



PHASE I ENVIRONMENTAL SITE ASSESSMENT

**1894 & 1922 WITMER ROAD
PETERSBURG, ONTARIO**

SUBMITTED TO:

Mr. Rick Esbaugh
Jackson Harvest Farms
2879 Herrgott Road
St. Clements, ON
N0B 2M0



CHUNG & VANDER DOELEN
ENGINEERING LTD.

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May 23, 2017
FILE NO.: E17413

Mr. Rick Esbaugh
Jackson Harvest Farms
2879 Herrgott Road
St. Clements, ON
N0B 2M0

Dear Mr. Esbaugh:

RE: PHASE I ENVIRONMENTAL SITE ASSESSMENT
1894 & 1922 WITMER ROAD
PETERSBURG, ONTARIO

We are enclosing one (1) copy of our Phase I ESA report conducted for the above-referenced property.

If you have any questions or clarifications are required, please contact the undersigned at your convenience.

We thank you for giving us this opportunity to be of service to you.

Yours truly,

CHUNG & VANDER DOELEN ENGINEERING LTD.



Michael J. Lefebvre, P.Geo.
Manager, Environmental Services

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1.0 EXECUTIVE SUMMARY

CHUNG AND VANDER DOELEN ENGINEERING LTD. (CVD) was retained by Mr. Rick Esbaugh of Jackson Harvest Farms to conduct a Phase I Environmental Site Assessment (ESA) of the property located at 1894 & 1922 Witmer Road in Petersburg, Ontario (hereinafter referred to as the "Site").

The purpose of the Phase I ESA is to evaluate the environmental conditions of the Site and to identify actual or potential sources of contamination associated with the Site and surrounding properties. It is our understanding that this assessment is required for due diligence purposes for a real estate transaction and that a Record of Site Condition (RSC) is not intended at this time.

The Site is an irregular-shaped commercial, agricultural and rural residential property that covers a plan area of approximately 65.3 ha. Surrounding land uses are primarily agricultural and rural residential. The southeast corner of the Site is addressed as 1894 Witmer Road and is improved with a bungalow for rural residential land use since 1961. The remainder of the property is addressed as 1922 Witmer Road and is primarily agricultural fields with derelict and/or demolished commercial farm structures (i.e. barns, silos, livestock pens, feed processing facility) on the southern end of the property.

The findings of the Phase I ESA identified potential sources of contamination related to three (3) on-Site Potentially Contaminating Activities (PCAs). Evaluation of the PCAs identified two (2) Areas of Potential Environmental Concerns (APECs) that require further investigation. It is CVD's professional opinion that a Phase II ESA be completed to evaluate potential environmental liabilities.

This opinion is based on the following:

- Steel drums and unsealed plastic pails of waste motor oil are stored outdoors, adjacent to the silos. Based on observations made during the Site reconnaissance, some of the steel waste oil drums have significant corrosion that has resulted in the leakage of oil onto the adjacent asphalt ground surface, producing significant staining and/or pooling of oil sludge.
- A former fuel pump station with potential USTs is located adjacent to the north of the maintenance shop structure. Based on the age of the USTs (circa 1960s), there is a potential for environmental impacts due to corrosion-induced fuel leaks.
- Construction debris mixed with soil was observed to have been dumped over the east central area of the Site but no deleterious fill materials were identified. The risk for environmental liabilities associated with the fill is considered to be low at this time.

To address potential operational / management issues, CVD offers the following recommendations:

- It is recommended that the waste oil drums and pails be removed by a licensed hazardous waste hauler for off-Site disposal.
- It is recommended that motor oil stained asphalt and soils be excavated for disposal at a hazardous waste landfill.



- It is recommended that the USTs associated with the former fuel pump station should be emptied and removed for decommissioning. Soils adjacent to the USTs should be sampled to evaluate for BTEX and PHC F1-F4 contamination.
- It is recommended that the fill material (construction debris) be removed for off-Site disposal to prevent potential environmental liabilities.

Based on the evaluations of the PCAs, two (2) Areas of Potential Environmental Concern (APECs) were identified. The APECs are summarized in the following table:

<i>Area of Potential Environmental Concern (APEC)</i>	<i>Location of Area of Potential Environmental Concern on Phase One Property</i>	<i>Potentially Contaminating Activity</i>	<i>Location of PCA (on-Site or off-Site)</i>	<i>Contaminants of Potential Environmental Concern</i>	<i>Media Potentially Impacted (groundwater, soil and/or sediment)</i>
APEC-1	Site	PCA No. 52 – Storage, maintenance, fuelling and repair of equipment vehicles and materials	On-Site	Benzene, Toluene, Ethylbenzene, Xylenes (BTEX), Petroleum Hydrocarbons (PHC) F1-F4	Soil and Groundwater
APEC-2	Site	PCA No. 28 – Gasoline and Associated Products Storage in Fixed Tanks	On-Site	Benzene, Toluene, Ethylbenzene, Xylenes (BTEX), Petroleum Hydrocarbons (PHC) F1-F4, Volatile Organic Compounds (VOCs), and Metals	Soil and Groundwater



2.0 INTRODUCTION

2.1 Phase I Property Information

CHUNG AND VANDER DOELEN ENGINEERING LTD. (CVD) was retained by Mr. Rick Esbaugh of Jackson Harvest Farms to conduct a Phase I Environmental Site Assessment (ESA) of the property located at 1894 & 1922 Witmer Road in Petersburg, Ontario (hereinafter referred to as the "Site").

The purpose of the Phase I ESA is to evaluate the environmental conditions of the Site and to identify actual or potential sources of contamination associated with the Site and surrounding properties. It is our understanding that this assessment is required for due diligence purposes for a real estate transaction and that a Record of Site Condition (RSC) is not intended at this time.

The Site is an irregular-shaped commercial, agricultural and rural residential property that covers a plan area of approximately 65.3 ha. Surrounding land uses are primarily agricultural and rural residential. The southeast corner of the Site is addressed as 1894 Witmer Road and is improved with a bungalow for rural residential land use since 1961. The remainder of the property is addressed as 1922 Witmer Road and is primarily agricultural fields with derelict and/or demolished commercial farm structures (i.e. barns, silos, livestock pens, feed processing facility) on the southern end of the property.

Appendix A shows the location of the Site. A Site Plan is provided in Appendix B.

3.0 SCOPE OF THE INVESTIGATION

A Phase I Environmental Site Assessment is a thorough review of all activities that may have impacted the Site from an environmental standpoint.

CVD conducted this Phase I Environmental Site Assessment in general accordance with the amended Ontario Regulation 153/04. This report also conforms to Canadian Standards Association (CSA) Z768-01 (R2012). The above-noted procedures set standards for review of information pertaining to the Site, development of detailed checklists or protocols, conducting the Site inspection, and preparation of the final report. This report will not satisfy all of the necessary requirements for filing a Record of Site Condition under the amended Ontario Regulation 153/04.

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

- Site reconnaissance on April 26, 2017;
- Interview with the landlord, Mr. John Arthur Kowtuski (hereinafter referred to as the "Site representative");
- A review of available city directories and fire insurance plans (FIPs) to determine previous occupants of the Site and surrounding properties and to determine the first developed use of the Site;



- A search of available databases to identify actual or potential sources of contamination associated with the Site and surrounding properties;
- Review of previous environmental reports, if available;
- Interpretation of available aerial photographs;
- Interpretation of available topographic maps;
- Prepare this report with conclusions based on the information obtained during this assessment.

CVD relies on information received from all parties as accurate, unless contradicted by field observations or written documentation.

4.0 RECORDS REVIEW

4.1 General

Available information sources including regulatory data-bases were assessed in an effort to gain information related to past Site activities, and to address potential environmental issues that may be present at, or in the vicinity of the Site.

4.1.1 Phase I Study Area Determination

A review of the documents listed in Section 4.0 indicates that there are no significant concerns with any properties outside a 250 m radius of the Site that would be considered an environmental liability. The study area for the Phase I ESA is therefore determined to be within a 250 m radius of the Site (hereinafter referred to as the "Phase I Study Area").

4.1.2 Site History

This Site was historically an agricultural field with a centrally located farmstead until it was improved with commercial farming structures and a residential bungalow circa early-1960s. Commercial agricultural activities continued at 1922 Witmer Road until the early-1970s when the facilities were sold to the current landlord. The commercial farming structures have been left unused and unmaintained since the 1970s and are currently in a derelict state. The bungalow at 1894 Witmer Road has remained occupied as a rural residential dwelling since development.

4.1.3 Fire Insurance Plans

A search for available Canadian Fire Insurance Plans (FIPs) was completed. However, no FIPs were available. The Site and surrounding properties are located outside the spatial coverage of Canadian FIPs.



4.1.4 Previous Environmental Reports

Previous environmental reports were unavailable to CVD during the completion of this Phase I ESA.

4.2 Environmental Source Information

A summary of information obtained from available resource documents and from regulatory agency databases is provided as follows. A copy of all correspondence is included in Appendix E.

Coal Gasification Plants

According to the Intera Technologies Ltd. document entitled “Inventory of Coal Gasification Plant Waste Sites in Ontario”, dated April 1987, the Site and properties within the Phase I Study Area have not been used for the gasification of coal.

PCB Storage Sites

According to the Ministry of the Environment and Climate Change (MOECC) document entitled “Ontario Inventory of Approved PCB Storage Sites”, September 1988, the Site and properties within the Phase I Study Area have not been used for the storage of PCBs.

The Technical Standards and Safety Authority (TSSA), Fuels Safety Division (FSD)

A Customer Service Advisor at TSSA was contacted to determine if any aboveground or underground storage tanks (ASTs or USTs) were listed in its database for the subject property. The TSSA indicated that there are no registered fuel tanks on the Site. A copy of the TSSA correspondence is included in Appendix E.

Ministry of the Environment and Climate Change (MOECC)

A FOI request was submitted to the MOECC for information regarding any environmental concerns, orders, spills, investigations/prosecutions, Waste Generator Numbers/Classes and Certificates of Approval related to the Site. However, it can take several weeks to receive a response from the MOECC. At the time of writing this report, we have not yet received a response to this request.

Any relevant information received from the MOECC will be forwarded as an addendum to this report. The FOI request is included in Appendix E.

Waste Disposal Inventory

A review of the MOECC document entitled “Waste Disposal Site Inventory”, June 1991, indicates that there are no closed or active landfill sites located within 250 m of the Site.



City Directories

No historical city directories were available for the Site.

ERIS Report

A records and regulatory agency database review was completed through a database search carried out by ERIS. The ERIS Standard Select Report includes a review of selected public and private database records for the subject Site and surrounding properties within 250 metres. The April 19, 2017 report includes a summary of search results in selected databases, a Site map and aerial photo, and a detailed report of database findings.

The following is a list of the database searches completed by EcoLog ERIS for this Phase I ESA:

- Commercial Fuel Oil Tanks (CFOT)
- Fuel Storage Tank (FST)
- Fuel Storage Tank – Historic (FSTH)
- Ontario Regulation 347 Waste Generator Summary (GEN)
- Private and Retail Fuel Storage Tanks (PRT)
- Retail Fuel Storage Tanks (RST)
- Scott's Manufacturing Directory (SCT)
- Ontario Spills (SPL)

Zero (0) database listings were provided in the ERIS report for the subject Site.

Zero (0) database listings were provided in the ERIS report for surrounding properties within 250 m radius of the Site.

A copy of the ERIS Report is included in Appendix F.

4.3 Physical Setting Sources

4.3.1 Aerial Photographs

Aerial photographs were reviewed for the years 1946, 1955, 1966, 1977, 1989, 2000, 2010 and 2016. The aerial photographs are graphically illustrated in Appendix C and are summarized in the following table:

Year	Observations
1946	The Site appears to be agricultural fields with farm structures centrally located. Surrounding properties are agricultural fields, a pond and greenspace.
1955	No significant changes were observed on the Site and on surrounding properties.



<i>Year</i>	<i>Observations</i>
1966	The front (south end) of the Site is improved with farm structures (i.e. barn and silos). No significant changes were observed on surrounding properties.
1977	The front (south end) of the Site is improved with additional farm structures. No significant changes were observed on surrounding properties.
1989	No significant changes were observed on the Site and on surrounding properties.
2000	No significant changes were observed on the Site and on surrounding properties.
2010	No significant changes were observed on the Site and on surrounding properties.
2016	Some of the farm structures on the Site appear to have been demolished. No significant changes were observed on surrounding properties.

4.3.2 Topography, Hydrology, Geology

The Atlas of Canada Toporama interactive map and Region of Waterloo GIS Locator were accessed to retrieve spatial data relevant to the Site. Map contours reveal geodetic elevations of the Site to be at approximately 370 metres above sea-level with a downward slope towards the east. The localized shallow groundwater flow direction is inferred to follow topography and flow towards a pond along the eastern limits of the Site and towards tributaries of Alder Creek located approximately 2 km east of the Site.

According to the Ministry of Northern Development and Mines Map 2559 entitled “Quaternary Geology, Stratford Area,” the Site is located in a physiographic region of Late Wisconsinan undivided ice-contact sand and gravel.

According to Map 2544, “Bedrock Geology of Southern Ontario, Southern Sheet”, the bedrock in the area generally consists of Upper Silurian limestone, dolostone, shale, sandstone, gypsum and salt of the Salina Formation.

4.3.3 Fill Materials

Fill material composition and source location are considerations in determining whether environmental concerns are present. Importation of fill of unknown quality is identified as a potential contaminating activity within Ontario Regulation 153/04.

Some fill material of construction debris (i.e. concrete, rebar, plastics) mixed with soil was identified over the east central area of the Site. However, no deleterious materials were observed to have been mixed into the soil.

4.3.4 Water Bodies and Areas of Natural Significance

The nearest surficial body of water is a pond located along the mid-eastern limits of the Site. There are no areas of natural significance within the Phase I Study Area.



4.4 Site Operating Records

There were no Site operation records for review during the Phase I ESA.

5.0 INTERVIEWS

Mr. Peter Dao completed an interview with the Site representative, Mr. John Arthur Kowtuski during the Site reconnaissance. Relevant information gathered from the Site representative has been incorporated into various sections of this report (both previous and proceeding sections).

The information gathered from other individuals and/or regulatory agencies has also been incorporated into various sections of this report (both previous and proceeding sections).

6.0 SITE RECONNAISSANCE

6.1 General Requirements

A visual survey of the Site was completed by Mr. Peter Dao of CVD on April 26, 2017. The qualifications of the assessor are provided in Appendix G.

Photographs documenting the Site taken on the day of the Site reconnaissance, along with written descriptions, can be found in Appendix D.

6.2 Specific Observations at Phase I Property

Structures

1894 Witmer Road is improved with a residential dwelling (bungalow) and has remained as a residential land use since 1961. Access to the interior of the bungalow was not provided for this investigation.

1922 Witmer Road was historically an agricultural field with a centrally located farmstead that included a silo, barn, dwelling and/or other structures which are currently partially demolished or remain standing in a derelict state.

The southern end of 1922 Witmer Road was developed with commercial cattle farming structures (i.e. silos, digester, barns, maintenance shops, cattle pens, fuel pump station, water pumping station) circa early-1960s that have been unmaintained since the 1970s. The cattle pens have been demolished, with only foundations remaining. All other structures are currently in a derelict state.



Exterior Description

The Site exterior is primarily agricultural fields, with trees and a pond. Access is provided by two gated gravel driveways along Witmer Road.

Underground and Aboveground Storage Tanks

Site inspections and interviews were conducted to assess the presence/absence and condition (if present) of underground storage tanks (USTs) and aboveground storage tanks (ASTs) at the Site.

CVD identified one (1) ±250 gallon fuel AST within the maintenance shop building. Also, adjacent to the north of the maintenance shop building is a former fuel pump station with associated fuel USTs.

The Technical Standards and Safety Authority (TSSA) was contacted by CVD to query their computer database for USTs and ASTs registered to the Site. The TSSA reported that no records were found. The TSSA's response is included in Appendix E.

Chemical Inventory, Storage and Handling

Several drums and unsealed plastic pails of waste motor oil was observed outdoors, adjacent to the silos without any secondary containment. Significant black oil staining of ground surfaces were observed adjacent to the drums and pails. Some of the drums appear to have rusted through and have leaked out the contained oil.

Solid and Liquid Waste Generation and Disposal

1894 Witmer Road is an occupied residential dwelling that generates domestic household solid and liquid wastes. Solid wastes are stored in garbage bins for municipal curbside pickup. Liquid wastes are primarily domestic sanitary wastewater from washroom and kitchen facilities that are drained to a septic system.

Commercial operations at 1922 Witmer Road have ceased since circa 1970s with no additional solid and liquid waste generation.

Designated Substances

In Ontario, the Occupational Health and Safety Act has a list of nearly a dozen substances have been classified as "designated substances" largely in response to their harmful characteristics.

Asbestos Containing Materials

Asbestos is a group of naturally occurring minerals, formerly used for thermal and acoustic insulation, as well as fireproofing. The use of asbestos was common due to its strength and resistance to heat, and is often found in old ceiling tiles, pipe and vessel insulation, blown into structural beams and ceilings, in



floor tile, linoleum, and mastic. The use of asbestos building materials was banned in Canada in the late 1970's. Asbestos is not always an immediate hazard, though when asbestos containing materials are disturbed, microscopic fibres become airborne and may be inhaled by humans, where it may cause cancer and lung disease.

Based on the age of the structures (circa 1960s), ACMs may have been used in building materials.

Lead Based Paint

Lead is a highly toxic metal which, when present in the human body (in sufficient quantities), attacks the central nervous system and can result in numerous health problems. Lead-based paints have not been used since the late 1970's, when the U.S. Department of Housing and Urban Development (HUD) banned it for use in all homes and most other buildings.

Based on the age of the structures (circa 1960s), lead based paints may be present.

Other Designated Substances

Thermostats in the building may contain small amounts of mercury. CVD did not observe any other designated or hazardous substances at the Site. Observations were made only in readily accessible areas of the building (i.e., not in concealed spaces such as behind walls or above ceilings).

6.3 Surrounding Properties Phase I Study Area

According to available research resources, properties within the Phase I Study Area have historically been agricultural and/or rural residential land uses. Land uses currently and historically surrounding the Site are described as follows:

North of the Site (inferred trans-gradient):

Adjacent to the north of the Site are Bleams Road, residential lots, and agricultural fields. Beyond are additional residential lots and agricultural fields.

Based on historical aerial photos, land uses north of the Site have historically been agricultural and/or rural residential.

East of the Site (inferred down-gradient):

Adjacent to the east of the Site is an agricultural field and a rural residential property. Beyond are additional agricultural fields.

Based on historical aerial photos, land use to the east of the Site have been historically agricultural



and/or rural residential.

South of the Site (inferred trans-gradient):

Adjacent to the south of the Site is Witmer Road. Beyond are agricultural fields and an aggregate quarry.

Based on historical aerial photos, land uses south of the Site has historically been agricultural.

West of the Site (inferred up-gradient):

Adjacent to the west of the Site is are agricultural fields and greenspace. Beyond are additional agricultural fields and rural residential properties.

Based on historical aerial photos, land use to the west of the Site has historically been agricultural and/or greenspace.

7.0 REVIEW AND EVALUATION OF INFORMATION

7.1 *Current and Past Uses on the Phase I Property*

According to available information, the Site was historically an agricultural field with a small farmstead centrally located. During the early-1960s, the southern end of the Site was developed with commercial cattle farming facilities and operated as a cattle farm until it was sold during the early-1970s. Since the 1970s, the commercial farm structures have been left unmaintained and are currently either demolished or in a derelict state.

A residential dwelling (bungalow) was constructed at 1894 Witmer Road in 1961 and has remained as a residential land use since development.

7.2 *Potential Contaminating Activities (PCAs)*

Potentially contaminating activities (PCAs) are a use or activity set out in Column A of Table 2 of Schedule D within Ontario Regulation 153/04 that is occurring or has occurred at the Site and/or surrounding properties within 250 metres of the Site.

PCAs identified on the Site and surrounding areas are evaluated in the following table:



PCA	Location	Description	Evaluation
1	Site	PCA No. 52 – Storage, maintenance, fuelling and repair of equipment vehicles	Steel drums and unsealed plastic pails of waste motor oil are stored outdoors, adjacent to the silos. Also, a maintenance shop structure with floor trenches and drains is located on the Site. Based on observations during the Site reconnaissance, some steel waste oil drums have significant corrosion that has resulted in leakage of oil onto the adjacent asphalt ground surface, producing significant staining and/or pooling of oil sludge. It is recommended that the waste oil drums and pails be removed by a licensed hazardous waste hauler. Also, it is recommended that impacted asphalt and soils be excavated for disposal at a hazardous waste landfill.
2	Site	PCA No. 28 – Gasoline and Associated Products Storage in Fixed Tanks	A fuel AST is located within the maintenance shop structure. Also, a former fuel pump station with potential USTs is located adjacent to the north of the maintenance shop structure. Based on the age of the USTs (circa 1960s), there is a potential for environmental impacts due to corrosion-induced fuel leaks. It is recommended that the USTs be emptied and removed.
3	Site	PCA No. 30 – Importation of Fill Material of Unknown Quality	Construction debris mixed with soil was observed to have been dumped over the east central area of the Site. Observations during the Site reconnaissance identified construction debris that includes concrete, steel rebar and plastics but did not identify any environmentally deleterious materials. Based on the observations, the risk of environmental liabilities is expected to be low at this time. To prevent potential environmental liabilities, it is recommended that the construction debris/fill material be analyzed and removed for off-Site disposal.



7.3 Areas of Potential Environmental Concern (APECs)

Areas of potential environmental concern (APECs) are defined within the amended Ontario Regulation 153/04 (amended regulation) as those on, in or under a phase one property where one or more contaminants are potentially present. APECs are related to potentially contaminating activities set out and numbered in Column A of Table 2 of Schedule D in the amended regulation.

Based on the evaluations of the PCAs, two (2) Areas of Potential Environmental Concern (APECs) were identified.

The APECs are summarized in the following table:

<i>Area of Potential Environmental Concern (APEC)</i>	<i>Location of Area of Potential Environmental Concern on Phase One Property</i>	<i>Potentially Contaminating Activity</i>	<i>Location of PCA (on-Site or off-Site)</i>	<i>Contaminants of Potential Environmental Concern</i>	<i>Media Potentially Impacted (groundwater, soil and/or sediment)</i>
APEC-1	Site	PCA No. 52 – Storage, maintenance, fuelling and repair of equipment vehicles and materials	On-Site	BTEX, PHC F1-F4	Soil and Groundwater
APEC-2	Site	PCA No. 28 – Gasoline and Associated Products Storage in Fixed Tanks	On-Site	BTEX, PHC F1-F4, VOCs, Metals	Soil and Groundwater

8.0 CONCLUSIONS

CVD was retained by Mr. Rick Esbaugh of Jackson Harvest Farms to conduct a Phase I Environmental Site Assessment (ESA) on the property located at 1894 & 1922 Witmer Road in Petersburg, Ontario. The purpose of the Phase I ESA is to evaluate the environmental conditions of the Site and to identify actual or potential sources of contamination associated with the Site and surrounding properties.

The findings of the Phase I ESA identified potential sources of contamination related to three (3) on-Site PCAs. Evaluation of the PCAs identified two (2) APECs that require further investigation. It is CVD's professional opinion that a Phase II ESA be completed to evaluate potential environmental liabilities.



This opinion is based on the following:

- Steel drums and unsealed plastic pails of waste motor oil are stored outdoors, adjacent to the silos. Based on observations made during the Site reconnaissance, some of the steel waste oil drums have significant corrosion that has resulted in the leakage of oil onto the adjacent asphalt ground surface, producing significant staining and/or pooling of oil sludge.
- A former fuel pump station with potential USTs is located adjacent to the north of the maintenance shop structure. Based on the age of the USTs (circa 1960s), there is a potential for environmental impacts due to corrosion-induced fuel leaks.
- Construction debris mixed with soil was observed to have been dumped over the east central area of the Site but no deleterious fill materials were identified. The risk for environmental liabilities associated with the fill is considered to be low at this time.

To address potential operational / management issues, CVD offers the following recommendations:

- It is recommended that the waste oil drums and pails be removed by a licensed hazardous waste hauler for off-Site disposal.
- It is recommended that motor oil stained asphalt and soils be excavated for disposal at a hazardous waste landfill.
- It is recommended that the USTs associated with the former fuel pump station should be emptied and removed for decommissioning. Soils adjacent to the USTs should be sampled to evaluate for BTEX and PHC F1-F4 contamination.
- It is recommended that the fill material (construction debris) be removed for off-Site disposal to prevent potential environmental liabilities.



9.0 STUDY LIMITATIONS

CVD has prepared this report for the exclusive use of Jackson Harvest Farms in evaluating the environmental conditions of the Site at the time of CVD's Site visit. CVD will not be responsible for the use of this report by any third party, or reliance on or any decision to be made based on it without the prior written consent of CVD. CVD accepts no responsibility for damages, if any, by any third party as a result of decisions or actions based on this report.

This report presents an overview of issues of environmental concern, reflecting CVD's best judgment using information reasonably available at the Site at the time of CVD's Site visit. CVD has prepared this report using information understood to be factual and correct and shall not be responsible for conditions arising from information or facts that were concealed or not fully disclosed to CVD at the time of the Site visit.

The American Society of Testing and Materials Standard of Practice notes that no environmental Site assessment can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property. Performance of a standardized environmental Site assessment protocol is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions in connection with the property, given reasonable limits of time and cost. This assessment was carried out using historical data and a Site walkover. Intrusive testing is not part of the scope of this assessment.

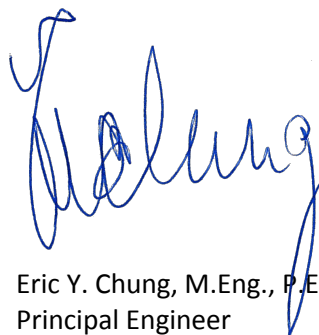
We trust that the above report is complete within our terms of reference. If there are any questions concerning this matter, please do not hesitate to contact our office.

Respectfully submitted,

CHUNG & VANDER DOELEN ENGINEERING LTD.



Peter Dao, M.Sc., P.Geo
Environmental Scientist



Eric Y. Chung, M.Eng., P.Eng
Principal Engineer



10.0 REFERENCES

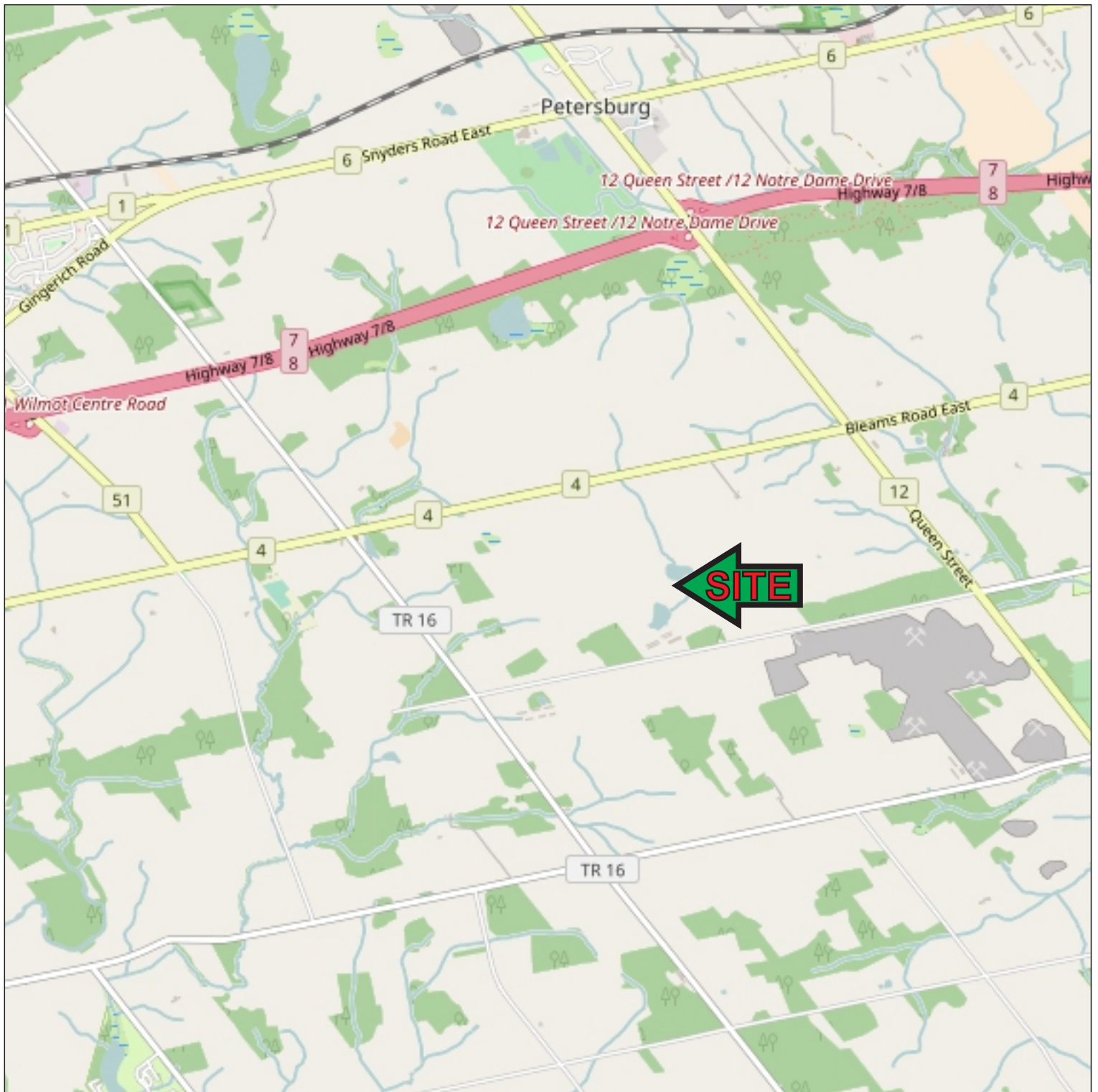
The following documents, maps, or other publications may have been used in the preparation of this report.

- Intera Technologies Ltd., "Inventory of Industrial Sites Producing or Using Coal Tar and Related Tars in Ontario", July 1988.
- Ontario Ministry of the Environment, "Inventory of Industrial Sites Producing or Using Coal Tar and Related Tars in Ontario", November 1998.
- Ontario Ministry of the Environment, "Ontario Inventory of Approved PCB Storage Sites", September 1998.
- Ontario Ministry of the Environment, "Waste Disposal Site Inventory", June 1991.
- Ministry of Northern Development and Mines Map 2544, "Bedrock Geology of Southern Ontario – Southern Sheet", 1991.
- Ministry of Northern Development and Mines Map 2559, "Quaternary Geology, Stratford Area," 1993.
- Phase I Environmental Site Assessment Canadian Standards Association (CSA) Z768-01 (R2012)



APPENDIX A KEY PLAN





CHUNG & VANDER DOELEN
ENGINEERING LTD.

311 Victoria Street North
Kitchener / Ontario / N2H 5E1
519-742-8979



KEY PLAN 1894 & 1922 WITMER ROAD PETERSBURG, ONTARIO	Date:	MAY 2017
	Scale:	NTS
	File No.:	E17413
	Appendix:	A

APPENDIX B

SITE PLAN





LEGEND



Approximate
Site Boundary



APEC-1



APEC-2



CHUNG & VANDER DOELEN
ENGINEERING LTD.

311 Victoria Street North
Kitchener / Ontario / N2H 5E1
519-742-8979



SITE PLAN 1894 & 1922 WITMER ROAD PETERSBURG, ONTARIO	Date:	MAY 2017
	Scale:	NTS
	File No.:	E17413
	Appendix:	B

APPENDIX C

AERIAL PHOTOGRAPHS





	CHUNG & VANDER DOELEN ENGINEERING LTD. 311 Victoria Street North Kitchener / Ontario / N2H 5E1 519-742-8979			
	AERIAL PHOTOGRAPH - 1946 1894 & 1922 WITMER ROAD PETERSBURG, ONTARIO		Date:	MAY 2017
			Scale:	NTS
			File No.:	E17413
			Appendix:	C



	CHUNG & VANDER DOELEN ENGINEERING LTD. 311 Victoria Street North Kitchener / Ontario / N2H 5E1 519-742-8979			
	AERIAL PHOTOGRAPH - 1955 1894 & 1922 WITMER ROAD PETERSBURG, ONTARIO			
		Date:	MAY 2017	
		Scale:	NTS	
		File No.:	E17413	
		Appendix:	C	



CHUNG & VANDER DOELEN
ENGINEERING LTD.

311 Victoria Street North
Kitchener / Ontario / N2H 5E1
519-742-8979



AERIAL PHOTOGRAPH - 1966 1894 & 1922 WITMER ROAD PETERSBURG, ONTARIO	Date:	MAY 2017
	Scale:	NTS
	File No.:	E17413
	Appendix:	C



CHUNG & VANDER DOELEN
ENGINEERING LTD.

311 Victoria Street North
Kitchener / Ontario / N2H 5E1
519-742-8979



AERIAL PHOTOGRAPH - 1977 1894 & 1922 WITMER ROAD PETERSBURG, ONTARIO	Date:	MAY 2017
	Scale:	NTS
	File No.:	E17413
	Appendix:	C



CHUNG & VANDER DOELEN
ENGINEERING LTD.

311 Victoria Street North
Kitchener / Ontario / N2H 5E1
519-742-8979



AERIAL PHOTOGRAPH - 1989 1894 & 1922 WITMER ROAD PETERSBURG, ONTARIO	Date:	MAY 2017
	Scale:	NTS
	File No.:	E17413
	Appendix:	C



CHUNG & VANDER DOELEN
ENGINEERING LTD.

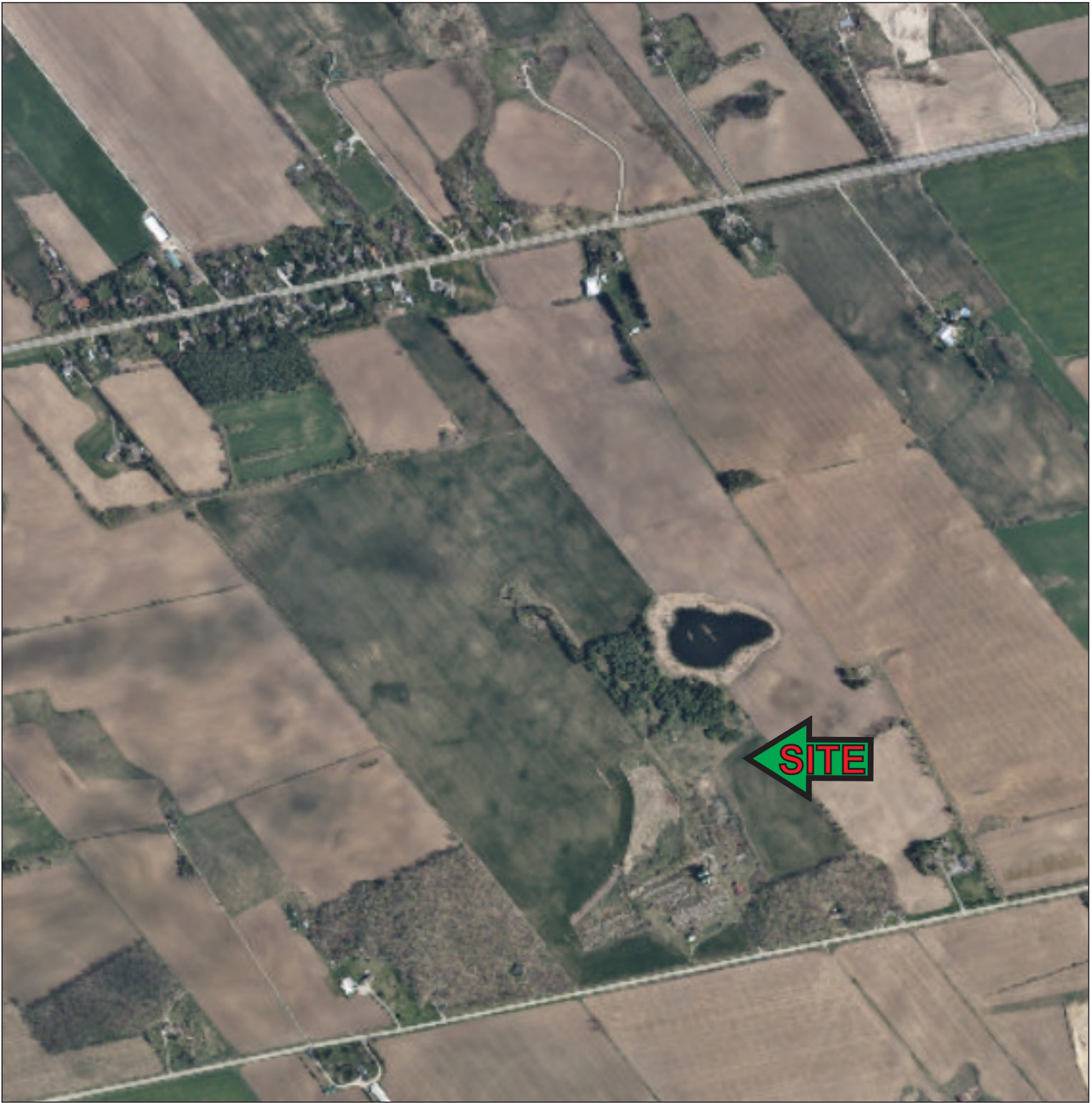
311 Victoria Street North
Kitchener / Ontario / N2H 5E1
519-742-8979



AERIAL PHOTOGRAPH - 2000 1894 & 1922 WITMER ROAD PETERSBURG, ONTARIO	Date:	MAY 2017
	Scale:	NTS
	File No.:	E17413
	Appendix:	C



	CHUNG & VANDER DOELEN ENGINEERING LTD. 311 Victoria Street North Kitchener / Ontario / N2H 5E1 519-742-8979			
	AERIAL PHOTOGRAPH - 2010 1894 & 1922 WITMER ROAD PETERSBURG, ONTARIO		Date:	MAY 2017
			Scale:	NTS
			File No.:	E17413
			Appendix:	C



	CHUNG & VANDER DOELEN ENGINEERING LTD. 311 Victoria Street North Kitchener / Ontario / N2H 5E1 519-742-8979			
	AERIAL PHOTOGRAPH - 2016 1894 & 1922 WITMER ROAD PETERSBURG, ONTARIO		Date:	MAY 2017
			Scale:	NTS
			File No.:	E17413
			Appendix:	C

APPENDIX D

SITE PHOTOGRAPHS





Photograph 1: View of the front (south end) of the Site with derelict commercial farm structures.



Photograph 2: View of the agricultural fields on the centre of the Site.



Photograph 3: View of the derelict farmstead on the centre of the Site.



Photograph 4: View of the demolished cattle pens on the south end of the Site.



Photograph 5: View of the silos on the south end of the Site.



Photograph 6: View of the corroded waste oil drums adjacent to the silos. Ground surface is stained with leaked oil.



Photograph 7: View of the derelict maintenance shop building on the south end of the Site.



Photograph 8: View of the AST within the derelict maintenance shop building.



Photograph 9: View of the floor trench/mechanics pit within the derelict maintenance shop building.



Photograph 10: View of the derelict digester facility.

APPENDIX E

CORRESPONDENCE



Freedom of Information Request

This form is for requesting documents which are in the Ministry's files on environmental concerns related to properties. Please refer to the guide on the completion and use of this form. Our fax no. is (416) 314-4285.

Requester Data			For Ministry Use Only	
Name, Title, Company Name and Mailing Address of Requester Vivien Ho Chung & Vander Doelen Engineering Ltd 311 Victoria Street North Kitchener, Ontario N2H 5E1 Email Address: vivien.ho@cvdengineering.com			FOI Request No.	FOI Co-ordinator Review date
			Date Request Received	Fee Paid <u>Payment from existing</u>
			Response Due Date	<u>account is authorized</u>
Telephone/Fax Nos. Tel: 519-742-8979 Fax: 519-742-7739	Your Project/Reference No. E17413	Signature of Requester <i>WH</i>	☐ CNR ☐ ER ☐ NOR ☐ SWR ☐ WCR ☐ SAC ☐ IEB ☐ EAA ☐	
Request Parameters Municipal Address / Lot, Concession, Geographic Township (Municipal address essential for cities, towns or regions) 1894 Witmer Road, Petersburg, Ontario Present Property Owner(s) and Date(s) of Ownership John Arthur Kowtuski Previous Property Owner(s) and Date(s) of Ownership Present/Previous Tenant(s), (if applicable)				
Search Parameters Files older than 2 years may require \$60.00 retrieval cost. There is no guarantee that records responsive to your request will be located.			Specify Year(s) Requested	
Environmental concerns (General correspondence, occurrence reports, abatement)			All	
Orders			All	
Spills			All	
Investigations/prosecutions ▶ Owner/tenant information must be provided			All	
Waste Generator number/classes				
Certificates of Approval ▶ Proponent information must be provided 1985 and prior records are searched manually. Search fees in excess of \$300.00 could be incurred, depending on the types and years to be searched. Specify Certificates of Approval number (s) (if known). If supporting documents are also required, mark SD box and specify type e.g. maps, plans, hydrogeological reports, etc.				
			SD	Specify Year(s) Requested
air – emissions				1986 to present
water - mains, treatment, ground level, standpipes & elevated storage, pumping stations (local & booster)				1986 to present
sewage - sanitary, storm, treatment, stormwater, leachate & leachate treatment & sewage pump stations				1986 to present
waste water – industrial discharge				1986 to present
waste sites – disposal, landfill sites, transfer stations, processing sites, incinerator sites				1986 to present
waste systems	- haulers: sewage, non-hazardous & hazardous waste			
	- mobile waste processing units			
	- PCB destruction			
pesticides – licenses				1986 to present

A \$5.00 non-refundable application fee, payable to the Minister of Finance, is mandatory. The cost of locating on-site and/or preparing any record is \$30.00/hour and 20 cents/page for photocopying and you will be contacted for approval for fees in excess of \$30.00.

Ministry of the Environment
and Climate Change

Freedom of Information and
Protection of Privacy Office

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

Ministère de l'Environnement et de
l'Action en matière de changement
climatique

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

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



April 20, 2017

Vivien Ho
Chung & Vander Doelen Engineering Ltd
311 Victoria Street North
Kitchener, ON N2H 5E1

Dear Vivien Ho:

RE: ***Freedom of Information and Protection of Privacy Act Request***
Our File # A-2017-02591, Your Reference E17413

This letter is in response to your request made pursuant to the *Freedom of Information and Protection of Privacy Act* relating to 1894 Witmer Rd, Petersburg.

After a thorough search through the files of the Ministry's Guelph District Office, West Central Regional Office, Investigations and Enforcement Branch, Environmental Approvals Branch, Sector Compliance Branch and Safe Drinking Water Branch, no records were located responsive to your request. To provide you with this response and in accordance with Section 57 of the *Freedom of Information and Protection of Privacy Act*, the fee owed is \$30.00 for 1 hour of search time @ \$30.00 per hour. **We have applied the \$30.00 for this request from your initial payment. This file is now closed.**

You may request a review of my decision by contacting the Information and Privacy Commissioner/Ontario, 2 Bloor Street East, Suite 1400, Toronto, ON M4W 1A8 (800-387-0073 or 416-326-3333). Please note that there is a \$25.00 fee and you only have 30 days from receipt of this letter to request a review.

If you have any questions regarding this matter, please contact Kaitlynne Low at kaitlynne.low@ontario.ca.

Yours truly,

Janet Dadufalza
FOI Manager

Peter Dao

From: Ruchi Chohan <rchohan@tssa.org> on behalf of Public Information Services <publicinformationservices@tssa.org>
Sent: Wednesday, May 03, 2017 4:06 PM
To: Peter Dao
Subject: RE: Records Search - Storage Tanks

Hello Peter,

Thank you for your inquiry.

We have no record in our database of any fuel storage tanks at the subject address (addresses).

For a further search in our archives please submit your request in writing to Public Information Services via e-mail (publicinformationservices@tssa.org) or through mail along with a fee of \$56.50 (including HST) per location. The fee is payable with credit card (Visa or MasterCard) or with a Cheque made payable to TSSA.

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

Thank and have a great day!

Ruchi

From: Peter Dao [mailto:peter.dao@cvdengineering.com]
Sent: Thursday, April 20, 2017 11:26 AM
To: Public Information Services <publicinformationservices@tssa.org>
Subject: Records Search - Storage Tanks

Hello,

At your earliest convenience, could you please search your records for the following properties for any reference to aboveground or underground storage tanks:

- 1894 Witmer Road, Petersburg, ON
- 1922 Witmer Road, Petersburg, ON

Thanks,

Peter



Peter Dao, M.Sc., P.Geo
ENVIRONMENTAL SCIENTIST
CHUNG & VANDER DOELEN ENGINEERING LTD.
311 VICTORIA STREET NORTH / KITCHENER / ONTARIO / N2H 5E1
O 519 742 8979 C 519 498 6453
E peter.dao@cvdengineering.com

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APPENDIX F

ERIS REPORT





DATABASE REPORT

Project Property: *Phase I ESA - 1840 Witmer Road,
Petersburg, ON.
1840 Witmer Rd
Wilmot ON N0B2H0
E17413*

Project No: *20170413054*

Report Type: *Standard Select Report*

Order No: *20170413054*

Requested by: *Chung & Vander Doelen Engineering Ltd.*

Date Completed: *April 19, 2017*

**Environmental Risk
Information Services**
A division of Glacier Media Inc.
P: 1.866.517.5204
E: info@erisinfo.com

www.erisinfo.com

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Reliance on information in Report: This report DOES NOT replace a full Phase I Environmental Site Assessment but is solely intended to be used as a database review of environmental records.

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Executive Summary

Property Information:

Project Property: *Phase I ESA - 1840 Witmer Road, Petersburg, ON.
1840 Witmer Rd Wilmot ON N0B2H0*

Project No: *E17413*

Coordinates:

Latitude: *43.378674*
Longitude: *-80.59692*
UTM Northing: *4,802,946.14*
UTM Easting: *532,651.89*
UTM Zone: *UTM Zone 17T*

Elevation: *1,224 FT
373.00 M*

Order Information:

Order No: *20170413054*
Date Requested: *April 13, 2017*
Requested by: *Chung & Vander Doelen Engineering Ltd.*
Report Type: *Standard Select Report*

Historical/Products:

Executive Summary: Report Summary

Database	Name	Searched	Project Property	Within 0.25 km	Total
AAGR	Abandoned Aggregate Inventory	N	-	-	-
AGR	Aggregate Inventory	N	-	-	-
AMIS	Abandoned Mine Information System	N	-	-	-
ANDR	Anderson's Waste Disposal Sites	N	-	-	-
AUWR	Automobile Wrecking & Supplies	N	-	-	-
BORE	Borehole	N	-	-	-
CA	Certificates of Approval	N	-	-	-
CFOT	Commercial Fuel Oil Tanks	Y	0	0	0
CHEM	Chemical Register	N	-	-	-
CNG	Compressed Natural Gas Stations	N	-	-	-
COAL	Inventory of Coal Gasification Plants and Coal Tar Sites	N	-	-	-
CONV	Compliance and Convictions	N	-	-	-
CPU	Certificates of Property Use	N	-	-	-
DRL	Drill Hole Database	N	-	-	-
EASR	Environmental Activity and Sector Registry	N	-	-	-
EBR	Environmental Registry	N	-	-	-
ECA	Environmental Compliance Approval	N	-	-	-
EEM	Environmental Effects Monitoring	N	-	-	-
EHS	ERIS Historical Searches	N	-	-	-
EIIS	Environmental Issues Inventory System	N	-	-	-
EMHE	Emergency Management Historical Event	N	-	-	-
EXP	List of TSSA Expired Facilities	N	-	-	-
FCON	Federal Convictions	N	-	-	-
FCS	Contaminated Sites on Federal Land	N	-	-	-
FOFT	Fisheries & Oceans Fuel Tanks	N	-	-	-
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	N	-	-	-
HINC	TSSA Historic Incidents	N	-	-	-
IAFT	Indian & Northern Affairs Fuel Tanks	N	-	-	-
INC	TSSA Incidents	N	-	-	-
LIMO	Landfill Inventory Management Ontario	N	-	-	-
MINE	Canadian Mine Locations	N	-	-	-
MNR	Mineral Occurrences	N	-	-	-
NATE	National Analysis of Trends in Emergencies System (NATES)	N	-	-	-

<i>Database</i>	<i>Name</i>	<i>Searched</i>	<i>Project Property</i>	<i>Within 0.25 km</i>	<i>Total</i>
NCPL	<i>Non-Compliance Reports</i>	<i>N</i>	-	-	-
NDFT	<i>National Defense & Canadian Forces Fuel Tanks</i>	<i>N</i>	-	-	-
NDSP	<i>National Defense & Canadian Forces Spills</i>	<i>N</i>	-	-	-
NDWD	<i>National Defence & Canadian Forces Waste Disposal Sites</i>	<i>N</i>	-	-	-
NEBW	<i>National Energy Board Wells</i>	<i>N</i>	-	-	-
NEES	<i>National Environmental Emergencies System (NEES)</i>	<i>N</i>	-	-	-
NPCB	<i>National PCB Inventory</i>	<i>N</i>	-	-	-
NPRI	<i>National Pollutant Release Inventory</i>	<i>N</i>	-	-	-
OGW	<i>Oil and Gas Wells</i>	<i>N</i>	-	-	-
OOGW	<i>Ontario Oil and Gas Wells</i>	<i>N</i>	-	-	-
OPCB	<i>Inventory of PCB Storage Sites</i>	<i>N</i>	-	-	-
ORD	<i>Orders</i>	<i>N</i>	-	-	-
PAP	<i>Canadian Pulp and Paper</i>	<i>N</i>	-	-	-
PCFT	<i>Parks Canada Fuel Storage Tanks</i>	<i>N</i>	-	-	-
PES	<i>Pesticide Register</i>	<i>N</i>	-	-	-
PINC	<i>TSSA Pipeline Incidents</i>	<i>N</i>	-	-	-
PIPELINE INCIDENTS PRT	<i>National Energy Board Pipeline Incidents</i>	<i>N</i>	-	-	-
	<i>Private and Retail Fuel Storage Tanks</i>	<i>Y</i>	<i>0</i>	<i>0</i>	<i>0</i>
PTTW	<i>Permit to Take Water</i>	<i>N</i>	-	-	-
REC	<i>Ontario Regulation 347 Waste Receivers Summary</i>	<i>N</i>	-	-	-
RSC	<i>Record of Site Condition</i>	<i>N</i>	-	-	-
RST	<i>Retail Fuel Storage Tanks</i>	<i>Y</i>	<i>0</i>	<i>0</i>	<i>0</i>
SCT	<i>Scott's Manufacturing Directory</i>	<i>Y</i>	<i>0</i>	<i>0</i>	<i>0</i>
SPL	<i>Ontario Spills</i>	<i>Y</i>	<i>0</i>	<i>0</i>	<i>0</i>
SRDS	<i>Wastewater Discharger Registration Database</i>	<i>N</i>	-	-	-
TANK	<i>Anderson's Storage Tanks</i>	<i>N</i>	-	-	-
TCFT	<i>Transport Canada Fuel Storage Tanks</i>	<i>N</i>	-	-	-
VAR	<i>TSSA Variances for Abandonment of Underground Storage Tanks</i>	<i>N</i>	-	-	-
WDS	<i>Waste Disposal Sites - MOE CA Inventory</i>	<i>N</i>	-	-	-
WDSH	<i>Waste Disposal Sites - MOE 1991 Historical Approval Inventory</i>	<i>N</i>	-	-	-
WWIS	<i>Water Well Information System</i>	<i>N</i>	-	-	-
		Total:	<i>0</i>	<i>0</i>	<i>0</i>

Executive Summary: Site Report Summary - Project Property

<i>Map Key</i>	<i>DB</i>	<i>Company/Site Name</i>	<i>Address</i>	<i>Dir/Dist (m)</i>	<i>Elev diff (m)</i>	<i>Page Number</i>
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No records found in the selected databases for the project property.

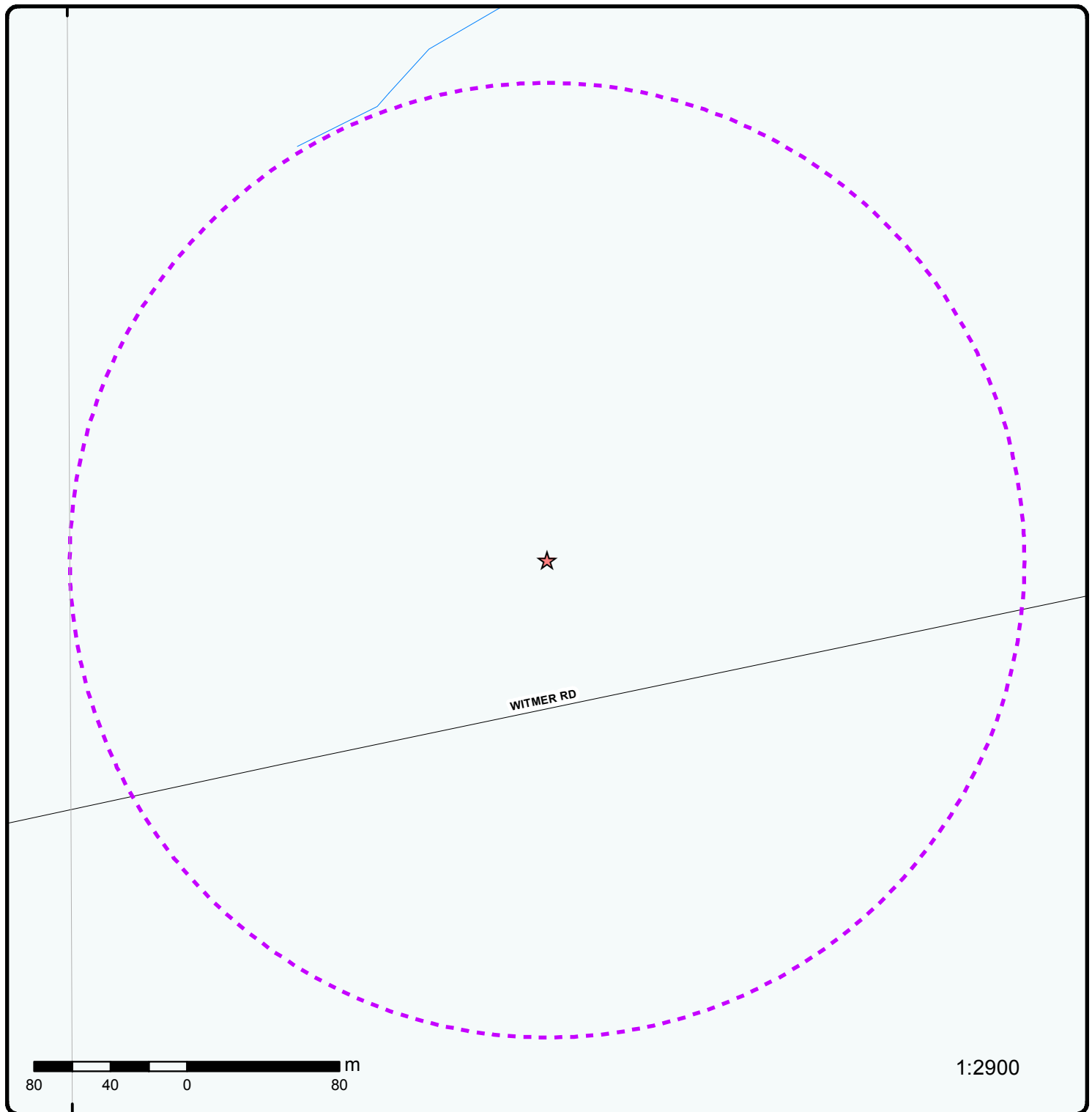
Executive Summary: Site Report Summary - Surrounding Properties

<i>Map Key</i>	<i>DB</i>	<i>Company/Site Name</i>	<i>Address</i>	<i>Dir/Dist (m)</i>	<i>Elev Diff (m)</i>	<i>Page Number</i>
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No records found in the selected databases for the surrounding properties.

Executive Summary: Summary By Data Source

No records found in the selected databases for the project property or surrounding properties.



Map : 0.25 Kilometer Radius

Order No: 20170413054

Address: 1840 Witmer Rd, Wilmot, ON, N0B2H0



Project Property	Expressway	Industrial and Resource - Regions	National Park
Buffer Outline	Principal Highway	Main Line	Provincial or Territorial Park
Eris Sites with Higher Elevation	Secondary Highway	Sidetrack	Other Park
Eris Sites with Same Elevation	Major Road	Transit Line	Golf Course or Driving Range
Eris Sites with Lower Elevation	Local road	Abandoned Line	Park or Sports Field
Eris Sites with Unknown Elevation	Trail		Other Recreation Area
	Proposed Road		
	Ferry Route/Ice Road		

80°36'W

43°22'30"N

43°22'30"N



Aerial

Address: 1840 Witmer Rd, Wilmot, ON, N0B2H0

Source: ESRI World Imagery

Order No: 20170413054



© ERIS Information Limited Partnership

80°36'W

43°22'30"N

43°22'30"N



Topographic Map

Address: 1840 Witmer Rd, Wilmot, ON, N0B2H0

Source: ESRI World Topographic Map

Order No: 20170413054



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Detail Report

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elevation (m)</i>	<i>Site</i>	<i>DB</i>
----------------	------------------------------	------------------------------------	--------------------------	-------------	-----------

No records found in the selected databases for the project property or surrounding properties.

Unplottable Summary

Total: 12 Unplottable sites

DB	Company Name/Site Name	Address	City	Postal
FST	K & H QUICKFALL LTD	LOT 10 RR 2RR 1 STN WATERLOO	WATERLOO ON	N2J 4G8
FST	MINISTRY OF TRANSPORTATION & COMMUNICATION	LOT 9 CON NBR	WILMOT TWP ON	N0B 1G0
FST	MINISTRY OF TRANSPORTATION & COMMUNICATION	LOT 9 CON NBR	WILMOT TWP ON	N0B 1G0
FSTH	MINISTRY OF TRANSPORTATION & COMMUNICATION	LOT 9 CON NBR	WILMOT TWP ON	
FSTH	K & H QUICKFALL LTD	LOT 10 RR 2 RR 1 STN WATERLOO	WATERLOO ON	
FSTH	K & H QUICKFALL LTD	LOT 10 RR 2 RR 1 STN WATERLOO	WATERLOO ON	
FSTH	MINISTRY OF TRANSPORTATION & COMMUNICATION	LOT 9 CON NBR	WILMOT TWP ON	
GEN	UNION GAS LTD	NEW DUNDEE GATE STATION LOT 10 BEASLEYS SURVEY	WATERLOO TOWNSHIP ON	
GEN	UNION GAS LTD. 39-474	NEW DUNDEE GATE STN., LOT 10 BEASLEY- SURVEY, WATERLOO TWP. C/O 50 KEIL DR.N	CHATHAM ON	N7M 5M1
GEN	UNION GAS LTD	NEW DUNDEE GATE STATION LOT 10 BEASLEY SURVEY	WATERLOO TWP ON	
PRT	K & H QUICKFALL LTD	LOT 10 RR 2 GCT-WOOLWICH	WATERLOO ON	N2G 3W5
PRT	MINISTRY OF TRANSPORTATION & COMMUNICATION	LOT 9 CON NBR	WILMOT TWP ON	

Unplottable Report

Site: K & H QUICKFALL LTD
LOT 10 RR 2RR 1 STN WATERLOO WATERLOO ON N2J 4G8

Database:
FST

Instance No: 11037269
Cont Name:
Instance Type: FS Liquid Fuel Tank
Fuel Type: Diesel
Status: Active
Capacity: 22730
Tank Material: Steel
Corrosion Protection: Impressed Current
Tank Type: Single Wall UST
Install Year: 1974
Parent Facility Type: Fuels Safety Private Fuel Outlet - Self Serve
Facility Type: FS Liquid Fuel Tank

Site: MINISTRY OF TRANSPORTATION & COMMUNICATION
LOT 9 CON NBR WILMOT TWP ON N0B 1G0

Database:
FST

Instance No: 11052409
Cont Name:
Instance Type: FS Liquid Fuel Tank
Fuel Type: Diesel
Status: Active
Capacity: 9092
Tank Material: Steel
Corrosion Protection: Impressed Current
Tank Type: Single Wall UST
Install Year: 1977
Parent Facility Type: Fuels Safety Private Fuel Outlet - Self Serve
Facility Type: FS Liquid Fuel Tank

Site: MINISTRY OF TRANSPORTATION & COMMUNICATION
LOT 9 CON NBR WILMOT TWP ON N0B 1G0

Database:
FST

Instance No: 11052391
Cont Name:
Instance Type: FS Liquid Fuel Tank
Fuel Type: Gasoline
Status: Active
Capacity: 9092
Tank Material: Fiberglass (FRP)
Corrosion Protection: Fiberglass
Tank Type: Single Wall UST
Install Year: 1988
Parent Facility Type: Fuels Safety Private Fuel Outlet - Self Serve
Facility Type: FS Liquid Fuel Tank

Site: MINISTRY OF TRANSPORTATION & COMMUNICATION
LOT 9 CON NBR WILMOT TWP ON

Database:
FSTH

License Issue Date: 11/8/1990
Tank Status: Licensed
Tank Status As Of: December 2008
Operation Type: Private Fuel Outlet
Facility Type: Gasoline Station - Self Serve

--Details--

Status: Active
Year of Installation: 1988
Corrosion Protection:
Capacity: 9092
Tank Fuel Type: Liquid Fuel Single Wall UST - Gasoline

Status: Active
Year of Installation: 1977
Corrosion Protection:
Capacity: 9092
Tank Fuel Type: Liquid Fuel Single Wall UST - Diesel

Site: K & H QUICKFALL LTD
LOT 10 RR 2 RR 1 STN WATERLOO WATERLOO ON

Database:
FSTH

License Issue Date: 9/14/1990
Tank Status: Licensed
Tank Status As Of: December 2008
Operation Type: Private Fuel Outlet
Facility Type: Gasoline Station - Self Serve

--Details--

Status: Active
Year of Installation: 1974
Corrosion Protection:
Capacity: 22730
Tank Fuel Type: Liquid Fuel Single Wall UST - Diesel

Site: K & H QUICKFALL LTD
LOT 10 RR 2 RR 1 STN WATERLOO WATERLOO ON

Database:
FSTH

License Issue Date: 9/14/1990
Tank Status: Licensed
Tank Status As Of: August 2007
Operation Type: Private Fuel Outlet
Facility Type: Gasoline Station - Self Serve

--Details--

Status: Active
Year of Installation: 1974
Corrosion Protection:
Capacity: 22730
Tank Fuel Type: Liquid Fuel Single Wall UST - Diesel

Site: MINISTRY OF TRANSPORTATION & COMMUNICATION
LOT 9 CON NBR WILMOT TWP ON

Database:
FSTH

License Issue Date: 11/8/1990
Tank Status: Licensed
Tank Status As Of: August 2007
Operation Type: Private Fuel Outlet
Facility Type: Gasoline Station - Self Serve

--Details--

Status: Active
Year of Installation: 1988
Corrosion Protection:
Capacity: 9092
Tank Fuel Type: Liquid Fuel Single Wall UST - Gasoline

Status: Active
Year of Installation: 1977
Corrosion Protection:
Capacity: 9092
Tank Fuel Type: Liquid Fuel Single Wall UST - Diesel

Site: UNION GAS LTD
NEW DUNDEE GATE STATION LOT 10 BEASLEYS SURVEY WATERLOO TOWNSHIP ON

Database:
GEN

PO Box Num:
Status:
Country:
Generator #: ON0178229
Approval Yrs:: 98,99,00,01
SIC Code: 0711
SIC Description: CONV. OIL & GAS IND.

--Details--

Waste Code: 212
Waste Description: ALIPHATIC SOLVENTS

Waste Code: 263
Waste Description: ORGANIC LABORATORY CHEMICALS

Site: UNION GAS LTD. 39-474
NEW DUNDEE GATE STN., LOT 10 BEASLEY- SURVEY, WATERLOO TWP. C/O 50 KEIL DR.N CHATHAM ON N7M
5M1

Database:
GEN

PO Box Num:
Status:
Country:
Generator #: ON0178229
Approval Yrs:: 94,95,96
SIC Code: 0711
SIC Description: CONV. OIL & GAS IND.

--Details--

Waste Code: 212
Waste Description: ALIPHATIC SOLVENTS

Site: UNION GAS LTD
NEW DUNDEE GATE STATION LOT 10 BEASLEY SURVEY WATERLOO TWP ON

Database:
GEN

PO Box Num:
Status:
Country:
Generator #: ON0178229
Approval Yrs:: 92,93,97
SIC Code: 0711
SIC Description: CONV. OIL & GAS IND.

--Details--

Waste Code: 212
Waste Description: ALIPHATIC SOLVENTS

Waste Code: 263
Waste Description: ORGANIC LABORATORY CHEMICALS

Site: K & H QUICKFALL LTD
LOT 10 RR 2 GCT-WOOLWICH WATERLOO ON N2G 3W5

Database:
PRT

Location ID: 16473
Type: private
Expiry Date:
Capacity (L): 22730.00
Licence #: 0001030964

Site: MINISTRY OF TRANSPORTATION & COMMUNICATION
LOT 9 CON NBR WILMOT TWP ON

Database:
PRT

Location ID: 17088
Type: private
Expiry Date:
Capacity (L): 18184.00
Licence #: 0001032975

Appendix: Database Descriptions

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

Abandoned Aggregate Inventory:

Provincial

[AAGR](#)

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

Government Publication Date: Sept 2002*

Aggregate Inventory:

Provincial

[AGR](#)

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

Government Publication Date: Up to Sep 2016

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-Nov 2016

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

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: Oct 31, 2016

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 2014

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*

Commercial Fuel Oil Tanks:

Provincial

CFOT

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

Government Publication Date: Feb 28, 2017

Chemical Register:

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: Oct 31, 2016

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 31, 2012

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-Jan 2017

Certificates of Property Use:

Provincial

CPU

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

Government Publication Date: 1994-Mar 2017

Drill Hole Database:

Provincial

DRL

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

Government Publication Date: 1886-Aug 2015

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 2017

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-Mar 2017

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 2017

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 2016

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

The Emergency Management Historical Event data class will store the locations of historical occurrences of emergency events. Events captured will include 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.

Government Publication Date: May 31, 2014

List of TSSA Expired Facilities:

Provincial

EXP

This is a list of all expired facilities that fall under the TSSA (TSSA Act & Safety Regulations), including the six regulations that exist under the Fuels Safety Division. It will include facilities such as private fuel outlets, bulk plants, fuel oil tanks, gasoline stations, marinas, propane filling stations, liquid fuel tanks, piping systems, etc. These tanks have been removed and automatically fall under the expired facilities inventory held by TSSA.

Government Publication Date: Feb 28, 2017

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.

Government Publication Date: June 2000-Aug 2016

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-Sept 2003

Fuel Storage Tank:

Provincial

FST

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

Government Publication Date: Feb 28, 2017

Fuel Storage Tank - Historic:

Provincial

FSTH

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

Government Publication Date: Pre-Jan 2010*

Ontario Regulation 347 Waste Generators Summary:

Provincial

GEN

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

Government Publication Date: 1986-Sep 2016

Greenhouse Gas Emissions from Large Facilities:

Federal

GHG

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

Government Publication Date: 2013 - Dec 2014

TSSA Historic Incidents:

Provincial

HINC

This database will cover all incidences recorded by TSSA with their older system, before they moved to their new management system. 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, TSSA regulates fuel suppliers, storage facilities, transport trucks, pipelines, contractors and equipment or appliances that use fuels. The TSSA works to protect the public, the environment and property from fuel-related hazards such as spills, fires and explosions. This database will include spills and leaks from pipelines, diesel, fuel oil, gasoline, natural gas, propane and hydrogen recorded by the TSSA.

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*

TSSA Incidents:

Provincial

INC

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, TSSA regulates fuel suppliers, storage facilities, transport trucks, pipelines, contractors and equipment or appliances that use fuels. Includes incidents from fuel-related hazards such as spills, fires and explosions. This database will include spills and leaks from diesel, fuel oil, gasoline, natural gas, propane and hydrogen recorded by the TSSA.

Government Publication Date: Feb 28, 2017

Landfill Inventory Management Ontario:

Provincial

LIMO

The Landfill Inventory Management Ontario (LIMO) database is updated every year, as the ministry compiles new and updated information. The inventory will include small and large landfills. Additionally, each year the ministry will request operators of the larger landfills complete a landfill data collection form that will be used to update LIMO and will include the following information from the previous operating year. This will include additional information such as 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 will include information such as site owner, site location and certificate of approval # and status.

Government Publication Date: Dec 31, 2013

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 2016

National Analysis of Trends in Emergencies System (NATES):

Federal

NATE

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

Government Publication Date: 1974-1994*

Non-Compliance Reports:

Provincial

NCPL

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

Government Publication Date: Dec 31, 2014

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-Aug 2010

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 Wells:

Federal

NEBW

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

Government Publication Date: 1920-Feb 2003*

National Environmental Emergencies System (NEES):

Federal

NEES

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

Government Publication Date: 1974-2003***National PCB Inventory:**

Federal

NPCB

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

Government Publication Date: 1988-2008***National Pollutant Release Inventory:**

Federal

NPRI

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

Government Publication Date: 1993-2014**Oil and Gas Wells:**

Private

OGW

The Nickle's Energy Group (publisher of the Daily Oil Bulletin) collects information on drilling activity including operator and well statistics. The well information database includes name, location, class, status and depth. The main 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-Jan 2017**Ontario Oil and Gas Wells:**

Provincial

OOGW

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

Government Publication Date: 1800-Oct 2016**Inventory of PCB Storage Sites:**

Provincial

OPCB

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

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

Provincial

ORD

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

Government Publication Date: 1994-Mar 2017**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**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: 1988-Oct 2016

TSSA Pipeline Incidents:

Provincial PINC

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, TSSA regulates fuel suppliers, storage facilities, transport trucks, pipelines, contractors and equipment or appliances that use fuels. This database will include spills, strike and leaks from recorded by the TSSA.

Government Publication Date: Feb 28, 2017

National Energy Board Pipeline Incidents:

Federal PIPELINE INCIDENTS

Locations of pipeline incidents from 2008 to present, made available by 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 2016

Private and Retail Fuel Storage Tanks:

Provincial PRT

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

Government Publication Date: 1989-1996*

Permit to Take Water:

Provincial PTTW

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

Government Publication Date: 1994-Mar 2017

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: 1986-2013

Record of Site Condition:

Provincial RSC

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

RSCs filed after July 1, 2011 will also be included as part of the new (O.Reg. 511/09).

Government Publication Date: 1997-Sept 2001, Oct 2004-Dec 2016

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: Oct 31, 2016

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

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-Dec 2016

Wastewater Discharger Registration Database:

Provincial

SRDS

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

Government Publication Date: 1990-2014

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-Jan 2015

TSSA Variances for Abandonment of Underground Storage Tanks:

Provincial

VAR

The TSSA, under the Liquid Fuels Handling Code and the Fuel Oil Code, all underground storage tanks must be removed within two years of disuse. If removal of a tank is not feasible, you may apply to seek a variance from this code requirement. This is a list of all variances granted for abandoned tanks.

Government Publication Date: Feb 28, 2017

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: 1970-Mar 2017

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 30th, 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: Jun 30, 2016

Definitions

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

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

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

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

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

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

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

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

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

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

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

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

APPENDIX G

QUALIFICATIONS OF ASSESSOR



**Environmental
Site
Assessor**

Mr. Dao has over 5 years of experience in geological, geotechnical and environmental investigations in the mining and municipal sectors.

Mr. Dao has specialized in the environmental inspection and assessment of residential, commercial, and industrial properties for a broad range of clients in the property management, insurance, automotive, and manufacturing sectors.

Education

Masters of Science, Earth and Environmental Science, McMaster University, 2011.
Honours Bachelor of Science, Earth and Environmental Science, McMaster University, 2009.

**Professional
Affiliations**

Association of Professional Geoscientists of Ontario, 2015 – Present

**Project
Experience**

Mr. Dao has conducted over 20 Phase I and Phase II Environmental Site Assessments (ESA's) for various commercial and industrial properties including service stations, shopping plazas, apartment buildings and industrial manufacturing facilities.