

Inspection  
Reports

Engineering  
Assessments



# Phase 1 Environmental Site Assessment

FOR

## 1131 & 1151 Teron Road, Ottawa, Ontario



**Prepared For:**

**Raphael Esposito, on behalf of 11021028 Canada Inc.**

**July 8, 2019**

**Prepared By:**

**Oaktree Engineering Ltd.**

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## Executive Summary

Oaktree Engineering Ltd. (OEL) was retained by Raphael Esposito, on behalf of 11021028 Canada Inc., to complete a Phase 1 Environmental Site Assessment (ESA) of the property at 1131 and 1151 Teron Road in Ottawa, Ontario (the site). 1131 Teron is currently developed with a single storey bungalow. The larger parcel of land is mostly vacant with a single steel lattice structure and wood poles supporting power lines. OEL has been made aware that the site is to be re-developed with two residential buildings. The site location is shown in Figure 1.

The Phase 1 Environmental Site Assessment (ESA) is the systematic process as described in CSA Z768-01, Ontario Regulation 511/09, and Ontario Regulation 153/04 by which an assessor seeks to determine whether a particular property is or may be subject to actual or potential contamination. A Phase 1-ESA does not involve the investigative procedures of sampling, analyzing, and measuring.

The historical information confirmed 1131 Teron (0.3 acres) was generally vacant until a house was constructed in 1955. This property remains the same today. The larger parcel, 1151 Teron was first vacant land and then a farmer's field until 1965. The construction of March Road severed the 3.52 acre parcel off from the full parcel. The property then remained vacant with a hydro easement for power lines added around 1970. The property was used for several years as garden plots for the local neighborhood, and then left vacant. This historical information does not present any major environmental concerns.

Environmental reports were available for two properties located north of the site that are confirmed to have contaminated soils. The property at 110-140 Herzberg Road has remediated the contamination. The second site is a federal contaminated site located 1.1 kilometers N-E of the site. This is considered to be beyond the area of study.

The small building may have lead paint and asbestos containing materials, typical of a home of this age. These can be addressed when the home is demolished

**Based on the results of this assessment, it is our opinion that the subject site and adjacent land uses pose a minimal potential for environmental risk to the soil and groundwater.**

At the time of this report, no formal responses from ERIS were provided for the fire insurance maps; there may not be any available for this area. Oaktree Engineering Limited reserves the right to alter this report based on environmental reports that were not available at the time this report was drafted.



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## **1. Introduction**

### **1.1 Background**

Oaktree Engineering Limited was contracted and retained by Raphael Esposito on behalf of 11021028 Canada Inc., to complete a Phase 1 Environmental Site Assessment (ESA) for the property at 1131 and 1151 Teron Road, Ottawa, Ontario.

### **1.2 Scope of Work**

The Phase 1 ESA is the systematic process as described in CSA Z768-01 and amendment 179/11 of Ontario Regulation 511/09 and Ontario Regulation 153/04, by which an assessor seeks to determine whether a particular property is, or may be subject to actual or potential contamination. This document details the site conditions as per the visual site inspection on July 3<sup>rd</sup> 2019 and a historical/regulatory review was completed. The appendices are a compilation of pertinent research used to complete this Phase 1 ESA. All research collected and reviewed as part of this report is subject to the limitations outlined in section 1.3 of this report.

### **1.3 Limitations and Exclusive Use**

This report is for the exclusive use of 11021028 Canada Inc. at the time of the assessment. Use or reliance upon the information contained herein by other parties is strictly prohibited unless written consent from 11021028 Canada Inc. and Oaktree Engineering Ltd. is obtained. The results of this Phase 1 ESA cannot be used to obtain property or other insurance.

This assessment of the environmental conditions and possible site hazards has been made using data collected and provided by other parties. We accept no responsibility for any deficiencies or inaccuracies in this report as a result of omission, misinterpretation, or fraudulent acts of others.

Due to the nature of the investigation and the limited data available, we cannot warrant against undiscovered environmental liabilities. If new information is discovered during future work, including but not limited to excavation, boreholes, or other studies, Oaktree Engineering Ltd. should be notified and requested to re-evaluate the conclusions presented in this report. The conclusions presented herein are based on information gathered from a limited historical review and field inspection program.



## 2. Phase One Property Information

### 2.1 Site Location

**Address:** 1131 & 1151 Teron Road, Ottawa, Ontario, Canada

**Location:** Site located on the south-east corner of the intersection of Teron Road and March Road. The lot is composed of two properties; 1131 Teron Road and 1151 Teron Road.

### 2.2 Site Description

**Lot Area:** ± 3.82 Acres

**Building Area:** ± 180 m<sup>2</sup>

**Site Configuration:** Irregular

**Date of Construction:** According to aerial photographs; 1131 Teron Road was occupied by a residential building since 1965. 1151 Teron Road was occupied by agricultural farm land. The sites remain relatively unchanged over the years.

**Building Description:** 1131 Teron Road is developed with a single storey masonry residential building with a concrete foundation and wood framed roof structure. There is an attached single car garage. The front of the building is assumed to face west onto Teron Road.

1151 Teron Road is vacant land with a hydro easement on part of the property.



### 3. Scope of Investigation

The scope of work for this Phase 1 ESA was as follows:

- Review the historical conditions of the site through the use of available documentation and historical aerial photographs.
- Obtaining an Ecolog Environmental Risk Information Services Ltd. (ERIS) report for the site and surrounding properties within a 250 meter (m) radius of the site. A copy of this report can be found in Appendix 2
- Review available geologic maps, well records for the vicinity of the site.
- Conduct a visual assessment (i.e., Site reconnaissance) of the site and building facilities in order to identify the presence of actual and/or potential environmental contaminants or concerns of significance.
- Conduct interviews with designated site representative(s) as a resource for current and historical site information.
- Review the current use of the site and any land use practices that may have impacted the environmental conditions of the site.
- Contact municipal and provincial agencies to determine the existence of records of environmental regulatory non-compliance, if any, and reviewing such records where available.
- Prepare a report of our findings.

In completing the scope of work, Oaktree Engineering Ltd. did not conduct any destructive investigations, including sampling, analyses, or monitoring.



## **4. Records Review**

### **4.1 General**

#### **4.1.1 Phase One Study Area Determination**

Site located on the south-east corner of the intersection of Teron Road and March Road. The lot is composed of two properties; 1131 Teron Road and 1151 Teron Road. The site is predominately surrounded by low-rise condominium town homes. There is business park located north-west of the subject sites.

The Phase 1 Study Area consists of a 250 meter buffer from the boundaries of the site; refer to Figure 1 – Key Plan. The default 250 meter radius was determined to be appropriate due to the local geological/topographic conditions, major infrastructure conduits and surrounding land use.

#### **4.1.2 First Developed Land Use**

According to records obtained by Oaktree Engineering Ltd. the 1131 Teron Road was first developed with a single storey masonry residential building with a concrete foundation and wood framed roof structure. There is an attached single car garage.

1151 Teron Road was first used as agricultural fields. By 1976 the lot was vacant and included a hydro easement. Air photos from 1965 – 2017 confirm the first developed land use (Figure 2 A – D).

#### **4.1.3 Chain of Title**

No chain of title for the property was acquired at the time this report was drafted. OEL reserves the right to comment on the property's chain of title once made available.

#### **4.1.4 Environmental Reports**

A Phase 1 – Environmental Site Assessment drafted in 2012 by Affiliated Property Group was reviewed as part of this study.





**4.1.5 Environmental Source Information**

Table 1: Environmental Source Information

Title (Author/Source)	Date	Findings
Online Brownfields Environmental Site Registry	July 4, 2019	110-140 Herzberg Road – Status of certificate.
Ontario Oil, Gas and Salt Resources	July 4, 2018	Observation wells – Status of certificate
Federal Contaminated Sites Inventory	July 4, 2019	Site 00023343 - Herzberg Road and Bayfield Road; Metal, metalloid, and organometallic contaminate 1.1 km ENE of the sites.

**4.2 Physical Setting Sources**

**4.2.1 Aerial Photographs**

Air photographs were examined at the National Air Photo Library from the earliest available to present conditions. The observations for the years examined are provided below. Copies of the air photos are provided in Figure 2.

**1965**

1131 Teron Road is occupied by a residential structure.

1151 Teron Road is vacant

Figure 2 – A.

**1976**

1131 Teron Road remains unchanged.

1151 Teron Road is vacant with power transmission lines in the easement.

Low-rise residential buildings have been built to the south of the sites.

Industrial building constructed to the North of the sites.

Figure 2 – B.

**1991**

The sites remain relatively unchanged.

To the North of the site is a business park.

Figure 2 – C.

**2002**

The sites and surrounding area remains relatively unchanged.

Figure 2 – D.



**2017**

The sites and surrounding area (250 meter radius) remains relatively unchanged.

Figure 2 – E.

#### ***4.2.2 Fire Insurance Plan***

The 1956 Fire Insurance Maps for the site and surrounding were not available for review at the time this report was drafted. Oaktree reserves the right to alter this sections of the report once the maps become available.

#### ***4.2.3 Topographic, Geologic and Hydrologic Conditions***

The site lies at an elevation of approximately 89.88 meters above sea level. The UTM coordinates of the site are Zone 18T, Easting: 429,191.33 Northing: 5,020,328.48. The topography of the site is predominately level, there is a downward gradient from SW to NE. See Figure 3 for the topographic map.

The regional ground water flow direction, based on topographic features is expected to be towards the NE. Roads, storm sewers, utility trenches, variations in soil type, and minor fluctuations in topography may alter the course of the shallow ground water.

#### ***4.2.4 Fill Material***

Based on historical use of the properties; the likelihood of large amounts of fill being present at the site is low.

#### ***4.2.5 Water Bodies and Areas of Natural Significance***

There are no bodies of water or areas of natural significance within the study area.

#### ***4.2.6 Well/Borehole Records***

Environmental Risk Information Services in respect to requested environmental records were available. Borehole records were available at the following location; 6.5 meters S of the site. The results of the borehole determined the underlying soil to be clay – from grade to 17.4 meters (m) below grade, Granite Bedrock – beyond 17.5 meters.

### **4.3 Site**

#### ***4.3.1 Operating Records***

No operating records were provided for review as part of this investigation.



**4.3.2 Summary of Records Review**

<b>Address (Source)</b>	<b>Date</b>	<b>Findings/Environmental Impact</b>
On diamondview road 2.2 kms south of march road	3/13/2017	Ontario Spill – dumping of absorbent material to ditch.
South March transformer station	6/26/1996	250 ml of PCB oil to soil; contaminated and cleaned up.
Unplottable Location	2/25/2002	2L of antifreeze to sewer
Unplottable Location	5/18/2007	Freon R404A 163 kg
1243 Teron Road	As of Dec 2018	Waste Generator – Laboratory testing



## 5. Interviews

Mr. Phil Bottriell, previous property owner since 2001 was interviewed in 2019 and provided the following information;

- No retail or private fuel outlets have operated at the site.
- No dry cleaning processes have historically taken place at the sites.
- Historical uses included office usage.
- The building was constructed prior to 1965 and was the first building erected on the properties.
- In 2001 the indoor oil tanks were removed, natural gas was brought to the home.
- The septic tank was pumped regularly
- The parking lot was added in 2001 for general office space. A home inspection company used the building from 2001-2010.



## **6. Site Reconnaissance**

### **6.1 General Requirements**

Mr. Patrick Baggott, EIT of Oaktree Engineering Ltd. conducted a site reconnaissance on July 3<sup>rd</sup>, 2019 at 10:00 am to evaluate the building and possible on-site issues, and assess whether any surrounding land uses may have and/or are currently impacting the environmental conditions of the site. On the day of the site reconnaissance the weather was +20 °C and mostly sunny. The ground was cover was clear. Site photographs can be found in Appendix B.

### **6.2 Specific Observations at Phase One Property**

#### **6.2.1 Buildings and Structures**

1131 Teron Road is developed with a single storey masonry residential building with a concrete foundation and wood framed roof structure. There is an attached single car garage. The front of the building is assumed to face west onto Teron Road. The building is currently vacant.

1151 Teron Road has lattice towers made from galvanized steel and wood to support the overhead power transmission lines. The power lines run parallel with March Road.

#### **6.2.2 Underground Utilities**

Water is supplied to the property via city services. The building is equipped with a septic system.

#### **6.2.3 Ground Surface**

The lawn at 1131 Teron Road is overgrown with lush green weeds and tall grass.

1151 Teron Road has lush green trees, shrubs, and tall grassed. No stressed or strained vegetation was observed.

#### **6.2.4 Solid Waste Handling**

Garbage is removed by the City.

#### **6.2.5 Storage Tanks**

##### **Above Ground Storage Tanks (AST)**

No evidence of ASTs were noted on the subject site at the time of the inspection. This is subject to all visual limitations.



### **Underground Storage Tanks (UST)**

It is likely the residential building was equipped with an oil storage

#### **6.2.6 Lead**

No lead pipes were observed at the time of the inspection. The exposure to lead can be managed through various methods, including encapsulation and removal. Lead-based paints were banned from use on exterior or interior surfaces of buildings, furniture or household products in the late 1970s. No sampling of any material (for the presence of lead) was carried out as part of this Phase 1-ESA.

#### **6.2.7 Asbestos**

It is possible the finishes have Asbestos Containing Materials (ACM). Prior to 1985 when asbestos containing materials were banned, ACMs were installed in many applications including but not limited to decorative plaster, thermal systems, fire proofing, pipe insulation, and flooring/ceiling tiles. No material testing was performed as part of this Phase 1 ESA. There is likely some asbestos containing materials used in the finishes based on the age of the construction. There was some possible ACM paper on some basement heating ducts. There was some vermiculite insulation in the attic. If asbestos is to be identified it shall be removed and disposed of; in accordance with Ontario Regulation 278/05 by a qualified professional.

#### **6.2.8 Urea Formaldehyde Foam Insulation**

No evidence of Urea Formaldehyde Foam Insulation (UFFI) installation was noted during the site visit. This insulation was installed in Canada between 1975 and 1978 as part of the Canadian Home Insulation Program. UFFI was banned for use in Canada, December of 1980. This insulation is installed as a retrofit and was typically sprayed into wall cavities from holes drilled in the exterior cladding. No evidence of UFFI installation was noted.

#### **6.2.9 Polychlorinated Biphenyls (PCBs)**

PCBs can be found in electrical equipment, including but not limited to; transformers, ballasts, or capacitors. The use of PCBs was banned in 1980 for installations of the aforementioned equipment. A hydro owned transformer was observed along the western property line, there is a minimal risk of any PCB contamination at the subject site.

#### **6.2.10 Ozone-Depleting Substances (ODS)**

Refrigerants used in refrigerators, air conditioning systems, fire extinguishers, and some solvents can contain chlorofluorocarbons (CFCs) or hydrochlorofluorocarbons (HCFCs). These chemicals are recognized as ozone depleting substances and are commonly greenhouse gases. Refrigeration and cooling equipment being used at the site may contain ODS. All equipment containing or potentially containing ODS should be serviced by a certified contractor.



### **6.2.11 Staining and Stressed Vegetation**

No stressed vegetation was visible.

### **6.2.12 Radon**

Radon gas is a radioactive gas that is formed naturally by the breakdown of uranium in soil, rock and water. As a gas, radon is slowly released from the ground and water. The basement has a poured concrete floor slab and a water sump pit. Any new construction should include provisions for radon gas mitigation based on requirements of the building code and the local municipality. Mitigation costs for the removal of radon gas is relatively low.

### **6.2.13 Hazardous Materials**

No evidence of major hazardous material storage was noted on the site.



## 7. Review and Evaluation of Information

### 7.1 Current and Past Uses - Evaluation

According to records obtained by Oaktree Engineering Ltd. the site was first vacant, and then in 1955 the home was constructed. The power lines were erected in late 1960's. The site was fully developed by 1976. Air photos from 1965 – 2017 confirm the first developed land use. There is minimal to no risk based on the uses.

### 7.2 Potentially Contaminating Activity

There were no major potentially contaminating activities found to have taken place at the site.

### 7.3 Potentially Hazardous Building Products

No material testing was performed as part of this Phase 1 ESA. There is some possible asbestos containing materials with the paper on the ductwork and the vermiculite insulation. The plaster may contain so asbestos. There are no other concerns.

### 7.4 Areas of Potential Environmental Concern

Location	Potential Concern	Rationale
Site	None	Residential occupancy
North of Site	low	High-rise business park. Environmental compliance approvals on file.
East of Site	Medium	Contaminated site 1.1 kilometers NE of the site. This is beyond the study area.
South of Site	None	Residential occupancy.
West of Site	Medium	Recent fuel service station located 650 meters west of the site. This is beyond the area of study.

The site is located on the south-east corner of the intersection of Teron Road and March Road. The site is immediately surrounded by low-rise residential structures. The surrounding area is predominantly residential with a business park to the north of the site.

The site is irregular and approximately 3.25 acres in size. The site is mostly vacant. There is a 180 square meter house and one steel lattice structures supporting power transmission lines. Selected photographs of the site can be found in Appendix 1.

These locations appear to confirm little to no environmental risk concern for this property.





## 8. Conclusions

Based on the results of this assessment, it is our opinion that the subject site and adjacent land uses pose a minimal potential for environmental risk to the soil and groundwater.

Any demolition of the building will require care in disposal of possible lead and asbestos containing materials. This is a standard requirement for all older buildings. Materials can be tested prior to demolition.

### 8.1 Recommendations

**It is our opinion that no phase 2 environmental site assessment is required based on the available information.**

Oaktree Engineering Ltd.

A handwritten signature in black ink, appearing to read "Alain Charron".

Alain Charron, P.Eng. ing  
Civil Engineer





## 9. References

Canadian Standards Association (CSA), 2001 "Phase 1 Environmental Site Assessment" Standard Z768-01

Treasury Board of Canada, 2006. The Federal Contaminated Site Inventory.

National Air Photo Library – In person (Centre for Topographic Information. Natural Resources Canada. 615 Booth Street, Room 180, Ottawa, Ontario, Canada, K1A 0E9).

Ontario Oil, Gas and Salt Resources (<http://maps.ogslibrary.com>).

Ministry of the Environment. Brownsfield Environmental Site Registry.

Environment Risk Information Services standard report. Ordered July 2, 2019.



## APPENDIX 1

### Photos

Photo 1 – Site Building 1131 Teron Road



Photo 2 – Residential Building to the East





Photo 3 – Residential Building to the West



Photo 4 – Residential Building to the South





Photo 5 - Vacant Lot 1151 Teron Road



Photo 6 – Business Park to the north





**APPENDIX 2**