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Phase I Environmental Site Assessment

Vacant and Agricultural Property
Terry Fox Drive at Cope Drive
Ottawa, Ontario

Prepared For

Claridge Homes

May 8, 2018

Report: PE4263-1

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EXECUTIVE SUMMARY

Assessment

A Phase I – Environmental Site Assessment was carried out for part of 5331 Fernbank Road and part of 1039 Terry Fox Drive, in the City of Ottawa, Ontario. The purpose of this environmental assessment was to research the past and current use of the subject site and adjacent properties and identify any environmental concerns with the potential to impact the subject property.

Based on a review of historical sources, the subject property appears to have never been formally developed. No historical potentially contaminating activities (PCAs) were identified on the Phase I property. Surrounding properties have historically been used for agricultural purposes, until the area was developed for commercial and residential purposes. The former use of the Trans Canada Trail along the northern boundary of the site as a railway track is considered to be a Potentially Contaminating Activity. However, based on the absence of fueling or maintenance operations, and its redevelopment as a recreational trail, this PCA is not considered to represent an APEC on the subject site.

Following the historical review, a site visit was conducted. The subject property currently exists as a vacant, grass covered lot of land at the north corner of the intersection of Fernbank Road and Terry Fox Drive. No PCAs were identified on the subject property.

The surrounding land use consisted of commercial and vacant properties. A Jiffy Lube automotive garage was identified as a PCA across Terry Fox Drive, at 5357 Fernbank Road. Based on its distance (50 m) and recent age (2015), this PCA was not considered to represent an Area of Potential Environmental Concern (APEC).

Conclusion

Based on the results of this Phase I - Environmental Site Assessment, it is our opinion that **a Phase II - Environmental Site Assessment is not required for the property.**

1.0 INTRODUCTION

At the request of Claridge Homes, Paterson Group (Paterson) conducted a Phase I - Environmental Site Assessment (Phase I ESA) of a vacant property at the intersection of Terry Fox Drive and Cope Drive, in the City of Ottawa, Ontario. The purpose of this Phase I ESA was to research the past and current use of the site and study area and to identify any environmental concerns with the potential to have impacted the subject property.

Paterson was engaged to conduct this Phase I ESA by Mr. Jim Burghout of Claridge Homes. Claridge's offices are located at 2001-210 Gladstone Avenue, Ottawa, Ontario.

This report has been prepared specifically and solely for the above noted project which is described herein. It contains all of our findings and results of the environmental conditions at this site.

This Phase I ESA report has been prepared in general accordance with the requirements of Ontario Regulation 153/04 as amended by O.Reg. 269/11 (Environmental Protection Act), and also complies with the requirements of CSA Z768-01. The conclusions presented herein are based on information gathered from a limited historical review and field inspection program. The findings of the Phase I ESA are based on a review of readily available geological, historical and regulatory information and a cursory review made at the time of the field assessment. The historical research relies on information supplied by others, such as local, provincial and federal agencies and was limited within the scope-of-work, time and budget of the project herein.

2.0 PHASE I PROPERTY INFORMATION

Addresses: Northern Part of 5331 Fernbank Road, and Part of 1039 Terry Fox Drive, Ottawa, Ontario.

Legal Descriptions: Part of Lot 30 and Part of the Road Allowance Between Lots 30 and 31, Concession 10, Geographic Township of Goulbourn, in the City of Ottawa, Ontario.

Property Identification Numbers (PINs): 04744-0397; 04744-0158; 04744-0168; 04744-0404

Location: The subject site is located on the north corner of the intersection of Terry Fox Drive and Cope Drive.

Latitude and Longitude: 45° 16' 48" N, 75° 52' 36" W

Site Description:

Configuration: Irregular.

Site Area: 3.56 ha + 18.08 ha (approximate)

Zoning: IP – Business Park Industrial Zone; R3 – Residential Third Density; R4 – Residential Fourth Density;)1 – Parks and Open Space; EP3 – Environmental Zone.

Current Use: The subject site is vacant. The southern portion is used for agricultural purposes.

Services: The subject site is situated in a municipally serviced area.

3.0 SCOPE OF INVESTIGATION

The scope of work for this Phase I – Environmental Site Assessment was as follows:

- Determine the historical activities on the subject site and study area by conducting a review of readily available records, reports, photographs, plans, mapping, databases and regulatory agencies;
- Investigate the existing conditions present at the subject site and study area by conducting site reconnaissance;
- Conduct interviews with persons knowledgeable of current and historic operations on the subject property, and if warranted, neighbouring properties;
- Present the results of our findings in a comprehensive report in general accordance with the requirements of Ontario Regulation 269/11 amending O.Reg. 153/04 made under the Environmental Protection Act and in compliance with the requirements of CSA Z768-01;
- Provide a preliminary environmental site evaluation based on our findings;
- Provide preliminary remediation recommendations and further investigative work if contamination is suspected or encountered.

4.0 RECORDS REVIEW

4.1 General

Phase I ESA Study Area Determination

A radius of approximately 250 m was determined to be appropriate as a Phase I ESA study area for this assignment. Properties outside the 250 m radius are not considered to have impacted the subject land, based on their significant distance from the site.

First Developed Use Determination

Based on a review of historically available information, the Phase I property appears to have always been vacant. The property has never been developed.

National Archives

Fire insurance plans and city directories are not available for the Phase I study area.

Draft Plan of Subdivision

A draft plan of subdivision for the southern part of the subject property, prepared by Annis, O'Sullivan, Vollebekk Ltd., was reviewed as a part of this assessment. The plan depicts the subject site in its current configuration with proposed subdivisions.

Previous Engineering Reports

Paterson has conducted several environmental and geotechnical projects in the area of the subject site. No environmental concerns with respect to the subject site were identified during the review of previous reports completed by Paterson.

4.2 Environmental Source Information

Environment Canada

A search of the National Pollutant Release Inventory (NPRI) was conducted electronically on May 3, 2018. The subject site and Phase I study area were not listed in the NPRI database.

PCB Inventory

A search of national PCB waste storage sites was conducted. No PCB waste storage sites are located within the Phase I study area.

Ontario Ministry of Environment and Climate Change (MOECC) Instruments

A request was submitted to the MOECC Freedom of Information office for information with respect to certificates of approval, permits to take water, certificates of property use or any other similar MOECC issued instruments for the site. At the time of issuing this report, a response from the MOECC had not been received.

MOECC Coal Gasification Plant Inventory

The Ontario Ministry of Environment and Climate Change document titled "Municipal Coal Gasification Plant Site Inventory, 1991" was reviewed to reference the locations of former plants with respect to the site. No coal gasification plants were identified in the Phase I study area.

MOECC Incident Reports

A request was submitted to the MOECC Freedom of Information office for information with respect to records concerning environmental incidents, orders, offences, spills, discharges of contaminants or inspections maintained by the MOECC for the site or adjacent properties. At the time of issuing this report, a response from the MOECC had not been received.

MOECC Waste Management Records

A request was submitted to the MOECC Freedom of Information office for information with respect to waste management records. At the time of issuing this report, a response from the MOECC had not been received.

MOECC Submissions

A request was submitted to the MOECC Freedom of Information office for information with respect to reports related to environmental conditions for the property. At the time of issuing this report, a response from the MOECC had not been received.

MOECC Brownfields Environmental Site Registry

A search of the MOECC Brownfields Environmental Site Registry was conducted as part of this assessment for the site, neighbouring properties and the Phase I study area. No Records of Site Condition (RSCs) were filed for the subject site or properties within the Phase I study area.

MOECC Waste Disposal Site Inventory

The Ontario Ministry of Environment and Climate Change document titled "Waste Disposal Site Inventory in Ontario, 1991" was reviewed as part of the historical research. This document includes all recorded active and closed waste disposal sites, industrial manufactured gas plants and coal tar distillation plants in the Province of Ontario. No records were listed for the subject site or for properties within the Phase I study area.

Areas of Natural Significance

A search for areas of natural significance and features within the Phase I study area was conducted on the web site of the Ontario Ministry of Natural Resources and Forestry (MNRF) on May 3, 2018. No areas of natural significance were identified on the subject site or within the Phase I study area.

Technical Standards and Safety Authority (TSSA)

The TSSA, Fuels Safety Branch in Toronto was contacted electronically on May 3, 2018 to inquire about current and former underground storage tanks, spills and incidents for the site and neighbouring properties. The response from the TSSA returned a record for a cylinder exchange facility at 5357 Fernbank Road. This facility does not pose a concern to the subject property.

City of Ottawa Landfill Document

The document entitled "Old Landfill Management Strategy, Phase I – Identification of Sites, City of Ottawa", was reviewed. No landfill sites were identified within the Phase I study area.

4.3 Physical Setting Sources

Aerial Photographs

Historical air photos from the National Air Photo Library were reviewed in approximate ten (10) year intervals. The review period dates to the first available air photos for the site. Based on the review, the following observations have been made:

- | | |
|------|--|
| 1945 | The subject site is a vacant agricultural field, with some tree cover in the northeast corner. Two creeks or drainage ditches traverse the central part of the site. Surrounding properties are also agricultural fields, with the exception of a woodland to the northeast. Hazeldean Side Road is visible on the east side of the subject site, and a railroad is present along the northern border of the site. |
| 1976 | (City of Ottawa website) No changes have been made to the subject site. Residential developments are present to the north, on Glamorgan Drive and Castlefrank Road. |
| 1984 | No changes have been made to the subject site or properties in the Phase I study area. The railroad to the north appears to have been removed. Residential developments are present further to the east, on the east side of Eagleson Road. |
| 1993 | A hydro corridor has been constructed, dividing the property into a northern and southern portion. Part of the northern half of the property appears to be unused, while the southern portion is an agricultural field. Michael Cowpland Drive has been built 95 m to the east. The railroad to the north of the subject property appears to have been converted to a recreational trail (Trans Canada Trail). |
| 1998 | No significant changes have been made to the subject site or surrounding properties. |
| 2005 | (City of Ottawa website) No changes have been made to the subject site. A pumping station has been constructed to the northeast of the subject site. Terry Fox Drive has been constructed along the western side of the subject property, and Cope Drive appears to be under construction. |

- | | |
|------|--|
| 2008 | (City of Ottawa website) No changes have been made to the subject site. Northgraves Crescent is under construction to the east of the subject property. |
| 2017 | (City of Ottawa website) Two small areas of the subject property along Terry Fox Drive have been cleared of vegetation and appear to be used for roadside vendors or billboards. The lands to the west of Terry Fox Drive are under development with residential dwellings, and a large commercial building (Walmart) has been constructed to the south of the subject property, on Terry Fox Drive. |

The former presence of a railway track to the north of the subject property is considered to be a Potentially Contaminating Activity. However, considering it was a main line with no ancillary activities and its redevelopment as a recreational trail, it is not considered to represent an Area of Potential Environmental Concern on the subject property.

Laser copies of selected aerial photographs reviewed are included in Appendix 1.

Topographic Maps

Topographic information was obtained from Natural Resources Canada – The Atlas of Canada website. The topographic maps indicate that the elevation of the subject site is approximately 95 m above sea level. The regional topography in the general area of the site slopes slightly downward towards Mahoney Creek, which traverses the site. An illustration of the referenced topographic map is presented on Figure 2 – Topographic Map, appended to this report.

Physiographic Maps

A Physiographic Map was reviewed from the Natural Resources Canada – The Atlas of Canada website, as a part of this assessment. According to the publication and mapping, the site is situated within the St. Lawrence Lowlands, Till Plains (Drumlinized) physiographic region. According to the mapping description provided: “The lowlands are plain-like areas that were all affected by the Pleistocene glaciations and are therefore covered by surficial deposits and other features associated with the ice sheets.” The subject site is in the Central St. Lawrence Lowland, “where the land is rarely more than 150 m above sea level, except for the Monteregion Hills, which consist of intrusive igneous rocks.

Geological Maps

The Geological Survey of Canada website on the Urban Geology of the National Capital Area was consulted as part of this assessment. Based on this information, bedrock in the area of the site consists of interbedded limestone and dolomite of the Gull River Formation. Overburden consists of offshore and nearshore marine sediments and some organic deposits, with a drift thickness of 10 to 50 m (deepest at the south).

Water Well Records

A search of the MOECCs web site for all drilled well records within 250 m of the subject site was conducted on May 4, 2018. Based on the search results, one water supply well, drilled in 1949, is reported to be present on the subject site. Four (4) water supply wells and seven (7) monitoring well records were identified in the Phase I study area. Active water supply wells are not likely to be present in the Phase I study area.

Water Bodies and Areas of Natural Significance

A stormwater management pond is present to the west of the subject site, across Terry Fox Drive. Mahoney Creek is the closest major water body, which traverses the subject property. No other creeks, streams, lakes or other water bodies were identified in the area. The area around Mahoney Creek is an Environmental Protection Zone. No areas of natural significance were identified within the Phase I study area.

5.0 SITE RECONNAISSANCE

5.1 General Requirements

The site assessment was conducted on May 8, 2018. Weather conditions were sunny, with a temperature of approximately 21 °C. Personnel from the Environmental Department of Paterson Group conducted the site visit. In addition to the site, the uses of neighbouring properties within the Phase I study area were also assessed at the time of the site visit.

5.2 Specific Observations at Phase I Property

Buildings and Structures

The subject site is a vacant lot of land. No buildings or structures exist on the subject property. A depiction of the subject site is shown on Drawing PE4263-1 – Site Plan, in the Figures section of this report.

Site Features

The subject site is not developed with any buildings and exists as a vacant lot of grassed land. No hazardous materials were observed on the subject site.

Underground Utilities

The subject site has no underground utilities.

Waste Materials

No waste materials were present on the subject site at the time of the site visit.

Storage Tanks

No storage tanks were present on the subject site at the time of the site visit.

Drains, Pits and Sumps

No drains, pits or sumps were present on the subject site at the time of the site visit.

Unidentified Substances

No unidentified substances were present on the subject site at the time of the site visit.

Hazardous Building Materials

No hazardous building materials were present on the subject site at the time of the site visit.

Phase I Study Area

An inspection of the neighbouring properties was conducted from publicly accessible roadways at the time of the site visit. Land use adjacent to the subject site was as follows:

- ☐ North - Trans Canada Trail and pumping station, followed by residential dwellings, a medical clinic, Canadian Wildlife Federation, and Kanata Montessori School;
- ☐ South - Terry Fox Drive and Cope Drive, followed by a Walmart and Jiffy Lube, agricultural fields, and a stormwater management pond;
- ☐ East - Vacant land, residential dwellings, and Mahoney Creek;
- ☐ West - Terry Fox Drive, followed by vacant land, residential dwellings, and a stormwater management pond.

The Jiffy Lube is considered to be a Potentially Contaminating Activity. However, based on the recent age of the business, and its distance from the subject site (approximately 65 m), the service garage is not considered to represent an Area of Potential Environmental Concern on the subject property. No other PCAs were identified on the neighbouring properties in the Phase I study area. Property use within the Phase I study area is presented on Drawing PE4263-2 – Surrounding Land Use Plan.

6.0 REVIEW AND EVALUATION OF INFORMATION

6.1 Land Use History

The subject site appears to have never been developed. The site currently exists as a partially vacant, partially agricultural property.

Potentially Contaminating Activities (PCAs)

Potentially Contaminating Activities (PCAs) were not identified on the subject site. Two PCAs, a Jiffy Lube automotive garage on the property to the south of the subject site, across the intersection of Terry Fox Drive and Cope Drive, and the former railway tracks to the north of the subject property, were identified as PCAs in the Phase I study area.

Areas of Potential Environmental Concern (APECs)

No Areas of Potential Environmental Concern (APECs) were identified on the subject site. Base on the age (2015) of the Jiffy Lube on the property to the west and the repurposing of the railway tracks as a recreational trail, the PCAs are not considered to represent APECs on the subject property.

Contaminants of Potential Concern (CPCs)

No contaminants of concern (CPCs) were identified on the Phase I property.

6.2 Conceptual Site Model

Existing Buildings and Structures

The subject site is a vacant and partly agricultural lot of land. No buildings or structures exist on the subject property.

Geological and Hydrogeological Setting

The subject site is located in an area of limestone and dolomite bedrock with marine sediment overburden of 10 to 50 m in depth. Groundwater flow is expected to flow to the central part of the site, towards Mahoney Creek.

Water Bodies

Mahoney Creek traverses the central part of the site from west to east. Two stormwater management ponds are present in the Phase I study area, on the west side of Terry Fox Drive.

Areas of Natural Significance

No areas of natural significance were identified within the Phase I study area.

Water Wells

A search of the MOECC's web site for all drilled well records within 250 m of the subject site was conducted on May 4, 2018. Based on the search results, one water supply well is reported to be located on the subject site. However, based on its age (1949), it is not expected to be in current use. Four (4) water supply wells and seven (7) monitoring well records were identified in the Phase I study area. Active water supply wells are not likely to be present in the Phase I study area.

New developments in the Phase I area receive full municipal services.

Neighbouring Land Use

Neighbouring land use in the Phase I study area is currently vacant, residential, agricultural, or commercial. Neighbouring land use does not pose an environmental concern to the subject site.

Potentially Contaminating Activities and Areas of Potential Environmental Concern

As per Section 7.1 of this report, no PCAs were identified on the subject site or in the Phase I study area that represent Areas of Potential Environmental Concern.

Contaminants of Potential Concern

No CPCs were identified on the subject site.

Assessment of Uncertainty and/or Absence of Information

The information available for review as part of the preparation of this Phase I ESA is considered to be sufficient to conclude that there are no APECs on the subject site. The presence of a PCA was confirmed by a variety of independent sources, and as such, the conclusions of this report are not affected by uncertainty which may be present with respect to the individual sources.

7.0 CONCLUSION

Assessment

A Phase I – Environmental Site Assessment was carried out for part of 5331 Fernbank Road and part of 1039 Terry Fox Drive, in the City of Ottawa, Ontario. The purpose of this environmental assessment was to research the past and current use of the subject site and adjacent properties and identify any environmental concerns with the potential to impact the subject property.

Based on a review of historical sources, the subject property appears to have never been formally developed. No historical potentially contaminating activities (PCAs) were identified on the Phase I property. Surrounding properties have historically been used for agricultural purposes, until the area was developed for commercial and residential purposes. The former use of the Trans Canada Trail along the northern boundary of the site as a railway track is considered to be a Potentially Contaminating Activity. However, based on the absence of fueling or maintenance operations, and its redevelopment as a recreational trail, this PCA is not considered to represent an APEC on the subject site.

Following the historical review, a site visit was conducted. The subject property currently exists as a vacant, grass covered lot of land at the north corner of the intersection of Fernbank Road and Terry Fox Drive. No PCAs were identified on the subject property.

The surrounding land use consisted of commercial and vacant properties. A Jiffy Lube automotive garage was identified as a PCA across Terry Fox Drive, at 5357 Fernbank Road. Based on its distance (50 m) and recent age (2015), this PCA was not considered to represent an Area of Potential Environmental Concern (APEC).

Conclusion

Based on the results of this Phase I - Environmental Site Assessment, it is our opinion that **a Phase II - Environmental Site Assessment is not required for the property.**

8.0 STATEMENT OF LIMITATIONS

This Phase I - Environmental Site Assessment report has been prepared in general accordance with O.Reg. 153/04 as amended by O.Reg. 269/11, and meets the requirements of CSA Z768-01. The conclusions presented herein are based on information gathered from a limited historical review and field inspection program. The findings of the Phase I ESA are based on a review of readily available geological, historical and regulatory information and a cursory review made at the time of the field assessment. The historical research relies on information supplied by others, such as, local, provincial and federal agencies and was limited within the scope-of-work, time and budget of the project herein.

Should any conditions be encountered at the subject site and/or historical information that differ from our findings, we request that we be notified immediately in order to allow for a reassessment.

This report was prepared for the sole use of Claridge Homes. Permission and notification from Claridge Homes and Paterson will be required to release this report to any other party.

Paterson Group Inc.



Anna Graham, M.E.S.



Mark S. D'Arcy, P.Eng., QP_{ESA}



Report Distribution:

- Claridge Homes
- Paterson Group Inc.

9.0 REFERENCES

Federal Records

Air photos at the Energy Mines and Resources Air Photo Library.
National Archives.
Maps and photographs (Geological Survey of Canada surficial and subsurface).
Natural Resources Canada – The Atlas of Canada.
Environment Canada, National Pollutant Release Inventory.
PCB Waste Storage Site Inventory.

Provincial Records

MOECC Freedom of Information and Privacy Office.
MOECC Municipal Coal Gasification Plant Site Inventory, 1991.
MOECC document titled “Waste Disposal Site Inventory in Ontario”.
MOECC Brownfields Environmental Site Registry.
Office of Technical Standards and Safety Authority, Fuels Safety Branch.
MNR Areas of Natural Significance.
MOECC Water Well Inventory.
Chapman, L.J., and Putnam, D.F., 1984: ‘The Physiography of Southern Ontario, Third Edition’, Ontario Geological Survey Special Volume 2.

Municipal Records

City of Ottawa Document “Old Landfill Management Strategy, Phase I - Identification of Sites”, prepared by Golder Associates, 2004.
The City of Ottawa Historical Land Use Inventory.
Intera Technologies Limited Report “Mapping and Assessment of Former Industrial Sites, City of Ottawa”, 1988.
The City of Ottawa eMap website.

Local Information Sources

Previous Engineering Reports.
Draft Plan of Subdivision prepared by Annis, O’Sullivan, Vollebekk, Ltd.

Public Information Sources

Google Earth.
Google Maps/Street View.

FIGURES

FIGURE 1 – KEY PLAN

FIGURE 2 – TOPOGRAPHIC MAP

DRAWING PE4263-1 – SITE PLAN

DRAWING PE4263-2 – SURROUNDING LAND USE PLAN

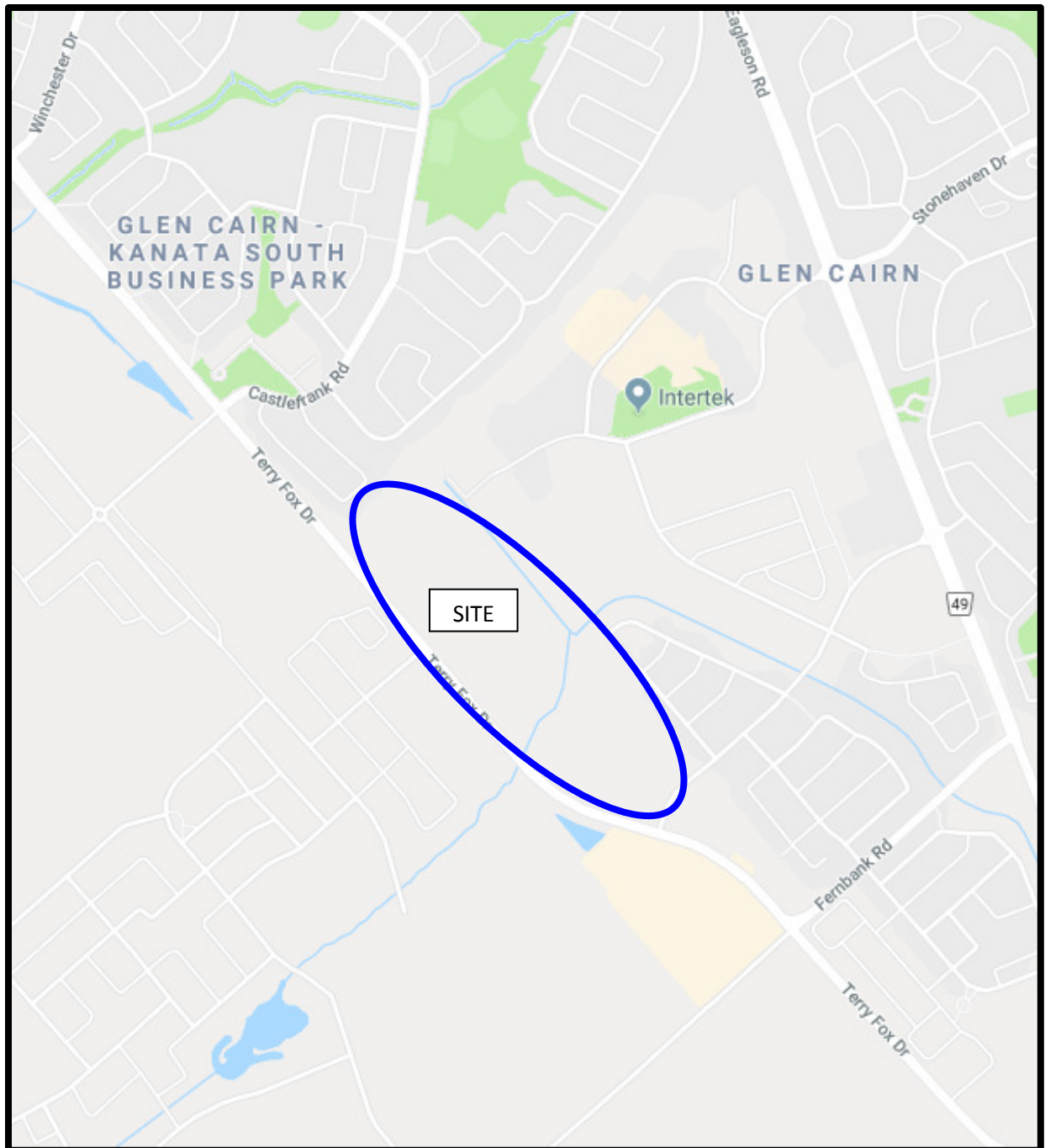


FIGURE 1
KEY PLAN

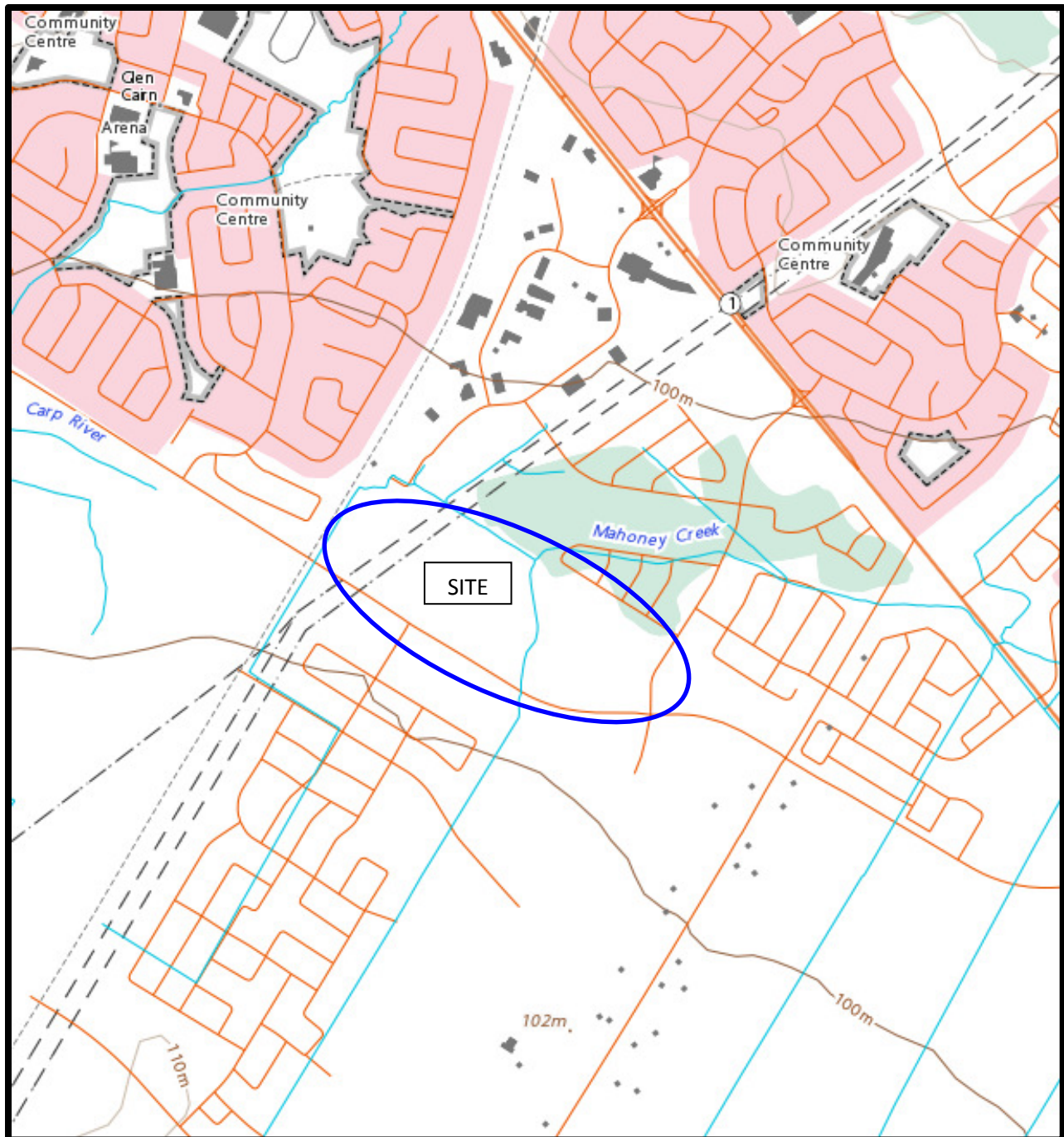
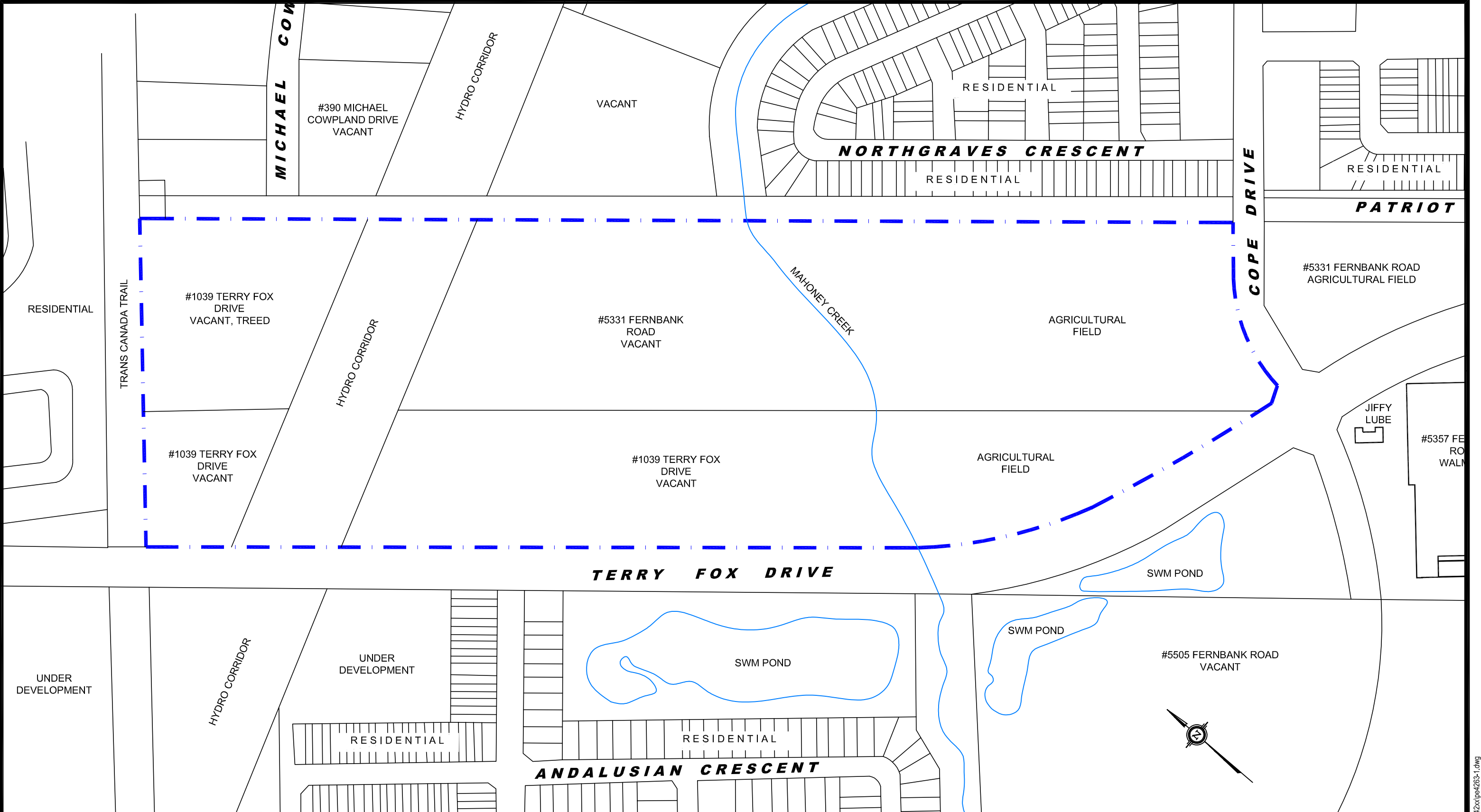


FIGURE 2
TOPOGRAPHIC MAP



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consulting engineers

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0			
NO.	REVISIONS	DATE	INITIAL

CLARIDGE HOMES
PHASE I ENVIRONMENTAL SITE ASSESSMENT
TERRY FOX DRIVE AT COPE DRIVE

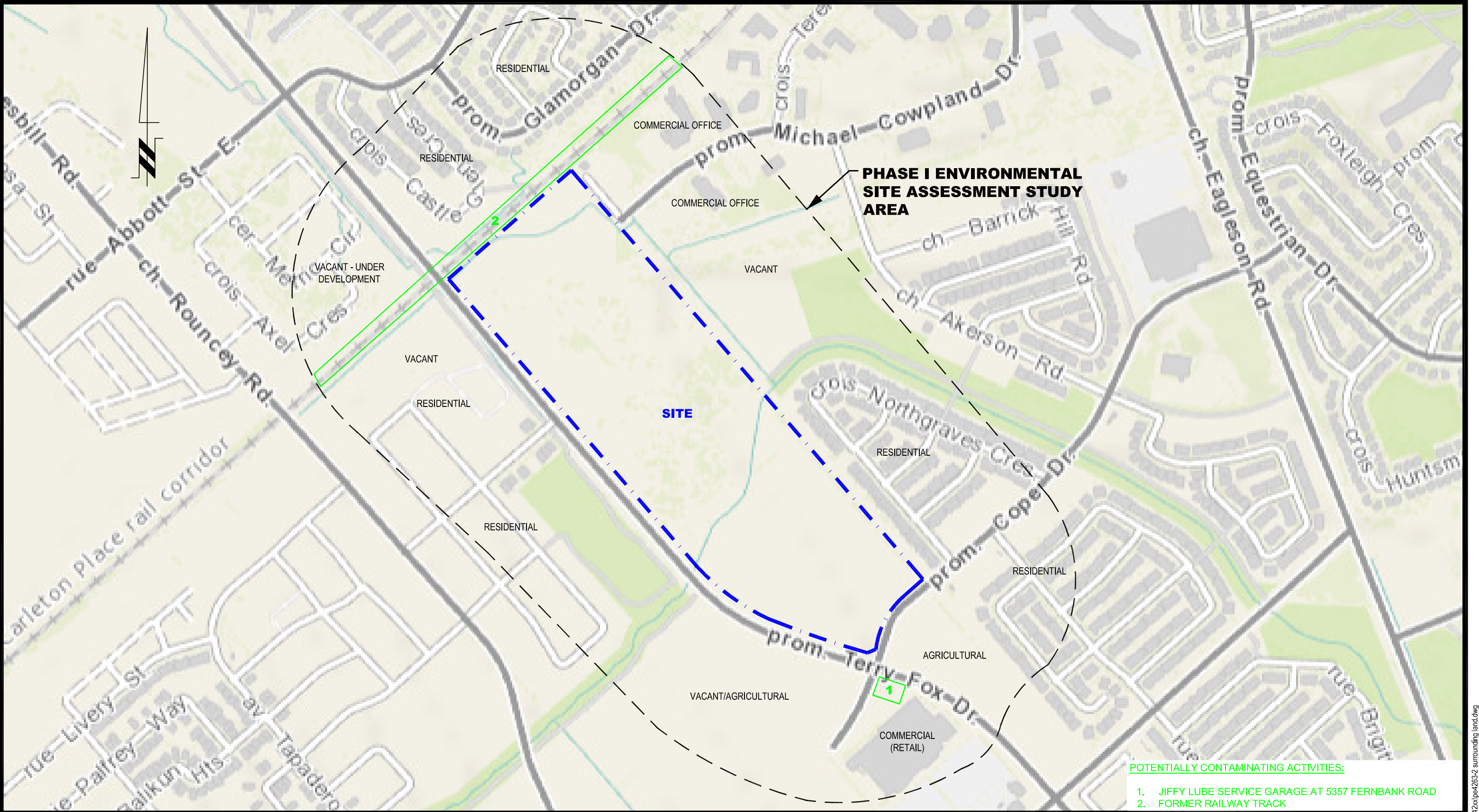
OTTAWA,
Title:

ONTARIO

SITE PLAN

Scale:	1:3000	Date:	05/2018
Drawn by:	AG	Report No.:	PE4263-1
Checked by:	AG	Dwg. No.:	PE4263-1
Approved by:	MD	Revision No.:	0

p:\autocad drawings\environmental\pe42xx\pe4263-1.dwg



- POTENTIALLY CONTAMINATING ACTIVITIES:
- 1. JIFFY LUBE SERVICE GARAGE AT 5357 FERNBANK ROAD
 - 2. FORMER RAILWAY TRACK

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consulting engineers

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Ottawa, Ontario K2E 7J5
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0			
NO.	REVISIONS	DATE	INITIAL

CLARDIGE HOMES	
PHASE I - ENVIRONMENTAL SITE ASSESSMENT	
VACANT PROPERTY AT TERRY FOX DRIVE AND COPE DRIVE	
OTTAWA,	ONTARIO
Title: SURROUNDING LAND USE PLAN	

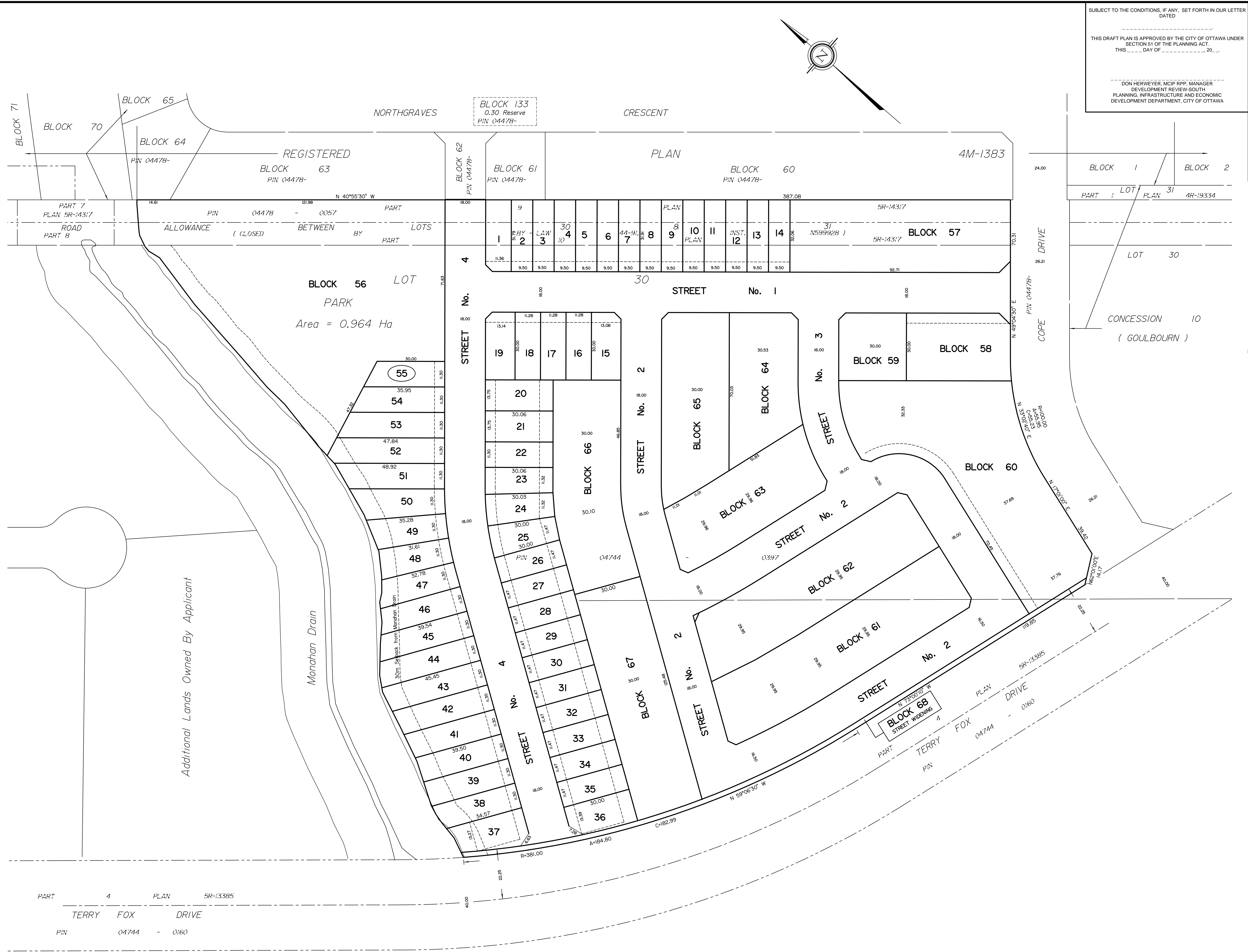
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Drawn by:	AG	Report No.:	PE4263-1
Checked by:	MD	Dwg. No.:	PE4263-2
Approved by:	MSD	Revision No.:	0

APPENDIX 1

DRAFT PLAN OF SUBDIVISION

AERIAL PHOTOGRAPHS

SITE PHOTOGRAPHS



SUBJECT TO THE CONDITIONS, IF ANY, SET FORTH IN OUR LETTER DATED _____

THIS DRAFT PLAN IS APPROVED BY THE CITY OF OTTAWA UNDER SECTION 51 OF THE PLANNING ACT, THIS _____ DAY OF _____, 20____.

DON HERWEYER, MCIP RPP, MANAGER
DEVELOPMENT REVIEW-SOUTH
PLANNING, INFRASTRUCTURE AND ECONOMIC
DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

KEY MAP
NOT TO SCALE

DRAFT PLAN OF SUBDIVISION OF
PART OF LOT 30
And
PART OF THE ROAD ALLOWANCE
BETWEEN LOTS 30 And 31
(As Closed by By-Law 44-99, Inst. N599928)
CONCESSION 10
Geographic Township of Goulbourn
CITY OF OTTAWA
Prepared by Annis , O'Sullivan , Vollebekk Ltd.

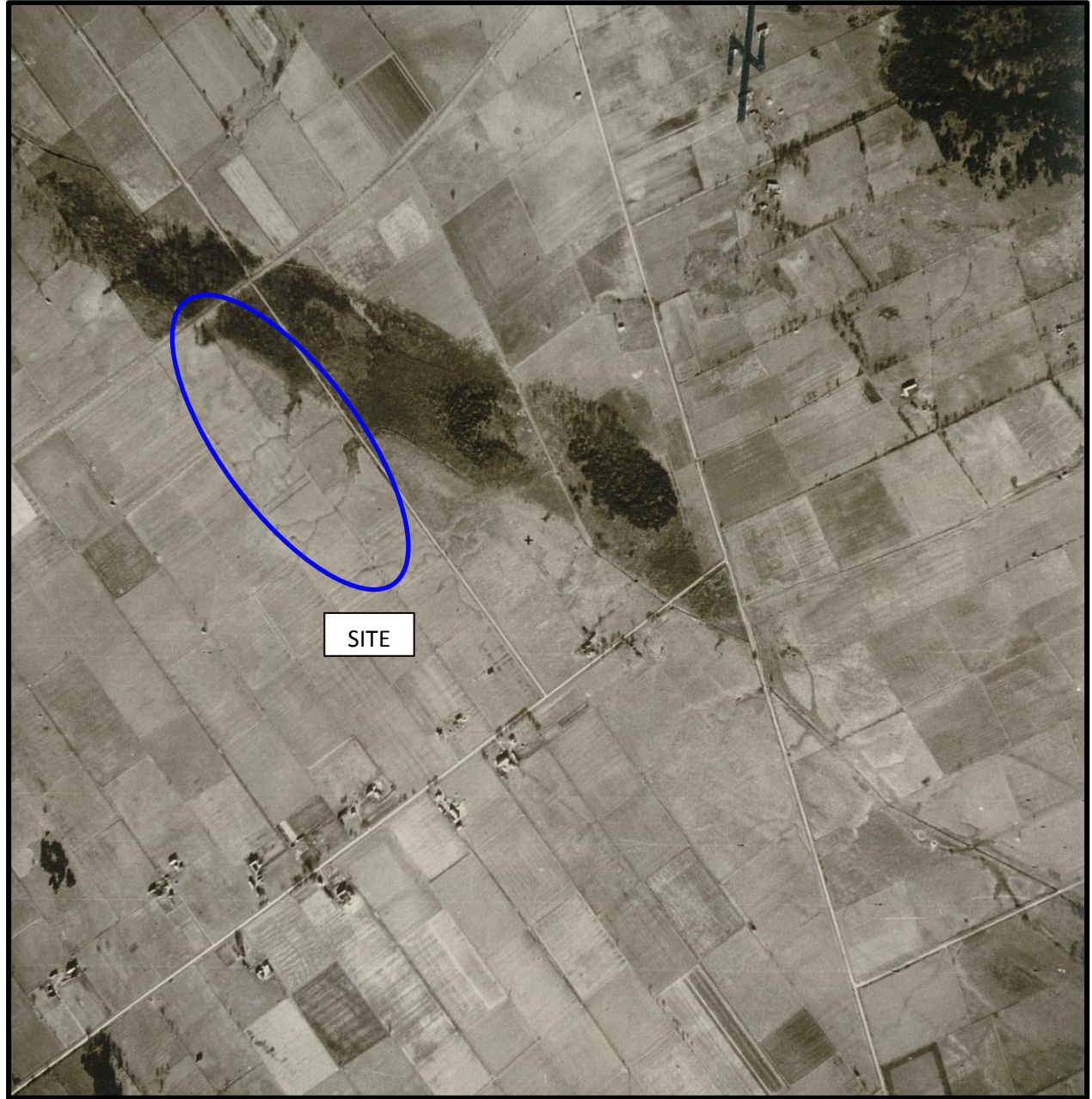
Scale 1 : 750
30 22.5 15 7.5 0 15 30 Metres

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

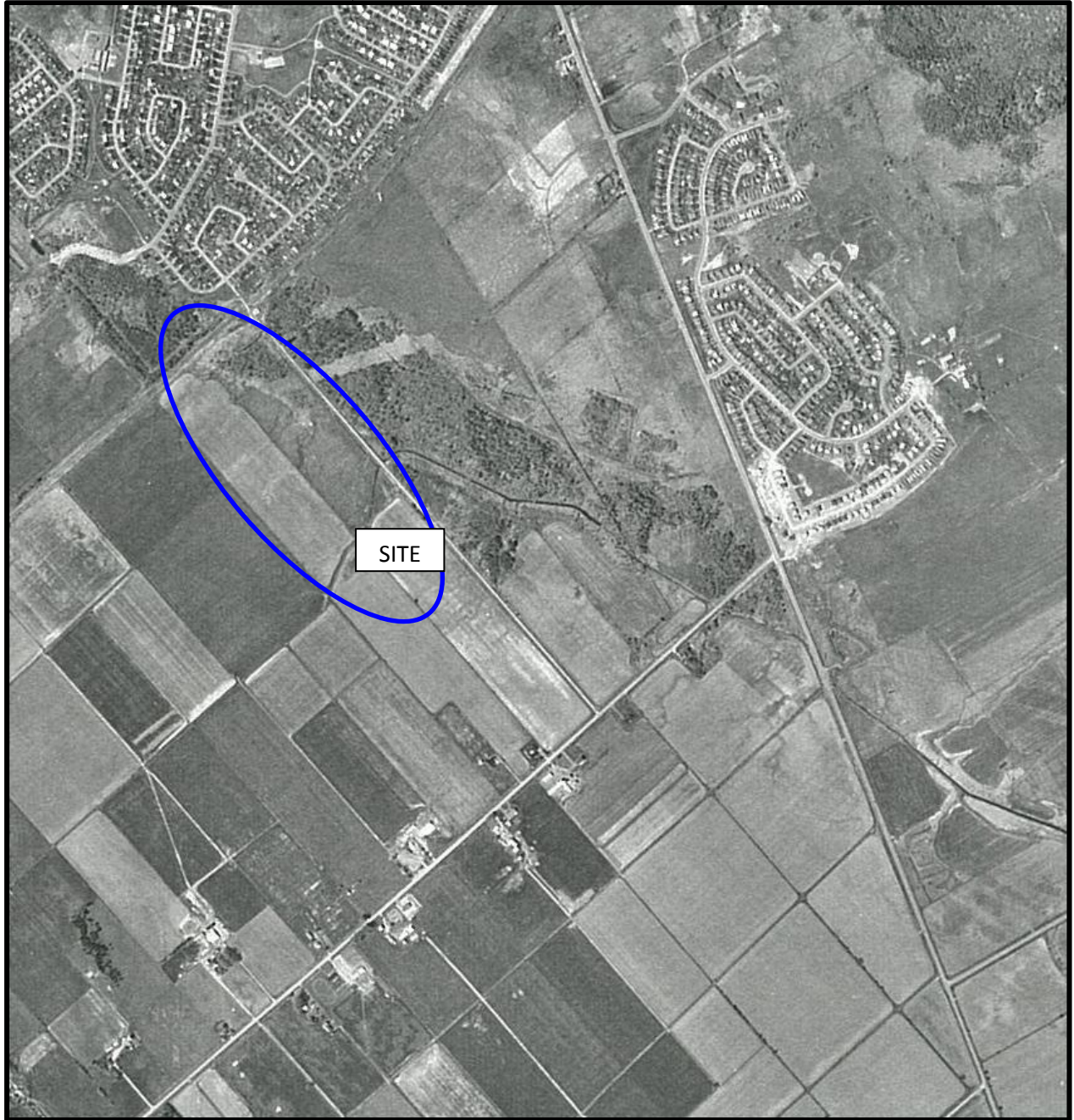
SURVEYOR'S CERTIFICATE
I CERTIFY THAT:
The boundaries of the lands to be subdivided and their relationship to
adjoining lands have been accurately and correctly shown.
Date _____ Andre Roy
ONTARIO LAND SURVEYOR

OWNER'S CERTIFICATE
This is to certify that we are the owners of the lands to be subdivided and that this plan
was prepared in accordance with our instructions.
Date _____ Jim Burghout
CLARIDGE HOMES () INC.
I have the authority to bind the corporation.

ADDITIONAL INFORMATION REQUIRED UNDER
SECTION 51-17 OF THE PLANNING ACT
(a) see plan
(b) see plan
(c) see plan
(d) multi-family residential housing
(e) see plan
(f) see plan
(g) see plan
(h) City of Ottawa
(i) see soils report
(j) see plan
(k) sanitary, storm sewers, municipal water, bell, hydro, cable and
gas to be available
(l) see plan



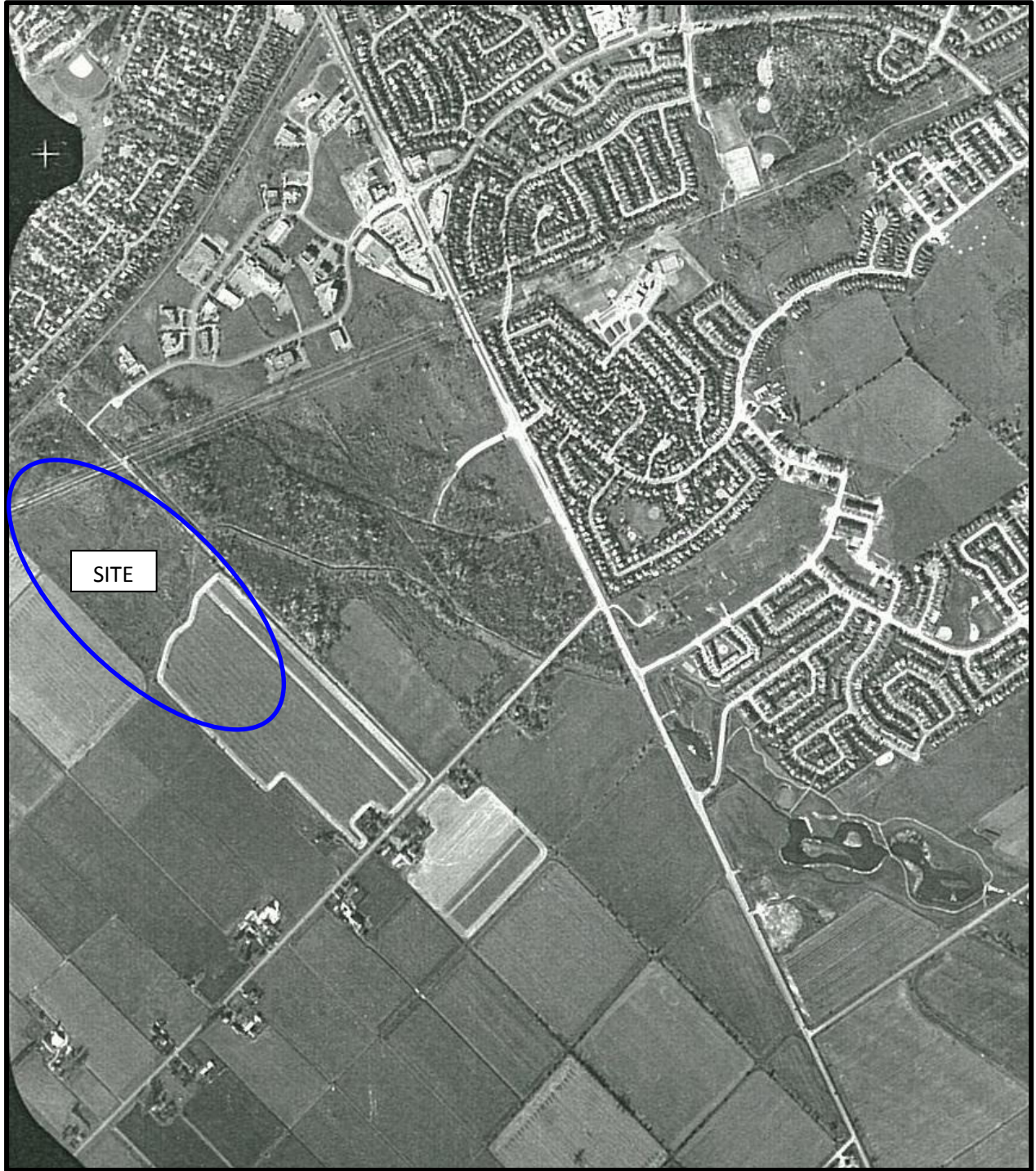
AERIAL PHOTOGRAPH
1945



AERIAL PHOTOGRAPH
1984



AERIAL PHOTOGRAPH
1993



AERIAL PHOTOGRAPH
1998



AERIAL PHOTOGRAPH
2017

Site Photographs

PE4263

Terry Fox Drive at Cope Drive, Ottawa (Kanata) Ontario

May 8, 2018



Photograph 1: View of the subject site and hydro corridor, looking east from Terry Fox Drive.



Photograph 2: View of the northern portion of the subject site from Terry Fox Drive, looking east. The Trans Canada Trail runs behind the houses visible at far left.

Site Photographs

PE4263

Terry Fox Drive at Cope Drive, Ottawa (Kanata) Ontario

May 8, 2018



Photograph 3: View of the west-central part of the subject site, at the intersection of Terry fox Drive and Westphalian Avenue, looking south.



Photograph 4: View of Hazeldean Sideroad, running along the eastern boundary of the subject site, looking north from Cope Drive.

Site Photographs

PE4263

Terry Fox Drive at Cope Drive, Ottawa (Kanata) Ontario

May 8, 2018



Photograph 5: View of the southern portion of the subject property, looking north from Cope Drive.

APPENDIX 2

MOECC FREEDOM OF INFORMATION SEARCH REQUEST

TSSA RESPONSE

MOECC WATER WELL RECORDS

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 completion and use of this form. Our fax no. is (416) 314-4285.

Requester Data			For Ministry Use Only	
Name, Company Name, Mailing Address and Email Address of Requester Paterson Group Inc. 154 Colonnade Road Ottawa, ON K2E 7J5 Email address: agramham@patersongroup.ca			FOI Request No.	Date Request Received
			Fee Paid <input type="checkbox"/> ACCT <input type="checkbox"/> CHQ <input type="checkbox"/> VISA/MC <input type="checkbox"/> CASH <input type="checkbox"/> CNR <input type="checkbox"/> ER <input type="checkbox"/> NOR <input type="checkbox"/> SWR <input type="checkbox"/> WCR <input type="checkbox"/> SAC <input type="checkbox"/> IEB <input type="checkbox"/> EAA <input type="checkbox"/> EMR <input type="checkbox"/> SWA	
Telephone/Fax Nos. Tel. 613-226-7381 Fax 613-226-6344	Your Project/Reference No. PE4263	Signature/Print /Name of Requester Anna Graham		
Request Parameters				
Municipal Address / Lot, Concession, Geographic Township (Municipal address essential for cities, towns or regions) Part of Lot 30 and Lot 31 and Part of the road allowance between Lot 30 and 31, Concession 10, Geographic Township of Goulbourn, City of Ottawa. (Cope Drive and Terry Fox Drive). Part of 5331 Fernbank Road and Part of 1039 Terry Fox Drive.				
Present Property Owner(s) and Date(s) of Ownership Marty Van Gaal				
Previous Property Owner(s) and Date(s) of Ownership				
Present/Previous Tenant(s), (if applicable) Vacant, agricultural				
Search Parameters			Specify Year(s) Requested	
Files older than 2 years may require \$60.00 retrieval cost. There is no guarantee that records responsive to your request will be located.				
Environmental concerns (General correspondence, occurrence reports, abatement)			all	
Orders			all	
Spills			all	
Investigations/prosecutions ➤ Owner AND tenant information must be provided			all	
Waste Generator number/classes			all	
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, reports, etc.				
			SD	Specify Year(s) Requested
air - emissions				1986-present
water - mains, treatment, ground level, standpipes & elevated storage, pumping stations (local & booster)				1986-present
sewage - sanitary, storm, treatment, stormwater, leachate & leachate treatment & sewage pump stations				1986-present
waste water - industrial discharges				1986-present
waste sites - disposal, landfill sites, transfer stations, processing sites, incinerator sites				1986-present
waste systems - PCB destruction, mobile waste processing units, haulers: sewage, non-hazardous & hazardous waste				1986-present
pesticides - licenses				1986-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.

Anna Graham

From: Public Information Services <publicinformationsservices@tssa.org>
Sent: May-07-18 9:09 AM
To: Anna Graham
Subject: RE: Records search request for Cope Drive and Terry Fox - Record Found

Record Found:

Hello,

Thank you for your inquiry.

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

Inst Number	Context	Address	City	Province	Postal Code	Status
64595982	FS CYLINDER EXCHANGE	5357 FERNBANK RD	STITTSVILLE	ON	K2S 1B6	Active

For a further search in our archives please complete our release of public information form found at <https://www.tssa.org/en/about-tssa/release-of-public-information.aspx?mid=392> and email the completed form to publicinformationsservices@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.

Thank you and have a great day,

Connie

From: Anna Graham <AGraham@Patersongroup.ca>
Sent: May 3, 2018 2:56 PM
To: Public Information Services <publicinformationsservices@tssa.org>
Subject: Records search request for Cope Drive and Terry Fox

Good afternoon,

Could you please complete a search of your records for underground/aboveground storage tanks, historical spills or other incidents/infractions for the following addresses for properties located in the City of Ottawa, ON:

5331 Fernbank Road
5357 Fernbank Road
5505 Fernbank Road
950 Terry Fox Drive
1039 Terry Fox Drive
1140 Terry Fox Drive
280 Michael Cowpland Drive
390 Michael Cowpland Drive
415 Michael Cowpland Drive
180 Cope Drive

Thank you,

Anna Graham, B.Sc., M.E.S.

patersongroup
solution oriented engineering

154 Colonnade Road South
Ottawa, Ontario, K2E 7J5
Tel: (613) 226-7381 Ext. 228
Fax: (613) 226-6344
Email: agraham@patersongroup.ca

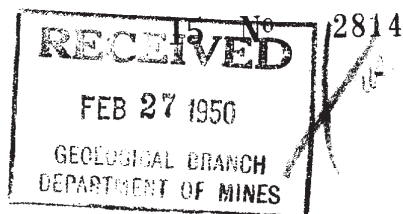
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Basin 25



The Well Drillers Act

Department of Mines, Province of Ontario



Water Well Record

BURN.....Con. 10 Lot. 30.....Pt. Lot.....
STILLSVILLE.....Acres. 100

Date Completed... July 1, 1949 Cost of Well (not including pump) ... 425.00

Pipe and Casing Record

Pumping Test

Casing diameter(s)	4"	Date	
Length(s) of casing(s)	123'	Developed Capacity	
Length of screen		Duration of Test	<i>1 hr. Test</i>
Type of screen		Pumping Rate	<i>29.0 P.M. J. G. Park</i>
Type of pump		Drawdown	<i>est. 29.0 P.M. J. G. Park</i>
Capacity of pump		Static level of completed well	<i>Following well (R#)</i>
Depth of pump setting		Is well a gravel-wall type?	

Water Record

Kind (fresh or mineral) <u>fresh</u>	Depth(s) to Water Horizon(s)	Kind of Water	No. of Feet Water Rises
Quality (hard, soft, contains iron, sulphur etc.) <u>Soft</u>			
Appearance (clear, cloudy, coloured) <u>clear</u>			
For what purpose(s) is the water to be used? <u>stock</u>		<u>Flowing well</u>	
How far is well from possible source of contamination? <u>1/4 mi.</u>			
What is source of contamination? <u>Pasture field</u>			
Enclose a copy of any mineral analysis that has been made of water			

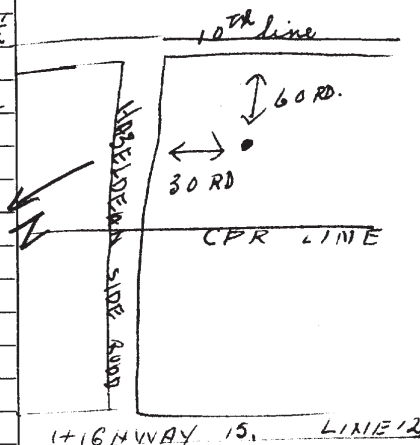
Well Log

Drift and Bedrock Record

[illegible]

Location of Well

In diagram below show distances of well from road and lot line



Situation: Is well on upland, in valley, or on hillside?
 Drilling Firm *Hunt Bradley*
 Address *Stellville*
 Recorded by *Jim Friend* ^{per} *Mervin Bradley* Address *Stellville*
 Date *Nov. 22, 48* Licence Number *339*

31G/5c



RECEIVED

114 JAN 23 1953

15 № 2816✓

GEOLOGICAL BRANCH
DEPARTMENT OF MINES

Elev. 4 R 0 3 1

The Water-well Drillers Act, 1952

Basin

Department of Mines

Water-Well Record

County or Territorial District.....Carleton..... Township, Village, Town or City.....Southern
Con.....10..... Lot.....31..... Street and Number (if in Village, Town or City).....Bradley Pl. 633
Owner.....[REDACTED]..... Address.....Suttonville, Ont
Date completed.....12th.....November.....1955
(day) (month) (year)

Pipe and Casing Record

Pumping Test

Casing diameter(s)	2 inch	Static level	15 feet
Length(s)	28 feet	Pumping rate	720 gal per hr
Type of screen		Pumping level	20 feet
Length of screen		Duration of test	2 hrs

Well Log

Water Record

[illegible]

For what purpose(s) is the water to be used?

Is water clear or cloudy?.....clear.....
Is well on upland, in valley, or on hillside?.....upland.....

Drilling firm J. B. Dupresno
Address 1820 Carling AVE Ottawa

Name of Driller W. Ray
Address 232 S. Joseph Blvd. Hull

Licence Number...394.....

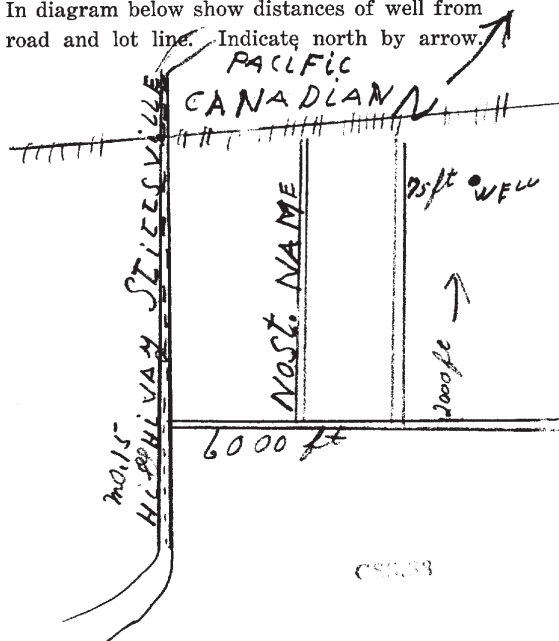
I certify that the foregoing
statements of fact are true.

Date. 12 novem 1955 VC Ray

Signature of Licensee _____

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.





Ontario

Ministry
of the
Environment

The Ontario Water Resources Act

WATER WELL RECORD

1. PRINT ONLY IN SPACES PROVIDED

2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11

1522587

MUNICIP

150.03

CON.

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON. BLOCK TRACT, SURVEY ETC.	LOT
	Georgetown	10	30
R.R. #1 Stittsville, Ontario KOA 3G0			DATE COMPLETED 48-53
			DAY 19 MO 07 YR 88

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
Brown	Clay	Boulders	Packed	0	16
Gray	Sand	Boulders	Loose	16	20
Gray	Limestone	Gravel Seams	Broken Layers	20	27
Gray	Limestone	Black Layers	Medium Hard	27	65

31

32

41 WATER RECORD	
WATER FOUND AT - FEET	KIND OF WATER
35	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERALS 6 <input type="checkbox"/> GAS
62	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERALS 6 <input type="checkbox"/> GAS

51 CASING & OPEN HOLE RECORD			
INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET
6 1/4	1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE 5 <input type="checkbox"/> PLASTIC	.188	0 31

SCREEN	SIZE (S) OF OPENING (SLOT NO.)	DIAMETER	LENGTH
		INCHES	FEET
MATERIAL AND TYPE		DEPTH TO TOP OF SCREEN	FEET

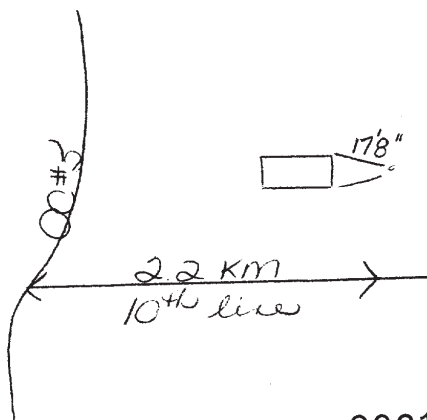
61 PLUGGING & SEALING RECORD			
DEPTH SET AT - FEET	MATERIAL AND TYPE	CEMENT GROUT LEAD PACKER ETC.	
FROM TO			

71 PUMPING TEST METHOD		10 PUMPING RATE	11-14 DURATION OF PUMPING
1 <input type="checkbox"/> PUMP 2 <input checked="" type="checkbox"/> BAILER		10 GPM	1 <input type="checkbox"/> HOURS 17-18 MINS
STATIC LEVEL	WATER LEVEL END OF PUMPING	25 WATER LEVELS DURING	
11 FEET	40 FEET	15 MINUTES 20-24 30 MINUTES 24-31 45 MINUTES 31-34 60 MINUTES 34-37	
IF FLOWING GIVE RATE	38-41 PUMP INTAKE SET AT	WATER AT END OF TEST	
	FEET	42	
RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	43-45 RECOMMENDED PUMPING RATE	46-49
<input type="checkbox"/> SHALLOW <input checked="" type="checkbox"/> DEEP	50 FEET	5 GPM	

FINAL STATUS OF WELL	1 <input checked="" type="checkbox"/> WATER SUPPLY 6 <input type="checkbox"/> ABANDONED, INSUFFICIENT SUPPLY 2 <input type="checkbox"/> OBSERVATION WELL 8 <input type="checkbox"/> ABANDONED, POOR QUALITY 3 <input type="checkbox"/> TEST HOLE 7 <input type="checkbox"/> UNFINISHED 4 <input type="checkbox"/> RECHARGE WELL 9 <input type="checkbox"/> DEWATERING
WATER USE	1 <input type="checkbox"/> DOMESTIC 5 <input type="checkbox"/> COMMERCIAL 2 <input checked="" type="checkbox"/> STOCK 6 <input type="checkbox"/> MUNICIPAL 3 <input type="checkbox"/> IRRIGATION 7 <input type="checkbox"/> PUBLIC SUPPLY 4 <input type="checkbox"/> INDUSTRIAL 8 <input type="checkbox"/> COOLING OR AIR CONDITIONING 9 <input type="checkbox"/> OTHER 9 <input type="checkbox"/> NOT USED
METHOD OF CONSTRUCTION	1 <input type="checkbox"/> CABLE TOOL 6 <input type="checkbox"/> BORING 2 <input type="checkbox"/> ROTARY (CONVENTIONAL) 7 <input type="checkbox"/> DIAMOND 3 <input type="checkbox"/> ROTARY (REVERSE) 8 <input type="checkbox"/> JETTING 4 <input type="checkbox"/> ROTARY (AIR) 9 <input type="checkbox"/> DRIVING 5 <input type="checkbox"/> AIR PERCUSSION <input type="checkbox"/> DIGGING <input type="checkbox"/> OTHER

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



38218

DRILLERS REMARKS

CONTRACTOR	NAME OF WELL CONTRACTOR	WELL CONTRACTOR'S LICENCE NUMBER
	Capital Water Supply Ltd.	1558
	ADDRESS	
	Box 490 Stittsville, Ontario KOA 3G0	
CONTRACTOR	NAME OF WELL TECHNICIAN	WELL TECHNICIAN'S LICENCE NUMBER
	J. Moore	T0096
	SIGNATURE OF TECHNICIAN/CONTRACTOR	SUBMISSION DATE
DAY 19 MO 07 YR 88		

OFFICE USE ONLY	DATA SOURCE	CONTRACTOR	DATE RECEIVED
		1558	SEP 01 1988
	DATE OF INSPECTION	INSPECTOR	
REMARKS			

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Map: Well records

This map allows you to search and view well record information from reported wells in Ontario.

Full dataset is available in the [Open Data catalogue](#).

Recommended for you

[How to use a Ministry of the Environment map](#)

[Technical documentation: Metadata record](#)

[Go Back to Map](#)

Well ID

Well ID Number: 7176823

Well Audit Number: *M08759*

Well Tag Number: *A090650*

This table contains information from the original well record and any subsequent updates.

This well is part of a well cluster.
The information below is extracted from the cluster well record.
More information on the cluster well record (related to other wells in the cluster)
is also available.

Well Location

Address of Well Location	
Township	GOULBOURN TOWNSHIP
Lot	
Concession	
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18
	Easting: 431407.00
	Northing: 5014578.00
Municipal Plan and Sublot Number	
Other	

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
----------------	----------------------	-----------------	---------------------	------------	----------

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
------------	----------	--	---------------

Method of Construction & Well Use

Method of Construction	Well Use
------------------------	----------

Status of Well

Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
-----------------	-----------------------	------------	----------

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To
------------------	----------	------------	----------

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 1844

Results of Well Yield Testing

After test of well yield, water was
If pumping discontinued, give reason

Pump intake set at

Pumping Rate

Duration of Pumping

Final water level

If flowing give rate

Recommended pump depth

Recommended pump rate

Well Production

Disinfected?

Draw Down & Recovery

Draw Down Time(min)	Draw Down Water level	Recovery Time(min)	Recovery Water level
SWL			
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	Kind
----------------------	------

Hole Diameter

Depth From	Depth To	Diameter
------------	----------	----------

Audit Number: M08759

Date Well Completed: March 30, 2010

Date Well Record Received by MOE: February 16, 2012

Updated: February 2, 2018

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Chris Ballard

Minister of the Environment and Climate Change

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Measurements recorded in: ☒ Metric ☐ Imperial

Tag#: A123817

A123817

9252 Page 1 of 5

Well Owner's Information

First Name	Last Name / Organization		E-mail Address		<input type="checkbox"/> Well Constructed by Well Owner	
	City of Ottawa					
Mailing Address (Street Number/Name)		Municipality	Province	Postal Code	Telephone No. (inc. area code)	
110 Laurier Blvd		Ottawa	ONTARIO			

Well Location

Address of Well Location (Street Number/Name) City of Ottawa pumping station on Macdonald Campbell drive.			Township		Lot		Concession	
County/District/Municipality			City/Town/Village Ottawa.		Province Ontario		Postal Code	
UTM Coordinates		Zone	Easting	Northing	Municipal Plan and Sublot Number		Other	
NAD 83		18	43104	15014904				

Overburden and Bedrock Materials/Abandonment Sealing Record (see instructions on the back of this form)

[illegible]

Annular Space

Depth Set at (m/R)		Type of Sealant Used (Material and Type)	Volume Placed (m ³ /R ²)
From	To		
0	.31	Cavete / Plushard	
.31	9.14	Benzal	
9.14	11	Sand.	

Results of Well Yield Testing

After test of well yield, water was: <input type="checkbox"/> Clear and sand free <input type="checkbox"/> Other, specify _____	Draw Down		Recovery	
	Time (min)	Water Level (m/ft)	Time (min)	Water Level (m/ft)
If pumping discontinued, give reason:	Static Level			
	1		1	
Pump intake set at (m/ft)	2		2	
Pumping rate (l/min / GPM)	3		3	
	4		4	
Duration of pumping _____ hrs + _____ min	5		5	
Final water level end of pumping (m/ft)	10		10	
	15		15	
If flowing give rate (l/min / GPM)	20		20	
Recommended pump depth (m/ft)	25		25	
Recommended pump rate (l/min / GPM)	30		30	
	40		40	
Well production (l/min / GPM)	50		50	
Disinfected? <input type="checkbox"/> Yes <input type="checkbox"/> No	60		60	

Method of Construction

☐ Cable Tool ☐ Diamond
☐ Rotary (Conventional) ☐ Jetting
☐ Rotary (Reverse) ☐ Drilling
☐ Boring ☐ Digging
☐ Air percussion
☒ Other, specify *Direct push*

Well Use

<input type="checkbox"/> Public	<input type="checkbox"/> Commercial	<input type="checkbox"/> Not used
<input type="checkbox"/> Domestic	<input type="checkbox"/> Municipal	<input type="checkbox"/> Dewatering
<input type="checkbox"/> Livestock	<input checked="" type="checkbox"/> Test Hole	<input checked="" type="checkbox"/> Monitoring
<input type="checkbox"/> Irrigation	<input type="checkbox"/> Cooling & Air Conditioning	
<input type="checkbox"/> Industrial		
<input type="checkbox"/> Other, specify		

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft)		
			From	To	
5.2	plastic	.37	0	9.45	<input type="checkbox"/> Water Supply <input type="checkbox"/> Replacement Well <input checked="" type="checkbox"/> Test Hole <input checked="" type="checkbox"/> Recharge Well <input type="checkbox"/> Dewatering Well <input checked="" type="checkbox"/> Observation and/or Monitoring Hole <input type="checkbox"/> Alteration (Construction) <input type="checkbox"/> Abandoned

Status of Well

☐ Water Supply
☐ Replacement Well
☒ Test Hole
☐ Recharge Well
☐ Dewatering Well
☒ Observation and/or Monitoring Hole
☐ Alteration (Construction)
☐ Abandoned, Insufficient Supply
☐ Abandoned, Poor Water Quality
☐ Abandoned, other, *specify* _____
☐ Other, *specify* _____

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft)	
			From	To
6.03	plastic	10	9.45	11

Water Details

Water found at Depth (m/ft) <input type="checkbox"/> Gas	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested <input type="checkbox"/> Other, specify _____
Water found at Depth (m/ft) <input type="checkbox"/> Gas	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested <input type="checkbox"/> Other, specify _____
Water found at Depth (m/ft) <input type="checkbox"/> Gas	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested <input type="checkbox"/> Other, specify _____

Hole Diameter

Depth (m/ft)		Diameter (cm/in)
From	To	
0	11	10.9

Well Contractor and Well Technician Information

Business Name of Well Contractor		Well Contractor's Licence No.	
Strata Soil Sampling		7 2 4 1	
Business Address (Street Number/Name)		Municipality	
147-2 West Beaver Creek Rd		Richmond Hill	
Province	Postal Code	Business E-mail Address	
ON	L4B1C6	wrecords@stratasoil.com	
Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)		
905-769-9304	Beatty Brian		
Well Technician's Licence No.	Signature of Technician and/or Contractor		Date Submitted
3616	[Signature]		2011.11.15

Map of Well Location

Please provide a map below following instructions on the back.

See Map

Labelled BH 11-13

Comments:

Well owner's
information
package
delivered

☐ Yes

☐ No

Date Package Delivered
Y|Y|Y|Y|M|M|D|D
Date Work Completed
20111107

Ministry Use Only

Audit No. **Z 140280**
Received **DEC 09 2011**



Ontario

Ministry of
the Environment

Well

A113259

(Below)

Well Record

Regulation 903 Ontario Water Resources Act

Measurements recorded in: ☐ Metric ☒ Imperial

Page ____ of ____

Well Owner's Information

First Name: City of Ottawa Last Name / Organization: c/o Stantec Consulting E-mail Address: ☐ Well Constructed by Well Owner
Mailing Address (Street Number/Name): #200-2781 Lancaster Road, Ottawa, Ont K1B1A7 Municipality: Province: Postal Code: Telephone No. (inc. area code):

Well Location

Address of Well Location (Street Number/Name): Terry Fox / Eagleson Township: Kanata Lot: Con 10 - P/L 31
County/District/Municipality: Ottawa-Carleton City/Town/Village: Kanata Province: Ontario Postal Code:
UTM Coordinates: Zone: Easting: Northing: Municipal Plan and Sublot Number: Other:
NAD 83: 4 PT Rd Allow PPSR 2836 Pts 1 to 3

Overburden and Bedrock Materials/Abandonment Sealing Record (see instructions on the back of this form)

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From To
			Per Attached Borehole Log MW11-1	0' 102'

Harzelean Pumping Station # Kanata Ontario
Ref 163401081 TASK 400-101X5R10105 Pts 17-65666 5R4008
* 415 Michael Cowpland Dr.

Annular Space		
Depth Set at (m/ft) From To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)

Method of Construction		Well Use	
<input type="checkbox"/> Cable Tool	<input type="checkbox"/> Diamond	<input type="checkbox"/> Public	<input type="checkbox"/> Commercial <input type="checkbox"/> Not used
<input type="checkbox"/> Rotary (Conventional)	<input type="checkbox"/> Jetting	<input type="checkbox"/> Domestic	<input type="checkbox"/> Municipal <input type="checkbox"/> Dewatering
<input type="checkbox"/> Rotary (Reverse)	<input type="checkbox"/> Driving	<input type="checkbox"/> Livestock	<input type="checkbox"/> Test Hole <input checked="" type="checkbox"/> Monitoring
<input type="checkbox"/> Boring	<input type="checkbox"/> Digging	<input type="checkbox"/> Irrigation	<input type="checkbox"/> Cooling & Air Conditioning
<input checked="" type="checkbox"/> Air percussion		<input type="checkbox"/> Industrial	
<input type="checkbox"/> Other, specify		<input type="checkbox"/> Other, specify	

Construction Record - Casing				Status of Well	
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From To		
				<input type="checkbox"/> Water Supply	
				<input type="checkbox"/> Replacement Well	
				<input type="checkbox"/> Test Hole	
				<input type="checkbox"/> Recharge Well	
				<input type="checkbox"/> Dewatering Well	
				<input checked="" type="checkbox"/> Observation and/or Monitoring Hole	
				<input type="checkbox"/> Alteration (Construction)	
				<input type="checkbox"/> Abandoned, Insufficient Supply	
				<input type="checkbox"/> Abandoned, Poor Water Quality	
				<input type="checkbox"/> Abandoned, other, specify	
				<input type="checkbox"/> Other, specify	

Construction Record - Screen			
Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From To

Water Details		Hole Diameter	
Water found at Depth (m/ft) <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested	Depth (m/ft) From To	Diameter (cm/in)
Water found at Depth (m/ft) <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested		6"
Water found at Depth (m/ft) <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested		

Well Contractor and Well Technician Information			
Business Name of Well Contractor: AIR ROCK DRILLING & LTD 1119		Well Contractor's Licence No.:	
Business Address (Street Number/Name): RR#1 RICHMOND		Municipality:	
Province: ONT	Postal Code: K6A 2Z0	Business E-mail Address:	
Bus. Telephone No. (inc. area code): 613-838-2170		Name of Well Technician (Last Name, First Name): PURCELL SHANAN	
Well Technician's Licence No.:		Signature of Technician and/or Contractor: [Signature] Date Submitted: 2011/12/30	

Results of Well Yield Testing Pts 1 & 2				
After test of well yield, water was: <input type="checkbox"/> Clear and sand free <input type="checkbox"/> Other, specify	Draw Down		Recovery	
	Time (min)	Water Level (m/ft)	Time (min)	Water Level (m/ft)
If pumping discontinued, give reason:	Static Level			
	1		1	
	Pump intake set at (m/ft)	2	2	
	Pumping rate (l/min / GPM)	3	3	
	Duration of pumping hrs + min	4	4	
	Final water level end of pumping (m/ft)	5	5	
If flowing give rate (l/min / GPM)	10	10		
Recommended pump depth (m/ft)	15	15		
Recommended pump rate (l/min / GPM)	20	20		
Well production (l/min / GPM)	25	25		
Disinfected?	30	30		
<input type="checkbox"/> Yes <input type="checkbox"/> No	40	40		
	50	50		
	60	60		

Map of Well Location	
Please provide a map below following instructions on the back.	
Comments: [Handwritten notes and signatures]	
Well owner's information package delivered: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Date Package Delivered: 2011/11/14
Date Work Completed: 2011/11/14	Ministry Use Only
	Audit No. z128583
	Received JAN 26 2012



MONITORING WELL RECORD

Page 1 of

MW 11-1

CLIENT City of OttawaPROJECT No. 163401081ORIGINATED BY JF/JNLOCATION Geotechnical Investigation - Hazeldean Pumping Station, Ottawa, ONDATUM GeodeticCOMPILED BY JFDATES: BORING November 16, 2011WATER LEVEL November 16, 2011TPC ELEV. CHECKED BY CM

DEPTH (m)	ELEVATION (m)	STRATA DESCRIPTION	STRATA PLOT	WATER LEVEL	DEPTH (ft)	VAPOUR CONCENTRATIONS ● %LEL ▲ ppmv	SAMPLES			WELL CONSTRUCTION
							TYPE	NUMBER	N-VALUE	
0	95.06	FILL: grey crushed sandy gravel				● 20 40 60 80 ▲ 100 200 300 400				100 mm, Schedule 40 PVC Casing, with Bentonite Seal
1										
2										
3										
4	93.5	Grey lean CLAY (CL)								
5										
6										
7										
8	89.0	Grey silty SAND (SM)								
9										
10	87.4	Grey lean CLAY (CL)								
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
32										

☒ Groundwater Level

C-1119 2128583

IAN 26 2012

MONITORING WELL RECORD

MW 11-1

CLIENT City of Ottawa

PROJECT No. 163401081

ORIGINATED BY JF/JN

LOCATION Geotechnical Investigation - Hazeldean Pumping Station, Ottawa

DATUM Geodetic


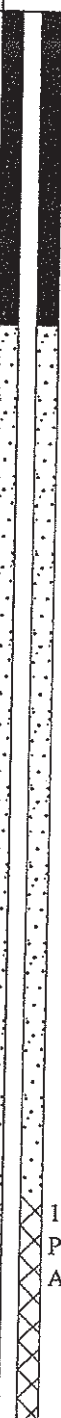

COMPILED BY JF


DATE: BORING November 16, 2011

WATER LEVEL November 16, 2011

TPC ELEV.

CHECKED BY CM

DEPTH (m)	ELEVATION (m)	STRATA DESCRIPTION	STRATA PLOT	WATER LEVEL	DEPTH (ft)	VAPOUR CONCENTRATIONS ● %LEL ▲ ppmv ● 20 40 60 80 ▲ 100 200 300 400	SAMPLES			WELL CONSTRUCTION	
							TYPE	NUMBER	N-VALUE		
10		Grey lean CLAY (CL)									
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
											

 Groundwater Level

C-1119 Z128583

JAN 26 2012

A-



MONITORING WELL RECORD

MW 11-1

CLIENT City of Ottawa PROJECT No. 163401081 ORIGINATED BY JF/JN
 LOCATION Geotechnical Investigation - Hazeldean Pumping Station, Ottawa, ON DATUM Geodetic COMPILED BY JF
 DATES: BORING November 16, 2011 WATER LEVEL November 16, 2011 TPC ELEV. _____ CHECKED BY CM

DEPTH (m)	ELEVATION (m)	STRATA DESCRIPTION	STRATA PLOT	WATER LEVEL	DEPTH (ft)	VAPOUR CONCENTRATIONS ● %LEL ▲ ppmv	SAMPLES			WELL CONSTRUCTION
							TYPE	NUMBER	N-VALUE	
						● 20 40 60 80 ▲ 100 200 300 400				
30		Grey silty sand (SM) with gravel TILL			100					
31					102					
	63.4				104					
32		End of Water Well Borehole			106					
		Monitoring Well Installed			108					
33					110					
					112					
34					114					
					116					
35					118					
					120					
36					122					
					124					
37					126					
					128					
38					130					
39										
40										

Groundwater Level

C-7238

Z/28583

JAN 26 2012

A-

STAN-MW 163401081 - HAZELDEAN PUMP STN.GPJ SMART.GDT 11/30/11



Ontario

Ministry of
the Environment

Well Tag No. (Place Sticker and/or Print Below)

A 094100

A094100

Well Record

Regulation 903 Ontario Water Resources Act

Measurements recorded in: ☒ Metric ☐ Imperial

9252 Page 2 of 5

Well Owner's Information

First Name	Last Name / Organization	E-mail Address	<input type="checkbox"/> Well Constructed by Well Owner
	City of Ottawa		
Mailing Address (Street Number/Name)	Municipality	Province	Postal Code
110 Laurier Blvd. West.	OTTAWA	ONTARIO	

Well Location

Address of Well Location (Street Number/Name)	Township	Lot	Concession
City of Ottawa Lumpy station on Michael Carleton drive.			
County/District/Municipality	City/Town/Village	Province	Postal Code
	Ottawa	Ontario	
UTM Coordinates	Zone	Easting	Northing
NAD 83	18	431104	85014906
Municipal Plan and Sublot Number		Other	

Overburden and Bedrock Materials/Abandonment Sealing Record (see instructions on the back of this form)

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft)
				From To
Grey	Gravel	Sand		0 .61
Blk	Topsoil			.61 1.83
Grey	Clay	Silt.	Loose.	1.83 6.1

Annular Space			
Depth Set at (m/ft)	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)	
From To			
0 .31	Flushmount/Concrete.		
.31 4.27	Ben seal		
4.27 6.1	Sand.		

Method of Construction		Well Use	
<input type="checkbox"/> Cable Tool	<input type="checkbox"/> Diamond	<input type="checkbox"/> Public	<input type="checkbox"/> Commercial
<input type="checkbox"/> Rotary (Conventional)	<input type="checkbox"/> Jetting	<input type="checkbox"/> Domestic	<input type="checkbox"/> Municipal
<input type="checkbox"/> Rotary (Reverse)	<input type="checkbox"/> Driving	<input type="checkbox"/> Livestock	<input checked="" type="checkbox"/> Test Hole
<input type="checkbox"/> Boring	<input type="checkbox"/> Digging	<input type="checkbox"/> Irrigation	<input checked="" type="checkbox"/> Monitoring
<input type="checkbox"/> Air percussion		<input type="checkbox"/> Industrial	<input type="checkbox"/> Cooling & Air Conditioning
<input checked="" type="checkbox"/> Other, specify	Direct push	<input type="checkbox"/> Other, specify	

Construction Record - Casing				Status of Well	
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft)		
			From To	<input type="checkbox"/> Water Supply	
5.2	Plastic	.39	0 4.57	<input type="checkbox"/> Replacement Well	
				<input checked="" type="checkbox"/> Test Hole	
				<input type="checkbox"/> Recharge Well	
				<input type="checkbox"/> Dewatering Well	
				<input checked="" type="checkbox"/> Observation and/or Monitoring Hole	
				<input type="checkbox"/> Alteration (Construction)	
				<input type="checkbox"/> Abandoned, Insufficient Supply	
				<input type="checkbox"/> Abandoned, Poor Water Quality	
				<input type="checkbox"/> Abandoned, other, specify	
				<input type="checkbox"/> Other, specify	

Construction Record - Screen			
Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft)
			From To
6.03	Plastic	10	4.57 6.1

Water Details		Hole Diameter	
Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	Depth (m/ft)	Diameter (cm/in)
		From To	
Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	0 6.1	10.92
Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify		

Well Contractor and Well Technician Information	
Business Name of Well Contractor	Well Contractor's Licence No.
Strata Soil Sampling	7241
Business Address (Street Number/Name)	Municipality
147-2 West Beaver Creek Rd	Richmond Hill
Province	Postal Code
ON	L4B1K6
Business E-mail Address	
wrecords@stratasoil.com	
Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)
9057649304	Beatty Brian
Well Technician's Licence No.	Signature of Technician and/or Contractor
3616	
	Date Submitted
	2011/06/3

Results of Well Yield Testing

After test of well yield, water was: <input type="checkbox"/> Clear and sand free <input type="checkbox"/> Other, specify	Draw Down		Recovery	
	Time (min)	Water Level (m/ft)	Time (min)	Water Level (m/ft)
If pumping discontinued, give reason: Static Level	1		1	
	2		2	
	3		3	
	4		4	
	5		5	
	10		10	
Pump intake set at (m/ft)	2			
Pumping rate (l/min / GPM)	3			
Duration of pumping hrs + min	5			
Final water level end of pumping (m/ft)	10			
If flowing give rate (l/min / GPM)	15			
Recommended pump depth (m/ft)	20			
Recommended pump rate (l/min / GPM)	30			
Well production (l/min / GPM)	40			
Disinfected? <input type="checkbox"/> Yes <input type="checkbox"/> No	50			
	60			

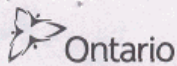
Map of Well Location

Please provide a map below following instructions on the back.

See Map
Labelled BH11-12

Comments:

Well owner's information package delivered	Date Package Delivered	Ministry Use Only
<input type="checkbox"/> Yes <input type="checkbox"/> No	Y/Y/Y/M/M/D/D	Audit No.
	2011/06/07	Z140279
		DEC 09 2011



Ministry of
the Environment

Well Tag No. (Place Sticker and/or Print Below)

Tag#: A123774

A123774

Well Record

Regulation 903 Ontario Water Resources Act

Measurements recorded in: ☒ Metric ☐ Imperial

9252 Page 4 of 5

Well Owner's Information

First Name: Last Name / Organization: City of Ottawa
E-mail Address: ☐ Well Constructed by Well Owner
Mailing Address (Street Number/Name): 110 Carriev Blvd West Municipality: OTTAWA Province: ON Postal Code: Telephone No. (inc. area code):

Well Location

Address of Well Location (Street Number/Name): City of Ottawa Pumping Station on Michael Comphel drive Township: Lot: Concession:
County/District/Municipality: City/Town/Village: Ottawa Province: Ontario Postal Code:

UTM Coordinates: Zone: Easting: Northing: Municipal Plan and Sublot Number: Other:
NAD 83 18430939 5014818

Overburden and Bedrock Materials/Abandonment Sealing Record (see instructions on the back of this form)

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft)
Grey	Gravel	Sand		0 .61
Blk	Topsoil			.61 1.83
Grey	Clay	Silt		1.83 6.1

Annular Space		
Depth Set at (m/ft)	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0 .31	Flushsand / concrete	
.31 4.27	Benzol	
4.27 6.1	Sand.	

Method of Construction		Well Use	
<input type="checkbox"/> Cable Tool	<input type="checkbox"/> Diamond	<input type="checkbox"/> Public	<input type="checkbox"/> Commercial
<input type="checkbox"/> Rotary (Conventional)	<input type="checkbox"/> Jetting	<input type="checkbox"/> Domestic	<input type="checkbox"/> Municipal
<input type="checkbox"/> Rotary (Reverse)	<input type="checkbox"/> Drilling	<input type="checkbox"/> Livestock	<input checked="" type="checkbox"/> Test Hole
<input type="checkbox"/> Boring	<input type="checkbox"/> Digging	<input type="checkbox"/> Irrigation	<input checked="" type="checkbox"/> Monitoring
<input checked="" type="checkbox"/> Air percussion		<input type="checkbox"/> Industrial	<input type="checkbox"/> Cooling & Air Conditioning
<input checked="" type="checkbox"/> Other, specify: Direct push		<input type="checkbox"/> Other, specify:	

Construction Record - Casing				Status of Well	
Inside Diameter (mm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Well Thickness (mm/in)	Depth (m/ft)		
5.2	plastic	39	0 4.57	<input checked="" type="checkbox"/> Water Supply	
				<input type="checkbox"/> Replacement Well	
				<input checked="" type="checkbox"/> Test Hole	
				<input type="checkbox"/> Recharge Well	
				<input type="checkbox"/> Dewatering Well	
				<input checked="" type="checkbox"/> Observation and/or Monitoring Hole	
				<input type="checkbox"/> Alteration (Construction)	
				<input type="checkbox"/> Abandoned, Insufficient Supply	
				<input type="checkbox"/> Abandoned, Poor Water Quality	
				<input type="checkbox"/> Abandoned, other, specify:	
				<input type="checkbox"/> Other, specify:	

Construction Record - Screen			
Outside Diameter (mm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft)
6.03	plastic	10	4.57 6.1

Water Details		Hole Diameter	
Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify:	Depth (m/ft)	Diameter (mm/in)
		From To	
		0 6.1	10.92

Well Contractor and Well Technician Information
Business Name of Well Contractor: Strata Soil Sampling Well Contractor's Licence No.: 7241
Business Address (Street Number/Name): 147-2 West Beaver Creek Rd Richmond Hill Municipality:
Province: ON Postal Code: L4B1C6 Business E-mail Address:

Bus. Telephone No. (inc. area code): 9057699309 Name of Well Technician (Last Name, First Name): Beatty Brian
Well Technician's Licence No.: 3616 Signature of Technician and/or Contractor: Date Submitted: 2011/11/03

Results of Well Yield Testing					
After test of well yield, water was: <input type="checkbox"/> Clear and sand free <input type="checkbox"/> Other, specify		Draw Down		Recovery	
		Time (min)	Water Level (m/ft)	Time (min)	Water Level (m/ft)
If pumping discontinued, give reason:		Static Level			
		1		1	
Pump intake set at (m/ft)		2		2	
Pumping rate (l/min / GPM)		3		3	
Duration of pumping hrs + min		4		4	
Final water level end of pumping (m/ft)		5		5	
If flowing give rate (l/min / GPM)		10		10	
Recommended pump depth (m/ft)		15		15	
		20		20	
Recommended pump rate (l/min / GPM)		25		25	
		30		30	
Well production (l/min / GPM)		40		40	
		50		50	
Disinfected? <input type="checkbox"/> Yes <input type="checkbox"/> No		60		60	

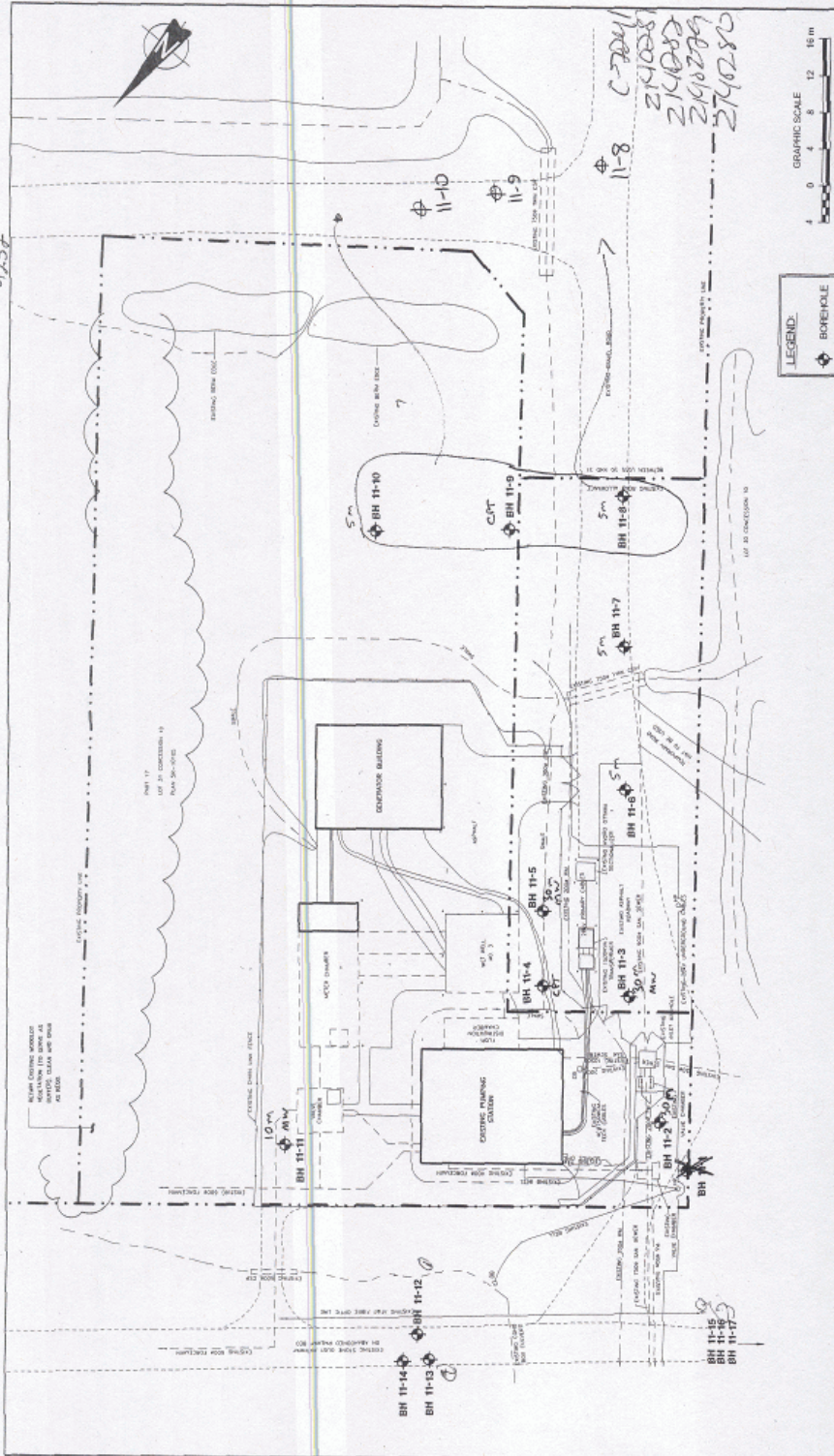
Map of Well Location

Please provide a map below following instructions on the back.

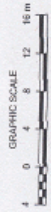
See Map
Labelled BH 11-16

Ministry Use Only	
Audit No.	2140281
Date Package Delivered	2011/11/03
Date Work Completed	2011/11/03
Well owner's information package delivered <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Received DEC 09 2011

pg-515 9252



LEGEND:
 ◆ BOREHOLE



NOTE: THIS DRAWING ILLUSTRATES PROPOSED INVESTIGATION LOCATIONS FOR A LIMITED CONSULTATION. IT IS NOT TO BE USED FOR OTHER PURPOSES.

Reference: 163401081

Job No.	163401081
Scale	1:400
Date	11/10/19
Drawn By	GRB
App'd By	

BASED ON PROVIDED BY:
 CITY OF OTTAWA
 FILENAME: C02.DWG
 DATE: 11/09/07

CITY OF OTTAWA

Site Address:
 HAZELDEAN SEWAGE PUMPING STATION
 OTTAWA, ONTARIO

GEOTECHNICAL INVESTIGATION

BOREHOLE LOCATION PLAN

Drawn No.:

1



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Map: Well records

This map allows you to search and view well record information from reported wells in Ontario.

Full dataset is available in the [Open Data catalogue](#).

Recommended for you

[How to use a Ministry of the Environment map](#)[Technical documentation: Metadata record](#)[Go Back to Map](#)

Well ID

Well ID Number: 7238877

Well Audit Number: C26407

Well Tag Number: A122834

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	
Township	GOULBOURN TOWNSHIP
Lot	030
Concession	CON 10
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18
	Easting: 430951.00
	Northing: 5014827.00
Municipal Plan and Sublot Number	
Other	

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
----------------	----------------------	-----------------	---------------------	------------	----------

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
------------	----------	--	---------------

Method of Construction & Well Use

Method of Construction	Well Use
------------------------	----------

Status of Well

Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
-----------------	-----------------------	------------	----------

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To
------------------	----------	------------	----------

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 7543

Results of Well Yield Testing

After test of well yield, water was
If pumping discontinued, give reason
Pump intake set at
Pumping Rate
Duration of Pumping
Final water level
If flowing give rate

Recommended pump depth
Recommended pump rate
Well Production
Disinfected?

Draw Down & Recovery

Draw Down Time(min)	Draw Down Water level	Recovery Time(min)	Recovery Water level
SWL			
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	Kind
----------------------	------

Hole Diameter

Depth From	Depth To	Diameter
------------	----------	----------

Audit Number: C26407

Date Well Completed: November 18, 2014

Date Well Record Received by MOE: March 23, 2015

Updated: February 2, 2018

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Tags

- [Environment and energy,](#)
- [Drinking water,](#)
- [Environment maps,](#)
- [Well water](#)



[Chris Ballard](#)

Minister of the Environment and Climate Change

[Ministry of the Environment and Climate Change](#)

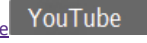
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RECEIVED
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GEOLOGICAL BRANCH
DEPARTMENT OF MINES

The Well Drillers Act
Department of Mines, Province of Ontario

Water Well Record

as Containing To Goulbourn Con. 10 Lot 30 Pt. Lot
Attsville Acres 100
 (including pump) 425

Pipe and Casing Record

Pumping Test

Casing diameter(s) 4"	Date
Length(s) of casing(s) 123	Developed Capacity 5 longy well
Length of screen	Duration of Test
Type of screen	Pumping Rate
Type of pump	Drawdown
Capacity of pump	Static level of completed well stand 15 ft
Depth of pump setting	Is well a gravel-wall type?

Water Record

Kind (fresh or mineral)	Depth(s) to Water Horizon(s)	Kind of Water	No. of Feet Water Rises
Quality (hard, soft, contains iron, sulphur etc.)	124		124
Appearance (clear, cloudy, coloured)			
For what purpose(s) is the water to be used?			
How far is well from possible source of contamination?			
What is source of contamination?			
Enclose a copy of any mineral analysis that has been made of water			

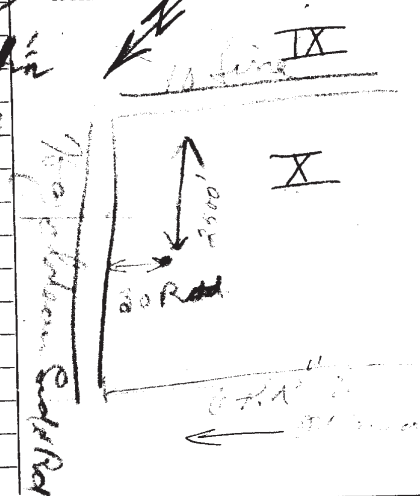
Well Log

Drift and Bedrock Record

[illegible]

Location of Well

In diagram below show distances of well from road and lot line



Situation: Is well on upland, in valley, or on hillside?

Drilling Firm *G. Brady*

Address *St. Albans*

Recorded by *Mr. G. Brady* Address

Date *Dec. 23/12-9* Licence Number *339*

APPENDIX 3

QUALIFICATIONS OF ASSESSORS

Geotechnical
Engineering

Environmental
Engineering

Hydrogeology

Geological
Engineering

Materials Testing

Building Science

Archaeological
Services

POSITION

Environmental Assessor

EDUCATION

McGill University, B.Sc. 2010
Biology and English Literature

Queen's University, M.E.S. 2012
Environmental Studies

EXPERIENCE

2014 to Present

Paterson Group Inc.
Consulting Engineers
Environmental Assessor

2013 to 2014

Civica Infrastructure Inc.
Municipal Water Resources Engineering - Vaughan
Project Support Coordinator, Project Proposal Writer

PROJECTS

Environmental Impact Statements – various, Ottawa
Phase I Environmental Site Assessments – various, Ottawa
Flood Mapping Project Coordination – Credit Valley Conservation Authority
Manhole Survey Tool Design and Data Processing – City of Markham
Proposal Preparation – Utilities Kingston Inflow and Infiltration Study, City of
Peterborough Drainage Study

Geotechnical
Engineering

Environmental
Engineering

Hydrogeology

Geological
Engineering

Materials Testing

Building Science

Archaeological
Services

POSITION

Associate and Supervisor of the Environmental Division
Senior Environmental/Geotechnical Engineer

EDUCATION

Queen's University, B.A.Sc.Eng, 1991
Geotechnical / Geological Engineering

MEMBERSHIPS

Ottawa Geotechnical Group
Professional Engineers of Ontario

EXPERIENCE

1991 to Present

Paterson Group Inc.

Associate and Senior Environmental/Geotechnical Engineer
Environmental and Geotechnical Division
Supervisor of the Environmental Division

SELECT LIST OF PROJECTS

Mary River Exploration Mine Site - Northern Baffin Island
Agricultural Supply Facilities - Eastern Ontario
Laboratory Facility – Edmonton (Alberta)
Ottawa International Airport - Contaminant Migration Study - Ottawa
Richmond Road Reconstruction - Ottawa
Billings Hurdman Interconnect - Ottawa
Bank Street Reconstruction - Ottawa
Environmental Review – Various Laboratories across Canada - CFIA
Dwyer Hill Training Centre – Ottawa
Nortel Networks Environmental Monitoring - Carling Campus – Ottawa
Remediation Program - Block D Lands – Kingston
Investigation of former landfill sites – City of Ottawa
Record of Site Condition for Railway Lands – North Bay
Commercial Properties – Guelph and Brampton
Brownfields Remediation – Alcan Site - Kingston
Montreal Road Reconstruction - Ottawa
Appleford Street Residential Development - Ottawa
Remediation Program - Ottawa Train Yards
Remediation Program - Bayshore and Heron Gate
Gladstone Avenue Reconstruction – Ottawa
Somerset Avenue West Reconstruction - Ottawa