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Phase I - Environmental Site Assessment

Vacant Commercial Land
6130 and 6150 Hazeldean Road
Ottawa, Ontario

Prepared For

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and 2073945 Ontario Inc.

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EXECUTIVE SUMMARY

Assessment

Paterson Group was retained by Mr. Allan Jackson of 2062915 Ontario Inc., to conduct a Phase I-Environmental Site Assessment for the properties addressed 6130 and 6150 Hazeldean Road in the City of Ottawa (Stittsville), Ontario. It should be noted that the subject property was previously addressed 6176 Hazeldean Road. The purpose of the Phase I-ESA was to research the past and current use of the site and study area and to identify environmental concerns with the potential to have impacted the subject property.

Historically, the property also included civic addresses along Neil Avenue. The western parcel of land (37 Neil Avenue), was originally used for residential purposes while the remainder of the site was vacant, undeveloped land. The eastern parcel was subsequently occupied by a Ministry of Transportation storage shed and associated yard, for the reported storage of salt and/or sand from the 1950's through the 1970's. The central portion of the site was developed with an industrial structure in the early 1970's (35 Neil Avenue). The building was occupied by Instronics Ltd. and reportedly used for the assembly and manufacturing of aircraft black boxes. Circa 1984, the entire subject property was purchased by Kavanagh Family Investments Inc. and along with the adjacent land to the west, was operated as the Stittsville Flea Market. The former residence at 37 Neil Avenue was operated as a restaurant by this time. In the 1990's the easternmost parcel of land was developed with a small structure referred to as a commercial cottage, which was used for both residential and commercial purposes. In 2004 the Stittsville Flea Market was closed and by 2009 no buildings remained onsite. The property has since been vacant and unused.

Based on the findings of the historical research in combination with the site visit, five on-site PCAs and one off-site PCA have resulted in four areas of potential environmental concern (APEC) on the subject property:

- ☐ APEC 1: Former heating oil AST at 37 Neil Avenue (PCA 1);
- ☐ APEC 2: Former manufacturing and former heating oil UST at 35 Neil Avenue (PCAs 2 and 3);
- ☐ APEC 3: Historical use as storage by MTO (PCA 4);
- ☐ APEC 4: Possible impacts from offsite retail fuel outlet (PCA 5);
- ☐ APEC 5: Importation of fill material of unknown quality (PCA 7).

The former heating oil UST at 35 Neil Avenue (PCA 3) was previously addressed during a soil remediation program and groundwater monitoring event in 2005 and a subsequent groundwater monitoring event in 2012, at which time no contaminant concentrations were identified above the method detection limits.

The OCDSB facilities department (PCA 6) located south of the site, across Neil Avenue, is not considered to pose a concern to the subject property based on the distance of the current maintenance building/former service garage from the site (over 60 m).

Conclusion

Based on the findings of the Phase I-ESA, it is our opinion that a **Phase II-ESA is required for the subject property.**

1.0 INTRODUCTION

At the request of 2062915 Ontario Inc. and 2073945 Ontario Inc., Paterson Group (Paterson) conducted a Phase I - Environmental Site Assessment (ESA) for the properties addressed 6130 and 6150 Hazeldean Road in the City of Ottawa (Stittsville), 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. Allan Jackson with 2062915 Ontario Inc. Mr. Jackson can be reached by telephone at (613)518-2005.

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

2.0 PHASE I PROPERTY INFORMATION

Address:	6130 and 6150 Hazeldean Road, Ottawa, Ontario.
Parcel Identification Number:	04458-0013, 04458-0014, 00458-0015
Legal Description:	Parts 1, 2 and 3 on plan 4R-21452; Part of Lot 24, Concession 12 in the Geographic Township of Goulbourn
Location:	The subject property is located on the south side of Hazeldean Road, between Carp Road and Stittsville Main Street. Refer to Figure 1 - Key Plan, following the body of this report, for the site location.
Latitude and Longitude:	45° 16' 15" N, 75° 55' 56" W
Site Description:	
Configuration/Area:	1.8 hectares (approximate).
Zoning:	AM(9) - Arterial Mainstreet Zone.
Current Use:	The subject site is currently vacant, unutilized land.
Services:	The 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 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 Ontario Regulation 153/04) made under the Environmental Protection Act and in compliance with the requirements of CSA Z768-01;
- ☐ Provide a preliminary 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 Study Area Determination

A radius of 250 m was determined to be appropriate as a Phase I study area for the Phase I Environmental Site Assessment. Properties outside the 250 m radius are not considered to have impacted the subject land, based on their significant distances from the site.

First Developed Use Determination

According to the Chain of Title, the site was generally owned by private individuals from the 1800's through the 1940's when the eastern parcel of land was expropriated by the Ontario Ministry of Transportation (MTO). The central portion of the site (35 Neil Avenue) was sold to Instronics Ltd. in 1976. The entire property was subsequently operated as the Sittsville Flea Market from 1984 through 2004. Subsequent to the operation of the flea market, the site was unused with the exception of the easternmost parcel of land which was used for residential/commercial purposes until approximately 2006/2007.

Based on a review of aerial photographs, in 1945 the subject property was undeveloped land, largely covered with trees. The western portion of the site was subsequently developed with a residential dwelling and the eastern portion of the site was occupied by the MTO sometime between 1945 and 1963. Based on information gathered from available resources, the eastern portion of the subject property was first developed for industrial purposes in 1948 under ownership of the MTO. The western portion was first developed for residential purposes in 1957 (MOECC well record).

City of Ottawa Street Directories

Ottawa city directories from 1991 through 2011 were reviewed at the National Archives, at approximate ten year intervals, for the subject site and properties located within the Phase I-ESA study area. Older directories were not available for the area. It should be noted that the subject property was previously addressed 6176 Hazeldean Road and consisted of several addresses along Neil Avenue: 1, 35 and 37 Neil Avenue. Listings for the subject property are identified in Table 1 below.

Table 1 City Directories - Listings for the subject site			
Site Occupant	From	To	Potential Environmental Concern (Y/N)
6176 Hazeldean Road			
Stittsville Market, Kavanagh Realty 1982 Ltd., Auction Canada	1997	1999	N
Kavanagh Realty, Artrise Gallery, Auction Canada, Stittsville Market	1999	2001	N
1 Neil Avenue			
Confederation Log Homes	1993	1997	N
19 th Hole Inc. (Golf Supplies)	1997	2001	N
Grasson, J (residential)	2001	2011	N
Magstripe Technologies (Credit Card Services)	2011	2011	N
35 Neil Avenue - not listed			
37 Neil Avenue			
Maggie`s Restaurant	1993	1997	N
The Whitehorse Restaurant	1997	2001	N
Rocco`s Restaurant	2001	~2002	N

According to the directories, neighbouring properties within the Phase I study area were used for a combination of residential and commercial purposes. The city directories search did not identify any potential contaminating activities (PCAs) within the Phase I study area.

Fire Insurance Plans

Fire Insurance Plans (FIPs) were not available for the subject site and Phase I ESA study area.

Chain of Title

A current land title was prepared for the subject site, by Read Abstracts Limited. The records review was extended back to 1803 and was separated by property identification number (PIN). Based on the findings of the review, the original record is a patent to Joshua Bradley dated May 14, 1803. The subsequent record indicates a change in ownership from John Bradley to Joshua Bradley in 1914. The property was owned by the Bradley family until 1957 when sold to Victor and Theresa Tapp and subsequently to Jasmine Knowles in 1969.

The parcel identified as PIN 04458-0013 (the westernmost parcel) was sold by Jasmine Knowles to Alan Sharpley in 1977 and then to Kavanagh Realty (1982) Ltd. and Laurie Kavanagh in 1984. A name change from Kavanagh Realty (1982) Limited to Stittsville Flea Market Inc. occurred in 2004.

The parcel identified as PIN 04458-0014 (the central parcel) was sold in 1977 by Jasmine Knowles to Instronics Limited. A power of sale was subsequently registered from Ontario Development Corporation to Stittsville Hotels Limited in June of 1979. Kavanagh Realty (1982), later known as Stittsville Flea Market Inc., purchased the parcel of land in 1984.

The parcel identified as PIN 04458-0015 (the easternmost parcel) was expropriated by the Department of Highways of Ontario in 1948 and later sold to Bounty Real Estate Investments Inc. in 1987. Bounty Real Estate later became Kavanagh Family Investments Ltd., in 2004.

The title was merged sometime after 2004 and the subject property was sold in part to a numbered company in 2006 and then to Canril Corporation in 2009. The land was sold back to Kavanagh Family Investments Limited in 2009. Kavanagh is the most recent registered land owner.

Previous Environmental Reports

In September of 2005, Paterson supervised an environmental remediation program on the central portion of the property previously addressed 35 Neil Avenue. A furnace oil underground storage tank (UST) on the south side of the former building was removed by a licenced contractor, along with approximately 28 metric tonnes of petroleum hydrocarbon impacted soil. Upon completion of the remediation program, a monitoring well was installed within the tank nest in order to obtain a groundwater sample for analytical testing purposes. Confirmatory soil testing conducted upon the conclusion of the remediation program did not identify any benzene, toluene, ethylbenzene, and xylenes (BTEX) or petroleum hydrocarbon (PHCs, F1-F4) concentrations in excess of the current MOECC Table 3 standards. Analytical testing of the groundwater did not identify any BTEX parameters above the method detection limits, however F2 and F3 concentrations (600 µg/L) were identified in excess of the current MOECC standards.

In May of 2006, Paterson completed a Phase I-II ESA at the subject site, as well as an additional parcel of land to the west of the subject property (1174 Carp Road). During the investigation, a borehole was advanced inside the former building located at 35 Neil Avenue, to assess potential impacts associated with the former UST noted above. Soil analytical testing conducted at that time did not identify any detectable concentrations of the analysed parameters from the borehole placed in the area of the former on-site UST.

In March of 2012, Paterson once again conducted a Phase I-II ESA for the subject parcel of land. Boreholes, instrumented with monitoring wells, were advanced within the former tank nest, as the previous monitoring well had been destroyed, and on the northeastern portion of the site to address the recently constructed retail fuel outlet located across Hazeldean Road. Based on the findings of the investigation, soil and groundwater concentrations were considered to be in compliance with the current MOECC Table 3 standards.

Plan of Survey

A survey plan dated September 28, 2006, and prepared by Stantec Geomatics Limited, was provided to Paterson for review. The property boundary appears the same as that identified on the current City of Ottawa electronic mapping website. A copy of the plan, which shows the boundaries of the Phase I property, is provided in Appendix 1.

4.2 Environmental Source Information

Environment Canada

A search of the National Pollutant Release Inventory (NPRI) was conducted electronically on November 17, 2015. The subject site was not listed in the NPRI database. No properties within the 250 m Phase I study area were listed in the NPRI database.

PCB Inventory

A search of national PCB waste storage sites was conducted. The subject property is not registered as a PCB waste storage site. No properties within the Phase I study area were listed as PCB waste storage sites.

Ontario Ministry of the Environment and Climate Change (MOECC) Instruments

A request for information was submitted to the MOECC Freedom of Information office, for information with respect to Certificates of Approval, Permits to Take Water, Certificates of Property Use or any other similar MOECC issued instruments for the site. The MOECC response had not been received at the time this report was issued; an addendum letter will be provided upon receipt if pertinent information is identified. A copy of the MOECC correspondence to date, is provided in the Appendix.

MOECC Coal Gasification Plant Inventory

The Ontario Ministry of the Environment document titled "Municipal Coal Gasification Plant Site Inventory, 1991" was reviewed to reference the location of former plants with respect to the subject site. No coal gasification plant sites were identified within the Phase I study area.

MOECC Incident Reports

A request was submitted, during the previous Phase I-ESA, 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. The MOECC response had not yet been received at the time this report was issued; an addendum letter will be provided upon receipt should pertinent information be identified.

A copy of the MOECC correspondence to date, is provided in the Appendix.

MOECC Waste Management Records

A request was submitted to the MOE Freedom of Information office for information regarding waste management records within the files maintained by the MOE. Applicable information of current and historical waste storage locations, waste generators and waste receivers pursuant to Regulation 347 of the Revised Regulations of Ontario, 1990 (O.Reg.347) was considered in this review. The MOECC response had not yet been received at the time this report was issued. An addendum letter will follow. A copy of the MOECC correspondence to date, is provided in the Appendix.

MOE Submissions

A request was submitted to the MOECC Freedom of Information office for information regarding reports related to environmental conditions which are expected to have been submitted to the MOECC. The MOECC response had not been received at the time this report was issued. Should the response provide pertinent information regarding the subject land, an addendum letter will follow. A copy of the MOECC correspondence to date, is provided in the Appendix.

Ontario Ministry of the Environment and Climate Change (MOECC) Notices and Instruments

A search of the MOECC Brownfields Environmental Site Registry was conducted as part of this assessment, for the subject site and properties located within the Phase I study area. There are no records of site condition (RSC) listed in the registry, for the subject site or for properties within the 250 m Phase I ESA study area.

MOECC Waste Disposal Site Inventory

The Ontario Ministry of Environment and Climate Change document entitled "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. Based on this document, there are no active or closed waste disposal sites within 2 km of the subject property. The Carp Road landfill is located more than 2.5 km north of the subject land and is not considered to represent an environmental concern.

Areas of Natural Scientific Interest (ANSI)

According to the Ministry of Natural Resources' (MNR) electronic mapping website, woodland and an evaluated wetland is present to the north of the site across Hazeldean Road and an unevaluated wetland is present to the south east of the site. There are however, no areas of natural and scientific interest on the subject property or within the Phase I study area.

Technical Standards and Safety Authority (TSSA)

The TSSA, Fuels Safety Branch in Toronto was contacted, on November 17, 2015, to inquire about current and former underground storage tanks, spills and incidents for the site and neighbouring properties with potential environmental concerns. According to the TSSA records search, there are four active underground storage tanks (USTs) and cylinder exchange facility at the retail fuel outlet addressed 6061 Hazeldean Road, approximately 45 m north of the subject site. A copy of the TSSA response is provided in Appendix 2.

City of Ottawa Old Landfill Document

The document entitled "Old Landfill Management Strategy, Phase I - Identification of Sites, City of Ottawa", prepared by Golder, was reviewed. No former landfills are located within or in the immediate vicinity of the Phase I study area.

City of Ottawa Historic Land Use Inventory

On November 18, 2015, a requisition form was sent to the City of Ottawa to request information from the City's Historical Land Use Inventory (HLUI 2005) database for the subject property.

According to the response dated December 3, 2015, the Solid Waste Services Branch notes that the subject property is within 4.5 km of a waste management facility located at 106 Westhunt Road and within 3km of a waste management facility located at 2301 Carp Road. Based on the distances of the waste disposal facilities from the subject site, they are not considered to represent areas of potential environmental concern on the subject property.

A search of the HLUI database revealed that there are no activities associated with the subject property, however four activities were identified within 50 m of the Phase I property. These activities are listed in Table 2 below. The distances and orientations with respect to the site listed in Table 2 are based on depicted locations in the overview map attached by the City. A copy of the City's response has been included in Appendix 2.

Table 2 City of Ottawa HLUI Database			
Address	Name / Activity	Distance and Orientation from Site	Potentially Contaminating Activity (PCA) (Y/N)
Stittsville Main Street			
1224	Ottawa-Carleton District School Board, Central Depot	25 m southeast	Y
Hazeldean Road			
6176-6178	Province of Ontario Ministry of Transportation	35 m west	Y
6176	Gus's Antiques	35 m west	N
6061	Unnamed Quarry	45 m northeast	Y

The OCDSB facilities department is considered to be a PCA, however it is not considered to represent an APEC on the subject site based on the distance of the building structures from the subject property of over 60 m. No concerns were noted on the portion of the OCDSB land situated closer to the site, during the historical portion of the assessment or at the time of the site visit.

The property identified as Gus's Antiques is not considered to pose a concern to the site, based on the retail nature of the activity. A review of aerial photos covering the property at 6061 Hazeldean Road did not identify a former quarry. This is considered to be an error in the HLUI database. However, this property was developed with a retail fuel outlet at some time between 2007 and 2008 and is considered to be a PCA.

4.3 Physical Setting Sources

Air Photo Research

Historical air photos were reviewed for the subject property and adjacent sites. A summary of our findings is presented below.

1945 The subject site and neighbouring lands are predominantly vacant at this time. Hazeldean Road is present to the south of the subject site at this time. Residential dwellings can be seen on the north side of Hazeldean Road, just east of Carp Road and south of the site, east of Stittsville Main Street.

1963 Hazeldean Road has been realigned to the north of the subject property, while Stittsville Main Street has been realigned to the east of McCooeye Lane, formerly an extension of Main Street. Hazeldean Road and Stittsville Main Street appear in their current configuration at this time. Neil Avenue (formerly Hazeldean Road in the previous photograph) is present immediately south of the site.

The subject site has been developed with an apparent residential dwelling on the southwestern portion of the site. A small structure, possibly associated with the use of the site by the MTO, is situated on the central portion of the site and the land immediately adjacent to the structure has been stripped of vegetation. Otherwise the site remains unchanged.

A small parcel of vacant land is present east of the site and the land to the south, across Neil Avenue is also vacant. Further to the south, an apparent commercial property is under development. Additional dwellings have been constructed southeast of the site.

1970 No significant changes have been made to the subject site. Neil Avenue has been realigned at the Stittsville Main Street intersection. Development of the commercial property further south of the property has been completed with the undeveloped portion used for storage of vehicles. Additional residential dwellings are present west and southwest of the site, along both sides of Neil Avenue. No other significant changes have been made to the remainder of the surrounding properties.

- 1976 (City of Ottawa e-map) An addition appears to have been made to the dwelling on the western portion of the subject site. A larger, commercial structure has been constructed between the dwelling and the smaller commercial structure seen in the previous photo and the majority of the eastern portion of the site has been stripped of vegetation. No other significant changes have been made to the subject property. Adjacent properties to the north and east remain unchanged. A small parcel of the treed land immediately west of the site has been paved. Further west, a residential dwelling is now present as well as what appear to be two warehouses or commercial structures. The commercial property to the south has been redeveloped with one of the existing structures and the parking area as been expanded to the remainder of the site.
- 1984 The easternmost residential building on the subject site has been demolished. The ground surface on-site appears to be predominantly asphalt or gravel at this time. The commercial property to the south has been developed with an additional structure and the vehicles seen in the previous photograph are no longer present. Additional structures suspected to be associated with the former flea market, are now present on the land west of the site. The property to the northwest has been cleared of vegetation and appears to have had some fill placement.
- 1999 Vegetation on the eastern most portion of land appears to have been cleared. No other significant changes appear to have been made to the subject site or neighbouring properties.
- 2002 (City of Ottawa e-map) A small structure, similar to a residential dwelling, and a gravel laneway are present on the eastern most portion of the site. No other significant changes have been made to the subject property. The land adjacent to the east appears to have been landscaped and a small structure is present. A portion of the treed land to the northeast of the site, across Hazeldean Road, has been cleared. Otherwise, no apparent changes have been made to the adjacent properties.

- 2007 (City of Ottawa website) The westernmost structure is no longer present on site. Otherwise no significant changes have been made to the subject property. The flea market buildings, with the exception of one small structure, have been removed from the adjacent property to the west. Three small storage structures are now present on the property to the south, across Neil Avenue. The land northwest of the site has been stripped of vegetation and appears to be under construction. No other significant changes appear to have been made to the adjacent or neighbouring properties.
- 2014 (City of Ottawa website) The subject structures identified in the previous photographs are no longer present on the subject property, although the foundation of the former industrial building (35 Neil) remains present. The residential dwelling addressed 45 Neil Avenue is no longer present on the adjacent property to the west. The property to the northwest of the site has been developed for commercial purposes, with a retail fuel outlet located at the northwest corner of Stittsville Main Street and Hazeldean Road.

Laser copies of selected aerial photographs reviewed are included in Appendix 1 following the body of this report.

Topographic Maps

Topographic maps were obtained from Natural Resources Canada - The Atlas of Canada website. The topographic maps indicate that the regional topography in the general area of the subject site slopes downward to the northeast. There are no bodies of water on the subject property or within the Phase I study area. Poole Creek located approximately 700 m southeast of the subject property, drains in a northeasterly direction to the Carp River, approximately 3.2 km northeast of the site.

No environmental concerns were identified on the topographic mapping. An illustration of the referenced topographic map is present on Figure 2 - Topographic Map following the body of 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, "where the land is rarely more than 150 m above sea level, except for the Monteregion Hills, which consist of intrusive igneous rocks."

Geological Maps

The Geological Survey of Canada website on the Urban Geology of the National Capital Area was consulted as part of this assessment. Based on the information from NRCAN, bedrock in the area of the site consists of limestone of the Bobcaygeon formation. Overburden on the western portion of the site is negligible, while organic deposits (peat, muck, marl) are reported to be present on the eastern portion at depths up to 5 m below ground surface.

Water Well Records

A total of 24 well records for the Phase I study area were obtained from the MOECC website. Two of the 24 well records were for potable wells located on the Phase I property. These wells were associated with a residential dwelling (37 Neil Avenue, 1957) and a 'workshop' (possibly the MTO structure based on the date of installation, 1967) and were installed in the limestone bedrock at depths of 33 and 23 m below ground surface, respectively.

With one exception, the remaining well records were also for potable wells associated with residential properties. According to the well records, a potable well was installed on the property to the south of the site, across Neil Avenue, which was occupied by a "service station-garage" at the time. In general, the wells in the Phase I study area were installed in the grey limestone bedrock at depths ranging from 6 to 160 m, although the depths were generally from 75 to 100 m below grade.

Copies of the well records are provided in Appendix 2.

Fill Materials

The remedial excavation conducted in September of 2005, at the location of the former tank nest adjacent to the south of the existing foundation (formerly 35 Neil), was backfilled upon completion of the remediation activities with approximately 15 cubic metres of clean, imported material.

Granular material is present over the eastern portion of the site. The very eastern most portion of the site appears to have been slightly raised at the location of the former residential/commercial structure (1 Neil Avenue). No other signs of fill material were noted on the Phase I property or the neighbouring lands within the Phase I study area.

During the Phase II-ESA conducted in conjunction with the Phase I-ESA, fill material was identified on the eastern portion of the site. The fill material generally consisted of brown silty sand gravel with traces of clay and/or organics. No deleterious materials were identified in the fill.

Water Bodies and Areas of Natural and Scientific Interest (ANSI)

No water bodies are located within the 250 m Phase I-ESA study area. As discussed above, Poole Creek is the closest body of water, situated approximately 700 m southeast of the subject site. There are no areas of natural and scientific interest on the subject property or within the study area.

5.0 INTERVIEWS

As part of the historical portion of the Phase I-ESA, Mr. Allan Jackson, part owner and developer of the land, was interviewed by email on November 18, 2015. Mr. Jackson, who has recently become involved with the subject land, was aware of no past or current potential environmental concerns pertaining to the site or surrounding properties, with the possible exception of the retail fuel outlet recently constructed to the northeast of the subject property.

Mr. Hal Raycroft, the previous property owner, was interviewed in person on December 3, 2015 and again by phone on December 9, 2015. The subject land was in Mr. Raycroft's family for approximately 30 years. During this time the land was operated as a flea market. Prior to the use as a market, Mr. Raycroft indicated that the former building addressed as 35 Neil Avenue was occupied by Instronics Ltd. To the knowledge of Mr. Raycroft, aircraft blackboxes were manufactured or assembled on site.

When questioned about the buildings on either side of the former Instronics building, Mr. Raycroft indicated that the property to the west (37 Neil Avenue) was occupied by a restaurant. The restaurant was reportedly heated with furnace oil stored in an aboveground storage tank (AST) located on the interior of the subject structure. The tank was removed in the early 1980's when the heating source was replaced by propane. According to Mr. Raycroft, the building to the east had been a Ministry of Transportation shed possibly used for the storage of salt or sand.

6.0 SITE RECONNAISSANCE

6.1 General Requirements

The site assessment was carried out on November 22, 2015, by personnel with the the Environmental Department of Paterson Group. The weather conditions were clear with a temperature of 7°C. In addition to the site, the uses of neighbouring properties within the Phase I study area were also observed, from publicly accessible areas, at the time of the site visit.

6.2 Specific Observations at the Phase I Property

Buildings and Structures

The subject property is currently vacant with no building structures, although the foundation of the former building addressed 35 Neil Avenue remains present on site. Locations of former structures are identified on Drawing: PE3699-1 - Site Plan.

Below Ground Structures

No below ground structures are present on the subject property.

Storage Tanks

No aboveground storage tanks (ASTs) or signs of underground storage tanks (USTs) were observed on the Phase I property at the time of the site visit. A cut in the asphalt was observed at the location of the former UST and soil remediation program, adjacent to the south of 35 Neil Avenue.

Potable Water Source

The subject property is situated within a municipally serviced area. Although not currently serviced, municipal services will be provided to the site upon development.

Underground Utilities

Based on service locates conducted for the subject property during a previous subsurface investigation, there are no underground utilities on the subject property.

Unidentified Substances

There were no unidentified substances on the subject property at the time of the site visit.

Current and Former Wells

There are currently no potable wells on the subject property. However according to the MOECC website, as discussed above, there were two potable wells previously installed on the site in the 1970's. One well, installed in 1957, serviced the residential dwelling/restaurant previously addressed as 37 Neil Avenue. According to the well record, the well installed in 1967 serviced a 'workshop', which possibly referred to the MTO structure, as the former building at 35 Neil Avenue was constructed in the 1970's.

Two monitoring wells were installed on the subject property during a previous subsurface investigation conducted by Paterson in 2012. One well is no longer present and is considered to have been destroyed during snow removal operations.

Ground Surface

The western portion of land is mostly asphalt covered, however a grassed area is present, at a slightly higher grade than the surrounding asphalt. A wooden retaining wall supports the northeastern corner of the grassed area.

The central portion of land is also asphalt covered with the exception of the concrete foundation of the former building at 35 Neil Avenue. Small areas of ceramic tile and vinyl tile remain present across the foundation.

The eastern portion of land is at a significantly lower grade than the remainder of the site. This portion of the site is largely covered with granular material, while the easternmost portion is covered with grass and trees.

Railway Lines

No railway lines were observed on the subject site or within the Phase I-ESA study area.

Potentially Contaminating Activities

No potentially contaminating activities were observed on the subject property at the time of the site visit.

6.3 Enhanced Investigation Property

On-site Operations

As previously noted, the former building addressed 35 Neil Avenue, located on the central portion of the property, was occupied by Instronics Ltd. Based on a review of the aerial photographs, the building was constructed some time between 1970 and 1976. Based on the Chain of Title prepared by Read Abstracts Jasmine Knowles sold a portion of the subject property to Instronics in June of 1969, however a deed registered in December of 1969 identifies the property being returned to Jasmine Knowles. A third record shows a deed from Jasmine Knowles to Instronics again in August of 1977. The next transaction indicates a power of sale in 1979, from Ontario Development Corporation to Stittsville Hotels Ltd. Based on the available information, it is considered likely that Instronics occupied the site from approximately 1976 through 1979.

According to Mr. Hal Raycroft, whose family purchased the subject land and adjacent property to the west in 1984, operations at the former Instronics building included the assembly or possible manufacturing of aircraft black boxes. Under ownership of Kavanagh Family Investments who operated the site as the Stittsville Flea Market for approximately 30 years, the building was used mainly for storage.

Hazardous Materials Used or Stored at the Phase I-ESA Property

No hazardous materials are currently used or stored at the Phase I-ESA property. A representative from Paterson did however complete an interior inspection of the former building at 35 Neil Avenue, during a past environmental assessment in 2006. At this time, there were no hazardous materials observed on the subject property. It is possible that limited cleaning solvents and small quantities of oils or lubricants were kept on the property when occupied by Instronics. Given the nature of the former operations in conjunction with the small size of the building, it is considered unlikely that significant quantities of hazardous materials were kept on site.

Products Manufactured at the Phase One Property

Products are not currently manufactured at the Phase I property. It has been reported that aircraft black boxes were manufactured on site (former parcel addressed 35 Neil Avenue).

By-Products and Wastes

Waste is not currently generated on site. Given the nature of the former on-site operations at 35 Neil Avenue, waste solvents and lubricants may have been generated.

Raw Materials Handling Storage Locations

Raw materials are not currently stored on site. Raw materials are not expected to have been stored at 35 Neil Avenue in the past, given the size of the former building and the on-site operations which included the assembly of aircraft black-boxes. However according to Mr. Kavanagh, salt may have been stored in a former MTO storage shed located immediately east of the former Instronics building.

Drums, Totes and Bins

No drums, totes or bins were observed on the subject property at the time of the site visit. No information pertaining to past drums, totes or bins was available.

Oil-Water Separators

There are no existing or former oil-water separators on the Phase I property.

Vehicle and Equipment Maintenance Areas

There are no current or former vehicle and equipment maintenance areas on the Phase I property.

On-Site Spills

Based on a review of the historical information in combination with personal interviews and observations made during a previous investigation, there have been no significant surficial on-site spills. There was however a small spill from an underground storage tank previously situated adjacent to the south of the former building at 35 Neil Avenue.

The UST was removed and the impacted soil was remediated in 2005, under the supervision of Paterson personnel.

Liquid Discharge Points

Wastewater is not currently generated on the subject property. Based on a previous report, the former structure at 1 Neil Avenue, on the easternmost portion of the site discharged to a buried septic tank on site. It is unknown if this tank remains present. It was also noted in the previous reports that the residential dwellings adjacent to the west of the site discharged to private septic systems. It is therefore considered likely that the former structures at 35 and 37 Neil also discharged to private septic systems. No evidence of former septic tanks or beds was identified at the time of the site visit.

Hydraulic Lift Equipment

During the past site visit (2006) there was no evidence of hydraulic lift equipment within the building at 35 Neil. Hydraulic lift equipment is not considered to have been present at any other location on site based on the past uses of the property.

6.4 Phase I-ESA Study Area

An inspection of the neighbouring properties within the 250 m Phase I-ESA study area, was conducted from publicly accessible roadways at the time of the site assessment. Immediately adjacent properties consist of the following:

- ☐ North - Hazeldean Road, followed by vacant, treed land and a commercial plaza;
- ☐ South - Neil Avenue followed by Ottawa Carleton District School Board (OCDSB) Facilities Department (1224 Stittsville Main Street);
- ☐ East - landscaped area followed by Stittsville Main Street; and
- ☐ West - vacant commercial land.

The OCDSB facilities department is considered to be a potentially contaminating activity (PCA), however based on the distance of the maintenance building from the subject property (over 60 m), it is not considered to represent an APEC on the subject site.

A retail fuel outlet is present at the northwest corner of the intersection of Hazeldean Road and Stittsville Main Street, approximately 40 m northeast of the subject property, and is considered to be a PCA resulting in an APEC on the subject property.

No other PCAs were identified within the Phase I study area.

7.0 REVIEW AND EVALUATION OF INFORMATION

7.1 Land Use History

The following table indicates the current and past uses of the site as well as ownership and other observations dating back to the first known date of ownership of the site.

Table 3: Land Use History				
Year	Name of Owner	Description of Property Use	Property Use	Other Observations from Aerial Photographs, Fire Insurance Plans, Etc.
Entire property prior to being split into separate PINs				
Patent dated March 14, 1803	Joshua Bradley	Undeveloped Land	Agricultural or other use	The earliest air photo available, from 1945, shows that the land is undeveloped and partially forested.
1803-1914	John Bradley	Undeveloped land	Agricultural or other use	
1914-1921	Joshua Bradley	Undeveloped land	Agricultural or other use	
1921-1957	John C. Bradley	Undeveloped land followed by apparent residential and commercial	Residential, Commercial	The 1963 air photo reviewed shows an apparent residential dwelling (37 Neil Avenue) on the western portion of the property and what was reported to have been an MTO storage shed on the central portion of the property. The 1976 aerial shows a larger structure (35 Neil Avenue) between the dwelling and the MTO shed.
1957-1963	Victor J. Tapp and Theresa J. Tapp	Residential and Commercial	Residential, Commercial	
1963- June of 1977	Jasmine Knowles			

Table 3: Land Use History Continued				
Year	Name of Owner	Description of Property Use	Property Use	Other Observations from Aerial Photographs, Fire Insurance Plans, Etc.
PIN 0013 (Western portion of Phase I property)				
1977-1984	Alan Sharpley	Residential	Residential	No changes to the original dwelling seen in the 1963 aerial, were noted in the 1970 or 1976 aerials, although an addition north of the original structure was noted in 1976.
1984-2004	Kavanagh Realty (1982) Limited and Lori Kavanagh	Restaurant/flea market	Commercial	An addition was made to the west of the original structure in the 1984 aerial. According to Mr. Raycroft, this property was operated as a restaurant under Kavanagh's ownership, in conjunction with the Stittsville Flea Market. Additional structures associated with the restaurant and flea market were noted in a 1991 aerial.
2004-2006 (change of name)	Stittsville Flea Market Inc.	Restaurant/flea market	Commercial	By 2005 the main restaurant building/former dwelling had been removed from the site and by 2007 this portion of the Phase I property was completely vacant.
PIN 0014 (Central portion of Phase I property)				
1977-1979	Instronics Limited	Reported manufacturing of aircraft black boxes	Industrial	Structure formerly addressed 35 Neil Avenue was present in 1976 aerial.

Table 3 Continued: Land Use History Continued				
Year	Name of Owner	Description of Property Use	Property Use	Other Observations from Aerial Photographs, Fire Insurance Plans, Etc.
1979-1984 (power of sale by Ontario Development Corporation)	Stittsville Hotels Limited	Vacant Industrial	Industrial	No changes to this parcel of land in 1984 aerial.
1984-2004	Kavanagh Realty (1982) Limited	Stittsville Flea Market	Commercial	In a 1991 aerial, temporary sales stalls associated with the flea market can be seen on the property as well as numerous customer vehicles. In a 1999 aerial stalls are no longer present.
2004-2006 (change of name)	Sittsville Flea Market Inc.	Stittsville Flea Market (closed in December of 2004); vacant	Commercial	A 2009 aerial shows the structure was demolished and the land has remained vacant since (2011 and 2014 aerials).
PIN 0015 (Eastern portion of Phase I property)				
1948-1987 (expropriated from John C. Bradley)	The Department of Highways of Ontario	Reported structure and yard, used for storage of sand and/or salt by the province.	Industrial	Storage structure and associated yard (small gravel covered area) present in 1963 aerial. Possibly a second structure present in 1970 aerial; not seen in subsequent 1976 photo. In 1976 photo, remainder of parcel has been surfaced with gravel. Structures no longer present in 1984.
1987-2004	Bounty Real Estate Investments Inc.	Used as parking lot for Stittsville Flea Market	Commercial	Use as lot observed in 1991 aerial; eastern most portion of site developed with commercial cottage.

Table 3 Continued: Land Use History				
Year	Name of Owner	Description of Property Use	Property Use	Other Observations from Aerial Photographs, Fire Insurance Plans, Etc.
2004-2006	Kavanagh Family Investments Ltd.	Unused	Commercial	No changes in 2005 aerial.
Title Merged (part of PIN 0085)				
2006-2009	2074246 Ontario Inc.	Unused	Commercial	Commercial cottage relocated onto gravel lot to the west, according to 2008 aerial and removed from property altogether in 2009. No significant changes in 2011 or 2014 aerals.
July 9, 2009 - July 17, 2009	Canril Corporation			
2009-2015	Kavanagh Family Investments Ltd.			

Kavanagh Family Investments Ltd. is the last registered owner, however 2062915 Ontario Inc. and 2073945 Ontario Inc. have recently purchased the land.

7.2 Areas of Potential Environmental Concern and Potentially Contaminating Activities

Current and historical potentially contaminating activities identified on the subject site and adjacent properties, and which are considered to pose a potential environmental concern to the subject property, are provided in Table 4 below. PCAs were identified as per Column A of Table 2, from Ontario Regulation 153/04 as amended by Ontario Regulation 296/11.

Table 4: Areas of Potential Environmental Concern					
Area of Potential Environmental Concern (APEC)	Location of PEC on Phase One Property	Potential Contaminating Activities (PCA)	Location of PCA (on-site/off-site)	Contaminants of Potential concern (CPC)	Media Potentially Impacted (Groundwater, Soil and/or Sediment)
Former domestic heating oil AST at 37 Neil Avenue (APEC 1)	Western portion of site (PIN 04458-0013)	Item 28 - Gasoline and Associated Products Stored in Fixed Tanks	on-site	PHCs BTEX/PHCs	Soil Soil and Groundwater
Former electronics assembly or manufacturing (Instronics) at 35 Neil Avenue and former heating oil UST (APEC 2)	Central portion of site (PIN 04458-0014)	Item 19 - Electronic and Computer Equipment Manufacturing Item 28 - Gasoline and Associated Products Stored in Fixed Tanks	on-site on-site	VOCs and PHCs none - PCA has been addressed	Soil and Groundwater Soil and Groundwater meet MOECC Table 3 standards
Former MTO storage shed and yard - possible salt storage (APEC 3)	Eastern portion of site (PIN 04458-0015)	Item 48 - Salt Manufacturing, Processing and Bulk Storage	on-site	salt (SAR, ECE, sodium and chlorides)	Soil and/or Groundwater

Table 4 Continued: Areas of Potential Environmental Concern					
Area of Potential Environmental Concern (APEC)	Location of PEC on Phase One Property	Potential Contaminating Activities (PCA)	Location of PCA (on-site/off-site)	Contaminants of Potential concern (CPC)	Media Potentially Impacted (Groundwater, Soil and/or Sediment)
Retail fuel outlet (APEC 4)	Northeast corner of site	Item 28 - Gasoline and Associated Products Stored in Fixed Tanks	off-site	BTEX and PHCs	Groundwater
Fill material of unknown quality (APEC 5)	Eastern portion of site (PIN 0015)	Item 30 - Importation of Fill Material of Unknown Quality	on-site	Metals	Soil

The former AST located at 37 Neil Avenue was reportedly removed from the property in the early 1980's. Although there are no reported incidents regarding the tank and impacts are not suspected, the AST represents an APEC on the subject property (APEC 1).

The former use of the building addressed 35 Neil Avenue by Instronics Ltd., for the reported assembly or manufacturing of aircraft black boxes poses a concern to the subject property (APEC 2). This building was also formerly heated with furnace oil stored in an underground storage tank (UST) adjacent to the south of the building. The former UST is included as an APEC with the former use of the building (in accordance with O.Reg.153/04), however a soil remediation program was conducted upon the removal of the UST in 2005. Groundwater monitoring was subsequently conducted in 2005 and again in 2012 at which time concentrations were in compliance with the current MOECC Table 3 standards. As a result, the former UST does not represent a current APEC that requires further investigation.

The former use of the eastern portion of the site by the Ministry of Transportation (MTO) for the reported storage of salt, is considered to represent an APEC on the eastern portion of the site (APEC 3). The retail fuel outlet situated northeast of the site across Hazeldean Road represents an APEC on the northeastern portion of the site (APEC 4). Fill material identified on the eastern portion of the site during the concurrent subsurface investigation, has also been identified as an APEC (APEC 5).

7.3 Conceptual Site Model

Geological and Hydrogeological Setting

Based on the information from NRCAN bedrock in the area of the site consists of limestone of the Bobcaygeon formation. Overburden on the western portion of the site is negligible, while organic deposits (peat, muck, marl) are reportedly present on the eastern portion at depths up to 5 m below ground surface. According to data collected during the concurrent subsurface investigation however, a layer of fill material is present over the site, underlain by glacial till and/or limestone bedrock.

Contaminants of Potential Concern

Based on the APECs identified in Table 4 above, the following Contaminants of Potential Concern (CPCs) have been identified:

- ❑ Volatile Organic Compounds (VOCs), including BTEX - this suite of parameters includes chlorinated solvents and degradation products (Tetrachloroethylene, Trichloroethylene, Dichloroethylenes, and Vinyl Chloride) associated with degreasing, as well as chloroform, a byproduct of chlorine disinfection of municipally-treated water. Also included with VOCs are BTEX (benzene, toluene, ethylbenzene and xylenes) which is a suite of VOCs associated in part with gasoline and diesel fuel. BTEX was selected based on the use of heating oil on-site and the retail fuel outlet located across Hazeldean Road. VOCs were selected due to the use of the building at 35 Neil Avenue for electronics manufacturing as it is possible that solvents and degreasing agents were associated with the manufacturing process. BTEX and VOC may be present in the soil and also dissolved in the groundwater beneath the site.

- ❑ Petroleum Hydrocarbon Fractions 1 through 4 (PHC F1-F4) - this suite of parameters encompasses gasoline (Fraction 1), diesel and fuel oil (Fraction 2) and heavy oils (Fractions 3 and 4). PHCs F1-F4 were selected as CPCs for the Phase I property based on the former on-site fuel tank, the possible use of grease and lubricants associated with former on-site manufacturing, and the retail fuel outlet located across Hazeldean Road. Gasoline and diesel are commonly used motor vehicle fuels. PHCs may be present in the soil matrix, sorbed to soil particles, as well as in free or dissolved phase in the groundwater system. PHCs are generally considered to be LNAPLs, light non-aqueous phase liquids, indicating that when present in sufficient concentrations above the solubility limit, they will partition into a separate phase above the water table, due to their lower density.
- ❑ Salt - suite of parameters including Electrical Conductivity, Sodium Adsorption Ratio, Chloride and Sodium. These parameters were selected due to the possible use of the eastern portion of the site for the bulk storage of salt. The MOECC provides standards for Electrical Conductivity and Sodium Adsorption Ratio in the soil and Chloride and Sodium in the groundwater.
- ❑ Metals - suite of parameters encompasses heavy metals and was selected as a CPC due to the presence of fill material on the site. Due to the non-leaching nature of metals, they are not expected to be present in the groundwater.

Existing Buildings and Structures

There are currently no buildings or structures on the subject property, however the concrete foundation of the former structure at 35 Neil Avenue remains present on site as shown on Drawing: PE3699-1 - Site Plan. The site plan also depicts the former locations of the residence/restaurant at 37 Neil Avenue, the former MTO storage shed east of 35 Neil Avenue, and the former commercial cottage at 1 Neil Avenue.

The former building at 37 Neil Avenue was originally heated with furnace oil stored in an aboveground storage tank (AST) which was removed in the early 1980's. The structure was reported to have subsequently been heated with propane. The former structure at 35 Neil Avenue was originally heated with furnace oil stored in an underground storage tank (UST) adjacent to the south wall of the structure. The structure was subsequently heated with natural gas-fired equipment. The former structure at 1 Neil Avenue was heated with electric baseboard heaters. Approximate locations of the former structures are also shown on Drawing: PE3699-1 - Site Plan.

Water Bodies

There are no bodies of water located within the 250 m Phase I study area. Poole Creek is the closest body of water, situated approximately 75 m southeast of the subject site.

Areas of Natural and Scientific Interest (ANSI)

No ANSIs were identified on the subject property or within the Phase I study area.

Drinking Water Wells

According to the Ministry of the Environment's well record database, there are two well records for potable water wells on the subject site and 22 records for potable wells within the Phase I study area. The wells on the site serviced the former residential dwelling at 37 Neil Avenue and the former workshop at 35 Neil Avenue. The wells were installed in 1957 and 1967 respectively, to depths of 23 m and 33 m within the limestone bedrock.

The wells within the Phase I study area were installed for the purposes of domestic water and serviced private dwellings, with the exception of a well which serviced the service garage on property to the south of the site.

The Phase I study area has since been provided with municipal services. The subject property will be provided with municipal services upon development.

Groundwater Monitoring Wells

One (1) groundwater monitoring well is currently present on the subject property. The well was installed during the subsurface investigation carried out in March of 2012.

Neighbouring Land Use

Neighbouring land use in the Phase I study area was a combination of residential and commercial. A retail fuel outlet located at 6061 Hazeldean Road is considered to pose a potential concern to the subject property. The Ottawa-Carleton District School Board Facilities Department is situated south of the subject property. A service garage has been present on the southern portion of the property, closer to Stittsville Main Street, since the 1960s. Based on the distance of the garage building of over 60 m from the subject property, it is not considered to represent an APEC on the Phase I property.

Neighbouring land use is depicted on Drawing: PE3699-2 - Surrounding Land Use Plan.

Fill Material

Fill material was observed on the eastern portion of the site, from near surface to depths ranging from 0.1 to 3 m below ground surface and generally consisted of brown silty sand with gravel and at some locations traces of clay and organics. No deleterious materials were identified in the fill.

Potentially Contaminating Activities and Areas of Potential Environmental Concern

As per Column A of Table 2 outlined in Ontario Regulation 153/04 and amended by O.Reg. 279/11, potentially contaminating activities (PCAs) identified on the subject property and/or within the Phase I-ESA study area, include the following:

- ☐ Item 28: Gasoline and Associated Products Storage in Fixed Tanks (PCAs 1, 3 and 6);
- ☐ Item 19: Electronic and Computer Equipment Manufacturing (PCA 2);
- ☐ Item 27: Garages (PCA 7);
- ☐ Item 30: Importation of Fill Material of Unknown Quality (PCA 5); and
- ☐ Item 48: Bulk Storage of Salt (PCA 4).

Four areas of potential environmental concern (APECs) are located on the subject property and are as follows:

- ☐ APEC 1: Former heating oil AST at 37 Neil Avenue (PCA 1);
- ☐ APEC 2: Former manufacturing and former heating oil UST at 35 Neil Avenue (PCAs 2 and 3);
- ☐ APEC 3: Historical use as storage by MTO (PCA 4);
- ☐ APEC 4: Possible impacts from offsite retail fuel outlet (PCA 6);
- ☐ APEC 5: Importation of fill material of unknown quality (PCA 5).

As previously discussed, the former UST (PCA 3) included in APEC 2 was addressed during previous investigations carried out by Paterson. The property located at 1224 Stittsville Main Street, south of the site, is occupied by the OCDSB facilities department and has historically been used for automotive service repairs (PCA 7). Based on the distance of the service building from the subject property (over 60 m) it is not considered to represent an APEC on the subject property.

The above noted APECs and PCAs are highlighted on Drawing: PE3699-1 - Site Plan and Drawing: PE3699-2 - Surrounding Land Use Plan, respectively.

8.0 CONCLUSIONS

Assessment

Paterson Group was retained by Mr. Allan Jackson of 2062915 Ontario Inc., to conduct a Phase I-Environmental Site Assessment for the properties addressed 6130 and 6150 (previously 6176) Hazeldean Road in the City of Ottawa (Stittsville), Ontario. The purpose of the Phase I-ESA was to research the past and current use of the site and study area and to identify environmental concerns with the potential to have impacted the subject property.

Historically, the property also included civic addresses along Neil Avenue. The western parcel of land (37 Neil Avenue), was originally used for residential purposes while the remainder of the site was vacant, undeveloped land. The eastern parcel was subsequently occupied by a Ministry of Transportation storage shed and associated yard, for the reported storage of salt and/or sand from the 1950's through the 1970's. The central portion of the site was developed with an industrial structure in the early 1970's (35 Neil Avenue). The building was occupied by Instronics Ltd. and reportedly used for the assembly and manufacturing of aircraft black boxes. Circa 1984, the entire subject property was purchased by Kavanagh Family Investments Inc. and along with the adjacent land to the west, was operated as the Stittsville Flea Market. The former residence at 37 Neil Avenue was operated as a restaurant by this time. In the 1990's the easternmost parcel of land was developed with a small structure referred to as a commercial cottage, which was used for both residential and commercial purposes. In 2004 the Stittsville Flea Market was closed and by 2009 no buildings remained onsite. The property has since been vacant and unused.

Based on the findings of the historical research in combination with the site visit, five on-site PCAs and one off-site PCA have resulted in four areas of potential environmental concern (APEC) on the subject property:

- ☐ APEC 1: Former heating oil AST at 37 Neil Avenue (PCA 1);
- ☐ APEC 2: Former manufacturing and former heating oil UST at 35 Neil Avenue (PCAs 2 and 3);
- ☐ APEC 3: Historical use as storage by MTO (PCA 4);
- ☐ APEC 4: Possible impacts from offsite retail fuel outlet (PCA 6);
- ☐ APEC 5: Importation of fill material of unknown quality (PCA 5).

The former heating oil UST at 35 Neil Avenue (PCA 3) was previously addressed during a soil remediation program and groundwater monitoring event in 2005 and a subsequent groundwater monitoring event in 2012, at which time no contaminant concentrations were identified above the method detection limits.

The OCDSB facilities department (PCA 7) located south of the site, across Neil Avenue, is not considered to pose a concern to the subject property based on the distance of the current maintenance building/former service garage from the site (over 60 m).

Conclusion

Based on the findings of the Phase I-ESA, it is our opinion that a **Phase II-ESA is required for the subject property.**

9.0 STATEMENT OF LIMITATIONS

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

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

This report was prepared for the sole use of 2062915 Ontario Inc. and 2073945 Ontario Inc. Permission and notification from 2062915 Ontario Inc., 2073945 Ontario Inc. and Paterson Group will be required to release this report to any other party.

Paterson Group Inc.



Karyn Munch, P.Eng.



Mark S. D'Arcy, P.Eng.



Report Distribution:

- ☐ 2062915 Ontario Inc. and 2073945 Ontario Inc. (2 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.
Environment Canada, Access to Information and Privacy Office.
PCB Waste Storage Site Inventory.

Provincial Records

MOE Freedom of Information and Privacy Office.
MOE Municipal Coal Gasification Plant Site Inventory, 1991.
MOE document entitled "Waste Disposal Site Inventory in Ontario".
MOE Brownfields Environmental Site Registry.
Office of Technical Standards and Safety Authority, Fuels Safety Branch.
MNR Areas of Natural Significance.
MOE Water Well Inventory.

Municipal Records

City of Ottawa HLUI Records.
City of Ottawa electronic map.

Local Information Sources

Chain of Title - Read Abstracts
Plan of Survey, prepared by Stantec Geomatics Ltd. (September 28, 2006)
Previous Engineering Reports (Paterson Group Inc. (2005) and Paterson Group Inc.(2012))
Personal Interviews.

Public Information Sources

Google Earth
Google Maps/Street View

FIGURES

FIGURE 1 - KEY PLAN

FIGURE 2 - TOPOGRAPHIC MAP

DRAWING PE3699-1 - SITE PLAN

DRAWING PE3699-2 - SURROUNDING LAND USE PLAN

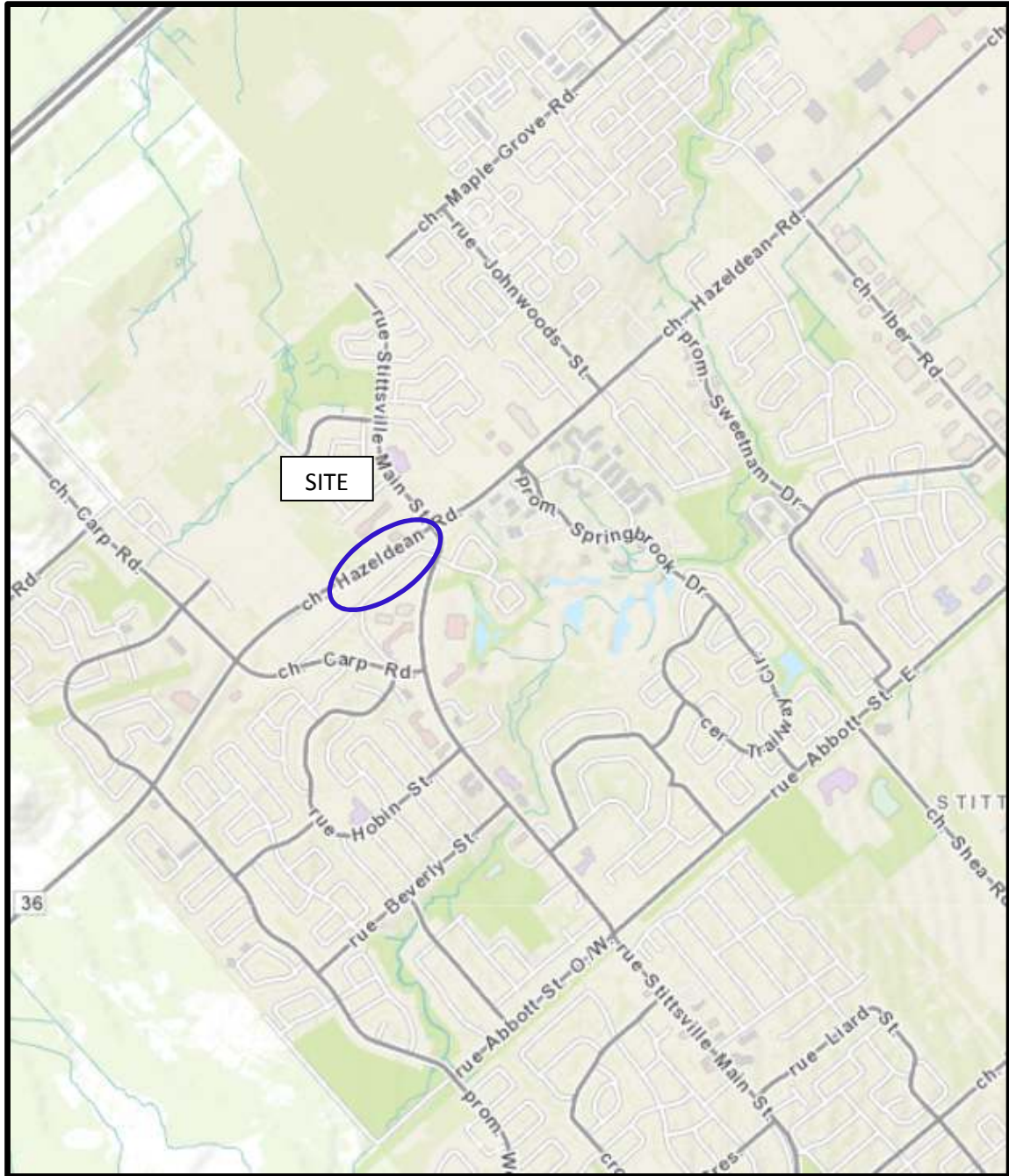


FIGURE 1
KEY PLAN

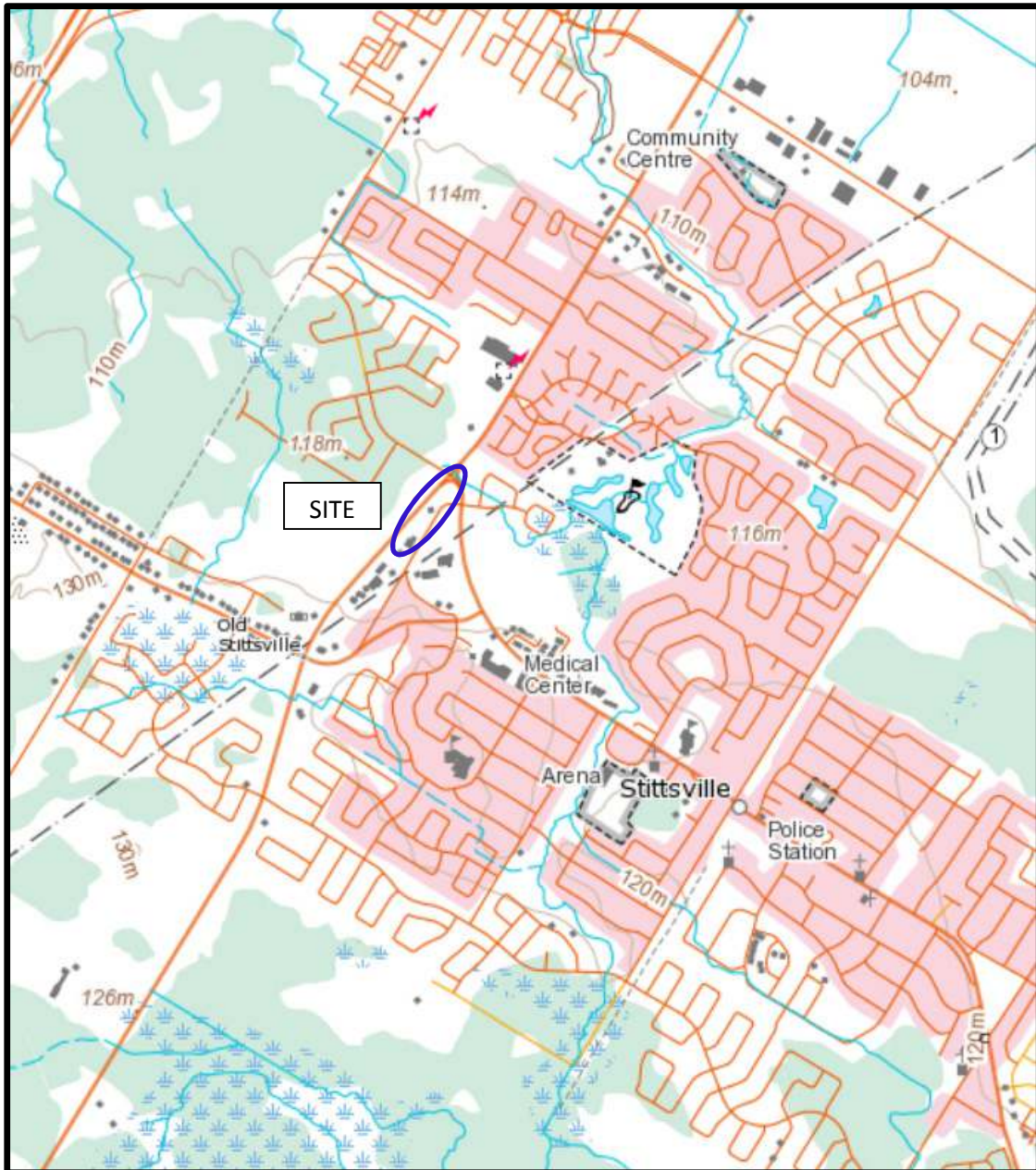
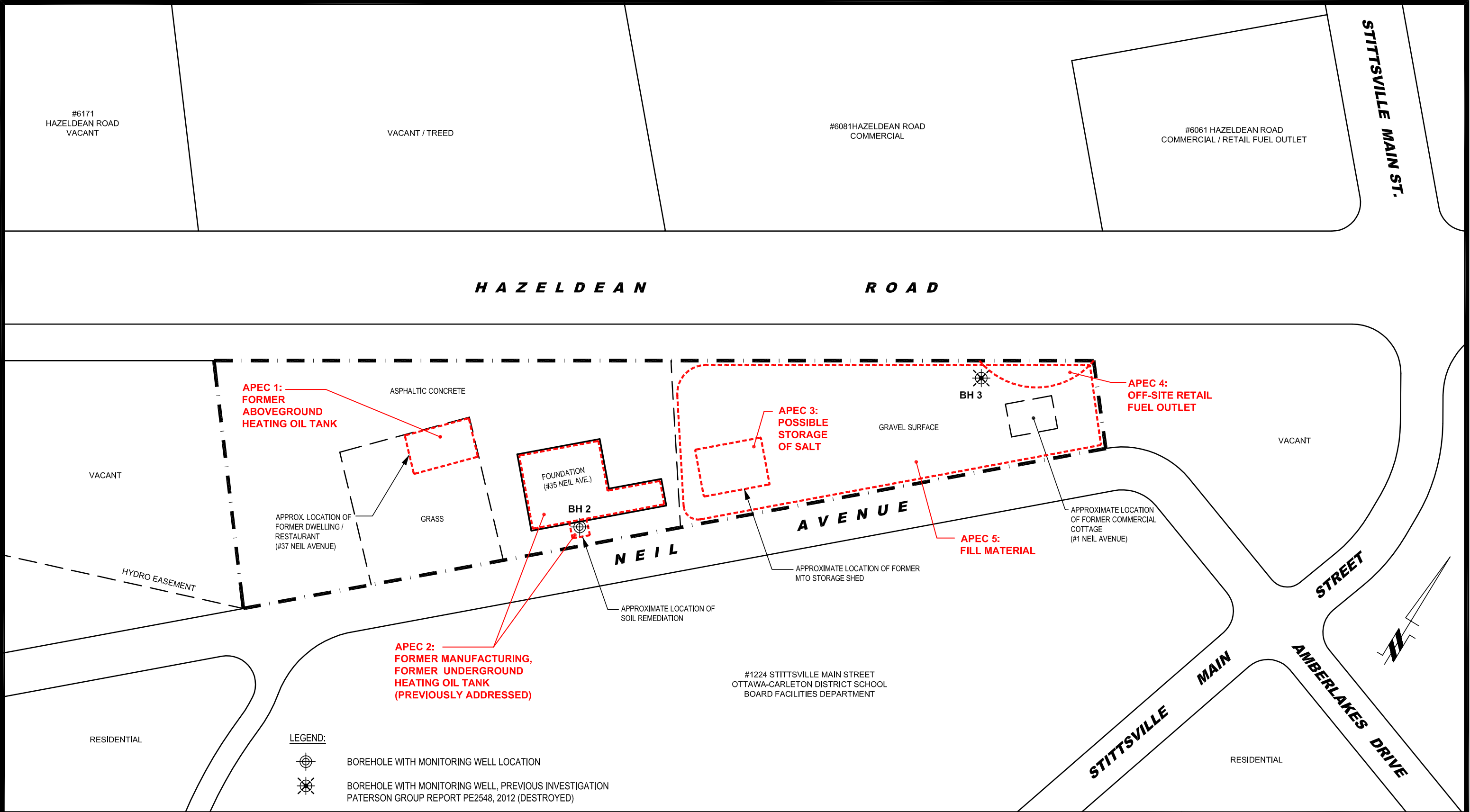




FIGURE 2
TOPOGRAPHIC MAP



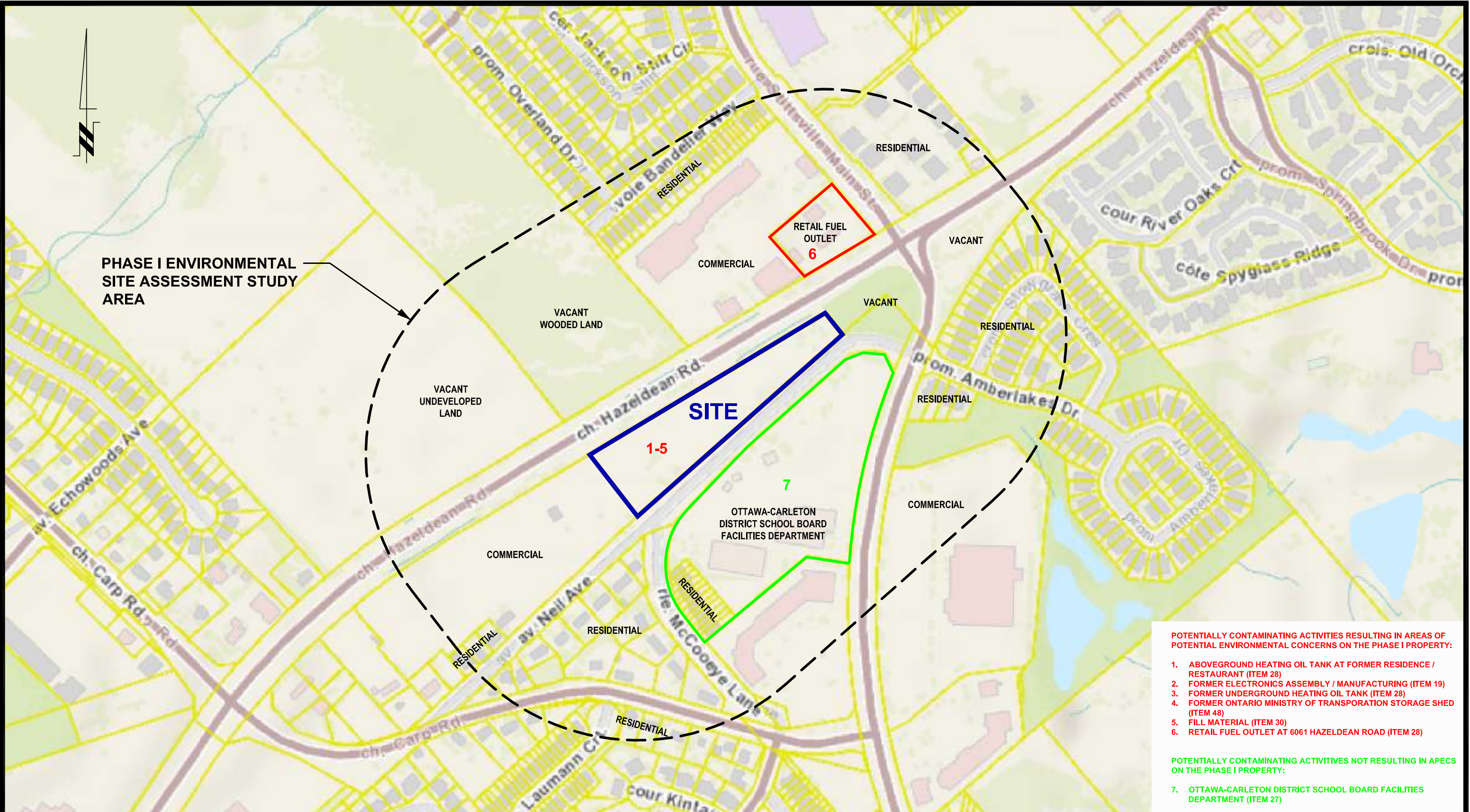
LEGEND:

 BOREHOLE WITH MONITORING WELL LOCATION

 BOREHOLE WITH MONITORING WELL, PREVIOUS INVESTIGATION
PATERSON GROUP REPORT PE2548, 2012 (DESTROYED)

<div>patersongroup</div> <div>consulting engineers</div> <div>154 Colonnade Road South Ottawa, Ontario K2E 7J5 Tel: (613) 226-7381 Fax: (613) 226-6344</div>				2062915 ONTARIO INC. & 2073945 ONTARIO INC.			Scale:	1:1250	Date:	12/2015
				PHASE I - ENVIRONMENTAL SITE ASSESSMENT			Drawn by:	MPG	Report No.:	PE3699-1R
				6130 AND 6150 HAZELDEAN ROAD			Checked by:	KM	Dwg. No.:	PE3699-1
				OTTAWA, ONTARIO			Approved by:	MSD	Revision No.:	
				Title: SITE PLAN						
	1	REVISED SITE ADDRESS	03/03/2016	KM						
NO.		REVISIONS	DATE	INITIAL						

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- POTENTIALLY CONTAMINATING ACTIVITIES RESULTING IN AREAS OF POTENTIAL ENVIRONMENTAL CONCERNS ON THE PHASE I PROPERTY:**
1. ABOVEGROUND HEATING OIL TANK AT FORMER RESIDENCE / RESTAURANT (ITEM 28)
 2. FORMER ELECTRONICS ASSEMBLY / MANUFACTURING (ITEM 19)
 3. FORMER UNDERGROUND HEATING OIL TANK (ITEM 28)
 4. FORMER ONTARIO MINISTRY OF TRANSPORTATION STORAGE SHED (ITEM 48)
 5. FILL MATERIAL (ITEM 30)
 6. RETAIL FUEL OUTLET AT 6061 HAZELDEAN ROAD (ITEM 28)
- POTENTIALLY CONTAMINATING ACTIVITIES NOT RESULTING IN APECS ON THE PHASE I PROPERTY:**
7. OTTAWA-CARLETON DISTRICT SCHOOL BOARD FACILITIES DEPARTMENT (ITEM 27)

patersongroup
consulting engineers

154 Colonnade Road South
Ottawa, Ontario K2E 7J5
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1	REVISED SITE ADDRESS	03/03/2016	KM
NO.	REVISIONS	DATE	INITIAL

2062915 ONTARIO INC. & 2073945 ONTARIO INC.
PHASE I - ENVIRONMENTAL SITE ASSESSMENT
6130 AND 6150 HAZELDEAN ROAD
OTTAWA, ONTARIO
Title:
SURROUNDING LAND USE PLAN

Scale:	1:4000	Date:	12/2015
Drawn by:	MPG	Report No.:	PE3699-1R
Checked by:	KM	Dwg. No.:	PE3699-2
Approved by:	MSD	Revision No.:	1

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APPENDIX 1

CHAIN OF TITLE

PLAN OF SURVEY

AERIAL PHOTOGRAPHS

SITE PHOTOGRAPHS



READ Abstracts Limited

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Fax: 613-236-3677

ENVIRONMENTAL SEARCH

November 30, 2015

Paterson Group
Attn: Karyn Munch

BRIEF DESCRIPTION OF LAND:

Part of Lot 24, Concession 12 Goulbourn, being Parts 1, 2, and 3 on 4R21452
PIN: 04458-0085 (part of)

LAST REGISTERED OWNER: KAVANAGH FAMILY INVESTMENTS LIMITED

CHAIN OF TITLE:

Patent dated May 14, 1803
To Joshua Bradley

Deed GB6820 registered March 27, 1914
From John Bradley to Joshua Bradley

Deed GB7688 registered May 31, 1921
From Joshua Bradley to Joshua E. Bradley

Deed GB7689 registered May 31, 1921
From Joshua E. Bradley to John C. Bradley

Deed GB11899 registered June 27, 1957
From John C. Bradley to Victor J. Tapp and Theresa J. Tapp

Deed ST366 registered February 8, 1963
From Victor J. Tapp and Theresa J. Tapp to Jasmine Knowles

Deed CT106472 registered June 30, 1969
From Jasmine Knowles to Instronics Limited

Deed CT114928 registered December 30, 1969
From Instronics Limited to Jasmine Knowles

PIN 0013

Deed CT252873 registered August 9, 1977
From Jasmine Knowles to Alan Sharpley

Deed NS247056 registered July 3, 1984
From Alan Sharpley to Kavanagh Realty (1982) Ltd. And Lori Kavanagh

Name Change OC400265 registered November 2, 2004
From Kavanagh Realty (1982) Limited to Stittsville Flea Market Inc.

PIN 0014

Deed CT252869 registered August 9, 1977
From Jasmine Knowles to Instronics Limited

Power of Sale NS54479 registered June 1, 1979
From Ontario Development Corporation to Stittsville Hotels Limited

Deed NS247057 registered July 3, 1984
From Stittsville Hotels Ltd. To Kavanagh Realty (1982) Ltd.

Name Change OC400265 registered November 2, 2004
From Kavanagh Realty (1982) Limited to Stittsville Flea Market Inc.

PIN 0015

Expropriation Plan GB10069 registered April 7, 1948
From John C. Bradley to The Department of Highways of Ontario (Highway #15/#7)

Deed N374432 registered January 30, 1987 (Part of Highway #15/#7)
From Her Majesty the Queen as Represented by the Province of Ontario to Bounty Real Estate Investments Inc.

Name Change OC416909 registered December 16, 2004
From Bounty Real Estate Investments Inc. to Kavanagh Family Investments Limited

Title Merged now (part of) PIN 0085

Deed OC650231 registered October 13, 2006

From Stittsville Flea Market Inc., Kavanagh Family Investments Limited, Lori Kavanagh, and Lori Anne Kavanagh to 2074246 Ontario Inc.

Name Change OC811803 registered December 28, 2007

From Stittsville Flea Market Inc. to Kavanagh Family Investments Limited

Deed OC1004714 registered July 9, 2009

From 2074246 Ontario Inc. to Canril Corporation

Deed OC1004714 registered July 17, 2009

From Canril Corporation to Kavanagh Family Investments Limited

PLAN OF SURVEY OF
PART OF LOTS 23 & 24
CONCESSION 12
GEOGRAPHIC TOWNSHIP OF GOULBOURN
STANTEC GEOMATICS LTD.
2006



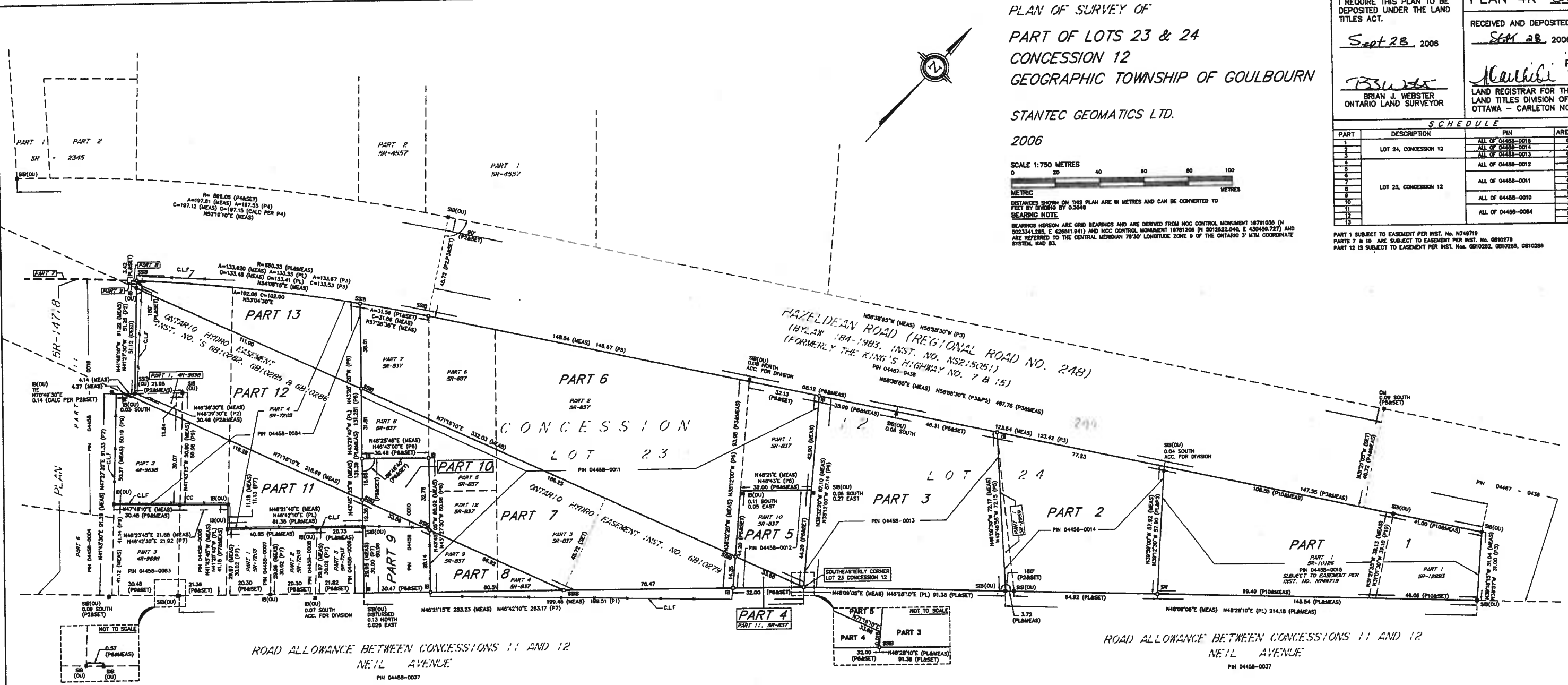
SCALE 1:750 METRES
0 20 40 60 80 100
METRES
DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO
FEET BY DIVIDING BY 0.3048
BEARING NOTE
BEARINGS HEREON ARE GRID BEARINGS AND ARE DERIVED FROM NCC CONTROL MONUMENT 1871036 (N
805344.285, E 426811.841) AND NCC CONTROL MONUMENT 18781206 (N 801282.040, E 430458.727) AND
ARE REFERRED TO THE CENTRAL MERIDIAN 76°30' LONGITUDE ZONE 9 OF THE ONTARIO 3° MTM COORDINATE
SYSTEM, NAD 83.

I REQUIRE THIS PLAN TO BE
DEPOSITED UNDER THE LAND
TITLES ACT.
Sept 28, 2006
BRIAN J. WEBSTER
ONTARIO LAND SURVEYOR

PLAN 4R-21452
RECEIVED AND DEPOSITED
Sept 28, 2006
Maurice A. Sest
LAND REGISTRAR FOR THE
LAND TITLES DIVISION OF
OTTAWA - CARLETON NO. 4

SCHEDULE			
PART	DESCRIPTION	PIN	AREA (m ²)
1	ALL OF 04458-0018	6481.3	
2	LOT 24, CONCESSION 12	ALL OF 04458-0014	4681.0
3		ALL OF 04458-0013	4644.3
4		ALL OF 04458-0012	229.0
5		ALL OF 04458-0011	1178.9
6		ALL OF 04458-0011	1188.9
7		ALL OF 04458-0011	6317.1
8		ALL OF 04458-0010	1072.9
9		ALL OF 04458-0010	783.3
10		ALL OF 04458-0004	3737.4
11		ALL OF 04458-0004	5181.9
12			2235.9

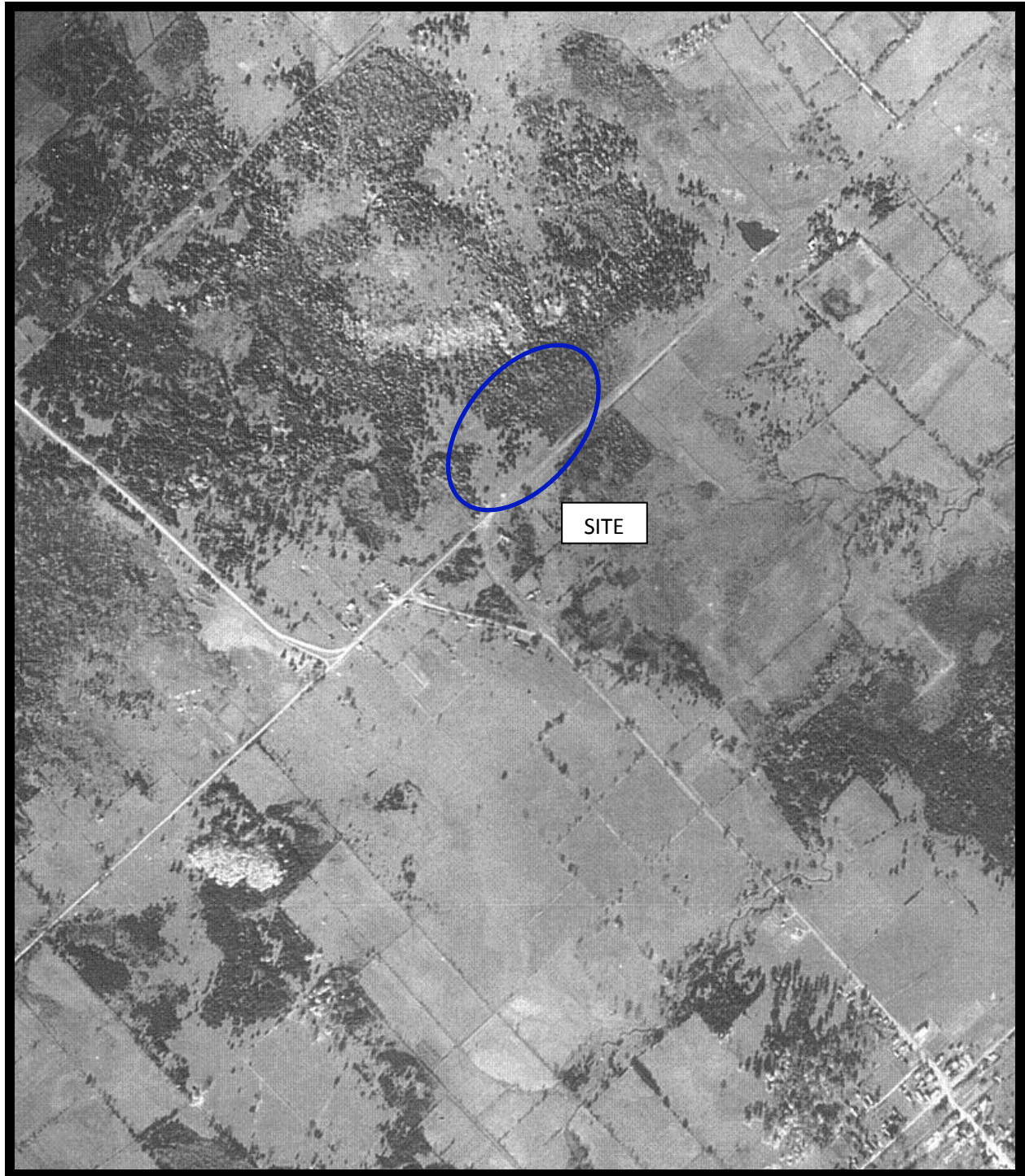
PART 1 SUBJECT TO EASEMENT PER INST. NO. N748719
PARTS 7 & 10 ARE SUBJECT TO EASEMENT PER INST. NO. 0810279
PART 12 IS SUBJECT TO EASEMENT PER INST. Nos. 0810282, 0810285, 0810288



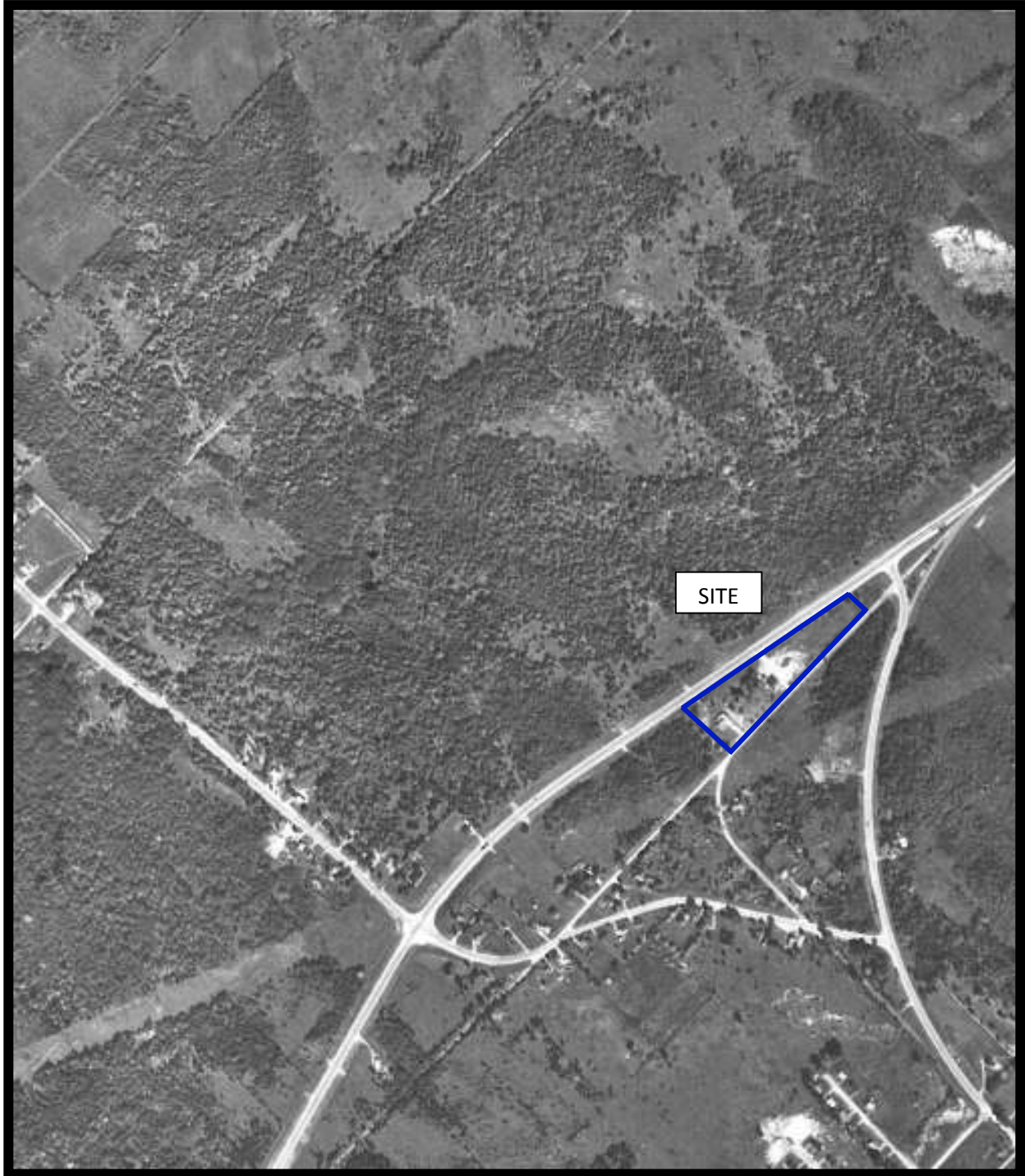
LEGEND & NOTES: (IF APPLICABLE)			
IB	DENOTES FOUND MONUMENTS	(1475)(90)	DENOTES STANTEC GEOMATICS LTD.
CB	DENOTES SET MONUMENTS	CU	DENOTES ORIGIN UNKNOWN
SB	DENOTES IRON BAR	MEAS.	DENOTES MEASURED
SSB	DENOTES STANDARD IRON BAR	PL	DENOTES PLAN SR-10128
CC	DENOTES SHORT STANDARD IRON BAR	PROP	DENOTES PROPORTIONED
N&W	DENOTES CUT CROSS	P1	DENOTES PLAN SR-7203
WT	DENOTES NAIL & WASHER	P2	DENOTES PLAN SR-14718
		P3	DENOTES PLAN P-1688-11

SURVEYOR'S CERTIFICATE:	
1. HEREBY CERTIFY THAT: a. THIS PLAN AND SURVEY ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, SURVEYORS ACT AND THE LAND TITLES ACT AND THE REGULATIONS MADE UNDER THEM; b. THE SURVEY WAS COMPLETED ON THE 13th DAY OF AUGUST, 2006.	
DATE: <u>Sept 28/06</u>	<u>Brian J. Webster</u> BRIAN J. WEBSTER ONTARIO LAND SURVEYOR

STANTEC GEOMATICS LTD.	
Ontario Land Surveyors OTTAWA - ONTARIO (613) 722-4450 FAX (613) 722-0789 E-Mail: bwebster@stantec.com WebSite: www.stantec.com	
DRAWN BY: [Signature]	CHECKED BY: [Signature]



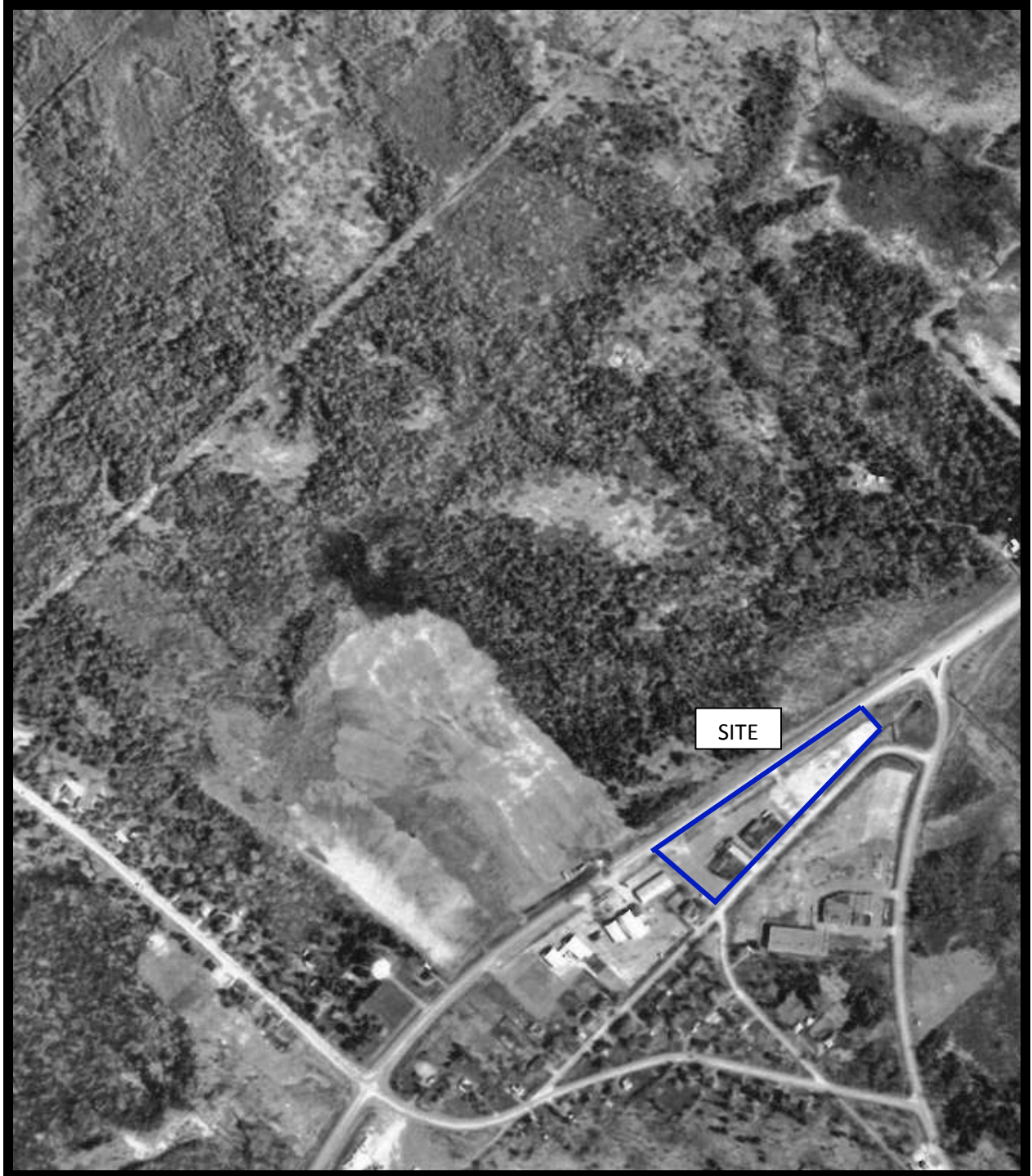
AERIAL PHOTOGRAPH
1945



AERIAL PHOTOGRAPH
1963



AERIAL PHOTOGRAPH
1970



AERIAL PHOTOGRAPH
1984



AERIAL PHOTOGRAPH
1999

Site Photographs

PE3699

6130 and 6150 Hazeldean Road, Ottawa, ON

November 22, 2015



Photograph 1: View of eastern portion of the site, looking east-northeast. Picture shows retail fuel outlet located across Hazeldean Road.



Photograph 2: View of central portion of site, looking west. Photo shows area of former MTO storage shed and the location of the former dwelling/restaurant (raised grassed areas). The foundation of the former building at 35 Neil cannot clearly be seen.

Site Photographs

PE3699

6130 and 6150 Hazeldean Road, Ottawa, ON

November 22, 2015



Photograph 3: Looking southwest, photo illustrates foundation of former building at 35 Neil Avenue and the Ottawa-Carleton District School Board facilities department to the south.



Photograph 4: Photo illustrates northwest portion of the site and the adjacent vacant commercial property to the west.

Site Photographs

PE3699

6130 and 6150 Hazeldean Road, Ottawa, ON

November 22, 2015



Photograph 7: Looking north, view of adjacent commercial plaza to the north, across Hazeldean Road.



Photograph 8: Looking northeast, photograph illustrates eastern property line and adjacent landscaped land to the east.

Site Photographs

PE3699

6130 and 6150 Hazeldean Road, Ottawa, ON

November 22, 2015



Photograph 9: View of residential dwellings to the south-southwest of the site, along McCooeye Lane and Neil Avenue.



Photograph 10: View from southwestern corner of site, looking southeast at OCDSB property south of the site.

APPENDIX 2

MOECC FREEDOM OF INFORMATION INITIAL RESPONSE

TSSA CORRESPONDENCE

CITY OF OTTAWA HLUI RESPONSE

MOECC WELL RECORDS

Ministry of the Environment
and Climate Change

Freedom of Information and
Protection of Privacy Office

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

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

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

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



November 20, 2015

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

Dear Karyn Munch:

RE: ***Freedom of Information and Protection of Privacy Act Request***
Our File # A-2015-06998, Your Reference PE3699

The Ministry is in receipt of your request made pursuant to the *Freedom of Information and Protection of Privacy Act* and has received your payment in the amount of \$5.00 (non-refundable application fee), along with your \$30.00 deposit.

The search is being conducted on the following: 6176 Hazeldean Road, Goulbourn. If there is any discrepancy please contact us immediately.

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

If you have any questions regarding this matter, please contact Cara Leung at 416-314-4143.

Yours truly,

Heidi Ritscher
FOI Manager

Karyn Munch

From: Sarah Quibell <squibell@tssa.org> on behalf of Public Information Services <publicinformationservices@tssa.org>
Sent: November-17-15 3:45 PM
To: Karyn Munch
Subject: RE: PE3699

Good afternoon Karyn,

Thank you for your inquiry.

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

6061 Hazeldean Rd, Stittsville has record of 4 active underground tanks and an active cylinder exchange facility.

For a more detailed report including underground fuel storage tank details and copies of all inspection reports, 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!

Regards,

Sarah



Public Information Services

Facilities & Business Services

3300 Bloor Street West

Center Tower, 16th Floor

Toronto, Ontario, M8X-2X4

Tel: 1-877-682-8772 Fax: (416) 734-3568 E-mail: publicinformationservices@tssa.org

www.tssa.org



From: Karyn Munch [<mailto:KMunch@patersongroup.ca>]

Sent: Tuesday, November 17, 2015 2:55 PM

To: Public Information Services

Subject: PE3699

Good Afternoon,

Could you please check your files for records of the following addresses in the City of Ottawa (Stittsville):

6061, 6081, 6141, 6171, 6176 Hazeldean Road

1224 Stittsville Main Street

50, 52, 54, 56 Neil Avenue

Thank-you very much!

Regards,
Karyn Munch

Patersongroup
Solution Oriented Engineering

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

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



File Number: C10-01-15-0330

December 3, 2015

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

Sent via email [KMunch@patersongroup.ca]

Dear Ms. Munch,

**Re: Information Request
6176 Hazeldean Road (Parts 1, 2 and 3 of Pt. Lot 24 Concession 12), Ottawa,
Ontario ("Subject Property")**

Internal Department Circulation

The Planning and Growth Management Department has the following information in response to your request for information regarding the Subject Property:

- The Solid Waste Services Branch notes that the subject property is within 4.5km of a waste management facility located at 106 Westhunt Road and 3km of a waste management facility located at 2301 Carp Road.

Search of Historical Land Use Inventory

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

A search of the HLUI database revealed the following information:

- There are no activities associated with the Subject Property.

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

*Shaping our future together
Ensemble, formons notre avenir*

City of Ottawa
Infrastructure Services and Community
Sustainability Department
Planning and Growth Management Branch

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 d'infrastructure et Viabilité des
collectivités
Direction de l'approbation des demandes
d'aménagement et d'infrastructure

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

- There are four activities associated with properties located within 50m of the Subject Property: Activity Numbers 14503, 10116, 11318 and 6228.

Please note that Activity Number 11318 has a PIN Certainty of “2”. This identifier acknowledges that there is some uncertainty about the exact location of the land use activity and that the activity may or may not have been located on the Subject Property. All database entries with a PIN Certainty of “2” require independent verification as to their precise location.

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

Additional information may be obtained by contacting:

Ontario’s Environmental Registry

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

The Ontario Land Registry Office

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

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

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

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

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

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

Sincerely,

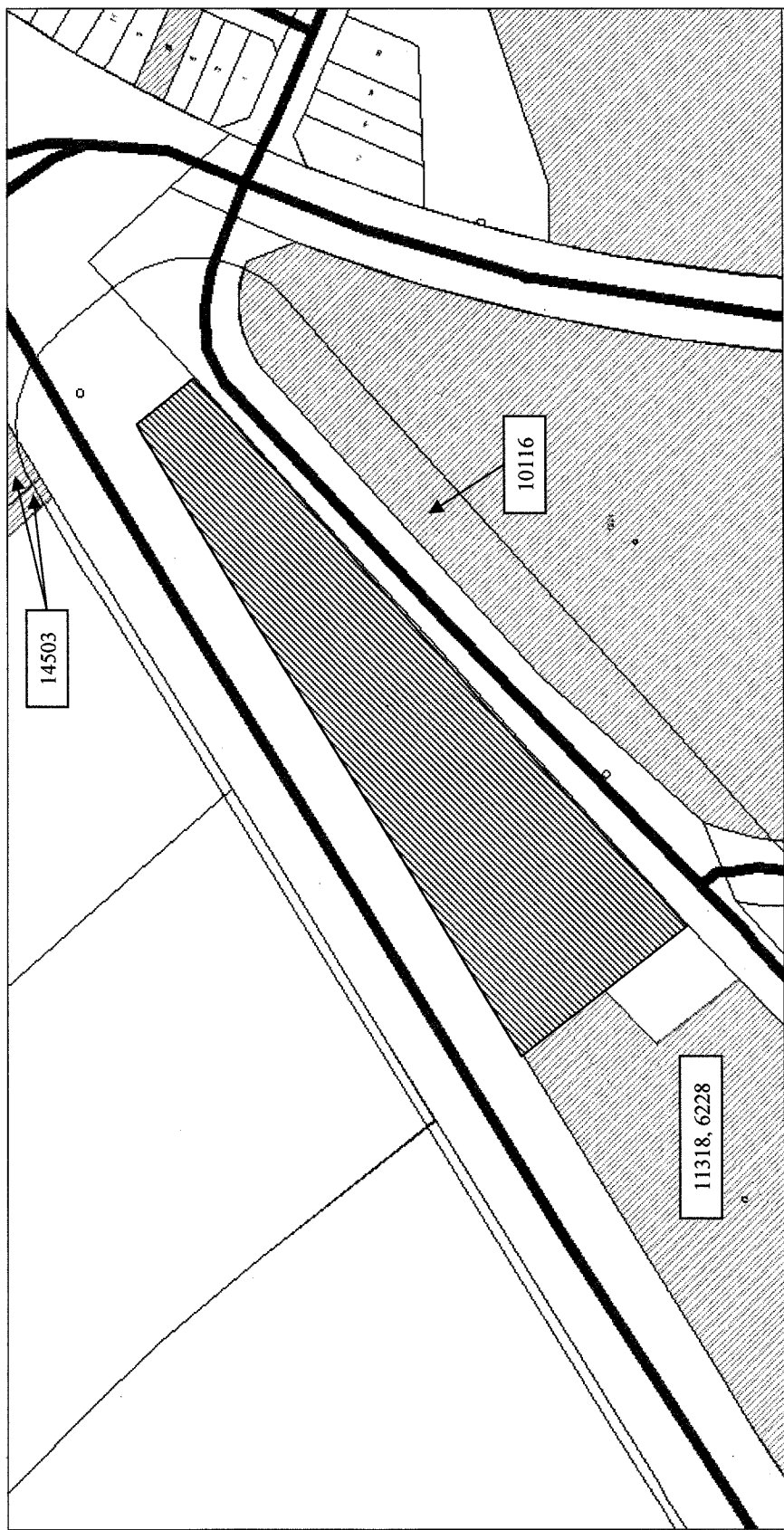


David Wise, MUP, MCIP, RPP
Program Manager
Development Review (Suburban Services) - West
Planning and Growth Management Department

DW/ML

Attach: 6

cc: File no. C10-01-15-0330



Scale 1 : n/a

6176 Hazeldean Road
(Parts 1, 2 and 3 of Pt. Lot 24 Concession 12)
Ottawa, ON
File # C10-01-15-0330
Melissa Leung



ID# = Activity Identification Number

 = Subject Site

Overview

**CITY OF OTTAWA**

HLUI ID: __670IWJ

AREA (Square Metres): 472782.211

Report: RPTC_OT_DEV0122

Run On: 23 Nov 2015 at: 10:54:04

Study Year
1998PIN
044870381Multi-NAIC
YMultiple Activities
N

Activity ID: 14503 Multiple PINS: N

PIN Certainty: 1 Previous Activity ID(s) : 5934, 5782, 5803, 5817, 5826, 5835, 5865, 5919, 5940, 5979, 5991, 6085, 6089, 6100, 6120, 6321, 6338, 6340, 6403, 6429, 6437

Related PINS: 045360337

Name: UNNAMED QUARRY

Address: , WEST CARLETON

Facility Type: Stone Quarries

Comments 1: UTM = 424125E, 5012550N (1985). Area is 450m x 500m

Comments 2:

Generator Number:

Storage Tanks:

HL References 1: 1922-DMD-TM-Ottawa Sheet #14; 1948-DND-ASE-NTS-31G/5; 1967-EMR-SMB-NTS-31/5-7th ed.; 1985-EMR-SMB-NTS-31/5-11th ed.; M.1955, M.1963; FIP1901,vol2; FIP1912,vol2; FIP1922,vol2; FIP1948-267-Proposed; FIP1956-267-26700,vol2

HL References 2: 1951-DND-ASE-NTS-31F/8E-3rd ed., 1964-EMR-SMB-NTS-31F/8-5th ed., 1976-EMR-SMB-NTS-31F/8-7th ed., 1989-EMR-CCM-NTS-31F/8-8th ed.

HL References 3: 1949-51-DND-ASE-NTS-31G/6W-2nd ed., 1965-EMR-SMB-NTS-31G/6W-3rd ed., 1975-EMR-SMB-NTS-31G/6-5th ed., 1983-EMR-SMB-NTS-31G/6-6th ed., Rideau Township Archivist

NAICS	SIC
212317	81
212314	81
212315	81
212316	81
212323	82



CITY OF OTTAWA

HLUI ID: __670IWJ

AREA (Square Metres): 472782.211

Report: RPTC_OT_DEV0122

Run On: 23 Nov 2015 at: 10:54:04

Study Year
1998

PIN
044870381

Multi-NAIC
Y

Multiple Activities
N

Company Name

Year of Operation

Unnamed Quarry	c. 1989
Unnamed Quarry	c. 1985
Unnamed Quarry	c. 1948
Unnamed Quarry	c. 1975
Unnamed Quarry	c. 1951
Unnamed Quarry	c. 1930
Unnamed Quarry	c. 1979
Unnamed Quarry	c. 1948-1967
Unnamed Quarry	c. 1975-1983
Unnamed Plant	c. 1985
Unnamed Quarry	c. 1967
Unnamed Quarry	c. 1967-1985
Unnamed Quarry	c. 1979
Unnamed Quarry	c. 1922-1985
Unnamed Sand/Gravel Pit	c. 1964

**CITY OF OTTAWA**

HLUI ID: __679BNH

AREA (Square Metres): 36396.096

Report: RPTC_OT_DEV0122

Run On: 23 Nov 2015 at: 10:56:11

Study Year
2005**PIN**
044590001**Multi-NAIC**
Y**Multiple Activities**
N**Activity ID:** 10116 **Multiple PINS:** N**PIN Certainty:** 1 **Previous Activity ID(s) :****Related PINS:** 044590001**Name:** OTTAWA-CARLETON DISTRICT SCHOOL BOARD**Address:** 1224 STITTSVILLE MAIN STREET, GOULBOURN TOWNSHIP**Facility Type:** Elementary and Secondary Education**Comments 1:** CENTRAL DEPOT**Comments 2:****Generator Number:** ON0051002**Storage Tanks:****HL References 1:****HL References 2:****HL References 3:** 2000 PID**NAICS SIC**

611110 0

912910 0

Company Name**Year of Operation**

OTTAWA-CARLETON DISTRICT SCHOOL BOARD c. 2003

OTTAWA-CARLETON DISTRICT SCHOOL BOARD c. 2001

OTTAWA-CARLETON DISTRICT SCHOOL BOARD c. 2000

OTTAWA-CARLETON DISTRICT SCHOOL BOARD c. 2005

**CITY OF OTTAWA**

HLUI ID: __679G00

AREA (Square Metres): 19060.107

Report: RPTC_OT_DEV0122

Run On: 23 Nov 2015 at: 10:56:49

Study Year
1998**PIN**
044580011**Multi-NAIC**
Y**Multiple Activities**
Y

Activity ID: 11318 **Multiple PINS:** N
PIN Certainty: 2 **Previous Activity ID(s) :** 6394, 6635
Related PINS: 044580011
Name: PROVINCE OF ONTARIO MINISTRY OF TRANSPORTATION
Address: , GOULBOURN
Facility Type: Other Storage and Warehousing Industries
Comments 1:
Comments 2:
Generator Number:
Storage Tanks:
HL References 1: Township of Goulbourn Staff -29/01/99; Township of Rideau Staff -12/01/99
HL References 2:
HL References 3:

NAICS	SIC
493190	479
493130	479
493120	479

Company Name	Year of Operation
Province of Ontario -Ministry of Transport	c. 1999
Province of Ontario Ministry of Transportation	c. 1999



CITY OF OTTAWA

HLUI ID: __679G00

AREA (Square Metres): 19060.107

Report: RPTC_OT_DEV0122

Run On: 23 Nov 2015 at: 10:56:49

Study Year
1998

PIN
044580011

Multi-NAIC
Y

Multiple Activities
Y

Activity ID: 6228 Multiple PINS: N
PIN Certainty: 1 Previous Activity ID(s) :
Related PINS: 044580011
Name: GUS'S ANTIQUES
Address: 6176 HAZELDEAN ROAD,
Facility Type: Other Machinery, Equipment and Supplies, Wholesale
Comments 1:
Comments 2:
Generator Number:
Storage Tanks:
HL References 1:
HL References 2:
HL References 3: 2005 Select Phone

NAICS SIC
811420 0

Company Name
GUS'S ANTIQUES

Year of Operation
c. 2005



WATER WELL RECORD

 $316/5d$

1. PRINT ONLY IN SPACES PROVIDED

2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11

11514047.

15.03

E-29

COUNTY OR DISTRICT <i>Carlisle</i>		TOWNSHIP, BOROUGH, CITY, TOWNSHIP, ETC. <i>Stittsville</i>		CON. BLOCKS, TRACT, SURVEY, ETC. <i>Con 12, No. 1 Ave</i>		LOT <i>025</i>	
OWNER'S SURNAME FIRST <i>STEWART GORDON CONST</i>		ADDRESS <i>RR# Bells Corners</i>		DATE COMPLETED <i>18 03</i>		BY <i>74</i>	
21 <i>21</i>	78 <i>78</i>	426661 <i>426661</i>	5012979 <i>5012979</i>	4 <i>4</i>	0392 <i>0392</i>	4 <i>4</i>	26 <i>26</i>

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

[illegible][illegible]

41 WATER RECORD		51 CASING & OPEN HOLE RECORD				61 PLUGGING & SEALING RECORD			
WATER FOUND AT - FEET		INCHES DOWN INCHES		WALL THICKNESS INCHES		DEPTH - FEET		SIZE (IN) OF OPENING (SLOT NO. 1)	
KIND OF WATER		MATERIAL		FROM		TO		DIAMETER	
1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL		1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE		1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE		1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE		1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE	
10-15		10-11		10-11		10-11		10-11	
15-20		15-16		15-16		15-16		15-16	
20-25		20-21		20-21		20-21		20-21	
25-30		25-26		25-26		25-26		25-26	
30-35		30-31		30-31		30-31		30-31	
35-40		35-36		35-36		35-36		35-36	
40-45		40-41		40-41		40-41		40-41	
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80-85		80-81		80-81		80-81		80-81	
85-90		85-86		85-86		85-86		85-86	
90-95		90-91		90-91		90-91		90-91	
95-100		95-96		95-96		95-96		95-96	
100-105		100-101		100-101		100-101		100-101	
105-110		105-106		105-106		105-106		105-106	
110-115		110-111		110-111		110-111		110-111	
115-120		115-116		115-116		115-116		115-116	
120-125		120-121		120-121		120-121		120-121	
125-130		125-126		125-126		125-126		125-126	
130-135		130-131		130-131		130-131		130-131	
135-140		135-136		135-136		135-136		135-136	
140-145		140-141		140-141		140-141		140-141	
145-150		145-146		145-146		145-146		145-146	
150-155		150-151		150-151		150-151		150-151	
155-160		155-156							

PUMPING TEST	PUMPING TEST METHOD		NO	PUMPING SITE	TS-18	DURATION OF PUMPING		TS-19
	<input type="checkbox"/> PUMP <input checked="" type="checkbox"/> SAUER			0020		01	00	17-40
	STATIC LEVEL WATER LEVEL END OF PUMP OUT		25	WATER LEVELS DURING		<input checked="" type="checkbox"/> PUMPING <input type="checkbox"/> RECOVERY		40
	10-20	10-24	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES	75 MINUTES	90 MINUTES
	006	020	020	020	020	020	020	020
IF PUMPING GIVE RATE		30-40	PUMP INTAKE DIT AT		WATER AT END OF TEST		FEET	
GPM			FEET		<input type="checkbox"/> CLEAR <input checked="" type="checkbox"/> CLOGGED			
RECOMMENDED PUMP TYPE			RECOMMENDED PUMP SETTING		45-48	RECOMMENDED PUMP RATE		45-48
<input checked="" type="checkbox"/> SHALLOW <input type="checkbox"/> DEEP			025			0005		
60-62			GPM / FT. SPECIFIC CAPACITY				GPM	

LOCATION OF WELL 2612

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

Hwy 71

Neil Ave

1/4 mi.

Old Camp Rd.

↓ N

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

CONTRACTOR	NAME OF WELL CONTRACTOR		LICENSE NUMBER
	Henry Mairs Well Drilling		3648
	ADDRESS		
	B4 326 Richmond Ont.		
	NAME OF OWNER OR BOSS		LICENSE NUMBER
	Henry Mairs		
	SIGNATURE OF CONTRACTOR	EXPIRATION DATE	
		DAY 1 MO. 4 YR. 74	

OFFICE USE ONLY	DATA SOURCE		SM	CONTRACTOR	SP-63	DATE RECEIVED	SP-66	SP
	1			3644		270574		
	DATE OF INSPECTION		INSPECTOR					
	10 Oct 70		K P/R. Doyle					
REMARKS							P	
							WI	



WATER WELL RECORD

316/sd

11

1515523

1503

C&N

12

COUNTY OR DISTRICT Carleton		TOWNSHIP / WARD / C. / P. / S. / VILLAGE Goulburn		CON. / BLOCK / TRACT / PARCEL, ETC. 12		023 31-27	
OWNER (SURNAME FIRST) [REDACTED]		ADDRESS 2622 Traverse Dr. Ottawa, Ontario		DATE COMPLETED DAY 20 MONTH 07 YEAR 76		33	
MUNICIPALITY B 426520		CITY S012920		ELEVATION 4 0405		[REDACTED]	

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

[illegible][illegible]

41 WATER RECORD		51 CASING & OPEN HOLE RECORD				SCREEN		SIZE (I) OF OPENING 1/2" OR 1"		31-35	36-40	41-45	46-50
DEPTH FOOTED AT - FEET	KIND OF WATER	WIRE DOWN - INCHES	MATERIAL	WELL LOGGERS - INCHES	DEPTH - FEET FROM TO			MATERIAL AND TYPE		DEPTH TO TOP OF SCREEN	41-45	46-50	
10-15	1 <input checked="" type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALT 4 <input type="checkbox"/> MINERAL	61	1 <input checked="" type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input checked="" type="checkbox"/> OPEN HOLE	188	0	027	MATERIAL AND TYPE		DEPTH TO TOP OF SCREEN	41-45	46-50		
0495		51	1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input checked="" type="checkbox"/> OPEN HOLE	27	498	0498							
15-20	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALT 4 <input type="checkbox"/> MINERAL	06	1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input checked="" type="checkbox"/> OPEN HOLE	498	520	0520	MATERIAL AND TYPE		DEPTH TO TOP OF SCREEN	41-45	46-50		
0518		05	1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input checked="" type="checkbox"/> OPEN HOLE	0520	0520	0520							
20-25	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALT 4 <input type="checkbox"/> MINERAL						MATERIAL AND TYPE		DEPTH TO TOP OF SCREEN	41-45	46-50		
0520													

PUMPING TEST	PUMPING TEST METHOD		PUMPING RATE		DURATION OF PUMPING	
	1 <input type="checkbox"/> PUMP 2 <input checked="" type="checkbox"/> DRILLER		0005		01 15 MIN 00 15 MIN	
	STATIC LEVEL		WATER LEVELS DURING		<input checked="" type="checkbox"/> PUMPING <input type="checkbox"/> RECOVERY	
	10-01	10-04	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
	035 FEET	100 FEET	100 FEET	100 FEET	100 FEET	100 FEET
PUMPING TEST	FLOWING LIVE RATE		PUMP INTAKE SET AT		WATER AT END OF TEST	
	035		035		035	
	FEET		FEET		FEET	
	035		035		035	
PUMPING TEST	RECOMMENDED PUMP TYPE		RECOMMENDED PUMP SETTING		RECOMMENDED PUMPING RATE	
	1 <input type="checkbox"/> SHALLOW 2 <input checked="" type="checkbox"/> DEEP		150 FEET		0005 GPM	
	150 FEET		150 FEET		150 FEET	
	150 FEET		150 FEET		150 FEET	

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

LOCATION OF WELL

BELOW SHOW DISTANCES OF WELL FROM ROAD AND
PROPOSED NORTH BY ARROW.

360'

79'

NEIL AVE

CULP RD.

New "commercial"
bldg

CONTRACTOR	NAME OF WELL CONTRACTOR		LICENCE NUMBER
	Capital Water Supply Ltd.		1558
	ADDRESS		
	Box 490 Stittsville, Ontario		
	NAME OF OWNER OF BORE		LICENCE NUMBER
	R. McDougall & E. Maurice		
	SIGNATURE OF CONTRACTOR		SUBMISSION DATE
	<i>[Signature]</i>		DAY 22 MO 7 YEAR

OFFICE USE ONLY				
DATA SOURCE	1	CONTRACTOR	1558	DATE PROCESSED
				090876
DATE OF INSPECTION	17/6/97		INSPECTOR	Kim. P.H.
REMARKS				P ✓
				WI

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Well record information

Full well record information. Contains information from the original well record and any subsequent updates.

Well record information:

Well ID

Well ID Number: 7206067
 Well Audit Number: C19503
 Well Tag Number: A122882

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

Well Location

Address of Well Location	
Township	GOULBOURN TOWNSHIP
Lot	
Concession	
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18
	Easting: 426515.00
	Northing: 5013177.00
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 (Material and Type)	Used 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: 7328

Results of Well Yield Testing

After test of well yield, water was

If pumping discontinued, give reason

Pump intake set at

Pumping Rate

Duration of Pumping

Final water level

If flowing give rate

Recommended pump depth

Recommended pump rate

Well Production

Disinfected?

Draw Down & Recovery

Draw Down Time(min)	Draw Down Water level	Recovery Time(min)	Recovery Water level
---------------------	-----------------------	--------------------	----------------------

SWL

1	1
2	2
3	3
4	4
5	5
10	10
15	15
20	20
25	25
30	30
40	40
45	45
50	50

60

60

Water Details

Water Found at Depth Kind

Hole Diameter

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

Audit Number: C19503

Date Well Completed: March 22, 2012

Date Well Record Received by MOE: August 07, 2013

Updated: November 9, 2015

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Tags

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



Glen Murray

Minister of the Environment and Climate Change

"Fighting climate change and working to keep our air, land, and water clean will ensure Ontario's prosperity and quality of life for today and for future generations."

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

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UTM | 1 | 8 | 2 | 4 | 2 | 6 | 4 | 3 | 0 | E

5	R	5	0	1	2	8	6	5	N
---	---	---	---	---	---	---	---	---	---

$$[5]_R \quad [5 \mid 0 \mid 1 \mid 2 \mid 8 \mid 6 \mid 5]_N$$

Elev. | 4 | R | 0 | 4 | 1 | 2 |

Basin 12.5 TRL



The Water-well Drillers Act, 1954

Department of Mines

15 N^o 954

GROUND WATER BR
90
DEC 6 1960
ONTARIO WATER
RESOURCES COMMISSION

Water-Well Record

County or Territorial District Carlton Township, Village, Town or City Guelph

Con. 12 Lot 23 Street and Number (if in Village, Town or City) _____

Owner Address Stittsville Ont.

Date completed 28 Oct 1960
(day) (month) (year)

Pipe and Casing Record

Pumping Test

Casing diameter (s)	4"	Static level	30'
Length (s)	40'	Pumping rate	5 g.p.m.
Type of screen	none	Pumping level	40'
Length of screen	—	Duration of test	2 hr.

Well Log

Water Record

[illegible]

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

house

Is water clear or cloudy? c/cg

Is well on upland, in valley, or on hillside?..... hillside

Drilling firm J. P. Sparks

Address Spittsville Ont

Name of Driller Clayton H Sparks

Address Stittsville Ont.

Licence Number.....

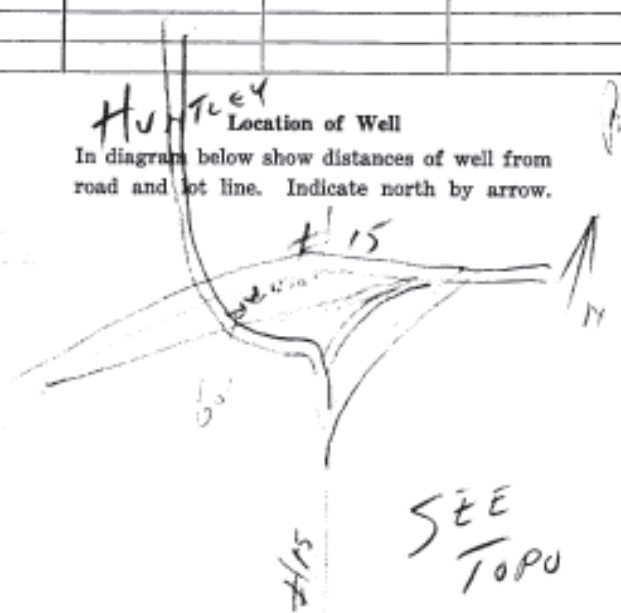
I certify that the foregoing
statements of fact are true.

Date Oct 28 T. P. Snodgrass

Signature of Licensee

Hv	H ₂ Te ⁴	Location of Well
----	--------------------------------	------------------

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



CON II
NOTES

The Ontario Water Resources Commission Act

WATER WELL RECORD

Water management in Ontario - PRINT ONLY IN SPACES PROVIDED

2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

COUNTY DISTRICT Carl	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE Boulbourn	SECTION, BLOCK, TRACT, SURVEY, ETC. 11	LOT 023
NAME Varo Ont.		DATE COMPLETED 08	MO. 02 DAY 69
PC 12930	PC 0400	PC 5	PC 26

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
sand					
brownish sand		small stones		0'	10'
grey		course		10'	24'
grey + black line			medium	24'	306'
Greenfield Limestone			soft	306'	325'

31	00106912	0024210	0306216	032515
32				

41 WATER RECORD				51 CASING & OPEN HOLE RECORD				61 PLUGGING & SEALING RECORD			
WATER DURING PUMPING		KIND OF WATER		WELL DEPTH		MATERIAL AND TYPE		DEPTH SET AT - FEET		MATERIAL AND TYPE	
10-15		1 FRESH 3 SULPHUR 4 MINERAL		10-15		1 STEEL 2 GALVANIZED 3 CONCRETE 4 OPEN HOLE		10-15		1 CEMENT GROUT, LEAD PACKER, ETC.	
15-20		1 FRESH 3 SULPHUR 4 MINERAL		15-20		1 STEEL 2 GALVANIZED 3 CONCRETE 4 OPEN HOLE		15-20		1 CEMENT GROUT, LEAD PACKER, ETC.	
20-25		1 FRESH 3 SULPHUR 4 MINERAL		20-25		1 STEEL 2 GALVANIZED 3 CONCRETE 4 OPEN HOLE		20-25		1 CEMENT GROUT, LEAD PACKER, ETC.	
25-30		1 FRESH 3 SULPHUR 4 MINERAL		25-30		1 STEEL 2 GALVANIZED 3 CONCRETE 4 OPEN HOLE		25-30		1 CEMENT GROUT, LEAD PACKER, ETC.	
30-35		1 FRESH 3 SULPHUR 4 MINERAL		30-35		1 STEEL 2 GALVANIZED 3 CONCRETE 4 OPEN HOLE		30-35		1 CEMENT GROUT, LEAD PACKER, ETC.	

71 PUMPING TEST METHOD		10 PUMPING RATE		11-14 DEVIATION OF PUMPING	
1 PUMP 2 BAILER		0001		15-18 PUMPING 19-21 RECOVERY	
STATIC LEVEL		WATER LEVEL DURING		WATER AT END OF TEST	
10-20		15 MINUTES 20-30		40 MINUTES 60 MINUTES	
030 FEET		275 FEET 275 FEET		215 FEET 275 FEET	
IF FLOWING, GIVE RATE		PUMP INTAKE SET AT		WATER AT END OF TEST	
RECOMMENDED PUMP TYPE		RECOMMENDED PUMP SETTING		RECOMMENDED PUMPING RATE	
1 SHALLOW 2 DEEP		300 FEET		0001 GPM	
30-35 0001.0 GPM (FT. SPECIFIC CAPACITY)					

FINAL STATUS OF WELL		WATER USE		METHOD OF DRILLING	
1 WATER SUPPLY 2 OBSERVATION WELL 3 TEST HOLE 4 RECHARGE WELL		1 DOMESTIC 2 STOCK 3 IRRIGATION 4 INDUSTRIAL 5 OTHER		1 CABLE TOOL 2 ROTARY (CONVENTIONAL) 3 ROTARY (REVERSE) 4 ROTARY (AIR) 5 AIR PERCUSSION	
5 ABANDONED, INSUFFICIENT SUPPLY 6 ABANDONED, POOR QUALITY 7 UNFINISHED		6 COMMERCIAL 7 MUNICIPAL 8 PUBLIC SUPPLY 9 COOLING OR AIR CONDITIONING 10 NOT USED		6 BORING 7 DIAMOND 8 JETTING 9 DRILLING	

LOCATION OF WELL	
IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.	
DRILLER'S REMARKS: old Pittsville	

NAME OF WELL CONTRACTOR		LICENSE NUMBER	
Capital Water Supply		3216	
ADDRESS		CITY	
14 Ashford Dr		Ottawa	
NAME OF DRILLER OR OPERATOR		LICENSE NUMBER	
M. Maurice			
SIGNATURE OF CONTRACTOR		SUBMISSION DATE	
Walter Kavanagh		DAY MO. YR.	

DATA SOURCE		DATE ACQUIRED	
1		301069	
DATE OF INSPECTION		INSPECTOR	
		19	
REMARKS			

OWRC COPY

316/5d. 72

UTM 1182 426605E

5R 50112925N

Elev. 4R 0416

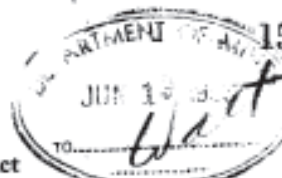
Borehole - 235

Lot - 23.



The Well Drillers Act

Department of Mines, Province of Ontario



15 No. 2835

Water Well Record

County or Territorial District Carleton Township, Village, Town or City StittsvilleCon. 17 Lot 23 Street and Number (if in Village, Town or City) StittsvilleOwner [redacted] Address Stittsville, Ont.Date Completed 4 Jan 53 Cost of Well (excluding pump) 280.00 no pump

Pipe and Casing Record

Pumping Test

Casing diameter(s) 4 inch Date Jan. 4th 1953
 Length(s) of casing(s) 30 feet Static level 18 feet
 Type of screen N.O. screen Pumping level 35 ft.
 Length of screen 30 feet Pumping rate 50 gal per hr
 Distance from top of screen to ground level 3/4 hour Duration of test 3/4 hour
 Is well a gravel-wall type? N.O. Distance from cylinder or bowls to ground level 3/4 hour

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 yds.
 What is the source of contamination? septic tank
 Enclose a copy of any mineral analysis that has been made of water.

Well Log

Overburden and Bedrock Record

	From	To
	0 ft.	...ft.
<u>10 feet of gravel</u>	<u>0</u>	<u>10</u>
<u>20 " " red sand</u>	<u>10</u>	<u>30</u>
<u>60 gray limestone</u>	<u>30</u>	<u>90</u>

Location of Well

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

well on north side of road
10 feet
1 mile from Stittsville R.R.
See Over

Situation: Is well on upland, in valley, or on hillside? uplandDrilling Firm B. P. SparksAddress Stittsville, Ont.Name of Driller B. P. Sparks Address Stittsville, Ont.Date Jan. 4th 1953 Licence Number 396Signature of Licensee B. P. Sparks

UTM 18Z 426610E

S^R S 0 1 2 8 7 5 N_{max}

Elev. 4R 0409Basin

2	5			
---	---	--	--	--

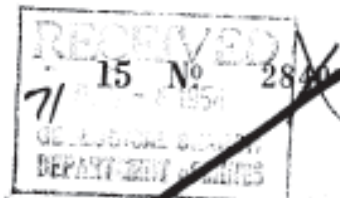
Group = XI

Lot-23



The Well Drillers Act

Department of Mines, Province of Ontario



STUTTSVILLE

Water Well Record^(GOULBOURN)

County or Territorial District. Carleton Township, Stittsville
 Con. Lot Street and Number (if in Village, Town or City).
 Owner [REDACTED] Address Stittsville Ont.
 Date Completed 23 Nov 54 Cost of Well (excluding pump).

Pipe and Casing Record

Pumping Test

Casing diameter(s) <u>4 inch</u>	Date <u>Nov. 23 / 1964</u>
Length(s) of casing(s) <u>30 feet</u>	Static level <u>25 feet</u>
Type of screen <u>N.O. screen</u>	Pumping level <u>56</u>
Length of screen <u> </u>	Pumping rate <u>200 g.p.h.</u>
Distance from top of screen to ground level <u> </u>	Duration of test <u>2 minutes</u>
Is well a gravel-wall type? <u>N.O.</u>	Distance from cylinder or bowls to ground level <u> </u>

Water Record

Kind (fresh or mineral).....	fresh	Depth(s) to Water Horizon(s)	Kind of Water	No. of Feet Water Rises
Quality (hard, soft, contains iron, sulphur, etc.).....	soft			
Appearance (clear, cloudy, coloured).....	clear	25 ft	fresh	60 ft
For what purpose(s) is the water to be used?.....	private home			
How far is well from possible source of contamination?.....	125 feet			
What is the source of contamination?.....	Out door Closet			
Enclose a copy of any mineral analysis that has been made of water.....				

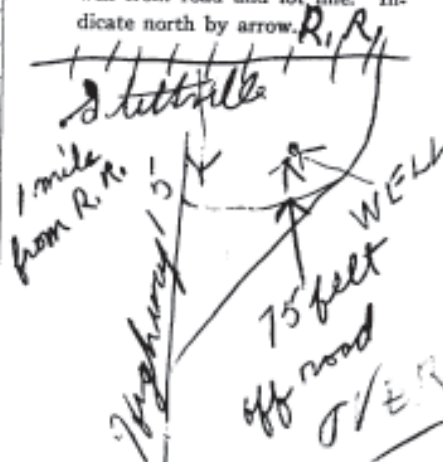
Well Log

Overburden and Bedrock Record

	from	to
	0 ft.	...ft.
Gravel	0	26
red sand	26	30
limestone rock	30	85

Location of Well

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



Situation: Is well on upland, in valley, or on hillside? hillside
 Drilling Firm..... F. L. Sparks
 Address..... Stittsville, Ont
 Name of Driller..... F. L. Sparks Address..... Stittsville, Ont
 Date..... Nov. 25, 1954 Licence Number..... 396
 Signature of Licensee..... F. L. Sparks

FORM 5



OWRC COPY



1514831.

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

COUNTY OF DISTRICT

TOWNSHIP, BOROUGH, CUP. TOWN, VILLAGE
Houlbourn

COM. BLOCK (BRIEF, CURVES, ETC.)

23

DATE COMPLETED
DAY 28

PR# 2, Ottawa Ont

PAY 28 NO 9 TR 13

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

[illegible]

31

32

WATER RECORD

WATER FOUND AT - FEET		KIND OF WATER			
0-11	34	1 <input checked="" type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR		
		2 <input type="checkbox"/> SALTY	4 <input type="checkbox"/> MINERAL		
15-18		1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR		
		2 <input type="checkbox"/> SALTY	4 <input type="checkbox"/> MINERAL		
20-24		1 <input type="checkbox"/> FRESH	2 <input type="checkbox"/> SULPHUR		
		2 <input type="checkbox"/> SALTY	4 <input type="checkbox"/> MINERAL		
25-28		1 <input type="checkbox"/> FRESH	1 <input type="checkbox"/> SULPHUR		
		2 <input type="checkbox"/> SALTY	3 <input type="checkbox"/> MINERAL		
30-31		1 <input type="checkbox"/> FRESH	1 <input type="checkbox"/> SULPHUR		
		2 <input type="checkbox"/> SALTY	1 <input type="checkbox"/> MINERAL		

CASING & OPEN HOLE RECORD

INCHES		FEET	
DEPTH	MATERIAL	WELL TO BRANCH	TO
10-0	<input checked="" type="checkbox"/> STEEL <input type="checkbox"/> GALVANIZED <input type="checkbox"/> CONCRETE <input type="checkbox"/> OPEN HOLE	188	0 22
27-1	<input type="checkbox"/> STEEL <input type="checkbox"/> GALVANIZED <input type="checkbox"/> CONCRETE <input type="checkbox"/> OPEN HOLE		27-1
	<input type="checkbox"/> STEEL <input type="checkbox"/> GALVANIZED <input type="checkbox"/> CONCRETE <input type="checkbox"/> OPEN HOLE		

PLUGGING & SEALING RECORD

DEPTH SET AT - FEET		MATERIAL AND TYPE	CEMENT AGGREGATE LEAD PACKER, ETC.
FROM	TO		
0	10.00		
10.00	20.00		
20.00	30.00		
30.00	40.00		
40.00	50.00		
50.00	60.00		
60.00	70.00		
70.00	80.00		
80.00	90.00		
90.00	100.00		

PUMPING TEST	71	PUMPING TEST METHOD	
		1 <input checked="" type="checkbox"/> PUMP	
		STATIC LEVEL	
		8	FEET
		IF FLOWING, GIVE RATE	
		RECOMMENDED PUMP	
		<input checked="" type="checkbox"/> SHALLOW	

PUMPING TEST	PUMPING TEST METHOD		PUMPING RATE		DURATION OF PUMPING	
	<input checked="" type="checkbox"/> DUMP <input type="checkbox"/> RIGLER		5 GPM		1 hr 15 min	
	STATIC LEVEL		WATER LEVEL DURING		<input type="checkbox"/> PUMPING <input checked="" type="checkbox"/> RECOVERY	
	WATER LEVEL END OF PUMPING					
	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES		
8 FEET	25 FEET	25 FEET	25 FEET	25 FEET	25 FEET	
IF FLOWING, GIVE RATE		PUMP INTAKE SET HT		WATER HT AND QP TEST		
		GPM		FEET		<input type="checkbox"/> CLEAN <input checked="" type="checkbox"/> RECOVERY
RECOMMENDED PUMP TYPE		RECOMMENDED PUMP SIZE		RECOMMENDED PUMPING RATE		
<input checked="" type="checkbox"/> SHALLOW <input type="checkbox"/> DEEP		25 FEET		4 GPM		
30-55		GPM / FT SPECIFIC CAPACITY				

FINAL
STATUS
OF WELL

FINAL STATUS OF WELL	1	<input checked="" type="checkbox"/> WATER SUPPLY	<input type="checkbox"/> ABANDONED, INSUFFICIENT SUPPLY
	2	<input type="checkbox"/> OBSERVATION WELL	<input type="checkbox"/> ABANDONED, POOR QUALITY
	3	<input type="checkbox"/> TEST HOLE	<input type="checkbox"/> UNFINISHED
	4	<input type="checkbox"/> REPAIR/REWORK WELL	
	5	<input type="checkbox"/> OTHER	

WATER USE

10-94

WATER USE

1 <input checked="" type="checkbox"/> DOMESTIC	5 <input type="checkbox"/> COMMERCIAL
2 <input type="checkbox"/> STOCK	6 <input type="checkbox"/> MUNICIPAL
3 <input type="checkbox"/> IRRIGATION	7 <input type="checkbox"/> PUBLIC SUPPLY
4 <input type="checkbox"/> INDUSTRIAL	8 <input type="checkbox"/> COOLING OR AIR CONDITIONING
<input type="checkbox"/> OTHER	9 <input type="checkbox"/> NOT USED

METHOD OF DRILLING

METHOD OF DRILLING	1	<input type="checkbox"/> CABLE TOOL	<input type="checkbox"/> BORING
	2	<input type="checkbox"/> ROTARY (CONVENTIONAL)	<input type="checkbox"/> GUANOIS
	3	<input type="checkbox"/> ROTARY (REVERSE)	<input type="checkbox"/> JETTING
	4	<input type="checkbox"/> ROTARY (AIR)	<input type="checkbox"/> DRIVING
	5	<input checked="" type="checkbox"/> AIR PERCUSSION	

NAME OF WELL CONTRACTOR

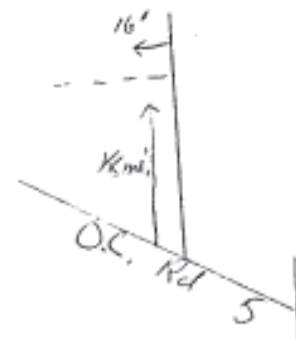
NAME OF WELL CONTRACTOR	3644
ADDRESS	326 Richmond St.

NAME OF TRAILER OR BOWSER <i>Henry Mains</i>	LICENCE NUMBER
SIGNATURE OF CONTRACTOR	EXPIRATION DATE <i>3-5</i>

SIGNATURE OF CONTRACTOR	SUBMISSION DATE
<i>[Signature]</i>	3-5

LOCATION OF WELL

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



CHILLI, E. 1995. *Phylogenetic relationships*.

Parcel 10

$$\underline{2208.75}$$

OFFICE USE ONLY

DATE FORWARDED	NAME AND ADDRESS OF CORPORATION	AMOUNT PAID	220875	AMOUNT PAID
NAME OF THE ASSURED		S. P. L. & S.		
TO WHOM			P	
C. C. L. & S.			WI	

FORM 7 NOV 07

MINISTRY OF THE ENVIRONMENT COPY



MINISTRY OF THE ENVIRONMENT
The Ontario Water Resources Act

WATER WELL RECORD

 $3\frac{4}{5}$

1. PRINT ONLY IN SPACES (Minimum)

E. CHECK ☒ CORRECT BGS WHERE APPROPRIATE

५५

11514881

5059-10

15703

25

COUNTY OR DISTRICT <i>Carleton</i>		TOWNSHIP, RANGE, CTD, TOWN, VILLAGE <i>Houlbourn Smithville</i>		CON., BLOCK, TRACT, SURVEY, ETC. <i>Con 11</i>		LOT <i>23</i>		LOT <i>23</i>	
PR# 2, Ottawa Ont.						DATE COMPLETED DAY <i>28</i> MO. <i>04</i> YR. <i>75</i>			
NO.	PC	ELEVATION	PC	SACR CODE	II	III			
<i>12992</i>	<i>4</i>	<i>368</i>	<i>4</i>	<i>26</i>	<i>JUL 08, 1977</i>	<i>301</i>			

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

[illegible]

31 001820512 | 0035215

32

41 WATER RECORD

WATER FOUND AT - FEET		KIND OF WATER	
00-11	1 <input checked="" type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL	11	
01-18	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL	11	
02-23	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL	24	
23-26	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL	27	
26-33	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL	24	

51 CASING & OPEN HOLE RECORD

CLOSING & OPEN HOLE RECORD					
TEST GAIN INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET		
			FROM	TO	
10-16	<input checked="" type="checkbox"/> STEEL <input type="checkbox"/> SALVAMIZED <input type="checkbox"/> CONCRETE <input type="checkbox"/> OPEN HOLE	188	0	0022	10-17
17-18	<input type="checkbox"/> STEEL <input type="checkbox"/> SALVAMIZED <input type="checkbox"/> CONCRETE <input type="checkbox"/> OPEN HOLE				18-19
24-25	<input type="checkbox"/> STEEL <input type="checkbox"/> SALVAMIZED <input type="checkbox"/> CONCRETE <input type="checkbox"/> OPEN HOLE				25-26

[illegible]

SCREEN	INSTR NO.1		
	MATERIAL AND TYPE	DEPTH TO TOP OF SOWREN	20-25

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET		MATERIAL AND TYPE (CORENT DRWT, LEAD PICKER, ETC.)
FROM	TO	
00-09	14-17	
18-21	22-28	
26-29	30-35	80

71	PUMPING TEST METHOD	TO	PUMPING RATE	FLSA	DURATION OF PUMPING
	✓		0005		0000

1 <input checked="" type="checkbox"/> PUMP 2 <input type="checkbox"/> BAILER		0005	CPM	0/	TS-IN RINGS	00
PUMPING TEST	STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVEL DURING		PUMPING RECOVERY	
	00-01	02-04	10 MINUTES	30 MINUTES	45 MINUTES	NO LIMIT
	008	025	025	025	025	025
	FEET	FEET	FEET	FEET	FEET	FEET
	IF FLOWING GIVE RATE	00-01	PUMP INCREASE SET AT	WATER AT END-UP TEST		
				FEET	1 <input type="checkbox"/> CLEAR 2 <input checked="" type="checkbox"/> MUD	
	RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	025	TS-IN	RECOMMENDED PUMPING RATE	0004
	<input checked="" type="checkbox"/> SHALLOW <input type="checkbox"/> DEEP		FEET			CPM / FT. SPECIFIC CAPACITY
	00-02					

FINAL

STATUS OF WELL	1 <input type="checkbox"/> OBSERVATION WELL	4 <input type="checkbox"/> ABANDONED, POOR QUALITY
	2 <input type="checkbox"/> TEST HOLE	5 <input type="checkbox"/> UNFINISHED
	3 <input type="checkbox"/> RECHARGE WELL	

10-18 1 ☒ DOMESTIC 5 ☐ COMMERCIAL

WATER USE 01	1 <input type="checkbox"/> STOCK	6 <input type="checkbox"/> MUNICIPAL
	2 <input type="checkbox"/> IRRIGATION	7 <input type="checkbox"/> PUBLIC SUPPLY
	3 <input type="checkbox"/> INDUSTRIAL	8 <input type="checkbox"/> COOLING OR AIR CONDITIONING
	4 <input type="checkbox"/> OTHER	9 <input type="checkbox"/> NOT USED

42 ☐ CABLE TOOL ☐ BORING

METHOD OF DRILLING 5

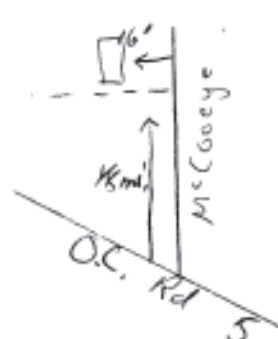
1 <input type="checkbox"/> START (CONVENTIONAL)	7 <input type="checkbox"/> DIAMOND
2 <input type="checkbox"/> START (REVERSE)	8 <input type="checkbox"/> JETTING
3 <input type="checkbox"/> ROTARY (AIR)	9 <input type="checkbox"/> DRIVING
4 <input checked="" type="checkbox"/> AIR PERCUSSION	

NAME OF WELL CONTRACTOR	123456789	LICENCE NUMBER
-------------------------	-----------	----------------

CONTRACTOR	Henry Mains Well Drilling		3644
	326 Richmond Ont.		
	NAME OF OWNER OR BOSS		LICENCE NUMBER
	Henry Mains		
SIGNATURE OF CONTRACTOR		SUBMITTER DATE	
		DAY 3 NO 5 1975	

LOCATION OF WELL 2612

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

COLLEGE OF NARRATIVE: *Paradise*

	DATE	BY	CONTRACTOR	NO.	NAME	NO.	NAME
				22083			

OFFICE USE ONLY	DATE OF INTERVIEW	3644	20875
	DATE OF INTERVIEW	22/7/76	P/R D. J. K.
REMARKS	P		
	WI		



The Ontario Water Resources Act

WATER WELL RECORD

1514873

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4. CHECK ☒ CORRECT BOX WHERE APPLICABLE

2. CHECK <input checked="" type="checkbox"/> CHECK BOX WHERE APPLICABLE		CON. BLOCK, TRANS. SURVEY, ETC.		LOT
COUNTY OR DISTRICT	TOWNSHIP, RANGE, C.T. OR S.W. 1/4	CON. 11		23
Carleton	Northman	PR# 7. Ottawa Ont		DATE SAMPLED 28 4 7

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

[illegible][illegible]

CASING & OPEN HOLE RECORD				
HOLE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH FEET	
			FROM	TO
6	<input checked="" type="checkbox"/> STEEL <input type="checkbox"/> GALVANIZED <input type="checkbox"/> CONCRETE <input type="checkbox"/> OPEN HOLE	1/88	0	23
	<input type="checkbox"/> STEEL <input type="checkbox"/> GALVANIZED <input type="checkbox"/> CONCRETE <input type="checkbox"/> OPEN HOLE			
	<input type="checkbox"/> STEEL <input type="checkbox"/> GALVANIZED <input type="checkbox"/> CONCRETE <input type="checkbox"/> OPEN HOLE			

SCREEN	SIZE OF OPENING (SLOT NO. 1)	DIAMETER	LENGTH
		INCHES	FEET
	MATERIAL AND TYPE	DEPTH TO TOP OF SCREEN	
		FEET	

[illegible]

PUMPING TEST	PUMPING TEST METHOD		PUMPING RATE		DURATION OF PUMPING	
	<input checked="" type="checkbox"/> PUMP <input type="checkbox"/> BAILED		5 GPM		1 HOUR	
	STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING		<input type="checkbox"/> PUMPING <input checked="" type="checkbox"/> RECOVERY	
	15 MINUTE	30 MINUTE	45 MINUTE	60 MINUTE		
	10 FEET	55 FEET	55 FEET	55 FEET	55 FEET	55 FEET
IF FLOWING, GIVE DATE		PUMP INTAKE SET AT		WATER AT END OF TEST		
		FEET		<input type="checkbox"/> CLEAR <input checked="" type="checkbox"/> MUD		
RECOMMENDED PUMP TYPE		RECOMMENDED PUMP SETTING		RECOMMENDED PUMPING RATE		
<input type="checkbox"/> SHALLOW <input checked="" type="checkbox"/> DEEP		35		3 GPM		
GPM, F.T.		GPM, F.T.		SPECIFIC CAPACITY		

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

LOCATION OF WELL

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

COLLECTED RESEARCH

CONTRACTOR	NAME OF WELL CONTRACTOR <i>Harry Mains Well Drilling</i>		LICENSE NUMBER <i>3644</i>
	ADDRESS <i>Box 326, Richmond Ont.</i>		
	NAME OF OWNER OR OWNER <i>Harry Mains</i>		LICENSE NUMBER
	SIGNATURE OF CONTRACTOR		SUBMISSION DATE DEC <i>3</i> MD <i>5</i> YR <i>7</i>

OFFICE USE ONLY	CLASSIFICATION	220875
	SERIAL NUMBER	
	CSS-04	P WI

MINISTRY OF THE ENVIRONMENT COPY

FORM 2 MDE 01

 $31^{6/50}$

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

1514873

15703

1

COUNTY OR DISTRICT
Carlisle

TOWNSHIP, BOBOLINK, CHT, TOWN, VILLAGE
Houlton 1495816

CDM, BLOCK, FRUIT, SURVEY, E

Lo

LOT 2300

PR# 7, Ottawa Ont

DATE COMPLETED 28 04 44-51 75

1914873	18	426773	5012969	4	388	4	26	JUL 08, 1977	301
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LOS OF OVERBORDER AND BEHOLD MATERIALS (SEE INSTRUCTIONS)

[illegible]

31 0020205124 0075215

WATER FOUND AT FEET		KIND OF WATER			
074	10-18	<input checked="" type="checkbox"/> FRESH	<input type="checkbox"/> SULPHUR	<input type="checkbox"/> SALT	<input type="checkbox"/> MINERAL
		<input type="checkbox"/> SALT	<input type="checkbox"/> MINERAL	<input type="checkbox"/> FRESH	<input type="checkbox"/> SULPHUR
18-25	10-18	<input type="checkbox"/> FRESH	<input type="checkbox"/> SULPHUR	<input type="checkbox"/> SALT	<input type="checkbox"/> MINERAL
		<input type="checkbox"/> SALT	<input type="checkbox"/> MINERAL	<input type="checkbox"/> FRESH	<input type="checkbox"/> SULPHUR
23-28	10-18	<input type="checkbox"/> FRESH	<input type="checkbox"/> SULPHUR	<input type="checkbox"/> SALT	<input type="checkbox"/> MINERAL
		<input type="checkbox"/> SALT	<input type="checkbox"/> MINERAL	<input type="checkbox"/> FRESH	<input type="checkbox"/> SULPHUR
30-35	10-18	<input type="checkbox"/> FRESH	<input type="checkbox"/> SULPHUR	<input type="checkbox"/> SALT	<input type="checkbox"/> MINERAL
		<input type="checkbox"/> SALT	<input type="checkbox"/> MINERAL	<input type="checkbox"/> FRESH	<input type="checkbox"/> SULPHUR

CASING & OPEN HOLE RECORD					
HOLE DATE INCHES	MATERIAL	WELL THICKNESS INCHES	DEPTH - FEET		
			FROM	TO	
10-05 06	1 STEEL 2 GALVANIZED 3 CONCRETE 4 OPEN HOLE	11 188	0	23	
11-08	1 STEEL 2 GALVANIZED 3 CONCRETE 4 OPEN HOLE	10		10-11	
04-15	1 STEEL 2 GALVANIZED 3 CONCRETE 4 OPEN HOLE	10		07-10	

SCREEN	SIZE OF DRUM (1) OF NO. 3	14-18	GAUGE	24-30	DEPTH	24-30
	INCHES			FEET		
	MATERIAL AND TYPE	DEPTH TO TOP OF SCREEN		21-24	FEET	

61		PLUGGING & SEALING RECORD	
DEPTH SET AT - FEET		MATERIAL AND TYPE	CEMENT GROUT, LEAD PACKER, ETC.
FROM	TO		
80-82	84-17		
88-91	93-10		
10-13	10-13	80	

PUMPING TEST	PUMPING TEST METHOD		PUMPING RATE		DURATION OF PUMPING	
	<input checked="" type="checkbox"/> CUP <input type="checkbox"/> SAILER		0005		01	
	10		11-12		13-14	
	15		16		17-18	
	19		20		21-22	
STATIC LEVEL WATER LEVEL END OF PUMPING		WATER LEVELS DURING		<input checked="" type="checkbox"/> PUMPING <input type="checkbox"/> RECOVERY		
10-11		12-13		14-15		
16-17		18-19		20-21		
22-23		24-25		26-27		
28-29		30-31		32-33		
34-35		36-37		38-39		
40-41		42-43		44-45		
46-47		48-49		50-51		
52-53		54-55		56-57		
58-59		60-61		62-63		
64-65		66-67		68-69		
70-71		72-73		74-75		
76-77		78-79		80-81		
82-83		84-85		86-87		
88-89		90-91		92-93		
94-95		96-97		98-99		
100-101		102-103		104-105		
106-107		108-109		110-111		
112-113		114-115		116-117		
118-119		120-121		122-123		
124-125		126-127		128-129		
130-131		132-133		134-135		
136-137		138-139		140-141		
142-143		144-145		146-147		
148-149		150-151		152-153		
154-155		156-157		158-159		
160-161		162-163		164-165		
166-167		168-169		170-171		
172-173		174-175		176-177		
178-179		180-181		182-183		
184-185		186-187		188-189		
190-191		192-193		194-195		
196-197		198-199		200-201		
202-203		204-205		206-207		
208-209		210-211		212-213		
214-215		216-217		218-219		
220-221		222-223		224-225		
226-227		228-229		230-231		
232-233		234-235		236-237		
238-239		240-241		242-243		
244-245		246-247		248-249		
250-251		252-253		254-255		
256-257		258-259		260-261		
262-263		264-265		266-267		
268-269		270-271		272-273		
274-275		276-277		278-279		
280-281		282-283		284-285		
286-287		288-289		290-291		
292-293		294-295		296-297		
298-299		300-301		302-303		
304-305		306-307		308-309		
310-311		312-313		314-315		
316-317		318-319		320-321		
322-323		324-325		326-327		
328-329		330-331		332-333		

LOCATION OF WELL 2612

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

O.C. #5

McCOOYE

26'

8 mi

Parcel 9

DRILLERS REMARKS:

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

CONTRACTOR	NAME OF WELL CONTRACTOR <i>Henry Mairs Well Drilling</i>	LICENCE NUMBER <i>3644</i>
	ADDRESS <i>Box 326, Richmond Ont.</i>	
	NAME OF DRILLER OR BORE <i>Henry Mairs</i>	LICENCE NUMBER
	SIGNATURE OF CONTRACTOR	SUBMISSION DATE DAY <i>3</i> MO <i>5</i> YR <i>20</i>

OFFICE USE ONLY	DATA SOURCE	1	CONTRACTOR	3644	DATE RECEIVED	220875	NO. IN	00
	DATE OF INSPECTION		INSPECTOR					
	22 Sep 76		K. A. P. R. D. D.					
	REMARKS					P		
						WI		

316/50. "A"



UTM 18 2 42 6 8 6 5 7

25 8 5 0 1 3 2 1 5

The Ontario Water Resources Commission Act

Elev. 4 2 0 3 8 0

WATER WELL RECORD

Basin 2 5 1 Oshtemo

Con. Lot

Township Village, Town or City

Date completed 27th October 1967

Address Stittsville, Ont.

WATER RESOURCES 15 DIVISION 9386

NOV 6 1967

STITTVILLE
ONTARIO WATER
RESOURCES COMMISSION

Casing and Screen Record

Inside diameter of casing 6 1/4"
 Total length of casing 8'
 Type of screen
 Length of screen
 Depth to top of screen
 Diameter of finished hole 6 1/4"

Pumping Test

Static level 10'
 Test-pumping rate 10 G.P.M.
 Pumping level 60
 Duration of test pumping 15'
 Water clear or cloudy at end of test clear
 Recommended pumping rate 3- G.P.M.
 with pump setting of 95' feet below ground surface

Well Log

Overburden and Bedrock Record

clay & boulders
 limestone rock with some
 sand layers.

From
ft.To
ft.Depth(s) at
which water(s)
foundKind of water
(fresh, salty,
sulphur)0
5'5'
110

85

fresh

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

work shop.

Is well on upland, in valley, or on hillside? upland.

Drilling or Boring Firm Melville M. Laughlin

Well Drilling

Address Ashton Ont.

Licence Number 2422.

Name of Driller or Borer Melville M. Laughlin

Address Ashton Ont.

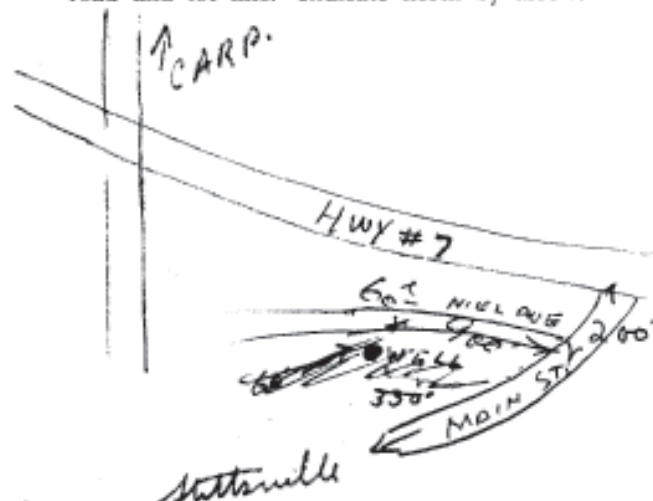
Date October 28, 1967

Melville M. Laughlin

(Signature of Licensed Drilling or Boring Contractor)

Location of Well

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



WATER WELL RECORD

Water Management in Ontario: POINT ONLY IN GRACE REGION

2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11

1511064

MUNICIP: 15243

— **Exhibit**

COMPANY OR DISTRICT

TOWNSHIP, BORDUGHA, CITY, TOWN, VILLAGE

CON.	BLOCK	TRACT	SUBDIV.	ETC.

11 35 4

Carl

Stittsville

CON., BLOCK, TRACT, SURVEY, ETC.

LGE	15-21
-----	-------

DATE COMPLETED	4-8
----------------	-----

DATE RECORDED
DAY 21 MO 01 YR 71

NO	EL	ELEVATION	SC	RAIN CODE
212930	64	0390	4	250nt

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

[illegible]

31	001461413	002081109	0062315
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32

41 WATER RECORD

WATER-TEMP. AT - FEET	KIND OF WATER			
0-2	1 <input checked="" type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR		
2-4	2 <input type="checkbox"/> SALTY	4 <input type="checkbox"/> MINERAL		
4-6	1 <input checked="" type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR		
6-8	2 <input type="checkbox"/> SALTY	4 <input type="checkbox"/> MINERAL		
8-10	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR		
10-12	2 <input type="checkbox"/> SALTY	4 <input type="checkbox"/> MINERAL		
12-14	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR		
14-16	2 <input type="checkbox"/> SALTY	4 <input type="checkbox"/> MINERAL		
16-18	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR		
18-20	2 <input type="checkbox"/> SALTY	4 <input type="checkbox"/> MINERAL		
20-22	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR		
22-24	2 <input type="checkbox"/> SALTY	4 <input type="checkbox"/> MINERAL		
24-26	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR		
26-28	2 <input type="checkbox"/> SALTY	4 <input type="checkbox"/> MINERAL		
28-30	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR		
30-32	2 <input type="checkbox"/> SALTY	4 <input type="checkbox"/> MINERAL		

5 CASING & OPEN HOLE RECORD

DEPTH - FEET		WALL THICKNESS INCHES	MATERIAL	DRAIN DIAL INCHES
FROM	TO			
06	0	188	1 STEEL 2 GALVANIZED 3 CONCRETE 4 OPEN HOLE	216
17-18	006		1 STEEL 2 GALVANIZED 3 CONCRETE 4 OPEN HOLE	216
24-25	27-30		1 STEEL 2 GALVANIZED 3 CONCRETE 4 OPEN HOLE	216

SCREEN

SCREEN	SIZE(S) OF OPENING (SLOT NO.)		DIAMETER	LENGTH	
	31-33	34-38	INCHES	FEET	
	MATERIAL AND TYPE		DEPTH TO TOP OF SCREEN	31-43	60

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET		MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKS, ETC.)
FROM	TO	
10-13	14-17	
18-21	22-26	
28-29	30-33	NO

PUMPING TEST

PUMPING TEST	71 PUMPING TEST METHOD <input checked="" type="checkbox"/> PUMP <input type="checkbox"/> BAUER		100 PUMPING RATE 0008 GPM		11-12 DURATION OF PUMPING 01 10-16 00 17-18 00	
	STATIC LEVEL		25 WATER LEVELS DURING		1 <input checked="" type="checkbox"/> SUMPING 2 <input checked="" type="checkbox"/> RECOVERY	
	10-31 008		03-34 020		15 MINUTES 20-00 020	
	02-34 020		20 MINUTES 28-31 020		45 MINUTES 32-34 020	
	00-31 020		60 MINUTES 30-31 020		IF FLOWING, GIVE RATE	
	PUMP INTAKE SET AT		WATER AT END OF TEST		1 <input type="checkbox"/> CLEAR 2 <input checked="" type="checkbox"/> CLOUDY	
	RECOMMENDED PUMP TYPE <input type="checkbox"/> SHALLOW <input checked="" type="checkbox"/> DEEP		RECOMMENDED PUMP SETTING 050 FEET		RECOMMENDED PUMPING RATE 005 GPM	
	30-31 000.7		GPM / FT. SPECIFIC CAPACITY			

FINAL
STATUS
OF WELL

FINAL STATUS OF WELL	<input checked="" type="checkbox"/> 1 WATER SUPPLY	<input type="checkbox"/> 5 ABANDONED, INSUFFICIENT SUPPLY
	<input type="checkbox"/> 2 OBSERVATION WELL	<input type="checkbox"/> 6 ABANDONED, POOR QUALITY
	<input type="checkbox"/> 3 TEST HOLE	<input type="checkbox"/> 7 UNFINISHED
	<input type="checkbox"/> 4 RECHARGE WELL	

WATER

85-64

WATER USE *11*

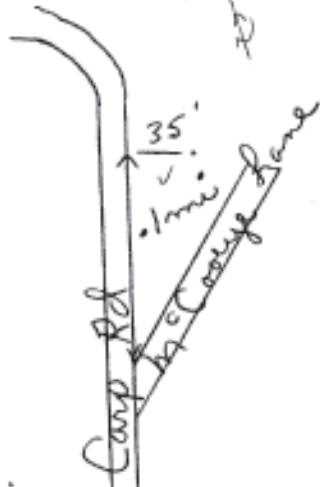
1 <input checked="" type="checkbox"/> DOMESTIC	5 <input type="checkbox"/> COMMERCIAL
2 <input type="checkbox"/> STOCK	6 <input type="checkbox"/> MUNICIPAL
3 <input type="checkbox"/> IRRIGATION	7 <input type="checkbox"/> PUBLIC SUPPLY
4 <input type="checkbox"/> INDUSTRIAL	8 <input type="checkbox"/> COOLING OR AIR CONDITIONING


METHOD OF DRILLING

METHOD OF DRILLING	<input type="checkbox"/> OTHER _____	<input type="checkbox"/> NOT USED
	1 <input type="checkbox"/> CABLE TOOL	6 <input type="checkbox"/> BORING
	2 <input type="checkbox"/> ROTARY (CONVENTIONAL)	7 <input type="checkbox"/> DRAMING
	3 <input type="checkbox"/> ROTARY (REVERSE)	8 <input type="checkbox"/> JETTING
	4 <input type="checkbox"/> ROTARY (AIR)	9 <input type="checkbox"/> DRIVING
5 <input checked="" type="checkbox"/> AIR PERCUSSION		

LOCATION OF WELL

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

COLLEGE: HIGHWAY:

OFFICE USE ONLY	DATA SOURCE	55 CONTRACTOR	55-62 DATE RECEIVED	55-68-60
	1	1558	280271	
	DATE OF INSPECTION		INSPECTOR	
	REMARKS		 WIK	

CONTRACTOR	NAME OF FIRM/CONTRACTOR	LICENCE NUMBER
	Capital Water Supply Ltd	1558
	ADDRESS	
	14 Ashford Dr Ottawa	
	NAME OF OFFICER IN CHARGE	LICENCE NUMBER
	B. Bisson	
	SIGNATURE OF CONTRACTOR	SUBMISSION DATE
	Kalter Lavanash	DAY MONTH YEAR

OWRC COPY



Ontario

WATER WELL RECORD

316/50

 1. PRINT ONLY IN SPACES PROVIDED
 2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

CORPORATION OR DISTRICT <i>Carleton Place</i>	TOWNSHIP, RURAL OR CITY, TOWN, VILLAGE <i>Stittsville</i>	CON. NO. 1515327	CON. NO. 15003	CON. NO. C&N
ADDRESS <i>[Redacted]</i>	STREET <i>Stittsville (McCaoye Lane)</i>	DATE COMPLETED <i>20.04.76</i>	DATE <i>20.04.76</i>	DATE <i>20.04.76</i>

1515327 18 426814 5012935 4 388 4 26 JUL 08, 1977 301

LOG OF OVERBURDEN AND REMOVED MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOIST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
gray	sand	stones		0	17
gray	limestone			17	44

31	00.17.28.12	00.44.21.5
32		

41 WATER RECORD 10-15 <input checked="" type="checkbox"/> FRESH <input type="checkbox"/> SALTY <input type="checkbox"/> SULPHUR <input type="checkbox"/> MINERAL 15-20 <input checked="" type="checkbox"/> FRESH <input type="checkbox"/> SALTY <input type="checkbox"/> SULPHUR <input type="checkbox"/> MINERAL 20-25 <input checked="" type="checkbox"/> FRESH <input type="checkbox"/> SALTY <input type="checkbox"/> SULPHUR <input type="checkbox"/> MINERAL 25-30 <input checked="" type="checkbox"/> FRESH <input type="checkbox"/> SALTY <input type="checkbox"/> SULPHUR <input type="checkbox"/> MINERAL 30-35 <input checked="" type="checkbox"/> FRESH <input type="checkbox"/> SALTY <input type="checkbox"/> SULPHUR <input type="checkbox"/> MINERAL	51 CASING & OPEN HOLE RECORD 10-15 <input checked="" type="checkbox"/> STEEL <input type="checkbox"/> GALVANIZED <input type="checkbox"/> CONCRETE <input type="checkbox"/> OPEN HOLE 15-20 <input checked="" type="checkbox"/> STEEL <input type="checkbox"/> GALVANIZED <input type="checkbox"/> CONCRETE <input type="checkbox"/> OPEN HOLE 20-25 <input checked="" type="checkbox"/> STEEL <input type="checkbox"/> GALVANIZED <input type="checkbox"/> CONCRETE <input type="checkbox"/> OPEN HOLE 25-30 <input checked="" type="checkbox"/> STEEL <input type="checkbox"/> GALVANIZED <input type="checkbox"/> CONCRETE <input type="checkbox"/> OPEN HOLE	61 PLUGGING & SEALING RECORD 10-15 <input type="checkbox"/> FRESH <input type="checkbox"/> SALTY <input type="checkbox"/> SULPHUR <input type="checkbox"/> MINERAL 15-20 <input type="checkbox"/> FRESH <input type="checkbox"/> SALTY <input type="checkbox"/> SULPHUR <input type="checkbox"/> MINERAL 20-25 <input type="checkbox"/> FRESH <input type="checkbox"/> SALTY <input type="checkbox"/> SULPHUR <input type="checkbox"/> MINERAL 25-30 <input type="checkbox"/> FRESH <input type="checkbox"/> SALTY <input type="checkbox"/> SULPHUR <input type="checkbox"/> MINERAL
--	---	---

71 PUMPING TEST METHOD 1 <input checked="" type="checkbox"/> PUMP 2 <input type="checkbox"/> BRILLER 10-15 <input type="checkbox"/> FRESH <input type="checkbox"/> SALTY <input type="checkbox"/> SULPHUR <input type="checkbox"/> MINERAL 15-20 <input type="checkbox"/> FRESH <input type="checkbox"/> SALTY <input type="checkbox"/> SULPHUR <input type="checkbox"/> MINERAL 20-25 <input type="checkbox"/> FRESH <input type="checkbox"/> SALTY <input type="checkbox"/> SULPHUR <input type="checkbox"/> MINERAL 25-30 <input type="checkbox"/> FRESH <input type="checkbox"/> SALTY <input type="checkbox"/> SULPHUR <input type="checkbox"/> MINERAL	81 PUMPING RATE 0008 10-15 <input type="checkbox"/> FRESH <input type="checkbox"/> SALTY <input type="checkbox"/> SULPHUR <input type="checkbox"/> MINERAL 15-20 <input type="checkbox"/> FRESH <input type="checkbox"/> SALTY <input type="checkbox"/> SULPHUR <input type="checkbox"/> MINERAL 20-25 <input type="checkbox"/> FRESH <input type="checkbox"/> SALTY <input type="checkbox"/> SULPHUR <input type="checkbox"/> MINERAL 25-30 <input type="checkbox"/> FRESH <input type="checkbox"/> SALTY <input type="checkbox"/> SULPHUR <input type="checkbox"/> MINERAL	91 LOCATION OF WELL 2612 IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.
--	--	--

FINAL STATUS OF WELL 1 <input checked="" type="checkbox"/> WATER SUPPLY <input type="checkbox"/> OBSERVATION WELL <input type="checkbox"/> TEST HOLE <input type="checkbox"/> RECHARGE WELL 10-15 <input type="checkbox"/> FRESH <input type="checkbox"/> SALTY <input type="checkbox"/> SULPHUR <input type="checkbox"/> MINERAL 15-20 <input type="checkbox"/> FRESH <input type="checkbox"/> SALTY <input type="checkbox"/> SULPHUR <input type="checkbox"/> MINERAL 20-25 <input type="checkbox"/> FRESH <input type="checkbox"/> SALTY <input type="checkbox"/> SULPHUR <input type="checkbox"/> MINERAL 25-30 <input type="checkbox"/> FRESH <input type="checkbox"/> SALTY <input type="checkbox"/> SULPHUR <input type="checkbox"/> MINERAL	WATER USE 01 1 <input checked="" type="checkbox"/> DOMESTIC <input type="checkbox"/> STOCK <input type="checkbox"/> IRRIGATION <input type="checkbox"/> INDUSTRIAL <input type="checkbox"/> OTHER 10-15 <input type="checkbox"/> FRESH <input type="checkbox"/> SALTY <input type="checkbox"/> SULPHUR <input type="checkbox"/> MINERAL 15-20 <input type="checkbox"/> FRESH <input type="checkbox"/> SALTY <input type="checkbox"/> SULPHUR <input type="checkbox"/> MINERAL 20-25 <input type="checkbox"/> FRESH <input type="checkbox"/> SALTY <input type="checkbox"/> SULPHUR <input type="checkbox"/> MINERAL 25-30 <input type="checkbox"/> FRESH <input type="checkbox"/> SALTY <input type="checkbox"/> SULPHUR <input type="checkbox"/> MINERAL	METHOD OF DRILLING 5 1 <input checked="" type="checkbox"/> CASE TOOL <input type="checkbox"/> ROCKET (CONVENTIONAL) <input type="checkbox"/> ROCKET (REVERSE) <input type="checkbox"/> TAPER (AIR) 10-15 <input type="checkbox"/> FRESH <input type="checkbox"/> SALTY <input type="checkbox"/> SULPHUR <input type="checkbox"/> MINERAL 15-20 <input type="checkbox"/> FRESH <input type="checkbox"/> SALTY <input type="checkbox"/> SULPHUR <input type="checkbox"/> MINERAL 20-25 <input type="checkbox"/> FRESH <input type="checkbox"/> SALTY <input type="checkbox"/> SULPHUR <input type="checkbox"/> MINERAL 25-30 <input type="checkbox"/> FRESH <input type="checkbox"/> SALTY <input type="checkbox"/> SULPHUR <input type="checkbox"/> MINERAL
---	--	---

CONTRACTOR Henry Manns Well Drilling Box 326, Richmond Ont. SIGNATURE OF CONTRACTOR DATE 31.4.76	OFFICE USE ONLY DATA SOURCE 1 DATE OF INSPECTION June 16/76 INSPECTOR H. Metcalf DATE RECEIVED 060576 OFFICE USE ONLY WI
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The Ontario Water Resources Commission Act
WATER WELL RECORD

Water management in Ontario

^b 1. DRYST (AIR F) IN SPACES PROVIDED.

2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11

1511758

© 2000 Blackwell Science Ltd

15.203

COUNTY OR DISTRICT *Caledon* TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE *Stittsville* CON. BLACKWATER, SURVEY, ETC. *Old Kap Rd.*

ADDRESS *Stettinall* DATE COMPLETED *29 May 97*

ZONE *21* EASTING *18* *4268.00* NORTHING *50129.20* HC *4* ELEVATION *0390* PC *5* BATH CODE *25*

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

[illegible][illegible][illegible]

PUMPING TEST	PUMPING TEST METHOD		10	PUMPING RATE		13-14	DURATION OF PUMPING	
	1 <input type="checkbox"/> PUMP 2 <input checked="" type="checkbox"/> WELLER			2400 GPM		15-16	00:10:00	
	STATIC LEVEL		25	WATER LEVELS DURING		3 <input checked="" type="checkbox"/> PUMPING 4 <input type="checkbox"/> RECOVERY		
	19-21		22-24	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES	
	008.20		019.20	020.20	020.20	020.20	020.20	
	IF FLOWING, GIVE RATE		50-61	PUMP BEHAV. SET AT		WATER AT END OF TEST		
			GPM		FEET		1 <input type="checkbox"/> CLEAR 2 <input checked="" type="checkbox"/> LOUDY	
RECOMMENDED PUMP TYPE		RECOMMENDED PUMP SIZE		42-45		RECOMMENDED PUMP RATE		
1 <input checked="" type="checkbox"/> SHALLOW 2 <input type="checkbox"/> DEEP		020		FEET		0010		
30-33		001.2		GPM/FT. SPECIFIC CAPACITY		GPM/		

<p>FINAL STATUS OF WELL</p>	<p>1 <input checked="" type="checkbox"/> WATER SUPPLY 2 <input type="checkbox"/> OBSERVATION WELL 3 <input type="checkbox"/> TEST HOLE 4 <input type="checkbox"/> RECHARGE WELL</p>	<p>5 <input type="checkbox"/> ABANDONED, INSUFFICIENT SUPPLY 6 <input type="checkbox"/> ABANDONED, POOR QUALITY 7 <input type="checkbox"/> UNFINISHED</p>
<p>WATER USE</p> <p>01</p>	<p>1 <input checked="" type="checkbox"/> DOMESTIC 2 <input type="checkbox"/> STOCK 3 <input type="checkbox"/> IRRIGATION 4 <input type="checkbox"/> INDUSTRIAL <input type="checkbox"/> OTHER</p>	<p>5 <input type="checkbox"/> COMMERCIAL 6 <input type="checkbox"/> MUNICIPAL 7 <input type="checkbox"/> PUBLIC SUPPLY 8 <input type="checkbox"/> COOLING OR AIR CONDITIONING 9 <input type="checkbox"/> NOT USED</p>
<p>METHOD OF DRILLING</p>	<p>1 <input checked="" type="checkbox"/> CABLE TOOL 2 <input type="checkbox"/> ROTARY (CONVENTIONAL) 3 <input type="checkbox"/> ROTARY (REVERSE) 4 <input type="checkbox"/> ROTARY (AIR) 5 <input type="checkbox"/> AIR PERCUSSION</p>	<p>6 <input type="checkbox"/> BORING 7 <input type="checkbox"/> DIAMOND 8 <input type="checkbox"/> JETTING 9 <input type="checkbox"/> DRIVING</p>

CONTRACTOR	NAME OF WELL CONTRACTOR <i>Idemix Maind Well Pitting</i>		LICENSE NUMBER <i>3644</i>
	ADDRESS <i>Box 326 Richmond Ont</i>		
	NAME OF SELLER OR OWNER <i>Frank Robillard</i>		LICENSE NUMBER
	SIGNATURE OF CONTRACTOR <i>Chris Krack</i>		SUBMISSION DATE DAY _____ MO _____ YE _____

LOCATION OF WELL

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

A hand-drawn sketch map on lined paper. It shows a horizontal road at the top and another road branching off downwards from it. On the left side of the branching road, there are two small circles labeled "xii" and "xi". Further down the branching road, there is a rectangular building with a chimney. To the right of the building, there is a point labeled "62°" and some scribbled-out text. Below the branching road, the number "32" is written, followed by some illegible handwriting.

OFFICE USE ONLY	DATE SOURCE				CONTRACTOR		SS-62		DATE RECEIVED		GS-68		NO	
	1				3644				180572					
	DATE OF INSPECTION						INSPECTOR							
	REMARKS													
	P K													
	WI													

OWRC COPY

road and lot line. Indicate north by arrow.

ET4 RD12

50'

300'

NEW #15 HWY

300'

PITTSVILLE

CS5.54



The Ontario Water Resources Commission Act

WATER WELL RECORD

3155d

Water management in Ontario 1. PRINT ONLY IN SPACES PROVIDED

2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

COUNTY OR DISTRICT <i>Carleton Place</i>	TOWNSHIP, RIDEAU, CITY, TOWNSHIP, VILLAGE <i>Shelburne</i>	CONC. BLOCK, TRACT, SURVEY, ETC. <i>Can 12</i>	DATE COMPLETED <i>05 June 72</i>
ELEVATION <i>131.00</i>		NO. OF FEET <i>4</i>	NO. OF FEET <i>5</i>

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	TO
<i>grey</i>	<i>clay</i>	<i>stone</i>		<i>0</i>	<i>14</i>
<i>grey</i>	<i>limestone</i>			<i>14</i>	<i>127</i>

31	<i>00/00/00</i>	<i>01/02/01</i>
32		

41 WATER RECORD		51 CASING & OPEN HOLE RECORD		61 PLUGGING & SEALING RECORD													
<table><tr><td>1 FRESH</td><td>3 SULPHUR</td></tr><tr><td>2 SALTY</td><td>4 MINERAL</td></tr></table>		1 FRESH	3 SULPHUR	2 SALTY	4 MINERAL	<table><tr><td>1 STEEL</td><td>2 GALVANIZED</td><td>3 CONCRETE</td><td>4 OPEN HOLE</td></tr></table>		1 STEEL	2 GALVANIZED	3 CONCRETE	4 OPEN HOLE	<table><tr><td>1 STEEL</td><td>2 GALVANIZED</td><td>3 CONCRETE</td><td>4 OPEN HOLE</td></tr></table>		1 STEEL	2 GALVANIZED	3 CONCRETE	4 OPEN HOLE
1 FRESH	3 SULPHUR																
2 SALTY	4 MINERAL																
1 STEEL	2 GALVANIZED	3 CONCRETE	4 OPEN HOLE														
1 STEEL	2 GALVANIZED	3 CONCRETE	4 OPEN HOLE														
<i>01/27</i>		<i>05</i>		<i>01/27</i>													

71 PUMPING TEST		81 PUMPING TEST					
<table><tr><td>1 PUMP</td><td>2 WELLS</td></tr></table>		1 PUMP	2 WELLS	<table><tr><td>1 PUMP</td><td>2 WELLS</td></tr></table>		1 PUMP	2 WELLS
1 PUMP	2 WELLS						
1 PUMP	2 WELLS						
<i>007</i>		<i>0021</i>					

91 FINAL STATUS OF WELL		101 WATER USE		111 METHOD OF DRILLING													
<table><tr><td>1 WATER SUPPLY</td><td>2 OBSERVATION WELL</td><td>3 TEST HOLE</td><td>4 RECHARGE WELL</td></tr></table>		1 WATER SUPPLY	2 OBSERVATION WELL	3 TEST HOLE	4 RECHARGE WELL	<table><tr><td>1 DOMESTIC</td><td>2 STOCK</td><td>3 IRRIGATION</td><td>4 INDUSTRIAL</td></tr></table>		1 DOMESTIC	2 STOCK	3 IRRIGATION	4 INDUSTRIAL	<table><tr><td>1 CABLE TOOL</td><td>2 ROTARY (CONVENTIONAL)</td><td>3 ROTARY (REVERSE)</td><td>4 ROTARY (AIR)</td></tr></table>		1 CABLE TOOL	2 ROTARY (CONVENTIONAL)	3 ROTARY (REVERSE)	4 ROTARY (AIR)
1 WATER SUPPLY	2 OBSERVATION WELL	3 TEST HOLE	4 RECHARGE WELL														
1 DOMESTIC	2 STOCK	3 IRRIGATION	4 INDUSTRIAL														
1 CABLE TOOL	2 ROTARY (CONVENTIONAL)	3 ROTARY (REVERSE)	4 ROTARY (AIR)														
<i>01</i>		<i>01</i>		<i>01</i>													

LOCATION OF WELL	

CONTRACTOR		LICENSE NUMBER	
<i>Henry Main Well Drilling</i>		<i>3644</i>	
<i>326 Richmond Ave</i>		<i>Ant</i>	
<i>George Whitaker</i>		<i>Ant</i>	
<i>Henry Main</i>		<i>Ant</i>	

OFFICE USE ONLY		DATE RECEIVED	
<i>1</i>		<i>180872</i>	
<i>3644</i>		<i>PK</i>	
<i>WI</i>		<i>PK</i>	

OWRC COPY



WATER WELL RECORD

31050

Water management in Ontario 1. PRINT ONLY IN SPACES PROVIDED

2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

COUNTY DISTRICT	TOWNSHIP	WATER DIVISION	WELL NO.	DATE	WELL TYPE
St. Catharines	St. Catharines	1511428	1511428	15.203	1511428
1440 Mayview Ave. Ottawa			DATE COMPLETED	DATE	WELL TYPE
13090 4 030.5 4 2.5			22	71	1511428

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOIST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
grey	clay	stone		0	12
grey	hardpan	stone		12	18
grey	limedon			18	58

31	001230512	001821412	0058215
32			

41 WATER RECORD		51 CASING & OPEN HOLE RECORD		61 PLUGGING & SEALING RECORD	
WATER FOUND AT - FEET	KIND OF WATER	INSIDE DIAMETER INCHES	MATERIAL	WELL THICKNESS INCHES	DEPTH - FEET
0058	1 FRESH 2 SALTY 3 SULPHUR 4 MINERAL	05	1 STEEL 2 GALVANIZED 3 CONCRETE 4 OPEN HOLE	188	0
15-16	1 FRESH 2 SALTY 3 SULPHUR 4 MINERAL	17-18	1 STEEL 2 GALVANIZED 3 CONCRETE 4 OPEN HOLE		0021
20-21	1 FRESH 2 SALTY 3 SULPHUR 4 MINERAL	24-25	1 STEEL 2 GALVANIZED 3 CONCRETE 4 OPEN HOLE		0058

71 PUMPING TEST		81 LOCATION OF WELL	
PUMPING TEST METHOD	PUMPING RATE	IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.	
1 PUMP 2 WEAVER	0021	Carp Rd.	
STATIC LEVEL	WATER LEVEL	30W 713W	
0001	015	1X	
0021	021		
0021	021		
0021	021		

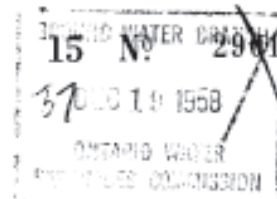
FINAL STATUS OF WELL		WATER USE	
1 WATER SUPPLY 2 OBSERVATION WELL 3 TEST HOLE 4 RECHARGE WELL	5 ABANDONED, INSUFFICIENT SUPPLY 6 ABANDONED, POOR QUALITY 7 UNFINISHED	1 DOMESTIC 2 STOCK 3 IRRIGATION 4 INDUSTRIAL 5 OTHER	6 COMMERCIAL 7 MUNICIPAL 8 PUBLIC SUPPLY 9 COOLING OR AIR CONDITIONING 10 NOT USED
METHOD OF DRILLING		DRILLER'S REMARKS	
1 CABLE TOOL 2 ROTARY (CONVENTIONAL) 3 ROTARY (REVERSE) 4 ROTARY (AIR) 5 AIR PERCUSSION	6 ROBIN 7 DIAMOND 8 JETTING 9 DRIVING		

CONTRACTOR		OFFICE USE ONLY	
NAME OF WELL CONTRACTOR	LICENCE NUMBER	DATE SOURCE	DATE RECEIVED
Harry Mann Well Drilling		1-3644	081071
ADDRESS		DATE OF INSPECTION	INSPECTOR
326 Richmond Ont.			
NAME OF OWNER OR BORER	LICENCE NUMBER	P K	
Harry Mann		W I	
SIGNATURE OF CONTRACTOR	SUBMISSION DATE		
Harry Mann	6 July 71		

100-2007

Basin 12057 124

The Water-well Drillers Act, 1954
Department of Mines



STITTSVILLE^C

ddress

Date completed (day) (month) (year)

Pipe and Casing Record

Pumping Test

Casing diameter(s)	4"	Static level	3
Length(s)	18'	Pumping rate	600 GPM
Type of screen	NO	Pumping level	5
Length of screen		Duration of test	12.00

Well Log

Water Record

[illegible]

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

Is water clear or cloudy? CLEAR

Is well on upland, in valley, or on hillside?.....

Drilling firm

Address _____

Name of Driller W J KING

Address BRITANNIA HRS

Licence Number 733

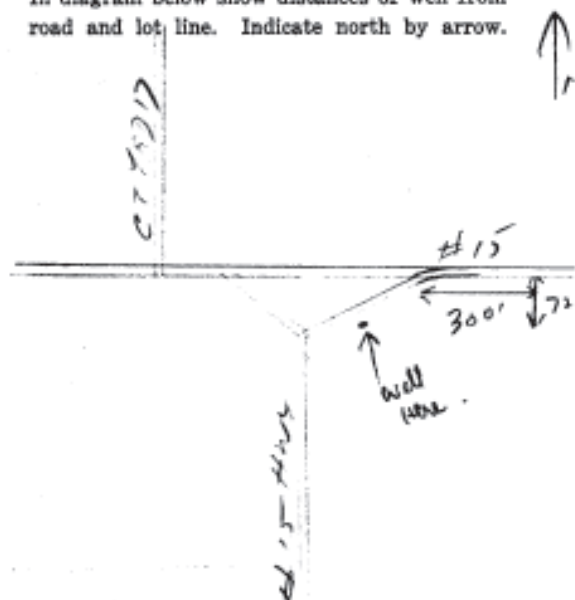
I certify that the foregoing
statements of fact are true.

Date Dec 15 W J Kang

Signature of Licensee

Location of Well

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



316/5d. 7A



UTM 1182 4269170

5R 5011310915N

The Ontario Water Resources Commission Act

Elev. 4R 03810

WATER WELL RECORD

Basin 215 Cordellton

County or District

Township, Village, Town or City

STITTSVILLE

Con. Lot

Date completed

29

Oct.

63

Owner Dalawri Motor Sales

(print in block letters)

Address

Stittsville

Ont

DELAWARE Casing and Screen Record

Inside diameter of casing

4"

Total length of casing

12'

Type of screen

none

Length of screen

-

Depth to top of screen

-

Diameter of finished hole

4"

Pumping Test

Static level

over surface

Test-pumping rate

5 G.P.M.

Pumping level

10'

Duration of test pumping

4 1/2 hr.

Water clear or cloudy at end of test

clear

Recommended pumping rate

5 G.P.M.

with pump setting of

15

feet below ground surface

Well Log

Overburden and Bedrock Record

dark loam

gray limestone

From ft.

To ft.

Depth(s) at which water(s) found

Kind of water (fresh, salty, sulphur)

0

12

12

20

12-20

fresh

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

Service Stn. - garage

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

valley

Drilling or Boring Firm

H. P. Sparks

Address

Stittsville Ont.

Licence Number

Name of Driller or Borer

H. H. Sparks

Address

Stittsville Ont.

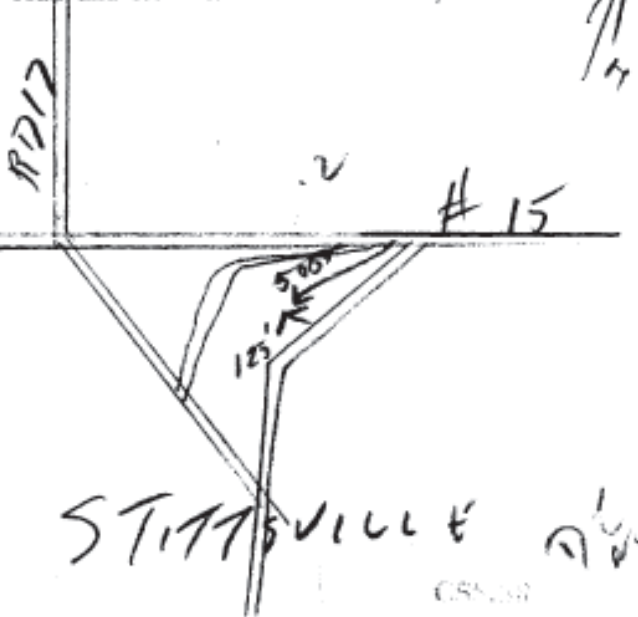
Date

Sept. 29, 63

(Signature of Licensed Drilling or Boring Contractor)

Location of Well

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



Form 7 15M Sets 60-5930

OWRC COPY

CS-100

17 426685
5 5012990
4 0388
25



1509988.

The Ontario Water Resources Commission Act

WATER WELL RECORD

County or District

Carl

Township, Village, Town or City

Stittsville Ont.

Con.

Lot

Date completed

13

Feb

1969

Address

118 Arbutus St.

Ottawa 6

Casing and Screen Record

Inside diameter of casing 5"
Total length of casing 18'
Type of screen
Length of screen
Depth to top of screen
Diameter of finished hole 5"

Pumping Test

Static-level 5'
Test-pumping rate 10 G.P.M.
Pumping level 6'
Duration of test pumping 1 hr
Water clear or cloudy at end of test
Recommended pumping rate 5 G.P.M.
with pump setting of 30 feet below ground surface

Well Log

Overburden and Bedrock Record

sandy & gravel with
boulders
limestone

From
ft.

To
ft.

0

16

16

58'

Water Record

Depth(s) at
which water(s)
found

Kind of water
(fresh, salty,
sulphur)

55'

fresh

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

new house

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

Drilling or Boring Firm Capital Water

Supply Ltd.

Address 14 Ashford Dr

Ottawa 6

Licence Number 3216

Name of Driller or Borer H. Brown

Address

Date Feb 13 1969

Halter Kavanagh
(Signature of Licensed Drilling or Boring Contractor)

Form 7 15M-60-4138

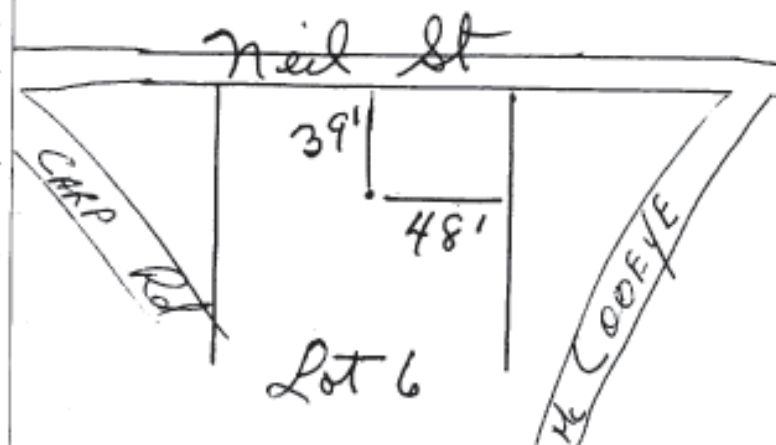
OWRC COPY

Plan 751

lot 6

Location of Well

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



APPENDIX 3

QUALIFICATIONS OF ASSESSORS

POSITION

Intermediate Environmental Engineer

EDUCATION

Carleton University, B.Eng. 2002
Environmental Engineering

MEMBERSHIPS AND AWARDS

Professional Engineers of Ontario
Ottawa Geotechnical Society

EXPERIENCE

2011-present

Paterson Group Inc.

Consulting Engineers
Geotechnical and Environmental Division
Intermediate Engineer

2009-2010

Department of Indian and Northern Affairs

Contaminated Sites Division
Environment Officer (PC-02)

2003 to 2009

Paterson Group Inc.

Consulting Engineers
Geotechnical and Environmental Division
Intermediate Engineer

2002 to 2003

Dessau Soprin Inc.

Consulting Engineers
Environmental Division
Junior Engineer

SELECT LIST OF PROJECTS

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

**Environmental
Engineering**

**Geotechnical
Engineering**

**Materials Testing
Quality Control**

Building Sciences

Hydrogeology

Archeological Services

POSITION

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

EDUCATION

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

MEMBERSHIPS

Ottawa Geotechnical Group
Professional Engineers of Ontario

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

Environmental Engineering

Geotechnical Engineering

Materials Testing Quality Control

Building Science

Hydrogeology

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