REPORT ON
PHASE II ENVIRONMENTAL SITE ASSESSMENT
3575 KANEFF CRESCENT
MISSISSAUGA, ONTARIO

REPORT NO.: 6027-22-EB
REPORT DATE: MAY 1, 2022

PREPARED FOR
KANEFF GROUP OF COMPANIES
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APPENDICES

1.0 EXECUTIVE SUMMARY

Toronto Inspection Ltd. was retained by Kaneff Group of Companies to conduct a Phase II Environmental Site Assessment (ESA) for the property located at 3575 Kaneff Crescent in Mississauga, Ontario (hereinafter referred to as the "Site. The work was performed as per *Toronto Inspection Ltd.'s* standard terms and agreement.

The objective of this Phase II ESA was to determine the presence or absence of contamination in the subsoil and groundwater with respect to the potentially contaminating activities identified at the Site and surrounding areas. It is understood that the Phase II ESA was commissioned for due diligence in support of a financing agreement and that this Phase II ESA cannot be used to support the filing of a Record of Site Condition (RSC).

The Site, approximately 0.27 Ha in area and close to rectangle in shape, is bounded by Kaneff Crescent on the north side, Mississauga Valley Boulevard on the east side, Elm Drive East on the south side and Obelisk Way on the west side, approximately 200 m west of Hurontario Street, in Mississauga, Ontario. At the time of the investigation, the Site was occupied by a paved parking lot and associated landscape areas located on the perimeter.

The following report was reviewed as part of this Phase II ESA:

- *"A Report to Kaneff Properties Limited, Phase One Environmental Site Assessment, Proposed 26-Storey Rental Tower, Kaneff Crescent and Mississauga Valley Blvd, City Mississauga, Ontario", prepared by Soil Engineers Ltd., dated March 11, 2020, prepared for Kaneff Properties Limited, Reference No. 2001-E013.*

In summary, the historical and current activities from on-Site and off-Site sources, as identified in this Phase I ESA, represent potential environmental concerns which may adversely impact the subsurface conditions of the Site. Identified sources of potential environmental concern are summarized below:

On-Site Sources:

- The potential presence of fill materials of unknown quality at the subject site.

Off-Site Sources:

- Former dry cleaner at the neighbouring property to the east of the subject site. Review of this concern identified that it was located over 200 m from the Site in a downgradient orientation. Therefore, *TIL* has concluded that potential environmental concern to the Site was considered to be low.
- Former photo studio at the neighbouring property to the east of the subject site. Review of this concern identified that it was located over 200 m from the Site in a downgradient orientation. Therefore, *TIL* has concluded that potential environmental concern to the Site was considered to be low.

- Industrial machinery manufacturing at the neighbouring property to the south of the subject site. Review of this concern identified that it was located over 150 m from the Site in a trans-gradient orientation. Therefore, *TIL* has concluded that potential environmental concern to the Site was considered to be low.

Based on the findings of the Phase I ESA, it was *Soil Engineers Ltd.'s* opinion that further environmental investigation (a Phase II ESA) was recommended for the Site.

A summary of the findings of the Phase II ESA conducted at the Site are presented below:

- A total of eight (8) boreholes were advanced ranging in depths from 3.5 m to 6.6 m below grade (bg). All boreholes were drilled at exterior locations as access was not provided in the interior portions of the building.
- Underlying the surface course, fill material underlain by clayey silt and shale bedrock was encountered at the Site.
- Measured groundwater levels on in the monitoring well ranged from 7.1 m to 8.5 m below grade in the monitoring wells.
- Representative or "worst-case" soil samples were collected in laboratory-supplied containers, placed in a cooler and preserved with ice, and shipped with a Chain of Custody to SGS Canada Inc. located in Lakefield, Ontario for laboratory analyses.
- The MECP Table 3 Full Depth Generic Site Condition Standards (SCS) for use in a Non-Potable Groundwater Condition as listed in the "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", dated April 15, 2011 for Residential/Parkland/Institutional property use with coarse textured soils were determined to be applicable for the Site.
- Discrete "worst-case" samples collected from borehole locations were submitted for laboratory analyses. A total of ten (10) discrete soil samples were analyzed for the following analytical parameter groups: M&Is and PAHs.
- The concentrations of PHCs, VOCs, M&Is and PAHs in all analyzed soil samples at the tested locations met their MECP Table 9 SCS for Residential/Parkland/Institutional/ Industrial/Commercial/Community property use with all textured soils with the following exceptions:
    - Various salt related (Electrical Conductivity/Sodium Adsorption Ratio) soil exceedances within the fill material.
    - Zinc soil exceedance of 600 ug/g vs. the MECP Table 3 SCS of 340 ug/g at borehole location 21BH-1(MW) at a depth of 1.5 m below grade.
    - Fluoranthene soil exceedance of 1.06 ug/g vs. the MECP Table 3 SCS of 0.69 ug/g at borehole location 21BH-6 at a depth of 0.7 m below grade.

Salt related parameters of Electrical Conductivity and Sodium Adsorption Ratio were identified to exceed the MECP Table 3 SCS within the fill material to depths of up to 4.5 m below grade which can be attributed to the use of deicing salts within the asphalt paved parking areas within the winter months. Additionally, Zinc and Fluoranthene were found to exceed the MECP Table 3 SCS within the shallow soils at boreholes 21BH-1 and 21BH-6 which can be attributed to the importation of fill material of poor quality. Given that all of the soil will be excavated and disposed off-site from lot line to lot line for the construction of the proposed residential building, it is recommended that the soil exceeding the MECP Table 3 SCS be delt with at time of site redevelopment. No further investigation is recommended at this time.

2.0 INTRODUCTION

Toronto Inspection Ltd. was retained by Kaneff Group of Companies to conduct a Phase II Environmental Site Assessment (ESA) for the property located at 3575 Kaneff Crescent in Mississauga, Ontario (hereinafter referred to as the "Site. The work was performed as per *Toronto Inspection Ltd.'s* standard terms and agreement.

2.1 OBJECTIVES

The objective of this Phase II ESA was to determine the presence or absence of contamination in the subsoil and groundwater with respect to the potentially contaminating activities identified at the Site and surrounding areas. It is understood that the Phase II ESA was commissioned for due diligence in support of a financing agreement and that this Phase II ESA cannot be used to support the filing of a Record of Site Condition (RSC).

2.2 SITE DESCRIPTION

The Site, approximately 0.27 Ha in area and close to rectangle in shape, is bounded by Kaneff Crescent on the north side, Mississauga Valley Boulevard on the east side, Elm Drive East on the south side and Obelisk Way on the west side, approximately 200 m west of Hurontario Street, in Mississauga, Ontario. At the time of the investigation, the Site was occupied by a paved parking lot and associated landscape areas located on the perimeter.

The Site is shown below as Image 1:

Image 1: Aerial image of Site located 3575 Kaneff Crescent, Mississauga, Ontario
(Source: Mississauga Interactive Map, 2021)

Maps showing the Study Area, the Site Layout and the topographic map are provided in Appendix A.

3.0 BACKGROUND INFORMATION

3.1 PHYSICAL SETTING

Access was provided via a driveway at the northwest portion of the Site. The Site was primarily asphalt covered and used as a parking lot. Tree cover was present at the north landscape area with some scattered trees present on the east and south portion of the Site.

3.2 AREAS OF NATURAL SIGNIFICANCE

The Site is not located within or adjacent to any environmentally significant areas, provincially significant wetlands, or areas of natural and scientific interest. There is a woodland alongside the eastern border of the Site.

3.3 PAST INVESTIGATIONS

The following report was reviewed as part of this Phase II ESA:

- *"A Report to Kaneff Properties Limited, Phase One Environmental Site Assessment, Proposed 26-Storey Rental Tower, Kaneff Crescent and Mississauga Valley Blvd, City Mississauga, Ontario", prepared by Soil Engineers Ltd., dated March 11, 2020, prepared for Kaneff Properties Limited, Reference No. 2001-E013.*

In summary, the historical and current activities from on-Site and off-Site sources, as identified in this Phase I ESA, represent potential environmental concerns which may adversely impact the subsurface conditions of the Site. Identified sources of potential environmental concern are summarized below:

On-Site Sources:

- The potential presence of fill materials of unknown quality at the subject site.

Off-Site Sources:

- Former dry cleaner at the neighbouring property to the east of the subject site. Review of this concern identified that it was located over 200 m from the Site in a downgradient orientation. Therefore, *TIL* has concluded that potential environmental concern to the Site was considered to be low.
- Former photo studio at the neighbouring property to the east of the subject site. Review of this concern identified that it was located over 200 m from the Site in a downgradient orientation. Therefore, *TIL* has concluded that potential environmental concern to the Site was considered to be low.

- Industrial machinery manufacturing at the neighbouring property to the south of the subject site. Review of this concern identified that it was located over 150 m from the Site in a trans-gradient orientation. Therefore, *TIL* has concluded that potential environmental concern to the Site was considered to be low.

Based on the findings of the Phase I ESA, it was *Soil Engineers Ltd.'s* opinion that further environmental investigation (a Phase II ESA) was recommended for the Site.

4.0 SCOPE OF WORK

The Phase II ESA was conducted in general accordance with the Canadian Standard Association (CSA) Standard Z769-00 reaffirmed 2013, "Phase II Environmental Site Assessment". Field work and analytical testing were conducted in general accordance with protocols as set out in the "Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario, Revised December 1996, Ministry of Environment and Energy", and "Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act, March 9, 2004, amended as of July 1, 2011".

The scope of work for this Phase II ESA comprised the following:

- Developed a site-specific Sampling Analysis Plan (SAP);
- Ensured all public and private utilities at the Site were located and marked out prior to drilling;
- Drilled seven (7) boreholes in conjunction with a geotechnical investigation ranging in depths from 5.9 m to 7.9 m below grade (bg), shown on Figure No. 3;
- Collected soil samples during borehole drilling, and logged the soil samples for visual and olfactory characteristics, and evidence of petroleum hydrocarbon and/or chemical impact;
- Installed a groundwater monitoring well at borehole locations 21BH-1(MW), 21BH-2(MW), and 21BH-5(MW);
- Measured soil headspace vapor concentrations in the soil samples for field screening purposes;
- Submitted representative or "worst case" soil samples for laboratory analyses of Metals and Inorganics (M&Is) and Polycyclic Aromatic Hydrocarbons (PAHs);
- Inspected the monitoring wells for presence of Light Non-Aqueous Phase Liquid (LNAPL);
- Determined the applicable Site Condition Standards (SCS) from the "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", dated April 15, 2011, and the Ontario Regulation (O. Reg.) 153/04 "Record of Site Condition – Part XV.1 of the Environmental Protection Act"; and
- Prepared a report that evaluated the laboratory analytical results with respect to the SCS and interpreted the findings of the Phase II.

4.1 DEVIATIONS AND IMPEDIMENTS

No deviations or impediments were encountered as part of this Phase II ESA.

5.0 INVESTIGATION METHOD

5.1 FIELD PREPARATION

Prior to drilling at the Site, *Toronto Inspection Ltd.* contacted Ontario One Call to obtain clearance from public utility companies for borehole locations. In addition, *Toronto Inspection Ltd.* contracted a private locating company to clear the borehole locations of any private utilities at the Site.

A site-specific health and safety plan (HASP) was prepared by *Toronto Inspection Ltd*. prior to the field work. The HASP was reviewed by all workers including staff from *Toronto Inspection Ltd*. and subcontractors prior to the commencement of work on the Site. The borehole and monitoring well locations are shown on Figure 3.

5.2 SAMPLING ANALYSIS PLAN

A Sampling and Analysis Plan (SAP) was developed to, in general, address the potential environmental concerns as identified in the Phase I report. The rationale of the field investigation and laboratory analyses are summarized in Table 5.2-1.

Table 5.2-1: Sampling and Analysis Plan

Sample ID	Soil or Groundwater	Sample Depth (m bg)/(Well Screen)	Analyzed Parameters
21BH-1(MW)	Soil	1.5	M&I, PAH
21BH-2(MW)	Soil	4.5	M&I, PAH
21BH-3	Soil	4.5	M&I, PAH
21BH-4	Soil	2.3	M&I, PAH
21BH-5(MW)	Soil	0.7	M&I, PAH
21BH-6	Soil	0.7	M&I, PAH
		6.1	M&I, PAH
22BH-7	Soil	0.3	M&I, PAH
		4.5	M&I, PAH
Dup-A	Soil	1.5	M&I, PAH

6.0 FIELD INVESTIGATION

6.1 BOREHOLE DRILLING

Between March 9 and 14, 2022, *Toronto Inspection Ltd*. retained a drilling contractor, with a Ministry of the Environment, Conservation and Parks (MECP) issued license for well installation, to advance seven (7) boreholes at locations shown on Figure No. 3. The boreholes were drilled using a track-mounted drilling rig for the borehole locations. The borehole locations were selected with consideration of buried utility lines at the Site to assess the potential environmental concerns as indicated in Section 5.2-1 – Sampling and Analysis Plan.

6.2 SOIL SAMPLING AND FIELD SCREENING

Soil samples were typically obtained at intervals of 0.75 m to a depth of 3.1 m bg, and at intervals of 1.5 m below 3.1 m to the terminating depths of the boreholes. Each of the soil samples were logged in the field for visual and olfactory characteristics, and any evidence of petroleum hydrocarbon and/or chemical impact. Soil headspace vapour concentrations were measured using an RKI Model Eagle 2 portable gas detector equipped with a dual sensor, a photoionization (PID) sensor for detecting VOC gases and a thermal conductivity (TC) sensor for detecting hydrocarbons. The Eagle 2 portable gas detector was set to methane elimination mode and calibrated with hexane (for the TC sensor) and isobutylene (for the PID sensor).

The split spoon sampler was cleaned prior to the collection of each sample. A new pair of nitrile gloves were used to handle each of the soil samples.

Representative or “worst-case” soil samples were collected in laboratory-supplied containers, placed in a cooler and preserved with ice, and shipped with a Chain of Custody to SGS Canada Inc. located in Lakefield, Ontario for laboratory analyses. SGS Canada Inc. is accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA).

The borehole logs showing the soil conditions encountered in the boreholes and measured soil headspace vapour concentrations for the soil samples are presented in Appendix A.

6.3 MONITORING WELL INSTALLATION

Boreholes 21BH-1(MW), 21BH-2(MW) and 21BH-5(MW) were completed as a monitoring well using 50 mm diameter well screen (No. 10 slot) fitted with 50 mm diameter Schedule 40 PVC riser pipe. The annuli of the monitoring well around the well screen was filled with silica sand to approximately 0.6 m above the well screen. The remainder of the monitoring well was backfilled with bentonite pellets (i.e., hole plug) and activated with distilled water. The monitoring well was completed with a metal casing and cover, flushed to the existing ground surface.

Details of the monitoring well construction are provided in the boreholes, in Appendix A.

6.4 GROUNDWATER MONITORING AND SAMPLING

The monitoring wells were installed in conjunction with a geotechnical investigation. As there were no potential environmental concerns identified in the groundwater, no groundwater sampling was conducted at the Site.

6.5 LABORATORY ANALYSIS

Soil samples collected during the Phase II ESA were submitted for laboratory analyses as indicated in the SAP, shown in Table 5.2-1.

6.6 QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC) MEASURES

Various quality QA/QC protocols were followed during the Phase II ESA to ensure that representative samples were obtained, and that representative analytical data were reported by the laboratory.

The laboratory Quality Assurance/Quality Control (QA/QC) analyses performed by SGS included method blanks, laboratory duplicates, laboratory control samples (or spike blanks), matrix spikes, surrogate percent recoveries, and the use of laboratory reference materials. No field QA/QC samples were collected as part of this Phase II ESA.

6.7 SITE CONDITION STANDARD SELECTION

The following conditions were considered to determine the applicable Site Condition Standard for the Site.

Table 6.8-1: Applicable Site Conditions

Condition	Evaluation
Current land use	Community
Proposed land use	Residential
Area of natural significance	The Site is not located within or adjacent to any environmentally significant areas, provincially significant wetlands, or areas of natural and scientific interest.
Proximity to surface water body	A watercourse was located approximately 90 m north of the Site.
Potable or Non-Potable Ground Water	No water services were present at the Site. The study area was serviced by the City of Mississauga which sources potable water from Lake Ontario.
Soil pH	Accredited laboratory chemical test results indicated that the soil at the property had a pH value between 5 and 9.
Depth to bedrock	Bedrock was located at an approximate depth of 6 m below grade.
Soil texture	Coarse textured soils were considered for the Site.

Based on the above conditions, the MECP Table Full Depth Generic Site Condition Standards

(SCS) for use in a Non-Potable Groundwater Condition as listed in the “Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act”, dated April 15, 2011 (hereinafter refer to as the “MECP Table 3 SCS”) for Residential/Parkland/Institutional property use with coarse textured soils were determined to be applicable for the Site.

7.0 REVIEW AND EVALUATION

7.1 SOIL STRATIGRAPHY

Surface Course

Topsoil, approximately 75mm in thickness, was contacted at the ground surface at boreholes 22BH-6 and 22BH-7.

Asphalt pavement, consisting of 40mm of asphalt over granular bases, extending to depths of 0.9m to 0.45m from grade, was contacted at the ground surface at boreholes 22BH-1 to 22BH-5.

Fill

Underlying the topsoil and the asphalt pavement at the ground surface, a layer of fill was contacted at all borehole locations. The fill consisted of a mixture of clayey silt, sandy silt, trace to some gravel or silty sand, with scattered isolated topsoil, organics or concrete pieces.

Borehole 22BH-7 was terminated in the fill at a depth of 5.9m from grade. The fill, at the remaining borehole locations, extended to depths varying from 2.3m to 6.6m from grade.

Clayey Silt

Underlying the fill, a native clayey silt deposit was contacted, at depths of 2.3m and 5.6m from grade, at boreholes 22BH-5 and 22BH-6, respectively. The clayey silt deposit contained seams of fine sand or silt, shale pieces near the bottom of the deposit.

Borehole 22BH-6 was terminated in the clayey silt deposit at a depth of 5.9m from grade. The clayey silt deposit at borehole 22BH-5 extended to a depth of 3.5m from grade.

Based on the Standard Penetration N-values of 7 to 85 blows for a penetration of 0.3m, the consistency of the clayey silt deposit was firm to hard.

The in-situ moisture content of the soil samples from this deposit ranged from 10% to 17%, indicating moist to very moist conditions.

Shale

Weathered shale was contacted below the fill and the clayey silt deposit at depths of 3.0m to 6.6m from grade at boreholes 22BH-1 to 22BH-5. The weathered shale extended to depths of 5.9m to 7.9m from grade, where refusal to augering was encountered. The weathered shale was stratified, with seams of clayey silt.

Based on the Standard Penetration N-values, more than 100 blows for a penetration of 300mm, the consistency of the weathered shale was hard.

The in-situ moisture content of the soil samples retrieved from the weathered shale ranged from 3% to 13%, indicating moist conditions.

Field Observations

No visual or olfactory evidence of impacts were identified in the soil samples.

Soil Vapour Concentrations

Vapor concentrations measured in the soil samples collected during the drilling investigation were measured above at values below 5 parts per million (ppm).

7.2 GROUNDWATER

No LNAPL was identified in the monitoring well during groundwater monitoring. Measured groundwater depths are summarized in Table 7.2-1 below.

Table 7.2-1: Groundwater Elevations

Monitoring Well Location	Date Measured	Water Depth (m bg)
21BH-1(MW)	March 23, 2022	7.31
21BH-2(MW)	March 23, 2022	8.53
21BH-5(MW)	March 23, 2022	7.01

7.3 LABORATORY ANALYTICAL RESULTS

Copies of the Laboratory Certificates of Analyses showing the results of the analyzed soil and groundwater samples are presented in Appendix B.

7.3.1 SOIL QUALITY

Discrete “worst-case” samples collected from borehole locations were submitted for laboratory analyses. A total of ten (10) discrete soil samples were analyzed for the parameter groups of M&Is and PAHs. The concentrations of M&Is and PAHs in all analyzed soil samples at the tested locations met their MECP Table 3 SCS for Residential/Parkland/Institutional property use with coarse textured soils with the following exceptions:

EXCEEDANCE SUMMARY

Parameter	Method	Units	Result	REG153 / SOIL / COARSE - TABLE 3 - Residential/Parkland - UNDEFINED L1
22BH-1 (MW) SS3				
Zinc	EPA 3050/EPA 200.8	µg/g	600	340
Conductivity	EPA 6010/SM 2510	mS/cm	0.88	0.7
22BH-2 (MW) SS5				
Conductivity	EPA 6010/SM 2510	mS/cm	1.1	0.7
22BH-5 (MW) SS2				
Conductivity	EPA 6010/SM 2510	mS/cm	0.73	0.7
22BH-6 SS2				
Fluoranthene	EPA 3541/8270D	µg/g	1.06	0.69
Conductivity	EPA 6010/SM 2510	mS/cm	2.8	0.7
22BH-6 SS6				
Conductivity	EPA 6010/SM 2510	mS/cm	1.3	0.7
22BH-7 SS5				
Conductivity	EPA 6010/SM 2510	mS/cm	1.2	0.7
Sodium Adsorption Ratio	MOE 4696e01/EPA 6010	No unit	5.3	5
DUP-A				
Conductivity	EPA 6010/SM 2510	mS/cm	1.2	0.7
Sodium Adsorption Ratio	MOE 4696e01/EPA 6010	No unit	5.7	5

Analyzed pH values for the soil were within the applicable limits of 7 to 9.

7.3.2 QA/QC Results

According to the Laboratory Certificates of Analyses from SGS Canada Inc. for the analyzed soil and groundwater samples, the instrument performance/calibration quality criteria and extraction/analysis limits for holdings were met. No QA/QC issues were noted by SGS Canada Inc.

8.0 DISCUSSION OF RESULTS AND RECOMMENDATIONS

8.1 SUMMARY OF FINDINGS

A summary of the findings of the Phase II ESA conducted at the Site are presented below:

- A total of eight (8) boreholes were advanced ranging in depths from 3.5 m to 6.6 m below grade (bg). All boreholes were drilled at exterior locations as access was not provided in the interior portions of the building.
- Underlying the surface course, fill material underlain by clayey silt and shale bedrock was encountered at the Site.
- Measured groundwater levels on in the monitoring well ranged from 7.1 m to 8.5 m below grade in the monitoring wells.
- Representative or "worst-case" soil samples were collected in laboratory-supplied containers, placed in a cooler and preserved with ice, and shipped with a Chain of Custody to SGS Canada Inc. located in Lakefield, Ontario for laboratory analyses.
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- The concentrations of PHCs, VOCs, M&Is and PAHs in all analyzed soil samples at the tested locations met their MECP Table 9 SCS for Residential/Parkland/Institutional/ Industrial/Commercial/Community property use with all textured soils with the following exceptions:

    - Various salt related (Electrical Conductivity/Sodium Adsorption Ratio) soil exceedances within the fill material.
    - Zinc soil exceedance of 600 ug/g vs. the MECP Table 3 SCS of 340 ug/g at borehole location 21BH-1(MW) at a depth of 1.5 m below grade.
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8.2 DISCUSSION AND RECOMMENDATION

Salt related parameters of Electrical Conductivity and Sodium Adsorption Ratio were identified to exceed the MECP Table 3 SCS within the fill material to depths of up to 4.5 m below grade which can be attributed to the use of deicing salts within the asphalt paved parking areas within the winter months. Additionally, Zinc and Fluoranthene were found to exceed the MECP Table 3 SCS within the shallow soils at boreholes 21BH-1 and 21BH-6 which can be attributed to the importation of fill material of poor quality. Given that all of the soil will be excavated and disposed off-site from lot line to lot line for the construction of the proposed residential building, it is recommended that the soil exceeding the MECP Table 3 SCS be delt with at time of site redevelopment. No further investigation is recommended at this time.

8.3 MONITORING WELL DECOMMISSIONING

If the monitoring wells on-Site are no longer required for further sampling or testing of the groundwater, the wells must be decommissioned as per the requirements of O. Reg. 903 “Wells”. It should be noted that the decommissioning of monitoring wells is not part of the current scope of work. *Toronto Inspection Ltd.* would be pleased to assist and arrange to perform this work upon request.

9.0 REFERENCES

- Canadian Standard Association (CSA) Standard Z769-00 reaffirmed 2013, CSA-Z769-00 (R2013) “Phase II Environmental Site Assessment”;
- Ontario Regulation 153/04, “Records of Site Condition – Part XV.1 of the Environmental Protection Act”;
- “Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario”, Revised December 1996, Ministry of Environment and Energy;
- “Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act”, March 9, 2004, amended as of July 1, 2011; and
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10.0 GENERAL STATEMENT OF LIMITATION

The comments presented in this report are based on the soil and groundwater samples gathered from the borehole/monitoring well locations indicated on the plan of this report. There is no warranty expressed or implied or representations made by *Toronto Inspection Ltd*. that this program has discovered all potential environmental risks or liabilities associated with the subject site.

Although we consider this report to be representative of the subsurface conditions at the subject property in the areas investigated, any interpretation of factual data or unexpected soil conditions which exhibit noticeable discolouration, odour, etc. in areas not investigated in this report, should be discussed in consultation with us prior to any initiation of activity. Our responsibility is limited to an accurate assessment of the soil or groundwater condition prevailing at the locations investigated at the time of the study.

To the fullest extent permitted by law, the client's maximum aggregate recovery against *Toronto Inspection Ltd*., its directors, employees, sub-contractors and representatives, for any and all claims by Kaneff Group of Properties for all causes including, but not limited to, claims of breach of contract, breach of warranty and/or negligence, shall be limited to the amount of fees paid by the client.

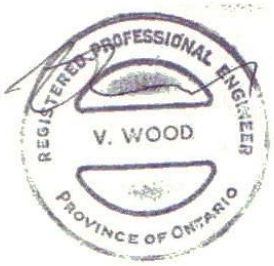
Any use and/or interpretation of the data presented in this report, and any decisions made on it by the third party are responsibility of the third party. *Toronto Inspection Ltd*. accepts no responsibility for loss of time and damages, if any, suffered by the third party as a result of decisions or actions based on this report.

Any legal actions arising directly or indirectly from this work and/or *Toronto Inspection Ltd.'s* performance of the services shall be filed no longer than two years from the date of Toronto Inspection Ltd.'s substantial completion of the services. *Toronto Inspection Ltd*. shall not be responsible to the client for lost revenues, loss of profits, cost of content, claims of customers, or other special indirect, consequential, or punitive damages.

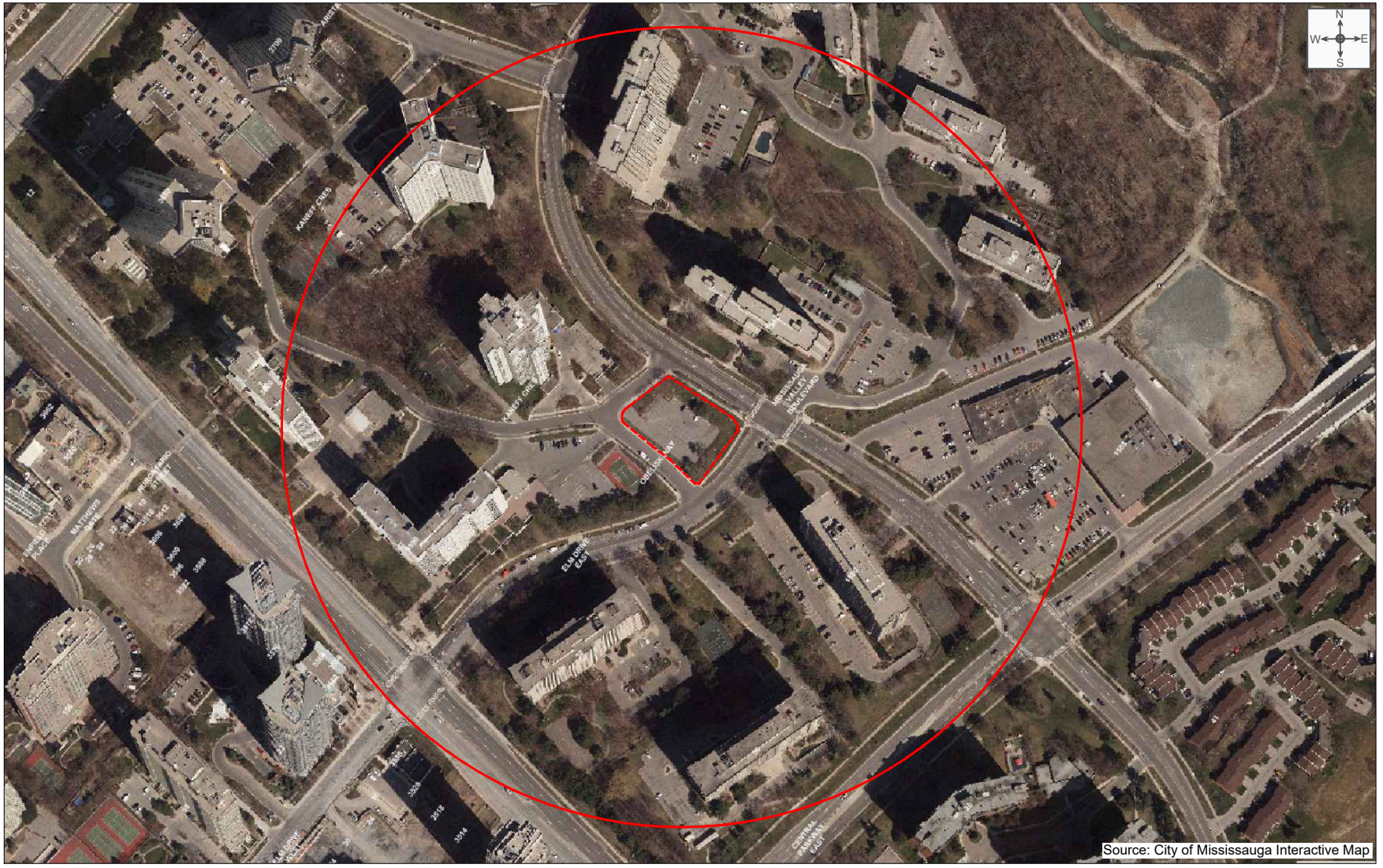
Yours sincerely,

TORONTO INSPECTION LTD.

Matthew Pietrzyk, BES, EP
Environmental Project Manager



Victor Wood, P.Eng, QP$_{ESA}$
Principal Engineer



LEGEND

Site Boundary

Study Area (250m)

Scale (m)
0 50

TorontoInspection LTD.
GEO-ENVIRONMENTAL CONSULTANTS
110 Konrad Crescent,
Unit 16
Markham, Ontario
L3R 9X2
Tel: 905-940 8509 Fax: 905-940 8192 Email : TIL@torontoinspection.com

TITLE:	Site Location Map
LOCATION:	3575 Kaneff Crescent, Mississauga, Ontario
PROJECT NO.	6027-22-EB
DATE :	April 2022
FIGURE NO:	1

LEGEND

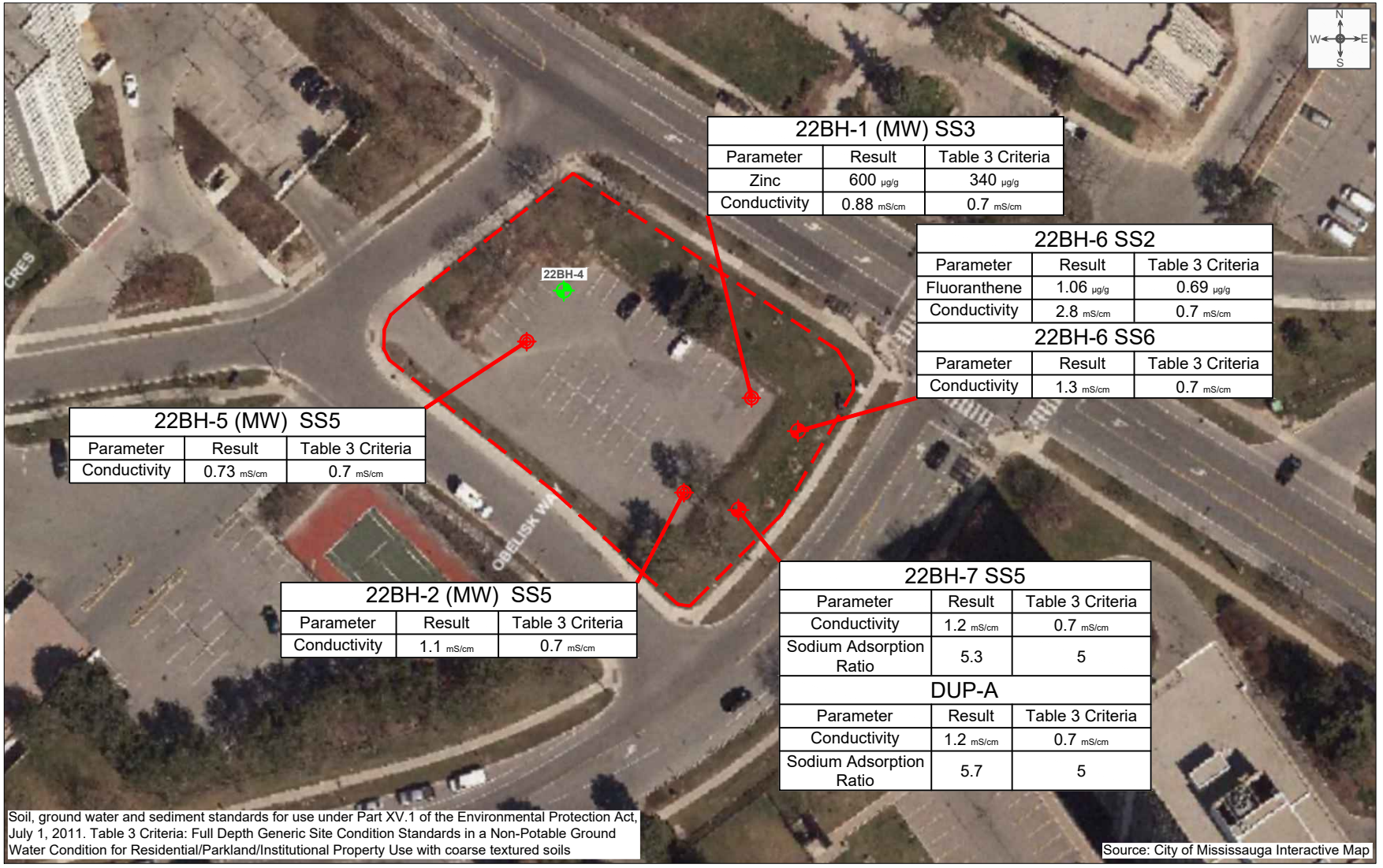
Site Boundary

Borehole and Monitoring Well Location

Scale (m)
0 20

TorontoInspection LTD.
GEO-ENVIRONMENTAL CONSULTANTS
110 Konrad Crescent, Unit 16
Markham, Ontario
L3R 9X2
Tel: 905-940 8509 Fax: 905-940 8192 Email : TIL@torontoinspection.com

TITLE:	Borehole and Monitoring Well Location Plan
LOCATION:	3575 Kaneff Crescent, Mississauga, Ontario
PROJECT NO.	6027-22-EB
DATE :	April 2022
FIGURE NO:	2



22BH-1 (MW) SS3		
Parameter	Result	Table 3 Criteria
Zinc	600 µg/g	340 µg/g
Conductivity	0.88 mS/cm	0.7 mS/cm

22BH-6 SS2		
Parameter	Result	Table 3 Criteria
Fluoranthene	1.06 µg/g	0.69 µg/g
Conductivity	2.8 mS/cm	0.7 mS/cm

22BH-6 SS6		
Parameter	Result	Table 3 Criteria
Conductivity	1.3 mS/cm	0.7 mS/cm

22BH-5 (MW) SS5		
Parameter	Result	Table 3 Criteria
Conductivity	0.73 mS/cm	0.7 mS/cm

22BH-2 (MW) SS5		
Parameter	Result	Table 3 Criteria
Conductivity	1.1 mS/cm	0.7 mS/cm

22BH-7 SS5		
Parameter	Result	Table 3 Criteria
Conductivity	1.2 mS/cm	0.7 mS/cm
Sodium Adsorption Ratio	5.3	5

DUP-A		
Parameter	Result	Table 3 Criteria
Conductivity	1.2 mS/cm	0.7 mS/cm
Sodium Adsorption Ratio	5.7	5

Soil, ground water and sediment standards for use under Part XV.1 of the Environmental Protection Act, July 1, 2011. Table 3 Criteria: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition for Residential/Parkland/Institutional Property Use with coarse textured soils

Source: City of Mississauga Interactive Map

LEGEND

Site Boundary

Indicates Sample Exceeds Table 3 Criteria

Indicates Sample Meets Table 3 Criteria

Scale (m) 0 20

TorontoInspection LTD.
GEO-ENVIRONMENTAL CONSULTANTS
110 Konrad Crescent, Unit 16
Markham, Ontario L3R 9X2
Tel: 905-940 8509 Fax: 905-940 8192 Email : TIL@torontoinspection.com

TITLE: Soil Exceedance Plan

LOCATION: 3575 Kaneff Crescent, Mississauga, Ontario

PROJECT NO. 6027-22-EB | DATE : April 2022 | FIGURE NO: 3

Project No. 6027-22-EB

Log of Borehole 22BH-1 (MW)

Dwg No. 1

Project: Phase II Environmental Site Assessment

Sheet No. 1 of 1

Location: 3575 Kaneff Crescent, Mississauga, Ontario

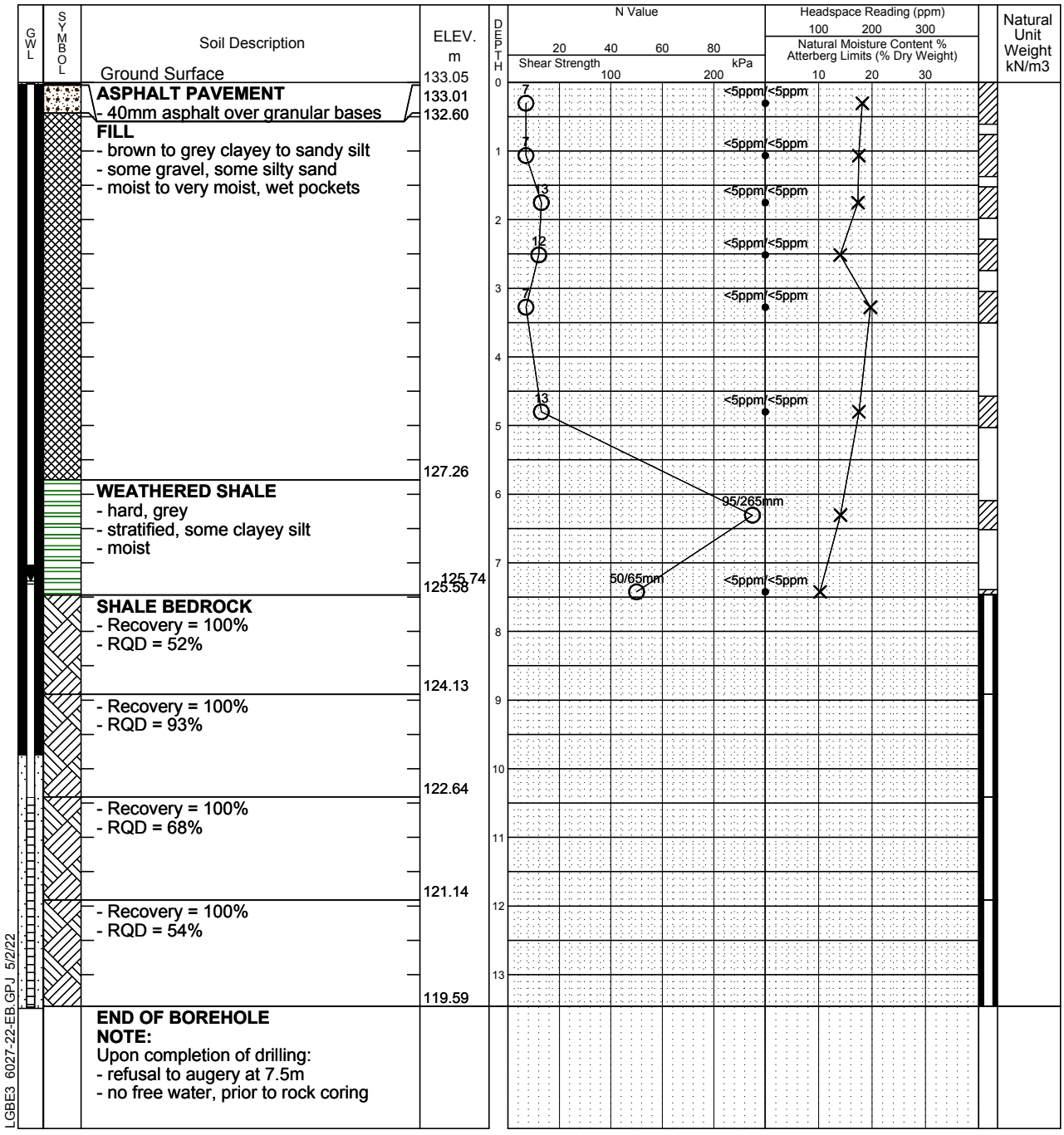
Date Drilled: 3/10/22

Drill Type: Track Mounted Drill Rig

Datum: Geodetic

Auger Sample ☒
SPT (N) Value ○ ▨
Dynamic Cone Test —
Shelby Tube ■
Field Vane Test ✚ S

Headspace Reading (ppm) •
Natural Moisture ×
Plastic and Liquid Limit |—|
Unconfined Compression % Strain at Failure ⊗
Penetrometer ▲



LGBE3 6027-22-EB.GPJ 5/2/22

NOTE: THE BOREHOLE DATA NEEDS INTERPRETATION ASSISTANCE BY TORONTO INSPECTION LTD. BEFORE USE BY OTHERS

Toronto Inspection Ltd.

Time	Water Level (m)	Depth to Cave (m)
March 23, 2022	7.31m	

Project No. 6027-22-EB

Log of Borehole 22BH-2 (MW)

Dwg No. 2

Project: Phase II Environmental Site Assessment

Sheet No. 1 of 1

Location: 3575 Kaneff Crescent, Mississauga, Ontario

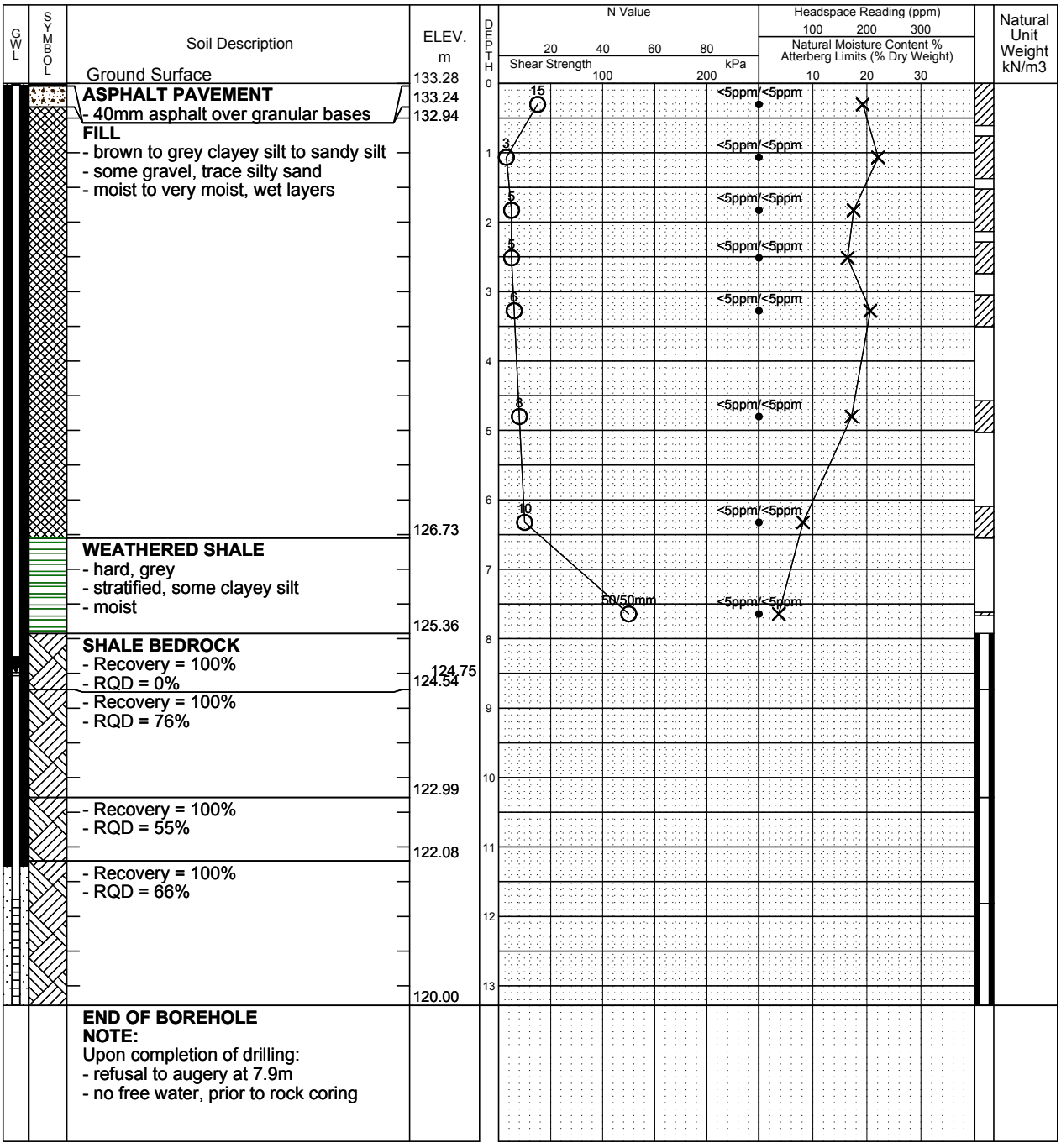
Date Drilled: 3/9/22

Drill Type: Track Mounted Drill Rig

Datum: Geodetic

Auger Sample ☒
SPT (N) Value ○ ▨
Dynamic Cone Test —
Shelby Tube ■
Field Vane Test ✚ S

Headspace Reading (ppm) •
Natural Moisture ×
Plastic and Liquid Limit |—|
Unconfined Compression % Strain at Failure ⊗
Penetrometer ▲



NOTE: THE BOREHOLE DATA NEEDS INTERPRETATION ASSISTANCE BY TORONTO INSPECTION LTD. BEFORE USE BY OTHERS

Toronto Inspection Ltd.

Time	Water Level (m)	Depth to Cave (m)
March 23, 2022	8.53m	

Project No. 6027-22-EB

Log of Borehole 22BH-3

Dwg No. 3

Project: Phase II Environmental Site Assessment

Sheet No. 1 of 1

Location: 3575 Kaneff Crescent, Mississauga, Ontario

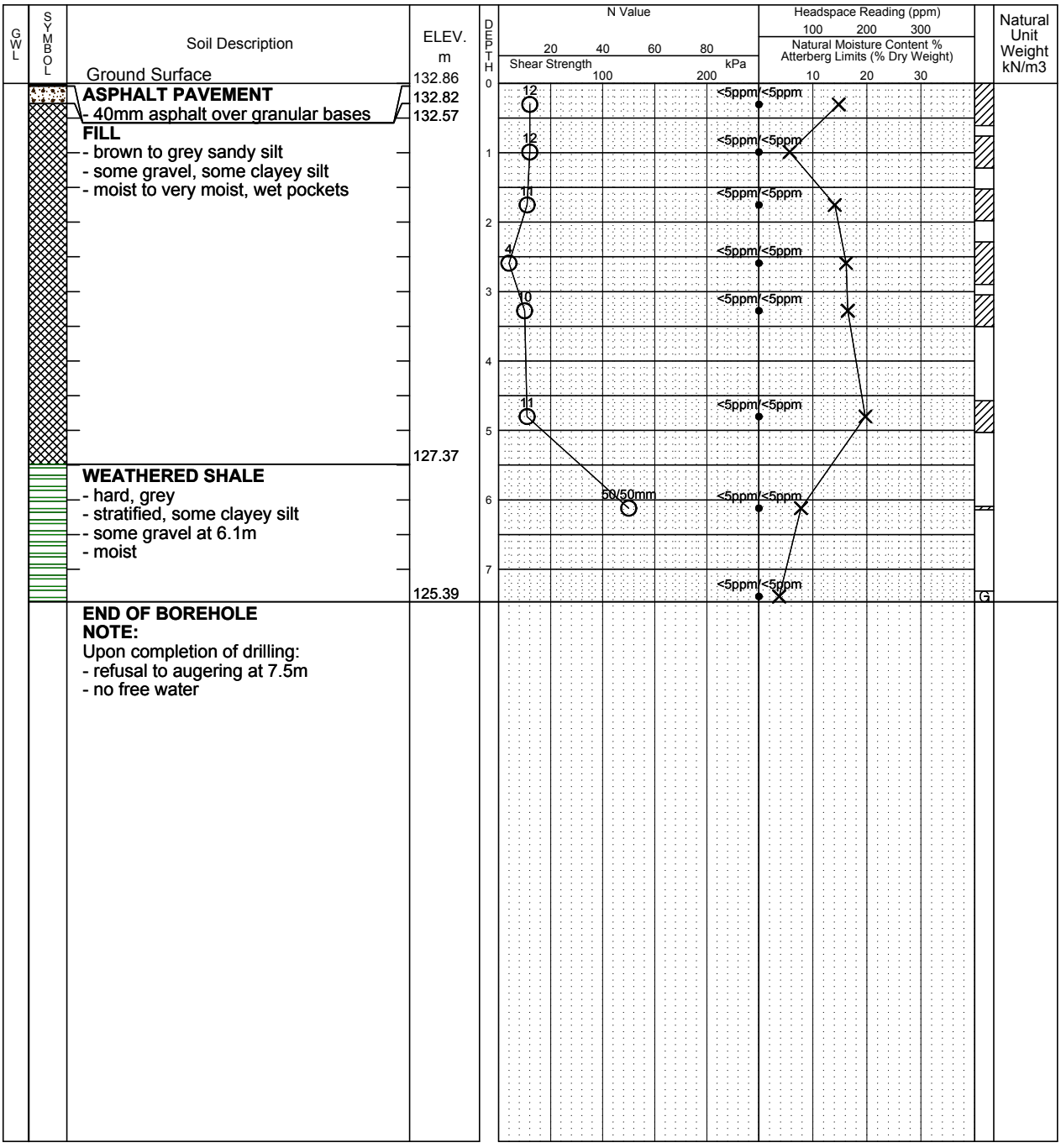
Date Drilled: 3/9/22

Drill Type: Track Mounted Drill Rig

Datum: Geodetic

Auger Sample ☒
SPT (N) Value ○ ▨
Dynamic Cone Test —
Shelby Tube ■
Field Vane Test ✚ S

Headspace Reading (ppm) •
Natural Moisture ×
Plastic and Liquid Limit ⊢⊣
Unconfined Compression % Strain at Failure ⊗
Penetrometer ▲



LGBE3 6027-22-EB.GPJ 5/2/22

NOTE: THE BOREHOLE DATA NEEDS INTERPRETATION ASSISTANCE BY TORONTO INSPECTION LTD. BEFORE USE BY OTHERS

Toronto Inspection Ltd.

Time	Water Level (m)	Depth to Cave (m)

Project No. 6027-22-EB

Log of Borehole 22BH-4

Dwg No. 4

Project: Phase II Environmental Site Assessment

Sheet No. 1 of 1

Location: 3575 Kaneff Crescent, Mississauga, Ontario

Date Drilled: 3/9/22

Drill Type: Track Mounted Drill Rig

Datum: Geodetic

Auger Sample ☒
SPT (N) Value ○ ▨
Dynamic Cone Test —
Shelby Tube ■
Field Vane Test ✚ S

Headspace Reading (ppm) •
Natural Moisture ×
Plastic and Liquid Limit |—|
Unconfined Compression % Strain at Failure ⊗
Penetrometer ▲

GWL	SYMBOL	Soil Description	ELEV. m	DEPTH
		Ground Surface	133.55	0
		ASPHALT PAVEMENT - 40mm asphalt over granular bases	133.51 133.18	
▼		**FILL** - brown to grey clayey silt to sandy silt - some gravel, trace silty sand - pockets of topsoil at 2.3m - moist to very moist, wet pockets		1 2
			130.85	
		WEATHERED SHALE - hard, light grey to grey - stratified, some clayey silt - moist	130.50	3 4 5 6
			126.69	
		END OF BOREHOLE **NOTE:** Upon completion of drilling: - refusal to augering at 6.9m - water level at 2.7m		

N Value: 20 40 60 80
Shear Strength: 100 200 kPa

Depth	N Value	Headspace Reading (ppm)
0	6	<5ppm
1	4	<5ppm
2	6	<5ppm
	21	<5ppm
3	50/100mm	<5ppm
4	50/50mm	<5ppm
5		
6	50/40mm	<5ppm

Headspace Reading (ppm): 100 200 300
Natural Moisture Content % Atterberg Limits (% Dry Weight): 10 20 30

Natural Unit Weight kN/m3

LGBE3 6027-22-EB.GPJ 5/2/22

NOTE: THE BOREHOLE DATA NEEDS INTERPRETATION ASSISTANCE BY TORONTO INSPECTION LTD. BEFORE USE BY OTHERS

Toronto Inspection Ltd.

Time	Water Level (m)	Depth to Cave (m)

Project No. 6027-22-EB

Log of Borehole 22BH-5 (MW)

Dwg No. 5

Project: Phase II Environmental Site Assessment

Sheet No. 1 of 1

Location: 3575 Kaneff Crescent, Mississauga, Ontario

Date Drilled: 3/14/22

Drill Type: Track Mounted Drill Rig

Datum: Geodetic

Auger Sample
SPT (N) Value
Dynamic Cone Test
Shelby Tube
Field Vane Test (S)

Headspace Reading (ppm)
Natural Moisture
Plastic and Liquid Limit
Unconfined Compression
% Strain at Failure
Penetrometer

GWL	SYMBOL	Soil Description	ELEV. m	DEPTH	N Value / Shear Strength (kPa)	Headspace Reading (ppm) / Natural Moisture Content % / Atterberg Limits (% Dry Weight)	Natural Unit Weight kN/m3
		Ground Surface	133.79	0			
		ASPHALT PAVEMENT - 40mm asphalt over granular bases	133.75 133.42				
		FILL - brown sandy silt - some gravel, some clayey silt - moist to very moist, wet pockets		1	14 11	<5ppm/<5ppm <5ppm/<5ppm	
			131.50	2	5 50	<5ppm/<5ppm <5ppm/<5ppm	
		CLAYEY SILT - hard - brown, grey below 3.0m - seams of fine sand or silt - some shale pieces - moist	130.28	3	85	5ppm/<5ppm	
		WEATHERED SHALE - hard, grey - stratified, some clayey silt - moist		4	50/75mm	<5ppm/<5ppm	
			127.85	5			
		SHALE BEDROCK - Recovery = 100% - RQD = 22%	126.76	6			
			126.32	7			
		- Recovery = 100% - RQD = 61%	124.80	8			
		- Recovery = 100% - RQD = 79%	123.27	9			
		- Recovery = 100% - RQD = 84%	121.75	10			
		- Recovery = 100% - RQD = 59%	120.07	11			
		END OF BOREHOLE **NOTE:** Upon completion of drilling: - refusal to augering at 5.9m - no free water, prior to rock coring		12			
				13			

LGBE3 6027-22-EB.GPJ 5/2/22

NOTE: THE BOREHOLE DATA NEEDS INTERPRETATION ASSISTANCE BY TORONTO INSPECTION LTD. BEFORE USE BY OTHERS

Toronto Inspection Ltd.

Time	Water Level (m)	Depth to Cave (m)
March 23, 2022	7.01m	

Project No. 6027-22-EB

Log of Borehole 22BH-6

Dwg No. 6

Project: Phase II Environmental Site Assessment

Sheet No. 1 of 1

Location: 3575 Kaneff Crescent, Mississauga, Ontario

Date Drilled: 3/14/22

Drill Type: Track Mounted Drill Rig

Datum: Geodetic

Auger Sample ☒
SPT (N) Value ○ ▨
Dynamic Cone Test —
Shelby Tube ■
Field Vane Test ✚ S

Headspace Reading (ppm) •
Natural Moisture ×
Plastic and Liquid Limit ⊢⊣
Unconfined Compression % Strain at Failure ⊗
Penetrometer ▲

GWL	SYMBOL	Soil Description	ELEV. m	DEPTH	N Value / Shear Strength kPa	Headspace Reading (ppm) / Natural Moisture Content % / Atterberg Limits (% Dry Weight)	Natural Unit Weight kN/m3
		Ground Surface	133.03	0			
		TOPSOIL	132.95				
		FILL - brown to grey sandy silt to clayey silt - some gravel - minor organics at 5.5m - moist to very moist, wet pockets		1	6, 7	<5ppm, <5ppm	
				2	6, 16	<5ppm, <5ppm	
				3	14, 6	<5ppm, <5ppm	
				4	7, 7	<5ppm, <5ppm	
▼			127.53	5			
			127.39				
		CLAYEY SILT - firm, grey - some shale pieces - very moist to moist	127.09				
		END OF BOREHOLE **NOTE:** Upon completion of drilling: - water level at 5.5m					

LGBE3 6027-22-EB.GPJ 5/2/22

NOTE: THE BOREHOLE DATA NEEDS INTERPRETATION ASSISTANCE BY TORONTO INSPECTION LTD. BEFORE USE BY OTHERS

Toronto Inspection Ltd.

Time	Water Level (m)	Depth to Cave (m)

Project No. 6027-22-EB

Log of Borehole 22BH-7

Dwg No. 7

Project: Phase II Environmental Site Assessment

Sheet No. 1 of 1

Location: 3575 Kaneff Crescent, Mississauga, Ontario

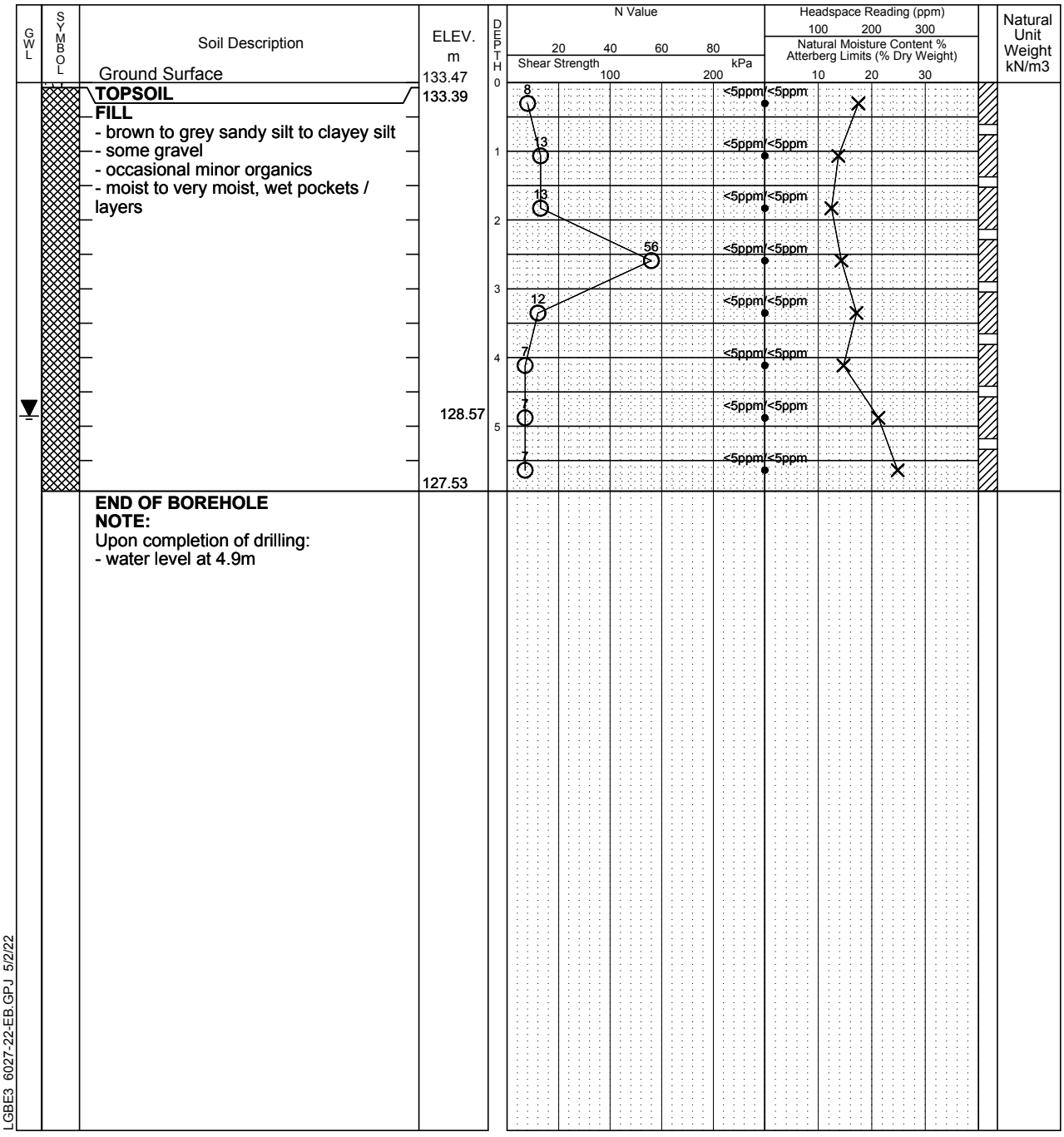
Date Drilled: 3/14/22

Drill Type: Track Mounted Drill Rig

Datum: Geodetic

Auger Sample ☒
SPT (N) Value ○ ▨
Dynamic Cone Test —
Shelby Tube ■
Field Vane Test ✚ S

Headspace Reading (ppm) •
Natural Moisture ×
Plastic and Liquid Limit |—|
Unconfined Compression % Strain at Failure ⊗
Penetrometer ▲



LGBE3 6027-22-EB.GPJ 5/2/22

NOTE: THE BOREHOLE DATA NEEDS INTERPRETATION ASSISTANCE BY TORONTO INSPECTION LTD. BEFORE USE BY OTHERS

Toronto Inspection Ltd.

Time	Water Level (m)	Depth to Cave (m)

FINAL REPORT

CA40313-MAR22 R1

6027

Prepared for

Toronto Inspection Ltd.

FINAL REPORT

First Page

CLIENT DETAILS

Client	Toronto Inspection Ltd.
Address	110 Konrad Crescent, Unit 16 Markham, ON L3R 9X2. Canada
Contact	Matt Pietrzyk
Telephone	905-940-8509
Facsimile	905 940 8192
Email	lab@torontoinspection.com
Project	6027
Order Number	
Samples	Soil (10)

LABORATORY DETAILS

Project Specialist	Maarit Wolfe, Hon.B.Sc
Laboratory	SGS Canada Inc.
Address	185 Concession St., Lakefield ON, K0L 2H0
Telephone	705-652-2000
Facsimile	705-652-6365
Email	Maarit.Wolfe@sgs.com
SGS Reference	CA40313-MAR22
Received	03/18/2022
Approved	03/24/2022
Report Number	CA40313-MAR22 R1
Date Reported	05/02/2022

COMMENTS

Quality Compliance: Instrument performance / calibration quality criteria were met and extraction and analysis limits for holding times were met.

Benzo(b)fluoranthene results for comparison to the standard are reported as benzo(b+j)fluoranthene. Benzo(b)fluoranthene and benzo(j)fluoranthene co-elute and cannot be reported individually by the analytical method used.

Temperature of Sample upon Receipt: 8 degrees C
Cooling Agent Present: Yes
Custody Seal Present: Yes

Chain of Custody Number: 024315

SIGNATORIES

Maarit Wolfe, Hon.B.Sc

TABLE OF CONTENTS

FINAL REPORT

CA40313-MAR22 R1

Client: Toronto Inspection Ltd.
Project: 6027
Project Manager: Matt Pietrzyk
Samplers: Ankit

MATRIX: SOIL

L1 = REG153 / SOIL / COARSE - TABLE 3 - Residential/Parkland - UNDEFINED

	Sample Number	8	9	10	11	12	13	14	15
	Sample Name	22BH-1 (MW) SS3	22BH-2 (MW) SS5	22BH-3 SS5	22BH-4 SS4	22BH-5 (MW) SS2	22BH-6 SS2	22BH-6 SS6	22BH-7 SS1
	Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	Sample Date	10/03/2022	10/03/2022	09/03/2022	09/03/2022	14/03/2022	14/03/2022	14/03/2022	14/03/2022
Parameter	**Units**	**RL**	**L1**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**
Hydrides											
Antimony	µg/g	0.8	7.5	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Arsenic	µg/g	0.5	18	5.2	5.5	6.0	4.4	5.6	5.9	5.6	5.3
Selenium	µg/g	0.7	2.4	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Metals and Inorganics											
Moisture Content	%	no		14.9	16.3	14.0	15.3	15.3	14.9	19.0	18.7
Barium	µg/g	0.1	390	71	77	73	62	69	62	76	76
Beryllium	µg/g	0.02	4	0.78	0.73	0.86	0.78	0.74	0.86	0.83	0.83
Boron	µg/g	1	120	9	8	7	7	9	11	7	6
Cadmium	µg/g	0.05	1.2	1.1	0.12	0.08	0.13	0.34	0.16	0.09	0.13
Chromium	µg/g	0.5	160	21	20	22	21	21	22	22	22
Cobalt	µg/g	0.01	22	13	12	14	13	13	15	14	12
Copper	µg/g	0.1	140	30	38	30	26	30	36	34	32
Lead	µg/g	0.1	120	12	12	8.0	15	13	11	8.8	13
Molybdenum	µg/g	0.1	6.9	0.4	0.4	0.2	0.3	0.4	0.4	0.2	0.3
Nickel	µg/g	0.5	100	30	28	34	31	30	33	34	30
Silver	µg/g	0.05	20	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Thallium	µg/g	0.02	1	0.15	0.14	0.15	0.14	0.14	0.18	0.15	0.15
Uranium	µg/g	0.002	23	0.61	0.56	0.56	0.65	0.63	0.63	0.55	0.55
Vanadium	µg/g	3	86	27	25	28	27	26	27	28	29
Zinc	µg/g	0.7	340	600	79	70	79	280	91	70	71
Water Soluble Boron	µg/g	0.5	1.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	< 0.5	< 0.5

Client: Toronto Inspection Ltd.
Project: 6027
Project Manager: Matt Pietrzyk
Samplers: Ankit

MATRIX: SOIL

L1 = REG153 / SOIL / COARSE - TABLE 3 - Residential/Parkland - UNDEFINED

				Sample Number	8	9	10	11	12	13	14	15
				Sample Name	22BH-1 (MW) SS3	22BH-2 (MW) SS5	22BH-3 SS5	22BH-4 SS4	22BH-5 (MW) SS2	22BH-6 SS2	22BH-6 SS6	22BH-7 SS1
				Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
				Sample Date	10/03/2022	10/03/2022	09/03/2022	09/03/2022	14/03/2022	14/03/2022	14/03/2022	14/03/2022
Parameter	**Units**	**RL**	**L1**		**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**
Other (ORP)												
Mercury	ug/g	0.05	0.27		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Sodium Adsorption Ratio	No unit	0.2	5		2.3	3.1	0.5	0.3	3.5	0.6	1.9	0.5
SAR Calcium	mg/L	0.2			64.3	67.0	52.2	37.5	32.5	601	111	27.2
SAR Magnesium	mg/L	0.3			14.0	14.6	8.4	6.2	7.8	82.8	22.4	2.7
SAR Sodium	mg/L	0.1			77.5	108	15.6	7.4	86.4	56.2	83.0	9.6
Conductivity	mS/cm	0.002	0.7		0.88	1.1	0.46	0.30	0.73	2.8	1.3	0.20
pH	pH Units	0.05			8.00	7.90	7.85	7.60	7.89	7.88	7.67	7.78
Chromium VI	µg/g	0.2	8		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Free Cyanide	µg/g	0.05	0.051		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
PAHs												
Acenaphthene	µg/g	0.05	7.9		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.12	< 0.05	< 0.05
Acenaphthylene	µg/g	0.05	0.15		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	µg/g	0.05	0.67		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.19	< 0.05	< 0.05
Benzo(a)anthracene	µg/g	0.05	0.5		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.40	< 0.05	< 0.05
Benzo(a)pyrene	µg/g	0.05	0.3		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.30	< 0.05	< 0.05
Benzo(b+j)fluoranthene	µg/g	0.05	0.78		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.44	< 0.05	< 0.05
Benzo(ghi)perylene	µg/g	0.1	6.6		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.12	< 0.1	< 0.1
Benzo(k)fluoranthene	µg/g	0.05	0.78		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.14	< 0.05	< 0.05
Chrysene	µg/g	0.05	7		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.37	< 0.05	< 0.05
Dibenzo(a,h)anthracene	µg/g	0.06	0.1		< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Fluoranthene	µg/g	0.05	0.69		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	1.06	0.06	< 0.05

Client: Toronto Inspection Ltd.
Project: 6027
Project Manager: Matt Pietrzyk
Samplers: Ankit

MATRIX: SOIL

L1 = REG153 / SOIL / COARSE - TABLE 3 - Residential/Parkland - UNDEFINED

	Sample Number	8	9	10	11	12	13	14	15
	Sample Name	22BH-1 (MW) SS3	22BH-2 (MW) SS5	22BH-3 SS5	22BH-4 SS4	22BH-5 (MW) SS2	22BH-6 SS2	22BH-6 SS6	22BH-7 SS1
	Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	Sample Date	10/03/2022	10/03/2022	09/03/2022	09/03/2022	14/03/2022	14/03/2022	14/03/2022	14/03/2022
Parameter	**Units**	**RL**	**L1**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**
PAHs (continued)											
Fluorene	µg/g	0.05	62	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.13	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.1	0.38	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.12	< 0.1	< 0.1
1-Methylnaphthalene	µg/g	0.05		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2-Methylnaphthalene	µg/g	0.05		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Methylnaphthalene, 2-(1-)	µg/g	0.05	0.99	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.07	< 0.05	< 0.05
Naphthalene	µg/g	0.05	0.6	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.08	< 0.05	< 0.05
Phenanthrene	µg/g	0.05	6.2	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	1.17	< 0.05	< 0.05
Pyrene	µg/g	0.05	78	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.82	< 0.05	< 0.05
SVOC Surrogates											
Surr Nitrobenzene-d5	Surr Rec %	no		99	84	87	91	93	90	92	94
Surr 2-Fluorobiphenyl	Surr Rec %	no		97	81	83	91	94	89	90	92
Surr 4-Terphenyl-d14	Surr Rec %	no		110	99	98	102	102	100	106	109
Surr 2-Fluorophenol	Surr Rec %	no		88	79	87	90	91	86	90	91
Surr Phenol-d6	Surr Rec %	no		96	86	92	95	97	93	98	97
Surr 2,4,6-Tribromophenol	Surr Rec %	no		75	71	70	78	79	77	74	83

Client: Toronto Inspection Ltd.
Project: 6027
Project Manager: Matt Pietrzyk
Samplers: Ankit

MATRIX: SOIL

L1 = REG153 / SOIL / COARSE - TABLE 3 - Residential/Parkland - UNDEFINED

Sample Number	16	17
Sample Name	22BH-7 SS5	DUP-A
Sample Matrix	Soil	Soil
Sample Date	14/03/2022	

Parameter	Units	RL	L1	Result	Result
Hydrides					
Antimony	µg/g	0.8	7.5	< 0.8	< 0.8
Arsenic	µg/g	0.5	18	4.5	4.5
Selenium	µg/g	0.7	2.4	< 0.7	< 0.7
Metals and Inorganics					
Moisture Content	%	no		15.4	16.4
Barium	µg/g	0.1	390	74	86
Beryllium	µg/g	0.02	4	0.66	0.69
Boron	µg/g	1	120	8	9
Cadmium	µg/g	0.05	1.2	0.15	0.15
Chromium	µg/g	0.5	160	18	18
Cobalt	µg/g	0.01	22	11	11
Copper	µg/g	0.1	140	28	32
Lead	µg/g	0.1	120	13	14
Molybdenum	µg/g	0.1	6.9	0.4	0.3
Nickel	µg/g	0.5	100	25	25
Silver	µg/g	0.05	20	< 0.05	< 0.05
Thallium	µg/g	0.02	1	0.13	0.13
Uranium	µg/g	0.002	23	0.66	0.73
Vanadium	µg/g	3	86	24	24
Zinc	µg/g	0.7	340	63	61
Water Soluble Boron	µg/g	0.5	1.5	< 0.5	0.7

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Project: 6027
Project Manager: Matt Pietrzyk
Samplers: Ankit

MATRIX: SOIL

L1 = REG153 / SOIL / COARSE - TABLE 3 - Residential/Parkland - UNDEFINED

Sample Number	16	17
Sample Name	22BH-7 SS5	DUP-A
Sample Matrix	Soil	Soil
Sample Date	14/03/2022	

Parameter	Units	RL	L1	Result	Result
Other (ORP)					
Mercury	ug/g	0.05	0.27	< 0.05	< 0.05
Sodium Adsorption Ratio	No unit	0.2	5	5.3	5.7
SAR Calcium	mg/L	0.2		64.9	58.2
SAR Magnesium	mg/L	0.3		3.8	3.2
SAR Sodium	mg/L	0.1		164	165
Conductivity	mS/cm	0.002	0.7	1.2	1.2
pH	pH Units	0.05		10.64	9.69
Chromium VI	µg/g	0.2	8	< 0.2	< 0.2
Free Cyanide	µg/g	0.05	0.051	< 0.05	< 0.05
PAHs					
Acenaphthene	µg/g	0.05	7.9	< 0.05	< 0.05
Acenaphthylene	µg/g	0.05	0.15	< 0.05	< 0.05
Anthracene	µg/g	0.05	0.67	< 0.05	< 0.05
Benzo(a)anthracene	µg/g	0.05	0.5	0.09	< 0.05
Benzo(a)pyrene	µg/g	0.05	0.3	0.09	< 0.05
Benzo(b+j)fluoranthene	µg/g	0.05	0.78	0.15	< 0.05
Benzo(ghi)perylene	µg/g	0.1	6.6	< 0.1	< 0.1
Benzo(k)fluoranthene	µg/g	0.05	0.78	< 0.05	< 0.05
Chrysene	µg/g	0.05	7	0.09	< 0.05
Dibenzo(a,h)anthracene	µg/g	0.06	0.1	< 0.06	< 0.06
Fluoranthene	µg/g	0.05	0.69	0.11	< 0.05
Fluorene	µg/g	0.05	62	< 0.05	< 0.05

Client: Toronto Inspection Ltd.
Project: 6027
Project Manager: Matt Pietrzyk
Samplers: Ankit

MATRIX: SOIL

L1 = REG153 / SOIL / COARSE - TABLE 3 - Residential/Parkland - UNDEFINED

Sample Number	16	17
Sample Name	22BH-7 SS5	DUP-A
Sample Matrix	Soil	Soil
Sample Date	14/03/2022	

Parameter	Units	RL	L1	Result	Result
PAHs (continued)					
Indeno(1,2,3-cd)pyrene	µg/g	0.1	0.38	< 0.1	< 0.1
1-Methylnaphthalene	µg/g	0.05		< 0.05	< 0.05
2-Methylnaphthalene	µg/g	0.05		< 0.05	< 0.05
Methylnaphthalene, 2-(1-)	µg/g	0.05	0.99	< 0.05	< 0.05
Naphthalene	µg/g	0.05	0.6	< 0.05	< 0.05
Phenanthrene	µg/g	0.05	6.2	< 0.05	< 0.05
Pyrene	µg/g	0.05	78	0.10	< 0.05
SVOC Surrogates					
Surr Nitrobenzene-d5	Surr Rec %	no		95	86
Surr 2-Fluorobiphenyl	Surr Rec %	no		93	84
Surr 4-Terphenyl-d14	Surr Rec %	no		114	103
Surr 2-Fluorophenol	Surr Rec %	no		93	84
Surr Phenol-d6	Surr Rec %	no		101	90
Surr 2,4,6-Tribromophenol	Surr Rec %	no		75	72

EXCEEDANCE SUMMARY

Parameter	Method	Units	Result	REG153 / SOIL / COARSE - TABLE 3 - Residential/Parkland - UNDEFINED L1
22BH-1 (MW) SS3				
Zinc	EPA 3050/EPA 200.8	µg/g	600	340
Conductivity	EPA 6010/SM 2510	mS/cm	0.88	0.7
22BH-2 (MW) SS5				
Conductivity	EPA 6010/SM 2510	mS/cm	1.1	0.7
22BH-5 (MW) SS2				
Conductivity	EPA 6010/SM 2510	mS/cm	0.73	0.7
22BH-6 SS2				
Fluoranthene	EPA 3541/8270D	µg/g	1.06	0.69
Conductivity	EPA 6010/SM 2510	mS/cm	2.8	0.7
22BH-6 SS6				
Conductivity	EPA 6010/SM 2510	mS/cm	1.3	0.7
22BH-7 SS5				
Conductivity	EPA 6010/SM 2510	mS/cm	1.2	0.7
Sodium Adsorption Ratio	MOE 4696e01/EPA 6010	No unit	5.3	5
DUP-A				
Conductivity	EPA 6010/SM 2510	mS/cm	1.2	0.7
Sodium Adsorption Ratio	MOE 4696e01/EPA 6010	No unit	5.7	5

QC SUMMARY

Conductivity

Method: EPA 6010/SM 2510 | Internal ref.: ME-CA-IENVIEWL-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Conductivity	EWL0375-MAR22	mS/cm	0.002	<0.002	0	10	100	90	110	NA		

Cyanide by SFA

Method: SM 4500 | Internal ref.: ME-CA-IENVISFA-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Free Cyanide	SKA5081-MAR22	µg/g	0.05	<0.05	ND	20	102	80	120	92	75	125

Hexavalent Chromium by SFA

Method: EPA218.6/EPA3060A | Internal ref.: ME-CA-IENVISKA-LAK-AN-012

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Chromium VI	SKA5082-MAR22	ug/g	0.2	<0.2	ND	20	90	80	120	101	75	125

QC SUMMARY

Mercury by CVAAS

Method: EPA 7471A/EPA 245 | Internal ref.: ME-CA-IENVISPE-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Mercury	EMS0164-MAR22	ug/g	0.05	<0.05	ND	20	100	80	120	104	70	130

Metals in aqueous samples - ICP-OES

Method: MOE 4696e01/EPA 6010 | Internal ref.: ME-CA-IENVISPE-LAK-AN-003

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
SAR Calcium	ESG0068-MAR22	mg/L	0.2	<0.09	17	20	102	80	120	107	70	130
SAR Magnesium	ESG0068-MAR22	mg/L	0.3	<0.02	17	20	101	80	120	105	70	130
SAR Sodium	ESG0068-MAR22	mg/L	0.1	<0.15	13	20	98	80	120	95	70	130

QC SUMMARY

Metals in Soil - Aqua-regia/ICP-MS

Method: EPA 3050/EPA 200.8 | Internal ref.: ME-CA-[ENVISPE-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Silver	EMS0164-MAR22	ug/g	0.05	<0.05	ND	20	97	70	130	107	70	130
Arsenic	EMS0164-MAR22	µg/g	0.5	<0.5	2	20	93	70	130	96	70	130
Barium	EMS0164-MAR22	ug/g	0.1	<0.1	4	20	104	70	130	104	70	130
Beryllium	EMS0164-MAR22	µg/g	0.02	<0.02	7	20	100	70	130	93	70	130
Boron	EMS0164-MAR22	µg/g	1	<1	5	20	105	70	130	90	70	130
Cadmium	EMS0164-MAR22	ug/g	0.05	<0.05	1	20	99	70	130	102	70	130
Cobalt	EMS0164-MAR22	µg/g	0.01	<0.01	3	20	94	70	130	94	70	130
Chromium	EMS0164-MAR22	µg/g	0.5	<0.5	1	20	91	70	130	93	70	130
Copper	EMS0164-MAR22	µg/g	0.1	<0.1	2	20	100	70	130	99	70	130
Molybdenum	EMS0164-MAR22	µg/g	0.1	<0.1	19	20	99	70	130	105	70	130
Nickel	EMS0164-MAR22	ug/g	0.5	<0.5	2	20	99	70	130	105	70	130
Lead	EMS0164-MAR22	µg/g	0.1	<0.1	0	20	104	70	130	103	70	130
Antimony	EMS0164-MAR22	µg/g	0.8	<0.8	ND	20	100	70	130	99	70	130
Selenium	EMS0164-MAR22	µg/g	0.7	<0.7	ND	20	95	70	130	96	70	130
Thallium	EMS0164-MAR22	µg/g	0.02	<0.02	3	20	103	70	130	102	70	130
Uranium	EMS0164-MAR22	µg/g	0.002	<0.002	2	20	102	70	130	103	70	130
Vanadium	EMS0164-MAR22	µg/g	3	<3	1	20	93	70	130	96	70	130
Zinc	EMS0164-MAR22	µg/g	0.7	<0.7	2	20	101	70	130	97	70	130

QC SUMMARY

pH

Method: SM 4500 I Internal ref.: ME-CA-[ENV]EWL-LAK-AN-001

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
pH	ARD0096-MAR22	pH Units	0.05		0	20	100	80	120			

QC SUMMARY

Semi-Volatile Organics

Method: EPA 3541/8270D | Internal ref.: ME-CA-[ENVIGC-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
1-Methylnaphthalene	GCM0393-MAR22	µg/g	0.05	< 0.05	ND	40	92	50	140	90	50	140
2-Methylnaphthalene	GCM0393-MAR22	µg/g	0.05	< 0.05	ND	40	93	50	140	92	50	140
Acenaphthene	GCM0393-MAR22	µg/g	0.05	< 0.05	ND	40	100	50	140	97	50	140
Acenaphthylene	GCM0393-MAR22	µg/g	0.05	< 0.05	ND	40	90	50	140	89	50	140
Anthracene	GCM0393-MAR22	µg/g	0.05	< 0.05	ND	40	94	50	140	89	50	140
Benzo(a)anthracene	GCM0393-MAR22	µg/g	0.05	< 0.05	ND	40	94	50	140	95	50	140
Benzo(a)pyrene	GCM0393-MAR22	µg/g	0.05	< 0.05	ND	40	85	50	140	88	50	140
Benzo(b+j)fluoranthene	GCM0393-MAR22	µg/g	0.05	< 0.05	ND	40	88	50	140	90	50	140
Benzo(ghi)perylene	GCM0393-MAR22	µg/g	0.1	< 0.1	ND	40	94	50	140	85	50	140
Benzo(k)fluoranthene	GCM0393-MAR22	µg/g	0.05	< 0.05	ND	40	94	50	140	95	50	140
Chrysene	GCM0393-MAR22	µg/g	0.05	< 0.05	ND	40	96	50	140	95	50	140
Dibenzo(a,h)anthracene	GCM0393-MAR22	µg/g	0.06	< 0.06	ND	40	92	50	140	83	50	140
Fluoranthene	GCM0393-MAR22	µg/g	0.05	< 0.05	ND	40	93	50	140	93	50	140
Fluorene	GCM0393-MAR22	µg/g	0.05	< 0.05	ND	40	96	50	140	93	50	140
Indeno(1,2,3-cd)pyrene	GCM0393-MAR22	µg/g	0.1	< 0.1	ND	40	96	50	140	88	50	140
Naphthalene	GCM0393-MAR22	µg/g	0.05	< 0.05	ND	40	96	50	140	93	50	140
Phenanthrene	GCM0393-MAR22	µg/g	0.05	< 0.05	ND	40	95	50	140	91	50	140
Pyrene	GCM0393-MAR22	µg/g	0.05	< 0.05	ND	40	97	50	140	95	50	140

QC SUMMARY

Water Soluble Boron

Method: O.Reg. 15 3/04 | Internal ref.: ME-CA-[ENV] SPE-LAK-AN-003

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Water Soluble Boron	ESG0065-MAR22	µg/g	0.5	<0.5	ND	20	101	80	120	99	70	130

Method Blank: a blank matrix that is carried through the entire analytical procedure. Used to assess laboratory contamination.

Duplicate: Paired analysis of a separate portion of the same sample that is carried through the entire analytical procedure. Used to evaluate measurement precision.

LCS/Spike Blank: Laboratory control sample or spike blank refer to a blank matrix to which a known amount of analyte has been added. Used to evaluate analyte recovery and laboratory accuracy without sample matrix effects.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate laboratory accuracy with sample matrix effects.

Reference Material: a material or substance matrix matched to the samples that contains a known amount of the analyte of interest. A reference material may be used in place of a matrix spike.

RL: Reporting limit

RPD: Relative percent difference

AC: Acceptance criteria

Multielement Scan Qualifier: as the number of analytes in a scan increases, so does the chance of a limit exceedance by random chance as opposed to a real method problem. Thus, in multielement scans, for the LCS and matrix spike, up to 10% of the analytes may exceed the quoted limits by up to 10% absolute and the spike is considered acceptable.

Duplicate Qualifier: for duplicates 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.

Matrix Spike Qualifier: for matrix spikes, as the concentration of the native analyte increases, the uncertainty of the matrix spike recovery increases. Thus, the matrix spike acceptance limits apply only when the concentration of the matrix spike is greater than or equal to the concentration of the native analyte.

LEGEND

FOOTNOTES

NSS	Insufficient sample for analysis.
RL	Reporting Limit.
↑	Reporting limit raised.
↓	Reporting limit lowered.
NA	The sample was not analysed for this analyte
ND	Non Detect

Data reported represent the sample as submitted to SGS. Solid samples expressed on a dry weight basis.
"Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.
Analysis conducted on samples submitted pursuant to or as part of Reg. 153/04, are in accordance to the "Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act and Excess Soil Quality" published by the Ministry and dated March 9, 2004 as amended.

SGS provides criteria information (such as regulatory or guideline limits and summary of limit exceedances) as a service. Every attempt is made to ensure the criteria information in this report is accurate and current, however, it is not guaranteed. Comparison to the most current criteria is the responsibility of the client and SGS assumes no responsibility for the accuracy of the criteria levels indicated.

SGS Canada Inc. statement of conformity decision rule does not consider uncertainty when analytical results are compared to a specified standard or regulation.

This report supersedes all previous versions.

-- End of Analytical Report --