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Limited
Phase 2 Environmental Site Assessment
5558 Drummond Road
Niagara Falls, Ontario
L2G 43L

Prepared for:

Mr. Rob Mills
Blythwood Homes
5-3483 Portage Road
Niagara Falls, Ontario
L2J 2K5

File: 21333

November 2021

EXECUTIVE SUMMARY

Landtek Limited (Landtek) is pleased to submit the findings of this Limited Phase 2 Environmental Site Assessment (ESA) report for the property located at 5558 Drummond Road in Niagara Falls, Ontario (the "Site"). The work was initiated following authorization to proceed from Mr. Rob Mills of Bylthwood Homes (the Client) in July of 2021.

The Limited Phase 2 ESA was completed in general accordance with CSA Standard Z769-00. The soil and groundwater quality standards and regulations set forth in the document "Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act, April 15, 2011". The Limited Phase 2 ESA covers physical sampling of soils and chemical analyses where potential risks of environmental liability are evident from previous findings or past use of the property.

This assessment was completed with the understanding that a Record of Site Condition (RSC) is not required and therefore the requirements of Ontario Regulation 153/04 (as amended) were **not** performed.

The Site is vacant with no buildings and/or structures present and surrounded by residential properties.

A Phase 1 ESA was completed by Landtek for the Site, "*Phase 1 Environmental Site Assessment, Blythwood Homes, 5558 Drummond Road, Niagara Falls, Ontario, L2G 4L3, prepared by Landtek Limited, File: 21333, dated October 2021*" (Phase 1 ESA).

Based on the Phase 1 ESA results, Landtek identified the following potential environmental concern for the Site:

- The potential presence of fill of unknown quality on the Site.

Based on the above-mentioned issue of potential environmental concern identified, a soil assessment was recommended to assess potential shallow soil impacts at the Site.

As part of a combined Environmental and Geotechnical program (issued under a separate cover) completed on the Site in October of 2021, five (5) boreholes (BH1, BH2, BH3, BH4 and BH5), were drilled on the Site in October of 2021; to depths of up to 6.0 m below ground surface (bgs) (20 ft bgs) for BH1, BH2 and BH3 and to depths of up to 3.0 m bgs (10 ft bgs) for BH4 and BH5, and were established based on the subsurface conditions. No groundwater monitoring wells were installed as part of this investigation.

All work was completed in accordance with acceptable industry standards and all soil samples were submitted to and analysed by Parcel Laboratories, an environmental analytical laboratory accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for the chemical parameters analysed, including Metals and Inorganic parameters (M&I).

In accordance with O. Reg. 153/04, the Table 3 Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition for coarse grained soils for Residential property use (O. Reg. 153/04 Table 3 SCS) were selected as the applicable standards for the Site.

Conclusions

Based on the testing completed during the course of this investigation, the findings of the Limited Phase 2 ESA are summarized as follows:

- Soil samples tested for M&I parameters were below the applicable O. Reg. 153/04 Table 3 SCS in a Non-Potable Ground Water Condition for coarse grained soils and Residential/Parkland/Institutional property use in accordance with O. Reg. 153/04.

Recommendations

Based on the above conclusions, no further work is required at this time.

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1.0 INTRODUCTION

Landtek Limited (Landtek) is pleased to submit the findings of this Limited Phase 2 Environmental Site Assessment (ESA) report for the property located at 5558 Drummond Road in Niagara Falls, Ontario (the "Site"), as shown below on **Figure 1**. The work was initiated following authorization to proceed from Mr. Rob Mills of Blythwood Homes (the Client) in July of 2021.

The purpose of this Limited Phase 2 ESA investigation was to assess the soil quality at the Site in relation to the potential environmental concern identified in the Phase 1 ESA completed by Landtek (**Section 3.0**).

The Limited Phase 2 ESA was completed in general accordance with CSA Standard Z769-00. The current soil and groundwater quality standards and regulations set forth in the document "Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act, April 15, 2011". The Limited Phase 2 ESA covers physical sampling of soil and chemical analyses where potential risks and/or environmental liability are evident from previous findings or past use of the property.

It is understood that the information obtained as part of this program may be used for due diligence purposes. This assessment was completed with the understanding that a Record of Site Condition (RSC) is **not** required and therefore the requirements of O. Reg. 153/04 (as amended) were not performed.

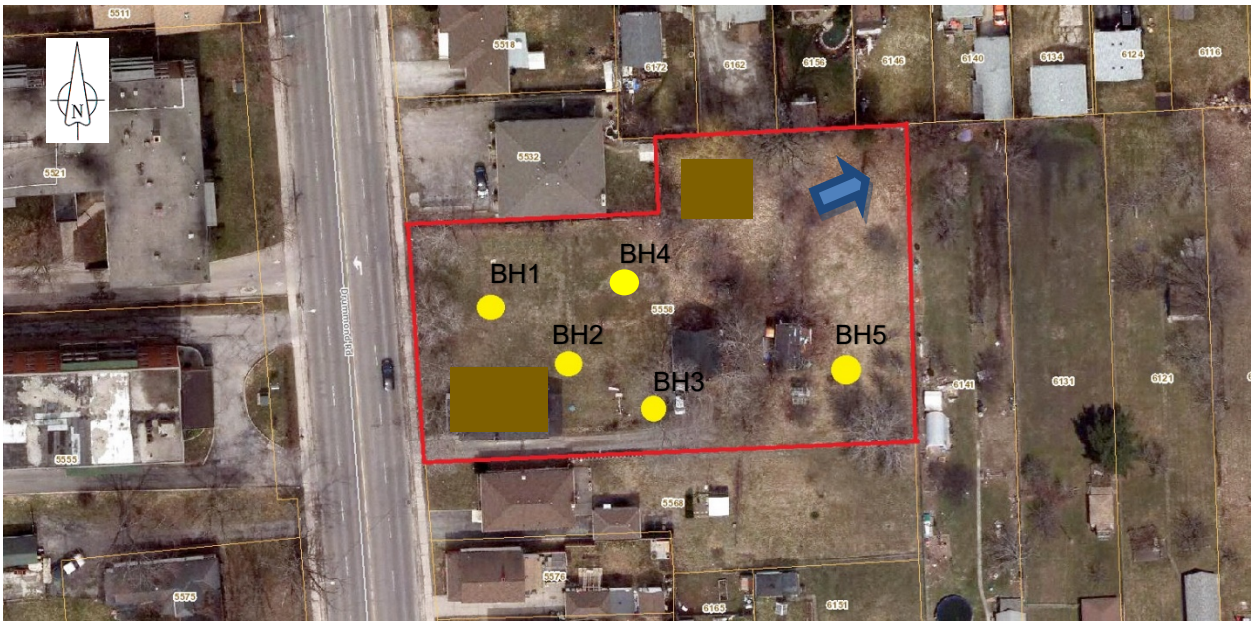
2.0 SITE DESCRIPTION

The Site is located approximately 60 m north of the intersection of Drummond Road and North Street in Niagara Falls and is vacant land surrounded by residential houses and apartment complexes.

The Site is irregular in shape and is bound by residential properties to the north, south, and east; and Drummond Road to the west (followed by multi-tenant apartment complexes).

The Site is approximately 0.33 hectares (0.81 acres). **Figure 1** shows the general location of the Site and Borehole Location Plan.

Figure 1 – Borehole Location Plan



Legend (locations are approximate):

- Borehole Location
- Inferred Groundwater Flow Direction
- Site Boundary

3.0 PREVIOUS ENVIRONMENTAL REPORTS

The following previous environmental report was provided to Landtek for review:

A Phase 1 ESA was completed by Landtek for the Site, "*Phase 1 Environmental Site Assessment, 5558 Drummond Road, Niagara Falls, Ontario, L2G 43L, prepared by Landtek Limited, File: 21333, dated July 2021*" (Phase 1 ESA).

Based on the Phase 1 ESA results, Landtek identified the following potential environmental concern for the Site:

- The potential presence of fill of unknown quality on the Site.

Based on the above-mentioned issue of potential environmental concern identified for the Site, a soil assessment was recommended to assess potential impacts at the Site.

4.0 SCOPE OF WORK

The objectives of the Limited Phase 2 ESA were: (1) review available background environmental information regarding the Site; (2) undertake sampling of subsurface soils by means of boreholes; (3) carry out chemical testing of soil to assist in the assessment of existing conditions; and, (4) evaluate and report on the findings to present the existing environmental conditions of the Site.

The following scope of work was undertaken by Landtek:

- Obtaining and utilizing a private underground utility locate contractor to locate on-Site utilities that would not be traced by the public utility locators (such as private lighting, private sewer and water lines, etc.);
- As part of a combined Environmental and Geotechnical program (issued under a separate cover) drilling three (3) boreholes to a maximum depth of approximately 6.0 metre below ground surface (m bgs) (20 ft) and two (2) boreholes to a maximum depth of approximately 3.0 m bgs (10 ft) at locations identified on **Figure 1.** The purpose of the boreholes was for the collection of soil samples for chemical analyses. All final borehole locations were based on accessibility by the drilling equipment and subsurface infrastructure considerations; the depths were established based on the subsurface conditions;
- The purpose of the boreholes was for the collection of soil samples for chemical analyses;
- Collecting soil samples for laboratory analysis of Metals and Inorganic parameters (M&I) from the borehole locations;
- Submitting up to two (2) soil samples for pH as required by O. Reg. 153/04;
- Interpretation of the laboratory results by comparison with the applicable O. Reg. 153/04, Site Condition Standards (SCS); and,
- Preparation of this report.

All environmental sampling and chemical analysis were conducted pursuant to Ministry of the Environment, Conservation and Parks (MOE) standards.

5.0 SELECTION OF SITE CONDITION STANDARDS

Under the O. Reg. 153/04, Part XV.1 of the Environmental Protection Act, the selection of Site Condition Standards (SCS) against which laboratory results are compared is based on a number of criteria. The SCS are published in the MOE Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act dated April 15, 2011.

Landtek considered the following criteria for the selection of the applicable SCS for the Site:

- *Land Use*: The current land is zoned residential and the proposed future land use will continue to remain the same. Therefore, for the purpose of this Phase Two ESA, the "residential" land use is considered as the intended land-use;
- *Potable or non-potable groundwater*: The Site will be serviced by municipal water; as are the surrounding residential properties;
- *Proximity to surface water body*: The Site is not located within 30 metres (m) of a waterbody;
- *Proximity to areas of natural significance or environmentally sensitive areas*: The site is located approximately 2 kilometers west of the Niagara River Bedrock Gorge, a provincial Area of Natural and Scientific Interest (ANSI);
- *Depth to bedrock*: A property is considered a shallow soil property if one-third or more of the property consists of soil depths of 2 metres below ground surface (mbgs) or less. Based on the subsurface conditions observed as part of this investigation, the depth to bedrock is considered to be greater than 2 m;
- *pH of soil*: Since the pH values were greater than 5 and less than 9 the Site is not considered a sensitive site for the purpose of this assessment; and,
- *Soil texture*: Based on the results of the drilling investigation and the subsurface conditions encountered, the soil texture is considered to be coarse grained as defined in O. Reg.153/04.

Based on the above information, the Table 3 Generic SCS in a Non-Potable Ground Water Condition for coarse grained soils for Residential property use (O. Reg. 153/04 Table 3 SCS) were selected as the applicable standards for the Site.

6.0 METHODOLOGY

All work was completed in accordance with acceptable industry standards and all soil samples were submitted to and analyzed by Paracel Laboratories, an environmental analytical laboratory accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for the chemical parameters analyzed, including M&I.

6.1 Borehole Advancement and Soil Sampling

As part of a combined Environmental and Geotechnical program (issued under a separate cover) completed on the Site in October of 2021, five (5) boreholes (BH1, BH2, BH3, BH4 and BH5), none of which were installed as groundwater monitoring wells were drilled on the Site in October of 2021 under the supervision of Landtek; to depths of up to 6.0 m below ground surface (bgs) (20 ft bgs) for BH1, BH2 and BH3; and to depths of up to 3.0 m bgs (10 ft bgs) for BH4 and BH5 and were established based on the subsurface conditions.

The soil was logged by qualified Landtek personnel using the Unified Soil Classification System (USCS) Standard Practices for Description and Identification of Soils, Visual Manual Procedure (ASTM D2488-09a), noting stratigraphy, subsurface conditions, and any physical evidence of soil quality impacts.

Five (5) surficial soil samples were collected from approximately 0.6 m (2 ft) bgs at each location. Soil samples submitted for analysis were selected based on the location and depth required.

7.0 QUALITY ASSURANCE / QUALITY CONTROL (QA/QC)

All field work was performed in accordance with Landtek quality procedures and standard operating procedures (SOPs). The procedures included the following:

- Appropriate measures to avoid cross contamination and decontamination where necessary;
- Collection of all samples in laboratory provided containers and placement of containers in coolers containing ice;
- The field conditions, as documented on the borehole logs and results of field screening were reviewed to confirm that the appropriate samples were selected for laboratory analysis and that samples were scheduled for analysis for the required chemical parameters;
- The samples listed on the chain-of-custody form were cross-checked with the samples being shipped to the contract laboratory. A further check was carried out to ensure that the relevant analytical parameters had been requested for analysis;
- All coolers contained ice packs along with the sample containers to maintain the minimum temperature required on arrival at the contract laboratory.

The overall QA/QC results are considered to be acceptable and support the reliability of the results of the field samples analysed.

8.0 RESULTS AND DISCUSSION

8.1 Results of Laboratory Analysis - Soil

The summary of test results for soils is shown in **Table 1**. Laboratory certificates of analysis are included in **Appendix A**. Samples were selected based on location and depth of potential areas of concern as well as olfactory indicators, where possible.

Table 1: Schedule of Chemical Analyses and Summary of Test Results for Soils

Sample / Depth (m bgs)	Sample Depth (m bgs)	Analyses	Exceedances		
			Parameter	Sample Results (µg/g)	Table 3 RPI SCS** (µg/g)
BH1	0.6	metals & inorganics	--	**No Exceedances**	--
BH2	0.6	metals & inorganics	--	**No Exceedances**	--
BH3	0.6	metals & inorganics	--	**No Exceedances**	--
BH4	0.6	metals & inorganics	--	**No Exceedances**	--
BH5	0.6	metals & inorganics	--	**No Exceedances**	--

****** Sample results compared with *Soil, Ground Water, and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act', April 2011. Table 3 Generic SCS in a Non-Potable Ground Water Condition for coarse grained soils and Residential property use (Table 3 SCS) were selected as the applicable standards for the Site.*

As indicated above, soil analytical results were reported to be below the applicable O. Reg. 153/04 Table 3 RPI SCS.

9.0 FINDINGS AND CONCLUSIONS

Based on the testing completed during the course of this investigation, the findings of the Limited Phase 2 ESA are summarized as follows:

- Soil samples tested for metals & inorganics parameters were below the applicable O. Reg. 153/04 Table 3 SCS in a Non-Potable Ground Water Condition for coarse grained soils and Residential/Parkland/Institutional property use in accordance with O. Reg. 153/04.

Based on the above conclusions, no further work is required at this time.

10.0 CLOSURE

We trust this report is satisfactory for your purposes at this time. Should you have any questions, please do not hesitate to contact our office.

LANDTEK LIMITED

Nicole Harper, H.B.Sc.

Paul Blunt, P.Eng., QP_{ESA}

11.0 LIMITATION OF THE REPORT

This report was prepared for the sole use of the Client and their legal counsel, and is intended to provide an evaluation of the current environmental conditions at the subject site. Any use that a third party makes of this report, or decisions made based on it, are the responsibility of the third party. Landtek Limited accepts no responsibility for damages of any type suffered by the third party as a result of actions or decisions made based on this report.

The conclusions given in this report are based on information determined at the borehole locations. Subsurface conditions, ground water conditions and contaminant concentrations between and beyond the boreholes may be different from those encountered at the borehole locations, and conditions may become apparent during construction that could not be detected or anticipated at the time of the subsurface investigation. It is recommended practice that Landtek be retained during construction to confirm that the subsurface conditions throughout the site are consistent with the conditions encountered in the boreholes.

The conclusions and recommendations given in this report are based on information obtained from various sources noted, subsurface investigation, and a visual examination of the site. It is based on the conditions of the subject property at the time of the field investigation supplemented by a review of historical information to assess environmental conditions at the site reported. Landtek assumes that information provided by others is factual and accurate, and accepts no responsibility for any deficiency, misstatement, of inaccuracy in this report from information provided by others.

This assessment should not be considered a comprehensive audit that outlines all environmental liabilities or eliminates all risks of encountering environmental problems in some portions of the site. There is no warranty expressed or implied by this report concerning the status of the study site.

The report has been prepared in accordance with generally accepted environmental study and/or engineering practices. No other warranties, either expressed or implied, are made as to the professional services provided under the terms of our contract and included in this report.

The objective of this report was to assess the environmental conditions at the site, with respect to existing environmental regulations within the applicable jurisdiction. Compliance of past owners with applicable local, provincial and federal government laws and regulations was not included in our contract for services.

The site history performed herein relies on information supplied by others, such as local, provincial and federal agencies as other consultants. No attempt has been made to independently verify the accuracy of such information, unless specifically noted in our report.

Should the site conditions change, or additional background data become available after this report has been issued, Landtek Limited should be made aware of the information and be given an opportunity to reassess the findings if it relates to environmental concerns.

APPENDIX A

Laboratory CERTIFICATES OF ANALYSES Including Laboratory QA/QC Data

Soil Results

PARACEL LABORATORIES LTD.

TRUSTED.
RESPONSIVE.
RELIABLE.

351 Nash Road North, unit 9B
Hamilton, ON L8H 7P4
1-800-749-1947
www.paracellabs.com

Certificate of Analysis

Landtek Limited

205 Nebo Road, Unit 3
Hamilton, ON L8W2E1
Attn: Nicole Harper

Client PO: 21333
Project: 5558 Drummond Rd, Niagara falls
Custody: 62303

Report Date: 4-Nov-2021
Order Date: 29-Oct-2021

Order #: 2144629

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

Paracel ID	Client ID	Paracel ID	Client ID
2144629-01	BH1 SS1		
2144629-02	BH2 SS1		
2144629-03	BH3 SS1		
2144629-04	BH4 SS1		
2144629-05	BH5 SS1		

Approved By:

Alex Enfield, MSc
Lab Manager

Certificate of Analysis

Client: Landtek Limited

Client PO: 21333

Report Date: 04-Nov-2021

Order Date: 29-Oct-2021

Project Description: 5558 Drummond Rd, Niagara falls

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
Boron, available	MOE (HWE), EPA 200.8 - ICP-MS	2-Nov-21	2-Nov-21
Chromium, hexavalent - soil	MOE E3056 - Extraction, colourimetric	29-Oct-21	3-Nov-21
Conductivity	MOE E3138 - probe @25 °C, water ext	3-Nov-21	3-Nov-21
Cyanide, free	MOE E3015 - Auto Colour, water extraction	29-Oct-21	29-Oct-21
Mercury by CVAA	EPA 7471B - CVAA, digestion	3-Nov-21	3-Nov-21
REG 153: Metals by ICP/MS, soil	EPA 6020 - Digestion - ICP-MS	2-Nov-21	3-Nov-21
REG 153: pH, soil	EPA 150.1 - pH probe @ 25 °C, CaCl buffered ext.	3-Nov-21	3-Nov-21
SAR	Calculated	2-Nov-21	3-Nov-21
Solids, %	Gravimetric, calculation	1-Nov-21	2-Nov-21

Certificate of Analysis
Client: Landtek Limited
Client PO: 21333

Report Date: 04-Nov-2021
Order Date: 29-Oct-2021
Project Description: 5558 Drummond Rd, Niagara falls

Summary of Exceedances

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

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

Regulatory Comparison:

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

Criteria:

Client ID	Analyte	MDL / Units	Result	Reg 153/04 (2011)-Table 2 Residential

PARACEL LABORATORIES LTD.

Order #: 2144629

Certificate of Analysis

Client: Landtek Limited

Client PO: 21333

Report Date: 04-Nov-2021

Order Date: 29-Oct-2021

Project Description: 5558 Drummond Rd, Niagara falls

	Client ID:	BH1 SS1	BH2 SS1	BH3 SS1	BH4 SS1	Criteria:	
	Sample Date:	29-Oct-2021	29-Oct-2021	29-Oct-2021	29-Oct-2021		
	Sample ID:	2144629-01	2144629-02	2144629-03	2144629-04	Reg 153/04 (2011)-Table 2 Residential	
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Physical Characteristics							
% Solids	0.1 % by Wt.	86.0	85.1	82.2	81.2		
General Inorganics							
SAR	0.01 N/A	0.17	0.11	0.20	0.12	(5) 5	N/A
Conductivity	5 uS/cm	192	569	299	126	(0.7) 0.7	mS/cm
Cyanide, free	0.03 ug/g	<0.03	<0.03	<0.03	<0.03	(0.051) 0.051	ug/g
pH	0.05 pH Units	7.26	7.22	7.17	6.97	(5 - 9) 5 - 9	pH units
Metals							
Antimony	1.0 ug/g	1.6	<1.0	2.4	<1.0	(7.5) 7.5	ug/g
Arsenic	1.0 ug/g	9.7	8.2	4.7	7.0	(18) 18	ug/g
Barium	1.0 ug/g	81.3	80.1	63.6	39.9	(390) 390	ug/g
Beryllium	0.5 ug/g	<0.5	<0.5	<0.5	<0.5	(5) 4	ug/g
Boron	5.0 ug/g	<5.0	<5.0	5.6	<5.0	(120) 120	ug/g
Boron, available	0.5 ug/g	0.6	0.9	1.2	0.5	(1.5) 1.5	ug/g
Cadmium	0.5 ug/g	<0.5	<0.5	0.5	<0.5	(1.2) 1.2	ug/g
Chromium	5.0 ug/g	10.7	9.9	10.9	8.4	(160) 160	ug/g
Chromium (VI)	0.2 ug/g	<0.2	<0.2	<0.2	<0.2	(10) 8	ug/g
Cobalt	1.0 ug/g	3.8	3.8	3.2	2.6	(22) 22	ug/g
Copper	5.0 ug/g	43.0	60.0	20.1	11.1	(180) 140	ug/g
Lead	1.0 ug/g	92.1	71.2	99.2	21.0	(120) 120	ug/g
Mercury	0.1 ug/g	<0.1	<0.1	0.1	<0.1	(1.8) 0.27	ug/g
Molybdenum	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	(6.9) 6.9	ug/g
Nickel	5.0 ug/g	10.8	10.7	10.8	6.6	(130) 100	ug/g
Selenium	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	(2.4) 2.4	ug/g

Certificate of Analysis

Client: Landtek Limited

Client PO: 21333

Report Date: 04-Nov-2021

Order Date: 29-Oct-2021

Project Description: 5558 Drummond Rd, Niagara falls

	Client ID:	BH1 SS1	BH2 SS1	BH3 SS1	BH4 SS1	Criteria:	
	Sample Date:	29-Oct-2021	29-Oct-2021	29-Oct-2021	29-Oct-2021		
	Sample ID:	2144629-01	2144629-02	2144629-03	2144629-04	Reg 153/04 (2011)-Table 2 Residential	
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Silver	0.3 ug/g	<0.3	<0.3	<0.3	<0.3	(25) 20	ug/g
Thallium	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	(1) 1	ug/g
Uranium	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	(23) 23	ug/g
Vanadium	10.0 ug/g	15.3	15.8	14.6	14.4	(86) 86	ug/g
Zinc	20.0 ug/g	76.2	152	213	37.3	(340) 340	ug/g

Certificate of Analysis

Client: Landtek Limited

Client PO: 21333

Report Date: 04-Nov-2021

Order Date: 29-Oct-2021

Project Description: 5558 Drummond Rd, Niagara falls

	Client ID:	BH5 SS1	-	-	-		
	Sample Date:	29-Oct-2021	-	-	-	**Criteria:**	
	Sample ID:	2144629-05	-	-	-	**Reg 153/04 (2011)-Table 2 Residential**	
	Matrix:	Soil	-	-	-		
	MDL/Units						
Physical Characteristics							
% Solids	0.1 % by Wt.	80.0	-	-	-		
General Inorganics							
SAR	0.01 N/A	0.28	-	-	-	(5) 5	N/A
Conductivity	5 uS/cm	406	-	-	-	(0.7) 0.7	mS/cm
Cyanide, free	0.03 ug/g	<0.03	-	-	-	(0.051) 0.051	ug/g
pH	0.05 pH Units	7.22	-	-	-	(5 - 9) 5 - 9	pH units
Metals							
Antimony	1.0 ug/g	<1.0	-	-	-	(7.5) 7.5	ug/g
Arsenic	1.0 ug/g	3.7	-	-	-	(18) 18	ug/g
Barium	1.0 ug/g	86.4	-	-	-	(390) 390	ug/g
Beryllium	0.5 ug/g	<0.5	-	-	-	(5) 4	ug/g
Boron	5.0 ug/g	5.2	-	-	-	(120) 120	ug/g
Boron, available	0.5 ug/g	0.6	-	-	-	(1.5) 1.5	ug/g
Cadmium	0.5 ug/g	<0.5	-	-	-	(1.2) 1.2	ug/g
Chromium	5.0 ug/g	10.9	-	-	-	(160) 160	ug/g
Chromium (VI)	0.2 ug/g	<0.2	-	-	-	(10) 8	ug/g
Cobalt	1.0 ug/g	3.7	-	-	-	(22) 22	ug/g
Copper	5.0 ug/g	23.9	-	-	-	(180) 140	ug/g
Lead	1.0 ug/g	51.5	-	-	-	(120) 120	ug/g
Mercury	0.1 ug/g	<0.1	-	-	-	(1.8) 0.27	ug/g
Molybdenum	1.0 ug/g	<1.0	-	-	-	(6.9) 6.9	ug/g
Nickel	5.0 ug/g	9.6	-	-	-	(130) 100	ug/g
Selenium	1.0 ug/g	<1.0	-	-	-	(2.4) 2.4	ug/g

Certificate of Analysis

Client: Landtek Limited

Client PO: 21333

Report Date: 04-Nov-2021

Order Date: 29-Oct-2021

Project Description: 5558 Drummond Rd, Niagara falls

	Client ID:	BH5 SS1	-	-	-	**Criteria:**		
	Sample Date:	29-Oct-2021	-	-	-			
	Sample ID:	2144629-05	-	-	-	**Reg 153/04 (2011)-Table 2 Residential**		
	Matrix:	Soil	-	-	-			
	MDL/Units							
Silver	0.3 ug/g	<0.3	-	-	-	(25) 20	ug/g	
Thallium	1.0 ug/g	<1.0	-	-	-	(1) 1	ug/g	
Uranium	1.0 ug/g	<1.0	-	-	-	(23) 23	ug/g	
Vanadium	10.0 ug/g	16.1	-	-	-	(86) 86	ug/g	
Zinc	20.0 ug/g	82.3	-	-	-	(340) 340	ug/g	

Certificate of Analysis

Client: Landtek Limited

Client PO: 21333

Report Date: 04-Nov-2021

Order Date: 29-Oct-2021

Project Description: 5558 Drummond Rd, Niagara falls

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
General Inorganics									
Conductivity	ND	5	uS/cm						
Cyanide, free	ND	0.03	ug/g						
Metals									
Antimony	ND	1.0	ug/g						
Arsenic	ND	1.0	ug/g						
Barium	ND	1.0	ug/g						
Beryllium	ND	0.5	ug/g						
Boron, available	ND	0.5	ug/g						
Boron	ND	5.0	ug/g						
Cadmium	ND	0.5	ug/g						
Chromium (VI)	ND	0.2	ug/g						
Chromium	ND	5.0	ug/g						
Cobalt	ND	1.0	ug/g						
Copper	ND	5.0	ug/g						
Lead	ND	1.0	ug/g						
Mercury	ND	0.1	ug/g						
Molybdenum	ND	1.0	ug/g						
Nickel	ND	5.0	ug/g						
Selenium	ND	1.0	ug/g						
Silver	ND	0.3	ug/g						
Thallium	ND	1.0	ug/g						
Uranium	ND	1.0	ug/g						
Vanadium	ND	10.0	ug/g						
Zinc	ND	20.0	ug/g						

Certificate of Analysis

Report Date: 04-Nov-2021

Client: Landtek Limited

Order Date: 29-Oct-2021

Client PO: 21333

Project Description: 5558 Drummond Rd, Niagara falls

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
General Inorganics									
SAR	5.74	0.01	N/A	5.89			2.6	30	
Conductivity	974	5	uS/cm	975			0.1	5	
Cyanide, free	ND	0.03	ug/g	ND			NC	35	
pH	7.25	0.05	pH Units	7.26			0.1	10	
Metals									
Antimony	1.5	1.0	ug/g	1.6			5.9	30	
Arsenic	9.9	1.0	ug/g	9.7			1.6	30	
Barium	79.3	1.0	ug/g	81.3			2.6	30	
Beryllium	ND	0.5	ug/g	ND			NC	30	
Boron, available	ND	0.5	ug/g	ND			NC	35	
Boron	7.3	5.0	ug/g	ND			NC	30	
Cadmium	ND	0.5	ug/g	ND			NC	30	
Chromium (VI)	0.3	0.2	ug/g	0.3			10.5	35	
Chromium	10.7	5.0	ug/g	10.7			0.0	30	
Cobalt	3.8	1.0	ug/g	3.8			1.5	30	
Copper	41.3	5.0	ug/g	43.0			4.0	30	
Lead	90.0	1.0	ug/g	92.1			2.3	30	
Mercury	ND	0.1	ug/g	ND			NC	30	
Molybdenum	ND	1.0	ug/g	ND			NC	30	
Nickel	10.2	5.0	ug/g	10.8			5.1	30	
Selenium	1.5	1.0	ug/g	ND			NC	30	
Silver	ND	0.3	ug/g	ND			NC	30	
Thallium	ND	1.0	ug/g	ND			NC	30	
Uranium	ND	1.0	ug/g	ND			NC	30	
Vanadium	15.0	10.0	ug/g	15.3			2.0	30	
Zinc	75.5	20.0	ug/g	76.2			1.0	30	
Physical Characteristics									
% Solids	85.8	0.1	% by Wt.	86.0			0.3	25	

Certificate of Analysis

Client: Landtek Limited

Client PO: 21333

Report Date: 04-Nov-2021

Order Date: 29-Oct-2021

Project Description: 5558 Drummond Rd, Niagara falls

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
General Inorganics									
Cyanide, free	0.276	0.03	ug/g	ND	82.6	70-130			
Metals									
Antimony	126	1.0	ug/g	1.6	99.7	70-130			
Arsenic	135	1.0	ug/g	9.7	101	70-130			
Barium	201	1.0	ug/g	81.3	96.0	70-130			
Beryllium	120	0.5	ug/g	ND	96.1	70-130			
Boron, available	3.92	0.5	ug/g	ND	78.4	70-122			
Boron	121	5.0	ug/g	ND	97.1	70-130			
Cadmium	120	0.5	ug/g	ND	95.6	70-130			
Chromium (VI)	4.2	0.2	ug/g	0.3	70.0	70-130			
Chromium	132	5.0	ug/g	10.7	97.2	70-130			
Cobalt	122	1.0	ug/g	3.8	94.8	70-130			
Copper	163	5.0	ug/g	43.0	95.8	70-130			
Lead	207	1.0	ug/g	92.1	92.2	70-130			
Mercury	1.81	0.1	ug/g	ND	121	70-130			
Molybdenum	120	1.0	ug/g	ND	95.7	70-130			
Nickel	133	5.0	ug/g	10.8	97.7	70-130			
Selenium	124	1.0	ug/g	ND	99.3	70-130			
Silver	113	0.3	ug/g	ND	90.7	70-130			
Thallium	108	1.0	ug/g	ND	86.2	70-130			
Uranium	110	1.0	ug/g	ND	88.4	70-130			
Vanadium	136	10.0	ug/g	15.3	96.4	70-130			
Zinc	198	20.0	ug/g	76.2	97.7	70-130			

PARACEL LABORATORIES LTD.

Order #: 2144629

Certificate of Analysis

Client: Landtek Limited

Client PO: 21333

Report Date: 04-Nov-2021

Order Date: 29-Oct-2021

Project Description: 5558 Drummond Rd, Niagara falls

Qualifier Notes:

None

Sample Data Revisions

None

Work Order Revisions / Comments:

None

Other Report Notes:

n/a: not applicable
ND: Not Detected
MDL: Method Detection Limit
Source Result: Data used as source for matrix and duplicate samples
%REC: Percent recovery.
RPD: Relative percent difference.
NC: Not Calculated
Soil/Solid results are reported on a dry weight basis unless otherwise indicated
Where %Solids is reported, moisture loss includes the loss of volatile hydrocarbons.

PARACEL LABORATORIES LTD.

Paracel ID: 2144629

Paracel Order Number (Lab Use Only)	Chain Of Custody (Lab Use Only)
2144629	№ 62303

Client Name: Landtek Limited
Contact Name: Nicole Harper
Address: 205 Nebo Rd, Unit 4B. Hamilton, On, L8W 2E1
Telephone:

Project Ref: 5555 Drummond Rd, Niagara Falls
Quote #:
PO #: 21333
E-mail: nicole@landtek.ca
jin@landtek.ca

Page 1 of 1

Turnaround Time
☐ 1 day ☐ 3 day
☐ 2 day ☑ Regular
Date Required:

☑ REG 153/04 ☐ REG 406/19

☐ Table 1 ☑ Res/Park ☐ Med/Fine
☑ Table 2 ☐ Ind/Comm ☐ Coarse
☐ Table 3 ☐ Agri/Other
☐ Table
For RSC: ☐ Yes ☐ No

Other Regulation
☐ REG 558 ☐ PWQO
☐ CCME ☐ MISA
☐ SU - Sani ☐ SU - Storm
Mun:
☐ Other:

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

	Sample ID/Location Name	Matrix	Air Volume	# of Containers	Sample Taken: Date	Sample Taken: Time	Required Analysis
1	BH1 SS1	S		1	2021.oct.29		✓
2	BH2 SS1						✓
3	BH3 SS1						✓
4	BH4 SS1						✓
5	BH5 SS1						✓
6							
7							
8							
9							
10							

Comments:

Method of Delivery: Walk In

Relinquished By (Sign):	Received By Driver/Depot:	Received at Lab:	Verified By: BB
Relinquished By (Print): JINSUK O	Date/Time: Oct 29/21 15:12	Date/Time:	Date/Time: Oct 29/21 15:40
Date/Time: 2021.10.29	Temperature: 13.8 °C	Temperature: °C	pH Verified: ☐ By:

Chain of Custody (Blank) xlsx

Revision 4.0