ECA-WASTE DISPOSAL SITES
Proponent:
Prop Address:
Proponent County/District:
Full Address: Malden Rd
Site Lot:
Waste Class Code:
Waste Class:
Waste Type:
Waste Type Other:
Waste Description:
Landfill Monitoring:
Landfill Ctrl Type:
Site Closing Description:
Project Description:
Municipalities Served:
Approval Description:
Other Approvals/Permits:
PDF URL: https://www.accessenvironment.ene.gov.on.ca/instruments/2773-96TRJ4-14.pdf
PDF Site Location:

Appendix: Database Descriptions

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

Abandoned Aggregate Inventory: Provincial AAGR

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

Government Publication Date: Sept 2002*

Aggregate Inventory: Provincial AGR

This database of licensed and permitted pits and quarries is maintained by the Ontario Ministry of Natural Resources and Forestry (MNRF), as regulated under the Aggregate Resources Act, R.S.O. 1990. Aggregate site data has been divided into active and inactive sites. Active sites may be further subdivided into partial surrenders. In partial surrenders, defined areas of a site are inactive while the rest of the site remains active.

Government Publication Date: Up to Nov 2024

Abandoned Mine Information System: Provincial AMIS

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

Government Publication Date: 1800-Apr 2024

Anderson's Waste Disposal Sites: Private ANDR

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

Government Publication Date: 1860s-Present

Aboveground Storage Tanks: Provincial AST

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

Government Publication Date: May 31, 2014

Automobile Wrecking & Supplies: Private AUWR

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

Government Publication Date: 1999-Apr 30, 2024

Borehole: Provincial BORE

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

Government Publication Date: 1875-Jul 2018

Certificates of Approval: Provincial CA

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

Government Publication Date: 1985-Oct 30, 2011*

Dry Cleaning Facilities: Federal CDRY

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

Government Publication Date: Jan 2004-Dec 2022

Commercial Fuel Oil Tanks: Provincial CFOT

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

Government Publication Date: Oct 2023

Chemical Manufacturers and Distributors: Private CHEM

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

Government Publication Date: 1999-Jan 31, 2020

Chemical Register: Private CHM

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

Government Publication Date: 1999-Apr 30, 2024

Compressed Natural Gas Stations: Private CNG

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

Government Publication Date: Dec 2012 -Feb 2025

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

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

Government Publication Date: Apr 1987 and Nov 1988*

Compliance and Convictions: Provincial CONV

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

Government Publication Date: 1989-Mar 2025

Certificates of Property Use: Provincial CPU

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

Government Publication Date: 1994 - Feb 28, 2025

Drill Hole Database: Provincial DRL

The Ontario Drill Hole Database (ODHD) is offered by the Province of Ontario's Ministry of Mines. The dataset contains information for over 164,000 percussion, overburden, sonic and diamond-drill holes. The presence of assay results with cutoff values for gold, silver, copper, zinc, lead, nickel and platinum group elements is noted. Drill hole data are compiled from assessment files that have been submitted to the ministry in accordance with the Ontario Mining Act (OMA). Source assessment file numbers are captured for cross reference with the Ontario Assessment File Database (OAFD). 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. Levels of accuracy used to locate holes are: centering on the mining claim; a sketch of the mining claim; a 1:50,000 map; a detailed company map; or from submitted a "Report of Work".

Government Publication Date: 1886 - Aug 2024

Delisted Fuel Tanks: Provincial DTNK

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

Government Publication Date: Oct 2023

Environmental Activity and Sector Registry: Provincial EASR

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

Government Publication Date: Oct 2011-Mar 31, 2025

Environmental Registry: Provincial EBR

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

Government Publication Date: 1994 - Feb 28, 2025

Environmental Compliance Approval: Provincial ECA

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

Government Publication Date: Oct 2011-Mar 31, 2025

Environmental Effects Monitoring: Federal EEM

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

Government Publication Date: 1992-2007*

ERIS Historical Searches: Private EHS

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

Government Publication Date: 1999-Aug 31, 2024

Environmental Issues Inventory System: Federal EIIS

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

Government Publication Date: 1992-2001*

Emergency Management Historical Event: Provincial EMHE

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

Government Publication Date: Apr 30, 2022

Environmental Penalty Annual Report: Provincial EPAR

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

Government Publication Date: Jan 1, 2011 - Dec 31, 2024

List of Expired Fuels Safety Facilities: Provincial EXP

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

Government Publication Date: Oct 2023

Federal Convictions: Federal FCON

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

Government Publication Date: 1988-Jun 2007*

Contaminated Sites on Federal Land: Federal FCS

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

Government Publication Date: Jun 2000-Jan 2025

Fisheries & Oceans Fuel Tanks: Federal FOFT

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

Government Publication Date: 1964-Sep 2019

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

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

Government Publication Date: Oct 31, 2021

Fuel Storage Tank: Provincial FST

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

Government Publication Date: Oct 2023

Fuel Storage Tank - Historic: Provincial FSTH

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

Government Publication Date: Pre-Jan 2010*

Ontario Regulation 347 Waste Generators Summary: Provincial GEN

Regulation 347 of the Ontario EPA defines a waste generation site as any site, equipment and/or operation involved in the production, collection, handling and/or storage of regulated wastes. A generator of regulated waste is required to register the waste generation site and each waste produced, collected, handled, or stored at the site. This database contains the registration number, company name and address of registered generators including the types of hazardous wastes generated. It includes data on waste generating facilities such as: drycleaners, waste treatment and disposal facilities, machine shops, electric power distribution etc. This information is a summary of all years from 1986 including the most currently available data. As of January 1, 2023, businesses and institutions subject to the amended Reg. 347: General – Waste Management are required to report their activities and pay fees through Resource Productivity & Recovery Authority (RPRA) online Hazardous Waste Program Registry (HWPR) rather than the Hazardous Waste Information Network (HWIN) system previously operated by the Ministry of the Environment, Conservation and Parks (MECP). Some records may contain, within the company name, the phrase "See & Use..." followed by a series of letters and numbers. This occurs when one company is amalgamated with or taken over by another registered company. The number listed as "See & Use", refers to the new ownership and the other identification number refers to the original ownership. This phrase serves as a link between the 2 companies until operations have been fully transferred.

Government Publication Date: 1986-Jun 30, 2024

Greenhouse Gas Emissions from Large Facilities: Federal GHG

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

Government Publication Date: 2013-Apr 2024

TSSA Historic Incidents: Provincial HINC

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

Government Publication Date: 2006-June 2009*

Indian & Northern Affairs Fuel Tanks: Federal IAFT

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

Government Publication Date: 1950-Aug 2003*

Fuel Oil Spills and Leaks: Provincial INC

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

Government Publication Date: 31 Oct, 2023

Landfill Inventory Management Ontario: Provincial LIMO

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

Government Publication Date: Mar 31, 2022

Canadian Mine Locations: Private MINE

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

Government Publication Date: 1998-2009*

Mineral Occurrences: Provincial MNR

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

Government Publication Date: 1846-Feb 2025

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

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

Government Publication Date: 1974-1994*

Non-Compliance Reports: Provincial NCPL

The Ministry of the Environment Conservation and Parks (MECP) 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. MECP publicly releases the Environmental Compliance Report (ECR) on the Ontario Data Catalogue. In Ontario, all facilities with regulated wastewater discharges or air emissions under the Ontario Water Resources Act and the Environmental Protection Act must monitor and report any cases where approved operating limits have been exceeded.

Government Publication Date: Dec 31, 2023

National Defense & Canadian Forces Fuel Tanks: Federal NDFT

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

Government Publication Date: Up to May 2001*

National Defense & Canadian Forces Spills: Federal NDSP

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

Government Publication Date: Mar 1999-Nov 2023

National Defence & Canadian Forces Waste Disposal Sites: Federal NDWD

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

Government Publication Date: 2001-Apr 2007*

National Energy Board Pipeline Incidents: Federal NEBI

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

Government Publication Date: 2008-Dec 31, 2024

National Energy Board Wells: Federal NEBP

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

Government Publication Date: 1920-Feb 2003*

National Environmental Emergencies System (NEES): Federal NEES

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

Government Publication Date: 1974-2003*

National PCB Inventory: Federal NPCB

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

Government Publication Date: 1988-2008*

National Pollutant Release Inventory: Federal NPR2

The National Pollutant Release Inventory (NPRI) is Canada's public inventory of pollutant releases (to air, water and land), disposals, and transfers for recycling. The inventory, managed by Environment and Climate Change Canada, tracks over 300 substances. Under the authority of the Canadian Environmental Protection Act (CEPA), owners or operators of facilities that meet published reporting requirements are required to report to the NPRI.

Government Publication Date: Feb 2024

National Pollutant Release Inventory - Historic: Federal NPRI

Environment Canada has defined the National Pollutant Release Inventory ("NPRI") as a federal government initiative designed to collect comprehensive national data regarding releases to air, water, or land, and waste transfers for recycling for more than 300 listed substances. This data holds historic records; current records are found in NPR2.

Government Publication Date: 1993-May 2017

Oil and Gas Wells: Private OGWE

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

Government Publication Date: 1988-May 31, 2024

Ontario Oil and Gas Wells: Provincial OOGW

In 1998, the Ministry of Natural Resources (MNR) handed over to the Ontario Oil, Gas and Salt Resources (OGSR) 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 includes well owner/operator, location, permit issue date, and well cap date, license number, 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 provided for each well record.

Government Publication Date: 1800-Aug 2024

Inventory of PCB Storage Sites: Provincial OPCB

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

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

Orders: Provincial ORD

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

Government Publication Date: 1994 - Feb 28, 2025

Canadian Pulp and Paper: Private PAP

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

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

Parks Canada Fuel Storage Tanks: Federal PCFT

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

Government Publication Date: 1920-Jan 2005*

Pesticide Register: Provincial PES

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

Government Publication Date: Oct 2011-Mar 31, 2025

Ontario PFAS Spills: Provincial PFAS

This specific list of spills includes those incidents where one or more of the listed contaminants are identified in the PFAS Structure List and/or PFAS Chemicals Without Explicit Structure List made available by the United States Environmental Protection Agency (US EPA), is originally sourced from the Ministry of the Environment, Conservation and Parks spills related data. Information from 1988-2002 was part of the ORIS (Occurrence Reporting Information System). The SAC (Spills Action Centre) handles all spills reported in Ontario. Regulations for spills in Ontario are part of the MOE's Environmental Protection Act, Part X.

Government Publication Date: 1988-Jun 2024; Aug 2024; Oct-Nov 2024

NPRI Reporters - PFAS Substances: Federal PFCH

The National Pollutant Release Inventory (NPRI) is Canada's public inventory of releases, disposals, and transfers, tracking over 320 pollutants. Per - and polyfluoroalkyl substances (PFAS) are a group of over 4,700 human-made substances for which adverse environmental and health effects have been observed. This listing of PFAS substance reporters includes those NPRI facilities that reported substances that are found in either: a) the Comprehensive Global Database of PFASs compiled by the Organisation for Economic Co-operation and Development (OECD), b) the US Environmental Protection Agency (US EPA) Master List of PFAS Substances, c) the US EPA list of PFAS chemicals without explicit structures, or d) the US EPA list of PFAS structures (encompassing the largest set of structures having sufficient levels of fluorination to potentially impart PFAS-type properties).

Government Publication Date: Feb 2024

Potential PFAS Handlers from NPRI: Federal PFHA

The National Pollutant Release Inventory (NPRI) is Canada's public inventory of releases, disposals, and transfers, tracking over 320 pollutants. Per - and polyfluoroalkyl substances (PFAS) are a group of over 4,700 human-made substances for which adverse environmental and health effects have been observed. This list of potential PFAS handlers includes those NPRI facilities that reported business activity (NAICS code) included in the US Environmental Protection Agency (US EPA) list of Potential PFAS-Handling Industry Sectors, further described as operating in industry sectors where literature reviews indicate that PFAS may be handled and/or released. Inclusion of a facility in this listing does not indicate that PFAS are being manufactured, processed, used, or released by the facility - these are facilities that potentially handle PFAS based on their industrial profile.

Government Publication Date: Feb 2024

Pipeline Incidents: Provincial PINC

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

Government Publication Date: Feb 28, 2021

Potential PFAS Handlers from EASR: Provincial PPHA

The Ontario Environmental Activity and Sector Registry (EASR), described in Ontario Regulation 245/11, allows businesses with less complex operations - and hence not requiring an Environmental Compliance Approval - to register their activities with the Ontario Ministry of the Environment, Conservation and Parks (MECP). This list of potential PFAS handlers includes those EASR facilities that reported business activity (NAICS code) included in the US Environmental Protection Agency (US EPA) list of Potential PFAS-Handling Industry Sectors, further described as operating in industry sectors where literature reviews indicate that PFAS may be handled and/or released. Inclusion of a facility in this listing does not indicate that PFAS are being manufactured, processed, used.

Government Publication Date: Jun 30, 2024

Private and Retail Fuel Storage Tanks: Provincial PRT

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

Government Publication Date: 1989-1996*

Permit to Take Water: Provincial PTTW

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

Government Publication Date: 1994 - Feb 28, 2025

Ontario Regulation 347 Waste Receivers Summary: Provincial REC

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

Government Publication Date: 1986-1990, 1992-2021

Record of Site Condition: Provincial RSC

The Record of Site Condition (RSC) is part of the Ministry of the Environment's Brownfields Environmental Site Registry. Protection from environmental cleanup orders for property owners is contingent upon documentation known as a record of site condition (RSC) being filed in the Environmental Site Registry. In order to file an RSC, the property must have been properly assessed and shown to meet the soil, sediment and groundwater standards appropriate for the use (such as residential) proposed to take place on the property. The Record of Site Condition Regulation (O. Reg. 153/04) details requirements related to site assessment and clean up. RSCs filed after July 1, 2011 will also be included as part of the new (O.Reg. 511/09). The Government of Ontario states that it is not responsible for the accuracy of the information in this Registry.

Government Publication Date: 1997-Sept 2001, Oct 2004-Mar 2025

Retail Fuel Storage Tanks: Private RST

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

Government Publication Date: 1999-Apr 30, 2024

Scott's Manufacturing Directory: Private SCT

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

Government Publication Date: 1992-Mar 2011*

Ontario Spills: Provincial SPL

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

Government Publication Date: 1988-Jun 2024; Aug-Jan 2025

Wastewater Discharger Registration Database: Provincial SRDS

Facilities that report either municipal treated wastewater effluent or industrial wastewater discharges under the Effluent Monitoring and Effluent Limits (EMEL) and Municipal/Industrial Strategy for Abatement Regulations. The Municipal/Industrial Strategy for Abatement (MISA) division of the Ontario Ministry of Environment keeps record of direct dischargers of toxic pollutants within nine sectors including: Electric Power Generation, Mining, Petroleum Refining, Organic Chemicals, Inorganic Chemicals, Pulp & Paper, Metal Casting, Iron & Steel, and Quarries.

Government Publication Date: 1990-Dec 31, 2021

Anderson's Storage Tanks: Private TANK

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

Government Publication Date: 1915-1953*

Transport Canada Fuel Storage Tanks: Federal TCFT

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

Government Publication Date: 1970 - Apr 2024

Variances for Abandonment of Underground Storage Tanks: Provincial VAR

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

Government Publication Date: Feb 28, 2022

Waste Disposal Sites - MOE CA Inventory: Provincial WDS

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

Government Publication Date: Oct 2011 - Mar 31, 2025

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

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

Government Publication Date: Up to Oct 1990*

Water Well Information System: Provincial WWIS

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

Government Publication Date: Dec 31 2023

Definitions

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

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

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

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

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

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

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

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

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

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

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

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

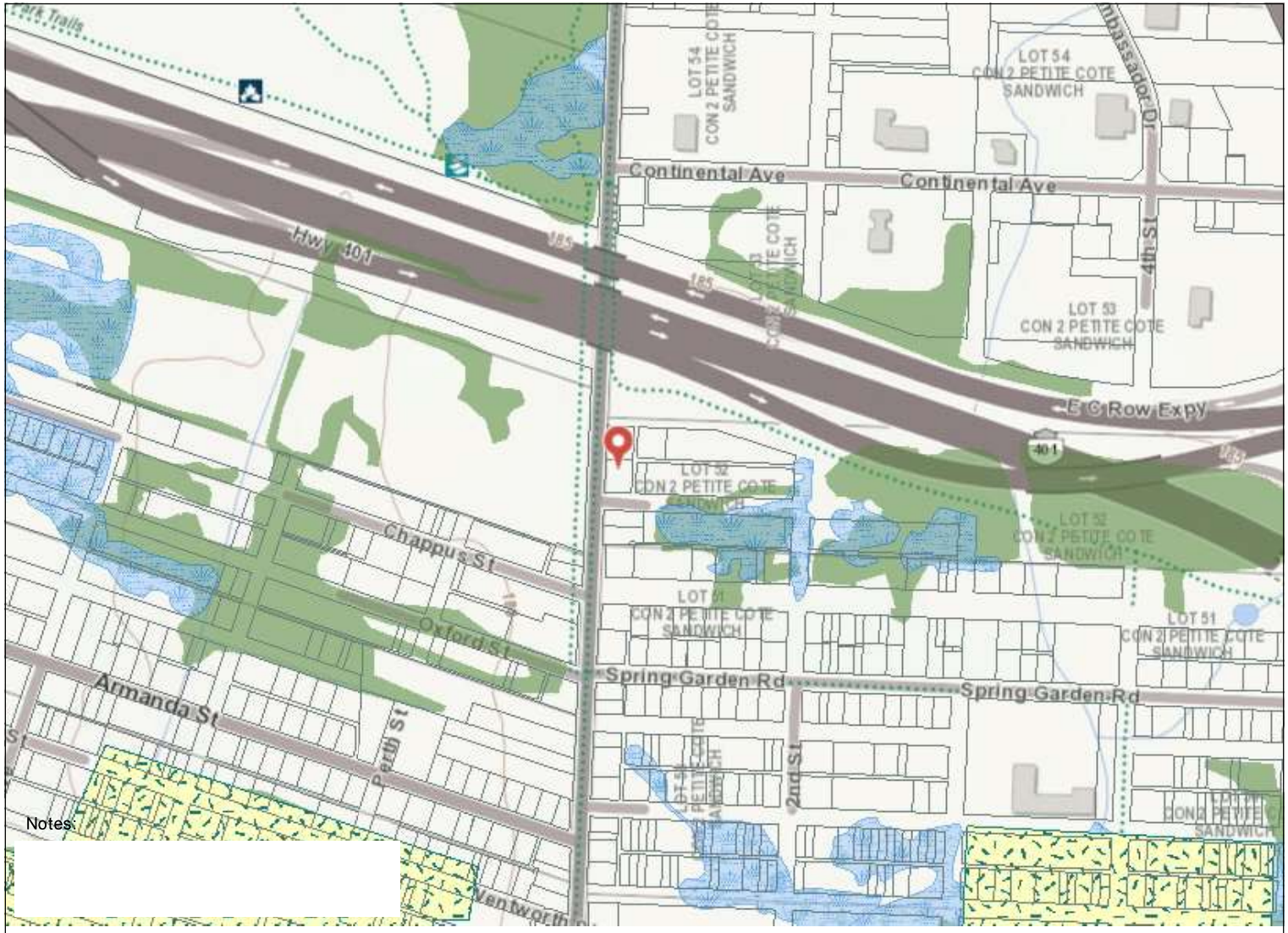
Ontario

Ministry of Natural Resources

Make-a-Map: Natural Heritage Areas

Natural Heritage Maps

Map created:5/20/2025



Legend

- Assessment Parcel
- ANSI
- Earth Science Provincially Significant/sciences de la terre d'importance provinciale
- Earth Science Regionally Significant/sciences de la terre d'importance régionale
- Life Science Provincially Significant/sciences de la vie d'importance provinciale
- Life Science Regionally Significant/sciences de la vie d'importance régionale
- Evaluated Wetland
- Provincially Significant/considérée d'importance provinciale
- Non-Provincially Significant/non considérée d'importance provinciale
- Unevaluated Wetland
- Woodland
- Conservation Reserve
- Provincial Park
- Natural Heritage System

0.3 0 0.17 0.3 Kilometres

Absence of a feature in the map does not mean they do not exist in this area.

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

APPENDIX C – SITE PHOTOGRAPHS

1. Front view (south wall) of the on-site residential building, looking north.

2. View of east wall of the on-site residential building, looking northwest.

3. View of the north and west walls of the on-site building, facing southeast.

4. View of basement area of the subject building.

5. View of woodland / wetland area, east of the Site.

6. View of the undeveloped land, west of the Site.

APPENDIX D – DOCUMENTATION OF INTERVIEW

Phase I ESA Documentation of Interviews

Interviewed Participants:

(a) **Current Site Owner**

Date, Time and Duration of Interview:	May 12, 2025, 10:00 am
Method and Place of Interview:	In writing
Name of Person:	Mr. Marshall Paton
Reason for Person Selection:	Person with detailed knowledge of current site activities.

Key Questions:	Answers:
1. Have a Phase I ESA, Phase II ESA and/or other reports been previously conducted for the Site, when, and are they available for review?	None
2. What is (was) the main current (past) activity conducted at the Site? Since when?	The site is occupied by a residential dwelling.
3. Was there any construction activity conducted at the site in the past years?	Unknown
4. Are there any company records available for review, such as: site plans, process control diagrams, utility drawings, inventory of chemicals, MSDS, waste management records?	None
5. Do you have knowledge of any current or former underground or aboveground storage tanks, and their location at the site?	None
6. Are there any spill reporting and emergency response plans, asbestos surveys and C of A available?	None
7. Do you have knowledge of any activities and events occurred at neighbouring properties that may have affected their environmental condition?	None