Phase I Environmental Site Assessment
Commercial Property
852 Bank Street
Ottawa, Ontario

Prepared For
Canderel Management Inc.

April 14, 2014
Report: PE3077-3
# Table of Contents

EXECUTIVE SUMMARY ........................................................................................................................................... ii
1.0 INTRODUCTION ................................................................................................................................................. 1
2.0 PHASE I PROPERTY INFORMATION ....................................................................................................................... 2
3.0 SCOPE OF INVESTIGATION ..................................................................................................................................... 3
4.0 RECORDS REVIEW .................................................................................................................................................... 4
  4.1 General ........................................................................................................................................................................ 4
  4.2 Environmental Source Information .............................................................................................................................. 7
  4.3 Physical Setting Sources ........................................................................................................................................... 9
5.0 INTERVIEWS ............................................................................................................................................................. 12
6.0 SITE RECONNAISSANCE ........................................................................................................................................ 12
  6.1 General Requirements .............................................................................................................................................. 12
  6.2 Specific Observations at Phase I Property ................................................................................................................... 12
7.0 REVIEW AND EVALUATION OF INFORMATION ...................................................................................................... 15
  7.1 Land Use History ........................................................................................................................................................ 15
  7.2 Conceptual Site Model ............................................................................................................................................. 17
8.0 CONCLUSIONS ......................................................................................................................................................... 19
9.0 STATEMENT OF LIMITATIONS ................................................................................................................................. 21
10.0 REFERENCES ......................................................................................................................................................... 22

# List of Figures

Figure 1 - Key Plan
Figure 2 - Topographic Map
Drawing PE3077-4 - Site Plan
Drawing PE3077-5 - Surrounding Land Use Plan

# List of Appendices

Appendix 1 Chain of Title
  Current Plan of Survey
  Aerial Photographs
  Site Photographs

Appendix 2 MOE Freedom of Information Response
  TSSA Correspondence
  City of Ottawa Historical Land Use Inventory Request
  MOE Well Records

Appendix 3 Qualifications of Assessors
EXECUTIVE SUMMARY

Assessment

Paterson Group was retained by Canderel Management Inc. to conduct a Phase I Environmental Site Assessment (ESA) of the property located at 852 Bank Street, in the City of Ottawa, Ontario. The purpose of this Phase I-Environmental Site Assessment (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.

According to the historical research, the subject site has been occupied by a commercial building since its initial development in the early 1930’s and redevelopment circa 1958. An addition was constructed in 1991. The property was first used as a retail fuel outlet followed by a commercial automobile garage. These uses represent APECs to the property. Surrounding property use was predominantly residential and commercial. None of the identified historic PCAs on neighbouring properties within the Phase I study area are considered to be APECs.

Following the historical research, a site inspection was conducted of the subject site and Phase I ESA study area. The subject site is currently occupied by a single commercial building. No ASTs were observed at the subject site, but an unused furnace oil UST and an unused waste oil UST are present on the east and west sides of the subject building. Two (2) in-ground hoists and three (3) floor drains were observed inside the building. The automotive garage no longer operates commercially. Another automotive garage (Mister Muffler) located 60m south, at 890 Bank Street, is the only existing off-site PCA identified within the Phase I study area.

Previous environmental investigations on the subject property have identified a limited area of petroleum hydrocarbon and metal contaminated soil in the northeast portion of the site. Five (5) wells were installed during the previous investigations. Chloroform was the only parameter to exceed the MOE standards, which occurred at one borehole location.
Recommendations

Two (2) previous Phase II ESAs have been conducted on the property to assess the identified APECs. The results of these investigations will be combined into a new standard Phase II ESA report which will provide recommendations with regard to the remediation of the property.

It is our understanding that the subject property is to be redeveloped. As part of the redevelopment of the property, the existing site building will be demolished. Prior to the demolition of the building, a designated substance survey (DSS) will be required to be conducted in accordance with the Occupational Health and Safety Act.
1.0 INTRODUCTION

At the request of Canderel Management Inc., Paterson Group (Paterson) conducted a Phase I Environmental Site Assessment (Phase I ESA) of the property located at 852 Bank Street, in the City of Ottawa, Ontario. The purpose of this Phase I ESA was to research the past and current use of the site and study area and to identify any environmental concerns with the potential to have impacted the subject property.

Paterson was engaged to conduct this Phase I ESA by Mr. Ryan Blatt of Canderel Management Inc. Canderel's offices are located at Suite 900, 2000 Peel Street, Montreal, Quebec. Mr. Blatt can be reached by telephone at (514) 940-1420.

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

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

Address: 852 Bank Street, Ottawa, Ontario.

Legal Description: Lots 1 and 8, Registered Plan 47389, City of Ottawa.

Property Identification Numbers: 04140-0195.

Location: The subject site is located on the southwest corner of the intersection Bank Street and Fifth Avenue. The subject site is shown on Figure 1 - Key Plan following the body of this report.

Latitude and Longitude: 45° 24' 05" N, 75° 41' 16" W.

Site Description:

Configuration: Irregular.

Site Area: 833 square meters (approximate).

Zoning: TMH – Traditional Mainstreet Zone
R4T – Residential Fourth Density Zone

Current Use: 852 Bank Street is occupied by a single storey commercial building (McKale’s Service Centre, although it is not currently used as a public garage) along with associated paved parking areas.

Services: The subject site is located in a municipally serviced area.
3.0 SCOPE OF INVESTIGATION

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

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

4.1 General

Phase I-ESA Study Area Determination

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

First Developed Use Determination

According to the city directories, the address 852 Bank Street was not listed prior to 1930. The title search indicates that the first transaction with respect to the subject site occurred in 1896. For the purposes of this report, the first developed use of the site is determined to be an automobile service station in the 1930’s.

The original retail fuel outlet building, as depicted in the 1956 Fire Insurance Plan, was demolished and the site was redeveloped with the existing building depicted in a 1958 aerial photograph along with an addition in 1991 (City of Ottawa website).

Fire Insurance Plans

Fire Insurance Plans (FIPs) from 1956 were reviewed for the area of the subject property. The FIPs show a retail fuel outlet with three (3) underground storage tanks (USTs) located at 852 Bank Street.

Two (2) retail fuel outlets were identified within the Phase I study area and are located: 63m south of the subject site (890 Bank Street) and 153m south (912 Bank Street). Automotive garages/dealers occupy the properties adjacent to the south (860 Bank Street – Ottawa Motor Sales) and to the east across Bank Street (855 Bank Street – Keith’s Auto Sales). Two (2) automotive garages are present 67m to the southeast at 879 and 895 Bank Street. Chinese laundry businesses are listed at 827 and 811 Bank Street, located 72m and 120m north respectively. No significant concerns were identified on the remaining neighbouring properties in the 1956 FIPs.

FIPs for other years were not available for review. FIPs are not appended to this report due to copyright issues.
City of Ottawa Street Directories

City directories at the National Archives were reviewed in approximate 10 year intervals from 1900 to 2010 as part of the Phase I ESA.

Based on the directories reviewed, the subject property was initially listed as an automobile service station in the 1930's. This property has been listed in the directories as a garage and/or a service station from the 1930's until the most recent directory reviewed (2010). The subject property was not listed in the city directories prior to the 1930's.

The presence of the former on-site retail fuel outlet and automotive garage on the subject property represent potential environmental concerns. Based on the available information, the adjacent properties to the north and west have generally been used for residential and retail purposes since their development.

The neighbouring property to the south (addressed 860 Bank Street) was listed as “Ottawa Motor Sales” from the 1940's until the 1970's. This property is considered, to a lesser extent, to have the potential to impact the subject property. The neighbouring property to the east, across Bank Street, (addressed 855 Bank Street) was occupied by an automotive garage and automobile sales business from the 1920's until the 1960's. Based on its distance from the subject property and down gradient location, this property is not considered likely to have the potential to impact the subject site. The automotive garage (Mister Muffler) located 60m south (890 Bank Street) was initially listed as an automobile garage and/or service station from the mid 1950’s until the most recent directory reviewed (2010), but is not a concern to the subject property. No significant concerns were noted with the remaining neighbouring properties in the city directories reviewed.

Off-site potentially contaminating land uses identified by the city directories research are either located a significant distance from the subject site or are located downgradient or cross-gradient, and are not considered to have impacted the subject site.
Chain of Title

Paterson verified the current land titles for the properties constituting the subject site with Read Abstracts Limited of Ottawa, Ontario. The records review extended back to 1866. The lots were owned by various individuals until 1928 when they were purchased by Cities Service Oil Company Limited. In 1966, B.P. Canada Limited purchased the lots which were then sold in 1974 to Marlin McKale Limited. The land has been owned by the current owner, 852 Bank Street Holdings GP Inc., since February 14, 2014.

Environmental Reports

The following reports were reviewed as part of this assessment:

- “Phase I-II - Environmental Site Assessment, Existing Commercial Property, 852 Bank Street, Ottawa, Ontario”, prepared by Paterson, dated September 2013.

The Phase I ESA recommended the completion of a Phase II ESA to assess any potential soil and groundwater impacts from the presence of the former retail fuel outlet and existing on-site automobile garage.

The Phase II ESA consisted the placement of seven (7) boreholes, three (3) of which were equipped with groundwater monitoring wells on the subject property.

Two (2) petroleum hydrocarbon concentrations and one (1) lead concentration were in excess of MOE Table 3 standards. Groundwater samples were submitted for PHC and VOC analysis. No detectable PHC or VOC concentrations were identified in any of the groundwater samples analysed.

The existing underground storage tanks (furnace oil and waste oil) which are no longer in use were recommended to be removed along with any associated piping.

- “Supplemental Phase II - Environmental Site Assessment, Existing Commercial Property, 852 Bank Street, Ottawa, Ontario”, prepared by Paterson, dated January 2014.

Two (2) additional boreholes with monitoring wells were advanced to depths of 7.6 meters below the existing grade along the southern border of the subject site. Soil samples were submitted for a combination of PHC, BTEX and metals analysis. Two (2) groundwater samples were submitted for VOC and PHC analysis.
No detectable BTEX or PHC concentrations were identified in the soil samples analysed. All metal parameters in the soil sample analysed comply with MOE Table 3 residential standards. No detectable PHC concentrations were identified in the groundwater samples analysed. All the detected VOC parameter concentrations identified in the groundwater samples analysed comply with Table 3 standards except for chloroform in BH8-13-GW1.

The elevated level of chloroform was attributed to the proximity of the monitoring well to the main water line located within the Bank Street right-of-way. Resampling the well to confirm the chloroform concentration was recommended.

Current Plan of Survey

A current plan of survey dated September 2013, prepared by Annis, O’Sullivan, Vollebekk Limited, was reviewed as part of this assessment. The survey plan shows the subject site in its current configuration.

4.2 Environmental Source Information

Environment Canada

A search of the National Pollutant Release Inventory (NPRI) was conducted electronically on March 18, 2014. The subject site and adjacent properties were not listed in the NPRI database. No records of pollutant release were listed in the database for properties located within the Phase I Study Area.

PCB Inventory

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

Ontario Ministry of Environment (MOE) Instruments

A request was submitted to the MOE Freedom of Information office for information with respect to certificates of approval, permits to take water, certificates of property use or any other similar MOE issued instruments for the site. No records were available for the area of the subject site.

MOE Coal Gasification Plant Inventory

The Ontario Ministry of Environment document titled “Municipal Coal Gasification Plant Site Inventory, 1991” was reviewed to reference the locations of former plants with respect to the site. No coal gasification plants were identified within the Phase I study area.
MOE Incident Reports

A request was submitted to the MOE Freedom of Information office for information with respect to records concerning environmental incidents, orders, offences, spills, discharges of contaminants or inspections maintained by the MOE for the site or adjacent properties. No incident reports were available for the subject site.

MOE Waste Management Records

A request was submitted to the MOE Freedom of Information office for information with respect to waste management records. No waste management records were available for the subject site.

MOE Submissions

A request was submitted to the MOE Freedom of Information office for information with respect to reports related to environmental conditions have been submitted to the MOE. No submissions were available for the subject site.

MOE Brownfields Environmental Site Registry

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

MOE Waste Disposal Site Inventory

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

City of Ottawa Landfill Document

The document entitled “Old Landfill Management Strategy, Phase I – Identification of Sites, City of Ottawa”, was reviewed. Based on this report, there are no landfill sites identified within the Phase I study area.
Areas of Natural Significance

A search for areas of natural significance and features within the Phase I study area was conducted on the web site of the Ontario Ministry of Natural Resources (MNR) on March 18, 2014. The search did not reveal any natural features or areas of natural significance within the Phase I study area.

Technical Standards and Safety Authority (TSSA)

The TSSA, Fuels Safety Branch in Toronto was contacted electronically on March 20, 2014 to inquire about current and former underground storage tanks, spills and incidents for the site and neighbouring properties. The subject property is listed as an expired full-serve gas station while the property to the northeast (819 Bank Street) has a record of a pipeline incident report relating to damage done to a natural gas line. A copy of the TSSA correspondence is included in Appendix 2.

City of Ottawa Historical Land Use Inventory

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

Former Industrial Sites

The report entitled “Mapping and Assessment of Former Industrial Sites, City of Ottawa” was also reviewed. The subject site and neighbouring properties within the Phase I study area were not listed in the database of former industrial sites.

4.3 Physical Setting Sources

Aerial Photographs

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

1928  The subject site appears vacant at this time. Residential dwellings can be seen to the south and west as well as further to the east. Commercial buildings appear to occupy properties along Bank Street.
1945 (Poor Scale) No significant changes appear to have been made to the subject site or neighbouring properties at this time, with the exception of the development of a commercial building adjacent to the south as well as along Bank Street.

1958 (City of Ottawa Website) The subject site appears to have been developed with the existing automotive garage at this time. Commercial properties are present on the east and west side of Bank Street.

1975 No significant changes were observed on the subject site or neighbouring properties.

1985 The subject and neighbouring properties are relatively unchanged from the previous photo. It appears that the commercial property to the northeast of the subject site, across the intersection, has been redeveloped.

1995 The subject and neighbouring properties are relatively unchanged from the previous photo with one exception. A building addition can be seen on the west side of the existing subject building at this time.

2002 No significant changes were observed on the subject site or neighbouring properties.

2011 (City of Ottawa Website) The subject site and neighbouring properties are depicted as they appear today.

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

**Topographic Maps**

Topographic maps were obtained from Natural Resources Canada – The Atlas of Canada website and from the City of Ottawa website. The topographic maps indicate that the regional topography in the general area of the site slopes gradually downward to the southeast. According to the maps, the nearest water body is the Rideau Canal, located approximately 550 m to the east of the site. An illustration of the referenced topographic map is presented on Figure 2 – Topographic Map, appended to this report.
Physiographic Maps

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

Geological Maps

The Geological Survey of Canada website on the Urban Geology of the National Capital Area was consulted as part of this assessment. Based on this information, bedrock in the area of the site consists of Paleozoic shale of the Billings Formation and of interbedded limestone and shale of the Verulam Formation. Overburden soils are shown as erosional terraces, with a drift thickness on the order of 10-15 m.

Water Well Records

A requisition was made to the MOE to provide water well records for all drilled wells within 300 m of the subject site. The MOE response included seven (7) water well records, all of which are monitoring wells associated with the redevelopment of Lansdowne Park located 195m to the south of the subject site. The well records delineate areas of impacted fill associated with a former landfill (Ur-27) which is outside the Phase I study. Due to the availability of City water in the Phase I study area, it is our opinion that there are no drinking water wells within the Phase I study area. A copy of the MOE response is provided in the Appendix 2.

Water Bodies and Areas of Natural Significance

No creeks, rivers, streams, lakes or any other water body was identified in the Phase I study area. The majority of the study area consists of residential dwellings and commercial businesses. Past known land use in the study area is residential and commercial. The Rideau River and Rideau Canal are the closest significant water bodies and are present approximately 1.2km to the southeast and 550m to the east of the site respectively. No areas of natural significance are known to exist within the Phase I study area.
5.0 INTERVIEWS

Property Owner Representative

Mr. Marlin McKale, the current property owner since 1957, was present at the time of the site inspection. Mr. McKale indicated that one (1) waste oil and one (1) furnace oil underground storage tank were currently situated on the subject property. The tanks, which are located adjacent to the west and east sides of the subject building, are currently not in use and have been emptied of their contents. Mr. McKale also identified the approximate location of the two (2) former underground fuel storage tank nests as well as former fuelling pump island. Mr. McKale indicated that the subject site was no longer used as a commercial automotive garage and that he utilized the garage for personal use only.

6.0 SITE RECONNAISSANCE

6.1 General Requirements

The site visit was conducted on August 8, 2013. Mr. Eric Leveque from the Environmental Department of Paterson Group conducted the site assessment. In addition to the site, the uses of neighbouring properties within the Phase I study area were also assessed at the time of the site visit.

6.2 Specific Observations at Phase I Property

Buildings and Structures

The subject building is a slab-on-grade style structure which is heated with gas fired ceiling mounted furnaces. The eastern portion of the building has two (2) stories while the western portion of the structure is a single storey. This building is currently occupied by an automotive garage with two (2) in-ground hoists and four (4) bay doors. The exterior of the building consists of brick and/or metal siding and has a flat tar and gravel style roof.

Underground Utilities

Underground service locates were completed for the subject site. Electrical services to the subject site are overhead. A natural gas connection is present in the southwest corner of the subject building. The approximate location of the natural gas line is shown on Drawing PE3077-4 – Site Plan.
Site Features

The majority of the subject site consists of parking areas. The site is relatively flat and roughly at grade with the surrounding streets. Sheet drainage to catch basins on the adjacent roadways is the primary method of directing surface water away from the property. There were no signs of surficial contamination on the exterior of the property at the time of the site visit.

Interior Assessment

A general description of the interior of 852 Bank Street is as follows:

- Floors consist of vinyl or ceramic tiles and concrete.
- The walls consist of drywall and concrete blocks.
- The ceilings consist of drywall and hard plaster.
- Lighting is provided by fluorescent fixtures.

Storage Tanks

No aboveground storage tanks (ASTs) were observed at the time of the assessment. As previously noted there are two (2) underground storage tanks on the subject property (waste oil and furnace oil). These tanks are no longer in use and have been emptied of their contents.

Heating/Cooling System

The building is currently heated with the natural gas fired ceiling mounted furnaces.

Drains, Pits and Sumps

Three (3) floor drains were observed on the interior of the garage portion of the building at the time of the assessment. No concerns were noted regarding these floor drains at the time of the site visit.

Unidentified Substances

There were no unidentified substances on the interior or exterior of the subject property at the time of this assessment.
Sewage Works
The site is connected to the City of Ottawa sanitary sewer system. Given the urban setting, no private sewage systems are suspected to exist on the subject site or in the Phase I study area.

Waste Storage and Disposal
Non-hazardous waste is stored in a metal bin in the parking area.

Railway Lines
There are no rail yards, tracks or spurs within the Phase I study area.

Ozone Depleting Substances (ODSs)
No potential sources of ODSs were observed on site at the time of the site inspection.

Potentially Contaminating Activities (PCA)
The site is no longer used as a commercial automotive garage but for personal use by the tenant (Mr. McKale). There were no active PCAs identified on the subject site during the site visit.

Building Material Assessment
Possible asbestos-containing materials observed during the site visit include vinyl floor tiles, hard plaster finishes and drywall joint compound. These materials were observed to be in fair to good condition at the time of the assessment.

Based on the age of the building and addition (1958 and 1991) lead based paint may be present beneath more recent coats of paint, on any original or re-painted surfaces. Painted surfaces were generally in good condition at the time of the assessment.

Urea Formaldehyde Foam Insulation (UFFI) was not identified during the site visit; however, the wall cavities were not inspected for insulation type.
Neighbouring Properties

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

- North - Fifth Avenue, followed by commercial;
- South - Commercial retail;
- East - Bank Street, followed by commercial retail;
- West - Monk Street, followed by residential.

The current use of the immediately adjacent properties is not considered to pose an environmental concern to the subject site. There is one (1) property within the Phase I study area that is currently engaged in potentially contaminating activities, as shown on Drawing PE3077-5 – Surrounding Land Use Plan in the Figures section of this report, following the text.

7.0 REVIEW AND EVALUATION OF INFORMATION

7.1 Land Use History

The following tables indicate the current and past uses of the site as well as associated potentially contaminating activities dating back to the first developed use of the site.

<table>
<thead>
<tr>
<th>Table 1 - Land Use History</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Period</td>
</tr>
<tr>
<td>-------------</td>
</tr>
<tr>
<td>852 Bank Street</td>
</tr>
<tr>
<td>Prior to 1930</td>
</tr>
<tr>
<td>1930 – 2010</td>
</tr>
</tbody>
</table>
Potentially Contaminating Activities

Two (2) potentially contaminating activities on the subject property were the former presence of a retail fuel outlet and an existing automobile service garage. Additional potentially contaminating activities within the Phase I study area are not considered to pose an environmental concern to the subject site.

Areas of Potential Environmental Concern

The Area of Potential Environmental Concern identified in this Phase I ESA is described in Table 2.

<table>
<thead>
<tr>
<th>Area of Potential Environmental Concern</th>
<th>Location of Area of Potential Environmental Concern with respect to Phase I Property</th>
<th>Potentially Contaminating Activity</th>
<th>Location of PCA (on-site or off-site)</th>
<th>Contaminants of Potential Concern</th>
<th>Media Potentially Impacted (Groundwater, Soil, and/or Sediment)</th>
</tr>
</thead>
<tbody>
<tr>
<td>852 Bank Street</td>
<td>Subject Property</td>
<td>Former Use as a Retail Fuel Outlet (1930s-1956); Item 28, Table 2, O.Reg. 153/04 (Gasoline and Associated Products Storage in Fixed Tanks)</td>
<td>On-site</td>
<td>PHCs (F1-F4) and VOCs</td>
<td>Soil, Groundwater</td>
</tr>
<tr>
<td>852 Bank Street</td>
<td>Subject Property</td>
<td>Automobile Garage (1958-2010); Item 10, Table 2, O.Reg. 153/04 (Commercial Autobody Shops)</td>
<td>On-site</td>
<td>PHCs (F1-F4) and VOCs</td>
<td>Soil, Groundwater</td>
</tr>
</tbody>
</table>

Contaminants of Potential Concern

Based on the uses of the subject site, the following Contaminants of Potential Concern (CPCs) have been identified:

- Volatile Organic Compounds (VOCs) – this suite of parameters includes chlorinated solvents and gasoline related BTEX parameters associated with de-greasing and fuel distribution operations, as well as chloroform, a common by-product of chlorine disinfection of municipally-treated water. These parameters were selected as CPCs for the Phase I study area due to the potential use of solvents at the motor vehicle repair business and fuels for the retail fuel outlet. VOCs may be present in the soil matrix as well as in the dissolved phase in the groundwater system.
Petroleum Hydrocarbons Fractions 1 through 4 (PHCs 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 was selected as CPC for the Phase I property based on the presence of the automotive garage and former retail fuel outlet located on the subject site. 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.

7.2 Conceptual Site Model

Geological and Hydrogeological Setting

The Phase I property is located in an area of silty sand with some gravel. Fill material consisting of trace amounts of mortar brick and coal was encountered in the northeast portion of the site. Groundwater was measured to be between 6.0 and 6.7m on August 28, 2013. Based on topography, groundwater is interpreted to be moving to the south towards the Rideau Canal.

Contaminants of Potential Concern

The CPCs identified in this Phase I ESA are listed in Section 7.1 of this report.

The mechanisms of contaminant transport within the site soils include physical transportation and leaching. Physical transport is not anticipated to be an issue at the subject site, since soil disturbances and excavation were not noted and the site has been developed in its current configuration for a significant period of time. Leaching is anticipated to be limited by the low permeability of the asphalt pavement and roofs over most of the site. As such, contaminants identified in the soil are considered to have a low potential to migrate to the groundwater below the site.

The mechanisms of contaminant transport within the groundwater system include advection, dispersion, and diffusion. Advection and dispersion will be the dominant mechanisms of contaminant transport in soils with higher hydraulic conductivities, such as sands, gravels, silts, and some glacial till soils, whereas diffusion will dominate in soils with lower hydraulic conductivity, such as clays. Groundwater flow and contaminant transport within bedrock will tend to follow preferential fracture flowpaths.
Existing Buildings and Structures

The subject site is currently occupied by a building, as outlined in Section 6.2 of this report. There are two (2) in-ground hoists and three (3) floor drains. There is one (1) furnace oil UST and one (1) waste oil USTs, one on the east side and one on the west side of the subject building.

Water Bodies

There are no water bodies on the subject site or within the Phase I study area. The closest water body is the Rideau Canal, located approximately 550 m to the east of the site.

Areas of Natural Significance

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

Drinking Water Wells

No drinking water wells are located at the subject site or within the Phase I study area.

Neighbouring Land Use

Neighbouring land use in the Phase I study area is primarily commercial and residential; immediately adjacent properties have been listed as residential or commercial since their first developed use. Former retail fuel outlets and dry cleaners were identified within the Phase I study area; however, based on their separation distance from the subject site and/or inferred cross-gradient or downgradient locations, they are not considered to have the potential to have impacted the subject site.

Areas of Potential Contaminating Activities and Potential Environmental Concerns

As per Section 7.1 of this report, Potentially Contaminating Activities, and, as a result, Areas of Potential Environmental Concern identified on the subject site were the former use of the site as a retail fuel outlet and as a commercial automobile garage. These operations are considered to have had the potential to have introduced contamination to the soil and/or groundwater under the subject site. Additional Potentially Contaminating Activities were identified within the Phase I study area but were not considered to represent Areas of Potential Environmental Concern.
Assessment of Uncertainty and/or Absence of Information

The information available for review as part of the preparation of this Phase I ESA is considered to be sufficient to conclude that there are areas of potential environmental concern on the subject site. The presence of potentially contaminating activities was confirmed by a variety of independent sources, and as such, the conclusions of this report are not affected by uncertainty which may be present with respect to the individual sources.

8.0 CONCLUSIONS

Assessment

Paterson Group was retained by Canderel Management Inc. to conduct a Phase I Environmental Site Assessment (ESA) of the property located at 852 Bank Street, in the City of Ottawa, Ontario. The purpose of this Phase I-Environmental Site Assessment (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.

According to the historical research, the subject site has been occupied by a commercial building since its initial development in the early 1930’s and redevelopment circa 1958. An addition was constructed in 1991. The property was first used as a retail fuel outlet followed by a commercial automobile garage. These uses represent APECs to the property. Surrounding property use was predominantly residential and commercial. None of the identified historic PCAs on neighbouring properties within the Phase I study area are considered to be APECs.

Following the historical research, a site inspection was conducted of the subject site and Phase I ESA study area. The subject site is currently occupied by a single commercial building. No ASTs were observed at the subject site, but an unused furnace oil UST and an unused waste oil UST are present on the east and west sides of the subject building. Two (2) in-ground hoists and three (3) floor drains were observed inside the building. The automotive garage is no longer operates commercially. Another automotive garage (Mister Muffler) located 60m south, at 890 Bank Street, is the only existing off-site PCA identified within the Phase I study area.
Previous environmental investigations on the subject property have identified a limited area of petroleum hydrocarbon and metal contaminated soil in the northeast portion of the site. Five (5) wells were installed during the previous investigations. Chloroform was the only parameter to exceed the MOE standards, which occurred at one borehole location.

**Recommendations**

Two (2) previous Phase II ESAs have been conducted on the property to assess the identified APECs. The results of these investigations will be combined into a new standards Phase II ESA report which will provide recommendations with regard to the remediation of the property.

It is our understanding that the subject property is to be redeveloped. As part of the redevelopment of the property, the existing site building will be demolished. Prior to the demolition of the building, a designated substance survey (DSS) will be required to be conducted in accordance with the Occupational Health and Safety Act.
9.0 STATEMENT OF LIMITATIONS

This Phase I - Environmental Site Assessment report has been prepared in general accordance with O.Reg. 153/04 as amended 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 Canderel Management Inc. Permission and notification from Canderel and Paterson will be required to release this report to any other party.

Paterson Group Inc.

Xavier Redhead, B.Eng.

Mark S. D’Arcy, P.Eng.

Report Distribution:

- Canderel Management Inc. (3 copies and 1 PDF copy)
- 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).
Environment Canada, National Pollutant Release Inventory.
PCB Waste Storage Site Inventory.

**Provincial Records**
MOE Freedom of Information and Privacy Office.
MOE document titled “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**
The City of Ottawa Historical Land Use Inventory.
The City of Ottawa eMap website.

**Local Information Sources**
Chain of Title obtained through Read Abstracts Limited, April 2014.
Personal Interviews.

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

FIGURE 1 – KEY PLAN
FIGURE 2 – TOPOGRAPHIC MAP
DRAWING PE3077-4 – SITE PLAN
DRAWING PE3077-5 – SURROUNDING LAND USE PLAN
FIGURE 1
KEY PLAN
FIGURE 2
TOPOGRAPHIC MAP
AREAS OF POTENTIAL ENVIRONMENTAL CONCERN

1. 852 BANK STREET - EXISTING AUTOMOBILE GARAGE
2. 852 BANK STREET - FORMER RETAIL FUEL OUTLET

POTENTIALLY CONTAMINATING ACTIVITIES:

1. 849 BANK STREET - FORMER AUTO DEALER
2. 855 BANK STREET - FORMER AUTO GARAGE/DEALER
3. 859 BANK STREET - EXISTING AUTOMOTIVE GARAGE
4. 912 BANK STREET - FORMER RETAIL FUEL OUTLET
5. 879 BANK STREET - FORMER GARAGE AND AUTO REPAIR
6. 895 BANK STREET - FORMER GARAGE AND AUTO REPAIR
7. 827 BANK STREET - FORMER CHINESE LAUNDRY
8. 881 BANK STREET - FORMER CHINESE LAUNDRY AND DRY CLEANERS

CANDEREL MANAGEMENT INC,

PHASE I - ENVIRONMENTAL SITE ASSESSMENT
852 BANK STREET

SURROUNDING LAND USE
APPENDIX 1

CHAIN OF TITLE

CURRENT PLAN OF SURVEY

AERIAL PHOTOGRAPHS

SITE PHOTOGRAPHS
ENVIRONMENTAL SEARCH

March 30, 2013

Paterson Group
Attn: Xavier Redhead

RE: PO15726

BRIEF DESCRIPTION OF LAND:

852 Bank Street West
Lots 1 and 8, Plan 47389
PIN: 04140-0195

LAST REGISTERED OWNER: 852 BANK STREET HOLDINGS GP INC.

CHAIN OF TITLE:

Lot 17, Block 5, Plan 26085

Plan 26085 registered March 19, 1866
By John F. Mutchmor

Deed NP401 Registered January 26, 1890
From John F. Mutchmor to Ralph W. Mutchmor

Deed CR34477 registered April 7, 1891
From Ralph W. Mutchmor to John M. Garland

Plan 47389 registered October 14, 1896
By John M. Garland

Lots 1 and 8, Plan 47389

Deed CR47616 registered November 19, 1896
From John M. Garland to Frederick W. Biudau
Deed CR63314 registered July 20, 1902
From Frederick W. Biudau to John E. Fudge

Deed CR95429 registered March 23, 1910
From John E. Fudge to Joseph D. Wilson

Deed CR100648 registered November 29, 1910
From Joseph D. Wilson to Stanford J. Walker

Deed CR101308 registered January 3, 1910
From Stanford J. Walker to Theodore St. Germain and James E. Fraas

Deed CR194848 registered December 5, 1928
From Theodore St. Germain and James E. Fraas to Cities Service Oil Company Limited

Deed CR507437 registered May 24, 1966
From Cities Service Oil Company Limited to B.P. Canada Limited

Deed CR652974 registered May 14, 1974
From B.P. Oil Limited to Marlin McKale Limited

Lease CR652976 registered May 14, 1974
From Marlin McKale Limited to B.P. Oil Limited

Name Change OC1558630 registered February 11, 2014
From Marlin McKale Limited to 1872007 Ontario Ltd.

Deed OC1559438 registered February 14, 2014
From 1872007 Ontario Ltd. to 852 Bank Street Holdings GP Inc.
AERIAL PHOTOGRAPH
1928
AERIAL PHOTOGRAPH
1945
Photograph 1: View of the western portion of the subject property, facing south.

Photograph 2: View of the eastern portion of the subject property, facing south.
Site Photographs

852 Bank Street
August 8, 2013

Photograph 3: View of an in-ground hoist and drain within the subject building.

Photograph 4: View of the waste oil UST on the western side of the subject building.
APPENDIX 2

MOE FREEDOM OF INFORMATION RESPONSE

TSSA CORRESPONDENCE

CITY OF OTTAWA HISTORICAL LAND USE INVENTORY REQUEST

MOE WELL RECORDS
March 25, 2014

Xavier Redhead
Paterson Group Inc.
154 Colonnade Road
Ottawa, ON K2E 7J5

Dear Xavier Redhead:

RE: Freedom of Information and Protection of Privacy Act Request
Our File # A-2014-01786, Your Reference PE3197

This letter is in response to your request made pursuant to the Freedom of Information and Protection of Privacy Act relating to 852 Bank Street, Ottawa.

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

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

If you have any questions regarding this matter, please contact Liz Mico at (416) 212-0559 or liz.mico@ontario.ca.

Yours truly,

Heidi Ritscher
FOI Manager
Hi Xavier,

Thank you for your inquiry.

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

819 Bank St, Ottawa has record of a pipeline incident report.

852 Bank St, Ottawa has record of an expired full-serve gas station.

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 Quibell

Public Information Services

TECHNICAL STANDARDS & SAFETY AUTHORITY
"Putting Public Safety First"
On Thu, Mar 20, 2014 at 9:11 AM, Xavier Redhead <XRedhead@patersongroup.ca> wrote:

Good morning,

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

819, 828, 834, 840, 846, 851, 852, 856 Bank Street

33 Regent Street

160 Fifth Avenue

Thank you,

Xavier Redhead, B.Eng.

paterson group

solution oriented engineering

154 Colonnade Road South

Ottawa, Ontario, K2E 7J5

Tel: (613) 226-7381 Ext. 232

Fax: (613) 226-6344

Email: xredhead@patersongroup.ca

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.
CITY OF OTTAWA ("the City") is the owner of the HISTORICAL LAND USE INVENTORY ("HLUI"), a database of information on the type and location of land uses within the geographic area of Ottawa, which had or have the potential to cause contamination in soil, groundwater or surface water.

The City, in providing information from the HLUI, to ___Paterson Group Inc._ ("the Requester") does so only under the following conditions and understanding:

1. This is a free service offered by the City.

2. The information which is contained in the HLUI has been compiled from publicly available records and other sources of information. The HLUI may contain erroneous information given that such records and sources of information may be flawed. Changes in municipal addresses over time may have introduced error in such records and sources of information. The City is not responsible for any errors or omissions in the HLUI and reserves the right to change and update the HLUI without further notice. The City does not, however, make any commitment to update the HLUI. Accordingly, all information from the HLUI 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.

3. City staff will perform a search of the HLUI based on the information given by the Requester. City staff will make every effort to be accurate, however, the City does not provide an assurance, guarantee, warranty, representation (express or implied), as to the availability, accuracy, completeness or currency of information which will be provided to the Requester. The HLUI in no way confirms the presence or absence of contamination or pollution of any kind. The information provided by the City to the Requester is provided on the assumption that it will not be relied upon by any person whatsoever. The City denies all liability to any such persons attempting to rely on any information provided from the HLUI database.

4. The City, its employees, servants, agents, boards, officials or contractors take no responsibility for any actions, claims, losses, liability, judgments, demands, expenses, costs, damages or harm suffered by any person whatsoever including negligence in compiling or disseminating information in the HLUI.

5. Copyright is reserved to the City.

6. Any use of the information provided from the HLUI which a third party makes, or any reliance on or decisions to be based on it, are the responsibilities of such third parties. The City, its employees, servants, agents, boards, officials or contractors accept no responsibility for any damages, if any, suffered by a third party as a result of decisions made as a result of an information search of the HLUI.

7. Any use of this service by the Requestor indicates an acknowledgement, acceptance and limits of this disclaimer.

8. All information collected under this request and all records provided in response to this request are subject to the provisions of the Municipal Freedom of Information and Protection of Privacy Act, R.S.O. 1990, c. M.56, as amended.

Signed: [Signature] Dated: March 19/2014
Per: Xavier Redhead B.Eng.
(Please print name)
Title: Environmental Assessor
Company: Paterson Group Inc.
INFORMAL REQUEST FOR INFORMATION PROCESS
CONFIDENTIAL

File No.: PE3197

Request for Information
(Informal Request)*

1. REQUESTER INFORMATION

a) Name of Requester: Xavier Redhead
b) Address of Requester: 154 Colonnade Road South, Ottawa, Ontario, K2E 7J5
c) Telephone Number: 613-226-7381
d) Site Address: Lot-__________ Concession: __________ Street: 852 Bank Street City/Town: Ottawa, Ontario Postal Code: __________
e) Legal Plan Attached: Yes ( ) No ( X )
f) Site Owner: 852 Bank Street Holdings GP Inc.
g) Adjacent Property Owners:___________________________________________
h) Date of Ownership:________________________________________________
Previous Owner(s):_____________________________________________________
i) Type of Site: ( ) vacant, ( ) residential, ( X ) commercial,
( ) other (specify)_____________________
j) Requestors relationship to Site: Environmental Site Assessor
k) Date of Previous Request: n/a
l) Date of Previous ESA: n/a
m) Information Requested: Environmental Records (violations, sewer use
infractions, spills or leaks, waste disposal sites...) and HLUI database for historical land
use in the area of the site.

2. CONFIDENTIALITY

a) Consent Required: ( x ) Owner ( ) Tenant ( ) Purchaser ( ) Legal**
b) Consent Obtained: ( x ) Owner ( ) Tenant ( ) Purchaser ( ) Legal**

*Will not be processed as a request for information pursuant to MFIPPA.
**(Consent letters must contain the information required, give authorization to requestor,
and be dated and signed)
March 18, 2014
File: PE3197-HLUI

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

Subject: Authorization Letter, HLUI Search
Phase I-Environmental Site Assessment
852 Bank Street
Ottawa, Ontario

Dear Sir or Madame,

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

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

Name of Company/Property Owner: 852 Bank Street Holdings Limited Partnership represented by it's General Partner 852 Bank Street Holdings GP Inc.

Name of Representative: David Hawrysh

Authorization of Representative: [Signature]

Date: March 19, 2014
Individual Well Record Search Request – Form A
Reference Number 1314-3355As
March 20, 2014

Paterson Group Inc.
154 Colonnade Road South
Ottawa, ON K2E 7J5
Attn: Xavier Redhead

Fax: 613-226-6344
Email Address: xredhead@patersongroup.ca
File No. PE3197

1 Well Record located matching the search criteria provided ☐
More than 1 Well Record located matching the search criteria provided ☒
No Well Record found matching the search criteria provided ☐

Comments: records within 300m of 446164, 5027768

Number of Well Records matching the search criteria 7
County: -
Township: -
Conc.: -
Lot: -
Longitude & Latitude &

If you have any questions or concerns please contact the Wells Help Desk
*** SEARCH REQUEST FORMS AVAILABLE AT www.forms.ssb.gov.on.ca ***

Please note: The Ministry cannot and does not represent or guarantee that the Well Records information is current, accurate or complete. The Ministry assumes no responsibility for errors or omissions in the Well Records information and is not liable in any way for damages of any kind arising out of or related to the Well Records information or for delay or failure to provide the Well Records information. Any reliance upon the Well Records information provided is solely at the risk of the requester. Water Well Information provided is subject to the Freedom of Information and Protection of Privacy Act (FIPPA), Ontario.
Master Well Owner's and Land Owner's Information
- First Name: Lily
- Last Name: Offord
- Address: 110 Lourier Avenue West
- City/Town/Village: Ottawa
- Province: ON
- Postal Code: K1L 1J1
- Telephone: 613-868-2410

Location and Construction of the Master Well in the Cluster
- Location of Well Location: (Street Number/Name, if applicable)
- Township:
- Province: ON
- Postal Code: 

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

<table>
<thead>
<tr>
<th>Depth (Meters)</th>
<th>Material Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.01</td>
<td>Brown Topsoil</td>
</tr>
<tr>
<td>0.91</td>
<td>Filled sand, silt, trace clay, gravel</td>
</tr>
<tr>
<td>1.81</td>
<td>Silty sand, fine to medium, gravel</td>
</tr>
<tr>
<td>8.0</td>
<td>Gray Silty sand, gravel, water level at 8.0 m</td>
</tr>
</tbody>
</table>

Water Use
- Public
- Institutional
- Industrial
- Domestic
- Commercial
- Graveling
- Drilling

Method of Construction
- Cable Tool
- Rotary (Reverse)
- Rotary (Air)
- Air Percussion
- Grovetting
- Jetting
- Driving
- Other, specify: HSA

Status of Well
- Abandoned, Insufficient Supply
- Abandoned, Poor Water Quality
- Abandoned, Other, specify

No Casing and Screen Used
- Yes
- No
- Screen
- Galvanized
- Steel
- Fiberglass
- Concrete
- PVC

Water Details
- Water found at Depth
  - Kind of Water
  - Fresh
  - Salty
  - Sulphur
  - Minerals

Annular Space/Abandonment Sealing Record
- Depth Set at (Meters): 0.2
- Type of Sealant Used (Material and Type): Bentonite
- Volume Used (Cube Meters): 0.46

Monitoring Well
- Monitoring well number:
  - 10

Cluster Information (Please also fill out the additional Cluster Well Information for Well Construction for each parcel of land and cluster)
- Total Wells in Cluster: 1
- Total Wells on this Property: 1
- Location of Well Cluster:
- Detailed map must be provided as an attachment no larger than legal size (8.5" x 14"). Sketches are not allowed.

Well Contractor and Well Technician Information
- Well Contractor License No: 1104142444
- Well Contractor Address: 110 Rue Principale, Granville, Sud-Ouest, QC
- Business E-mail Address: info@downingdrilling.net
- Business Telephone No: (418) 677-7711
- Business E-mail Address: info@downingdrilling.net
- Well Technician License No: 071813
- Business E-mail Address: info@downingdrilling.net
- Business Telephone No: (418) 677-7711
- Post Code: G1V 1L9

Remarks
- Date of Inspection (yyyy/mm/dd): 2010/03/10
- Ministry Use Only
- Audit No: M 05580
- Well Contractor No: 1104142444
- Date Received (yyyy/mm/dd): 2010/03/10
- Date Submitted (yyyy/mm/dd): 2010/03/10

Ministry's Copy

© Queen's Printer for Ontario, 2010
# Cluster Well Information for Cluster Well Construction

## Property Owner's Information

<table>
<thead>
<tr>
<th>Field Name</th>
<th>First Name</th>
<th>Last Name</th>
<th>Mailing Address (Street No./Name, RR)</th>
<th>Municipality</th>
</tr>
</thead>
<tbody>
<tr>
<td>City/Town/Village</td>
<td>City of Ottawa</td>
<td>110 Laurier Avenue West</td>
<td>Ottawa</td>
<td></td>
</tr>
</tbody>
</table>

## Cluster Well Information

<table>
<thead>
<tr>
<th>Address of Well Location (Street Number/Name, RR)</th>
<th>Lot</th>
<th>Concession</th>
<th>Township</th>
<th>County/District/Municipality</th>
</tr>
</thead>
<tbody>
<tr>
<td>1015 Bank Street</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Well Information Table

<table>
<thead>
<tr>
<th>Well Number</th>
<th>Zone</th>
<th>Easting</th>
<th>Northing</th>
<th>Full Depth of Hole (m)</th>
<th>Hole Diameter (cm)</th>
<th>Method of Construction</th>
<th>Casing Material</th>
<th>Casing Length (meters)</th>
<th>Screen Interval (m)</th>
<th>Annular Space Sealtant Used</th>
<th>Static Water Level (m)</th>
<th>Abandonment Sealtant Used</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>12345</td>
<td>1A</td>
<td>12345</td>
<td>54321</td>
<td>8.2</td>
<td>52</td>
<td>HSA</td>
<td>PVC</td>
<td>5.2</td>
<td>5.2</td>
<td>5.2</td>
<td>Benchmark</td>
<td>Compliant</td>
<td>2010/03/01</td>
</tr>
</tbody>
</table>

## Well Contractor and Well Technician Information

| Business Name of Well Contractor | Business Address (Street No./Name, RR) | Municipalit | Province | |
|----------------------------------|----------------------------------------|-------------|----------||
| George Downing Estate Drilling   | 110 King Street, Toronto, ON           |             |          | |

<table>
<thead>
<tr>
<th>Well Technician (First Name, Last Name)</th>
<th>Business Telephone No. (Inc. area code)</th>
<th>E-mail Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bruce Downing</td>
<td>416-123-4567</td>
<td><a href="mailto:downing@hawkins.net">downing@hawkins.net</a></td>
</tr>
</tbody>
</table>

## Other Information

<table>
<thead>
<tr>
<th>Date of Well in Cluster Constructed</th>
<th>Date Last Well in Cluster Constructed</th>
<th>Date Inspected (yyyy/mm/dd)</th>
<th>Audit No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010/03/01</td>
<td>2010/03/19</td>
<td>SEP 22 2010</td>
<td>c 06199</td>
</tr>
</tbody>
</table>

Ministry's Copy
### Cluster Well Information for Cluster Well Construction

**Regulation 903 Ontario Water Resources Act**

#### Property Owner's Information
- **First Name:** City of Ottawa
- **Last Name:**
- **Mailing Address:** 110 Laurier Avenue West, Ottawa
- **Telephone No.:** 613-580-2400

#### Cluster Well Information
- **Address of Well Location:** 1015 Park Street
- **Province:** Ontario
- **Postal Code:** K1P 1J1

#### UTM Coordinates

<table>
<thead>
<tr>
<th>Zone</th>
<th>Easting</th>
<th>Northing</th>
<th>Full Depth (meters)</th>
<th>Hole Diameter (cm)</th>
<th>Method of Construction</th>
<th>Casing Material</th>
<th>Casing Length (meters)</th>
<th>Screen Internal (from To)</th>
<th>Annulus Space</th>
<th>Static Water Level (meters)</th>
<th>Abandonment Sealant Used</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>184,443</td>
<td>511,276</td>
<td>7.0</td>
<td>9.1</td>
<td>HS/A</td>
<td>PVC</td>
<td>4.0</td>
<td>4.0-7.0</td>
<td>2.3-9.1</td>
<td>8.2</td>
<td>5.2-8.2</td>
<td>2010/01/04</td>
</tr>
<tr>
<td>D</td>
<td>184,443</td>
<td>511,276</td>
<td>7.6</td>
<td>9.6</td>
<td>HS/A</td>
<td>PVC</td>
<td>4.6</td>
<td>4.6-7.6</td>
<td>2.6-9.6</td>
<td>8.1</td>
<td>4.9-8.1</td>
<td>2010/01/12</td>
</tr>
<tr>
<td>D</td>
<td>184,443</td>
<td>511,276</td>
<td>5.1</td>
<td>5.1</td>
<td>HS/A</td>
<td>PVC</td>
<td>4.1</td>
<td>4.1-5.1</td>
<td>2.1-5.1</td>
<td>5.1</td>
<td>2.1-5.1</td>
<td>2010/01/17</td>
</tr>
</tbody>
</table>

#### Well Contractor and Well Technician Information
- **Business Name of Well Contractor:** Gregor Drilling Ltd.
- **Business Address:** 101 Rue Principale, Grenville, Que.
- **Telephone No.:** 613-580-2400
- **Well Contractor's Licence No.:** 103-900
- **Well Technician's Licence No.:** 103-900

---

© Ontario's Printer for Ontario, 2006
Cluster Well Information for Cluster Well Construction
Regulation 903 Ontario Water Resources Act

Property Owner's Information

<table>
<thead>
<tr>
<th>Property Owner's Information</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Name</strong></td>
<td><strong>City of Ottawa</strong></td>
</tr>
<tr>
<td><strong>Last Name</strong></td>
<td><strong>110 Laura Ave. W</strong></td>
</tr>
<tr>
<td><strong>Mailing Address (Street No., Name, RR)</strong></td>
<td><strong>Municipality</strong></td>
</tr>
<tr>
<td><strong>Provincial</strong></td>
<td><strong>Postal Code</strong></td>
</tr>
<tr>
<td><strong>Ontario</strong></td>
<td><strong>E-mail Address</strong></td>
</tr>
<tr>
<td><strong>ON</strong></td>
<td><strong>Telephone No. (incl. area code)</strong></td>
</tr>
<tr>
<td><strong>110 Laura Ave. W</strong></td>
<td><strong>613-519-0240</strong></td>
</tr>
</tbody>
</table>

Cluster Well Information

<table>
<thead>
<tr>
<th>Cluster Well Information</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Address of Well Location (Street Number/Name, RR)</strong></td>
<td><strong>Lot</strong></td>
</tr>
<tr>
<td><strong>1115 Bank Street</strong></td>
<td><strong>Concession</strong></td>
</tr>
<tr>
<td><strong>Ontario</strong></td>
<td><strong>Township</strong></td>
</tr>
<tr>
<td><strong>Postal Code</strong></td>
<td><strong>County/District/Municipality</strong></td>
</tr>
<tr>
<td><strong>1115</strong></td>
<td><strong>Undifferentiated</strong></td>
</tr>
<tr>
<td><strong>Bank Street</strong></td>
<td><strong>Differenciated, specify</strong></td>
</tr>
</tbody>
</table>

GPS Unit Information

- **Model**: Carbin X40
- **Serial Number**: AC70345
- **Unit Mode of Operation**: Undifferentiated
- **GPS Unit Make**: Garmin

Well Data

<table>
<thead>
<tr>
<th>Well Data</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Well No.</strong></td>
<td><strong>UTM Coordinates</strong></td>
</tr>
<tr>
<td><strong>Zone</strong></td>
<td><strong>Easting</strong></td>
</tr>
<tr>
<td><strong>Northings</strong></td>
<td><strong>Full Depth of Hole (meters)</strong></td>
</tr>
<tr>
<td><strong>Hole Diameter (cm)</strong></td>
<td><strong>Method of Construction</strong></td>
</tr>
<tr>
<td><strong>Casing Material</strong></td>
<td><strong>Casing Length (meters)</strong></td>
</tr>
<tr>
<td><strong>Screen Interval [meters] To [meters]</strong></td>
<td><strong>Annuity Space (meters)</strong></td>
</tr>
<tr>
<td><strong>Sealant Used</strong></td>
<td><strong>State Water Level (meters)</strong></td>
</tr>
<tr>
<td><strong>Abandonment Sealant Used</strong></td>
<td><strong>Comments</strong></td>
</tr>
</tbody>
</table>

Well Contractor and Well Technician Information

<table>
<thead>
<tr>
<th>Well Contractor and Well Technician Information</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Business Name of Well Contractor</strong></td>
<td><strong>Business Address (Street No., Name, RR)</strong></td>
</tr>
<tr>
<td><strong>George Downing Estate Drilling Ltd</strong></td>
<td><strong>411 Rue Principale Greve</strong></td>
</tr>
<tr>
<td><strong>1115 Bank Street, Ottawa</strong></td>
<td><strong>Julie Le Dusege</strong></td>
</tr>
<tr>
<td><strong>Postal Code</strong></td>
<td><strong>Municipality</strong></td>
</tr>
<tr>
<td><strong>ON</strong></td>
<td><strong>Province</strong></td>
</tr>
<tr>
<td><strong>Telephone No. and Area Code</strong></td>
<td><strong>Business E-mail Address</strong></td>
</tr>
<tr>
<td><strong>1115 Bank Street, Ottawa</strong></td>
<td><strong><a href="mailto:downing@shaw.ca">downing@shaw.ca</a></strong></td>
</tr>
</tbody>
</table>

Well Data

- **Well Tag No. for Master Well**: AO90649
- **Date Last Well in Cluster Constructed**: 09/03/19

Ministry Use Only

- **Date Received**: Sep 2 2010
- **Date Inspected**: 09/03/19
- **Audit No.**: C07988

Comments

- **Comments**: Details about the well construction and operation.

Ministry's Copy

- **Ministry's Copy**: Details of the well construction and operation as per the Ontario Water Resources Act.
Well Tag No. (Place Sticker and/or Print Below) S-1269

Well Record
Regulation 903 Ontario Water Resources Act

Well Owner's Information

First Name: N/A
Last Name / Organization: N/A
Mailing Address (Street Number/Name): N/A
Municipality: N/A
Provincial: N/A
Postal Code: N/A
Telephone No. (inc. area code): N/A

Well Location
Address of Well Location, (Street Number/Name): 1015 Bank St
City/Township/Village: N/A
County/District/Municipality: N/A
UTM Coordinates (Zone, Easting, Northing): N/A
Municipal Plan and Sublot Number: N/A

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

General Colour: N/A
Most Common Material: N/A
Other Materials: N/A
General Description: N/A
Depth (ft): N/A
Zam: N/A
To: N/A

Annular Space

Depth Set at (n/a): 0, 31, 73
Type of Sealant Used: Bentonite chips, Bentonite slurry
Volume Placed (n/a): N/A

Method of Construction

Cable Tool: N/A
Rotary (Conventional): N/A
Rotary (Reverse): N/A
Diving: N/A
Dipping: N/A
Air percussion: N/A
Other, specify: N/A

Well Use

Public: N/A
Commercial: N/A
Not used: N/A
Domestic: N/A
Municipal: N/A
Dewatering: N/A
Livestock: N/A
Test Hole: N/A
Monitoring: N/A
Drinking: N/A
Irrigation: N/A
Cooling & Air Conditioning: N/A
Industrial: N/A
Other: N/A

Concretion Record - Casing

Outside Diameter (cm): 5.70
Inside Diameter (cm): 4.70
Open Hole OR Material (Cemented, Fiberglass, Concrete, Plastic, Steel): PVC
Wall Thickness (cm): 1.70
Depth (ft): From 0 To 31
Water Supply: N/A
Replacement Well: N/A
Test Hole: N/A
Recharge Well: N/A
Dewatering Well: N/A
Observation and Monitoring Hole: N/A
Abandonment (Construction): N/A
Abandoned, Insufficient Supply: N/A
Abandoned, Poor Water Quality: N/A
Abandoned, Other: N/A

Concretion Record - Screen

Outside Diameter (cm): 6.08
Inside Diameter (cm): 5.08
Material (Plastic, Galvanized, Steel): PVC
Slot No.: 0
Depth (ft): From 0 To 31
Water Supply: N/A
Replacement Well: N/A
Test Hole: N/A
Recharge Well: N/A
Dewatering Well: N/A
Observation and Monitoring Hole: N/A
Abandonment (Construction): N/A
Abandoned, Insufficient Supply: N/A
Abandoned, Poor Water Quality: N/A
Abandoned, Other: N/A

Water Details

Water found at Depth (n/a): 0, 2.13
Kind of Water: N/A
Fresh: N/A
Untested: N/A
Other, specify: N/A

Sealant Type

Type of Sealant: Bentonite chips, Bentonite slurry
Volume Placed: N/A

Results of Well Yield Testing

After test of well yield, water was: Clear and sand free
Other, specify: N/A

Apron Size

Draw Down (in/min): 1
Time (min): 1
Recovered Water Level (ft): N/A

If pumping discontinued, give reason: N/A

Pump intake set at (n/a): 2
Pumping rate (in/min / GPM): 2
Duration of pumping (hrs): 4
Final water level end of pumping (n/a): 4
If flowing give rate (in/min / GPM): 4
Recommended pump depth (ft): 0
Recommended pump rate (in/min / GPM): 0
Weld production (in/min / GPM): 0

Map of Well Location

Please provide a map below following instructions on the back.

Map: MW 10-14

Well Contractor and Well Technician Information

Business Name of Well Contractor: Strait Sampling Inc.
Well Contractor's Licence No.: 72917

Business Address (Street Number/Name): 2197 West Beaver Creek
Municipality: Richmond Hill
Postal Code: L4J 1J6
Business E-mail Address: laurel@strait.com

Well Technician's Licence No.: 105153
Signatures: Technician, and/or Contractor Date Submitted: 04/20/2014

Well Owner's Information

Date Package Delivered: 04/20/2014
Audit No: 1528858
Ministry Use Only: 01/02/2012

Comments:

05000 (2007-12) © Queen's Printer for Ontario, 2007
<table>
<thead>
<tr>
<th>General Colour</th>
<th>Most Common Material</th>
<th>Other Materials</th>
<th>General Description</th>
<th>Depth (mft) From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Results of Well Yield Testing**

<table>
<thead>
<tr>
<th>After test of well yield, water was:</th>
<th>Volume Placed (mft)</th>
<th>Time of Draw Down (min)</th>
<th>Recovery Time (min)</th>
<th>Water Level (mft) From</th>
<th>Water Level (mft) To</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear and undisturbed</td>
<td>0.31</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Other, specify</td>
<td>0.31</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

**Method of Construction**

- Cable Test
- Rotary (Conventional)
- Rotary (Reverse)
- Boring
- Air percussion
- Other, specify

**Well Use**

- Public
- Domestic
- Commercial
- Municipal
- Dewatering
- Agriculture (Construction)
- Abandoned
- Insufficient Supply
- Other, specify

**Construction Record - Casing**

- Insulated Diameter (mft)
- Open Hole OR Material (Galvanized, Concrete, Plastic, Steel)
- Wall Thickness (mft)
- Depth (mft)

<table>
<thead>
<tr>
<th>Inside Diameter (mft)</th>
<th>Open Hole Material</th>
<th>Wall Thickness (mft)</th>
<th>Depth (mft) From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.70</td>
<td>PVC</td>
<td>0.90</td>
<td>0.70</td>
<td></td>
</tr>
</tbody>
</table>

**Status of Well**

- Water Supply
- Replacement Well
- Test Hole
- Recharge Well
- Dewatering Well
- Observation and/or Monitoring Hole
- Abandoned
- Insufficient Supply
- Abandoned, other, specify

**Construction Record - Screen**

- Outside Diameter (mft)
- Material (Plastic, Galvanized, Steel)
- Slot No.
- Depth (mft)

<table>
<thead>
<tr>
<th>Outside Diameter (mft)</th>
<th>Material (Plastic, Galvanized, Steel)</th>
<th>Depth (mft)</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.03</td>
<td>PVC</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

**Water Details**

- Water found at Depth (mft)
- Kind of Water
- Surface Water
- Groundwater
- Other, specify

- Water found at Depth (mft)
- Kind of Water
- Fresh
- Untested
- Other, specify

- Water found at Depth (mft)
- Kind of Water
- Fresh
- Untested
- Other, specify

- Water found at Depth (mft)
- Kind of Water
- Fresh
- Untested
- Other, specify

**Maps of Well Location**

*See Map MW10-29*
**Well Record**

**Regulation 903 Ontario Water Resources Act**

---

### Well Owner's Information
- **First Name**: [Name]
- **Last Name / Organization**: [Name]
- **Address**: 110 Laurie Ave, Ottawa, ON K1S 5P1
- **City**: Ottawa
- **Province**: Ontario
- **Postal Code**: K1S 5P1
- **Telephone No.**: [Number]

---

### Well Location
- **Street Name**: Bank St
- **Lot**: 1015
- **Concession**: 2
- **UTM Coordinates**: 1831130E, 4675237N, 760221
- **Zone**: 18S
- **Northing**: 4675237
- **Municipal Plan and Sublot Number**: 1015

---

### General Colour
- **Common Material**: N/A
- **Other Materials**: N/A

---

### Articular Space
- **Depth Set at (m/f):** 31
- **Type of Sennen Used Material and Type**: [Material]
- **Volume Placed (m³)**: [Volume]

---

### Method of Construction
- **Well Use**: [Use]
- **Cable Tool**: [Cable Tool]
- **Rotary (Conventional)**: [Rotary]
- **Rotary (Reverse)**: [Rotary]
- **Borehole**: [Borehole]
- **Air Permeability**: [Air Permeability]

---

### Results of Well Yield Testing
- **Aftertest of well yield, water well**: [Wells]
- **Draw Down**
  - **Time (min)**: [Time]
  - **Water Level (m)**: [Level]
- **Recovery**
  - **Time (min)**: [Time]
  - **Water Level (m)**: [Level]

---

### Construction Record - casing
- **Inside Diameter (cm)**: 5.20
- **Open Hole Or Material (Galvanized, Rigid, Concrete, Plastic, Steel)**: PVC
- **Depth (m)**: 3.90

---

### Construction Record - Screen
- **Outside Diameter (cm)**: 0.5
- **Material**: PVC
- **Slot No.**: 10

---

### Water Details
- **Water found at Depth (m)**: 1.13
- **Kind of Water**: Fresh
- **Depth (m)**: 1.13
- **Diameter (cm)**: 0.5

---

### Well Contractor and Well Technician Information
- **Well Contractor**: [Company]
- **Well Contractor's License No.**: 1291
- **Well Technician's License No.**: [License]
- **Signature of Technician and/or Contractor**: [Signature]
- **Date Submitted**: [Date]

---

### Map of Well Location
- **See Map**
  - **MW10-3**

---

**Ministry's Copy**

---

**Note:** The form includes various sections detailing the well's construction, water testing, and location information. The specific details within these sections are filled in with data relevant to the well's construction and operational status.
**Well Record**

Regulation 903 Ontario Water Resources Act

---

**Well Owner's Information**
- **Well Tag No. (Place Sticker and/or Print Below)**: S-12699
- **Well Owner**: N/A
- **Address**: 1015 Bank St., City of Ottawa
- **Mailing Address**: 114 Lorne Ave., Ottawa
- **Municipality**: Ottawa
- **Province**: ON
- **Postal Code**: K1P 1J5
- **Telephone No.**: N/A

---

**Well Location**
- **Address of Well Location**: 1015 Bank St., City of Ottawa
- **County/District/Municipality**: Ottawa
- **Township**: N/A
- **Lot**: N/A
- **Concession**: N/A

---

**UTM Coordinates**
- **Zone**: 18N
- **Easting**: 502,741
- **Northing**: 4,080,917
- **Municipal Plan and Sublot Number**: N/A

---

**Geological and Biological Materials/Abandonment Bailing Record**
- **General Colour**: N/A
- **Most Common Material**: N/A
- **Other Materials**: N/A

---

**Annual Space**

<table>
<thead>
<tr>
<th>[Depth Set at (mft)]</th>
<th>[Type of Sustant Used]</th>
<th>[Volume Placed (mft)]</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1</td>
<td>Limestone chips</td>
<td>1.3</td>
</tr>
<tr>
<td>2.3</td>
<td>Basalt</td>
<td>3</td>
</tr>
</tbody>
</table>

---

**Method of Construction**
- **Cable Tool**
- **Rotary (Conventional)**
- **Rotary (Reverse)**
- **Air percussion**
- **Other**

---

**Well Use**
- **Public**
- **Domestic**
- **Commercial**
- **Not used**
- **Municipal**
- **Dewatering**
- **Livestock**
- **Test Hole**
- **Monitoring**
- **Irrigation**
- **Drilling & Air Conditioning**
- **Drilling & Air Perfusion**

---

**Construction Record - Casing**
- **Inside Diameter (inches)**: 4.21 PVC
- **Wall Thickness (mft)**: 0.356
- **Depth (mft)**: From 0 To 4.21

---

**Status of Well**
- **Water Supply**
- **Replacement Well**
- **Test Hole**
- **Recharge Well**
- **Dewatering Well**
- **Observation and/or Monitoring Hole**
- **Abandon (Construction)**
- **Abandoned, Insufficient Supply**
- **Abandoned, Poor Water Quality**
- **Abandoned, Other, Not N/A**

---

**Water Details**
- **Water found at Depth (mft)**: Fresh
- **Kind of Water**: Fresh
- **Diameter (mft)**: 0.356

---

**Well Contractor and Well Technician Information**
- **Business Name of Well Contractor**: Fostek Soil Sampling Inc.
- **Well Contractor's Licence No.**: 712971
- **Business Address**: 1015 West Denver Creek, Richmond Hill
- **Municipality**: York Region
- **Telephone No.**: (905) 647-1234
- **Fax**: (905) 647-1234
- **Business E-Mail Address**: Fosteksoilsampling@eastlink.ca
- **Name of Well Technician (Last Name, First Name)**: Jones, James
- **Well Technician's Licence No.**: 201762
- **Date Work Completed**: 09/07/2009

---

**Map of Well Location**

- **See Map 09/07/2009**

---

**Comments**

---

**Well owner's information package delivered**
- **Date Package Delivered**: 09/07/2009

---

**Ministry Use Only**
- **Audit No.**: Z-52859
- **AUG 09 2012**

---

**Ministry's Copy**

---
**Well Record**

**Well Tag No.** A122 930

**Regulation 803 Ontario Water Resources Act**

### Well Location
- **Address of Well Location (Street Name/Number):** 99-101 HOLMWOOD AVENUE
- **City/Town/Village:** OTTAWA
- **Province:** Ontario

### Overburden and Bedrock Materials

<table>
<thead>
<tr>
<th>Material</th>
<th>Description</th>
<th>Depth (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAND + GRAVEL</td>
<td>Compact</td>
<td>0.3</td>
</tr>
<tr>
<td>Silt / GRAVEL</td>
<td>Compact</td>
<td>0.3 - 0.6</td>
</tr>
<tr>
<td>SAND</td>
<td>Compact</td>
<td>0 - 0.3</td>
</tr>
<tr>
<td>Silt / GRAVEL</td>
<td>Compact</td>
<td>0 - 0.6</td>
</tr>
<tr>
<td>Silt / SEDIMENT</td>
<td>Compacted</td>
<td>0 - 0.6</td>
</tr>
</tbody>
</table>

### Annular Space

- **Depth Set (m/m):** From 0 to 2.8
- **Type of Sealant:** BENTONITE

### Results of Well Yield Testing

- **Time:** 1 hour
- **Water Level (m):** -

### Well Record Information

- **Name:** George Dansereau
- **Licence No.:** 18414

### Water Details

- **Depth at Kind of Water:**
  - Fresh Water
  - Untested Water

### Comments:

**ALSO SEE ATTACHED**

- **Ministry Use Only:** Z 161279
  - Audit No.: AUG 07 2013
APPENDIX 3

QUALIFICATIONS OF ASSESSORS
POSITION

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

EDUCATION

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

MEMBERSHIPS

Ottawa Geotechnical Group
Professional Engineers of Ontario
Consulting Engineers of Ontario

EXPERIENCE

1991 to Present
Paterson Group Inc.
Associate and Senior Environmental/Geotechnical Engineer
Environmental and Geotechnical Division
Supervisor of the Environmental Division

SELECT LIST OF PROJECTS

Mary River Exploration Mine Site - Northern Baffin Island
Rideau Centre Expansion project - Ottawa
Agricultural Supply Facilities - Eastern Ontario
Laboratory Facility – Edmonton (Alberta)
Ottawa International Airport - Contaminant Migration Study - Ottawa
Investigation and Remediation – Cotton Mill Redevelopment, Cornwall
Billings Hurdman Interconnect - Ottawa
Bank Street Reconstruction - Ottawa
Environmental Review – Various Laboratories across Canada - CFIA
Dwyer Hill Training Centre – Ottawa
Nortel Networks Environmental Monitoring - Carling Campus – Ottawa
Remediation Program - Block D Lands – Kingston
Investigation of former landfill sites – City of Ottawa
Record of Site Condition for Railway Lands – North Bay
Assessment and Remediation - North Bay Airport
Commercial Properties – Guelph and Brampton
Brownfields Remediation – Alcan Site - Kingston
PWGSC Building – 90 Elgin Street - Ottawa
Remediation Program - Ottawa Train Yards
MHLH Facility – CFB Petawawa
Ottawa Congress Centre
Lansdowne Park Redevelopment - Ottawa