

January 31, 2020

Phase 2 Environmental Report
1381 Lakeshore Road East,
City of Mississauga

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Appendix F: Plan of Survey

Appendix G: Well Data – Tables 1, 2, 3

Distribution: 1 copy and 1 pdf to Client, mmonass@cityparkhomes.ca
1 copy to file .

Project 17*4483

January 31, 2020

City Park (1381 Lakeshore Road) Inc.
950 Nashville Road
Kleinburg, ON
L0J 1C0

Attn: Ms. Maria Monass

Email: mmonass@cityparkhomes.ca

Re: Phase 2 Environmental Evaluation
1381 Lakeshore Road East, Mississauga

1.0 Summary

Brown Associates Limited completed a preliminary Phase Two environmental investigation for proposed redevelopment of a single storey slab-on-grade multi-unit retail commercial building on the north side of Lakeshore Road East, and east of Dixie Road in the City of Mississauga. The scope of work included; 1) review of previous studies and a recent Phase 1 environmental report which identified several potentially contaminating activities (PCAs) on and nearby and several areas of potential environmental concern (APECs) on the Phase 2 lands, 2) advancing four geo-environmental boreholes to refusal on shale bedrock, coring two of these an additional 3m into sound bedrock, instrumenting all as wells and sampling soil and groundwater.

The subject lands comprise a rectangular property developed with single storey multi-unit retail commercial slab-on-grade building constructed in two stages by 1989. Soil stratigraphy comprises 4 to 5 meters of uniform compact brown silt till with a minimal 200 to 400mm weathered transition zone to underlying competent Georgian Bay Formation shales. Water table ranges from 2.4m to 3.7m depth, generally perched above shales.

Impacts in soil and groundwater above Table 3 standards for fine and medium textured soils in the current findings were limited to boron, sodium absorption ratio and conductivity. The latter two are associated with application of salt for winter maintenance, for which recent changes to O.Reg. 153/04 permits these to be exempted for purposes of site evaluation and redevelopment.

The site was originally developed with several detached residences and a slab-on-grade shop reported to have been used for metal working. A significant portion is presently covered with the slab-on-grade commercial building. Additional soil characterization will be required once the building is demolished, to be able to selectively remove any deleterious soil materials and to certify the site meets residential standards under O.Reg. 153/04. Because of the change from commercial to residential, acknowledgement of a Record of Site Condition submission is required before the City of Mississauga can issue a final building permit for any redevelopment with a residential component.

2.0 Introduction

2.1 Property Information

2.1.1 Municipal Address

The address for the phase two property is 1381 Lakeshore Road East, City of Mississauga. The lands can also be described as Parts of Lots 6, 7, 8, 9, 10, and parts of Lane, Registered Plan A-20, more particularly described as Part 1 of Plan 43R-13617 (formerly Township of Toronto), City of Mississauga, Regional Municipality of Peel. A Plan of Survey is attached in **Appendix F**.

2.1.2 Contact Information for Property Owner

The Phase One Property is owned by:

City Park (1381 Lakeshore Road) Inc.,
950 Nashville Road
Kleinburg, ON L0J 1C0
Tel: 905-552-5200 (Ext. 221)

Attn: Maria Monass

2.1.3 Client Contact Information

Brown Associates was retained by Mr. Chris Zeppa of City Park Homes Inc. to complete a Phase Two site evaluation for the property located at 1381 Lakeshore Road East in the City of Mississauga. There are also companion Phase 1 and geotechnical reports provided for this same property.

2.2 Terms of Reference

Brown Associates Limited completed a Phase Two site evaluation for the property located at 1381 Lakeshore Road East. The purpose of this investigation was to provide soil and groundwater characterization to support the redevelopment of the site for midrise residential purposes. This report has also been prepared within the terms of reference set out in the Statement of Limitations, which is attached as **Appendix A**, which forms a part of this document.

2.3 General Description of the Phase One Property

The site is located within an established low-density predominantly residential area in the City of Mississauga, with municipal address of 1381 Lakeshore Road East. The property is located on the north side of Lakeshore Road East, and east of Dixie Road. The subject site is developed with a single storey multi-tenanted slab-on-grade retail plaza,

the Dixie Lake Plaza, occupying the middle of the site, with paved parking and driveway surrounding the building except on the east side.

The site is surrounded by detached single family homes to the north, by Cherriebell Road to the east followed by a vacant former commercial property, Dixie Road to the west, followed by the former Sheridan Mercury Sales Ltd. with Lakeshore Road frontage and with Lakeshore/Marie Curtis Park and a City of Mississauga community centre to the southeast of Lakeshore Road.

A Site Location Plan is attached, Figure 1-0.

2.4 Previous Reporting

Two previous reports for the Phase One property are known. One of these reports was provided to Brown Associates: *"Preliminary Assessment of Soil and Ground Water at 1381 Lakeshore Road East in Mississauga"* was completed by WESA on March 29, 2012. WESA referred to initial soil and ground water data findings by another consultant, which were provided to them, indicating three boreholes were previously advanced on the site and completed as monitoring wells. Reported findings from the earlier report found only conductivity and sodium absorption ratio impacts in soil from salt and minor impacts for these same parameters, but not resulting in exceedances of standards in groundwater. WESA identified a zone of shallow soils in the east corner with F1 and F2 petroleum hydrocarbon impacts.

3.0 Physical Setting and Previous Investigations

3.1 Physical Setting

The site is located within an established low-density mixed commercial and residential area in the City of Mississauga, with municipal address of 1381 Lakeshore Road East. The phase two property is located on the north side of Lakeshore Road East on the northeast corner of Dixie Road. The subject site is developed with a multi-tenanted single storey slab-on-grade retail plaza, the Dixie Lake Plaza, occupying the middle of the site, with paved parking surrounding the building on all but the east Cherriebell frontage. Tenants at the time of reporting included: Tai Chi Health Centre; Lotus Island Vietnamese Restaurant; Renovations Solutions; Pool & Spa; and a Presentation Centre for the proposed redevelopment.

There is not yet a geodetic benchmark on site to tie in well collar elevations; however, for present assessment purposes the site is essentially flat.

3.2 Previous Investigations

There was a previous intrusive investigation conducted on site by WESA in 2012. The document contained limited information and made references to additional Phase II environmental work by WESA and others but provided no data other than a discussion on the exceedances encountered, which including petroleum hydrocarbon impacts in soil and groundwater and impacts related to application of winter salt. The graphics of the copy of this document are of a very poor quality. WESA identified a limited area of petroleum hydrocarbon impact on the east corner of the site after advancing 20 shallow probes to characterize soil vapour below the pavement.

To follow up from the WESA findings, Brown Associates conducted a visual search and identified four monitoring wells, advanced by WESA or others, as summarized in the following table:

Well No.: (assigned by this office)	Flush- mount Cover Size	Well Diameter	Water Level (mbgs)	Bottom of Riser (mbgs)	Remarks
D1	Missing	50mm	Not Measured	Not Measured	Well had a missing cover and been filled by debris. This well cannot be salvaged and must be decommissioned.
D2	200mm	50mm	1.02	3.1	Well cover is broken and lays over the well. J-plug is missing. Wells is exposed to surface water. Well can be repaired and will require extensive purging prior to any sampling efforts.
D3	100mm	50mm	2.05	5.29	Well cover has one missing bolt, but J-plug was secure and was sealed by up-welling bentonite.
D4	200mm	50mm	1.66	3.15	Well in good condition.

Well assigned D1 must be decommissioned, well D2 requires a replacement cover and J-plug, and well D3 requires a replacement bolt and one is in good condition. Because of the different size covers, it is likely two wells each belong to different consultant studies. Brown Associates purged and sampled the existing wells where practicable. No well tags were identified.

3.3 Potentially Contaminating Activities and Areas of Potential Environmental Concern

Brown Associates' recent Phase 1 environmental report identified the following PCAs, and listed some of these as APECs.

LOCATION OF PCA	PCA	IS THERE CONCERN FOR AN APEC (YES OR NO?)	JUSTIFICATION
On-Site:	34. Metal Fabrication	Yes	Machine shop located on east side of site near Cherriebell frontage in 1952
On-Site :	Not Applicable: application of salt for winter maintenance	No	Exempt as per O.Reg. 153/04 S 149.1 (December 4, 2019)
On-Site :	#28 – gasoline and associated products storage in fixed tanks	Yes	Possible former diesel fuel oil tank for comfort heating when property developed with residences
On-Site :	#28 – gasoline and associated products storage in fixed tanks	Yes	Former gasoline service station in operation on the east half of the site from about the mid-1960s to the mid-1970s.
On-Site :	52. Storage, maintenance, fueling and repair of equipment, vehicles, and material used to maintain transportation systems.	Yes	Possible former automotive repair garage from about the 1960s to late 1970s on east side.
Off-site : Railway Line	46. Rail Yards, Tracks and Spurs	No	Low Risk: given the railway line is just outside the 250 m study area, it is too distant to have any negative impact on the site
Off-site: 1417 Lakeshore Road East	Not applicable – parking lot	No	Vacant lot used for parking from 2010 to 2018. No staining was noted. Given that this site is cross-gradient and consistent with normal parking use it is not likely to have any environmental impact on the subject site
Off-site: 1345 Lakeshore Road East	#28 – gasoline and associated products storage in fixed tanks	No	Given the assumed southern groundwater flow direction, the property is cross-gradient.

Off-site: 1352 Lakeshore Road East	ERIS documented: spill	No	125 m southwest of the subject site; 45 L product to ground. Given assumed southeasterly groundwater flow, spill site is cross-gradient.
Off-site: 1352 Lakeshore Road East	ERIS: Generator of petroleum distillates and halogenated solvents	No	125 m southwest. Since groundwater flow is anticipated to be southeasterly towards Lake Ontario site is cross-gradient.
Off-site: 1400 Lakeshore Road East	38. Ordnance Use	No	100 to 200+ m southeast of the phase one property, down-gradient from the subject site
Off-site: 1421 Lakeshore Road East	#28 – gasoline and associated products storage in fixed tanks	No	Low risk: PCA occurred cross-gradient
1439 and 1451 Lakeshore Road East	#28 – gasoline and associated products storage in fixed tanks	No	Low Risk: too distant and cross-gradient from the subject site
1459 Lakeshore Road East	#28 – gasoline and associated products storage in fixed tanks	No	Low Risk: too distant and cross-gradient from the subject site

3.4 Applicable Site Condition Standard

There is no demand for potable water on site, nor does the City of Mississauga employ wells for the purposes of obtaining municipal drinking water. Bedrock is more than 2m in depth and groundwater is more than 1.5m in depth below grade. Underlying soils comprise a depth of lacustrine silt and sand/silt tills in excess of 10m in thickness and are underlain with Georgian Bay Formation shale bedrock. There are no surface water bodies or other sensitive areas within 30m. The nearest water body is Applewood Creek which is more than 250m distant and cross-gradient. Therefore, the appropriate remediation standards for the property are for residential and parkland uses, based on fine grained soils, as set out in Table 3 of O.Reg. 153/04 as amended.

4.0 Scope of Work

4.1 Overview of Site Investigation

The site investigation was conducted in three stages; the first stage was the inspection of onsite wells and development and sampling, where possible, on Nov. 18, 2017. The second phase was the advancement of four geo-environmental

tal boreholes on July 18 and July 19, 2019. The third phase was a groundwater purging and sampling program that was conducted on July 31, 2019 and concluded on August 28, 2019.

4.2 Media Investigated

Based on the APECs identified by this office it was concluded that volatile organic compounds (VOCs), metals and inorganics (M&I), petroleum hydrocarbons (PHCs) and polycyclic aromatic hydrocarbons (PAHs) would be of potential concern in shallow disturbed fill and in shallow groundwater perched above shale bedrock. Since shales are highly anisotropic, with very limited hydraulic conductivity in the vertical dimension, impact into groundwater at depth in shale below any weathered zone were considered unlikely.

Soil samples for all the above parameters were submitted as representative of the shallow fill zones. Since no PAH exceedances were found in shallow soils, only VOCs, M&I and PHC were analyzed in groundwater.

4.3 Phase One Conceptual Site Model

The Phase 1 conceptual site model suggested that shallow disturbed soils and shallow groundwater perched on top of shale bedrock may be impacted by the former onsite residential uses and by the former machine shop or auto repair uses. Metals and inorganics may be incorporated into any disturbed, reworked soils. Petroleum hydrocarbons may be found sorbed on shallow soil and at the groundwater interface and dissolved phase PHCs may be found in groundwater at greater depths. Therefore, onsite APECs include the entire site, including potentially beneath the existing slab-on-grade building. Additional soil characterization will be required within the building envelope before a Record of Site Condition can be submitted to the Ministry for acknowledgement, a necessary step to support residential redevelopment.

4.4 Deviations from Sampling and Analysis Plan

There was one deviation from the sampling plan in that no PAHs in groundwater samples were submitted. This was a consequence of finding no PAH exceedances in soil.

4.5 Impediments

There were no impediments to the program of investigation.

5.0 Field Investigations

5.1 General

Underground services were cleared by a private locator service, prior to mobilization with a drill rig. This service is a mandatory work item before drilling can take place.

The field investigation included geo-environmental drilling using a truck-mounted CME 75 continuous-flight hollow-stem power augur, under the direction of our senior technologist on July 18 and 19, 2019. 1.5m length screens were set as low as possible in each borehole, with two screens spanning the shale interface and two others set between 6.5m to 8m and 8.1 and 9.6m depth respectively, both cored into sound shale with good rock quality indices. Development of all four wells for groundwater response with slug tests and drawdown testing was completed on July 31, 2019. This testing provided more than the minimum requirements for well purging and development prior to sampling for Phase Two purposes.

The drilling and sampling program applied Brown Associates' standard operating procedures (SOPs). Groundwater purging used low-flow procedures recovering water at about 1 litre per minute, and sampling was from the top 300mm of water profile at 0.25 lpm rate of withdrawal. Brown Associates' standard operating procedures document is available on request, and incorporates all the requirements set out in O.Reg. 153/04.

5.2 Drilling and Excavating

The drilling contractor was Determination Drilling, employing a truck-mount CME 75 advancing 200mm hollow stem flight augur and 50mm x 660mm split spoon sampler. Standard clean glove techniques were used in the handling of samples and all equipment was cleaned prior to re-use in other test locations using an Alconox solution, followed by rinsing using distilled water.

Sampling commenced at grade below asphaltic pavement, advancing a 50mm diameter split spoon sampler using standard force blows followed by auguring to an additional 0.15m depth beyond and again driving the split spoon sampler. This process was repeated until the borehole was advanced beyond any identified fill zone, below which depths sample spoons were advanced at every 1.5m augur advancement.

At the shale bedrock interface, the flight augurs were advanced through the weathered shale to refusal. In two of the locations, two 1500mm cores were further advanced using PQ core barrels to extend about 3m to prove sound shale bedrock.

5.3 Soil: Sampling

The local stratigraphy underlying about 100mm of asphaltic concrete surface was up to 1.4mbgs comprising pavement bedding materials, and reworked local fill soils underlain by very stiff to dense native brown silts tills changing to grey by about 2.5m depth below grade, indicative of permanent saturation. This is further underlain with a weathered shale transition to competent shales with massive limestone horizons.

Boreholes were advanced to contact shale bedrock, which was found between 4 and 5.3m depths below grade, and continued to augur through any weathered zones to refusal of augurs in sound rock at depths ranging from 4.4 to 6.3m depth below grade. Generally, 0.2 to 0.4m of highly weathered rock was reported and friable shales with thin bedding planes and partings were penetrated prior to complete refusal. In each of boreholes 201 and 202, two 1.5m core barrels were advanced further into shales. Please refer to the attached borehole logs for additional references.

5.4 Field Screening Measurements

Soil screening for PHC F1-F4 during the borehole program was conducted using a Mini-RAE 2000 Photo-ionization detector, with a 10.6ev lamp, calibrated to 100ppm *iso*-butylene. The instrument was shop calibrated by Maxim Environmental at the start of the sampling day, and a certificate of calibration, with calibration ranges, accompanied the device during each sampling event.

Soil samples were placed in plastic soil bags and allowed to equilibrate for 1.5 – 2.0 hours at ambient summer temperature prior to screening. Any soils which exhibited exceedances in excess of background (allowance was made for 2-3ppm background from condensation) were selected for laboratory analysis.

Where soil field screening results did not indicate a potential for impacts, which was the usual case, soils were selected for sampling based on the technologists' judgement and to obtain representative coverage of site perimeters and base of excavation. Additionally, visual and olfactory indicators for PAH, M&I parameters were used to assess the field sample.

5.5 Ground Water: Monitoring Well, Installation

Monitoring wells were installed by a licensed well technician provided by the drilling contractor, Determination Drilling.

Monitoring wells were instrumented by Determination Drilling, using 50mm diameter x 1500mm 10-slot screen for piezometers with a 50mm cone tip in each. These were followed by a 50mm threaded solid standpipe up to 100mm from grade and capped with a 50mm J-plug. The connections were threaded with an O-ring gasket between each section. Wells were collared below grade and protected with flushmount cover plates. Clean gloves and sealed bags of well sand and bentonite were used to prevent potential contamination.

Well development was conducted using a peristaltic pump. The screened interval was set to bracket the bedrock interface in two of the boreholes, and to base of borehole in rock in the other two new wells. Well screens were backfilled with well grade sand at depth and to 600mm above the top of 3m screens, followed by a bentonite seal from 600mm above screen to 460mm from grade where a standpipe with J-plug and flushmount protective cover was concreted into place.

When no longer required, if they will not extend deeper than proposed redevelopment, two of the wells may be decommissioned by removal during bulk excavation, but must be preserved until that time. This is a permitted means of abandonment under Well Regulation 903. For two levels of parking, MWs-201-19 and 204-19 must still be properly decommissioned by a licensed well technician, and a well record filed with the Ministry because they extend deeper into shale bedrock than the proposed redevelopment.

5.6 Ground Water: Field Measurement of Water Quality Parameters

Water quality parameters were not screened prior to sampling. In lieu of monitoring parameters such as turbidity, pH, and dissolved oxygen until uniform readings were obtained, the monitoring wells were purged beyond the minimal three well volumes achieving at least five well volumes from each.

5.7 Ground Water: Sampling

Purging and subsequent sampling of the monitoring wells used a peristaltic pump. Pump flow during the purging process was regulated at one litre/min with sampling flow rate set at 0.25 l/min, withdrawing from the uppermost 300mm. Initial purging was conducted on July 31, 2019 in conjunction with slug and drawdown-recovery data acquisition, with at least one additional well volume purge taken prior to sampling on August 28, 2019.

Purging requirement was considered completed when targeted purge volumes were achieved or exceeded.

Purging records are recorded as:

Well Number	Water level (from Grade)	BOR (from Grade)	Water Column (m)	Purge Volume (L) (=WC x 1.99)	Min PV (x3)	Target PV (x 5)	Volume Removed July 31, 2019	Volume Removed August 28, 2019	Total Volume removed
201	2.375	9.6	7.225	14.4	43	72	41	35	76
202	3.81	6.08	2.27	4.5	14	23	20	5	25
203	3.36	5.47	2.11	4.2	13	21	20	8	28
204	3.985	7.95	3.965	7.9	24	39	30	10	40

All 3mm LDPE tubing and 3mm flex tubing was dedicated for each well. All materials were handled with clean single-use nitrile gloves. Sampling materials were contained in sealed plastic prior to being placed in the well, and single-use 25µm groundwater filters were employed for M&I sampling. The electronic water level meter tape was washed with an Alconox solution and rinsed in de-ionized water between each sample location.

5.8 Sediment: Sampling

No sediment sampling occurred in this investigation.

5.9 Analytical Testing

Bureau Veritas Laboratories (BV) was the receiving laboratory for both soil and groundwater samples in this program. BV also provided all sampling containers used in this program.

5.10 Residue Management Procedures

All drilling spoils were retained in 200L steel drums, and remain on the north portion of the property at a centralized collection site. Purged groundwater including rotary mud from the drilling operation was contained in 200L PVC open-top type 205 litre drums, which remain on site as of this report.

5.11 Elevation Surveying

An elevation survey was not conducted for this report. All depths are referenced at grade, which is relatively flat. An onsite geodetic benchmark is not yet available.

5.12 Quality Assurance and Quality Control Measures

All soil and groundwater samples were retained in new sterile products provided in advance by BV Laboratories.

- I. Soil samples selected for laboratory analysis were prepared in the field. On completion of packaging the soil sample, the location of the sample interval was recorded on the field copy of the borehole or sampling log indicating what parameters were to be analyzed.
- II. Each sample was given a unique number: the numbering scheme contains the location identifier prefix, our project number, followed by date in year, month and day format, followed by the sequence in which the samples had been recovered on that date. The same is for groundwater samples, except the prefix GW is used.
- III. The chain of custody was maintained in the field and turned over when samples were submitted to BV. The formal Chain of Custody was completed by the field technologist recovering and packaging the samples. Please refer to the attached BV Certificates of Analysis and Chain of Custody forms for additional details.

All re-used equipment in contact with soil was cleaned prior and post-use using an Alconox solution and was thoroughly rinsed with de-ionized water. Sample equipment and samples were handled with disposable nitrile gloves free of powder, which were changed for each new test location.

As an additional measure, all samples were driven to BV each day, with delivery within a few hours of sampling by the same person who carried out sample recovery and labeling. Samples were retained on ice, and temperatures recorded on COC forms by the laboratory on receipt.

6.0 Review and Evaluation

6.1 Geology

Parking stations and a private drive surrounds the existing slab-on-grade commercial building on three sides. This is finished with up to 100mm of asphaltic concrete which was generally in fair to good condition. Up to 500mm of granular bedding was found in each test location. Pavement was underlain by fill materials to depths ranging to 0.8m below grade in BH-202-19, and to 1.4m below grade in all other test locations.

Fill contained reworked till and in BH-203 only contained some topsoil and traces of red brick.

Compact to dense brown silt till extended through a colour change grading to uniform plastic, slightly cohesive mottled silt till by 2m depth and transitioned to uniform grey till by 2.5m depth below grade. Shale bedrock with very thin bedding planes was found beyond the transition of highly weathered shales between 4.6 and 5.3m depth below grade. A thin seam of soft to firm grey silt and clay-sized soil was found above bedrock in BH-202 only between 4.8 and 5.1m depth below grade. Shales were further excavated using the soil augurs to refusal, generally on a more massive limestone member. Shales belong to the Georgian Bay Formation, which is of Ordovician age.

Shale bedrock exhibits thin bedding planes with weathering and clayey seams at the soil interface. By approximately 1m below the soil interface, shales become sound with few weathered bedding plains and increasing proportion of hard, competent limestone members.

6.2 Ground Water: Elevations and Flow Direction

The screen interval for two wells bracketed the shale interface and two others were set deeper and sealed in the shale zone. The overburden wells suggest a southerly groundwater gradient. The deeper piezometers are not determinative because of possible upward gradients locally.

6.3 Ground Water: Hydraulic Gradients

The groundwater levels associated with shallow wells range from 3.3 to 3.9mbgs. Piezometers in the two new bedrock wells equilibrated at 2.4 and 5m below grade respectively. The gradient in shallow wells is southward, consistent with flow toward Lake Ontario to the south. The numbers for bedrock wells are not definitive without further monitoring, because they suggest both possible upward and downward gradients. There was no free-phase product or sheen on water samples encountered in this investigation.

6.4 Fine-Medium Soil Texture

The residual soils on site are predominately fine-grained silt-size at the footing depth and continue fine-textured to bedrock. Soils below 4.5m depth are primarily shales.

6.5 Soil: Field Screening

Field screening for soils suggested that the highest potential concentrations of contaminants were limited to disturbed fill materials, with concerns for M&I and PAHs, associated with cinders and ash, and that aesthetic indicators of waste inclusion will be effective as a primary means for directing progress of any future bulk excavation.

6.6 Soil Quality

Soils generally met Table 3 standards apart from Conductivity in BH 204, and SAR in shallow fill soils in both 203 and 204, F1 and F2 in shallow soils in BH-201, and water-soluble boron in BH-204.

Sodium Absorption Ratio and Conductivity are both associated with salt application for winter maintenance on pavements and pedestrian walkways, and are deemed to meet standards under the provision of new amendment 49.1 to O.Reg. 153/04. In any case, these shallow soils will be subject to bulk excavation and removal from the site, according to the proposed redevelopment plan. Fill disposition may depend on receiving site policies for acceptance of soils having Conductivity and SAR in excess of Table 3 standards. These policies vary among receiving properties.

Boron is most likely associated with ash content in shallow soil which was the top 0.6m depth north of the present building. Supplementary sampling in the same area is recommended after the building and pavement removal, when additional shallow samples can be taken within a 1m radius and averaging of the findings is permitted. It is likely a stray anomalous finding such as this can be dealt with by averaging closely spaced samples.

F1 and F2 exceedances were found in the fill zone of Borehole 201 in the southeast corner, in the same location as a zone of aged gasoline in shallow soil was noted in the WESA investigations. Those previous 20 probes delineated an area between the landscape frontage and east portion of the existing building. When the building and pavement is taken up, additional sampling for PHC fractions will be required for soil characterization.

The most likely source of F1 and F2 light fractions of PHC is from gasoline, suggesting a localized spill, most likely prior to pavement application. The impacted area will require supplementary testing to delineate the area with PHC in excess of receiving site standards when the area is subject to bulk excavation.

All other findings in soil met generic Table 3 standards. Additional sampling of the disturbed fill zone, presumably to about 1.4m depth, will be required following demolition and removal of the existing building.

6.7 Ground Water Quality

Except for findings of trace toluene at 0.2 and 0.52 µg/l in wells 201 and 202, no other BTEX analyses in any of the wells exceeded laboratory MDL. No petroleum hydrocarbon fractions in groundwater in any well exceeded laboratory MDL, including well 201 directly beneath the shallow soil exceedance for F1 and F2 fractions, suggesting the till at depth provided protection against downward migration below the water table surface and in the locations of the previous wells, which were accessible for sampling.

There were no metals and inorganic exceedances above Table 3 standards in any of the wells.

6.8 Sediment Quality

No study of sediment occurred in this program.

6.9 Quality Assurance and Quality Control Results

Laboratory in-house QA-QC duplicate sampling did not identify any issues with testing procedures.

6.10 Phase Two Conceptual Site Model

Additional investigation is required following removal of the existing building and pavements to further delineate areas of concern, including quality of shallow disturbed soil beneath the building, and supplementary assessment of boron around the minor exceedance identified in the top 0.6m in one location north of the building.

In addition, the extent of F1 and F2 fractions above Table 3 standards will require further delineation after pavement and slab are removed. These parameters can be effectively field screened using aesthetic indicators and a PID, followed by laboratory verification sampling.

Soils having light petroleum hydrocarbons fractions and no other exceedances can be removed to a licensed receiver capable of treating the soil to remove the light fractions. A program of selective excavation with close monitoring by an environmental technician will be required to manage this identified select zone of soil removal, and conduct verification sampling at the limits of management.

A conceptual site model should best be delayed until these two areas of concern, and any other concerns found with routine testing beneath the building slab, are dealt with onsite.

7.0 Conclusions

The Phase 2 property was originally developed with single family homes and a concrete block slab-on-grade shop, which were all demolished by the mid-1980s in favour of the present slab-on-grade multi-tenanted commercial building.

Impacts for conductivity and SAR in shallow soils are attributed to winter maintenance, and only a single water-soluble boron exceedance at 2 times standard relative to generic Table 3 residential standards was noted for metals and inorganics. Further sampling to obtain statistically valid data for water soluble boron in the top 0.6m is recommended for this area when pavement is removed.

F1 and F2 impacts in shallow fill soils in the southeast corner are attributed to a gasoline spill of unknown age and unknown origin. The impact does not extend into groundwater, suggesting only surficial soils are affected. After removal of building slab and asphalt pavement, further delineation and possibly a program of selective soil removals in advance of redevelopment is recommended.

Because of the proposed change to future residential use, acknowledgement of a Record of Site Condition by the Ministry of the Environment, Conservation and Parks is required before the City of Mississauga can issue a building permit.

Selective soil removal and verification sampling of limits of removal will be required following demolition and before a final Phase 2 report and supporting Conceptual Site Model can be provided to support the submission to the Ministry.

The proposed redevelopment would have the effect of removal of all soils of potential concern, so that the main issue will be delineation of those areas requiring special handling and diversion to appropriate places for offsite disposal. The majority of undisturbed till soils requiring removal will meet Table 3 and even Table 2 standards.

7.1 Proposed Redevelopment

The proposed redevelopment is to extend across the entire site. One level of underground parking would have the structure founding from 1 to nearly 2 meters above the shale bedrock interface, and with sumps and elevator pits set in overburden or at the rock interface. A second level of parking on any part of the site would found deeper into sound bedrock below any weathered zones.

7.2 Record of Site Condition

Until the existing building is demolished with an opportunity to further sample soils within its footprint, or until perimeter shoring and a first lift of disturbed heterogeneous soils is removed, it is not possible to take verification samples and to certify that the remaining soils on the site meet residential standards. Because there is a change in land-use sensitivity, a submission of a Record of Site Condition (RSC) package is required to be reviewed by Ontario Ministry of the Environment, Conservation and Parks and an acknowledgment posted on the Environmental Registry. The City is not permitted to issue final building permits for more sensitive uses until the registration is complete. A supplementary Phase 2 report to “*enhanced*” standards together with a Phase 2 Conceptual Site Model will be required once the site is confirmed to meet Table 3 standards.

8.0 Reliance

This report may be relied on by the City of Mississauga and Regional Municipality of Peel, in support of an application for redevelopment of these Phase Two lands at 1381 Lakeshore Road East, and by a mortgage lender providing mortgage financing, to the same extent as the property owner, subject to the standard limitations statement appended herein. Any reliance extended to a third party shall also be subject to these same standard limitations.

9.0 Qualification

Brown Associates Limited is a full services environmental consultant which has carried out more than 4,200 environmental evaluations or remediations in Ontario over the past 48 years. The firm is qualified to manage asbestos and PCB and other abatement programs and to design and supervise site demolition, soil and groundwater remediation programs. Dr. Brown is a Qualified Person (ESA) for purposes of submitting Records of Site Condition to the Ontario Ministry of the Environment, Conservation and Parks and holds a B.Sc. in geology and chemistry from Queens University (1968) and a doctorate in geochemistry from Oxford University (1970).

Brown Associates Limited carries \$5 million in environmental liability insurance (\$2 million per incident), \$2 million in errors and omissions insurance, and enjoys a claims-free status.

10.0 Closure

Thank you for this opportunity to once again be of service. Should any questions arise, please do not hesitate to call.

Yours very truly,

BRUCE A. BROWN ASSOCIATES LIMITED



Bruce A. Brown, Ph.D., RPP, P.Eng., QP(ESA)

Bruce A. Brown Associates Limited

Statement of Limitations for Phase II Environmental Evaluations

The conclusions and recommendations of this report are applicable only for the area of investigation set out in the report, and to the time of investigation. Subsurface conditions including soil type, presence or extent of a contaminant, groundwater elevations and quality, or conditions within buildings and structures which may affect realty value or site redevelopment may differ between test locations and may not be applicable to areas beyond those investigated.

This report is applicable only to the client to which it is addressed and for the purpose set out in the introduction. Bruce A. Brown Associates Limited does not permit use of this report by any third party or for any other purpose unless prior written authorization is provided by this firm.

A Phase II Environmental Evaluation generally includes intrusive investigations or materials sampling, monitoring and laboratory analyses of select sample materials. As a consequence, it is recognized that some site specific conditions which are not historically referenced or otherwise communicated or may not be visually or olfactory apparent to a qualified field investigator may not be detected at this level of evaluation. In addition, the number of actual test locations, or numbers of chemical characterizations, although intended to establish representative conditions, may not be sufficient to completely delineate any condition or to determine presence of a deleterious condition.

While recommendations are valid for the actual test locations, it is further recommended that verification of uniformity, or of any anticipated variances in construction materials, subsoils or groundwater, or building conditions be made at the time of any future demolition, excavation, remediation program or construction involving site work which may be affected by presence of certain building materials, soil or groundwater conditions.

With the exception of instances where this firm is specifically retained to confirm field conditions, the responsibility of Bruce A. Brown Associates Limited shall be restricted to accurate interpretation of actual test location(s). No responsibility can be taken for the

Statement of Limitations for Phase II Environmental Evaluations

procedures or the sequence of efforts carried out by any contractor, even when his final result would be to implement the recommended design, unless field supervision is requested from this firm.

Where site soil conditions or history of use of a site and/or neighbouring lands, or visible hazardous materials located on a facility suggest potential for hazardous conditions, a more detailed program of investigation may be required to determine the presence or extent of any impaired condition or to define potential costs associated with future remediation to achieve acceptable environmental conditions to permit continued or proposed future uses of a property.

All costing and figures are rough estimates based on the current guidelines and market costs and several quotes from contractors should be obtained prior to site work. Costs will depend on extent of work and approach taken and in some cases the best approach cannot be determined until after site work has commenced.

Communication of all matters concerning on-site materials, identified hazardous wastes, soils or groundwater quality and other matters shall be to the firm or individual authorizing site investigations. Where recommendations are made by Bruce A. Brown Associates Limited to an authorizing agent, it shall be the responsibility of that agent to communicate, as required, to any contractor, owner, agency, or other consultant who may be affected by such recommendations, or shall require such data to carry out his duties in a safe and responsible manner as they relate to the subject property and ensure compliance with all regulatory requirements and guidelines affecting the environment or matters of occupational health and safety.

Appendix B: Site Location Plan, BH Location Plan, BH Logs + Key

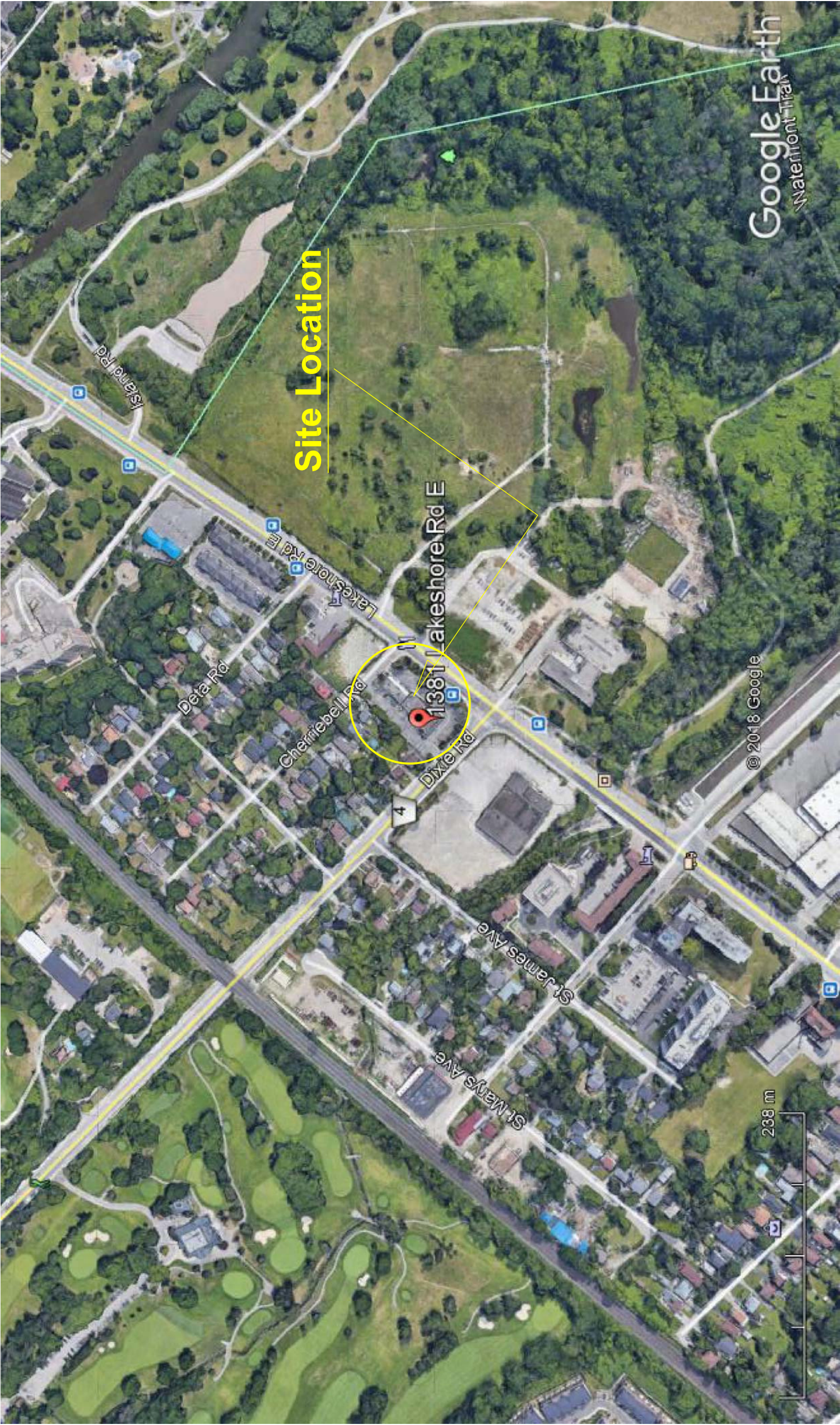
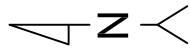
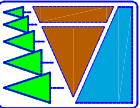
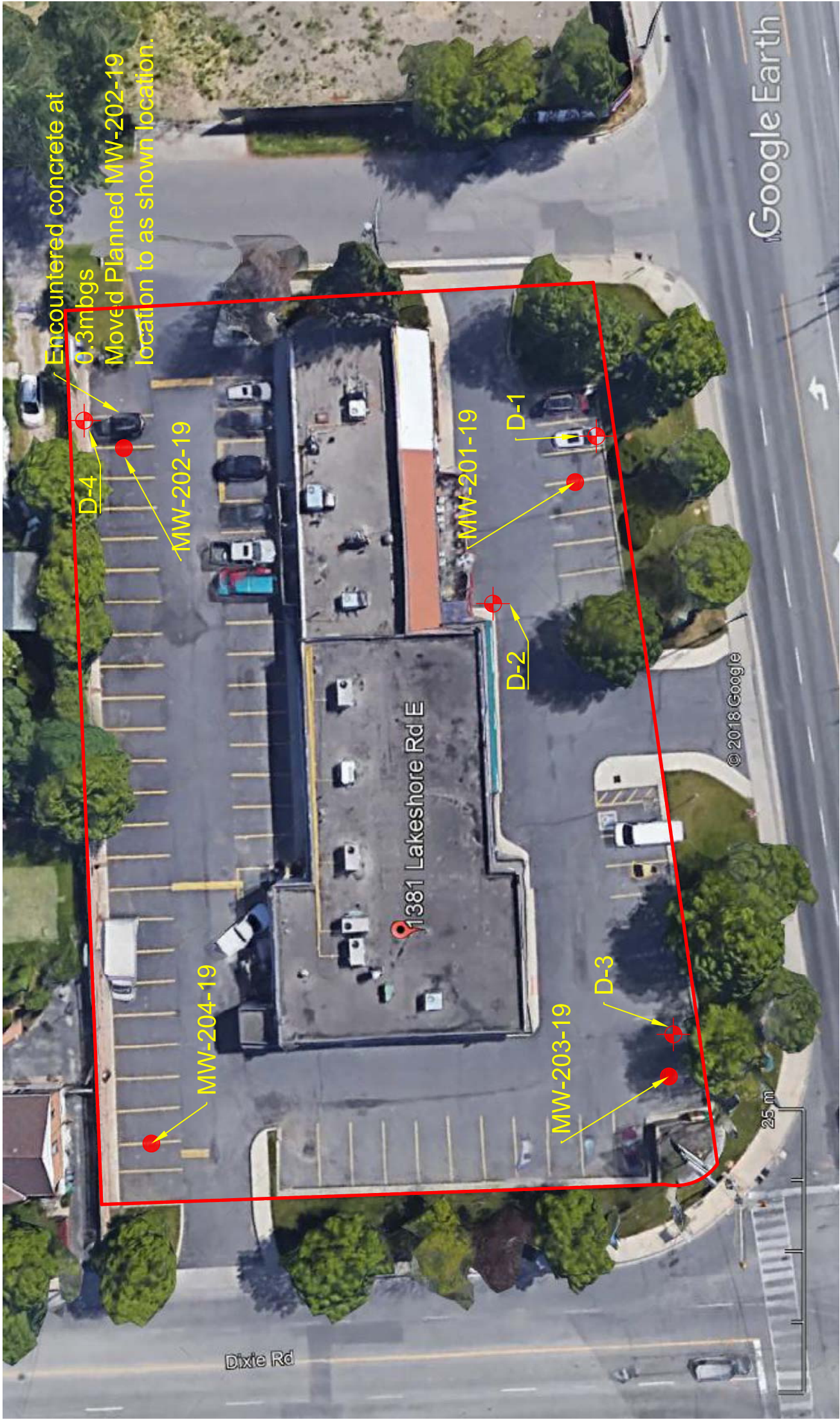


Figure: 1-0	Title: Site Location 1381 Lakeshore Road East, City of Mississauga	Client: CITY PARK (1381 Lakeshore Road) Inc. 950 Nashville Road Kleinburg, Ontario L0J 1C0	Drawn By: C. Calbourne, A.Sc.T, Project No.: 17* 4483	Date: September 1, 2019 Drawing No.: 4483/0901-001 Ver2	 BRUCE A. BROWN ASSOCIATES LIMITED Consultants in the Environmental and Applied Earth Sciences 101-102 Aerodrome Crescent Toronto, Ontario M4G 4J4 Tel [416] 424-3355



- Monitoring Wells / Boreholes advanced by Bruce A. Brown Associates July 18 and 19, 2019.
- Monitoring Wells by others placed prior to September 2017.
- Approximate Property Boundary.

Figure:

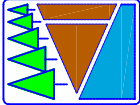
2-0

Title: **Monitoring Well / Borehole Locations**
1381 Lakeshore Road East, City of Mississauga

Client: **CITY PARK (1381 Lakeshore Road) Inc.**
950 Nashville Road
Kleinburg, Ontario L0J 1C0

Drawn By: C. Colbourne, A.Sc.T.
Project No.: 17* 4483

Date: September 1, 2019
Drawing No.: 4483190901-002 Ver2



BRUCE A. BROWN ASSOCIATES LIMITED
Consultants in the Environmental and Applied Earth Sciences
101-102 Aerodrome Crescent Toronto, Ontario
M4G 4J4 Tel [416] 424-3355

Project Location: 1381 Lakeshore East, City of Mississauga, Ontario

Project Number: 17*4483 **Technologist:** C.W. Colbourne, A.Sc.T.

101-102 Aerodrome Crescent
Toronto, Ontario, Canada M4G 4J4
Tel: (416) 424-3355, Email bruce@brownassociates.ca

Client: 950 Nashville Road
Kleinburg, Ontario L0J 1C0

Date of Borehole: July 18 to July 19, 2019

Drilling Contrator: Determination Drilling, Truck Mount CME 75 advancing 100mm solid stem flight augurs and 50mm x 0.6m split spoon sampler.

BH/MW
Location: See site drawing

Bench Mark:

TOR Elevation:

BOREHOLE LOG No. MW-201-19

Stratigraphy						Tests				Samples									
Depth in Metres	Monitoring Well Diagram	Symbol	Sample Interval	Description	Elevation	Moisture Content				Lab Sample No.	PID READING	% Recovery	Standard Penetration N-Blows per 0.30m	Moisture Content %					
						Dynamic Penetration Test													
						20	40	60	80										
0																			
0.1				Grade to 0.6mbgs 5" of Asphalt underlain by FILL - Granular B, brown, dry, non-plastic, non-cohesive, loose, 50mm stone trapped in tip of split spoon.															
0.2														SS-1	0.8mbgs to 1.4mbgs FILL – Manipulated CLAYEY SILT transition to NATIVE - SILT, grey to brown, moist to slightly moist, from low plasticity to non-plastic, slightly cohesive to non-cohesive, very soft, PHC odor and staining present.	0	80	2	
0.3																			
0.4																			
0.5																			
0.6														SS-2	0.8mbgs to 1.4mbgs FILL – Manipulated CLAYEY SILT transition to NATIVE - SILT, grey to brown, moist to slightly moist, from low plasticity to non-plastic, slightly cohesive to non-cohesive, very soft, PHC odor and staining present.	0			
0.7																			
0.8																			
0.9																			
1.0														SS-3	0.8mbgs to 1.4mbgs FILL – Manipulated CLAYEY SILT transition to NATIVE - SILT, grey to brown, moist to slightly moist, from low plasticity to non-plastic, slightly cohesive to non-cohesive, very soft, PHC odor and staining present.	0			
1.1																			
1.2																			
1.3																			
1.4																			
1.5																			
1.6														SS-4	1.5mbgs to 3.5mbgs SILT, brown transition to grey by 2.5mbgs, slightly moist, non-plastic, non-cohesive, medium dense, trace ochre staining above 2.2mbgs.	0			
1.7																			
1.8																			
1.9																			
2.0														SS-5	1.5mbgs to 3.5mbgs SILT, brown transition to grey by 2.5mbgs, slightly moist, non-plastic, non-cohesive, medium dense, trace ochre staining above 2.2mbgs.	0			
2.1																			
2.2																			
2.3																			
2.4																			
2.5																			
2.6	SS-6	4.6mbgs to 5mbgs SILT TILL, grey, slightly moist, non-plastic, non-cohesive, medium dense, weathered shale in tip of split spoon.	0																
2.7																			
2.8																			
2.9																			
3.0	SS-7	6.1mbgs to 6.2mbgs SHALE BEDROCK FORMATION, grey, dry, non-plastic, non-cohesive, very dense with split spoon refusal at 6.2mbgs.	0																
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10.0	Borehole terminated at 9.6mbgs. 50mm x 1.5m No.:10 Slot Piezometer set at 9.60mbgs, followed by solid 50mm standpipe to 0.15mbgs. Piezometer backfilled with well sand to 0.6m above the screened interval followed by bentonite to 0.3mbgs. Standpipe fitted with a 50mm J-Plug and well fitted with a flush-mounted protective cover. Ground water measured on July 31, 2019 and determined to be 2.375mbgs.																		

101-102 Aerodrome Crescent
Toronto, Ontario, Canada M4G 4J4
Tel: (416) 424-3355, Email bruce@brownassociates.ca

Client: 950 Nashville Road
Kleinburg, Ontario L0J 1C0

Date of Borehole: July 18 to July 19, 2019

Drilling Contractor: Determination Drilling, Truck Mount CME 750 advancing 100mm solid stem flight augurs and 50mm x 0.6m split spoon sampler.

TOR Elevation:

BOREHOLE LOG No. MW-202-19

[illegible]

101-102 Aerodrome Crescent
Toronto, Ontario, Canada M4G 4J4
Tel: (416) 424-3355, Email bruce@brownassociates.ca

Client: 950 Nashville Road
Kleinburg, Ontario L0J 1C0

Date of Borehole: July 18 to July 19, 2019

Drilling Contractor: Determination Drilling, Truck Mount CME 750 advancing 100mm solid stem flight augurs and 50mm x 0.6m split spoon sampler.

BH/MW
Location:

See site drawing

Bench Mark: Temp Bench Mark

TOR Elevation:

BOREHOLE LOG No. MW-203-19

Stratigraphy						Tests				Samples					
Depth in Metres	Monitoring Well Diagram	Symbol	Sample Interval	Description	Elevation	Moisture Content				Lab Sample No.	PID READING	% Recovery	Standard Penetration N-Blows per 0.30m	Moisture Content %	
						Dynamic Penetration Test									
						20	40	60	80						
0															
0.1				Grade to 1.4mbgs FILL – 100mm of ASPHALT PAVEMENT underlain by 25mm CRUSHER RUN LIMESTONE, underlain by RE-MOLDED SILT / GRAVEL / TOPSOIL, RED BRICK FRAGMENTS, underlain by SILT, black to brown, dry to moist, non-plastic, non-cohesive, loose.		0					SOIL-4833-190718-203-002		90	5	
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10.0															

Project Location: 1381 Lakeshore East, City of Mississauga, Ontario

Client: City Park (1381 Lakeshore Road) Inc.
950 Nashville Road
Kleinburg, Ontario L0J 1C0

Date of Borehole: July 18 to July 19, 2019

Technologist: C.W. Colbourne, A.Sc.T.



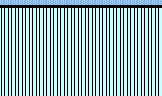
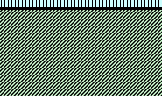
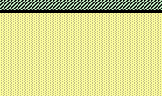

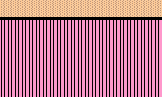
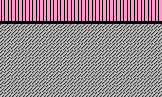
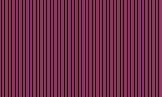
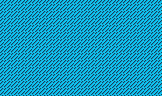
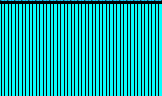
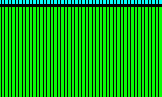
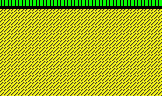


Drilling Contractor: Determination Drilling, Truck Mount CME 75 advancing 100mm solid stem flight augurs and 50mm x 0.6m split spoon sampler.

TOR Elevation:

BOREHOLE LOG No. MW-204-19

[illegible]

Borehole Log Key and Soil Classification Key

Major Divisions			Colour / Symbol	Letter Symbol	Typical Description
Coarse Grained Soils, More than 50% of material is larger than No. 200 sieve size.	Gravel and Gravelly Soils, More than 50% of coarse fractions retained on No. 4 sieve	Clean Gravels (little or no fines)		GW	Well- graded gravels, gravel sand mixtures, little or no fines
		Gravels With Fines (Appreciable amount of fines)		GP	Poorly grade gravels, gravel-sand mixtures, little or no fines
				GM	Silty gravels, gravel-sand-silt mixtures
				GC	Clayey gravels, gravel-sand clay mixtures
	Sand and Sandy Soils, more than 50% of coarse fraction passing No. 4 sieve	Clean Sand (Little or no fines)		SW	Well-graded sands, gravelly sands, little or no fines
		Sands with Fines (Appreciable amount of fines)		SP	Poorly-graded sands, gravelly sands, little or no fines
				SM	Silty-sands, sand-silt mixtures.
				SC	Clayey sands, sand-clay mixtures
Fine Grained Soils, more than 50% of material is smaller than No. 200 sieve size	Silts and Clays, Liquid limit less than 50			ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
				CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
				OL	Organic silts and organic silty clays of low plasticity
	Silts and Clays, Liquid limit greater than 50			MH	Inorganic silts, micaceous or diatomaceous fine sand or silty soils
				CH	Inorganic clays of high plasticity, fat clays
				OH	Organic clays of medium to high plasticity, organic silts
			Highly Organic Soils		

Appendix C: Table 4

			Borehole / Monitoring Well Location	MW-201-19	MW-203-19	MW-204-19
			Field Sample ID:	SOIL-4483-190718-201-001	SOIL-4483-190719-203-002	SOIL-4483-190719-204-003
			Sample Date:	18-Jul-19	19-Jul-19	19-Jul-19
			Sample Interval:	0.8 to 1.4mbgs	0.8 to 1.4mbgs	Grade to 0.6mbgs
PARAMETERS	Standard Table 3 Fine Textured Soil Residential (Ug/g)	Reporting Limits (Ug/g)				
Volatile Organic Compounds in Soil						
Acetone	28	0.5	<0.50			
Benzene	0.17	0.02	<0.020			
Bromodichloromethane	13	0.05	<0.050			
Bromoform	0.26	0.05	<0.050			
Bromomethane	0.05	0.05	<0.050			
Carbon Tetrachloride	0.12	0.05	<0.050			
Chlorobenzene	2.7	0.05	<0.050			
Chloroform	0.18	0.05	<0.050			
Dibromochloromethane	9.4	0.05	<0.050			
1,2-Dichlorobenzene	4.3	0.05	<0.050			
1,3-Dichlorobenzene	6	0.05	<0.050			
1,4-Dichlorobenzene	0.097	0.05	<0.050			
1,1-Dichloroethane	11	0.05	<0.050			
1,2-Dichloroethane	0.05	0.05	<0.050			
1,1-Dichloroethylene	0.05	0.05	<0.050			
Cis-1,2-Dichloroethylene	30	0.05	<0.050			
Trans-1,2-Dichloroethylene	0.75	0.05	<0.050			
1,2-Dichloropropane	0.085	0.05	<0.050			
Cis-1,3-Dichloropropylene	NV	0.03	<0.030			
Trans-1,3-Dichloropropylene	NV	0.04	<0.040			
Ethylbenzene	15	0.02	<0.020			
Ethylene Dibromide	0.05	0.05	<0.050			
Methyl Ethyl Ketone	44	0.5	<0.50			

			Borehole / Monitoring Well Location	MW-201-19	MW-203-19	MW-204-19
			Field Sample ID:	SOIL-4483-190718-201-001	SOIL-4483-190719-203-002	SOIL-4483-190719-204-003
			Sample Date:	18-Jul-19	19-Jul-19	19-Jul-19
			Sample Interval:	0.8 to 1.4mbgs	0.8 to 1.4mbgs	Grade to 0.6mbgs
PARAMETERS	Standard Table 3 Fine Textured Soil Residential (Ug/g)	Reporting Limits (Ug/g)				
Methylene Chloride	0.96	0.05		<0.050		
Methyl Isobutyl Ketone	4.3	0.5		<0.50		
Methyl-t-Butyl Ether	1.4	0.05		<0.050		
Styrene	2.2	0.05		<0.050		
1,1,1,2-Tetrachloroethane	0.05	0.05		<0.050		
1,1,2,2-Tetrachloroethane	0.05	0.05		<0.050		
Toluene	6	0.02		<0.020		
Tetrachloroethylene	2.3	0.05		<0.050		
1,1,1-Trichloroethane	3.4	0.05		<0.050		
1,1,2-Trichloroethane	0.05	0.05		<0.050		
Trichloroethylene	0.52	0.05		<0.050		
Vinyl Chloride	0.022	0.02		<0.020		
m-Xylene & p-Xylene	NV	0.02		<0.020		
o-Xylene	NV	0.02		<0.020		
Total Xylenes	25	0.02		<0.020		
Dichlorodifluoromethane	25	0.05		<0.050		
Dioxane, 1,4-	1.8	-		-		
Hexane(n)	34	0.05		<0.050		
Trichlorofluoromethane	5.8	0.05		<0.050		
1,3-Dichloropropene (cis + trans)	0.083	0.05		<0.050		
Inorganics In Soil						
Antimony	7.5	0.2			<0.20	0.49
Arsenic	18	1			2.7	4.6
Barium	390	0.5			49	69

PARAMETERS	Standard Table 3 Fine Textured Soil Residential (Ug/g)	Reporting Limits (Ug/g)	Borehole / Monitoring Well Location	MW-201-19	MW-203-19	MW-204-19
			Field Sample ID:	SOIL-4483-190718- 201-001	SOIL-4483-190719- 203-002	SOIL-4483-190719- 204-003
			Sample Date:	18-Jul-19	19-Jul-19	19-Jul-19
			Sample Interval:	0.8 to 1.4mbgs	0.8 to 1.4mbgs	Grade to 0.6mbgs
Beryllium	5	0.2			0.37	0.37
Boron (Hot Water Soluble)	1.5	0.05			0.36	3
Cadmium	1.2	0.1			0.17	0.41
Chromium	160	1			13	18
Chromium VI	10	0.2			<0.2	<0.2
Cobalt	22	0.1			5.3	5.2
Copper	180	0.5			20	22
Lead	120	1			17	100
Mercury	1.8	0.05			0.081	0.08
Molybdenum	6.9	0.5			<0.50	0.64
Nickel	130	0.5			11	12
Selenium	2.4	0.5			<0.50	<0.50
Silver	25	0.2			<0.20	<0.20
Thallium	1	0.05			0.073	0.096
Vanadium	86	5			21	23
Zinc	340	5			62	100
pH (pH Units)	NV				7.62	7.6
Conductivity (ms/cm)	0.7	0.002			0.63	1.7
Sodium Adsorption Ratio	5				6.8	15
Cyanide, Free	0.051	0.01			0.03	0.04
Chloride	NV	-			-	-
Boron (Total)	120	5			<5.0	9.6
Uranium	23	0.05			0.36	0.6

			Borehole / Monitoring Well Location	MW-201-19	MW-203-19	MW-204-19
			Field Sample ID:	SOIL-4483-190718-201-001	SOIL-4483-190719-203-002	SOIL-4483-190719-204-003
			Sample Date:	18-Jul-19	19-Jul-19	19-Jul-19
			Sample Interval:	0.8 to 1.4mbgs	0.8 to 1.4mbgs	Grade to 0.6mbgs
PARAMETERS	Standard Table 3 Fine Textured Soil Residential (Ug/g)	Reporting Limits (Ug/g)				
Petroleum Hydrocarbons in Soil, F1 to F4 Fractions						
F1 (C6-C10)	65	50		360		
F1 (C6-C10) - BTEX	65	50		360		
F2 (C10-C16)	150	10		120		
F3 (C16-C34)	1300	50		<50		
F4 (C34-C50)	5600	50		<50		
Reached Baseline at C50	NV			YES		
F4 Gravimetric	5600	-		-		
Polycyclic Aromatic Hydrocarbons in Soil						
Acenaphthene	58	0.005				0.022
Acenaphthylene	0.17	0.005				0.0058
Anthracene	0.74	0.005				0.047
Benzo(a)anthracene	0.63	0.005				0.17
Benzo(a)pyrene	0.3	0.005				0.16
Benzo(b/j)fluoranthene	0.78	0.005				0.23
Benzo(ghi)perylene	7.8	0.005				0.12
Benzo(k)fluoranthene	0.78	0.005				0.08
Chrysene	7.8	0.005				0.14
Dibenzo(a,h)anthracene	0.1	0.005				0.029
Fluoranthene	0.69	0.005				0.34
Fluorene	69	0.005				0.034
Indeno(1,2,3-cd)pyrene	0.48	0.005				0.12
1-Methylnaphthalene	3.4	0.005				0.022

PARAMETERS	Standard Table 3 Fine Textured Soil Residential (Ug/g)	Reporting Limits (Ug/g)	Borehole / Monitoring Well Location	MW-201-19	MW-203-19	MW-204-19
			Field Sample ID:	SOIL-4483-190718- 201-001	SOIL-4483-190719- 203-002	SOIL-4483-190719- 204-003
			Sample Date:	18-Jul-19	19-Jul-19	19-Jul-19
			Sample Interval:	0.8 to 1.4mbgs	0.8 to 1.4mbgs	Grade to 0.6mbgs
						0.024
2-Methylnaphthalene	3.4	0.005				0.02
Naphthalene	0.75	0.005				0.2
Phenanthrene	7.8	0.005				0.32
Pyrene	78	0.005				-
Methylnaphthalene, 2-(1-)	3.4	-				

XX.XX denotes exceedance of the set standard

Appendix D: Table 5

			Borehole / Monitoring Well Location	MW-201-19	MW-202-19	MW-203-19	MW-204-19
			Field Sample ID:	GW-44823-180828-201-002	GW-44823-180828-202-001	GW-44823-180828-202-003	GW-44823-180828-202-004
			Sample Date:	28-Aug-19	28-Aug-19	28-Aug-19	28-Aug-19
PARAMETERS	Standard Table 3 All Uses (Ug/L)	Reporting Limits (Ug/L)					
Volatile Organic Compounds in Groundwater							
Acetone	130000	10		<10			
Benzene	430	0.2		<0.20			
Bromodichloromethane	85000	0.5		<0.50			
Bromoform	770	1		<1.0			
Bromomethane	56	0.5		<0.50			
Carbon Tetrachloride	8.4	0.2		<0.20			
Chlorobenzene	630	0.2		<0.20			
Chloroform	22	0.2		<0.20			
Dibromochloromethane	82000	0.5		<0.50			
1,2-Dichlorobenzene	9600	0.5		<0.50			
1,3-Dichlorobenzene	9600	0.5		<0.50			
1,4-Dichlorobenzene	67	0.5		<0.50			
1,1-Dichloroethane	3100	0.2		<0.20			
1,2-Dichloroethane	12	0.5		<0.50			
1,1-Dichloroethylene	17	0.2		<0.20			
Cis-1,2-Dichloroethylene	17	0.5		<0.50			
Trans-1,2-Dichloroethylene	17	0.5		<0.50			
1,2-Dichloropropane	140	0.2		<0.20			
Cis-1,3-Dichloropropylene	NV	0.3		<0.30			
Trans-1,3-Dichloropropylene	NV	0.4		<0.40			
Ethylbenzene	2300	0.2		<0.20			
Ethylene Dibromide	0.83	0.2		<0.20			
Methyl Ethyl Ketone	1500000	10		<10			
Methylene Chloride	5500	2		<2.0			
Methyl Isobutyl Ketone	580000	5		<5.0			
Methyl-t-Butyl Ether	1400	0.5		<0.50			

			Borehole / Monitoring Well Location	MW-201-19	MW-202-19	MW-203-19	MW-204-19
			Field Sample ID:	GW-44823-180828- 201-002	GW-44823-180828- 202-001	GW-44823-180828- 202-003	GW-44823-180828- 202-004
			Sample Date:	28-Aug-19	28-Aug-19	28-Aug-19	28-Aug-19
PARAMETERS	Standard Table 3 All Uses (Ug/L)	Reporting Limits (Ug/L)					
Styrene	9100	0.5		<0.50			
1,1,1,2-Tetrachloroethane	28	0.5		<0.50			
1,1,2,2-Tetrachloroethane	15	0.5		<0.50			
Toluene	18000	0.2		2			
Tetrachloroethylene	17	0.2		<0.20			
1,1,1-Trichloroethane	6700	0.2		<0.20			
1,1,2-Trichloroethane	30	0.5		<0.50			
Trichloroethylene	17	0.2		<0.20			
Vinyl Chloride	1.7	0.2		<0.20			
m-Xylene & p-Xylene	NV	0.2		<0.20			
o-Xylene	NV	0.2		<0.20			
Total Xylenes	4200	0.2		<0.20			
Dichlorodifluoromethane	4400	1		<1.0			
Dioxane, 1,4-	7300000	-		-			
Hexane(n)	520	1		<1.0			
Trichlorofluoromethane	2500	0.5		<0.50			
1,3-Dichloropropene (cis + trans)	45	0.5		<0.50			
Inorganics In Groundwater							
Antimony	20000	0.5		0.6	0.9	0.79	<0.50
Arsenic	1900	1		2.5	1.6	1.7	<1.0
Barium	29000	2		35	180	340	110
Beryllium	67	0.5		<0.50	<0.50	<0.50	<0.50
Boron	45000	10		1500	200	170	2100
Cadmium	2.7	0.1		<0.10	<0.10	<0.10	<0.10
Chromium	810	5		<5.0	<5.0	<5.0	<5.0
Chromium VI	140	0.5		1.1	<0.50	<0.50	<0.50
Cobalt	66	0.5		<0.50	<0.50	2.3	<0.50

PARAMETERS	Standard Table 3 All Uses (Ug/L)	Reporting Limits (Ug/L)	Borehole / Monitoring Well Location	MW-201-19	MW-202-19	MW-203-19	MW-204-19
			Field Sample ID:	GW-44823-180828- 201-002	GW-44823-180828- 202-001	GW-44823-180828- 202-003	GW-44823-180828- 202-004
			Sample Date:	28-Aug-19	28-Aug-19	28-Aug-19	28-Aug-19
Copper	87	1		<1.0	1	<1.0	<1.0
Lead	25	0.5		<0.50	<0.50	<0.50	<0.50
Mercury	2.8	0.1		<0.1	<0.1	<0.1	<0.1
Molybdenum	9200	0.5		15	17	3.2	8.4
Nickel	490	1		<1.0	<1.0	3.6	<1.0
Sodium	2300000	100		200000	31000	180000	210000
Selenium	63	2		<2.0	<2.0	<2.0	<2.0
Silver	1.5	0.1		<0.10	<0.10	<0.10	<0.10
Thallium	510	0.05		<0.050	<0.050	0.052	<0.050
Vanadium	250	0.5		<0.50	2	0.97	<0.50
Zinc	1100	5		<5.0	<5.0	<5.0	<5.0
Cyanide, Free	66	1		<1	<1	<1	<1
Nitrate (mg/L)	NV	-		-	-	-	-
Nitrite (mg/L)	NV	-		-	-	-	-
Chloride (mg/L)	2300	2		40	20	480	130
Uranium	420	0.1		0.59	2.2	3.7	<0.10
Petroleum Hydrocarbons in Soil, F1 to F4 Fractions In Groundwater							
Benzene	430	0.2		-	<0.20	<0.20	<0.20
Toluene	18000	0.4		-	0.52	<0.40	<0.40
Ethylbenzene	2300	0.2		-	<0.20	<0.20	<0.20
m/p xylenes	NV	0.4		-	<0.40	<0.40	<0.40
o xylene	NV	0.2		-	<0.20	<0.20	<0.20
Total Xylenes	4200	0.4		-	<0.40	<0.40	<0.40
F1 (C6-C10)	750	25		<25	<25	<25	<25
F1 (C6-C10) - BTEX	750	25		<25	<25	<25	<25
F2 (C10-C16)	150	100		<100	<100	<100	<100

			Borehole / Monitoring Well Location	MW-201-19	MW-202-19	MW-203-19	MW-204-19
			Field Sample ID:	GW-44823-180828-201-002	GW-44823-180828-202-001	GW-44823-180828-202-003	GW-44823-180828-202-004
			Sample Date:	28-Aug-19	28-Aug-19	28-Aug-19	28-Aug-19
PARAMETERS	Standard Table 3 All Uses (Ug/L)	Reporting Limits (Ug/L)		<200	<200	<200	<200
F3 (C16-C34)	500	200		<200	<200	<200	<200
F4 (C34-C50)	500	200		<200	<200	<200	<200
Reached Baseline at C50	NV			YES	YES	YES	YES
F4 Gravimetric	500	-		-	-	-	-

XX.XX denotes exceedance of the set standard

Appendix E: 2 BV Lab Data, Chain of Custody



Your Project #: 4483
Site Location: 1381 LAKESHORE ROAD EAST
Your C.O.C. #: 728785-01-01

Attention: Craig Colbourne

Bruce A. Brown Associates Limited
101-102 Aerodrome Cr
Toronto, ON
CANADA M4G 4J4

Report Date: 2019/08/20
Report #: R5846433
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: B9K0206

Received: 2019/07/19, 17:24

Sample Matrix: Soil
Samples Received: 3

Analyses	Date		Date Analyzed	Laboratory Method	Reference
	Quantity	Extracted			
Methylnaphthalene Sum	1	N/A	2019/07/25	CAM SOP-00301	EPA 8270D m
Hot Water Extractable Boron	2	2019/07/23	2019/07/23	CAM SOP-00408	R153 Ana. Prot. 2011
1,3-Dichloropropene Sum	1	N/A	2019/07/26		EPA 8260C m
Free (WAD) Cyanide	2	2019/07/23	2019/07/25	CAM SOP-00457	OMOE E3015 m
Conductivity	2	2019/07/23	2019/07/23	CAM SOP-00414	OMOE E3530 v1 m
Hexavalent Chromium in Soil by IC (1)	2	2019/07/23	2019/07/25	CAM SOP-00436	EPA 3060/7199 m
Petroleum Hydrocarbons F2-F4 in Soil (2)	1	2019/07/22	2019/07/23	CAM SOP-00316	CCME CWS m
Strong Acid Leachable Metals by ICPMS	2	2019/07/22	2019/07/24	CAM SOP-00447	EPA 6020B m
Moisture	3	N/A	2019/07/22	CAM SOP-00445	Carter 2nd ed 51.2 m
PAH Compounds in Soil by GC/MS (SIM)	1	2019/07/24	2019/07/24	CAM SOP-00318	EPA 8270D m
pH CaCl2 EXTRACT	2	2019/07/23	2019/07/23	CAM SOP-00413	EPA 9045 D m
Sodium Adsorption Ratio (SAR)	2	N/A	2019/07/25	CAM SOP-00102	EPA 6010C
Volatile Organic Compounds and F1 PHCs	1	N/A	2019/07/25	CAM SOP-00230	EPA 8260C m

Remarks:

Bureau Veritas Laboratories are accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by BV Labs are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in BV Labs profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and BV Labs in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

BV Labs liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. BV Labs has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by BV Labs, unless otherwise agreed in writing. BV Labs is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by BV Labs, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.



Your Project #: 4483
Site Location: 1381 LAKESHORE ROAD EAST
Your C.O.C. #: 728785-01-01

Attention: Craig Colbourne

Bruce A. Brown Associates Limited
101-102 Aerodrome Cr
Toronto, ON
CANADA M4G 4J4

Report Date: 2019/08/20
Report #: R5846433
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: B9K0206

Received: 2019/07/19, 17:24

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Soils are reported on a dry weight basis unless otherwise specified.

(2) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas Laboratories conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Ronklin Gracian, Project Manager

Email: Ronklin.Gracian@bvlabs.com

Phone# (905)817-5752

=====

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



BUREAU
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BV Labs Job #: B9K0206
Report Date: 2019/08/20

Bruce A. Brown Associates Limited
Client Project #: 4483
Site Location: 1381 LAKESHORE ROAD EAST
Sampler Initials: CC

RESULTS OF ANALYSES OF SOIL

BV Labs ID			KHX081			KHX082	KHX083		
Sampling Date			2019/07/18			2019/07/19	2019/07/19		
COC Number			728785-01-01			728785-01-01	728785-01-01		
	UNITS	Criteria	SOIL-4483-190718-201-001	RDL	QC Batch	SOIL-4483-190719-203-002	SOIL-4483-190719-204-003	RDL	QC Batch
Calculated Parameters									
Sodium Adsorption Ratio	N/A	5.0				6.8	15		6238484
Inorganics									
Conductivity	mS/cm	0.7				0.63	1.7	0.002	6242206
Moisture	%	-	22	1.0	6239852	18	24	1.0	6239852
Available (CaCl2) pH	pH	-				7.62	7.60		6242442
WAD Cyanide (Free)	ug/g	0.051				0.03	0.04	0.01	6242750
No Fill	No Exceedance								
Grey	Exceeds 1 criteria policy/level								
Black	Exceeds both criteria/levels								
RDL = Reportable Detection Limit									
QC Batch = Quality Control Batch									
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)									
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition									
Soil - Residential/Parkland/Institutional Property Use - Medium and Fine Textured Soil									



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VERITAS

BV Labs Job #: B9K0206
Report Date: 2019/08/20

Bruce A. Brown Associates Limited
Client Project #: 4483
Site Location: 1381 LAKESHORE ROAD EAST
Sampler Initials: CC

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

BV Labs ID			KHX082	KHX083		
Sampling Date			2019/07/19	2019/07/19		
COC Number			728785-01-01	728785-01-01		
	UNITS	Criteria	SOIL-4483-190719-203-002	SOIL-4483-190719-204-003	RDL	QC Batch
Inorganics						
Chromium (VI)	ug/g	10	ND	ND	0.2	6242028
Metals						
Hot Water Ext. Boron (B)	ug/g	1.5	0.36	3.0	0.050	6241822
Acid Extractable Antimony (Sb)	ug/g	7.5	ND	0.49	0.20	6240582
Acid Extractable Arsenic (As)	ug/g	18	2.7	4.6	1.0	6240582
Acid Extractable Barium (Ba)	ug/g	390	49	69	0.50	6240582
Acid Extractable Beryllium (Be)	ug/g	5	0.37	0.37	0.20	6240582
Acid Extractable Boron (B)	ug/g	120	ND	9.6	5.0	6240582
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.17	0.41	0.10	6240582
Acid Extractable Chromium (Cr)	ug/g	160	13	18	1.0	6240582
Acid Extractable Cobalt (Co)	ug/g	22	5.3	5.2	0.10	6240582
Acid Extractable Copper (Cu)	ug/g	180	20	22	0.50	6240582
Acid Extractable Lead (Pb)	ug/g	120	17	100	1.0	6240582
Acid Extractable Molybdenum (Mo)	ug/g	6.9	ND	0.64	0.50	6240582
Acid Extractable Nickel (Ni)	ug/g	130	11	12	0.50	6240582
Acid Extractable Selenium (Se)	ug/g	2.4	ND	ND	0.50	6240582
Acid Extractable Silver (Ag)	ug/g	25	ND	ND	0.20	6240582
Acid Extractable Thallium (Tl)	ug/g	1	0.073	0.096	0.050	6240582
Acid Extractable Uranium (U)	ug/g	23	0.36	0.60	0.050	6240582
Acid Extractable Vanadium (V)	ug/g	86	21	23	5.0	6240582
Acid Extractable Zinc (Zn)	ug/g	340	62	100	5.0	6240582
Acid Extractable Mercury (Hg)	ug/g	1.8	0.081	0.080	0.050	6240582
No Fill	No Exceedance					
Grey	Exceeds 1 criteria policy/level					
Black	Exceeds both criteria/levels					
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)						
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition						
Soil - Residential/Parkland/Institutional Property Use - Medium and Fine Textured Soil						
ND = Not detected						



BUREAU
VERITAS

BV Labs Job #: B9K0206
Report Date: 2019/08/20

Bruce A. Brown Associates Limited
Client Project #: 4483
Site Location: 1381 LAKESHORE ROAD EAST
Sampler Initials: CC

SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

BV Labs ID			KHX083		
Sampling Date			2019/07/19		
COC Number			728785-01-01		
	UNITS	Criteria	SOIL-4483-190719-204-003	RDL	QC Batch
Calculated Parameters					
Methylnaphthalene, 2-(1-)	ug/g	3.4	0.047	0.0071	623831
Polyaromatic Hydrocarbons					
Acenaphthene	ug/g	58	0.022	0.0050	6244816
Acenaphthylene	ug/g	0.17	0.0058	0.0050	6244816
Anthracene	ug/g	0.74	0.047	0.0050	6244816
Benzo(a)anthracene	ug/g	0.63	0.17	0.0050	6244816
Benzo(a)pyrene	ug/g	0.3	0.16	0.0050	6244816
Benzo(b/j)fluoranthene	ug/g	0.78	0.23	0.0050	6244816
Benzo(g,h,i)perylene	ug/g	7.8	0.12	0.0050	6244816
Benzo(k)fluoranthene	ug/g	0.78	0.080	0.0050	6244816
Chrysene	ug/g	7.8	0.14	0.0050	6244816
Dibenz(a,h)anthracene	ug/g	0.1	0.029	0.0050	6244816
Fluoranthene	ug/g	0.69	0.34	0.0050	6244816
Fluorene	ug/g	69	0.034	0.0050	6244816
Indeno(1,2,3-cd)pyrene	ug/g	0.48	0.12	0.0050	6244816
1-Methylnaphthalene	ug/g	3.4	0.022	0.0050	6244816
2-Methylnaphthalene	ug/g	3.4	0.024	0.0050	6244816
Naphthalene	ug/g	0.75	0.020	0.0050	6244816
Phenanthrene	ug/g	7.8	0.20	0.0050	6244816
Pyrene	ug/g	78	0.32	0.0050	6244816
Surrogate Recovery (%)					
D10-Anthracene	%	-	84		6244816
D14-Terphenyl (FS)	%	-	95		6244816
D8-Acenaphthylene	%	-	85		6244816
No Fill	No Exceedance				
Grey	Exceeds 1 criteria policy/level				
Black	Exceeds both criteria/levels				
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)					
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition					
Soil - Residential/Parkland/Institutional Property Use - Medium and Fine Textured Soil					



BUREAU
VERITAS

BV Labs Job #: B9K0206
Report Date: 2019/08/20

Bruce A. Brown Associates Limited
Client Project #: 4483
Site Location: 1381 LAKESHORE ROAD EAST
Sampler Initials: CC

VOLATILE ORGANICS BY GC/MS (SOIL)

BV Labs ID			KHX081		
Sampling Date			2019/07/18		
COC Number			728785-01-01		
	UNITS	Criteria	SOIL-4483-190718-201-001	RDL	QC Batch
Calculated Parameters					
1,3-Dichloropropene (cis+trans)	ug/g	0.083	ND	0.050	6237736
Volatile Organics					
Acetone (2-Propanone)	ug/g	28	ND	0.50	6241896
Benzene	ug/g	0.17	ND	0.020	6241896
Bromodichloromethane	ug/g	13	ND	0.050	6241896
Bromoform	ug/g	0.26	ND	0.050	6241896
Bromomethane	ug/g	0.05	ND	0.050	6241896
Carbon Tetrachloride	ug/g	0.12	ND	0.050	6241896
Chlorobenzene	ug/g	2.7	ND	0.050	6241896
Chloroform	ug/g	0.17	ND	0.050	6241896
Dibromochloromethane	ug/g	9.4	ND	0.050	6241896
1,2-Dichlorobenzene	ug/g	4.3	ND	0.050	6241896
1,3-Dichlorobenzene	ug/g	6	ND	0.050	6241896
1,4-Dichlorobenzene	ug/g	0.097	ND	0.050	6241896
Dichlorodifluoromethane (FREON 12)	ug/g	25	ND	0.050	6241896
1,1-Dichloroethane	ug/g	11	ND	0.050	6241896
1,2-Dichloroethane	ug/g	0.05	ND	0.050	6241896
1,1-Dichloroethylene	ug/g	0.05	ND	0.050	6241896
cis-1,2-Dichloroethylene	ug/g	30	ND	0.050	6241896
trans-1,2-Dichloroethylene	ug/g	0.75	ND	0.050	6241896
1,2-Dichloropropane	ug/g	0.085	ND	0.050	6241896
cis-1,3-Dichloropropene	ug/g	0.083	ND	0.030	6241896
trans-1,3-Dichloropropene	ug/g	0.083	ND	0.040	6241896
Ethylbenzene	ug/g	15	ND	0.020	6241896
Ethylene Dibromide	ug/g	0.05	ND	0.050	6241896
Hexane	ug/g	34	ND	0.050	6241896
No Fill	No Exceedance				
Grey	Exceeds 1 criteria policy/level				
Black	Exceeds both criteria/levels				
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)					
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition					
Soil - Residential/Parkland/Institutional Property Use - Medium and Fine Textured Soil					
ND = Not detected					



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VOLATILE ORGANICS BY GC/MS (SOIL)

BV Labs ID			KHX081		
Sampling Date			2019/07/18		
COC Number			728785-01-01		
	UNITS	Criteria	SOIL-4483-190718-201-001	RDL	QC Batch
Methylene Chloride(Dichloromethane)	ug/g	0.96	ND	0.050	6241896
Methyl Ethyl Ketone (2-Butanone)	ug/g	44	ND	0.50	6241896
Methyl Isobutyl Ketone	ug/g	4.3	ND	0.50	6241896
Methyl t-butyl ether (MTBE)	ug/g	1.4	ND	0.050	6241896
Styrene	ug/g	2.2	ND	0.050	6241896
1,1,1,2-Tetrachloroethane	ug/g	0.05	ND	0.050	6241896
1,1,2,2-Tetrachloroethane	ug/g	0.05	ND	0.050	6241896
Tetrachloroethylene	ug/g	2.3	ND	0.050	6241896
Toluene	ug/g	6	ND	0.020	6241896
1,1,1-Trichloroethane	ug/g	3.4	ND	0.050	6241896
1,1,2-Trichloroethane	ug/g	0.05	ND	0.050	6241896
Trichloroethylene	ug/g	0.52	ND	0.050	6241896
Trichlorofluoromethane (FREON 11)	ug/g	5.8	ND	0.050	6241896
Vinyl Chloride	ug/g	0.022	ND	0.020	6241896
p+m-Xylene	ug/g	-	ND	0.020	6241896
o-Xylene	ug/g	-	ND	0.020	6241896
Total Xylenes	ug/g	25	ND	0.020	6241896
F1 (C6-C10)	ug/g	65	360	50	6241896
F1 (C6-C10) - BTEX	ug/g	65	360	50	6241896
Surrogate Recovery (%)					
4-Bromofluorobenzene	%	-	105		6241896
D10-o-Xylene	%	-	112		6241896
D4-1,2-Dichloroethane	%	-	103		6241896
D8-Toluene	%	-	99		6241896
No Fill	No Exceedance				
Grey	Exceeds 1 criteria policy/level				
Black	Exceeds both criteria/levels				
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)					
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition					
Soil - Residential/Parkland/Institutional Property Use - Medium and Fine Textured Soil					
ND = Not detected					



PETROLEUM HYDROCARBONS (CCME)

BV Labs ID			KHX081		
Sampling Date			2019/07/18		
COC Number			728785-01-01		
	UNITS	Criteria	SOIL-4483-190718-201-001	RDL	QC Batch
F2-F4 Hydrocarbons					
F2 (C10-C16 Hydrocarbons)	ug/g	150	120	10	6240843
F3 (C16-C34 Hydrocarbons)	ug/g	1300	ND	50	6240843
F4 (C34-C50 Hydrocarbons)	ug/g	5600	ND	50	6240843
Reached Baseline at C50	ug/g	-	Yes		6240843
Surrogate Recovery (%)					
o-Terphenyl	%	-	102		6240843
No Fill	No Exceedance				
Grey	Exceeds 1 criteria policy/level				
Black	Exceeds both criteria/levels				
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)					
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition					
Soil - Residential/Parkland/Institutional Property Use - Medium and Fine Textured Soil					
ND = Not detected					



GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	5.0°C
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Sample KHX081 [SOIL-4483-190718-201-001] : VOCF1 Analysis: Due to a level of petroleum hydrocarbon compounds beyond the appropriate range, the sample required dilution. The detection limits were adjusted accordingly. In order to meet required regulatory criteria, results for selected compounds (obtained by a separate analysis using an appropriate low dilution) are included in the report.

Results relate only to the items tested.



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BV Labs Job #: B9K0206
Report Date: 2019/08/20

Bruce A. Brown Associates Limited
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Sampler Initials: CC

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6239852	GYA	RPD	Moisture	2019/07/22	5.7		%	20
6240582	DT1	Matrix Spike	Acid Extractable Antimony (Sb)	2019/07/24		96	%	75 - 125
			Acid Extractable Arsenic (As)	2019/07/24		99	%	75 - 125
			Acid Extractable Barium (Ba)	2019/07/24		NC	%	75 - 125
			Acid Extractable Beryllium (Be)	2019/07/24		95	%	75 - 125
			Acid Extractable Boron (B)	2019/07/24		92	%	75 - 125
			Acid Extractable Cadmium (Cd)	2019/07/24		101	%	75 - 125
			Acid Extractable Chromium (Cr)	2019/07/24		99	%	75 - 125
			Acid Extractable Cobalt (Co)	2019/07/24		103	%	75 - 125
			Acid Extractable Copper (Cu)	2019/07/24		98	%	75 - 125
			Acid Extractable Lead (Pb)	2019/07/24		103	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2019/07/24		100	%	75 - 125
			Acid Extractable Nickel (Ni)	2019/07/24		104	%	75 - 125
			Acid Extractable Selenium (Se)	2019/07/24		103	%	75 - 125
			Acid Extractable Silver (Ag)	2019/07/24		103	%	75 - 125
			Acid Extractable Thallium (Tl)	2019/07/24		103	%	75 - 125
			Acid Extractable Uranium (U)	2019/07/24		106	%	75 - 125
			Acid Extractable Vanadium (V)	2019/07/24		105	%	75 - 125
			Acid Extractable Zinc (Zn)	2019/07/24		NC	%	75 - 125
			Acid Extractable Mercury (Hg)	2019/07/24		97	%	75 - 125
6240582	DT1	Spiked Blank	Acid Extractable Antimony (Sb)	2019/07/24		102	%	80 - 120
			Acid Extractable Arsenic (As)	2019/07/24		98	%	80 - 120
			Acid Extractable Barium (Ba)	2019/07/24		96	%	80 - 120
			Acid Extractable Beryllium (Be)	2019/07/24		93	%	80 - 120
			Acid Extractable Boron (B)	2019/07/24		93	%	80 - 120
			Acid Extractable Cadmium (Cd)	2019/07/24		98	%	80 - 120
			Acid Extractable Chromium (Cr)	2019/07/24		100	%	80 - 120
			Acid Extractable Cobalt (Co)	2019/07/24		99	%	80 - 120
			Acid Extractable Copper (Cu)	2019/07/24		99	%	80 - 120
			Acid Extractable Lead (Pb)	2019/07/24		100	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2019/07/24		99	%	80 - 120
			Acid Extractable Nickel (Ni)	2019/07/24		101	%	80 - 120
			Acid Extractable Selenium (Se)	2019/07/24		104	%	80 - 120
			Acid Extractable Silver (Ag)	2019/07/24		99	%	80 - 120
			Acid Extractable Thallium (Tl)	2019/07/24		99	%	80 - 120
			Acid Extractable Uranium (U)	2019/07/24		100	%	80 - 120
			Acid Extractable Vanadium (V)	2019/07/24		99	%	80 - 120
			Acid Extractable Zinc (Zn)	2019/07/24		116	%	80 - 120
			Acid Extractable Mercury (Hg)	2019/07/24		93	%	80 - 120
6240582	DT1	Method Blank	Acid Extractable Antimony (Sb)	2019/07/24	ND, RDL=0.20		ug/g	
			Acid Extractable Arsenic (As)	2019/07/24	ND, RDL=1.0		ug/g	
			Acid Extractable Barium (Ba)	2019/07/24	ND, RDL=0.50		ug/g	
			Acid Extractable Beryllium (Be)	2019/07/24	ND, RDL=0.20		ug/g	
			Acid Extractable Boron (B)	2019/07/24	ND, RDL=5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2019/07/24	ND, RDL=0.10		ug/g	



BUREAU
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Report Date: 2019/08/20

Bruce A. Brown Associates Limited
Client Project #: 4483
Site Location: 1381 LAKESHORE ROAD EAST
Sampler Initials: CC

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6240582	DT1	RPD	Acid Extractable Chromium (Cr)	2019/07/24	ND, RDL=1.0		ug/g	
			Acid Extractable Cobalt (Co)	2019/07/24	ND, RDL=0.10		ug/g	
			Acid Extractable Copper (Cu)	2019/07/24	ND, RDL=0.50		ug/g	
			Acid Extractable Lead (Pb)	2019/07/24	ND, RDL=1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2019/07/24	ND, RDL=0.50		ug/g	
			Acid Extractable Nickel (Ni)	2019/07/24	ND, RDL=0.50		ug/g	
			Acid Extractable Selenium (Se)	2019/07/24	ND, RDL=0.50		ug/g	
			Acid Extractable Silver (Ag)	2019/07/24	ND, RDL=0.20		ug/g	
			Acid Extractable Thallium (Tl)	2019/07/24	ND, RDL=0.050		ug/g	
			Acid Extractable Uranium (U)	2019/07/24	ND, RDL=0.050		ug/g	
			Acid Extractable Vanadium (V)	2019/07/24	ND, RDL=5.0		ug/g	
			Acid Extractable Zinc (Zn)	2019/07/24	ND, RDL=5.0		ug/g	
			Acid Extractable Mercury (Hg)	2019/07/24	ND, RDL=0.050		ug/g	
			Acid Extractable Antimony (Sb)	2019/07/24	11		%	30
			Acid Extractable Arsenic (As)	2019/07/24	9.8		%	30
6240843	DPO	Matrix Spike	Acid Extractable Barium (Ba)	2019/07/24	6.3		%	30
			Acid Extractable Beryllium (Be)	2019/07/24	2.1		%	30
			Acid Extractable Boron (B)	2019/07/24	0.15		%	30
			Acid Extractable Cadmium (Cd)	2019/07/24	18		%	30
			Acid Extractable Chromium (Cr)	2019/07/24	3.6		%	30
			Acid Extractable Cobalt (Co)	2019/07/24	0.89		%	30
			Acid Extractable Copper (Cu)	2019/07/24	1.5		%	30
			Acid Extractable Lead (Pb)	2019/07/24	2.7		%	30
			Acid Extractable Molybdenum (Mo)	2019/07/24	7.3		%	30
			Acid Extractable Nickel (Ni)	2019/07/24	4.5		%	30
			Acid Extractable Selenium (Se)	2019/07/24	NC		%	30
			Acid Extractable Silver (Ag)	2019/07/24	NC		%	30
			Acid Extractable Thallium (Tl)	2019/07/24	3.8		%	30
			Acid Extractable Uranium (U)	2019/07/24	0.44		%	30
			Acid Extractable Vanadium (V)	2019/07/24	1.9		%	30
6240843	DPO	Spiked Blank	Acid Extractable Zinc (Zn)	2019/07/24	1.2		%	30
			Acid Extractable Mercury (Hg)	2019/07/24	NC		%	30
			o-Terphenyl	2019/07/23		98	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2019/07/23		105	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2019/07/23		98	%	50 - 130
6240843	DPO	Spiked Blank	F4 (C34-C50 Hydrocarbons)	2019/07/23		102	%	50 - 130
			o-Terphenyl	2019/07/23		98	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2019/07/23		104	%	80 - 120
			F3 (C16-C34 Hydrocarbons)	2019/07/23		98	%	80 - 120



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Sampler Initials: CC

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6240843	DPO	Method Blank	F4 (C34-C50 Hydrocarbons)	2019/07/23		101	%	80 - 120
			o-Terphenyl	2019/07/23		96	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2019/07/23	ND, RDL=10		ug/g	
			F3 (C16-C34 Hydrocarbons)	2019/07/23	ND, RDL=50		ug/g	
6240843	DPO	RPD	F4 (C34-C50 Hydrocarbons)	2019/07/23	ND, RDL=50		ug/g	
			F2 (C10-C16 Hydrocarbons)	2019/07/23	NC		%	30
			F3 (C16-C34 Hydrocarbons)	2019/07/23	NC		%	30
			F4 (C34-C50 Hydrocarbons)	2019/07/23	NC		%	30
6241822	APT	Matrix Spike	Hot Water Ext. Boron (B)	2019/07/23		98	%	75 - 125
6241822	APT	Spiked Blank	Hot Water Ext. Boron (B)	2019/07/23		105	%	75 - 125
6241822	APT	Method Blank	Hot Water Ext. Boron (B)	2019/07/23	ND, RDL=0.050		ug/g	
6241822	APT	RPD	Hot Water Ext. Boron (B)	2019/07/23	8.9		%	40
6241896	AYA	Matrix Spike	4-Bromofluorobenzene	2019/07/25		98	%	60 - 140
			D10-o-Xylene	2019/07/25		106	%	60 - 130
			D4-1,2-Dichloroethane	2019/07/25		102	%	60 - 140
			D8-Toluene	2019/07/25		101	%	60 - 140
			Acetone (2-Propanone)	2019/07/25		103	%	60 - 140
			Benzene	2019/07/25		90	%	60 - 140
			Bromodichloromethane	2019/07/25		89	%	60 - 140
			Bromoform	2019/07/25		92	%	60 - 140
			Bromomethane	2019/07/25		132	%	60 - 140
			Carbon Tetrachloride	2019/07/25		88	%	60 - 140
			Chlorobenzene	2019/07/25		88	%	60 - 140
			Chloroform	2019/07/25		87	%	60 - 140
			Dibromochloromethane	2019/07/25		94	%	60 - 140
			1,2-Dichlorobenzene	2019/07/25		83	%	60 - 140
			1,3-Dichlorobenzene	2019/07/25		83	%	60 - 140
			1,4-Dichlorobenzene	2019/07/25		89	%	60 - 140
			Dichlorodifluoromethane (FREON 12)	2019/07/25		97	%	60 - 140
			1,1-Dichloroethane	2019/07/25		92	%	60 - 140
			1,2-Dichloroethane	2019/07/25		94	%	60 - 140
			1,1-Dichloroethylene	2019/07/25		101	%	60 - 140
			cis-1,2-Dichloroethylene	2019/07/25		84	%	60 - 140
			trans-1,2-Dichloroethylene	2019/07/25		86	%	60 - 140
			1,2-Dichloropropane	2019/07/25		89	%	60 - 140
			cis-1,3-Dichloropropene	2019/07/25		88	%	60 - 140
			trans-1,3-Dichloropropene	2019/07/25		91	%	60 - 140
			Ethylbenzene	2019/07/25		87	%	60 - 140
			Ethylene Dibromide	2019/07/25		94	%	60 - 140
			Hexane	2019/07/25		97	%	60 - 140
			Methylene Chloride(Dichloromethane)	2019/07/25		86	%	60 - 140
			Methyl Ethyl Ketone (2-Butanone)	2019/07/25		93	%	60 - 140
			Methyl Isobutyl Ketone	2019/07/25		94	%	60 - 140
			Methyl t-butyl ether (MTBE)	2019/07/25		86	%	60 - 140
			Styrene	2019/07/25		86	%	60 - 140
			1,1,1,2-Tetrachloroethane	2019/07/25		92	%	60 - 140
			1,1,2,2-Tetrachloroethane	2019/07/25		94	%	60 - 140



BUREAU
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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6241896	AYA	Spiked Blank	Tetrachloroethylene	2019/07/25		81	%	60 - 140
			Toluene	2019/07/25		88	%	60 - 140
			1,1,1-Trichloroethane	2019/07/25		89	%	60 - 140
			1,1,2-Trichloroethane	2019/07/25		98	%	60 - 140
			Trichloroethylene	2019/07/25		88	%	60 - 140
			Trichlorofluoromethane (FREON 11)	2019/07/25		103	%	60 - 140
			Vinyl Chloride	2019/07/25		105	%	60 - 140
			p+m-Xylene	2019/07/25		88	%	60 - 140
			o-Xylene	2019/07/25		89	%	60 - 140
			F1 (C6-C10)	2019/07/25		102	%	60 - 140
			4-Bromofluorobenzene	2019/07/25		99	%	60 - 140
			D10-o-Xylene	2019/07/25		95	%	60 - 130
			D4-1,2-Dichloroethane	2019/07/25		103	%	60 - 140
			D8-Toluene	2019/07/25		101	%	60 - 140
			Acetone (2-Propanone)	2019/07/25		98	%	60 - 140
			Benzene	2019/07/25		90	%	60 - 130
			Bromodichloromethane	2019/07/25		89	%	60 - 130
			Bromoform	2019/07/25		90	%	60 - 130
			Bromomethane	2019/07/25		132	%	60 - 140
			Carbon Tetrachloride	2019/07/25		87	%	60 - 130
			Chlorobenzene	2019/07/25		86	%	60 - 130
			Chloroform	2019/07/25		87	%	60 - 130
			Dibromochloromethane	2019/07/25		93	%	60 - 130
			1,2-Dichlorobenzene	2019/07/25		82	%	60 - 130
			1,3-Dichlorobenzene	2019/07/25		82	%	60 - 130
			1,4-Dichlorobenzene	2019/07/25		87	%	60 - 130
			Dichlorodifluoromethane (FREON 12)	2019/07/25		96	%	60 - 140
			1,1-Dichloroethane	2019/07/25		92	%	60 - 130
			1,2-Dichloroethane	2019/07/25		94	%	60 - 130
			1,1-Dichloroethylene	2019/07/25		100	%	60 - 130
			cis-1,2-Dichloroethylene	2019/07/25		84	%	60 - 130
			trans-1,2-Dichloroethylene	2019/07/25		86	%	60 - 130
			1,2-Dichloropropane	2019/07/25		88	%	60 - 130
			cis-1,3-Dichloropropene	2019/07/25		88	%	60 - 130
			trans-1,3-Dichloropropene	2019/07/25		90	%	60 - 130
			Ethylbenzene	2019/07/25		85	%	60 - 130
			Ethylene Dibromide	2019/07/25		92	%	60 - 130
			Hexane	2019/07/25		96	%	60 - 130
			Methylene Chloride(Dichloromethane)	2019/07/25		86	%	60 - 130
			Methyl Ethyl Ketone (2-Butanone)	2019/07/25		89	%	60 - 140
			Methyl Isobutyl Ketone	2019/07/25		92	%	60 - 130
			Methyl t-butyl ether (MTBE)	2019/07/25		86	%	60 - 130
			Styrene	2019/07/25		84	%	60 - 130
			1,1,1,2-Tetrachloroethane	2019/07/25		90	%	60 - 130
			1,1,2,2-Tetrachloroethane	2019/07/25		91	%	60 - 130
			Tetrachloroethylene	2019/07/25		79	%	60 - 130
			Toluene	2019/07/25		87	%	60 - 130
			1,1,1-Trichloroethane	2019/07/25		88	%	60 - 130
			1,1,2-Trichloroethane	2019/07/25		96	%	60 - 130
			Trichloroethylene	2019/07/25		88	%	60 - 130
			Trichlorofluoromethane (FREON 11)	2019/07/25		103	%	60 - 130



BUREAU
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Bruce A. Brown Associates Limited
Client Project #: 4483
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Sampler Initials: CC

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6241896	AYA	Method Blank	Vinyl Chloride	2019/07/25		105	%	60 - 130
			p+m-Xylene	2019/07/25		86	%	60 - 130
			o-Xylene	2019/07/25		87	%	60 - 130
			F1 (C6-C10)	2019/07/25		92	%	80 - 120
			4-Bromofluorobenzene	2019/07/25		98	%	60 - 140
			D10-o-Xylene	2019/07/25		107	%	60 - 130
			D4-1,2-Dichloroethane	2019/07/25		103	%	60 - 140
			D8-Toluene	2019/07/25		103	%	60 - 140
			Acetone (2-Propanone)	2019/07/25	ND, RDL=0.50		ug/g	
			Benzene	2019/07/25	ND, RDL=0.020		ug/g	
			Bromodichloromethane	2019/07/25	ND, RDL=0.050		ug/g	
			Bromoform	2019/07/25	ND, RDL=0.050		ug/g	
			Bromomethane	2019/07/25	ND, RDL=0.050		ug/g	
			Carbon Tetrachloride	2019/07/25	ND, RDL=0.050		ug/g	
			Chlorobenzene	2019/07/25	ND, RDL=0.050		ug/g	
			Chloroform	2019/07/25	ND, RDL=0.050		ug/g	
			Dibromochloromethane	2019/07/25	ND, RDL=0.050		ug/g	
			1,2-Dichlorobenzene	2019/07/25	ND, RDL=0.050		ug/g	
			1,3-Dichlorobenzene	2019/07/25	ND, RDL=0.050		ug/g	
			1,4-Dichlorobenzene	2019/07/25	ND, RDL=0.050		ug/g	
			Dichlorodifluoromethane (FREON 12)	2019/07/25	ND, RDL=0.050		ug/g	
			1,1-Dichloroethane	2019/07/25	ND, RDL=0.050		ug/g	
			1,2-Dichloroethane	2019/07/25	ND, RDL=0.050		ug/g	
			1,1-Dichloroethylene	2019/07/25	ND, RDL=0.050		ug/g	
			cis-1,2-Dichloroethylene	2019/07/25	ND, RDL=0.050		ug/g	
			trans-1,2-Dichloroethylene	2019/07/25	ND, RDL=0.050		ug/g	
			1,2-Dichloropropane	2019/07/25	ND, RDL=0.050		ug/g	
			cis-1,3-Dichloropropene	2019/07/25	ND, RDL=0.030		ug/g	
			trans-1,3-Dichloropropene	2019/07/25	ND, RDL=0.040		ug/g	
			Ethylbenzene	2019/07/25	ND, RDL=0.020		ug/g	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Ethylene Dibromide	2019/07/25	ND, RDL=0.050		ug/g	
			Hexane	2019/07/25	ND, RDL=0.050		ug/g	
			Methylene Chloride(Dichloromethane)	2019/07/25	ND, RDL=0.050		ug/g	
			Methyl Ethyl Ketone (2-Butanone)	2019/07/25	ND, RDL=0.50		ug/g	
			Methyl Isobutyl Ketone	2019/07/25	ND, RDL=0.50		ug/g	
			Methyl t-butyl ether (MTBE)	2019/07/25	ND, RDL=0.050		ug/g	
			Styrene	2019/07/25	ND, RDL=0.050		ug/g	
			1,1,1,2-Tetrachloroethane	2019/07/25	ND, RDL=0.050		ug/g	
			1,1,2,2-Tetrachloroethane	2019/07/25	ND, RDL=0.050		ug/g	
			Tetrachloroethylene	2019/07/25	ND, RDL=0.050		ug/g	
			Toluene	2019/07/25	ND, RDL=0.020		ug/g	
			1,1,1-Trichloroethane	2019/07/25	ND, RDL=0.050		ug/g	
			1,1,2-Trichloroethane	2019/07/25	ND, RDL=0.050		ug/g	
			Trichloroethylene	2019/07/25	ND, RDL=0.050		ug/g	
			Trichlorofluoromethane (FREON 11)	2019/07/25	ND, RDL=0.050		ug/g	
			Vinyl Chloride	2019/07/25	ND, RDL=0.020		ug/g	
			p+m-Xylene	2019/07/25	ND, RDL=0.020		ug/g	
			o-Xylene	2019/07/25	ND, RDL=0.020		ug/g	
			Total Xylenes	2019/07/25	ND, RDL=0.020		ug/g	
			F1 (C6-C10)	2019/07/25	ND, RDL=10		ug/g	
			F1 (C6-C10) - BTEX	2019/07/25	ND, RDL=10		ug/g	
6241896	AYA	RPD	Acetone (2-Propanone)	2019/07/25	NC		%	50
			Benzene	2019/07/25	NC		%	50
			Bromodichloromethane	2019/07/25	NC		%	50
			Bromoform	2019/07/25	NC		%	50
			Bromomethane	2019/07/25	NC		%	50
			Carbon Tetrachloride	2019/07/25	NC		%	50
			Chlorobenzene	2019/07/25	NC		%	50
			Chloroform	2019/07/25	NC		%	50
			Dibromochloromethane	2019/07/25	NC		%	50
			1,2-Dichlorobenzene	2019/07/25	NC		%	50

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			1,3-Dichlorobenzene	2019/07/25	NC		%	50
			1,4-Dichlorobenzene	2019/07/25	NC		%	50
			Dichlorodifluoromethane (FREON 12)	2019/07/25	NC		%	50
			1,1-Dichloroethane	2019/07/25	NC		%	50
			1,2-Dichloroethane	2019/07/25	NC		%	50
			1,1-Dichloroethylene	2019/07/25	NC		%	50
			cis-1,2-Dichloroethylene	2019/07/25	NC		%	50
			trans-1,2-Dichloroethylene	2019/07/25	NC		%	50
			1,2-Dichloropropane	2019/07/25	NC		%	50
			cis-1,3-Dichloropropene	2019/07/25	NC		%	50
			trans-1,3-Dichloropropene	2019/07/25	NC		%	50
			Ethylbenzene	2019/07/25	NC		%	50
			Ethylene Dibromide	2019/07/25	NC		%	50
			Hexane	2019/07/25	NC		%	50
			Methylene Chloride(Dichloromethane)	2019/07/25	NC		%	50
			Methyl Ethyl Ketone (2-Butanone)	2019/07/25	NC		%	50
			Methyl Isobutyl Ketone	2019/07/25	NC		%	50
			Methyl t-butyl ether (MTBE)	2019/07/25	NC		%	50
			Styrene	2019/07/25	NC		%	50
			1,1,1,2-Tetrachloroethane	2019/07/25	NC		%	50
			1,1,2,2-Tetrachloroethane	2019/07/25	NC		%	50
			Tetrachloroethylene	2019/07/25	NC		%	50
			Toluene	2019/07/25	NC		%	50
			1,1,1-Trichloroethane	2019/07/25	NC		%	50
			1,1,2-Trichloroethane	2019/07/25	NC		%	50
			Trichloroethylene	2019/07/25	NC		%	50
			Trichlorofluoromethane (FREON 11)	2019/07/25	NC		%	50
			Vinyl Chloride	2019/07/25	NC		%	50
			p+m-Xylene	2019/07/25	NC		%	50
			o-Xylene	2019/07/25	NC		%	50
			Total Xylenes	2019/07/25	NC		%	50
			F1 (C6-C10)	2019/07/25	NC		%	30
			F1 (C6-C10) - BTEX	2019/07/25	NC		%	30
6242028	RSU	Matrix Spike	Chromium (VI)	2019/07/25		84	%	70 - 130
6242028	RSU	Spiked Blank	Chromium (VI)	2019/07/25		95	%	80 - 120
6242028	RSU	Method Blank	Chromium (VI)	2019/07/25	ND, RDL=0.2		ug/g	
6242028	RSU	RPD	Chromium (VI)	2019/07/25	NC		%	35
6242206	KAD	Spiked Blank	Conductivity	2019/07/23		104	%	90 - 110
6242206	KAD	Method Blank	Conductivity	2019/07/23	ND, RDL=0.002		mS/cm	
6242206	KAD	RPD	Conductivity	2019/07/23	0.058		%	10
6242442	NYS	Spiked Blank	Available (CaCl2) pH	2019/07/23		100	%	97 - 103
6242442	NYS	RPD	Available (CaCl2) pH	2019/07/23	0.16		%	N/A
6242750	BKE	Matrix Spike	WAD Cyanide (Free)	2019/07/25		98	%	75 - 125
6242750	BKE	Spiked Blank	WAD Cyanide (Free)	2019/07/25		101	%	80 - 120
6242750	BKE	Method Blank	WAD Cyanide (Free)	2019/07/25	ND, RDL=0.01		ug/g	
6242750	BKE	RPD	WAD Cyanide (Free)	2019/07/25	NC		%	35
6244816	LFE	Matrix Spike	D10-Anthracene	2019/07/24		84	%	50 - 130
			D14-Terphenyl (FS)	2019/07/24		95	%	50 - 130



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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6244816	LFE	Spiked Blank	D8-Acenaphthylene	2019/07/24		83	%	50 - 130
			Acenaphthene	2019/07/24		94	%	50 - 130
			Acenaphthylene	2019/07/24		91	%	50 - 130
			Anthracene	2019/07/24		84	%	50 - 130
			Benzo(a)anthracene	2019/07/24		99	%	50 - 130
			Benzo(a)pyrene	2019/07/24		85	%	50 - 130
			Benzo(b/j)fluoranthene	2019/07/24		78	%	50 - 130
			Benzo(g,h,i)perylene	2019/07/24		82	%	50 - 130
			Benzo(k)fluoranthene	2019/07/24		85	%	50 - 130
			Chrysene	2019/07/24		89	%	50 - 130
			Dibenz(a,h)anthracene	2019/07/24		90	%	50 - 130
			Fluoranthene	2019/07/24		108	%	50 - 130
			Fluorene	2019/07/24		98	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2019/07/24		83	%	50 - 130
			1-Methylnaphthalene	2019/07/24		109	%	50 - 130
			2-Methylnaphthalene	2019/07/24		99	%	50 - 130
			Naphthalene	2019/07/24		86	%	50 - 130
			Phenanthrene	2019/07/24		90	%	50 - 130
			Pyrene	2019/07/24		102	%	50 - 130
			D10-Anthracene	2019/07/24		88	%	50 - 130
			D14-Terphenyl (FS)	2019/07/24		96	%	50 - 130
			D8-Acenaphthylene	2019/07/24		84	%	50 - 130
			Acenaphthene	2019/07/24		93	%	50 - 130
			Acenaphthylene	2019/07/24		90	%	50 - 130
			Anthracene	2019/07/24		83	%	50 - 130
			Benzo(a)anthracene	2019/07/24		94	%	50 - 130
			Benzo(a)pyrene	2019/07/24		87	%	50 - 130
			Benzo(b/j)fluoranthene	2019/07/24		84	%	50 - 130
			Benzo(g,h,i)perylene	2019/07/24		87	%	50 - 130
			Benzo(k)fluoranthene	2019/07/24		89	%	50 - 130
			Chrysene	2019/07/24		88	%	50 - 130
			Dibenz(a,h)anthracene	2019/07/24		88	%	50 - 130
			Fluoranthene	2019/07/24		105	%	50 - 130
			Fluorene	2019/07/24		94	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2019/07/24		89	%	50 - 130
			1-Methylnaphthalene	2019/07/24		111	%	50 - 130
			2-Methylnaphthalene	2019/07/24		100	%	50 - 130
			Naphthalene	2019/07/24		85	%	50 - 130
			Phenanthrene	2019/07/24		88	%	50 - 130
			Pyrene	2019/07/24		100	%	50 - 130
6244816	LFE	Method Blank	D10-Anthracene	2019/07/24		83	%	50 - 130
			D14-Terphenyl (FS)	2019/07/24		92	%	50 - 130
			D8-Acenaphthylene	2019/07/24		78	%	50 - 130
			Acenaphthene	2019/07/24	ND, RDL=0.0050		ug/g	
			Acenaphthylene	2019/07/24	ND, RDL=0.0050		ug/g	
			Anthracene	2019/07/24	ND, RDL=0.0050		ug/g	
			Benzo(a)anthracene	2019/07/24	ND, RDL=0.0050		ug/g	



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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6244816	LFE	RPD	Benzo(a)pyrene	2019/07/24	ND, RDL=0.0050		ug/g	
			Benzo(b/j)fluoranthene	2019/07/24	ND, RDL=0.0050		ug/g	
			Benzo(g,h,i)perylene	2019/07/24	ND, RDL=0.0050		ug/g	
			Benzo(k)fluoranthene	2019/07/24	ND, RDL=0.0050		ug/g	
			Chrysene	2019/07/24	ND, RDL=0.0050		ug/g	
			Dibenz(a,h)anthracene	2019/07/24	ND, RDL=0.0050		ug/g	
			Fluoranthene	2019/07/24	ND, RDL=0.0050		ug/g	
			Fluorene	2019/07/24	ND, RDL=0.0050		ug/g	
			Indeno(1,2,3-cd)pyrene	2019/07/24	ND, RDL=0.0050		ug/g	
			1-Methylnaphthalene	2019/07/24	ND, RDL=0.0050		ug/g	
			2-Methylnaphthalene	2019/07/24	ND, RDL=0.0050		ug/g	
			Naphthalene	2019/07/24	ND, RDL=0.0050		ug/g	
			Phenanthrene	2019/07/24	ND, RDL=0.0050		ug/g	
			Pyrene	2019/07/24	ND, RDL=0.0050		ug/g	
			Acenaphthene	2019/07/24	NC		%	40
			Acenaphthylene	2019/07/24	NC		%	40
			Anthracene	2019/07/24	NC		%	40
			Benzo(a)anthracene	2019/07/24	NC		%	40
			Benzo(a)pyrene	2019/07/24	NC		%	40
			Benzo(b/j)fluoranthene	2019/07/24	NC		%	40
			Benzo(g,h,i)perylene	2019/07/24	NC		%	40
			Benzo(k)fluoranthene	2019/07/24	NC		%	40
			Chrysene	2019/07/24	5.3		%	40
			Dibenz(a,h)anthracene	2019/07/24	NC		%	40
			Fluoranthene	2019/07/24	NC		%	40
			Fluorene	2019/07/24	NC		%	40
			Indeno(1,2,3-cd)pyrene	2019/07/24	NC		%	40
			1-Methylnaphthalene	2019/07/24	2.2		%	40
			2-Methylnaphthalene	2019/07/24	2.2		%	40
			Naphthalene	2019/07/24	5.9		%	40
			Phenanthrene	2019/07/24	2.3		%	40



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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Pyrene	2019/07/24	12		%	40
N/A = Not Applicable								
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.								
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.								
Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.								
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.								
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.								
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)								
NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).								



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VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Ewa Pranjić, M.Sc., C.Chem, Scientific Specialist

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



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Exceedence Summary Table – Reg153/04 T3-Soil/Res-F/M
Result Exceedences

Sample ID	BV Labs ID	Parameter	Criteria	Result	DL	Units
SOIL-4483-190718-201-001	KHX081-02	F1 (C6-C10)	65	360	50	ug/g
SOIL-4483-190718-201-001	KHX081-02	F1 (C6-C10) - BTEX	65	360	50	ug/g
SOIL-4483-190719-203-002	KHX082-01	Sodium Adsorption Ratio	5.0	6.8		N/A
SOIL-4483-190719-204-003	KHX083-01	Hot Water Ext. Boron (B)	1.5	3.0	0.050	ug/g
SOIL-4483-190719-204-003	KHX083-01	Conductivity	0.7	1.7	0.002	mS/cm
SOIL-4483-190719-204-003	KHX083-01	Sodium Adsorption Ratio	5.0	15		N/A

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.



Bureau Veritas Laboratories
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: (905) 817-5700 Toll-free 800-563-6266 Fax: (905) 817-5777 www.bvlab.com

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19-Jul-19 17:24

Ronkin Gracian

B9K0206

HGL env-1303

Bottle Order #:

728785

Project Manager:

Ronkin Gracian

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:	
Company Name:	#29111 Bruce A. Brown Associates Limited	Company Name:		Quotation #:	B44941
Attention:	Cheryl Curtis	Attention:	Craig Colbourne	P.O. #:	
Address:	101-102 Aerodrome Cr Toronto ON M4G 4J4	Address:		Project:	4483
Tel:	(416) 424-3355	Tel:	(416) 424-3355	Project Name:	
Email:	cheryl@brownassociates.ca	Email:	craig@brownassociates.ca; bruce@brownassociates.ca	Site #:	1381 Lakeshore Road east
				Sampled By:	

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)			Other Regulations		Special Instructions	
<input type="checkbox"/> Table 1	<input checked="" type="checkbox"/> Res/Park	<input checked="" type="checkbox"/> Medium/Fine	<input type="checkbox"/> CCME	<input type="checkbox"/> Sanitary Sewer Bylaw		
<input type="checkbox"/> Table 2	<input type="checkbox"/> Ind/Comm	<input type="checkbox"/> Coarse	<input type="checkbox"/> Reg 558	<input type="checkbox"/> Storm Sewer Bylaw		
<input checked="" type="checkbox"/> Table 3	<input type="checkbox"/> Agri/Other	<input type="checkbox"/> For RSC	<input type="checkbox"/> MISA	Municipality		
<input type="checkbox"/> Table			<input type="checkbox"/> PWQO			
<input type="checkbox"/> Table			<input type="checkbox"/> Other			

Include Criteria on Certificate of Analysis (Y/N)?					
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	
1	SoiL-4483-190719 201-001	2019/7/19	AM	SoiL	X
2	SoiL-4483-190719 203-002	2019/7/19	AM	↓	X
3	SoiL-4483-190719 204-003	↓	PM	↓	X X
4					
5					
6					
7					
8					
9					
10					

RELINQUISHED BY: (Signature/Print)		Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)		Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only	
C.C. Brown		19/07/19	17:25	KATE FLEMING		19/07/19	17:24		Time Sensitive	Temperature (°C) on Receipt
										3/14/18 JLC

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

Bureau Veritas Canada (2019) Inc.

No broken jars



Your Project #: 4483
Site Location: 1381 LAKESHORE EAST
Your C.O.C. #: 734736-01-01

Attention: Craig Colbourne

Bruce A. Brown Associates Limited
101-102 Aerodrome Cr
Toronto, ON
CANADA M4G 4J4

Report Date: 2019/09/17
Report #: R5883224
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: B9O0525

Received: 2019/08/28, 15:06

Sample Matrix: Water
Samples Received: 4

Analyses	Date		Laboratory Method	Reference
	Quantity	Extracted Analyzed		
1,3-Dichloropropene Sum	1	N/A	2019/09/03	EPA 8260C m
Chloride by Automated Colourimetry	4	N/A	2019/08/30 CAM SOP-00463	SM 23 4500-Cl E m
Chromium (VI) in Water	4	N/A	2019/09/03 CAM SOP-00436	EPA 7199 m
Free (WAD) Cyanide	4	N/A	2019/08/29 CAM SOP-00457	OMOE E3015 m
Petroleum Hydro. CCME F1 & BTEX in Water	3	N/A	2019/09/04 CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (1)	4	2019/09/03	2019/09/04 CAM SOP-00316	CCME PHC-CWS m
Mercury	2	2019/08/29	2019/08/29 CAM SOP-00453	EPA 7470A m
Mercury	2	2019/08/30	2019/08/30 CAM SOP-00453	EPA 7470A m
Dissolved Metals by ICPMS	4	N/A	2019/09/03 CAM SOP-00447	EPA 6020B m
Volatile Organic Compounds and F1 PHCs	1	N/A	2019/08/30 CAM SOP-00230	EPA 8260C m

Remarks:

Bureau Veritas Laboratories are accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by BV Labs are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in BV Labs profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and BV Labs in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

BV Labs liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. BV Labs has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by BV Labs, unless otherwise agreed in writing. BV Labs is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by BV Labs, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas Laboratories conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta



Your Project #: 4483
Site Location: 1381 LAKESHORE EAST
Your C.O.C. #: 734736-01-01

Attention: Craig Colbourne

Bruce A. Brown Associates Limited
101-102 Aerodrome Cr
Toronto, ON
CANADA M4G 4J4

Report Date: 2019/09/17
Report #: R5883224
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: B9O0525

Received: 2019/08/28, 15:06

Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Ronklin Gracian, Project Manager
Email: Ronklin.Gracian@bvlabs.com
Phone# (905)817-5752

=====

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



BUREAU
VERITAS

BV Labs Job #: B900525
Report Date: 2019/09/17

Bruce A. Brown Associates Limited
Client Project #: 4483
Site Location: 1381 LAKESHORE EAST
Sampler Initials: CB

RESULTS OF ANALYSES OF WATER

BV Labs ID			KQJ444	KQJ445		KQJ446		
Sampling Date			2019/08/25	2019/08/25		2019/08/25		
COC Number			734736-01-01	734736-01-01		734736-01-01		
	UNITS	Criteria	GW-44823-180828-202-001	GW-44823-180828-202-002	RDL	GW-44823-180828-202-003	RDL	QC Batch
Inorganics								
WAD Cyanide (Free)	ug/L	66	ND	ND	1	ND	1	6306573
Dissolved Chloride (Cl-)	mg/L	2300	20	40	1.0	480	5.0	6307299
No Fill	No Exceedance							
Grey	Exceeds 1 criteria policy/level							
Black	Exceeds both criteria/levels							
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)								
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition								
Non- Potable Ground Water - All Types of Property Uses - Coarse Textured Soil								
ND = Not detected								

BV Labs ID			KQJ447			KQJ447		
Sampling Date			2019/08/25			2019/08/25		
COC Number			734736-01-01			734736-01-01		
	UNITS	Criteria	GW-44823-180828-202-004	RDL	QC Batch	GW-44823-180828-202-004 Lab-Dup	RDL	QC Batch
Inorganics								
WAD Cyanide (Free)	ug/L	66	ND	1	6306573	ND	1	6306573
Dissolved Chloride (Cl-)	mg/L	2300	130	2.0	6307299			
No Fill	No Exceedance							
Grey	Exceeds 1 criteria policy/level							
Black	Exceeds both criteria/levels							
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								
Lab-Dup = Laboratory Initiated Duplicate								
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)								
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition								
Non- Potable Ground Water - All Types of Property Uses - Coarse Textured Soil								
ND = Not detected								



BUREAU
VERITAS

BV Labs Job #: B900525
Report Date: 2019/09/17

Bruce A. Brown Associates Limited
Client Project #: 4483
Site Location: 1381 LAKESHORE EAST
Sampler Initials: CB

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID			KQJ444	KQJ445			KQJ445		
Sampling Date			2019/08/25	2019/08/25			2019/08/25		
COC Number			734736-01-01	734736-01-01			734736-01-01		
	UNITS	Criteria	GW-44823-180828-202-001	GW-44823-180828-202-002	RDL	QC Batch	GW-44823-180828-202-002 Lab-Dup	RDL	QC Batch

Metals									
Chromium (VI)	ug/L	140	ND	1.1	0.50	6306836			
Mercury (Hg)	ug/L	0.29	ND	ND	0.1	6306210			
Dissolved Antimony (Sb)	ug/L	20000	0.90	0.60	0.50	6306231	0.54	0.50	6306231
Dissolved Arsenic (As)	ug/L	1900	1.6	2.5	1.0	6306231	2.8	1.0	6306231
Dissolved Barium (Ba)	ug/L	29000	180	35	2.0	6306231	36	2.0	6306231
Dissolved Beryllium (Be)	ug/L	67	ND	ND	0.50	6306231	ND	0.50	6306231
Dissolved Boron (B)	ug/L	45000	200	1500	10	6306231	1400	10	6306231
Dissolved Cadmium (Cd)	ug/L	2.7	ND	ND	0.10	6306231	ND	0.10	6306231
Dissolved Chromium (Cr)	ug/L	810	ND	ND	5.0	6306231	ND	5.0	6306231
Dissolved Cobalt (Co)	ug/L	66	ND	ND	0.50	6306231	ND	0.50	6306231
Dissolved Copper (Cu)	ug/L	87	1.0	ND	1.0	6306231	ND	1.0	6306231
Dissolved Lead (Pb)	ug/L	25	ND	ND	0.50	6306231	ND	0.50	6306231
Dissolved Molybdenum (Mo)	ug/L	9200	17	15	0.50	6306231	15	0.50	6306231
Dissolved Nickel (Ni)	ug/L	490	ND	ND	1.0	6306231	ND	1.0	6306231
Dissolved Selenium (Se)	ug/L	63	ND	ND	2.0	6306231	ND	2.0	6306231
Dissolved Silver (Ag)	ug/L	1.5	ND	ND	0.10	6306231	ND	0.10	6306231
Dissolved Sodium (Na)	ug/L	2300000	31000	200000	100	6306231	200000	100	6306231
Dissolved Thallium (Tl)	ug/L	510	ND	ND	0.050	6306231	ND	0.050	6306231
Dissolved Uranium (U)	ug/L	420	2.2	0.59	0.10	6306231	0.60	0.10	6306231
Dissolved Vanadium (V)	ug/L	250	2.0	ND	0.50	6306231	ND	0.50	6306231
Dissolved Zinc (Zn)	ug/L	1100	ND	ND	5.0	6306231	ND	5.0	6306231

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition

Non- Potable Ground Water - All Types of Property Uses - Coarse Textured Soil

ND = Not detected



BUREAU
VERITAS

BV Labs Job #: B900525
Report Date: 2019/09/17

Bruce A. Brown Associates Limited
Client Project #: 4483
Site Location: 1381 LAKESHORE EAST
Sampler Initials: CB

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID			KQJ446	KQJ447		
Sampling Date			2019/08/25	2019/08/25		
COC Number			734736-01-01	734736-01-01		
	UNITS	Criteria	GW-44823-180828-202-003	GW-44823-180828-202-004	RDL	QC Batch
Metals						
Chromium (VI)	ug/L	140	ND	ND	0.50	6306836
Mercury (Hg)	ug/L	0.29	ND	ND	0.1	6308387
Dissolved Antimony (Sb)	ug/L	20000	0.79	ND	0.50	6306231
Dissolved Arsenic (As)	ug/L	1900	1.7	ND	1.0	6306231
Dissolved Barium (Ba)	ug/L	29000	340	110	2.0	6306231
Dissolved Beryllium (Be)	ug/L	67	ND	ND	0.50	6306231
Dissolved Boron (B)	ug/L	45000	170	2100	10	6306231
Dissolved Cadmium (Cd)	ug/L	2.7	ND	ND	0.10	6306231
Dissolved Chromium (Cr)	ug/L	810	ND	ND	5.0	6306231
Dissolved Cobalt (Co)	ug/L	66	2.3	ND	0.50	6306231
Dissolved Copper (Cu)	ug/L	87	ND	ND	1.0	6306231
Dissolved Lead (Pb)	ug/L	25	ND	ND	0.50	6306231
Dissolved Molybdenum (Mo)	ug/L	9200	3.2	8.4	0.50	6306231
Dissolved Nickel (Ni)	ug/L	490	3.6	ND	1.0	6306231
Dissolved Selenium (Se)	ug/L	63	ND	ND	2.0	6306231
Dissolved Silver (Ag)	ug/L	1.5	ND	ND	0.10	6306231
Dissolved Sodium (Na)	ug/L	2300000	180000	210000	100	6306231
Dissolved Thallium (Tl)	ug/L	510	0.052	ND	0.050	6306231
Dissolved Uranium (U)	ug/L	420	3.7	ND	0.10	6306231
Dissolved Vanadium (V)	ug/L	250	0.97	ND	0.50	6306231
Dissolved Zinc (Zn)	ug/L	1100	ND	ND	5.0	6306231
No Fill	No Exceedance					
Grey	Exceeds 1 criteria policy/level					
Black	Exceeds both criteria/levels					
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)						
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition						
Non- Potable Ground Water - All Types of Property Uses - Coarse Textured Soil						
ND = Not detected						



BUREAU
VERITAS

BV Labs Job #: B900525
Report Date: 2019/09/17

Bruce A. Brown Associates Limited
Client Project #: 4483
Site Location: 1381 LAKESHORE EAST
Sampler Initials: CB

VOLATILE ORGANICS BY GC/MS (WATER)

BV Labs ID			KQJ445		
Sampling Date			2019/08/25		
COC Number			734736-01-01		
	UNITS	Criteria	GW-44823-180828-202-002	RDL	QC Batch
Calculated Parameters					
1,3-Dichloropropene (cis+trans)	ug/L	5.2	ND	0.50	6305497
Volatile Organics					
Acetone (2-Propanone)	ug/L	130000	ND	10	6306195
Benzene	ug/L	44	ND	0.20	6306195
Bromodichloromethane	ug/L	85000	ND	0.50	6306195
Bromoform	ug/L	380	ND	1.0	6306195
Bromomethane	ug/L	5.6	ND	0.50	6306195
Carbon Tetrachloride	ug/L	0.79	ND	0.20	6306195
Chlorobenzene	ug/L	630	ND	0.20	6306195
Chloroform	ug/L	2.4	ND	0.20	6306195
Dibromochloromethane	ug/L	82000	ND	0.50	6306195
1,2-Dichlorobenzene	ug/L	4600	ND	0.50	6306195
1,3-Dichlorobenzene	ug/L	9600	ND	0.50	6306195
1,4-Dichlorobenzene	ug/L	8	ND	0.50	6306195
Dichlorodifluoromethane (FREON 12)	ug/L	4400	ND	1.0	6306195
1,1-Dichloroethane	ug/L	320	ND	0.20	6306195
1,2-Dichloroethane	ug/L	1.6	ND	0.50	6306195
1,1-Dichloroethylene	ug/L	1.6	ND	0.20	6306195
cis-1,2-Dichloroethylene	ug/L	1.6	ND	0.50	6306195
trans-1,2-Dichloroethylene	ug/L	1.6	ND	0.50	6306195
1,2-Dichloropropane	ug/L	16	ND	0.20	6306195
cis-1,3-Dichloropropene	ug/L	5.2	ND	0.30	6306195
trans-1,3-Dichloropropene	ug/L	5.2	ND	0.40	6306195
Ethylbenzene	ug/L	2300	ND	0.20	6306195
Ethylene Dibromide	ug/L	0.25	ND	0.20	6306195
Hexane	ug/L	51	ND	1.0	6306195
Methylene Chloride(Dichloromethane)	ug/L	610	ND	2.0	6306195
No Fill	No Exceedance				
Grey	Exceeds 1 criteria policy/level				
Black	Exceeds both criteria/levels				
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)					
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition					
Non- Potable Ground Water - All Types of Property Uses - Coarse Textured Soil					
ND = Not detected					



BUREAU
VERITAS

BV Labs Job #: B900525
Report Date: 2019/09/17

Bruce A. Brown Associates Limited
Client Project #: 4483
Site Location: 1381 LAKESHORE EAST
Sampler Initials: CB

VOLATILE ORGANICS BY GC/MS (WATER)

BV Labs ID			KQJ445		
Sampling Date			2019/08/25		
COC Number			734736-01-01		
	UNITS	Criteria	GW-44823-180828-202-002	RDL	QC Batch
Methyl Ethyl Ketone (2-Butanone)	ug/L	470000	ND	10	6306195
Methyl Isobutyl Ketone	ug/L	140000	ND	5.0	6306195
Methyl t-butyl ether (MTBE)	ug/L	190	ND	0.50	6306195
Styrene	ug/L	1300	ND	0.50	6306195
1,1,1,2-Tetrachloroethane	ug/L	3.3	ND	0.50	6306195
1,1,2,2-Tetrachloroethane	ug/L	3.2	ND	0.50	6306195
Tetrachloroethylene	ug/L	1.6	ND	0.20	6306195
Toluene	ug/L	18000	2.0	0.20	6306195
1,1,1-Trichloroethane	ug/L	640	ND	0.20	6306195
1,1,2-Trichloroethane	ug/L	4.7	ND	0.50	6306195
Trichloroethylene	ug/L	1.6	ND	0.20	6306195
Trichlorofluoromethane (FREON 11)	ug/L	2500	ND	0.50	6306195
Vinyl Chloride	ug/L	0.5	ND	0.20	6306195
p+m-Xylene	ug/L	-	ND	0.20	6306195
o-Xylene	ug/L	-	ND	0.20	6306195
Total Xylenes	ug/L	4200	ND	0.20	6306195
F1 (C6-C10)	ug/L	750	ND	25	6306195
F1 (C6-C10) - BTEX	ug/L	750	ND	25	6306195
Surrogate Recovery (%)					
4-Bromofluorobenzene	%	-	95		6306195
D4-1,2-Dichloroethane	%	-	105		6306195
D8-Toluene	%	-	93		6306195
No Fill	No Exceedance				
Grey	Exceeds 1 criteria policy/level				
Black	Exceeds both criteria/levels				
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)					
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition					
Non- Potable Ground Water - All Types of Property Uses - Coarse Textured Soil					
ND = Not detected					



BUREAU
VERITAS

BV Labs Job #: B900525

Report Date: 2019/09/17

Bruce A. Brown Associates Limited

Client Project #: 4483

Site Location: 1381 LAKESHORE EAST

Sampler Initials: CB

PETROLEUM HYDROCARBONS (CCME)

BV Labs ID			KQJ444			KQJ444		
Sampling Date			2019/08/25			2019/08/25		
COC Number			734736-01-01			734736-01-01		
	UNITS	Criteria	GW-44823-180828-202-001	RDL	QC Batch	GW-44823-180828-202-001 Lab-Dup	RDL	QC Batch

BTEX & F1 Hydrocarbons								
Benzene	ug/L	44	ND	0.20	6313667	ND	0.20	6313667
Toluene	ug/L	18000	0.52	0.40	6313667	0.54	0.40	6313667
Ethylbenzene	ug/L	2300	ND	0.20	6313667	ND	0.20	6313667
o-Xylene	ug/L	-	ND	0.20	6313667	ND	0.20	6313667
p+m-Xylene	ug/L	-	ND	0.40	6313667	ND	0.40	6313667
Total Xylenes	ug/L	4200	ND	0.40	6313667	ND	0.40	6313667
F1 (C6-C10)	ug/L	750	ND	25	6313667	ND	25	6313667
F1 (C6-C10) - BTEX	ug/L	750	ND	25	6313667	ND	25	6313667

F2-F4 Hydrocarbons								
F2 (C10-C16 Hydrocarbons)	ug/L	150	ND	100	6312412			
F3 (C16-C34 Hydrocarbons)	ug/L	500	ND	200	6312412			
F4 (C34-C50 Hydrocarbons)	ug/L	500	ND	200	6312412			
Reached Baseline at C50	ug/L	-	Yes		6312412			

Surrogate Recovery (%)								
1,4-Difluorobenzene	%	-	102		6313667	102		6313667
4-Bromofluorobenzene	%	-	102		6313667	101		6313667
D10-Ethylbenzene	%	-	112		6313667	111		6313667
D4-1,2-Dichloroethane	%	-	101		6313667	100		6313667
o-Terphenyl	%	-	107		6312412			

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels
RDL = Reportable Detection Limit	
QC Batch = Quality Control Batch	
Lab-Dup = Laboratory Initiated Duplicate	
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)	
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition	
Non-Potable Ground Water - All Types of Property Uses - Coarse Textured Soil	
ND = Not detected	



BUREAU
VERITAS

BV Labs Job #: B900525
Report Date: 2019/09/17

Bruce A. Brown Associates Limited
Client Project #: 4483
Site Location: 1381 LAKESHORE EAST
Sampler Initials: CB

PETROLEUM HYDROCARBONS (CCME)

BV Labs ID			KQJ445			KQJ446	KQJ447		
Sampling Date			2019/08/25			2019/08/25	2019/08/25		
COC Number			734736-01-01			734736-01-01	734736-01-01		
	UNITS	Criteria	GW-44823-180828-202-002	RDL	QC Batch	GW-44823-180828-202-003	GW-44823-180828-202-004	RDL	QC Batch
BTEX & F1 Hydrocarbons									
Benzene	ug/L	44				ND	ND	0.20	6313667
Toluene	ug/L	18000				ND	ND	0.40	6313667
Ethylbenzene	ug/L	2300				ND	ND	0.20	6313667
o-Xylene	ug/L	-				ND	ND	0.20	6313667
p+m-Xylene	ug/L	-				ND	ND	0.40	6313667
Total Xylenes	ug/L	4200				ND	ND	0.40	6313667
F1 (C6-C10)	ug/L	750				ND	ND	25	6313667
F1 (C6-C10) - BTEX	ug/L	750				ND	ND	25	6313667
F2-F4 Hydrocarbons									
F2 (C10-C16 Hydrocarbons)	ug/L	150	ND	100	6312412	ND	ND	100	6312412
F3 (C16-C34 Hydrocarbons)	ug/L	500	ND	200	6312412	ND	ND	200	6312412
F4 (C34-C50 Hydrocarbons)	ug/L	500	ND	200	6312412	ND	ND	200	6312412
Reached Baseline at C50	ug/L	-	Yes		6312412	Yes	Yes		6312412
Surrogate Recovery (%)									
1,4-Difluorobenzene	%	-				100	103		6313667
4-Bromofluorobenzene	%	-				100	100		6313667
D10-Ethylbenzene	%	-				110	115		6313667
D4-1,2-Dichloroethane	%	-				97	102		6313667
o-Terphenyl	%	-	100		6312412	109	98		6312412
No Fill	No Exceedance								
Grey	Exceeds 1 criteria policy/level								
Black	Exceeds both criteria/levels								
RDL = Reportable Detection Limit									
QC Batch = Quality Control Batch									
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)									
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition									
Non- Potable Ground Water - All Types of Property Uses - Coarse Textured Soil									
ND = Not detected									



GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	12.0°C
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F1-BTEX Analysis: Toluene detection limit was raised due to background interference.

Results relate only to the items tested.



BUREAU
VERITAS

BV Labs Job #: B900525
Report Date: 2019/09/17

Bruce A. Brown Associates Limited
Client Project #: 4483
Site Location: 1381 LAKESHORE EAST
Sampler Initials: CB

QUALITY ASSURANCE REPORT

QA/QC	Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6306195	XII	Matrix Spike	4-Bromofluorobenzene	2019/08/30		103	%	70 - 130	
			D4-1,2-Dichloroethane	2019/08/30		105	%	70 - 130	
			D8-Toluene	2019/08/30		96	%	70 - 130	
			Acetone (2-Propanone)	2019/08/30		106	%	60 - 140	
			Benzene	2019/08/30		92	%	70 - 130	
			Bromodichloromethane	2019/08/30		96	%	70 - 130	
			Bromoform	2019/08/30		102	%	70 - 130	
			Bromomethane	2019/08/30		121	%	60 - 140	
			Carbon Tetrachloride	2019/08/30		96	%	70 - 130	
			Chlorobenzene	2019/08/30		94	%	70 - 130	
			Chloroform	2019/08/30		96	%	70 - 130	
			Dibromochloromethane	2019/08/30		101	%	70 - 130	
			1,2-Dichlorobenzene	2019/08/30		92	%	70 - 130	
			1,3-Dichlorobenzene	2019/08/30		91	%	70 - 130	
			1,4-Dichlorobenzene	2019/08/30		98	%	70 - 130	
			Dichlorodifluoromethane (FREON 12)	2019/08/30		106	%	60 - 140	
			1,1-Dichloroethane	2019/08/30		94	%	70 - 130	
			1,2-Dichloroethane	2019/08/30		105	%	70 - 130	
			1,1-Dichloroethylene	2019/08/30		97	%	70 - 130	
			cis-1,2-Dichloroethylene	2019/08/30		98	%	70 - 130	
			trans-1,2-Dichloroethylene	2019/08/30		102	%	70 - 130	
			1,2-Dichloropropane	2019/08/30		89	%	70 - 130	
			cis-1,3-Dichloropropene	2019/08/30		91	%	70 - 130	
			trans-1,3-Dichloropropene	2019/08/30		90	%	70 - 130	
			Ethylbenzene	2019/08/30		81	%	70 - 130	
			Ethylene Dibromide	2019/08/30		103	%	70 - 130	
			Hexane	2019/08/30		89	%	70 - 130	
			Methylene Chloride(Dichloromethane)	2019/08/30		97	%	70 - 130	
			Methyl Ethyl Ketone (2-Butanone)	2019/08/30		98	%	60 - 140	
			Methyl Isobutyl Ketone	2019/08/30		88	%	70 - 130	
			Methyl t-butyl ether (MTBE)	2019/08/30		87	%	70 - 130	
			Styrene	2019/08/30		84	%	70 - 130	
			1,1,1,2-Tetrachloroethane	2019/08/30		102	%	70 - 130	
			1,1,2,2-Tetrachloroethane	2019/08/30		103	%	70 - 130	
			Tetrachloroethylene	2019/08/30		95	%	70 - 130	
			Toluene	2019/08/30		84	%	70 - 130	
			1,1,1-Trichloroethane	2019/08/30		96	%	70 - 130	
			1,1,2-Trichloroethane	2019/08/30		100	%	70 - 130	
			Trichloroethylene	2019/08/30		107	%	70 - 130	
			Trichlorofluoromethane (FREON 11)	2019/08/30		116	%	70 - 130	
			Vinyl Chloride	2019/08/30		105	%	70 - 130	
			p+m-Xylene	2019/08/30		84	%	70 - 130	
			o-Xylene	2019/08/30		84	%	70 - 130	
			F1 (C6-C10)	2019/08/30		97	%	60 - 140	
6306195	XII	Spiked Blank	4-Bromofluorobenzene	2019/08/30		102	%	70 - 130	
			D4-1,2-Dichloroethane	2019/08/30		98	%	70 - 130	
			D8-Toluene	2019/08/30		99	%	70 - 130	
			Acetone (2-Propanone)	2019/08/30		98	%	60 - 140	
			Benzene	2019/08/30		91	%	70 - 130	
			Bromodichloromethane	2019/08/30		94	%	70 - 130	
			Bromoform	2019/08/30		100	%	70 - 130	



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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6306195	XII	Method Blank	Bromomethane	2019/08/30		119	%	60 - 140
			Carbon Tetrachloride	2019/08/30		99	%	70 - 130
			Chlorobenzene	2019/08/30		97	%	70 - 130
			Chloroform	2019/08/30		95	%	70 - 130
			Dibromochloromethane	2019/08/30		101	%	70 - 130
			1,2-Dichlorobenzene	2019/08/30		96	%	70 - 130
			1,3-Dichlorobenzene	2019/08/30		97	%	70 - 130
			1,4-Dichlorobenzene	2019/08/30		103	%	70 - 130
			Dichlorodifluoromethane (FREON 12)	2019/08/30		113	%	60 - 140
			1,1-Dichloroethane	2019/08/30		94	%	70 - 130
			1,2-Dichloroethane	2019/08/30		101	%	70 - 130
			1,1-Dichloroethylene	2019/08/30		100	%	70 - 130
			cis-1,2-Dichloroethylene	2019/08/30		97	%	70 - 130
			trans-1,2-Dichloroethylene	2019/08/30		103	%	70 - 130
			1,2-Dichloropropane	2019/08/30		87	%	70 - 130
			cis-1,3-Dichloropropene	2019/08/30		88	%	70 - 130
			trans-1,3-Dichloropropene	2019/08/30		86	%	70 - 130
			Ethylbenzene	2019/08/30		86	%	70 - 130
			Ethylene Dibromide	2019/08/30		101	%	70 - 130
			Hexane	2019/08/30		93	%	70 - 130
			Methylene Chloride(Dichloromethane)	2019/08/30		94	%	70 - 130
			Methyl Ethyl Ketone (2-Butanone)	2019/08/30		91	%	60 - 140
			Methyl Isobutyl Ketone	2019/08/30		83	%	70 - 130
			Methyl t-butyl ether (MTBE)	2019/08/30		87	%	70 - 130
			Styrene	2019/08/30		88	%	70 - 130
			1,1,1,2-Tetrachloroethane	2019/08/30		105	%	70 - 130
			1,1,2,2-Tetrachloroethane	2019/08/30		100	%	70 - 130
			Tetrachloroethylene	2019/08/30		100	%	70 - 130
			Toluene	2019/08/30		88	%	70 - 130
			1,1,1-Trichloroethane	2019/08/30		99	%	70 - 130
			1,1,2-Trichloroethane	2019/08/30		99	%	70 - 130
			Trichloroethylene	2019/08/30		109	%	70 - 130
			Trichlorofluoromethane (FREON 11)	2019/08/30		120	%	70 - 130
			Vinyl Chloride	2019/08/30		108	%	70 - 130
			p+m-Xylene	2019/08/30		90	%	70 - 130
			o-Xylene	2019/08/30		89	%	70 - 130
			F1 (C6-C10)	2019/08/30		99	%	60 - 140
			4-Bromofluorobenzene	2019/08/30		96	%	70 - 130
			D4-1,2-Dichloroethane	2019/08/30		100	%	70 - 130
			D8-Toluene	2019/08/30		96	%	70 - 130
			Acetone (2-Propanone)	2019/08/30	ND, RDL=10		ug/L	
			Benzene	2019/08/30	ND, RDL=0.20		ug/L	
			Bromodichloromethane	2019/08/30	ND, RDL=0.50		ug/L	
			Bromoform	2019/08/30	ND, RDL=1.0		ug/L	
			Bromomethane	2019/08/30	ND, RDL=0.50		ug/L	



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			Carbon Tetrachloride	2019/08/30	ND, RDL=0.20		ug/L	
			Chlorobenzene	2019/08/30	ND, RDL=0.20		ug/L	
			Chloroform	2019/08/30	ND, RDL=0.20		ug/L	
			Dibromochloromethane	2019/08/30	ND, RDL=0.50		ug/L	
			1,2-Dichlorobenzene	2019/08/30	ND, RDL=0.50		ug/L	
			1,3-Dichlorobenzene	2019/08/30	ND, RDL=0.50		ug/L	
			1,4-Dichlorobenzene	2019/08/30	ND, RDL=0.50		ug/L	
			Dichlorodifluoromethane (FREON 12)	2019/08/30	ND, RDL=1.0		ug/L	
			1,1-Dichloroethane	2019/08/30	ND, RDL=0.20		ug/L	
			1,2-Dichloroethane	2019/08/30	ND, RDL=0.50		ug/L	
			1,1-Dichloroethylene	2019/08/30	ND, RDL=0.20		ug/L	
			cis-1,2-Dichloroethylene	2019/08/30	ND, RDL=0.50		ug/L	
			trans-1,2-Dichloroethylene	2019/08/30	ND, RDL=0.50		ug/L	
			1,2-Dichloropropane	2019/08/30	ND, RDL=0.20		ug/L	
			cis-1,3-Dichloropropene	2019/08/30	ND, RDL=0.30		ug/L	
			trans-1,3-Dichloropropene	2019/08/30	ND, RDL=0.40		ug/L	
			Ethylbenzene	2019/08/30	ND, RDL=0.20		ug/L	
			Ethylene Dibromide	2019/08/30	ND, RDL=0.20		ug/L	
			Hexane	2019/08/30	ND, RDL=1.0		ug/L	
			Methylene Chloride(Dichloromethane)	2019/08/30	ND, RDL=2.0		ug/L	
			Methyl Ethyl Ketone (2-Butanone)	2019/08/30	ND, RDL=10		ug/L	
			Methyl Isobutyl Ketone	2019/08/30	ND, RDL=5.0		ug/L	
			Methyl t-butyl ether (MTBE)	2019/08/30	ND, RDL=0.50		ug/L	
			Styrene	2019/08/30	ND, RDL=0.50		ug/L	
			1,1,1,2-Tetrachloroethane	2019/08/30	ND, RDL=0.50		ug/L	
			1,1,2,2-Tetrachloroethane	2019/08/30	ND, RDL=0.50		ug/L	



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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6306195	XII	RPD	Tetrachloroethylene	2019/08/30	ND, RDL=0.20		ug/L	
			Toluene	2019/08/30	ND, RDL=0.20		ug/L	
			1,1,1-Trichloroethane	2019/08/30	ND, RDL=0.20		ug/L	
			1,1,2-Trichloroethane	2019/08/30	ND, RDL=0.50		ug/L	
			Trichloroethylene	2019/08/30	ND, RDL=0.20		ug/L	
			Trichlorofluoromethane (FREON 11)	2019/08/30	ND, RDL=0.50		ug/L	
			Vinyl Chloride	2019/08/30	ND, RDL=0.20		ug/L	
			p+m-Xylene	2019/08/30	ND, RDL=0.20		ug/L	
			o-Xylene	2019/08/30	ND, RDL=0.20		ug/L	
			Total Xylenes	2019/08/30	ND, RDL=0.20		ug/L	
			F1 (C6-C10)	2019/08/30	ND, RDL=25		ug/L	
			F1 (C6-C10) - BTEX	2019/08/30	ND, RDL=25		ug/L	
			Acetone (2-Propanone)	2019/08/30	NC		%	30
			Benzene	2019/08/30	NC		%	30
			Bromodichloromethane	2019/08/30	NC		%	30
			Bromoform	2019/08/30	NC		%	30
			Bromomethane	2019/08/30	NC		%	30
			Carbon Tetrachloride	2019/08/30	NC		%	30
			Chlorobenzene	2019/08/30	NC		%	30
			Chloroform	2019/08/30	NC		%	30
			Dibromochloromethane	2019/08/30	NC		%	30
			1,2-Dichlorobenzene	2019/08/30	NC		%	30
			1,3-Dichlorobenzene	2019/08/30	NC		%	30
			1,4-Dichlorobenzene	2019/08/30	NC		%	30
			Dichlorodifluoromethane (FREON 12)	2019/08/30	NC		%	30
			1,1-Dichloroethane	2019/08/30	NC		%	30
			1,2-Dichloroethane	2019/08/30	NC		%	30
			1,1-Dichloroethylene	2019/08/30	NC		%	30
			cis-1,2-Dichloroethylene	2019/08/30	NC		%	30
			trans-1,2-Dichloroethylene	2019/08/30	NC		%	30
			1,2-Dichloropropane	2019/08/30	NC		%	30
			cis-1,3-Dichloropropene	2019/08/30	NC		%	30
			trans-1,3-Dichloropropene	2019/08/30	NC		%	30
			Ethylbenzene	2019/08/30	NC		%	30
			Ethylene Dibromide	2019/08/30	NC		%	30
			Hexane	2019/08/30	NC		%	30
			Methylene Chloride(Dichloromethane)	2019/08/30	NC		%	30
			Methyl Ethyl Ketone (2-Butanone)	2019/08/30	NC		%	30
			Methyl Isobutyl Ketone	2019/08/30	NC		%	30
			Methyl t-butyl ether (MTBE)	2019/08/30	NC		%	30



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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Styrene	2019/08/30	NC		%	30
			1,1,1,2-Tetrachloroethane	2019/08/30	NC		%	30
			1,1,2,2-Tetrachloroethane	2019/08/30	NC		%	30
			Tetrachloroethylene	2019/08/30	NC		%	30
			Toluene	2019/08/30	NC		%	30
			1,1,1-Trichloroethane	2019/08/30	NC		%	30
			1,1,2-Trichloroethane	2019/08/30	NC		%	30
			Trichloroethylene	2019/08/30	NC		%	30
			Trichlorofluoromethane (FREON 11)	2019/08/30	NC		%	30
			Vinyl Chloride	2019/08/30	NC		%	30
			p+m-Xylene	2019/08/30	NC		%	30
			o-Xylene	2019/08/30	NC		%	30
			Total Xylenes	2019/08/30	NC		%	30
			F1 (C6-C10)	2019/08/30	NC		%	30
			F1 (C6-C10) - BTEX	2019/08/30	NC		%	30
6306210	MEN	Matrix Spike	Mercury (Hg)	2019/08/29		96	%	75 - 125
6306210	MEN	Spiked Blank	Mercury (Hg)	2019/08/29		98	%	80 - 120
6306210	MEN	Method Blank	Mercury (Hg)	2019/08/29	ND, RDL=0.1		ug/L	
6306210	MEN	RPD	Mercury (Hg)	2019/08/29	NC		%	20
6306231	MRG	Matrix Spike [KQJ445-03]	Dissolved Antimony (Sb)	2019/09/04		104	%	80 - 120
			Dissolved Arsenic (As)	2019/09/04		100	%	80 - 120
			Dissolved Barium (Ba)	2019/09/04		100	%	80 - 120
			Dissolved Beryllium (Be)	2019/09/04		100	%	80 - 120
			Dissolved Boron (B)	2019/09/04		NC	%	80 - 120
			Dissolved Cadmium (Cd)	2019/09/04		101	%	80 - 120
			Dissolved Chromium (Cr)	2019/09/04		97	%	80 - 120
			Dissolved Cobalt (Co)	2019/09/04		97	%	80 - 120
			Dissolved Copper (Cu)	2019/09/04		102	%	80 - 120
			Dissolved Lead (Pb)	2019/09/04		95	%	80 - 120
			Dissolved Molybdenum (Mo)	2019/09/04		106	%	80 - 120
			Dissolved Nickel (Ni)	2019/09/04		95	%	80 - 120
			Dissolved Selenium (Se)	2019/09/04		99	%	80 - 120
			Dissolved Silver (Ag)	2019/09/04		77 (1)	%	80 - 120
			Dissolved Sodium (Na)	2019/09/04		NC	%	80 - 120
			Dissolved Thallium (Tl)	2019/09/04		98	%	80 - 120
			Dissolved Uranium (U)	2019/09/04		93	%	80 - 120
			Dissolved Vanadium (V)	2019/09/04		100	%	80 - 120
			Dissolved Zinc (Zn)	2019/09/04		97	%	80 - 120
6306231	MRG	Spiked Blank	Dissolved Antimony (Sb)	2019/09/03		96	%	80 - 120
			Dissolved Arsenic (As)	2019/09/03		95	%	80 - 120
			Dissolved Barium (Ba)	2019/09/03		96	%	80 - 120
			Dissolved Beryllium (Be)	2019/09/03		98	%	80 - 120
			Dissolved Boron (B)	2019/09/03		100	%	80 - 120
			Dissolved Cadmium (Cd)	2019/09/03		97	%	80 - 120
			Dissolved Chromium (Cr)	2019/09/03		95	%	80 - 120
			Dissolved Cobalt (Co)	2019/09/03		95	%	80 - 120
			Dissolved Copper (Cu)	2019/09/03		96	%	80 - 120
			Dissolved Lead (Pb)	2019/09/03		93	%	80 - 120
			Dissolved Molybdenum (Mo)	2019/09/03		100	%	80 - 120
			Dissolved Nickel (Ni)	2019/09/03		94	%	80 - 120

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6306231	MRG	Method Blank	Dissolved Selenium (Se)	2019/09/03		99	%	80 - 120
			Dissolved Silver (Ag)	2019/09/03		97	%	80 - 120
			Dissolved Sodium (Na)	2019/09/03		94	%	80 - 120
			Dissolved Thallium (Tl)	2019/09/03		94	%	80 - 120
			Dissolved Uranium (U)	2019/09/03		90	%	80 - 120
			Dissolved Vanadium (V)	2019/09/03		97	%	80 - 120
			Dissolved Zinc (Zn)	2019/09/03		94	%	80 - 120
			Dissolved Antimony (Sb)	2019/09/03	ND, RDL=0.50		ug/L	
			Dissolved Arsenic (As)	2019/09/03	ND, RDL=1.0		ug/L	
			Dissolved Barium (Ba)	2019/09/03	ND, RDL=2.0		ug/L	
			Dissolved Beryllium (Be)	2019/09/03	ND, RDL=0.50		ug/L	
			Dissolved Boron (B)	2019/09/03	ND, RDL=10		ug/L	
			Dissolved Cadmium (Cd)	2019/09/03	ND, RDL=0.10		ug/L	
			Dissolved Chromium (Cr)	2019/09/03	ND, RDL=5.0		ug/L	
			Dissolved Cobalt (Co)	2019/09/03	ND, RDL=0.50		ug/L	
			Dissolved Copper (Cu)	2019/09/03	ND, RDL=1.0		ug/L	
			Dissolved Lead (Pb)	2019/09/03	ND, RDL=0.50		ug/L	
			Dissolved Molybdenum (Mo)	2019/09/03	ND, RDL=0.50		ug/L	
			Dissolved Nickel (Ni)	2019/09/03	ND, RDL=1.0		ug/L	
			Dissolved Selenium (Se)	2019/09/03	ND, RDL=2.0		ug/L	
			Dissolved Silver (Ag)	2019/09/03	ND, RDL=0.10		ug/L	
			Dissolved Sodium (Na)	2019/09/03	ND, RDL=100		ug/L	
			Dissolved Thallium (Tl)	2019/09/03	ND, RDL=0.050		ug/L	
			Dissolved Uranium (U)	2019/09/03	ND, RDL=0.10		ug/L	
			Dissolved Vanadium (V)	2019/09/03	ND, RDL=0.50		ug/L	
			Dissolved Zinc (Zn)	2019/09/03	ND, RDL=5.0		ug/L	
6306231	MRG	RPD [KQJ445-03]	Dissolved Antimony (Sb)	2019/09/03	9.8		%	20
			Dissolved Arsenic (As)	2019/09/03	11		%	20
			Dissolved Barium (Ba)	2019/09/03	2.7		%	20
			Dissolved Beryllium (Be)	2019/09/03	NC		%	20
			Dissolved Boron (B)	2019/09/03	1.7		%	20
			Dissolved Cadmium (Cd)	2019/09/03	NC		%	20
			Dissolved Chromium (Cr)	2019/09/03	NC		%	20



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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Cobalt (Co)	2019/09/03	NC		%	20
			Dissolved Copper (Cu)	2019/09/03	NC		%	20
			Dissolved Lead (Pb)	2019/09/03	NC		%	20
			Dissolved Molybdenum (Mo)	2019/09/03	0.38		%	20
			Dissolved Nickel (Ni)	2019/09/03	NC		%	20
			Dissolved Selenium (Se)	2019/09/03	NC		%	20
			Dissolved Silver (Ag)	2019/09/03	NC		%	20
			Dissolved Sodium (Na)	2019/09/03	1.1		%	20
			Dissolved Thallium (Tl)	2019/09/03	NC		%	20
			Dissolved Uranium (U)	2019/09/03	2.7		%	20
			Dissolved Vanadium (V)	2019/09/03	NC		%	20
			Dissolved Zinc (Zn)	2019/09/03	NC		%	20
6306573	BKE	Matrix Spike [KQJ447-05]	WAD Cyanide (Free)	2019/08/29		105	%	80 - 120
6306573	BKE	Spiked Blank	WAD Cyanide (Free)	2019/08/29		107	%	80 - 120
6306573	BKE	Method Blank	WAD Cyanide (Free)	2019/08/29	ND,RDL=1		ug/L	
6306573	BKE	RPD [KQJ447-05]	WAD Cyanide (Free)	2019/08/29	NC		%	20
6306836	LLE	Matrix Spike	Chromium (VI)	2019/09/03		107	%	80 - 120
6306836	LLE	Spiked Blank	Chromium (VI)	2019/09/03		107	%	80 - 120
6306836	LLE	Method Blank	Chromium (VI)	2019/09/03	ND, RDL=0.50		ug/L	
6306836	LLE	RPD	Chromium (VI)	2019/09/03	NC		%	20
6307299	DRM	Matrix Spike	Dissolved Chloride (Cl-)	2019/08/30		102	%	80 - 120
6307299	DRM	Spiked Blank	Dissolved Chloride (Cl-)	2019/08/30		104	%	80 - 120
6307299	DRM	Method Blank	Dissolved Chloride (Cl-)	2019/08/30	ND, RDL=1.0		mg/L	
6307299	DRM	RPD	Dissolved Chloride (Cl-)	2019/08/30	1.1		%	20
6308387	RON	Matrix Spike	Mercury (Hg)	2019/08/30		100	%	75 - 125
6308387	RON	Spiked Blank	Mercury (Hg)	2019/08/30		99	%	80 - 120
6308387	RON	Method Blank	Mercury (Hg)	2019/08/30	ND, RDL=0.1		ug/L	
6308387	RON	RPD	Mercury (Hg)	2019/08/30	NC		%	20
6312412	GUL	Matrix Spike	o-Terphenyl	2019/09/04		100	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2019/09/04		103	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2019/09/04		NC	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2019/09/04		97	%	50 - 130
6312412	GUL	Spiked Blank	o-Terphenyl	2019/09/04		99	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2019/09/04		104	%	60 - 130
			F3 (C16-C34 Hydrocarbons)	2019/09/04		102	%	60 - 130
			F4 (C34-C50 Hydrocarbons)	2019/09/04		100	%	60 - 130
6312412	GUL	Method Blank	o-Terphenyl	2019/09/04		88	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2019/09/04	ND, RDL=100		ug/L	
			F3 (C16-C34 Hydrocarbons)	2019/09/04	ND, RDL=200		ug/L	
			F4 (C34-C50 Hydrocarbons)	2019/09/04	ND, RDL=200		ug/L	
6312412	GUL	RPD	F2 (C10-C16 Hydrocarbons)	2019/09/04	NC		%	30
			F3 (C16-C34 Hydrocarbons)	2019/09/04	NC		%	30
			F4 (C34-C50 Hydrocarbons)	2019/09/04	NC		%	30
6313667	ABD	Matrix Spike [KQJ444-07]	1,4-Difluorobenzene	2019/09/04		101	%	70 - 130
			4-Bromofluorobenzene	2019/09/04		100	%	70 - 130



BUREAU
VERITAS

BV Labs Job #: B9O0525
Report Date: 2019/09/17

Bruce A. Brown Associates Limited
Client Project #: 4483
Site Location: 1381 LAKESHORE EAST
Sampler Initials: CB

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6313667	ABD	Spiked Blank	D10-Ethylbenzene	2019/09/04		101	%	70 - 130
			D4-1,2-Dichloroethane	2019/09/04		101	%	70 - 130
			Benzene	2019/09/04		99	%	70 - 130
			Toluene	2019/09/04		93	%	70 - 130
			Ethylbenzene	2019/09/04		93	%	70 - 130
			o-Xylene	2019/09/04		91	%	70 - 130
			p+m-Xylene	2019/09/04		92	%	70 - 130
			F1 (C6-C10)	2019/09/04		101	%	70 - 130
			1,4-Difluorobenzene	2019/09/04		104	%	70 - 130
			4-Bromofluorobenzene	2019/09/04		99	%	70 - 130
			D10-Ethylbenzene	2019/09/04		102	%	70 - 130
			D4-1,2-Dichloroethane	2019/09/04		102	%	70 - 130
			Benzene	2019/09/04		101	%	70 - 130
			Toluene	2019/09/04		96	%	70 - 130
			Ethylbenzene	2019/09/04		96	%	70 - 130
			o-Xylene	2019/09/04		91	%	70 - 130
			p+m-Xylene	2019/09/04		94	%	70 - 130
			F1 (C6-C10)	2019/09/04		103	%	70 - 130
6313667	ABD	Method Blank	1,4-Difluorobenzene	2019/09/04		102	%	70 - 130
			4-Bromofluorobenzene	2019/09/04		100	%	70 - 130
			D10-Ethylbenzene	2019/09/04		109	%	70 - 130
			D4-1,2-Dichloroethane	2019/09/04		98	%	70 - 130
			Benzene	2019/09/04	ND, RDL=0.20		ug/L	
			Toluene	2019/09/04	ND, RDL=0.40 (2)		ug/L	
			Ethylbenzene	2019/09/04	ND, RDL=0.20		ug/L	
			o-Xylene	2019/09/04	ND, RDL=0.20		ug/L	
			p+m-Xylene	2019/09/04	ND, RDL=0.40		ug/L	
			Total Xylenes	2019/09/04	ND, RDL=0.40		ug/L	
			F1 (C6-C10)	2019/09/04	ND, RDL=25		ug/L	
			F1 (C6-C10) - BTEX	2019/09/04	ND, RDL=25		ug/L	
			Benzene	2019/09/04	NC		%	30
			Toluene	2019/09/04	3.8		%	30
			Ethylbenzene	2019/09/04	NC		%	30
			o-Xylene	2019/09/04	NC		%	30
			p+m-Xylene	2019/09/04	NC		%	30
			Total Xylenes	2019/09/04	NC		%	30
			F1 (C6-C10)	2019/09/04	NC		%	30



BUREAU
VERITAS

BV Labs Job #: B9O0525
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Bruce A. Brown Associates Limited
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Site Location: 1381 LAKESHORE EAST
Sampler Initials: CB

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			F1 (C6-C10) - BTEX	2019/09/04	NC		%	30
<p>Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.</p> <p>Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.</p> <p>Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.</p> <p>Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.</p> <p>Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.</p> <p>NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)</p> <p>NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference $\leq 2 \times$ RDL).</p> <p>(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.</p> <p>(2) F1-BTEX Analysis: Toluene detection limit was raised due to background interference.</p>								



BUREAU
VERITAS

BV Labs Job #: B9O0525

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Sampler Initials: CB

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Anastassia Hamanov, Scientific Specialist

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



BUREAU
VERITAS

BV Labs Job #: B9O0525

Report Date: 2019/09/17

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Site Location: 1381 LAKESHORE EAST

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Exceedence Summary Table – Reg153/04 T3-GW-C

Result Exceedences

Sample ID	BV Labs ID	Parameter	Criteria	Result	DL	Units
No Exceedences						
The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.						



Bureau Veritas Laboratories
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel:(905) 817-5700 Toll-free:800-563-6286 Fax:(905) 817-5777 www.bvlab.com

CHAIN OF CUSTODY RECORD

Page of

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#29111 Bruce A. Brown Associates Limited	Company Name:	Craig Colbourne	Quotation #:	B44941	BV Labs Job #:	Bottle Order #:
Attention:	Craig Colbourne	Attention:	Craig Colbourne	P.O. #:			
Address:	101-102 Aerodrome Cr Toronto ON M4G 4J4	Address:		Project:	4483		
Tel:	(416) 424-3355	Tel:	(416) 424-3355	Project Name:	1381 LAKE SHORE BL	COC #:	Project Manager:
Email:	craig@brownassociates.ca; bruce@brownassociates.ca	Email:	craig@brownassociates.ca; bruce@brownassociates.ca	Site #:			Ronklin Gracian
				Sampled By:	C. Colbourne		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY				ANALYSIS REQUESTED (PLEASE BE SPECIFIC)												Turnaround Time (TAT) Required: Please provide advance notice for rush projects									
Regulation 153 (2011)				Other Regulations				Special Instructions				Field Filtered (please circle): Metals / Hg / Cr VI												Regular (Standard) TAT: (will be applied if Rush TAT is not specified): Standard TAT = 5-7 Working days for most tests. Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.	
<input type="checkbox"/> Table 1 <input checked="" type="checkbox"/> Res/Park <input type="checkbox"/> Medium/Fine				<input type="checkbox"/> CCME <input type="checkbox"/> Sanitary Sewer Bylaw								<input type="checkbox"/> O Reg 153 PHCs, BTEX/F1-F4												<input type="checkbox"/> Job Specific Rush TAT (if applies to entire submission)	
<input type="checkbox"/> Table 2 <input type="checkbox"/> Ind/Comm <input type="checkbox"/> Coarse				<input type="checkbox"/> Reg 558 <input type="checkbox"/> Storm Sewer Bylaw								<input type="checkbox"/> O Reg 153 Metals & Inorganics Pkg												Date Required: _____ Time Required: _____	
<input type="checkbox"/> Table 3 <input type="checkbox"/> Agri/Other <input type="checkbox"/> For RSC				<input type="checkbox"/> MISA Municipality																				Rush Confirmation Number: _____ (call lab for #)	
<input type="checkbox"/> Table _____				<input type="checkbox"/> PWQO																					
<input type="checkbox"/> Other _____																									
Include Criteria on Certificate of Analysis (Y/N)?																									
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix																					
1	GW-4493-180828 - 202-001	Aug 25/19	AM	GL																					
2	GW-4493-190828 - 201-002		PM																						
3	GW-4493-180828 203-002		PM																						
4	GW-4493-180828 204-004		PM																						
5																									
6																									
7																									
8																									
9																									
10																									

28-Aug-19 15:06
Ronklin Gracian
B900525
GK1 ENV-859

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only				
	11/08/20	1505		2019/08/28	1506		Time Sensitive	Temperature (°C) on Receipt	Custody Seal	Yes	No
								14/12/10/10	Present		
									Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

White: BV Labs Yellow: Client

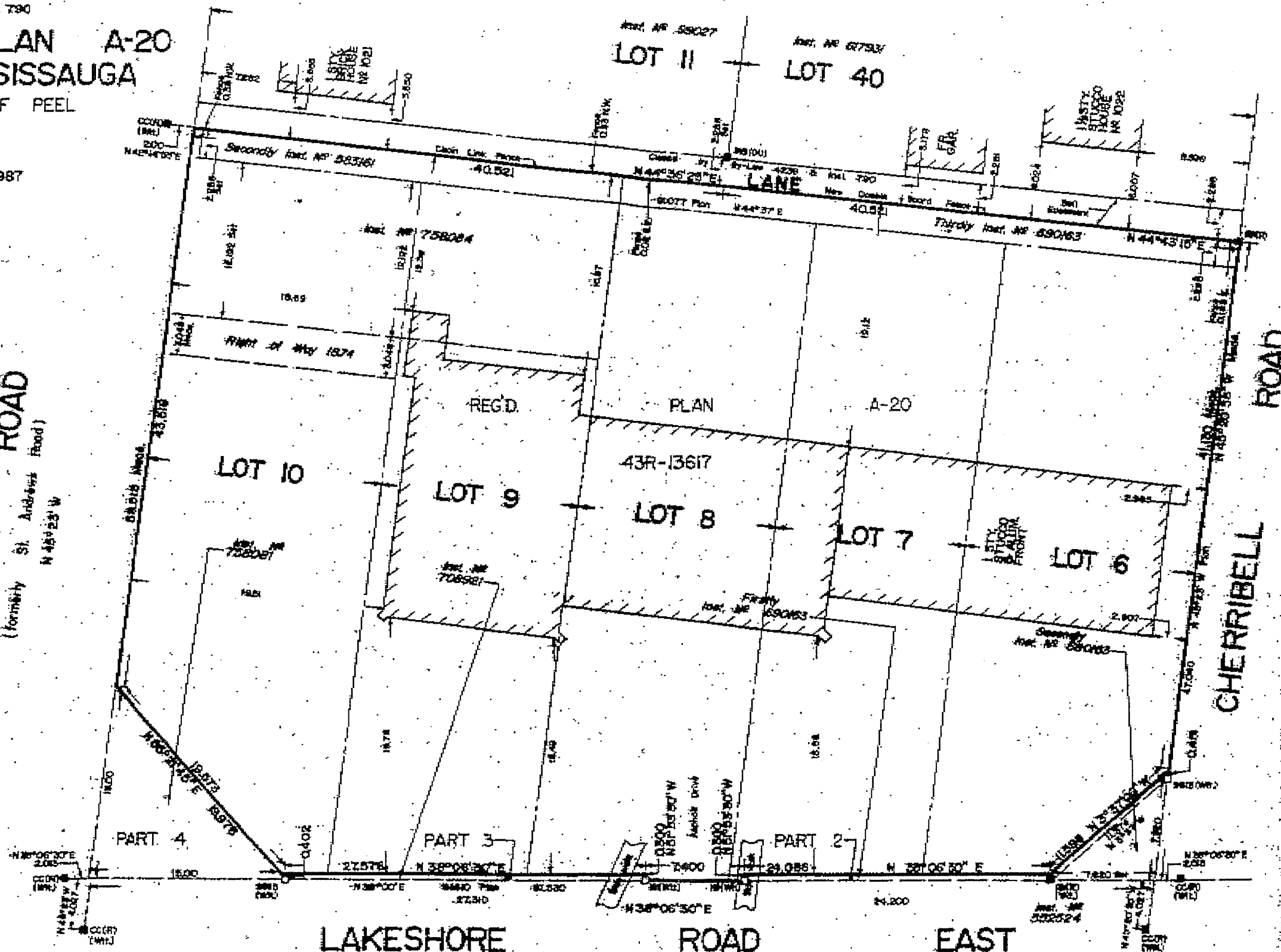
Appendix F: Plan of Survey

PARTS OF LOTS 6, 7, 8, 9 & 10 and PARTS
OF LANE
REGISTERED PLAN A-20
CITY OF MISSISSAUGA
REGIONAL MUNICIPALITY OF PEEL

SCALE 1:300
C.E. DOTTERILL O.L.S. 1987



DIXIE ROAD
(Formerly St. Andrews Road)
N 45° 23' W



Letter Herein

NOTE

S.I.R. denotes standard iron bar.
S.S.I.R. denotes short standard iron bar.
I.B. denotes iron bar.
L.T. denotes iron tube.
C.C. denotes concrete.

SURVEYOR'S CERTIFICATE

I CERTIFY THAT
The field survey represented on this plan was
completed on the 22nd day of May 1987.

BEARING NOTE

Bearings and distances are referred
to the Front Left of Lot
Part 2 of Plan
A-20 having a bearing of N 45° 23' W

C. E. DOTTERILL LTD.
ONTARIO LAND SURVEYOR
122 CAMBRIDGE AVENUE

Appendix G: Well Data - Tables 1, 2, 3

TABLE 1

Monitoring Well Installation

Well No.:	Total Depth of Borehole (m) from Grade	Piezometer set at (m) from Grade	Backfill under Piezometer (yes/no)	Length of Piezometer (m)	Stand Pipe (m) Below Grade	Type of Well Cap	Type of Protective Well Cover	Well Sand Backfilled to (m) Above Piezometer	Bentonite to (m) Below Grade	Concrete Cap Below Grade
MW-201-19	9.6	9.6	NO	1.5	0.15	J-Plug	Flush Mount	0.6	0.3	0.3
MW-202-19	6.3	6.1	NO	1.5	0.15	J-Plug	Flush Mount	0.6	0.3	0.3
MW-203-19	5.5	5.5	NO	1.5	0.15	J-Plug	Flush Mount	0.6	0.3	0.3
MW-204-19	8.1	8	NO	1.5	0.15	J-Plug	Flush Mount	0.6	0.3	0.3

Well No.:	Grade Elevation (m)	TOR Elevation (m)	Date	Measured Depth to WL	WL Elevation
MW-201-19	0	-0.15	28-Aug-19	2.375	-2.375
MW-202-19	0	-0.15	28-Aug-19	3.81	-3.81
MW-203-19	0	-0.15	28-Aug-19	3.36	-3.36
MW-204-19	0	-0.15	28-Aug-19	3.985	-3.985

TABLE 3**LNAPLS and DNAPLS**

	Monitoring Well No.:			
	MW-201-19	MW-202-19	MW-203-19	MW-204-19
Top of LNAPL	Non-Detect	Non-Detect	Non-Detect	Non-Detect
Invert of LNAPL	Non-Detect	Non-Detect	Non-Detect	Non-Detect
Top of DNAPL	Non-Detect	Non-Detect	Non-Detect	Non-Detect
Invert of DNAPL	Non-Detect	Non-Detect	Non-Detect	Non-Detect