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Phase I Environmental Site Assessment

1354 and 1376 Carling Avenue
Ottawa, Ontario

Prepared For

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EXECUTIVE SUMMARY

Paterson Group was retained by Holloway Lodging Corporation to conduct a Phase I Environmental Site Assessment (ESA) of the property addressed 1354 and 1376 Carling Avenue, in the City of Ottawa, Ontario. The purpose of this Phase I ESA was to research the past and current use of the site and study area and to identify any environmental concerns with the potential to have impacted the subject property.

The results of the historical research indicated that the subject property was first developed in the early 1900's with residential dwellings. The northwestern and northeastern portions of the site were later developed for commercial purposes circa 1956. A retail fuel outlet (addressed 1384-1386 Carling Avenue at the time) with three USTs, operated on the northwestern portion of the site until circa 1965. A retail fuel outlet and automotive service garage operated on the northeastern portion of the site (addressed 1350 Carling Avenue at the time) until circa 1963. The original portion of the existing hotel complex, was built in 1963 with the remaining phases completed by 1972. The former retail fuel outlets and automotive service garage are potentially contaminating activities (PCAs) which represent areas of potential environmental concern (APECs) on the Phase I Property.

Several off-site historical PCAs, including former retail fuel outlets and/or automotive service garages, were present to the north and northeast of the site, across Carling Avenue, and east of the site, across Archibald Street. These properties are considered to have had the potential to impact the subject land based on their proximity and the local topography and inferred groundwater flow direction, to the south, in the immediate vicinity of the Phase I Property.

At the time of the site visit, no PCAs were identified on the Phase I Property with the exception of diesel fuel storage associated with a small back-up generator in the mechanical room of the Beachcomber (former nightclub). No other on-site PCAs were present at the time of the site visit. No existing off-site PCAs were observed within the Phase I ESA study area at the time of the site visit.

Recommendations

Based on the results of this Phase I ESA, **it is our opinion that a Phase II Environmental Site Assessment is required for the property**.

It is our understanding that the Phase I Property is to be redeveloped. As part of the redevelopment, the existing structures will be demolished in stages, beginning with the parking garage structure and tower on the northeastern portion of the Phase I Property.

An asbestos survey for the subject buildings, has been completed by Pinchin (November, 2012). The survey confirmed the present of asbestos throughout each phase of the hotel. Prior to the demolition, an asbestos abatement program must be conducted, in accordance with Ontario Regulation 278/05 under the Health and Safety Act. A designated substance survey (DSS) must also be conducted in accordance with Ontario Regulation 490/09 under the Occupational Health and Safety Act, in order to address other designated substances, including but not limited to, lead-based paint.

1.0 INTRODUCTION

At the request of Holloway Lodging Corporation, Paterson Group (Paterson) conducted a Phase I Environmental Site Assessment (Phase I ESA) of the property addressed 1354 and 1376 Carling Avenue, in the City of Ottawa, Ontario. The purpose of this Phase I ESA was to research the past and current use of the site and study area and to identify any environmental concerns with the potential to have impacted the subject property.

Paterson was engaged to conduct this Phase I ESA by Mr. Gavin MacDonald of Holloway Lodging Corporation. The offices of Holloway Lodging Corporation are located at 6009 Quinpool Road, Halifax, Nova Scotia. Mr. MacDonald can be reached by telephone at (514) 516-2359.

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

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

2.0 PHASE I PROPERTY INFORMATION

Address:	1354 and 1376 Carling Avenue, Ottawa, Ontario.
Legal Description:	Part Blocks 6 and 7 Registered Plan 221 and Part of Road Allowance between Concession 1 (Ottawa Front) and Concession A (Rideau Front) closed by by-law 231-66, Instrument 511589, Geographic Township of Nepean, City of Ottawa.
Property Identification	
Number:	04002-0019 (LT) and 04002-0020 (LT)
Location:	The subject site is located on the south side of Carling Avenue between Meath Street and Archibald Street in the City of Ottawa, Ontario. The subject site is shown on Figure 1 - Key Plan following the body of this report.
Latitude and Longitude:	45° 23' 04" N, 75° 44' 12" W.
Site Description:	
Configuration:	Rectangular (approximately)
Site Area:	0.93 hectares (approximate)
Zoning:	AM10 – Arterial Mainstreet Zone and R4N – Residential 4th Density Zone (southeast corner of property only)
Current Use:	The property is currently occupied by Travelodge Ottawa West, an operational hotel (with the exception of the east tower).
Services:	The subject site is located in a municipally serviced area.

3.0 SCOPE OF INVESTIGATION

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

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

4.0 RECORDS REVIEW

4.1 General

Phase I-ESA Study Area Determination

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

First Developed Use Determination

Based on the city directories, air photo research, fire insurance plans and a chain of title, it is our interpretation that the subject property was first developed in 1909 for residential purposes. The northwestern and northeastern portions of the property were developed in the 1950's for commercial purposes with retail fuel outlets and an automotive service garage. The existing hotel was later developed in stages during the interim of 1963 through 1972.

Fire Insurance Plans

Fire Insurance Plans (FIPs), dated 1956, were reviewed for the Phase I Property and Phase I study area. Earlier FIPs were not available for the area of the Phase I Property. Based on the 1956 FIPs, the Phase I Property was previously occupied by the following:

- a retail fuel outlet, previously addressed 1386 Carling Avenue and located on the northwest corner of the Phase I Property;
- a retail fuel outlet and automotive service garage, previously addressed 1350 Carling Avenue and located on the northeast corner of the Phase I Property; and
- residential dwellings addressed 1364, 1354 and 1346 Carling Avenue, 816, 822 and 826 Archibald Street and 825 Meath Street.

The aforementioned retail fuel outlets and automotive service garage are potentially contaminating activities (PCAs), resulting in areas of potential environmental concern (APECs) on the northwest and northeast corners of the Phase I Property.

The FIPs also identified several PCAs within the Phase I study area, as presented below in Table 1.

Table 1: Fire Insurance Plans Potentially Contaminating Activities in Phase I Study Area			
Civic Address	**Activity**	**Approximate Distance / Orientation from site**	**Potential Environmental Concern (Y / N)**
Carling Avenue			
1314	Seven-Up Bottling Company (1 underground storage tank (UST))	70 m East	N
1331	Barrington Petroleum Products Limited (bulk fuel storage)	60 m Northeast	N
1340	Retail fuel outlet and automotive service garage (2 USTs)	35 m East	Y
1351	Retail fuel outlet and automotive service garage (2 USTs)	40 m Northeast	Y
1359	Ontario Department of Highways (2 USTs and automotive service garage)	15 m North	Y
1447	W.L. Ballentine Co. Ltd. Contractors Equipment (storage and repairs)	180 m West	N
Merivale Road			
840	Automotive service garage (2 USTs)	200 m East	N
910	Retail fuel outlet and automotive service garage (7 USTs)	240 m Southeast	N

The former retail fuel outlets/automotive service garages east and northeast of the Phase I Property, previously addressed 1340 and 1351 Carling Avenue, are situated a fair distance from the Phase I property, however based on regional topography and anticipated local groundwater flow direction to the south, they are considered to represent APECs on the northeast portion of the Phase I Property with the potential for concern considered to be low to moderate. The former Ontario Department of Highways is considered to represent an APEC on the northwest portion of the Phase I Property based on its proximity and location upgradient of the Phase I Property.

The remaining PCAs noted above are not considered to represent APECs on the Phase I Property based on their respective distances from the subject land.

City of Ottawa Street Directories

As part of the Phase I ESA, city directories at the National Archives were reviewed in approximate 10 year intervals from 1930 through 2010.

Listings for the residential dwellings previously situated along Meath Street and Archibald Street (as shown on the 1956 FIPs) were not identified during the city directory review. An automotive service garage at 1350 Carling Avenue (currently 1354 Carling Avenue) and a retail fuel outlet at 1384 Carling Avenue (currently 1376 Carling Avenue) were first listed between 1949 and 1956 until the 1960's.

Neighbouring properties within the Phase I study area were used primarily for residential and commercial purposes, with several institutional or industrial properties. Potentially Contaminating Activities identified within the Phase I study area are summarized in Table 2.

Table 2: City Directories – Potentially Contaminating Activities in Phase I Study Area

Address	Listed Activity (years listed)	Distance / Orientation from site	Potential Environmental Concern (Y / N)
Carling Avenue			
1309	Browns Cleaners (2000)	130 m Northeast	N
1314	Seven-Up Bottling Company (1960)	70 m East	N
1316	Patton's Cleaners (1970)	70 m East	N
1317	Paul Service Stores dry cleaning (1960)	100 m Northeast	N
1330	Gus and John's Service Station Ltd. (1970, 1980)	35 m East	Y
1331	Barrington Fuel Oil (1960) BP Oil Ltd. (1970)	60 m Northeast	N
1331A	Daly's BP Service Station (1970)	40 m Northeast	Y
1387-1427	Patton's Cleaners (1970)	125 m West	N
1435	Valliant Esso Service (1960)	200 m West	N
1475	Imperial 3 Star Centre service station (1970)	230 m West	N
1500	U-Haul (1970, 1980, 1990, 2000)	230 m Southwest	N

The retail fuel outlets (and possible automotive service garages according to the FIPs) addressed 1330 Carling Avenue (addressed as 1340 Carling Avenue on the 1956 FIP) and 1331A Carling Avenue (1351 Carling Avenue on the 1956 FIP) are considered to represent APECs on the Phase I Property, based on separation distance and orientation with respect to the Phase I Property, as previously discussed.

Other PCAs listed above are not considered to represent APECs on the Phase I Property based on their significant separation distances from the Phase I Property.

Chain of Title

Paterson verified the current land title for the subject properties with Read Abstracts Limited.

According to the chain of title dated October 17, 2016, the property was owned by private individuals from 1903 through 1962. The property was leased by Supertest Petroleum Corporation and/or Imperial Petroleum Corporation from 1956 through 1963. Talisman Hotels Limited purchased the property in stages from 1962 through 1967, after which the land was sold to private corporations including several hotels. The current property owner, Royal Host GP Inc., has owned the property in its entirety, since 1998.

Engineering Reports

According to Mr. Gavin MacDonald with Holloway Lodging Corporation, no previous Phase I or Phase II Environmental Site Assessment reports were available for review. Mr. MacDonald provided a previous Asbestos Assessment Report prepared by Pinchin Environmental in November of 2012. According to this report, asbestos containing materials are present within each building phase.

Topographical Plan

A topographical plan, prepared by Annis, O'Sullivan, Vollebekk Ltd. and dated January 21, 2016, was reviewed as part of this assessment. A copy of the plan is provided in Appendix I.

4.2 Environmental Source Information

Environment Canada

A search of the National Pollutant Release Inventory (NPRI) was conducted electronically on September 26, 2016. 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. No PCB waste storage sites are located within the Phase I study area.

Ontario Ministry of Environment and Climate Change (MOECC) Instruments

A request was submitted to the MOECC Freedom of Information office for information with respect to certificates of approval, permits to take water, certificates of property use or any other similar MOE issued instruments for the site. A response from the MOECC had not been received at the time this report was issued. A copy of the initial MOECC response is provided in Appendix 2.

MOECC Coal Gasification Plant Inventory

The Ontario Ministry of Environment document titled "Municipal Coal Gasification Plant Site Inventory, 1991" was reviewed to reference the locations of former plants with respect to the site. No coal gasification plants were identified within 1 km of the subject site.

MOECC Incident Reports

A request was submitted to the MOECC Freedom of Information office for information with respect to records concerning environmental incidents, orders, offences, spills, discharges of contaminants or inspections maintained by the MOECC for the site or adjacent properties. A response from the MOECC had not been received at the time this report was issued. A copy of the initial MOECC response is provided in Appendix 2.

MOECC Waste Management Records

A request was submitted to the MOECC Freedom of Information office for information with respect to waste management records. Applicable information of current and historical waste storage locations, waste generators and waste receivers pursuant to Ontario Regulation 347 was considered in this review. A response from the MOECC had not been received at the time this report was issued. A copy of the initial MOECC response is provided in Appendix 2.

MOECC Submissions

A request was submitted to the MOECC Freedom of Information office for information with respect to reports related to environmental conditions that have been submitted to the MOECC. A response from the MOECC had not been received at the time this report was issued. A copy of the initial MOECC response is provided in Appendix 2.

MOECC Brownfields Environmental Site Registry

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

MOECC Waste Disposal Site Inventory

The Ontario Ministry of Environment document titled "Waste Disposal Site Inventory in Ontario, 1991" was reviewed as part of the historical research. This document includes all recorded active and closed waste disposal sites, industrial manufactured gas plants and coal tar distillation plants in the Province of Ontario. There are no active or closed waste disposal sites or former manufactured gas or coal tar distillation plans within the Phase I ESA study area.

Areas of Natural Significance (ANSIs)

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 September 26, 2016. The search did not reveal any natural features or ANSIs within the Phase I study area.

Technical Standards and Safety Authority (TSSA)

The TSSA, Fuels Safety Branch in Toronto was contacted electronically on April September 26, 2016 to inquire about current and former underground storage tanks, spills and incidents for the site and neighbouring properties. No records are listed in the TSSA registry for the Phase I Property or for the immediately adjacent and neighbouring properties within the Phase I study area. A copy of the TSSA correspondence is included in Appendix 2.

City of Ottawa Landfill Document

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

Former Industrial Sites

The report entitled "Mapping and Assessment of Former Industrial Sites, City of Ottawa" was also reviewed. The Phase I Property was not listed in the database of former industrial sites. One former industrial site was identified within the Phase I Study Area: Barrington Petroleum Products Ltd. (Site No. 20) located on the north side of Carling Avenue at Archibald Street. According to the report, this property was listed as non-industrial and used for the bulk storage of oil and gas. Based on its distance of approximately 70 m northeast of the Phase I Property, the former Barrington Petroleum Products Ltd. site is not considered to pose a significant concern to the property.

City of Ottawa Historical Land Use Inventory (HLUI)

A search of the City of Ottawa's Historical Land Use Inventory (HLUI) database was conducted as part of this assessment. The HLUI search identified two activities associated with the Phase I Property, as well as 16 activities associated with properties within the Phase I Study Area. The HLUI search results are summarized in Table 3.

Table 3: City of Ottawa Historical Land Use Inventory (HLUI) Search Results

Address	Listed Activity (years listed)	Approximate Distance / Orientation from site	Potentially Environmental Concern (Y/N)
1350 Carling Avenue	Perry's Garage (circa 1957-1960)	Subject Property	Y
1384 to 1386 Carling Avenue	George F. Lefebvre Gasoline Service Station (circa 1957-1960)	Subject Property	Y
824 Meath Street	P.B. Fraser and Associates (circa 1998)[1]	15 m West	N
1321 Thames Street	Aspen Transportation Logistics (circa 2005)	Adjacent to the south	N
1322 Thames Street	Meteor Painters Contractors (circa 2005)	45 m south	N
1325 Thames Street	Custom Plastics (circa 2005)[2]	Adjacent to the south	N
1340 Thames Street	Mike Proteau Drywall and Painting (circa 2005)	50 m Southwest	N
1320 Carling Avenue	Tenaquip, equipment and supplies wholesale (circa 2001)	60 m East	N
1330 Carling Avenue	Gasoline Service Station (circa 1957-980)	15 m East	Y
1331 Carling Avenue	Turners Service Station (circa 1960-1970)	40 m Northeast	Y
1335 Carling Avenue	Dental Lab (circa 1998) Ottawa Consumer Electronics (circa 2001) Electro Sonic Inc. (circa 2001-2005) E.B. Eddy Forest Products Ltd. (circa 1994) Kidney Foundation Ottawa (circa 2005)[2]	80 m Northeast	N
1339 Carling Avenue	Sun Oil Company Limited (Petroleum Products Wholesale; circa 1948-1970)	60 m Northeast	N
1359 Carling Avenue	Ontario Department of Highways (circa 1948-1957)	15 m North	Y

Notes:
1 – The HLUI report identifies the property at 824 Meath Street as an automotive service garage; based on information obtained from city directories in combination with a review of aerial photographs, this property is considered to have been occupied by office space since the 1990's
2 – The HLUI report identifies the Kidney Foundation of Ottawa as a retail fuel outlet at 1335 Carling Avenue. This information is considered to be inaccurate.

As discussed in previous sections, on-site PCAs representing APECs on the Phase I Property include the former garage and retail fuel outlet at 1350 and 1384-1386 Carling Avenue, respectively. Off-site PCAs considered to represent APECs on the Phase I Property include the former retail fuel outlets at 1330 and 1331 Carling Avenue and the Ontario Department of Highways at 1359 Carling Avenue. Other activities listed above are not considered to be PCAs based on the nature of the activity.

It should be noted civic addresses have changed over the years and those listed above may not currently exist. The respective distances of the above noted activities from the RSC property were determined using FIPs and the City of Ottawa electronic mapping website.

4.3 Physical Setting Sources

Aerial Photographs

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

1928 (City of Ottawa) The Phase I Property appears to be used for residential and possibly agricultural purposes. A creek or drainage ditch runs across the southern portion of the site in a southwest-northeast direction. Meath Street, Archibald Street, Thames Street and Carling Avenue are present at this time. Adjacent and neighbouring properties generally appear to have been used for a combination of residential and agricultural purposes, with a railway line present further north of across Carling Avenue.

1945 Due to the scale of the photograph, it is difficult to distinguish site details pertaining to the Phase I Property and properties within the Phase I study area. The Phase I Property appears to remain unchanged. The property to the north of the Phase I Property, across Carling Avenue, appears to have been redeveloped for commercial purposes. An apparent commercial property has been developed to the northeast of the Phase I Property, also on the north side of Carling Avenue. No other significant changes appear to have been made to the adjacent or neighbouring properties.

1959 Additional residential development appears to have occurred along Archibald Street on the eastern portion of the Phase I Property. Possible commercial structures have been developed on the northwestern and northeastern portions of the Phase I Property. The central portion of the Phase I property appears to be vacant, treed land.

The properties to the southwest of the Phase I Property, across Meath Street appear to have undergone residential development, while the land west of the Phase I Property, immediately south of Carling Avenue, appears to be undergoing development. Additional residential development has also occurred to the south and east of the Phase I Property along Thames and Archibald Streets.

Additional commercial development appears to have occurred further to the north of the Phase I Property, across Carling Avenue, and to the east of the Phase I Property, along both sides of Carling Avenue. Further to the north, Highway No. 417 is under construction, along the former railway easement.

1962 The Phase I Property appears to remain unchanged. The adjacent land to the west, across Meath Street and immediately south of Carling Avenue appears to have been redeveloped with a residential apartment building. The land north of the Phase I Property, between Carling Avenue and Highway No. 417, is occupied by access ramps and landscaping. Additional residential development appears to have occurred along the south side of Thames Street, further south of the Phase I Property. Otherwise, no significant changes appear to have been made to the adjacent and neighbouring properties.

1965 (City of Ottawa) The northwestern corner of the Phase I Property is occupied by what appears to be a retail fuel outlet with a kiosk and pump island. The land to the south of the retail fuel outlet is occupied by a parking lot followed by a residential dwelling (seen in previous photographs). The central portion of the site is occupied by the original portions of the existing hotel complex. The eastern portion of the site is occupied by the residential structure previously seen along Carling Avenue, as well as a paved area; the commercial structure and second dwelling formerly situated on the northeastern portion of the property are no longer present.

Residential dwellings on the southeastern portion of the Phase I Property, fronting onto Archibald Street, remain unchanged.

Additional residential development has occurred further south of the Phase I Property, along Coldrey Avenue. Otherwise no significant changes appear to have been made to the adjacent and neighbouring properties.

1975 The western and eastern portions of the Phase I Property have been redeveloped with the additions to the existing hotel complex and a parking structure. The adjacent and surrounding properties appear to remain unchanged. It should be noted that the properties to the north, across Carling Avenue are not fully covered in this photograph.

1983 The Phase I Property remains unchanged from the previous photograph. Commercial redevelopment has occurred immediately east of the Highway No. 417 access ramp, northeast of the Phase I Property. The property at the southeast corner of Carling Avenue and Archibald Street, has been redeveloped, although it continues to be used for commercial purposes. No other significant changes appear to have been made to the adjacent and neighbouring properties.

1993 No apparent changes have been made to the Phase I Property or to the adjacent and neighbouring properties. It should be noted that this photo does not cover the adjacent properties to the east, across Archibald Street.

2002 The Phase I Property appears to remain unchanged. The adjacent and neighbouring properties appear to remain unchanged.

2014 (City of Ottawa) The Phase I Property and properties with the Phase I ESA study area appear as they currently exist.

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 local topography in the immediate vicinity of the site slopes gently downward to the south, while the regional topography generally slopes down to the northwest, toward the Ottawa River.

According to the maps, the nearest water body is the Ottawa River, located approximately 2 km to the northwest of the Phase I Property. An illustration of the referenced topographic map is presented on Figure 2 – Topographic Map, appended to this report

Physiographic Maps

A Physiographic Map was reviewed from the Natural Resources Canada – The Atlas of Canada website. According to this physiographic map, the site is located in the St. Lawrence Lowlands. According to the mapping description provided: "The lowlands are plain-like areas that were all affected by the Pleistocene glaciations and are therefore covered by surficial deposits and other features associated with the ice sheets." The subject site is located in the Central St. Lawrence Lowland, which is generally less than 150 m above sea level.

Geological Maps

The Geological Survey of Canada website on the Urban Geology of the National Capital Area was consulted as part of this assessment. Based on this information, bedrock in the area of the site consists of interbedded limestone and dolomite of the Gull River Formation. Overburden is reported to consist of Glacial Till of depths ranging from 5 to 10 m over the majority of the site and 10 to 15 m on the southwestern corner of the site.

Water Well Records

Well records for all drilled wells within the Phase I study area were obtained from the MOECC website. Based on the results of the well records search, there are no well records for the Phase I Property. A total of 37 well records were obtained for properties within 250 m of the subject land.

Records of 25 monitoring wells were located for the properties at 1447 Carling Avenue, 848 Merivale Road and Thames Street and are not considered to represent a concern to the Phase I Property based on their separations distances (1447 Carling Avenue and 848 Merivale Road) or the nature of their purpose (monitoring wells along Thames Street associated with an environmental screening program for a water main rehabilitation).

The remaining well records were for historical potable wells which are no longer present; all properties within the Phase I ESA study area are currently serviced with municipal water. Copies of the well records are provided in Appendix 2.

Water Bodies and Areas of Natural Significance

No water bodies are present within the Phase I study area. The Ottawa River is the closest significant water body and is present approximately 2 km northwest of the Phase I Property. The Phase I study area has been developed with primarily residential and commercial properties since the early 1900's; no areas of natural significance are known to exist within the Phase I study area.

5.0 INTERVIEWS

Property Owner Representative

Mr. Jean-Pierre Benjamin, the General Manager of the Travelodge Hotel, was interviewed by telephone on September 28, 2016, prior to the site visit. According to Mr. Benjamin, the property was residential and/or vacant prior to being developed with the hotel, in three phases during the early 1970's. To his knowledge the subject buildings were always heated with natural gas. Mr. Benjamin indicated that building plans were available for review and that a long-time hotel employee Mr. Pete Lacasse, with the hotel for approximately 30 years, would be able to provide more information with regards to the history of the property at the time of the site visit. Mr. Benjamin also notified Paterson that the tower at 1354 Carling Avenue was condemned due to the presence of asbestos, and would not be accessible during the site visit.

Mr. Benjamin and Mr. Lacasse, accompanied Paterson personnel on a walk-through of the site on October 3, 2016. To the knowledge of Mr. Lacasse, the property has always been heated with a combination of natural gas fired equipment and electricity and that fuel-oil has never been stored on-site, with the exception of a small diesel tank beneath the backup generator in the Beachcomber mechanical room (1376 Carling Avenue). Mr. Lacasse indicated that a back-up generator was also present in the basement of the hotel tower (1354 Carling Avenue), although this generator is powered via natural gas.

The hotel staff interviewed as part of this assessment were unaware of the previous commercial use (retail fuel outlets and automotive service garage) of the property in additional to the previous residential land use. Otherwise, the information obtained in this interview is generally consistent with site information obtained from other sources and is considered to be valid.

6.0 SITE RECONNAISSANCE

6.1 General Requirements

A representative from the Environmental Department of Paterson Group conducted a site visit on October 3, 2016. Weather conditions were overcast with a temperature of approximately 10°C. At the time of the site visit, the neighbouring properties within the Phase I study area were also observed from publicly accessible areas.

6.2 Specific Observations at Phase I Property

Buildings and Structures

The Phase I Property is currently occupied by a hotel and a parking garage structure. The hotel consists of a lobby, three wings of guest rooms, the Greenery/Beachcomber (situated on the northwestern portion of the site), the Centennial ballroom adjacent to the east of the guest rooms, and a tower. On the exterior the tower appears to stand alone, however it is connected via the basement level, to the remainder of the hotel. The former exterior pool situated between the two western most wings, was enclosed at some time between 2002 and 2005, and retrofitted as an interior water park. Two stairwells providing access to the basement level of the hotel structure, are present on the northern portion of the property along Meath Street.

The hotel structure ranges from 1 to 3 stories, with the exception of the hotel tower which has 7 stories including the penthouse level. A full basement is present beneath the entire footprint of the hotel, including the tower. The boiler room of the tower is situated within a sub-basement, approximately 2 m lower than the basement level throughout the remainder of the structure.

The hotel and tower were constructed with concrete foundations and finished on the exterior with a combination of red brick, decorative stone and mortar, wood panelling, parging, vinyl siding and glass. The rooftops are generally flat tar and gravel style or finished with asphaltic shingles. The roof of the former Greenery restaurant is partially finished with glass windows.

The buildings are heated with a combination of electricity and natural gas fired equipment.

A parking garage structure, consisting of a below-grade level and an above-grade level, occupies the eastern portion of the subject property. A concrete slab with a manhole and what appeared to be an exterior pipe, was present immediately south of the water park. According to building plans reviewed in conjunction with the site visit, an underground storm water storage tank is present at this location. A below ground pool, was previously present at the location of the current garden and has reportedly filled in.

No other buildings or structures were present on the Phase I Property at the time of the site visit.

Underground Utilities

Underground service locates were completed for the subject site in October of 2016. Underground utilities include natural gas, telephone, fibre optic, cable, electricity and municipal water and sewers. Private electrical services and sewers are also present on the subject property. The approximate locations of some of the aforementioned utilities are shown on Drawing PE3896-1 - Site Plan.

Site Features

The subject buildings and parking garage structure occupy the majority of the Phase I Property. Groundcover at the Phase I Property where buildings and structures are not present, consists of paved access laneways and parking areas, as well as landscaped areas.

No aboveground storage tanks (ASTs) or signs of underground storage tanks (USTs) were observed on the exterior of the property at the time of the site visit. Based on the age of the buildings (1963 through 1972) and information provided by Mr. Jean-Pierre Benjamin and Mr. Pete, the structure is considered to have been heated with natural gas since its construction.

Other than the aforementioned underground utilities, catch basins and storm water storage tank associated with the private sewer system, there was no evidence of belowground structures observed on the exterior of the Phase I Property at the time of the site visit. Drawings reviewed in conjunction with the site visit indicate that the storm water storage tank is situated approximately 2.1 m below grade and has a volume of 30.2 m^3 or 30,200 L. Tank construction details were not available for review. As noted above, a former in-ground pool within the existing garden area, has been in-filled.

No evidence of recent excavation or current or former railway or spur lines was observed on the exterior of the subject property at the time of the site visit. There were no unidentified substances observed on the exterior of the Phase I Property at the time of the site visit.

The subject property is serviced with municipal water. There were no potable wells observed on the Phase I Property or on other properties within the Phase I study area, at the time of the site visit.

The above-noted site features are shown on Drawing PE3896-1 - Site Plan.

Fill Material

Fill material was identified on the Phase I Property during the Phase II ESA investigation conducted subsequent to the completion of the Phase I site visit. The fill material generally consisted of granular material associated with the pavement structure, over brown silty sand with gravel. Pieces of brick, glass and possible slag were identified at two locations in the vicinity of the former automotive service garage, east and south of the existing tower. Please refer to Report: PE3896-2 for further details pertaining to the subsurface investigation.

Interior Assessment

The basement level of the hotel tower at 1354 Carling Avenue was accessible at the time of the site visit, however the remainder of the building had been sealed off due to the presence of asbestos, and was not accessible. The basement of the tower consisted of a boiler room, mechanical room, gas meter room, maintenance room and storage area. Surfaces were primarily unfinished, consisting of poured concrete floors, ceilings and concrete or concrete block walls. Where present, surface finishes consisted of vinyl floor tiles, stipple ceiling finish and acoustic ceiling tiles.

The operational portion of the hotel consists of three wings of guest rooms, a main floor lobby with gift shop and washrooms, a dining area and kitchen (no longer operational; serves continental breakfast only), a water park and the Greenery (former restaurant).

The basement levels consist of ball rooms/conference rooms (including the Centennial), the former Beachcomber nightclub, washrooms, office space, a former kitchen, a laundry room, a garbage room and storage rooms, as well as mechanical and electrical rooms.

Generally, interior finishes consist of the following:

- Floors consist of a combination of carpet, ceramic tile, vinyl tile, laminate and unfinished poured concrete.
- Walls are finished with gypsum board ceramic tile (kitchens), concrete and/or concrete block.
- Ceilings are finished with gypsum board, stipple or poured concrete.
- Lighting throughout the building is provided by halogen, fluorescent and incandescent fixtures.

As discussed previously, the subject structures are heated and cooled with a combination of natural gas fired heating equipment and electricity. There are several boiler rooms within the subject structures: tower boiler room (1354 Carling Avenue), Beachcomber boiler room and a main kitchen boiler room (1376 Carling Avenue). The guest rooms at 1376 Carling Avenue are heated with individual electrical units. The Centennial Ballroom was previously heated through the use of a boiler, however it is now heated/cooled with two rooftop heating, ventilation and air conditioning (HVAC) units. In addition to the boiler rooms, there is a natural gas fired heating system associated with the pool.

As noted previously, there are two back-up generators present in the tower mechanical room and the Beachcomber mechanical room. The generators are fuelled with natural gas and diesel fuel, respectively.

Liquid discharged from the subject site includes wash water and sewage from the subject structure. Multiple floor drains were observed on the interior of the structure at the time of the site visit. Water noted in the floor drains was generally clear, or clouded with organic build up. No concerns were identified with respect to floor drains.

Two sump pits were observed in the mechanical room of the tower (1354 Carling Avenue); the pits were approximately 0.7m x 0.7m x 2m. A lift station with two sump pits was located near the Beachcomber Room. The pits were approximately 0.5m x 0.5m x 1.0m and 2m x 1m x 2m. A sump pit was also present in the Beachcomber mechanical room, with approximate dimensions of 0.7m x 0.7m x 2m. A fifth sump pit was observed in the garbage room near the shipping and receiving area adjacent the Centennial room, within the south-central portion of the structure (1376 Carling Avenue). The pit was similar in construction to the aforementioned pits with approximate dimensions of 0.7m x 0.7m x 2m. With the exception of one of the sump pits, all were accessible at the time of the site visit. No obvious signs of impact were noted on the water in any of the pits.

A total of three elevators are present within the subject buildings (1354 and 1376 Carling Avenue).

Two (2) grease traps were present in the main kitchen. The kitchen was reportedly shut down in 2015, at which time the grease traps were most recently cleaned by a licenced contractor. Prior to this time, the grease traps were cleaned on an as-needed basis. No concerns were noted with regards to the grease traps.

Chemical storage within the subject structure at the time of the site visit included commercially-available cleaning products and paint, as well as small quantities of lubricants and motor oils (less than 10 L containers) and propylene glycol (two 20 L pails) associated with the mechanical equipment.

As mentioned above, a small diesel generator with a sub-base diesel tank, was present in the mechanical room of the Beachcomber. Minor staining was observed on the concrete floor in the vicinity of the generator; the floor slab was in good condition with no potential migratory pathways.

Pool maintenance chemicals were also stored on site, including 4.5 L, 20 L and 4 L containers of Aqua Balance Total Alkalinity, Aqua Balance Pool Disinfectant and Aqua Balance muriatic acid, respectively. All chemicals were properly stored in sealed containers and are not considered to pose a concern to the Phase I Property.

Hazardous Building Materials

Mr. MacDonald provided an Asbestos Assessment Report prepared by Pinchin Environmental (Pinchin) in November of 2012. According to this report, asbestos containing materials (ACMs) are present within each building phase. Please refer to the Pinchin report for further details.

Paint samples were not analysed during the Pinchin assessment. Based on the age of the buildings (1963 through 1972), it is considered possible that lead-based paint (LBP) is present on original or older painted surfaces.

Based on the age of the buildings, PCBs may be present within original or older electrical equipment, such as transformers, particularly within the Hydro Vault which was not accessible at the time of the site assessment. PCBs may also be present within fluorescent light ballasts, however it is considered likely that any original ballasts have by now been replaced with PCB-free ballasts.

Ozone-depleting substances (ODSs) may be present within refrigerators, freezers and fire extinguishers on-site. These appliances should be maintained by a licenced contractor.

Urea formaldehyde foam insulation (UFFI) was not observed at the time of the site visit. It should be noted that interior wall cavities were not accessed at this time.

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 Phase I Property was as follows:

- North – Carling Avenue followed by vacant, undeveloped land and Highway No. 417;
- South – Residential followed by Thames Street;
- East – Archibald Street followed by commercial (2nd Chance Auto Sales at 1330 Carling Avenue/815 Archibald Street) and residential; and
- West – Meath Street followed by residential and commercial (office building) and residential followed by commercial and residential properties.

Existing PCAs are not considered to be present on the immediately adjacent properties.

Land use within the Phase I study area (250 m radius) is primarily used for residential and commercial purposes with some institutional land use. No existing off-site PCAs were identified at the time of the site visit. Surrounding land use is shown on Drawing PE3896-2 – Surrounding Land Use Plan.

7.0 REVIEW AND EVALUATION OF INFORMATION

7.1 Land Use History

The following table outlines the general ownership and land use dating back to the first developed use of the Phase I Property.

Table 4 - Land Use History – 1354 and 1376 Carling Avenue

Year	Name of Owner	Description of Property Use	Property Use	Other Observations from Aerial Photos, FIPs, etc.
Vesting order registered June 13, 1903 to Jessie Stewart; subsequently sold in parcels to various individuals				
1903 to 1958/1962	Sold in parcels to various individuals (leased to Supertest Petroleum Corporation between 1956 and 1963)	Residential (retail fuel outlets, automotive service garage circa 1956)	Residential followed by Residential and Commercial	1928 aerial shows residential properties along Carling Avenue, Meath Street and Archibald Street with apparent outbuildings on the south-central portion of site associated with residential properties along Thames Street. 1956 FIP shows retail fuel outlet and automotive service garage on the northwestern and northeastern portions of the Phase I Property; 1958 aerial similar to FIP.
1958/1962 to 1989	Owned by various corporations	Retail fuel outlet and hotel (fuel outlet no longer present circa 1965)	Residential and Commercial followed by Commercial only	Original portion of hotel complex present on central portion of Phase I Property in 1965 photograph; automotive service garage no longer present although retail fuel outlet remains on northwest corner of property; 1976 photo shows Phase I Property as it appears today.
1989-1998	Shenkman Corporation	Hotel	Commercial	Land use remains unchanged in 1983 and 1993 aerials.
1998-2008	1283293 Ontario Limited	Hotel	Commercial	No changes to land use in 1999 or 2002 aerials.
2008-2011	Royal Host hotels GP Inc.	Hotel	Commercial	Property remains unchanged in 2008 and 2011 aerials.
2011-present	Royal Host GP Inc.	Hotel	Commercial	2014 aerial similar to previous aerials.

Potentially Contaminating Activities and Areas of Potential Environmental Concern

Potentially contaminating activities (PCAs) considered to result in areas of potential environmental concern (APECs) on the Phase I Property, are described in Table 6 below and shown in red on Drawing PE3896-2 – Surrounding Land Use Plan. The anticipated APECs on the Phase I Property are outlined in red on Drawing PE3896-1 – Site Plan.

Additional historical PCAs identified within the Phase I study area were not considered to represent APECs on the Phase I Property based on their respective separation distances and/or their inferred down-gradient or cross-gradient orientations with respect to the Phase I Property. These PCAs are shown in green on Drawing PE3896-2.

Table 5
Areas of Potential Environmental Concern

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern with respect to Phase I Property	Potentially Contaminating Activity	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, Soil, and/or Sediment)
APEC 1: resulting from historical underground storage tanks (USTs) at former Ontario Department of Highways to the north of the northwestern portion of the Phase I Property	Northwestern portion of the Phase I Property	Item 28, Table 2, O.Reg.153/04 as amended by O.Reg.269/11 ("Gasoline and Associated Products Storage in Fixed Tanks")	Off-site	VOCs, PHCs (F_1-F_4)	Soil and Groundwater
APEC 2: resulting from former on-site retail fuel outlet (3 USTs) on northwestern portion of Phase I Property	Northwestern portion of Phase I Property	Item 28, Table 2, O.Reg.153/04 as amended by O.Reg.269/11 ("Gasoline and Associated Products Storage in Fixed Tanks")	On-site	BTEX, PHCs (F_1-F_4)	Soil and Groundwater
APEC 3: resulting from on-site diesel generator	Northwestern portion of Phase I Property	Item 28, Table 2, O.Reg.153/04 as amended by O.Reg.269/11 ("Gasoline and Associated Products Storage in Fixed Tanks")	On-site	BTEX, PHCs (F_1-F_4)	Soil and Groundwater
APEC 4: Resulting from former retail fuel outlet (2 USTs) on northeastern portion of Phase I Property	Northeastern portion of Phase I Property	Item 28, Table 2, O.Reg.153/04 as amended by O.Reg.269/11 ("Gasoline and Associated Products Storage in Fixed Tanks")	On-site	BTEX, PHCs (F_1-F_4)	Soil and Groundwater

Table 5 Continued
Areas of Potential Environmental Concern

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern with respect to Phase I Property	Potentially Contaminating Activity	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, Soil, and/or Sediment)
APEC 5: Resulting from former automotive service garage on northeastern portion of Phase I Property	Northeastern portion of Phase I Property	Item 52, Table 2, O.Reg.153/04 as amended by O.Reg.269/11 ("Storage, maintenance, fuelling and repair of equipment, vehicles and material used to maintain transportation systems")	On-site	VOCs, PHCs (F_1-F_4), PAHs	Soil and Groundwater
APEC 6: Resulting from former retail fuel outlet (2 USTs) at 1330 Carling Avenue, across Archibald Street	Northeastern portion of Phase I Property	Item 28, Table 2, O.Reg.153/04 as amended by O.Reg.269/11 ("Gasoline and Associated Products Storage in Fixed Tanks")	Off-site	VOCs, PHCs (F_1-F_4)	Soil and Groundwater
APEC 7: Resulting from former retail fuel outlet (2 USTs) across Carling Avenue	Northeastern portion of Phase I Property	Item 28, Table 2, O.Reg.153/04 as amended by O.Reg.269/11 ("Gasoline and Associated Products Storage in Fixed Tanks")	Off-site	VOCs, PHCs (F_1-F_4)	Soil and Groundwater
APEC 8: Resulting from imported fill material	Eastern portion of Phase I Property	Item 30, Table 2, O.Reg.153/04 as amended by O.Reg.269/11 ("Importation of Fill Material of Unknown Quality")	On-site	Metals PAHs	Soil Soil and Groundwater

Contaminants of Potential Concern (CPCs)

Based on the PCAs identified above, CPCs potentially present on or beneath the Phase I Property include volatile organic compounds (VOCs), benzene, toluene, ethylbenzene and xylenes (BTEX), petroleum hydrocarbons (PHCs), polynuclear aromatic hydrocarbons (PAHs) and metals.

7.2 Conceptual Site Model

Geological and Hydrogeological Setting

Based on The Geological Survey of Canada website, bedrock in the area of the site consists of interbedded limestone and dolomite of the Gull River Formation. Overburden is reported to consist of Glacial Till of depths ranging from 5 to 10 m over the majority of the site and 10 to 15 m on the southwestern corner of the site. Based on the findings of the Geotechnical and Phase II ESA investigations conducted in conjunction with the Phase I ESA, overburden generally consists of silty clay over Glacial till and bedrock ranges in depth from approximately 6 to 10 m below grade.

The regional topography slopes down to the north, however the topography in the immediate vicinity of the Phase I Property slopes down to the south. The local groundwater flow beneath the Phase I Property is inferred to be in a southerly direction.

Contaminants of Potential Concern

As noted above, the CPCs identified in this Phase I ESA included VOCs or BTEX, PHCs, PAHs and metals. CPCs may be encountered in the soil or groundwater in the vicinity of the historical on-site and off-site retail fuel outlets and automotive service garage, on the northeastern and northwestern portions of the Phase I Property. Potential mechanisms of contaminant transport within the groundwater system include advection, dispersion, and diffusion.

Existing Buildings and Structures

The subject site is occupied by an operational hotel with an interior water park. The portions of the hotel occupied by guest rooms are 3 stories, while the lobby and common areas are 1 to 2 stories. A tower, previously housing guest rooms, is present on the eastern portion of the Phase I Property and has 7 stories including the penthouse level; the tower was not operational at the time of the site visit due to the presence of asbestos. A basement level connects the tower to the main hotel building.

Two access stairwells leading to the basement of the western portion of the hotel, are present on the west portion of the Phase I property along Meath Street.

A parking garage structure is present on the eastern portion of the subject property. The garage consists of a below grade and an above grade level.

Water Bodies

There are no water bodies on the Phase I Property or within the Phase I study area. The closest water body is the Ottawa River, located approximately 2km to the northwest.

Areas of Natural Significance

No areas of natural significance were identified on the Phase I Property 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 were observed on the Phase I Property or within the Phase I study area at the time of the site visit.

According to electronic mapping provided by the MOECC, there are 25 records for monitoring wells in the Phase I Study area at the following addresses: 1447 Carling Avenue, 848 Merivale Road and Thames Street. The properties at 1447 Carling Avenue and 848 Merivale Road are not considered to pose a concern to the Phase I Property based on their separation distances of over 150 m. The monitoring wells installed on Thames Street were installed as part of an Environmental Screening Program for a municipal water main replacement project and are not considered to be representative of a concern in the vicinity, based on the findings of the historical research conducted as part of the Phase I ESA. Records for the decommissioning of the aforementioned wells at 1447 Carling Avenue were also identified.

Neighbouring Land Use

Neighbouring land use in the Phase I study area is primarily commercial and residential with occasional community or institutional uses. Land use is shown on Drawing PE3896-2 - Surrounding Land Use Plan.

Potentially Contaminating Activities and Areas of Potential Environmental Concern

Potentially contaminating activities (PCAs) that are considered to represent areas of potential environmental concern (APECs) on the Phase I Property were presented above in Table 5, in Section 7.1 of this report.

Additional historical PCAs were identified within the Phase I study area, however these activities were not considered to represent APECs on the Phase I Property based on their respective separation distances and inferred orientations down or cross-gradient with respect to 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 areas of potential environmental concern on the subject site resulting from current and historical uses of neighbouring properties. The presence of potentially contaminating activities was confirmed by a variety of independent sources. The conclusions of this report are not affected by uncertainty which may be present with respect to the individual sources.

8.0 CONCLUSIONS

Assessment

Paterson Group was retained by Holloway Lodging Corporation to conduct a Phase I Environmental Site Assessment (ESA) of the property addressed 1354 and 1376 Carling Avenue, in the City of Ottawa, Ontario. The purpose of this Phase I ESA was to research the past and current use of the site and study area and to identify any environmental concerns with the potential to have impacted the subject property.

The results of the historical research indicated that the subject property was first developed in the early 1900's with residential dwellings. The northwestern and northeastern portions of the site were later developed for commercial purposes circa 1956. A retail fuel outlet (addressed 1384-1386 Carling Avenue at the time) with three USTs, operated on the northwestern portion of the site until circa 1965. A retail fuel outlet and automotive service garage operated on the northeastern portion of the site (addressed 1350 Carling Avenue at the time) until circa 1963. The original portion of the existing hotel complex, was built in 1963 with the remaining phases completed by 1972. The former retail fuel outlets and automotive service garage are potentially contaminating activities (PCAs) which represent areas of potential environmental concern (APECs) on the Phase I Property.

Several off-site historical PCAs, including former retail fuel outlets and/or automotive service garages, were present to the north and northeast of the site, across Carling Avenue, and east of the site, across Archibald Street. These properties are considered to have had the potential to impact the subject land based on their proximity and the local topography and inferred groundwater flow direction, to the south, in the immediate vicinity of the Phase I Property.

At the time of the site visit, no PCAs were identified on the Phase I Property with the exception of diesel fuel storage associated with a small back-up generator in the mechanical room of the Beachcomber (former nightclub). No other on-site PCAs were present at the time of the site visit. No existing off-site PCAs were observed within the Phase I ESA study area at the time of the site visit.

Recommendations

Based on the results of this Phase I ESA, **it is our opinion that a Phase II Environmental Site Assessment is required for the property**.

It is our understanding that the Phase I Property is to be redeveloped. As part of the redevelopment, the existing structures will be demolished in stages, beginning with the parking garage structure and tower on the northeastern portion of the Phase I Property.

An asbestos survey for the subject buildings, has been completed by Pinchin (November, 2012). The survey confirmed the present of asbestos throughout each phase of the hotel. Prior to the demolition, an asbestos abatement program must be conducted, in accordance with Ontario Regulation 278/05 under the Health and Safety Act. A designated substance survey (DSS) must also be conducted in accordance with Ontario Regulation 490/09 under the Occupational Health and Safety Act, in order to address other designated substances, including but not limited to, lead-based paint.

9.0 STATEMENT OF LIMITATIONS

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

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

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

Paterson Group Inc.

Karyn Munch, P.Eng., QP$_{ESA}$

Mark S. D'Arcy, P.Eng., QP$_{ESA}$

Report Distribution:

- Holloway Lodging Corporation (6 copies)
- Paterson Group (1 copy)

10.0 REFERENCES

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

Provincial Records
MOECC Freedom of Information and Privacy Office.
MOECC Municipal Coal Gasification Plant Site Inventory, 1991.
MOECC document titled “Waste Disposal Site Inventory in Ontario”.
MOECC Brownfields Environmental Site Registry.
Office of Technical Standards and Safety Authority, Fuels Safety Branch.
MNR Areas of Natural Significance.
MOECC Water Well Inventory.

Municipal Records
City of Ottawa Document “Old Landfill Management Strategy, Phase I - Identification of Sites.”, prepared by Golder Associates, 2004.
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, October 17, 2016.
Topographical Plan, prepared by Annis, O’Sullivan, Vollebekk Ltd., January 21, 2016.
Personal Interviews.
Previous Engineering Reports.

Public Information Sources
Google Earth.
Google Maps/Street View.

FIGURES

FIGURE 1 – KEY PLAN

FIGURE 2 – TOPOGRAPHIC MAP

DRAWING PE3896-1 – SITE PLAN

DRAWING PE3896-2 – SURROUNDING LAND USE PLAN

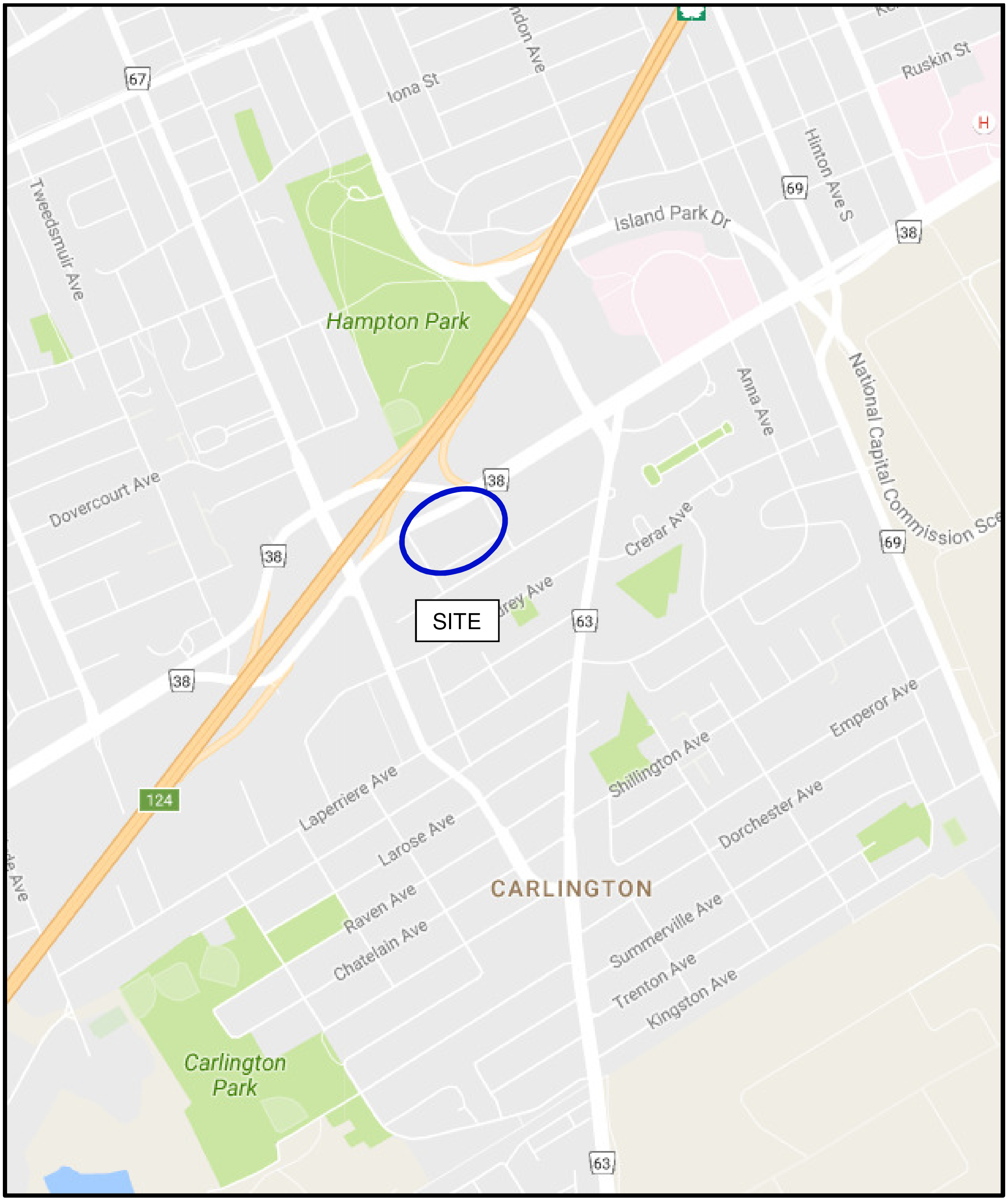


FIGURE 1

KEY PLAN

patersongroup

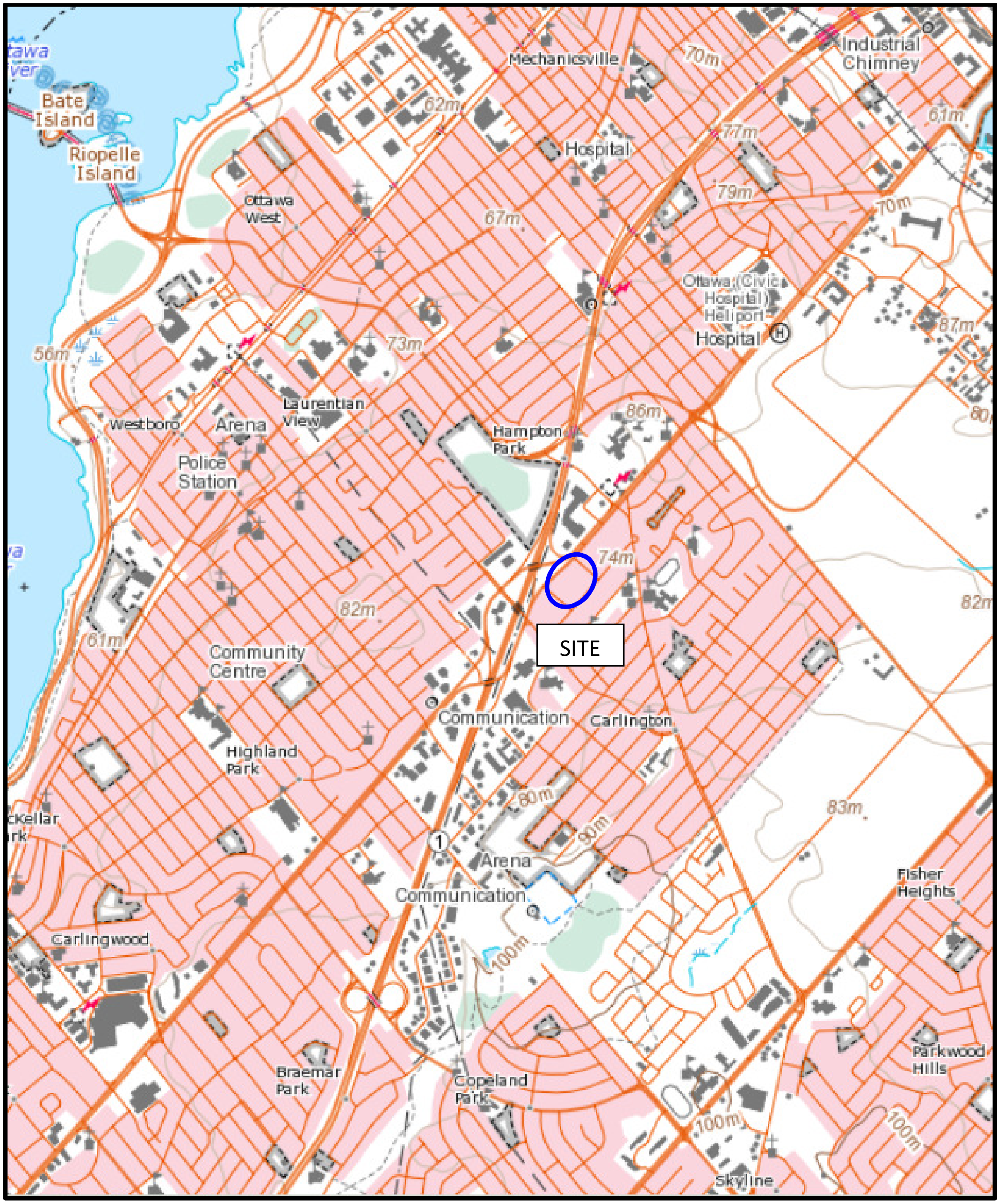
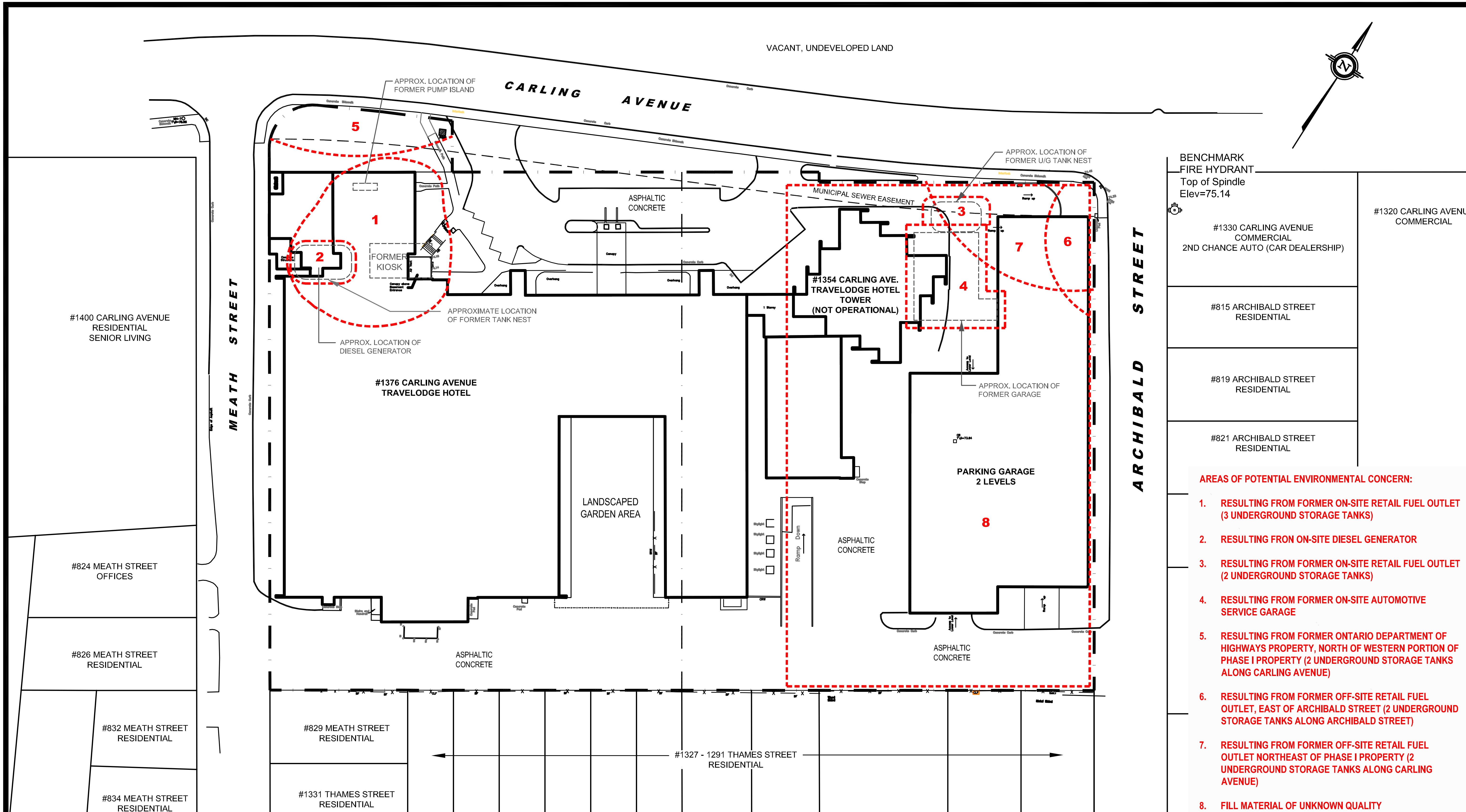


FIGURE 2

TOPOGRAPHIC MAP

patersongroup



AREAS OF POTENTIAL ENVIRONMENTAL CONCERN:

1. RESULTING FROM FORMER ON-SITE RETAIL FUEL OUTLET (3 UNDERGROUND STORAGE TANKS)
2. RESULTING FRON ON-SITE DIESEL GENERATOR
3. RESULTING FROM FORMER ON-SITE RETAIL FUEL OUTLET (2 UNDERGROUND STORAGE TANKS)
4. RESULTING FROM FORMER ON-SITE AUTOMOTIVE SERVICE GARAGE
5. RESULTING FROM FORMER ONTARIO DEPARTMENT OF HIGHWAYS PROPERTY, NORTH OF WESTERN PORTION OF PHASE I PROPERTY (2 UNDERGROUND STORAGE TANKS ALONG CARLING AVENUE)
6. RESULTING FROM FORMER OFF-SITE RETAIL FUEL OUTLET, EAST OF ARCHIBALD STREET (2 UNDERGROUND STORAGE TANKS ALONG ARCHIBALD STREET)
7. RESULTING FROM FORMER OFF-SITE RETAIL FUEL OUTLET NORTHEAST OF PHASE I PROPERTY (2 UNDERGROUND STORAGE TANKS ALONG CARLING AVENUE)
8. FILL MATERIAL OF UNKNOWN QUALITY

patersongroup
consulting engineers

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

NO.	REVISIONS	DATE	INITIAL
0			

HOLLOWAY LODGING CORP.

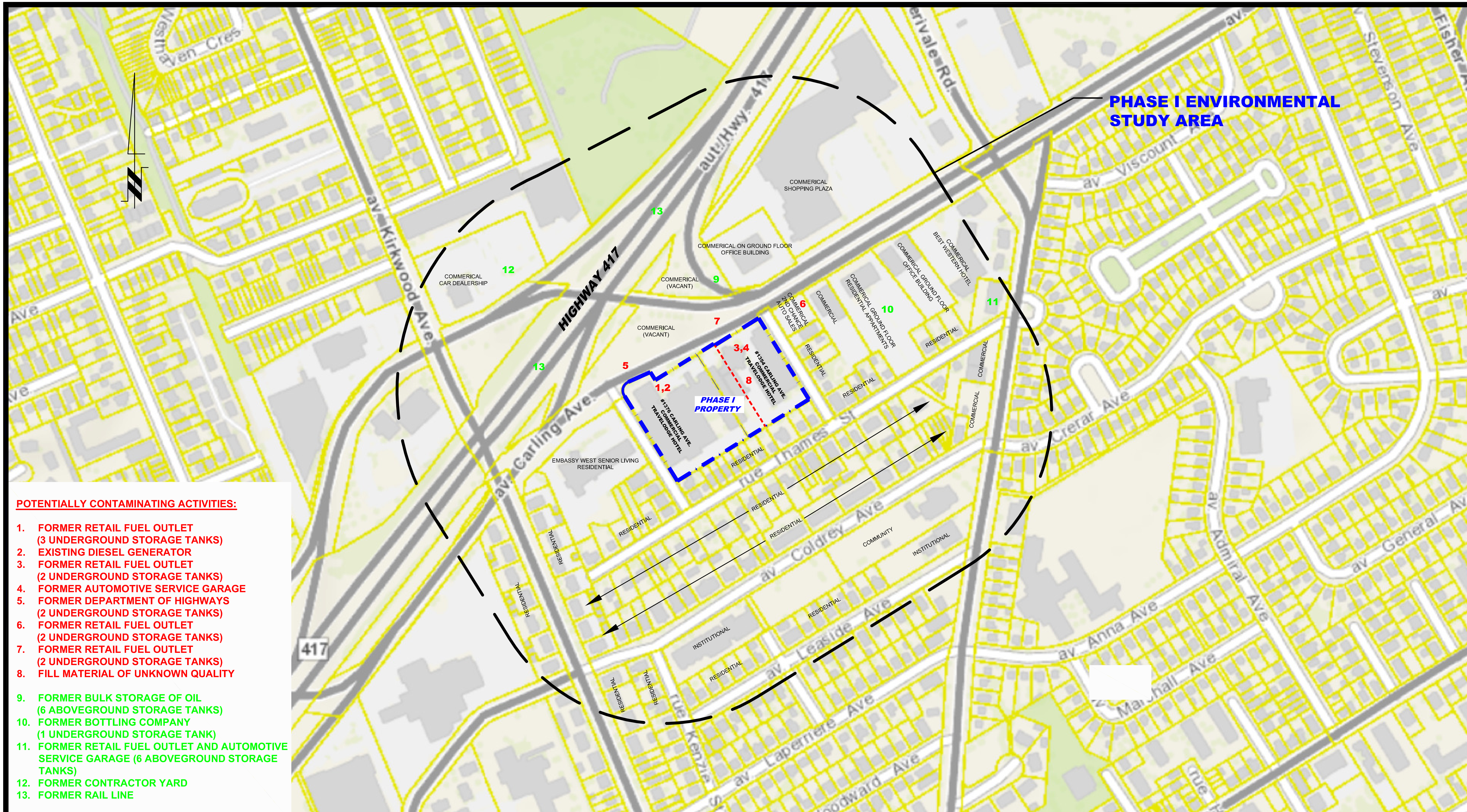
PHASE I - ENVIRONMENTAL SITE ASSESSMENT
1354 TO 1376 CARLING AVENUE

OTTAWA, ONTARIO

Title: **SITE PLAN**

Scale:	1:750	Date:	11/2016
Drawn by:	MPG	Report No.:	PE3896-1
Checked by:	KM	Dwg. No.:	PE3896-1
Approved by:	MSD	Revision No.:	0

p:\autocad drawings\environmental\pe38xx\pe3896\pe3896-1 site plan.dwg



POTENTIALLY CONTAMINATING ACTIVITIES:

1. FORMER RETAIL FUEL OUTLET (3 UNDERGROUND STORAGE TANKS)
2. EXISTING DIESEL GENERATOR
3. FORMER RETAIL FUEL OUTLET (2 UNDERGROUND STORAGE TANKS)
4. FORMER AUTOMOTIVE SERVICE GARAGE
5. FORMER DEPARTMENT OF HIGHWAYS (2 UNDERGROUND STORAGE TANKS)
6. FORMER RETAIL FUEL OUTLET (2 UNDERGROUND STORAGE TANKS)
7. FORMER RETAIL FUEL OUTLET (2 UNDERGROUND STORAGE TANKS)
8. FILL MATERIAL OF UNKNOWN QUALITY

9. FORMER BULK STORAGE OF OIL (6 ABOVEGROUND STORAGE TANKS)
10. FORMER BOTTLING COMPANY (1 UNDERGROUND STORAGE TANK)
11. FORMER RETAIL FUEL OUTLET AND AUTOMOTIVE SERVICE GARAGE (6 ABOVEGROUND STORAGE TANKS)
12. FORMER CONTRACTOR YARD
13. FORMER RAIL LINE

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consulting engineers

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

NO.	REVISIONS	DATE	INITIAL
0			

HOLLOWAY LODGING CORP.

PHASE I - ENVIRONMENTAL SITE ASSESSMENT
1354 TO 1376 CARLING AVENUE

OTTAWA, ONTARIO

Title:

SURROUNDING LAND USE PLAN

Scale: 1:4000	Date: 11/2016		
Drawn by: RG	Report No.: PE3896-1		
Checked by: KM	Dwg. No.: PE3896-2		
Approved by: MSD	Revision No.: 0		

p:\autocad drawings\environmental\pe38xx\pe3896\pe3896-1 site plan.dwg

APPENDIX 1

CHAIN OF TITLE

PLAN OF SURVEY

AERIAL PHOTOGRAPHS

SITE PHOTOGRAPHS

READ Abstracts Limited
331 Cooper Street, Suite 300, Ottawa, Ontario K2P 0A4
Email: search@readsearch.com
Tel.: 613-236-0664
Fax: 613-236-3677

ENVIRONMENTAL SEARCH

October 17, 2016

Patersongroup
Attn: Karyn Munch

BRIEF DESCRIPTION OF LAND:

1354-1376 Carling Ave.
Part of Block 6 and 7 Plan 221
PIN: 04002-0020
04002-0019

LAST REGISTERED OWNER: ROYAL HOST GP INC.

CHAIN OF TITLE:

Deed RO9296 registered January 5, 1956
From Allen Gilmour to Archibald Stevenson

Deed NP9090 registered March 10 1883
From Archibald Stevenson to Thomas McTiernan

Vesting Order NP19665 registered June 13, 1903
To Jessie Stewart

Plan 221 registered December 7, 1903
By Jessie Stewart

Deed NP22252 registered September 8, 1908
From Jessie Stewart to Allan McDonald

Deed NP22252 registered September 8, 1908
From Jessie Stewart to Albert Summers

Deed NP23095 registered November 10, 1909
From Albert Summers to Richard Traverse

Deed NP24520 registered July 15, 1911
From Richard Traverse to William Robertson

Deed NP27252 registered September 1913
From Allan McDonald to Angus McLean

Deed NP27253 registered September 1913
From Allan McDonald to Mary McLean

Deed NP30633 registered August 5, 1918
From William Robertson to Frederick Smith

Deed NP32800 registered July 17, 1918
From Allan McDonald to James McGuire

Deed NP33179 registered December 10, 1919
From William Robertson to Frederick Smith

Deed NP33461 registered March 29, 1920
From William Robertson to Maude Linford

Deed NP33814 registered July 30, 1920
From Allan McDonald to James McGuire

Deed NP34855 registered July 26, 1920
From Frederick Smith to John Miller

Deed NP43911 registered August 25, 1933
From Mary McLean to Andrew Noccey

Deed NP46281 registered September 7, 1958
From Maud Linford to Dorothy Milones

Deed NP53913 registered December 10, 1945
From Andrew Noccey to Mary J. Bennett

Deed NP54140 registered February 6, 1946
From John Miller, estate to Ellen Miller

Deed NP54923 registered June 4, 1946
From Angus McLean to Frank C. Bennett

Deed NP60267 registered August 19, 1948
From Frank C. Bennett to Ephraim Rowlings

Deed NP60355 registered August 31, 1949
From James McGuire to Frank C. Bennett

Deed NP61322 registered January 4, 1949
From Frank C. Bennett to Mary J. Bennett

Deed NP62407 registered June 16, 1949
From Mary J Bennett to Lindsay Day

Deed NP62838 registered July 29, 1949
From Ephraim Rowlings to Howard and Dores Polk

Deed OT3910 registered November 2, 1950
From Ellen Miller, estate to James Cummings

Deed 305421 registered Oct 230, 1952
From Dorothy Milones to J. Harold Shenkman

Deed 305598 registered November 3, 1952
From James Cummings to J. Harlold Shenkman

Deed 311453 registered June 5, 1953
From Howard and Dores Polk to Aileen and Buddie Mayhew

Lease 351303 registered September 20, 1956
From Lindsay Day to Supertest Petroleum Corporation Limited

Deed 381274 registered December 1, 1958
From Aikleen and Buddie Mayhew to Hain Holding Limited

Deed 388847 registered June 3, 1959
From Lindsay Day to Robert Coates

Deed 343098 registered August 19, 1959
From James McGuire to Robert Coates

Deed 406395 registered June 3, 1960
From Orville and Nero Scharf to Shenkman Properties Limited

Deed 490525 registered August 5, 1960
From Shenkman Properties Limited to J. Harold Shenkman

Deed 465965 registered September 8, 1962
From Robert Coates to Talisman Hotels Limited

Release of Lease 465966 registered September 18, 1963
From Imperial Petroleum Corporation to Talisman hotels Limited

Deed 474026 registered March 12, 1964
From Talisman Hotels Limited to Shenkman Properties Co. Limited, William Teron Limited, Seaway City Hotel (Ottawa) Limited.

Lease 474027 registered March 12, 1964
From J. Harold Shenkman to Shenkman Properties Co. Limited, William Teron Limited, Seaway City Hotel (Ottawa) Limited.

Deed 508355 registered April 15, 1966
From Hain Holdings Limited to Edifice Holding Limited

Deed 509794 registered May 13, 1966
From Edifice Holding Limited to Talisman Hotels Limited

Deed 523674 regsitered April 18, 1967
From Talisman Hotels Limited to Shenkman Properties Co. Limited, William Teron Limited, Seaway City Hotel (Ottawa) Limited

Deed 528038 registered July 18, 1967
From William Teron Limited to Etron Limited (percentage interest)

Deed 608301 registered April 4, 1972
From Mary J. Bennet to Shenkman Properties Co. Limited, Seaway City Hotels (Ottawa) Limited, Community Hotels Eastern Ltd. (formely Etron Limited)

Deed NS277614 registered March 1, 1985
From The Seaway Hiotels (Ontario) Ltd., Shenkman Corp., Community Hotels Eastern Ltd. To Vagabond Motor Inn (Ontario) Ltd.

Deed N356901 registered September 26, 1986
From J. Harold Shenkman to Shenkman Corp.

Deed N504396 registered September 20, 1989
From Vagabond Motor Inn (Ontario) Ltd. To 836499 Ontario Limited

Deed N505180 registered September 27, 1989
From Shenkman Corp. To 836499 Ontario Limited

Deed N505181 registered September 27, 1989

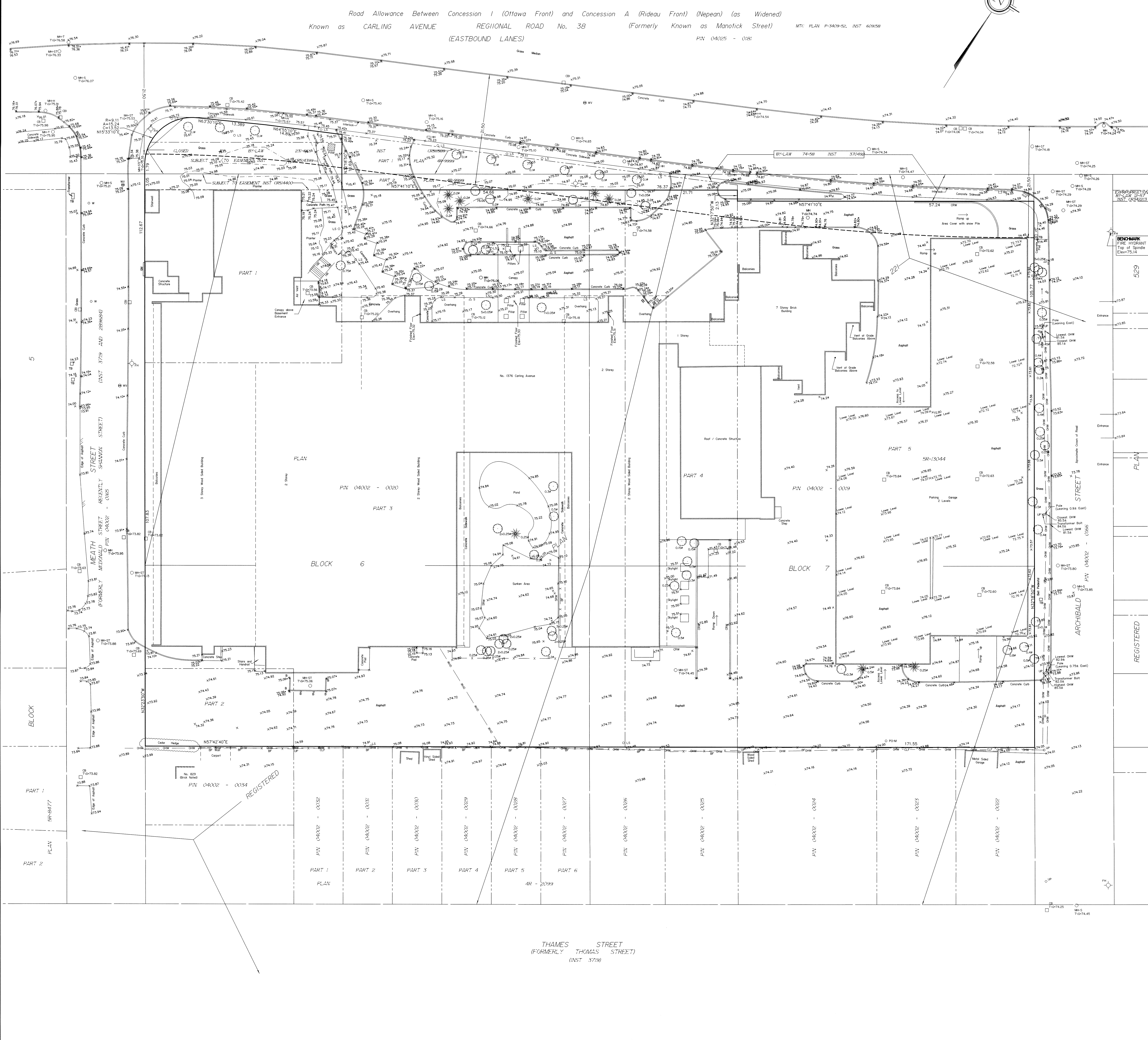
From 836499 Ontario Limited to Shenkman Corp.

Vesting Order LT1116287 registered April 22, 1998
To 1283293 Ontario Limited (lands of 836499 Ontario Limited)

Deed LT1116288 registered April 22, 1998
From Shenkman Corporation to 1283293 Ontario Limited

Name Change OC936608 registered December 10, 2008
From 1283293 Ontario Limited to Royal Host hotels GP Inc.

Deed OC1208456 registered February 17, 2011
From Royal Host hotels GP Inc. to Royal Host GP Inc.



TOPOGRAPHICAL PLAN OF

PART BLOCKS 6 AND 7 REGISTERED PLAN 221 AND PART OF ROAD ALLOWANCE BETWEEN CONCESSION 1 (OTTAWA FRONT) AND CONCESSION A (RIDEAU FRONT) CLOSED BY BY-LAW 231-66, INST 511589 GEOGRAPHIC TOWNSHOP OF NEPEAN CITY OF OTTAWA

Prepared by Annis, O'Sullivan, Vollebekk Ltd.

Scale 1 : 250

10 7.5 5.0 2.5 0 5 10 Metres

Metric

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

JAN. 21, 2016
Date

E.H. Herweyer O.L.S.

Notes & Legend

Denotes

- Deciduous Tree
- Coniferous Tree
- FH — Fire Hydrant
- WV — Water Valve
- MH-ST — Maintenance Hole (Storm Sewer)
- MH-S — Maintenance Hole (Sanitary)
- MH-B — Maintenance Hole (Bell Telephone)
- MH-T — Maintenance Hole (Traffic)
- MH-H — Maintenance Hole (Hydro)
- MH-G — Maintenance Hole (Gas)
- MH — Maintenance Hole (Unidentified)
- VC — Valve Chamber (Watermain)
- OHW — Overhead Wires
- CB — Catch Basin
- DI — Ditch Inlet
- GV — Gas Valve
- Gas Meter
- Hydro Meter
- HH — Handhole
- TB-B — Bell Terminal Box
- TB-C — Cable Terminal Box
- TB-T — Traffic Terminal Box
- TB — Unidentified Terminal Box
- B — Bollard
- S — Sign
- CLF — Chain Link Fence
- BF — Board Fence
- SRW — Stone Retaining Wall
- CRW — Concrete Retaining Wall
- DC — Depressed Curb
- UP — Utility Pole
- PO-W — Wooden Pole
- AN — Anchor
- LS — Light Standard
- Ø — Diameter
- x 65.00 — Location of Elevations
- 65.00 — Top of Concrete Curb Elevation
- C/L — Centreline
- Property Line

Bearings are grid bearings and are referred to the Central Meridian of MTM Zone 9 (76°30' West Longitude) NAD-83 (original).

SITE AREA = 18861 m²

BOUNDARY INFORMATION COMPILED FROM PLAN 5R-13044

ELEVATION NOTES

1. Elevations shown are geodetic and are referred to the CGVD28 geodetic datum.
2. It is the responsibility of the user of this information to verify that the job benchmark has not been altered or disturbed and that it's relative elevation and description agrees with the information shown on this drawing.

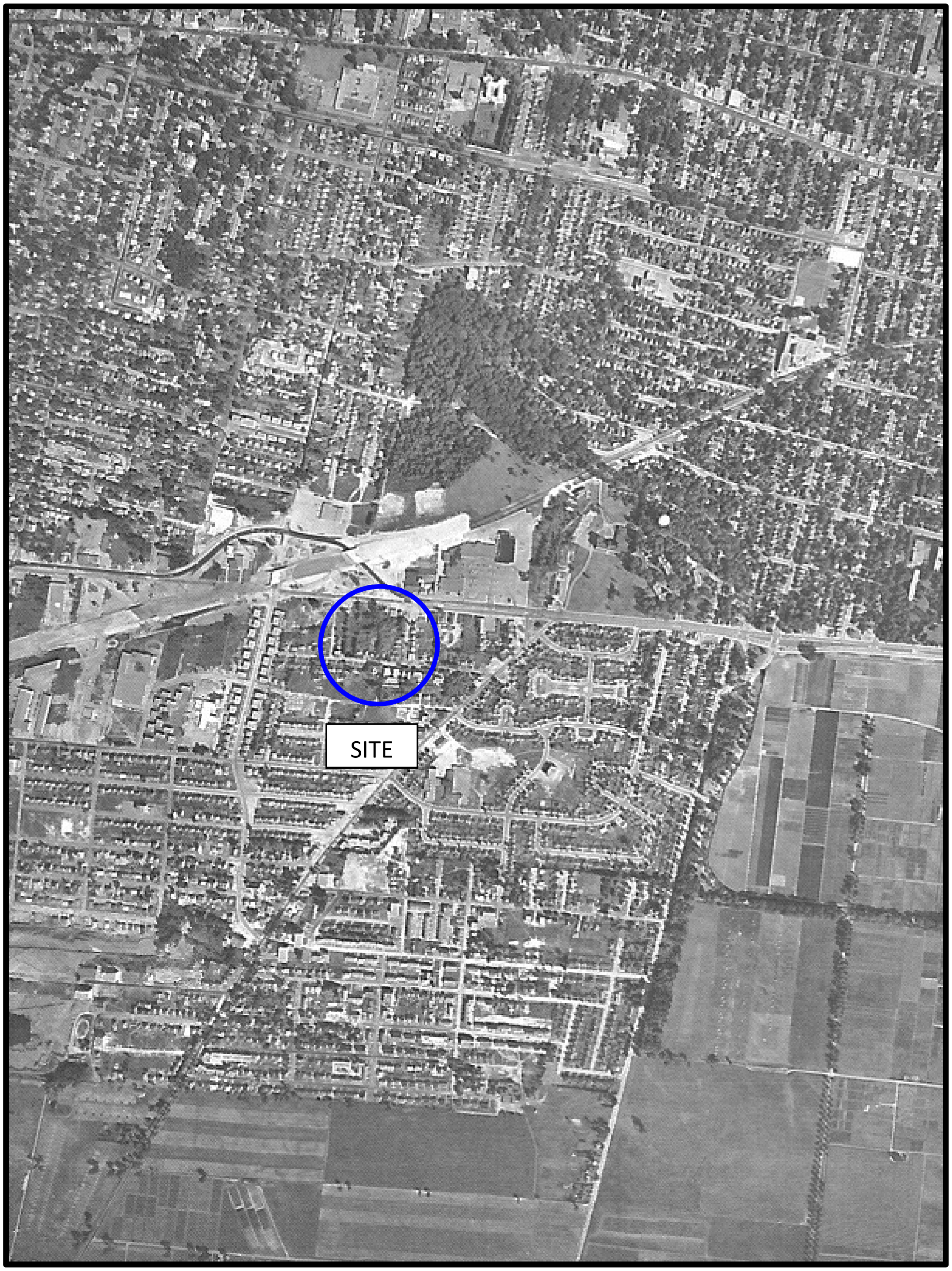
UTILITY NOTES

1. This drawing cannot be accepted as acknowledging all of the utilities and it will be the responsibility of the user to contact the respective utility authorities for confirmation.
2. Only visible surface utilities were located.
3. A field location of underground plant by the pertinent utility authority is mandatory before any work involving breaking ground, probing, excavating etc.

ANNIS, O'SULLIVAN, VOLLEBEKK LTD.
14 Concourse Gate, Suite 500
Nepean, Ont. K2E 7S6
Phone: (613) 727-0850 / Fax: (613) 727-1079
Email: Nepean@aovltd.com
Ontario Land Surveyors

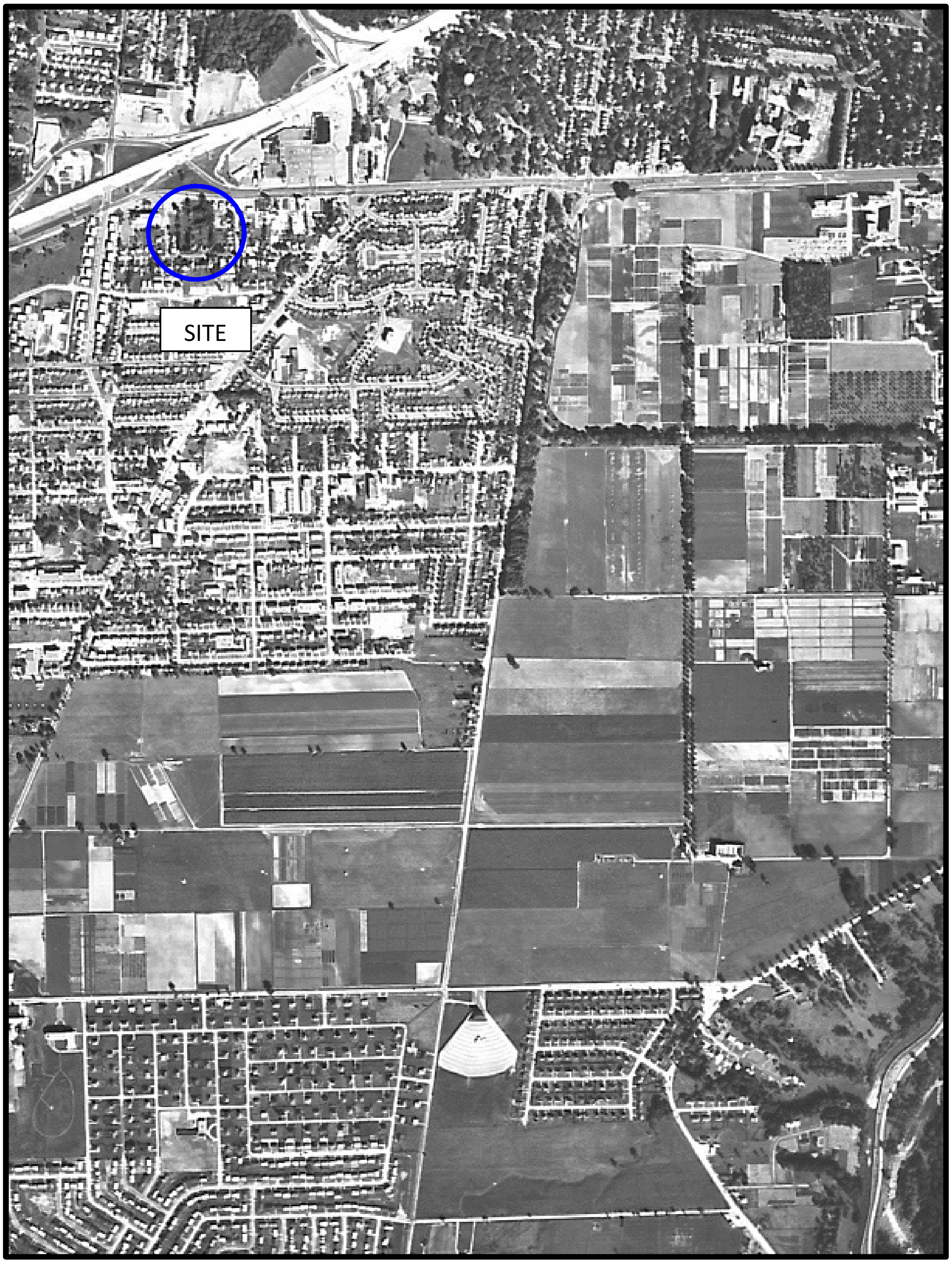
Job No. 16427-15 RLahey PtBlk6-7 PL 221 T F

AERIAL PHOTOGRAPH
1945



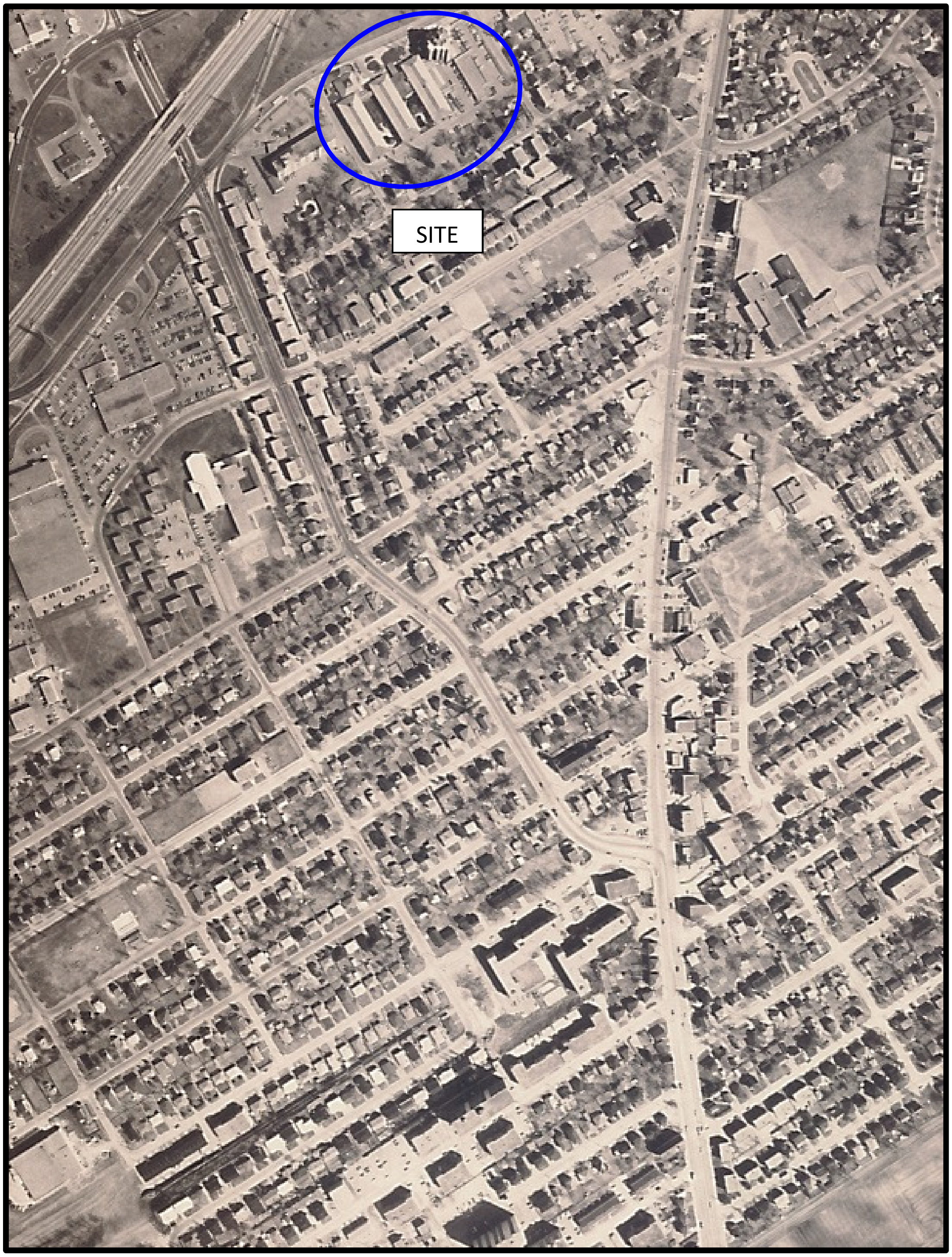
AERIAL PHOTOGRAPH
1959

patersongroup



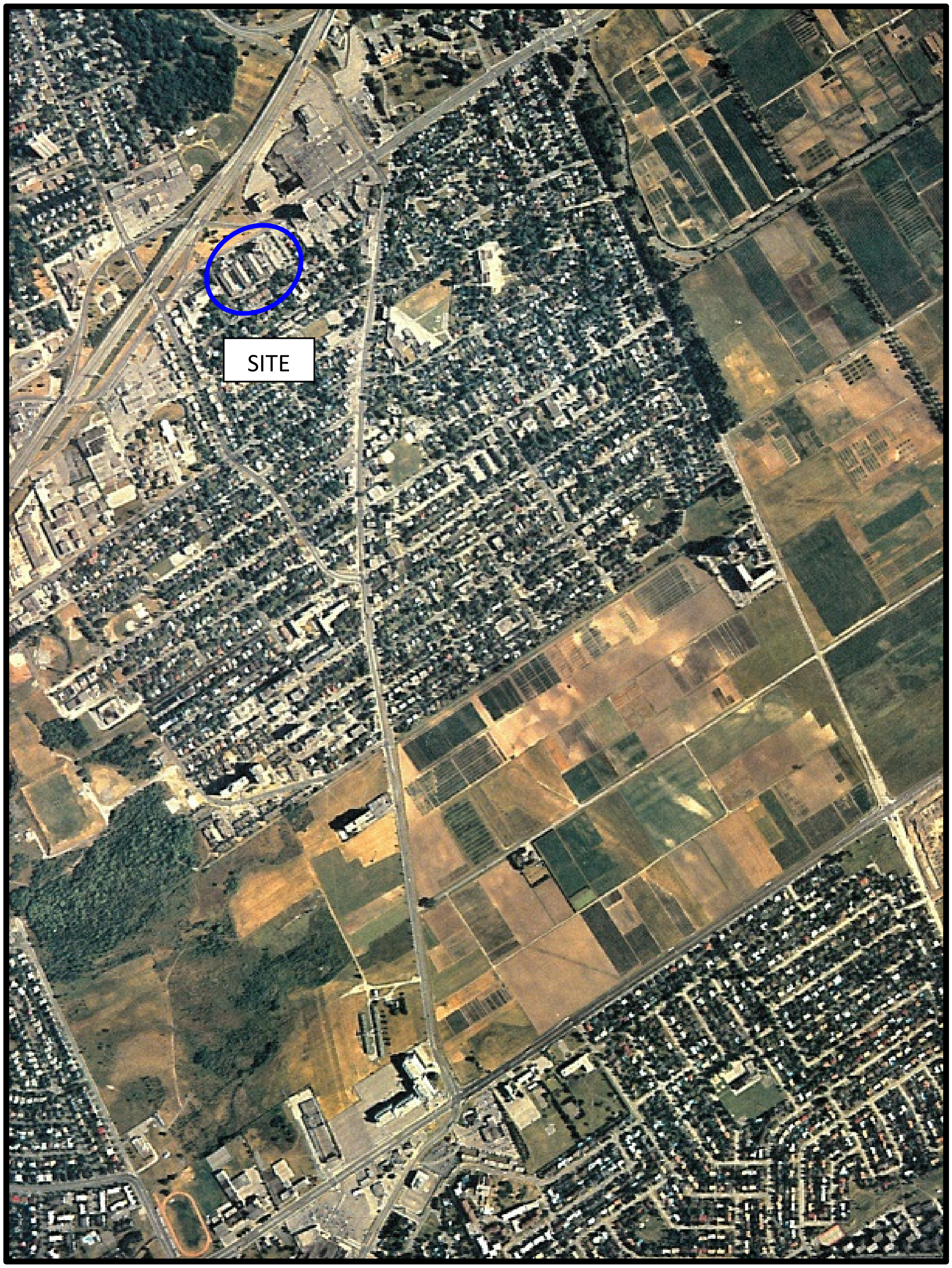
AERIAL PHOTOGRAPH
1962

patersongroup

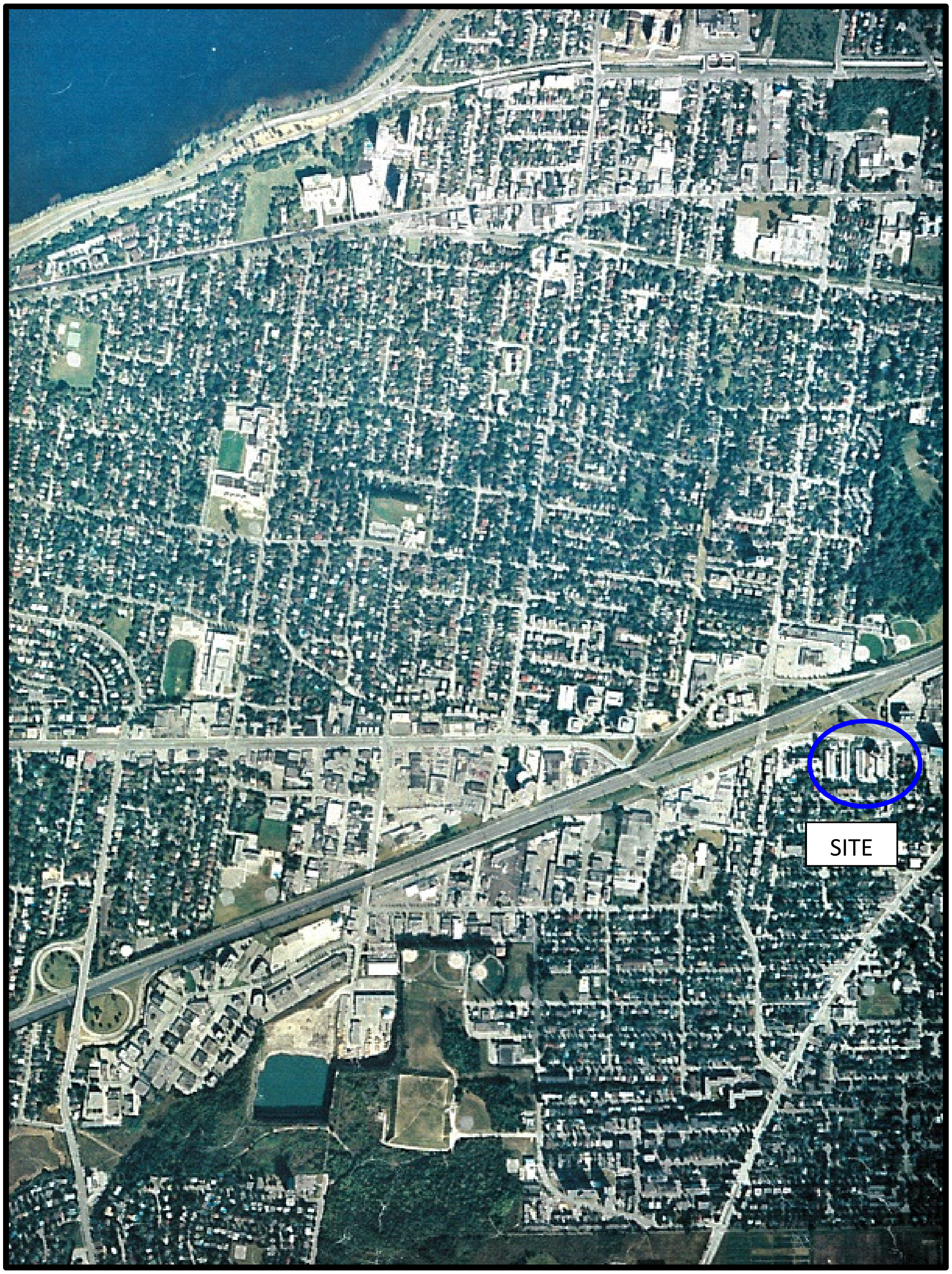


AERIAL PHOTOGRAPH
1975

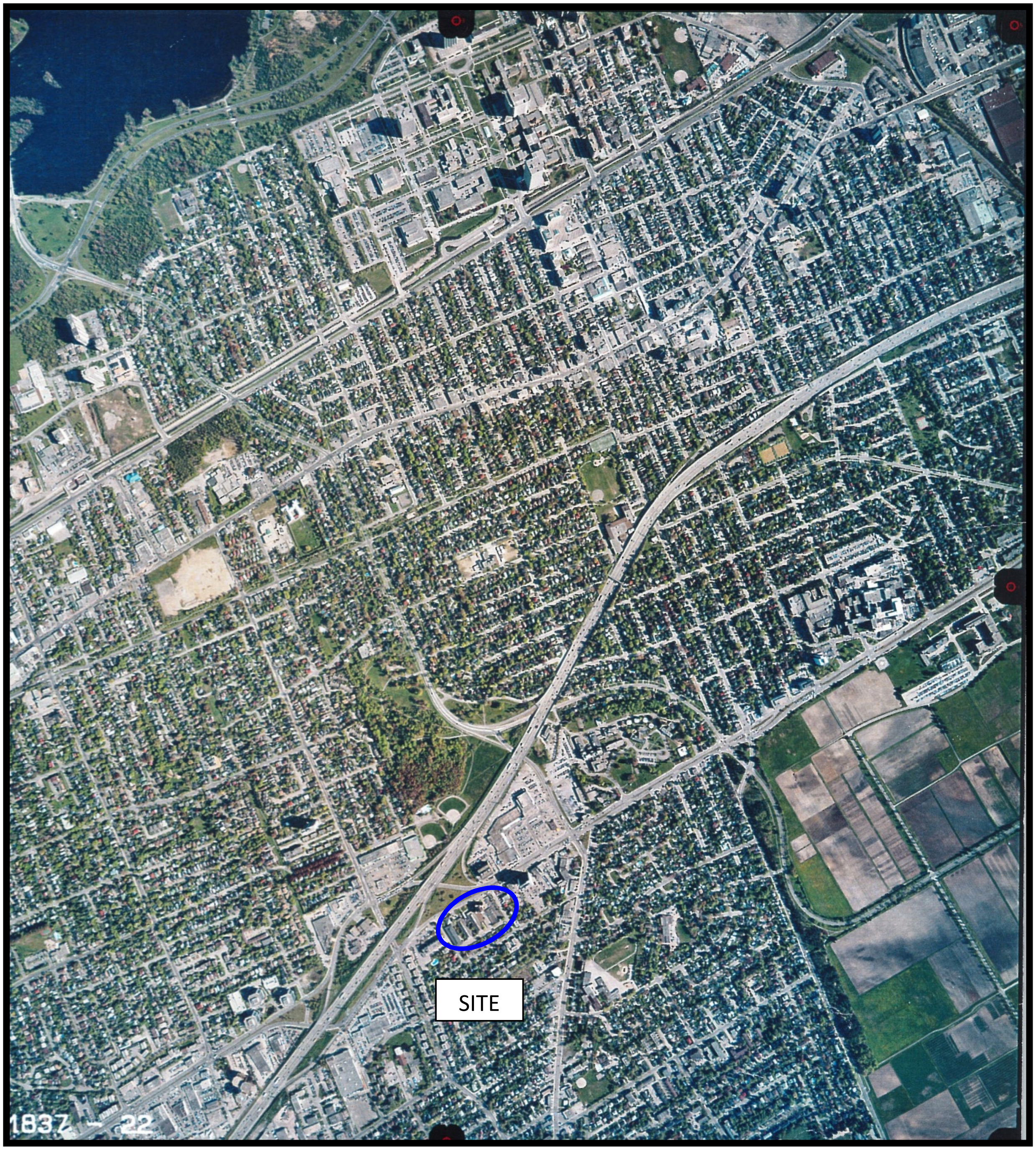
patersongroup



AERIAL PHOTOGRAPH
1983



AERIAL PHOTOGRAPH
1993



AERIAL PHOTOGRAPH
2002

patersongroup

Photograph 1: View of northwest portion of Phase I Property, facing east-southeast.

Photograph 2: Photograph shows condemned tower on northeast portion of Phase I Property, facing west.

Site Photographs

Photograph 3: Photo illustrates the eastern portion of the tower and the parking structure on the northeast corner of the Phase I Property, facing south.

Photograph 4: Photo illustrates the entrance to the parking structure as well as the commercial properties to the east and northeast of the Phase I Property, looking east.

Photograph 5: Photo illustrates the southeastern portion of the Phase I Property. Photograph illustrates the south face of the tower, the above-grade portion of the former Centennial Ballroom, and the east-face of the guest rooms in the original portion of the hotel complex, facing north.

Photograph 6: Photo illustrates the access ramp to the shipping and receiving area, south of the former Centennial Ballroom, facing north.

Site Photographs

Photograph 7: Photo illustrates the access laneway on the southernmost portion of the Phase I Property, as well as the residential properties to the south, facing west.

Photograph 8: Photo illustrates the access laneway on the southernmost portion of the Phase I Property, further west of Photograph 8. The location of the interior waterpark and storm water tank (concrete pad surrounded by bollards) can be seen.

Photograph 9: Photograph illustrates southernmost access to the basement level, situated along Meath Street, facing east-southeast.

Photograph 10: Photograph illustrates northwest corner of Phase I Property and exterior access to basement of the Beachcomber (former nightclub), facing northeast.

Site Photographs

Photograph 11: Photograph illustrates diesel generator in the Beachcomber mechanical room.

Photograph 12: Photograph illustrates former exterior in-ground pool area which has been retrofitted as an interior water park.

Photograph 13: Photograph illustrates residential properties to the east, across Archibald Street, facing southeast.

Photograph 14: Photograph illustrates adjacent property to west, across Meath Street, facing northwest.

APPENDIX 2

MOECC FREEDOM OF INFORMATION INITIAL RESPONSE

CITY OF OTTAWA HLUI SEARCH RESULTS

TSSA CORRESPONDENCE

MOECC WELL RECORDS

File Number: C10-01-16-0271

October 14, 2016

Karyn Munch
Paterson Group
154 Colonnade Rd. S
Ottawa, ON
K2E 7J5

*Sent via email [*KMunch@PatersonGroup.ca*]*

Dear Karyn Munch,

Re: Information Request
1354, 1376 Carling Avenue, Ottawa, Ontario ("Subject Properties")

Internal Department Circulation

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

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

Search of Historical Land Use Inventory

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

A search of the HLUI database revealed the following information:

- There are 2 activities associated with the Subject Properties: Activity Numbers 10519 and 5789.

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

Shaping our future together
Ensemble, formons notre avenir

City of Ottawa
Planning, Infrastructure and Economic Development Department

110 Laurier Avenue West, 4th Floor
Ottawa, ON K1P 1J1
Tel: (613) 580-2424 ext. 24856
Fax: (613) 560-6006
www.ottawa.ca

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

110, avenue Laurier Ouest, 4e étage
Ottawa (Ontario) K1P 1J1
Tél.: (613) 580-2424 ext. 24856
Téléc: (613) 560-6006
www.ottawa.ca

- There are 16 activities associated with the properties located within 50m of the Subject Properties: Activity Numbers 10013, 10394, 107, 14391, 2331, 4697, 7626, 854, 6225, 13543, 1337, 4052, 9284, 8832, 10141 and 5789.

Please note that Activity Numbers 10394 and 14391, have a PIN Certainty of "2". This identifier acknowledges that there is some uncertainty about the exact location of the land use activity and that the activity may or may not have been located on the Subject Properties. All database entries with a PIN Certainty of "2" require independent verification as to their precise location.

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

Additional information may be obtained by contacting:

Ontario's Environmental Registry

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

The Ontario Land Registry Office

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

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

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

representation or warranty by the City with respect to the information's accuracy or exhaustiveness in responding to the request.

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

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

If you have any further questions or comments, please contact Stephanie Mirtitsch at 613-580-2424 ext. 24856 or HLUI@ottawa.ca

Sincerely,

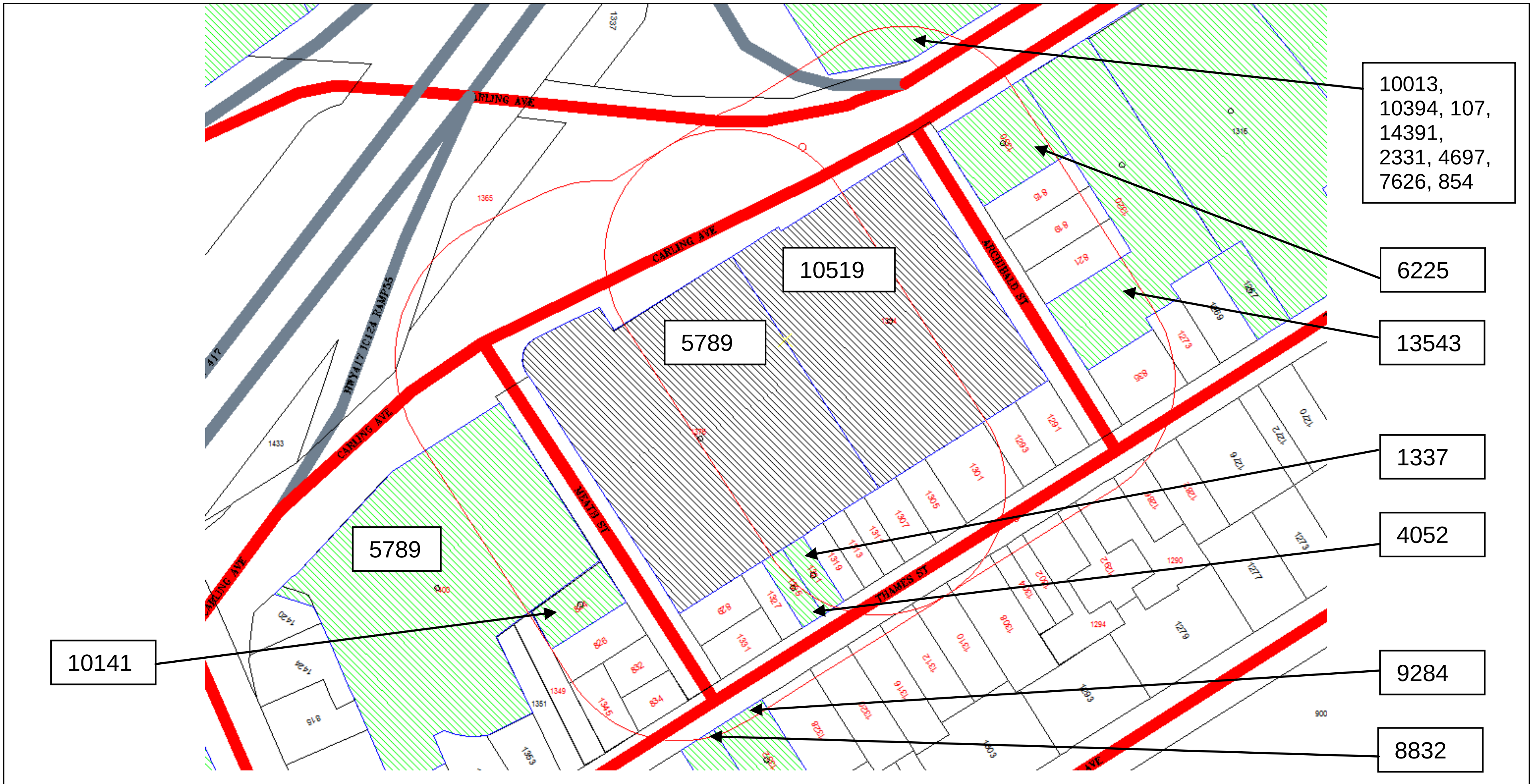
SMirtitsch

for: Michael Boughton, MCIP, RPP
Senior Planner
Development Review East
Planning Services
Planning, Infrastructure and Economic Development Department

MB/ SM

Attach: 18

cc: File no. C10-01-16-0271



Scale 1: n/a

1354-1376 Carling Ave
Ottawa, ON
File # C10-01-16-0271
Stephanie Mirtitsch

<u>Overview</u>

ID# = Activity Identification Number

= Subject Site

CITY OF OTTAWA

HLUI ID: __679GTG

AREA (Square Metres): 8394.929

Report: RPTC_OT_DEV0122

Run On: 04 Oct 2016 at: 10:06:18

Study Year	PIN	Multi-NAIC	Multiple Activities
1998	040020019	Y	N

Activity ID: 10519 **Multiple PINS:** N

PIN Certainty: 1 **Previous Activity ID(s) :** 3361

Related PINS: 040020019

Name: PERRY'S GARAGE

Address: 1350 CARLING AVENUE, OTTAWA

Facility Type: Gasoline Service Stations

Comments 1:

Comments 2:

Generator Number:

Storage Tanks: Two USTs located on the north side of property

HL References 1: M.1957, M.1960, M.1970, M.1980; FIP411-1776,vol4

HL References 2:

HL References 3:

NAICS	SIC
447190	633
811119	635
811112	635
811121	635
447110	633
811199	633

Company Name	Year of Operation
Perry's Garage/West Service Garage	c. 1960
Day's Garage	c. 1957

CITY OF OTTAWA

HLUI ID: __679G21

AREA (Square Metres): 10463.346

Report: RPTC_OT_DEV0122

Run On: 04 Oct 2016 at: 10:06:45

Study Year	PIN	Multi-NAIC	Multiple Activities
1998	040020020	Y	N

Activity ID: 5789

Multiple PINS: Y

PIN Certainty: 1

Previous Activity ID(s) : 3363

Related PINS: 040020020

Name: GEORGE F. LEFEBVRE

Address: CARLING AVENUE, OTTAWA

Facility Type: Gasoline Service Stations

Comments 1: 1384 to 1386

Comments 2:

Generator Number:

Storage Tanks: Three USTs located on the south west corner of property

HL References 1: M.1957, M.1960, M.1970, M.1980; FIP1957-411-1776,vol4

HL References 2:

HL References 3:

NAICS	SIC
447190	633
811199	633
447110	633

Company Name	Year of Operation
Unnamed Gasoline Service Station	c. 1957
George F. Lefebvre	c. 1960

CITY OF OTTAWA

HLUI ID: __679EVF

AREA (Square Metres): 619.878

Report: RPTC_OT_DEV0122

Run On: 04 Oct 2016 at: 10:10:30

Study Year	PIN	Multi-NAIC	Multiple Activities
1998	040020036	Y	N

Activity ID: 10141 **Multiple PINS:** N

PIN Certainty: 1 **Previous Activity ID(s) :** 5077

Related PINS: 040020036

Name: P B FRASER AND ASSOCIATES

Address: 824 MEATH STREET, OTTAWA

Facility Type: Motor Vehicle Repair Shops

Comments 1:

Comments 2:

Generator Number:

Storage Tanks:

HL References 1: SC98

HL References 2:

HL References 3:

NAICS	SIC
811121	635
811119	635
811112	635
488410	639

Company Name	Year of Operation
P B Fraser and Associates	c. 1998

CITY OF OTTAWA

HLUI ID: __67907I

AREA (Square Metres): 650.189

Report: RPTC_OT_DEV0122

Run On: 04 Oct 2016 at: 10:11:18

Study Year	PIN	Multi-NAIC	Multiple Activities
2005	040020079	N	N

Activity ID: 8832

Multiple PINS: N

PIN Certainty: 1

Previous Activity ID(s) :

Related PINS: 040020079

Name: MIKE PROTEAU DRY WALL & PNTNG

Address: 1340 THAMES STREET,

Facility Type: Interior and Finishing Work

Comments 1: #3

Comments 2:

Generator Number:

Storage Tanks:

HL References 1:

HL References 2:

HL References 3: 2005 Select Phone

NAICS	SIC
238320	0

Company Name	Year of Operation
MIKE PROTEAU DRY WALL & PNTNG	c. 2005

CITY OF OTTAWA

HLUI ID: __67907H

AREA (Square Metres): 949.269

Report: RPTC_OT_DEV0122

Run On: 04 Oct 2016 at: 10:12:05

Study Year	PIN	Multi-NAIC	Multiple Activities
2005	040020078	N	N

Activity ID: 9284

Multiple PINS: N

PIN Certainty: 1

Previous Activity ID(s) :

Related PINS: 040020078

Name: METEOR PAINTERS CONTRACTORS

Address: 1332 THAMES STREET,

Facility Type: Interior and Finishing Work

Comments 1:

Comments 2:

Generator Number:

Storage Tanks:

HL References 1:

HL References 2:

HL References 3: 2005 Select Phone

NAICS	SIC
238320	0

Company Name	Year of Operation
METEOR PAINTERS CONTRACTORS	c. 2005

CITY OF OTTAWA

HLUI ID: __67906F

AREA (Square Metres): 290.856

Report: RPTC_OT_DEV0122

Run On: 04 Oct 2016 at: 10:13:38

Study Year	PIN	Multi-NAIC	Multiple Activities
2005	040020031	N	N

Activity ID: 4052

Multiple PINS: N

PIN Certainty: 1

Previous Activity ID(s) :

Related PINS: 040020031

Name: CUSTOM PLASTICS

Address: 1325 THAMES STREET,

Facility Type: Other Plastic Products Industries

Comments 1:

Comments 2:

Generator Number:

Storage Tanks:

HL References 1:

HL References 2:

HL References 3: 2005 Select Phone

NAICS	SIC
326198	0

Company Name	Year of Operation
CUSTOM PLASTICS	c. 2005

CITY OF OTTAWA

HLUI ID: __67906B

AREA (Square Metres): 290.813

Report: RPTC_OT_DEV0122

Run On: 04 Oct 2016 at: 10:14:05

Study Year	PIN	Multi-NAIC	Multiple Activities
2005	040020030	Y	N

Activity ID: 1337

Multiple PINS: N

PIN Certainty: 1

Previous Activity ID(s) :

Related PINS: 040020030

Name: ASPEN TRANSPORTATION LOGISTICS

Address: 1321 THAMES STREET,

Facility Type: Truck Transport Industries

Comments 1:

Comments 2:

Generator Number:

Storage Tanks:

HL References 1:

HL References 2:

HL References 3: 2005 Select Phone

NAICS	SIC
484122	0
484231	0
484239	0
484232	0
484121	0
484233	0

Company Name	Year of Operation
ASPEN TRANSPORTATION LOGISTICS	c. 2005

CITY OF OTTAWA

Report: RPTC_OT_DEV0122

Run On: 04 Oct 2016 at: 10:15:04

HLUI ID: __679BWN

AREA (Square Metres): 4213.238

Study Year	PIN	Multi-NAIC	Multiple Activities
2005	040020005	N	N

Activity ID: 13543

Multiple PINS: N

PIN Certainty: 1

Previous Activity ID(s) :

Related PINS: 040020005

Name: TENAQUIP

Address: 1320 CARLING AVENUE, OTTAWA

Facility Type: Industrial Machinery, Equipment and Supplies, Wholesale

Comments 1:

Comments 2:

Generator Number:

Storage Tanks:

HL References 1:

HL References 2:

HL References 3: 2001 Employment Survey

NAICS	SIC
417230	0

Company Name	Year of Operation
TENAQUIP	c. 2001

CITY OF OTTAWA

HLUI ID: __679FNJ

AREA (Square Metres): 1363.785

Report: RPTC_OT_DEV0122

Run On: 04 Oct 2016 at: 10:15:52

Study Year	PIN	Multi-NAIC	Multiple Activities
1998	040020009	Y	N

Activity ID: 6225

Multiple PINS: N

PIN Certainty: 1

Previous Activity ID(s) : 1890, 5711

Related PINS: 040020009

Name: GUS AND JOHN SHELL SERVICE STATION LIMITED

Address: 1330 CARLING AVENUE, OTTAWA

Facility Type: Gasoline Service Stations

Comments 1:

Comments 2:

Generator Number:

Storage Tanks: Two USTs on south west end of property

HL References 1: M.1957, M.1960, M.1970, M.1980; FIP1957-412-1232,Vol4

HL References 2:

HL References 3:

NAICS	SIC
447190	633
447110	633
811199	633

Company Name	Year of Operation
Unnamed Gasoline Service Station	c. 1957
Len Desforge Service Station	c. 1960
Gus and John Shell Service Station Ltd.	c. 1970-1980

CITY OF OTTAWA

HLUI ID: __679GKV

AREA (Square Metres): 5231.978

Report: RPTC_OT_DEV0122

Run On: 04 Oct 2016 at: 10:16:37

Study Year	PIN	Multi-NAIC	Multiple Activities
1998	040250173	Y	Y

Activity ID: 10013 **Multiple PINS:** N

PIN Certainty: 1 **Previous Activity ID(s) :**

Related PINS: 040250173

Name: OTTAWA CONSUMER ELECTRONICS

Address: 1335 CARLING AVENUE, OTTAWA

Facility Type: Appliance, Television, Radio and Stereo Stores

Comments 1:

Comments 2:

Generator Number:

Storage Tanks:

HL References 1:

HL References 2:

HL References 3: 2001 Employment Survey

NAICS	SIC
443110	0

Company Name	Year of Operation
OTTAWA CONSUMER ELECTRONICS	c. 2001

CITY OF OTTAWA

HLUI ID: __679GKV

AREA (Square Metres): 5231.978

Study Year	PIN	Multi-NAIC	Multiple Activities
1998	040250173	Y	Y

Activity ID: 10394
Multiple PINS: Y
PIN Certainty: 2
Previous Activity ID(s) : 5706
Related PINS: 040250147

Name: ONTARIO DEPARTMENT OF HIGHWAYS
Address: 1359 CARLING AVENUE, OTTAWA
Facility Type: Motor Vehicles, Wholesale
Comments 1: Located at #1365 Carling ca. 1948.
Comments 2:
Generator Number:
Storage Tanks: FIP1948, FIP1956 - Two USTs located on the south west corner
HL References 1: M.1949, M.1957; FIP1912,vol2; FIP1922,vol2; FIP1948-332-1640; FIP1956-332-1-1640,vol3
HL References 2:
HL References 3:

NAICS	SIC
415190	551
811111	551
415120	551
415110	551
811310	551

Company Name	Year of Operation
Ontario Department of Highways	c. 1948-1957

Study Year	PIN	Multi-NAIC	Multiple Activities
1998	040250173	Y	Y

Activity ID: 107

Multiple PINS: N

PIN Certainty: 1

Previous Activity ID(s) :

Related PINS: 040250173

Name: ELECTRO SONIC INC.

Address: 1335 CARLING AVENUE,

Facility Type: Electrical and Electronic Machinery, Equipment and Supplies, Wholesale

Comments 1: #315

Comments 2:

Generator Number:

Storage Tanks:

HL References 1:

HL References 2:

HL References 3: 2005 Select Phone

NAICS	SIC
417320	0
334410	0
416110	0

Company Name	Year of Operation
ELECTRO SONIC INC.	c. 2001
ANIXTER CANADA INC.	c. 2001
ELECTRO SONIC INC.	c. 2005

CITY OF OTTAWA

HLUI ID: __679GKV

AREA (Square Metres): 5231.978

Report: RPTC_OT_DEV0122

Run On: 04 Oct 2016 at: 10:16:37

Study Year	PIN	Multi-NAIC	Multiple Activities
1998	040250173	Y	Y

Activity ID: 14391

Multiple PINS: Y

PIN Certainty: 2

Previous Activity ID(s) : 3316

Related PINS: 040250172

Name: TURNERS SERVICE STATION

Address: 1331 CARLING AVENUE, OTTAWA

Facility Type: Gasoline Service Stations

Comments 1: unit a

Comments 2:

Generator Number:

Storage Tanks:

HL References 1: M.1960, M.1970, M.1980

HL References 2:

HL References 3:

NAICS	SIC
447110	633
811199	633
447190	633

Company Name	Year of Operation
Turners Service Station	c. 1960-1970

Study Year	PIN	Multi-NAIC	Multiple Activities
1998	040250173	Y	Y

Activity ID: 2331
Multiple PINS: N
PIN Certainty: 1
Previous Activity ID(s) : 868, 3315, 5707
Related PINS: 040250173

Name: SUN OIL COMPANY LIMITED
Address: 1339 CARLING AVENUE, OTTAWA
Facility Type: Petroleum Products, Wholesale
Comments 1:
Comments 2:
Generator Number:
Storage Tanks: FIP1948, FIP1956 -Two USTs -gasoline, FIP1956 -Six steel ASTs, FIP1948 -Five steel ASTs
HL References 1: M.1949, M.1957, M.1956, M.1960, M.1970, M.1980; FIP1901,vol2; FIP1912,vol2; FIP1922,vol2; FIP1948-332-1640; FIP1956-332-1-1640,vol3; FIP1956-332-2-1640,vol3.
HL References 2:
HL References 3:

NAICS	SIC
412110	511
493120	479
493130	479
447110	633
811199	633
447190	633
493190	479
419120	511
454310	511

Company Name	Year of Operation
BP Oil Ltd.	c. 1970
Barrington Petroleum Products Ltd.	c. 1956-1957
Unnamed Gasoline Service Station and Oiling	c. 1949-1956
Sun Oil Company Ltd.	c. 1948
Barrington Fuel Oil	c. 1960

Study Year	PIN	Multi-NAIC	Multiple Activities
1998	040250173	Y	Y

Activity ID: 4697

Multiple PINS: N

PIN Certainty: 1

Previous Activity ID(s) : 6958

Related PINS: 040250173

Name: E.B. EDDY FOREST PRODUCTS LIMITED

Address: 1335 CARLING AVENUE, OTTAWA

Facility Type: Other Wood Industries

Comments 1: GEN# = On0009805

Comments 2:

Generator Number:

Storage Tanks:

HL References 1: PID1994

HL References 2:

HL References 3:

NAICS	SIC
321217	259
321216	259
337920	259
321114	259

Company Name	Year of Operation
E.B. Eddy Forest Products Ltd.	c. 1994

Study Year	PIN	Multi-NAIC	Multiple Activities
1998	040250173	Y	Y

Activity ID: 7626 **Multiple PINS:** N

PIN Certainty: 1 **Previous Activity ID(s) :**

Related PINS: 040250173

Name: KIDNEY FOUNDATION-CANADA

Address: 1335 CARLING AVENUE,

Facility Type: Gasoline Service Stations

Comments 1: #101

Comments 2:

Generator Number:

Storage Tanks:

HL References 1:

HL References 2:

HL References 3: 2005 Select Phone

NAICS	SIC
811199	0
488410	0

Company Name	Year of Operation
KIDNEY FOUNDATION-CANADA	c. 2005

CITY OF OTTAWA

HLUI ID: __679GKV

AREA (Square Metres): 5231.978

Study Year	PIN	Multi-NAIC	Multiple Activities
1998	040250173	Y	Y

Activity ID: 854 **Multiple PINS:** N

PIN Certainty: 1 **Previous Activity ID(s) :** 5097

Related PINS: 040250173

Name: A ZACHARY DENTAL LAB LIMITED
Address: 1335 CARLING AVENUE, OTTAWA
Facility Type: Other Manufactured Products Industries
Comments 1: Unit 400
Comments 2:

Generator Number:
Storage Tanks:
HL References 1: SC98
HL References 2:
HL References 3:

NAICS	SIC
334610	399

Company Name	Year of Operation
A Zachary Dental Lab Ltd.	c. 1998

Karyn Munch

From: Ruchi Chohan <rchohan@tssa.org> on behalf of Public Information Services <publicinformationservices@tssa.org>
Sent: September-27-16 1:33 PM
To: Karyn Munch
Subject: RE: PE3896 - Records Search Request

Hello Karyn,

Thank you for your inquiry.

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

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

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

Thank you and have a great day!

Ruchi

Ruchi Chohan | Public Information Agent
Facilities and Business Services
345 Carlingview Drive
Toronto, Ontario M9W 6N9
Tel: +1-416-734-3417 | Fax: +1-416-231-4903 | E-Mail: rchohan@tssa.org
www.tssa.org

From: Karyn Munch [mailto:KMunch@Patersongroup.ca]
Sent: Monday, September 26, 2016 2:27 PM
To: Public Information Services <publicinformationservices@tssa.org>
Subject: PE3896 - Records Search Request

Good afternoon,

Could you please search your records for the following addresses in the City of Ottawa:

1330, 1335, 1354, 1376 and 1400 Carling Avenue
815 and 835 Archibald Street

1331, 1305 and 1291 Thames Street

Thank-you very much.

Best Regards,
Karyn Munch, P.Eng.

patersongroup
solution oriented engineering

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

36

ASE 306

UTM 18 Z 4 4 2 2 6 0 E

19 R 5 0 3 5 7 0 0 N

Elev. 19 R 0 2 5 0

Basin 25

OF 1433

15 № 3974

ONTARIO

The Well Drillers Act

Department of Mines, Province of Ontario

RECEIVED MAR 23 1951 GEOLOGICAL BRANCH DEPARTMENT OF MINES

Water Well Record

County or District Carleton OTTAWA Tp. ~~Nepean~~ City View Con. 1 O.F. Lot 33 Pt. Lot

[redacted] estboro Acres

[redacted] ncluding pump) $103

Pipe and Casing Record

Casing diameter(s) 4"

Length(s) of casing(s) 20" feet

Length of screen

Type of screen

Type of pump

Capacity of pump

Depth of pump setting

Pumping Test

Date

Developed Capacity

Duration of Test 1 hr

Pumping Rate 400 gals a hr

Drawdown 6"

Static level of completed well 1 feet from top

Is well a gravel-wall type?

Water Record

Kind (fresh or mineral) fresh

Quality (hard, soft, contains iron, sulphur etc.) soft

Appearance (clear, cloudy, coloured) Clear

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

How far is well from possible source of contamination?

What is source of contamination?

Enclose a copy of any mineral analysis that has been made of water

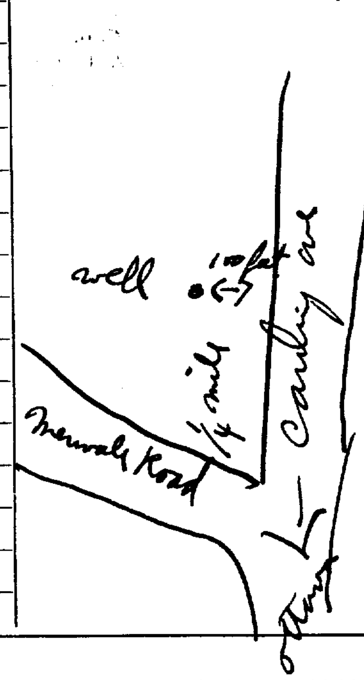
Depth(s) to Water Horizon(s)	Kind of Water	No. of Feet Water Rises
1 foot	fresh	41

Well Log

Drift and Bedrock Record	From 0 ft.	To ......ft.
20 feet of Clay	1	20
20 " " 39	20	39
39 - 41 gravel	39	41

Location of Well

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



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

Drilling Firm Mulligan Bros

Address Westboro R R #1

Recorded by Mulligan Bros Address Westboro R R #1

Date Licence Number

UTM 18 Z 442340 E

9 R 5025525 N

Elev. 9 R 0250

Basin 25

ONTARIO

RECEIVED No 8043
SEP 21 1954
GEOLOGICAL BRANCH
DEPARTMENT of MINES

The Well Drillers Act
Department of Mines, Province of Ontario

Water Well Record

[redacted] ~~Village, Town or~~ City Ottawa

[redacted] own or City) COLDREY AVE

Date Completed 5 (day) Aug (month) 1954 (year) Cost of Well (excluding pump)

Pipe and Casing Record		Pumping Test	
Casing diameter(s)	5"	Date	5 Aug 1954
Length(s) of casing(s)	30'	Static level	10'
Type of screen	nil	Pumping level	12'
Length of screen		Pumping rate	360 G.P.H.
Distance from top of screen to ground level		Duration of test	1 HOUR
Is well a gravel-wall type?	No	Distance from cylinder or bowls to ground level	Bailer Test

Water Record

Kind (fresh or mineral) fresh

Quality (hard, soft, contains iron, sulphur, etc.) hard

Appearance (clear, cloudy, coloured) clear

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

How far is well from possible source of contamination? 30'

What is the source of contamination? septic tank

Enclose a copy of any mineral analysis that has been made of water nil

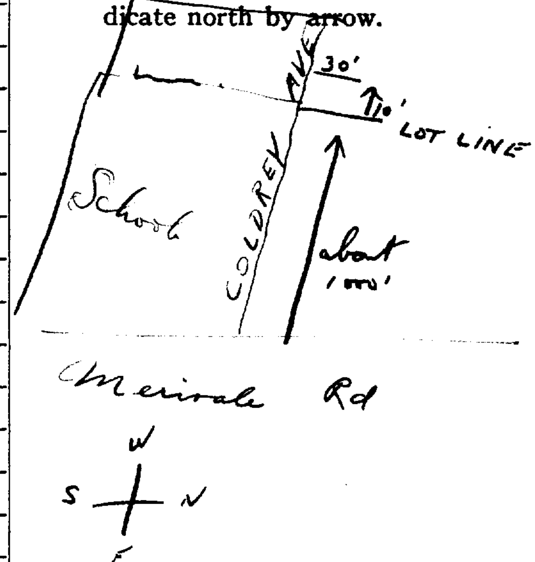
Depth(s) to Water Horizon(s)	Kind of Water	No. of Feet Water Rises
30'	fresh	20'
47	"	37'

Well Log

Overburden and Bedrock Record	From	To
clay	0 ft.	30 ft.
limestone	30'	47'

Location of Well

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



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

Drilling Firm Blair Phillips

Address 614 Gilmour St

Name of Driller M. Sztepa Address 431 GLADSTONE AVE

Date 5 Aug 1954 Licence Number 218

Signature of Licensee

FORM 5

CSS.58

Coldrey ~~St.~~ Ave

Ontario Ministry of the Environment

The Ontario Water Resources Act
WATER WELL RECORD

Print only in spaces provided.
Mark correct box with a checkmark, where applicable.

11

Municipality | Con.

County or District	Township/Borough/City/Town/Village	Con block tract survey, etc.	Lot
Ottawa	Ottawa	A	1

Owner's surname	First Name	Address	Date completed
City of Ottawa,	Infrastructure Services.	thames Street	14 day Sept month 2010 year

NAD 83 — Zone 18 — Easting 442617 — Northing 5025962 — RC — Elevation — RC — Basin Code

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)

General colour	Most common material	Other materials	General description	Depth - feet From	Depth - feet To
Black	Asphalt	—	—	0	0.3
Brown	Sand & Gravel	silt	dense	0.3	2.6
Grey	silt	clay, sand	compact	2.6	5.0
Grey	clay	silt, sand	firm	5.0	10
Grey	silt	clay, sand, gravel	loose	10	20

31

32

WATER RECORD

Water found at - feet	Kind of water
6.5	☒ Fresh ☐ Salty ☐ Sulphur ☐ Minerals ☐ Gas
	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals ☐ Gas
	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals ☐ Gas
	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals ☐ Gas
	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals ☐ Gas

CASING & OPEN HOLE RECORD

Inside diam inches	Material	Wall thickness inches	Depth - feet From	Depth - feet To
2	☐ Steel ☐ Galvanized ☐ Concrete ☐ Open hole ☒ Plastic	0.12	0	20
	☐ Steel ☐ Galvanized ☐ Concrete ☐ Open hole ☐ Plastic			
	☐ Steel ☐ Galvanized ☐ Concrete ☐ Open hole ☐ Plastic			

SCREEN

Sizes of opening (Slot No.)	Diameter	Length
10	2 inches	15.0 feet

Material and type	Depth at top of screen
PVC Plastic	5.0 feet

PLUGGING & SEALING RECORD

☐ Annular space ☐ Abandonment

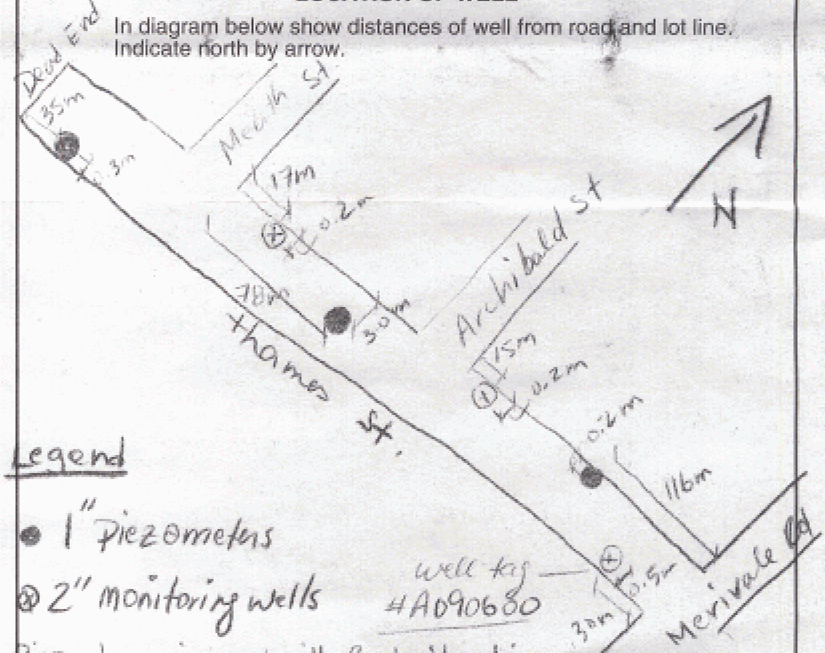
Depth set at - feet From	To	Material and type (Cement grout, bentonite, etc.)
0	2	sand & gravel
2	4	Bentonite chips
4	20	Bentonite slurry

PUMPING TEST

Pumping test method ☐ Pump ☐ Bailer	Pumping rate GPM	Duration of pumping Hours Mins			
Static level	Water level end of pumping	Water levels during ☐ Pumping ☐ Recovery: 15 minutes feet	30 minutes feet	45 minutes feet	60 minutes feet
If flowing give rate GPM	Pump intake set at feet	Water at end of test ☐ Clear ☐ Cloudy			
Recommended pump type ☐ Shallow ☐ Deep	Recommended pump setting feet	Recommended pump rate GPM			

LOCATION OF WELL

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



Legend
● 1" Piezometers
⊗ 2" monitoring wells
Piez. decomissioned with Bentonite chips with 2 ft of sand/gravel on top.

239784

FINAL STATUS OF WELL

☐ Water supply ☐ Observation well ☐ Test hole ☐ Recharge well ☐ Abandoned, insufficient supply ☐ Abandoned, poor quality ☒ Abandoned (Other) decomissioned ☐ Dewatering ☐ Unfinished ☐ Replacement well

WATER USE

☐ Domestic ☐ Stock ☐ Irrigation ☐ Industrial ☐ Commercial ☐ Municipal ☐ Public supply ☐ Cooling & air conditioning ☐ Not use ☒ Other environmental use

METHOD OF CONSTRUCTION

☐ Cable tool ☐ Rotary (conventional) ☐ Rotary (reverse) ☐ Rotary (air) ☐ Air percussion ☒ Boring ☐ Diamond ☐ Jetting ☐ Driving ☐ Digging ☐ Other

Name of Well Contractor	Well Contractor's Licence No.
DST Consulting Engineers	6838
Address: 605 Hewitson St. thunder Bay, ON	
Name of Well Technician: Manon Giroux	Well Technician's Licence No.: T-3025
Signature of Technician/Contractor: Manon Giroux	Submission date: day 30 mo 9 yr 10

MINISTRY USE ONLY — Data source — Contractor — Date received: OCT 04 2010 — Date of inspection — Inspector — Remarks

2 - MINISTRY OF THE ENVIRONMENT COPY

0506 (07/00) Front Form 9

UT 18
9
9
1 95

442610
5025540
0250

148

15 No. 8493

ONTARIO

RECEIVED
AUG - 8 1951
GEOLOGICAL BRANCH
DEPARTMENT OF MINES

The Well Drillers Act
Department of Mines, Province of Ontario

Water Well Record

County or Territorial District Carleton ~~Township, Village, Town~~ or ~~City~~. City Ottawa
[redacted] Town or City) ...... Merivale Road Kingston Ave
Date Completed .... Cost of Well (excluding pump) ....
(day) (month) (year)

Pipe and Casing Record		Pumping Test	
Casing diameter(s)	6	Date	
Length(s) of casing(s)	15	Static level	~~25~~ 25
Type of screen		Pumping level	40
Length of screen		Pumping rate	
Distance from top of screen to ground level		Duration of test	
Is well a gravel-wall type?		Distance from cylinder or bowls to ground level	

Water Record

Kind (fresh or mineral) ...... fresh
Quality (hard, soft, contains iron, sulphur, etc.) ...... hard
Appearance (clear, cloudy, coloured) ...... clear
For what purpose(s) is the water to be used? ...... House
How far is well from possible source of contamination? ......
What is the source of contamination? ......
Enclose a copy of any mineral analysis that has been made of water ......

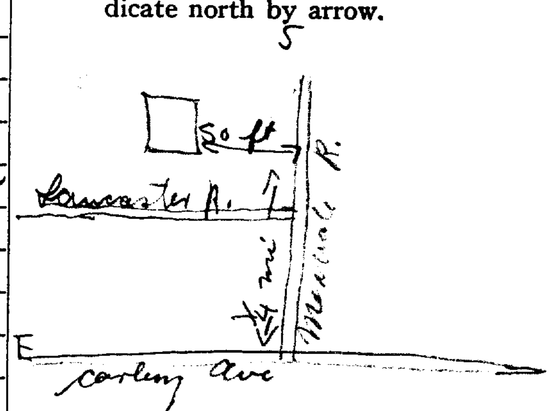
Depth(s) to Water Horizon(s)	Kind of Water	No. of Feet Water Rises
160	fresh	135

Well Log

Overburden and Bedrock Record	From	To
	0 ft.	....ft.
Clay	1	5
Gravel	6	10
White limestone	10	175

Location of Well

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



Situation: Is well on upland, in valley, or on hillside? ......
Drilling Firm .... Jaddon Mulligan
Address .... Ottawa, R.R. #1
Name of Driller .... John Murcharoff ...... Address .... 703 Gilmour St
Date ...... Licence Number ......
Signature of Licensee

Form 5

15 No 8493

MERIVALE RD

Ontario Ministry of the Environment

Measurements recorded in: ☒ Metric ☐ Imperial

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

A142492

Well Record

Regulation 903 Ontario Water Resources Act

Page 1 of 1

[redacted]

Address of Well Location (Street Number/Name)	Township	Lot	Concession
999 MERIVALE ROAD			

County/District/Municipality	City/Town/Village	Province	Postal Code
	OTTAWA	Ontario	K1Z 6A6

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 83	18	361870	5026969		

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	Depth (m/ft) To
Grey	Crushed sand & gravel	silt, possible cobbles	fill material	0	3.3
Grey	Silty Clay		firm to stiff	3.3	4.9
Grey	Glacial till	sand, gravel, possible cobbles & boulders	glacial till (Silty clay)	4.9	10.6

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0	7.2	Bentonite	0.14

Method of Construction

☐ Cable Tool ☐ Diamond ☐ Rotary (Conventional) ☐ Jetting ☐ Rotary (Reverse) ☐ Driving ☐ Boring ☐ Digging ☐ Air percussion ☒ Other, specify H.S.A.

Well Use

☐ Public ☐ Commercial ☐ Not used ☐ Domestic ☐ Municipal ☐ Dewatering ☐ Livestock ☐ Test Hole ☐ Monitoring ☐ Irrigation ☐ Cooling & Air Conditioning ☐ Industrial ☐ Other, specify

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	To
5.1	PVC	SCHED 40	0	7.6

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	To
5.8	PVC	10	7.6	10.6

Status of Well

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

Water Details

Water found at Depth	Kind of Water
2.4 (m/ft) ☐ Gas	☐ Fresh ☒ Untested ☐ Other, specify
(m/ft) ☐ Gas	☐ Fresh ☐ Untested ☐ Other, specify
(m/ft) ☐ Gas	☐ Fresh ☐ Untested ☐ Other, specify

Hole Diameter

Depth (m/ft) From	To	Diameter (cm/in)
0	10.6	20

Results of Well Yield Testing

After test of well yield, water was: ☐ Clear and sand free ☐ Other, specify

If pumping discontinued, give reason:

Pump intake set at (m/ft)

Pumping rate (l/min / GPM)

Duration of pumping ___ hrs + ___ min

Final water level end of pumping (m/ft)

If flowing give rate (l/min / GPM)

Recommended pump depth (m/ft)

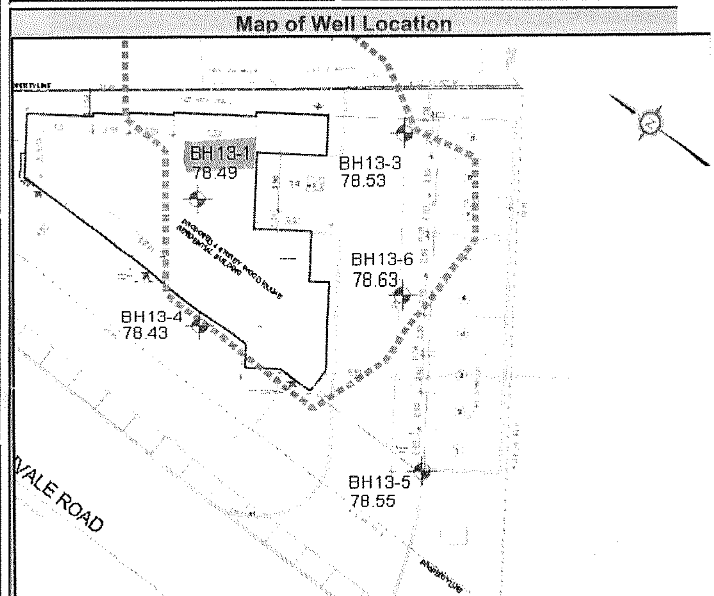
Recommended pump rate (l/min / GPM)

Well production (l/min / GPM)

Disinfected? ☐ Yes ☐ No

Draw Down Time (min)	Water Level (m/ft)	Recovery Time (min)	Water Level (m/ft)
Static Level			
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
50		50	
60		60	

Map of Well Location



Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
George Downing Estate Drilling Ltd.	1844

Business Address (Street Number/Name)	Municipality
410 rue Principale	Grenville-sur-la-Rouge

Province	Postal Code	Business E-mail Address
QC	J0V1B0	downing@hawk.igs.net

Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)
8192426469	Downing, Stephen

Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
3326		20130419

Well owner's information package delivered ☐ Yes ☐ No

Date Package Delivered Y Y Y Y M M D D

Date Work Completed 20130405

Ministry Use Only

Audit No. Z161274

Received MAY 29 2013

Ministry's Copy

UTM | 1 | 18 | Z | 4 | 4 | 2 | 0 | 6 | 5 | E
| 9 | R | 5 | 0 | 2 | 5 | 8 | 3 | 0 | N

Elev. | 9 | R | 0 | 2 | 5 | 0 |

Basin | 2 | 5 | | | |

180

ONTARIO

RECEIVED
SEP 18 1951
GEOLOGICAL BRANCH
DEPARTMENT OF MINES

15 № 7982

The Well Drillers Act
Department of Mines, Province of Ontario

Water Well Record

County or Territorial District Carleton ~~Ottawa~~ [redacted] Township, Village, Town or City ~~Gloucester~~ OTTAWA
[redacted] Town or City) Ottawa
[redacted] 1536 Carling Ave. Ottawa
Date Completed July 16 51 Cost of Well (excluding pump)
(day) (month) (year)

Pipe and Casing Record	
Casing diameter(s)	9"
Length(s) of casing(s)	18
Type of screen	
Length of screen	
Distance from top of screen to ground level	
Is well a gravel-wall type?	Rock

Pumping Test	
Date	July 16/51
Static level	6 ft
Pumping level	26
Pumping rate	250
Duration of test	2 hrs
Distance from cylinder or bowls to ground level	

Water Record

Kind (fresh or mineral) Fresh
Quality (hard, soft, contains iron, sulphur, etc.) Soft
Appearance (clear, cloudy, coloured) Clear
For what purpose(s) is the water to be used? Household
How far is well from possible source of contamination? 20 ft Close Swamp
What is the source of contamination? Swamp
Enclose a copy of any mineral analysis that has been made of water

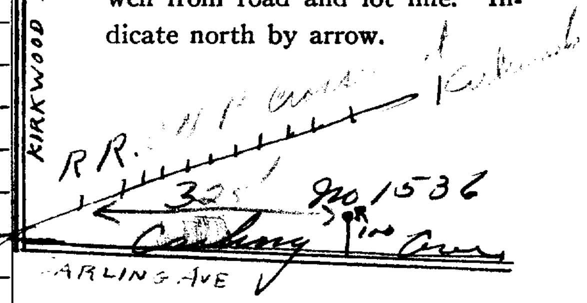
Depth(s) to Water Horizon(s)	Kind of Water	No. of Feet Water Rises
71	fresh	65

Well Log

Overburden and Bedrock Record	From	To
	0 ft.	....ft.
Clay & Gravel	0	6
Limestone	6	72

Location of Well

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



Situation: Is well on upland, in valley, or on hillside? valley
Drilling Firm J B Dufresne
Address 1870 Carling Ave
Name of Driller W Roy Address
Date July 16/51 Licence Number 88
J B Dufresne
Signature of Licensee

FORM 5

CARLING AVE.

E/

UTM 1/18 Z 4|4|2|0|9|0 E

19 R 5|0|2|5|8|5|0 N

Elev. 19 R 0|2|5|0

Basin 2|5

184

ONTARIO

RECEIVED 15 SEP 18 1951 GEOLOGICAL BRANCH DEPARTMENT OF MINES

No 7980

X

The Well Drillers Act

Department of Mines, Province of Ottawa

Water Well Record

County or Territorial District ~~Ottawa~~ Carleton. Township, ~~Village, Town or~~ City ~~Nepean~~ OTTAWA.

[redacted] (Town or City)

... 1538 Carling Ave. Ottawa

Date Completed July 10 51 (day) (month) (year) Cost of Well (excluding pump)

Pipe and Casing Record

Casing diameter(s) 2

Length(s) of casing(s) 21

Type of screen

Length of screen

Distance from top of screen to ground level

Is well a gravel-wall type? Rock

Pumping Test

Date July 10/51

Static level 5 ft

Pumping level 26 ft

Pumping rate 125 gl. per hr

Duration of test 2 hours

Distance from cylinder or bowls to ground level

Water Record

Kind (fresh or mineral) fresh

Quality (hard, soft, contains iron, sulphur, etc.) soft

Appearance (clear, cloudy, coloured) clear

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

How far is well from possible source of contamination? 10 ft

What is the source of contamination? swamp

Enclose a copy of any mineral analysis that has been made of water

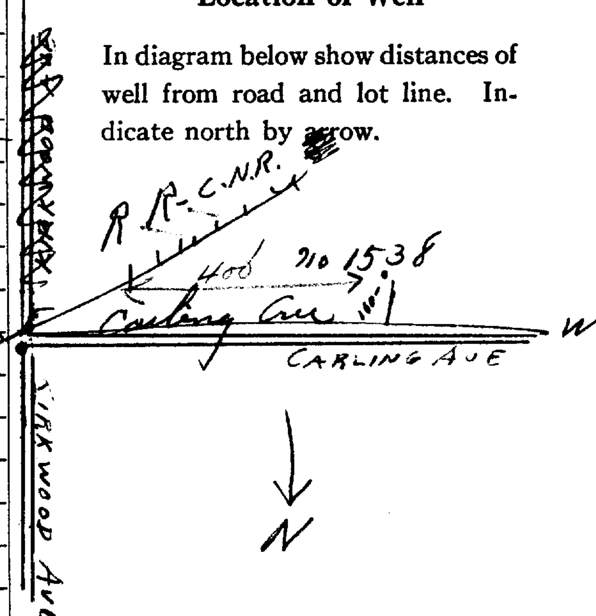
Depth(s) to Water Horizon(s)	Kind of Water	No. of Feet Water Rises
69	fresh	64

Well Log

Overburden and Bedrock Record	From 0 ft.	To ....ft.
Gravel clay	0	5
Limestone	5	75

Location of Well

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



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

Drilling Firm J. B. Dufresne

Address 876 Carling Ave

Name of Driller W. Roy

Address

Date July 10/51

Licence Number 89

J. B. Dufresne

Signature of Licensee

FORM 5

CARLING AVE.

Ontario Ministry of the Environment

Well Tag No. *(Place Sticker and/or Print Below)*
1 Additional Well Installation under Tag A058348

Well Record
Regulation 903 Ontario Water Resources Act

Well Owner's Information

First Name	Last Name	E-mail Address	Well Constructed by Well Owner
City of Ottawa		[redacted]	☐

Mailing Address (Street Number/Name, RR)	Municipality	Province	Postal Code	Telephone No. *(inc. area code)*
110 Laurier Avenue 5th Floor	Ottawa	ON	K1P1J1	6135802424

Part A Construction and/or Major Alteration of a Well

Address of Well Location (Street Number/Name, RR)	Township	Lot	Concession
1447 Carling Avenue			

County/District/Municipality	City/Town/Village	Province	Postal Code
	Ottawa	**Ontario**	

UTM Coordinates	Zone	Easting	Northing	GPS Unit Make	Model	Mode of Operation
NAD 83	18	364239	5027344	Magellan	Sportrak	☐ Undifferentiated ☑ Averaged ☐ Differentiated, specify

Overburden and Bedrock Materials *(see instructions on the back of this form)*

General Colour	Most Common Material	Other Materials	General Description	Depth *(Metres)* From	To
Clear	Stone			0	1.8
Brown	Sand fill			1.8	3.9
Grey	Sand fill	boulders		3.9	5.1
Grey	Bedrock			5.1	

Temporary installation only

Annular Space/Abandonment Sealing Record

Depth Set at *(Metres)* From	To	Type of Sealant Used *(Material and Type)*	Volume Placed *(Cubic Metres)*
0	0.5	Bentonite	10 Kgs

Method of Construction

☐ Cable Tool ☐ Diamond ☐ Rotary (Conventional) ☐ Jetting ☐ Rotary (Reverse) ☐ Driving ☐ Rotary (Air) ☐ Digging ☐ Air percussion ☐ Boring ☑ Other, specify HSA

Water Use

☐ Public ☐ Commercial ☐ Not used ☐ Domestic ☐ Municipal ☐ Dewatering ☐ Livestock ☐ Test Hole ☑ Monitoring ☐ Irrigation ☐ Cooling & Air Conditioning ☐ Industrial ☐ Other, specify

Status of Well

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

Location of Well

Please provide a map below showing:
- all property boundaries, and measurements sufficient to locate the well in relation to fixed points,
- an arrow indicating the North direction
- detailed drawings can be provided as attachments no larger than legal size (8.5" by 14")
- vidigital pictures of inside of well can also be provided

Please see attached site plan.

Date Well Completed *(yyyy/mm/dd)*	Was the well owner's information package delivered?	Date the Well Record and Package Delivered to Well Owner *(yyyy/mm/dd)*
2008/08/19	☐ Yes ☑ No	2008/09/10

Results of Well Yield Testing

Check box if after test of well yield, water was:
☐ Clear and sand free
☐ Cannot develop to sand-free state

If pumping discontinued, give reason:

Pumping test method

Pump intake set at *(Metres)*

Pumping rate *(Litres/min)*

Duration of pumping ___ hrs + ___ min

Final water level end of pumping *(Metres)*

Recommended pump type ☐ Shallow ☐ Deep

Recommended pump depth ___ Metres

Recommended pump rate *(Litres/min)*

If flowing give rate *(Litres/min)*

Draw Down Time *(Min)*	Water Level *(Metres)*	Recovery Time *(Min)*	Water Level *(Metres)*
Static Level		Static Level	
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
50		50	
60		60	

Water Details

Water found at Depth	Kind of Water
___ Metres ☐ Gas	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals
___ Metres ☐ Gas	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals
___ Metres ☐ Gas	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals

Casing Used	Screen Used
☐ Galvanized	☐ Galvanized
☐ Steel	☐ Steel
☐ Fibreglass	☐ Fibreglass
☑ Plastic	☑ Plastic
☐ Concrete	☐ Concrete

No Casing and Screen Used
☐ Open Hole

Disinfected? ☐ Yes ☑ No

Casing and Well Details

Diameter of the Hole *(Centimetres)*	30
Depth of the Hole *(Metres)*	5.1
Wall Thickness *(Metres)*	Sched 40
Inside Diameter of the Casing *(Metres)*	10
Depth of the Casing *(Metres)*	0.55

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
George Downing Estate Drilling	1844

Business Address (Street No./Name, number, RR)	Municipality
410 Rue Principale	Grenville Sur La Rouge

Province	Postal Code	Business E-mail Address
QC	J0V1B0	downing@explornet.com

Bus. Telephone No. *(inc. area code)*	Name of Well Technician (Last Name, First Name)
8192424469	Downing, Bruce

Well Technician's Licence No.	Signature of Technician	Date Submitted *(yyyy/mm/dd)*
2173	[signature]	2008/09/10

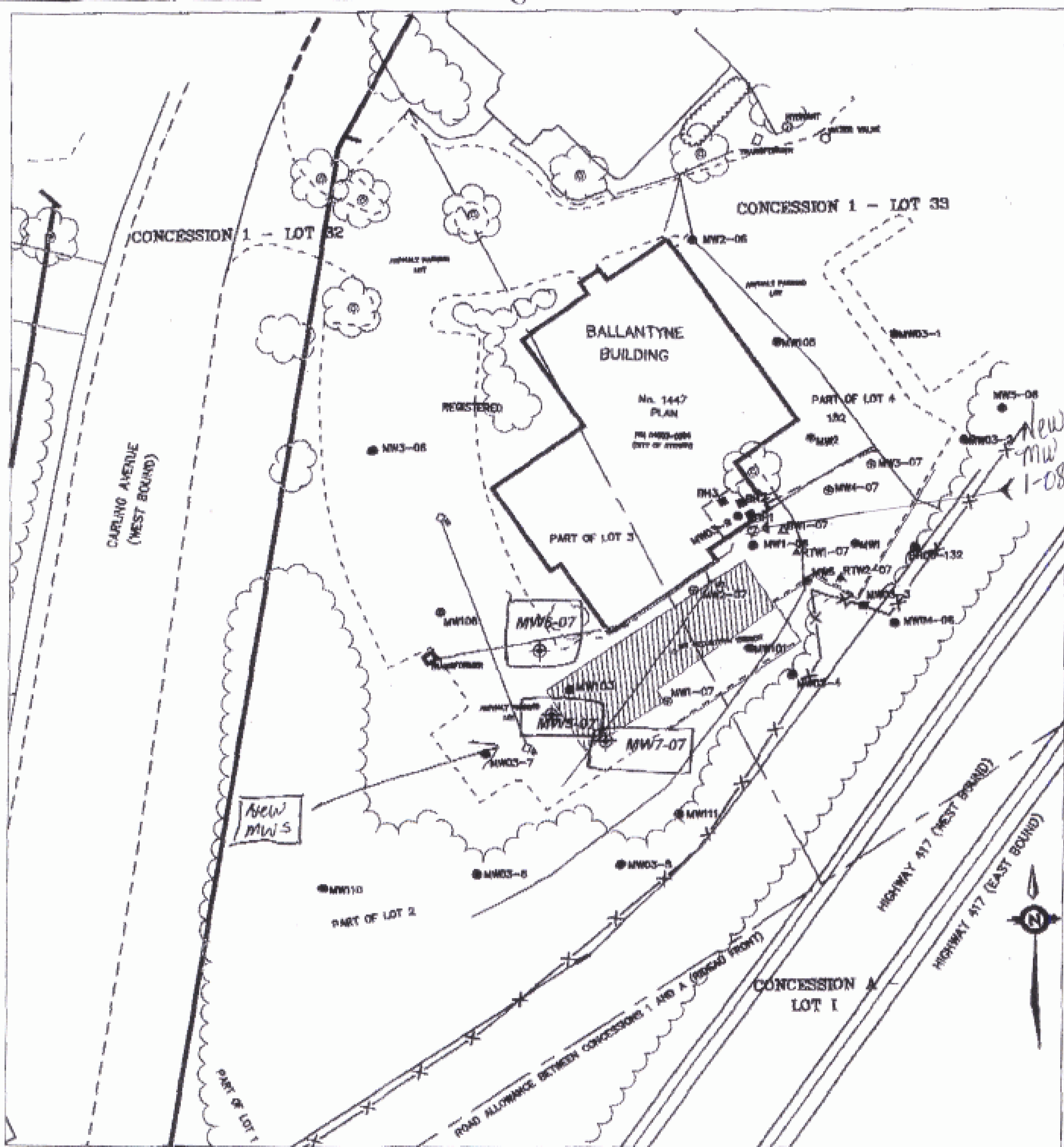
Ministry Use Only

Audit No.	Well Contractor No.
Z63843	

Date Received *(yyyy/mm/dd)*	Date of Inspection *(yyyy/mm/dd)*
SEP 15 2008	

Remarks

Carling AVE



PLAN REFERENCE: CITY OF OTTAWA
CORPORATE SERVICES DEPARTMENT
SURVEYS AND MAPPING

ELECTRIC
HYDRO ELECTRIC
TELEPHONE
STORM SEWER
SANITARY SEWER

10 0 10 20
(METRES)

LEGEND:
- BOREHOLE INSTALLED BY WESA, 2006
- MONITORING WELL INSTALLED BY WESA, 2006
- MONITORING WELL INSTALLED BY JWEL, 2003
- MONITORING WELL INSTALLED BY AEL, 1994
- MONITORING WELL INSTALLED BY GAL, 2006
- MONITORING WELL INSTALLED BY WESA
- FENCELINE
- TREELINE
- PAVED AREA OVER FORMER CAPTURE TRENCH
- PROPOSED MONITORING WELL LOCATION – OCT. 07

FIGURE: 1

SITE PLAN

1447 CARLING AVENUE
OTTAWA, ONTARIO

PROJECT NUMBER: B5448	DRAWN BY: C.M.R.	REVIEWED BY: D.R.
DATE: 19 SEPT. 2007	CHECKED:	
SCALE: AS SHOWN	AUTOCAD NUMBER: B5448-SP-07	

WESA
A Better Environment For Business

C-1844
263843 A058348

SEP 15 2008

Ontario Ministry of the Environment

Well Tag No. for Master Well *(Place Sticker and/or Print Below)*
N/A

Master Well Cluster Well Construction

Regulation 903 Ontario Water Resources Act

Master Well Owner's and Land Owner's Information

First Name	Last Name	E-mail Address
CITY of OTTAWA		

Mailing Address (Street Number/Name, RR)	Municipality	Province	Postal Code	Telephone No. (inc. area code)
110 Laurier Ave West 5TH floor	OTTAWA	ON	K1P1J1	

Location and Construction of the Master Well in the Cluster

Address of Well Location (Street Number/Name, RR)	Township	Lot	Concession
1447 Carling AVE	CITY of OTTAWA	1	A

County/District/Municipality	City/Town/Village	Province	Postal Code
OTTAWA - Carleton	OTTAWA	Ontario	

UTM Coordinates	Zone	Easting	Northing	GPS Unit Make	Model	Mode of Operation
NAD 83	18	441968	5025820	Garmin	MAP 76	☐ Undifferentiated ☒ Averaged ☐ Differentiated, specify

Overburden and Bedrock Materials *(see instructions on the back of this form)*

General Colour	Most Common Material	Other Materials	General Description	Depth (Metres) From	To

Hole Details

Depth (Metres) From	To	Diameter (Centimetres)

Water Use

☐ Public ☐ Domestic ☐ Livestock ☐ Irrigation ☐ Industrial ☐ Commercial ☐ Municipal ☐ Test Hole ☐ Not used ☐ Dewatering ☐ Monitoring ☐ Cooling & Air Conditioning ☐ Other, *specify*

Method of Construction

☐ Cable Tool ☐ Rotary (Conventional) ☐ Rotary (Reverse) ☐ Rotary (Air) ☐ Air Percussion ☐ Diamond ☐ Jetting ☐ Driving ☐ Digging ☐ Boring ☐ Other, *specify*

Status of Well

☐ Test Hole ☐ Replacement Well ☐ Dewatering Well ☐ Alteration (Construction) ☐ Abandoned, Insufficient Supply ☐ Abandoned, Poor Water Quality ☐ Other, *specify* ☐ Abandoned, other, *specify*

Construction Details

Inside Diameter (Centimetres)	Material (steel, plastic, fibreglass, concrete, galvanized)	Wall Thickness	Depth (Metres) From	To

No Casing and Screen Used

Open Hole ☐ Yes ☐ No

Static Water Level Test

Metres

Screen

☐ Galvanized ☐ Steel ☐ Fibreglass ☐ Concrete ☐ Plastic

Outside Diameter *(Centimetres)* | Slot No.

Water Details

Water found at Depth	Kind of Water
3.0 Metres ☐ Gas	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals N/A
Metres ☐ Gas	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals
Metres ☐ Gas	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals

Disinfected ☐ Yes ☐ No If no, provide reason:

Date Master Well Completed (yyyy/mm/dd): 2008

Annular Space/Abandonment Sealing Record

Depth Set at (Metres) From	To	Type of Sealant Used (Material and Type)	Volume Used (Cubic Metres)
0	0.30	Gravel	
0.30	5.13	Bentonite Slurry	

Cluster Information *(Please also fill out the additional Cluster Well Information for Well Construction for each parcel of land and cluster.)*

Total Wells in Cluster: Seven

Total Wells on this Property: N/A

Please indicate Number of Cluster Well Information Log Sheets Submitted: one

Location of Well Cluster

Detailed Map must be provided as an attachment no larger than legal size (8.5" x 14"). Sketches are not allowed.

☒ Check box to confirm detailed map is provided as per Section 11.1 (3)

Consent to release additional information concerning the cluster to

[redacted]

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
G.E.T. Drilling LTD	7085

Business Address (Street No./Name, number, RR)	Municipality
278 Drive-in RD	Napanee

Province	Postal Code	Business E-mail Address
ON	K7R3L1	getdrilling@mscando.ca

Bus.Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)
6133544767	Harrison, Jim

Well Technician's Licence No.	Signature of Technician	Date Submitted (yyyy/mm/dd)
2251		2010 06 30

Ministry Use Only

Audit No.	Well Contractor No.
M 06259	

Date Received (yyyy/mm/dd)	Date of Inspection (yyyy/mm/dd)
AUG 25 2010	

Remarks

Ministry's Copy

Ontario Ministry of the Environment

Well Tag No. for Master Well *(Print Well Tag No.)*
N/A

Cluster Well Information for Cluster Well Construction

Regulation 903 Ontario Water Resources Act

[redacted]

Property Owner's Information

First Name	Last Name	Mailing Address (Street No./Name, RR)	Municipality
City of	Ottawa	110 Laurier Ave West 5TH floor	OTTAWA

Province	Postal Code	E-mail Address	Telephone No. (inc. area code)
ON	K1P 1J1	—	

Cluster Well Information

Address of Well Location (Street Number/Name, RR)	Lot	Concession	Township	County/District/Municipality
1447 Carling Ave	1	A	City of OTTAWA	Ottawa Carleton

City/Town/Village	Province	Postal Code	GPS Unit Make	Model	Unit Mode of Operation
Ottawa	Ontario		Garmin	MAP 76	☐ Undifferentiated ☑ Averaged ☐ Differentiated, specify:

Signature of Technician/Contractor	Date *(yyyy/mm/dd)*
	2010 06 30

Well # on Sketch	UTM Coordinates Zone	Easting	Northing	Full Depth of Hole (metres)	Hole Diameter (cm)	Method of Construction	Casing Material	Casing Length (metres)	Screen Interval (metres) From	To	Annular Space Sealant Used	Static Water Level (metres)	Abandonment Sealant Used	Comments	Date of Completion (yyyy/mm/dd)
#2	18	441992	5025822	8.54	—	—	PVC	5.48	5.48	8.54	—	2.94	Bentonite Slurry	All PVC Remove from Hole	2010 05 2
#3	18	441993	5025820	5.18	—	—	PVC	2.13	2.13	5.18	—	2.92	〃	〃 〃	2010 05 27
#4	18	441998	5025818	4.57	—	—	〃	1.52	1.52	4.57	—	3.12	〃	〃 〃	〃 〃
#5	18	442002	5025818	4.57	—	—	〃	1.52	1.52	4.57	—	3.0	〃	〃 〃	〃 〃
#6	18	442003	5025834	6.10	—	—	〃	3.04	3.04	6.10	—	2.98	〃	〃 〃	〃 〃
#7	18	441988	5025874	4.27	—	—	〃	1.21	1.21	4.27	-	3.16	〃	〃 〃	〃 〃

Well Contractor and Well Technician Information

Business Name of Well Contractor	Business Address (Street Number/Name, RR)	Municipality	Province
G.E.T. Drilling LTD	228 Drive-in RD	Napanee	On

Postal Code	Business Telephone No. *(inc. area code)*	Well Contractor's Licence No.	Business E-mail Address
K7R 3L1	613 354 4767	7085	getdrilling@mycanada.ca

Name of Well Technician (First Name, Last Name)	Well Technician's Licence No.	Date Submitted *(yyyy/mm/dd)*	Signature of Technician
Tim Harman	2251	2010 06 30	

Date 1st Well in Cluster Constructed *(yyyy/mm/dd)*	Date Last Well in Cluster Constructed *(yyyy/mm/dd)*
N/A	N/A

Ministry Use Only

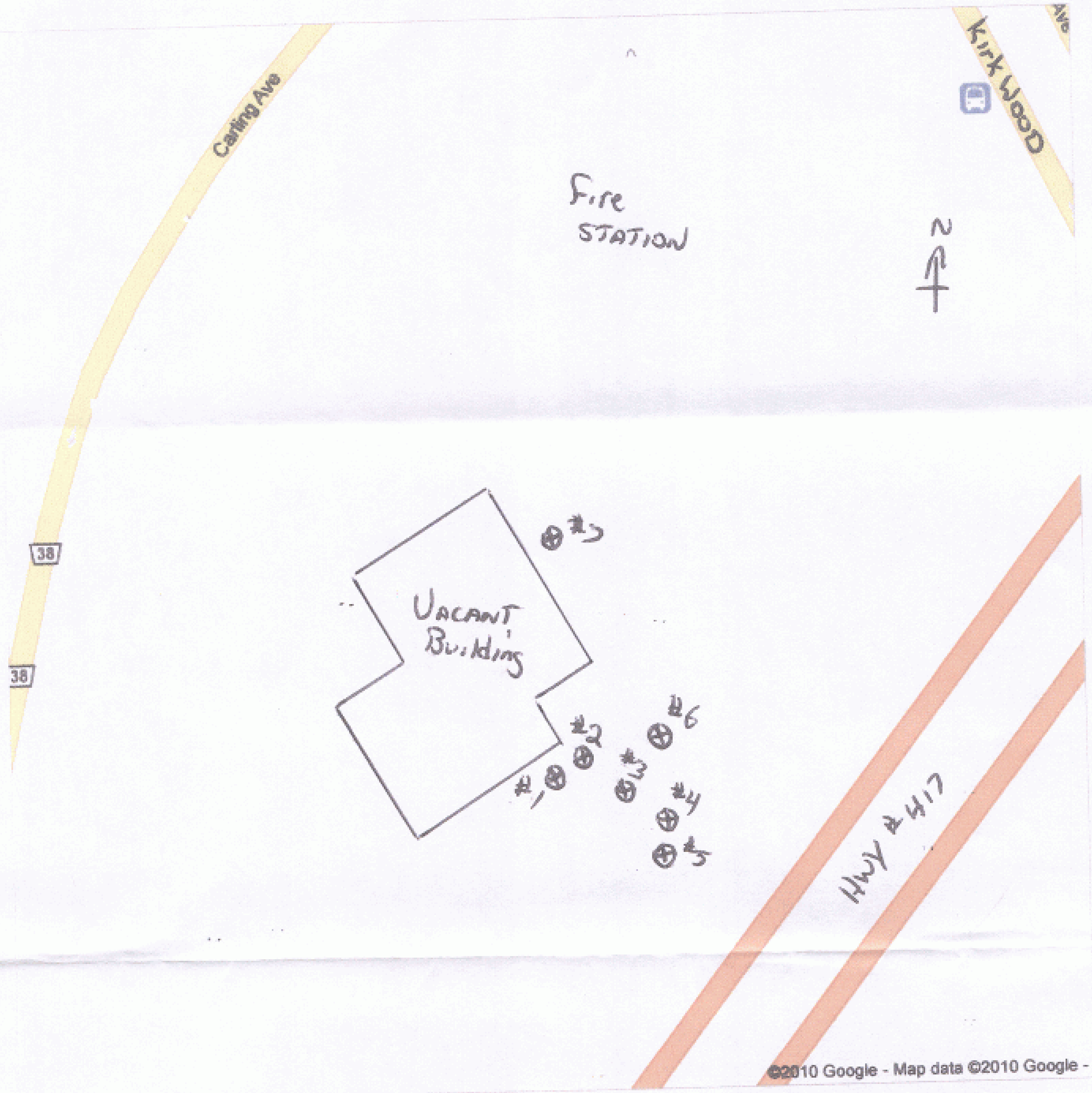
Date Received *(yyyy/mm/dd)*	Date Inspected *(yyyy/mm/dd)*
AUG 25 2010	

Audit No.	Remarks
C07456	M06259

1991 (11/2006)

Ministry's Copy

Google maps Address 1447 Carling Ave
Ottawa, ON K1Z 7M1



C7085
M06259
C07456

AUG 25 2010

Ontario Ministry of the Environment

Well Tag No (Place Sticker and/or Print Below): A 058348

A058348

Master Well Record for Cluster Well Construction

Regulation 903 Ontario Water Resources Act

Master Well Owner's and Land Owner's Information

First Name	Last Name	
City of Ottawa		[redacted]

Mailing Address (Street Number/Name, RR)	Municipality	Province	Postal Code	Telephone No. (inc. area code)
110 Laurier Ave. 5th Floor	Ottawa	ON	K1P1J1	6135802424

Location and Construction of the Master Well in the Cluster

Address of Well Location (Street Number/Name, RR)	Township	Lot	Concession
1447 Carling Avenue		1	A

County/District/Municipality	City/Town/Village	Province	Postal Code
	Ottawa	Ontario	

UTM Coordinates	Zone	Easting	Northing	GPS Unit Make	Model	Mode of Operation
NAD 83	18	441968	5025811	Magellan	Sportrac	☐ Undifferentiated ☑ Averaged ☐ Differentiated, specify

Overburden and Bedrock Materials *(see instructions on the back of this form)*

General Colour	Most Common Material	Other Materials	General Description	Depth (Metres) From	To
Black	Asphalt overlying				
Brown	Sand	Gravel		0	1.22
Brown	Sandy Silt fill			1.22	3.66

Hole Details

MW 6-07

Depth (Metres) From	To	Diameter (Centimetres)
0	5.1	20

Water Use

☐ Public ☐ Domestic ☐ Livestock ☐ Irrigation ☐ Industrial ☐ Commercial ☐ Municipal ☐ Test Hole ☐ Not used ☐ Dewatering ☑ Monitoring ☐ Cooling & Air Conditioning ☐ Other, specify

Method of Construction

☐ Cable Tool ☐ Rotary (Conventional) ☐ Rotary (Reverse) ☐ Rotary (Air) ☐ Air Percussion ☐ Diamond ☐ Jetting ☐ Driving ☐ Digging ☐ Boring ☑ Other, specify: Auger

Status of Well

☑ Test Hole ☐ Replacement Well ☐ Dewatering Well ☐ Alteration (Construction) ☐ Abandoned, Insufficient Supply ☐ Abandoned, Poor Water Quality ☐ Other, specify ☐ Abandoned, other, specify

Construction Details

Inside Diameter (Centimetres)	Material (steel, plastic, fibreglass, concrete, galvanized)	Wall Thickness	Depth (Metres) From	To
51mm	Plastic	Sched 40	0	2.06

No Casing and Screen Used

Open Hole ☐ Yes ☑ No

Static Water Level Test

3.0 Metres

Screen

☐ Galvanized ☐ Steel ☐ Fibreglass ☐ Concrete ☑ Plastic

Outside Diameter (Centimetres)	Slot No.
58	10

Water Details

Water found at Depth	Kind of Water
Metres ☐ Gas	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals
Metres ☐ Gas	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals
Metres ☐ Gas	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals

Annular Space/Abandonment Sealing Record

Depth Set at (Metres) From	To	Type of Sealant Used (Material and Type)	Volume Used (Cubic Metres)
0.83	1.67	Bentonite	40 Kgs.

Disinfected ☐ Yes ☑ No If no, provide reason: Monitoring

Date Master Well Completed (yyyy/mm/dd): 2007/10/02

Cluster Information *(Please also fill out the additional Cluster Well Information for Well Construction for each parcel of land and cluster.)*

Total Wells in Cluster	Please indicate Number of Cluster Well Information Log Sheets Submitted
3	1
Total Wells on this Property: unknown	

Location of Well Cluster

Detailed Map must be provided as an attachment no larger than legal size (8.5" x 14"). Sketches are not allowed.

☑ Check box to confirm detailed map is provided as per Section 11.1 (3)

Consent to release additional information concerning the cluster to the Director upon request

Signature of Technician/Contractor	Date (yyyy/mm/dd)
[signature]	2007/10/31

Master Well Owner's/Land Owner's consent to use Cluster Form

[redacted]

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
George Downing Drilling Ltd	1844

Business Address (Street No/Name, number, RR)	Municipality
410 Rue Principale Grenville Sur la Rouge	

Province	Postal Code	Business E-mail Address
Qc	J0V1B0	downingdrilling@bellnet.ca

Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)
8192426469	Downing, Bruce

Well Technician's Licence No.	Signature of Technician	Date Submitted (yyyy/mm/dd)
2173	[signature]	2007/10/31

Ministry Use Only

Audit No.	Well Contractor No.
M 00549	
Date Received (yyyy/mm/dd): NOV 22 2007	Date of Inspection (yyyy/mm/dd)
Remarks: C 00595	

1992 (11/2006)

Ministry's Copy

Ontario Ministry of the Environment

Well Tag No. (Print Well Tag No.) A 058348
A058348

Cluster Well Information for Cluster Well Construction

Regulation 903 Ontario Water Resources Act

Property Owner's Information

First Name: City of Ottawa | Last Name: | Mailing Address (Street No./Name, RR): 110 Laurier Ave. 5th Floor | Municipality: Ottawa

Province: ON | Postal Code: K1P1J1 | [redacted] | Telephone No. (inc. area code): 613580 24 24

Consent

Property Owner's Consent to use cluster form

[redacted]

Consent to release additional information to the Director upon request

Signature of Technician/Contractor: [signature] | Date (yyyy/mm/dd): 2007/10/31

Cluster Well Information

Address of Well Location (Street Number/Name, RR): 1447 Carling Ave. | Lot: | Concession: | Township: | County/District/Municipality:

City/Town/Village: Ottawa | Province: Ontario | Postal Code: | GPS Unit Make: Magellan | Model: Spatrac | Unit Mode of Operation: ☐ Undifferentiated ☑ Averaged ☐ Differentiated, specify:

Well # on Sketch	Zone	Easting	Northing	Full Depth of Hole (metres)	Hole Diameter (cm)	Method of Construction	Casing Material	Casing Length (metres)	Screen Interval (metres) From	To	Annular Space Sealant Used	Static Water Level (metres)	Abandonment Sealant Used	Comments	Date of Completion (yyyy/mm/dd)
MW 5-07	18	441985	5025805	4.11	20	HSA	PVC	1.11	1.11	4.11	Bentonite				2007/10/02
MW 7-07	18	441972	5025801	5.1	20	"	"	2.06	2.06	5.1	"	3			2007/10/02

Well Contractor and Well Technician Information

Business Name of Well Contractor: George Downing Estate Drilling Ltd. | Business Address (Street Number/Name, RR): 410 Rue Principale | Municipality: Grenville Sur-la-Rouge | Province: Quebec

Postal Code: J0V 1B0 | Business Telephone No. (inc. area code): 8192422469 | Well Contractor's Licence No.: 1844 | Business E-mail Address: downing@xplornet.com

Name of Well Technician (First Name, Last Name): Bruce Downing | Well Technician's Licence No.: 21173 | Date Submitted (yyyy/mm/dd): 2007/10/31 | Signature of Technician: [signature]

Date 1st Well in Cluster Constructed (yyyy/mm/dd): 2007/10/02 | Date Last Well in Cluster Constructed (yyyy/mm/dd): 2007/10/02

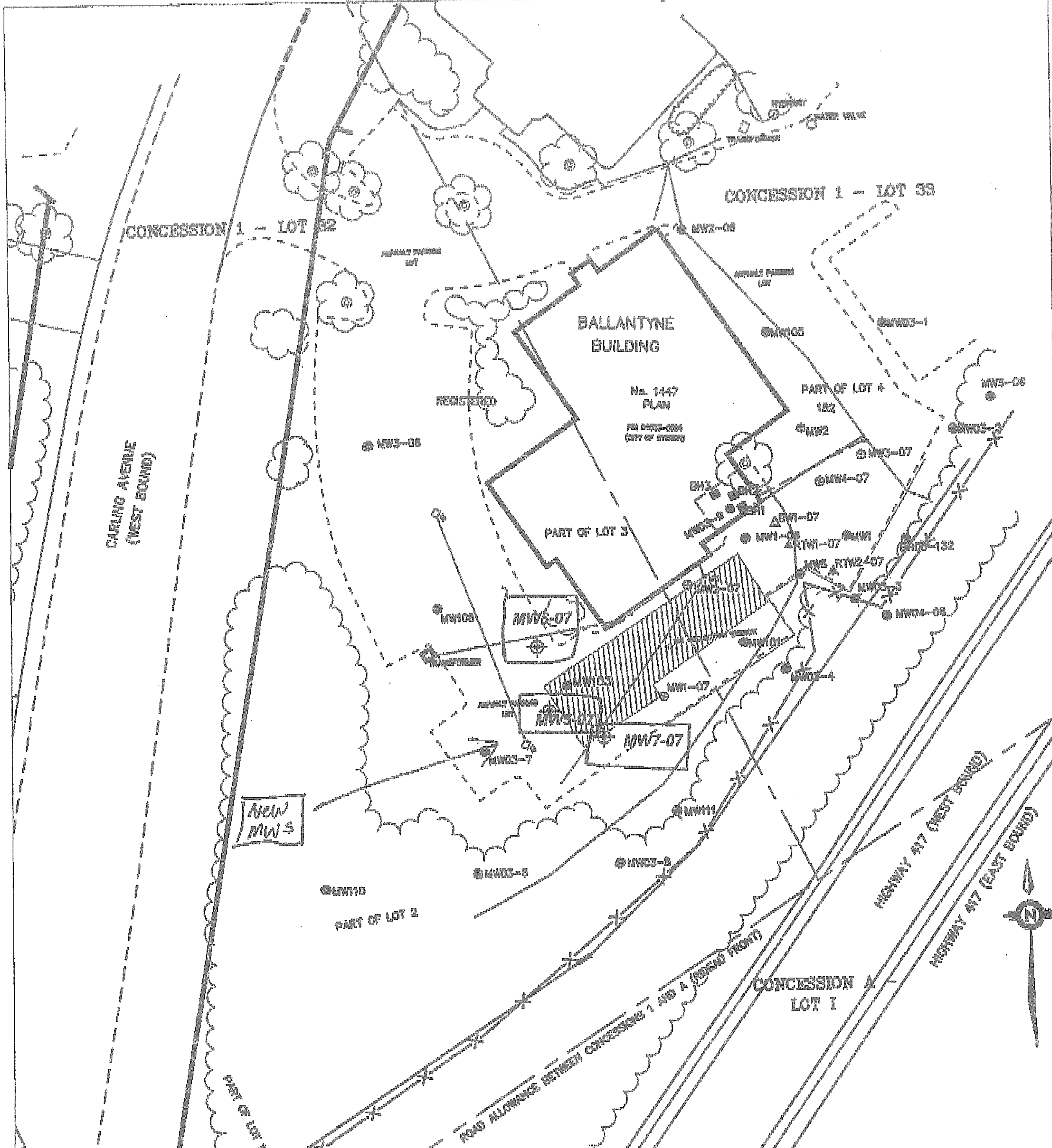
Ministry Use Only

Date Received (yyyy/mm/dd): NOV 22 2007 | Date Inspected (yyyy/mm/dd):

Audit No. C 00595 | Remarks: M00549

1991 (11/2006)

Ministry's Copy



PLAN REFERENCE: CITY OF OTTAWA
CORPORATE SERVICES DEPARTMENT
SURVEYS AND MAPPING

ELECTRIC
HYDRO ELECTRIC
TELEPHONE
STORM SEWER
SANITARY SEWER

10 0 10 20
(METRES)

LEGEND:

- BOREHOLE INSTALLED BY WESA, 2006
- MONITORING WELL INSTALLED BY WESA, 2006
- MONITORING WELL INSTALLED BY JWEL, 2003
- MONITORING WELL INSTALLED BY AEI, 1994
- MONITORING WELL INSTALLED BY GAL, 2006
- MONITORING WELL INSTALLED BY WESA
- FENCELINE
- TREELINE
- PAVED AREA OVER FORMER CAPTURE TRENCH
- PROPOSED MONITORING WELL LOCATION - OCT. 07

FIGURE: 1

SITE PLAN

1447 CARLING AVENUE
OTTAWA, ONTARIO

PROJECT NUMBER: B5448	DRAWN BY: C.M.R.	DESIGNED BY: D.R.
DATE: 19 SEPT. 2007	CHECKED	
SCALE: AS SHOWN	AUTOCAD NUMBER: B5448-SP-07	

WESA
A Better Environment For Business

M00549
C00595

C-1844

NOV 2 2 2007

Ontario Ministry of the Environment

Well A 038560 number below)

A 038560

Well Record

Regulation 903 Ontario Water Resources Act

Instructions for Completing Form

- For use in the **Province of Ontario** only. This document is a permanent **legal** document. Please retain for future reference.
- All Sections **must** be completed in full to avoid delays in processing. Further instructions and explanations are available on the back of this form.
- Questions regarding completing this application can be directed to the Water Well Help Desk (Toll Free) at 1-888-396-9355.
- **All metre measurements shall be reported to 1/10th of a metre.**
- Please print clearly in blue or black ink only.

Ministry Use Only

MUN | CON | LOT

[redacted]

Address of Well Location (County/District/Municipality) | Township | Lot | Concession

RR#/Street Number/Name: 1447 Carling Avenue
City/Town/Village: Ottawa
Site/Compartment/Block/Tract etc.:

GPS Reading: NAD 83 | Zone 18 | Easting 441982 | Northing 5025810
Unit Make/Model: Magellan Garmin
Mode of Operation: ☐ Undifferentiated ☐ Averaged ☐ Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth (Metres) From	To
Brown	Sand fill · asphalt surface overlying		crushed rock + sand fill	0	3
Grey	Sand fill	trace Clay	moist to wet	3	4.6
Grey	Gravel			4.6	5.3
	Limestone			5.3	6.7
	7 Monitoring well installations Typical		as a cluster as per ONT	MOE	Reg 903

Hole Diameter

Depth (Metres) From	To	Diameter Centimetres
0	4.57	20
4.57	6.7	10

Water Record

Water found at ___ Metres / Kind of Water

☐ m ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

☐ m ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

☐ m ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

After test of well yield, water was
☐ Clear and sediment free
☐ Other, specify

Chlorinated ☐ Yes ☑ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth (Metres) From	To
Casing				
51 mm	☐ Steel ☐ Fibreglass ☑ Plastic ☐ Concrete ☐ Galvanized	40	0	5.8
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam 58 mm	☐ Steel ☐ Fibreglass ☑ Plastic ☐ Concrete ☐ Galvanized	Slot No. 10	6	6.7
No Casing or Screen				
	☐ Open hole			

Test of Well Yield

Pumping test method	Draw Down Time min	Water Level Metres	Recovery Time min	Water Level Metres
Pump intake set at - (metres)	Static Level			
Pumping rate - (litres/min)	1		1	
Duration of pumping ___hrs + ___ min	2		2	
Final water level end of pumping ___ metres	3		3	
Recommended pump type. ☐ Shallow ☐ Deep	4		4	
Recommended pump depth. ___ metres	5		5	
Recommended pump rate. (litres/min)	10		10	
	15		15	
If flowing give rate - (litres/min)	20		20	
	25		25	
If pumping discontinued, give reason.	30		30	
	40		40	
	50		50	
	60		60	

Plugging and Sealing Record

☑ Annular space ☐ Abandonment

Depth set at - Metres From	To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
5.3	5.5	Bentonite	20 kg

Location of Well

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

Please see attached site plan.

Method of Construction

☐ Cable Tool ☐ Rotary (conventional) ☐ Rotary (reverse) ☐ Rotary (air) ☐ Air percussion ☐ Boring ☑ Diamond ☐ Jetting ☐ Driving ☐ Digging ☑ Other auger

Water Use

☐ Domestic ☐ Stock ☐ Irrigation ☐ Industrial ☐ Commercial ☐ Municipal ☐ Public Supply ☐ Not used ☐ Cooling & air conditioning ☑ Other Sample

Final Status of Well

☐ Water Supply ☑ Observation well ☐ Test Hole ☐ Recharge well ☐ Abandoned, insufficient supply ☐ Abandoned, poor quality ☐ Unfinished ☐ Dewatering ☐ Replacement well ☐ Abandoned, (Other)

Audit No. Z 58343

Date Well Completed (YYYY MM DD): 2007 04 10

Was the well owner's information package delivered? ☐ Yes ☑ No

Date Delivered (YYYY MM DD):

Well Contractor/Technician Information

Name of Well Contractor: George Downing Estate Drilling
Well Contractor's Licence No.: 1844
Business Address (street name, number, city etc.): 180 Main Street Grenville Sur La Rouge Qc J0V1B0
Name of Well Technician (last name, first name): Downing, Bruce
Well Technician's Licence No.: T2173
Signature of Technician/Contractor: X [signature]
Date Submitted (YYYY MM DD): 2007 05 10

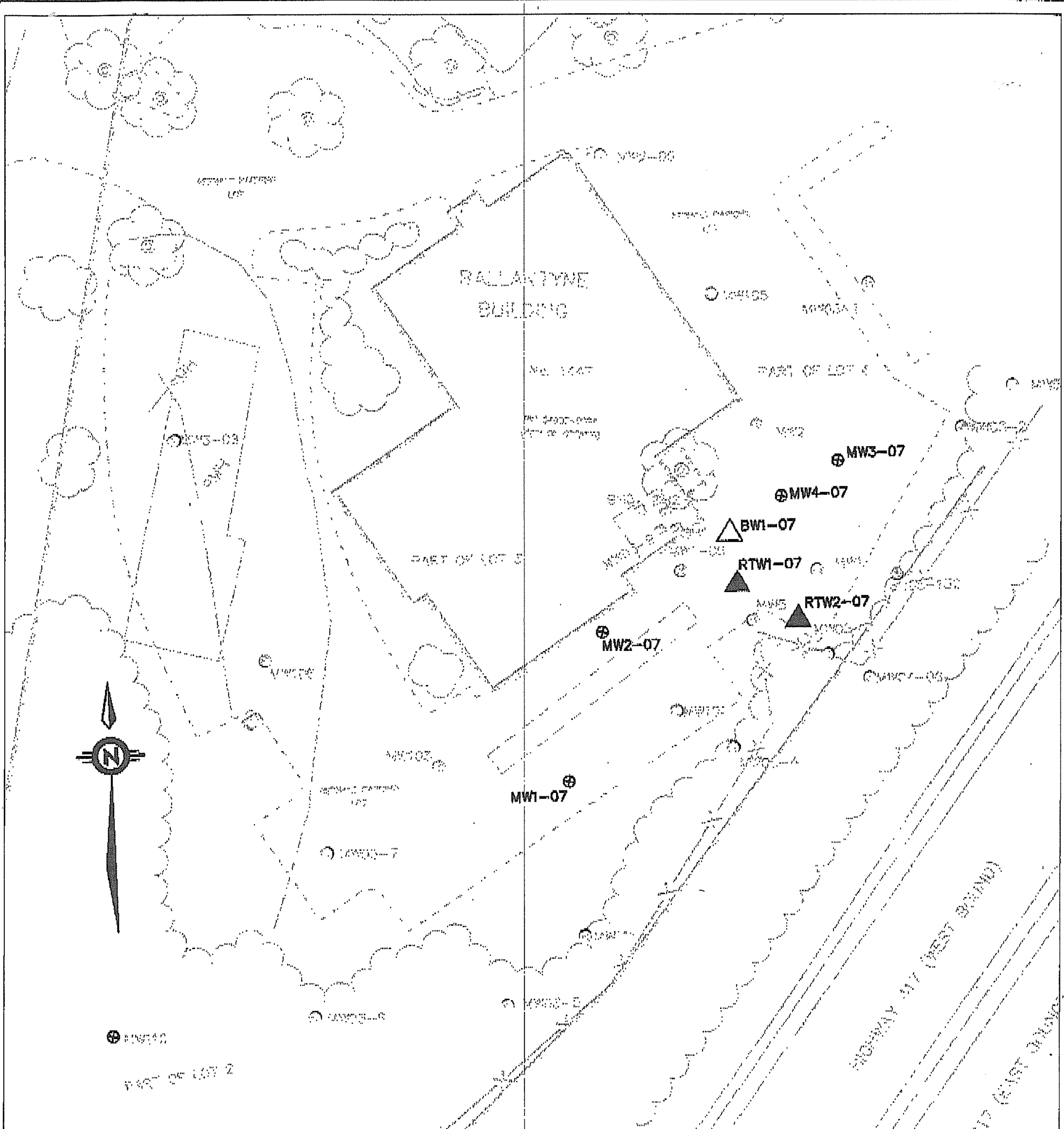
Ministry Use Only

Data Source | Contractor 1844
Date Received (YYYY MM DD) | Date of Inspection (YYYY MM DD)
Remarks | Well Record Number

0506E (08/2006)

Ministry's Copy

Cette formule est disponible en français



LEGEND:

- △ BEDROCK WELL LOCATION
- ▲ 4" RECOVERY TEST WELL LOCATION
- ⊗ MONITORING WELL LOCATION

Z58343

1844

JUN 04 2007

5 0 5 10
(METRES)

FIGURE: 1

PROPOSED DRILLING PROGRAM

1447 CARLING AVENUE
OTTAWA, ONTARIO

PROJECT NUMBER: B5448	DRAWN BY: C.M.R.	DESIGNED BY: D.R.
DATE: 13 MARCH 2007	CHECKED: R.H.	
SCALE: AS SHOWN	AUTOCAD NUMBER: B5448-WELLS-APR07	

WESA
A Better Environment For Business

Ontario Ministry of the Environment

Well Tag No. (Place Sticker and/or Print Below)
A 058348
A058348

Master Well Record for Cluster Well Construction

Regulation 903 Ontario Water Resources Act

Page 1 of 2

Master Well Owner's and Land Owner's Information

First Name	Last Name				
City of Ottawa	[redacted]				
Mailing Address (Street Number/Name, RR)	Municipality	Province	Postal Code	Telephone No. (inc. area code)	
110 Laurier Ave. 5th Floor	Ottawa	ON	K1P1J1	6135802424	

Location and Construction of the Master Well in the Cluster

Address of Well Location (Street Number/Name, RR)	Township	Lot	Concession
1447 Carling Avenue		1	A
County/District/Municipality	City/Town/Village	Province	Postal Code
	Ottawa	Ontario	

UTM Coordinates	Zone	Easting	Northing	GPS Unit Make	Model	Mode of Operation
NAD 83	18	441968	5025811	Magellan	Sportrac	☐ Undifferentiated ☑ Averaged ☐ Differentiated, specify

Overburden and Bedrock Materials (see instructions on the back of this form)

General Colour	Most Common Material	Other Materials	General Description	Depth (Metres) From	To
Black	Asphalt overlying				
Brown	Sand	Gravel		0	1.22
Brown	Sandy Silt fill			1.22	3.66

Hole Details

MW 6-07

Depth (Metres) From	To	Diameter (Centimetres)
0	5.1	20

Water Use

☐ Public ☐ Industrial ☐ Not used ☐ Other, specify
☐ Domestic ☐ Commercial ☐ Dewatering
☐ Livestock ☐ Municipal ☑ Monitoring
☐ Irrigation ☐ Test Hole ☐ Cooling & Air Conditioning

Method of Construction

☐ Cable Tool ☐ Air Percussion ☐ Digging
☐ Rotary (Conventional) ☐ Diamond ☐ Boring
☐ Rotary (Reverse) ☐ Jetting ☑ Other, specify
☐ Rotary (Air) ☐ Driving — Auger

Status of Well

☑ Test Hole ☐ Abandoned, Insufficient Supply
☐ Replacement Well ☐ Abandoned, Poor Water Quality
☐ Dewatering Well ☐ Other, specify
☐ Alteration (Construction) ☐ Abandoned, other, specify

Construction Details

Inside Diameter (Centimetres)	Material (steel, plastic, fibreglass, concrete, galvanized)	Wall Thickness	Depth (Metres) From	To
51mm	Plastic	Sched 40	0	2.06

No Casing and Screen Used

Open Hole ☐ Yes ☑ No

Static Water Level Test

3.0 Metres

Screen

☐ Galvanized ☐ Steel ☐ Fibreglass ☐ Concrete ☑ Plastic

Outside Diameter (Centimetres)	Slot No.
58	10

Water Details

Water found at Depth	Kind of Water
Metres ☐ Gas	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals
Metres ☐ Gas	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals
Metres ☐ Gas	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals

Annular Space/Abandonment Sealing Record

Depth Set at (Metres) From	To	Type of Sealant Used (Material and Type)	Volume Used (Cubic Metres)
0.83	1.67	Bentonite	40 Kgs.

Disinfected ☐ Yes ☑ No If no, provide reason: Monitoring

Date Master Well Completed (yyyy/mm/dd): 2007/10/02

Cluster Information (Please also fill out the additional Cluster Well Information for Well Construction for each parcel of land and cluster.)

Total Wells in Cluster	Please indicate Number of Cluster Well Information Log Sheets Submitted
3	1
Total Wells on this Property: unknown	

Location of Well Cluster

Detailed Map must be provided as an attachment no larger than legal size (8.5" x 14"). Sketches are not allowed.

☑ Check box to confirm detailed map is provided as per Section 11.1 (3)

Consent to release additional information concerning the cluster to the Director upon request

Signature of Technician/Contractor: [signature] Date (yyyy/mm/dd): 2007/10/31

Master Well Owner's/Land Owner's consent to use Cluster Form

[redacted]

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
George Downing Drilling Ltd	1844

Business Address (Street No./Name, number, RR)	Municipality
410 Rue Principale Grenville Sur la Rouge	

Province	Postal Code	Business E-mail Address
Qc	J0V1B0	downingdrilling@bellnet.ca

Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)
8192426469	Downing, Bruce

Well Technician's Licence No.	Signature of Technician	Date Submitted (yyyy/mm/dd)
2173	[signature]	2007/10/31

Ministry Use Only

Audit No.	Well Contractor No.
M 00549	
Date Received (yyyy/mm/dd): NOV 22 2007	Date of Inspection (yyyy/mm/dd)
Remarks: C 00595	

1992 (11/2006)

Ministry's Copy

Ontario Ministry of the Environment

Well Tag No. of Master Well (Print Well Tag No.)
A 058348
A058348

Cluster Well Information for Cluster Well Construction

Regulation 903 Ontario Water Resources Act

Property Owner's Information

First Name	Last Name	Mailing Address (Street No./Name, RR)	Municipality
City of Ottawa		110 Laurier Ave. 5th Floor	Ottawa

Province	Postal Code		Telephone No. (inc. area code)
ON	K1P 1J1	[redacted]	613 580 2424

Consent

Property Owner's Consent to use cluster form

[redacted]

Consent to release additional information to the Director upon request

Signature of Technician/Contractor	Date (yyyy/mm/dd)
Bruce Downing	2007/10/31

Cluster Well Information

Address of Well Location (Street Number/Name, RR)	Lot	Concession	Township	County/District/Municipality
1447 Carling Ave.				

City/Town/Village	Province	Postal Code	GPS Unit Make	Model	Unit Mode of Operation
Ottawa	Ontario		Magellan	Spatrac	☐ Undifferentiated ☑ Averaged ☐ Differentiated, specify:

Well # on Sketch	UTM Coordinates Zone	Easting	Northing	Full Depth of Hole (metres)	Hole Diameter (cm)	Method of Construction	Casing Material	Casing Length (metres)	Screen Interval (metres) From	To	Annular Space Sealant Used	Static Water Level (metres)	Abandonment Sealant Used	Comments	Date of Completion (yyyy/mm/dd)
MW 5-07	18	441985	5025805	4.11	20	HSA	PVC	1.11	1.11	4.11	Bentonite				2007/10/02
MW 7-07	18	441972	5025801	5.1	20	"	"	2.06	2.06	5.1	"	3			2007/10/02

Well Contractor and Well Technician Information

Business Name of Well Contractor	Business Address (Street Number/Name, RR)	Municipality	Province
George Downing Estate Drilling Ltd.	410 Rue Principale	Grenville Sur-la-Rouge	Quebec

Postal Code	Business Telephone No. (inc. area code)	Well Contractor's Licence No.	Business E-mail Address
J0V 1B0	819 242 4619	1844	downing@xplornet.com

Name of Well Technician (First Name, Last Name)	Well Technician's Licence No.	Date Submitted (yyyy/mm/dd)	Signature of Technician
Bruce Downing	21173	2007/10/31	Bruce Downing

Date 1st Well in Cluster Constructed (yyyy/mm/dd)	Date Last Well in Cluster Constructed (yyyy/mm/dd)
2007/10/02	2007/10/02

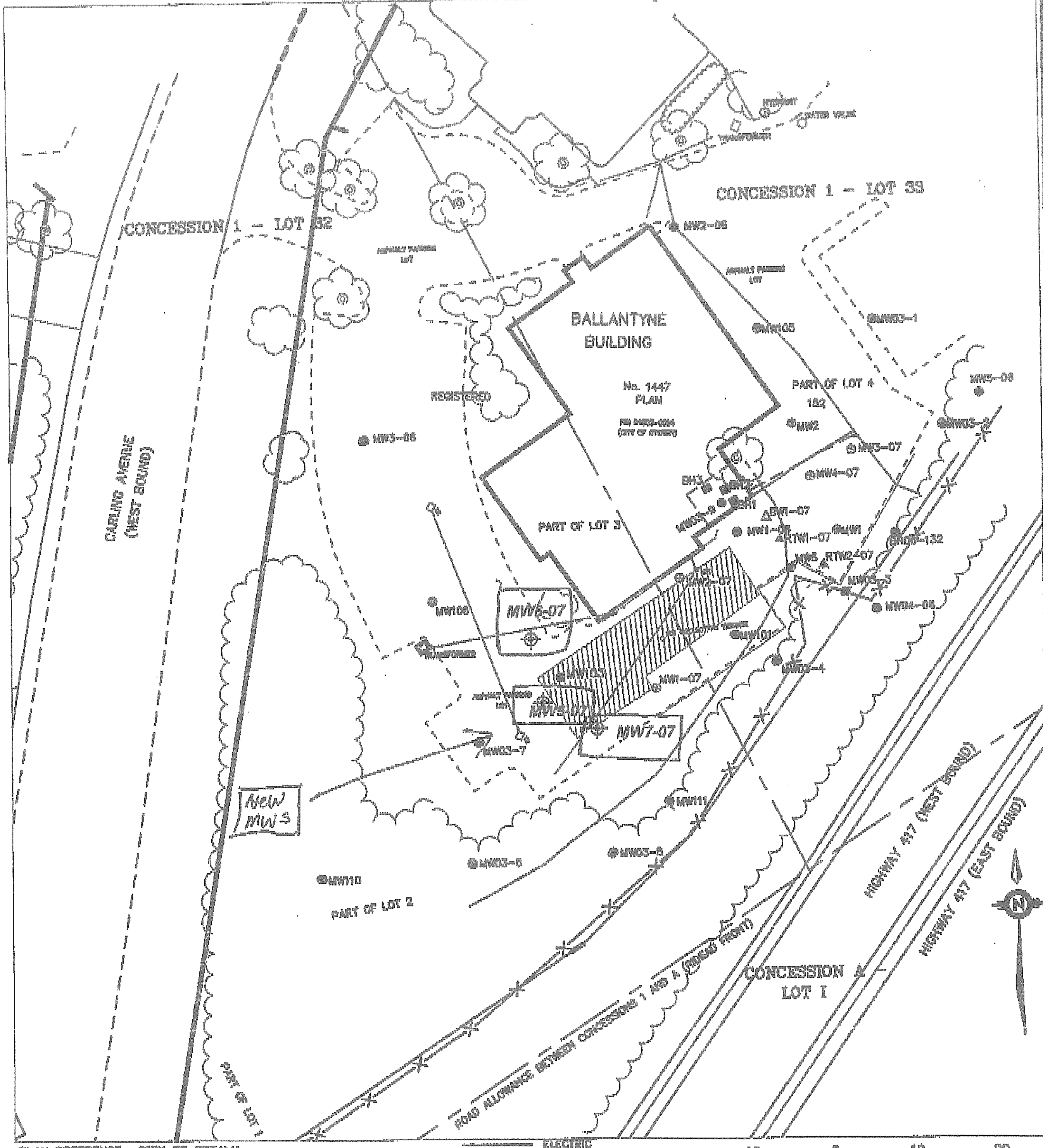
Ministry Use Only

Date Received (yyyy/mm/dd)	Date Inspected (yyyy/mm/dd)
NOV 2 2 2007	

Audit No.	Remarks
C 00595	M00549

1991 (11/2006)

Ministry's Copy



PLAN REFERENCE: CITY OF OTTAWA
CORPORATE SERVICES DEPARTMENT
SURVEYS AND MAPPING

ELECTRIC
HYDRO ELECTRIC
TELEPHONE
STORM SEWER
SANITARY SEWER

10 0 10 20
(METRES)

LEGEND:

- BOREHOLE INSTALLED BY WESA, 2006
- MONITORING WELL INSTALLED BY WESA, 2006
- MONITORING WELL INSTALLED BY JWEL, 2003
- MONITORING WELL INSTALLED BY AEI, 1994
- MONITORING WELL INSTALLED BY GAL, 2006
- MONITORING WELL INSTALLED BY WESA
- FENCELINE
- TREELINE
- PAVED AREA OVER FORMER CAPTURE TRENCH
- PROPOSED MONITORING WELL LOCATION – OCT. 07

FIGURE: 1

SITE PLAN

1447 CARLING AVENUE
OTTAWA, ONTARIO

PROJECT NUMBER: B5448	DRAWN BY: C.M.R.	DESIGNED BY: D.R.
DATE: 19 SEPT. 2007	CHECKED:	
SCALE: AS SHOWN	AUTOCAD NUMBER: B5448-SP-07	

WESA
A Better Environment For Business

M00549
C00595

C-1844

NOV 2 2 2007

Ontario Ministry of the Environment

Well Tag Number (Place sticker and print number below) A032134

A 032134 MW1-06

Well Record

Regulation 903 Ontario Water Resources Act

Instructions for Completing Form

- For use in the **Province of Ontario** only. This document is a permanent **legal** document. Please retain for future reference.
- All Sections **must** be completed in full to avoid delays in processing. Further instructions and explanations are available on the back of this form.
- Questions regarding completing this application can be directed to the Water Well Management Coordinator at 416-235-6203.
- **All metre measurements shall be reported to 1/10th of a metre.**
- Please print clearly in blue or black ink only.

Ministry Use Only: MUN | CON | LOT

Well Owner's Information and Location of Well Information

[redacted]

1447 Carling Ave

RR#/Street Number/Name | City/Town/Village: Ottawa | Site/Compartment/Block/Tract etc.

GPS Reading NAD 83 Zone Easting 1844197 Northing 5025792 | Unit Make/Model: Magellan | Mode of Operation: ☐ Undifferentiated ☑ Averaged ☐ Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth Metres From	To
MW1-06	grey, light brn sand overlying grey till			0	4.8
MW2-06	brown to grey dense till			0	4.3
MW3-06	brown to grey dense till			0	4.8
monitoring wells.					
MW4-06	till	portable diamond drilling, monitoring wells		0	5.2
MW5-06	till	3.1 cm pvc screen and riser		0	3.5

Hole Diameter

Depth Metres From	To	Diameter Centimetres
0	4.8	20

Water Record

Water found at ___ Metres / Kind of Water: ☐ m ☑ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

☐ m ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

☐ m ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

After test of well yield, water was ☐ Clear and sediment free ☐ Other, specify silty

Chlorinated ☐ Yes ☑ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth Metres From	To
Casing				
5.0cm	☐ Steel ☐ Fibreglass ☑ Plastic ☐ Concrete ☐ Galvanized	.4	0	1.8
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam	☐ Steel ☐ Fibreglass ☑ Plastic ☐ Concrete ☐ Galvanized	Slot No. 10	1.8	4.8
No Casing or Screen				
	☐ Open hole			

Test of Well Yield

Pumping test method	Draw Down Time min	Water Level Metres	Recovery Time min	Water Level Metres
Pump intake set at - (metres)	Static Level			
Pumping rate - (litres/min)	1		1	
Duration of pumping ___hrs + ___ min	2		2	
Final water level end of pumping ___ metres	3		3	
Recommended pump type. ☐ Shallow ☐ Deep	4		4	
Recommended pump depth. ___ metres	5		5	
Recommended pump rate. (litres/min)	10		10	
	15		15	
If flowing give rate - (litres/min)	20		20	
	25		25	
If pumping discontinued, give reason.	30		30	
	40		40	
	50		50	
	60		60	

Plugging and Sealing Record ☑ Annular space ☐ Abandonment

Depth set at - Metres From	To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
1.0	1.5	bent. gravel	

Method of Construction

☐ Cable Tool ☐ Rotary (conventional) ☐ Rotary (reverse) ☐ Rotary (air) ☐ Air percussion ☑ Boring ☑ Diamond ☐ Jetting ☐ Driving ☐ Digging ☐ Other

Water Use

☐ Domestic ☐ Stock ☐ Irrigation ☐ Industrial ☐ Commercial ☐ Municipal ☐ Public Supply ☑ Not used ☐ Cooling & air conditioning ☑ Other monitoring

Final Status of Well

☐ Water Supply ☐ Observation well ☑ Test Hole ☐ Recharge well ☐ Abandoned, insufficient supply ☐ Abandoned, poor quality ☐ Unfinished ☐ Dewatering ☐ Replacement well ☐ Abandoned, (Other)

Well Contractor/Technician Information

Name of Well Contractor: O.G.S Inc. | Well Contractor's Licence No.

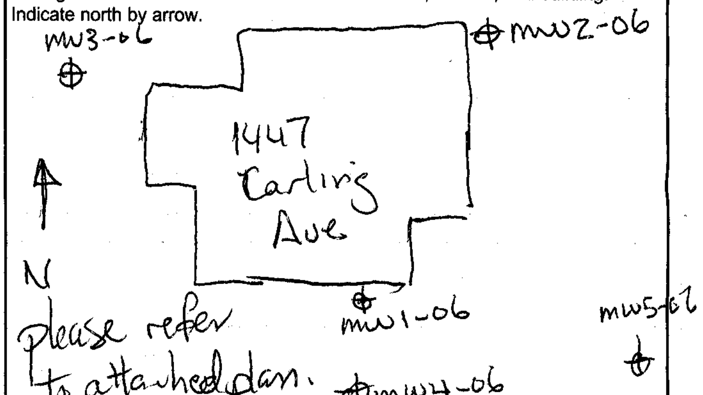
Business Address (street name, number, city etc.): 5518 Appleton Sd. Rd. Carleton Place, ON

Name of Well Technician (last name, first name): Echlin, Chad | Well Technician's Licence No. T-3299

Signature of Technician/Contractor X | Date Submitted 2006 12 06

Location of Well

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



Audit No. Z 34822 | Date Well Completed YYYY MM DD

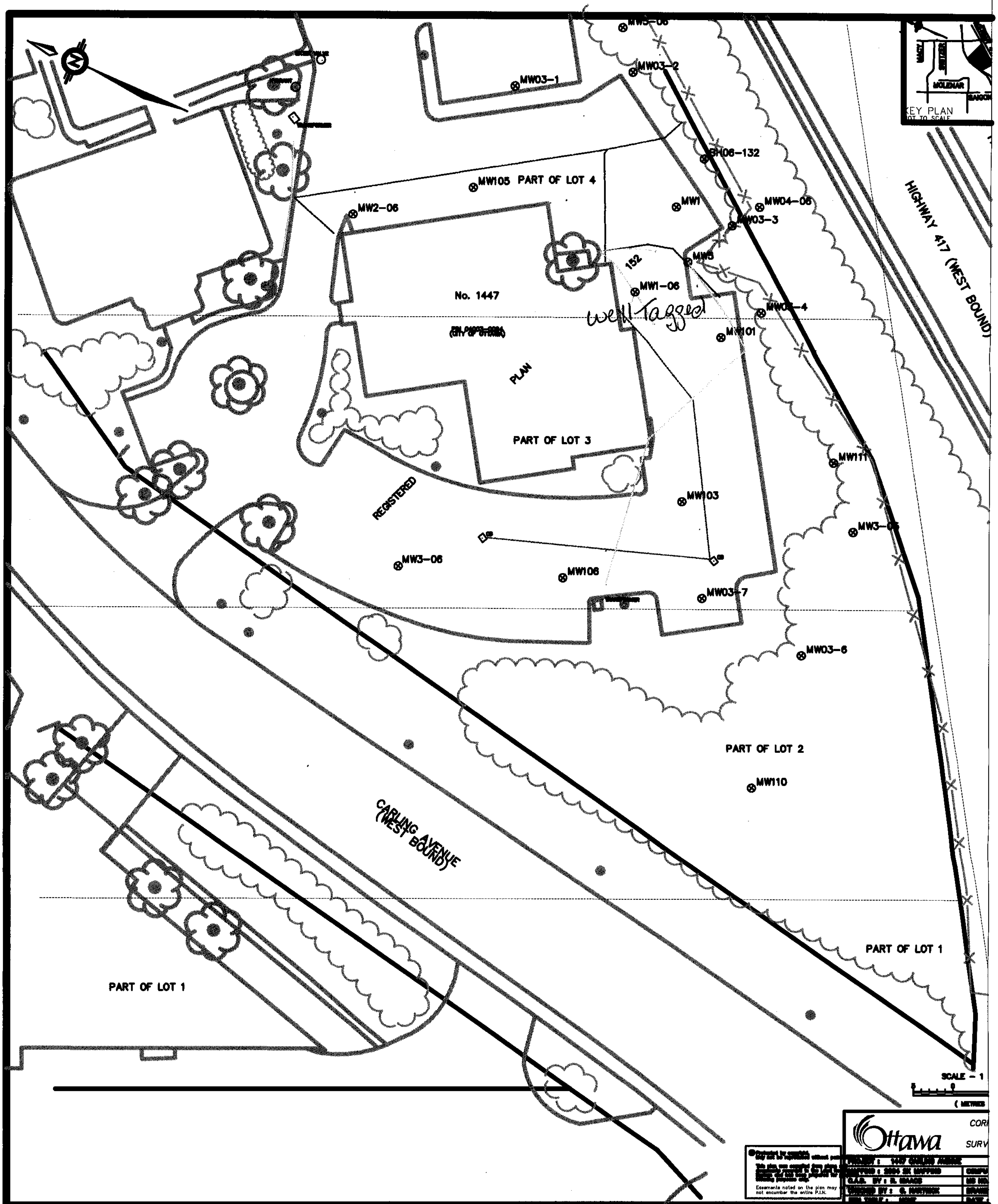
Was the well owner's information package delivered? ☐ Yes ☐ No | Date Delivered YYYY MM DD

Ministry Use Only

Data Source | Contractor 6964

Date Received DEC 13 2006 | Date of Inspection YYYY MM DD

Remarks | Well Record Number



DEC 13 2006

6064

Z34822

Ontario Ministry of the Environment

Well Tag Number (Place sticker and print number below)

Well Record
Regulation 903 Ontario Water Resources Act

Instructions for Completing Form

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- **All metre measurements shall be reported to 1/10th of a metre.**
- Please print clearly in blue or black ink only.

Ministry Use Only

[redacted]

Address of Well Location (County/District/Municipality)	Township	Lot	Concession
1447 Carling Avenue			

RR#/Street Number/Name	City/Town/Village	Site/Compartment/Block/Tract etc.
	Ottawa	

GPS Reading	NAD	Zone	Easting	Northing	Unit Make/Model	Mode of Operation:
	83	18	441971	5025792	Magellan	☐ Undifferentiated ☑ Averaged ☐ Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth Metres From	Depth Metres To
Abandoned wells					
MW102 removed 7½' (2.29m) of riser and screen (50mm), added bentonite seal to surface					
MW109 removed 10' (3m) of 50mm riser and screen, added bentonite seal, gravel, asphalt					
MW107 removed 15' (4.5m) of 50mm riser and screen, added bentonite to surface.					
MW4 removed 14½' (4.4m) of 50mm riser and screen, added bentonite seal, gravel and asphalt.					

Hole Diameter

Depth Metres From	To	Diameter Centimetres

Water Record

Water found at ___ Metres	Kind of Water
☐ m	☐ Gas ☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals ☐ Other:
☐ m	☐ Gas ☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals ☐ Other:
☐ m	☐ Gas ☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals ☐ Other:

After test of well yield, water was
☐ Clear and sediment free
☐ Other, specify

Chlorinated ☐ Yes ☐ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth Metres From	To
Casing				
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen				
	☐ Open hole			

Test of Well Yield

Pumping test method	Draw Down Time min	Draw Down Water Level Metres	Recovery Time min	Recovery Water Level Metres
Pump intake set at - (metres)	Static Level			
Pumping rate - (litres/min)	1		1	
Duration of pumping ___hrs + ___ min	2		2	
Final water level end of pumping ___ metres	3		3	
Recommended pump type. ☐ Shallow ☐ Deep	4		4	
Recommended pump depth. ___ metres	5		5	
Recommended pump rate. (litres/min)	10		10	
	15		15	
If flowing give rate - (litres/min)	20		20	
	25		25	
If pumping discontinued, give reason.	30		30	
	40		40	
	50		50	
	60		60	

Plugging and Sealing Record

☐ Annular space ☐ Abandonment

Depth set at - Metres From	To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)

Method of Construction

☐ Cable Tool ☐ Rotary (conventional) ☐ Rotary (reverse) ☐ Rotary (air) ☐ Air percussion ☐ Boring ☐ Diamond ☐ Jetting ☐ Driving ☐ Digging ☐ Other

Water Use

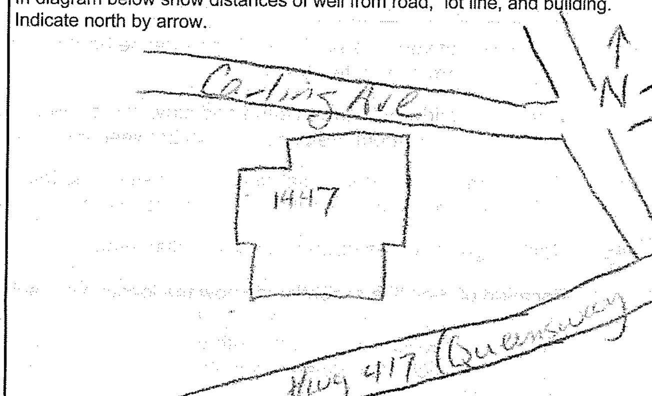
☐ Domestic ☐ Stock ☐ Irrigation ☐ Industrial ☐ Commercial ☐ Municipal ☐ Public Supply ☐ Not used ☐ Cooling & air conditioning ☐ Other

Final Status of Well

☐ Water Supply ☐ Observation well ☐ Test Hole ☐ Recharge well ☐ Abandoned, insufficient supply ☐ Abandoned, poor quality ☐ Unfinished ☐ Dewatering ☐ Replacement well ☑ Abandoned, (Other)

Location of Well

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



Audit No.	Date Well Completed (YYYY MM DD)
Z 04563	2006 10 24

Was the well owner's information package delivered?	Date Delivered (YYYY MM DD)
☑ Yes ☐ No	2007 02 09

Well Contractor/Technician Information

Name of Well Contractor	Well Contractor's Licence No.
OGS Inc	6964

Business Address (street name, number, city etc.)
5510 Appleton Side Road Almonte Ontario K0A 1A0

Name of Well Technician (last name, first name)	Well Technician's Licence No.
Ohlmann Wilf	T 2591

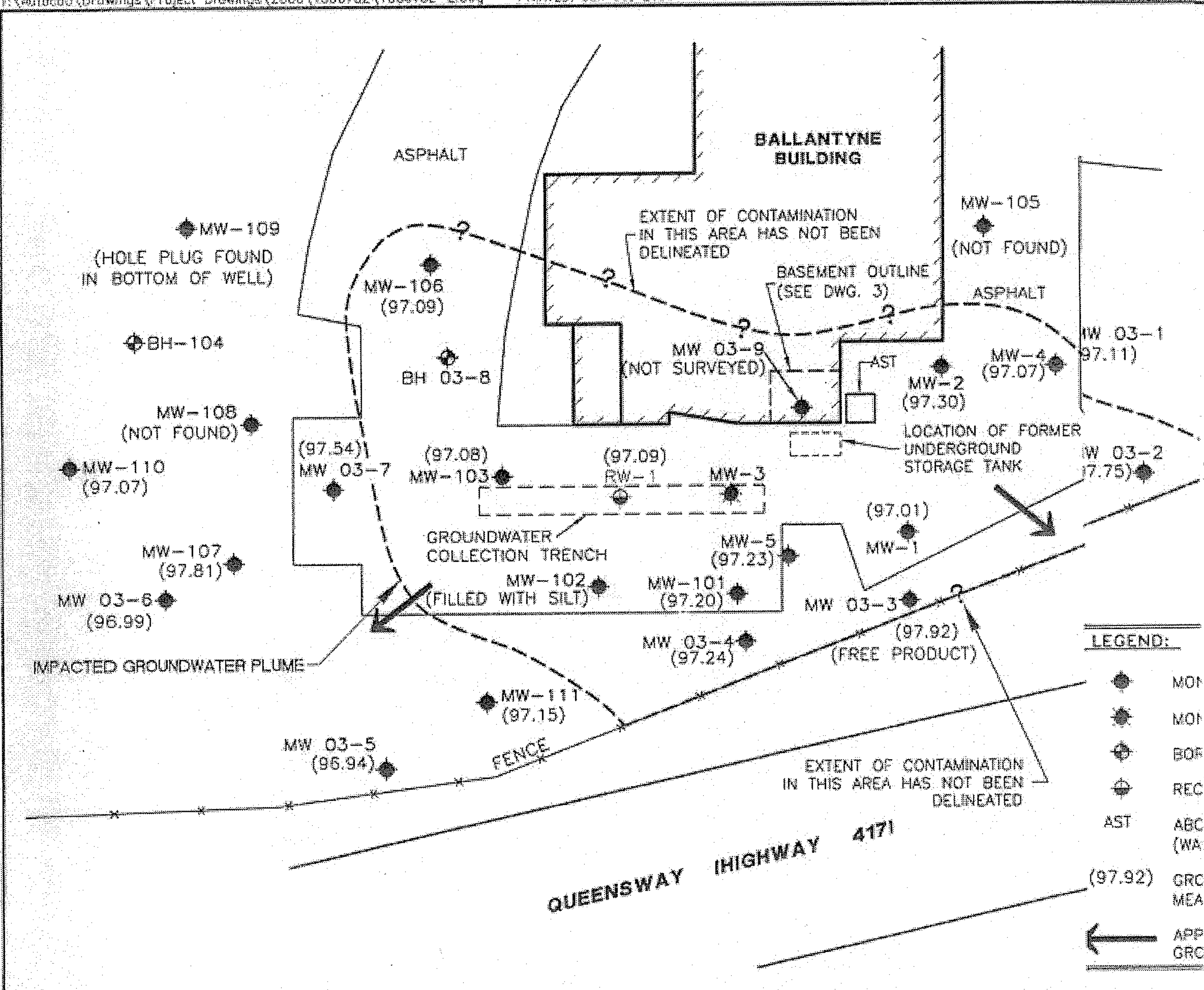
Signature of Technician/Contractor	Date Submitted (YYYY MM DD)
X [signature]	2007 02 09

Ministry Use Only

Data Source	Contractor
	6964
Date Received (YYYY MM DD) FEB 21 2007	Date of Inspection (YYYY MM DD)
Remarks	Well Record Number

 Contractor's Copy ☐ Ministry's Copy ☑ Well Owner's Copy ☐ *Cette formule est disponible en français*

T:\Autocad\Drawings\Project Drawings\2006\1006782\1006782-2.dwg PRINTED: Jan 06, 2006



CITY OF OTTAWA

WELL MONITORING, SAMPLING AND ASSESSMENT
BALLANTYNE BUILDING, 1447 CARLING AVENUE
SITE PLAN

OTTAWA, ONTARIO

Scale:	Job No.:	Dwg. No.:
1 : 500	10067	2
Date:	Dwn. by:	Appd.:
06/01/06	GBE	

FEB 2 1 2007

Z 04563

6964

Well ID

Well ID Number: 7229260
Well Audit Number: *C20661*
Well Tag Number: *A146409*

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: 441956.00 Northing: 5025796.00
Municipal Plan and Sublot Number	
Other	

Overburden and Bedrock Materials Interval

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

Annular Space/Abandonment Sealing Record

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

Method of Construction & Well Use

Method of Construction	Well Use

Status of Well

Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 7085

Results of Well Yield Testing

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

Draw Down & Recovery

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

Water Details

Water Found at Depth	Kind

Hole Diameter

Depth From	Depth To	Diameter

Audit Number: C20661

Date Well Completed: August 14, 2014

Date Well Record Received by MOE: October 10, 2014

Updated: February 8, 2016
RateRate
Sharefacebook twitter Print
Tags

- Environment and energy,
- Drinking water,

Well ID

Well ID Number: 1507987
Well Audit Number:
Well Tag Number:

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

Well Location

Address of Well Location	
Township	OTTAWA CITY
Lot	
Concession	
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18 Easting: 441960.70 Northing: 5025862.00
Municipal Plan and Sublot Number	
Other	

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
	CLAY			0 ft	4 ft
	LMSN			4 ft	96 ft

Annular Space/Abandonment Sealing Record

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

Method of Construction & Well Use

Method of Construction	Well Use
Cable Tool	Commercial

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
5 inch	STEEL		20 ft
5 inch	OPEN HOLE		96 ft

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 4833

Results of Well Yield Testing

After test of well yield, water was	CLEAR
If pumping discontinued, give reason	
Pump intake set at	
Pumping Rate	83 GPM
Duration of Pumping	0 h:30 m
Final water level	6 ft
If flowing give rate	
Recommended pump depth	
Recommended pump rate	
Well Production	PUMP
Disinfected?	

Draw Down & Recovery

Draw Down Time(min)	Draw Down Water level	Recovery Time(min)	Recovery Water level
SWL	6 ft		
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
20 ft	Fresh

Hole Diameter

Depth From	Depth To	Diameter

Audit Number:

Date Well Completed: January 03, 1952

Date Well Record Received by MOE: April 01, 1952

Updated: February 8, 2016
RateRate
Sharefacebook twitter Print
Tags

- Environment and energy,
- Drinking water,

Ontario Ministry of the Environment

Well Record for Well Cluster - Part 1 of

(Only for Multiple Test Holes or Dewatering Wells)

Regulation 903 Ontario Water Resources Act

All measurements recorded in: [X] Metric [ ] Imperial

Follow instructions on the front and back of this form. Print or Type

Well Tag No. of Deepest Well: *(Print Well Tag No.)* A058348 & A038560

Well # on Drawing of Deepest Well:

Well Cluster Location Information

Address of Well Location (Street Number(s)/Name(s), RR, if available)	Lot(s)	Concession(s)	Geographic Township	County/District/Upper Tier Municipality
1447 CARLING AVE.	Parts 2, 3, 4	Between A (Rideau Front) & 1	CITY OF OTTAWA	CITY OF OTTAWA

City, Town, Village or Hamlet	Province	GPS Unit Make	Model	Unit Mode of Operation
OTTAWA	Ontario	Garmin	MAP 76	[ ] Undifferentiated [X] Averaged [ ] Differentiated, specify:

Mandatory Attachments/Additional Information

[X] Land Owner Consent Form must be attached.

[X] Detailed Drawing of All Well Locations must be attached.

I, the person constructing the well, will promptly submit to the Director, on request, any additional information in my custody or control related to any well in the well cluster that I have constructed.

Signature of Technician/Contractor: [signature] Date (yyyy/mm/dd): 2012 03 27

Well Details

Well # on Drawing	UTM Zone	UTM Easting	UTM Northing	Hole Depth (m/ft)	Hole Diameter (cm/in)	Method of Construction	Casing Material; Diameter (cm/in)	Casing From (m/ft)	Casing To (m/ft)	Screen Interval From (m/ft)	Screen Interval To (m/ft)	Annular Space From (m/ft)	Annular Space To (m/ft)	Annular Space Material	Overburden/Bedrock or Abandonment Filing Material Intervals (m/ft)	Static Water Level (m/ft)	Date of Completion (yyyy/mm/dd)
1	18	441944	5025838	3.65	16.51	Boring	PVC 5.08	–	–	–	–	–	–	–	Pavement Patch/gravel 0 - 0.45m Bentonite chips 0.45m - 3.65m	Ø	2012 03 1
2	18	441951	5025818	4.57	16.52	Boring	PVC 5.08	–	–	–	–	–	–	–	Pavement Patch/gravel 0 - 0.45m	Ø	2012 03 12
3	18	441955	5025801	3.96	16.51	Boring	PVC 5.08	–	–	–	–	–	–	·	Bentonite chips 0.45 - 3.96	Ø	2012 03 12
4	18	441961	5025805	3.96	16.51	Boring	PVC 5.08	–	–	–	–	–	–	–	Pavement Patch/gravel 0 - 0.45m	3.42	2012 03 1
5	18	441964	5025812	4.87	16.51	Boring	PVC 5.08	–	–	–	–	–	–	–	Bentonite chips 0.45m - 4.87m	3.7m	2012 03 1
6	18	441935	5025785	4.57	16.51	Boring	PVC 5.08	–	–	–	–	–	–	–	Topsoil Fill 0 - 0.45m Bentonite chips 0.45m - 4.57m	4.24	2012 03 12
7	18	441953	5025786	4.57	16.51	Boring	PVC 5.08	–	–	–	–	–	–	–	Topsoil Fill 0 - ~~0~~ 0.45m Bentonite chips 0.45m - 4.57m	4.32	2012 03 1
8	18	441978	5025792	4.26	16.51	Boring	PVC 5.08	–	–	–	–	–	–	–	Topsoil Fill 0 - 0.45m Bentonite chips 0.45m - 4.26m	4.25	2012 03 1
9	18	441992	5025808	4.57	16.51	Boring	PVC 5.08	–	–	–	–	–	–	–	Topsoil Fill 0 - 0.45m Bentonite chips 0.45m - 4.57m	3.24	2012 03 1
10	18	442008	5025822	3.96	16.51	Boring	PVC 5.08	–	–	–	–	–	–	–	Topsoil Fill 0 - 0.45m Bentonite chips 0.45m - 4.57m	Ø	2012 03 1

Well Contractor and Well Technician Information

Business Name of Well Contractor	Business Address (Street Number/Name, RR)	Municipality	Province
G.E.T. Drilling LTD	278 Drive-in RD	Napanee	ON

Postal Code	Bus. Telephone No.	Well Contractor's Licence No.	Business E-mail Address
K7R 3L1	613 354 4767	7085	getdrilling@mycondo.ca

Name of Well Technician (First Name, Last Name)	Well Technician's Licence No.	Signature of Well Technician	Date Submitted (yyyy/mm/dd)
Tim Harrison	2251	[signature]	2012 03 27

Date First Well in Cluster Constructed or Abandoned (yyyy/mm/dd): 2012 03 12

Date Last Well in Cluster Completed (yyyy/mm/dd):

Well Abandonment

Person Abandoning the Wells:

Name ________________

(Print or Type) - See instruction 11 on the back of this form

Ministry Use Only

Date Received (yyyy/mm/dd): APR 24 2012

Audit No. C 16378

Comments:

MINISTRY'S COPY

Ontario Ministry of the Environment

Well Record for Well Cluster - Part 1 of

(Only for Multiple Test Holes or Dewatering Wells)

Regulation 903 Ontario Water Resources Act

All measurements recorded in: ☒ Metric ☐ Imperial

Follow instructions on the front and back of this form. Print or Type

Well Tag No. of Deepest Well: *(Print Well Tag No.)* A058348 + A038560

Well # on Drawing of Deepest Well: –

Well Cluster Location Information

Address of Well Location (Street Number(s)/Name(s), RR, if available)	Lot(s)	Concession(s)	Geographic Township	County/District/Upper Tier Municipality
1447 Carling Ave	Part lot 2,3,4,	1 + A (Rideau front)	CITY of OTTAWA	CITY OF OTTAWA

City, Town, Village or Hamlet	Province	GPS Unit Make	Model	Unit Mode of Operation
OTTAWA	Ontario	Garmin	MAP 76	☐ Undifferentiated ☒ Averaged ☐ Differentiated, specify:

Mandatory Attachments/Additional Information

☒ Land Owner Consent Form must be attached.

☒ Detailed Drawing of All Well Locations must be attached.

I, the person constructing the well, will promptly submit to the Director, on request, any additional information in my custody or control related to any well in the well cluster that I have constructed.

Signature of Technician/Contractor: [signature] Date (yyyy/mm/dd): 2012 03 27

Well Details

Well # on Drawing	UTM Zone	UTM Easting	UTM Northing	Hole Depth (m/ft)	Hole Diameter (cm/in)	Method of Construction	Casing Material; Diameter (cm/in)	Casing From (m/ft)	Casing To (m/ft)	Screen Interval From (m/ft)	Screen Interval To (m/ft)	Annular Space From (m/ft)	Annular Space To (m/ft)	Annular Space Material	Overburden/Bedrock or Abandonment Filing Material Intervals (m/ft)	Static Water Level (m/ft)	Date of Completion (yyyy/mm/dd)
11	18	442014	5025835	4.57m	16.51cm	Boring	PVC 5.08	–	–	–	–	–	–	–	Topsoil / Fill 0 - 0.45m Bentonite 0.45m : 4.57m	0.80	2012 03 1
12	18	442019	5025838	3.35m	16.51cm	Boring	PVC 5.08	–	–	–	–	–	–	–	Topsoil / Fill 0 - 0.45m Bentonite 0.45m - 3.35m	2.27	2012 03 1
13	18	364255	5027334	5.18m	5.08cm	–	PVC 3.81	–	–	–	–	–	–	–	Topsoil / Fill 0 - 0.45m Bentonite 0.45m - 5.18 m	3.13	2012 03 1
14	18	442007	5025848	6.09m	16.51cm	Boring	PVC 5.08	–	–	–	–	–	–	–	Pavement / gravel 0 - 0.45m Bentonite 0.45m - 6.09m	4.72	2012 03 1
15	18	441993	5025847	4.57m	16.51cm	Boring	PVC 5.08	–	–	–	–	–	–	–	Pavement / gravel 0 - 0.45m Bentonite 0.45m - 4.57m	Ø	2012 03 13
16	18	441970	5025800	5.02m	16.51cm	Boring	PVC 5.08	–	–	–	–	–	–	–	Topsoil / Fill 0 - 0.45m Bentonite 0.45m - 5.02m	3.72	2012 03 1
17	18	441977	5025806	4.57m	16.51cm	Boring	PVC 5.08	–	–	–	–	–	–	–	Topsoil / Fill 0 - 0.45m Bentonite 0.45m - 4.57m	3.77	2012 03 1
18	18	441987	5025811	5.18m	16.51cm	Boring	PVC 5.08	–	–	–	–	–	–	–	Topsoil / Fill 0 - 0.45m Bentonite 0.45m - 5.18 m	3.78	2012 03 1
19	18	441992	5025817	4.26m	16.51cm	Boring	PVC 5.08	–	–	–	–	–	–	–	Topsoil / Fill 0 - 0.45m Bentonite 0.45m - 4.26m	Ø	2012 03 1

Well Contractor and Well Technician Information

Business Name of Well Contractor	Business Address (Street Number/Name, RR)	Municipality	Province
G.E.T. Drilling LTD.	278 Drive-in RD	Napanee	ON

Postal Code	Bus. Telephone No.	Well Contractor's Licence No.	Business E-mail Address
K7R3L1	613 3544767	7085	getdrilling@mycondo.ca

Name of Well Technician (First Name, Last Name)	Well Technician's Licence No.	Signature of Well Technician	Date Submitted (yyyy/mm/dd)
Tim Harrison	2251	[signature]	2012 03 27

Date First Well in Cluster Constructed or Abandoned (yyyy/mm/dd)	Date Last Well in Cluster Completed (yyyy/mm/dd)
2012 03 12	

Well Abandonment

Person Abandoning the Wells:

Name ______ (Print or Type) - See instruction 11 on the back of this form

Ministry Use Only

Date Received (yyyy/mm/dd)	Audit No.
APR 2 3 2012	C 16379

Comments: C16378

MINISTRY'S COPY

Ontario Ministry of the Environment

Well Record for Well Cluster - Part 2 of 3
Land Owner Consent

This form is to be completed by the person who constructs or abandons test holes or dewatering wells that form all or part of a well cluster. If this form is being used to report any well abandonment, these wells must have been previously reported as part of of a single well cluster.

Note: For well cluster records, only the owners of the land on which the wells are situated are to give written consent. If the well purchaser (e.g. a consultant who hires the driller) is not the owner of the land, then the well purchaser cannot sign the consent form.

By signing this form, land owners are providing consent to use one well record to report a well cluster of test holes or dewatering wells in accordance with section 16.4 of Regulation 903 made under the *Ontario Water Resources Act.*

This completed **Well Record for Well Cluster Part 2 - Land Owner Consent** must be attached to Parts 1 and 3.

* Please PRINT if completing by hand.

Well Tag Number: # A058348 + A038560

"Well Record for Well Cluster" Audit Number: # C16378 + 16379

Well # on Detailed Drawing	Property Location Description	Land Owner's Name	Signature of Land Owner	Date Signed (yyyy/mm/dd)
# 1 - 19	1447 Carling Ave OTTawa ON K1Z 7M1	CITY OF OTTAWA 110 Laurier Ave W OTTAWA ON K1P 1J1	NOT available	—
	C-7085 C16378.			

APR 23 2012

Part 1 - Ministry's Copy

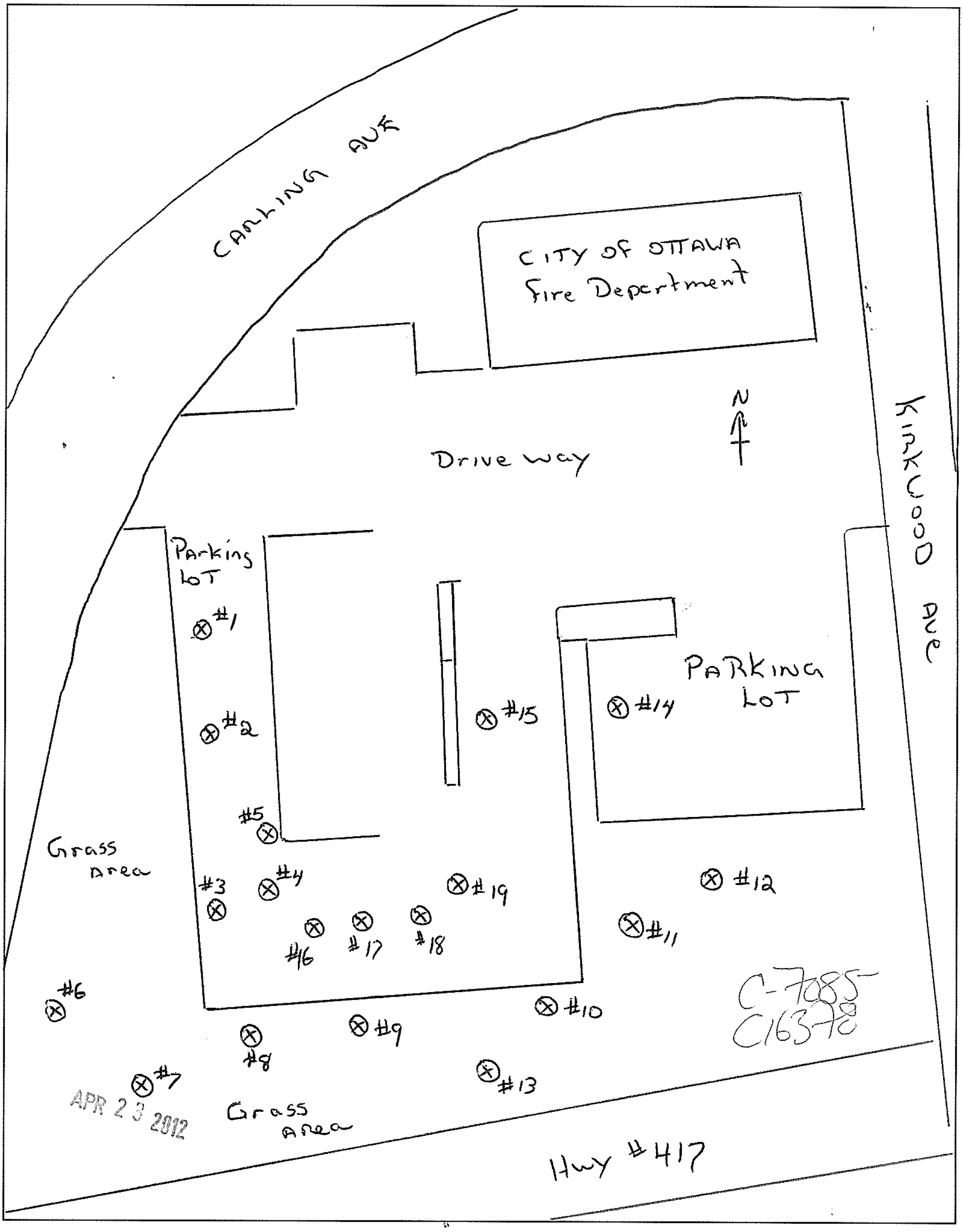
Ontario Ministry of the Environment

Well Record for Well Cluster - Part 3 of 3
Detailed Drawing of All Well Locations

Note: This **Well Record for Well Cluster Part 3 - Detailed Drawing of all Well Locations,** must be attached to Parts 1 and 2. The drawing must include all property boundaries, an arrow indicating the North direction, all named roads and sufficient measurements to locate all wells in the cluster in relation to fixed points. The drawing must show the location of each well and each well must be numbered on the drawing to match number used for that well on the **Well Record for Well Cluster Parts 1 and 2.** The well with the well tag must be clearly identified on the Drawing.
UTM coordinates should appear beside each well, if space permits. Additional comments on wells can be included on the drawing

Well Tag Number: # A058348 + A038560

"Well Record for Well Cluster" Form Audit Number: # C16378 + C16379



1
UTM 1 18 Z 4 4 1 8 9 5 E
1 9 R 5 0 2 5 6 1 0 N
Elev. 1 9 R 0 2 5 0
Basin 2 5

179

15 № 7983

ONTARIO

DEPARTMENT OF MINES
NOV 13 1951
TO

The Well Drillers Act
Department of Mines, Province of Ontario

Water Well Record

County or Territorial District ... Carleton ... Township, Village, ~~Town or~~ City ... City of Ottawa ~~Nepean~~

[redacted] Town or City) ...

[redacted]s ... 152 Carling Ave Ottawa

Date Completed ... July 17/51 ... Cost of Well (excluding pump) ...
(day) (month) (year)

Pipe and Casing Record	Pumping Test
Casing diameter(s) ... 2"	Date ... July 17/51
Length(s) of casing(s) ... 17	Static level ... 6
Type of screen ...	Pumping level ... 22
Length of screen ...	Pumping rate ... 250
Distance from top of screen to ground level ...	Duration of test ... 2 hours
Is well a gravel-wall type? ... Rock	Distance from cylinder or bowls to ground level ...

Water Record

Kind (fresh or mineral) ... fresh
Quality (hard, soft, contains iron, sulphur, etc.) ...
Appearance (clear, cloudy, coloured) ... clear
For what purpose(s) is the water to be used? ... house
How far is well from possible source of contamination? ... 75
What is the source of contamination? ... Septic Tank
Enclose a copy of any mineral analysis that has been made of water ...

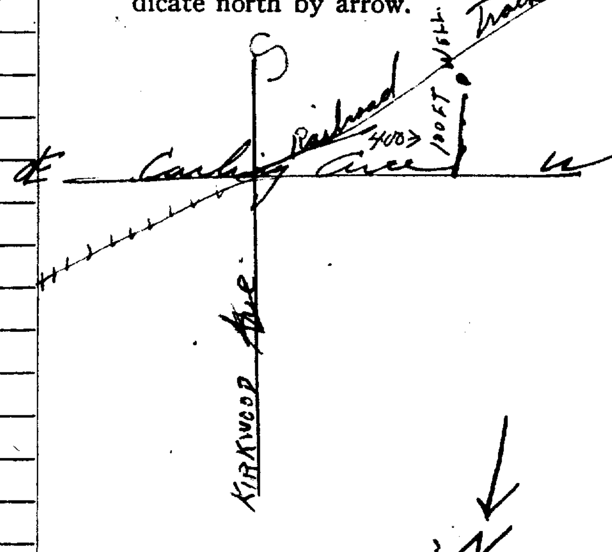
Depth(s) to Water Horizon(s)	Kind of Water	No. of Feet Water Rises
65	fresh	59

Well Log

Overburden and Bedrock Record	From	To
4 gravel	0 ft.	4 ft.
Limestone	4	67

Location of Well

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



Situation: Is well on upland, in valley, or on hillside? ... valley
Drilling Firm ... J B Dufresne
Address ... 1870 Carling
Name of Driller ... W Roy ... Address ...
Date ... July 18/51 ... Licence Number ... 89

J B Dufresne
Signature of Licensee

Form 5

CARLING AVE.

23

UTM 18 Z 441810 E   N5025690   ASE 306

15 № 3967

Elev. 9   R 0250

Basin 25

ONTARIO

The Well Drillers Act

Department of Mines, Province of Ontario

Water Well Record

[redacted] Con. 1 of Lot 31 Pt. Lot ....

Acres 4

Date Completed May 21/48 Cost of Well (not including pump) $388.20

Pipe and Casing Record

Casing diameter(s) 6"

Length(s) of casing(s) 32'

Length of screen

Type of screen

Type of pump

Capacity of pump

Depth of pump setting

Pumping Test

Date May 21

Developed Capacity 500 G.P.H.

Duration of Test 30 MIN

Pumping Rate 500 G.P.H.

Drawdown 6'

Static level of completed well 12'

Is well a gravel-wall type? No.

Water Record

Kind (fresh or mineral) fresh

Quality (hard, soft, contains iron, sulphur etc.) soft

Appearance (clear, cloudy, coloured) clear

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

How far is well from possible source of contamination? 50'

What is source of contamination? septic tank

Enclose a copy of any mineral analysis that has been made of water

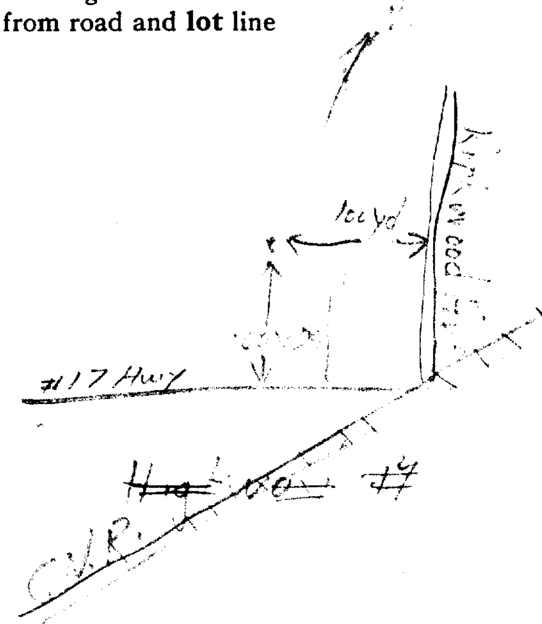
Depth(s) to Water Horizon(s)	Kind of Water	No. of Feet Water Rises
35'	Fresh	15'
96'	"	12'

Well Log

Drift and Bedrock Record	From	To
Till	0 ft.	32 ft.
Limestone	32	96

Location of Well

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



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

Drilling Firm F. A. McLean & Son

Address 185 James St., Ottawa

Recorded by C. D. McLean Address

Date June 8 1948 Licence Number

Well ID

Well ID Number: 7242902
Well Audit Number: *C20563*
Well Tag Number: *A130168*

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: 441979.00 Northing: 5025980.00
Municipal Plan and Sublot Number	
Other	

Overburden and Bedrock Materials Interval

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

Annular Space/Abandonment Sealing Record

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

Method of Construction & Well Use

Method of Construction	Well Use

Status of Well

Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 1844

Results of Well Yield Testing

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

Draw Down & Recovery

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

Water Details

Water Found at Depth	Kind

Hole Diameter

Depth From	Depth To	Diameter

Audit Number: C20563

Date Well Completed: October 05, 2012

Date Well Record Received by MOE: June 11, 2015

Updated: February 8, 2016
RateRate
Sharefacebook twitter Print
Tags

- Environment and energy,
- Drinking water,

Well ID

Well ID Number: 7217444
Well Audit Number: *Z179979*
Well Tag Number: *A157824*

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

Well Location

Address of Well Location	848 MERIVALE RD
Township	NEPEAN TOWNSHIP
Lot	
Concession	
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	Ottawa
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18 Easting: 442649.00 Northing: 5026012.00
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	.61 m
GREY	SILT	CLAY	SOFT	.61 m	3.1 m
GREY	SAND	SILT	SOFT	3.1 m	6.1 m

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
0 m	.31 m	CONCRETE / FLUSHMOUNT	
.31 m	2.74 m	BENSEAL	
2.74 m	6.1 m	SAND	

Method of Construction & Well Use

Method of Construction	Well Use
Direct Push	Monitoring and Test Hole

Status of Well

Test Hole

Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
4.03 cm	PLASTIC	0 m	3.1 m

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To
4.82 cm	PLASTIC	3.1 m	6.1 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 reason	
Pump intake set at	
Pumping Rate	
Duration of Pumping	
Final water level	
If flowing give rate	
Recommended pump depth	
Recommended pump rate	
Well Production	
Disinfected?	

Draw Down & Recovery

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

Water Details

Water Found at Depth	Kind

Hole Diameter

Depth From	Depth To	Diameter
0 m	6.1 m	8.25 cm

Audit Number: Z179979

Date Well Completed: February 14, 2014

Date Well Record Received by MOE: March 13, 2014

Updated: February 8, 2016
RateRate

Well ID

Well ID Number: 7217443
Well Audit Number: *Z179980*
Well Tag Number: *A157825*

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

Well Location

Address of Well Location	848 MERIVALE AVE
Township	NEPEAN TOWNSHIP
Lot	
Concession	
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	Ottawa
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18 Easting: 442655.00 Northing: 5026008.00
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	.61 m
GREY	SILT	CLAY	SOFT	.61 m	3.1 m
GREY	SAND	CLAY	SOFT	3.1 m	6.1 m

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
0 m	.31 m	CONCRETE / FLUSHMOUNT	
.31 m	2.74 m	BENSEAL	
2.74 m	6.1 m		

Method of Construction & Well Use

Method of Construction	Well Use
Direct Push	Monitoring and Test Hole

Status of Well

Test Hole

Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
4.03 cm	PLASTIC	0 m	3.1 m

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To
4.82 cm	PLASTIC	3.1 m	6.1 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 reason	
Pump intake set at	
Pumping Rate	
Duration of Pumping	
Final water level	
If flowing give rate	
Recommended pump depth	
Recommended pump rate	
Well Production	
Disinfected?	

Draw Down & Recovery

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

Water Details

Water Found at Depth	Kind

Hole Diameter

Depth From	Depth To	Diameter
0 m	6.1 m	8.25 cm

Audit Number: Z179980

Date Well Completed: February 14, 2014

Date Well Record Received by MOE: March 13, 2014

Updated: February 8, 2016
RateRate

Ontario Ministry of the Environment

Measurements recorded in: ☑ Metric ☐ Imperial

Well Tag No. Tag#: A132248 (Below)
A132248

Well Record

Regulation 903 Ontario Water Resources Act

Page ______ of ______

Well Owner's Information

First Name	Last Name / Organization	E-mail Address	☐ Well Constructed by Well Owner
DFB Associates			

Mailing Address (Street Number/Name)	Municipality	Province	Postal Code	Telephone No. (inc. area code)
22 - 2350 Stevenage Drive	Ottawa	Ont.	K1G3W3	6137377776

Well Location

Address of Well Location (Street Number/Name)	Township	Lot	Concession
999 Merivale Road	Ottawa		

County/District/Municipality	City/Town/Village	Province	Postal Code
Ottawa Carleton	Ottawa	Ontario	

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 83	18	442621	5025931	327929	

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	To
grey			sand and gravel	0	3.65
			sand, silt and gravel	3.65	4.27
			silty clay	4.27	4.60

MW 3 was tagged

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0	0.85	hole plug	1½ bags
0.85	4.60	filter sand	7 bags

Results of Well Yield Testing

After test of well yield, water was:
☐ Clear and sand free
☐ Other, specify ______

If pumping discontinued, give reason:

Pump intake set at (m/ft)

Pumping rate (l/min / GPM)

Duration of pumping ______ hrs + ______ min

Final water level end of pumping (m/ft)

If flowing give rate (l/min / GPM)

Recommended pump depth (m/ft)

Recommended pump rate (l/min / GPM)

Well production (l/min / GPM)

Disinfected? ☐ Yes ☐ No

Draw Down Time (min)	Water Level (m/ft)	Recovery Time (min)	Water Level (m/ft)
Static Level			
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
50		50	
60		60	

Method of Construction

☐ Cable Tool ☐ Diamond ☐ Rotary (Conventional) ☐ Jetting ☐ Rotary (Reverse) ☐ Driving ☐ Boring ☐ Digging ☐ Air percussion ☐ Other, specify HS Auger

Well Use

☐ Public ☐ Commercial ☐ Not used ☐ Domestic ☐ Municipal ☐ Dewatering ☐ Livestock ☑ Test Hole ☐ Monitoring ☐ Irrigation ☐ Cooling & Air Conditioning ☐ Industrial ☐ Other, specify ______

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	To
5.2	plastic	0.4	0	1.50

Status of Well

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

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	To
6.0	plastic	10	1.50	4.60

Map of Well Location

Please provide a map below following instructions on the back.

Site plan and area map are enclosed.

Water Details

Water found at Depth	Kind of Water
2.49 (m/ft) ☐ Gas	☐ Fresh ☐ Untested ☐ Other, specify ______
(m/ft) ☐ Gas	☐ Fresh ☐ Untested ☐ Other, specify ______
(m/ft) ☐ Gas	☐ Fresh ☐ Untested ☐ Other, specify ______

Hole Diameter

Depth (m/ft) From	To	Diameter (cm/in)
0	4.60	22

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
OGS INC.	6964

Business Address (Street Number/Name)	Municipality
5518 Appleton Side Road	Almonte

Province	Postal Code	Business E-mail Address
Ont.	K0A1A0	ogsinc@bellnet.ca

Bus.Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)
6132567666	Ohlmann, Brian

Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
2593	B. Ohlmann	20130102

Comments:

Well owner's information package delivered	Date Package Delivered	Ministry Use Only
☐ Yes ☐ No	YYYYMMDD	Audit No. Z150548
	Date Work Completed: 20120417	Received JAN 09 2013

Ministry's Copy

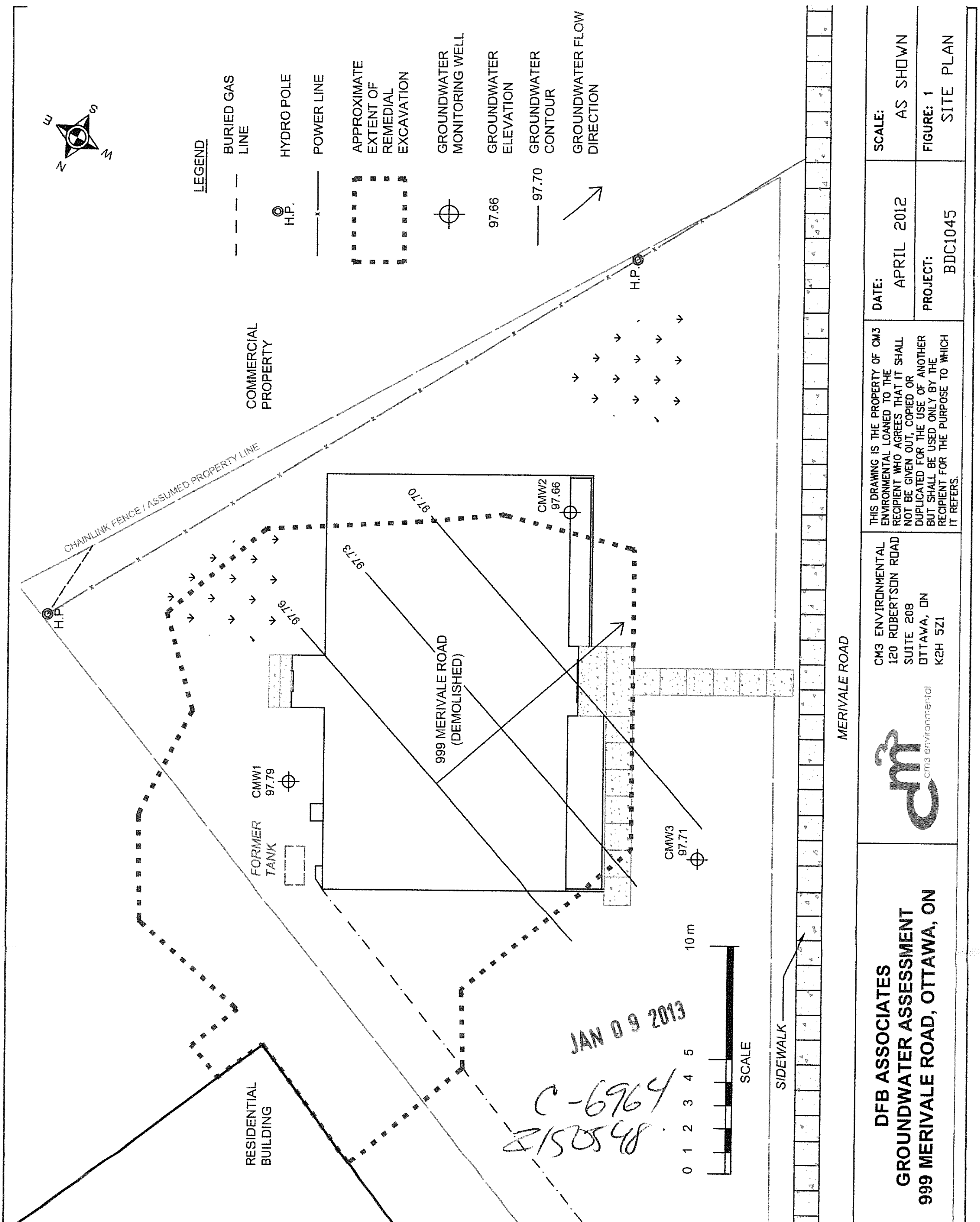
Ontario Ministry of the Environment

Well Record for Well Cluster - Part 3 of 3
Detailed Drawing of All Well Locations

Note: This **Well Record for Well Cluster Part 3 - Detailed Drawing of all Well Locations,** must be attached to Parts 1 and 2. The drawing must include all property boundaries, an arrow indicating the North direction, all named roads and sufficient measurements to locate all wells in the cluster in relation to fixed points. The drawing must show the location of each well and each well must be numbered on the drawing to match number used for that well on the **Well Record for Well Cluster Parts 1 and 2.** The well with the well tag must be clearly identified on the Drawing.
UTM coordinates should appear beside each well, if space permits. Additional comments on wells can be included on the drawing

Well Tag Number: # A132248

"Well Record for Well Cluster" Form Audit Number: # C19566



Address **999 Merivale Rd**
Ottawa, ON K1Z 6A6, Canada

C-6964
2150548

JAN 09 2013

Ontario Ministry of the Environment

Measurements recorded in: ☑ Metric ☐ Imperial

Abandonment

Well Tag No. *(Place Sticker and/or Print Below)* A132248

Well Record

Regulation 903 Ontario Water Resources Act

Page ______ of ______

Well Owner's Information

First Name	Last Name / Organization	E-mail Address	☐ Well Constructed by Well Owner
DFB Associates			

Mailing Address (Street Number/Name)	Municipality	Province	Postal Code	Telephone No. (inc. area code)
22-2350 Stevenage Drive	Ottawa	Ont	K1G 3W3	6137377776

Well Location

Address of Well Location (Street Number/Name)	Township	Lot	Concession
999 Merivale Road	Ottawa	8	

County/District/Municipality	City/Town/Village	Province	Postal Code
Ottawa Carleton	Ottawa	Ontario	

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 83	18	442621	5025931	327929	

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	To
		Well tag was missing.			

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0	0.50	hole plug	1/3 bag
0.50	4.60	bentonite cement grout	50 litres

Results of Well Yield Testing

After test of well yield, water was: ☐ Clear and sand free ☐ Other, specify ______

If pumping discontinued, give reason:

Pump intake set at (m/ft)

Pumping rate (l/min / GPM)

Duration of pumping ____ hrs + ____ min

Final water level end of pumping (m/ft)

If flowing give rate (l/min / GPM)

Recommended pump depth (m/ft)

Recommended pump rate (l/min / GPM)

Well production (l/min / GPM)

Disinfected? ☐ Yes ☐ No

Draw Down Time (min)	Water Level (m/ft)	Recovery Time (min)	Water Level (m/ft)
Static Level			
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
50		50	
60		60	

Method of Construction

☐ Cable Tool ☐ Diamond ☐ Rotary (Conventional) ☐ Jetting ☐ Rotary (Reverse) ☐ Driving ☐ Boring ☐ Digging ☐ Air percussion ☐ Other, specify ______

Well Use

☐ Public ☐ Commercial ☐ Not used ☐ Domestic ☐ Municipal ☐ Dewatering ☐ Livestock ☐ Test Hole ☐ Monitoring ☐ Irrigation ☐ Cooling & Air Conditioning ☐ Industrial ☐ Other, specify ______

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	To

Status of Well

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

Construction Record - Screen

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

Map of Well Location

Please provide a map below following instructions on the back.

Site plan and area map are enclosed.

Water Details

Water found at Depth ____ (m/ft) ☐ Gas Kind of Water: ☐ Fresh ☐ Untested ☐ Other, specify ______

Water found at Depth ____ (m/ft) ☐ Gas Kind of Water: ☐ Fresh ☐ Untested ☐ Other, specify ______

Water found at Depth ____ (m/ft) ☐ Gas Kind of Water: ☐ Fresh ☐ Untested ☐ Other, specify ______

Hole Diameter

Depth (m/ft) From	To	Diameter (cm/in)
0	4.60	22

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
OGS INC	6964

Business Address (Street Number/Name)	Municipality
5518 Appleton Side Road	Almonte

Province	Postal Code	Business E-mail Address
Ont	K0A 1A0	ogsinc@bellnet.ca

Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)
6132567666	Stryde, Jason

Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
3634	[signature]	20130102

Comments:

Well owner's information package delivered ☐ Yes ☐ No

Date Package Delivered Y Y Y Y M M D D

Date Work Completed 20120611

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Audit No. Z150552

Received JAN 10 2013

Ontario Ministry of the Environment

Abandonment

Well Tag No. of Deepest Well: *(Print Well Tag No.)* A132240

Well # on Drawing of Deepest Well: CMW1 4.60m

Well Record for Well Cluster - Part 1 of 3

(Only for Multiple Test Holes or Dewatering Wells)

Regulation 903 Ontario Water Resources Act

All measurements recorded in: ☑ Metric ☐ Imperial

Follow instructions on the front and back of this form. Print or Type

Page ____ of ____

Well Cluster Location Information

Address of Well Location (Street Number(s)/Name(s), RR, if available)	Lot(s)	Concession(s)	Geographic Township	County/District/Upper Tier Municipality
999 Merivale Road	8		Ottawa	Ottawa Carleton

City, Town, Village or Hamlet	Province	GPS Unit Make	Model	Unit Mode of Operation
Ottawa	Ontario	Magellan		☑ Undifferentiated ☐ Averaged ☐ Differentiated, specify:

Mandatory Attachments/Additional Information

☒ Land Owner Consent Form must be attached.

☒ Detailed Drawing of All Well Locations must be attached.

I, the person constructing the well, will promptly submit to the Director, on request, any additional information in my custody or control related to any well in the well cluster that I have constructed.

Signature of Technician/Contractor: [signature] Date (yyyy/mm/dd):

Well Details

Well # on Drawing	Zone	Easting	Northing	Hole Depth (m/ft)	Hole Diameter (cm/in)	Method of Construction	Casing Material; Diameter (cm/in)	Casing From	Casing To	Screen Interval From	Screen Interval To	Annular Space From	Annular Space To	Material	Overburden/Bedrock or Abandonment Filing Material Intervals (m/ft)	Static Water Level (m/ft)	Date of Completion (yyyy/mm/dd)
CMW 1	18	442608	5025417	4.60	22							0 0.50	0.50 4.60	hole plug bentonite cement grout		2.25	2012/06/11
CMW 2	18	442604	5025434	4.60	"							0 0.50	0.50 4.60	hole plug bentonite cement grout		2.60	"
CMW 3	18	442621	5025431	4.60	"							0 0.50	0.50 4.60	hole plug bentonite cement grout		2.49	"

Well Contractor and Well Technician Information

Business Name of Well Contractor	Business Address (Street Number/Name, RR)	Municipality	Province
OGS INC	5518 Appleton Side Rd.	Almonte	Ont

Postal Code	Bus. Telephone No.	Well Contractor's Licence No.	Business E-mail Address
K0A 1A0	613-256-7666	6964	ogsinc@bellnet.ca

Name of Well Technician (First Name, Last Name)	Well Technician's Licence No.	Signature of Well Technician	Date Submitted (yyyy/mm/dd)
Jason Stryde	3634	[signature]	2013/01/02

Date First Well in Cluster Constructed or Abandoned (yyyy/mm/dd): 2012/06/11

Date Last Well in Cluster Completed (yyyy/mm/dd): 2012/06/11

Well Abandonment

Person Abandoning the Wells:

Name ____ (Print or Type) - See instruction 11 on the back of this form

Ministry Use Only

Date Received (yyyy/mm/dd): JAN 10 2013

Audit No. C 19569

Comments: 215852

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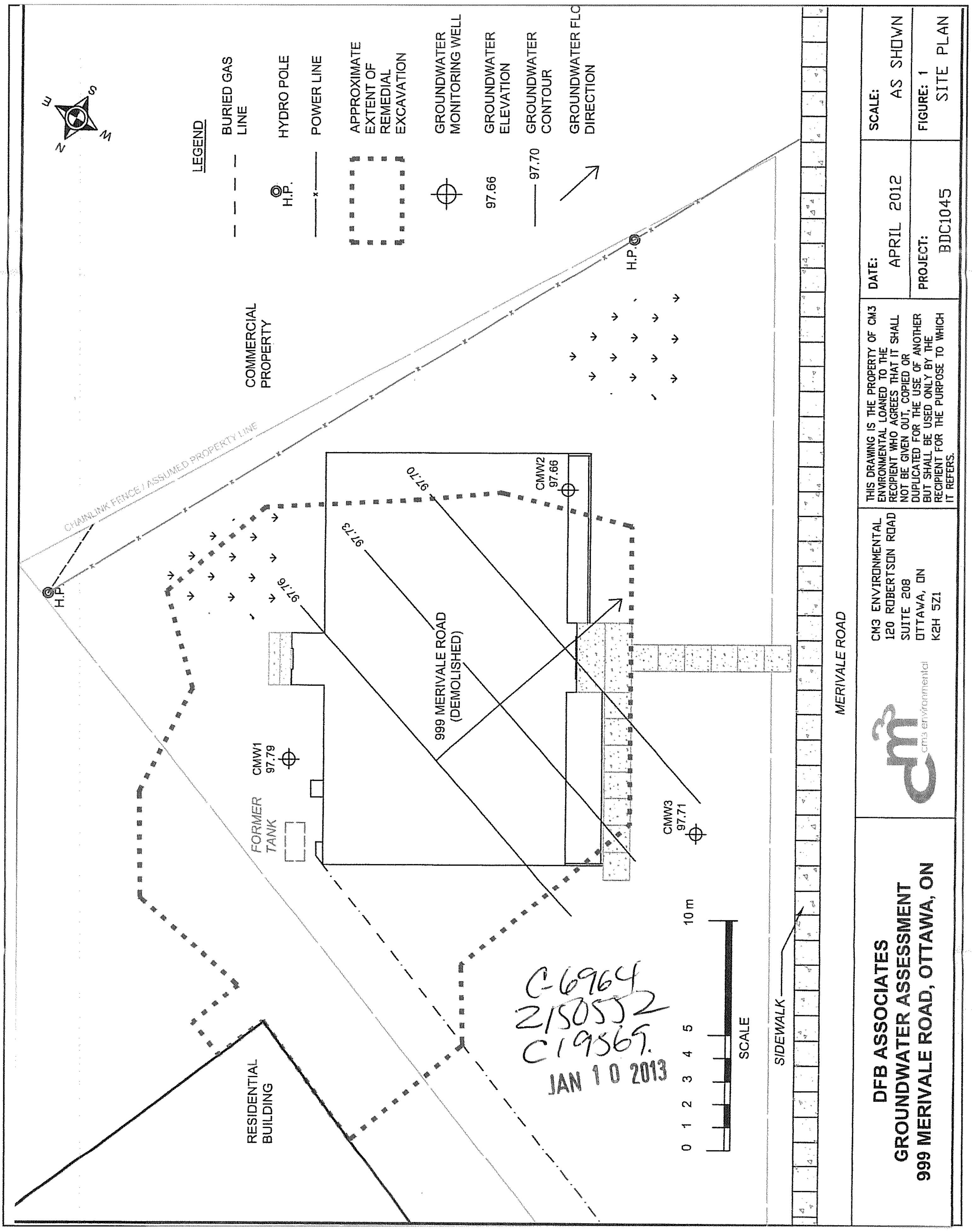
Well Record for Well Cluster - Part 3 of 3
Detailed Drawing of All Well Locations

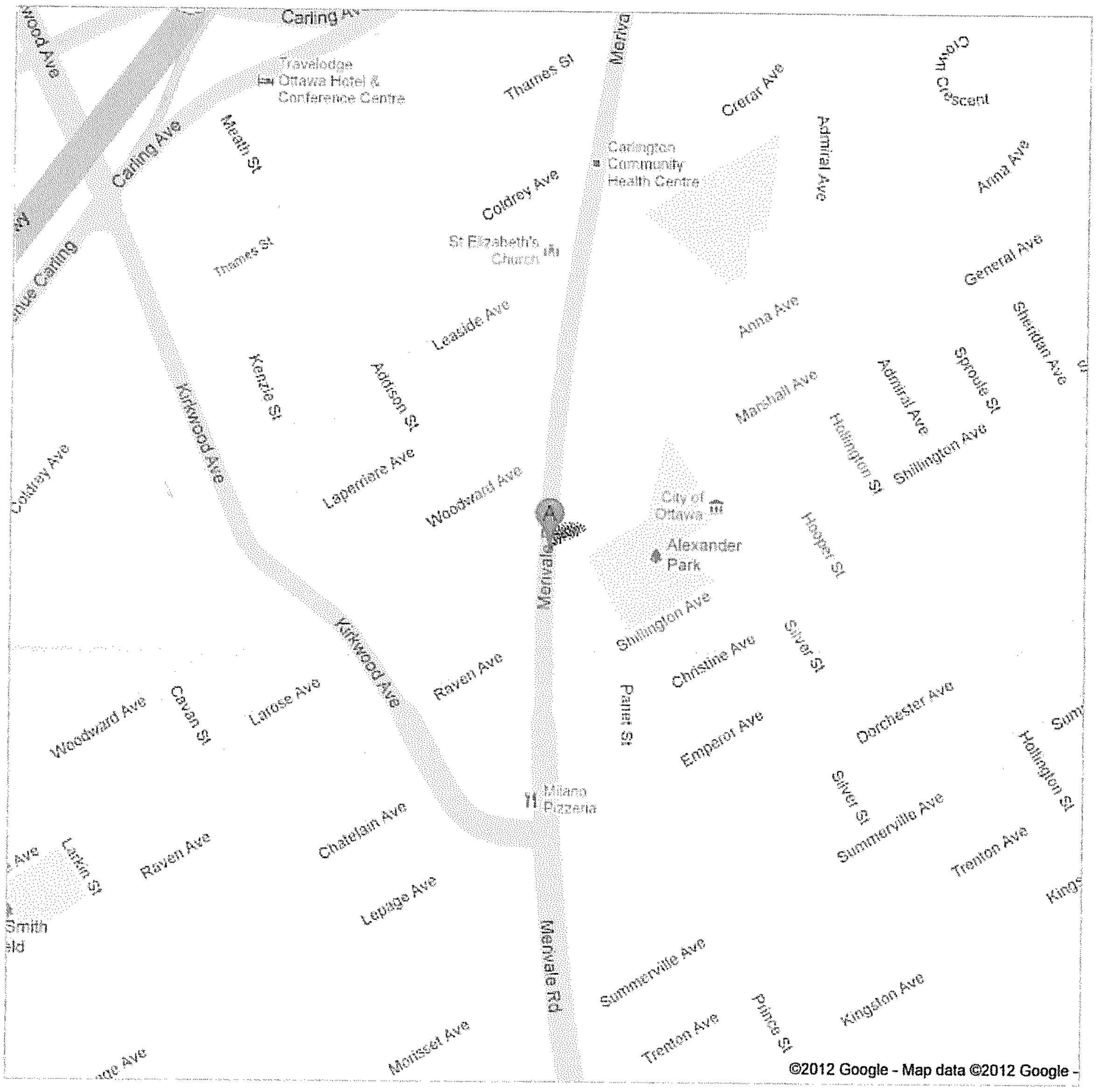
Note: This **Well Record for Well Cluster Part 3 - Detailed Drawing of all Well Locations,** must be attached to Parts 1 and 2. The drawing must include all property boundaries, an arrow indicating the North direction, all named roads and sufficient measurements to locate all wells in the cluster in relation to fixed points. The drawing must show the location of each well and each well must be numbered on the drawing to match number used for that well on the **Well Record for Well Cluster Parts 1 and 2.** The well with the well tag must be clearly identified on the Drawing.
UTM coordinates should appear beside each well, if space permits. Additional comments on wells can be included on the drawing

Well Tag Number: # A132240 Abandonment

"Well Record for Well Cluster" Form Audit Number: # C19569



Address **999 Merivale Rd**
Ottawa, ON K1Z 6A6, Canada



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JAN 10 2013

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JUL 24 1951
GEOLOGICAL BRANCH
DEPARTMENT OF MINES

The Well Drillers Act
Department of Mines, Province of Ontario

Water Well Record

~~Conc II OF~~ ~~A 33~~

[redacted] Carlton OTTAWA ~~Township, Village, Town~~ ~~of City~~ (City) ~~Nepean~~
[redacted] Town or City)
[redacted] s. Merivale Road
Date Completed August 20 1951 (day) (month) (year) Cost of Well (excluding pump)

Pipe and Casing Record		Pumping Test	
Casing diameter(s)	4 inch	Date	
Length(s) of casing(s)	18 feet	Static level	45'
Type of screen		Pumping level	45 feet and any Poor flow
Length of screen		Pumping rate	
Distance from top of screen to ground level		Duration of test	
Is well a gravel-wall type?		Distance from cylinder or bowls to ground level	

Water Record

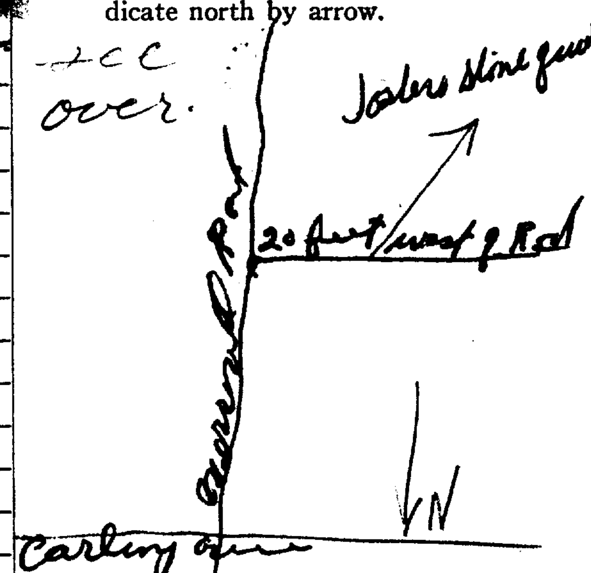
Kind (fresh or mineral) fresh
Quality (hard, soft, contains iron, sulphur, etc.) hard
Appearance (clear, cloudy, coloured) Clear
For what purpose(s) is the water to be used?
House hold use
How far is well from possible source of contamination? 70 feet
What is the source of contamination? none
Enclose a copy of any mineral analysis that has been made of water

Depth(s) to Water Horizon(s)	Kind of Water	No. of Feet Water Rises
65		~~45 from top~~

Well Log		
Overburden and Bedrock Record	From	To
	0 ft.	....ft.
Clay Bolder Sand	~~0~~ 0	~~16~~ 18
Bed Rock	18	65

Location of Well

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



Situation: Is well on upland, in valley, or on hillside? hill side
Drilling Firm Gordon S. Mulligan
Address Westboro
Name of Driller James Kellls Address Ramsayville
Date Aug 20 Licence Number

Signature of Licensee

FORM 5

31G/5b 10605

18
9
9
25

Bob - [redacted] 13

442365
5025710
0250

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JAN 5 1950
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DEPARTMENT OF MINES

The Well Drillers Act

Department of Mines, Province of Ontario

Water Well Record

County or District ..Carleton.... Tp. ~~Nepean~~ OTTAWA .... Con. ~~II~~ O.F. .. Lot 28 ..... Pt. Lot ....

Owner.. [redacted] .... Address ..Westboro.............. Acres ....

Date Completed ...July/18/1948.... Cost of Well (not including pump) $103.00

Pipe and Casing Record

Casing diameter(s) ... 4"
Length(s) of casing(s) ... 20 foot lengths
Length of screen ....
Type of screen ....
Type of pump ....
Capacity of pump ....
Depth of pump setting ....

Pumping Test

Date ... July 18/48
Developed Capacity ... 300 gal a hr
Duration of Test ... 1 hr
Pumping Rate ....
Drawdown ... none
Static level of completed well ... Artesian well
Is well a gravel-wall type? ... yes

Water Record

Kind (fresh or mineral) ...... Fresh
Quality (hard, soft, contains iron, sulphur etc.) ... hard
....
Appearance (clear, cloudy, coloured) ...... clear
For what purpose(s) is the water to be used? ..... Domestic
....
How far is well from possible source of contamination? ... 30 feet
What is source of contamination? .... Septic tank
Enclose a copy of any mineral analysis that has been made of water ....

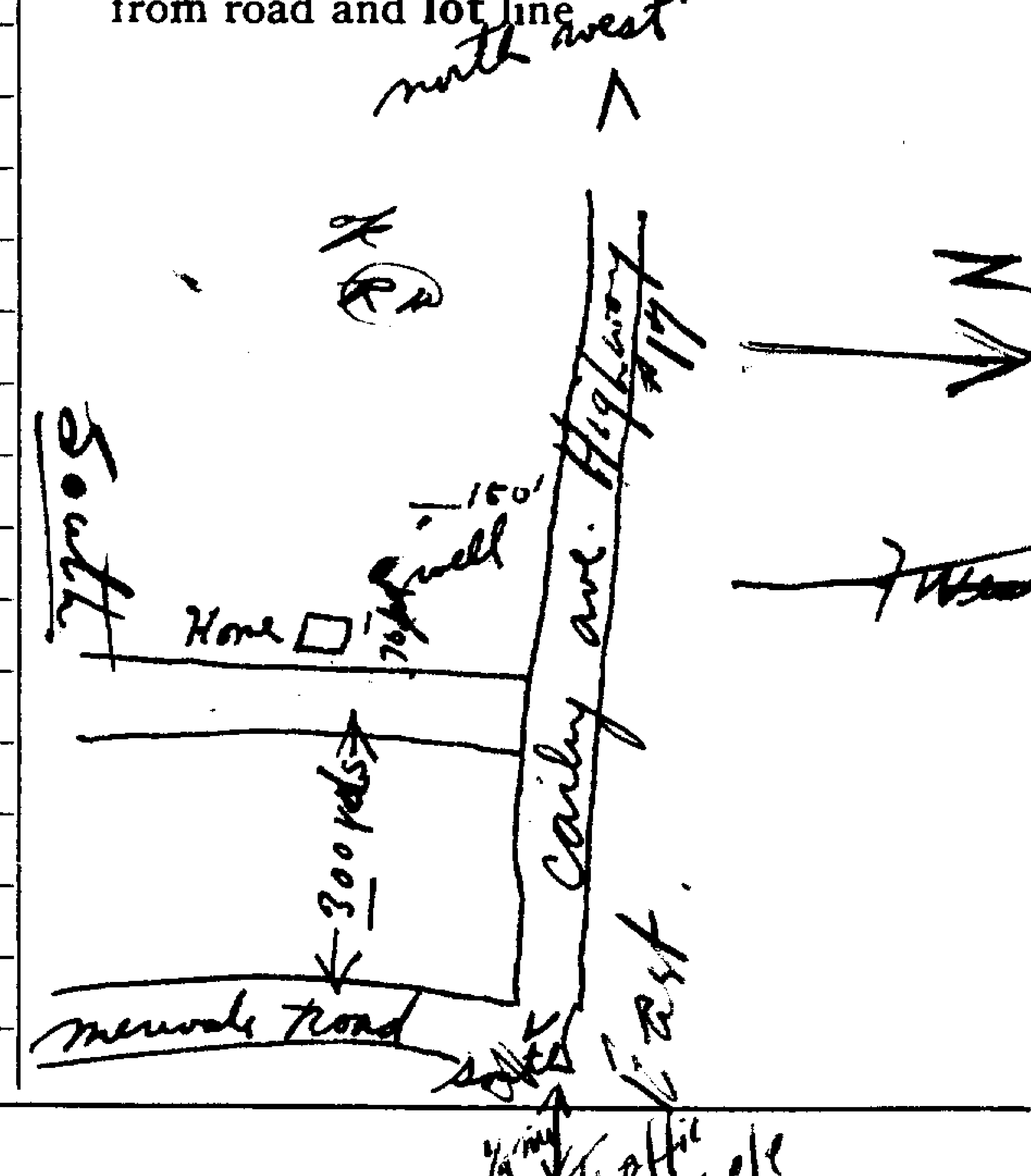
Depth(s) to Water Horizon(s)	Kind of Water	No. of Feet Water Rises
41 feet	fresh	41 feet

Well Log

Drift and Bedrock Record	From	To
	O ft.	......ft.
20 feet of Clay	1	20
21 feet of gravel	20	41

Location of Well

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



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

Drilling Firm .... Gordon S Mulligan

Address .... Westboro R.R.#1

Recorded by .... Gordon S Mulligan .... Address .... Westboro R.R.#1

Date .... July 18/48 .... Licence Number ....

Ontario Ministry of the Environment

Well Tag No. for Master Well (Place Sticker and/or Print Below): A090600 MW#1

Master Well Record for Cluster Well Construction

Regulation 903 Ontario Water Resources Act

[redacted]

Address of Well Location	County/District/Municipality	City/Town/Village	Province	Postal Code
Thames Street		Ottawa.	Ontario	

UTM Coordinates	Zone	Easting	Northing	GPS Unit Make	Model	Mode of Operation
NAD 83	18	442461	5025978	Garmin	Etrex	☐ Undifferentiated ☐ Averaged ☐ Differentiated, specify

Overburden and Bedrock Materials (see instructions on the back of this form)

General Colour	Most Common Material	Other Materials	General Description	Depth (Metres) From	To
	Asphalt			0	0.1
Brown	Sand + gravel		Dense to compact	0.1	0.9
Grey	Silty clay		compact ~~[illegible]~~	0.9	1.5
Grey	Clay silty		stiff to firm	1.5	3.6
Grey	Clay + Sand		Silty, some gravel loose	3.6	6.1

Hole Details

Depth (Metres) From	To	Diameter (Centimetres)
0	6.1	20

Water Use

☐ Public ☐ Domestic ☐ Livestock ☐ Irrigation ☐ Industrial ☐ Commercial ☐ Municipal ☐ Test Hole ☐ Not used ☐ Dewatering ☑ Monitoring ☐ Cooling & Air Conditioning ☐ Other, specify

Method of Construction

☐ Cable Tool ☐ Rotary (Conventional) ☐ Rotary (Reverse) ☐ Rotary (Air) ☐ Air Percussion ☐ Diamond ☐ Jetting ☐ Driving ☐ Digging ☐ Boring ☑ Other, specify HSA

Status of Well

☑ Test Hole ☐ Replacement Well ☐ Dewatering Well ☐ Alteration (Construction) ☐ Abandoned, Insufficient Supply ☐ Abandoned, Poor Water Quality ☐ Other, specify ☐ Abandoned, other, specify

Construction Details

Inside Diameter (Centimetres)	Material (steel, plastic, fibreglass, concrete, galvanized)	Wall Thickness	Depth (Metres) From	To
5.1	PVC	Sched 40	0	~~5.0~~ 6.1

No Casing and Screen Used

Open Hole ☐ Yes ☑ No

Static Water Level Test

Metres

Screen

☐ Galvanized ☐ Steel ☐ Fibreglass ☐ Concrete ☑ Plastic

Outside Diameter (Centimetres): 5.8 Slot No.: 10

Water Details

Water found at Depth	Kind of Water
Metres ☐ Gas	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals
Metres ☐ Gas	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals
Metres ☐ Gas	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals

Disinfected ☐ Yes ☑ No If no, provide reason: Monitoring well

Date Master Well Completed (yyyy/mm/dd): 2009/11/30

Annular Space/Abandonment Sealing Record

Depth Set at (Metres) From	To	Type of Sealant Used (Material and Type)	Volume Used (Cubic Metres)
0	3.0	Bentonite	60 Kgs

Cluster Information (Please also fill out the additional Cluster Well Information for Well Construction for each parcel of land and cluster.)

Total Wells in Cluster: 3

Please indicate Number of Cluster Well Information Log Sheets Submitted: 1

Total Wells on this Property: unknown

Location of Well Cluster

Detailed Map must be provided as an attachment no larger than legal size (8.5" x 14"). Sketches are not allowed.

☑ Check box to confirm detailed map is provided as per Section 11.1 (3)

Consent to release additional information concerning the cluster to the Director upon request

[redacted]

Well Contractor and Well Technician Information

Business Name of Well Contractor: George Downing Estate Drilling Ltd

Well Contractor's Licence No.: 1844

Business Address (Street No./Name, number, RR): 410 Rue Principale

Municipality: Grenville Sur La Rouge

Province: Qc

Postal Code: J0V 1B0

Business E-mail Address: downing@hawk.igs.net

Bus.Telephone No. (inc. area code): 8192426469

Name of Well Technician (Last Name, First Name): Downing, Bruce

Well Technician's Licence No.: 2173

Signature of Technician:

Date Submitted (yyyy/mm/dd): 2009/12/21

Audit No.: M 05542

Well Contractor No.:

Date Received (yyyy/mm/dd): JAN 28 2010

Date of Inspection (yyyy/mm/dd):

Remarks:

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Ontario Ministry of the Environment

Well Tag No. for Master Well *(Print Well Tag No.)*
A090600

Cluster Well Information for Cluster Well Construction

Regulation 903 Ontario Water Resources Act

[redacted]

Address of Well Location (Street Number/Name, RR)	Lot	Concession	Township	County/District/Municipality
Thames Street				

City/Town/Village	Province	Postal Code	GPS Unit Make	Model	Unit Mode of Operation
Ottawa	Ontario		GARMIN	Etrex	☐ Undifferentiated ☑ Averaged ☐ Differentiated, specify:

Signature of Technician/Contractor	Date *(yyyy/mm/dd)*
[signature]	2009/12/21

Well # on Sketch	UTM Coordinates Zone	Easting	Northing	Full Depth of Hole (metres)	Hole Diameter (cm)	Method of Construction	Casing Material	Casing Length (metres)	Screen Interval (metres) From	To	Annular Space Sealant Used	Static Water Level (metres)	Abandonment Sealant Used	Comments	Date of Completion *(yyyy/mm/dd)*
MW #2	18	442562	5025940	6.1	20	HSA	PVC	3.0	3.0	4.1	Bentonite				2009/11/30
MW #3	18	442325	5025798	5.1	"	"	"	2.0	2.0	5.1	"				2009/12/01

Date 1st Well in Cluster Constructed *(yyyy/mm/dd)*	Date Last Well in Cluster Constructed *(yyyy/mm/dd)*
2009/11/30	2009/12/01

Well Contractor and Well Technician Information

Business Name of Well Contractor	Business Address (Street Number/Name, RR)	Municipality	Province
George Downing Estate Drilling Ltd	410 Rue Principale	Grenville Sur La Rouge	QC

Postal Code	Business Telephone No. *(inc. area code)*	Well Contractor's Licence No.	Business E-mail Address
J0V 1B0	819 242 6469	1844	downing@hawk.igs.net

Name of Well Technician (First Name, Last Name)	Well Technician's Licence No.	Date Submitted *(yyyy/mm/dd)*	Signature of Technician
Bruce Downing	2173	2009/12/21	[signature]

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Date Received *(yyyy/mm/dd)*	Date Inspected *(yyyy/mm/dd)*
JAN 28 2010	

Audit No.	Remarks
C 06159	M05542

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Dec. 17. 2009 4:58PM DST Consulting No. 0533 P. 3

UTM |1|8| Z |4|4|2|4|2|0| E

|9| R |5|0|2|5|7|2|0| N

Elev. |9| R |0|2|5|0|

Basin |2|5| | | | | |

15 No ~~1810~~

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The Well Drillers Act

Department of Mines, Province of Ontario

Water Well Record

County or Territorial District Carleton ~~Township, Village, Town or City~~ City of Ottawa

[redacted] own or City)........................

[redacted] Churchill Ave

[redacted] cluding pump)........................

(day) (month) (year)

Pipe and Casing Record		Pumping Test	
Casing diameter(s)	6 in	Date	
Length(s) of casing(s)	22	Static level	2 ft
Type of screen		Pumping level	3 ft
Length of screen		Pumping rate	
Distance from top of screen to ground level		Duration of test	
Is well a gravel-wall type?		Distance from cylinder or bowls to ground level	

Water Record

Kind (fresh or mineral) fresh

Quality (hard, soft, contains iron, sulphur, etc.) soft

Appearance (clear, cloudy, coloured) Clear

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

How far is well from possible source of contamination?

What is the source of contamination?

Enclose a copy of any mineral analysis that has been made of water

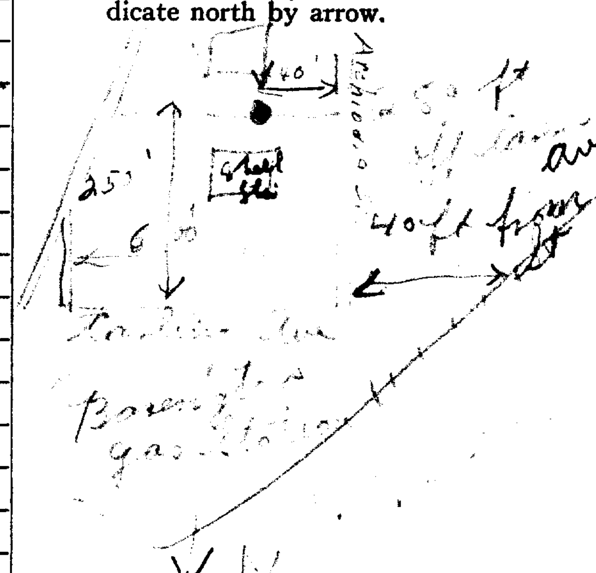
Depth(s) to Water Horizon(s)	Kind of Water	No. of Feet Water Rises
22	fresh	20

Well Log

Overburden and Bedrock Record	From	To
	0 ft.	....ft.
Clay	1	4
Gravel	4	22

Location of Well

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



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

Drilling Firm..........

Address..........

Name of Driller.......... Address..........

Date.......... Licence Number..........

....

Signature of Licensee

Form 5

ARCHIBALD ST.

UTM 1 | 18 | Z 4 | 4 | 1 | 2 | 4 | 3 | 0 | E
19 | R | 5 | 0 | 2 | 5 | 7 | 0 | 0 | N
Elev. 9 | R | 0 | 2 | 5 | 0
Basin 2 | 5

15 № 7809

ONTARIO

The Well Drillers Act
Department of Mines, Province of Ontario

Water Well Record

County or Territorial District Carleton ~~Township, Village, Town or City~~ City of Ottawa
[redacted] Town or City)
[redacted] Churchill Ave
[redacted] (excluding pump)
(day) (month) (year)

Pipe and Casing Record		Pumping Test	
Casing diameter(s)	6 in	Date	
Length(s) of casing(s)	25	Static level	5
Type of screen		Pumping level	8
Length of screen		Pumping rate	
Distance from top of screen to ground level		Duration of test	
Is well a gravel-wall type?		Distance from cylinder or bowls to ground level	

Water Record

Kind (fresh or mineral) fresh
Quality (hard, soft, contains iron, sulphur, etc.)
Appearance (clear, cloudy, coloured) clear
For what purpose(s) is the water to be used?
house
How far is well from possible source of contamination? 100 ft
What is the source of contamination?
Enclose a copy of any mineral analysis that has been made of water

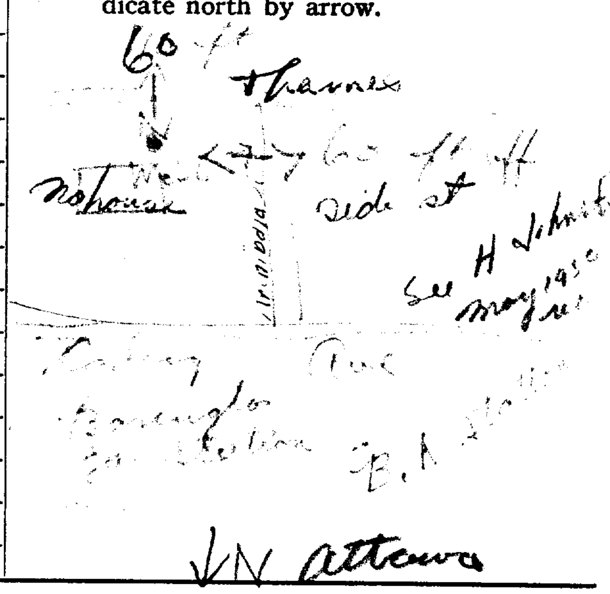
Depth(s) to Water Horizon(s)	Kind of Water	No. of Feet Water Rises
	soft	
32		27

Well Log

Overburden and Bedrock Record	From	To
	0 ft.	....ft.
Clay	1	4
Gravel	4	20
Blue shale	20	36

Location of Well

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



Situation: Is well on upland, in valley, or on hillside?
Drilling Firm Gordon Mulligan
Address Westboro
Name of Driller Jim Mumbrovey Address 703 Gilmour St
Date Licence Number

Signature of Licensee

Form 5

ARCHIBALD ST.

APPENDIX 3

QUALIFICATIONS OF ASSESSORS

KARYN MUNCH, P.ENG.

patersongroup

POSITION

Intermediate Environmental Engineer

EDUCATION

Carleton University, B.Eng. 2002
Environmental Engineering

MEMBERSHIPS AND AWARDS

Professional Engineers of Ontario
Ottawa Geotechnical Society

EXPERIENCE

2011-present
Paterson Group Inc.
Consulting Engineers
Geotechnical and Environmental Division
Intermediate Engineer

2009-2010
Department of Indian and Northern Affairs
Contaminated Sites Division
Environment Officer (PC-02)

2003 to 2009
Paterson Group Inc.
Consulting Engineers
Geotechnical and Environmental Division
Intermediate Engineer

2002 to 2003
Dessau Soprin Inc.
Consulting Engineers
Environmental Division
Junior Engineer

SELECT LIST OF PROJECTS

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

Environmental Engineering

Geotechnical Engineering

Materials Testing Quality Control

Building Sciences

Hydrogeology

Archeological Services

Mark S. D'Arcy, P. Eng.

patersongroup

Environmental Engineering

Geotechnical Engineering

Materials Testing Quality Control

Building Science

Hydrogeology

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
Consulting Engineers of Ontario

EXPERIENCE

1991 to Present
Paterson Group Inc.
Associate and Senior Environmental/Geotechnical Engineer
Environmental and Geotechnical Division
Supervisor of the Environmental Division

SELECT LIST OF PROJECTS

Mary River Exploration Mine Site - Northern Baffin Island
Rideau Centre Expansion project - Ottawa
Agricultural Supply Facilities - Eastern Ontario
Laboratory Facility – Edmonton (Alberta)
Ottawa International Airport - Contaminant Migration Study - Ottawa
Investigation and Remediation – Cotton Mill Redevelopment, Cornwall
Billings Hurdman Interconnect - Ottawa
Bank Street Reconstruction - Ottawa
Environmental Review – Various Laboratories across Canada - CFIA
Dwyer Hill Training Centre – Ottawa
Nortel Networks Environmental Monitoring - Carling Campus – Ottawa
Remediation Program - Block D Lands – Kingston
Investigation of former landfill sites – City of Ottawa
Record of Site Condition for Railway Lands – North Bay
Assessment and Remediation - North Bay Airport
Commercial Properties – Guelph and Brampton
Brownfields Remediation – Alcan Site - Kingston
PWGSC Building – 90 Elgin Street - Ottawa
Remediation Program - Ottawa Train Yards
MHLH Facility – CFB Petawawa
Ottawa Congress Centre
Lansdowne Park Redevelopment - Ottawa