



Sirati & Partners Consultants Ltd.
Geotechnical & Environmental Services
Engineering Solutions

Project #: SP17-212-20

October 12, 2017

1029629 Ontario Inc.

c/o Carriage House Realty Corp.
16 Regan Road, Unit 35
Brampton, Ontario
L7A 1C1

Attention of: Mr. Derrick Libawski

Email: dlibawski@rogers.com

**Re: Summary of Findings of Phase II Environmental Site Assessment
Part Lot 27, Concession 8, Albion (Mount Pleasant Road, Caledon, Ontario)**

Dear Mr. Libawski,

Sirati & Partners Consultants Ltd. (SPCL) was retained by 1029629 Ontario Inc., to conduct a soil quality investigation at the Property with legal description of Part Lot 27, Concession 8, Albion. The Property is located on the west side of Mount Pleasant Road, approximately 620 m north of Hansen Sideroad, in the Town of Caledon, Ontario.

The Property has been used for agricultural purposes and includes no structures. The entire Property occupies an area of approximately 12.14 hectares (30 acres) parcel of undeveloped land. The Phase II Property is mainly surrounded by agricultural lands.

SPCL understands that, 1029629 Ontario Inc. is considering the future development of the Property to a residential land use. The general location of the Property is shown on Figure 1.

1. BACKGROUND STUDY

A Phase I Environmental Site Assessment (ESA) was recently conducted by SPCL for the Property. The findings of the Phase I ESA were summarized in a report entitled "*Phase I Environmental Site Assessment (Part Lot 27, Concession 8, Albion) Mount Pleasant Road, Caledon, Ontario*", dated September 8, 2017. Based on the findings, the significant potential or actual source of contamination identified to be associated with the Property are as follows:

- Historical and current use of the Property for farming purposes (use of herbicides and pesticides).

- Unknown quality of fill material observed on the Property during the SPCL's geotechnical investigation.

Based on the above noted potential contaminating activities, SPCL recommend a Phase II ESA to confirm the soil quality at the Property.

2. SCOPE OF INVESTIGATION

The purpose of the soil sampling was to investigate the soil quality on the Property in the vicinity of potential environmental concerns identified as part of the Phase I ESA.

The soil sampling was conducted in conjunction with the geotechnical investigations, and by collecting additional soil samples from the Property using a hand auger. The Phase II ESA includes the following work at the Property:

- Advance a total of eight (8) boreholes (BH1 to BH 8) to depths varying from 8.2 to 11.2 metres below ground surface (mbgs).
- Examine all recovered soil samples for visual and olfactory evidence of deleterious impacts, and field-screen for the presence of organic vapours using a portable detector (GasTech or PID).
- Submit selected soil samples from the boreholes to AGAT Laboratories for chemical analysis of metals and inorganics (M&I).
- Collect five (5) grab samples using a hand auger and submit the samples for chemical analysis of organochlorine pesticides (OCPs) and cyanide (CN⁻).
- Review the analytical results and compare with the current applicable Ministry of the Environment and Climate Change (MOECC) Standards.
- Summarize the results of the investigation in a report format.

3. INVESTIGATION METHODOLOGY

The field investigation of the Property was conducted on June 1 and June 2, 2017. It consisted of drilling eight (8) boreholes (BH1 to BH8) to depths ranging from 8.2 to 11.2 mbgs. In addition, SPCL collected additional soil samples from the Property using a hand auger in September 27, 2017. The boreholes were drilled by London Soil Test Ltd. under the supervision of a SPCL field technician.

A 150 mm to 500 mm thick surficial layer of topsoil was found at all the borehole locations, except boreholes BH5. Below the topsoil, fill material was encountered in boreholes BH1, BH4, BH6, BH7, and BH8, extending to depths ranging from 0.8 to 1.6 mbgs. The fill material mainly consisted of sand, silty sand, and sandy silt with trace to some inclusions of topsoil. The native soil underlying the fill material in all boreholes consisted of cohesionless soil such as sand and silty sand. Details regarding the boreholes are

provided in SPCL's geotechnical report entitled "Preliminary Geotechnical Investigation, Proposed New Subdivision, Mount Pleasant Road, Caledon, Ontario", dated July 21, 2017. Figure 2 presents the borehole and grab sample locations plan. The complete borehole logs are presented in Appendix A.

SPCL, collected a total of fourteen (14) soil samples including a sample for quality assurance and quality control (QA/QC) purposes from the Property.

All collected soil samples were screened in the field for visual and olfactory observations. The soil sample headspace vapour concentrations for all soil samples collected were screened using portable hydrocarbon vapour testing equipment in accordance with the procedure outlined in the MOECC's "Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario".

There were no visual or olfactory observations that would suggest possible impact to the soil.

All collected soil samples were submitted for chemical analysis to AGAT Laboratories, located at 5835 Coopers Avenue in Mississauga, Ontario. AGAT Laboratories is accredited and approved for specific analyses by the following national or provincial (Ontario) agencies:

- The Canadian Association for Laboratory Accreditation (CALA)
- The Standards Council of Canada (SCC)
- Canadian Council of Ministers of the Environment (CCME)
- Ontario Ministry of the Environment and Climate Change
- Ontario Ministry of Environment Drinking Water Testing License Laboratories Limited

A summary of the soil samples and selected analyses is presented in the following table:

Sample ID	Depth (mbgs)	Parameter Analyzed (O. Reg. 153 (511))
BH 2-SS2	0.8 - 1.4	M&I
BH 3-SS4	2.2 - 2.9	M&I
BH 4-SS2	0.8 - 1.4	M&I
BH 6-SS1	0.0 - 0.6	M&I
BH 8-SS2	0.8 - 1.4	M&I
GS-1	0.5	CN ⁻
GS-2	0.5	OCPs, CN ⁻
GS-3	0.55	CN ⁻
GS-4	0.60	OCPs, CN ⁻
GS-5	0.45	OCPs, CN ⁻
Dup (GS-5)	0.45	OCPs
Note: <ul style="list-style-type: none">• mbgs: metres below ground surface• Metals and Inorganics (M&I)• Cyanide (CN⁻)• Organochlorine pesticides (OCPs)		

4. APPLICABLE SITE CONDITION STANDARDS

The applicable Site Condition Standards for the subject Property was considered to be those contained in Table 8 of the April 15, 2011 Ontario Ministry of Environment and Climate Change (MOECC) “Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act” for Residential/Parkland/Institutional property use within 30 m of a surface water body in a potable groundwater condition for coarse textured soil (Table 8 Standards). These are considered to be the applicable Standards for the property based on the following reasons:

These are considered to be the applicable Standards for the following reasons:

- The intended use for the Property is residential. Soil at the Property was found to be coarse textured based on a review of the soil samples collected from the boreholes.
- The Property is located in the Town of Caledon.
- Bedrock across the Property is located at a depth greater than 2 m.
- The soil pH was between 5 and 9 for surficial soils or 5 and 11 for subsurface soils.
- According to the Phase I ESA, a tributary of Beeton Creek touches the east portion of the Property.

5. SOIL QUALITY

The results of the chemical analysis indicate all soil samples met the MOECC Table 8 Standards.

The laboratory Certificates of Analysis are presented in Appendix B. The attached tables present the details for chemical analyses.

6. SUMMARY AND RECOMMENDATIONS

A review of the analytical test results of the collected soil samples indicates that the concentration of the tested parameters at the sampling locations meets the MOECC Table 8 Standards. Consequently, there are no potential contaminants identified at the Property at a concentration above the applicable site condition standards (Table 8 Standards) during the Phase II ESA.

Based on the findings of the Phase II ESA, it is our opinion that the Property is suitable for the proposed development. No further environmental investigation is recommended at this time.

Should you have any questions, or require additional information, please do not hesitate to contact this office.

7. LIMITATION AND USE OF THE REPORT

This report was produced for the sole use of 1029629 Ontario Inc. and may not be relied upon by any other person or entity without the written authorization of Sirati & Partners Consultants Ltd. (SPCL).

This report was prepared based on a Phase II ESA investigation undertaken at the property with legal description of Part Lot 27, Concession 8, Albion. The Property is located on the west side of Mount Pleasant Road, approximately 620 m north of Hunsden Sideroad, in the Town of Caledon, Ontario and is exclusively intended to provide an Environmental Site Assessment and conditions at the above noted Property.

This report was prepared by Sirati & Partners Consultants Ltd. (SPCL) for the sole purpose of identifying potential environmental constraints pertinent to the Property, including likelihood of environmental impacts on the soil and groundwater as a result of current and past uses of the Property. This report shall not be relied upon or transferred to any other party without the express written authorisation of SPCL. It may contain material subject to copyright or obtained subject to license; unauthorised copying of this report will be in breach of copyright/license.

The findings and opinions provided in this document are given in good faith and are subject to the limitations imposed by employing assessment methods and techniques, appropriate to the time of derivation and within the limitations and constraints defined within this document. The findings and opinions are relevant to the dates when the report was written, but should not necessarily be relied upon to be appropriate at a substantially later date. In particular, changes to model algorithms and input parameters as a result of more recent publication by the authorities such as MOECC, may affect the conceptual understanding upon which the Assessment Criteria (AC) were derived. The assessment should therefore not be considered as a comprehensive audit that would eliminate all environmental risks associated with the subject Site. The conclusions arrived at and assessment of subsurface conditions were based on information collected at the time of conducting the fieldwork at specific borehole/test-pit/ sampling points and/or monitoring well locations. The actual subsurface conditions may vary.

Factual information has largely been obtained from authoritative sources; however, where authoritative information is unavailable or is in draft format, modification to the input data maybe required as and when authoritative information is published. Where such information might impact upon stated opinions, SPCL reserves the right to modify such opinions expressed herein.

The findings and opinions conveyed, via this report, are based on information obtained from a variety of sources as detailed in this report, and which SPCL assumes to be reliable, but have not been independently confirmed. Therefore, SPCL cannot and does not guarantee the authenticity or reliability of third party information it has relied upon.

Where opinions expressed in this report are based on current available guidelines and legislation, no liability can be accepted by SPCL for the effects of any future changes to such guidelines and legislation.

This information given herein should be read in conjunction with the contract documents. Any contradiction in sampling regime should be addressed by the project leader or contract manager.

This document has been prepared for use by SPCL in support of projects undertaken by SPCL and should not be relied upon or used for any other party's project without an independent check being carried out as to its suitability and prior written authorisation being obtained from SPCL.

SPCL accepts no responsibility or liability for the consequences of the use of this document, wholly or in part, for any other purpose than that for which it was completed. Any persons so using or relying upon this document for such other purpose do so at their own risk.

Best Regards,

Sirati & Partners Consultants Ltd.



Naz Sajdeh, B.Sc., G.I.T
Project Manager



Dr. Giorgio Garofalo, P. Geo., QP_{ESA}
Manager, Environmental Division

FIGURES:

Figure 1 – Site Location Plan

Figure 2 – Borehole and Hand Auger Sample Locations Plan

TABLES:

Table 1 – Organochlorine Pesticides

Table 2 – Metals and Inorganics

APPENDICES:

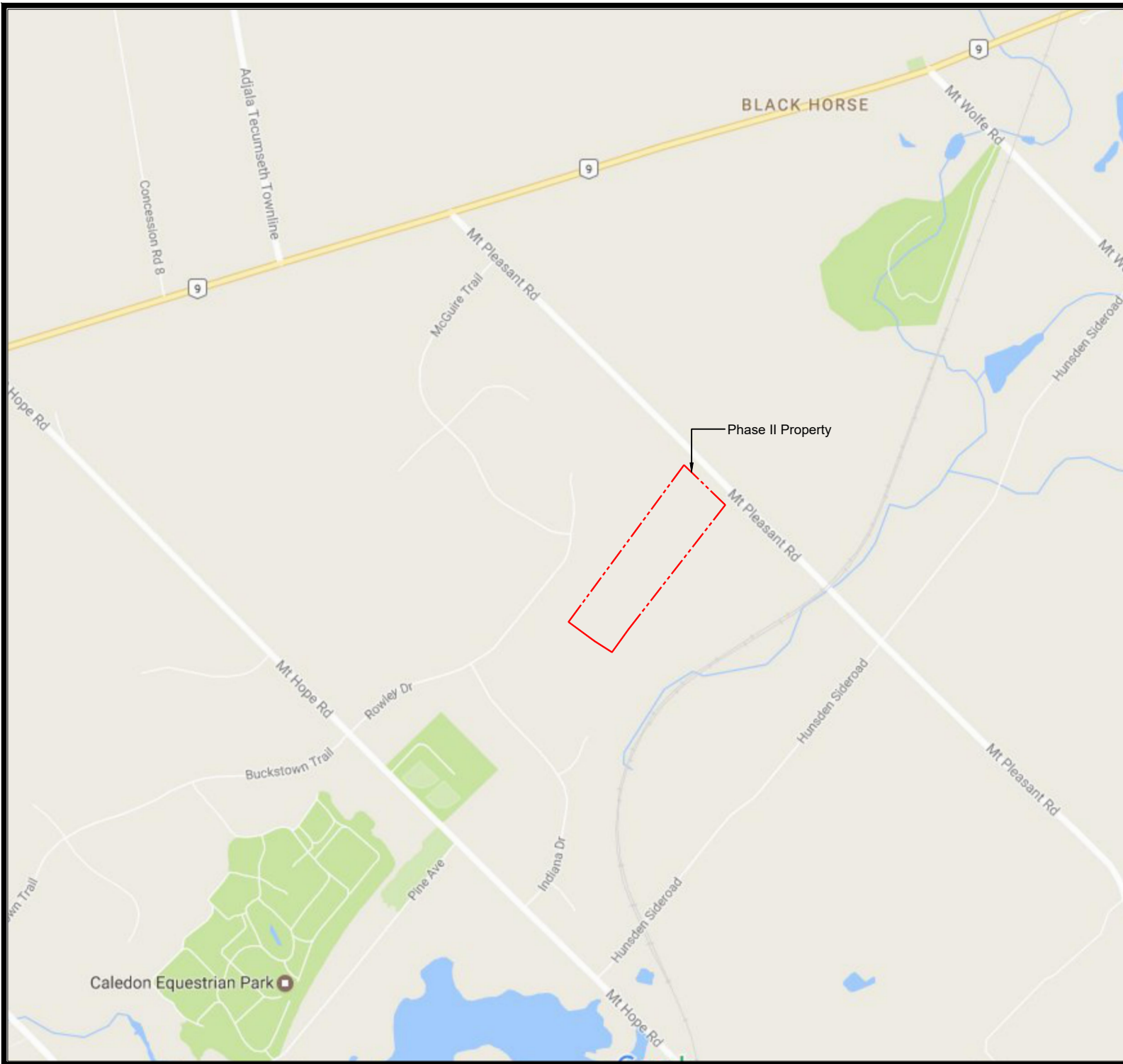
Appendix A – Borehole Logs

Appendix B – Certificates of Analysis (Table 8)

FIGURES




Sirati & Partners Consultants Ltd.
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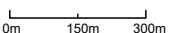
Legend:

 Property Boundary

Project Title:
Phase II Environmental Site Assessment

Site Location:
Mount Pleasant Rd, Caledon, ON

Figure Title:
Site Location Plan

Scale:

 0m 150m 300m

Project Number:
SP17-212-20-02

Date:
October 2017





Figure Number:
1



North:



Legend:

-  Property Boundary
-  Borehole
-  Monitoring Well
-  Hand Auger Sample

Project Title:

Phase II Environmental Site Assessment

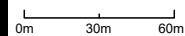
Site Location:

Mount Pleasant Rd, Caledon, ON

Figure Title:

Borehole & Hand Auger Sample Locations Plan

Scale:



Project Number:

SP17-212-20-02

Date:

October 2017

Figure Number:

2

TABLES



Sirati & Partners Consultants Ltd.
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Table 1
Soil Quality - Metals & Inorganics
Phase II Environmental Assessment
Mount Pleasant Road, Caledon, Ontario
PO # : SP17-212-20-02

Sample Description	Unit	Ontario Regulation 153/04 Table 2 Standards	RDL	BH2-SS2	BH3-SS4	BH4-SS2	BH6-SS1	BH8-SS2	GS-1	GS-2	GS-3	GS-4	GS-5
				06/01/2017	06/01/2017	06/01/2017	06/01/2017	06/01/2017	09/27/2017	09/27/2017	09/27/2017	09/27/2017	09/27/2017
				0.8-1.4	2.2-2.9	0.8-2.9	0-0.6	0.8-1.4	0.5	0.5	0.55	0.6	0.45
Antimony	µg/g	1.3	0.8	<0.8	<0.8	<0.8	<0.8	<0.8					
Arsenic	µg/g	18	1	2.0	1.0	2.0	4.0	2.0					
Barium	µg/g	220	2	13.0	10.0	18.0	25.0	31.0					
Beryllium	µg/g	2.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5					
Boron	µg/g	36	5	<5	<5	<5	<5	<5					
Boron (Hot Water Soluble)	µg/g	1.5	0.10	<0.10	<0.10	<0.10	0.1	0.1					
Cadmium	µg/g	1.2	0.5	<0.5	<0.5	<0.5	<0.5	<0.5					
Chromium	µg/g	70	2	5.0	4.0	6.0	8.0	9.0					
Cobalt	µg/g	22	0.5	1.9	1.4	2.2	2.1	3.0					
Copper	µg/g	92	1	5.0	3.0	5.0	4.0	7.0					
Lead	µg/g	120	1	2.0	2.0	3.0	5.0	4.0					
Molybdenum	µg/g	2	0.5	<0.5	<0.5	<0.5	<0.5	<0.5					
Nickel	µg/g	82	1	2.0	1.0	4.0	4.0	7.0					
Selenium	µg/g	1.5	0.4	<0.4	<0.4	<0.4	<0.4	<0.4					
Silver	µg/g	0.5	0.2	<0.2	<0.2	<0.2	<0.2	<0.2					
Thallium	µg/g	1	0.4	<0.4	<0.4	<0.4	<0.4	<0.4					
Uranium	µg/g	2.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5					
Vanadium	µg/g	86	1	12.0	8.0	12.0	13.0	16.0					
Zinc	µg/g	290	5	10.0	8.0	12.0	21.0	17.0					
Chromium VI	µg/g	0.66	0.2	<0.2	<0.2	<0.2	<0.2	<0.2					
Cyanide	µg/g	0.051	0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Mercury	µg/g	0.27	0.10	<0.10	<0.10	<0.10	<0.10	<0.10					
Electrical Conductivity	mS/cm	0.7	0.005	0.1	0.1	0.1	0.2	0.1					
Sodium Adsorption Ratio	NA	5	NA	0.0	0.1	0.0	0.1	0.0					
pH, 2:1 CaCl2 Extraction	pH Units		NA	7.9	8.0	7.6	6.3	7.5					

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

Note: Bold, Italic & Underline exceedance of MOECC Table 8

Table 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Ground Water Condition - Soil

mbgs: metre below ground surface

Table 2
Soil Quality - OC- Pesticides
Phase II Environmental Assessment
Mount Pleasant Road, Caledon, Ontario
PO # : SP17-212-20

Sample Description	Unit	Ontario Regulation 153/04 Table 2 Standards	RDL	GS-2	GS-4	GS-5	Dup (GS-5)
				09/27/2017	09/27/2017	09/27/2017	09/27/2017
				0.5	0.6	0.45	0.45
Gamma-Hexachlorocyclohexane	µg/g	0.01	0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor	µg/g	0.05	0.005	<0.005	<0.005	<0.005	<0.005
Aldrin	µg/g	0.05	0.005	<0.005	<0.005	<0.005	<0.005
Heptachlor Epoxide	µg/g	0.05	0.005	<0.005	<0.005	<0.005	<0.005
Endosulfan	µg/g	0.04	0.005	<0.005	<0.005	<0.005	<0.005
Chlordane	µg/g	0.05	0.005	<0.005	<0.005	<0.005	<0.005
DDE	µg/g	0.05	0.007	<0.007	<0.007	<0.007	<0.007
DDD	µg/g	0.05	0.007	<0.007	0.008	<0.007	<0.007
DDT	µg/g	1.4	0.007	<0.007	<0.007	<0.007	<0.007
Dieldrin	µg/g	0.05	0.007	<0.007	<0.007	<0.007	<0.007
Endrin	µg/g	0.04	0.005	<0.005	0.012	<0.005	<0.005
Methoxychlor	µg/g	0.05	0.005	<0.005	<0.005	<0.005	<0.005
Hexachlorobenzene	µg/g	0.02	0.005	<0.005	<0.005	<0.005	<0.005
Hexachlorobutadiene	µg/g	0.01	0.005	<0.005	<0.005	<0.005	<0.005
Hexachloroethane	µg/g	0.01	0.01	<0.01	<0.01	<0.01	<0.01
TCMX	%		50-140	54	62	54	60
Decachlorobiphenyl	%		60-130	92	74	78	104
Moisture Content	%		0.1	5.1	11	4.1	3.3

Comments:

RDL - Reported Detection Limit; G / S - Guideline / Standard

Note: Bold, Italic & Underline exceedance of MOECC Table 8

Table 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Ground Water Condition - Soil

mbgs: metre below ground surface

APPENDICES



Sirati & Partners Consultants Ltd.
Geotechnical & Environmental Services
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APPENDIX A



Sirati & Partners Consultants Ltd.
Geotechnical & Environmental Services
Engineering Solutions

PROJECT: Geotechnical, Environmental and Hydrogeological Services	DRILLING DATA
CLIENT: 1029629 Ontario Inc.	Method: Hollow Stem Augers
PROJECT LOCATION: Mt Pleasant Road, Caledon, ON	Diameter: 200mm
DATUM: Geodetic	Date: Jun/02/2017
BH LOCATION: See Drawing 1	REF. NO.: SP17-212-10
	ENCL NO.: 2

SOIL PROFILE		SAMPLES			GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT				POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m ³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%)				
(m) ELEV DEPTH	DESCRIPTION	NUMBER	TYPE	"N" BLOWS 0.3 m			20	40	60	80				100	PLASTIC LIMIT W _p	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W _L
291.9																	
0.0	TOPSOIL: 350mm																
291.6		1	SS	7													
0.4	FILL: silty sand, trace clay, trace rootlets, brown, moist, loose																
291.1		2	SS	3													
0.8	SAND: trace silt, trace gravel, brown, moist, very loose																
1		3	SS	2													
2		4	SS	2													
3		5	SS	4													
4		6	SS	2													
5		7	SS	12													
6	compact below 6.1m	8	SS	22													
7		9	SS	17													
8		10	SS	17													
9	very moist to wet below 9.1m																
10																	
11.2	END OF BOREHOLE Notes: 1) Monitoring well installed in the borehole upon completion. 2) Water level in monitoring well at 9.8m on June 16, 2017.																

SPCL SOIL LOG SP17-212-10 - MOUNT PLEASANT, CALEDON, GP, J. SPCL, GDT, 7/5/17

PROJECT: Geotechnical, Environmental and Hydrogeological Services
CLIENT: 1029629 Ontario Inc.
PROJECT LOCATION: Mt Pleasant Road, Caledon, ON
DATUM: Geodetic
BH LOCATION: See Drawing 1

DRILLING DATA
Method: Hollow Stem Augers
Diameter: 200mm
Date: Jun/01/2017
REF. NO.: SP17-212-10
ENCL NO.: 3

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT		PLASTIC LIMIT W _p	NATURAL MOISTURE CONTENT w	LIQUID LIMIT W _L	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m ³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%)	
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			20	40							60
295.8																
290.0	TOPSOIL: 200mm															
0.2	SAND: trace silt, trace gravel, brown, moist, loose to compact		1	SS	6											
			2	SS	18											
			3	SS	21											
			4	SS	16											
	occasional silt seams at 3m		5	SS	20											
			6	SS	26											
289.7	SILT TO SANDY SILT: trace clay, trace gravel, grey, wet, compact		7	SS	20											0 10 66 24
288.2	SILTY SAND: trace clay, brown, wet, compact		8	SS	29											
286.7	CLAYEY SILT TO SILTY CLAY: trace sand, occasional sand seams, greyish brown, wet, stiff		9	SS	9											
284.6	END OF BOREHOLE Notes: 1) Monitoring well installed in the borehole upon completion. 2) Water level in monitoring well at 9.6m on June 16, 2017.		10	SS	13											

SPCL SOIL LOG SP17-212-10 - MOUNT PLEASANT, CALEDON, GP, J. SPCL, GDT, 7/5/17

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

GRAPH NOTES +3, x3: Numbers refer to Sensitivity ○ ●=3% Strain at Failure

PROJECT: Geotechnical, Environmental and Hydrogeological Services
CLIENT: 1029629 Ontario Inc.
PROJECT LOCATION: Mt Pleasant Road, Caledon, ON
DATUM: Geodetic
BH LOCATION: See Drawing 1

DRILLING DATA
Method: Hollow Stem Augers
Diameter: 200mm
Date: Jun/01/2017
REF. NO.: SP17-212-10
ENCL NO.: 4

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT				POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m ³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%)					
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			SHEAR STRENGTH (kPa)							PLASTIC LIMIT	NATURAL MOISTURE CONTENT	LIQUID LIMIT		
							20	40	60	80	100	W _p	w	W _L	GR	SA	SI	CL	
297.7	TOPSOIL: 150mm																		
297.6	SAND: weathered/disturbed, trace silt, brown, moist, loose		1	SS	6														
296.9	SAND: trace silt, brown, moist, compact		2	SS	12														
	occasional silt seams at 1.5m		3	SS	23														
			4	SS	27														
			5	SS	24														
			6	SS	25														
			7	SS	25														
			8	SS	26														
289.5	END OF BOREHOLE Notes: 1) Borehole dry on completion.																		

SPCL SOIL LOG SP17-212-10 - MOUNT PLEASANT, CALEDON.GPJ SPCL.GDT 7/5/17

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

GRAPH NOTES + 3, x 3: Numbers refer to Sensitivity ○ = 3% Strain at Failure

PROJECT: Geotechnical, Environmental and Hydrogeological Services
CLIENT: 1029629 Ontario Inc.
PROJECT LOCATION: Mt Pleasant Road, Caledon, ON
DATUM: Geodetic
BH LOCATION: See Drawing 1

DRILLING DATA
Method: Hollow Stem Augers
Diameter: 200mm
Date: Jun/01/2017
REF. NO.: SP17-212-10
ENCL NO.: 5

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT		PLASTIC LIMIT W _p	NATURAL MOISTURE CONTENT w	LIQUID LIMIT W _L	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m ³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%)												
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			20	40							60	80	100	20	40	60	80	100	10	20	30	GR
291.6																											
290.6	TOPSOIL: 150mm		1	SS	4																						
0.2	FILL: silty sand, trace topsoil, dark brown, moist, very loose		2	SS	3																						
290.1																											
1.5	SAND: some silt, brown, moist, compact		3	SS	17																						
			4	SS	26																						
			5	SS	21																						
287.0	SANDY SILT: trace clay, trace gravel, grey, wet, compact		6	SS	19																						
4.6																											
284.0	SILT: trace sand, grey, wet, compact		7	SS	16																						
7.6																											
283.4			8	SS	19																						
8.2	END OF BOREHOLE Notes: 1) Monitoring well installed in the borehole upon completion. 2) Water level in monitoring well at 4.7m on June 16, 2017.																										

SPCL SOIL LOG SP17-212-10 - MOUNT PLEASANT, CALEDON.GPJ SPCL_GDT_7/5/17

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

GRAPH NOTES + 3, x 3: Numbers refer to Sensitivity ○ ●=3% Strain at Failure

PROJECT: Geotechnical, Environmental and Hydrogeological Services
CLIENT: 1029629 Ontario Inc.
PROJECT LOCATION: Mt Pleasant Road, Caledon, ON
DATUM: Geodetic
BH LOCATION: See Drawing 1

DRILLING DATA
Method: Hollow Stem Augers
Diameter: 200mm
Date: Jun/01/2017
REF. NO.: SP17-212-10
ENCL NO.: 6

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT				POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m ³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%)					
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			20	40	60	80				100	PLASTIC LIMIT W _p	NATURAL MOISTURE CONTENT w	LIQUID LIMIT W _L	GR
294.3	SAND: trace silt, trace gravel, brown, moist, loose to compact		1	SS	7														
293			2	SS	6														
292			3	SS	9														
291			4	SS	11														
290			5	SS	13														
289.7	SANDY SILT TO SILTY SAND: trace clay, greyish brown, moist to wet, compact		6	SS	25													0 23 65 12	
288			7	SS	22														
286.7	INTERBEDED SAND AND SILT: trace clay, brown, moist, dense		8	SS	35														
286.1																			
8.2	END OF BOREHOLE Notes: 1) Borehole open and dry on completion.																		

SPCL SOIL LOG SP17-212-10 - MOUNT PLEASANT, CALEDON.GPJ SPCL.GDT 7/5/17

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

GRAPH NOTES + 3, x 3: Numbers refer to Sensitivity ○ ●=3% Strain at Failure

PROJECT: Geotechnical, Environmental and Hydrogeological Services
CLIENT: 1029629 Ontario Inc.
PROJECT LOCATION: Mt Pleasant Road, Caledon, ON
DATUM: Geodetic
BH LOCATION: See Drawing 1

DRILLING DATA
Method: Hollow Stem Augers
Diameter: 200mm
Date: Jun/01/2017
REF. NO.: SP17-212-10
ENCL NO.: 7

SOIL PROFILE		SAMPLES			GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT		PLASTIC LIMIT W _p	NATURAL MOISTURE CONTENT w	LIQUID LIMIT W _L	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m ³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE			"N" BLOWS 0.3 m	20						
295.1														
0.0	TOPSOIL: 500mm		1	SS	5									
294.6	FILL: sandy silt, trace topsoil, brown, moist, loose POSSIBLE FILL: sand, trace silt, brown, moist, very loose													
294.3			2	SS	2									
293.5	SILTY SAND: trace clay, brown, moist, very loose		3	SS	4									
292.8	SAND: trace silt, trace gravel, occasional silt layers, brown to greyish brown, moist to very moist, compact to dense													
292.8			4	SS	25									
292.8			5	SS	27									
291.5			6	SS	34									
289.5			7	SS	41									
287.5	SILT TO SANDY SILT: trace clay, grey, moist, compact		8	SS	28									
286.9														
8.2	END OF BOREHOLE Notes: 1) Monitoring well installed in the borehole upon completion.													

SPCL SOIL LOG SP17-212-10 - MOUNT PLEASANT, CALEDON.GPJ SPCL.GDT 7/5/17

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

GRAPH NOTES + 3, x 3: Numbers refer to Sensitivity ○ = 3% Strain at Failure

PROJECT: Geotechnical, Environmental and Hydrogeological Services
CLIENT: 1029629 Ontario Inc.
PROJECT LOCATION: Mt Pleasant Road, Caledon, ON
DATUM: Geodetic
BH LOCATION: See Drawing 1

DRILLING DATA
Method: Hollow Stem Augers
Diameter: 200mm
Date: Jun/02/2017
REF. NO.: SP17-212-10
ENCL NO.: 8

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT		PLASTIC LIMIT W _p	NATURAL MOISTURE CONTENT w	LIQUID LIMIT W _L	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m ³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			20	40						
296.6															
296.4	TOPSOIL: 250mm														
0.3	FILL: sand, some silt, brown, moist, loose		1	SS	6										
295.8															
296.7	FILL: sandy silt to silty sand mixed with topsoil, brown, moist, compact														
0.9	SAND: trace silt, trace gravel, brown to greyish brown, moist, compact		2	SS	15										
			3	SS	18										
			4	SS	22										
			5	SS	33										
			6	SS	21										
			7	SS	22										
289.0															
7.6	SILTY FINE SAND: trace clay, layer of silt, brown, wet, compact		8	SS	21										
288.4															
8.2	END OF BOREHOLE Notes: 1) Borehole open and water level at 7.8m during drilling.														

SPCL SOIL LOG SP17-212-10 - MOUNT PLEASANT, CALEDON.GPJ SPCL.GDT 7/15/17

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

GRAPH NOTES + 3, x 3: Numbers refer to Sensitivity ○ ●=3% Strain at Failure

PROJECT: Geotechnical, Environmental and Hydrogeological Services
CLIENT: 1029629 Ontario Inc.
PROJECT LOCATION: Mt Pleasant Road, Caledon, ON
DATUM: Geodetic
BH LOCATION: See Drawing 1

DRILLING DATA
Method: Hollow Stem Augers
Diameter: 200mm
Date: Jun/02/2017
REF. NO.: SP17-212-10
ENCL NO.: 9

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT				POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m ³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%)					
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			SHEAR STRENGTH (kPa)							WATER CONTENT (%)				
							20	40	60	80	100	W _p	w	W _L	GR	SA	SI	CL	
290.9	TOPSOIL: 430mm		1	SS	8														
290.5	FILL: silty sand, trace clay, dark brown, moist, loose																		
290.0	SAND: trace silt, brown, moist, very loose to compact		2	SS	4														
289.1	CLAYEY SILT TO SILTY CLAY: trace sand, brown, moist, stiff		3	SS	11														
287.9	SANDY SILT TO SILTY SAND: trace clay, trace gravel, brown, moist, compact to dense		4	SS	10														
			5	SS	13														
			6	SS	42														
			7	SS	37														
			8	SS	34														
			9	SS	25														
281.1	END OF BOREHOLE																		
9.8	Notes: 1) Monitoring well installed in the borehole upon completion. 2) Water level in monitoring well at 8.8m on June 16, 2017.																		

SPCL SOIL LOG SP17-212-10 - MOUNT PLEASANT, CALEDON, GP, J. SPCL, GDT, 7/15/17

W. L. 282.1 m
Jun 16, 2017

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

GRAPH NOTES + 3, x 3: Numbers refer to Sensitivity ○ = 3% Strain at Failure

APPENDIX B



Sirati & Partners Consultants Ltd.
Geotechnical & Environmental Services
Engineering Solutions

**CLIENT NAME: SIRATI & PARTNERS CONSULTANTS LTD
750 MILLWAY AVE UNIT 8
VAUGHAN, ON
(905) 669**

ATTENTION TO: Nazanin Sajdeh

PROJECT: SP17-212-20

AGAT WORK ORDER: 17T265391

SOIL ANALYSIS REVIEWED BY: Amanjot Bhela, Inorganic Coordinator

TRACE ORGANICS REVIEWED BY: Neli Popnikolova, Senior Chemist

DATE REPORTED: Oct 05, 2017

PAGES (INCLUDING COVER): 7

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

***NOTES**

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.



Certificate of Analysis

AGAT WORK ORDER: 17T265391

PROJECT: SP17-212-20

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
<http://www.agatlabs.com>

CLIENT NAME: SIRATI & PARTNERS CONSULTANTS LTD

ATTENTION TO: Nazanin Sajdeh

SAMPLING SITE:

SAMPLED BY: Naz, Sam

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2017-09-27

DATE REPORTED: 2017-10-05

Parameter	Unit	SAMPLE DESCRIPTION:		BH2-SS2	BH3-SS4	BH4-SS2	BH6-SS1	BH8-SS2
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2017-06-01	2017-06-01	2017-06-01	2017-06-01	2017-06-01
		G / S	RDL	8767495	8767496	8767497	8767498	8767499
Antimony	µg/g	1.3	0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Arsenic	µg/g	18	1	2	1	2	4	2
Barium	µg/g	220	2	13	10	18	25	31
Beryllium	µg/g	2.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Boron	µg/g	36	5	<5	<5	<5	<5	<5
Boron (Hot Water Soluble)	µg/g	1.5	0.10	<0.10	<0.10	<0.10	0.12	0.11
Cadmium	µg/g	1.2	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	µg/g	70	2	5	4	6	8	9
Cobalt	µg/g	22	0.5	1.9	1.4	2.2	2.1	3.0
Copper	µg/g	92	1	5	3	5	4	7
Lead	µg/g	120	1	2	2	3	5	4
Molybdenum	µg/g	2	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nickel	µg/g	82	1	2	1	4	4	7
Selenium	µg/g	1.5	0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Silver	µg/g	0.5	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Thallium	µg/g	1	0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Uranium	µg/g	2.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Vanadium	µg/g	86	1	12	8	12	13	16
Zinc	µg/g	290	5	10	8	12	21	17
Chromium VI	µg/g	0.66	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cyanide	µg/g	0.051	0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Mercury	µg/g	0.27	0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Electrical Conductivity	mS/cm	0.7	0.005	0.103	0.065	0.094	0.166	0.141
Sodium Adsorption Ratio	NA	5	NA	0.036	0.081	0.040	0.122	0.032
pH, 2:1 CaCl2 Extraction	pH Units		NA	7.87	7.97	7.64	6.30	7.54

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T8 S RPI/ICC
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.
8767495-8767499 EC & SAR were determined on the DI water extract obtained from the 2:1 leaching procedure (2 parts DI water:1 part soil). pH was determined on the 0.01M CaCl2 extract prepared at 2:1 ratio.

Certified By:

Amanjot Bhela



Certificate of Analysis

AGAT WORK ORDER: 17T265391

PROJECT: SP17-212-20

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
<http://www.agatlabs.com>

CLIENT NAME: SIRATI & PARTNERS CONSULTANTS LTD

ATTENTION TO: Nazanin Sajdeh

SAMPLING SITE:

SAMPLED BY: Naz, Sam

O. Reg. 153(511) - ORPs (Soil)

DATE RECEIVED: 2017-09-27

DATE REPORTED: 2017-10-05

Parameter	Unit	SAMPLE DESCRIPTION:		GS-1	GS-2	GS-3	GS-4	GS-5
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2017-09-27	2017-09-27	2017-09-27	2017-09-27	2017-09-27
		G / S	RDL	8767500	8767502	8767503	8767505	8767506
Cyanide	µg/g	0.051	0.040	<0.040	<0.040	<0.040	<0.040	<0.040

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T8 S RPI/ICC
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

Certified By:

Amanjot Bhela



Certificate of Analysis

AGAT WORK ORDER: 17T265391

PROJECT: SP17-212-20

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
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TEL (905)712-5100
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<http://www.agatlabs.com>

CLIENT NAME: SIRATI & PARTNERS CONSULTANTS LTD

ATTENTION TO: Nazanin Sajdeh

SAMPLING SITE:

SAMPLED BY: Naz, Sam

O. Reg. 153(511) - OC Pesticides (Soil)

DATE RECEIVED: 2017-09-27

DATE REPORTED: 2017-10-05

Parameter	Unit	SAMPLE DESCRIPTION:		GS-2	GS-4	GS-5	Dup
		SAMPLE TYPE:		Soil	Soil	Soil	Soil
		DATE SAMPLED:		2017-09-27	2017-09-27	2017-09-27	2017-09-27
		G / S	RDL	8767502	8767505	8767506	8767508
Hexachloroethane	µg/g	0.01	0.01	<0.01	<0.01	<0.01	<0.01
Gamma-Hexachlorocyclohexane	µg/g	0.01	0.005	<0.005	<0.005	<0.005	<0.005
Heptachlor	µg/g	0.05	0.005	<0.005	<0.005	<0.005	<0.005
Aldrin	µg/g	0.05	0.005	<0.005	<0.005	<0.005	<0.005
Heptachlor Epoxide	µg/g	0.05	0.005	<0.005	<0.005	<0.005	<0.005
Endosulfan	µg/g	0.04	0.005	<0.005	<0.005	<0.005	<0.005
Chlordane	µg/g	0.05	0.007	<0.007	<0.007	<0.007	<0.007
DDE	µg/g	0.05	0.007	<0.007	0.008	<0.007	<0.007
DDD	µg/g	0.05	0.007	<0.007	<0.007	<0.007	<0.007
DDT	µg/g	1.4	0.007	<0.007	<0.007	<0.007	<0.007
Dieldrin	µg/g	0.05	0.005	<0.005	0.012	<0.005	<0.005
Endrin	µg/g	0.04	0.005	<0.005	<0.005	<0.005	<0.005
Methoxychlor	µg/g	0.05	0.005	<0.005	<0.005	<0.005	<0.005
Hexachlorobenzene	µg/g	0.02	0.005	<0.005	<0.005	<0.005	<0.005
Hexachlorobutadiene	µg/g	0.01	0.01	<0.01	<0.01	<0.01	<0.01
Moisture Content	%		0.1	5.1	11.0	4.1	3.3
Surrogate	Unit	Acceptable Limits					
TCMX	%	50-140		54	62	54	60
Decachlorobiphenyl	%	60-130		92	74	78	104

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T8 S RPI/ICC
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

8767502-8767508 Results are based on the dry weight of the soil.
Note: DDT applies to the total of op'DDT and pp'DDT, DDD applies to the total of op'DDD and pp'DDD and DDE applies to the total of op'DDE and pp'DDE. Endosulfan applies to the total of Endosulfan I and Endosulfan II.
Chlordane applies to the total of Alpha-Chlordane and Gamma-Chlordane.

Certified By:



Quality Assurance

CLIENT NAME: SIRATI & PARTNERS CONSULTANTS LTD
PROJECT: SP17-212-20
SAMPLING SITE:

AGAT WORK ORDER: 17T265391
ATTENTION TO: Nazanin Sajdeh
SAMPLED BY: Naz, Sam

Soil Analysis																
RPT Date: Oct 05, 2017			DUPLICATE				Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Measured Value		Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits		
								Lower	Upper		Lower	Upper		Lower	Upper	
O. Reg. 153(511) - Metals & Inorganics (Soil)																
Antimony	8767495	8767495	<0.8	<0.8	NA	< 0.8	124%	70%	130%	103%	80%	120%	100%	70%	130%	
Arsenic	8767495	8767495	2	2	NA	< 1	118%	70%	130%	107%	80%	120%	110%	70%	130%	
Barium	8767495	8767495	13	12	8.0%	< 2	104%	70%	130%	98%	80%	120%	100%	70%	130%	
Beryllium	8767495	8767495	<0.5	<0.5	NA	< 0.5	90%	70%	130%	102%	80%	120%	98%	70%	130%	
Boron	8767495	8767495	<5	<5	NA	< 5	77%	70%	130%	106%	80%	120%	99%	70%	130%	
Boron (Hot Water Soluble)	8767495	8767495	<0.10	<0.10	NA	< 0.10	100%	60%	140%	114%	70%	130%	97%	60%	140%	
Cadmium	8767495	8767495	<0.5	<0.5	NA	< 0.5	99%	70%	130%	97%	80%	120%	96%	70%	130%	
Chromium	8767495	8767495	5	5	NA	< 2	93%	70%	130%	101%	80%	120%	100%	70%	130%	
Cobalt	8767495	8767495	1.9	1.8	NA	< 0.5	93%	70%	130%	95%	80%	120%	93%	70%	130%	
Copper	8767495	8767495	5	5	0.0%	< 1	100%	70%	130%	111%	80%	120%	104%	70%	130%	
Lead	8767495	8767495	2	2	NA	< 1	110%	70%	130%	103%	80%	120%	98%	70%	130%	
Molybdenum	8767495	8767495	<0.5	<0.5	NA	< 0.5	108%	70%	130%	100%	80%	120%	104%	70%	130%	
Nickel	8767495	8767495	2	2	NA	< 1	103%	70%	130%	99%	80%	120%	100%	70%	130%	
Selenium	8767495	8767495	<0.4	<0.4	NA	< 0.4	93%	70%	130%	94%	80%	120%	96%	70%	130%	
Silver	8767495	8767495	<0.2	<0.2	NA	< 0.2	85%	70%	130%	89%	80%	120%	88%	70%	130%	
Thallium	8767495	8767495	<0.4	<0.4	NA	< 0.4	99%	70%	130%	95%	80%	120%	91%	70%	130%	
Uranium	8767495	8767495	<0.5	<0.5	NA	< 0.5	101%	70%	130%	100%	80%	120%	92%	70%	130%	
Vanadium	8767495	8767495	12	11	8.7%	< 1	91%	70%	130%	93%	80%	120%	93%	70%	130%	
Zinc	8767495	8767495	10	10	NA	< 5	100%	70%	130%	110%	80%	120%	116%	70%	130%	
Chromium VI	8762656		<0.2	<0.2	NA	< 0.2	95%	70%	130%	99%	80%	120%	98%	70%	130%	
Cyanide	8765936		<0.040	<0.040	NA	< 0.040	105%	70%	130%	108%	80%	120%	109%	70%	130%	
Mercury	8767495	8767495	<0.10	<0.10	NA	< 0.10	118%	70%	130%	99%	80%	120%	99%	70%	130%	
Electrical Conductivity	8767495	8767495	0.103	0.102	1.0%	< 0.005	95%	90%	110%	NA			NA			
Sodium Adsorption Ratio	8767495	8767495	0.036	0.034	5.7%	NA	NA			NA			NA			
pH, 2:1 CaCl2 Extraction	8771593		7.71	7.62	1.2%	NA	101%	80%	120%	NA			NA			

Comments: NA signifies Not Applicable.

Duplicate Qualifier: As the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

Certified By:

Amanjot Bhela

Quality Assurance

CLIENT NAME: SIRATI & PARTNERS CONSULTANTS LTD
 PROJECT: SP17-212-20
 SAMPLING SITE:

AGAT WORK ORDER: 17T265391
 ATTENTION TO: Nazanin Sajdeh
 SAMPLED BY: Naz, Sam

Trace Organics Analysis

RPT Date: Oct 05, 2017			DUPLICATE				Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Measured Value		Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits		
								Lower	Upper		Lower	Upper		Lower	Upper	
O. Reg. 153(511) - OC Pesticides (Soil)																
Hexachloroethane	8726923		< 0.01	< 0.01	NA	< 0.01	108%	50%	140%	62%	50%	140%	82%	50%	140%	
Gamma-Hexachlorocyclohexane	8726923		< 0.005	< 0.005	NA	< 0.005	96%	50%	140%	84%	50%	140%	74%	50%	140%	
Heptachlor	8726923		< 0.005	< 0.005	NA	< 0.005	96%	50%	140%	74%	50%	140%	68%	50%	140%	
Aldrin	8726923		< 0.005	< 0.005	NA	< 0.005	107%	50%	140%	72%	50%	140%	88%	50%	140%	
Heptachlor Epoxide	8726923		< 0.005	< 0.005	NA	< 0.005	107%	50%	140%	74%	50%	140%	84%	50%	140%	
Endosulfan	8726923		< 0.005	< 0.005	NA	< 0.005	102%	50%	140%	76%	50%	140%	84%	50%	140%	
Chlordane	8726923		< 0.007	< 0.007	NA	< 0.007	105%	50%	140%	82%	50%	140%	82%	50%	140%	
DDE	8726923		< 0.007	< 0.007	NA	< 0.007	108%	50%	140%	93%	50%	140%	86%	50%	140%	
DDD	8726923		< 0.007	< 0.007	NA	< 0.007	109%	50%	140%	84%	50%	140%	96%	50%	140%	
DDT	8726923		< 0.007	< 0.007	NA	< 0.007	100%	50%	140%	91%	50%	140%	86%	50%	140%	
Dieldrin	8726923		< 0.005	< 0.005	NA	< 0.005	105%	50%	140%	82%	50%	140%	82%	50%	140%	
Endrin	8726923		< 0.005	< 0.005	NA	< 0.005	102%	50%	140%	86%	50%	140%	78%	50%	140%	
Methoxychlor	8726923		< 0.005	< 0.005	NA	< 0.005	95%	50%	140%	98%	50%	140%	94%	50%	140%	
Hexachlorobenzene	8726923		< 0.005	< 0.005	NA	< 0.005	93%	50%	140%	76%	50%	140%	82%	50%	140%	
Hexachlorobutadiene	8726923		< 0.01	< 0.01	NA	< 0.01	116%	50%	140%	60%	50%	140%	76%	50%	140%	

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By:



Method Summary

CLIENT NAME: SIRATI & PARTNERS CONSULTANTS LTD
AGAT WORK ORDER: 17T265391
PROJECT: SP17-212-20
ATTENTION TO: Nazanin Sajdeh
SAMPLING SITE:
SAMPLED BY: Naz, Sam

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
Antimony	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Arsenic	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Barium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Beryllium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron (Hot Water Soluble)	MET-93-6104	EPA SW 846 6010C; MSA, Part 3, Ch.21	ICP/OES
Cadmium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Cobalt	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Copper	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Lead	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Molybdenum	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Nickel	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Selenium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Silver	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Thallium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Uranium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Vanadium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Zinc	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium VI	INOR-93-6029	SM 3500 B; MSA Part 3, Ch. 25	SPECTROPHOTOMETER
Cyanide	INOR-93-6052	MOE CN-3015 & E 3009 A; SM 4500 CN	TECHNICON AUTO ANALYZER
Mercury	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Electrical Conductivity	INOR-93-6036	McKeague 4.12, SM 2510 B	EC METER
Sodium Adsorption Ratio	INOR-93-6007	McKeague 4.12 & 3.26 & EPA SW-846 6010B	ICP/OES
pH, 2:1 CaCl ₂ Extraction	INOR-93-6031	MSA part 3 & SM 4500-H+ B	PH METER
Trace Organics Analysis			
Hexachloroethane	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Gamma-Hexachlorocyclohexane	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Heptachlor	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Aldrin	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Heptachlor Epoxide	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Endosulfan	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Chlordane	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
DDE	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
DDD	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
DDT	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Dieldrin	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Endrin	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Methoxychlor	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Hexachlorobenzene	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Hexachlorobutadiene	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
TCMX	ORG-91-5112	EPA SW-846 3541,3620 & 8081	GC/ECD
Decachlorobiphenyl	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Moisture Content		MOE E3139	BALANCE