Geotechnical Engineering

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Phase I Environmental Site Assessment

278, 280 and 282 O'Connor Street and 347 Gilmour Street Ottawa, Ontario

Prepared For

Polo IV

Paterson Group Inc.

Consulting Engineers 154 Colonnade Road South Ottawa (Nepean), Ontario Canada K2E 7J5

Tel: (613) 226-7381 Fax: (613) 226-6344 www.patersongroup.ca June 28, 2019

Report: PE4530-1



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EXECUTIVE SUMMARY

Assessment

Paterson Group was retained by Polo IV (c/o AK Global) to conduct a Phase I – Environmental Site Assessment (ESA) for the Phase I Property addressed 278, 280 and 282 O'Connor Street and 347 Gilmour Street, in the City of Ottawa, Ontario. The purpose of this environmental assessment was to research the past and current use of the Phase I Property and Study Area and to identify any environmental concerns with the potential to impact the subject property.

Based on the available historical information sources, the Phase I Property was first developed for residential purposes circa 1888. By the 1920s, the property at 278 O'Connor Street was used for both residential and office purposes. Historical land use of surrounding lands consisted of residential, commercial offices, retailers and some service stations that were identified as potentially contaminating activities (PCAs). However, based on the significant distances separating them from the subject site, as well as down and/or cross gradient orientation, these activities do not represent an area of potential environmental concern (APEC) on the Phase I Property. No environmental concerns were identified with the historical use of the subject site or neighbouring lands that would pose a risk to the Phase I Property.

Following the historical review, a site visit was conducted. Based on the findings of the site visit, no on-site PCAs were identified. At the time of the site visit, the current use of the adjacent and neighbouring properties within the Phase I ESA Study Area were observed from publicly accessible areas. No off-site PCAs with the potential to impact the Phase I Property were identified at the time of the site visit.

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

Recommendations

Based on the approximate age of the buildings, potential ACMs may be present within the buildings. Suspected ACMs observed at the time of our site visit include plaster/parging, lathe and plaster, decorative plaster, vinyl tiles and drywall joint compound. It should be noted that wall and ceiling cavities were not inspected at the time of our site visit.

Based on dates of construction, lead-based paints (LBPs) may be present within the structures on older or original painted surfaces beneath newer paints. All building



278, 280 and 282 O'Connor Street and 347 Gilmour Street Ottawa, Ontario

materials and painted surfaces were observed to be in reasonable condition at the time of the site visit and the potential for ACMs and LBPs is not considered to represent an immediate concern at 278, 280 and 282 O'Connor Street and 347 Gilmour Street.

It is our understanding that the subject structures will either be demolished and/or restored and upgraded in conjunction with future redevelopment. Prior to any demolition activities and building material disturbances, a designated substance survey (DSS) must be conducted for the existing structures, if none have been completed for the subject buildings, in accordance with Ontario Regulation 490/09 under the Occupational Health and Safety Act.



1.0 INTRODUCTION

At the request of AK Global Inc., Paterson Group (Paterson) conducted a Phase I - Environmental Site Assessment (Phase I ESA) for the property addressed 278, 280 and 282 O'Connor Street and 347 Gilmour Street, in the City of Ottawa, Ontario. The purpose of this Phase I ESA was to research the past and current use of the subject properties and study area of 250 meters 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. Tony Kazarian of AK Global Inc. Mr. Kazarian can be reached by telephone at (613) 983-2290.

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 (O.Reg.) 153/04, as amended, under the 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.

Ottawa, Ontario



2.0 PHASE I PROPERTY INFORMATION

Address: 278, 280 and 282 O'Connor Street and 347 Gilmour

Street, in Ottawa, Ontario.

Legal Description: PLAN 15558, Part of Lot 43; PLAN 15558, Lot 13

O'Connor West; PLAN 15558, Lot 12 O'Connor West,

in Ottawa Ontario.

Property Identification No.: 04119-0056; 04119-0057; 04119-0058

Location: The Phase I Property is situated on the northwest

corner of the O'Connor Street and Gilmour Street

intersection, in the City of Ottawa.

Latitude and Longitude: 45° 24′ 53.64″ N, 75° 41′ 37.15″ W

Site Description:

Configuration: Rectangular

Site Area: 1610 m² (approximate)

Zoning: R4 – Residential 4th Density Zone

Current Use: The Phase I Property is currently occupied by two

residential buildings (347 Gilmour Street and 280 and 282 O'Connor Street) and a mix-use (residential and

office) building (278 O'Connor Street).

Services: The subject site is situated in a municipally serviced

area.



3.0 SCOPE OF INVESTIGATION

	e scope of work for this Phase I – Environmental Site Assessment was as lows:
	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 amendments 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.

Ottawa, Ontario



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

According to the city directories, aerial photographs and fire insurance plans (FIPs), the subject properties were developed as early as 1888. The subject properties were shown in the 1888 FIPs and listed in the city directories in 1890 and 1900 as residential dwellings. For the purpose of this report, the first developed use of the subject site is considered to be residential in 1888.

Fire Insurance Plans

The 1901, 1912 and 1956 fire insurance plans (FIPs) for the Phase I Property and properties within the Phase I Study Area were reviewed from the National Archives. The 1901 and 1912 FIPs indicated that the subject properties, addressed 347 Gilmour Street, and 278-282 O'Connor Street were each occupied by a two-storey residential dwelling followed by the addition of private garage, present in the 1912 FIPs.

The surrounding properties in the 1901, 1912 and 1956 FIPs were primarily residential with some commercial land use along Bank Street, and occasional Institutional land use.

Based on the review of the FIPS, ten (10) potentially contaminating activities (PCAs) were identified within the Phase I Study Area. The 1912 FIPs identified a mirror and bevelling workshop at 402 Bank Street, two (2) paint shops at 404 and 406 Bank Street, and two (2) printing facilities at 307 and 374 Bank Street. The 1956 FIPs identified two (2) automotive repair garages at 7 Florence Street and 384 Gilmour Street, a retail fuel outlet (RFO) at 394 Bank Street, a tin-smelting and woodwork shop at 487 Lewis Street, and two (2) portrait/photography studios at 370 Bank Street and 286 MacLaren Street.

A summary of the PCAs identified from the 1912 and 1956 FIPs review with the respective distances and orientation to the Phase I Property have been provided in Table 1.

TABLE 1. PCAs identified from the 1912 and 1956 FIPs review within the Phase I Study Area			
Address	Year of FIP	Listed Activity	Approximate Distance / Orientation from Site
Bank Street			
370	1912, 1956	Printing shop & Photography studio	142 m SW
374	1912	Printing facilities	142 m SW
394	1956	Retail fuel outlet – 2 USTs	173 m SW
402	1912	Glass, mirror and bevelling works	190 m SW
404	1912, 1956	Paint shop	191 m SW
406	1912	Paints & oils shop	192 m SW
Florence Street			
7	1956	Automotive repair garage	215 m SW
Gilmour Street			
384	1956	Automotive repair garage	83 m SW
Lewis Street			
487	1956	Tin-smelting & woodworking shop	91 m SW
MacLaren Street			
286	1956	Portrait studio	70 m NW

Based on the separation distance and/or downgradient orientation with respect to the subject site, these off-site PCAs are not considered to represent an area of potential environmental concern (APEC) on the Phase I Property.

City of Ottawa Street Directories

City Directories from 1890 to 2011 were reviewed in approximate 10-year intervals for the area of the subject property. The subject properties addressed at 347 Gilmour Street and 280 and 282 O'Connor Street were listed as residential as early as 1890 until 2011. The property addressed 278 O'Connor Street was listed as residential dwelling from 1900 to 1920 and was then listed as offices and residences until 2011.



Neighbouring properties along O'Connor Street, MacLaren Street, and Lewis Street were a combination of residential and small commercial properties. The city directories were used to verify the presence of the portrait studio observed in the 1956 FIPs (discussed earlier). The directories confirmed the PCAs identified from the FIPs, such as the two (2) automotive repair garages located at 384 Gilmour Street (1940's to the 1960's) and at 394 Bank Street (1940's to the 1950's). A new off-site PCA was identified; a dry-cleaners located at 310 Bank Street, approximately 200 m to the west (1950's). The dry-cleaner is not considered to represent an APEC based on the significant distance separating it from the subject site.

Off-site PCAs are presented on Drawing PE4530-2 – Surrounding Land Use Plan in the Figures section.

Chain of Title

Paterson did not request a Chain of Title for the subject site as it was determined that sufficient information was gathered from other sources, such as personal interviews, aerial photograph and city directories.

Survey Plan

A preliminary survey plan, prepared by Farley, Smith & Denis Survey in 2019, was reviewed as a part of this assessment. The plan depicts the subject property in its current configuration. A copy of the survey plan is included in Appendix 1.

Previous Engineering Reports

Paterson completed a geotechnical investigation for the subject site in February 2019. The subsurface profile on site generally consisted of an asphaltic pavement structure, overlying native silty clay/clay layer deposit. Practical refusal was encountered at 18.8 to 19.0 m, which is considered inferred bedrock.

Based on the subsurface investigation, no deleterious material or fill of unknown quality was encountered on the Phase I Property.

Ottawa, Ontario



4.2 Environmental Source Information

Environment Canada

A search of the National Pollutant Release Inventory (NPRI) was conducted electronically on January 9, 2019. The Phase I Property was not listed in the NPRI database. No records of pollutant release were listed in the database for properties located within the Phase I Study Area.

PCB Inventory

A search of national PCB waste storage sites was conducted on January 9, 2019. No PCB waste storage sites were identified on the Phase I Property or in the Study Area.

Ministry of the Environment, Conservation and Parks (MECP) Instruments

A request was submitted to the MECP Freedom of Information (FOI) office for information with respect to certificates of approval, permits to take water, certificates of property use or any other similar MECP issued instruments for the site. Based on the MECP FOI response, there was no information with regards to certificates of approvals, permits to take water, certificate of property use or any other similar MECP issued instruments for the subject site. A copy of the MECP FOI response is included in Appendix 2.

MECP Incident Reports

A request was submitted to the MECP FOI office for information with respect to records concerning environmental incidents, orders, offences, spills, discharges of contaminants or inspections maintained by the MECP for the site or adjacent properties. Based on the MECP FOI response, no records concerning environmental incidents, orders, offences, spills, discharges of contaminants or inspections maintained by the MECP were noted regarding the subject site and adjacent properties. A copy of the MECP FOI response is included in Appendix 2.

MECP Waste Management Records

A request was submitted to the MECP FOI office for information with respect to waste management records. Based on the MECP FOI response, no issues were reported with regard to waste management practices on the subject site. A copy of the MECP FOI response is included in Appendix 2.



MECP Submissions

A request was submitted to the MECP FOI office for information with respect to reports related to environmental conditions for the property. Based on the MECP FOI response, no potential environmental concerns were noted regarding the subject site. A copy of the MECP FOI response is included in Appendix 2.

MECP Brownfields Environmental Site Registry

A search of the MECP Brownfields Environmental Site Registry was conducted for the subject and neighbouring properties, as well as the general area of the site. Two (2) properties within the Phase I Study Area were listed as having a Record of Site Condition (RSC) filed at 330 Gilmour Street and 390 Bank Street, approximately 30 m southeast and 173 m southwest, of the subject site, respectively. No remedial work was required on either site. Based on the information in the Brownfields Registry, in combination with information in our file, the aforementioned RSC properties are not considered to pose a concern to the Phase I Property.

MECP 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 Municipal Coal Gasification Plant Sites are located within the Phase I study area.

MECP 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. There are no former waste disposal sites located within 250 km of the Phase I study area.

Areas of Natural Significance (ANSI)

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) on January 9, 2019. The search did not reveal any natural features or ANSIs on the Phase I Property or within the Phase I ESA study area.

Ottawa, Ontario



Technical Standards and Safety Authority (TSSA)

The TSSA, Fuels Safety Branch in Toronto was contacted electronically on January 9, 2019 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 subject site or the adjacent properties. A copy of the TSSA correspondence is included in Appendix 2.

Former Industrial Sites

The Intera report entitled "Mapping and Assessment of Former Industrial Sites, City of Ottawa" was reviewed. The Phase I Property or Study Area were not listed in the database as a former industrial site.

City of Ottawa Landfill Document

The document entitled "Old Landfill Management Strategy, Phase I – Identification of Sites, City of Ottawa", was reviewed. Based on this document, there are no former landfills within the Phase I study area.

City of Ottawa Historical Land Use Inventory (HLUI)

A requisition form was sent to the City of Ottawa to request information from the City's Historical Land Use Inventory (HLUI 2005) database for the subject property. A response had not been received at the time this report was issued. A copy of the response will be forwarded to the client if it contains any pertinent information. The HLUI request form has been 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 to the first available air photos for the site. Based on the review, the following observations have been made:

1925	The subject site appears to be occupied by residential dwellings.
	Neighbouring land use appears as residential to the north, west, east
	and south.

Three (3) residential dwellings can be seen at this time. The surrounding lands appear unchanged from the previous photograph.

Ottawa, Ontario



1965	No significant changes are apparent to the subject site or neighbouring lands.
1976	(Poor quality) The subject site appears unchanged from the previous photograph. A vacant lot is present immediately north of the subject site at this time.
1991	No significant changes are apparent to the subject site. A residential apartment building is present immediately north. Properties to the south, east and west remain unchanged from the previous photograph.
2002	No significant changes are apparent to the subject site or the surrounding lands.
2011	The subject site and surrounding lands appear unchanged from the previous photograph.
2017	No changes are apparent to the subject site or surrounding lands at this time.

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 that the elevation of the subject site is between 72 and 80 m ASL, and that the regional topography in the general area of the site slopes gradually downward to the north and east. According to the maps, the nearest water body is the Rideau Canal, located approximately 800 m to the east of the site. An illustration of the referenced topographic map is presented on Figure 2 – Topographic Map, appended to this report.

Physiographic Maps

The Ontario Geological Survey publication 'The Physiography of Southern Ontario, Third Edition' was reviewed as a part of this assessment.

According to the publication and attached mapping, the site is situated within the Ottawa Valley Clay Plains physiographic region, described as "clay plains interrupted by ridges of rock or sand". Mapping shows the subject site as situated on an area of clay plains.



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 shale of the Billings Formation. Overburden consists of clay and offshore marine sediment, with a drift thickness on the order of 15 to 25 m.

These findings are generally consistent with site-specific data from Paterson geotechnical investigation (February 2019), where the overburden was found to extend up to 20 m below grade.

Water Well Records

Well records for all drilled wells within the Phase I Study Area were obtained from the MECP website. Based on the results of the well records search, there were no well records found on-site. Twenty-one (21) well records were found within the 250 m search radius. The majority of these records referred to the installation and/or abandonment of groundwater monitoring wells, approximately 120 to 250 m away from the Phase I Property.

Based on the well records, the subsurface profile in the Phase I Study Area generally consisted of fill material, followed by silty clay, overlying clayey silt/clay layer. No concerns were noted during the well records review.

Water Bodies and Areas of Natural Significance

No creeks, rivers, streams, lakes or any other water body was identified in the Phase I study area. The nearest water body is the Rideau River, which is located well outside of the Phase I Study Area.

5.0 INTERVIEW

Property Owner Representative

The property owners of 347 Gilmour Street, 278, 280 and 282 O'Connor Street were interviewed during the site visit on June 20, 2019. The landowner of 278 O'Connor Street purchased the three (3) storey, mixed-use building in 1994, during which he completed several upgrades over the last two decades, such as converted from oil to natural gas fired boilers, new windows and roof. According to the owner an asbestos survey was conducted approximately 4 years ago.



The former landowner, as of last year, of 347 Gilmour Street purchased the residential property in the late 1990s as a small residential apartment building. Several upgrades were completed in the last 10 years, which includes, electrical work, replaced natural gas fired boilers and plumbing. The former landowner is not aware of any potential environmental concerns regarding the property or neighbouring lands.

Mr. Tony Kazarian, the current landowner of 280 and 282 O'Connor Street, recently purchased the property earlier this year. According to the previous owner, the subject building converted to a natural gas burning furnace in the late 1980s. Mr. Kazarian is not aware of any potential environmental concerns regarding this property of neighbouring lands.

6.0 SITE RECONNAISSANCE

6.1 General Requirements

The site assessment was conducted on June 20, 2019. Weather conditions were overcast, with a temperature of approximately 19°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.

6.2 Specific Observations at Phase I Property

Buildings and Structures

The subject site is occupied by three (3) residential buildings that were constructed circa 1888. All of the buildings were constructed with a stone and mortar foundation.

347 Gilmour Street is occupied by a two (2) storey residence with a basement, containing three (3) units. The building exterior is finished in red brick with a sloped style shingled roof.

280 and 282 O'Connor Street is occupied by a three (3) storey attached residential building with a basement level. The roof is a sloped style roof finished with a combination of shingles and metal roof sheets.



278, 280 and 282 O'Connor Street and 347 Gilmour Street Ottawa, Ontario

278 O'Connor Street is occupied by a three (3) storey with a basement level mixeduse (residential and offices) building. The building exterior is finished in red brick with sloped shingle style roof. Two (2) private garages, also constructed circa 1888 are also present on-site.

Site Features

The majority of the subject site is asphaltic paved concrete parking area for the residences occupying the subject site. There are two (2) access laneways/driveways to the parking fronting Gilmour Street and one access laneway from O'Connor Street. The main entrances of each building are landscaped. Site drainage consists primarily of sheet flow to the storm drains along Gilmour Street and O'Connor Street and infiltration on the landscaped areas.

The site topography is slightly above the grade of O'Connor Street and Gilmour Street and slopes gently downwards towards the south/southwest. The regional topography is relatively flat.

Domestic, non-hazardous waste containers are stored on the north side of 347 Gilmour Street and 278 O'Connor Street, and collected on a regular basis by the municipality. No concerns were noted with current waste management practices onsite. No unidentified substances were observed on the exterior of the subject property at the time of this assessment.

The property is municipally serviced. No underground structures were observed at the time of the visit. No evidence of current or former railway or spur lines on the subject property was observed at the time of the site visit.

Interior

A general description of the interior of each residential building is provided below:

347 Gilmour Street

The floors throughout the building consisted of hardwood, ceramic tiles and concrete (basement);
The walls consisted primarily of lathe and plaster, some gypsum board and stone and mortar (basement);
The ceilings consisted of plaster;
Lighting throughout the building was provided by incandescent fixtures.



278, 280 and 282 O'Connor Street and 347 Gilmour Street Ottawa, Ontario

The building is currently heated with natural gas-fired equipment located in the basement. Based on the age of the building (1888) in combination with observations made at the time of the site visit, it is very likely that the building was heated with fuel-oil, prior to conversion to natural gas. It should be noted however, that no evidence of an AST, spills, or staining were observed in the basement.

One floor drain was observed in the basement. The drain appeared to be dry. No other drains, or sumps were observed.

Chemical storage was limited to small quantities of commercially available paint, which were properly stored in their original containers, with no evidence of spills or staining observed at the time of the site visit. No concerns associated with chemical storage were identified at the subject site.

Potential asbestos-containing materials (ACMs) observed at the time of the site visit include vinyl floor tiles, lathe and plaster walls, plaster ceilings, and interior parging. Lead-based paints may also be present on painted surfaces. Building materials and painted surfaces were observed to be in good to poor condition at the time of the site visit.

280 and 282 O'Connor Street

The floors throughout the building consisted of vinyl tiles, hardwood, some laminate and concrete (basement);
The walls consisted primarily of decorative plaster, lathe and plaster, drywal and stone and mortar (basement);
The ceilings consisted of plaster and suspended ceiling tiles;
Lighting throughout the building was provided by incandescent fixtures.

The building is currently heated by natural gas fired equipment. Based on the age of the building, it is very likely that the subject building was formerly heated using fuel oil. At the time of the site assessment, there were no visual signs (leaks, spills, staining) or unusual olfactory odours in the basement. No large cracks/breaks within the concrete floor were noted at the time of the site visit.

Several floor drains were observed in the basement. The drains appeared to be dry. No other drains, or sumps were observed at the time of the site visit.



278, 280 and 282 O'Connor Street and 347 Gilmour Street Ottawa, Ontario

No chemicals were observed to be stored onsite. No concerns associated with chemical storage were identified on this part of the Phase I Property.

Potential asbestos-containing materials (ACMs) observed at the time of the site visit include decorative plaster, lathe and plaster, vinyl floor tiles and suspended ceiling tiles. Lead-based paints may also be present on painted surfaces. Building materials and painted surfaces were observed to be in good to poor condition at the time of the site visit.

278 O'Connor Street

The floors throughout the building consisted of carpet, hardwood, vinyl tiles, ceramic tiles and concrete (basement);
The walls consisted of lathe and plaster, gypsum board and stone and mortar (basement);
The ceilings consisted of plaster;
Lighting throughout the building was provided by incandescent fixtures.

The building is currently heated with a natural gas-fired boiler located in the basement. Based on the age of the building (1888) in combination with observations made at the time of the site visit, it is very likely that the building was originally heated with fuel-oil, prior to conversion to natural gas. It should be noted however, that no evidence of an AST, spills, or staining were observed in the basement.

One floor drain was observed in the basement. The drain appeared to be dry. No other drains, or sumps were observed.

Chemical storage was limited to small quantities of commercially available paint, which were properly stored in their original containers, with no evidence of spills or staining observed at the time of the site visit. No concerns associated with chemical storage were identified at the subject site.

Potential asbestos-containing materials (ACMs) observed at the time of the site visit include vinyl floor tiles, lathe and plaster walls, plaster ceilings and drywall joint compound. Lead-based paints may also be present on painted surfaces. Building materials and painted surfaces were observed to be in good condition at the time of the site visit.



278, 280 and 282 O'Connor Street and 347 Gilmour Street Ottawa, Ontario

It should be noted that there were no signs of UFFI in any of the buildings at the time of the site visit, although ceiling and wall cavities were not inspected.

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:

J	North - Residential dwellings and apartment building, MacLaren Street;
	South - Gilmour Street, followed by residential dwellings;
J	East - O'Connor Street, followed by a commercial parking lot;
J	West - Residential dwellings and an apartment building.

The current use of the adjacent properties is not considered to pose an environmental concern to the subject site. Land uses within the Phase I Study Area are residential along Gilmour Street and commercial and residential along O'Connor Street. Potentially contaminating activities (PCAs) within the Phase I Study Area were identified, however based on the separations distances, orientation with respect to the subject site, in combination with information from previous environmental work conducted by Paterson, these properties do not represent areas of potential environmental concerns (APECs). PCAs within the study area are illustrated and presented in green text on Drawing PE4530-2 – Surrounding Land Use Plan in the Figures section of this report.

7.0 REVIEW AND EVALUATION OF INFORMATION

7.1 Land Use History

The Phase I Property was initially developed circa 1888 with the present-day residential buildings. The Phase I Property has always been used for residential and office purposes.

Potentially Contaminating Activities (PCAs)

Off-site PCAs identified within the Phase I Study Area are illustrated on Drawing PE4530-2 – Surrounding Land Use Plan in the Figures section of this report, following the text. Based on their separation distances and/or orientations with respect to the subject land, as well as previous work completed by Paterson Group, the PCAs are not considered to represent APECs on the Phase I Property.

Areas of Potential Environmental Concern (APECs)

No APECs were identified on the Phase I Property.

Contaminants of Potential Concern (CPCs)

No CPCs were identified on the Phase I Property.

7.2 Conceptual Site Model

Geological and Hydrogeological Setting

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 shale of the Billings Formation. Overburden consists of clay and offshore marine sediment, with a drift thickness on the order of 15 to 25 m.

The findings of the subsurface investigation conducted by Paterson on the Phase I Property confirms the reported subsurface conditions.

Existing Buildings and Structures

The Phase I Property is occupied by two (2) residential buildings and one mixeduse residential and office building. Two (2) private garages associated with the residences also occupy the site.

Ottawa, Ontario



Water Bodies

There are no water bodies on the subject site or within the Phase I study area.

Areas of Natural Significance

No areas of natural significance were identified on the site or in the Phase I study area.

Drinking Water Wells

No drinking water wells are located on the Phase I property or within the Phase I study area.

Groundwater Monitoring Wells

No groundwater monitoring wells are located on the Phase I Property. Several monitoring wells were identified approximately 120 to 250 m away from the subject site.

Neighbouring Land Use

Neighbouring land use in the Phase I Study Area is a combination of residential, commercial -retail, offices and restaurants. Surrounding land use is shown on Drawing PE4530-2 - Surrounding Land Use Plan.

Potentially Contaminating Activities (PCAs)

No existing on-site PCAs were identified on the Phase I Property. As noted previously, based on the separation distance and downgradient and/or cross gradient orientation with respect to the subject site, the off-site PCAs are not considered to represent an APEC on the Phase I Property.

Off-site PCAs identified within the Phase I-ESA study area are presented on Drawing PE4530-2 – Surrounding Land Use Plan.

Areas of Potential Environmental Concern (APECs) and Contaminants of Potential Concern (CPCs)

As noted previously, none of the aforementioned off-site PCAs identified within the Phase I Study Area are considered to have resulted in APECs on the Phase I Property. There are no contaminants of potential environmental concern 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 PCAs in the Phase I Study Area that represent APECs on the subject site. The presence of PCAs 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.



8.0 CONCLUSIONS

8.1 Assessment

Paterson Group was retained by Polo IV (c/o AK Global) to conduct a Phase I – Environmental Site Assessment (ESA) for the Phase I Property addressed 278, 280 and 282 O'Connor Street and 347 Gilmour Street, in the City of Ottawa, Ontario. The purpose of this environmental assessment was to research the past and current use of the Phase I Property and Study Area and to identify any environmental concerns with the potential to impact the subject property.

Based on the available historical information sources, the Phase I Property was first developed for residential purposes circa 1888. By the 1920s, the property at 278 O'Connor Street was used for both residential and office purposes. Historical land use of surrounding lands consisted of residential, commercial offices, retailers and some service stations that were identified as potentially contaminating activities (PCAs). However, based on the significant distances separating them from the subject site, as well as down and/or cross gradient orientation, these activities do not represent an area of potential environmental concern (APEC) on the Phase I Property. No environmental concerns were identified with the historical use of the subject site or neighbouring lands that would pose a risk to the Phase I Property.

Following the historical review, a site visit was conducted. Based on the findings of the site visit, no on-site PCAs were identified. At the time of the site visit, the current use of the adjacent and neighbouring properties within the Phase I ESA Study Area were observed from publicly accessible areas. No off-site PCAs with the potential to impact the Phase I Property were identified at the time of the site visit.

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

8.2 Recommendations

Based on the approximate age of the buildings, potential ACMs may be present within the buildings. Suspected ACMs observed at the time of our site visit include plaster/parging, lathe and plaster, decorative plaster, vinyl tiles and drywall joint compound. It should be noted that wall and ceiling cavities were not inspected at the time of our site visit.



278, 280 and 282 O'Connor Street and 347 Gilmour Street Ottawa, Ontario

Based on dates of construction, lead-based paints (LBPs) may be present within the structures on older or original painted surfaces beneath newer paints. All building materials and painted surfaces were observed to be in reasonable condition at the time of the site visit and the potential for ACMs and LBPs is not considered to represent an immediate concern at 278, 280 and 282 O'Connor Street and 347 Gilmour Street.

It is our understanding that the subject structures will either be demolished and/or restored and upgraded in conjunction with future redevelopment. Prior to any demolition activities and building material disturbances, a designated substance survey (DSS) must be conducted for the existing structures, if none have been completed for the subject buildings, in accordance with Ontario Regulation 490/09 under the Occupational Health and Safety Act.



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 under the Environmental Protection Act 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 Polo IV. Permission and notification from Polo IV and Paterson will be required to release this report to any other party.

Paterson Group Inc.

Mandy Witteman, B.Eng., MASc.

Mark S. D'Arcy, P.Eng., QPESA

M. S. D'ARCY 90377839 AROUNCE OF ONTARD

Report Distribution:

Polo IV

Paterson Group



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

MECP Freedom of Information and Privacy Office.

MECP Municipal Coal Gasification Plant Site Inventory, 1991.

MECP document titled "Waste Disposal Site Inventory in Ontario".

MECP Brownfields Environmental Site Registry.

Office of Technical Standards and Safety Authority, Fuels Safety Branch.

MNR Areas of Natural Significance.

MECP Water Well Inventory.

Municipal Records

City of Ottawa Document "Old Landfill Management Strategy, Phase I -

Identification of Sites.", prepared by Golder Associates, 2004.

Intera Technologies Limited Report "Mapping and Assessment of Former Industrial Sites, City of Ottawa", 1988.

City of Ottawa Historical Land Use Inventory (HLUI) database

The City of Ottawa eMap website.

Local Information Sources

Chain of Title obtained through Read Abstracts Limited, July 2018.

Personal Interviews.

Previous Engineering Reports.

Public Information Sources

Google Earth.

Google Maps/Street View.

FIGURES

FIGURE 1 – KEY PLAN

FIGURE 2 – TOPOGRAPHIC MAP

DRAWING PE4530-1 – SITE PLAN

DRAWING PE4530-2 – SURROUNDING LAND USE PLAN

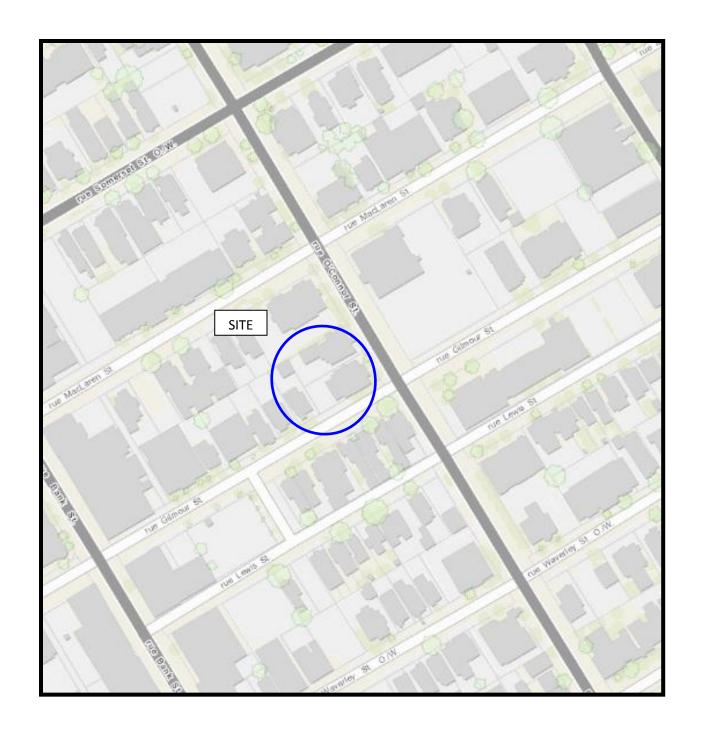


FIGURE 1 KEY PLAN

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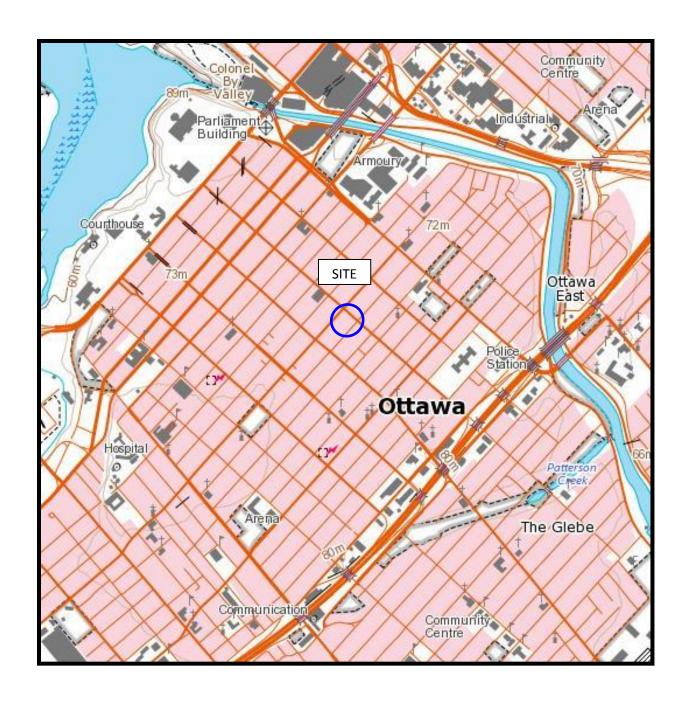
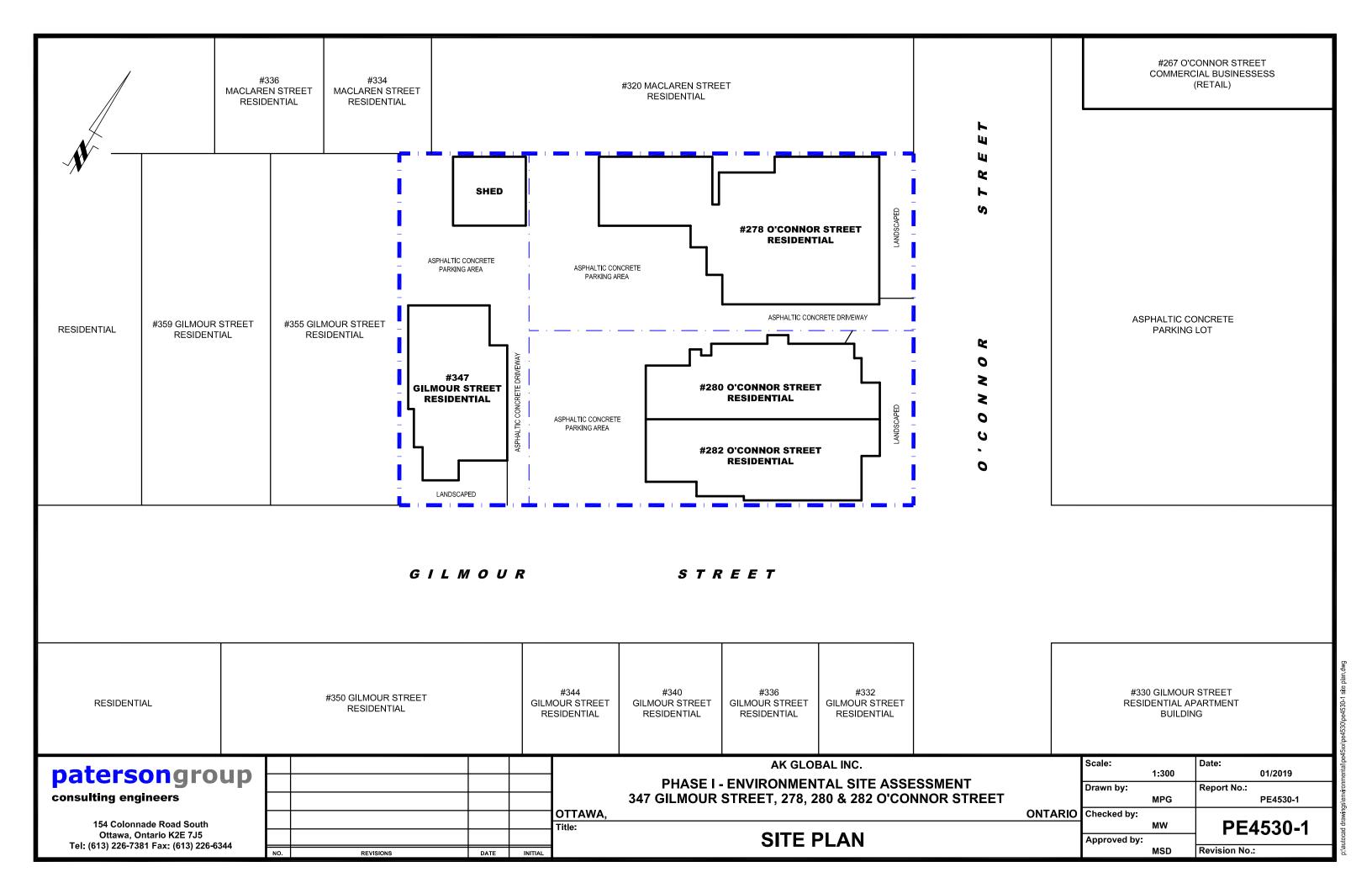
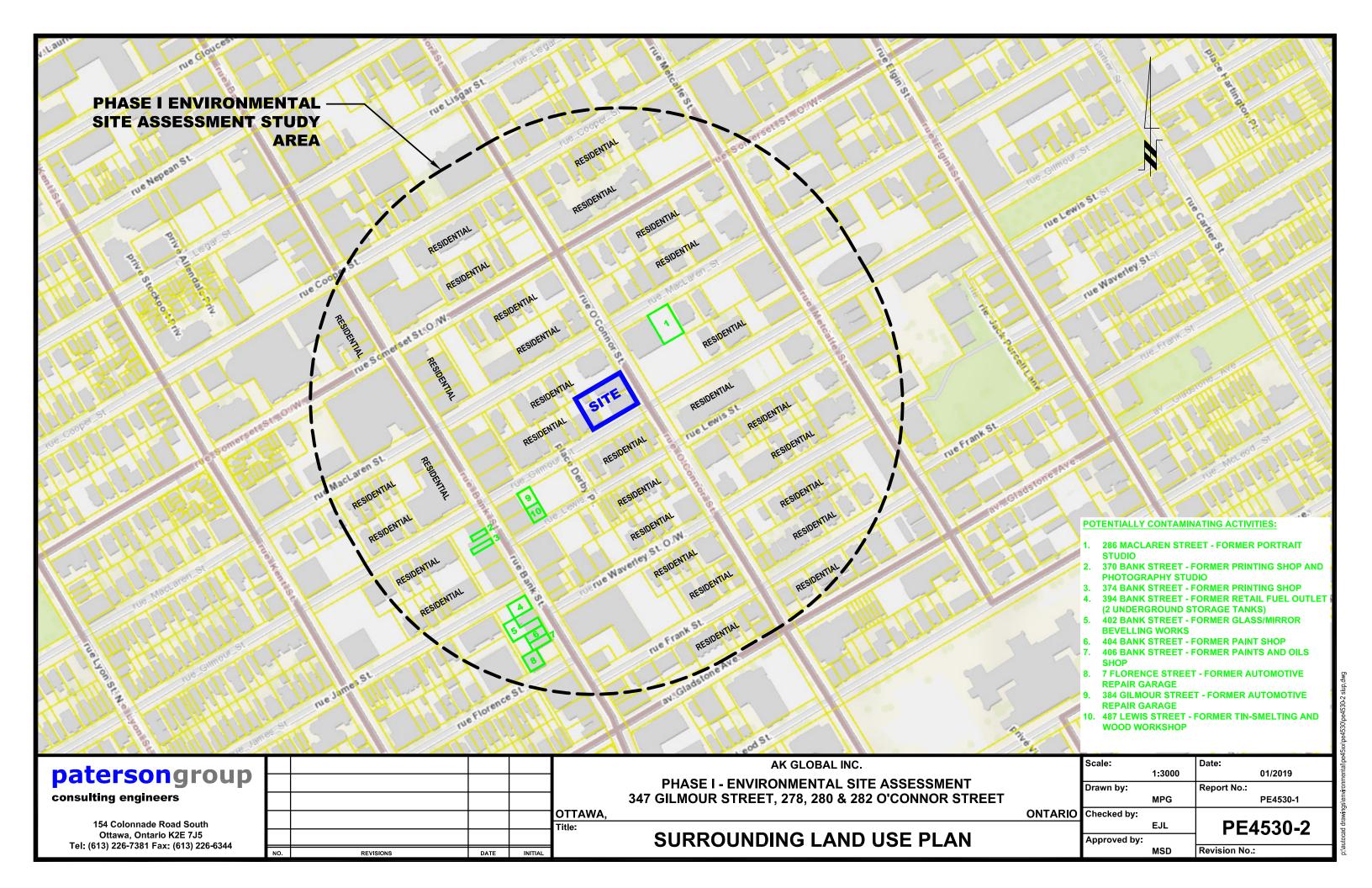


FIGURE 2 TOPOGRAPHIC MAP

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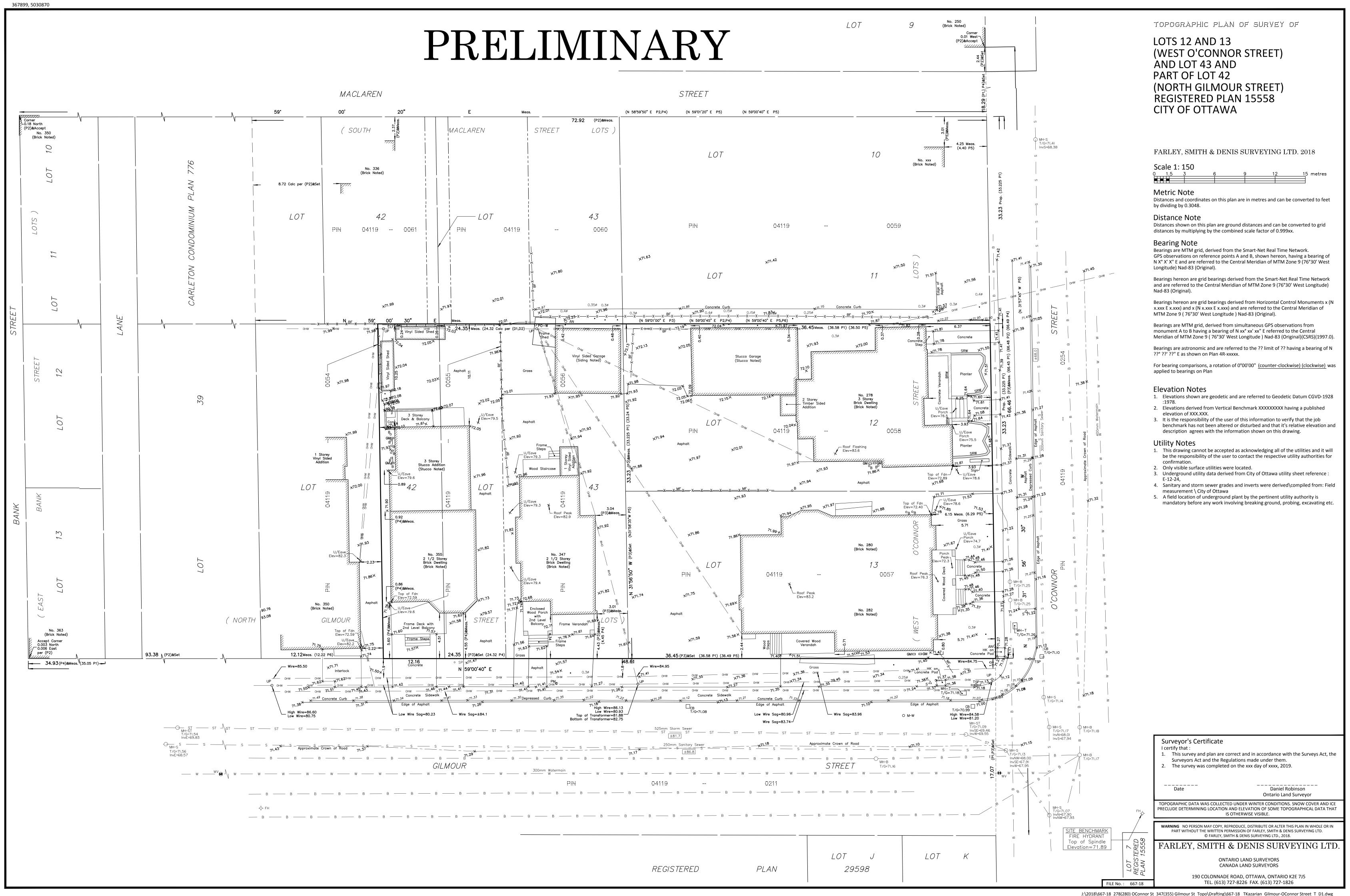


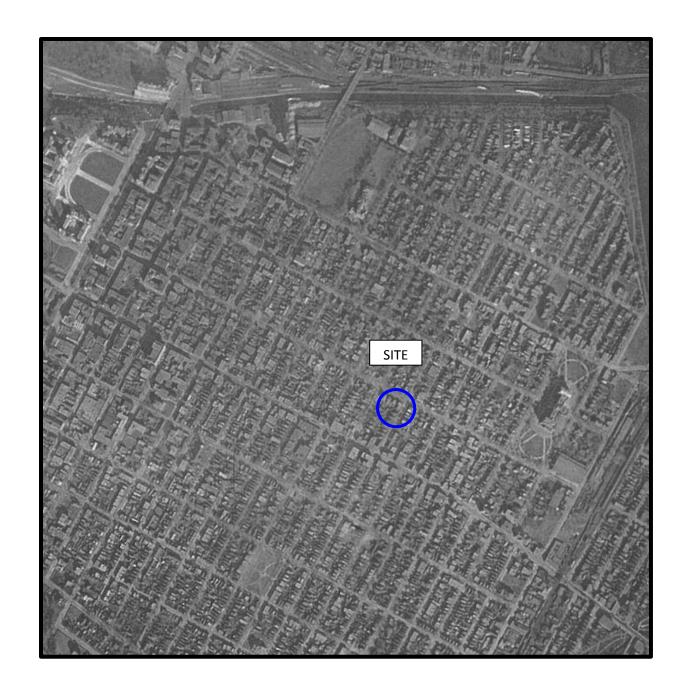
APPENDIX 1

SURVEY PLAN

AERIAL PHOTOGRAPHS

SITE PHOTOGRAPHS





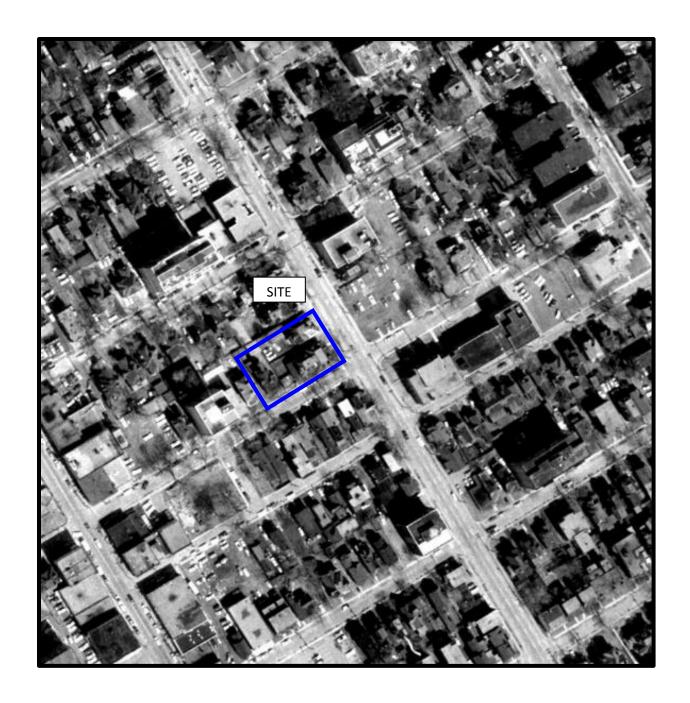
AERIAL PHOTOGRAPH 1925

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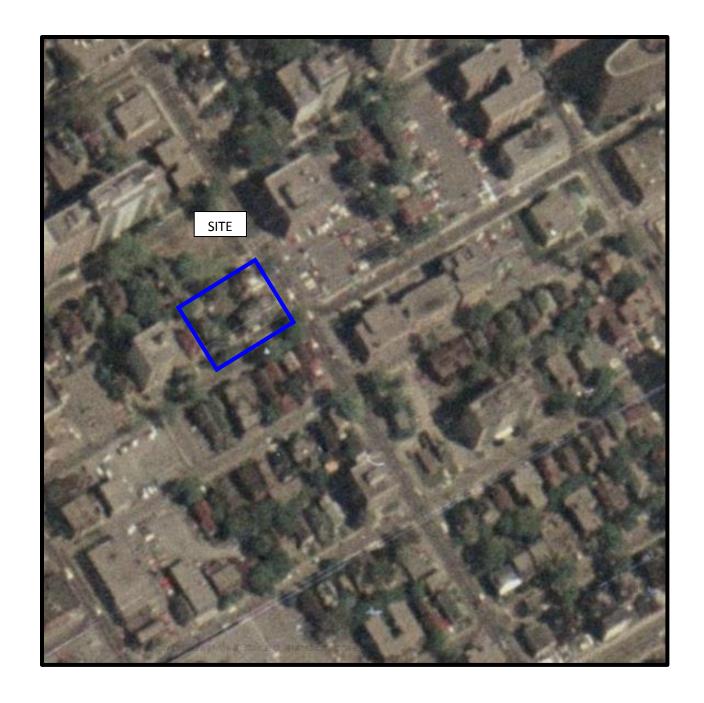


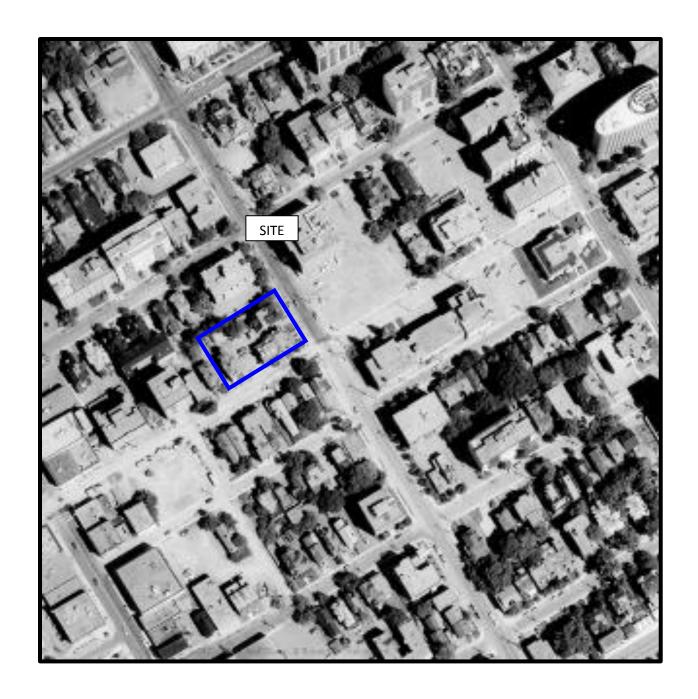
AERIAL PHOTOGRAPH 1958

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AERIAL PHOTOGRAPH 1965

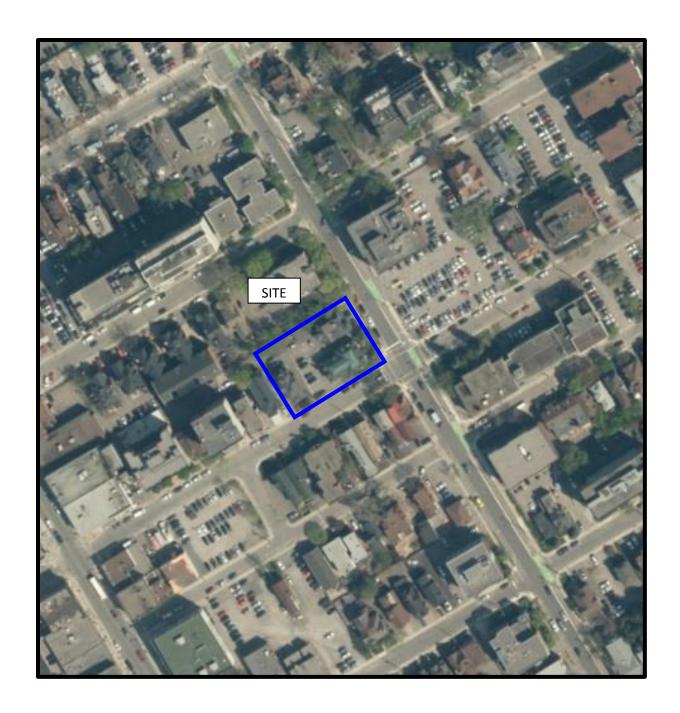




AERIAL PHOTOGRAPH 1991







Site Photographs

PE4530 June 20, 2019

347 Gilmour Street, 278, 280, and 282 O'Connor Street - Ottawa, ON



Photograph 1: Front view of 278 O'Connor, photograph taken from O'Connor Street.



Photograph 2: Rear view of the 278 O'Connor Street, looking east.

Site Photographs

PE4530 June 20, 2019

347 Gilmour Street, 278, 280, and 282 O'Connor Street - Ottawa, ON



Photograph 3: Front view of 280 and 282 O'Connor, taken from O'Connor Street.



Photograph 4: Rear view of 280 and 282 O'Connor Street, looking east.

PE4530 June 20, 2019

347 Gilmour Street, 278, 280, and 282 O'Connor Street - Ottawa, ON



Photograph 5: View between 278 and 282 O'Connor Street, looking east onto O'Connor Street.



Photograph 6: View of 347 Gilmour Street, looking northwest.

APPENDIX 2

MECP FREEDOM OF INFORMATION

MECP WELL RECORDS

TSSA CORRESPONDENCE

CITY OF OTTAWA HLUI

Ministry of the Environment, Conservation and Parks

Access and 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, de la Protection de la nature et des Parcs

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

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



January 28, 2019

Mandy Witteman Paterson Group Inc. 154 Colonnade Road Ottawa, ON K2E 7J5

Dear Mandy Witteman:

RE: Freedom of Information and Protection of Privacy Act Request Our File # A-2019-00215, Your Reference PE4530

This letter is in response to your request made pursuant to the *Freedom of Information and Protection of Privacy Act* relating to 347 Gilmore Street and 278 and 282 O'Connor Street, Ottawa.

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

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

If you have any questions regarding this matter, please contact Junyi Cai at 416-314-4075 or junyi.cai@ontario.ca.

Yours truly,

Janet Dadufalza

Manager, Access and Privacy

Well ID Number: 7239266 Well Audit Number: *C19500* Well Tag Number: *A122871*

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

Well Location

Address of Well Location	
Township	NEPEAN TOWNSHIP
Lot	
Concession	
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18 Easting: 445732.00 Northing: 5029042.00
Municipal Plan and Sublot Number	_
Other	_

Overburden and Bedrock Materials Interval

Conoral Colour	Most Common Material	Other Meterials	Conoral Description	Depth	Depth
General Colour	Wiost Common Waterian	Other Materials	General Description	From	To

Annular Space/Abandonment Sealing Record

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

Method of Construction & Well Use

Method of Construction Well Use

Status of Well

Construction Record - Casing

Inside	Depth	Depth	
Diameter Open Hole or material	From	To	

Construction Record - Screen

Outside Diameter Material Depth Depth From To

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 7328

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	-	Diameter
From	To	2

Audit Number: C19500

Date Well Completed: March 08, 2012

Date Well Record Received by MOE: April 02, 2015

Updated: June 28, 2018

Rate Rate
Share facebook twitter Print

- Environment and energy,
- Drinking water,
- Environment maps,

Well ID Number: 7295733 Well Audit Number: *Z206495* Well Tag Number: *A182830*

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

Well Location

Address of Well Location	366 382 BANK STREET
Township	OTTAWA CITY
Lot	_
Concession	
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	Ottawa
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18 Easting: 445605.00 Northing: 5029135.00
Municipal Plan and Sublot Number	_
Other	_

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	GRVL	SAND		0 m	2.44 m
GREY	SILT	CLAY	SOFT	2.44 m	3.96 m
GREY	SILT	CLAY	WBRG	3.96 m	5.79 m

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
0 m	.31 m	FLUSHMOUNT/ CONCRETE	
.31 m	2.44 m	BENSEAL	
2.44 m	5.79 m	SAND	

Method of Construction & Well Use

Method of Construction	Well Use
Direct Push	Monitoring
	Test Hole

Status of Well

Monitoring and Test Hole

Construction Record - Casing

Inside	Open Hole or material	Depth	Depth
Diameter		From	To
4.03 cm	PLASTIC	0 m	2.74 m

Construction Record - Screen

Outside Material Depth From To
4.82 cm PLASTIC 2.74 m 5.79 m

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 7241

Results of Well Yield Testing

After test of well yield, water was
f pumping discontinued, give reaso
Pump intake set at
Pumping Rate
Duration of Pumping
Final water level
f 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
0 m	5.79 m	8.25 cm

Audit Number: Z206495

Date Well Completed: August 10, 2017

Date Well Record Received by MOE: September 29, 2017

Well ID Number: 7295734 Well Audit Number: *Z206494* Well Tag Number: *A182831*

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

Well Location

Address of Well Location	366 382 BANKS STREET
Township	OTTAWA CITY
Lot	_
Concession	_
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	Ottawa
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18 Easting: 445606.00 Northing: 5029117.00
Municipal Plan and Sublot Number	_
Other	_

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	GRVL	SAND		0 m	1.83 m
BLUE	CLAY	SILT	SOFT	1.83 m	3.35 m
BLUE	SAND	MUCK	SOFT	3.35 m	4.88 m
GREY	SILT	CLAY	SOFT	4.88 m	5.49 m

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed		
0 m	.31 m	FLUSHMOUNT/ CONCRETE	,		
.31 m	1.83 m	BENSEAL			
1.83 m	5.49 m	SAND			

Method of Construction & Well Use

Method of Construction	Well Use
Direct Push	Monitoring
	Test Hole

Status of Well

Monitoring and Test Hole

Construction Record - Casing

Inside	Open Hole or material	Depth	Depth
Diameter		From	To
4.03 cm	PLASTIC	0 m	2.44 m

Construction Record - Screen

Outside Material Depth From To
4.82 cm PLASTIC 2.44 m 5.49 m

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 7241

Results of Well Yield Testing

After test of well yield, water was	
If pumping discontinued, give rea	ison
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
0 m	5.49 m	8.25 cm

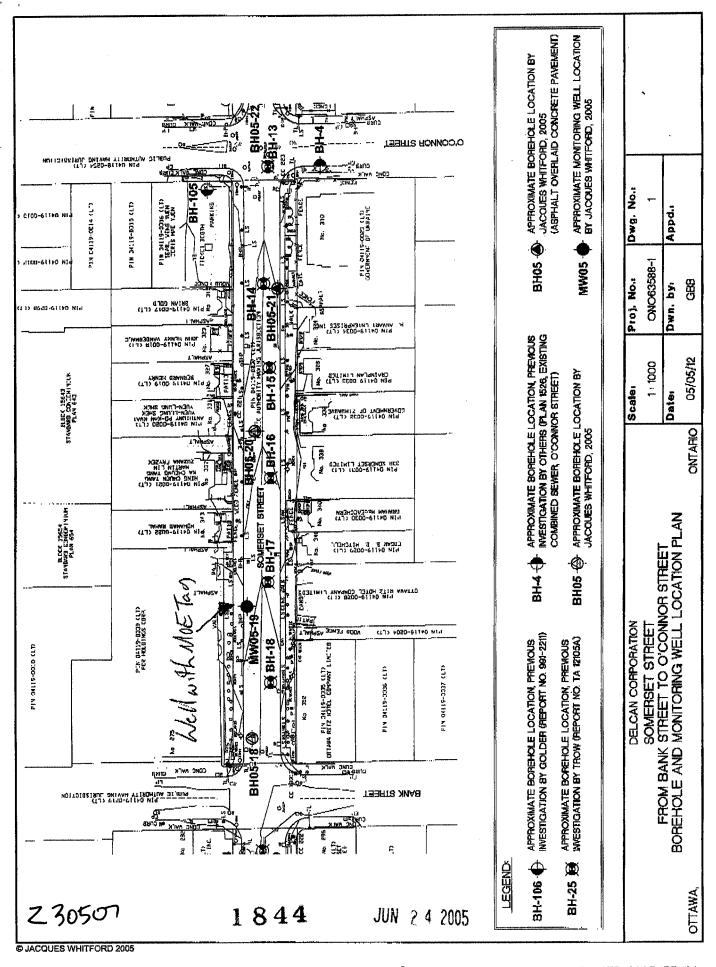
Audit Number: Z206494

Date Well Completed: August 10, 2017

Date Well Record Received by MOE: September 29, 2017

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Wate	r Record			Calvanized	ncrete	# 40	P	3 M	(litres/min) Duration of pumping	2	2	
Water found at Metres	Kind of V			Steel Fil	oreglass	70			hrs + mir		3	
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Other:		Sulphur	<u> </u>	Galvanized		Screen			depthmetres		10	-
Gas Other:		Minerals	Outside diam		oreglass	Slot No.		. 1/	rate. (litres/min)	15 20	15 20	
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Chlorinated				Open hole						60	60	
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05/12/2005 THU 9:12 FAX 613 7380721 Jacques Whitford

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0 5	4 10	centimetres		centimetres	From	То	Pump intake set at -	min M Static	letres min	Metres
		St	eel Fibreglas	Casing			(metres) Pumping rate -	Level 1	1	
Water	Record	"ו ⊸בי וד	astic Concrete	0.5	0	2.2	(litres/min) Duration of pumping	2	2	
Water found at 3.4 Metres /	Kind of Water	St	eel Fibreglas	s			hrs + min			
Gas :	Fresh Sulphu Salty Mineral		astic Concrete				of pumpingmetres	3	3	
Other:	Fresh Sulphu	Ste	eel Fibreglas	s			Recommended pump type. Shallow Deep	4	4	
	Salty Mineral	s Pla	astic Concrete Ilvanized				Recommended pump depth. metres	5	5	
mI	resh Sulphu			Screen		L	Recommended pump rate.	10	10	
Other:	Salty Mineral	diam	eel Fibreglas	Slot No.	~ ~	F 11	(litres/min) If flowing give rate -	15 20	15 20	
After test of well Clear and sec		A	livanized	10	2.2	5.4	(litres/min) If pumping discontin-	25 30	25 30	
Other, specify	/		No	Casing or Scre	en	1	ued, give reason. TEST HOLE	40	40	
Chlorinated \(\)	res No	Ор	en hole				1231 1102	50 60	50 60	
		Sealing Record			andonment e Placed	In dingram holo	Location o			
From To		ype (bentonite slurry, i			metres)	Indicate north by	w show distances of well fro arrow.	om road, i	ot line, and bui	laing.
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☐ Cable Tool ☐ Rotary (conver ☐ Rotary (reverse	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	rcussion	☐ Diamond ☐ Jetting ☐ Driving		Digging Other		7			
		Water Use	9			mmm			}	
Domestic Stock	☐ Indust	iercial	Public Sup		Other	Andrew Control of the	FLORENCE			
☐ Irrigation	Munic	Final Status of	f Well	air conditioning		Audit No. Z	19282 Date	e Well Con	npleted YYYY Zoo5	MM DD
☐ Water Supply ☐ Observation w	<u></u>	d, insufficient supply	Unfinished Dewatering		ned, (Other)	Was the well ow package delivere	THOI O WHOTH HALLOTT	e Delivered	77YY 2005	MM DD 123
▼ Test Hole		l, poor quality ntractor/Technici		on			Ministry Use			
Name of Well Con	WALALA	STATE DRIL	LINE	/ell Contractor's Li	cence No.	Data Source	Con	tractor	34 A	
Business Address 4/0 RuE	(street name, num	iber, city etc.) AL CKEN	IVILLE S	UR LA RO	VFE.	Date Received JAN 0	6 2006 Date	of Inspect	ion _{YYYY}	MM DD
Name of Well Tec	hnician (last name	first name)		/ell Technician's Li		Remarks		Record N	umber	
" XX	nician/Contractor			ate Submitted YYYY	MM DD					
X 0506E (08/03)		Contractor	's Copy 🔲 M	linistry's Copy	Well Owner	er's Copy 🗌	Cette fo	rmule est	disponible e	n français
U					\					

Well ID Number: 7246842 Well Audit Number: *Z208884* Well Tag Number: *A165621*

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

Well Location

Address of Well Location	296 BANK ST.
Township	OTTAWA CITY
Lot	
Concession	
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	OTTAWA
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18 Easting: 445519.00 Northing: 5029299.00
Municipal Plan and Sublot Number	
Other	_

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
GREY				0 ft	1 ft
GREY	CLAY	SILT		1 ft	10 ft
	TILL			10 ft	20 ft

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
0 ft	1 ft	CONCRETE/FLUSHMOUNT	,
1 ft	9 ft	BENSEAL	
9 ft	20 ft	FILTER SAND	

Method of Construction & Well Use

Method of Construction	Well Use
Direct Push	
	Monitoring and Test Hole

Status of Well

Observation Wells

Construction Record - Casing

Inside	Open Hole or material	Depth	Depth
Diameter		From	To
1.38 inch	PLASTIC	0 ft	10 ft

Construction Record - Screen

Outside Material Depth Depth From To
1.06 inch PLASTIC 10 ft 20 ft

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 7241

Results of Well Yield Testing

After test of well yield, water was
f pumping discontinued, give reason
Pump intake set at
Pumping Rate
Ouration of Pumping
Final water level
f flowing give rate
Recommended pump depth
Recommended pump rate
Well Production
Disinfected?

Draw Down & Recovery

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

Water Details

Water Found at Depth Kind

Hole Diameter

Depth From	Depth To	Diameter
0 ft	20 ft	2.375 inch

Audit Number: Z208884

Date Well Completed: July 17, 2015

Date Well Record Received by MOE: August 24, 2015

Well ID Number: 7246842 Well Audit Number: *Z208884* Well Tag Number: *A165621*

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

Well Location

Address of Well Location	296 BANK ST.
Township	OTTAWA CITY
Lot	
Concession	
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	OTTAWA
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18 Easting: 445519.00 Northing: 5029299.00
Municipal Plan and Sublot Number	
Other	_

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
GREY				0 ft	1 ft
GREY	CLAY	SILT		1 ft	10 ft
	TILL			10 ft	20 ft

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
0 ft	1 ft	CONCRETE/FLUSHMOUNT	,
1 ft	9 ft	BENSEAL	
9 ft	20 ft	FILTER SAND	

Method of Construction & Well Use

Method of Construction	Well Use
Direct Push	
	Monitoring and Test Hole

Status of Well

Observation Wells

Construction Record - Casing

Inside	Open Hole or material	Depth	Depth
Diameter		From	To
1.38 inch	PLASTIC	0 ft	10 ft

Construction Record - Screen

Outside Material Depth Depth From To
1.06 inch PLASTIC 10 ft 20 ft

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 7241

Results of Well Yield Testing

After test of well yield, water was
f pumping discontinued, give reason
Pump intake set at
Pumping Rate
Ouration of Pumping
Final water level
f flowing give rate
Recommended pump depth
Recommended pump rate
Well Production
Disinfected?

Draw Down & Recovery

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

Water Details

Water Found at Depth Kind

Hole Diameter

Depth From	Depth To	Diameter
0 ft	20 ft	2.375 inch

Audit Number: Z208884

Date Well Completed: July 17, 2015

Date Well Record Received by MOE: August 24, 2015

Well ID Number: 7246843 Well Audit Number: *Z208885* Well Tag Number: *A163032*

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

Well Location

Address of Well Location	296 BANK ST.
Township	OTTAWA CITY
Lot	
Concession	
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	OTTAWA
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18 Easting: 445519.00 Northing: 5029299.00
Municipal Plan and Sublot Number	
Other	

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
GREY		HARD		0 ft	1 ft
GREY	CLAY	SILT	SOFT	1 ft	10 ft

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
0 ft	1 ft	CONCRETE/FLUSHMOUNT	
1 ft	2.5 ft	BENSEAL	
2.5 ft	10 ft	FILTER SAND	

Method of Construction & Well Use

Method of Construction	Well Use
Direct Push	
	Monitoring and Test Hole

Status of Well

Observation Wells

Construction Record - Casing

Inside	Open Hole or material	Depth	Depth
Diameter		From	To
1.38 inch	PLASTIC	0 ft	3 ft

Construction Record - Screen

Outside Material Depth Depth From To
1.66 inch PLASTIC 3 ft 10 ft

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 7241

Results of Well Yield Testing

After test of well yield, water was
If pumping discontinued, give reaso
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 Depth From To		Diameter
0 ft	10 ft	2.375 inch

Audit Number: Z208885

Date Well Completed: July 17, 2015

Date Well Record Received by MOE: August 24, 2015

Updated: June 28, 2018

Rate Rate

Share facebook twitter Print

Well ID Number: 7295729 Well Audit Number: *Z206496* Well Tag Number: *A182829*

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

Well Location

Address of Well Location	366 382 BANK STREET
Township	OTTAWA CITY
Lot	
Concession	
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	Ottawa
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18 Easting: 445570.00 Northing: 5029192.00
Municipal Plan and Sublot Number	_
Other	_

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	GRVL	SAND	SOFT	0 m	2.74 m
GREY	SILT	CLAY	SOFT	2.74 m	3.96 m
GREY	SILT	CLAY	SOFT	3.96 m	5.79 m

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
0 m	.31 m	FLUSHMOUNT/ CONCRETE	
.31 m	2.44 m	BENSEAL	
2.44 m	5.79 m	SAND	

Method of Construction & Well Use

Method of Construction	Well Use
Direct Push	Monitoring
	Test Hole

Status of Well

Monitoring and Test Hole

Construction Record - Casing

Inside	Open Hole or material	Depth	Depth
Diameter		From	To
4.03 cm	PLASTIC	0 m	2 74 m

Construction Record - Screen

Outside Diameter Material Depth From To
4.82 cm PLASTIC 2.74 m 5.79 m

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 7241

Results of Well Yield Testing

After test of well yield, water was
f pumping discontinued, give reaso
Pump intake set at
Pumping Rate
Ouration of Pumping
Final water level
f 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
0 m	5.79 m	8.25 cm

Audit Number: Z206496

Date Well Completed: August 10, 2017

Date Well Record Received by MOE: September 29, 2017

Well ID Number: 7295730 Well Audit Number: *Z206497* Well Tag Number: *A189880*

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

Well Location

Address of Well Location	366 382 BANK STREET
Township	OTTAWA CITY
Lot	_
Concession	
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	Ottawa
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18 Easting: 445582.00 Northing: 5029178.00
Municipal Plan and Sublot Number	
Other	_

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	GRVL	SAND		0 m	2.74 m
GREY	SILT	CLAY	SOFT	2.74 m	3.46 m
GREY	SILT	CLAY	WBRG	3.46 m	5.79 m

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
0 m	.31 m	FLUSHMOUNT/ CONCRETE	,
.31 m	2.44 m	BENSEAL	
2.44 m	5.79 m	SAND	

Method of Construction & Well Use

Method of Construction	Well Use
Direct Push	Monitoring
	Test Hole

Status of Well

Monitoring and Test Hole

Construction Record - Casing

Inside	Open Hole or material	Depth	Depth
Diameter		From	To
4.03 cm	PLASTIC	0 m	2.74 m

Construction Record - Screen

Outside Material Depth From To
4.82 cm PLASTIC 2.74 m 5.79 m

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 7241

Results of Well Yield Testing

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

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

Water Details

Water Found at Depth Kind

Hole Diameter

Depth From	Depth To	Diameter
0 m	5.79 m	8.25 cm

Audit Number: Z206497

Date Well Completed: August 10, 2017

Date Well Record Received by MOE: September 29, 2017

mber below) A 061568

Well Record

Cette formule est disponible en français

page	of

			Λ				ooo Oma		iesouices Ai
Instructions for Com	pleting Form		A 0619	568	·			pa	ge of
For use in the Pro	vince of Ontario	only. This docum	nent is a perm	anent lega	al document. P	lease retain for fu	ture refe	ence.	
All Sections mustQuestions regardire	be completed in	full to avoid delay: is application can	s in processin	ig. Further	instructions and ter Well Help F	d explanations are	available	on the back	k of this form
 All metre measure 	ements shall be	reported to 1/10	th of a metre.	r	ter well rielp t				
 Please print clearly 	y in blue or black	ink only.		<u></u>		Ministry	Use Only		
Well Owner's Inform				MUN		ON			DT
First Name Cunadian Fe	Last Nam	of stud	Dan te Ma	iling Addres	ss (Street Numbe Mctcalfe	er/Name, RR,Lot,Co	oncession)	
County/District/Municipalit	y,	Township/City/Tow					elephone	Number (in	clude area code
		ottawa			Ontario Ka	P 1P3	•	. `	
Address of Well Location (County/District/Mu	nicipality)		vnship		L	ot	Concess	sion
339 Somers RR#/Street Number/Name	et st.	W. CARI	TE LOW	City/Town/V	/illage	Site/Con	nartment	 'Block/Trac	t etc
*****				Ottan	100		iparimoni	Diooiv ITao	. 010.
GPS Reading NAD 8 3	Zone Eastin			Unit Make/N Sarmin		The second of th	Undifferentia		veraged
Log of Overburden a		aterials (see ins		2001701711	Etrex E	TREA LI	Differentiated	i, specify	
	ommon material	Other Ma			Genera	al Description		Depth	Metres
Bin Topso	• 1		A	6.	4			From	To
		011	i	San				0	,91
Brn 3,17		Sand 1	clay	+146		dry soft		,9/	1.5
Brn Grey 3:11		Clay	<i>r</i>	Sot	t, moist			1,5	3.66
Grey Cla		5,14		508	t, mois			3.66	6.1
Grey Cla	7			wet	Sticky	soft		6.1	8.23
	<i>F</i>								
Hole Diameter		Cons	struction Reco	rd		Т	est of We	Il Yield	
	meter Inside		Wall	Depth	Metres	Pumping test method		Down .	Recovery
	imetres diam centimetres	Material	thickness centimetres	From	То		Time W		ime Water Leve nin Metres
0 8.23 8.	89 centimetres			7 10111	10	Pump intake set at		Wettes 1	IIII Welles
		Steel Fibreglass	Casing			(metres) Pumping rate -	Level		-
	001	Steel Fibreglass	Q-iT		1.1 700	(litres/min)	1		1
Water Record	<u> </u>	Galvanized	0.25	0	4.88	Duration of pumping	2		2
Water found Aind of W	/ater	Steel Fibreglass	0-0-7			hrs + n			
process process	ulphur	Plastic Concrete				Final water level en of pumping	3		3
Gas Salty M	linerals	Galvanized				metr			4
m Fresh S	ulphur	Steel Fibreglass				type. Shallow De			T
	linerals	Plastic Concrete Galvanized				Recommended puri depth.	. 3		5
Other:		Galvanized	Screen			Recommended pur			
Gas Salty M	linerals Outside	Stool DEibrookee				rate. (litres/min)	15		10 15
Other:	diam	Steel Fibreglass Slot No. Plastic Concrete Galvanized		1100	0 00	If flowing give rate -			20
After test of well yield, water Clear and sediment free	was			4.88	8.23	(litres/min)	25		25
Other, specify		No C	asing or Scre	en		If pumping discontinued, give reason.	30		30 10
			asing or our				50		50
Chlorinated Yes N	0	Open hole					60		60
	and Sealing Reco	rd Annula	r space Aba	andonment		Location	n of Well		
Depth set at - Metres Material	l and type (bentonite sl	urry, neat cement slurry)		Placed metres)		show distances of wel	ll from road,	lot line, and	l building.
	ishmount/c	encrete	(1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-		Indicate north by	The state of the s	f		
	Bensenl				Commence of the Commence of th	Somerse	+ 51	. h	
	Benseal Sand					- 1			
						15m)	1		
						~ ~ 6	1912	1	
	Method of C	onstruction	<u> </u>		14	80m 5	7 00	}	
	Rotary (air)	Diamond	Geoprobe W	Digging	12			- Constant	
	Air percussion Boring	☐ Jetting	Geograph	Öther	ちゅって				
☐ Hotary (reverse)	Water	☐ Driving	-		100				
Domestic	Industrial	Public Suppl	iy 🔽	Sther					
	Commercial	Not used	Moni	vell		aclaren			
	Municipal Final Statu	Cooling & ai	ir conditioning \	ven	Audit No.	74024	Date Well C	ompleted YYYY >>1	MM DD 06 23
☐ Water Supply ☐ Rech	arge well	Unfinished	Abandon	ed, (Other)	Was the well ow	ner's information	Date Deliver	ed yyyy	
Doservation well Aban					package delivered				
	doned, poor quality	Replacemen			:	Ministry U	Jse Only		
Name of Well Contractor	Name of Well Contractor \ Well Contractor's Licence No.							24.1	
STRATA Soil Business Address (street name		NNG	724	1	Dat- Dati				
1147 ひたのて	BEXILE	r creek,	RICHHO	h auc	Date Received		Date of Inspe	ection yyyy	MM DD
Name of Well Technician (last	name, first name)	-201 0 We	ell Technician's Lic		Remarks	JUL 11 7 12007	Well Record	Number	
Signature of Technician/Contra		Date	e Submitted XYYY	2					
- S Of Tooling Country		Dale	- 22211 MOU YYYY	MM DD	t	i			
IX Z			2007 1	06 22	/				

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

A115780

111578

SI2067 . Well Record

Regulation 903 Ontario Water Resources Act

Address of Well Location (Street Number/Name) 320 G MOLL St. County/District/Municipality City/Town/Village Office Address of Well Location (Street Number Name) City/Town/Village Office Address of Well Location (Street Number Name) City/Town/Village Office Address of Well Location (Street Number Name) Municipal Plan and Sublet Number	Lot	Concession			
DHOWR		Concession			
	Provi				
[[] [[] [] [] [] [] [] [] []	Other	tario			
NAD 8 3 4455645029134					
Overburden and Bedrock Materials/Abandonment Sealing Record (see instructions on the back of this form) General Colour Most Common Material Other Materials Gen		Depth (m/ft)	1		
B 6-2001 ()	eral Description	From To	o		
Gry Clay Silt Soft	dry	9, 3.9	<u> </u>		
3047,	wet	· ,91 3.9	6		
			,		
Annular Space Depth Set at (m/ft) Type of Sealant Used Volume Placed After test of well yield	Results of Well Yie				
From To (Material and Type) (m³/ft³) □ Clear and sand	free Time		_evel		
O 31 Concrete/flushmount Other, specify_	(min)		<u>"</u>		
.31 .41 Benseal	Level				
.91 3.96 Sand Pump intake set at ((m/ft) 1	1			
	, 2	2			
Method of Construction Well Use Pumping rate (Vmin.)	(GPM) 3	3			
□ Cable Tool □ Diamond □ Public □ Commercial □ Not used □ Duration of pumping □ Rotary (Conventional) □ Jetting □ Domestic □ Municipal □ Dewatering □ Duration of pumping	11	4			
□ Rotary (Reverse) □ Driving □ Livestock □ Test Hole □ Monitoring □ hrs + □ Boring □ Digging □ Irrigation □ Cooling & Air Conditioning Final water level end	min 5	5			
☐ Air percussion ☐ ☐ Industrial	or pumping (min) 10	10			
The state of the s	(min / GPM) 15	15			
Inside Open Hole OR Material Wall Depth (m/ft) Water Supply Recommended num	p depth (m/ft)	20			
Diameter (Galvanized, Fibreglass, Concrete, Plastic, Steel) Thickness (cm/in) From To Replacement Well	25	25			
3.45 PVC 356 0 91 Recharge Well Recommended pum	p rate 30	30			
Dewatering Well Observation and/or Well production (I/mi	n / GPM) 40	40			
Monitoring Hole ☐ Alteration ☐ Division Hole	50	50			
(Construction) Disinfected? Abandoned, Yes No	60	60			
Construction Record - Screen Insufficient Supply Abandoned, Poor	Map of Well Loc				
	below following instruct のルームた み	tions on the back.	_ /		
4.21 PUC 10 :91 3.96			+/		
Other, specify 430					
Water Details Hole Diameter	nderground				
Water found at Depth Kind of Water: Fresh Untested Depth (m/ft) Diameter From To (cm/n)	nderground irrage intrance for		,		
(m/ft) □ Gas □ Other, specify □ From □ To (cm/in) Water found at Depth Kind of Water: □ Fresh □ Untested O 3.96 5.71	entrance 1>		200		
(m/ft) Gas Other, specify	Jaom	- (Banks		
	<u> </u>	-	1 1		
(m/ft) Gas Other, specify		1 1			
(m/ft) Gas Other, specify Well Contractor and Well Technician Information			上		
Well Contractor and Well Technician Information Business Name of Well Contractor Strata Soil Sampling Business Address (Street Number/Name) Municipality Comments:		7-2-00-11-1			
Well Contractor and Well Technician Information Business Name of Well Contractor Strata Soil Sampling Business Address (Street Number/Name) 147-2 W. Beaver Creek Richmondhill		T-Normal Ellin			
Well Contractor and Well Technician Information Business Name of Well Contractor Strata Soil Sampling Business Address (Street Number/Name) Hunicipality Province Postal Code Business E-mail Address Code Cod	Parkage Dellinos	Messe			
Well Contractor and Well Technician Information Business Name of Well Contractor Strata Soil Sampling Business Address (Street Number/Name) Province Postal Code Business E-mail Address ON LyBitCb Well owners Business E-mail Address ON LyBitCb Well owners Date Finformation Well owners Date Finformation Well owners Date Finformation Dat	Package Delivered	Ministry Use Only Audit No.			
Well Contractor and Well Technician Information Business Name of Well Contractor Strata Soil Sampling Business Address (Street Number/Name) Province ON LyBiCol Well Contractor's Licence No. 7 2 4 1 Municipality Richmondhill Province Postal Code Business E-mail Address ON LyBiCol Well owner's Date Finformation Well owner's Date Finformation Page 10 15 7 6 (1913 DW Ro. H. Research)	Package Delivered Y Y M M D D Work Completed	White the same of	6		

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

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7	Well Record
	Regulation 903 Ontario Water Resources A

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Measurem Well Own		raea in: மா ormation	wetric	lmt								<u> </u>	_ 01 🔑
First Name	^	j L	ast Name /	Organizatio	n ,	*		E-mail Ac		100		Well	Constructed
Mailing Add		Partmer et Number/Nar				lunicipality	· · · · · · · · · · · · · · · · · · ·	Province	Postal Code	ı	Telephone N		ell Owner
1051	Bax			te 2	$\mathcal{QB} \mid \mathring{\ }$	OHan)a	OA				io. (<i>inc.</i>	area code)
Well Loca	ation							C. 12 (12 (12 (12 (12 (12 (12 (12 (12 (12					
Address of		ition (Street Nur	mber/Name) ろナ	•	T	ownship			Lot		Concession		
County/Dis			<i>>1</i> :		С	ity/Town/V	illage			Provir	ıce	Posta	l Code ,
•						Otta	- 17			Ont	ario		
UTM Coord				orthing [0 2 9		lunicipal Pl	an and Sublo	ot Number		Other			
NAD Overburd						rd (see inst	ructions on the	a back of this form	7)			1.6	
General Co			non Material			er Material		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	General Description				oth (<i>m/ft</i>)
Bro		Gran	e/		ک	and		5047	dry			2	,91
Gry		Clan			اک	11+		Soft	, W	e+	,	91	3,66
1		7	-										
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			Annular	Space					Results of We	ell Yie	ld Testing	100	
Depth Se	et at (<i>m/ft</i>)		Type of Sea (Material ar				e Placed 13/ft³)	After test of we	ell yield, water was:	Dr Time	aw Down Water Level	-	Recovery Water Level
0	.31	Concre	te / {	· 7 - 7 - 7	ount			Other, sp		(min)		(min)	(m/ft)
•3/	,61		rseal	,				If pumping dis	continued, give reason:	Static Level			
.61	3.66									1		1	
	-100		and					Pump intake	set at (m/ft)	2		2	
Alle Market and the Santa S	Nazarataka (Mataka (M. Para Pin	MALINESSE VERSEN	Salah Salah Tan Salah	our vocator de variante de fino de fino	market was to the same of the same	Announce and a second second	nakaba kanad U danba kataba berita d	Pumping rate	(Vmin / GPM)	3		3	
Meth ☐ Cable To	1 4 444 1 44 4	onstruction Diamond		blic	Well Use ☐ Commer	e cial	Not used		(4		4	
Rotary (0	Convention	al) 🔲 Jetting	□ Do	mestic	Municipa Municipa	ı	Dewatering	Duration of po		5		5	
☐ Rotary (F	Reverse)	☐ Driving ☐ Digging	L.J Liv	estock gation	☐ Test Hole ☐ Cooling &		Monitoring ioning	L	el end of pumping (m/ft)	10		10	
Air percu		\mathcal{L}	1 -	- lustrial her, <i>specify</i> _	_ •		-			<u> </u>			
Unier, sp		onstruction R				Status	s of Well	If flowing give	rate (I/min / GPM)	15		15	
Inside	Open Ho	ole OR Material	Wall		n (<i>m/ft</i>)	☐ Water		Recommende	ed pump depth (m/ft)	20		20	
Diameter (cm/in)	(Galvania Concrete	zed, Fibreglass, e, Plastic, Steel)	Thickness (cm/in)	From	То	Replac	cement Well lole			25		25	
3.45	P	VL.	,3 <i>5</i> 6	0	3.66	Recha	rge Well	Recommende (l/min / GPM)	ed pump rate	30		30	
					161		ering Well vation and/or	Well production	on (Vmin / GPM)	40		40	
						- Monito ☐ Alterat	ring Hole tion			50		50	
						(Const	truction)	Disinfected?	No	60		60	
		Construction R	ecord - Scre	en .		Insuffic	cient Supply loned, Poor	AND		ell Lo	cation		
Outside Diameter	ı	Material	Slot No.		(<i>m/ft</i>)	Water	Quality	Please provide	e a map below following				1 6
(cm/in)	ļ	ialvanized, Steel)		From	То	specify	oned, other, /						+ 1
4.21	PK		10	3 ₹66			specify		120	. 4	Υ		
				-61	366				₩/			1	Benk 5t
		1	ails 🔭 🔭			ole Diame			1				1 87
		h Kind of Waters	_	Untested	From	h (<i>m/ft</i>) To	Diameter (cm/in)						1 5
		h Kind of Water		Untested	0	3.66	5.71	<u> </u>					77
		s Other, spe]]
		h Kind of Water s □Other, <i>spe</i>			A		***************************************][1	į	
	V	Vell Contracto			n Informat	ion							
4		ell Contractor	.)\		Wel		s Licence No.						and the second
Strate Business A	مكر كر ddress (St	rget Number/Na	me) //	1		1 1	7 /	Comments:					
147-2	W.	Beaver	creek	-		nicipality ICHMD	ndhi'll						
Province	j	Postal Code	Business	s E-mail Add	iress	1° AZ	(Dm	Well owner's	Data Package Delling	<u>'d 1</u>	patata	nentes e son	2002139399
-	one No. (inc	- [* <i>D</i> / C c. area code) Na	me of Well 1	Fechnician (I	Last Name.	First Name)	information	Date Package Delivere		Audit No.	ry US	e Only
9057	764	area code) Na 7 3 6 4	Bear	42	Brian			package delivered	Y Y Y Y M M Date Work Completed		Z 1	[4!	5264
Well Technic	ian's Licenc	e No. Signature	of Technicia	n and/or Co	ontractor Date	e Submitted	011/214	☐ Yes ☐ No	201207	21.4			
- 10					V	- 14 Par	- 10 De 7]	100 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	<u>~~ 7</u>	wecewedy h	HE JEL	1111



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

Tag#: A131060 1/3/5/√

S-12830 Well Record
Regulation 903 Ontario Water Resources Act

Measurements recorded in: Metric Imperial			Pageof
Well Owner's Information		E-mail Address	
Last Name / Organization C/O Min		L-mail Address	☐ Well Constructed by Well Owner
Mailing Address (Street Number/Name)	Municipality	Province Postal Code	
1051 Baxter Rd Suite 22	B Ottawa	ON WALB	P[2]
Well Location	T	Lot	Concession
Address of Well Location (Street Number/Name)	Township		
County/District/Municipality	City/Town/Village		Province Postal Code
	OHOUR -		Ontario
UTM Coordinates Zone Easting Northing	Municipal Plan and Subl	ot Number	Other
NAD 8 3 10 4 5 2 1 7 ラレス 1 Overburden and Bedrock Materials/Abandonment Sea	\ ङ्री । aling Record (see instructions on the	a back of this form)	
General Colour Most Common Material	Other Materials	General Description	Depth (<i>m/ft</i>) From To
	4524	SSL SSL	0 1.5
		1 C D L W 10 +	1,5 4,50
	······································		
Annular Space			ell Yield Testing
Depth Set at (m/ft) Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)	After test of well yield, water was: Clear and sand free	Draw Down Recovery Time Water Level Time Water Level Time Water Level
From To (Material and Type)	mount	Other, specify	(min) (m/ft) (min) (m/ft)
	mount	If pumping discontinued, give reason:	Static Level Lev
31 DAD Bensen			1 1
1.22 4.57 Sand		Pump intake set at (m/ft)	
Method of Construction	Well Use	Pumping rate (I/min / GPM)	3
☐ Cable Tool ☐ Diamond ☐ Public	☐ Commercial ☐ Not used	Duration of pumping	4 4
☐ Rotary (Conventional) ☐ Jetting ☐ Domestic ☐ Rotary (Reverse) ☐ Driving ☐ Livestock	☐ Municipal ☐ Dewatering ☐ Test Hole ☐ Monitoring	hre 4 min	5 5
☐ Rotary (Reverse) ☐ Driving ☐ Livestock ☐ Boring ☐ Digging ☐ Irrigation	Cooling & Air Conditioning	Final water level end of pumping (m/ft)	10 10
Air percussion		If flowing sive rate (Unio / CDM)	15 15
Construction Record - Casing	Status of Well	If flowing give rate (I/min / GPM)	
Inside Open Hole OR Material Wall Depti	h (<i>m/ft</i>)	Recommended pump depth (m/ft)	
Diameter (Galvanized, Fibreglass, Thickness From (cm/in) Concrete, Plastic, Steel) (cm/in)	To Replacement Well	Assumption - Art -	25 25
345 PVC 345 A	Recharge Well	Recommended pump rate (I/min / GPM)	30 30
	Dewatering Well Dewatering Well Dewatering Well	Well production (I/min / GPM)	40 40
	Monitoring Hole	Well production ("I'll" / Gr W)	50 50
	Alteration (Construction)	Disinfected?	60 60
	Abandoned, Insufficient Supply	Yes No	
Construction Record - Screen	Abandoned, Poor h (m/ft) Water Quality	Please provide a map below following	instructions on the back.
Outside Diameter (cm/in) Material (Plastic, Galvanized, Steel) Slot No. From	To		567 Mair St 1
	specify		
4.21 4% 10 1.5	Other, specify		
Water Details Weter found at Dooth Kind of Water Freeh Untested	Hole Diameter Depth (m/ft) Diameter		
Water found at Depth Kind of Water: Fresh Untested (m/ft) Gas Other, specify	From To (cm/in)		
Water found at Depth Kind of Water: Fresh Untested	0 4.57 5.71		
(m/ft) Gas Other, specify		2- W6	
Water found at Depth Kind of Water: Fresh Untested			
(m/ft) Gas Other, specify	n Information		
Business Name of Well Contractor	Well Contractor's Licence No.		
Strata Drilling Group	7 2 4 1		<u> </u>
Business Address (Street Number Name)	Municipality Richmondwill	Comments:	
Province Postal Code Business E-mail Add			
, , , , , , , , , , , , , , , , , , ,	Bitatasoi com	Well owner's Date Package Deliver	
Bus.Telephone No. (inc. area code) Name of Well Technician (34-9-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	information package	Audit No.
Well Technician's Licence No. Signature of Technician-and/or C	ontractor Date Submitted	delivered Date Work Completed Yes	
3 6 6 6 Signature of Technician and/or C	30120727	1 No 2 2 2 2 7	26

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0506E (2007/12)

Ministry of Well Tag No. (Place Sticker and/or Print Below) Well Record the Environment A152341 Regulation 903 Ontario Water Resources Act Page Well Owner's Information Last Name / Organization
City of Ottoww First Name E-mail Address ☐ Well Constructed by Well Owner Mailing Address (Street Number/Name) Municipality Postal Code Telephone No. (inc. area code) Ottomo 110 Laurier Ave. 6133802424 KIPIJI **Well Location** Address of Well Location (Street Number/Name) Township Concession County/District/Municipality City/Town/Village Postal Code Ontario UTM Coordinates | Zone | Easting | Northing | NAD | 8 | 3 | 1 | 8 | 4 | 4 | 5 | 6 | 5 | 0 | 5 | 0 | 2 | 9 | 4 | 3 | 0 | Municipal Plan and Sublot Number Other Overburden and Bedrock Materials/Abandonment Sealing Record (see instructions on the back of this form) Most Common Material Depth (m/ft) Other Materials General Description From BH 105 Quile Grut 57m Annular Space **Results of Well Yield Testing** Depth Set at (m/ft) Type of Sealant Used Volume Placed After test of well yield, water was: Draw Down Recovery (Material and Type) Clear and sand free (m^3/ft^3) Time Water Level Time Other, specify (min) (m/ft) (m/ft) (min) Statio If pumping discontinued, give reason Level 1 1 Pump intake set at (m/ft) 2 2 3 3 Pumping rate (I/min / GPM) **Method of Construction** Well Use Cable Tool ☐ Diamond Public 4 ☐ Commercial 4 ☐ Not used ☐ Rotary (Conventional) Duration of pumping ☐ Jetting ☐ Domestic ☐ Dewatering Municipal Rotary (Reverse) hrs + 5 5 □ Driving Livestock min Test Hole ☐ Test Hole ☐ Monitoring ☐ Cooling & Air Conditioning ☐ Boring
☐ Air percussion ☐ Digging ☐ Irrigation Final water level end of pumping (m/ft) 10 10 ☐ Industrial Other, specify Other, specify 15 If flowing give rate (I/min / GPM) 15 Construction Record - Casing Status of Well 20 20 Inside Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel) Wall Thickne Depth (m/ft) ☐ Water Supply Recommended pump depth (m/ft) Diameter Replacement Well (cm/in) 25 25 (cm/in) ☐ Test Hole Recommended pump rate 30 30

Water Level Recharge Well (I/min / GPM) Dewatering Well 40 40 Observation and/or Well production (I/min / GPM) Monitoring Hole 50 Alteration Disinfected? (Construction) Abandoned, Insufficient Supply Yes No 60 60 Construction Record - Screen Map of Well Location Abandoned, Poor Outside Depth (m/ft) Please provide a map below following instructions on the back Material Water Quality Diamete (Plastic, Galvanized, Steel Abandoned, other, (cm/in) From ecify Remove 309/311 Empty Lot Other, specify Water Details Hole Diameter Water found at Depth Kind of Water: Fresh Untested Depth (m/ft) Diameter (m/ft) Gas Other, specify From (cm/in) Water found at Depth Kind of Water: Fresh Untested (m/ft) Gas Other, specify Water found at Depth Kind of Water: Fresh Untested (m/ft) Gas Other, specify Well Contractor and Well Technician Information Marathon Dr. Wing
Business Address (Street Number/Name)
6847 Hirom Dr.
Province Postal Code E 68 Comments Business E-mail Address Bus. Telephone No. (inc. area code) Name of Well Technician (Last Name, First Name) Well owner's Date Package Delivered Ministry Use Only information Audit No. Z 096856 package delivered 13822057 Wright Terry
Technician's Licence No. Signature of Technician add/or Contractor Date Submitted 6138220571 Date Work Completed Yes NOV 1 4 2013 20130913 No YIYIY MIM

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Well Tag No. (Place Sticker and/or Print Below)
A 152336

Well Record

Regulation 903 Ontario Water Resources Act Page_

Well Owner's	s Information Last I	Name / Organiza			E-mail Address				☐ Well	Constructed
Mailing Address	(Street Number/Name)	city of C	Hawn	Muniçipality	Province	Postal Code	9	Telephone	-	ell Owner area code)
	e Ave West			Ottown	011	K11P1	21	613	5801	2474
Well Location Address of Well	Location (Street Number	-/Name)		Township		Lot		Concessi	on	
County/District/M	Municipality	***************************************		City/Town/Village			Provi	nce	Posta	I Code
UTM Coordinates	Zone Fasting	, Northing		Municipal Plan and Subl	ot Number		Ont	ario	APPROXIMATION	THE STATE OF THE S
NAD 8 3	48 44 5 79	55029	1519							
Overburden ar General Colour	nd Bedrock Materials/A	on the second second second	ord <i>(see instructions on the</i> her Materials		al Description	า		Dep From	oth (m/ft)	
BH 103	Quik	Growt	+ Com	nt		,			57m	· · ·
	Busines responses of the second									
AND CONTRACTOR OF THE PROPERTY										
Walk Land Address of the Control of										

									~~~~~~~~~~	
		nnular Space					- 11 377 1	· · · · · ·		
Depth Set at (n	n/ft) Type	e of Sealant Used terial and Type)		Volume Placed (m³/ft³)	After test of well yield, w		Dr	aw Down	Re	ecovery
- 110111	io (inai	teriai ariu Type)		(III-7IE-)	☐ Clear and sand fre ☐ Other, <i>specify</i>		Time (min)	Water Lev (m/ft)	el Time (min)	Water Level (m/ft)
					If pumping discontinued	l, give reason:	Static Level			
					Pump intake set at (m.	/ft)	1	****	1	
	THE CONTRACT OF THE CONTRACT O	***************************************	**************************************			,	3		2	
Method o	of Construction	☐ Public	Well Us		Pumping rate (I/min / G	iPM)	4		3 4	·
beauty	itional)	☐ Domestic ☐ Livestock	☐ Municip	al Dewatering	Duration of pumping hrs + mi	n	5		5	<u> Yana an an an an</u>
Boring Air percussion	Digging	☐ Irrigation ☐ Industrial	******	& Air Conditioning	Final water level end of	pumping (m/ft)	10		10	
Other, specify		Other, specify	-		If flowing give rate (I/mi	n / GPM)	15		15	
Inside Ope	Construction Recorded Hole OR Material		th ( <i>m/ft</i> )	Status of Well  Water Supply	Recommended pump of	denth (m/ft)	20		20	
		kness m/in) From	То	Replacement Well	,	, , ,	25		25	
				☐ Recharge Well ☐ Dewatering Well	Recommended pump (I/min / GPM)	rate	30		30	
	-			Observation and/or     Monitoring Hole	Well production (I/min /	GPM)	40		40	
				Alteration (Construction)	Disinfected?		50		50	
	Construction Record	- Screen		Abandoned, Insufficient Supply	Yes No	NA	60		60	
Outside Diameter (Plastic	Material	Dept t No.	h ( <i>m/ft</i> )	☐ Abandoned, Poor Water Quality ☑ Abandoned, other,	Please provide a map be	Map of We elow following in			ack.	90
(cm/in) (* lasti	o, Galvanized, Gleen)	From	То	specify  Kmuse						exe.
				Other, specify	: : :	011				5
	Water Details		He	ole Diameter		261 pty Lot				
	epth Kind of Water: Figer Gas Other, specify	resh Untested	Depth From	n ( <i>m/ft)</i> Diameter To ( <i>cm/in</i> )	Em	pty Log			+	23′—
Water found at De	pth Kind of Water: F	resh Untested	-			,			32'	
	Gas Other, specify pth Kind of Water: Fr	resh Untested				-+		***************************************		
(m/ft) [] (	Gas Other, specify				Somers	54_				
Business Name of			Well	Contractor's Licence No.						
Business Address (	Street Number/Name)	Ctd	€ Mun		Comments:			***************************************		
6847 H	wam Or	siness E-mail Add		077						
ON	K4P1A2				Well owner's Date Pack	age Delivered		Minist	ry Use C	Only
613822	inc. area code) Name of V	Wrink	4 Ten	1		Y M M D		udit No. Z (	96	855
Well Technician's Lice	nce No. Signature of Tecl	nnician and/or Co	ntractor Date	Submitted	Yes Date Work	Completed	I I 💥	F4	nv .	
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Ministry of the Environment

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

Well Record

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Regulation 903	Ontario	Wa	ter F	₹es	sou	rces	Α	ct

Measurements recorded in: Metric   Imperi	1ag#: A15260.	3 A152603	Page	of
Well Owner's Information First Name   Last Name / Organ	ization	E mail Address		
First Name   Last Name / Organ	Realty Corporation	E-mail Address		Well Constructed by Well Owner
Mailing Address (Street Number/Name)	Municipality	Province Postal Code	Telephone	No. (inc. area code)
50 Baysnater prenue	<u>Ottawa</u>	ON  KI1412	179	
Well Location ¹ Address of Well Location (Street Number/Name)	Township	Lot	Concessio	n
384 McLauren Rd	y			
County/District/Municipality	City/Town/Village		Province	Postal Code
UTM Coordinates   Zone   Easting   Northing		olot Number	Ontario Other	
	15231			
Overburden and Bedrock Materials/Abandonmer	t Sealing Record (see instructions on the			Death (-16)
General Colour Most Common Material	Other Materials	General Description	1	Depth (m/ft) From To
10Ky concrete	gravel,	hard		0 .3/
BRN sand	91900	10030		3,1 2.13
GRY clay	TI M	soft	-	7.13 Bal
9				
	7.00000000			
Annular Space		Results of We	II Yield Testing	
Depth Set at (m/ft) Type of Sealant Us	sed Volume Placed	After test of well yield, water was:	Draw Down	Recovery
		Clear and sand free Other, specify	Time Water Leve	Time Water Level
21 271 1 V -to	Lushmont	If pumping discontinued, give reason:	Static	
19/ 2/19 benfortt	1		Level 1	1
dill61 litter some		Pump intake set at (m/ft)		
			2	2
Method of Construction	Well Use	Pumping rate (Ilmin I GPM)	3	3
Cable Tool Diamond Public	Commercial Not used	Duration of pumping	4	4
☐ Rotary (Conventional) ☐ Jetting ☐ Domestic ☐ Rotary (Reverse) ☐ Driving ☐ Livestock	☐ Municipal ☐ Dewatering ☐ Test Hole ☐ Monitoring	hrs + min	5	5
☐ Boring ☐ Digging ☐ Irrigation ☐ Air percussion ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	Cooling & Air Conditioning	Final water level end of pumping (m/ft)	10	10
Other, specify Other, specify Other, specify	cify	If flowing give rate (Ilmin   GPM)	15	15
Construction Record - Casing	Status of Well	I in howing give rate (IIIIIII / GPINI)		
Diameter (Galvanized, Fibreglass, Thickness	Depth (m/ft) Water Supply	Recommended pump depth (m/ft)	20	20
(cmlin) Concrete, Plastic, Steel) (cmlin) From	1 Test Hole	Recommended pump rate	25	25
345 PVC ,>56 0	Recharge Well	(Ilmin   GPM)	30	30
	Observation and/or	Well production (Ilmin   GPM)	40	40
	Monitoring Hole  Alteration	. , ,	50	50
	(Construction)	Disinfected?  Yes No	60	60
Construction Record - Screen	Insufficient Supply	Map of We	II I ocation	
Outside Material Diameter (Plastic Galvanized Stock) Slot No.	epth ( <i>m/ft</i> ) Abandoned, Poor Water Quality	Please provide a map below following in		ack.
(cm/in) (Fron	To Abandoned, other, specify			
421 PVC 16 3.	6./		X	
	U Other, specify	1111	32m =	1,64,
Water Details	Hole Diameter	5 1 7m	*	J Wy
Water found at Depth Kind of Water: Fresh Unites	ted Depth ( <i>m/ft</i> ) Diameter From To ( <i>cm/in</i> )	BAN	Jan Sales	· 1 (By 0)
(m/ft)		100	3m 3000	11 /
(m/ft) Gas Other, specify			Ψ,	
Water found at Depth Kind of Water: Fresh Unites	ted			
(mlft) Gas Other, specify  Well Contractor and Well Technic		- t: [MI AW	REN	
Business Name of Well Contractor	Well Contractor's Licence No.	I I I INCO.		
Strate Derting Grand	721			
Business Address (Street Number/Name),	Crack Rich rand At 11	Comments:		
Province Postal Code Business E-mail /				
IN 44B/166W(200rd)	Ostralasell. com	Well owner's Date Package Delivered	Ministr	y Use Only
Bus. Telephone No. (inc. area code) Name of Well Technicia	n (Last Name, First Name)	information package	ALLER NE	,
Vell Technician's Licence No. Signature of Technician and/or	Contractor Date Submitted	delivered Date Work Completed	# <b>-</b> 11	7968
3 6 5 6	20131005	No 2013201	5 NOV 2	8 2013
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Well Tag No. (Place Sticker andlor Print Below)

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Tag#: A150791 A15079	Regulation 903 Ontario Water Resources A
H(20+1	Page of

Well Owner's Information					
First Name   Last Name / Organi:	zation C. Co. r. o.	E-mail Address			Constructed
Mailing Address (Street Number/Name)	Realty Cosposation	Province Postal Code	Tolophor		ell Owner area code)
50 Bayswater Avenue	Chairy	ON KILY2		ie No. (#ic.	area code)
Well Location	) Ortana	0/0 1/1/9/2	<u> -                                     </u>		
Address of Well Location (Street Number/Name)	Township	Lot	Concess	ion	
384 Milauren Rd.		77			
County/District/Municipality	City/Town/Village		Province	Postal	Code
LITM Coordinates Zono Easting Northing	Municipal Plan and Sub	olat Number	Ontario		
UTM Coordinates   Zone   Easting   Northing   NAD   8   3   1   8   9   9   9   5   5   6   1   5   0   2	19 2 2 1	DIOL NUMBER	Other		
Overburden and Bedrock Materials/Abandonmen		he back of this form)			
General Colour Most Common Material	Other Materials	General Description	า		th (m/ft)
	and and	11	-	From	7 To
BRN sand	7 40	Dh. d		- 1	1, 3/
BORN Sond	gravel	soft, loose		, )/	1,85
GRY clay	F, 18	SOFF		1.82	4.5/
/	•	TOTAL			
		Control of the Contro			
Annular Space		Results of W	ell Yield Testin	q	
Depth Set at (m/ft) Type of Sealant Us		After test of well yield, water was:	Draw Down		ecovery
From To (Material and Type		☐ Clear and sand free☐ Other, <i>specify</i>	Time Water Le	vel Time (min)	Water Level (m/ft)
0.3) concrete/ busha	16 um	If pumping discontinued, give reason:	Static	1,,,,,,	111111
.3/ 277 Dentonde		In partipling dissortances, give reason.	Level		
774 4.57 CHe- 5and			1	1	
5/10 13 / W// Date		Pump intake set at (m/ft)	2	2	
		Pumping rate (Ilmin I GPM)	3	3	
Method of Construction	Well Use	Historia in the second			
□ Cable Tool     □ Diamond     □ Public       □ Rotary (Conventional)     □ Jetting     □ Domestic	☐ Commercial ☐ Not used ☐ Municipal ☐ Dewatering	Duration of pumping	4	4	
Rotary (Reverse) Driving Livestock	Test Hole Monitoring	hrs + min	5	5	
□ Boring □ Digging □ Irrigation □ Air percussion   □   □  □ Industrial	Cooling & Air Conditioning	Final water level end of pumping (m/ft)	10	10	
☐ Air percussion ☐ Industrial ☐ Other, specify ☐ Other,	cify	15.00	15	15	***************************************
Construction Record - Casing	Status of Well	If flowing give rate (Ilmin / GPM)		15	
Inside Open Hole OR Material Wall D	Depth (m/ft)	Recommended pump depth (m/ft)	20	20	
Diameter (Galvanized, Fibreglass, Concrete, Plastic, Steel) Thickness (cm/in), Fron	n To Replacement Well		25	25	
3.45 // . 356 )	Test Hole Recharge Well	Recommended pump rate (//min / GPM)	30	30	
	L Dewatering Well	(intilit i GFNi)			
	Observation and/or Monitoring Hole	Well production (Ilmin   GPM)	40	40	
Take 1	☐ Alteration	Disinfected?	50	50	
	(Construction)  Abandoned.	Yes No	60	60	A STATE OF THE STA
Construction Record - Screen	Insufficient Supply	Man of We	Il Location		
	epth ( <i>m/ft</i> ) Abandoned, Poor Water Quality	Please provide a map below following	instructions on the	back.	_
Commeter (Plastic, Galvanized, Steel) Slot No. From	To Abandoned, other, specify	Please provide a map below following	Sement		. [
4.24 YUC 10 3.1	1 457		-		
	Other, specify			=,	
		\$ 1	•		+
Water Details  Water found at Depth Kind of Water: ☐ Fresh ☐ Untes	ted Depth (m/ft) Diameter	8	mag.		
(m/ft) Gas Other, specify	From To (cm/in)				1
Water found at Depth Kind of Water: Fresh Untest	ted 0 5.71 4.57		entransia di Maria di Arigina di Santa	*	AP SECURITY OF THE SECURITY OF
(m/ft) Gas Other, specify				Harried Charles and Principles of the State of the Stat	File could be compared as compared to compare and compared to the compared to
Nater found at Depth Kind of Water: Fresh Untest	ted	McLAN	REU		
(mlft) Gas Other, specify		I McCi	•		
Well Contractor and Well Technic Business Name of Well Contractor					
Trata Dowling Group	Well Contractor's Licence No.				
usiness Address (Street Number/Name)	/ Municipality	Comments:		390	
147 West Beaver Cre	el Kichmand Hill				
Province Postal Code Business E-mail A	Address 1		·		
ON 49B/C6 Wrecon		Well owner's Date Package Delivered	25650556670556756	stry Use (	Only
us.Telephone No. (inc. area code) Name of Well Technician	n (Last Name, First Name)	package	Audit No.		Section 10
/ell Technician's Licence Ne Signature of Technician and/or		Date Work Completed	<del></del>	779	67
3 6 5 6	20131605		JONOV 2	9000	
506E (2007/12) © Queen's Printer for Ontario, 2007		L THE THE POPULATION OF THE PO	Tall Messelved /	<del>- 2013</del>	

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3-146910 Well Record Well Tag No. (Place Sticker and/or Print Below) Ministry of Ontario the Environment Regulation 903 Ontario Water Resources Act 4152703 Tag#: A152703 Metric Imperial Measurements recorded in: **Well Owner's Information** Last Name / Organization E-mail Address First Name □ Well Constructed by Well Owner Telephone No. (inc. area code) Postal Code KIN9B9 OHAL ON Well Location Address of Well Location (Street Number/Name) Township Concession 180 Waller St County/District/Municipality City/Town/Village Province Postal Code OHauua Municipal Plan and Sublot Number Ontario UTM Coordinates | Zone | Easting | Northing | NAD | 8 | 3 | 1 | 8 | 4 | 4 | 5 | 5 | 6 | 3 | 5 | 0 | 2 | 9 | 2 | 5 | 6 | Other Overburden and Bedrock Materials/Abandonment Sealing Record (see instructions on the back of this form) Depth (m/ft, General Description Other Materials General Colour soft 7 Results of Well Yield Testing Annular Space Type of Sealant Used Volume Placed After test of well yield, water was: Draw Down Recovery Depth Set at (m/ft)
From To Time | Water Level Time Water Level  $(m^3/ft^3)$ Clear and sand free (mift) (m/ft) (min) Other, specify 3 Statio If pumping discontinued, give reason: Level 1 Pump intake set at (m/ft) 2 3 3 Pumping rate (Ilmin | GPM) Well Use **Method of Construction** 4 4 ☐ Not used Commercial Cable Tool ☐ Diamond Public Duration of pumping Dewatering
Monitoring Domestic Municipal ☐ Rotary (Conventional) Jetting hrs + min Test Hole Driving Livestock ☐ Rotary (Reverse) Final water level end of pumping (m/ft) Boring □ Digging Irrigation Cooling & Air Conditioning 10 10 Air percussion ☐ Industrial Air percussion Drect Push 15 Other, specify 15 If flowing give rate (Ilmin / GPM) **Construction Record - Casing** Status of Well 20 Depth (m/ft) ☐ Water Supply Recommended pump depth (m/ft) Inside Open Hole OR Material Wall (Galvanized, Fibreglass, Concrete, Plastic, Steel) Diamete (cm/in) Replacement Well 25 25 From То Test Hole Recommended pump rate (Ilmin I GPM) 30 30 356 Recharge Well Dewatering Well 40 40 Observation and/or Well production (Ilmin / GPM) Monitoring Hole 50 50 Alteration (Construction) 60 60 Yes No Abandoned,
Insufficient Supply **Map of Well Location** Construction Record - Screen Abandoned, Poor Please provide a map below following instructions on the back. Outside Diamete Water Quality Depth (m/ft) Material (Plastic, Galvanized, Steel) Slot No Abandoned, other, From To (cm/in) specify 10 4. 21 Other, specify L Water Details Hole Diameter Depth (m/ft) Diameter Water found at Depth Kind of Water: Fresh Untested (cmlin) (mlft) Gas Other, specify Water found at Depth Kind of Water: Fresh Untested (m/ft) Gas Other, specify
Water found at Depth Kind of Water: Fresh Untested Other, specify (m/ft) Gas Well Contractor and Well Technician Information Business Name of Well Contractor Well Contractor's Licence No. Strata Drilling Group 724 Comments 77 W. Beaver Cine CaM Well owner's Ministry Use Only 6 W. Crecordestratascil Date Package Delivered information Name of We package delivered / | Y | Y | Y | M | M | D | E **z** 177969 Date Work Completed Yes Signature of Technician and/or Contractor Date Submitted

20131015

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□ No

31015

Well ID Number: 7295731 Well Audit Number: *Z206498* Well Tag Number: *A189879* 

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

#### **Well Location**

Address of Well Location	366 382 BANK STREET
Township	OTTAWA CITY
Lot	_
Concession	
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	Ottawa
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18 Easting: 445584.00 Northing: 5029168.00
<b>Municipal Plan and Sublot Number</b>	_
Other	

#### Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	GRVL	SAND	DRY	0 m	2.74 m
GREY	SILT	CLAY		2.74 m	3.96 m
GREY	SILT	CLAY	SOFT	3.96 m	5.79 m

#### **Annular Space/Abandonment Sealing Record**

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
0 m	.31 m	FLUSHMOUNT/ CONCRETE	
.31 m	2.44 m	BENSEAL	
2.44 m	5.79 m	SAND	

#### **Method of Construction & Well Use**

<b>Method of Construction</b>	Well Use
Direct Push	Monitoring
	Test Hole

#### **Status of Well**

Monitoring and Test Hole

### **Construction Record - Casing**

Inside	Open Hole or material	Depth	Depth
Diameter		From	To
4.03 cm	PLASTIC	0 m	2.74 m

#### **Construction Record - Screen**

Outside Material Depth From To
4.82 cm PLASTIC 2.74 m 5.79 m

#### Well Contractor and Well Technician Information

Well Contractor's Licence Number: 7241

#### **Results of Well Yield Testing**

After test of well yield, water was
f pumping discontinued, give reaso
Pump intake set at
Pumping Rate
Duration of Pumping
Final water level
f 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
0 m	5.79 m	8.25 cm

Audit Number: Z206498

**Date Well Completed:** August 10, 2017

Date Well Record Received by MOE: September 29, 2017

Well ID Number: 7295732 Well Audit Number: *Z206499* Well Tag Number: *A189788* 

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

#### **Well Location**

Address of Well Location	366 382 BANKS STREET
Township	OTTAWA CITY
Lot	
Concession	
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	Ottawa
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18 Easting: 445593.00 Northing: 5029168.00
<b>Municipal Plan and Sublot Number</b>	
Other	

#### Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	GRVL	SAND	SOFT	0 m	2.13 m
GREY	SILT	CLAY	SOFT	2.13 m	3.96 m
GREY	SILT	CLAY	WBRG	3.96 m	5.79 m

### **Annular Space/Abandonment Sealing Record**

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
0 m	.31 m	FLUSHMOUNT/ CONCRETE	3
.31 m	2.44 m	BENSEAL	
2.44 m	5.79 m	SAND	

#### **Method of Construction & Well Use**

<b>Method of Construction</b>	Well Use
Direct Push	Monitoring
	Test Hole

#### **Status of Well**

Monitoring and Test Hole

#### **Construction Record - Casing**

Inside	Open Hole or material	Depth	Depth
Diameter		From	To
4.03 cm	PLASTIC	0 m	2.74 m

#### **Construction Record - Screen**

Outside Material Depth From To
4.82 cm PLASTIC 2.79 m 5.79 m

#### Well Contractor and Well Technician Information

Well Contractor's Licence Number: 7241

#### **Results of Well Yield Testing**

After test of well yield, water was
f pumping discontinued, give reaso
Pump intake set at
Pumping Rate
Ouration of Pumping
Final water level
f 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
0 m	5.79 m	8.25 cm

Audit Number: Z206499

Date Well Completed: September 10, 2017

Date Well Record Received by MOE: September 29, 2017

#### **Mandy Witteman**

From: Public Information Services < publicinformationservices@tssa.org>

**Sent:** January-09-19 5:14 PM **To:** Mandy Witteman

Subject: RE: Search Records Request (PE4530)

Hello Mandy,

Thank you for your request for confirmation of public information.

We confirm that there are no records in our database of any fuel storage tanks at the subject addresses.

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

Kind regards,

Yalini



#### Yalini Kanagendran | Public Information Agent

Facilities
345 Carlingview Drive
Toronto, Ontario M9W 6N9

Tel: +1-416-734-3449 | Fax: +1-416-231-6183 | E-Mail: publicinformationservices@tssa.org

www.tssa.org







From: Mandy Witteman < MWitteman@Patersongroup.ca>

Sent: January 9, 2019 11:19 AM

To: Public Information Services <publicinformationservices@tssa.org>

**Subject:** Search Records Request (PE4530)

**Good Morning** 

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

O'Connor St: 320, 2778, 280, 267

Gilmour Street: 347, 255, 359, 350, 344, 340,

Thank you.

#### Best Regards,

This electronic message and any attached documents are intended only for the named recipients. This communication from the Technical Standards and Safety Authority may contain information that is privileged, confidential or otherwise protected from disclosure and it must not be disclosed, copied, forwarded or distributed without authorization. If you have received this message in error, please notify the sender immediately and delete the original message.

January 9, 2019 File: PE4530-HLUI

City of Ottawa 110 Laurier Avenue W Ottawa, Ontario K1P 1J1

Subject:

**Authorization Letter, HLUI Search** 

Phase I-Environmental Site Assessment 347 Gilmour Street, 278&282 O'Connor Street

Ottawa, Ontario

Dear Sir or Madame,

Please consider this letter as confirmation that Paterson Group has been retained to conduct a Phase I-Environmental Site Assessment at the aforementioned property.

With this letter, the property owner authorizes the City of Ottawa and other regulatory bodies to release, to Paterson Group, information requested for the purpose of completing an environmental assessment of the property.

Name of Company/Property Owner:	POLO IN PROPERTIES INC
Name of Representative	TONY KAZARIAN
Authorization of Representative	VICE PRESIDENT.
Date	JUNE 14, 2019

# **APPENDIX 3**

**QUALIFICATIONS OF ASSESSORS** 

## Mandy Witteman, M.A.Sc



Geotechnical Engineering

**Environmental Engineering** 

**Hydrogeology** 

Geological Engineering

**Materials Testing** 

**Building Science** 

Archaeological Services

#### **POSITION**

**Environmental Engineer** 

#### **EDUCATION**

Carleton University, M.A.Sc., Environmental Engineering, 2013 Carleton University, B.Eng., Environmental Engineering, 2008

#### **MEMBERSHIPS & AWARDS**

Alberta Professional Engineers and Geoscience Association NSERC Industry R&D Scholarship

#### **EXPERIENCE**

2018 - Present

Paterson Group Inc.

Consulting Engineers
Geotechnical and Environmental Division
Environmental Engineer

2014 - 2015

**Thurber Engineering Limited** 

Oil Sand Tailings Group Tailings Engineer

2014 - 2013

**Carleton University** 

Department of Civil & Environmental Engineering Research Engineer

2013 - 2009

**Carleton University** 

Department of Civil & Environmental Engineering Research Assistant and Teachers Assistant

2008 - 2009

**SLR Consulting Limited** 

**Contaminated Sites** 

Junior Environmental Engineer

# Mark S. D'Arcy, P. Eng.

# patersongroup

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