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Phase I-Environmental Site Assessment

Part of 673 Rideau Road
Ottawa, Ontario

Prepared For

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Paterson Group Inc.

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May 18, 2017

Report: PE2837-2

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EXECUTIVE SUMMARY

ASSESSMENT

Paterson Group was retained by Ms. Lisa Dalla Rosa with 1470424 Ontario Inc., to conduct a Phase I-Environmental Site Assessment for the northern portion of the property addressed 673 Rideau Road. The purpose of the Phase I-ESA was to research the past and current use of the site and study area, and to identify environmental concerns with the potential to impact the Phase I Property.

According to the historical research, the Phase I Property has always been vacant, undeveloped land used for agricultural purposes since at least 1956. Historical research indicates that surrounding land has primarily been used for agricultural purposes, with several farmsteads and residential dwellings to the east, west and south of the Phase I Property. The properties to the east (across Spratt Road) and south were also used for commercial contracting purposes in the 1980's. The historical review did not identify any on-site potentially contaminating activities (PCAs) or any off-site PCAs that would result in areas of potential environmental concern (APECs) on the Phase I Property.

Following the historical research, an inspection of the Phase I Property and the Phase I ESA study area was conducted. The Phase I Property is currently vacant and used for agricultural purposes. No potentially contaminating activities were identified on the Phase I Property at the time of the site assessment. The aforementioned commercial properties south and east of the Phase I Property remained present at the time of the site visit. Based on observations made at the time of the site visit, these properties are not considered to result in APECs on the Phase I Property. Remaining properties within the Phase I study area are used for residential and agricultural purposes, with some vacant, unused land. A visual assessment of these properties did not identify any current off-site PCAs with the potential to represent APECs on the Phase I Property.

CONCLUSION

Based on the findings of this Phase I ESA, it is our opinion that a **Phase II ESA is not required for the Phase I Property.**

1.0 INTRODUCTION

At the request of 1470424 Ontario Inc., Paterson Group (Paterson) conducted a Phase I-Environmental Site Assessment (Phase I-ESA) of the northern parcel of the property addressed 673 Rideau Road, 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 Ms. Lisa Dalla Rosa with 1470424 Ontario Inc. The offices of 1470424 Ontario Inc. are located at Suite 100, 301 Moodie Drive, Ottawa, Ontario. Ms. Dalla Rosa can be reached by telephone at (613) 820-1959.

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 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

Address:	Part of 673 Rideau Road, Ottawa, Ontario
Legal Description:	Part of Lot 25, Broken Front Concession (Rideau Front), Geographic Township of Gloucester, City of Ottawa
Property Identification Number:	04330-1162 (part of)
Location:	The Phase I-ESA property is located west of Spratt Road, approximately 200m north of Rideau River Road. The subject site is shown on Figure 1 - Key Plan following the body of this report.
Latitude and Longitude:	45° 15' 15" N, 75° 41' 18" W.

Site Description:

Configuration:	Irregular
Site Area:	25 hectares (approx.)
Zoning:	Development Reserve
Current Use:	The property is currently used for agricultural purposes.
Services:	The subject site is located in an area serviced by private potable wells and septic systems. The proposed residential development will be provided with municipal services.

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 the city directories, air photo research and discussions with individuals involved with the subject property, it is our interpretation that the subject property has never been developed and only used for agricultural purposes.

National Archives

Fire insurance plans and City of Ottawa street directories are not available for the Phase I Property and Phase I study area.

Previous Reports

The following report was prepared for the subject site and was reviewed as part of this assessment:

- ❑ “Geotechnical Investigation, Proposed Residential Development, 673 Rideau Road, Ottawa, Ontario” prepared by Paterson Group, dated April 16, 2013.

The geotechnical investigation conducted by Paterson included the placement of 5 boreholes (3 boreholes were situated on the Phase I Property, while 2 boreholes were situated on the adjacent lands to the south) to a maximum depth of 7.4m below grade. The soil profile generally consisted of topsoil underlain by brown silty clay and a glacial till deposit consisting of silty clay to silty sand with gravel, cobbles and boulders.

Groundwater levels measured from standpipes installed within each borehole ranged between ground surface and approximately 1m below ground surface. It should be noted that at the time of the groundwater level readings, the ground surface was wet due to spring thaw. The long-term groundwater levels were anticipated to range between 3.5 and 5m below grade based on observations made at the borehole locations.

No fill material or signs of potential environmental contamination were noted at the borehole locations during the field program and laboratory review.

Plan of Survey

A survey plan prepared by H. A. Ken Shipman Surveying Ltd. and dated December 13, 2012, was reviewed as part of this assessment. The plan shows the Phase I Property in its current configuration, as part of the larger parcel of land addressed 673 Rideau Road. A copy of the survey plan is included in Appendix 1 of this report.

4.2 Environmental Source Information

Environment Canada

A search of the National Pollutant Release Inventory (NPRI) was conducted electronically on May 3, 2017. The Phase I Property is not listed in the NPRI database. There are no properties registered in the NPRI database within the Phase I study area.

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 issuance of this report, a response had not been received. A copy of the response will be forwarded to the client, should it contain any pertinent information.

MOECC Coal Gasification Plant Inventory

The Ontario Ministry of Environment 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 within the Phase I ESA 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 issuance of this report, a response had not been received. A copy of the response will be forwarded to the client, should it contain any pertinent information.

MOECC Waste Management Records

A request was submitted to the MOECC Freedom of Information office for information with respect to waste management records. Applicable information of current and historical waste storage locations, waste generators and waste receivers pursuant to Ontario Regulation 347 was considered in this review. At the time of issuance of this report, a response had not been received. A copy of the response will be forwarded to the client, should it contain any pertinent information.

MOECC Submissions

A request was submitted to the MOECC Freedom of Information office for information with respect to reports related to environmental conditions that have been submitted to the MOECC. At the time of issuance of this report, a response had not been received. A copy of the response will be forwarded to the client, should it contain any pertinent information.

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 general area of the site. No RSCs have been filed for the Phase I Property or for other properties within the Phase I ESA study area.

MOECC Waste Disposal Site Inventory

The Ontario Ministry of Environment 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 former waste disposal sites were identified within the Phase I ESA 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 (MNR). The search did not reveal any natural features or areas of natural significance within the Phase I ESA study area.

Technical Standards and Safety Authority (TSSA)

The TSSA, Fuels Safety Branch in Toronto was contacted electronically on May 3, 2017 to inquire about current and former underground storage tanks, spills and incidents for the site and neighbouring properties. No records are listed in the TSSA registry for the Phase I Property or immediately adjacent properties. A copy of the TSSA correspondence is included in Appendix 2.

City of Ottawa Landfill Document

The document entitled “Old Landfill Management Strategy, Phase I – Identification of Sites, City of Ottawa”, was reviewed. No former waste disposal sites were located within the Phase I study area.

City of Ottawa Historical Land Use Inventory (HLUI) Database

On May 5, 2017, a request was submitted to the City of Ottawa for a search of the Historical Land Use Database for information pertaining to the Phase I Property and properties within the Phase I study area. According to City of Ottawa response letter dated May 24, 2017, the HLUI database identified one activity associated with the Phase I Property: Jaws Performance Limited, an automotive repair shop which is located at 671 Rideau Street in Manotick and is not on the Phase I Property. No other activities were identified for the Phase I Property or for adjacent and neighbouring properties. A copy of the City’s response is provided in Appendix 2.

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 back to the first available air photos for the site. Based on the review, the following observations have been made:

-
- | | |
|------|---|
| 1956 | The Phase I Property appears to be used for agricultural purposes. An apparent farmstead is present on the adjacent land to the south of the eastern portion of the Phase I Property. The remaining land adjacent to the south is used for agricultural purposes. Adjacent land to the north and west is also used for agricultural purposes. Spratt Road is present immediately to the east, followed by agricultural land and an apparent farmstead. |
| 1973 | The Phase I Property appears to remain unchanged. Residential development has occurred to the west of the Phase I Property, along River Road, otherwise adjacent properties appear to remain unchanged. |
| 1983 | No significant changes appear to have been made to the Phase I Property. The present-day shop and office building are present on the aforementioned farmstead property adjacent to the south. Residential development continues further to the west of the Phase I Property. Possible commercial structures are present on the adjacent property to the east, across Spratt Road. No other significant changes have been made to the adjacent and neighbouring lands. |
| 1999 | The Phase I Property appears to remain unchanged. The large barn structure on the adjacent property to the south is no longer present. A commercial business can clearly be seen on the adjacent property to the east across Spratt Road. What appears to be a commercial operation is present along the east side of River Road, further north of the Phase I Property. Otherwise no significant changes appear to have been made to the adjacent and neighbouring properties. |
| 2002 | (City of Ottawa) No significant changes have been made to the Phase I Property or to the adjacent and neighbouring properties. |
| 2005 | (City of Ottawa) The Phase I Property appears to remain unchanged. The residential dwelling on the adjacent property to the south is no longer present. Otherwise no significant changes have been made to the adjacent and neighbouring properties. |
| 2014 | (City of Ottawa) No significant changes appear to have been made to the Phase I Property or to the properties within the Phase I study area. |

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

Topographic Maps

Topographic maps were obtained from Natural Resources Canada – The Atlas of Canada website and from the City of Ottawa website. The topographic maps indicate a regional slope down to the southwest towards the Rideau River, the nearest water body, located approximately 600m southwest of the Phase I Property. 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. According to this physiographic map, the site is located in the St. Lawrence Lowlands. 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 located in the Central St. Lawrence Lowland, which is generally less than 150 m above sea level.

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 dolomite of the Oxford Formation. Overburden soils across the majority of the site are shown as offshore marine sediments, with an area of plain till on the eastern portion of the Phase I Property. Drift thickness varies across the Phase I Property, ranging from 5m on the eastern portion of the site to 25m on the western portion of the site.

Water Well Records

A search request for all drilled well records within 250 m of the subject site was submitted to the MOECC’s Wells Help Desk. No drinking water wells are located on the Phase I Property. According to records provided by the MOECC Wells Help Desk, 76 domestic wells are present within the Phase I study area, along with a public well, an industrial well and 2 commercial wells. One of the records provided was for a well abandonment, while no information was provided with the final well record. The wells were installed between 1947 and 2014, within limestone bedrock. No monitoring wells were identified in the records.

Water Bodies and Areas of Natural Significance

The Rideau River is located approximately 600m southwest of the Phase I Property. There are no areas of natural significance within the Phase I study area.

5.0 INTERVIEWS

Mr. Greg Anderson with Ottawa Landscaping, the tenant on the southern portion of 673 Rideau Road since 2010, was interviewed at the time of the site visit. Mr. Anderson indicated that to his knowledge, the Phase I Property has always been used for agricultural purposes, specifically soy crops for the last number of years. Mr. Anderson is unaware of any potential environmental concerns with regards to the current or past uses of the Phase I Property and adjacent and neighbouring lands.

6.0 SITE RECONNAISSANCE

6.1 General Requirements

A visit to the Phase I Property was conducted by Karyn Munch, with the Environmental Department of Paterson Group, on May 4, 2017. The weather conditions were sunny with a temperature of 15°C. In addition to the Phase I Property, the uses of neighbouring properties within the Phase I study area were also assessed at the time of the site visit.

6.2 Specific Observations at Phase I Property

Buildings and Structures

There are no buildings or structures on the Phase I Property.

Site Features

The majority of the Phase I Property is occupied by agricultural fields. Tree lines are present along the western property limit and a portion of the southern property limit. Small trees are also present on the west-central and east-central portions of the site. Site drainage consists of infiltration and sheet flow to drainage ditches which follow the tree lines on the western and southern property limits as well as on the east-central portion of the site. Some standing water was noted at the time of the site visit; no hydrocarbon sheen or signs of potential contamination were noted on the water surface.

Site topography slopes down to the west, while the regional topography slopes gently towards the south and west.

No evidence of recent excavation or fill placement was observed on the exterior of the subject property. No evidence of current or former railway or spur lines on the subject property was observed at the time of the site visit. There were no unidentified substances observed on the exterior of the subject site. The above-noted site features are shown on Drawing PE2873-2 - Site Plan.

Potentially Contaminating Activities

No potentially contaminating activities were observed at the site at the time of this assessment.

Neighbouring Properties

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

- North – Vacant, undeveloped land and agricultural fields;
- South – Commercial (Ottawa Interlock) and agricultural fields;
- East – Spratt Road followed by commercial (landscaping contractor) and agricultural fields.
- West – Residential followed by River Road.

No environmental concerns were identified with the present use of the neighbouring properties. Land use within the Phase I study area is depicted on Drawing PE2873-3 – Surrounding Land Use Plan.

7.0 REVIEW AND EVALUATION OF INFORMATION

7.1 Land Use History

Based on the historical review, the Phase I Property has never been developed. The following table indicates the current and past uses of the Phase I Property back to the first aerial photograph available for review.

Table 1 - Land Use History				
Year	Name of Owner	Description of Property Use	Property Use	Other Observations from Aerial Photos, FIPs, etc.
1956-2013	Unknown followed by Ken Gordon Excavating	Agricultural lands	Agricultural or other	Aerial photographs dated 1956, 1973, 1983, 1999, 2002, 2008 and 2014 depict the Phase I Property as agricultural lands.
May 2013 – present	1470424 Ontario Inc.	Agricultural lands	Agricultural or other	A 2014 aerial photograph indicates the Phase I Property remains unchanged from the previous photographs.

Potentially Contaminating Activities (PCAs)

Based on the historical review in combination with a site visit, there are no PCAs on the Phase I Property. Landscaping contractors are present on the southern parcel of 673 Rideau Road and at 4975 Spratt Road, adjacent to the south and east of the Phase I Property. Based on information in our files and observations made at the time of the site visit, these properties are not considered to represent a potential environmental concern to the Phase I Property.

Areas of Potential Environmental Concern (APEC)

There are no APECs on the Phase I Property.

Contaminants of Potential Concern

No contaminants of potential concern (CPC) have been identified on the Phase I Property.

7.2 Conceptual Site Model

Geological and Hydrogeological Setting

Based on information from the Geological Survey of Canada mapping, drift thickness in the area of the subject site is on the order of 5 to 25m. Overburden soils consist of offshore marine sediments, with plain till on the eastern portion of the Phase I Property. Bedrock consists of dolomite of the Oxford Formation.

Existing Buildings and Structures

There are no buildings or structures on the Phase I Property.

Water Bodies

There are no water bodies on the Phase I Property. The Rideau River is located approximately 600 m southwest of the Phase I Property.

Areas of Natural Significance

There are no areas of natural significance on the Phase I Property or within the Phase I study area.

Drinking Water Wells

No drinking water wells are located on the Phase I Property. According to records provided by the MOECC Wells Help Desk, 76 domestic wells are present within the Phase I study area, along with a public well, an industrial well and 2 commercial wells. One of the records provided was for a well abandonment, while no information was provided with the final well record. The wells were installed between 1947 and 2014, within limestone bedrock.

Neighbouring Land Use

Neighbouring land use in the Phase I ESA study area is mainly agricultural, with residential dwellings along River Road and two commercial landscaping operations. Land use is shown on Drawing PE2837-3 - Surrounding Land Use Plan.

Potentially Contaminating Activities and Areas of Potential Environmental Concern

No PCAs were identified on the Phase I Property. Based on information in our files in combination with observations made at the time of the site visit, the aforementioned landscaping contractors are not considered to represent a concern to the Phase I Property. There are no APECs on the Phase I Property.

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 on- or off-site PCAs that would result in APECs on the Phase I property. A variety of independent sources were consulted as part of this assessment, and as such, the conclusions of this report are not affected by uncertainty which may be present with respect to the individual sources.

8.0 CONCLUSIONS

8.1 Assessment

Paterson Group was retained by Ms. Lisa Dalla Rosa with 1470424 Ontario Inc., to conduct a Phase I-Environmental Site Assessment for the northern portion of the property addressed 673 Rideau Road. The purpose of the Phase I-ESA was to research the past and current use of the site and study area, and to identify environmental concerns with the potential to impact the Phase I Property.

According to the historical research, the Phase I Property has always been vacant, undeveloped land used for agricultural purposes since at least 1956. Historical research indicates that surrounding land has primarily been used for agricultural purposes, with several farmsteads and residential dwellings to the east, west and south of the Phase I Property. The properties to the east (across Spratt Road) and south were also used for commercial contracting purposes in the 1980's. The historical review did not identify any on-site potentially contaminating activities (PCAs) or any off-site PCAs that would result in areas of potential environmental concern (APECs) on the Phase I Property.

Following the historical research, an inspection of the Phase I Property and the Phase I ESA study area was conducted. The Phase I Property is currently vacant and used for agricultural purposes. No potentially contaminating activities were identified on the Phase I Property at the time of the site assessment. The aforementioned commercial properties south and east of the Phase I Property remained present at the time of the site visit. Based on observations made at the time of the site visit, these properties are not considered to result in APECs on the Phase I Property. Remaining properties within the Phase I study area are used for residential and agricultural purposes, with some vacant, unused land. A visual assessment of these properties did not identify any current off-site PCAs with the potential to represent APECs on the Phase I Property.

8.2 Conclusion

Based on the findings of this Phase I ESA, it is our opinion that a **Phase II ESA is not required for the Phase I Property.**

9.0 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 1470424 Ontario Inc. Permission and notification from 1470424 Ontario Inc. and Paterson Group Inc. will be required to release this report to any other party.

Paterson Group Inc.



Karyn Munch, P.Eng., QP_{ESA}



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



Report Distribution:

- 1470424 Ontario Inc. (6 copies)
- Paterson Group (1 copy)

10.0 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 mapping).
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.

Municipal Records

City of Ottawa Document “Old Landfill Management Strategy, Phase I - Identification of Sites.”, prepared by Golder Associates, 2004.
City of Ottawa Historical Land Use Inventory (HLUI) database
The City of Ottawa eMap website.

Local Information Sources

Survey Plan, prepared by H. A. Ken Shipman Surveying Ltd., December, 2012.
Personal Interviews.
Previous Engineering Reports.

Public Information Sources

Google Earth.
Google Maps/Street View.

FIGURES

FIGURE 1 – KEY PLAN

FIGURE 2 – TOPOGRAPHIC MAP

DRAWING PE2873-2 – SITE PLAN

DRAWING PE2873-3 – SURROUNDING LAND USE PLAN



FIGURE 1
KEY PLAN

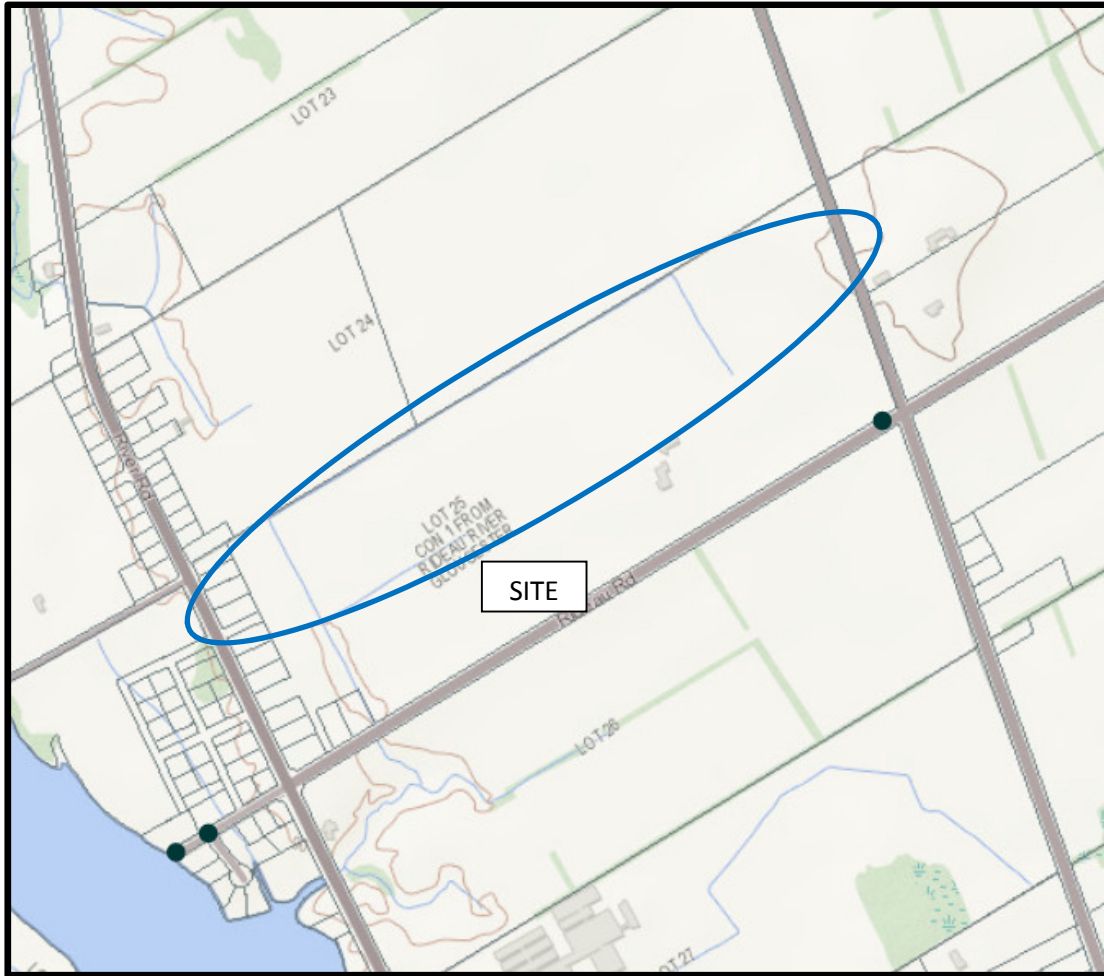
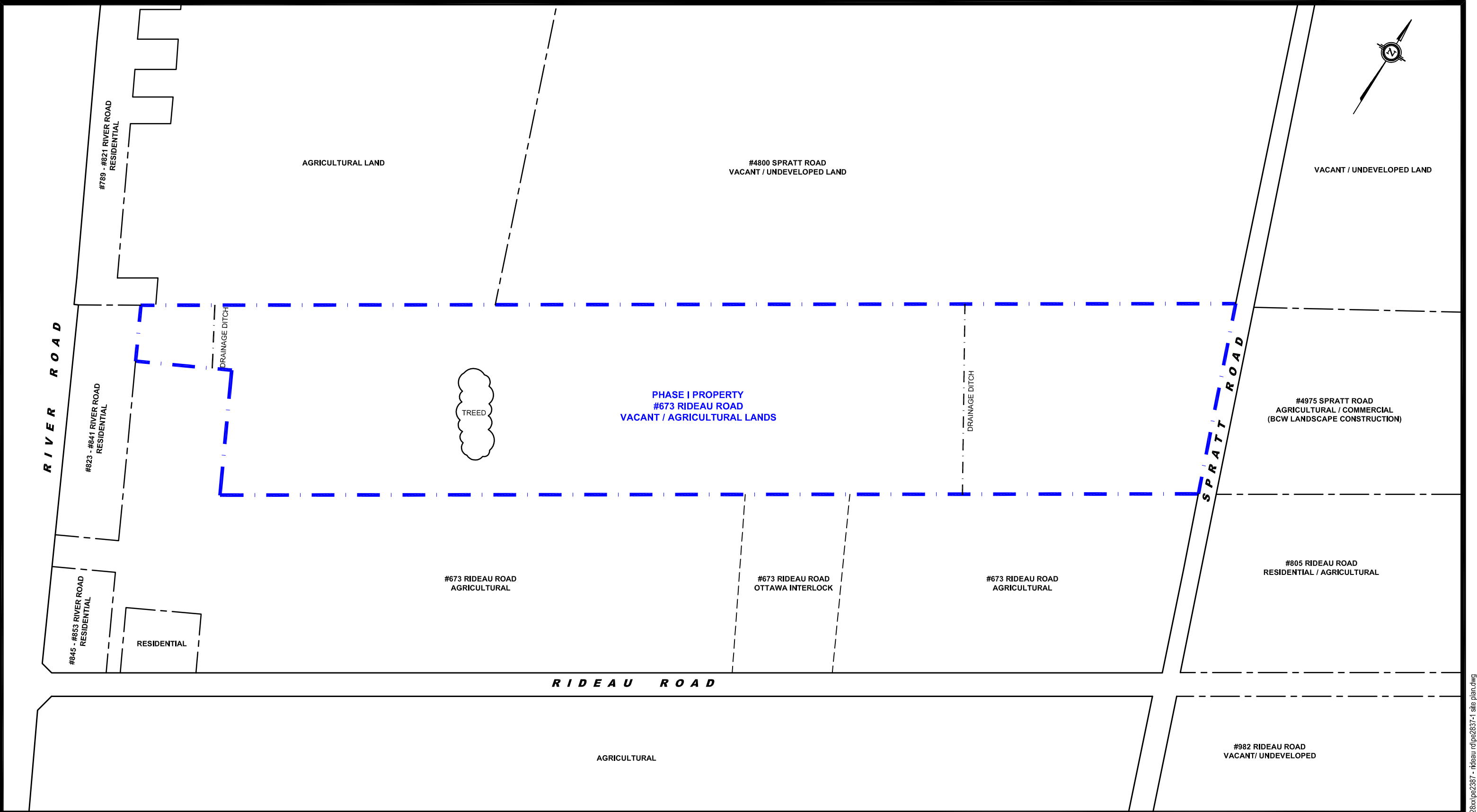


FIGURE 2
TOPOGRAPHIC MAP



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consulting engineers

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Tel: (613) 226-7381 Fax: (613) 226-6344

0			
NO.	REVISIONS	DATE	INITIAL

1470424 ONTARIO INC.

PHASE I - ENVIRONMENTAL SITE ASSESSMENT
PART OF 673 RIDEAU ROAD

ONTARIO

OTTAWA,
Title:

SITE PLAN

Scale:	1:4000	Date:	05/2017
Drawn by:	RCG	Report No.:	PE2837-2
Checked by:	KM	Dwg. No.:	PE2837-2
Approved by:	MSD	Revision No.:	



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consulting engineers

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Ottawa, Ontario K2E 7J5
Tel: (613) 226-7381 Fax: (613) 226-6344

0			
NO.	REVISIONS	DATE	INITIAL

1470424 ONTARIO INC.	
PHASE I - ENVIRONMENTAL SITE ASSESSMENT PART OF 673 RIDEAU ROAD	
OTTAWA,	ONTARIO
Title:	SURROUNDING LAND USE PLAN

Scale:	1:6000	Date:	05/2017
Drawn by:	RCG	Report No.:	PE2837-2
Checked by:	KM	Dwg. No.:	PE2837-3
Approved by:	MSD	Revision No.:	0

APPENDIX 1

SURVEY PLAN

AERIAL PHOTOGRAPHS

SITE PHOTOGRAPHS



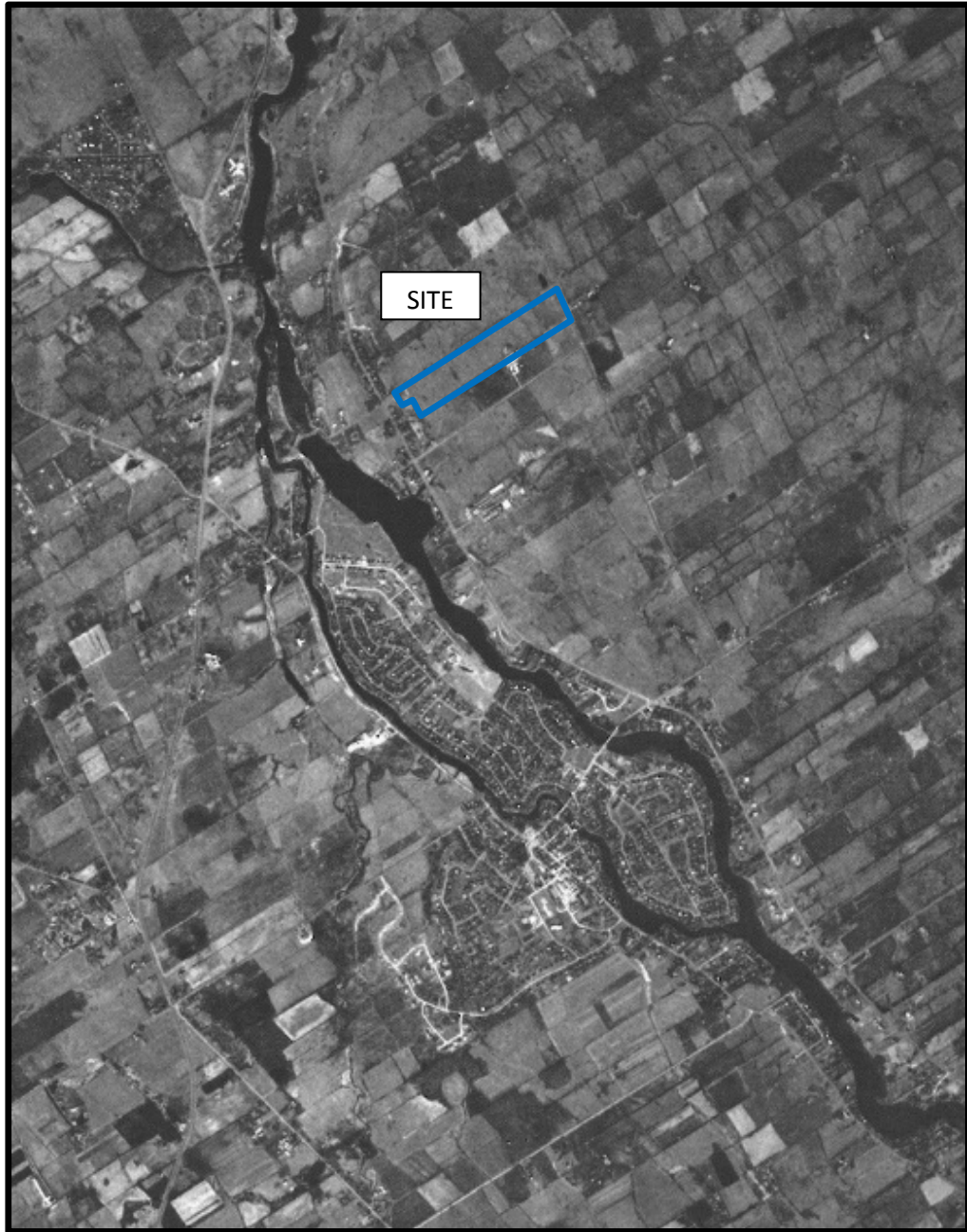
AERIAL PHOTOGRAPH
1956



AERIAL PHOTOGRAPH
1969



AERIAL PHOTOGRAPH
1973



AERIAL PHOTOGRAPH
1983



AERIAL PHOTOGRAPH
1999



AERIAL PHOTOGRAPH
2014

Site Photographs

PE2837

673 Rideau Road, Ottawa

May 4, 2017



Photograph 1: A north-facing view of the central portion of the Phase I Property and vacant, treed land adjacent to the north.



Photograph 2: View of agricultural lands and landscaping contractor on the adjacent property to the east across Spratt Road, facing southeast.

Site Photographs

PE2837

673 Rideau Road, Ottawa

May 4, 2017



Photograph 3: Looking northwest, photo of the landscaping business and agricultural lands on the adjacent property to the south (southern parcel of 673 Rideau Road).



Photograph 4: Northwest-facing photo of the residential land along River Road, adjacent to the west of the Phase I Property.

APPENDIX 2

MOECC FREEDOM OF INFORMATION SEARCH

CITY OF OTTAWA HLUI SEARCH

TSSA CORRESPONDENCE

MOECC WELL RECORDS

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
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Toronto ON M4V 1M2
Tél. : (416) 314-4075
Télec.: (416) 314-4285



May 10, 2017

Karyn Munch
Paterson Group Inc.
154 Colonnade Road
Ottawa, ON K2E 7J5

Dear Karyn Munch:

RE: ***Freedom of Information and Protection of Privacy Act Request***
Our File # A-2017-03036, Your Reference PE2837

The Ministry is in receipt of your **revised** request made pursuant to the Freedom of Information and Protection of Privacy Act clarified through e-mail on May 10, 2017. The original request was received on May 3, 2017.

The search is being conducted on the following: 673 Rideau Rd, Ottawa. If there is any discrepancy please contact us immediately.

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

If you have any questions regarding this matter, please contact Jeneska Abano at jeneska.abano@ontario.ca.

Yours truly,


Janet Dadufalza
FOI Manager



File Number: D06-03-17-0065

May 24, 2017

Karyn Munch
Paterson Group Inc.
154 Colonnade Road
Ottawa ON
K2E 7J5

Sent via email [kmunch@patersongroup.ca]

Dear Ms. Munch,

**Re: Information Request
673 Rideau Road, Ottawa, Ontario ("Subject Property")**

Internal Department Circulation

The Planning, Infrastructure and Economic Development Department has the following information in response to your request for information regarding the Subject Property:

- No information was returned on the Subject Property from Departmental circulation.

Search of Historical Land Use Inventory

This acknowledges receipt of the signed Disclaimer regarding your request for information from the City's Historical Land Use Inventory (HLUI 2005) database for the Subject Property.

A search of the HLUI database revealed the following information:

- There is one activity associated with the Subject Property: Activity Number 6467.

Please note that Activity Number 6467 has a PIN Certainty of "2". This identifier acknowledges that there is some uncertainty about the exact location of the land use activity and that the activity may or may not have been located on the Subject Property. All database entries with a PIN Certainty of "2" require independent verification as to their precise location.

*Shaping our future together
Ensemble, formons notre avenir*

City of Ottawa
Planning, Infrastructure and Economic
Development Department

110 Laurier Avenue West, 4th Floor
Ottawa, ON K1P 1J1
Tel: (613) 580-2424 ext. 14743
Fax: (613) 560-6006
www.ottawa.ca

Ville d'Ottawa
Services de la planification, de l'infrastructure et
du développement économique

110, avenue Laurier Ouest, 4e étage
Ottawa (Ontario) K1P 1J1
Tél.: (613) 580-2424 ext. 14743
Télééc: (613) 560-6006
www.ottawa.ca

The HLUI database was also searched for activity associated with properties located within 50m of the Subject Property. The search revealed the following:

- There are no activities associated with the properties located within 50m of the Subject Property.

A site map has been included to show the location of the Subject Property as well as the location of all the activities noted above, including the HLUI database's location of the Activity Number with a PIN Certainty of "2".

Additional information may be obtained by contacting:

Ontario's Environmental Registry

The Environmental Registry found at <http://www.ebr.gov.on.ca/ERS-WEB-External/> contains "public notices" about environmental matters being proposed by all government ministries covered by the Environmental Bill of Rights. The public notices may contain information about proposed new laws, regulations, policies and programs or about proposals to change or eliminate existing ones. By using key words i.e. name of proponent/owner and the address one can ascertain if there is any information on the proponent and address under the following categories: Ministry, keywords, notice types, Notice Status, Acts, Instruments and published date (all years).

The Ontario Land Registry Office

Registration of real property is recorded in the Ontario Land Registry Office through the Land Titles Act or the Registry Act. Documents relating to title and other agreements that may affect your property are available to the public for a fee. It is recommended that a property search at the Land Registry Office be included in any investigation as to the historic use of your property. The City of Ottawa cannot comment on any documents to which it is not a party.

Court House
161 Elgin Street 4th Floor
Ottawa ON K2P 2K1
Tel: (613) 239-1230
Fax: (613) 239-1422

Please note, as per the HLUI Disclaimer, that the information contained in the HLUI database has been compiled from publicly available records and other sources of information. The HLUI may contain erroneous information given that the records used as sources of information may be flawed. For instance, changes in municipal addresses over time may introduce error. Accordingly, all information from the HLUI database is provided on an "as is" basis with no representation or warranty by the City with respect to the information's accuracy or exhaustiveness in responding to the request.

Furthermore, the HLUI database and the results of this search in no way confirm the presence or absence of contamination or pollution of any kind. This information is provided on the assumption that it will not be relied upon by any person for any purpose whatsoever. The City of Ottawa denies all liability to any persons attempting to rely on any information provided from the HLUI database.

Please note that in responding to your request, the City of Ottawa does not guarantee or comment on the environmental condition of the Subject Property. You may wish to contact the Ontario Ministry of Environment and Climate Change for additional information.

If you have any further questions or comments, please contact Seana Turkington at 613-580-2424 ext. 14743 or HLUI@ottawa.ca

Sincerely,

A handwritten signature in cursive script, appearing to read "Seana Turkington".

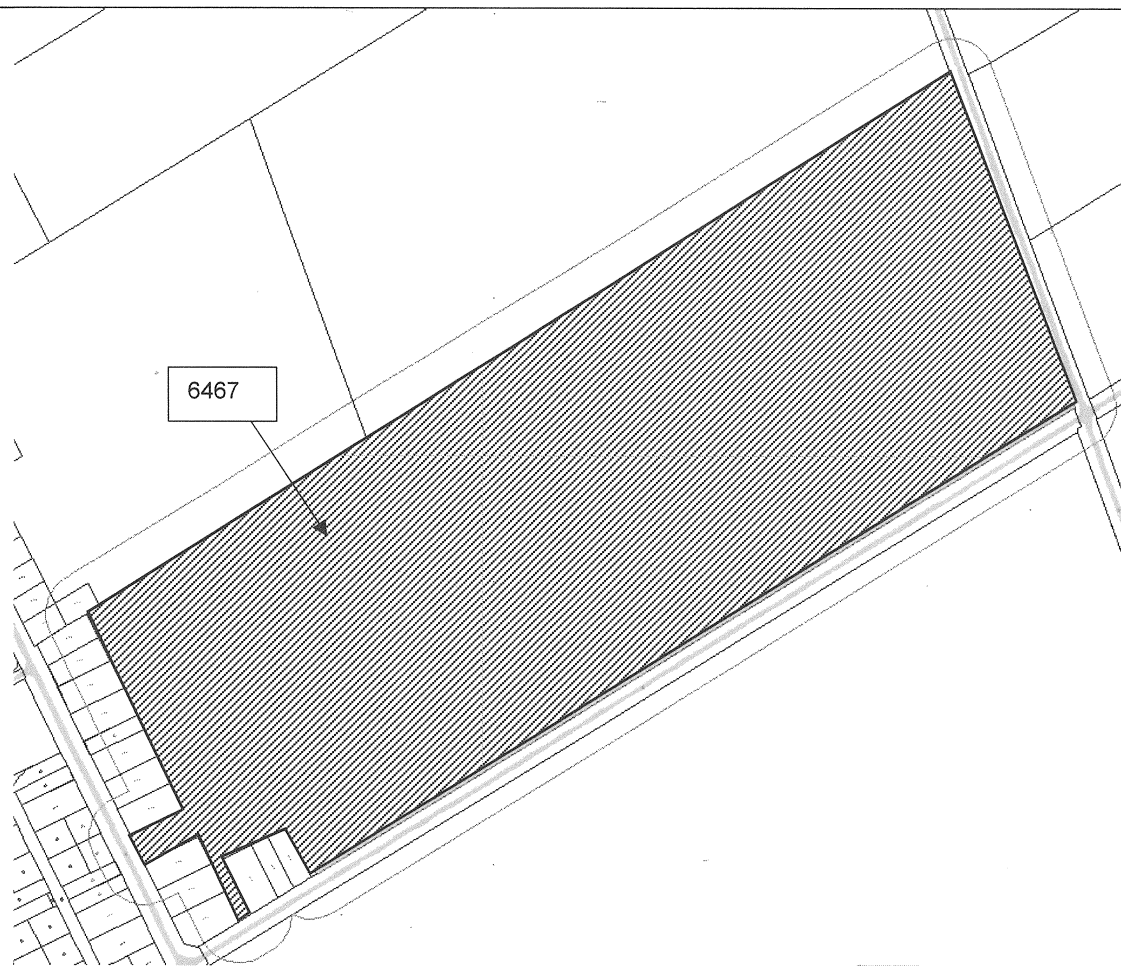
Seana Turkington

(For) Michael Boughton, MCIP, RPP
Senior Planner
Development Review East
Planning Services
Planning, Infrastructure and Economic Development Department

MB/ ST

Attached: 2

cc: File no. D06-03-17-0065



Scale 1: n/a

673 Rideau Road
Ottawa, ON
File # D06-03-17-0065
Seana Turkington



Overview

ID# = Activity Identification Number

 = Subject Site



CITY OF OTTAWA

HLUI ID: __679AXN

AREA (Square Metres): 458208.417

Report: RPTC_OT_DEV0122

Run On: 12 May 2017 at: 09:09:13

Study Year
2005

PIN
043300066

Multi-NAIC
N

Multiple Activities
N

Activity ID: 6467 Multiple PINS: N

PIN Certainty: 2 Previous Activity ID(s) :

Related PINS: 043300066

Name: JAWS PERFORMANCE LIMITED

Address: 671 RIDEAU STREET, MANOTICK

Facility Type: Motor Vehicle Repair Shops

Comments 1: no pin for 671 - pin is for 673

Comments 2:

Generator Number:

Storage Tanks:

HL References 1:

HL References 2:

HL References 3: 2001 Employment Survey

NAICS SIC

811112 0

Company Name

JAWS PERFORMANCE LIMITED

Year of Operation

c. 2001

Karyn Munch

From: Ruchi Chohan <rchohan@tssa.org> on behalf of Public Information Services
<publicinformationservices@tssa.org>
Sent: May-10-17 11:14 AM
To: Karyn Munch
Subject: RE: Records Search Request (PE2837)

Follow Up Flag: Follow up
Flag Status: Flagged

Hello Karyn,

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: Karyn Munch [mailto:KMunch@Patersongroup.ca]
Sent: Wednesday, May 03, 2017 11:37 AM
To: Public Information Services
Subject: Records Search Request (PE2837)

Good morning,

Can you please search your database for the following addresses in the City of Ottawa (formerly Gloucester):
483, 495, 499, 673, 805 and 982 Rideau Road
4800 and 4975 Spratt Road
855 River Road

Thank-you very much.

Best Regards,

Karyn Munch, P.Eng.

patersongroup
solution oriented engineering

154 Colonnade Road South
Ottawa, Ontario, K2E 7J5
Tel: (613) 226-7381 Ext. 217
Fax: (613) 226-6344
Email: kmunch@patersongroup.ca

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Ministry of the Environment
and Climate Change

Wells Help Desk
Environmental Monitoring and
Reporting Branch

125 Resources Road
Toronto ON M9P 3V6
(Toll Free) 1-888-396-9355
WellsHelpdesk@ontario.ca

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

Service d'information sur les puits
Direction de la surveillance environnementale

125 Resources Road
Toronto ON M9P 3V6
Téléphone : 1-888-396-9355
Télécopieur : 416-235-5960
WellsHelpdesk@ontario.ca



**** NEW ****

**** NEW ****

You can now use our Interactive Map Well Records
<http://www.ontario.ca/environment-and-energy/map-well-record-data>
to search and view well records from reported wells in Ontario.

Computer Print-Out Data Well Search Request – Form B
Reference Number 1718-0103Bk
May 23, 2017

Paterson Group Inc.
154 Colonnade Rd S.
Ottawa, On
Attn: Adrian Menyhart

Fax: : n/a
Email Address: amenyhart@patersongroup.ca
File/Reference No. : PE2837

Search by UTM Coordinates
(1km radius) Easting 445994 Northing 5011439



County:

Township:

Conc.:

Lot:

No Well Record found matching the search criteria
provided



If you have any questions, please contact the Wells Help Desk at 1-888-396-9355 or wellshelpdesk@ontario.ca

*** SEARCH REQUEST FORMS AVAILABLE AT www.forms.ssb.gov.on.ca ***

Please note: The Ministry cannot and does not represent or guarantee that the Well Records information is current, accurate or complete. The Ministry assumes no responsibility for errors or omissions in the Well Records information and is not liable in any way for damages of any kind arising out of or related to the Well Records information or for delay or failure to provide the Well Records information. Any reliance upon the Well Records information provided is solely at the risk of the requester. Well Information provided is subject to the Freedom of Information and Protection of Privacy Act (FIPPA), Ontario.

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TOWNSHIP CONCESSION (LOT)	UTM ¹	DATE ² CNTR ³	CASING DIA ⁴	WATER ^{5,6} DETAIL	STAT LVL/PUMP LVL ⁷ RATE ⁸ /TIME HR:MIN	WATER USE ⁹	SCREEN INFO ¹⁰	WELL # (AUDIT#) WELL TAG # STATE ¹² DEPTHS TO WHICH FORMATIONS EXTEND ^{5,11}
GLOUCESTER TOWNSHIP BF (022)	18 445501 5012322 W	1959/03 3601	04 04	FR 0052	019 / 019 004 / 1:0	DO		1501673 () PRDG 0011 LMSN 0052
GLOUCESTER TOWNSHIP BF (022)	18 445071 5012362 W	1957/07 3601	04 04	FR 0051	011 / 016 005 / 1:0	DO		1500326 () CLAY 0046 GREY LMSN 0051
GLOUCESTER TOWNSHIP BF (022)	18 445081 5012322 W	1957/07 3601	04 04	FR 0051	011 / 016 005 / 1:0	DO		1500327 () CLAY 0046 GREY LMSN 0051
GLOUCESTER TOWNSHIP BF (022)	18 445121 5012082 W	1957/10 3601	04 04	FR 0052	016 / 018 004 / 1:0	DO		1500329 () CLAY 0046 LMSN 0052
GLOUCESTER TOWNSHIP BF (022)	18 445021 5011992 W	1957/12 1603	02 02	FR 0088	020 / 025 005 / 1:0	ST DO		1500331 () PRDG 0026 BLDR GRVL 0064 SNDS 0088
GLOUCESTER TOWNSHIP BF (022)	18 445101 5012192 W	1957/11 3601	04 04	FR 0052	012 / 016 005 / 1:0	DO		1500330 () CLAY 0046 LMSN 0052
GLOUCESTER TOWNSHIP BF (022)	18 445021 5012202 W	1961/06 1301	05 04 04	FR 0120	025 / 027 010 / 1:0	DO		1500332 () CLAY BLDR 0088 GREY LMSN 0120
GLOUCESTER TOWNSHIP BF (022)	18 445031 5012332 W	1970/07 1558	05 05	FR 0092	020 / 060 009 / 1:0	DO		1510831 () BRWN CLAY 0055 GREY MSND BLDR 0072 GREY SNDS 0094
GLOUCESTER TOWNSHIP BF (022)	18 445121 5012152 W	1957/10 3601	04 04	FR 0051	016 / 020 005 / 1:0	DO		1500328 () CLAY 0046 LMSN 0051
GLOUCESTER TOWNSHIP BF (023)	18 445211 5011602 W	1978/10 3644	06	FR 0078	015 / 040 020 / 1:0	DO		1516805 () GREY CLAY 0043 GREY LMSN 0084
GLOUCESTER TOWNSHIP BF (023)	18 445091 5011912 W	1961/12 1802	02 02	FR 0082	023 / 035 005 / 1:0	DO		1500335 () BLUE CLAY 0021 MSND BLDR GRVL 0049 SNDS 0085
GLOUCESTER TOWNSHIP BF (023)	18 445111 5011532 W	1973/07 1558	06	FR 0114 FR 0099 FR 0109	020 / 075 014 / 1:0	DO		1513511 () BRWN CLAY 0012 BLUE CLAY 0044 GREY LMSN 0065 WHIT SNDS 0115

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TOWNSHIP CONCESSION (LOT)	UTM ¹	DATE ² CNTR ³	CASING DIA ⁴	WATER ^{5,6} DETAIL	STAT LVL/PUMP LVL ⁷ RATE ⁸ /TIME HR:MIN	WATER USE ⁹	SCREEN INFO ¹⁰	WELL # (AUDIT#) WELL TAG # STATE ¹² DEPTHS TO WHICH FORMATIONS EXTEND ^{5,11}
GLOUCESTER TOWNSHIP BF (023)	18 445099 5011719 W	1974/01 3644	05 05	FR 0075	008 / 060 008 / 1:0	DO		1514044 () GREY CLAY 0040 GREY LMSN 0075
GLOUCESTER TOWNSHIP BF (023)	18 445101 5011702 W	1957/08 1603	03 03	SU 0100	023 / 030 005 / 3:0	DO		1500334 () CLAY 0080 SNDS 0100
GLOUCESTER TOWNSHIP BF (024)	18 445311 5011182 W	1970/07 1558	05 05	FR 0054	020 / 030 010 / 1:0	DO		1510843 () CLAY 0015 HPAN 0039 GREY LMSN 0055
GLOUCESTER TOWNSHIP BF (024)	18 445271 5011382 W	1958/08 3601	04 04	FR 0050	018 / 020 004 / 1:0	DO		1500339 () CLAY BLDR 0037 LMSN 0050
GLOUCESTER TOWNSHIP BF (024)	18 445330 5011321 W	1980/08 1558	06 06	FR 0052	020 / 025 050 / 1:0	DO		1517460 () BRWN CLAY PCKD 0015 GREY HPAN BLDR 0043 GREY GRVL 0047 GREY LMSN FCRD 0053
GLOUCESTER TOWNSHIP BF (024)	18 445065 5011040 W	1976/01 1558	08 08	FR 0180 FR 0110	017 / 050 030 / 1:0	IN		1515199 () GREY CLAY 0016 GREY CLAY SAND BLDR 0026 GREY LMSN 0056 WHIT SNDS HARD 0198
GLOUCESTER TOWNSHIP BF (024)	18 445271 5011242 W	1972/03 3644	05	FR 0086	021 / 055 020 / 1:0	DO		1511750 () GREY CLAY 0035 GREY HPAN GRVL 0057 GREY LMSN 0086
GLOUCESTER TOWNSHIP BF (024)	18 445346 5011182 W	1973/11 1558	06	FR 0071	010 / 035 010 / 1:0	DO		1513667 () BRWN SAND BLDR 0010 GREY CLAY SAND BLDR 0048 GREY LMSN 0073
GLOUCESTER TOWNSHIP BF (024)	18 445311 5011292 W	1964/11 1503	05 05	FR 0060	024 / 025 010 / 1:0	DO		1500348 () CLAY 0020 MSND BLDR 0034 LMSN 0062
GLOUCESTER TOWNSHIP BF (024)	18 445151 5011482 W	1963/10 3601	04 04	FR 0075	040 / 044 004 / 1:0	DO		1500346 () CLAY 0040 LMSN 0075
GLOUCESTER TOWNSHIP BF (024)	18 445341 5011242 W	1961/05 1603	02 02	FR 0058	016 / 030 012 / 2:0	DO		1500344 () CLAY 0017 BLDR MSND GRVL 0038 GREY LMSN 0058
GLOUCESTER TOWNSHIP BF (024)	18 445291 5011342 W	1959/07 3601	04 04	FR 0068	008 / 008 004 / 1:0	DO		1500342 () CLAY 0031 CLAY STNS 0045 LMSN 0068

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TOWNSHIP CONCESSION (LOT)	UTM ¹	DATE ² CNTR ³	CASING DIA ⁴	WATER ^{5,6} DETAIL	STAT LVL/PUMP LVL ⁷ RATE ⁸ /TIME HR:MIN	WATER USE ⁹	SCREEN INFO ¹⁰	WELL # (AUDIT#) WELL TAG # STATE ¹² DEPTHS TO WHICH FORMATIONS EXTEND ^{5,11}
GLOUCESTER TOWNSHIP BF (024)	18 445191 5011372 W	1959/06 3601	04 04	FR 0066	015 / 022 004 / 1:0	DO		1500340 () CLAY 0015 CLAY STNS 0046 LMSN 0066
GLOUCESTER TOWNSHIP BF (024)	18 445330 5011221 W	1982/08 1558	06 06	FR 0050 FR 0056	019 / 035 008 / 1:0	DO		1517927 () RED SAND PCKD 0005 BRWN CLAY BLDR PCKD 0020 GREY HPAN BLDR GRVL 0046 GREY LMSN MGRD 0060
GLOUCESTER TOWNSHIP BF (024)	18 445291 5011192 W	1965/11 1503	05 05	FR 0065	015 / 016 010 / 1:0	DO		1500349 () CLAY 0020 CLAY BLDR 0025 GRVL MSND 0037 LMSN 0067
GLOUCESTER TOWNSHIP BF (024)	18 445021 5010952 W	1964/09 1503	05 05	FR 0054	020 / 025 010 / 1:0	PS		1500347 () CLAY 0020 MSND 0025 LMSN 0058
GLOUCESTER TOWNSHIP BF (024)	18 445271 5011242 W	1962/05 1628	02 02	FR 0069	016 / 028 006 / 2:30	DO		1500345 () BRWN MSND CLAY 0015 BLDR GRVL MSND 0037 LMSN 0071
GLOUCESTER TOWNSHIP BF (024)	18 445261 5011262 W	1960/09 4825	04 04	FR 0048	014 / 016 006 / 0:30	DO		1500343 () BLUE CLAY 0020 BLDR 0032 GREY LMSN 0049
GLOUCESTER TOWNSHIP BF (024)	18 445181 5011392 W	1959/07 3601	04 04	FR 0065	014 / 014 004 / 1:0	DO		1500341 () CLAY 0030 CLAY BLDR 0045 LMSN 0065
GLOUCESTER TOWNSHIP BF (025)	18 445631 5010922 W	1976/07 1558	06 06	FR 0116 FR 0080	020 / 055 015 / 1:0	DO		1515519 () BRWN SAND LOOS 0001 BRWN CLAY STKY 0017 BLUE CLAY BLDR STNS 0065 GREY CGVL 0072 GREY LMSN HARD 0123
GLOUCESTER TOWNSHIP BF (025)	18 445541 5010852 W	1973/09 1558	06	FR 0065 FR 0072	020 / 055 008 / 1:0	DO		1513552 () BRWN CLAY BLDR 0025 GREY SAND GRVL BLDR 0054 BLCK LMSN 0073
GLOUCESTER TOWNSHIP BF (025)	18 445496 5010947 W	1973/09 1558	06	FR 0126	020 / 075 006 / 1:0	DO		1513554 () BRWN CLAY BLDR 0025 GREY SAND GRVL 0064 BLCK LMSN 0070 GREY LMSN 0112 WHIT SNDS 0120 BLCK LMSN 0128 WHIT SNDS 0130
GLOUCESTER TOWNSHIP BF (025)	18 445431 5010792 W	1950/02 3601	05 05	FR 0075	017 / 017 / 1:0	DO		1500350 () BLDR CLAY 0018 MSND 0051 GRVL 0055 LMSN 0080

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TOWNSHIP CONCESSION (LOT)	UTM ¹	DATE ² CNTR ³	CASING DIA ⁴	WATER ^{5,6} DETAIL	STAT LVL/PUMP LVL ⁷ RATE ⁸ /TIME HR:MIN	WATER USE ⁹	SCREEN INFO ¹⁰	WELL # (AUDIT#) WELL TAG # STATE ¹² DEPTHS TO WHICH FORMATIONS EXTEND ^{5,11}
GLOUCESTER TOWNSHIP BF (025)	18 445451 5010862 W	1958/05 3601	04 04	FR 0050	020 / 024 004 / 1:0	DO		1500352 () BLUE CLAY 0028 GREY LMSN 0056
GLOUCESTER TOWNSHIP BF (025)	18 445331 5010732 W	1963/07 1301	04 04	FR 0091	020 / 025 004 / 1:0	DO		1500354 () CLAY 0060 GREY LMSN 0091
GLOUCESTER TOWNSHIP BF (025)	18 445501 5010907 W	1973/07 1558	06	FR 0078 FR 0125	060 / 095 005 / 1:0	DO		1513339 () BRWN SAND 0004 BRWN CLAY 0016 BRWN CLAY BLDR 0033 BLUE CLAY BLDR 0056 GREY LMSN 0070 BLCK LMSN 0093 WHIT SNDS 0125
GLOUCESTER TOWNSHIP BF (025)	18 445431 5011062 W	1972/04 1558	06	FR 0081	020 / 075 008 / 2:0	DO		1511939 () BRWN CLAY SAND 0020 GREY SAND BLDR 0063 GREY LMSN 0083
GLOUCESTER TOWNSHIP BF (025)	18 445432 5011082 W	1973/06 1558	06 06	FR 0096 FR 0065	020 / 065 006 / 1:0	DO		1513373 () BRWN CLAY 0015 BRWN CLAY BLDR 0044 BRWN GRVL 0052 BRWN LMSN 0090 GREY LMSN 0098
GLOUCESTER TOWNSHIP BF (025)	18 445446 5010902 W	1972/11 3504	06	FR 0065	008 / 018 020 / 1:0	DO		1512365 () LOAM 0002 CLAY SAND GRVL 0032 SAND 0038 SNDS 0065
GLOUCESTER TOWNSHIP BF (025)	18 445461 5010992 W	1960/05 3601	04 04	FR 0060	021 / 024 003 / 1:0	DO		1500353 () CLAY BLDR 0046 LMSN 0061
GLOUCESTER TOWNSHIP BF (025)	18 445431 5010752 W	1956/06 3601	04 04	FR 0080	018 / 024 005 / 1:0	DO		1500351 () CLAY 0041 GREY LMSN 0080
GLOUCESTER TOWNSHIP BF (025)	18 446230 5011321 W	1984/09 1558	06 06	FR 0090 FR 0160 FR 0120	020 / 175 015 / 1:0	DO		1519366 () BRWN CLAY BLDR SNDY 0012 GREY SAND PCKD 0036 GREY SAND GRVL PCKD 0041 GREY LMSN MGRD 0082 GREY SNDS HARD 0200
GLOUCESTER TOWNSHIP BF (025)	18 445681 5010822 W	1976/08 1558	06 06	FR 0065	010 / 020 050 / 1:0	DO		1515575 () BRWN CLAY STKY 0017 BRWN CLAY STNS 0024 BLUE CLAY BLDR STNS 0059 GREY LMSN FCRD 0066

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TOWNSHIP CONCESSION (LOT)	UTM ¹	DATE ² CNTR ³	CASING DIA ⁴	WATER ^{5,6} DETAIL	STAT LVL/PUMP LVL ⁷ RATE ⁸ /TIME HR:MIN	WATER USE ⁹	SCREEN INFO ¹⁰	WELL # (AUDIT#) WELL TAG # STATE ¹² DEPTHS TO WHICH FORMATIONS EXTEND ^{5,11}
GLOUCESTER TOWNSHIP BF (025)	18 445611 5010862 W	1977/05 1558	06 06 06	FR 0260 FR 0278	020 / 040 020 / 1:0	DO		1515937 () BRWN CLAY BLDR PCKD 0017 GREY SAND CLAY BLDR 0040 GREY LMSN HARD 0054 GREY SNDS HARD 0265 GREY GRNT HARD 0273 GREY GRNT 0280
GLOUCESTER TOWNSHIP BF (025)	18 445651 5010882 W	1978/06 3644	06	FR 0038	008 / 025 010 / 1:0	DO		1516582 () GREY CLAY STNS 0035 GREY GRVL 0038 GREY LMSN 0040
GLOUCESTER TOWNSHIP BF (025)	18 445671 5010922 W	1978/06 3644	06	FR 0134	008 / 070 005 / 1:0	DO		1516583 () GREY CLAY BLDR 0038 GREY SNDS 0134
GLOUCESTER TOWNSHIP BF (025)	18 445530 5010921 W	1979/04 3644	06	FR 0080	010 / 025 040 / 1:0	DO		1516945 () GREY CLAY 0020 GREY CLAY STNS 0045 GREY HPAN GRVL 0065 GREY LMSN 0084
GLOUCESTER TOWNSHIP BF (026)	18 445401 5010682 W	1960/09 3601	04 04	FR 0057	024 / 024 004 / 1:0	DO		1500355 () CLAY BLDR 0032 GRVL MSND 0047 GREY LMSN 0057
GLOUCESTER TOWNSHIP BF (026)	18 445631 5010532 W	1968/08 1503	05 05	FR 0060	012 / 022 010 / 1:0	DO		1509611 () CLAY 0030 MSND BLDR 0031 HPAN 0034 LMSN 0062
GLOUCESTER TOWNSHIP BF (026)	18 445421 5010632 W	1966/11 3504	05 05	FR 0066	018 / 025 010 / 1:0	DO		1500358 () CLAY 0018 CLAY BLDR 0025 GRVL BLDR 0050 LMSN 0069
GLOUCESTER TOWNSHIP BF (026)	18 445530 5010621 W	1984/10 1558	06 06 06	FR 0170 FR 0195 FR 0070	012 / 014 010 / 1:0	DO		1519375 () BRWN CLAY PCKD 0010 BRWN CLAY BLDR PCKD 0062 GREY LMSN MGRD 0075 GREY SNDS HARD 0200
GLOUCESTER TOWNSHIP BF (026)	18 445530 5010721 W	1979/06 1558	06 06	FR 0065	015 / 040 020 / 1:0	DO		1517082 () BRWN CLAY 0013 GREY CLAY 0035 GREY CGVL CSND 0049 GREY LMSN 0075
GLOUCESTER TOWNSHIP BF (026)	18 445451 5010712 W	1968/10 4216	04 04	FR 0078	015 / 010 / 1:0	DO		1509604 () CLAY 0030 CLAY BLDR 0045 HPAN BLDR 0059 GREY LMSN 0080
GLOUCESTER TOWNSHIP BF (026)	18 445400 5010655 W	2002/08 1558	06 06	UK 0086	016 / 035 030 / 1:0	DO		1533074 (250391) BRWN CLAY 0012 GREY CLAY STNS 0040 GREY SAND BLDR GRVL 0052 GREY LMSN 0098

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TOWNSHIP CONCESSION (LOT)	UTM ¹	DATE ² CNTR ³	CASING DIA ⁴	WATER ^{5,6} DETAIL	STAT LVL/PUMP LVL ⁷ RATE ⁸ /TIME HR:MIN	WATER USE ⁹	SCREEN INFO ¹⁰	WELL # (AUDIT#) WELL TAG # STATE ¹² DEPTHS TO WHICH FORMATIONS EXTEND ^{5,11}
GLOUCESTER TOWNSHIP BF (026)	18 445496 5010727 W	1972/09 1558	06	FR 0064	018 / 025 010 / 2:0	DO		1512165 () BRWN CLAY SILT 0020 GREY CLAY BLDR 0040 GREY GRVL SAND BLDR 0064
GLOUCESTER TOWNSHIP BF (026)	18 445531 5010662 W	1975/03 3504	05 05	FR 0090 UK 0096	006 / 016 010 / 1:0	DO		1514597 () LOAM 0002 GRVL BLDR 0026 LMSN 0096
GLOUCESTER TOWNSHIP BF (026)	18 445552 5010731 W	1974/07 1558	06 06	FR 0065	010 / 020 030 / 1:0	DO		1514228 () GREY CLAY 0020 GREY CLAY 0057 GREY LMSN 0073
GLOUCESTER TOWNSHIP BF (026)	18 445430 5010621 W	1984/09 1558	06 06	FR 0073 FR 0061	012 / 035 010 / 1:0	DO		1519365 () BRWN CLAY PCKD 0010 BRWN CLAY BLDR PCKD 0024 GREY SAND BLDR GRVL 0054 GREY LMSN MGRD 0075
GLOUCESTER TOWNSHIP BF (026)	18 445431 5010672 W	1976/10 1558	06 06	FR 0045	010 / 015 075 / 1:0	DO		1515708 () BRWN CLAY 0020 GREY CLAY BLDR 0042 GREY GRVL 0045
GLOUCESTER TOWNSHIP BF (026)	18 445491 5010642 W	1961/07 1628	04 04	FR 0078	011 / 028 008 / 2:0	DO		1500356 () CLAY 0027 GRVL BLDR 0047 GREY LMSN 0081
GLOUCESTER TOWNSHIP BF (026)	18 445671 5010442 W	1971/08 1558	06	FR 0135 FR 0160 FR 0063	011 / 120 003 / 1:0	DO		1511383 () BRWN CLAY SAND 0008 BLUE CLAY 0030 GREY HPAN BLDR 0034 GREY LMSN 0094 GREY SNDS 0175
GLOUCESTER TOWNSHIP BF (026)	18 445431 5010642 W	1965/07 3504	05 05	FR 0070	018 / 050 007 / 1:0	DO		1500357 () MSND CLAY 0010 CLAY 0056 LMSN 0080
GLOUCESTER TOWNSHIP BF (027)	18 446731 5010842 W	1970/06 1558	05 05	FR 0098	010 / 050 005 / 1:0	DO		1510658 () BRWN MSND BLDR 0022 GREY GRVL BLDR 0030 GREY HPAN BLDR 0041 GREY LMSN 0071 WHIT SNDS 0100
GLOUCESTER TOWNSHIP RF 01(024)	18 446861 5012162 W	1960/06 4216	05 04 04	FR 0094	020 / 022 010 / 1:0	DO ST		1501676 () CLAY BLDR 0038 LMSN 0094
GLOUCESTER TOWNSHIP RF 01(025)	18 446531 5011792 W	1947/08 1107	04 04	SA 0080	012 / 032 005 / 0:30	DO		1502359 () LOAM CLAY 0005 GRVL CLAY 0018 GREY MSND 0020 BLCK FSND 0028 GREY SLTE 0080

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TOWNSHIP CONCESSION (LOT)	UTM ¹	DATE ² CNTR ³	CASING DIA ⁴	WATER ^{5,6} DETAIL	STAT LVL/PUMP LVL ⁷ RATE ⁸ /TIME HR:MIN	WATER USE ⁹	SCREEN INFO ¹⁰	WELL # (AUDIT#) WELL TAG # STATE ¹² DEPTHS TO WHICH FORMATIONS EXTEND ^{5,11}
GLOUCESTER TOWNSHIP RF 01(025)	18 446661 5011632 W	1947/08 1107	04 04	FR 0092	030 / 092 008 / 0:30	DO		1502360 () ROCK 0018 LMSN 0092
GLOUCESTER TOWNSHIP RF 01(025)	18 446691 5011552 W	1947/09 1107	04 04	SA 0073	012 / 015 008 / 0:30	DO		1502361 () BLUE CLAY 0020 SLTE 0073
GLOUCESTER TOWNSHIP RF 01(025)	18 446663 5011765 L	1988/08 1558	06 06	FR 0170	015 / 117 003 / 6:0	DO		1522581 (38267) BRWN CLAY 0010 GREY CLAY 0025 GREY HPAN BLDR 0045 GREY SAND GRVL 0054 GREY LMSN 0075 GREY SNDS 0175
GLOUCESTER TOWNSHIP RF 01(025)	18 446663 5011765 L	1988/07 1558	06 06	FR 0070	010 / 030 030 / 1:0	DO		1522584 (38223) BRWN CLAY PCKD 0015 GREY SAND GRVL BLDR 0060 GREY GRVL FCRD ROCK 0070
GLOUCESTER TOWNSHIP RF 01(026)	18 445643 5010493 W	2011/09 1119	06 06 06	0239	012 / 097 012 / 1:0	DO		7171872 (Z137168) A096030 GREY CLAY 0022 GRVL BLDR 0028 GREY LMSN 0056 GREY SNDS 0238 GREN GRNT 0239 GREN GRNT 0245
GLOUCESTER TOWNSHIP RF 01(026)	18 445638 5010485 W	2013/07 1119	06 06	0105 0173	013 / 055 020 / 1:0	DO		7206668 (Z155166) A144775 CLAY 0028 BLDR GRVL 0032 GREY LMSN 0058 GREY LMSN SNDS 0100 WHIT SNDS 0105 WHIT SNDS 0173 WHIT SNDS 0180
GLOUCESTER TOWNSHIP RF 01(026)	18 445645 5010478 W	2013/07 1119						7206651 (Z155124) A
GLOUCESTER TOWNSHIP RF 01(026)	18 446902 5011411 L	1988/06 3644	06	FR 0119	020 / 090 005 / 1:0	DO		1522707 (18406) GREY HPAN STNS 0041 GREY LMSN 0100 WHIT SNDS 0124
GLOUCESTER TOWNSHIP RF 01(026)	18 446651 5011412 W	1947/03 1107	05 05	FR 0068	005 / 015 008 / 0:30	CO		1502362 () LOAM 0002 BRWN MSND STNS GRVL 0020 GREY FSND 0029 SLTE 0068
GLOUCESTER TOWNSHIP RF 01(027)	18 446807 5011033 W	1975/09 1558	06 05	FR 0040	010 / 020 025 / 1:0	DO		1514953 () BRWN SAND FILL 0002 GRVL BLDR 0018 GREY LMSN 0048
GLOUCESTER TOWNSHIP RF A(025)	18 445334 5010700 W	2006/04 1558	06	0075 0092	011 / 015 012 / 1:0	DO		1536337 (Z46953) A035408 BRWN CLAY PCKD 0012 GREY CLAY STKY 0030 GREY HPAN BLDR PCKD 0045 GREY LMSN 0100

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TOWNSHIP CONCESSION (LOT)	UTM ¹	DATE ² CNTR ³	CASING DIA ⁴	WATER ^{5,6} DETAIL	STAT LVL/PUMP LVL ⁷ RATE ⁸ /TIME HR:MIN	WATER USE ⁹	SCREEN INFO ¹⁰	WELL # (AUDIT#) WELL TAG # STATE ¹² DEPTHS TO WHICH FORMATIONS EXTEND ^{5,11}
GLOUCESTER TOWNSHIP 03 (001)	18 445002 5010701 W	2006/04 1558	06	0116	015 / 015 012 / 2:0	DO		1536338 (Z46952) A035412 BRWN SAND DRY 0004 BRWN SAND 0008 GREY SAND WBRG 0020 GREY CLAY 0030 GREY SAND BLDR 0043 GREY LMSN 0120
GLOUCESTER TOWNSHIP ()	18 445321 5011269 W	2012/06 6907						7196225 (Z91827) A017472
GLOUCESTER TOWNSHIP ()	18 445458 5010873 W	2014/12 1558						7243389 (Z188529) A
GLOUCESTER TOWNSHIP ()	18 445458 5010871 W	2014/12 1558	06	0115 0266	017 / 052 005 / 1:0	DO		7243392 (Z188532) A165073 BRWN CLAY PCKD 0014 GREY CLAY STKY 0025 GREY CLAY SNDY STNS 0040 GREY SAND STNS WBRG 0055 GREY TILL PCKD 0065 GREY LMSN MGRD 0115 GREY SNDS HARD 0273
NEPEAN TOWNSHIP RF A ()	18 445555 5011157 W	2002/06 7124	01	UK 0019		CO	15 10	1533717 (220844) BRWN TILL LOOS 0000 BRWN FILL LOOS 0001 BRWN CLAY SILT PCKD 0019 GREY SILT CLAY PCKD 0026

Notes:

1. UTM in Zone, Easting, Northing and Datum is NAD83; L: UTM estimated from Centroid of Lot; W: UTM not from Lot Centroid
2. Date Work Completed
3. Well Contractor Licence Number
4. Casing diameter in inches
5. Unit of Depth in Feet
6. See Table 4 for Meaning of Code
7. STAT LVL: Static Water Level in Feet ; PUMP LVL: Water Level After Pumping in Feet
8. Pump Test Rate in GPM, Pump Test Duration in Hour : Minutes
9. See Table 3 for Meaning of Code
10. Screen Depth and Length in feet
11. See Table 1 and 2 for Meaning of Code
12. A: Abandonment; P: Partial Data Entry Only

1. Core Material and Descriptive terms											
Code	Description	...	Code	Description	...	Code	Description	...	Code	Description	...
BLDR	BOULDERS		FCRD	FRACTURED		IRFM	IRON FORMATION		PORS	POROUS	
BSLT	BASALT		FGRD	FINE-GRAINED		LIMY	LIMY		PRDG	PREVIOUSLY DUG	
CGRD	COARSE-GRAINED		FGVL	FINE GRAVEL		LMSN	LIMESTONE		PRDR	PREV. DRILLED	
CGVL	COARSE GRAVEL		FILL	FILL		LOAM	TOPSOIL		QRTZ	QUARTZITE	
CHRT	CHERT		FLDS	FELDSPAR		LOOS	LOOSE		QSND	QUICKSAND	
CLAY	CLAY		FLNT	FLINT		LTCL	LIGHT-COLOURED		QTZ	QUARTZ	
CLN	CLEAN		FOSS	FOSILIFEROUS		LYRD	LAYERED		ROCK	ROCK	
CLYY	CLAYEY		FSND	FINE SAND		MARL	MARL		SAND	SAND	
CMTD	CEMENTED		GNIS	GNEISS		MGRD	MEDIUM-GRAINED		SHLE	SHALE	
CONG	CONGLOMERATE		GRNT	GRANITE		MGVL	MEDIUM GRAVEL		SHLY	SHALY	
CRYS	CRYSTALLINE		GRSN	GREENSTONE		MRBL	MARBLE		SHRP	SHARP	
CSND	COARSE SAND		GRVL	GRAVEL		MSND	MEDIUM SAND		SHST	SCHIST	
DKCL	DARK-COLOURED		GRWK	GREYWACKE		MUCK	MUCK		SILT	SILT	
DLMT	DOLOMITE		GVLY	GRAVELLY		OBDN	OVERBURDEN		SLTE	SLATE	
DNSE	DENSE		GYPS	GYP SUM		PCKD	PACKED		SLTY	SILTY	
DRTY	DIRTY		HARD	HARD		PEAT	PEAT		SNDS	SANDSTONE	
DRY	DRY		HPAN	HARDPAN		PGVL	PEA GRAVEL		SNDY	SANDY	

2. Core Color	
Code	Description
WHIT	WHITE
GREY	GREY
BLUE	BLUE
GREN	GREEN
YLLW	YELLOW
BRWN	BROWN
RED	RED
BLCK	BLACK
BLGY	BLUE-GREY

3. Water Use			
Code	Description	Code	Description
DO	Domestic	OT	Other
ST	Livestock	TH	Test Hole
IR	Irrigation	DE	Dewatering
IN	Industrial	MO	Monitoring
CO	Commercial	MT	Monitoring & Test Hole
MN	Municipal		
PS	Public		
AC	Cooling And A/C		
NU	Not Used		

4. Water Detail			
Code	Description	Code	Description
FR	Fresh	GS	Gas
SA	Salty	IR	Iron
SU	Sulphur		
MN	Mineral		
UK	Unknown		

APPENDIX 3

QUALIFICATIONS OF ASSESSORS

POSITION

Intermediate Environmental Engineer

EDUCATION

Carleton University, B.Eng. 2002
Environmental Engineering

MEMBERSHIPS AND AWARDS

Professional Engineers of Ontario
Ottawa Geotechnical Society

EXPERIENCE

2011-present

Paterson Group Inc.

Consulting Engineers
Geotechnical and Environmental Division
Intermediate Engineer

2009-2010

Department of Indian and Northern Affairs

Contaminated Sites Division
Environment Officer (PC-02)

2003 to 2009

Paterson Group Inc.

Consulting Engineers
Geotechnical and Environmental Division
Intermediate Engineer

2002 to 2003

Dessau Soprin Inc.

Consulting Engineers
Environmental Division
Junior Engineer

SELECT LIST OF PROJECTS

Billings-Hurdman Interconnect Watermain - Ottawa
Telus Building Remediation - Ottawa
Block D Lands Remediation and Redevelopment – Kingston
Alcan Plant Redevelopment - Kingston
Gladstone Avenue Reconstruction - Ottawa
Lees Avenue Coal Tar Site - City of Ottawa
Nortel Networks Environmental Monitoring Program
3W Zone Feedermain – Ottawa
Bank Street Reconstruction – Ottawa
Lees Avenue Remediation Program – Ottawa
Colonnade Road North Development – Ottawa
Montreal Road Reconstruction – Ottawa
Designated Substance Surveys – Residential and Commercial Sites - Ottawa
Phase I & II Environmental Site Assessments – Residential, Commercial and Industrial Sites – Ottawa (CSA Z768-01 and O.Reg 269/11)
Brownfields Applications and Records of Site Condition – Residential and Commercial Redevelopment

**Environmental
Engineering**

**Geotechnical
Engineering**

**Materials Testing
Quality Control**

Building Sciences

Hydrogeology

Archeological 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
Consulting 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
Rideau Centre Expansion project - Ottawa
Agricultural Supply Facilities - Eastern Ontario
Laboratory Facility – Edmonton (Alberta)
Ottawa International Airport - Contaminant Migration Study - Ottawa
Investigation and Remediation – Cotton Mill Redevelopment, Cornwall
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
Assessment and Remediation - North Bay Airport
Commercial Properties – Guelph and Brampton
Brownfields Remediation – Alcan Site - Kingston
PWGSC Building – 90 Elgin Street - Ottawa
Remediation Program - Ottawa Train Yards
MHLH Facility – CFB Petawawa
Ottawa Congress Centre
Lansdowne Park Redevelopment - Ottawa

**Environmental
Engineering**

**Geotechnical
Engineering**

**Materials Testing
Quality Control**

Building Science

Hydrogeology

**Archaeological
Services**