

**PHASE II ENVIRONMENTAL SITE ASSESSMENT**  
**1634 FOUR MILE CREEK ROAD,**  
**NIAGARA-ON-THE-LAKE, ON**  
**DECEMBER 9, 2024**

Prepared for:

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Distribution:

1 Copy – **The Client**  
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## **1.0 EXECUTIVE SUMMARY**

At the request of Melanie Williams & Rudy Doerwald (the Clients), a Phase I Environmental Site Assessment Update was conducted of a site (the 'Site') located at 1634 Four Mile Creek Road, Niagara-On-The-Lake, Ontario.

The assessment was conducted in accordance with the requirements set out in Schedule D Phase Two Environmental Site Assessments of the Ministry of Environment's O. Reg 511/09. The procedure involved a records review, site reconnaissance, and interviews.

A report entitled "Phase I Environmental Site Assessment, 1634 Four Mile Creek Road, Niagara-On-The-Lake, Ontario., November 22, 2024", was conducted by A. Breberina P. Geo. The findings are summarized as follows:

The Phase I Study Area (SA) was set at 250 m.

The Site is currently used for a flower shop and previously as a bank on the east end and the remainder is undeveloped. Prior to the 1960s the site was formerly under agricultural use mostly as cereal crops and the west end of the Site was used as an orchard in the 1930s.

One area of potential environmental concern (APEC) was identified on the Site. A 1934 aerial photograph identified orchards in the west part of the property above the Four Mile Creek ravine, and there is the possibility that organo-chlorinated (OC) pesticides or other pesticides like arsenic may have been used. Such pesticides are not highly mobile in the soil and may exist in the surface soils.

APEC 1 on the Site needs to be analyzed for contaminants of potential concern (CoPCs) and therefore a Phase II ESA will be required before a Record of Site Condition can be submitted.

Therefore, a Phase II was determined to be required to assess the APECs before a RSC can be filed.

The investigation consisted of five surface soil samples to 0.3 m deep and analytical program to reduce the uncertainties identified in the APECs, and assessment and reporting of the findings.

Based on the above, the Site Condition Standard (SCS) for the phase two property that has been selected in accordance with the O. Reg 153/04, as amended, are the generic standards for the residential/parkland/institutional land use within 30 m of a Water Body in a Potable Ground Water Condition for fine to coarse soils. (Table 8 – full depth clean-up).

The native soils encountered during sampling generally consisted of a veneer of topsoil overlying brown clay silt with to depth. No product, film, sheen, staining or odours were noted in the sub-surface soils.

There were no soil samples that exceeded the SCS for metals As, Sb, Se or OC pesticides.

The relative percent difference (RDF) of the quality control samples were within acceptable limits or could not be calculated due to the results being less the laboratory minimum detection limit.

All contaminants of concern for soil on the Phase Two Property meet the generic standards for the residential/parkland/institutional land use within 30 m of a Water Body in a Potable Ground Water Condition for fine to coarse soils. (Table 8 – full depth clean-up).

Therefore, no further work is warranted and a Record of Site Condition may be filed.

## **2.0 INTRODUCTION**

### **(i) Phase I Property Information**

<b>Table 1a: Site Information</b>	
<b>Municipal Address</b>	1634 Four Mile Creek Road, Niagara-On-The-Lake, On.
<b>Property Description and Property Identification Number (PIN)</b>	PT TWP LT 113 NIAGARA; PT TWP LT 118 NIAGARA; PT RDAL BTN TWP LOTS 113 & 118 NIAGARA AS IN RO515293; NIAGARA-ON-THE-LAKE. Pin: 46385-0065(LT)
<b>Registered Owner</b>	Rudy Doerwald
<b>Zoning</b>	East half: C1 – Commercial, West Half: R1 - Residential
<b>Site Area/Shape</b>	0.30791 ha. – truncated rectangle
<b>Frontage</b>	18.288 m
<b>Depth</b>	169.844 m

<b>Table 1b: Contact Information</b>	
<b>Organization</b>	Melanie Williams & Rudy Doerwald
<b>Contact</b>	Melanie Williams & Rudy Doerwald
<b>Title</b>	Owners
<b>Address</b>	P.O. Box 1161 Virgil, ON L0S 1T0
<b>Phone</b>	Melanie Williams (905) 988-6818 & Rudy Doerwald (905) 327-9262

<b>Table 1c: Client Information</b>	
<b>Organization</b>	Melanie Williams & Rudy Doerwald
<b>Contact</b>	Melanie Williams & Rudy Doerwald
<b>Title</b>	Owners
<b>Address</b>	P.O. Box 1161 Virgil, ON L0S 1T0
<b>Phone</b>	Melanie Williams (905) 988-6818 & Rudy Doerwald (905) 327-9262

#### **(i) Current and Future Uses**

The phase two property is currently under commercial land use and its intended use is residential.

(ii) Applicable Site Condition Standard

The phase two property has been determined to be considered as sensitive site under Section 41, Ontario Regulation 153/04 as defined as follows:

Criteria	Decision for the Subject Site
41. (1) This section applies in relation to a property if,	
(a) the property is within an area of natural significance, or includes or is adjacent to such an area or part of such an area;	No
(b) the soil at the property has a pH value as follows: (i) for surface soil, less than 5 or greater than 9, (ii) for subsurface soil, less than 5 or greater than 11;	No
(c) the property is a shallow soil property;	No
(d) the property includes or is adjacent to a water body or includes land that is within 30 m of a water body;	Yes
(e) a qualified person is of the opinion that, given the characteristics of the property and the certifications the qualified person would be required to make in a record of site condition in relation to the property as specified in Schedule A, it is appropriate to apply this section to the property.	No

In Section (1) (a) above, "area of natural significance" means any of the following:

1. A provincial park designated by a regulation under the *Provincial Parks Act*.
2. A conservation reserve established under the *Public Lands Act*.
3. An area of natural and scientific interest (life science) identified by the Ministry of Natural Resources as having provincial significance.
4. A wetland identified by the Ministry of Natural Resources as having provincial significance.
5. An area designated by a municipality in its official plan as environmentally significant, however expressed, including designations of areas as environmentally sensitive, as being of environmental concern and as being ecologically significant.
6. An area designated as an escarpment natural area or an escarpment protection area by the Niagara Escarpment Plan under the *Niagara Escarpment Planning and Development Act*.
7. A habitat of endangered or threatened species identified by the Ministry of Natural Resources.
8. Property within an area designated as a natural core area or natural linkage area within the area to which the Oak Ridges Moraine Conservation Plan under the *Oak Ridges Moraine Conservation Act, 2001*.

The phase two property is currently under commercial/residential/agricultural land use and its intended use is residential.

The site has access to municipal water supply.

Based on the above, the Site Condition Standard (SCS) for the phase two property that has been selected in accordance with the O. Reg 153/04, as amended, are the generic standards for the residential/parkland/institutional land use within 30 m of a Water Body in a Potable Ground Water Condition situation for fine to coarse soils. (Table 8 – full depth clean-up).

### **3.0 BACKGROUND INFORMATION**

#### (i) Physical Setting

##### Water Bodies and Areas of Natural Significance (ANSIs)

The National Heritage Information Centre (NHIC) database was searched for areas of natural significance within a study area. The Four Mile Creek runs south to north through the west end of the Site.

There were no ANSIs or Provincially Significant Wetlands identified within or directly adjacent to the phase one property.

##### Topography and Surface Water Drainage

The Site is level is mostly level except for the far west portion of the Site which drops down about 4 m to Four Mile Creek. A 2024 topographic survey of the Site identifies a maximum elevation of 92.30 m.a.s.l. on the east side of the Site dipping along the bank to the Four Mile Creek to 85.05 m.a.s.l. at the west end of the Site.

##### Geology

The site is situated within the physiographic region known as the Haldimand Clay Plain (Chapman and Putnam, 1984).

Ontario Geological Survey (OGS) map, “Surficial Geology of Southern Ontario” available on the Ministry of Natural Resources website was reviewed. The map places the Site on Fine-textured glaciolacustrine deposits of silt and clay, minor sand and gravel, Massive to well laminated.

Ontario Geological Survey (OGS) map, “Paleozoic Geology of Southern Ontario” available on the Ministry of Natural Resources website were reviewed. The map place the Site and study area on the Unit Name: Bertie; Group: Formation: Bertie; Lithology: dolostone; Description: dolostone; argillaceous, laminated, bituminous or burrowed.

##### Fill Materials

Setting aside engineered fill around structures, there is no evidence of other extraneous fill material on the Site.

##### Well Records

According to the MECP Well Records there were no well records identified on the Site or study area.

(ii) Past Investigation(s)

A report entitled “Phase 1 Environmental Site Assessment, 1634 Four Mile Creek Road, Niagara-On-The-Lake, Ontario., November 22, 2024”, was conducted by A. Breberina P. Geo. The findings are summarized as follows:

The Phase I Study Area (SA) was set at 250 m.

The Site is currently used for a flower shop and previously as a bank on the east end and the remainder is undeveloped. Prior to the 1960s the site was formerly under agricultural use mostly as cereal crops and the west end of the Site was used as an orchard in the 1930s.

One area of potential environmental concern (APEC) was identified on the Site. A 1934 aerial photograph identified orchards in the west part of the property above the Four Mile Creek ravine, and there is the possibility that organo-chlorinated (OC) pesticides or other pesticides like arsenic may have been used. Such pesticides are not highly mobile in the soil and may exist in the surface soils.

APEC 1 on the Site needs to be analyzed for contaminants of potential concern (CoPCs) and therefore a Phase II ESA will be required before a Record of Site Condition can be submitted.

No other environmental reports were identified or reported.

## **4.0 SCOPE OF INVESTIGATION**

### (i) Overview of Site Investigation

This PII-ESA was carried out in accordance with Part VII of the Ministry of Environment's O. Reg 511/09 and the requirements set out in TABLE 1 Mandatory Requirements for Phase Two Environmental Site Assessment Reports.

#### i) The general objectives of the PII-ESA are:

- To develop a field investigation, based on the findings of the PI-ESA, to determine if the phase two property meets applicable site condition standards.
- To develop a sampling and analysis program, based on the findings of the PI-ESA, to address adequately all areas where contaminants may be present in land or water, in or under the property.
- To develop a quality assurance program to ensure the data collected is useful, accurate and appropriate to determine if the phase two property meets applicable site condition standards.

#### ii) The Phase II ESA scope of work included:

- Planning a sampling and analysis program;
- Planning a quality assurance program to ensure the objectives are met;
- Advancement of five surface soil samples to 0.3 m in depth;
- Soil sampling and analysis;
- An evaluation of the information gathered from the field investigation and analytical results;
- A phase two conceptual site model;
- Conclusions determining if the site conditions meet site condition standards for the intended use before a record of site condition can be submitted.

#### iii) Disclosure of Interest

The author does not have any material interest, direct or indirect, in the Site or the Client. Except for remuneration and information research fees received for the performance of this assessment, the author will not receive any profit or specialized information from the Client that would benefit the author.

#### iv) Limitations and Use of this Report

The data reported and the findings, observations, and conclusions expressed in this report are limited by the Scope of Work.

The author has conducted this assessment in accordance with generally accepted professional practices, as performed at the same or similar locations related to the nature of this assigned work. The author's services are not subject to any expressed or implied warranties whatsoever.

The author has accepted information provided by third parties in good faith, but has not completed independent evaluations as to the accuracy or completeness of such information, and shall therefore not be responsible for any errors or omissions contained in such information.

The Site inspection pertaining to this assessment, and associated findings, observations, and opinions, are based solely on the Site conditions encountered at the time of the investigation. Changes in conditions may occur after the completion of this investigation. The passage of time, manifestation of latent conditions, or future events, may require further study, analysis of data, and re-evaluation of the findings, observations, and conclusions in this report.

This report is provided as a measure of due diligence and to assess risks with respect to environmental soil impairment, but it should not be considered as exhaustive or absolute in coverage; no investigation can totally eliminate the possibility that environmental impairment may exist at a site.

Regulatory requirements or their interpretations may be revised by the governing agencies, resulting in future changes to the recommended works, or remediation needs.

The conclusions presented in this report are professional opinions based upon data and conditions described herein. They are intended only for the purpose, site, and project indicated. This report is not a definitive study of contamination at the site, and should not be interpreted as such. A qualitative evaluation of soil conditions was not performed as part of this investigation. No sampling or chemical analyses of structural materials or other equipment, processes, or related media was performed in this study unless explicitly stated.

This report presents professional opinions and findings of a scientific and technical nature. Because of the stated limitations, the findings, observations, opinions and conclusions expressed by the author in this report are not, nor should not be, considered an opinion concerning the compliance of any past or present owner of the site, with any Federal, Provincial, or municipal law or regulation.

The report shall not be construed to offer legal opinion or representations as to the requirements of, nor compliance with, environmental laws, rules, regulations or policies of Federal, Provincial or local government agencies.

The author has prepared this report for the exclusive use of the Client. This report shall not be used or relied upon by outside parties without the written consent of the author. Any use of this report constitutes acceptance of the limits of liability that may

apply to the author. Any such liability extends only to the client of the author and not to any other parties who may obtain the report.

If new information or conditions of concern are discovered during future work, including Site assessments, excavations, borings, or other studies, the author should be requested to re-evaluate the assessments and conclusions presented in this report and to provide amendments as required.

## (ii) Media Investigated

The investigation consisted of a sub-surface investigation of a sampling of soil program to assess potential impacts from metals, hydrides and OC pesticides above the Table 8.

## (iii) Phase One Conceptual Site Model

### i) Areas where PCAs on, or potentially affecting the phase one property has occurred –

#### On-Site PCAs

PCA 1 – PCA Item # 40: Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications. The 1934 aerial photograph identified orchards in the west part of the property.

#### Off-site PCAs

No PCAs were identified in the Study Area that would impact the Phase One Property.

PCAs identified in the Study Area that would not impact the Phase One Property because they are trans or downgradient of the Site include:

PCA 2 – PCA Item #28; Gasoline and Associated Products Storage in Fixed Tanks: At the corner of Four Mile Creek Road and Niagara Stone Road approximately 80 m southeast and trans-gradient to the Site there was a former retail fuel outlet with fuel USTs.

PCA 3 – PCA Item #28; Gasoline and Associated Products Storage in Fixed Tanks: At the corner of 1437 Niagara Stone Road approximately 132 m southeast and trans-gradient to the Site there is a retail fuel outlet with fuel USTs.

PCA 4 – PCA Item #28; Gasoline and Associated Products Storage in Fixed Tanks: At the corner of 1593 Four Mile Creek Road approximately 211 m southeast and trans-gradient to the Site there is a former retail fuel outlet with fuel USTs.

### (ii) Areas of Potential Environment Concern (APECs)

Area of potential environmental concern <sup>1</sup>	Location of area of potential environmental concern on phase one property	Potentially contaminating activity <sup>2</sup>	Location of PCA (on-site or off-site)	Contaminants of potential concern <sup>3</sup>	Media potentially Impacted (Ground water, soil and/or)
APEC1 - The 1934 aerial photograph identified orchards in the west part of the property.	West portion of the Site above the ravine to Four Mile Creek	PCA Item #28; # 40: Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-	On-Site	OC Pesticides and Metals	Soil

**Notes:**

1 - Areas of potential environmental concern means the area on, in or under a phase one property where one or more contaminants are potentially present, as determined through the phase one environmental site assessment, including through,  
(a) identification of past or present uses on, in or under the phase one property, and  
(b) identification of potentially contaminating activity.

2 - Potentially contaminating activity means a use or activity set out in Column A of Table 2 of Schedule D that is occurring or has occurred in a phase one study area

3 - When completing this column, identify all contaminants of potential concern using the Method Groups as identified in the Protocol for in the Assessment of Properties under Part XV.1 of the Environmental Protection Act, March 9, 2004, amended as of July 1, 2011, as specified below:

**List of Method Groups:**

ABNs	PCBs	Metals	Electrical Conductivity
CPs	PAHs	As, Sb, Se	Cr (VI)
1,4-Dioxane	THMs	Na	Hg
Dioxins/Furans, PCDDs/PCDFs	VOCs	B-HWS	Methyl Mercury
OCs	BTEX	Cl-	Low or high pH,
PHCs	Ca, Mg	CN-	SAR

4 - When submitting a record of site condition for filing, a copy of this table must be attached

(iii) Rationale for APECs :

APEC 1 - The 1934 aerial photograph identified orchards in the west part of the property above the Four Mile Creek ravine, and there is the possibility that organo-chlorinated (OC) pesticides or other pesticides like arsenic may have been used. Such pesticides are not highly mobile in the soil and may exist in the surface soils.

- (iv) Contaminants of Potential Concern – OC pesticides and metals.
- (v) Underground Utilities – Underground utilities appear to come to the building from the street east of the Site and not through the APEC.
- (vi) Topography – The Site is level is mostly level except for the far west portion of the Site which drops down about 4 m to Four Mile Creek. A 2024 topographic survey of the Site identifies a maximum elevation of 92.30 m.a.s.l. on the east side of the Site dipping along the bank to the Four Mile Creek to 85.05 m.a.s.l. at the west end of the Site.
- (vii) Hydrology – Surface water drainage on-site was via runoff into the municipal storm sewer system. The Four Mile Creek runs south to north through the west end of the Site. Groundwater is inferred to flow west and southwestward towards Four Mile Creek.
- (viii) Geology – The site is situated within the physiographic region known as the Haldimand Clay Plain (Chapman and Putnam, 1984).  
  
Ontario Geological Survey (OGS) map, “Surficial Geology of Southern Ontario” available on the Ministry of Natural Resources website was reviewed. The map places the Site on Fine-textured glaciolacustrine deposits of silt and clay, minor sand and gravel, Massive to well laminated.  
  
Ontario Geological Survey (OGS) map, “Paleozoic Geology of Southern Ontario” available on the Ministry of Natural Resources website were reviewed. The map place the Site and study area on the Unit Name: Bertie; Group: Formation: Bertie; Lithology: dolostone; Description: dolostone; argillaceous, laminated, bituminous or burrowed. Water bodies and areas of natural significance – The Four Mile Creek runs south to north through the west end of the Site.
- (ix) Uncertainty or Absence of Information – Underground utilities locations are known.

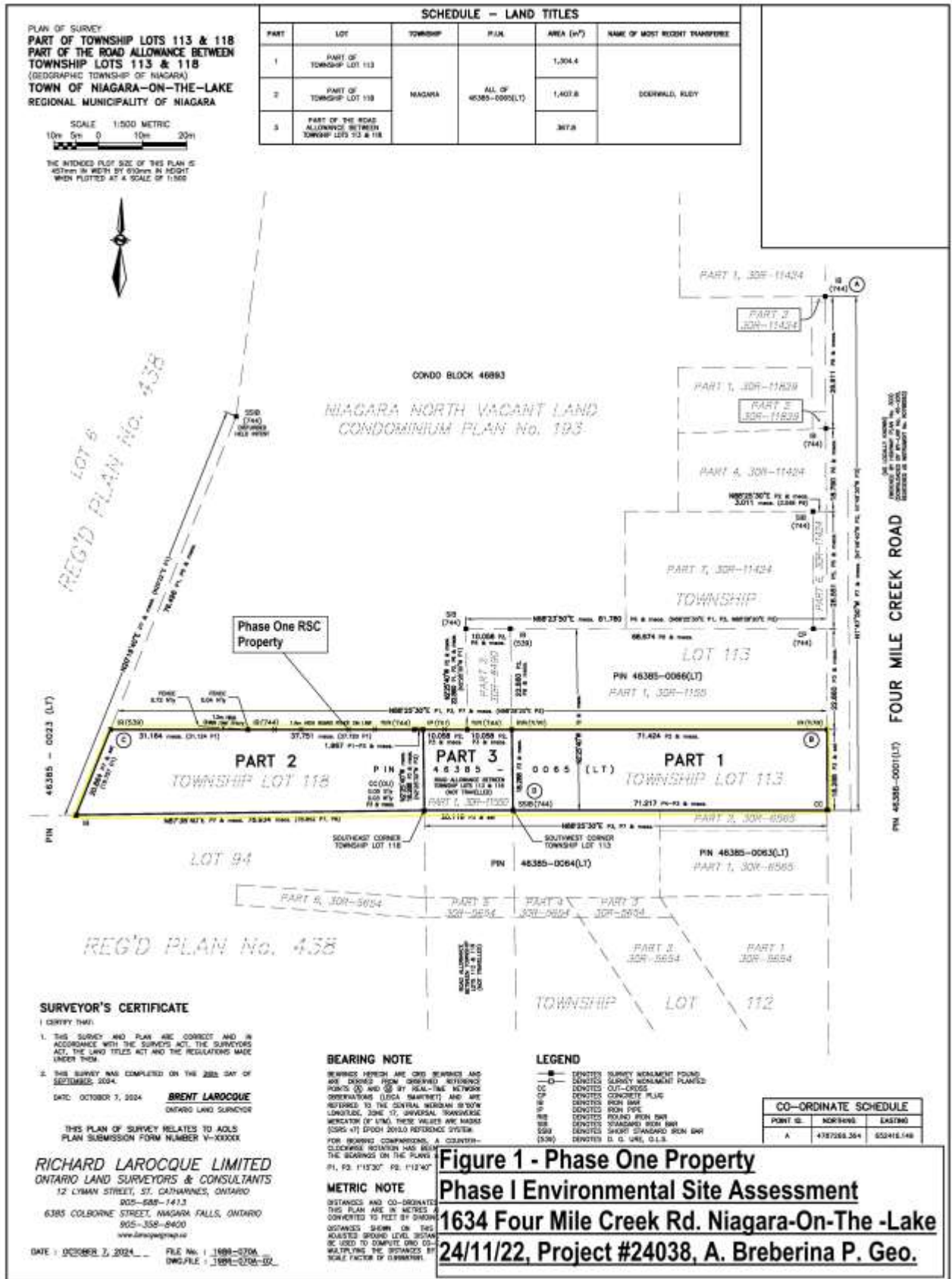
Figure 1 – Phase One/RSC Property

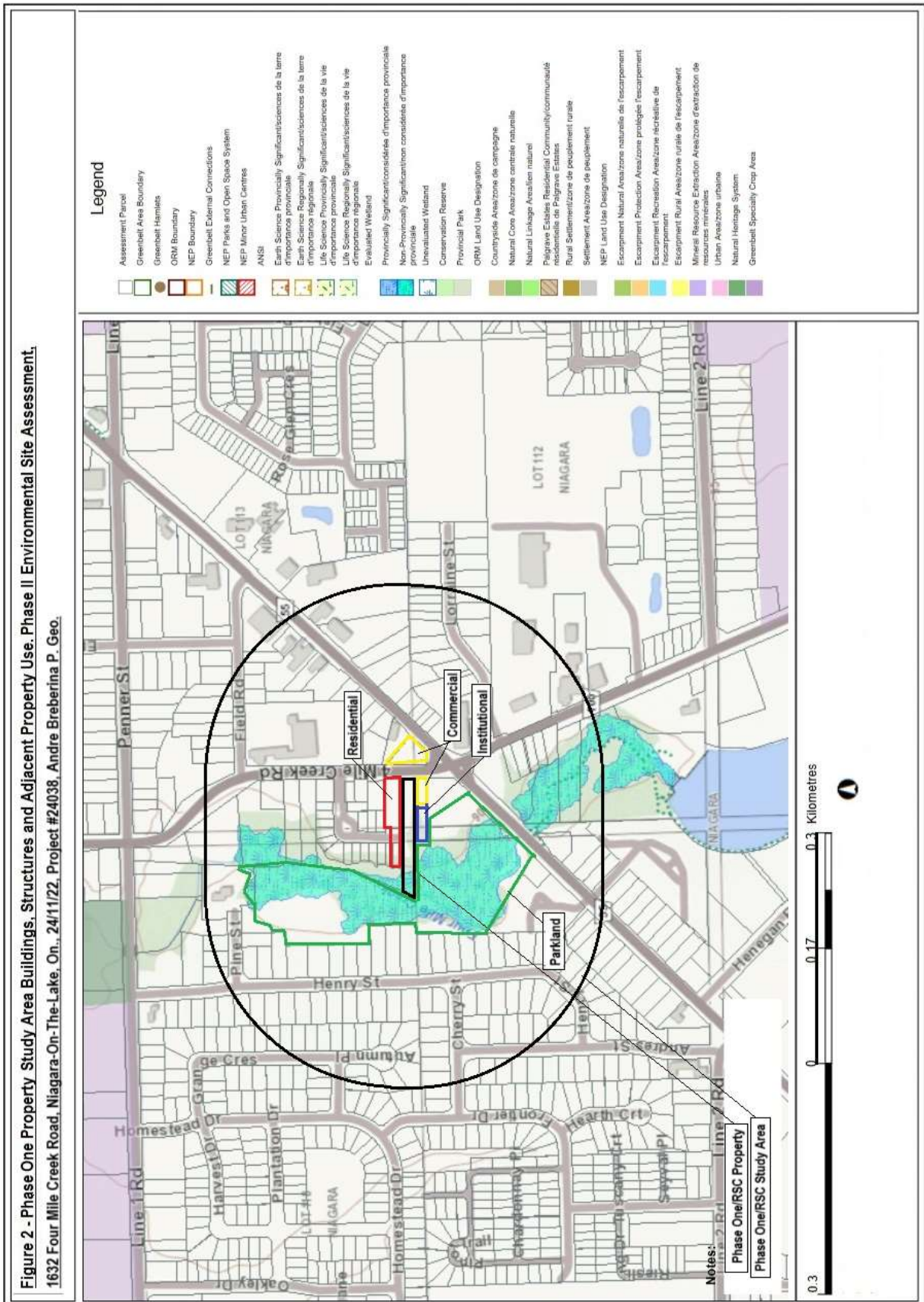
Figure 2 – Phase One Study Area Buildings, Structures and Adjacent Property Uses

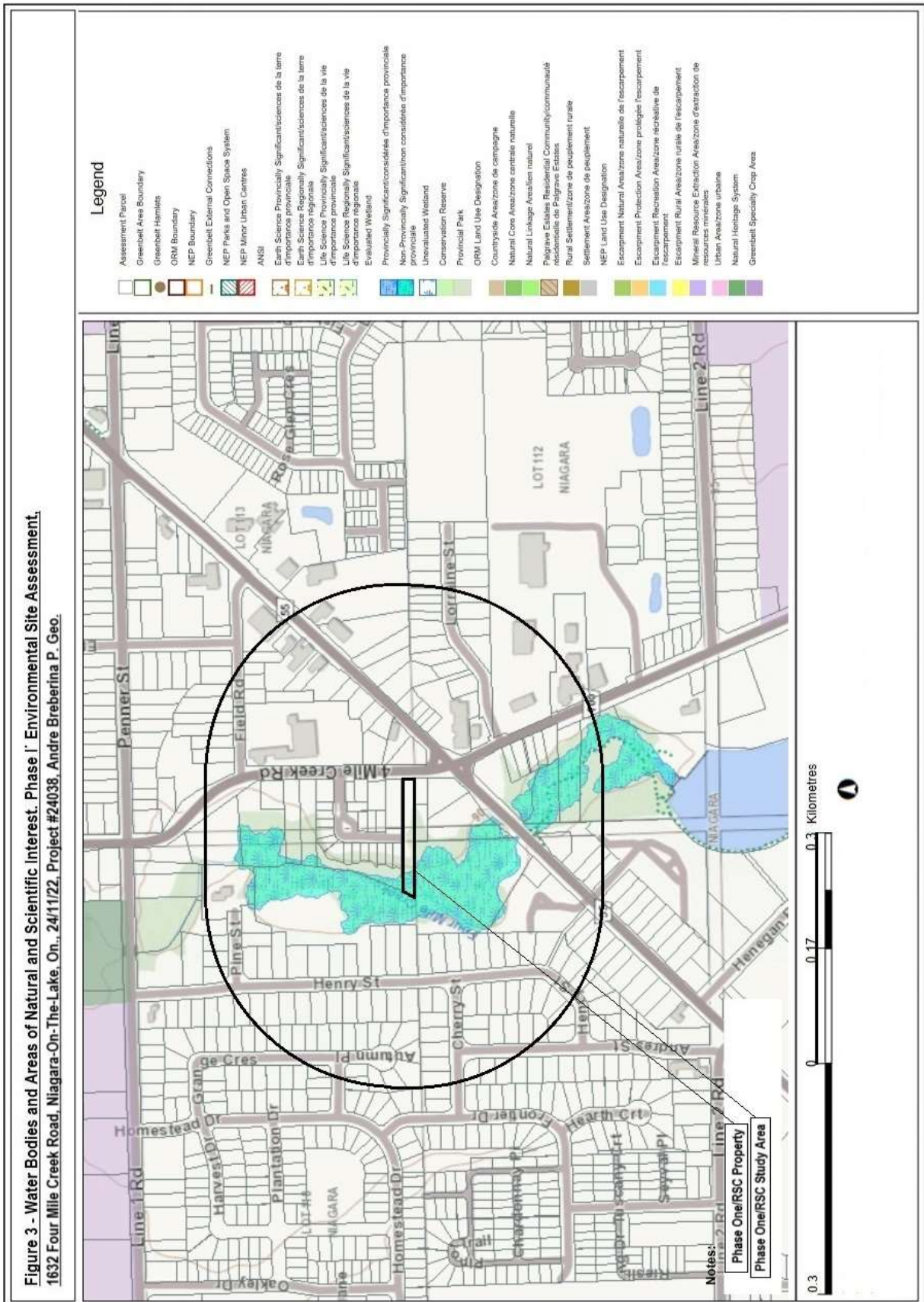
Figure 3 – Areas of Natural and Scientific Interest and Provincially Significant Water Bodies.

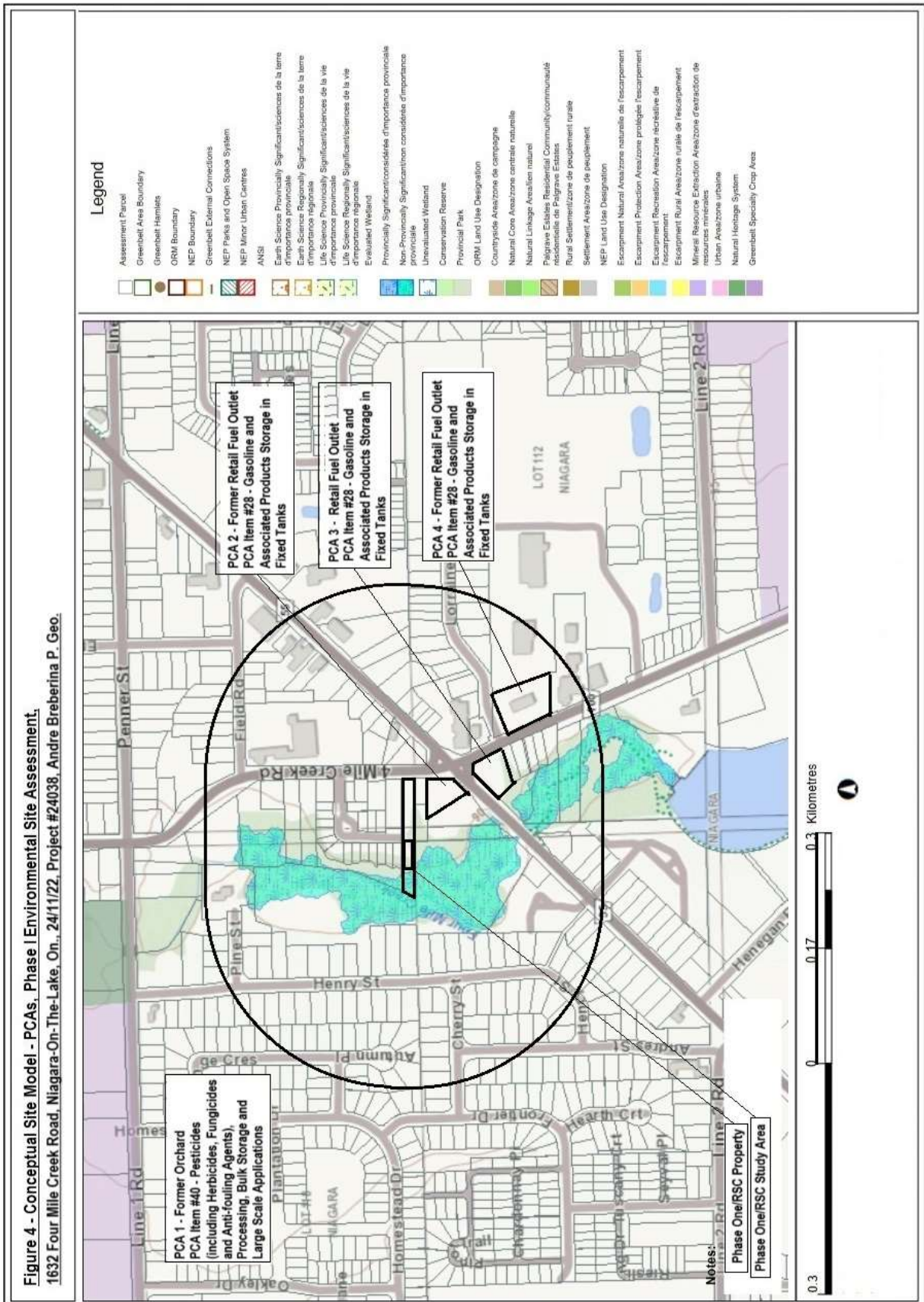
Figure 4 – Conceptual Site Model: PCAS

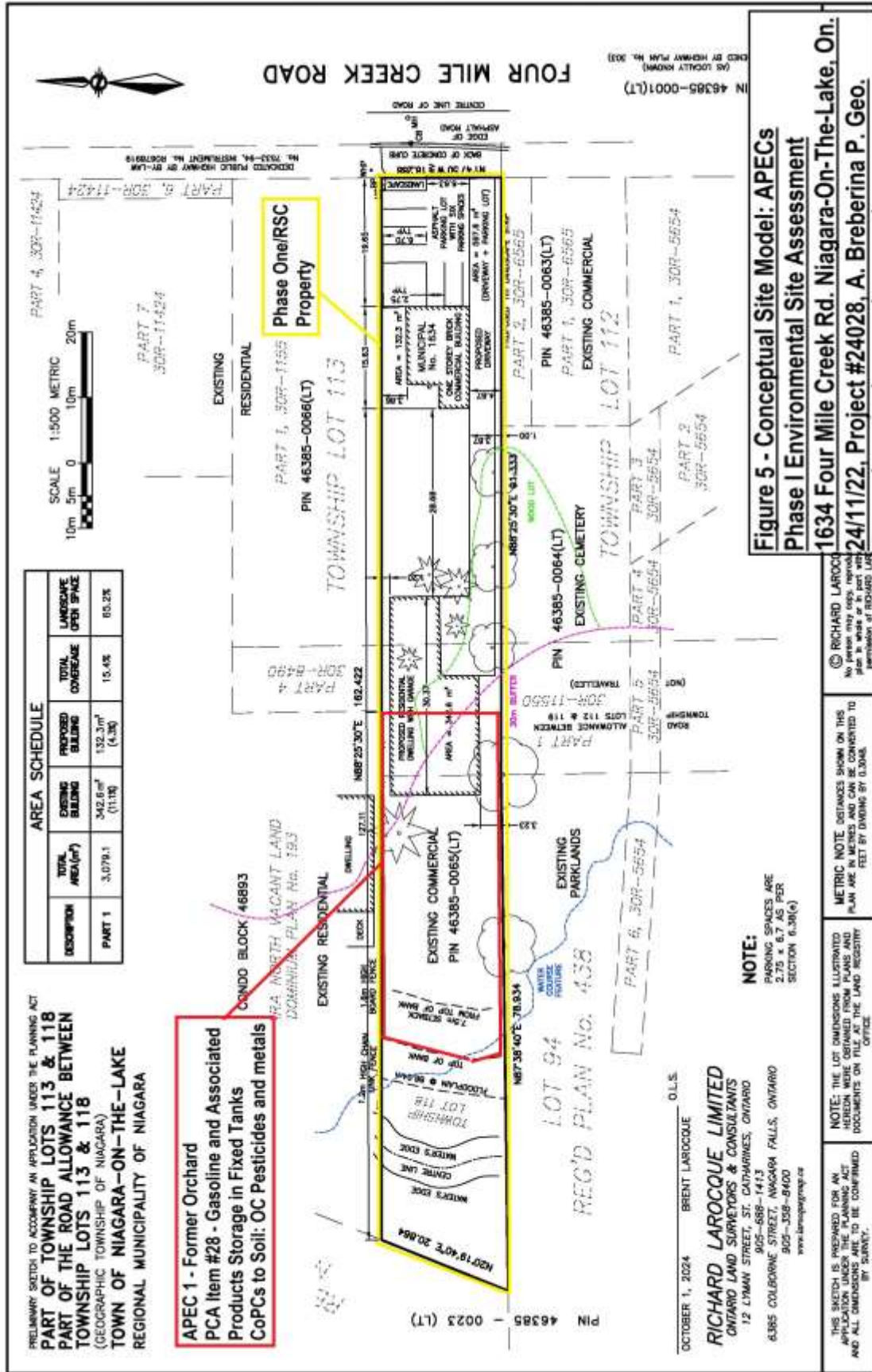
Figure 5 – Conceptual Site Model: APECs











**AREA SCHEDULE**

DESCRIPTION	TOTAL AREA (m <sup>2</sup> )	EXISTING BUILDING	PROPOSED BUILDING	TOTAL COVERAGE	LANDSCAPE OPEN SPACE
PART 1	3,079.1	542.6 m <sup>2</sup> (11.1%)	132.3 m <sup>2</sup> (4.3%)	15.4%	85.2%

PRELIMINARY SKETCH TO ACCOMPANY AN APPLICATION UNDER THE PLANNING ACT  
**PART OF TOWNSHIP LOTS 113 & 118**  
**PART OF THE ROAD ALLOWANCE BETWEEN**  
**TOWNSHIP LOTS 113 & 118**  
 (GEOGRAPHIC TOWNSHIP OF NIAGARA)  
**TOWN OF NIAGARA-ON-THE-LAKE**  
 REGIONAL MUNICIPALITY OF NIAGARA

**APEC 1 - Former Orchard**  
**PCA Item #28 - Gasoline and Associated**  
**Products Storage in Fixed Tanks**  
**CoPCs to Soil: OC Pesticides and metals**

**Figure 5 - Conceptual Site Model: APECs**  
**Phase I Environmental Site Assessment**  
**1634 Four Mile Creek Rd. Niagara-On-The-Lake, On.**  
**24/11/22, Project #24028, A. Breberina P. Geo.**

**NOTE:**  
 PARKING SPACES ARE  
 2.75 x 6.7 AS PER  
 SECTION 6.39(4)

THIS SKETCH IS PREPARED FOR AN APPLICATION UNDER THE PLANNING ACT AND ALL DIMENSIONS ARE TO BE CONFIRMED BY SURVEY.

NOTE: THE LOT DIMENSIONS ILLUSTRATED HEREIN WERE OBTAINED FROM PLANS AND DOCUMENTS ON FILE AT THE LAND REGISTRY OFFICE

METRIC NOTE: DISTANCES SHOWN ON THIS PLAN ARE FEET BY DIVISION BY 0.3048

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OCTOBER 1, 2024 BRENT LAROCCO O.L.S.  
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## **5.0 INVESTIGATION METHOD**

### (i) General

Based on the 2024 Phase I ESA, the investigation consisted of a borehole and sampling of soil program to assess uncertainties identified in the APECs.

The program involved: location of underground utilities marked by public utilities; advancement of boreholes; soil sampling and analysis; and, assessment of the findings and reporting of same.

### (ii) Drilling and Excavation

No drilling or excavation was undertaken.

### (iii) Soil: Sampling

Soil samples were collected with a butylate lined 0.3 m long sampling tube on continuous basis.

The core samples were placed on a table in the field and split open for inspection in the field. Cores were inspected for soil types and logged. Soils were inspected for visible signs of petroleum staining and/ or odours.

Soil samples for metals and OC Pesticides. were collected with a stainless steel knife and placed into jars prepared by the contract laboratory with appropriate preservatives as required.. The samples were placed into a clean cooler with ice-packs for direct storage and transportation to the contract laboratory under chain-of-custody documentation.

### (iv) Analytical Testing

The soil samples from BH1 were analyzed for metals and OC pesticides.

Soil and groundwater samples were submitted for analysis to Paracel Laboratories Ltd. in Hamilton, Ontario.

### (v) Residue Management

Soil cuttings were placed in sealed plastic pails pending the outcome of the analytical results.

### (vi) Elevation Surveying

No elevations were taken..

(vii) Quality Assurance and Quality Control Measures

All samples were placed into clean sample jars, bottles and or vials prepared by the contract laboratory following the laboratory protocols as follows:

- Soil samples for metals were collected from the core sample with a stainless steel knife and placed into 500 ml amber glass jars with no headspace and seal with Teflon lined lids.
- The sampling knife was decontaminated with alchonox and rinsed with distilled water between sampling events to prevent cross-contamination.

Disposable nitrile gloves were used during sampling handling. All sample containers were labelled by the contract laboratory and sample identifications and dates were placed on the label in the field at the time of sampling. The samples were placed into a clean cooler with ice-packs for direct storage and transportation to the contract laboratory under chain-of-custody documentation.

## **6.0 REVIEW AND EVALUATION**

### (i) Geology

The site is situated within the physiographic region known as the Haldimand Clay Plain (Chapman and Putnam, 1984).

Ontario Geological Survey (OGS) map, “Surficial Geology of Southern Ontario” available on the Ministry of Natural Resources website was reviewed. The map places the Site on Fine-textured glaciolacustrine deposits of silt and clay, minor sand and gravel, Massive to well laminated.

Ontario Geological Survey (OGS) map, “Paleozoic Geology of Southern Ontario” available on the Ministry of Natural Resources website were reviewed. The map place the Site and study area on the Unit Name: Bertie; Group: Formation: Bertie; Lithology: dolostone; Description: dolostone; argillaceous, laminated, bituminous or burrowed.

### (ii) Ground Water: Elevations and Flow Direction

No groundwater was measured.

### (iii) Soil Texture

No laboratory particle size analysis of soil was conducted and therefore the soil was classified as coarse textured, and was used for the SCS comparison.

### (iv) Soil Field Screening

No product, film, sheen, staining or odours were noted in the soils. No soil vapours were noted by the PID during the field screening of soil samples.

### (v) Soil Quality

A summary of the locations, depths, and a comparison of the analytical results of other metals in the soil with the applicable SCS are presented in Table 1. None of the samples exhibited concentrations above the SCS.

A summary of the locations, depths, and a comparison of the analytical results of OC pesticides with the applicable SCS are presented in Table 2. None of the samples exhibited concentrations above the SCS.

### (vi) Ground Water Quality

No groundwater was sampled.

(vii) Sediment Quality

Sediment was not a medium of concern and not sampled as part of the Phase II ESA.

(viii) Quality Assurance and Quality Control Programs

All Certificates of Analysis received are pursuant to clause 47 (2) (b) of the regulation comply with subsection 47 (3).

A Certificate of Analysis has been received for each sample submitted.

All Certificates of Analysis received have been included in full and are included in Appendix (iii) in this report.

The quality control reports in both Certificates of Analysis reported that the relative percent difference (RDF) could not be calculated due to the results being less the laboratory minimum detection limit.

The quality control reports in both Certificates of Analysis reported that all test results were conducted within ALS's recommended hold times.

(ix) Phase Two Conceptual Site Model:

- i) Areas where PCAs on, or potentially affecting the phase one property has occurred –

On-Site PCAs

PCA 1 – PCA Item # 40: Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications. The 1934 aerial photograph identified orchards in the west part of the property.

Off-site PCAs

No PCAs were identified in the Study Area that would impact the Phase One Property.

PCAs identified in the Study Area that would not impact the Phase One Property because they are trans or downgradient of the Site include:

PCA 2 – PCA Item #28; Gasoline and Associated Products Storage in Fixed Tanks: At the corner of Four Mile Creek Road and Niagara Stone Road approximately 80 m southeast and trans-gradient to the Site there was a former retail fuel outlet with fuel USTs.

PCA 3 – PCA Item #28; Gasoline and Associated Products Storage in Fixed Tanks: At the corner of 1437 Niagara Stone Road approximately

132 m southeast and trans-gradient to the Site there is a retail fuel outlet with fuel USTs.

PCA 4 – PCA Item #28; Gasoline and Associated Products Storage in Fixed Tanks: At the corner of 1593 Four Mile Creek Road approximately 211 m southeast and trans-gradient to the Site there is a former retail fuel outlet with fuel USTs.

ii) Areas of Potential Environment Concern (APECs)

Area of potential environmental concern <sup>1</sup>	Location of area of potential environmental concern on phase one property	Potentially contaminating activity <sup>2</sup>	Location of PCA (on-site or off-site)	Contaminants of potential concern <sup>3</sup>	Media potentially Impacted (Ground water, soil and/or)
APEC1 - The 1934 aerial photograph identified orchards in the west part of the property.	West portion of the Site above the ravine to Four Mile Creek	PCA Item #28; # 40: Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-	On-Site	OC Pesticides, Metals As, Sb and Se	Soil

**Notes:**

1 - Areas of potential environmental concern means the area on, in or under a phase one property where one or more contaminants are potentially present, as determined through the phase one environmental site assessment, including through,  
(a) identification of past or present uses on, in or under the phase one property, and  
(b) identification of potentially contaminating activity.

2 - Potentially contaminating activity means a use or activity set out in Column A of Table 2 of Schedule D that is occurring or has occurred in a phase one study area

3 - When completing this column, identify all contaminants of potential concern using the Method Groups as identified in the Protocol for in the Assessment of Properties under Part XV.1 of the Environmental Protection Act, March 9, 2004, amended as of July 1, 2011, as specified below:

**List of Method Groups:**

ABNs	PCBs	Metals	Electrical Conductivity
CPs	PAHs	As, Sb, Se	Cr (VI)
1,4-Dioxane	THMs	Na	Hg
Dioxins/Furans, PCDDs/PCDFs	VOCs	B-HWS	Methyl Mercury
OCs	BTEX	Cl-	Low or high pH,
PHCs	Ca, Mg	CN-	SAR

4 - When submitting a record of site condition for filing, a copy of this table must be attached

iii) Rationale for APECs :

APEC 1 - The 1934 aerial photograph identified orchards in the west part of the property above the Four Mile Creek ravine, and there is the possibility that organo-chlorinated (OC) pesticides or other pesticides like arsenic may have been used. Such pesticides are not highly mobile in the soil and may exist in the surface soils.

- iv) Underground Utilities – No underground utilities were identified in the APECs, and therefore the presence of below ground utilities is not expected to promote contaminant distribution or transport.
- v) Contaminants of Potential Concern – The contaminants of potential concern are metals, , metals, As, Sb, Se and OC pesticides.

2. The following is a description of the physical setting of the phase two property and the following figures.

- i) Stratigraphy – The native soils encountered during sampling generally consisted of a veneer of topsoil overlying brown clay silt with to depth. The encountered surficial geology was found to somewhat correspond to the general geology of the area, which is characterized as the Lake Iroquois Plain, which is the low land extending between Lake Ontario and the Niagara Escarpment that was inundated in late Pleistocene times by glacial Lake Iroquois. The plain is flat and is covered by Glaciolacustrine deposits: silt and clay, minor sand; basin and quiet water deposits.
- ii) Hydrogeological Conditions – Surface water drainage on-site was via runoff into the municipal storm sewer system. The Four Mile Creek runs south to north through the west end of the Site. Groundwater was not sampled or measured in this investigation, but is inferred to flow west and southwestward towards Four Mile Creek. The clay overburden has a typical hydraulic conductivity range of 10<sup>-7</sup> to 10<sup>-10</sup> cm/s..
- iii) Depth to Bedrock – According to Map P 2400, Ontario Geological Survey Bedrock Topography Series, Niagara and Niagara-on-the-Lake area, bedrock is found at an average of 31 metres from the surface. According to the Ontario Geological Survey 2011, bedrock geology of Ontario, bedrock is characterized as sandstone, shale, dolostone and siltstone. This area is known as the Queenston Formation.
- iv) Depth to Water Table – No groundwater was measured. A review of Ontario Well Records found the closest monitoring wells reported the depth to groundwater to be 3 m.
- v) Any respect in which section 35, 41 or 43.1 of the regulation applies to the property – The Site is being treated as a potable groundwater condition. The property is not within an area of natural significance. The property does not include and is not adjacent to an area of natural significance or

part of such an area. The property does not include land that is within 30 meters of an area of natural significance or part of such an area. The soil at the property has a pH value for surface soil that is more than 5 and less than 9 and for subsurface soil it is more than 5 and less than 11. The qualified person does not believe it is appropriate to apply section 41 of the Regulation to the property. The Site is not a shallow soil property and therefore Section 43.1 (a) of the Regulation does not apply to the property. Four Mile Creek runs through the property and therefore Section 43.1 (b) of the Regulation does apply to the property.

- vi) Areas where soil has been brought from another property and placed on, in or under the phase two property – No fill was identified on the Phase Two Property.
- vii) Approximate locations, if known, of any proposed buildings and other structures. – There is a single detached residential building proposed for the centre of the Phase Two Property (see Figure 5).

### 3. Contaminants discovered at the phase two property greater than the applicable site condition standards.

No contaminants of concern were identified in any of the soil samples taken in the Phase II ESAs.

All concentrations of contaminants are within the Table 8 SCS and there is no further risk of contaminant migration, vapour intrusion, or risk to human and ecological receptors for the intended residential land use.

#### Description of Figures

Figure 1 – Survey of the RSC/P1/P2 property.

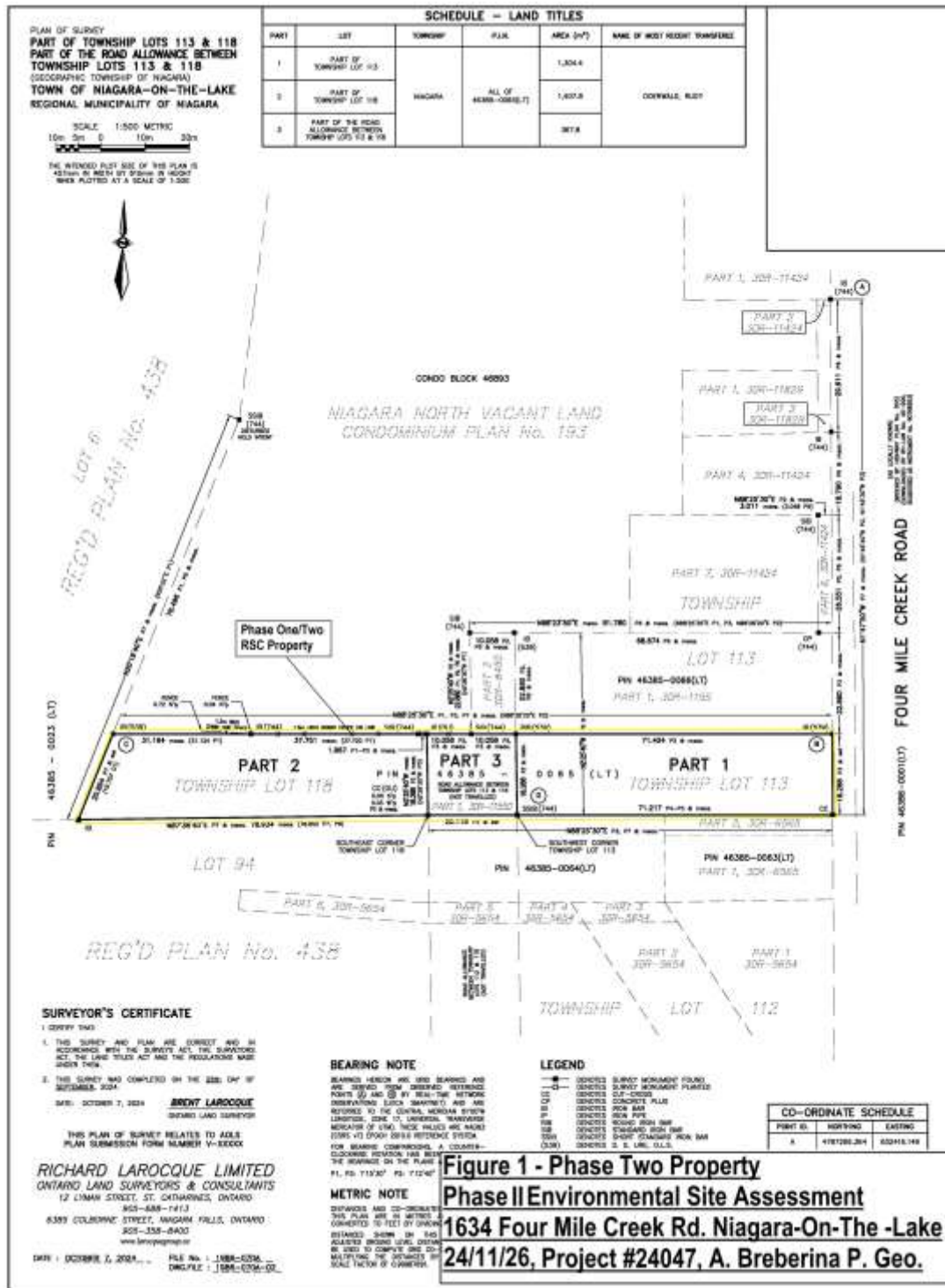
Figure 2 – Phase Two Study Area Buildings, Structures and Adjacent Property Uses

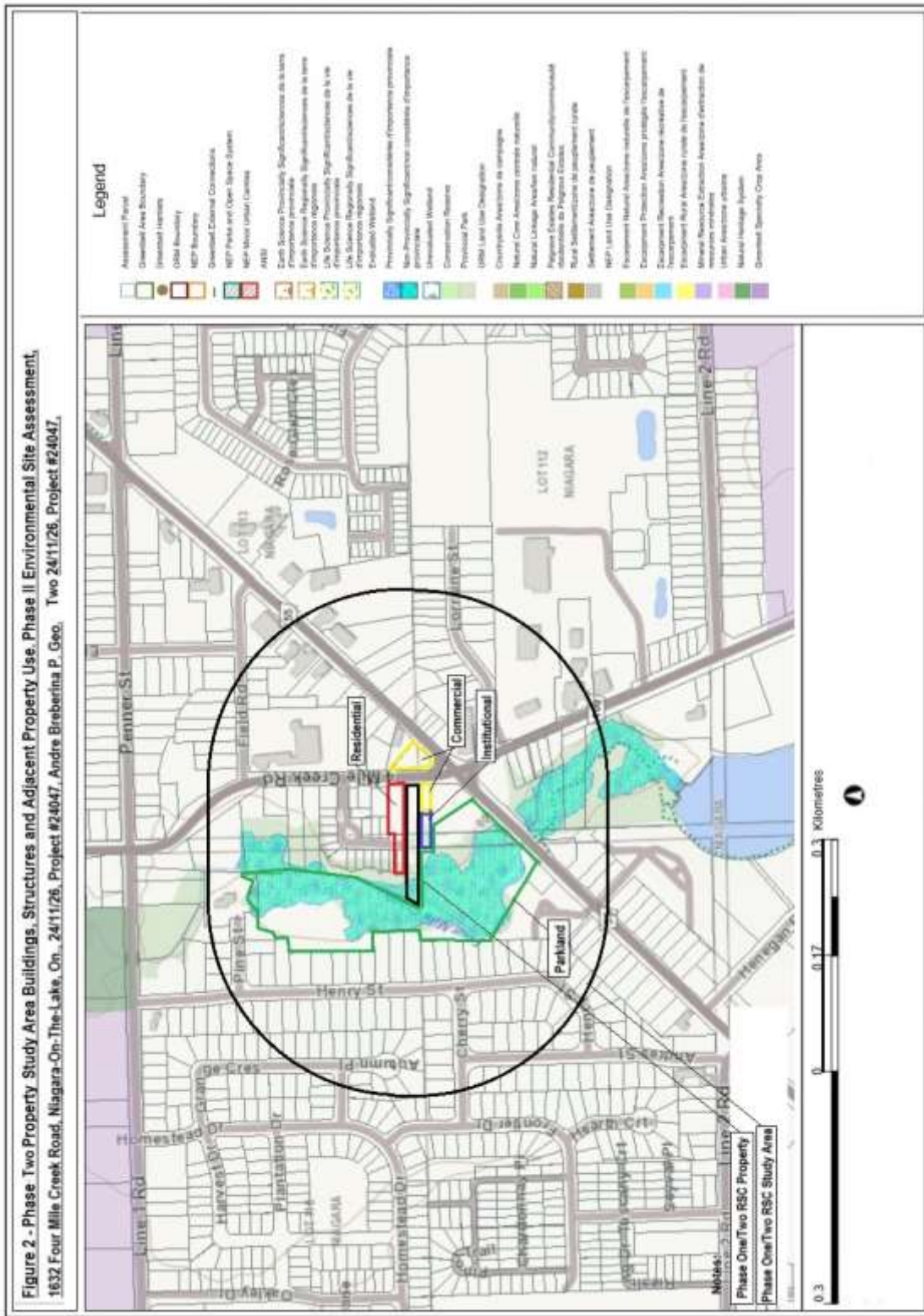
Figure 3 – ANSIs and water bodies in the study area

Figure 4 – PCAs

Figure 5 – APECs

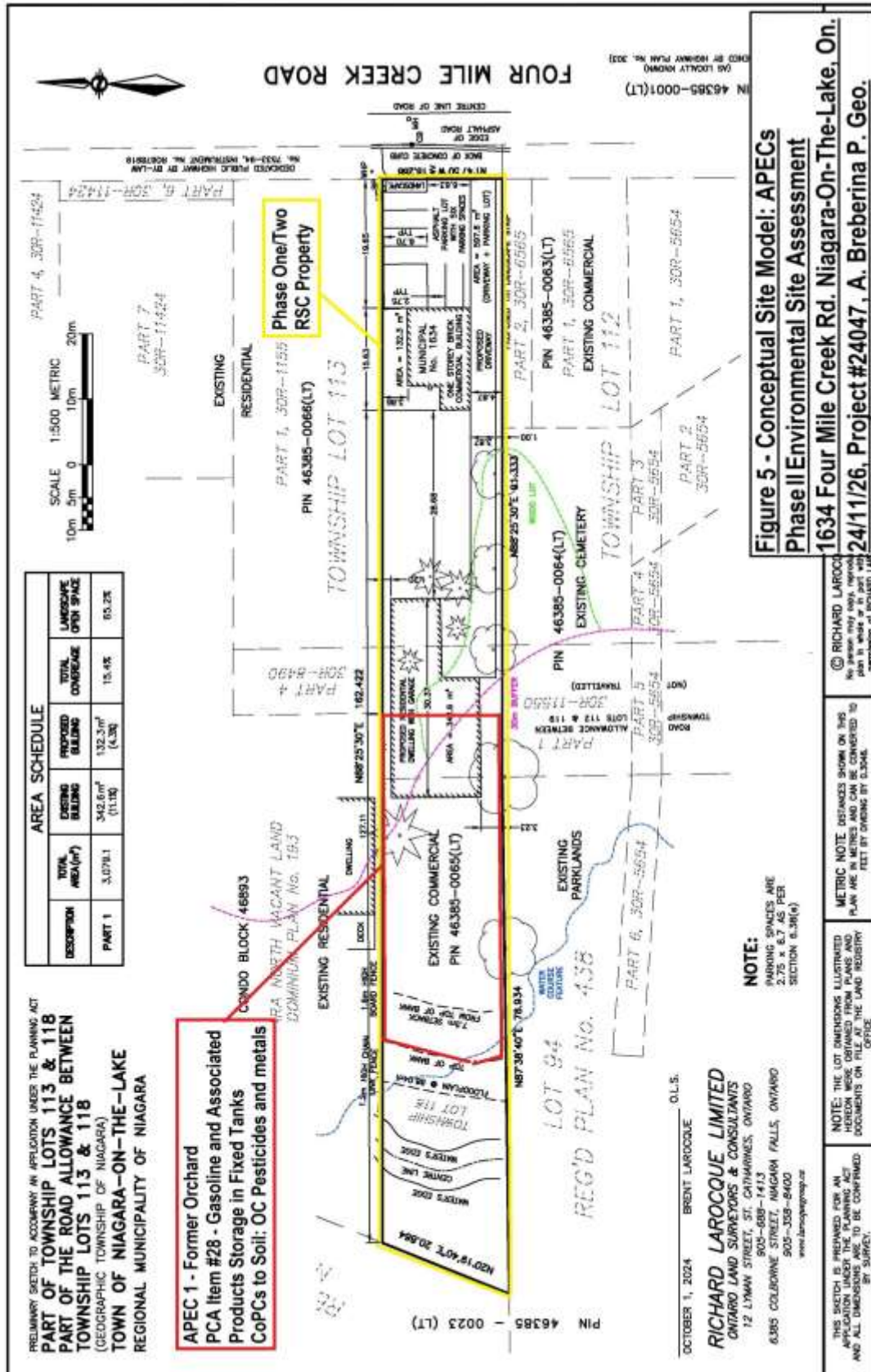
Figure 6 – Soil Sample Locations

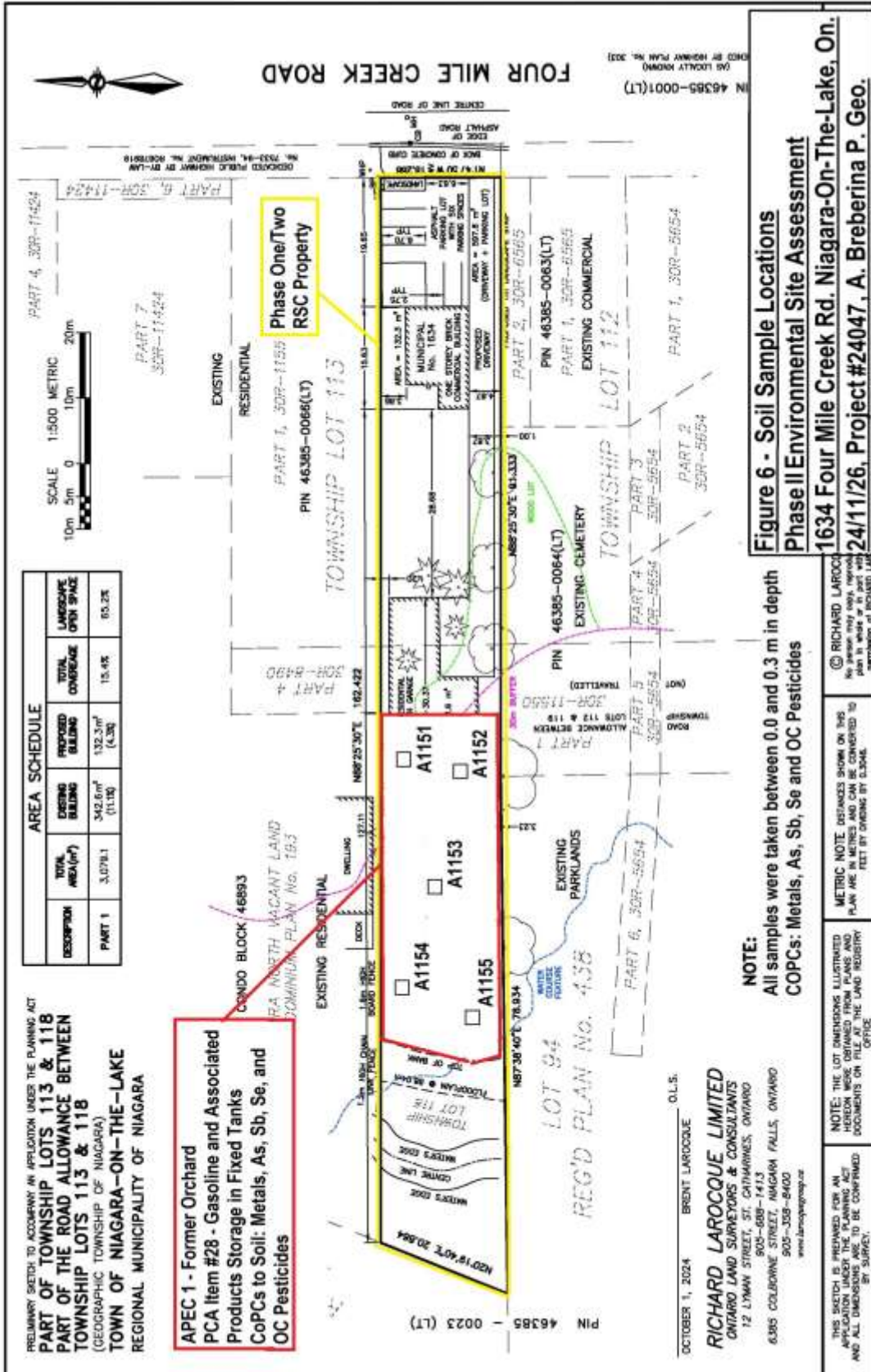












## **7.0 CONCLUSIONS**

At the request of Melanie Williams & Rudy Doerwald (the Clients), a Phase I Environmental Site Assessment Update was conducted of a site (the 'Site') located at 1634 Four Mile Creek Road, Niagara-On-The-Lake, Ontario.

The assessment was conducted in accordance with the requirements set out in Schedule D Phase Two Environmental Site Assessments of the Ministry of Environment's O. Reg 511/09. The procedure involved a records review, site reconnaissance, and interviews.

A report entitled "Phase I Environmental Site Assessment, 1634 Four Mile Creek Road, Niagara-On-The-Lake, Ontario., November 22, 2024", was conducted by A. Breberina P. Geo. The findings are summarized as follows:

The Phase I Study Area (SA) was set at 250 m.

The Site is currently used for a flower shop and previously as a bank on the east end and the remainder is undeveloped. Prior to the 1960s the site was formerly under agricultural use mostly as cereal crops and the west end of the Site was used as an orchard in the 1930s.

One area of potential environmental concern (APEC) was identified on the Site. A 1934 aerial photograph identified orchards in the west part of the property above the Four Mile Creek ravine, and there is the possibility that organo-chlorinated (OC) pesticides or other pesticides like arsenic may have been used. Such pesticides are not highly mobile in the soil and may exist in the surface soils.

APEC 1 on the Site needs to be analyzed for contaminants of potential concern (CoPCs) and therefore a Phase II ESA will be required before a Record of Site Condition can be submitted.

Therefore, a Phase II was determined to be required to assess the APECs before a RSC can be filed.

The investigation consisted of five surface soil samples to 0.3 m deep and analytical program to reduce the uncertainties identified in the APECs, and assessment and reporting of the findings.

Based on the above, the Site Condition Standard (SCS) for the phase two property that has been selected in accordance with the O. Reg 153/04, as amended, are the generic standards for the residential/parkland/institutional land use within 30 m of a Water Body in a Potable Ground Water Condition for fine to coarse soils. (Table 8 – full depth clean-up).

The native soils encountered during sampling generally consisted of a veneer of topsoil overlying brown clay silt with to depth. No product, film, sheen, staining or odours were noted in the sub-surface soils.

There were no soil samples that exceeded the SCS for metals As, Sb, Se or OC pesticides.

The relative percent difference (RDF) of the quality control samples were within acceptable limits or could not be calculated due to the results being less the laboratory minimum detection limit.

All contaminants of concern for soil on the Phase Two Property meet the generic standards for the residential/parkland/institutional land use within 30 m of a Water Body in a Potable Ground Water Condition for fine to coarse soils. (Table 8 – full depth clean-up).

Therefore, no further work is warranted and a Record of Site Condition may be filed.

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We trust that this report will accommodate your requirements. If you have any questions or comments, please contact the undersigned.

The gathering of information, evaluation of the information and conclusions and recommendations made in this Phase II ESA have conducted by, or supervised by, the undersigned QP.



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**Andre Breberina P. Geo**

## **8.0 REFERENCES**

- Association of Professional Geoscientists of Ontario, April 2011, “Guidance for Environmental Site Assessments under Ontario Regulation 153/04 (as amended)”
- Breberina, A “Phase 1 Environmental Site Assessment, 1634 Four Mile Creek Road, Niagara-On-The-Lake, Ontario., November 22, 2024”,
- CSA, 2000. ‘Phase II Environmental Site Assessment’. CSA Publication Z768-00.
- CSA, 2001. ‘Phase I Environmental Site Assessment’. CSA Publication Z768-01.
- Chapman, L.J., and D.F. Putnam, 1951. “The Physiography of Southern Ontario”. Toronto: University of Toronto Press.
- Environment Canada, “National Pollutant Release Inventory (NPRI)”
- OMOEE, June 1988, “Waste Site Disposal Inventory.”
- OMOEE, November 1988, “Inventory of Industrial Sites Producing or Using Coal Tar or Related Tars in Ontario.
- OMOEE, 1991, “Ontario Inventory of PCB Storage Sites (October 1991)”
- National Pollutant Release Inventory (NPRI)
- Ontario Ministry of Environment (OMOE), June 1996, “Guidelines for Use on Contaminated Sites in Ontario.”
- OMOE, December, 1996, “Guidance on Sampling and Analytical Methods for Use on Contaminated Sites in Ontario.”
- OMOE July, 2011 “Soil, Sediment and Groundwater Standards for Use in Accordance Part XV.1 of the Environmental Protection Act”
- OMOE, June, 2010, “Protocol for Analytical Methods Used in the Assessment of Properties under under Part XV.1 of the Environmental Protection Act, March 4, 2009 as amended July 1, 2011
- OMOE, June, 2011, Guide for Completing Phase One Environmental Site Assessments Under Ontario Regulation 153/04
- OMOE, June, 2011, Guide for Completing Phase Two Environmental Site Assessments Under Ontario Regulation 153/04
- OMOE, July 1, 2011, Ontario Regulation 153/04 as amended by Ontario Regulation 511/09. Environmental Protection Act, R.S.O. 1990, Part XV.1



## 9.0 FIGURES AND TABLES

### (a) Tables

(i) Monitoring Well Installation

No Wells installed

(ii) Ground Water Elevations

No wells installed.

(iii) LNAPLs and DNAPLs

No LNAPLs or DNAPLs were identified.

(iv) Soil Data

**Table 1b – Comparison of Results of Metals and General Chemistry for Soil with MOE Generic Site Condition Standards for Residential/Parkland/Institutional Use within 30 m of a Water Body in Potable Groundwater Situation (Table 8)**

PARAMETERS	A1151 0.0-0.3 24/11/26 2448192-01	A1152 0.0-0.3 24/11/26 2448192-02	A1153 0.0-0.3 24/11/26 2448192-03	A1154 0.0-0.3 24/11/26 2448192-04	A1155 0.0-0.3 24/11/26 2448192-05	TABLE 8
Antimony	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	1.3
Arsenic	2.1	4.1	5.3	3.5	3.0	16.0
Barium	27.3	36.2	60.2	37.3	45.4	220.0
Beryllium	ND (0.5)	ND (0.5)	0.6	ND (0.5)	ND (0.5)	2.5
Boron	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	36
Cadmium	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	1.2
Chromium	8.2	13.7	18.9	10.8	12.8	70
Cobalt	3.0	4.7	7.8	4.6	5.1	22.0
Copper	5.7	11.3	16.5	10.8	10.9	92.0
Lead	8.4	7.5	9.6	9.8	9.0	120
Molybdenum	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	2.0
Nickel	6.3	10.7	15.8	9.6	10.6	82.0
Selenium	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	1.5
Silver	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)	0.5
Thallium	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	1.0
Uranium	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	2.5
Vanadium	13.2	19.4	25.6	16.0	20.2	86.0
Zinc	26.1	33.9	42.3	33.1	36.9	290.0

All Values in ug/g. NV – No Value N/A – Not Applicable NT Not taken

( ) – SCS value applies to fine to medium textured soils (soils with more than 70% particles less than 50 u diameter)

**BOLD** – exceeds a Table 8 SCS for a full depth clean-up

**Table 2 – Comparison of Results of OC Pesticides Analysis of Soil Samples with MOE Guidelines’ Generic Criteria for for Use within 30 m of a Water Body in a Potable Groundwater Situation (Table 8)**

Parameter	Sample# Depth (m bgs) Date	A1151 0.0-0.3 24/11/26 2448192-01	A1152 0.0-0.3 24/11/26 2448192-02	A1153 0.0-0.3 24/11/26 2448192-03	A1154 0.0-0.3 24/11/26 2448192-04	A1155 0.0-0.3 24/11/26 2448192-05	TABLE 8
Aldrin		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	0.05
DDD		ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	0.05
DDE		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	0.05
DDT		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	0.05
Dieldrin		ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	0.05
Endosulfan I & II		ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	0.04
Endrin		ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	0.04
Heptochlor		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	0.55
Heptochlor Epoxide		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	0.05
Heptochlorobenzene		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	0.02
Heptochlorobutadiene		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	0.01
Heptachloroethane		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	0.01
Methoxychlor		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	0.05
Chlordane		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	0.05

All Values in ug/g. NV – No Value N/A – Not Applicable

( ) – SCS value applies to fine to medium textured soils (soils with more than 70% particles less than 50 u diameter)

**Highlighted** – exceeds a Table 8 SCS for a full depth clean-up

(v) Ground Water Data

No groundwater sampling conducted

(vi) Sediment Data

No sediment sampling conducted

## (vii) Maximum Concentrations

**Table 8 – Maximum Concentrations of each Contaminant in Soil as of the Certification Date.**

<b>Contaminant</b>	<b>Max. Conc.</b>	<b>Sample #</b>	<b>Location</b>	<b>Date</b>	<b>Depth (mbg.)</b>
<b>Metals</b>					
Antimony	ND (1.0)	A1193	A1153	24/11/26	0.0 – 0.3
Arsenic	5.3	A1193	A1153	24/11/26	0.0 – 0.3
Barium	60.2	A1193	A1153	24/11/26	0.0 – 0.3
Beryllium	0.6	A1193	A1153	24/11/26	0.0 – 0.3
Boron	ND (5.0)	A1193	A1153	24/11/26	0.0 – 0.3
Cadmium	ND (0.5)	A1193	A1153	24/11/26	0.0 – 0.3
Chromium	18.9	A1193	A1153	24/11/26	0.0 – 0.3
Cobalt	7.8	A1193	A1153	24/11/26	0.0 – 0.3
Copper	16.5	A1193	A1153	24/11/26	0.0 – 0.3
Lead	9.6	A1193	A1153	24/11/26	0.0 – 0.3
Molybdenum	ND (1.0)	A1193	A1153	24/11/26	0.0 – 0.3
Nickel	15.8	A1193	A1153	24/11/26	0.0 – 0.3
Selenium	ND (1.0)	A1193	A1153	24/11/26	0.0 – 0.3
Silver	ND (0.3)	A1193	A1153	24/11/26	0.0 – 0.3
Thallium	ND (1.0)	A1193	A1153	24/11/26	0.0 – 0.3
Uranium	ND (1.0)	A1193	A1153	24/11/26	0.0 – 0.3
Vanadium	25.6	A1193	A1153	24/11/26	0.0 – 0.3
Zinc	42.3	A1193	A1153	24/11/26	0.0 – 0.3
<b>OC Pesticides</b>					
Aldrin	ND (0.01)	All	A1151-A1155	24/11/26	0.0-0.30
DDD	ND (0.02)	All	A1151-A1155	24/11/26	0.0-0.30
DDE	ND (0.01)	All	A1151-A1155	24/11/26	0.0-0.30
DDT	ND (0.01)	All	A1151-A1155	24/11/26	0.0-0.30
Dieldrin	ND (0.02)	All	A1151-A1155	24/11/26	0.0-0.30
Endosulfan I & II	ND (0.02)	All	A1151-A1155	24/11/26	0.0-0.30
Endrin	ND (0.02)	All	A1151-A1155	24/11/26	0.0-0.30
Heptochlor	ND (0.01)	All	A1151-A1155	24/11/26	0.0-0.30
Heptochlor Epoxide	ND (0.01)	All	A1151-A1155	24/11/26	0.0-0.30
Heptochlorobenzene	ND (0.01)	All	A1151-A1155	24/11/26	0.0-0.30
Heptochlorobutadiene	ND (0.01)	All	A1151-A1155	24/11/26	0.0-0.30
Heptachloroethane	ND (0.01)	All	A1151-A1155	24/11/26	0.0-0.30
Methoxychlor	ND (0.01)	All	A1151-A1155	24/11/26	0.0-0.30
Chlordane	ND (0.01)	All	A1151-A1155	24/11/26	0.0-0.30



(ii) Property Before Actions Taken to Reduce the Concentration of Contaminants

None

(i) Interpreted Contours of Groundwater Elevations

Not measured

(ii) Contaminants in Soil Before Actions Taken to Reduce the Concentration of Contaminants

There were no contaminants in soil.

(iii) Contaminants in Ground Water Before Actions Taken to Reduce the Concentration of Contaminants

There were no contaminants in groundwater.

(iv) Contaminants in Sediment Before Actions Taken to Reduce the Concentration of Contaminants

There were no contaminants in sediment.

(v) Delineation

Not required

(vi) Contaminants of Concern in Areas of Potential Environmental Concern

The soil samples from BH1 were analyzed for metals, As, Sb, Se and OC pesticides.

## **10 APPENDICES**

### **(a) General**

#### **(i) Sampling and Analysis Plan**

##### **1. General**

Based on the 2024 Phase I ESA, the investigation consisted of a borehole and sampling of soil program to assess uncertainties identified in the APECs.

The program involved: location of underground utilities marked by public utilities; advancement of boreholes; soil sampling and analysis; and, assessment of the findings and reporting of same.

##### **2. Drilling and Excavation**

No drilling or excavation was undertaken.

##### **3. Soil: Sampling**

Soil samples were collected with a butylate lined 0.3 m long sampling tube on continuous basis.

The core samples were placed on a table in the field and split open for inspection in the field. Cores were inspected for soil types and logged. Soils were inspected for visible signs of petroleum staining and/ or odours.

Soil samples for metals and OC Pesticides. were collected with a stainless steel knife and placed into jars prepared by the contract laboratory with appropriate preservatives as required.. The samples were placed into a clean cooler with ice-packs for direct storage and transportation to the contract laboratory under chain-of-custody documentation.

##### **4. Analytical Testing**

The soil samples from BH1 were analyzed for metals and OC pesticides.

Soil and groundwater samples were submitted for analysis to Paracel Laboratories Ltd. in Hamilton, Ontario.

##### **5. Residue Management**

Soil cuttings were placed in sealed plastic pails pending the outcome of the analytical results.

## 6. Elevation Surveying

No elevations were taken..

## 7. Quality Assurance and Quality Control Measures

All samples were placed into clean sample jars, bottles and or vials prepared by the contract laboratory following the laboratory protocols as follows:

- Soil samples for metals were collected from the core sample with a stainless steel knife and placed into 500 ml amber glass jars with no headspace and seal with Teflon lined lids.
- The sampling knife was decontaminated with alchonox and rinsed with distilled water between sampling events to prevent cross-contamination.

Disposable nitrile gloves were used during sampling handling. All sample containers were labelled by the contract laboratory and sample identifications and dates were placed on the label in the field at the time of sampling. The samples were placed into a clean cooler with ice-packs for direct storage and transportation to the contract laboratory under chain-of-custody documentation.

**1. Finalized Field Logs**

No logs taken

**2. Certificates of Analysis**

## Certificate of Analysis

**Andre Breberina**

35 Fairview Road  
Grimsby, ON L3M 3L4  
Attn: Andre Breberina

Client PO:  
Project: 24047 - FMC Rd  
Custody: 145331

Report Date: 2-Dec-2024  
Order Date: 26-Nov-2024

**Order #: 2448192**

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Parcel ID	Client ID
2448192-01	A1151
2448192-02	A1152
2448192-03	A1153
2448192-04	A1154
2448192-05	A1155

Approved By:



Alex Enfield, MSc

Lab Manager

Certificate of Analysis

Report Date: 02-Dec-2024

Client: **Andre Breberina**

Order Date: 26-Nov-2024

Client PO:

**Project Description: 24047 - FMC Rd**

**Analysis Summary Table**

Analysis	Method Reference/Description	Extraction Date	Analysis Date
Pesticides, OC	EPA 8081B - GC-ECD	27-Nov-24	28-Nov-24
REG 153: Metals by ICP/MS, soil	EPA 6020 - Digestion - ICP-MS	29-Nov-24	29-Nov-24
Solids, %	CWS Tier 1 - Gravimetric	27-Nov-24	28-Nov-24

Certificate of Analysis

Report Date: 02-Dec-2024

Client: **Andre Breberina**

Order Date: 26-Nov-2024

Client PO:

Project Description: 24047 - FMC Rd

## Summary of Criteria Exceedances

(If this page is blank then there are no exceedances)

Only those criteria that a sample exceeds will be highlighted in red

### Regulatory Comparison:

Paracel Laboratories has provided regulatory guidelines on this report for informational purposes only and makes no representations or warranties that the data is accurate or reflects the current regulatory values. The user is advised to consult with the appropriate official regulations to evaluate compliance. Sample results that are highlighted have exceeded the selected regulatory limit. Calculated uncertainty estimations have not been applied for determining regulatory exceedances.

Sample	Analyte	MDL / Units	Result	Reg 153/04 -T2 Res/Park, coarse	Reg 153/04 -T2 Res/Park, fine
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Certificate of Analysis

Report Date: 02-Dec-2024

Client: Andre Breberina

Order Date: 26-Nov-2024

Client PO:

Project Description: 24047 - FMC Rd

Client ID:	A1151	A1152	A1153	A1154	Criteria:	
Sample Date:	26-Nov-24 00:00	26-Nov-24 00:00	26-Nov-24 00:00	26-Nov-24 00:00	Reg 153/04 -T2	Reg 153/04 -T2
Sample ID:	2448192-01	2448192-02	2448192-03	2448192-04	Res/Park, coarse	Res/Park, fine
Matrix:	Soil	Soil	Soil	Soil		
MDL/Units						

**Physical Characteristics**

% Solids	0.1 % by Wt.	80.3	81.5	81.4	79.6	-	-
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**Metals**

Antimony	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	7.5 ug/g	7.5 ug/g
Arsenic	1.0 ug/g	2.1	4.1	5.3	3.5	18 ug/g	18 ug/g
Barium	1.0 ug/g	27.3	36.2	60.2	37.3	390 ug/g	390 ug/g
Beryllium	0.5 ug/g	<0.5	<0.5	0.6	<0.5	4 ug/g	5 ug/g
Boron	5.0 ug/g	<5.0	<5.0	<5.0	<5.0	120 ug/g	120 ug/g
Cadmium	0.5 ug/g	<0.5	<0.5	<0.5	<0.5	1.2 ug/g	1.2 ug/g
Chromium	5.0 ug/g	8.2	13.7	18.9	10.8	160 ug/g	160 ug/g
Cobalt	1.0 ug/g	3.0	4.7	7.8	4.6	22 ug/g	22 ug/g
Copper	5.0 ug/g	5.7	11.3	16.5	10.8	140 ug/g	180 ug/g
Lead	1.0 ug/g	8.4	7.5	9.6	9.8	120 ug/g	120 ug/g
Molybdenum	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	6.9 ug/g	6.9 ug/g
Nickel	5.0 ug/g	6.3	10.7	15.8	9.6	100 ug/g	130 ug/g
Selenium	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	2.4 ug/g	2.4 ug/g
Silver	0.3 ug/g	<0.3	<0.3	<0.3	<0.3	20 ug/g	25 ug/g
Thallium	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	1 ug/g	1 ug/g
Uranium	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	23 ug/g	23 ug/g
Vanadium	10.0 ug/g	13.2	19.4	25.6	16.0	86 ug/g	86 ug/g
Zinc	20.0 ug/g	26.1	33.9	42.3	33.1	340 ug/g	340 ug/g

**Pesticides, OC**

Aldrin	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	0.05 ug/g	0.05 ug/g
gamma-BHC (Lindane)	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	0.056 ug/g	0.063 ug/g
alpha-Chlordane	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	-	-
gamma-Chlordane	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	-	-

Certificate of Analysis

Report Date: 02-Dec-2024

Client: Andre Breberina

Order Date: 26-Nov-2024

Client PO:

Project Description: 24047 - FMC Rd

Client ID:	A1151	A1152	A1153	A1154	Criteria:	
	Sample Date:	26-Nov-24 00:00	26-Nov-24 00:00	26-Nov-24 00:00	26-Nov-24 00:00	Reg 153/04 -T2 Res/Park, coarse
Sample ID:	2448192-01	2448192-02	2448192-03	2448192-04		
Matrix:	Soil	Soil	Soil	Soil		
MDL/Units						

**Pesticides, OC**

	A1151	A1152	A1153	A1154	Reg 153/04 -T2 Res/Park, coarse	Reg 153/04 -T2 Res/Park, fine
Chlordane	0.01 ug/g	<0.01	<0.01	<0.01	0.05 ug/g	0.05 ug/g
o,p'-DDD	0.01 ug/g	<0.01	<0.01	<0.01	-	-
p,p'-DDD	0.02 ug/g	<0.02	<0.02	<0.02	-	-
DDD	0.02 ug/g	<0.02	<0.02	<0.02	3.3 ug/g	3.3 ug/g
o,p'-DDE	0.01 ug/g	<0.01	<0.01	<0.01	-	-
p,p'-DDE	0.01 ug/g	<0.01	<0.01	<0.01	-	-
DDE	0.01 ug/g	<0.01	<0.01	<0.01	0.26 ug/g	0.33 ug/g
o,p'-DDT	0.01 ug/g	<0.01	<0.01	<0.01	-	-
p,p'-DDT	0.01 ug/g	<0.01	<0.01	<0.01	-	-
DDT	0.01 ug/g	<0.01	<0.01	<0.01	1.4 ug/g	1.4 ug/g
Dieldrin	0.02 ug/g	<0.02	<0.02	<0.02	0.05 ug/g	0.05 ug/g
Endrin	0.02 ug/g	<0.02	<0.02	<0.02	0.04 ug/g	0.04 ug/g
Endosulfan I	0.01 ug/g	<0.01	<0.01	<0.01	-	-
Endosulfan II	0.02 ug/g	<0.02	<0.02	<0.02	-	-
Endosulfan I/II	0.02 ug/g	<0.02	<0.02	<0.02	0.04 ug/g	0.04 ug/g
Heptachlor	0.01 ug/g	<0.01	<0.01	<0.01	0.15 ug/g	0.15 ug/g
Heptachlor epoxide	0.01 ug/g	<0.01	<0.01	<0.01	0.05 ug/g	0.05 ug/g
Hexachlorobenzene	0.01 ug/g	<0.01	<0.01	<0.01	0.52 ug/g	0.52 ug/g
Hexachlorobutadiene	0.01 ug/g	<0.01	<0.01	<0.01	0.012 ug/g	0.014 ug/g
Hexachloroethane	0.01 ug/g	<0.01	<0.01	<0.01	0.089 ug/g	0.071 ug/g
Methoxychlor	0.01 ug/g	<0.01	<0.01	<0.01	0.13 ug/g	0.13 ug/g
Decachlorobiphenyl	Surrogate	71.4%	71.6%	69.8%	-	-
2,4,5,6-Tetrachloro-m-xylene	Surrogate	49.3% [1]	49.6% [1]	47.3% [1]	-	-

Certificate of Analysis

Report Date: 02-Dec-2024

Client: Andre Breberina

Order Date: 26-Nov-2024

Client PO:

Project Description: 24047 - FMC Rd

<b>Client ID:</b>	A1155					<b>Criteria:</b>	
<b>Sample Date:</b>	26-Nov-24 00:00					<b>Reg 153/04 -T2</b>	<b>Reg 153/04 -T2</b>
<b>Sample ID:</b>	2448192-05					<b>Res/Park, coarse</b>	<b>Res/Park, fine</b>
<b>Matrix:</b>	Soil						
<b>MDL/Units</b>							

**Physical Characteristics**

% Solids	0.1 % by Wt.	79.7	-	-	-	-	-
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**Metals**

Antimony	1.0 ug/g	<1.0	-	-	-	7.5 ug/g	7.5 ug/g
Arsenic	1.0 ug/g	3.0	-	-	-	18 ug/g	18 ug/g
Barium	1.0 ug/g	45.4	-	-	-	390 ug/g	390 ug/g
Beryllium	0.5 ug/g	<0.5	-	-	-	4 ug/g	5 ug/g
Boron	5.0 ug/g	<5.0	-	-	-	120 ug/g	120 ug/g
Cadmium	0.5 ug/g	<0.5	-	-	-	1.2 ug/g	1.2 ug/g
Chromium	5.0 ug/g	12.8	-	-	-	160 ug/g	160 ug/g
Cobalt	1.0 ug/g	5.1	-	-	-	22 ug/g	22 ug/g
Copper	5.0 ug/g	10.9	-	-	-	140 ug/g	180 ug/g
Lead	1.0 ug/g	9.0	-	-	-	120 ug/g	120 ug/g
Molybdenum	1.0 ug/g	<1.0	-	-	-	6.9 ug/g	6.9 ug/g
Nickel	5.0 ug/g	10.6	-	-	-	100 ug/g	130 ug/g
Selenium	1.0 ug/g	<1.0	-	-	-	2.4 ug/g	2.4 ug/g
Silver	0.3 ug/g	<0.3	-	-	-	20 ug/g	25 ug/g
Thallium	1.0 ug/g	<1.0	-	-	-	1 ug/g	1 ug/g
Uranium	1.0 ug/g	<1.0	-	-	-	23 ug/g	23 ug/g
Vanadium	10.0 ug/g	20.2	-	-	-	86 ug/g	86 ug/g
Zinc	20.0 ug/g	36.9	-	-	-	340 ug/g	340 ug/g

**Pesticides, OC**

Aldrin	0.01 ug/g	<0.01	-	-	-	0.05 ug/g	0.05 ug/g
gamma-BHC (Lindane)	0.01 ug/g	<0.01	-	-	-	0.056 ug/g	0.063 ug/g
alpha-Chlordane	0.01 ug/g	<0.01	-	-	-	-	-
gamma-Chlordane	0.01 ug/g	<0.01	-	-	-	-	-

Certificate of Analysis

Report Date: 02-Dec-2024

Client: Andre Breberina

Order Date: 26-Nov-2024

Client PO:

Project Description: 24047 - FMC Rd

<b>Client ID:</b>	A1155					<b>Criteria:</b>	
<b>Sample Date:</b>	26-Nov-24 00:00					<b>Reg 153/04 -T2</b>	<b>Reg 153/04 -T2</b>
<b>Sample ID:</b>	2448192-05					<b>Res/Park, coarse</b>	<b>Res/Park, fine</b>
<b>Matrix:</b>	Soil						
<b>MDL/Units</b>							

**Pesticides, OC**

Chlordane	0.01 ug/g	<0.01	-	-	-	0.05 ug/g	0.05 ug/g
o,p'-DDD	0.01 ug/g	<0.01	-	-	-	-	-
p,p'-DDD	0.02 ug/g	<0.02	-	-	-	-	-
DDD	0.02 ug/g	<0.02	-	-	-	3.3 ug/g	3.3 ug/g
o,p'-DDE	0.01 ug/g	<0.01	-	-	-	-	-
p,p'-DDE	0.01 ug/g	<0.01	-	-	-	-	-
DDE	0.01 ug/g	<0.01	-	-	-	0.26 ug/g	0.33 ug/g
o,p'-DDT	0.01 ug/g	<0.01	-	-	-	-	-
p,p'-DDT	0.01 ug/g	<0.01	-	-	-	-	-
DDT	0.01 ug/g	<0.01	-	-	-	1.4 ug/g	1.4 ug/g
Dieldrin	0.02 ug/g	<0.02	-	-	-	0.05 ug/g	0.05 ug/g
Endrin	0.02 ug/g	<0.02	-	-	-	0.04 ug/g	0.04 ug/g
Endosulfan I	0.01 ug/g	<0.01	-	-	-	-	-
Endosulfan II	0.02 ug/g	<0.02	-	-	-	-	-
Endosulfan I/II	0.02 ug/g	<0.02	-	-	-	0.04 ug/g	0.04 ug/g
Heptachlor	0.01 ug/g	<0.01	-	-	-	0.15 ug/g	0.15 ug/g
Heptachlor epoxide	0.01 ug/g	<0.01	-	-	-	0.05 ug/g	0.05 ug/g
Hexachlorobenzene	0.01 ug/g	<0.01	-	-	-	0.52 ug/g	0.52 ug/g
Hexachlorobutadiene	0.01 ug/g	<0.01	-	-	-	0.012 ug/g	0.014 ug/g
Hexachloroethane	0.01 ug/g	<0.01	-	-	-	0.089 ug/g	0.071 ug/g
Methoxychlor	0.01 ug/g	<0.01	-	-	-	0.13 ug/g	0.13 ug/g
Decachlorobiphenyl	Surrogate	73.0%	-	-	-	-	-
2,4,5,6-Tetrachloro-m-xylene	Surrogate	363% [1]	-	-	-	-	-

Certificate of Analysis

Report Date: 02-Dec-2024

Client: **Andre Breberina**

Order Date: 26-Nov-2024

Client PO:

**Project Description: 24047 - FMC Rd**

**Method Quality Control: Blank**

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
<b>Metals</b>								
Antimony	ND	1.0	ug/g					
Arsenic	ND	1.0	ug/g					
Barium	ND	1.0	ug/g					
Beryllium	ND	0.5	ug/g					
Boron	ND	5.0	ug/g					
Cadmium	ND	0.5	ug/g					
Chromium	ND	5.0	ug/g					
Cobalt	ND	1.0	ug/g					
Copper	ND	5.0	ug/g					
Lead	ND	1.0	ug/g					
Molybdenum	ND	1.0	ug/g					
Nickel	ND	5.0	ug/g					
Selenium	ND	1.0	ug/g					
Silver	ND	0.3	ug/g					
Thallium	ND	1.0	ug/g					
Uranium	ND	1.0	ug/g					
Vanadium	ND	10.0	ug/g					
Zinc	ND	20.0	ug/g					
<b>Pesticides, OC</b>								
Aldrin	ND	0.01	ug/g					
gamma-BHC (Lindane)	ND	0.01	ug/g					
alpha-Chlordane	ND	0.01	ug/g					
gamma-Chlordane	ND	0.01	ug/g					
Chlordane	ND	0.01	ug/g					
o,p'-DDD	ND	0.01	ug/g					
p,p'-DDD	ND	0.02	ug/g					
DDD	ND	0.02	ug/g					
o,p'-DDE	ND	0.01	ug/g					
p,p'-DDE	ND	0.01	ug/g					
DDE	ND	0.01	ug/g					
o,p'-DDT	ND	0.01	ug/g					
p,p'-DDT	ND	0.01	ug/g					

Certificate of Analysis

Report Date: 02-Dec-2024

Client: Andre Breberina

Order Date: 26-Nov-2024

Client PO:

Project Description: 24047 - FMC Rd

**Method Quality Control: Blank**

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
DDT	ND	0.01	ug/g					
Dieldrin	ND	0.02	ug/g					
Endrin	ND	0.02	ug/g					
Endosulfan I	ND	0.01	ug/g					
Endosulfan II	ND	0.02	ug/g					
Endosulfan I/II	ND	0.02	ug/g					
Heptachlor	ND	0.01	ug/g					
Heptachlor epoxide	ND	0.01	ug/g					
Hexachlorobenzene	ND	0.01	ug/g					
Hexachlorobutadiene	ND	0.01	ug/g					
Hexachloroethane	ND	0.01	ug/g					
Methoxychlor	ND	0.01	ug/g					
Surrogate: Decachlorobiphenyl	0.0806		%	81.4	50-140			
Surrogate: 2,4,5,6-Tetrachloro-m-xylene	0.0549		%	54.9	50-140			

Certificate of Analysis

Report Date: 02-Dec-2024

Client: Andre Breberina

Order Date: 26-Nov-2024

Client PO:

Project Description: 24047 - FMC Rd

**Method Quality Control: Duplicate**

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
<b>Metals</b>									
Antimony	1.3	1.0	ug/g	ND			NC	30	
Arsenic	3.8	1.0	ug/g	4.5			14.9	30	
Barium	52.8	1.0	ug/g	55.8			5.4	30	
Beryllium	0.5	0.5	ug/g	0.5			0.8	30	
Boron	8.4	5.0	ug/g	8.9			5.5	30	
Cadmium	ND	0.5	ug/g	ND			NC	30	
Chromium	13.5	5.0	ug/g	14.3			5.8	30	
Cobalt	7.7	1.0	ug/g	8.3			7.0	30	
Copper	23.0	5.0	ug/g	24.9			8.1	30	
Lead	9.8	1.0	ug/g	10.3			4.7	30	
Molybdenum	ND	1.0	ug/g	ND			NC	30	
Nickel	16.3	5.0	ug/g	17.2			5.6	30	
Selenium	ND	1.0	ug/g	ND			NC	30	
Silver	ND	0.3	ug/g	ND			NC	30	
Thallium	ND	1.0	ug/g	ND			NC	30	
Uranium	ND	1.0	ug/g	ND			NC	30	
Vanadium	18.2	10.0	ug/g	19.1			5.1	30	
Zinc	44.2	20.0	ug/g	47.6			7.3	30	
<b>Pesticides, OC</b>									
Aldrin	ND	0.01	ug/g	ND			NC	40	
gamma-BHC (Lindane)	ND	0.01	ug/g	ND			NC	40	
alpha-Chlordane	ND	0.01	ug/g	ND			NC	40	
gamma-Chlordane	ND	0.01	ug/g	ND			NC	40	
o,p'-DDD	ND	0.01	ug/g	ND			NC	40	
p,p'-DDD	ND	0.02	ug/g	ND			NC	40	
o,p'-DDE	ND	0.01	ug/g	ND			NC	40	
p,p'-DDE	ND	0.01	ug/g	ND			NC	40	
o,p'-DDT	ND	0.01	ug/g	ND			NC	40	
p,p'-DDT	ND	0.01	ug/g	ND			NC	40	
Dieldrin	ND	0.02	ug/g	ND			NC	40	

Certificate of Analysis

Report Date: 02-Dec-2024

Client: **Andre Breberina**

Order Date: 26-Nov-2024

Client PO:

**Project Description: 24047 - FMC Rd**

**Method Quality Control: Duplicate**

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Endrin	ND	0.02	ug/g	ND			NC	40	
Endosulfan I	ND	0.01	ug/g	ND			NC	40	
Endosulfan II	ND	0.02	ug/g	ND			NC	40	
Heptachlor	ND	0.01	ug/g	ND			NC	40	
Heptachlor epoxide	ND	0.01	ug/g	ND			NC	40	
Hexachlorobenzene	ND	0.01	ug/g	ND			NC	40	
Hexachlorobutadiene	ND	0.01	ug/g	ND			NC	40	
Hexachloroethane	ND	0.01	ug/g	ND			NC	40	
Methoxychlor	ND	0.01	ug/g	ND			NC	40	
<i>Surrogate: Decachlorobiphenyl</i>	0.0806		%		65.4	50-140			
<i>Surrogate: 2,4,5,6-Tetrachloro-m-xylene</i>	0.0538		%		43.2	50-140			S-GC
<b>Physical Characteristics</b>									
% Solids	91.4	0.1	% by Wt.	92.1			0.8	25	

Certificate of Analysis

Report Date: 02-Dec-2024

Client: Andre Breberina

Order Date: 26-Nov-2024

Client PO:

Project Description: 24047 - FMC Rd

**Method Quality Control: Spike**

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
<b>Metals</b>									
Antimony	43.1	1.0	ug/g	ND	86.2	70-130			
Arsenic	47.2	1.0	ug/g	1.8	90.9	70-130			
Barium	66.2	1.0	ug/g	22.3	87.8	70-130			
Beryllium	47.2	0.5	ug/g	ND	94.0	70-130			
Boron	47.5	5.0	ug/g	ND	87.9	70-130			
Cadmium	42.5	0.5	ug/g	ND	85.0	70-130			
Chromium	51.8	5.0	ug/g	5.7	92.2	70-130			
Cobalt	48.7	1.0	ug/g	3.3	90.7	70-130			
Copper	54.8	5.0	ug/g	10.0	89.6	70-130			
Lead	51.0	1.0	ug/g	4.1	93.8	70-130			
Molybdenum	47.1	1.0	ug/g	ND	94.0	70-130			
Nickel	52.2	5.0	ug/g	6.9	90.7	70-130			
Selenium	44.0	1.0	ug/g	ND	87.5	70-130			
Silver	53.6	0.3	ug/g	ND	107	70-130			
Thallium	43.1	1.0	ug/g	ND	86.0	70-130			
Uranium	46.5	1.0	ug/g	ND	92.7	70-130			
Vanadium	54.3	10.0	ug/g	ND	93.4	70-130			
Zinc	61.9	20.0	ug/g	ND	85.8	70-130			
<b>Pesticides, OC</b>									
Aldrin	0.15	0.01	ug/g	ND	61.3	50-140			
gamma-BHC (Lindane)	0.15	0.01	ug/g	ND	58.4	50-140			
alpha-Chlordane	0.16	0.01	ug/g	ND	63.0	50-140			
gamma-Chlordane	0.15	0.01	ug/g	ND	61.9	50-140			
o,p'-DDD	0.17	0.01	ug/g	ND	68.0	50-140			
p,p'-DDD	0.18	0.02	ug/g	ND	71.3	50-140			
o,p'-DDE	0.16	0.01	ug/g	ND	64.9	50-140			
p,p'-DDE	0.16	0.01	ug/g	ND	65.3	50-140			
o,p'-DDT	0.15	0.01	ug/g	ND	60.0	50-140			
p,p'-DDT	0.14	0.01	ug/g	ND	54.9	50-140			
Dieldrin	0.17	0.02	ug/g	ND	69.5	50-140			

Certificate of Analysis

Report Date: 02-Dec-2024

Client: Andre Breberina

Order Date: 26-Nov-2024

Client PO:

Project Description: 24047 - FMC Rd

**Method Quality Control: Spike**

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Endrin	0.16	0.02	ug/g	ND	62.1	50-140			
Endosulfan I	0.15	0.01	ug/g	ND	61.7	50-140			
Endosulfan II	0.15	0.02	ug/g	ND	59.5	50-140			
Heptachlor	0.16	0.01	ug/g	ND	63.7	50-140			
Heptachlor epoxide	0.16	0.01	ug/g	ND	62.2	50-140			
Hexachlorobenzene	0.14	0.01	ug/g	ND	57.6	50-140			
Hexachlorobutadiene	0.13	0.01	ug/g	ND	52.6	50-140			
Hexachloroethane	0.17	0.01	ug/g	ND	65.6	50-140			
Methoxychlor	0.16	0.01	ug/g	ND	62.0	50-140			
Surrogate: Decachlorobiphenyl	0.0903		%		73.2	50-140			
Surrogate: 2,4,5,6-Tetrachloro-m-xylene	0.0599		%		48.1	50-140			S-GC

Certificate of Analysis

Report Date: 02-Dec-2024

Client: **Andre Breberina**

Order Date: 26-Nov-2024

Client PO:

**Project Description: 24047 - FMC Rd**

**Qualifier Notes:**

**Sample Qualifiers :**

- 1: Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.  
Applies to Samples: A1151, A1152, A1153, A1154, A1155

**QC Qualifiers:**

- S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

**Sample Data Revisions:**

None

**Work Order Revisions / Comments:**

None

**Other Report Notes:**

n/a: not applicable

ND: Not Detected

MDL: Method Detection Limit

Source Result: Data used as source for matrix and duplicate samples

%REC: Percent recovery.

RPD: Relative percent difference.

NC: Not Calculated

Soil results are reported on a dry weight basis unless otherwise noted.

Where %Solids is reported, moisture loss includes the loss of volatile hydrocarbons.

Any use of these results implies your agreement that our total liability in connection with this work, however arising, shall be limited to the amount paid by you for this work, and that our employees or agents shall not under any circumstances be liable to you in connection with this work.

Parcel ID: 2448192



Parcel Order Number  
(Lab Use Only)

Chain of Custody  
(Lab Use Only)

No 145331

Client Name: **ANDRIE BREBERINA**  
Contact Name: **11**  
Address:  
Telephone:

Project Ref: **14047-FMCRd**  
Quote #:  
PO #:  
E-mail: **abreberina@hotmail.com**

Page 1 of 1  
Turnaround Time  
 1 day  3 day  
 2 day  Regular  
Date Required:

REG 153/04  REG 406/19 **Other Regulation**  
 Table 1  Res/Park  Med/Fine  REG 558  PWQO  
 Table 2  Ind/Comm  Coarse  CCME  MISA  
 Table 3  Agri/Other  SU - Sani  SU-Storm  
 Table 4  Mun:  
For RSC:  Yes  No  Other

Matrix Type: **S** (Soil/Sed.) **GW** (Ground Water)  
**SW** (Surface Water) **SS** (Storm/Sanitary Sewer)  
P (paint) **A** (Air) **O** (Other)

Sample ID/Location Name	Matrix	Air Volume	# of Containers	Sample Taken		PHCs F1-F4+BTEX	VOCs	PAHs	Metals by ICP Hydride	Hg	CrVI	B (HWS)	Required Analysis	
				Date	Time									
1 A1151	S			Nov 26/24										
2 A1152	↓													
3 A1153	↓													
4 A1154	↓													
5 A1155	↓													
6														
7														
8														
9														
10														

Comments: **WALK-IN**

Relinquished By (Sign): *[Signature]* Received at Depot: **B. Saty** Received at Lab: **N** Verified By: **N**  
Relinquished By (Print): **Nov 26/24 1:45pm** Date/Time: **11/27/24 10:01** Date/Time: **11/27/24 10:03**  
Date/Time: **Nov 26/24** Temperature: **12°** °C Temperature: **12.6** °C pH Verified:  By: