FILL MANAGEMENT PLAN

67 Owen Street | Barrie, Ontario

PREPARED FOR:
The Residences on Owen Ltd.
40 Woburn Ave
Toronto, Ontario
M5M 1K6

ATTENTION:
Mr. Bruce Stewart

File No. 20-108
ISSUED August 10, 2022

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1 Introduction

1.1 Overview

The Residences on Owen Ltd., the Property Owner, has retained Grounded Engineering Inc. ("Grounded") to prepare a Fill Management Plan (FMP) for the property located at 67 Owen Street in Barrie, Ontario (the "Property") in accordance with the requirements of the City of Barrie. A site location plan is provided as Figure 1.

1.2 Implementation

The Property Owner will implement the required fill management measures as part of the FMP. The management measures will be implemented prior to any intrusive activities and will be supervised by the Owner or designate to ensure that the FMP is implemented appropriately. The FMP will manage excavated soil or soil brought to the Property during excavation to prevent exposure to or uncontrolled movement or discharge of potential Contaminants of Concern (COC) in soil at the Property.

1.3 Associated Documents

The following documents were reviewed to prepare the FMP:

- Phase Two Conceptual Site Model 61-67 Owen St and 55-57 McDonald St, Barrie Ontario Terraprobe Inc, 2019-04-18.
- Phase Two Environmental Site Assessment, 61-67 Owen St and 55-57 McDonald St, Barrie Ontario Terraprobe Inc 2018-05-18.
- Certificate of Property Use, 55-57 McDonald Street and 61-67 Owen Street Barrie, Ontario, CPU Number 1247-BC5PCX.
- Risk Assessment 55-57 McDonald Street and 61-67 Owen Street Barrie, Ontario Risk Assessment number 4071-B2TUUT.

1.4 Background Information

The Property is roughly rectangular in shape, with a total area of 0.4 ha. The Property is currently in the beginning stages of construction. The Property is considered to be in Commercial land use by the Ontario Ministry of the Environment, Conservation and Parks (MECP). It is understood that the Property will be developed with residential development. The general location of the Property is presented on Figure 1.

Previous environmental investigations identified soil and groundwater impacts associated with historical filling activities and a historic spill off site. Soil impacts identified include electrical

conductivity (EC) and sodium adsorption ratio (SAR). Groundwater impacts include metals, chloride (Cl-), sodium (Na) and trichloroethylene (TCE).

The impacted fill material and native soils will likely be removed from the Property during construction earth works and will be replaced with either clean fill or the construction of underground parking structures. It is unlikely that the soil impacts will remain on the Property once the construction of the proposed buildings begins. Impacted groundwater will remain on the Property.

The redevelopment includes a multi-storey residential tower, resting on a two-level underground parking structure (P2). The development will encompass the entire Property, approximately 0.4 ha in area. As a result, excess soil and groundwater will require off-site disposal during construction.

Soil vapour intrusion is possible into the future proposed building. The Phase Two CSM notes that TCE was present in the groundwater during sampling. Concerns relating to vapour intrusion into buildings will be addressed via Risk Management Measure (RMM) for the Property.

1.5 Risk Management Measures

The following Risk Management Measures (RMMs) as outlined in the CPU will be applicable for construction purposes. Details of each RMM can be found in Section 4.0 of the CPU.

- Hard Cap Barrier or Fill Cap Barrier (1.0 metre)
- Building with Storage Garage (intermittent 3.9 litres/second of ventilation)
- No groundwater use as potable water

In addition to the above, the following requirements are outlined in the CPU:

- Health and Safety Plan
- Soil and Groundwater Management Plan
- Annual Report

2 Site Conditions

2.1 Site Stratigraphy

The following subsurface stratigraphy is based on the above noted documentation. It should be noted that the subsurface conditions described are generalized and should be confirmed through review of subsurface reports, including any geotechnical, hydrogeologic and Phase Two Environmental Site Assessments. The elevations are provided for the purpose of relating the stratigraphy and should not be used or relied on for other purposes.

Geological Units	Description
Pavement Structure	BH301, 302 and 303 encountered an asphalt layer 50 mm thick overlying a 50mm granular sub-base layer. In the south portion of the Property, BH304 encountered 50 mm of granular at the ground surface.
Earth Fill	Underlying the surficial materials, the boreholes observed a layer of earth fill that extends to depths of 2.3 to 3.0 metres below grade (Elev. 232.2 to 231.3± m). The earth fill varies in composition but generally consists of sand, with varying composition of silt and clay, with gravel, glass rubble, asphalt rubble, brick rubble, and trace organics at various locations and depths. The earth fill was typically brown, and moist.
Upper Sands	Underlying the fill materials, all the boreholes encountered an undisturbed sands unit with compositions varying between silty sand, to sand, to sand and silt. This unit was encountered at 2.3 to 3.0 metres below grade (Elev. 232.2 to 231.3± m) and extends down to depths of 9.1 to 21.3 m below grade (Elev. 225.4 to 213.0 m). It was about 8.5 to 16.5 m thick. The sands were brown to grey in colour and were transitioning from moist samples to wet samples with increasing depth.
Clays and Silts	Underlying the sands unit, the boreholes encountered an undisturbed native cohesive layer of clay and silt to silty clay, with layering, and trace amounts of sand. These soils are grouped together as the "**clays and silts unit**". This unit was encountered at 9.1 to 21.3 metres below grade (Elev. 225.4 to 213.0± m) and extends down to depths of 18.3 to 23.2 m below grade (Elev. 216.7 to 211.1± m). It is about 2.7 to 12.3 m thick. The clays and silts were generally grey and moist. There were occasional wet sandy seams within this unit.
Lower Sands	Underlying the cohesive clays and silts unit, the boreholes encountered an undisturbed lower sands unit. This lower sand unit was confined by the clays and silts unit resulting in pressurized groundwater in the lower sands with a head at Elev. 228± m. This unit was encountered at 18.3 to 23.2 metres below grade (Elev. 216.7 to 211.1 m) and extends beyond the vertical depth of this investigation at 24.6 to 25.0 m below grade (Elev. 210.4 to 209.3± m). The sand was generally grey and wet.
Bedrock	Based on the findings of the Phase Two ESA, the bedrock in the area is Verulam Formation of the Simcoe Group (Trenton-Black River).

2.2 Site Condition Standards

The Property is proposed to be redeveloped for residential land use and will be fully serviced with municipal water and sanitary sewer services. Based on this information, the applicable Site Condition Standards (SCS) for the Property are the Table 2 Full Depth Generic Site Condition Standards in a Potable Groundwater Condition for Residential Land Use (Table 2 RPI) as found in the Ministry of the Environment, Conservation and Parks (MECP) document *"Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act"*, April 15, 2011 for the Contaminates of Concern which do not have Property Specific Standard which was derived as part of the Risk Assessment process.

Previous environmental investigations identified subsurface impacts when compared to Table 2 RPI Standards identified included electrical conductivity (EC) and sodium adsorption ratio (SAR) in soils; and metals (barium), chloride (Cl-), sodium (Na) and trichloroethylene (TCE) in groundwater. The Property Specific Standards for these parameters can be found in Certificate of Property Use Number 1247-BC5PCX issued for Risk Assessment Number 4071-B2TUUT.

The management and removal of soil from a development site is now governed under Ontario Regulation 406/19 (O.Reg. 406/19). Imported and excess soils must meet the standards and requirements of O.Reg. 153/04 and 406/19, as applicable.

2.3 Contaminants of Concern

Contaminated soil and groundwater on the Property are defined as an exceedance of the Ontario Regulation 153/04 Table 2 Residential/Parkland/Institutional Land Use (Table 2 RPI) and are listed below. The Property Specific Standards for these parameters can be found in Certificate of Property Use Number 1247-BC5PCX issued for Risk Assessment Number 4071-B2TUUT.

Medium	Parameters Exceeded Table 2 RPI (Contaminants of Concerns)

Soil	• Other Regulated Parameters (ORPs)
	  ○ Electrical Conductivity (EC)
	  ○ Sodium Adsorption Ratio (SAR)

Groundwater	• Metals
	  ○ Barium
	• ORPs
	  ○ Chloride (Cl-)
	• Sodium (Na)
	• Volatile Organic Compounds (VOCs)
	  ○ Trichloroethylene (TCE)

It should be noted that ***all material, which is disturbed during excavation and that does not meet the MECP Table 2 RPI Standards on Site and which cannot be placed below a soft cap of at least 1 m, should be removed from the Site. All material not meeting the Property Specific Standards as outlined in Certificate of Property Use number 1247-BC5PCX issued for Risk Assessment number 4071-B2TUUT on the Property is considered as waste.***

3 Characterization and Management

The impacted fill material and native soils will likely be removed from the Property during construction earth works and will be replaced with either clean fill or the construction of underground parking structures. It is unlikely that the soil impacts will remain on the Property once the construction of the proposed buildings begins. Impacted groundwater will remain on the Property.

As such the following guidelines are presented for the proposed construction activities.

3.1 Work Activities

The work at the Property will include but not limited to the following:

- Site Preparation (Permitting, Utility Locates, Scheduling and Staging)
- Soil Characterization
- Review of Documentation
- Oversight of Soil Management
- Removal and Export of Excess and Contaminated Soil
- Fill Placement and Engineering of Fill to Design Specifications and the requirements of O. Reg. 406/19
- Dust Control and Sediment Control
- Groundwater Control
- Stormwater Control
- Health and Safety Plan

3.2 Utility Locates, Permitting and Safety Measures

It is the contractor's responsibility to obtain necessary utility locates and permits. Any fees associated with permitting are the responsibility of the contractor. The contractor needs to provide safety fencing, where required, around excavations to ensure worker safety. In addition to the Ministry of Labour (MOL) requirements, the contractor shall follow any Site-Specific Health and Safety Plan (SSHS Plan) during each workday.

3.3 Regulatory Permitting and Authorizations

Activities relating to soil excavation control can require various permits including the following:

- Environmental Compliance Approvals (ECAs) for air and noise emissions relating to generators
- Traffic permits
- Other MECP permits
- Municipal permits

Regulatory permits and authorizations are to be filed and approved before the work is to take place.

3.4 Health and Safety Plan

A Health and Safety Plan must be prepared by the contractor taking into consideration the type of labour, the machines to be used, and the activities on the Property. The contractor will be responsible to produce and enforce the site-specific health and safety plan. The Ministry of Labour office will be notified through the Notice of Project of proposed activities by the contractor prior to commencement of work.

An environmental Site-Specific Health and Safety Plan has been prepared by Grounded Engineering Inc. under a separate cover in accordance with the Risk Assessment and CPU for the Property. The Health and Safety plan prepared by the contractor must incorporate the environmental Site-Specific Health and Safety Plan.

4 Soil Management

4.1.1 Construction Rubble and Re-Use Material

Surface coverings including asphalt, concrete and granular fill may be reused on the Property if they meet the MECP Table 2 RPI criteria or the PSS values in the CPU or are classified as non-soil material under O.Reg. 153/04.

Soil under O.Reg. 153/04 is defined as *"unconsolidated naturally occurring mineral particles and other naturally occurring material resulting from the natural breakdown of rock or organic matter by physical, chemical or biological processes that are smaller than 2 millimeters in size or that pass the US#10 sieve"*.

Alternatively, the construction rubble can be transferred to a recycling facility provided materials are segregated and the recycling facility can accept the covering materials. Surface coverings will need to be stockpiled according to covering type and composition.

Soil materials that meet the MECP Table 2 RPI Standards or the PSS values are re-usable as fill material. However, re-usable fill applies to the environmental quality of the material and does not evaluate the geotechnical suitability of the soil material for re-use. Geotechnical suitability must be determined before any re-usable fill is place on the Property.

4.1.2 Exporting of Excess Soil

The management and removal of Excess Soil from a development site is now governed under Regulation 406/19 (O.Reg. 406/19). An initial estimate of the outgoing material at the Property is approximately 16,250 m^3.

Materials will be screened based on the Contaminants of Concerns (CoCs) identified for the Property as listed in Section 2.

The Owner or appointed representative must comply with specific requirements before removing excess soil from a site. The requirements include the following steps:

#	ESM Steps	Timeline	Other Requirements
1	Preparation of an Assessment of Past Uses Report	Pre-excavation	Reporting as prescribed by O.Reg. 406/19.
2	Preparation and implementation of a Sampling and Analysis Plan	Pre-excavation - early stages of construction.	Additional sampling and analysis estimated by disposal volumes will be required.
3	Preparation of a Soil Characterization Report	Pre-excavation - early stages of construction.	Reporting as prescribed by O.Reg. 406/19.
4	Preparation of an Excess Soil Destination Assessment Report	Pre-excavation - early stages of construction.	Can only occur after receiving sites for the excess soil have been identified
5	Development and implementation of a tracking system	Prior to and during construction	Tracking as prescribed by O.Reg. 406/19 must be undertaken before the Excess Soil is taken offsite.

The regulation provides that each of these steps be undertaken in accordance with the Soil Rules. Steps 1 through 4 must be conducted or supervised by the source site Qualified Person. Step 5 can be undertaken or overseen by the source site owner, or appointed representative.

The soil to be bulk excavated and exported from the Property will be in accordance with the requirements of O.Reg. 406/19. The soil to be bulk excavated and exported from the Property will be inspected every 100 m^3 for variation in composition and visual or olfactory signs of potential contamination. It the composition of the soil changes or visual or olfactory signs of potential contamination are noted in addition to those identified already, additional chemical testing will be required. If at that time chemical testing is not included, potential impacted material must be removed as non-hazardous waste with prior approval.

Bulk sampling is quantified under O.Reg. 406/19 as follows:

- < 600m^3 – 3 samples (minimum)
- 600 – 10,000 m^3 – 1 sample every 200 m^3
- 10,000 – 40,000 m^3 – 1 sample every 450 m^3
- Over 40,000 m^3 – 1 sample every 2,000 m^3

Leachate (SPLP) samples must be 10% of the soil samples and 3 samples minimum.

Select requirements of O.Reg. 406/19 have been paused until January 1, 2023. The Qualified Persons for 67 Owen Street (i.e. Grounded) and for all possible Reuse and Source sites should collectively determine an acceptable sampling frequency and plan for the volume of excess/imported soil to be transported. If excavation and hauling of excess soil will take place

following December 31, 2022, sampling frequencies will need to adhere to O.Reg. 406/19 requirements.

4.1.2.1 Ontario Regulation 347

Waste classification testing compared to O.Reg. 347 Schedule 4 parameters (TCLP analysis) will be required to be completed prior to disposing of any material at a licensed waste management facility to confirm whether the waste can be classified as non-hazardous.

4.1.3 Importing of Soil

Soil materials that are imported to the Property must met the following criteria.

Type	Requirement

Aggregate Materials	• Must be from a licenced pit or quarry
	  ○ Records must be kept of the licence number of the quarry
	  ○ Records must be kept of the total volume of aggregate imported

Soil	• Must meets the applicable O.Reg. 406/19 Standard or O.Reg 153/04 as applicable
	  ○ Source site must have a current Assessment of Past Uses report, Sampling and Analysis Plan, Soil Characterization report and Destination Report.
	  ○ Samples must be analysed for all PCoCs from the source site and the destination site.
	  ○ Samples must be analyzed at the volume-based frequency as outlined in O.Reg 406/19.
	  ○ Records must be kept of all source sites, ESA report and chemical testing.
	  ○ Review of all records from the source site must be conducted and supervised by a Qualified Person (other than risk assessment) as defined under O.Reg. 153/04 Part II Section 543

4.1.4 Stockpiling of Materials

There may be a requirement to stockpile material on the Property prior to exporting or placement of the soil. Stockpiles will be kept as flat as practicable and generally limited to heights of 5 m or less to minimize the potential for wind and water erosion. Stockpile size, placement, and storage should meet the requirements of O.Reg. 406/19 Rules for Soil Management and Excess Soil Quality Standards, Section C, Soil Management Requirements.

Materials should be segregated into separate distinct piles on the Property according to visual and aesthetic composition if potentially impacted materials are identified on the Property. Materials to be stockpiled is required to be placed in designated areas covered with polyethylene sheeting. If the material tested is found to be unsuitable, it will be the responsibility of the contractor to remove the identified materials to an appropriate off-site location. Potentially impacted material may also be removed directly off-site as a non-hazardous waste without additional testing with the approval of the Owner.

Stockpiling on the Property may be required for testing purposes before exportation of soil material or placement and compaction of imported material. Stockpiles should be placed in a manner to minimize sediment runoff and dust generation. Sampling and analysis frequency shall meet the requirements of O. Reg. 406/19 for soil imported to the Property.

Stockpile sampling frequency requirements under O. Reg 406/19 for soil imported to the Property must meet Table 2 of Schedule E of O Reg. 153/04 for volumes under 5,000 m^3 (Appendix D).

If the stockpile volume is greater than 5,000 m^3, the minimum number of samples that must be collected and analysed as described in paragraph 5 is the amount determined in accordance with the following formula:

$$N = 32 + (V - 5000) \div 300$$

Where,

N = the minimum number of samples, and

V = the stockpile volume in cubic metres.

4.1.5 Haul Routes

In order to remove the material from the Property and send to a receiving site the following haul route along municipal streets will be used:

Primary Haul Route:

- North along Owen St to MacDonald St.
- West along MacDonald St to Sophia St. E.
- West along Sophia St. E to Bayfield St.
- North along Bayfield St to Highway 400.

Alternate Haul Route:

- South along Owen St. to Worsley St.
- West along Worsley St. to Bayfield St.
- North along Bayfield St. to Highway 400.

4.2 Dust Control

Dust control techniques will be implemented, as needed, in all areas where work is being conducted. These areas include but not limited to the following:

- Areas of heavy equipment and vehicular traffic
- Areas of soil and fill excavation activities
- Areas of exposed excavation faces or disturbed ground surfaces
- Areas of soil and fill stockpiles

- Areas of soil and fill loading and unloading operations

Below methods can prevent conditions conducive to dust generation and suppress dust should it occur:

- Construction activities will be conducted using methods that minimized dust generation
- Mud mats will be placed at the active site entrance/exit locations
- Paved traffic areas, driveways, sidewalks, and streets will be cleaned by wet sweeping and/or washing

The following dust control measure will be implemented as required if unacceptable dust is generated:

- Cease dust producing activity until problem is resolved
- Wetting of exposed soil or areas generating significant dust
- Implement additional dust suppression procedures
- Remove accumulated dirt and soil from problematic areas, and/or cover, enclose or isolate dust-generating areas/surfaces to shield them from wind, sunlight, or heat sources (ex. cover with tarp or granular material)
- Increase frequency, volume, and/or coverage of water misting, sprays, and foggers to prevent soil and dirt from drying, if required.
- Modify operating procedures and methods to eliminate problematic conditions

The following dust tracking control measures will be implemented as required if unacceptable dust is generated:

- Cease dust producing activity until problem is resolved
- Wetting of exposed soil or areas generating significant dust
- Implement additional dust suppression procedures
- Increase frequency, volume, and/or coverage of water misting, sprays, and foggers to prevent soil and dirt from drying, if required.
- Modify operating procedures and methods to eliminate problematic conditions
- Cleaning of equipment and vehicles prior to leaving the property to ensure dust is not tracked off site

4.3 Noise Control

Noise control techniques will be implemented, as needed, in all areas where work is being conducted. These areas include but not limited to the following:

- Areas of heavy equipment and vehicular traffic

Below methods can prevent conditions conducive to noise generation and suppress noise should it occur:

- Construction activities will be conducted as per the City of Barrie Noise By-law

The following noise control measures will be implemented as required if unacceptable noise is generated:

- Cease noise producing activity until problem is resolved
- Implement noise suppression procedures
- Modify operating procedures and methods to eliminate problematic conditions

4.4 Sediment Control

Surface water and sediment runoff control can be implemented by silt fencing installed on the perimeter of the Property. All water pumped within the excavation should be properly handled, tested and discharge in accordance with municipal requirements of the City of Barrie. Storm sewers and manhole covers, if present, should be protected at entry points by the contractor.

Protection shall consist of sealing manholes with filter cloth and/or construction of sediment traps at all catch basins by the contractors. Sediment traps is required to be constructed of straw bales placed end-to-end to limit the direct discharge of run-off to the sewer and/or swales.

4.5 Groundwater Control and Management

Groundwater control measures are required if groundwater is encountered during excavation activities.

Chemical analysis of groundwater is required prior to the discharge into the City of Barrie sewer systems and groundwater treatment may be needed based on the analysis result. Water discharged to the City of Barrie sewer system will required a discharge agreement from the City of Barrie and will be required to meet the applicable sewer use guidelines. If the groundwater does not meet the City of Barrie sewer use limits, the water must either be treated prior to discharge or removed privately off-site.

4.6 Stormwater Control and Management

Stormwater control measures are required in the event of a large rainfall event. Silt fences, filter socks for catch-basins and utility covers will be utilized as required to prevent the movement of entrained soil and/or contaminants of concern within and away from the Property. Water discharged to the City of Barrie sewer system will required a discharge agreement from the City of Barrie and will be required to meet the applicable sewer use guidelines. If the water does not meet the City of Barrie sewer use limits, the water must either be treated prior to discharge or removed privately off-site.

4.7 Contingency Plan and Unknown Conditions

If unexpected site conditions arise (ex. inclement weather conditions, traffic issues, etc.), the following procedures may be required:

- Alternate trucking routes in the event of road construction (approved by the City of Barrie)
- Alternate groundwater and sediment control measures during inclement weather
- Alternative dust suppression during winter months when suitable water access is restricted
- Alternative disposals sites in the event hazardous wastes are identified during the excavation
- If suspected hazardous waste is encountered during the excavation, the contractors will immediately inform the Owner of the condition. The potentially hazardous material will then be examined and characterized by a Qualified Person.
- Groundwater control measures are required if groundwater is encountered during excavation activities. Chemical analysis of groundwater is required prior to the discharge into the City of Barrie sewer systems and groundwater treatment may be needed based on the analysis result. Water discharged to the City of Barrie sewer system will required a discharge agreement from the City of Barrie and will be required to meet the applicable sewer use guidelines. If the groundwater does not meet the City of Barrie sewer use limits, the water must either be treated prior to discharge or removed privately off-site.
- Stormwater control measures are required in the event of a large rainfall event. Silt fences, filter socks for catch-basins and utility covers will be utilized as required to prevent the movement of entrained soil and/or contaminants of concern within and away from the Property. Water discharged to the City of Barrie sewer system will required a discharge agreement from the City of Barrie and will be required to meet the applicable sewer use guidelines. If the water does not meet the City of Barrie sewer use limits, the water must either be treated prior to discharge or removed privately off-site.
- If any spills occur measures must be taken to contain and clean up the spill material.

Other proper procedures are to be in place to facilitate the contingency plan in the event unknown conditions are encountered.

5 Record Keeping

The soil, stormwater and any groundwater management measures undertaken will be recorded and retained by the Owner. The records are available for inspection upon request by a Provincial Officer. At a minimum the following information will be recorded:

- Dates and duration of the Intrusive Activities that were or are being undertaken
- Weather and site conditions during the Intrusive Activities
- The location and depth of excavation activities and dewatering activities, if any
- Dust control and soil tracking control measures
- Characterization results for excavated soil and any soil brought to or removed from the Property, and for any groundwater from dewatering
- Soil management activities including soil quantities excavated and brought to and removed from the Property and stockpile management and stormwater runoff control
- Management activities for any groundwater from dewatering

- Names and contact information for the Qualified Persons and on-site contractors involved in the Intrusive Activities
- Names and contact information for any haulers and receiving sites for soil and any groundwater removed from the Property and for haulers and source sites of any soil brought to the Property and
- Any complaints received relating to the Intrusive Activities, including the soil, storm water and any groundwater management activities

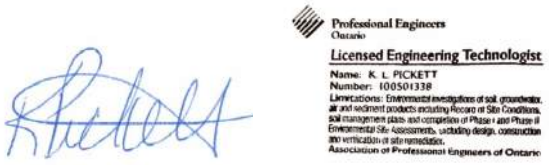
The records noted above will be delivered to the Owner before any Intrusive Activities are undertaken at the Property and will be updated and delivered to the Owner within 30 days following any alteration being made to the plan.

6 Closure

If the consultant team has any questions regarding the discussion and advice provided, please do not hesitate to contact our office. We trust that this report meets your requirements at present.

For and on behalf of our team,

GROUNDED ENGINEERING



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FIGURES

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LEGEND

- PROPERTY BOUNDARY
- 500 METRE STUDY AREA

Note

Reference

ArcGIS Online 2021.

Project

FILL MANAGEMENT PLAN

67 OWEN STREET, BARRIE, ONTARIO

Figure Title

SITE LOCATION PLAN

North

TRUE

PROJECT

Date

AUGUST 2022

Scale

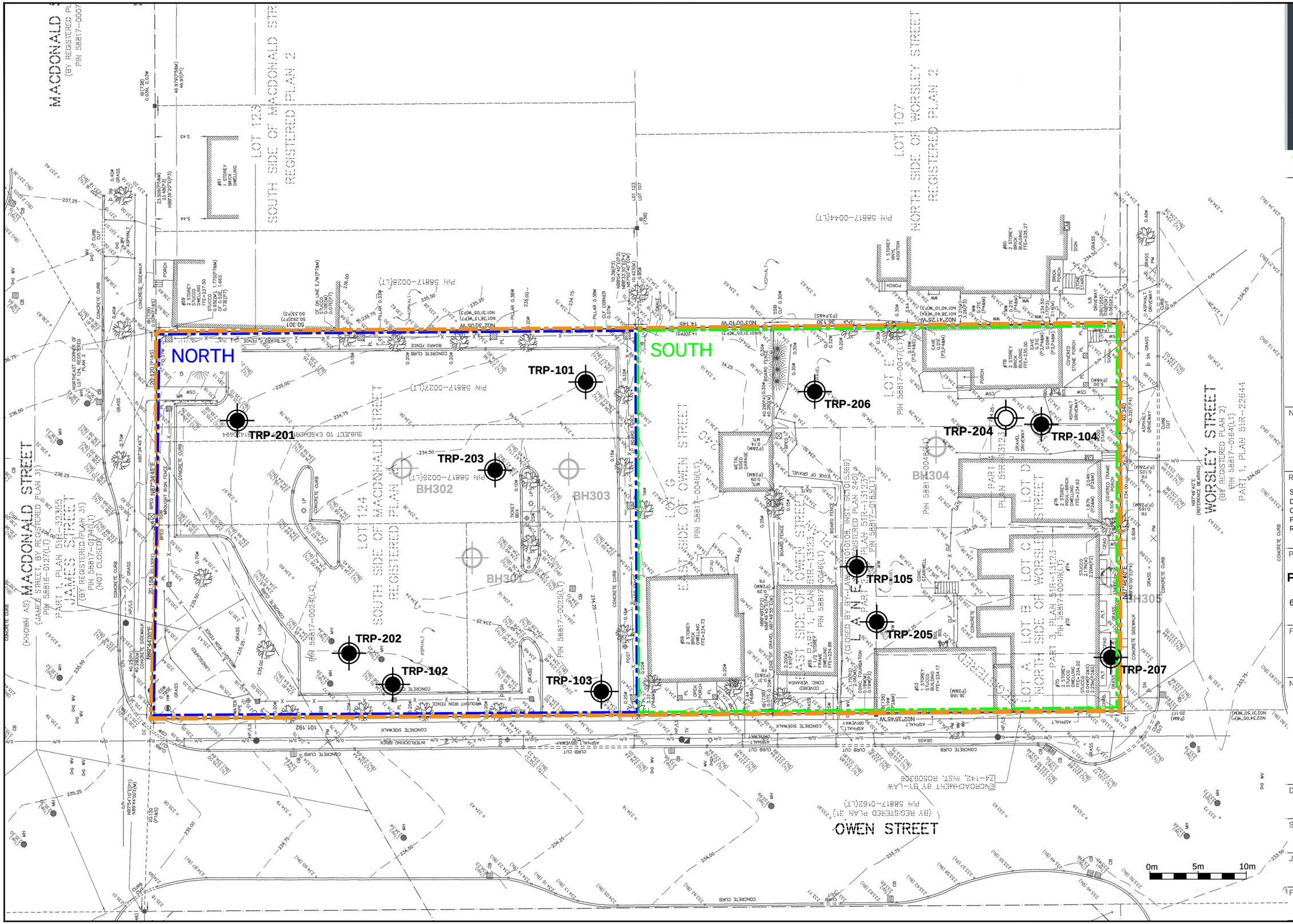
AS INDICATED

Job No

20-108

Figure No

FIGURE 1



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LEGEND

- PROPERTY BOUNDARY
- MONITORING WELL BY OTHERS
- BOREHOLE BY OTHERS
- BOREHOLE BY GROUNDED
- NORTH SIDE OF PROPERTY
- SOUTH SIDE OF PROPERTY

Note

Reference

Survey Job No. 17-162.
Drawing No. 17-162BT01
Certificate date: Sept. 12, 2017.
Prepared by Krcmar Surveyors Ltd.
Received on May 7, 2021.

Project

FILL MANAGEMENT PLAN

67 OWEN STREET, BARRIE, ONTARIO

Figure Title

BOREHOLE AND MONITORING WELL LOCATION PLAN

North

TRUE PROJECT

Date

AUGUST 2022

Scale

AS INDICATED

Job No

20-108

Figure No

FIGURE 2

APPENDIX A

Sample Name	Units	MOECC T2 RPI CT	BH101-SA3	BH101-SA4	BH101-SA7	BH101-SA11	BH102-SA2	BH102-SA6	BH102-SA11	BH103-SA2	BH103-SA6	BH103-SA11	DUP2 (BH103-SA11)	BH201-SA2	BH201-SA5	BH201-SA10	BH201-SA13	BH202-SA1	BH202-SA7	BH202-SA9	BH203-SA3	DUP2 (BH203-SA3)	BH203-SA6	BH203-SA8	BH203-SA10
Date			31-Jul-17	31-Jul-17	31-Jul-17	31-Jul-17	1-Aug-17	1-Aug-17	1-Aug-17	1-Aug-17	31-Jul-17	2-Aug-17	2-Aug-17	23-Oct-17	23-Oct-17	23-Oct-17	23-Oct-17	24-Oct-17	24-Oct-17	24-Oct-17	25-Oct-17	25-Oct-17	25-Oct-17	25-Oct-17	25-Oct-17
Elev of Sample (masl)			232.9-232.3	232.3-231.6	228.4-227.8	222.3-221.7	233.8-233.1	229.9-229.5	222.3-221.7	233.6-233	229.8-229.5	222.2-221.6	222.2-221.6	234.3-233.7	232-231.4	224.4-223.8	219.8-219.2	225.2-224.6	216.1-215.5	213-212.8	232.9-232.3	232.9-232.3	229.9-229.3	226.8-226.2	223.8-223.2
Depth (m)			1.7-2.3	2.3-2.9	6.1-6.7	12.2-12.8	0.8-1.4	4.6-5	12.2-12.8	0.8-1.4	4.6-4.9	12.2-12.8	12.2-12.8	0.8-1.4	3.1-3.7	10.7-11.3	15.2-15.9	9.1-9.8	18.3-18.9	21.3-21.6	1.5-2.1	1.5-2.1	4.6-5.2	7.6-8.2	10.7-11.3
Parameter																									
Electrical Conductivity	mS/cm	0.7	**0.951**	**1.49**	0.135	0.201	0.661	0.337	0.372	0.527	0.18	0.679	0.498	**1.15**	0.55	**0.757**	0.242	0.279	0.241	0.31	**2.86**	**2.88**	0.592	0.118	0.226

Terraprobe Inc.
Consulting Geotechnical & Environmental Engineering
Construction Materials, Inspection & Testing
11 Indell Lane - Brampton Ontario L6T 3Y3 (905) 796-2650

Reference:
Google Earth 2017

Notes:
1. 0.592 = Parameter Result Meets 2011 T2 Standard, Coarse
2. **2.86** = Parameter Result Exceeds 2011 T2 Standard, Coarse

Legend:
- Approximate Phase Two Property Boundary
- Approximate Borehole Location with Monitoring Well (August 2017)
- Approximate Borehole Location with Monitoring Well (October 2017)
- Approximate Extent of Contaminant Impact
- Sample in Borehole Meets Standard
- Sample in Borehole Exceeds Standard

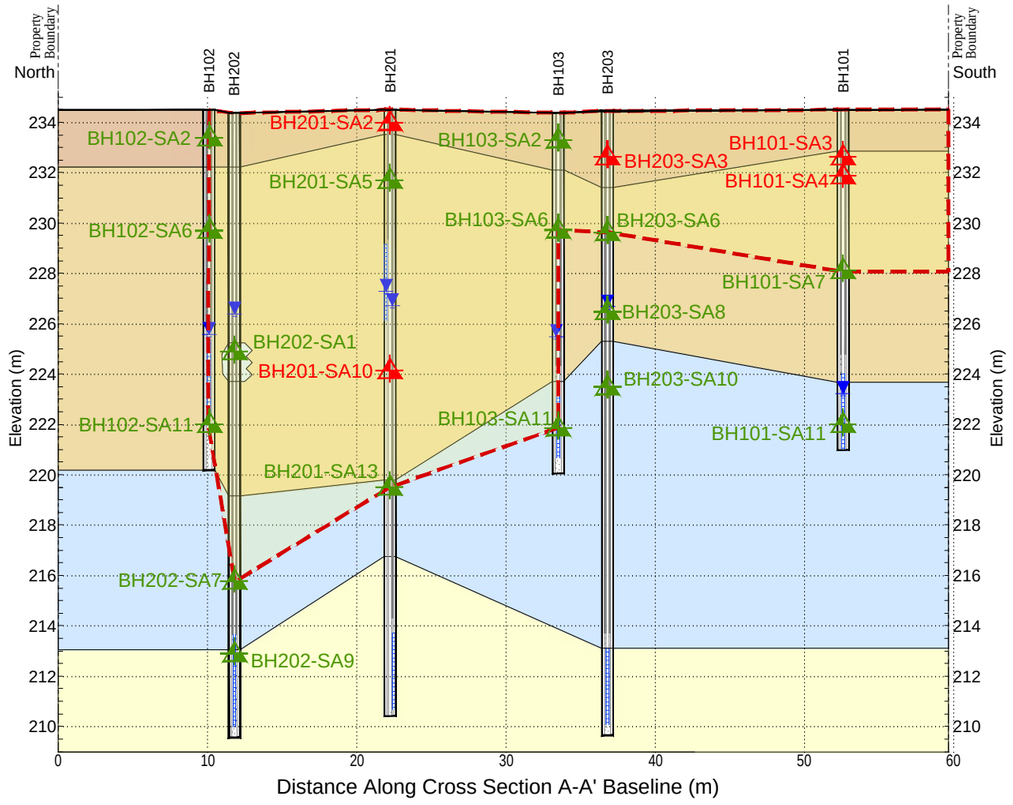
Project Title:
Phase Two Environmental Site Assessment

Site Location:
61-67 Owen Street &
55-57 McDonald Street, Barrie, Ontario

Figure Title:
EC EXCEEDANCES IN SOIL
PLAN VIEW

Designed By: SM	*File No.:* 1-17-0481-42
Drawn By: MV	*Scale:* As Shown
Reviewed By: MB	*Figure No.:* 6
Date: December 2018	

Z:\1-Project Files\2017\1-17-0481 - NE Worsley & Owen Streets, Barrie\42- Phase Two\ESA\A. Dwgs. Logs\AutoCAD\1-17-0481-42_North Parcel_Dec 2018.dwg, MV



Sample Name	Units	MOECC T2 RPI CT	BH101-SA3	BH101-SA4	BH101-SA7	BH101-SA11	BH102-SA2	BH102-SA6	BH102-SA11	BH103-SA2	BH103-SA6	BH103-SA11	DUP2 (BH103-SA11)	BH201-SA2	BH201-SA5	BH201-SA10	BH201-SA13	BH202-SA1	BH202-SA7	BH202-SA9	BH203-SA3	DUP2 (BH203-SA3)	BH203-SA6	BH203-SA8	BH203-SA10
Date			31-Jul-17	31-Jul-17	31-Jul-17	31-Jul-17	1-Aug-17	1-Aug-17	1-Aug-17	1-Aug-17	31-Jul-17	2-Aug-17	2-Aug-17	23-Oct-17	23-Oct-17	23-Oct-17	23-Oct-17	24-Oct-17	24-Oct-17	24-Oct-17	25-Oct-17	25-Oct-17	25-Oct-17	25-Oct-17	25-Oct-17
Elev of Sample (masl)			232.9-232.3	232.3-231.6	228.4-227.8	222.3-221.7	233.8-233.1	229.9-229.5	222.3-221.7	233.6-233	229.8-229.5	222.2-221.6	222.2-221.6	234.3-233.7	232-231.4	224.4-223.8	219.8-219.2	225.2-224.6	216.1-215.5	213-212.8	232.9-232.3	232.9-232.3	229.9-229.3	226.8-226.2	223.8-223.2
Depth (m)			1.7-2.3	2.3-2.9	6.1-6.7	12.2-12.8	0.8-1.4	4.6-5	12.2-12.8	0.8-1.4	4.6-4.9	12.2-12.8	12.2-12.8	0.8-1.4	3.1-3.7	10.7-11.3	15.2-15.9	9.1-9.8	18.3-18.9	21.3-21.6	1.5-2.1	1.5-2.1	4.6-5.2	7.6-8.2	10.7-11.3
Parameter																									
Electrical Conductivity	mS/cm	0.7	**0.951**	**1.49**	0.135	0.201	0.661	0.337	0.372	0.527	0.18	0.679	0.498	**1.15**	0.55	**0.757**	0.242	0.279	0.241	0.31	**2.86**	**2.88**	0.592	0.118	0.226

Terraprobe Inc.
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Construction Materials, Inspection & Testing
11 Indell Lane - Brampton Ontario L6T 3Y3 (905) 796-2650

Reference:

Notes:

1. 0.592 = Parameter Result Meets 2011 T2 Standard, Coarse
2. **2.86** = Parameter Result Exceeds 2011 T2 Standard, Coarse

Legend:

- Fill
- Upper Sands/Silts & Gravel
- Clayey Silt
- Lower Sands
- Monitoring Well Screen
- Average Ground Water Level (masl), January 17, 2018
- Sample Location Meets Standard
- Sample Location Exceeds Standard
- Approximate Extent of Contaminant Impact

Project Title:

Phase Two Environmental Site Assessment Update

Site Location:

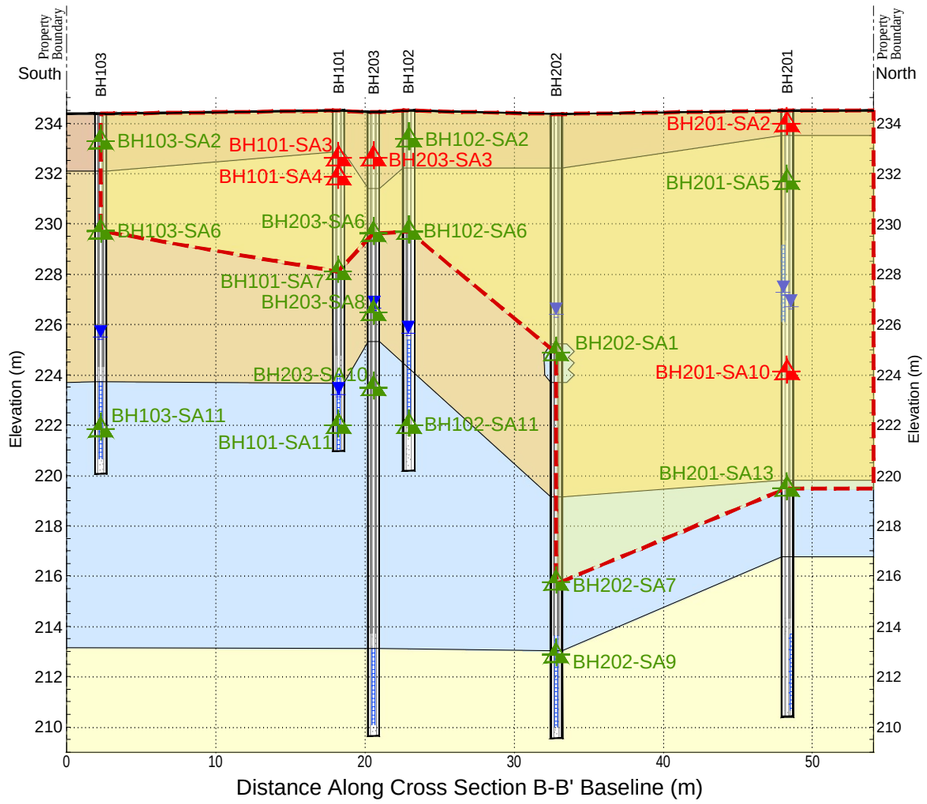
61-67 Owen Street &
55-57 McDonald Street, Barrie, Ontario

Figure Title:

EC EXCEEDANCES IN SOIL
CROSS SECTION A-A'

Designed By: SM	*File No.:* 1-17-0481-42
Drawn By: MV	*Scale:* As Shown
Reviewed By: MB	*Figure No.:* 7
Date: December 2018	

Z:\1-Project Files\2017\1-17-0481 - NE Worsley & Owen Streets, Barrie\42- Phase Two ESA\A. Dwgs. Logs\AutoCAD\1-17-0481-42_North Parcel_Dec 2018.dwg, MV



Sample Name	Units	MOECC T2 RPI CT	BH101-SA3	BH101-SA4	BH101-SA7	BH101-SA11	BH102-SA2	BH102-SA6	BH102-SA11	BH103-SA2	BH103-SA6	BH103-SA11	DUP2 (BH103-SA11)	BH201-SA2	BH201-SA5	BH201-SA10	BH201-SA13	BH202-SA1	BH202-SA7	BH202-SA9	BH203-SA3	DUP2 (BH203-SA3)	BH203-SA6	BH203-SA8	BH203-SA10
Date			31-Jul-17	31-Jul-17	31-Jul-17	31-Jul-17	1-Aug-17	1-Aug-17	1-Aug-17	1-Aug-17	31-Jul-17	2-Aug-17	2-Aug-17	23-Oct-17	23-Oct-17	23-Oct-17	23-Oct-17	24-Oct-17	24-Oct-17	24-Oct-17	25-Oct-17	25-Oct-17	25-Oct-17	25-Oct-17	25-Oct-17
Elev of Sample (masl)			232.9-232.3	232.3-231.6	228.4-227.8	222.3-221.7	233.8-233.1	229.9-229.5	222.3-221.7	233.6-233	229.8-229.5	222.2-221.6	222.2-221.6	234.3-233.7	232-231.4	224.4-223.8	219.8-219.2	225.2-224.6	216.1-215.5	213-212.8	232.9-232.3	232.9-232.3	229.9-229.3	226.8-226.2	223.8-223.2
Depth (m)			1.7-2.3	2.3-2.9	6.1-6.7	12.2-12.8	0.8-1.4	4.6-5	12.2-12.8	0.8-1.4	4.6-4.9	12.2-12.8	12.2-12.8	0.8-1.4	3.1-3.7	10.7-11.3	15.2-15.9	9.1-9.8	18.3-18.9	21.3-21.6	1.5-2.1	1.5-2.1	4.6-5.2	7.6-8.2	10.7-11.3
Parameter																									
Electrical Conductivity	mS/cm	0.7	**0.951**	**1.49**	0.135	0.201	0.661	0.337	0.372	0.527	0.18	0.679	0.498	**1.15**	0.55	**0.757**	0.242	0.279	0.241	0.31	**2.86**	**2.88**	0.592	0.118	0.226

Terraprobe Inc.
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Construction Materials, Inspection & Testing
11 Indell Lane - Brampton Ontario L6T 3Y3 (905) 796-2650

Reference:

Notes:

1. 0.592 = Parameter Result Meets 2011 T2 Standard, Coarse
2. **2.86** = Parameter Result Exceeds 2011 T2 Standard, Coarse

Legend:

- Fill
- Upper Sands/Silts & Gravel
- Clayey Silt
- Lower Sands
- Monitoring Well Screen
- Average Ground Water Level (masl), January 17, 2018
- Sample Location Meets Standard
- Sample Location Exceeds Standard
- Approximate Extent of Contaminant Impact

Project Title:

Phase Two Environmental Site Assessment Update

Site Location:

61-67 Owen Street &
55-57 McDonald Street, Barrie, Ontario

Figure Title:

EC EXCEEDANCES IN SOIL
CROSS SECTION B-B'

Designed By: SM	*File No.:* 1-17-0481-42
Drawn By: MV	*Scale:* As Shown
Reviewed By: MB	*Figure No.:* 8
Date: December 2018	

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Sample Name	Units	MOECC T2 RPI CT	BH101-SA3	BH101-SA4	BH101-SA7	BH101-SA11	BH102-SA2	BH102-SA6	BH102-SA8	BH102-SA11	BH103-SA2	BH103-SA6	BH103-SA11	DUP2 (BH103-SA11)	BH201-SA2	BH201-SA5	BH201-SA10	BH201-SA12	BH201-SA13	BH202-SA1	BH202-SA7	BH202-SA9	BH203-SA3	DUP2 (BH203-SA3)	BH203-SA6
Date			31-Jul-17	31-Jul-17	31-Jul-17	31-Jul-17	1-Aug-17	1-Aug-17	4-Aug-17	1-Aug-17	1-Aug-17	31-Jul-17	2-Aug-17	2-Aug-17	23-Oct-17	23-Oct-17	23-Oct-17	23-Oct-17	23-Oct-17	24-Oct-17	24-Oct-17	24-Oct-17	25-Oct-17	25-Oct-17	25-Oct-17
Elev of Sample (masl)			232.9-232.3	232.3-231.6	228.4-227.8	222.3-221.7	233.8-233.1	229.9-229.5	226.9- 226.3	222.3-221.7	233.6-233	229.8-229.5	222.2-221.6	222.2-221.6	234.3-233.7	232-231.4	224.4-223.8	221.3-220.7	219.8-219.2	225.2-224.6	216.1-215.5	213-212.8	232.9-232.3	232.9-232.3	229.9-229.3
Depth (m)			1.7-2.3	2.3-2.9	6.1-6.7	12.2-12.8	0.8-1.4	4.6-5	7.6-8.2	12.2-12.8	0.8-1.4	4.6-4.9	12.2-12.8	12.2-12.8	0.8-1.4	3.1-3.7	10.7-11.3	13.7-14.3	15.2-15.9	9.1-9.8	18.3-18.9	21.3-21.6	1.5-2.1	1.5-2.1	4.6-5.2
Parameter																									
Sodium Adsorption Ratio	---	5	**6.79**	**21.3**	1.05	1.93	**9.64**	**7.53**	**5.72**	4.18	**22.4**	0.86	2.88	2.35	**>40**	**>17**	**26.1**	0.13	1.51	1.71	0.85	4.34	**18.9**	**20.9**	3.36

Sample Name	Units	MOECC T2 RPI CT	BH203-SA8	BH203-SA10
Date			25-Oct-17	25-Oct-17
Elev of Sample (masl)			226.8-226.2	223.8-223.2
Depth (m)			7.6-8.2	10.7-11.3
Parameter				
Sodium Adsorption Ratio	---	5	> 0.73	1.05

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Consulting Geotechnical & Environmental Engineering
Construction Materials, Inspection & Testing
11 Indell Lane - Brampton Ontario L6T 3Y3 (905) 796-2650

Reference:
Google Earth 2017

Notes:
1. 0.86 = Parameter Result Meets 2011 T2 Standard, Coarse
2. **22.4** = Parameter Result Exceeds 2011 T2 Standard, Coarse

Legend:
- Approximate Phase Two Property Boundary
- Approximate Borehole Location with Monitoring Well (August 2017)
- Approximate Borehole Location with Monitoring Well (October 2017)
- Approximate Extent of Contaminant Impact
- Sample in Borehole Meets Standard
- Sample in Borehole Exceeds Standard

Project Title:
Phase Two Environmental Site Assessment

Site Location:
61-67 Owen Street &
55-57 McDonald Street, Barrie, Ontario

Figure Title:
SAR EXCEEDANCES IN SOIL
PLAN VIEW

Designed By: SM
Drawn By: MV
Reviewed By: MB
Date: December 2018
File No.: 1-17-0481-42
Scale: As Shown
Figure No.: 9

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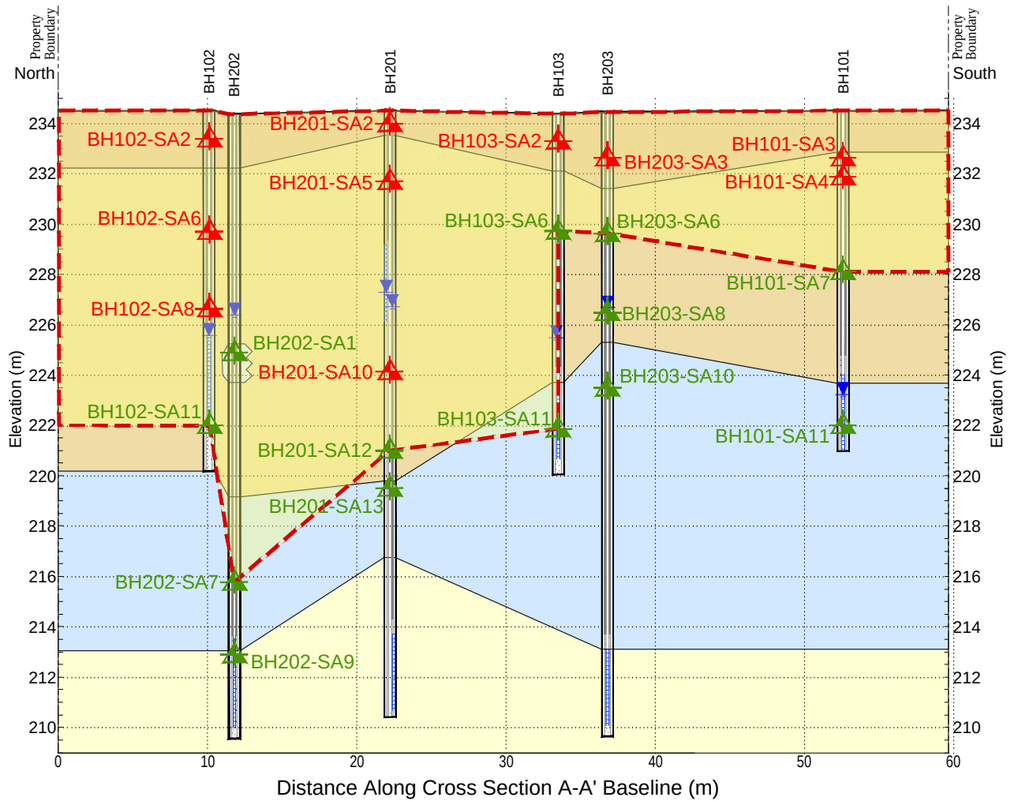

Sample Name	Units	MOECC T2 RPI CT	BH101-SA3	BH101-SA4	BH101-SA7	BH101-SA11	BH102-SA2	BH102-SA6	BH102-SA8	BH102-SA11	BH103-SA2	BH103-SA6	BH103-SA11	DUP2 (BH103-SA11)	BH201-SA2	BH201-SA5	BH201-SA10	BH201-SA12	BH201-SA13	BH202-SA1	BH202-SA7	BH202-SA9	BH203-SA3	DUP2 (BH203-SA3)	BH203-SA6
Date			31-Jul-17	31-Jul-17	31-Jul-17	31-Jul-17	1-Aug-17	1-Aug-17	4-Aug-17	1-Aug-17	1-Aug-17	31-Jul-17	2-Aug-17	2-Aug-17	23-Oct-17	23-Oct-17	23-Oct-17	**23-Oct-17**	23-Oct-17	24-Oct-17	24-Oct-17	24-Oct-17	25-Oct-17	25-Oct-17	25-Oct-17
Elev of Sample (masl)			232.9-232.3	232.3-231.6	228.4-227.8	222.3-221.7	233.8-233.1	229.9-229.5	226.9- 226.3	222.3-221.7	233.6-233	229.8-229.5	222.2-221.6	222.2-221.6	234.3-233.7	232-231.4	224.4-223.8	221.3-220.7	219.8-219.2	225.2-224.6	216.1-215.5	213-212.8	232.9-232.3	232.9-232.3	229.9-229.3
Depth (m)			1.7-2.3	2.3-2.9	6.1-6.7	12.2-12.8	0.8-1.4	4.6-5	7.6-8.2	12.2-12.8	0.8-1.4	4.6-4.9	12.2-12.8	12.2-12.8	0.8-1.4	3.1-3.7	10.7-11.3	13.7-14.3	15.2-15.9	9.1-9.8	18.3-18.9	21.3-21.6	1.5-2.1	1.5-2.1	4.6-5.2
Parameter																									
Sodium Adsorption Ratio	---	5	**6.79**	**21.3**	1.05	1.93	**9.64**	**7.53**	**5.72**	4.18	**22.4**	0.86	2.88	2.35	**>40**	**>17**	**26.1**	0.13	1.51	1.71	0.85	4.34	**18.9**	**20.9**	3.36

Sample Name	Units	MOECC T2 RPI CT	BH203-SA8	BH203-SA10
Date			25-Oct-17	25-Oct-17
Elev of Sample (masl)			226.8-226.2	223.8-223.2
Depth (m)			7.6-8.2	10.7-11.3
Parameter				
Sodium Adsorption Ratio	---	5	> 0.73	1.05

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Reference:

Notes:

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2. **22.4** = Parameter Result Exceeds 2011 T2 Standard, Coarse

Legend:

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- Clayey Silt
- Lower Sands
- Monitoring Well Screen
- Average Ground Water Level (masl), January 17, 2018
- Sample Location Meets Standard
- Sample Location Exceeds Standard
- Approximate Extent of Contaminant Impact

Project Title:

Phase Two Environmental Site Assessment Update

Site Location:

61-67 Owen Street &
55-57 McDonald Street, Barrie, Ontario

Figure Title:

SAR EXCEEDANCES IN SOIL
CROSS SECTION A-A'

Designed By: SM	*File No.:* 1-17-0481-42
Drawn By: MV	*Scale:* As Shown
Reviewed By: MB	*Figure No.:* 10
Date: December 2018	

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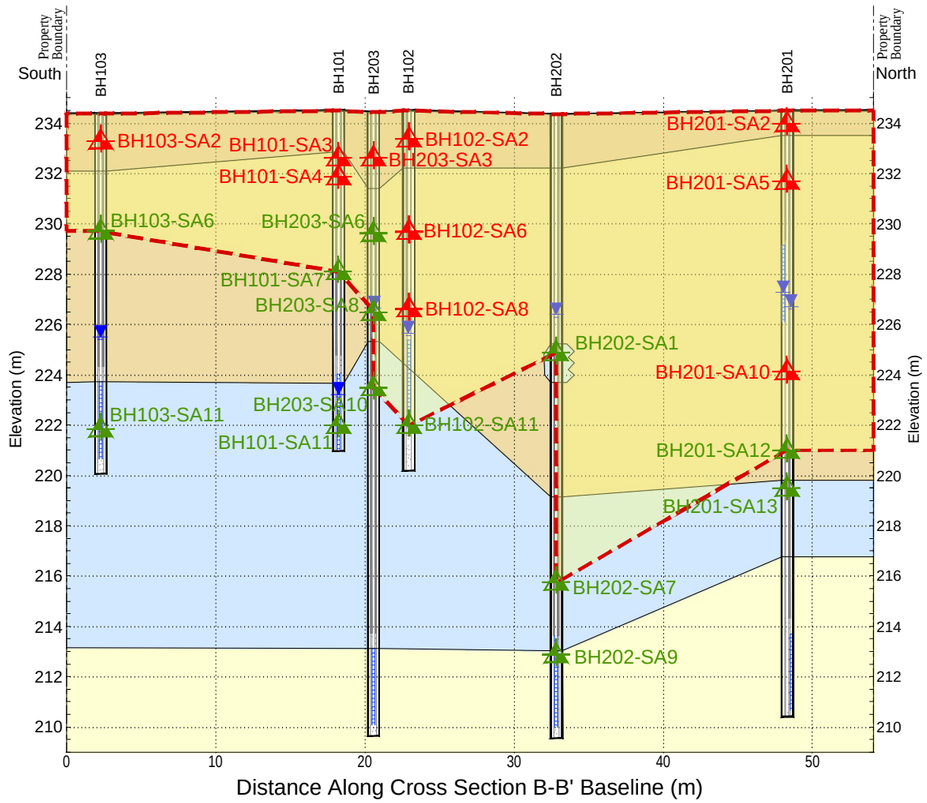

Sample Name	Units	MOECC T2 RPI CT	BH101-SA3	BH101-SA4	BH101-SA7	BH101-SA11	BH102-SA2	BH102-SA6	BH102-SA8	BH102-SA11	BH103-SA2	BH103-SA6	BH103-SA11	DUP2 (BH103-SA11)	BH201-SA2	BH201-SA5	BH201-SA10	BH201-SA12	BH201-SA13	BH202-SA1	BH202-SA7	BH202-SA9	BH203-SA3	DUP2 (BH203-SA3)	BH203-SA6
Date			31-Jul-17	31-Jul-17	31-Jul-17	31-Jul-17	1-Aug-17	1-Aug-17	4-Aug-17	1-Aug-17	1-Aug-17	31-Jul-17	2-Aug-17	2-Aug-17	23-Oct-17	23-Oct-17	23-Oct-17	**23-Oct-17**	23-Oct-17	24-Oct-17	24-Oct-17	24-Oct-17	25-Oct-17	25-Oct-17	25-Oct-17
Elev of Sample (masl)			232.9-232.3	232.3-231.6	228.4-227.8	222.3-221.7	233.8-233.1	229.9-229.5	226.9- 226.3	222.3-221.7	233.6-233	229.8-229.5	222.2-221.6	222.2-221.6	234.3-233.7	232-231.4	224.4-223.8	221.3-220.7	219.8-219.2	225.2-224.6	216.1-215.5	213-212.8	232.9-232.3	232.9-232.3	229.9-229.3
Depth (m)			1.7-2.3	2.3-2.9	6.1-6.7	12.2-12.8	0.8-1.4	4.6-5	7.6-8.2	12.2-12.8	0.8-1.4	4.6-4.9	12.2-12.8	12.2-12.8	0.8-1.4	3.1-3.7	10.7-11.3	13.7-14.3	15.2-15.9	9.1-9.8	18.3-18.9	21.3-21.6	1.5-2.1	1.5-2.1	4.6-5.2
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Sample Name	Units	MOECC T2 RPI CT	BH203-SA8	BH203-SA10
Date			25-Oct-17	25-Oct-17
Elev of Sample (masl)			226.8-226.2	223.8-223.2
Depth (m)			7.6-8.2	10.7-11.3
Parameter				
Sodium Adsorption Ratio	---	5	> 0.73	1.05

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Notes:

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2. **22.4** = Parameter Result Exceeds 2011 T2 Standard, Coarse

Legend:

- Fill
- Upper Sands/Silts & Gravel
- Clayey Silt
- Lower Sands
- Monitoring Well Screen
- Average Ground Water Level (masl), January 17, 2018
- Sample Location Meets Standard
- Sample Location Exceeds Standard
- Approximate Extent of Contaminant Impact

Project Title:

Phase Two Environmental Site Assessment Update

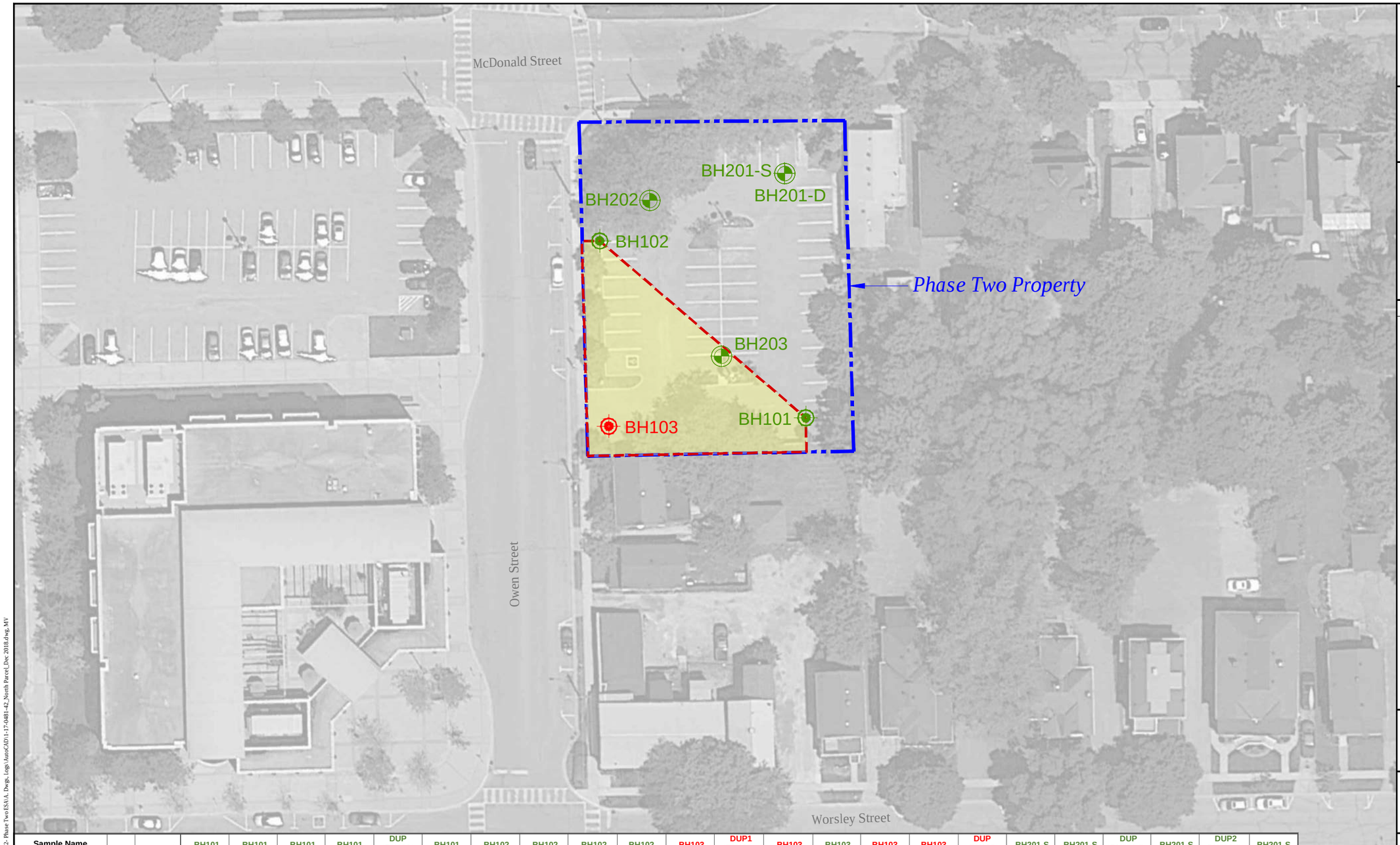
Site Location:

61-67 Owen Street &
55-57 McDonald Street, Barrie, Ontario

Figure Title:

SAR EXCEEDANCES IN SOIL
CROSS SECTION B-B'

Designed By: SM	*File No.:* 1-17-0481-42
Drawn By: MV	*Scale:* As Shown
Reviewed By: MB	*Figure No.:* 11
Date: December 2018	



Sample Name	Units	MOECC T2 RPI CT	BH101	BH101	BH101	BH101	DUP (BH101)	BH101	BH102	BH102	BH102	BH102	BH103	DUP1 (BH103)	BH103	BH103	BH103	BH103	DUP (BH103)	BH201-S	BH201-S	DUP (BH201-S)	BH201-S	DUP2 (BH201-S)	BH201-S
Date			11-Aug-17	7-Dec-17	17-Jan-18	19-Dec-18	19-Dec-18	4-Jan-19	11-Aug-17	7-Dec-17	17-Jan-18	19-Dec-18	11-Aug-17	11-Aug-17	7-Dec-17	17-Jan-18	19-Dec-18	10-Jan-19	10-Jan-19	8-Nov-17	7-Dec-17	7-Dec-17	17-Jan-18	17-Jan-18	19-Dec-18
Elev of Sample (masl)			224.0-221	224.0-221	224.0-221	224.0-221	224.0-221	224.0-221	225.4-222.3	225.4-222.3	225.4-222.3	225.4-222.3	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	229-226	229-226	229-226	229-226	229-226	229-226
Depth (m)			10.5-13.6	10.5-13.6	10.5-13.6	10.5-13.6	10.5-13.6	10.5-13.6	9.1-12.2	9.1-12.2	9.1-12.2	9.1-12.2	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	6.1-9.14	6.1-9.1	6.1-9.1	6.1-9.1	6.1-9.1	6.1-9.1
Parameter																									
Barium	µg/L	1000	210	357	1330 *	151	151	151	517	439	222	251	1630	1640	1740	145	1650	1730	1710	250	300	301	319	305	293

Sample Name	Units	MOECC T2 RPI CT	BH201-D	DUP1 (BH201-D)	BH201-D	BH201-D	BH201-D	BH202	BH202	BH202	BH202	BH203	BH203	BH203	BH203	BH101	DUP (BH101
Date			8-Nov-17	8-Nov-17	7-Dec-17	17-Jan-18	19-Dec-18	8-Nov-17	7-Dec-17	17-Jan-18	19-Dec-18	8-Nov-17	7-Dec-17	17-Jan-18	19-Dec-18	10-Apr-19	10-Apr-19
Elev of Sample (masl)			213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.0-210	213.0-210	213.0-210	213.0-210	213.1-210.1	213.1-210.1	213.1-210.1	213.1-210.1	224.0-221	224.0-221
Depth (m)			21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	10.5-13.6	10.5-13.6
Parameter																	
Barium	µg/L	1000	22	19	42	243	210	130	203	286	298	62	143	101	180	526	539

Notes:

1. 145 = Parameter Result Meets 2011 T2 Standard, Coarse
2. **1630** = Parameter Result Exceeds 2011 T2 Standard, Coarse

* Not Considered an Exceedance Due to Additional Sampling Results. Refer to Report for Details.

Legend:

- Approximate Phase Two Property Boundary
- Approximate Borehole Location with Monitoring Well (August 2017)
- Approximate Borehole Location with Monitoring Well (October 2017)
- Approximate Extent of Contaminant Impact
- Sample in Borehole Meets Standard
- Sample in Borehole Exceeds Standard

Terraprobe Inc.
Consulting Geotechnical & Environmental Engineering
Construction Materials, Inspection & Testing
11 Indell Lane - Brampton Ontario L6T 3Y3 (905) 796-2650

Reference: Google Earth 2017

Project Title: Phase Two Environmental Site Assessment

Site Location: 61-67 Owen Street & 55-57 McDonald Street, Barrie, Ontario

Figure Title: METAL EXCEEDANCES IN GROUND WATER PLAN VIEW

Designed By: SM	File No.: 1-17-0481-42
Drawn By: MV	Scale: As Shown
Reviewed By: MB	Figure No.: 12
Date: December 2018	

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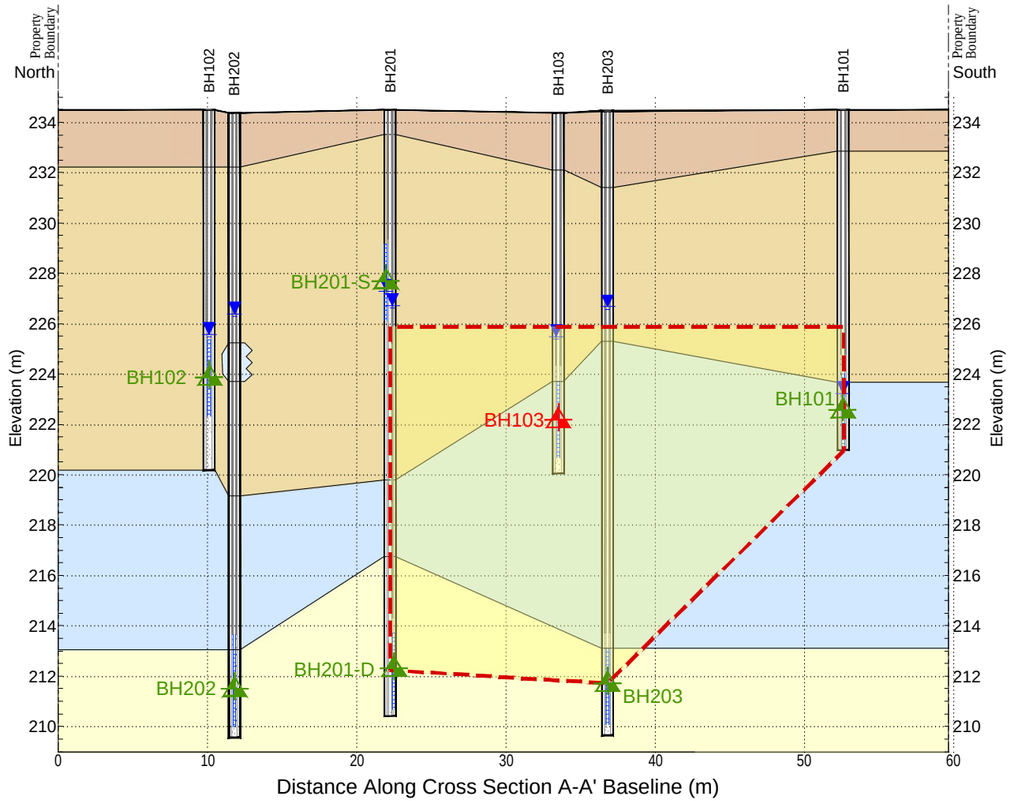

Sample Name	Units	MOECC T2 RPI CT	BH101	BH101	BH101	BH101	DUP (BH101)	BH101	BH102	BH102	BH102	BH102	BH103	DUP1 (BH103)	BH103	BH103	BH103	BH103	DUP (BH103)	BH201-S	BH201-S	DUP (BH201-S)	BH201-S	DUP2 (BH201-S)	BH201-S
Date			11-Aug-17	7-Dec-17	17-Jan-18	19-Dec-18	19-Dec-18	4-Jan-19	11-Aug-17	7-Dec-17	17-Jan-18	19-Dec-18	11-Aug-17	11-Aug-17	7-Dec-17	17-Jan-18	19-Dec-18	10-Jan-19	10-Jan-19	8-Nov-17	7-Dec-17	7-Dec-17	17-Jan-18	17-Jan-18	19-Dec-18
Elev of Sample (masl)			224.0-221	224.0-221	224.0-221	224.0-221	224.0-221	224.0-221	225.4-222.3	225.4-222.3	225.4-222.3	225.4-222.3	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	229-226	229-226	229-226	229-226	229-226	229-226
Depth (m)			10.5-13.6	10.5-13.6	10.5-13.6	10.5-13.6	10.5-13.6	10.5-13.6	9.1-12.2	9.1-12.2	9.1-12.2	9.1-12.2	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	6.1-9.14	6.1-9.1	6.1-9.1	6.1-9.1	6.1-9.1	6.1-9.1
Parameter																									
Barium	µg/L	1000	210	357	**1330** ✻	151	151	151	**517**	439	**222**	251	**1630**	**1640**	**1740**	145	**1650**	**1730**	**1710**	250	300	301	319	305	293

Sample Name	Units	MOECC T2 RPI CT	BH201-D	DUP1 (BH201-D)	BH201-D	BH201-D	BH201-D	BH202	BH202	BH202	BH202	BH203	BH203	BH203	BH203	BH101	DUP (BH101
Date			8-Nov-17	8-Nov-17	7-Dec-17	17-Jan-18	19-Dec-18	8-Nov-17	7-Dec-17	17-Jan-18	19-Dec-18	8-Nov-17	7-Dec-17	17-Jan-18	19-Dec-18	10-Apr-19	10-Apr-19
Elev of Sample (masl)			213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.0-210	213.0-210	213.0-210	213.0-210	213.0-210	213.0-210	213.1-210.1	213.1-210.1	224.0-221	224.0-221
Depth (m)			21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	10.5-13.6	10.5-13.6
Parameter																	
Barium	µg/L	1000	22	19	42	243	210	130	203	286	298	62	143	101	180	526	539

Terraprobe Inc.
Consulting Geotechnical & Environmental Engineering
Construction Materials, Inspection & Testing
11 Indell Lane - Brampton Ontario L6T 3Y3 (905) 796-2650

Reference:

Notes:

1. 145 = Parameter Result Meets 2011 T2 Standard, Coarse
2. **1630** = Parameter Result Exceeds 2011 T2 Standard, Coarse

✻ Not Considered an Exceedance Due to Additional Sampling Results. Refer to Report for Details.

Legend:

- Fill
- Upper Sands/Silts & Gravel
- Clayey Silt
- Lower Sands
- Monitoring Well Screen
- Average Ground Water Level (masl), January 17, 2018
- Sample Location Meets Standard
- Sample Location Exceeds Standard
- Approximate Extent of Contaminant Impact

Project Title:
Phase Two Environmental Site Assessment Update

Site Location:
61-67 Owen Street &
55-57 McDonald Street, Barrie, Ontario

Figure Title:
METAL EXCEEDANCES IN GROUND WATER
CROSS SECTION A-A'

Designed By: SM
Drawn By: MV
Reviewed By: MB
Date: December 2018
File No.: 1-17-0481-42
Scale: As Shown
Figure No.: 13

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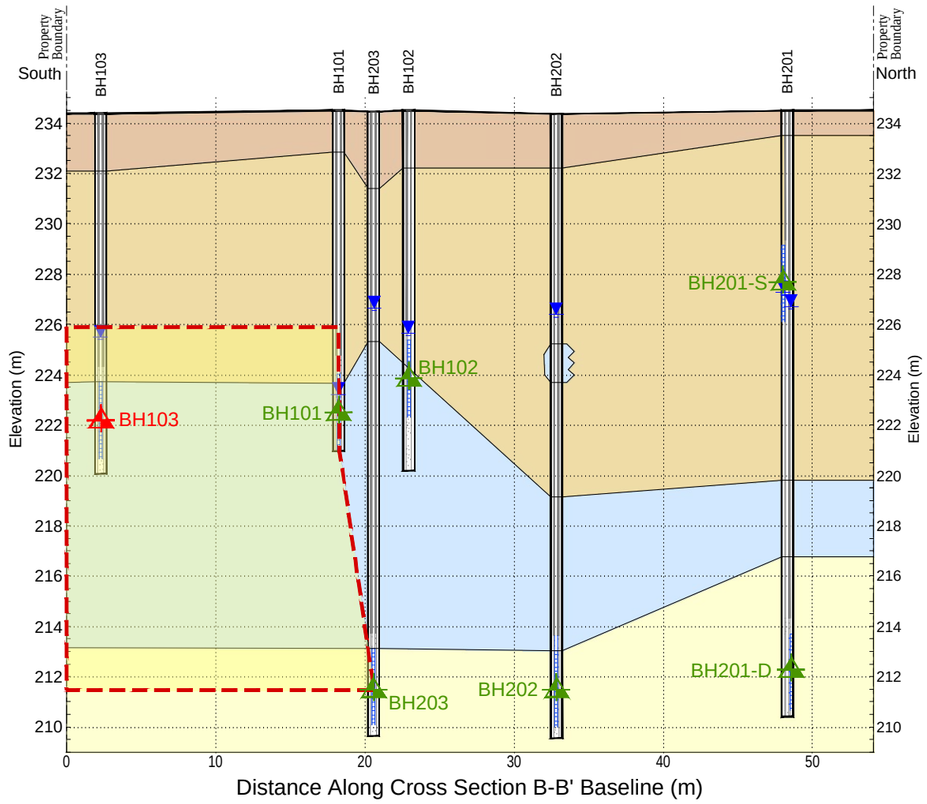

Sample Name	Units	MOECC T2 RPI CT	BH101	BH101	BH101	BH101	DUP (BH101)	BH101	BH102	BH102	BH102	BH102	BH103	DUP1 (BH103)	BH103	BH103	BH103	BH103	DUP (BH103)	BH201-S	BH201-S	DUP (BH201-S)	BH201-S	DUP2 (BH201-S)	BH201-S
Date			11-Aug-17	7-Dec-17	17-Jan-18	19-Dec-18	19-Dec-18	4-Jan-19	11-Aug-17	7-Dec-17	17-Jan-18	19-Dec-18	11-Aug-17	11-Aug-17	7-Dec-17	17-Jan-18	19-Dec-18	10-Jan-19	10-Jan-19	8-Nov-17	7-Dec-17	7-Dec-17	17-Jan-18	17-Jan-18	19-Dec-18
Elev of Sample (masl)			224.0-221	224.0-221	224.0-221	224.0-221	224.0-221	224.0-221	225.4-222.3	225.4-222.3	225.4-222.3	225.4-222.3	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	229-226	229-226	229-226	229-226	229-226	229-226
Depth (m)			10.5-13.6	10.5-13.6	10.5-13.6	10.5-13.6	10.5-13.6	10.5-13.6	9.1-12.2	9.1-12.2	9.1-12.2	9.1-12.2	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	6.1-9.14	6.1-9.1	6.1-9.1	6.1-9.1	6.1-9.1	6.1-9.1
Parameter																									
Barium	µg/L	1000	210	357	**1330** ✻	151	151	151	**517**	439	**222**	251	**1630**	**1640**	**1740**	145	**1650**	**1730**	**1710**	250	300	301	319	305	293

Sample Name	Units	MOECC T2 RPI CT	BH201-D	DUP1 (BH201-D)	BH201-D	BH201-D	BH201-D	BH202	BH202	BH202	BH202	BH203	BH203	BH203	BH203	BH101	DUP (BH101
Date			8-Nov-17	8-Nov-17	7-Dec-17	17-Jan-18	19-Dec-18	8-Nov-17	7-Dec-17	17-Jan-18	19-Dec-18	8-Nov-17	7-Dec-17	17-Jan-18	19-Dec-18	10-Apr-19	10-Apr-19
Elev of Sample (masl)			213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.0-210	213.0-210	213.0-210	213.0-210	213.1-210.1	213.1-210.1	213.1-210.1	213.1-210.1	224.0-221	224.0-221
Depth (m)			21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	10.5-13.6	10.5-13.6
Parameter																	
Barium	µg/L	1000	22	19	42	243	210	130	203	286	298	62	143	101	180	526	539

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Construction Materials, Inspection & Testing
11 Indell Lane - Brampton Ontario L6T 3Y3 (905) 796-2650

Reference:

Notes:

1. 145 = Parameter Result Meets 2011 T2 Standard, Coarse
2. **1630** = Parameter Result Exceeds 2011 T2 Standard, Coarse

✻ Not Considered an Exceedance Due to Additional Sampling Results. Refer to Report for Details.

Legend:

- Fill
- Upper Sands/Silts & Gravel
- Clayey Silt
- Lower Sands
- Monitoring Well Screen
- Average Ground Water Level (masl), January 17, 2018
- Sample Location Meets Standard
- Sample Location Exceeds Standard
- Approximate Extent of Contaminant Impact

Project Title:
Phase Two Environmental Site Assessment Update

Site Location:
61-67 Owen Street &
55-57 McDonald Street, Barrie, Ontario

Figure Title:
METAL EXCEEDANCES IN GROUND WATER
CROSS SECTION B-B'

Designed By: SM	*File No.:* 1-17-0481-42
Drawn By: MV	*Scale:* As Shown
Reviewed By: MB	*Figure No.:* 14
Date: December 2018	

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APPENDIX B

Sample Name	Units	MOECC T2 RPI CT	BH101	BH101	BH101	BH101	DUP (BH101)	BH101	BH102	BH102	BH102	BH102	BH103	DUP1 (BH103)	BH103	BH103	BH103	BH103	DUP (BH103)	BH201-S	BH201-S	DUP (BH201-S)	BH201-S	DUP2 (BH201-S)	BH201-S
Date			11-Aug-17	7-Dec-17	17-Jan-18	19-Dec-18	19-Dec-18	4-Jan-19	11-Aug-17	7-Dec-17	17-Jan-18	19-Dec-18	11-Aug-17	11-Aug-17	7-Dec-17	17-Jan-18	19-Dec-18	10-Jan-19	10-Jan-19	8-Nov-17	7-Dec-17	7-Dec-17	17-Jan-18	17-Jan-18	19-Dec-18
Elev of Sample (masl)			224.0-221	224.0-221	224.0-221	224.0-221	224.0-221	224.0-221	225.4-222.3	225.4-222.3	225.4-222.3	225.4-222.3	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	229-226	229-226	229-226	229-226	229-226	229-226
Depth (m)			10.5-13.6	10.5-13.6	10.5-13.6	10.5-13.6	10.5-13.6	10.5-13.6	9.1-12.2	9.1-12.2	9.1-12.2	9.1-12.2	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	6.1-9.14	6.1-9.1	6.1-9.1	6.1-9.1	6.1-9.1	6.1-9.1
Parameter																									
Chloride	ug/L	790000	122000	110000	**2930000***	107000	108000	104000	**3040000**	**5650000**	**2280000**	**4780000**	**2530000**	**2730000**	**2670000**	111000	**3510000**	**3800000**	**3320000**	617000	559000	583000	590000	541000	452000

Sample Name	Units	MOECC T2 RPI CT	BH201-D	DUP1 (BH201-D)	BH201-D	BH201-D	BH201-D	BH202	BH202	BH202	BH202	BH203	BH203	BH203	BH203	BH101	DUP (BH101
Date			8-Nov-17	8-Nov-17	7-Dec-17	17-Jan-18	19-Dec-18	8-Nov-17	7-Dec-17	17-Jan-18	19-Dec-18	8-Nov-17	7-Dec-17	17-Jan-18	19-Dec-18	10-Apr-19	10-Apr-19
Elev of Sample (masl)			213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.0-210	213.0-210	213.0-210	213.0-210	213.1-210.1	213.1-210.1	213.1-210.1	213.1-210.1	224.0-221	224.0-221
Depth (m)			21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	10.5-13.6	10.5-13.6
Parameter																	
Chloride	ug/L	790000	31500	31400	113000	538000	92800	740000	132000	137000	109000	5200	26200	173000	150000	**3630000**	**3630000**

Terraprobe Inc.
Consulting Geotechnical & Environmental Engineering
Construction Materials, Inspection & Testing
11 Indell Lane - Brampton Ontario L6T 3Y3 (905) 796-2650

Reference:
Google Earth 2017

Notes:
1. 111,000 = Parameter Result Meets 2011 T2 Standard, Coarse
2. **2,670,000** = Parameter Result Exceeds 2011 T2 Standard, Coarse

* Not Considered an Exceedance Due to Additional Sampling Results. Refer to Report for Details.

Legend:
- Approximate Phase Two Property Boundary
- Approximate Borehole Location with Monitoring Well (August 2017)
- Approximate Borehole Location with Monitoring Well (October 2017)
- Approximate Extent of Contaminant Impact
- Sample in Borehole Meets Standard
- Sample in Borehole Exceeds Standard

Project Title:
Phase Two Environmental Site Assessment

Site Location:
61-67 Owen Street &
55-57 McDonald Street, Barrie, Ontario

Figure Title:
CHLORIDE EXCEEDANCES IN GROUND WATER
PLAN VIEW

Designed By: SM	*File No.:* 1-17-0481-42
Drawn By: MV	*Scale:* As Shown
Reviewed By: MB	*Figure No.:* 15
Date: December 2018	

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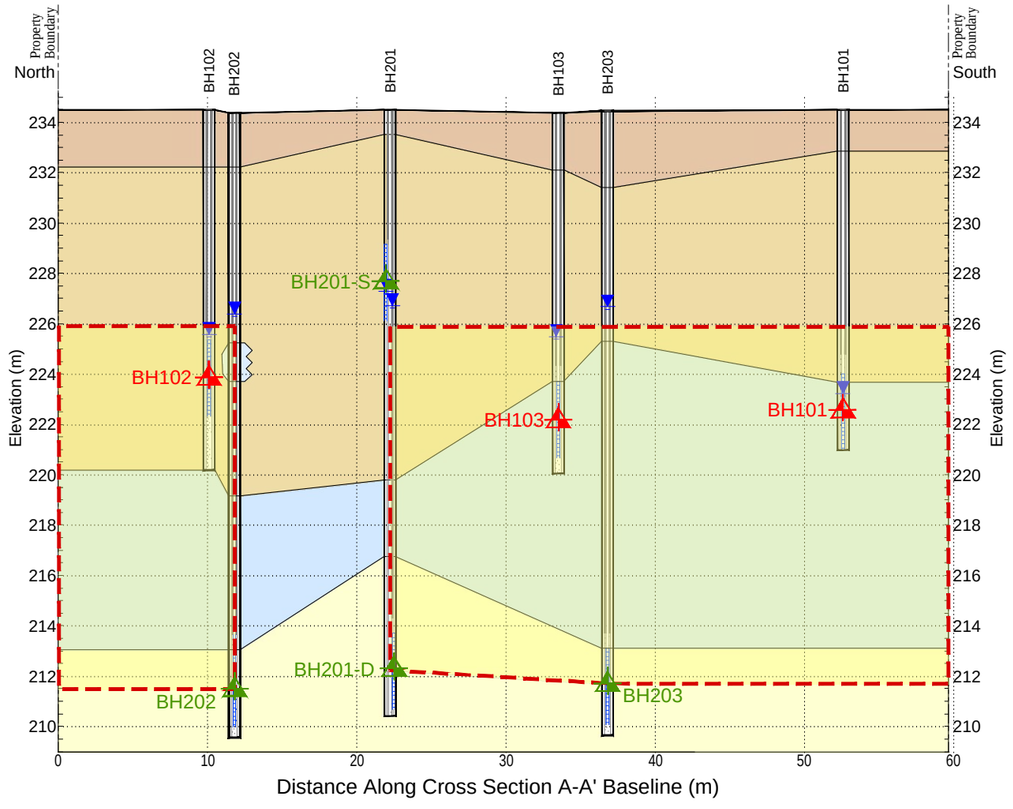

Sample Name	Units	MOECC T2 RPI CT	BH101	BH101	BH101	BH101	DUP (BH101)	BH101	BH102	BH102	BH102	BH102	BH103	DUP1 (BH103)	BH103	BH103	BH103	BH103	DUP (BH103)	BH201-S	BH201-S	DUP (BH201-S)	BH201-S	DUP2 (BH201-S)	BH201-S
Date			11-Aug-17	7-Dec-17	17-Jan-18	19-Dec-18	19-Dec-18	4-Jan-19	11-Aug-17	7-Dec-17	17-Jan-18	19-Dec-18	11-Aug-17	11-Aug-17	7-Dec-17	17-Jan-18	19-Dec-18	10-Jan-19	10-Jan-19	8-Nov-17	7-Dec-17	7-Dec-17	17-Jan-18	17-Jan-18	19-Dec-18
Elev of Sample (masl)			224.0-221	224.0-221	224.0-221	224.0-221	224.0-221	224.0-221	225.4-222.3	225.4-222.3	225.4-222.3	225.4-222.3	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	229-226	229-226	229-226	229-226	229-226	229-226
Depth (m)			10.5-13.6	10.5-13.6	10.5-13.6	10.5-13.6	10.5-13.6	10.5-13.6	9.1-12.2	9.1-12.2	9.1-12.2	9.1-12.2	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	6.1-9.14	6.1-9.1	6.1-9.1	6.1-9.1	6.1-9.1	6.1-9.1
Parameter																									
Chloride	ug/L	790000	122000	110000	**2930000***	107000	108000	104000	**3040000**	**5650000**	**2280000**	**4780000**	**2530000**	**2730000**	**2670000**	111000	**3510000**	**3800000**	**3320000**	617000	559000	583000	590000	541000	452000

Sample Name	Units	MOECC T2 RPI CT	BH201-D	DUP1 (BH201-D)	BH201-D	BH201-D	BH201-D	BH202	BH202	BH202	BH202	BH203	BH203	BH203	BH203	BH101	DUP (BH101
Date			8-Nov-17	8-Nov-17	7-Dec-17	17-Jan-18	19-Dec-18	8-Nov-17	7-Dec-17	17-Jan-18	19-Dec-18	8-Nov-17	7-Dec-17	17-Jan-18	19-Dec-18	10-Apr-19	10-Apr-19
Elev of Sample (masl)			213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.0-210	213.0-210	213.0-210	213.0-210	213.1-210.1	213.1-210.1	213.1-210.1	213.1-210.1	224.0-221	224.0-221
Depth (m)			21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	10.5-13.6	10.5-13.6
Parameter																	
Chloride	ug/L	790000	31500	31400	113000	538000	92800	740000	132000	137000	109000	5200	26200	173000	150000	**3630000**	**3630000**

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Consulting Geotechnical & Environmental Engineering
Construction Materials, Inspection & Testing
11 Indell Lane - Brampton Ontario L6T 3Y3 (905) 796-2650

Reference:

Notes:

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2. **2,670,000** = Parameter Result Exceeds 2011 T2 Standard, Coarse

* Not Considered an Exceedance Due to Additional Sampling Results. Refer to Report for Details.

Legend:

- Fill
- Upper Sands/Silts & Gravel
- Clayey Silt
- Lower Sands
- Monitoring Well Screen
- Average Ground Water Level (masl), January 17, 2018
- Sample Location Meets Standard
- Sample Location Exceeds Standard
- Approximate Extent of Contaminant Impact

Project Title:

Phase Two Environmental Site Assessment Update

Site Location:

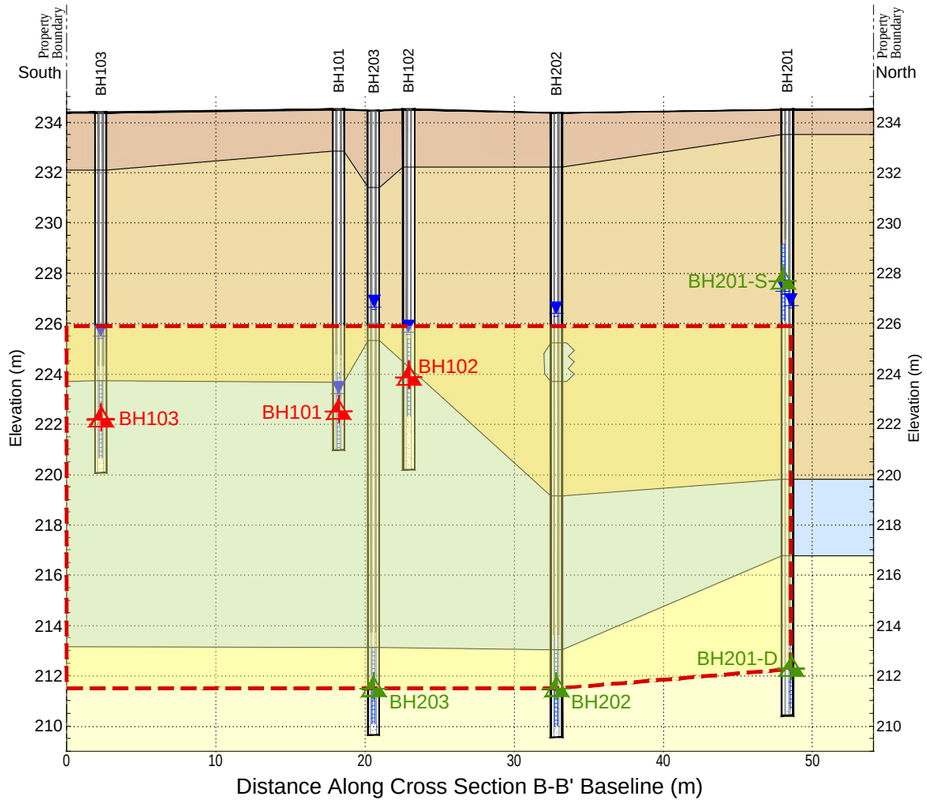
61-67 Owen Street &
55-57 McDonald Street, Barrie, Ontario

Figure Title:

CHLORIDE EXCEEDANCES IN GROUND WATER
CROSS SECTION A-A'

Designed By: SM	*File No.:* 1-17-0481-42
Drawn By: MV	*Scale:* As Shown
Reviewed By: MB	*Figure No.:* 16
Date: December 2018	

Z:\1-Project Files\2017\1-17-0481 - NE Worsley & Owen Streets, Barrie\42- Phase Two ESA\A. Dwgs, Logs \AutoCAD\1-17-0481-42_North Parcel_Dec 2018.dwg, MV



Sample Name	Units	MOECC T2 RPI CT	BH101	BH101	BH101	BH101	DUP (BH101)	BH101	BH102	BH102	BH102	BH102	BH103	DUP1 (BH103)	BH103	BH103	BH103	BH103	DUP (BH103)	BH201-S	BH201-S	DUP (BH201-S)	BH201-S	DUP2 (BH201-S)	BH201-S
Date			11-Aug-17	7-Dec-17	17-Jan-18	19-Dec-18	19-Dec-18	4-Jan-19	11-Aug-17	7-Dec-17	17-Jan-18	19-Dec-18	11-Aug-17	11-Aug-17	7-Dec-17	17-Jan-18	19-Dec-18	10-Jan-19	10-Jan-19	8-Nov-17	7-Dec-17	7-Dec-17	17-Jan-18	17-Jan-18	19-Dec-18
Elev of Sample (masl)			224.0-221	224.0-221	224.0-221	224.0-221	224.0-221	224.0-221	225.4-222.3	225.4-222.3	225.4-222.3	225.4-222.3	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	229-226	229-226	229-226	229-226	229-226	229-226
Depth (m)			10.5-13.6	10.5-13.6	10.5-13.6	10.5-13.6	10.5-13.6	10.5-13.6	9.1-12.2	9.1-12.2	9.1-12.2	9.1-12.2	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	6.1-9.14	6.1-9.1	6.1-9.1	6.1-9.1	6.1-9.1	6.1-9.1
Parameter																									
Chloride	ug/L	790000	122000	110000	**2930000***	107000	108000	104000	**3040000**	**5650000**	**2280000**	**4780000**	**2530000**	**2730000**	**2670000**	111000	**3510000**	**3800000**	**3320000**	617000	559000	583000	590000	541000	452000

Sample Name	Units	MOECC T2 RPI CT	BH201-D	DUP1 (BH201-D)	BH201-D	BH201-D	BH201-D	BH202	BH202	BH202	BH202	BH203	BH203	BH203	BH203	BH101	DUP (BH101
Date			8-Nov-17	8-Nov-17	7-Dec-17	17-Jan-18	19-Dec-18	8-Nov-17	7-Dec-17	17-Jan-18	19-Dec-18	8-Nov-17	7-Dec-17	17-Jan-18	19-Dec-18	10-Apr-19	10-Apr-19
Elev of Sample (masl)			213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.0-210	213.0-210	213.0-210	213.0-210	213.1-210.1	213.1-210.1	213.1-210.1	213.1-210.1	224.0-221	224.0-221
Depth (m)			21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	10.5-13.6	10.5-13.6
Parameter																	
Chloride	ug/L	790000	31500	31400	113000	538000	92800	740000	132000	137000	109000	5200	26200	173000	150000	**3630000**	**3630000**

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11 Indell Lane - Brampton Ontario L6T 3Y3 (905) 796-2650

Reference:

Notes:

1. 111,000 = Parameter Result Meets 2011 T2 Standard, Coarse
2. **2,670,000** = Parameter Result Exceeds 2011 T2 Standard, Coarse

* Not Considered an Exceedance Due to Additional Sampling Results. Refer to Report for Details.

Legend:

- Fill
- Upper Sands/Silts & Gravel
- Clayey Silt
- Lower Sands
- Monitoring Well Screen
- Average Ground Water Level (masl), January 17, 2018
- Sample Location Meets Standard
- Sample Location Exceeds Standard
- Approximate Extent of Contaminant Impact

Project Title:

Phase Two Environmental Site Assessment Update

Site Location:

61-67 Owen Street &
55-57 McDonald Street, Barrie, Ontario

Figure Title:

CHLORIDE EXCEEDANCES IN GROUND WATER
CROSS SECTION B-B'

Designed By: SM	*File No.:* 1-17-0481-42
Drawn By: MV	*Scale:* As Shown
Reviewed By: MB	*Figure No.:* 17
Date: December 2018	

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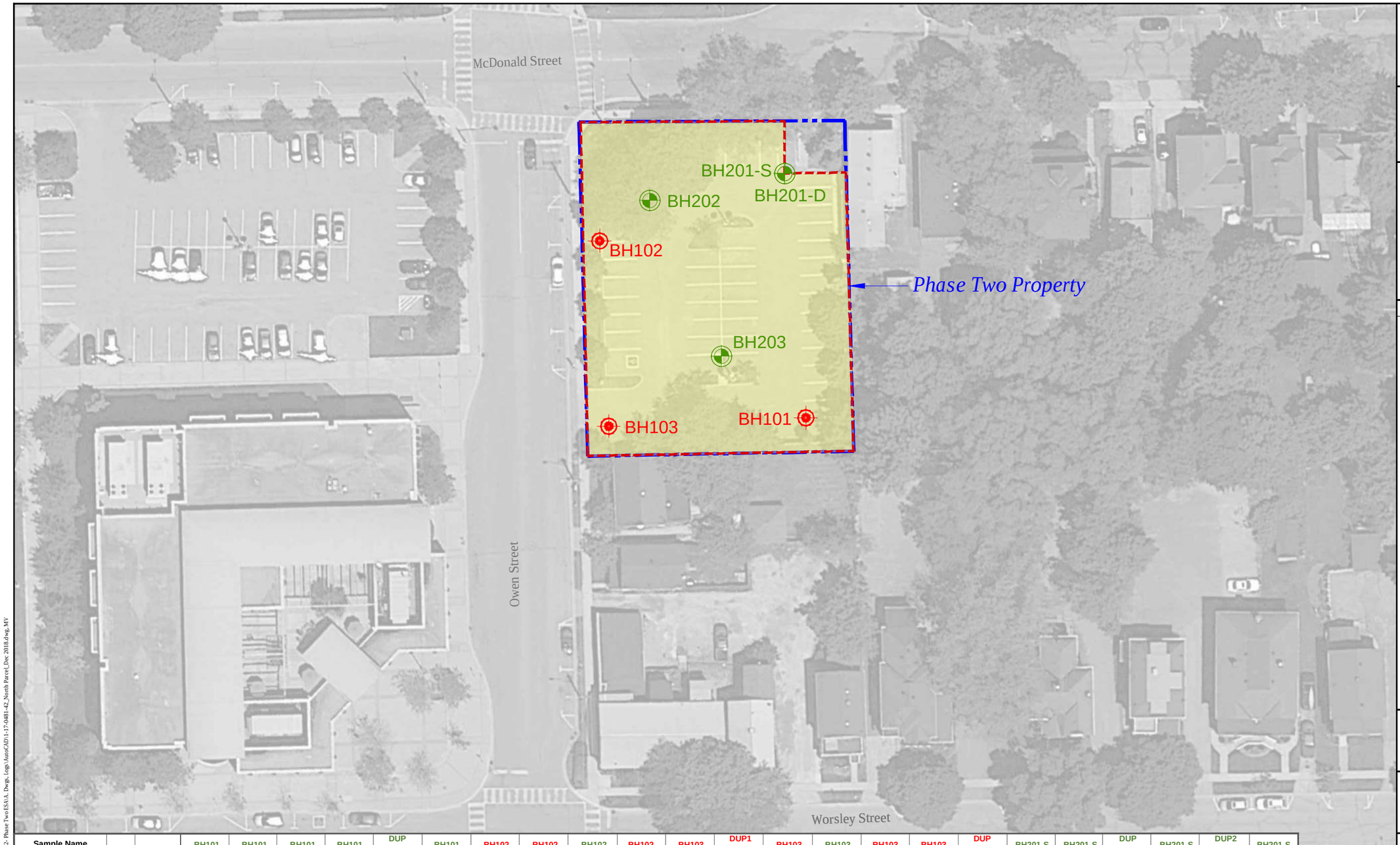

Sample Name	Units	MOECC T2 RPI CT	BH101	BH101	BH101	BH101	DUP (BH101)	BH101	BH102	BH102	BH102	BH102	BH103	DUP1 (BH103)	BH103	BH103	BH103	BH103	DUP (BH103)	BH201-S	BH201-S	DUP (BH201-S)	BH201-S	DUP2 (BH201-S)	BH201-S
Date			11-Aug-17	7-Dec-17	17-Jan-18	19-Dec-18	19-Dec-18	4-Jan-19	11-Aug-17	7-Dec-17	17-Jan-18	19-Dec-18	11-Aug-17	11-Aug-17	7-Dec-17	17-Jan-18	19-Dec-18	10-Jan-19	10-Jan-19	8-Nov-17	7-Dec-17	7-Dec-17	17-Jan-18	17-Jan-18	19-Dec-18
Elev of Sample (masl)			224.0-221	224.0-221	224.0-221	224.0-221	224.0-221	224.0-221	225.4-222.3	225.4-222.3	225.4-222.3	225.4-222.3	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	229-226	229-226	229-226	229-226	229-226	229-226
Depth (m)			10.5-13.6	10.5-13.6	10.5-13.6	10.5-13.6	10.5-13.6	10.5-13.6	9.1-12.2	9.1-12.2	9.1-12.2	9.1-12.2	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	6.1-9.14	6.1-9.1	6.1-9.1	6.1-9.1	6.1-9.1	6.1-9.1
Parameter																									
Sodium	µg/L	490000	61500	172000	**660000***	49200	48800	51600	**1080000**	**1450000**	**287000**	**1690000**	**542000**	**543000**	**857000**	53300	**757000**	**946000**	**946000**	288000	302000	306000	290000	290000	226000

Sample Name	Units	MOECC T2 RPI CT	BH201-D	DUP1 (BH201-D)	BH201-D	BH201-D	BH201-D	BH202	BH202	BH202	BH202	BH203	BH203	BH203	BH203	BH101	DUP (BH101
Date			8-Nov-17	8-Nov-17	7-Dec-17	17-Jan-18	19-Dec-18	8-Nov-17	7-Dec-17	17-Jan-18	19-Dec-18	8-Nov-17	7-Dec-17	17-Jan-18	19-Dec-18	10-Apr-19	10-Apr-19
Elev of Sample (masl)			213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.0-210	213.0-210	213.0-210	213.0-210	213.1-210.1	213.1-210.1	213.1-210.1	213.1-210.1	224.0-221	224.0-221
Depth (m)			21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	10.5-13.6	10.5-13.6
Parameter																	
Sodium	µg/L	490000	23500	23200	70100	214000	31900	419000	29200	17600	11400	40800	61600	110000	55300	**1720000**	**1640000**

Notes:

1. 53,300 = Parameter Result Meets 2011 T2 Standard, Coarse
2. **542,000** = Parameter Result Exceeds 2011 T2 Standard, Coarse

* Not Considered an Exceedance Due to Additional Sampling Results. Refer to Report for Details.

Legend:

- Approximate Phase Two Property Boundary
- Approximate Borehole Location with Monitoring Well (August 2017)
- Approximate Borehole Location with Monitoring Well (October 2017)
- Approximate Extent of Contaminant Impact
- Sample in Borehole Meets Standard
- Sample in Borehole Exceeds Standard

Terraprobe Inc.
Consulting Geotechnical & Environmental Engineering
Construction Materials, Inspection & Testing
11 Indell Lane - Brampton Ontario L6T 3Y3 (905) 796-2650

Reference: Google Earth 2017

Project Title: Phase Two Environmental Site Assessment

Site Location: 61-67 Owen Street & 55-57 McDonald Street, Barrie, Ontario

Figure Title: SODIUM EXCEEDANCES IN GROUND WATER PLAN VIEW

Designed By: SM	File No.: 1-17-0481-42
Drawn By: MV	Scale: As Shown
Reviewed By: MB	Figure No.: 18
Date: December 2018	

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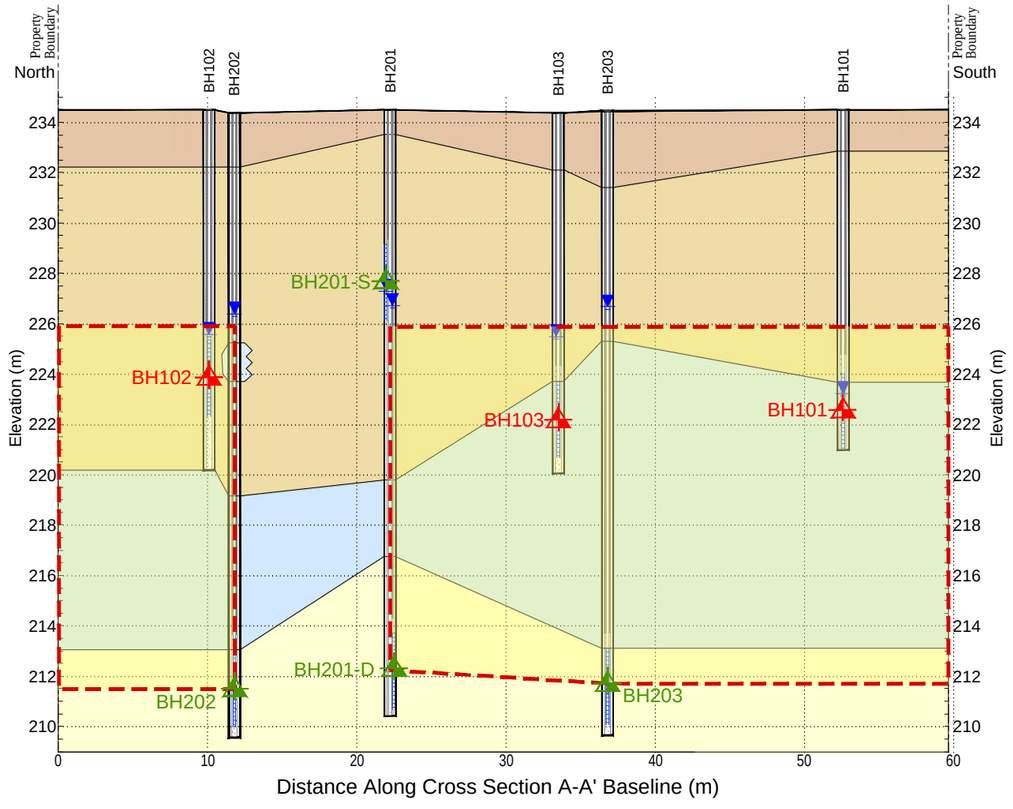

Sample Name	Units	MOECC T2 RPI CT	BH101	BH101	BH101	BH101	DUP (BH101)	BH101	BH102	BH102	BH102	BH102	BH103	DUP1 (BH103)	BH103	BH103	BH103	BH103	DUP (BH103)	BH201-S	BH201-S	DUP (BH201-S)	BH201-S	DUP2 (BH201-S)	BH201-S
Date			11-Aug-17	7-Dec-17	17-Jan-18	19-Dec-18	19-Dec-18	4-Jan-19	11-Aug-17	7-Dec-17	17-Jan-18	19-Dec-18	11-Aug-17	11-Aug-17	7-Dec-17	17-Jan-18	19-Dec-18	10-Jan-19	10-Jan-19	8-Nov-17	7-Dec-17	7-Dec-17	17-Jan-18	17-Jan-18	19-Dec-18
Elev of Sample (masl)			224.0-221	224.0-221	224.0-221	224.0-221	224.0-221	224.0-221	225.4-222.3	225.4-222.3	225.4-222.3	225.4-222.3	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	229-226	229-226	229-226	229-226	229-226	229-226
Depth (m)			10.5-13.6	10.5-13.6	10.5-13.6	10.5-13.6	10.5-13.6	10.5-13.6	9.1-12.2	9.1-12.2	9.1-12.2	9.1-12.2	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	6.1-9.14	6.1-9.1	6.1-9.1	6.1-9.1	6.1-9.1	6.1-9.1
Parameter																									
Sodium	µg/L	490000	61500	172000	**660000** ✻	49200	48800	51600	**1080000**	**1450000**	**287000**	**1690000**	**542000**	**543000**	**857000**	53300	**757000**	**946000**	**946000**	288000	302000	306000	290000	290000	226000

Sample Name	Units	MOECC T2 RPI CT	BH201-D	DUP1 (BH201-D)	BH201-D	BH201-D	BH201-D	BH202	BH202	BH202	BH202	BH203	BH203	BH203	BH203	BH101	DUP (BH101
Date			8-Nov-17	8-Nov-17	7-Dec-17	17-Jan-18	19-Dec-18	8-Nov-17	7-Dec-17	17-Jan-18	19-Dec-18	8-Nov-17	7-Dec-17	17-Jan-18	19-Dec-18	10-Apr-19	10-Apr-19
Elev of Sample (masl)			213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.0-210	213.0-210	213.0-210	213.0-210	213.1-210.1	213.1-210.1	213.1-210.1	213.1-210.1	224.0-221	224.0-221
Depth (m)			21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	10.5-13.6	10.5-13.6
Parameter																	
Sodium	µg/L	490000	23500	23200	70100	214000	31900	419000	29200	17600	11400	40800	61600	110000	55300	**1720000**	**1640000**

Notes:

1. 53,300 = Parameter Result Meets 2011 T2 Standard, Coarse
2. **542,000** = Parameter Result Exceeds 2011 T2 Standard, Coarse

✻ Not Considered an Exceedance Due to Additional Sampling Results. Refer to Report for Details.

Legend:

- Fill
- Upper Sands/Silts & Gravel
- Clayey Silt
- Lower Sands
- Monitoring Well Screen
- Average Ground Water Level (masl), January 17, 2018
- Sample Location Meets Standard
- Sample Location Exceeds Standard
- Approximate Extent of Contaminant Impact

Terraprobe Inc.
Consulting Geotechnical & Environmental Engineering
Construction Materials, Inspection & Testing
11 Indell Lane - Brampton Ontario L6T 3Y3 (905) 796-2650

Reference:

Project Title:
Phase Two Environmental Site Assessment Update

Site Location:
61-67 Owen Street &
55-57 McDonald Street, Barrie, Ontario

Figure Title:
SODIUM EXCEEDANCES IN GROUND WATER
CROSS SECTION A-A'

Designed By: SM	File No.: 1-17-0481-42
Drawn By: MV	Scale: As Shown
Reviewed By: MB	Figure No.: 19
Date: December 2018	

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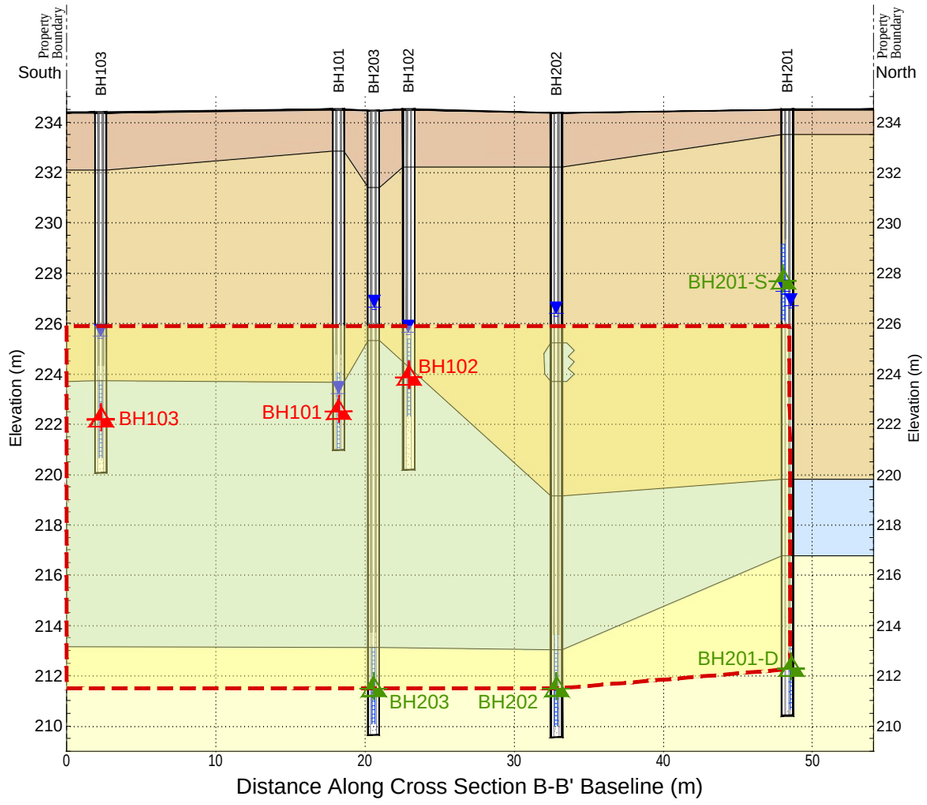

Sample Name	Units	MOECC T2 RPI CT	BH101	BH101	BH101	BH101	DUP (BH101)	BH101	BH102	BH102	BH102	BH102	BH103	DUP1 (BH103)	BH103	BH103	BH103	BH103	DUP (BH103)	BH201-S	BH201-S	DUP (BH201-S)	BH201-S	DUP2 (BH201-S)	BH201-S
Date			11-Aug-17	7-Dec-17	17-Jan-18	19-Dec-18	19-Dec-18	4-Jan-19	11-Aug-17	7-Dec-17	17-Jan-18	19-Dec-18	11-Aug-17	11-Aug-17	7-Dec-17	17-Jan-18	19-Dec-18	10-Jan-19	10-Jan-19	8-Nov-17	7-Dec-17	7-Dec-17	17-Jan-18	17-Jan-18	19-Dec-18
Elev of Sample (masl)			224.0-221	224.0-221	224.0-221	224.0-221	224.0-221	224.0-221	225.4-222.3	225.4-222.3	225.4-222.3	225.4-222.3	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	229-226	229-226	229-226	229-226	229-226	229-226
Depth (m)			10.5-13.6	10.5-13.6	10.5-13.6	10.5-13.6	10.5-13.6	10.5-13.6	9.1-12.2	9.1-12.2	9.1-12.2	9.1-12.2	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	6.1-9.14	6.1-9.1	6.1-9.1	6.1-9.1	6.1-9.1	6.1-9.1
Parameter																									
Sodium	µg/L	490000	61500	172000	**660000** ✻	49200	48800	51600	**1080000**	**1450000**	**287000**	**1690000**	**542000**	**543000**	**857000**	53300	**757000**	**946000**	**946000**	288000	302000	306000	290000	290000	226000

Sample Name	Units	MOECC T2 RPI CT	BH201-D	DUP1 (BH201-D)	BH201-D	BH201-D	BH201-D	BH202	BH202	BH202	BH202	BH203	BH203	BH203	BH203	BH101	DUP (BH101
Date			8-Nov-17	8-Nov-17	7-Dec-17	17-Jan-18	19-Dec-18	8-Nov-17	7-Dec-17	17-Jan-18	19-Dec-18	8-Nov-17	7-Dec-17	17-Jan-18	19-Dec-18	10-Apr-19	10-Apr-19
Elev of Sample (masl)			213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.0-210	213.0-210	213.0-210	213.0-210	213.1-210.1	213.1-210.1	213.1-210.1	213.1-210.1	224.0-221	224.0-221
Depth (m)			21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	10.5-13.6	10.5-13.6
Parameter																	
Sodium	µg/L	490000	23500	23200	70100	214000	31900	419000	29200	17600	11400	40800	61600	110000	55300	**1720000**	**1640000**

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Consulting Geotechnical & Environmental Engineering
Construction Materials, Inspection & Testing
11 Indell Lane - Brampton Ontario L6T 3Y3 (905) 796-2650

Reference:

Notes:

1. 53,300 = Parameter Result Meets 2011 T2 Standard, Coarse
2. **542,000** = Parameter Result Exceeds 2011 T2 Standard, Coarse

✻ Not Considered an Exceedance Due to Additional Sampling Results. Refer to Report for Details.

Legend:

- Fill
- Upper Sands/Silts & Gravel
- Clayey Silt
- Lower Sands
- Monitoring Well Screen
- Average Ground Water Level (masl), January 17, 2018
- Sample Location Meets Standard
- Sample Location Exceeds Standard
- Approximate Extent of Contaminant Impact

Project Title:
Phase Two Environmental Site Assessment Update

Site Location:
61-67 Owen Street &
55-57 McDonald Street, Barrie, Ontario

Figure Title:
SODIUM EXCEEDANCES IN GROUND WATER
CROSS SECTION B-B'

Designed By: SM	*File No.:* 1-17-0481-42
Drawn By: MV	*Scale:* As Shown
Reviewed By: MB	*Figure No.:* 20
Date: December 2018	

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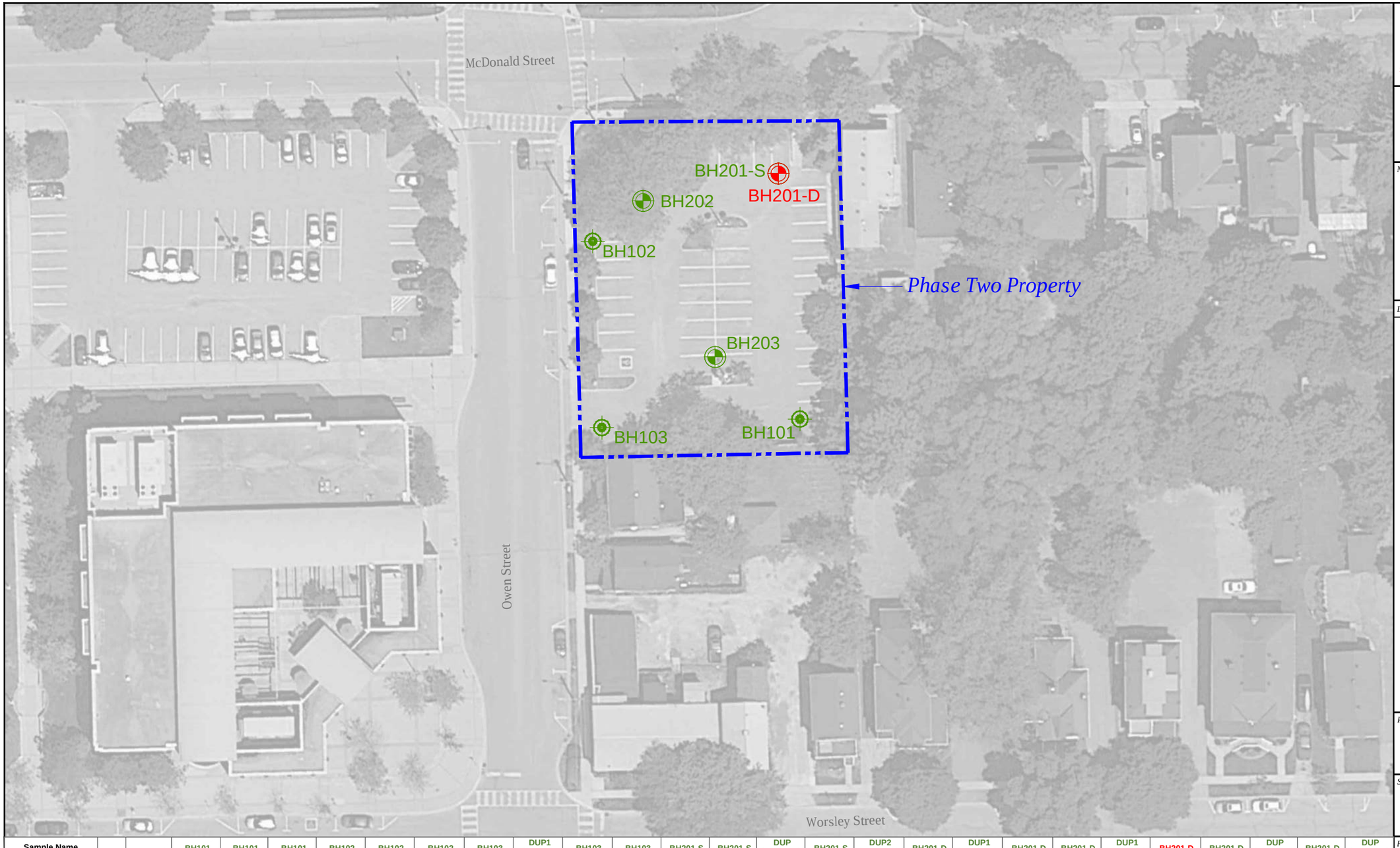

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11 Indell Lane - Brampton Ontario L6T 3Y3 (905) 796-2650

Reference:
Google Earth 2017

Notes:
1. 1.1 = Parameter Result Meets 2011 T6 Standard, Coarse
2. **14.1** = Parameter Result Exceeds 2011 T6 Standard, Coarse

* Not Considered an Exceedance Due to Additional Sampling Results. Refer to Report for Details.

Legend:
- Approximate Phase Two Property Boundary
- Approximate Borehole Location with Monitoring Well (August 2017)
- Approximate Borehole Location with Monitoring Well (October 2017)
- Sample in Borehole Meets Standard
- Sample in Borehole Exceeds Standard

Project Title:
Phase Two Environmental Site Assessment

Site Location:
61-67 Owen Street &
55-57 McDonald Street, Barrie, Ontario

Figure Title:
TABLE 6 VOC EXCEEDANCES IN GROUND WATER
PLAN VIEW (Historical)

Sample Name	Units	MOECC T6 RPI CT	BH101	BH101	BH101	BH102	BH102	BH102	BH103	DUP1 (BH103)	BH103	BH103	BH201-S	BH201-S	DUP (BH201-S)	BH201-S	DUP2 (BH201-S)	BH201-D	DUP1 (BH201-D)	BH201-D	BH201-D	DUP1 (BH201-D)	BH201-D	BH201-D	DUP (BH201-D)	BH201-D	DUP (BH201-D)
Date			11-Aug-17	7-Dec-17	17-Jan-18	11-Aug-17	7-Dec-17	17-Jan-18	11-Aug-17	11-Aug-17	7-Dec-17	17-Jan-18	8-Nov-17	7-Dec-17	7-Dec-17	17-Jan-18	17-Jan-18	8-Nov-17	8-Nov-17	7-Dec-17	4-Jan-18	4-Jan-18	17-Jan-18	18-Jun-18	18-Jun-18	19-Sep-18	19-Sep-18
Elev of Sample (masl)			224.0-221	224.0-221	224.0-221	225.4-222.3	225.4-222.3	225.4-222.3	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	229-226	229-226	229-226	229-226	229-226	213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7
Depth (m)			10.5-13.6	10.5-13.6	10.5-13.6	9.1-12.2	9.1-12.2	9.1-12.2	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	6.1-9.1	6.1-9.1	6.1-9.1	6.1-9.1	6.1-9.1	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4
Parameter																											
Trichloroethylene	µg/L	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.06 *	1.03	**2.56** *	<0.50	<0.50	**0.58**	<0.50	<0.50	<0.50	<0.50

Sample Name	Units	MOECC T6 RPI CT	BH202	BH202	BH202	BH203	BH203	BH203	BH203	BH203	DUP1 (BH203)	BH203	DUP1 (BH203)	BH203	BH203
Date			8-Nov-17	7-Dec-17	17-Jan-18	8-Nov-17	7-Dec-17	4-Jan-18	17-Jan-18	25-Jan-18	25-Jan-18	29-Jan-18	29-Jan-18	18-Jun-18	19-Sep-18
Elev of Sample (masl)			213.0-210	213.0-210	213.0-210	213.1-210.1	213.1-210.1	213.1-210.1	213.1-210.1	213.1-210.1	213.1-210.1	213.1-210.1	213.1-210.1	213.1-210.1	213.1-210.1
Depth (m)			21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4
Parameter															
Trichloroethylene	µg/L	0.5	<0.50	<0.50	<0.50	0.86 *	**2.83** *	<0.50 *	**2.43** *	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

Designed By: SM
Drawn By: MV
Reviewed By: MB
Date: December 2018
File No.: 1-17-0481-42
Scale: As Shown
Figure No.: 21B

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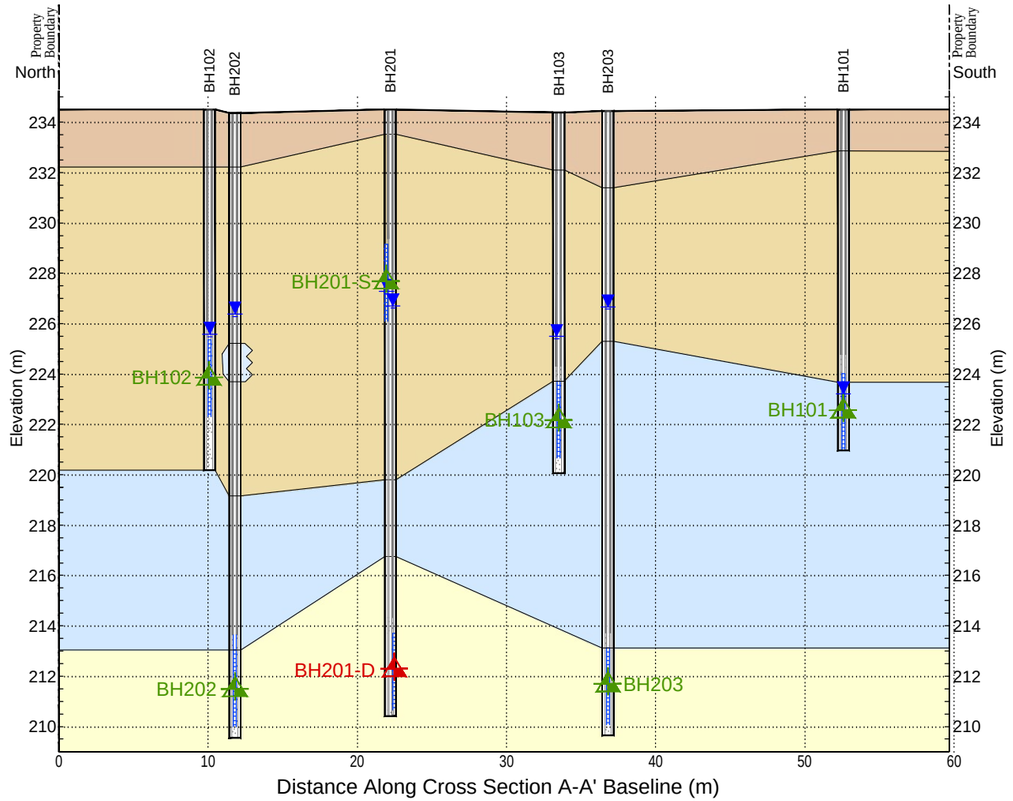

Sample Name	Units	MOECC T6 RPI CT	BH101	BH101	BH101	BH102	BH102	BH102	BH103	DUP1 (BH103)	BH103	BH103	BH201-S	BH201-S	DUP (BH201-S)	BH201-S	DUP2 (BH201-S)	BH201-D	DUP1 (BH201-D)	BH201-D	BH201-D	DUP1 (BH201-D)	BH201-D	BH201-D	DUP (BH201-D)	BH201-D	DUP (BH201-D)
Date			11-Aug-17	7-Dec-17	17-Jan-18	11-Aug-17	7-Dec-17	17-Jan-18	11-Aug-17	11-Aug-17	7-Dec-17	17-Jan-18	8-Nov-17	7-Dec-17	7-Dec-17	17-Jan-18	17-Jan-18	8-Nov-17	8-Nov-17	7-Dec-17	4-Jan-18	4-Jan-18	17-Jan-18	18-Jun-18	18-Jun-18	19-Sep-18	19-Sep-18
Elev of Sample (masl)			224.0-221	224.0-221	224.0-221	225.4-222.3	225.4-222.3	225.4-222.3	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	229-226	229-226	229-226	229-226	229-226	213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7
Depth (m)			10.5-13.6	10.5-13.6	10.5-13.6	9.1-12.2	9.1-12.2	9.1-12.2	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	6.1-9.1	6.1-9.1	6.1-9.1	6.1-9.1	6.1-9.1	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4
Parameter																											
Trichloroethylene	µg/L	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.06 ✻	1.03	**2.56** ✻	<0.50	<0.50	**0.58**	<0.50	<0.50	<0.50	<0.50

Sample Name	Units	MOECC T6 RPI CT	BH202	BH202	BH202	BH203	BH203	BH203	BH203	BH203	DUP1 (BH203)	BH203	DUP1 (BH203)	BH203	BH203
Date			8-Nov-17	7-Dec-17	17-Jan-18	8-Nov-17	7-Dec-17	4-Jan-18	17-Jan-18	25-Jan-18	25-Jan-18	29-Jan-18	29-Jan-18	18-Jun-18	19-Sep-18
Elev of Sample (masl)			213.0-210	213.0-210	213.0-210	213.1-210.1	213.1-210.1	213.1-210.1	213.1-210.1	213.1-210.1	213.1-210.1	213.1-210.1	213.1-210.1	213.1-210.1	213.1-210.1
Depth (m)			21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4
Parameter															
Trichloroethylene	µg/L	0.5	<0.50	<0.50	<0.50	0.86 ✻	**2.83** ✻	<0.50 ✻	**2.43** ✻	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

Terraprobe Inc.
Consulting Geotechnical & Environmental Engineering
Construction Materials, Inspection & Testing
11 Indell Lane - Brampton Ontario L6T 3Y3 (905) 796-2650

Reference:

Notes:

1. 1.1 = Parameter Result Meets 2011 T6 Standard, Coarse
2. **14.1** = Parameter Result Exceeds 2011 T6 Standard, Coarse

✻ Not Considered an Exceedance Due to Additional Sampling Results. Refer to Report for Details.

Legend:

- Fill
- Upper Sands/Silts & Gravel
- Clayey Silt
- Lower Sands
- Monitoring Well Screen
- Average Ground Water Level (masl), January 17, 2018
- Sample Location Meets Standard
- Sample Location Exceeds Standard

Project Title:
Phase Two Environmental Site Assessment Update

Site Location:
61-67 Owen Street &
55-57 McDonald Street, Barrie, Ontario

Figure Title:
TABLE 6 VOC EXCEEDANCES IN GROUND WATER CROSS SECTION A-A' (Historical)

Designed By: SM
Drawn By: MV
Reviewed By: MB
Date: December 2018
File No.: 1-17-0481-42
Scale: As Shown
Figure No.: 22B

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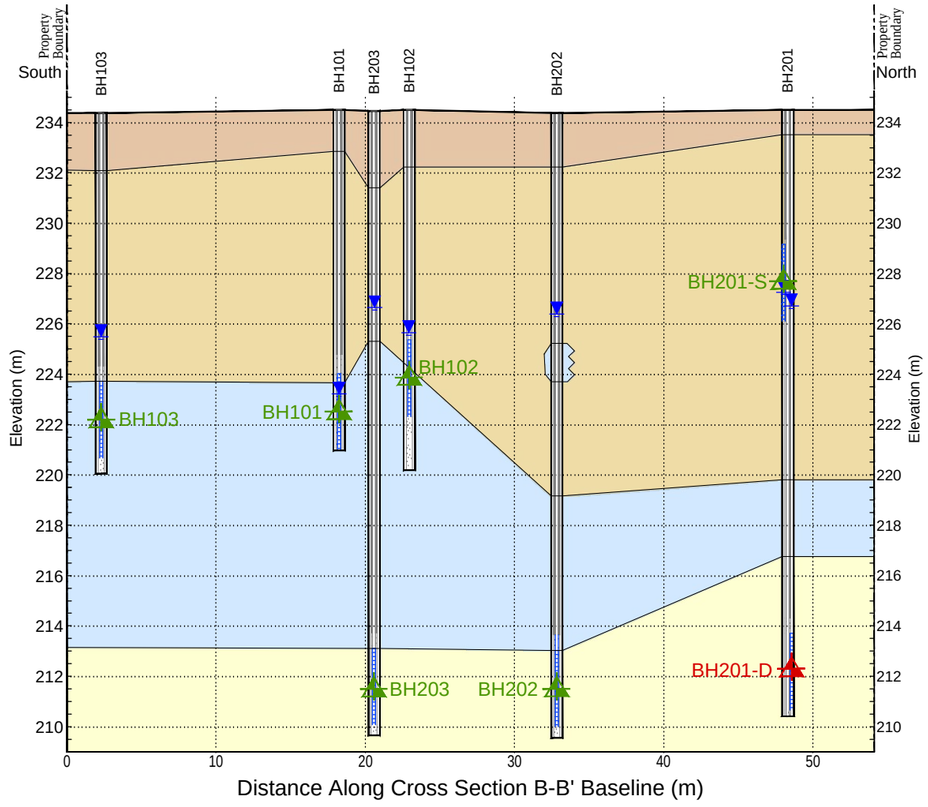

Sample Name	Units	MOECC T6 RPI CT	BH101	BH101	BH101	BH102	BH102	BH102	BH103	DUP1 (BH103)	BH103	BH103	BH201-S	BH201-S	DUP (BH201-S)	BH201-S	DUP2 (BH201-S)	BH201-D	DUP1 (BH201-D)	BH201-D	BH201-D	DUP1 (BH201-D)	BH201-D	BH201-D	DUP (BH201-D)	BH201-D	DUP (BH201-D)
Date			11-Aug-17	7-Dec-17	17-Jan-18	11-Aug-17	7-Dec-17	17-Jan-18	11-Aug-17	11-Aug-17	7-Dec-17	17-Jan-18	8-Nov-17	7-Dec-17	7-Dec-17	17-Jan-18	17-Jan-18	8-Nov-17	8-Nov-17	7-Dec-17	4-Jan-18	4-Jan-18	17-Jan-18	18-Jun-18	18-Jun-18	19-Sep-18	19-Sep-18
Elev of Sample (masl)			224.0-221	224.0-221	224.0-221	225.4-222.3	225.4-222.3	225.4-222.3	223.7-220.7	223.7-220.7	223.7-220.7	223.7-220.7	229-226	229-226	229-226	229-226	229-226	213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7	213.7-210.7
Depth (m)			10.5-13.6	10.5-13.6	10.5-13.6	9.1-12.2	9.1-12.2	9.1-12.2	10.7-13.7	10.7-13.7	10.7-13.7	10.7-13.7	6.1-9.1	6.1-9.1	6.1-9.1	6.1-9.1	6.1-9.1	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4
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Sample Name	Units	MOECC T6 RPI CT	BH202	BH202	BH202	BH203	BH203	BH203	BH203	BH203	DUP1 (BH203)	BH203	DUP1 (BH203)	BH203	BH203
Date			8-Nov-17	7-Dec-17	17-Jan-18	8-Nov-17	7-Dec-17	4-Jan-18	17-Jan-18	25-Jan-18	25-Jan-18	29-Jan-18	29-Jan-18	18-Jun-18	19-Sep-18
Elev of Sample (masl)			213.0-210	213.0-210	213.0-210	213.1-210.1	213.1-210.1	213.1-210.1	213.1-210.1	213.1-210.1	213.1-210.1	213.1-210.1	213.1-210.1	213.1-210.1	213.1-210.1
Depth (m)			21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4	21.3-24.4
Parameter															
Trichloroethylene	µg/L	0.5	<0.50	<0.50	<0.50	0.86 ✻	**2.83** ✻	<0.50 ✻	**2.43** ✻	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

Terraprobe Inc.
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11 Indell Lane - Brampton Ontario L6T 3Y3 (905) 796-2650

Reference:

Notes:

1. 1.1 = Parameter Result Meets 2011 T6 Standard, Coarse
2. **14.1** = Parameter Result Exceeds 2011 T6 Standard, Coarse

✻ Not Considered an Exceedance Due to Additional Sampling Results. Refer to Report for Details.

Legend:

- Fill
- Upper Sands/Silts & Gravel
- Clayey Silt
- Lower Sands
- Monitoring Well Screen
- Average Ground Water Level (masl), January 17, 2018
- Sample Location Meets Standard
- Sample Location Exceeds Standard

Project Title:
Phase Two Environmental Site Assessment Update

Site Location:
61-67 Owen Street &
55-57 McDonald Street, Barrie, Ontario

Figure Title:
TABLE 6 VOC EXCEEDANCES IN GROUND WATER CROSS SECTION B-B' (Historical)

Designed By: SM	*File No.:* 1-17-0481-42
Drawn By: MV	*Scale:* As Shown
Reviewed By: MB	*Figure No.:* 23B
Date: December 2018	

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APPENDIX C

Ontario

Certificate of Property Use

Issued under the authority of the Environmental Protection Act, R.S.O. 1990, c. E.19, sections 168.6 (CPU) and 197 (Order)

Certificate of Property use number 1247-BC5PCX
Risk Assessment number 4071-B2TUUT

Owner: The Corporation of the City of Barrie
70 Collier Street, Post Office Box 400
Barrie, Ontario
L4M 4T5

Site: 55-57 McDonald Street and 61-67 Owen Street
Barrie, Ontario

with a legal description described below or in Schedule 'C':

55 McDonald Street:
PART LOT 124 S/S MACDONALD STREET, PLAN 2 BARRIE AS IN RO1420694; S/T & T/W RO 1420694; S/T INTEREST IN RO1287454; BARRIE
Being all of Property Identifier No. 58817-0026 (LT)

57 McDonald Street:
PART LOT 124 S/S MACDONALD STREET, PLAN 2 BARRIE AS IN RO 1327580; T/W RO1327580; BARRIE
Being all of Property Identifier No. 58817-0027 (LT)

61 Owen Street:
PART LOT 124 S/S MACDONALD STREET, PLAN 2 BARRIE AS IN RO653238; BARRIE
Being all of Property Identifier No. 58817-0025 (LT)

67 Owen Street:
PART LOT 124 S/S MACDONALD STREET, PLAN 2 BARRIE AS IN RO1287119; BARRIE
Being all of Property Identifier No. 58817-0024 (LT)

No Municipal Address:
PART JAMES STREET, PLAN 31 BARRIE, PART 1, 51R32355; BARRIE
Being all of Property Identifier No. 58817-0174 (LT)

This Certificate of Property Use and Section 197 Order set out the requirements regarding the above-noted Property and the Modified Generic Risk Assessment carried out in relation to the Property which was assigned the number noted above and is described in more detail in Part 1 below.

Refer to Part 1 of the CPU, Interpretation, for the meaning of all the defined capitalized terms that apply to the CPU.

Part 1: Interpretation

In this CPU, the following capitalised terms have the meanings described below. These terms are also defined in the Approved Model. Not all of these terms may be used in this CPU.

"Act" means the Environmental Protection Act, R.S.O. 1990, c. E.19.

"Approved Model" has the same meaning as in subsection 1 (1) of Schedule C of O. Reg. 153/04, namely, the data file entitled "Modified Generic Risk Assessment Model" and dated October 19, 2009 as amended from time to time, that is maintained by the Ministry as part of its Brownfield initiative and is available on the Internet and may be available in such other manner as the Minister considers appropriate.

"ASTM" means the American Society for Testing and Materials.

"Barrier" means a Fill Cap Barrier, Hard Cap Barrier or Shallow Soil Cap Barrier.

"Building" means an enclosed structure occupying an area greater than ten square metres consisting of a wall or walls, roof and floor.

"Building Area" means the horizontal area of a Building at Grade within the outside surface of the exterior wall or walls.

"Building Code" means Ontario Regulation 332/12 (Building Code) as amended to January 1, 2015, made under the Building Code Act, 1992, S.O. 1992, c. 23.

"Capping Soil" means,

(a) soil that meets the applicable site condition standards for the Property, or

(b) soil that meets any higher standards for the contaminant or contaminants as generated by the Approved Model without incorporation of risk management measures, and as specified in section 3 of the Risk Assessment and in Schedule 'A' of the CPU.

"Certificate of Property Use" or "CPU" means this certificate of property use bearing the number **1247-BC5PCX** issued for the Property by the Director under section 168.6 of the Act, as it may be amended from time to time.

"Competent Person" has the same meaning as in the Occupational Health and Safety Act, R.S.O. 1990, c. O.1.

"Contaminant" has the same meaning as in the Act; namely any solid, liquid, gas, odour, heat, sound, vibration, radiation or combination of any of them, resulting directly or indirectly from human activities that causes or may cause an Adverse Effect.

"Contaminants of Concern" has the same meaning as in O. Reg. 153/04, which, for the Property, means one or more Contaminants found on, in or under the Property at a concentration that exceeds the applicable site condition standards for the Property, as specified in section 3 of the Risk Assessment report and in Schedule 'A' of the CPU.

"Director" means a person in the Ministry appointed as a director for the purpose of issuing a certificate of property use under section 168.6 of the Act.

"Fill Cap Barrier" means cover, above the Property Specific Contaminants of Concern, that, is at least,

a. 1.0 metre thick, or any greater thickness than 1.0 metre, as specified in section 7 of the Risk Assessment report, or
b. 1.5 metres thick, where the option to modify the S3 component value in the Approved Model for protection of subsurface workers from direct soil contact has been used in the Risk Assessment, as specified in section 7 of the Risk Assessment report, whichever is applicable, and,

consists of at least 0.5 metres thickness of Capping Soil, and above this, cover consisting of additional Capping Soil or non-soil surface treatment such as asphalt, concrete or concrete pavers, stone pavers, brick or aggregate.

"First Storey" has the same meaning as in the Building Code.

"Grade" has the same meaning as in the Building Code.

"Hard Cap Barrier" means an asphalt or concrete cover layer, above the Property Specific Contaminants of Concern, that is at least 225 millimetres thick, and consists of at least 75 millimetres thickness of hot mix asphalt or poured concrete underlain by Granular "A" aggregate or equivalent material, and includes a building slab or building foundation and floor slab meeting these specifications.

"Intrusive Activities" means any intrusive activity undertaken at the Property, such as excavating or drilling into soil or ground water, which may disturb or expose Property Specific Contaminants of Concern at the Property.

"Licenced Professional Engineer" means a person who holds a licence, limited licence or temporary licence under the Professional Engineers Act, R.S.O. 1990, c. P.28.

"Minister" means the Minister of the Ministry.

"Ministry" means the ministry of the government of Ontario responsible for the administration of the Act, currently named the Ministry of the Environment, Conservation and Parks.

"O. Reg. 153/04" means Ontario Regulation 153/04 (Record of Site Condition – Part XV.1 of the Act), as amended, made under the Act.

"Owner" means the owner(s) of the Property, beginning with the person(s) to whom the Certificate of Property Use for the Property is first issued by the Director under section 168.6 of the Act based on the Risk Assessment, and any subsequent owner of the Property.

"Property" means the property that is the subject of the Risk Assessment.

"Property Specific Contaminants of Concern" means one or more Contaminants found on, in or under the Property at a concentration that exceeds the applicable site condition standards for the Property and any higher standards for the Contaminant or Contaminants as generated by the Approved Model without incorporation of Risk Management Measures, and as specified in section 3 of the Risk Assessment.

"Property Specific Standards" means the standards established as the maximum allowable concentrations for the Property Specific Contaminants of Concern at the Property, as generated by the Approved Model with incorporation of Risk Management Measures, as specified in section 6 of the Risk Assessment report and in Schedule 'A' Table 1-1: "Contaminants of Concern and Property Specific Standards" of the CPU.

"Provincial Officer" has the same meaning as in the Act, namely, a person who is designated by the Minister as a provincial officer for the purposes of the Act and the regulations.

"Qualified Person" means a person who meets the qualifications set out in subsection 5 (2) of O. Reg. 153/04.

"Risk Assessment" and "MGRA" means the modified generic risk assessment number **4071-B2TUUT** submitted with respect to the Property and accepted by a Director under section 168.5 of the Act on April 30, 2019 and set out in the following documents:

- The report entitled "61-67 Owen Street and 55-57 McDonald Street, Barrie, ON, Modified Generic Risk Assessment" by MTE GolbalTox dated July 3, 2018;
- The report entitled "61-67 Owen Street and 55-57 McDonald Street, Barrie, ON, Revised Modified Generic Risk Assessment" by MTE GolbalTox dated February 20, 2019; and
- The email entitled "RE: Request for Additional Information – MGRA for 61-67 Owen Street and 55-57 McDonald Street, Barrie, ON (MGRA1701-18b; IDS #4071-B2TUUT" from Steve E. Russell of MTE GlobalTox dated April 23, 2019, with the following document attached:
    - *43666-100_Revised North Parcel MGRA.pdf*

"Risk Management Measures" means the risk management measures specific to the Property described in the Risk Assessment and/or Part 4 of the CPU.

"Shallow Soil Cap Barrier" means cover, above the Property Specific Contaminants of Concern, that is at least 0.5 metres thick, and consists of Capping Soil.

"Storage Garage" has the same meaning as in the Building Code.

Part 2: Legal Authority

2.1 Section 19 of the Act states that a certificate of property use is binding on the executor, administrator, administrator with the will annexed, guardian of property or attorney for property of the person to whom it was directed, and on any other successor or assignee of the person to whom it was directed.

2.2 Subsection 168.6(1) of the Act states that if a risk assessment relating to a property has been accepted under clause 168.5(1)(a), the Director may issue a certificate of property use to the owner of the property, requiring the owner to do any of the following things:

1. Take any action specified in the certificate and that, in the Director's opinion, is necessary to prevent, eliminate or ameliorate any adverse effect that has been identified in the risk assessment, including installing any equipment, monitoring any contaminant or recording or reporting information for that purpose.
2. Refrain from using the property for any use specified in the certificate or from constructing any building specified in the certificate on the property.

2.3 Subsection 168.6(2) of the Act states that a certificate of property use shall not require an owner of property to take any action that would have the effect of reducing the concentration of a contaminant on, in or under the property to a level below the level that is required to meet the standards specified for the contaminant in the risk assessment.

2.4 Subsection 168.6(3) of the Act states that the Director may, on his or her own initiative or on application by the owner of the property in respect of which a certificate of property use has been issued under subsection 168.6(1),

(a) alter any terms and conditions in the certificate or impose new terms and conditions; or

(b) revoke the certificate.

2.5 Subsection 168.6(4) of the Act states that if a certificate of property use contains a provision requiring the owner of property to refrain from using the property for a specified use or from constructing a specified building on the property,

(a) the owner of the property shall ensure that a copy of the provision is given to every occupant of the property;

(b) the provision applies, with necessary modifications, to every occupant of the property who receives a copy of the provision; and

(c) the owner of the property shall ensure that every occupant of the property complies with the provision.

2.6 Subsection 197(1) of the Act states that a person who has authority under the Act to make

an order or decision affecting real property also has authority to make an order requiring any person with an interest in the property, before dealing with the property in any way, to give a copy of the order or decision affecting the property to every person who will acquire an interest in the property as a result of the dealing.

2.7 Subsection 197(2) of the Act states that a certificate setting out a requirement imposed under subsection 197(1) may be registered in the proper land registry office on the title of the real property to which the requirement relates, if the certificate is in a form approved by the Minister, is signed or authorized by a person who has authority to make orders imposing requirements under subsection 197(1) and is accompanied by a registrable description of the property.

2.8 Subsection 197(3) of the Act states that a requirement, imposed under subsection 197(1) that is set out in a certificate registered under subsection 197(2) is, from the time of registration, deemed to be directed to each person who subsequently acquires an interest in the real property.

2.9 Subsection 197(4) of the Act states that a dealing with real property by a person who is subject to a requirement imposed under subsection 197(1) or 197(3) is voidable at the instance of a person who was not given the copy of the order or decision in accordance with the requirement.

Part 3: Background

3.1 The Risk Assessment was undertaken for the Property on behalf of the Owner to assess the human health risks and ecological risks associated with the presence or discharge of Contaminants on, in or under the Property and to identify appropriate Risk Management Measures to be implemented to ensure that the Property is suitable for the intended use: "Residential/Parkland/Institutional" as defined in O. Reg. 153/04.

3.2 The Contaminants on, in or under the Property that are present above Table 2 "Full Depth Generic Site Condition Standards in a Potable Ground Water Condition" of the ***Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act*** published by the Ministry and dated April 15, 2011 for coarse textured soils for Residential/Parkland/Institutional Property Use are set out in the Risk Assessment and in Schedule 'A' (Contaminants of Concern). The Property Specific Standards for these Contaminants of Concern are also set out in Schedule 'A' Table 1-1: "Contaminants of Concern and Property Specific Standards" which is attached to and forms part of the CPU. Also attached to and forming part of the CPU as Schedule 'B' is a copy of a current plan of survey of the Property entitled "Plan of Survey Showing Topographical Information of Lot 124, South Side of MacDonald Street, Registered Plan 2 and Part of James Street (not closed), Registered Plan 31, City of Barrie, County of Simcoe" by KRCMAR Surveyors Ltd., dated March 15, 2018.

3.3 I am of the opinion, for the reasons set out in the Risk Assessment that the Risk Management Measures described therein and in Part 4 of the CPU are necessary to

prevent, eliminate or ameliorate an Adverse Effect on the Property that has been identified in the Risk Assessment.

3.4 I am of the opinion, for the reasons set out in the Risk Assessment, that Contaminants of Concern require on-going pathway elimination and it is necessary to restrict the use of the Property and/or the construction of buildings and/or the notice provisions as outlined in Part 5 of this CPU.

3.5 I am of the opinion, that the requirements set out in Part 6 of this CPU are necessary to supplement the Risk Management Measures described in the Risk Assessment and in Part 4 of the CPU.

3.6 I believe for the reasons set out in the Risk Assessment that it is also advisable to require the disclosure of this CPU and the registration of notice of the CPU on title to the Property as set out in the order requirements in Part 7 of this CPU.

Part 4: CPU Risk Management Measures and Requirements Relating to the Risk Assessment and the Property

I hereby require the Owner to do or cause to be done the following under the authority of paragraph 168.8(1)1 of the Act:

Risk Management Measures

4.0 Implement, and thereafter maintain or cause to be maintained, the following Risk Management Measures and requirements identified in the Risk Assessment and set out in Items 4.1 to 4.16 as applicable.

4.1 Shallow Soil Cap Barrier Risk Management Measure: NOT APPLICABLE

4.2 Hard Cap Barrier or Fill Cap Barrier (1.0 metre) Risk Management Measure:

a. Cover all areas of the Property where Property Specific Contaminants of Concern are present at or within 1.0 metre below the soil surface such that a Hard Cap Barrier or Fill Cap Barrier is in place in these areas, so as to prevent exposure to the Property Specific Contaminants of Concern at the Property, in conjunction with any existing Barriers in any other areas of the Property where Property Specific Contaminants of Concern are present below the soil surface; and

b. Before commencing development of all or any part of the Property, install fencing and implement dust control measures for any part of the property requiring covering but which has not been covered, so as to prevent exposure to

the Property Specific Contaminants of Concern at the Property. Fencing and dust control measures shall be maintained until such time as the Hard Cap Barrier or Fill Cap Barrier (s) are installed.

4.3 Hard Cap Barrier or Fill Cap Barrier (modified S3 soil component value) Risk Management Measure: NOT APPLICABLE

4.4 Inspection, maintenance and reporting requirements for all Barriers:

a. Prepare and implement a written inspection and maintenance program, prepared by a Qualified Person and to be retained by the Owner, and to be available for inspection upon request by a Provincial Officer, so as to ensure the continuing integrity of each Barrier at the Property so long as the Property Specific Contaminants of Concern are present at the Property, including, at a minimum:
   i. procedures and timing for implementing the program;
   ii. semi-annual inspections, in spring and fall, of the Barrier;
   iii. noting any deficiencies in the Barrier observed during the inspections, or at any other time;
   iv. repairing promptly any such deficiencies, to the original design specifications, with written confirmation that the Barrier has been properly repaired,;
   v. contingency measures, such as fencing, to be implemented if cracks, breaches or any loss of integrity of the Barrier cannot be repaired or addressed in a timely manner, to prevent exposure to the Property Specific Contaminants of Concern in that area of the Property; and
   vi. recording, in writing, all inspections, deficiencies, repairs and implementation of contingency measures, to be retained by the Owner and be available for inspection upon request by a Provincial Officer;

   and which is,

   vii. delivered to the Owner before use of all or any part of the Property begins, or within 90 days following completion of covering of all or any part of the Property, whichever is earlier; and
   viii. updated and delivered to the Owner within 30 days following making any alteration to the program.

b. Prepare a site plan of the entire Property, prepared by a Licenced Professional Engineer and to be retained by the Owner, and be available for inspection upon request by a Provincial Officer, showing the Property, any fencing, and the location, type and design of each Barrier at the Property, including cross-sectional drawings of the Barrier showing its design and vertical and lateral extent;
   and which are,
   i. delivered to the Owner before use of all or any part of the Property begins, or within 90 days following completion of covering of all or any part of the Property, whichever is earlier; and
   ii. updated and delivered to the Owner within 30 days following making any alteration to the location, design or extent of the Barrier, or other relevant feature shown on the site plan; and

c. Prepare and implement written procedures, prepared by a Qualified Person and to be retained by the Owner, and be available for inspection upon request by a Provincial Officer, for written and oral communication to all persons who may be involved in Intrusive Activities at the Property that may disturb a Barrier at the Property, so as to ensure the persons are made aware of the presence and significance of the Barrier and the Property Specific Contaminants of Concern at the Property and the precautions to be taken to ensure the continued integrity of the Barrier when undertaking the Intrusive Activities, and if damaged, to ensure that the Barrier is repaired promptly to the original design specifications, or, if it cannot be repaired promptly, to ensure that the contingency measures are implemented, and records kept, as specified in the inspection and maintenance program;
and which are,
   i. delivered to the Owner before any Intrusive Activities are undertaken at the Property; and
   ii. updated and delivered to the Owner within 30 days following making any alteration to the procedures.

4.5 Building with Storage Garage (intermittent 3.9 Litres/second of Ventilation) Risk Management Measure:

Refrain from constructing any Building on the Property unless the Building includes a Storage Garage, and:

a. The Storage Garage is constructed at or below the Grade of the Building;
b. The Storage Garage area covers the entire Building Area at Grade; and
c. The Storage Garage complies with all applicable requirements of the Building Code, such as the provisions governing
   i. design of a mechanical ventilation system as set out in Division B, Article 6.2.2.3. (Ventilation of Storage and Repair Garages) of the Building Code;
   ii. interconnection of air duct systems as set out in Division B, Sentence (2) of Article 6.2.3.9. (Interconnection of Systems) of the Building Code; and
   iii. air leakage as set out in Division B, Section 5.4. (Air Leakage) of the Building Code; and
d. The mechanical ventilation system for the Storage Garage is designed to provide, during operating hours a continuous supply of outdoor air at a rate of not less than 3.9 litres per second for each square metre of floor area or be activated on an as-needed basis by carbon monoxide or nitrogen dioxide monitoring devices is required by the Building Code and as set out in table 7.1 of the Risk Assessment.

4.6 Building with Storage Garage (continuous 3.9 Litres/second of Ventilation) Risk Management Measure: NOT APPLICABLE

4.7 Building with Storage Garage (continuous 10.0 Litres/second of ventilation) Risk Management Measure: NOT APPLICABLE

4.8 Building Prohibition Risk Management Measure: NOT APPLICABLE

4.9 Passive soil vapour intrusion mitigation system (SVIMS) or Active soil vapour intrusion mitigation system (SVIMS) Risk Management Measures: NOT APPLICABLE

4.10 Quality Assurance/Quality Control, Inspections, Maintenance and Reporting Requirements for Passive SVIMS or Active SVIMS: NOT APPLICABLE

4.11 Building with no first storey residential, institutional or parkland use Risk Management Measure: NOT APPLICABLE

4.12 Building with minimum first storey ceiling height requirement Risk Management Measure: NOT APPLICABLE

4.13 No ground water use Risk Management Measure:

a. Refrain from using ground water in or under the Property as a source of water;
b. Properly abandon any wells on the Property, as defined in section 35. (1) of O. Reg. 153/04, according to R.R.O. 1990, Regulation 903 (Wells), as amended, made under the Ontario Water Resources Act, R.S.O. 1990, c. O.40; and
c. Refrain from constructing on the Property any wells as defined in section 35. (1) of O. Reg. 153/04.

4.14 Health and Safety Plan Requirement:

In addition to any requirements under the Occupational Health and Safety Act, R.S.O. 1990, c. O.1, prepare and implement a written health and safety plan for the Property, prepared by a Competent Person in consultation with a Qualified Person and to be retained by the Owner, and be available for inspection upon request by a Provincial Officer, that includes information concerning the potential hazards and safe work measures and procedures with respect to the Property Specific Contaminants of Concern at the Property and the communication of this information to all persons who may be involved in Intrusive Activities at the Property, including, at a minimum:

a. the procedures and timing for implementing the plan, including the supervision of persons implementing the plan;
b. all relevant information concerning the presence of, human exposure to, and risk posed by, the Property Specific Contaminants of Concern through dermal contact, soil or ground water ingestion and inhalation of soil particles or vapour, and concerning any biogenic gases such as methane that may be present at the Property including information in the Risk Assessment;
c. all relevant information, measures and procedures concerning protection of the persons from exposure to the Property Specific Contaminants of Concern and the precautions to be taken when undertaking Intrusive Activities, including the supervision of workers, occupational hygiene requirements, use of personal protective equipment, provision of air flow augmentation in excavations or other areas or situations of minimal air ventilation, and other protective measures and procedures as appropriate;

d. all relevant information concerning the presence and significance of the risk management measures and requirements which are being, or have been, implemented at the Property,
e. the procedures and timing for implementing emergency response and contingency measures and procedures, including contact information, in the event of a health and safety incident; and
f. the recording, in writing, of the implementation of the plan and any health and safety incidents that occur, to be retained by the Owner and be available for inspection upon request by a Provincial Officer;

and which is,

g. delivered to the Owner before any Intrusive Activities are undertaken at the Property; and
h. updated and delivered to the Owner within 30 days following making any alteration to the plan.

4.15 Soil and Ground Water Management Plan Requirement:

Prepare and implement a written soil and ground water management plan for the Property, prepared by a Qualified Person and to be retained by the Owner, and be available for inspection upon request by a Provincial Officer, for managing excavated soil or soil brought to the Property, and, if any, ground water from dewatering during Intrusive Activities at the Property, so as to prevent exposure to or uncontrolled movement or discharge of the Property Specific Contaminants of Concern in soil or ground water at the Property, including, at a minimum:

a. procedures and timing for implementing the plan, including the supervision of persons implementing the plan;
b. measures to control dust and prevent tracking of soil by vehicles and persons from the Property, including the cleaning of equipment and vehicles;
c. measures, in addition to any applicable measures specified in O. Reg. 153/04, to manage soil excavated at the Property and any soil brought to or removed from the Property, including:
    i. characterizing for contaminant quality all excavated soil and any soil brought to the Property, including determining whether the soil:
        1. is Capping Soil;
        2. meets the Property Specific Standards; or
        3. exceeds the Property Specific Standards;
        4. Any soil brought to the Property must comply with Section 55 of O.Reg. 153/04.
    ii. managing excavated soil separately from any soil brought to the Property, including any excavated soil that is to be:
        1. used as Capping Soil at the Property;
        2. otherwise used as fill at the Property;
        3. removed from the Property and
    iii. stockpiling of excavated soil and any soil brought to the Property in separate designated areas that:

1. reflect the distinctions described in parts c ii. 1) and 2) above;
2. have been lined and covered, as appropriate, to prevent uncontrolled movement
3. have been bermed or fenced, as appropriate, to restrict access by persons; and
4. have storm water runoff controls in place to minimize storm water runoff contacting stockpiled soil, with provision for discharge of storm water runoff to other approved treatment system, such that there is no discharge to a sanitary sewer, if needed;

d. measures to manage storm water and any ground water from dewatering at the Property to prevent the movement of entrained soil and/or Contaminants of Concern within and away from the Property, including, in addition to any applicable measures specified pursuant to other applicable law or other instruments, measures such as silt fences, filter socks for catch-basins and utility covers, and provision for discharge to other approved treatment system, such that there is no discharge to a sanitary sewer, if needed; and

e. recording, in writing, the soil, storm water and any ground water management measures undertaken, in addition to any applicable record keeping requirements specified in O. Reg. 153/04 or pursuant to other applicable law or other instruments, to be retained by the Owner, and be available for inspection upon request by a Provincial Officer, including:
   i. dates and duration of the Intrusive Activities being undertaken;
   ii. weather and site conditions during the Intrusive Activities;
   iii. the location and depth of excavation activities, and dewatering activities, if any;
   iv. dust control and soil tracking control measures;
   v. characterization results for excavated soil and any soil brought to or removed from the Property, and for any ground water from dewatering;
   vi. soil management activities including soil quantities excavated and brought to and removed from the Property, and stockpile management and storm water runoff control;
   vii. management activities for any ground water from dewatering;
   viii. names and contact information for the Qualified Persons and on-site contractors involved in the Intrusive Activities;
   ix. names and contact information for any haulers and receiving sites for soil and any ground water removed from the Property, and for haulers and source sites of any soil brought to the Property; and
   x. any complaints received relating to the Intrusive Activities, including the soil, storm water and any ground water management activities;

   and which is,

   xi. delivered to the Owner before any Intrusive Activities are undertaken at the Property; and
   xii. updated and delivered to the Owner within 30 days following making any alteration to the plan.

4.16 ANNUAL REPORTS

The Owner shall prepare by March 31 each year, an annual report documenting activities relating to the Risk Management Measures undertaken during the previous calendar year. A copy of this report shall be maintained on file by the Owner and shall be made available upon request by a Provincial Officer. The report shall include, but not be limited to, the following minimum information requirements as applicable:

a. a copy of all records relating to the inspection and maintenance program for the Barrier to site soils;
b. a copy of all records relating to the inspection and maintenance program for the building with Storage Garage (intermittent 3.9 l/s of ventilation);
c. a copy of all records relating to the soil and ground water management plan;
d. a copy of all records relating to the health and safety plan;
e. a copy of signed site plans including any alterations; and
f. Confirmation that the building with storage garage covers the entire building footprint and is ventilated in accordance to item 4.5.

Part 5: CPU Restrictions on Property Use, Building Construction and Notice Requirements

I hereby require the Owner to do or cause to be done the following under the authority of paragraph 168.6(1)2 of the Act:

5.1 Property Use Restriction

Refrain from using the Property for any of the following use(s): any type of property use specified in O. Reg. 153/04 which is more sensitive than residential, parkland and or institutional.

5.2 Building Construction Restrictions

Refrain from constructing the following building(s): Any building except as may be permitted in the CPU.

5.3 Notice of Restrictions

Pursuant to the requirements of subsection 168.6(4) of the Act, the Owner shall ensure that every occupant of the Property is given notice that the Ministry has issued this CPU and that it contains the provisions noted above in Items 5.1 and 5.2, except where noted N/A, and that every occupant complies with such provisions. For the purposes of this requirement, an occupant means any person with whom the Owner has a contractual relationship regarding the occupancy of all or part of the Property.

Part 6: Additional Requirements

I hereby require the Owner to do or cause to be done the following things under the authority of subsection 168.6(1) of the Act.

6.1 Site Changes Affecting Risk Management Measures

In the event of a change in the physical site conditions or receptor characteristics at the Property that may affect the Risk Management Measures and/or any underlying basis for the Risk Management Measures, the Owner shall forthwith notify the Director of such changes and the steps taken, to implement, maintain and operate any further Risk Management Measures as are necessary to prevent, eliminate or ameliorate any Adverse Effect that will result from the presence on, in or under the Property or the discharge of any Contaminant of Concern into the natural environment from the Property. In support of this work, a new risk assessment may need to be completed in accordance with O. Reg. 153/04 and submitted to the Ministry for acceptance. An amendment to the CPU will be issued to address the changes set out in any notice received and any future changes that the Director considers necessary in the circumstances.

6.2 Report Retention Requirements

The Owner shall retain a copy of any reports required under the CPU for a period of seven (7) years from the date the report is created and within ten (10) days of the Director or a Provincial Officer making a request for a report, provide a copy to the requesting Director or Provincial Officer.

6.3 Owner/Occupant Change Notification

While the CPU is in effect, the Owner shall, forthwith report in writing to the Director any changes of ownership, or occupancy except that while the Property is registered under the Condominium Act, 1998, S.O.1998 c.19, as amended, no notice shall be given of changes in the ownership of individual condominium units or any appurtenant common elements on the Property of the Property.

Part 7: Section 197 Order (Property Notice and Certificate of Requirement Registration) Requirements

I hereby order the Owner to do or cause to be done the following under the authority of subsections 197(1) and 197 (2) of the Act:

7.1 Property Notice Requirement

For the reasons set out in the CPU and pursuant to the authority vested in me by subsection 197(1) of the Act I hereby order you and any other person with an interest in the Property, before dealing with the Property in any way, to give a copy of the

CPU, including any amendments thereto, to every person who will acquire an interest in the Property as a result of the dealing,

7.2 CERTIFICATE OF REQUIREMENT REGISTRATION

Within fifteen (15) days from the date of receipt of a certificate of requirement issued under subsection 197(2) of the Act and as set out in Schedule 'C', register the certificate of requirement on title to the Property, in the appropriate land registry office.

7.3 VERIFICATION

Within five (5) days after registering the certificate of requirement provide to the Director a copy of the registered certificate and of the parcel register(s) for the Property confirming that registration has been completed.

Part 8: General Requirements

8.1 The requirements of the CPU are severable. If any requirement of the CPU or the application of any requirement to any circumstance is held invalid, the application of such requirement to other circumstances and the remainder of the CPU shall not be affected thereby.

8.2 An application under section 168.6(3) of the Act to, a) alter any terms and conditions in the CPU or impose new terms and conditions; or b) revoke the CPU; shall be made in writing to the Director, with reasons for the request.

8.3 Subsection 186(3) of the Act provides that non-compliance with the requirements of the CPU constitutes an offence.

8.4 The requirements of the CPU are minimum requirements only and do not relieve the Owner from, a) complying with any other applicable order, statute, regulation, municipal, provincial or federal law; or b) obtaining any approvals or consents not specified in the CPU.

8.5 Notwithstanding the issuance of the CPU, further requirements may be imposed in accordance with legislation as circumstances require.

8.6 In the event that, any person is, in the opinion of the Director, rendered unable to comply with any requirements in the CPU because of,

a. natural phenomena of an inevitable or irresistible nature, or insurrections,
b. strikes, lockouts or other labour disturbances,
c. inability to obtain materials or equipment for reasons beyond your control, or
d. any other cause whether similar to or different from the foregoing beyond your control,

the requirements shall be adjusted in a manner defined by the Director. To obtain such an adjustment, the Director must be notified immediately of any of the above occurrences, providing details that demonstrate that no practical alternatives are feasible in order to meet the requirements in question.

8.7 Failure to comply with a requirement of the CPU by a date specified does not absolve the Owner from compliance with the requirement. The obligation to complete the requirement shall continue each day thereafter.

8.8 The Risk Management Measures identified in the Risk Assessment and also in Part 4 of the CPU and all the other requirements in the CPU shall commence upon the issuance of the CPU and continue in full force and effect in accordance with the terms and conditions of the CPU until such time as the Director alters or revokes the CPU.

8.9 The provisions of the CPU shall take precedence in the event of a conflict between the provisions of the CPU and the Risk Assessment save and except for the Part 4 Risk Management Measures.

8.10 In the event that the Owner complies with the provisions of Items 7.2 and 7.3 of the CPU regarding the registration of the certificate of requirement on title to the Property, and then creates a condominium corporation by the registration of a declaration and description with respect to the Property pursuant to the *Condominium Act, 1998*, S.O. 1998, c.19, as amended, and then transfers ownership of the Property to various condominium unit owners, the ongoing obligations of the Owner under this CPU can be carried out by the condominium corporation on behalf of the new Owners of the Property.

Part 9: Hearing before the Environmental Review Tribunal

With respect to those provisions relating to my authority in issuing a certificate of property use under section 168.6 and an order under section 197 of the Act:

9.1 Pursuant to section 139 of the Act, you may require a hearing before the Environmental Review Tribunal (the "Tribunal"), if within fifteen (15) days after service on you of a copy of the CPU, you serve written notice upon the Director and the Tribunal.

9.1 Pursuant to section 142 of the Act, the notice requiring the hearing must include a statement of the portions of the CPU and the grounds on which you intend to rely at the hearing. Except by leave of the Tribunal, you are not entitled to appeal a portion of the CPU, or to rely on a ground, that is not stated in the notice requiring the hearing.

9.2 Service of a notice requiring a hearing must be carried out in a manner set out in section 182 of the Act and Ontario Regulation 227/07: *Service of Documents,* made under the Act as they may be amended from time to time. The address, email address and fax numbers of the Director and the Tribunal are:

The Secretary
Environmental Review Tribunal
655 Bay Street, Suite 1500
Toronto, ON, M5G 1E5

Fax: (416) 326-5370
Email: ERTTribunalSecretary@ontario.ca

and

Cindy Hood, District Manager
Barrie District Office, Central Region
Ministry of the Environment, Conservation and Parks
54 Cedar Pointe Road, Unit 1201
Barrie, Ontario
L4N 5R7
Fax: 705-739-6440
Email: cindy.hood@ontario.ca

9.4 Unless stayed by application to the Tribunal under section 143 of the Act, the CPU is effective from the date of issue.

Further information on the requirements of the Tribunal regarding an appeal can be obtained directly from the Tribunal by:

Tel: (416) 212-6349 Fax: (416) 326-5370 www.ert.gov.on.ca

Issued at Barrie this 17th day of September 2019.

Cindy Hood
Director, section 168.6 of the Act

Schedule 'A'

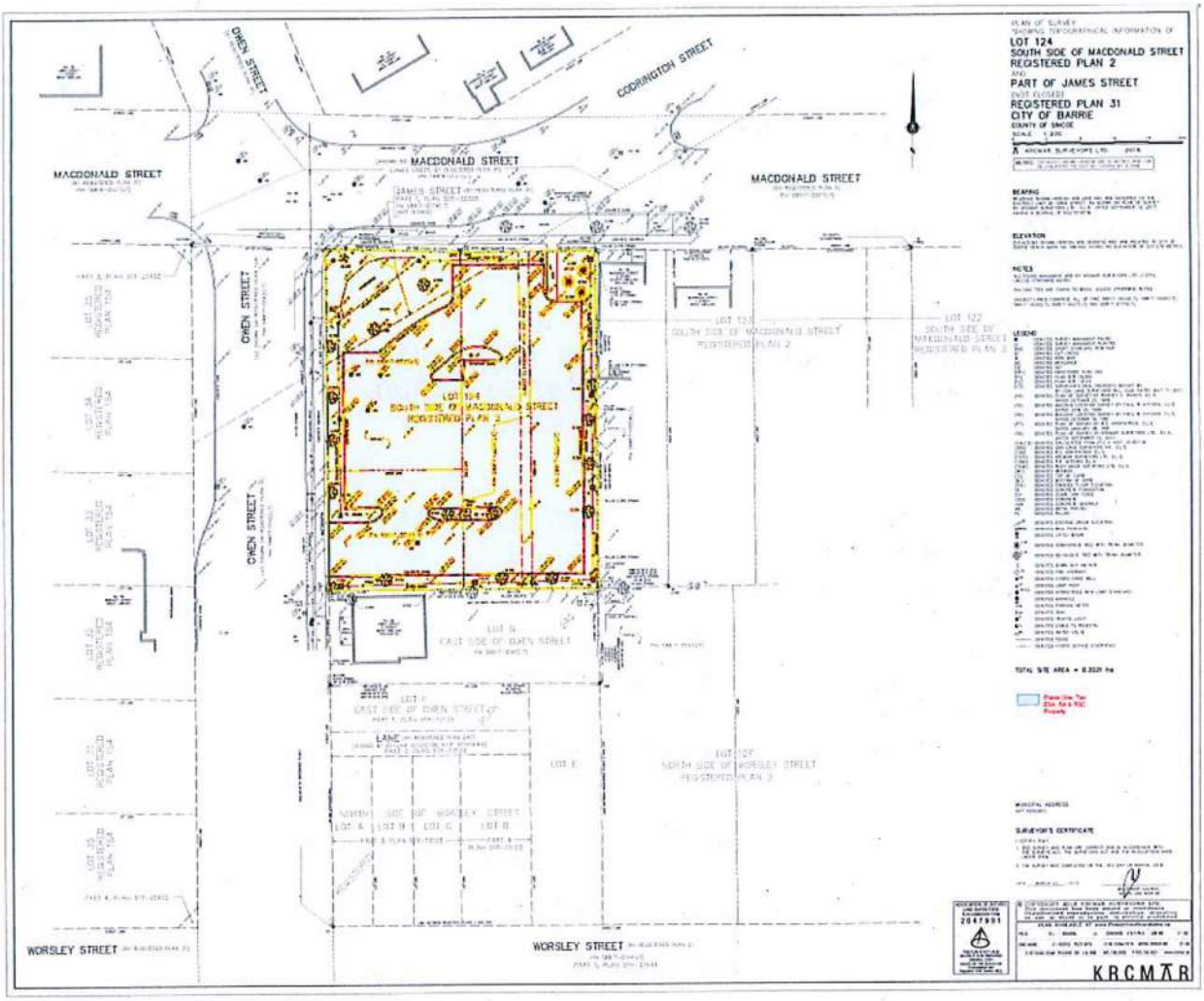
Table 1-1: Contaminants of Concern and Property Specific Standards

Media	Contaminants of Concern (COC)	Units	Property Specific Standards
Ground Water	Barium	µg/L	2100
Ground Water	Chloride	µg/L	6,800,000
Ground Water	Sodium	µg/L	2,100,000
Ground Water	Trichloroethylene	µg/L	0.64
Soil	Electrical Conductivity	mS/cm	3.5
Soil	Sodium Adsorption Ratio		48

SCHEDULE 'B'

Legal Survey

"Plan of Survey Showing Topographical Information of Lot 124, South Side of MacDonald Street, Registered Plan 2 and Part of James Street (not closed), Registered Plan 31, City of Barrie, County of Simcoe" by KRCMAR Surveyors Ltd., dated March 15, 2018.



SCHEDULE 'C'

CERTIFICATE OF REQUIREMENT

s.197(2)
Environmental Protection Act

This is to certify that pursuant to Item 7.2 of Certificate of Property Use number **1247-BC5PCX** issued by Cindy Hood, Director of the Ministry of the Environment, Conservation and Parks, under sections 168.6 and 197 of the Environmental Protection Act, on September 17, 2019, being a Certificate of Property Use and order under subsection 197(1) of the Environmental Protection Act relating to the property municipally known 55-57 McDonald Street and 61-67 Owen Street, Barrie, being:

55 McDonald Street:
PART LOT 124 S/S MACDONALD STREET, PLAN 2 BARRIE AS IN RO1420694; S/T & T/W RO 1420694; S/T INTEREST IN RO1287454; BARRIE
Being all of Property Identifier No. 58817-0026 (LT)

57 McDonald Street:
PART LOT 124 S/S MACDONALD STREET, PLAN 2 BARRIE AS IN RO 1327580; T/W RO1327580; BARRIE
Being all of Property Identifier No. 58817-0027 (LT)

61 Owen Street:
PART LOT 124 S/S MACDONALD STREET, PLAN 2 BARRIE AS IN RO653238; BARRIE
Being all of Property Identifier No. 58817-0025 (LT)

67 Owen Street:
PART LOT 124 S/S MACDONALD STREET, PLAN 2 BARRIE AS IN RO1287119; BARRIE
Being all of Property Identifier No. 58817-0024 (LT)

No Municipal Address:
PART JAMES STREET, PLAN 31 BARRIE, PART 1, 51R32355; BARRIE
Being all of Property Identifier No. 58817-0174 (LT)

(the "Property") with respect to a Risk Assessment and certain Risk Management Measures and other preventive measure requirements on the Property.

THE CORPORATION OF THE CITY OF BARRIE

and any other persons having an interest in the Property, are required before dealing with the Property in any way, to give a copy of the Certificate of Property Use, including any amendments thereto, to every person who will acquire an interest in the Property

Under subsection 197(3) of the Environmental Protection Act, the requirement applies to each person who, subsequent to the registration of this certificate, acquires an interest in the Property.

APPENDIX D

TABLE 2

MINIMUM STOCKPILE SAMPLING FREQUENCY

Item	Column 1 Stockpile Volume (m^3)	Column 2 Minimum Number of Samples
1.	≤ 130	3
2.	> 130 to 220	4
3.	> 220 to 320	5
4.	> 320 to 430	6
5.	> 430 to 550	7
6.	> 550 to 670	8
7.	> 670 to 800	9
8.	> 800 to 950	10
9.	> 950 to 1100	11
10.	> 1100 to 1250	12
11.	> 1250 to 1400	13
12.	> 1400 to 1550	14
13.	> 1550 to 1700	15
14.	> 1700 to 1850	16
15.	> 1850 to 2050	17
16.	> 2050 to 2200	18
17.	> 2200 to 2350	19
18.	> 2350 to 2500	20
19.	> 2500 to 2700	21
20.	> 2700 to 2900	22
21.	> 2900 to 3100	23
22.	> 3100 to 3300	24
23.	> 3300 to 3500	25
24.	> 3501 to 3700	26
25.	> 3700 to 3900	27
26.	> 3900 to 4100	28
27.	> 4100 to 4300	29
28.	> 4300 to 4500	30
29.	> 4500 to 4700	31
30.	> 4700 to 5000	32
31.	> 5000	The amount determined by applying the formula set out in paragraph 6 of section 36