King EPCM
www.KingEPCM.com
204-304 Toronto Street South
Uxbridge, ON, L9P 1Y2
T: 647-459-5647
General@KingEPCM.com

ENVIRONMENTAL SITE ASSESSMENT
PHASE II REPORT

AT

MAPLEVIEW PORT COLBORNE

PART OF LOTS 31, 32 & 33,
CONCESSION 1,
TOWNSHIP OF HUMBERSTONE,
CITY OF PORT COLBORNE,
KILLALY STREET WEST, ONTARIO

PREPARED FOR:

1000046816 ONTARIO LIMITED
1 VALLEYBROOK DR SUITE 303, NORTH YORK, ON M3B 2S7

April 29, 2022

Table of Contents

1. EXECUTIVE SUMMARY

King EPCM (the Engineer) was retained by 1000046816 Ontario Limited (the Client) to conduct a Phase II Environmental Site Assessment (ESA) of the property on the previous concrete factory area, located at Mapleview Port Colborne, Part of Lots 31, 32 & 33, Concession 1, Township of Humberstone, Killaly Street West, City of Port Colborne, Ontario (the Site). It is understood that the Phase II ESA documented herein is being undertaken by the Client for the purpose of due diligence for financial institutions. The Records of Site Condition (RSC) submission would be required in the future for the property development.

The date of the last work on all of the planning for the scope of work, conducting the Site investigation, and receiving and evaluating the information gathered during the Site inspection for the Phase II ESA (per Section 33.5 (1) (a) of O. Reg. 153/04) is March 29th, 2022. For the purposes of filing an RSC, the Certification Date of the Phase II ESA (per Section 17 (3) of O. Reg. 153/04) is March 11th, 2022.

The Site has an area of approximately 563,000 m^2 (139 acres) and is situated at the south of Highway 3, west of Killaly Street, east of Cement Road, north of Gord Harry Conservation Trail, Port Colborne, Ontario. The Site was on the industrial land use, with residential properties to the north, east and south, and a quarry pond to the west followed by the agricultural area. The previous concrete factory area was located southeast of the Site.

The Phase II ESA was undertaken to assess the following Contaminates of Concerns (COC's), identified in the Phase I ESA and proposed in the Phase II ESA investigation scope of work, for nine borehole soil samples and three groundwater monitoring well samples in the Areas of Potential Environmental Concerns (APEC's), associated with the previous Potentially Contaminating Activities (PCA's).

1. Petroleum hydrocarbons (PHC F1 – F4, BTEX)
2. Volatile organic compounds (VOCs, BTEX included in PHC)
3. Metals (metal for soil, dissolved metals for groundwater)
4. General chemistry (Conductivity, SAR, pH, etc.)

The soil and groundwater criteria from the Ministry of Environment, Conservation and Parks (MECP) was applied, Table 7: Generic Site Condition Standards for Shallow Soils in a Non-Potable Ground Water Condition, with Land Use of Residential/Parkland/Institutional Property, with coarse textured soils, *Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (March 2021)*, (Criteria).

The Phase II ESA identified that the following soil samples from the depth of 0.5 m in the previous concrete factory area exceeded the Criteria for some metals and F3 concentrations:
Unit: µg/g
BH1: Nickel 664 > 100
Benzene VOC 0.25 > 0.21

BH3: Nickel 568 > 100
BH4: Nickel 107 > 100
BH5: Lead 172 > 120
BH6: Lead 173 > 120;
F3 1630 > 300
BH8: Cadmium 1.38 > 1.2
BH9: Cobalt 34.8 > 22

The Phase II ESA indicated that the following groundwater samples near the stockpile area exceeded the Criteria for benzene concentration:
Unit: µg/L
BH103MW: Benzene from BTEX: 1.2 > 0.5
Benzene from VOC's: 0.6 > 0.5

Based on the findings of the Phase II ESA, it is the professional opinion from King EMPC that a remediation program is required for the surficial soil contaminated in the previous factory area. Since the Site is situated in a shallow soil property (less than 2 m deep beneath the soil surface), the shallow soil remediation options for the previous factory location including removal of the remnant concrete foundation and rebar residue would be recommended. New overburden clean soil would be introduced onto the top of the remediated area, in order to change the shallow soil feature to stratified soil feature, and the applicable Criteria might be also changed from Table 7 of shallow soils to Table 5 of stratified site.

Groundwater wells would be further purged, in order to remove the impact of stagnant water in the wells potentially associated with the drilling process. Groundwater monitoring wells would be then allowed to recharge. After the completion of full purging and recharging, the groundwater monitoring wells would be re-sampled.

2. INTRODUCTION

King EPCM (the Engineer) was retained by 1000046816 Ontario Limited (the Client) to conduct a Phase II Environmental Site Assessment (ESA) of the property on the previous concrete factory area, located at Mapleview Port Colborne, Part of Lots 31, 32 & 33, Concession 1, Township of Humberstone, Killaly Street West, City of Port Colborne, Ontario (the Site). It is understood that the Phase II ESA documented herein is being undertaken by the Client for the purpose of due diligence for financial institutions. The Records of Site Condition (RSC) submission would be required in the future for the property development.

A draft Phase I ESA Report was completed by King EPCM on December 17th, 2021, with the findings documented for PCA's, and recommendation of a Phase II ESA. King EPCM was retained by the Client to perform the Phase II ESA for further investigation.

The objective of the Phase II ESA investigation was to assess the APEC's associated with the previous PCA's onsite as identified in the Phase I ESA, for possible contaminates found in the soil or water on, in, or under the Phase II property.

2.1. SITE DESCRIPTION

The Site has an area of approximately 563,000 m^2 (139 acres) according to the Site Survey from Chambers and Associates Surveying Ltd. (Surveyor). The Site is situated at the south of Highway 3, west of Killaly Street, east of Cement Road, north of Gord Harry Conservation Trail, Port Colborne, Ontario. The Site was on the industrial land use, with residential properties to the north, east and south, and a quarry pond to the west followed by the agricultural area. The previous concrete factory area was located southeast of the Site.

The Phase II ESA property has the following description, based on the information from the Phase I ESA:

Site Address:	0th Killaly Street West, Port Colborne
PIN:	641570023, 641570022, 641570123
Legal Description:	Part of Lots 31, 32 and 33, Concession 1; Part of Road Allowance between Lots of 32 and 33, Concession 1; Part of Road Allowance between Townships of Wainfleet and Humberstone; Port Colborne. Part 1, 2, and 3 for PIN 64157-0023 (LT) Part 4, 5, 6 and 7 for PIN 64157-0022 (LT) Part 8 and 9 for PIN 64157-0123 (LT)

2.2. PROPERTY OWNERSHIP

The current owner of the property is Colborne Estate Company Ltd.

2.3. CURRENT AND PROPOSED FUTURE USES

During the time of the investigation, it was identified that the property was currently empty with no occupants. There were grassland and trees throughout the property, with historical quarry ponds on the west of the Site and remnant concrete foundation at the previous concrete factory area southeast of the Site. The Site was partially used as an industrial land for the concrete factory previously, and would be changed to a proposed residential land use in the future.

2.4. APPLICABLE SITE CONDITION STANDARDS

The following Site specific details were present for determining the soil and groundwater quality standards:

- Less than 2 m of overburden was observed during the work program.
- The Site contained a water body, i.e. the existing Quarry Ponds at the west side of the Site which was categorized as “provincially significant wetland (PSW)”. The Site was at the downstream of the Area of Natural Significance (ANSI) for “Wainfleet Bog Wetland Complex”, which would be further confirmed by a Natural Heritage Evaluation (NHE) Report to determine if the Site was situated as part of this ANSI area. However the previous concrete factory area and the borehole/groundwater well locations did not include land within 30 m of a water body.
- Stratified site conditions would not be used when evaluating laboratory analytical results.
- The use of the Site was previously an industrial land but would be changed to a residential land, within the Residential/Parkland/ Institutional land use category.
- The Site would be serviced with a municipal drinking water supply, and groundwater was not considered to be potable.
- Soil at the Site has been classified as “coarse textured” comprised mostly of gravelly sandy clay, as denoted in the borehole drill logs.

Based on the above conditions, the soil and groundwater criteria from MECP was applied, Table 7: Generic Site Condition Standards for Shallow Soils in a Non-Potable Ground Water Condition, with Land Use of Residential/Parkland/ Institutional Property, with coarse textured soils, *Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (March 2021)*, (Criteria).

3. BACKGROUND INFORMATION

3.1. PHYSICAL SETTING

3.1.1. WATER BODIES & AREAS OF NATURAL SIGNIFICANCE

Based on OBM and MNRF Topographic Maps, the Site Survey by the Surveyor and the Site visit, the water body onsite was the existing Quarry Ponds on the property, which was categorized as "provincially significant wetland" (PSW). The Site was at the downstream of the Area of Natural Significance (ANSI) for "Wainfleet Bog Wetland Complex", which would be further confirmed by a Natural Heritage Evaluation (NHE) Report to determine if the Site was situated as part of this ANSI area. However the previous concrete factory area and the borehole/groundwater well locations did not include land within 30 m of a water body.

3.1.2. TOPOGRAPHY & SURFACE WATER DRAINAGE

A review of the topographic information from the Ontario Base Map (OBM), the Ministry of Natural Resources and Forestry (MNRF) indicated that the Site was located on a relatively flat area with a general elevation of approximate 180 m (amsl), with the quarry pond elevation of 176 m (amsl) located at west and southwest area. The general surface water drainage was towards the southwest direction in the region.

3.2. PAST INVESTIGATIONS

A Phase I ESA was completed by King EPCM:

- *Phase I Environmental Site Assessment, Part of Lots 31, 32 & 33, Concession 1, Township Of Humberstone, City of Port Colborne, Killaly Street West, Ontario. December 12th, 2021.*

3.2.1. SUMMARY OF PAST INVESTIGATIONS

A summary of the Phase I ESA Report, December 12th, 2021 was as below:

- The Site was on an industrial land use.
- There was a concrete factory previously operated on Site.
- One APEC was identified within the Phase I property.
- Four COCs were identified: VOC, PHC, metals and general chemistry.

3.2.2. CONFIRMATION OF PREVIOUS INVESTIGATIONS

Confirmation of the Phase I ESA report was conducted through:

- Review of the historical photographs.

- Review of historical environmental records in the ERIS Database Reports, dated November 29th, 2021.
- Review of Phase I ESA investigation, conclusion and recommendation.
- Site investigation regarding the noted APECs within the Phase I site property, and scope of work for borehole drilling and groundwater monitoring well installation plan.

4. SCOPE OF INVESTIGATION

4.1. OVERVIEW OF SITE INVESTIGATION

The scope of the assessment from King EPCM consisted of the following:

- Preparation of a sampling and analysis plan for the target APEC's locations, laboratory analytical program, appropriate sampling containers and preservation methods supplied by the laboratory. The sample IDs and tested parameters can be found in Appendix I, and the sampling and analysis plan can be found in the Appendix II.
- Drilling of nine boreholes in the surficial soil to 0.5 m deep in the previous factory area.
- Drilling of three boreholes to approximately 10 - 15 m, in the previous factory area, at the stockpile area west of the previous factory, and at the abandoned small pond area northwest of the previous factory, respectively.
- Conversion of these three boreholes to three groundwater monitoring wells respectively.
- Collection of soil samples from nine soil borehole locations.
- Logging of appropriate soil characteristics during the three borehole program.
- Collection of groundwater samples from three groundwater monitoring wells.
- Submission of soil and groundwater samples to the laboratory.
- Evaluation of the laboratory analytical results against the appropriate site condition standards.

4.2. MEDIA INVESTIGATED

Based on the findings of Phase I ESA investigation for the subject property, which was used as a concrete factory in the industrial land, the Site would have been potentially exposed to COC's including PHC, VOC, metals and general chemistry (EC, SAR, pH, etc.) concerns associated with the previous PCA's.

Due to the above COC's, the Phase II ESA program included the investigation of both soil and groundwater at the Site. Sediment was not present at the Site, and therefore was not included within the investigation.

Nine boreholes (BH1 - BH9) were advanced using hand auger inside and around the previous concrete factory location, to the depth of 0.5 m to the soil, due to the local characteristics of shallow soil.

Three boreholes (BH101MW – BH103MW) were advanced to approximately the depth of 15 m using a D-50 Driller at the previous factory area, stockpile area and small abandoned pond area. Then these boreholes were converted into the groundwater monitoring wells. Groundwater was investigated and appropriate groundwater samples were taken and sent to the laboratory for chemical analysis.

4.3. PHASE I CONCEPTUAL SITE MODEL

Phase I ESA Conceptual Site Model completed by King EPCM was summarized as follows:

- Site Features: The Site has an area of approximately 563,000 m^2 and is situated at the south of Highway 3, west of Killaly Street, east of Cement Road, north of Gord Harry Conservation Trail, Port Colborne, Ontario. The Site was on the industrial land use, with residential properties to the north, east and south, and a quarry pond to the west followed by the agricultural area. The previous concrete factory area was located southeast of the Site.
- Land Uses: The Site was considered as the industrial land use historically throughout the years until the factory was demolished. The Site was currently vacant. The adjacent property included residential and agricultural properties.
- Geology / Hydrogeology: The Site was situated at the Limestone Plan physiographic area. Surficial materials contained Cherty limestone including locally glausonitic sandstone of the Springval Member. The rock type included limestone, dolostone and shale. The general surface water drainage was towards the southwest direction in the region.
- PCA's and APEC's: Four PCA's were identified within the Phase I property, with one associated APEC's in the previous factory area:

  APEC#1: PCA#12 Concrete, Cement and Lime Manufacturing,
  PCA#30 Importation of Fill Material of Unknown Quality,
  PCA#39 Paints Manufacturing, Processing and Bulk Storage
  PCA#46 Rail Yards, Tracks and Spurs
- Uncertainty: It was not expected that any uncertainty or absence of information would affect the validity of the Phase I Conceptual Site Model (CSM).

4.4. DEVIATION FROM THE SAMPLING AND ANALYSIS PLAN

No deviations from the Phase II ESA were encountered for the soil and groundwater investigation plan during the soil and groundwater sampling program. Soil and groundwater samples were collected and submitted to the lab for the analyses.

4.5. IMPEDIMENTS

Ontario One Call was contacted for the underground line locates investigation prior to conducting the borehole drilling event. No impediments were encountered.

5. INVESTIGATION METHOD

5.1. GENERAL

The Site was investigated solely through borehole drilling, with soil sampling and groundwater sampling from the boreholes on the Site.

A total of three boreholes (BH101MW - BH103MW) were drilled onsite on February 28th, March 1st, 2nd, and 3rd, 2022, in the previous factory area, at the stockpile area west of the previous factory, and at the abandoned small pond area northwest of the previous factory, respectively. All boreholes were converted into the groundwater monitoring wells immediately after the completion of borehole drilling individually, in accordance with O. Reg. 903 criteria. Three groundwater monitoring wells were completed based on the three boreholes.

A total of nine boreholes (BH1 – BH9) were drilled at the previous concrete factory area on the shallow soil site.

5.2. BOREHOLE DRILLING

Three boreholes (BH101MW – BH103MW) were drilled by Terra Firma Environmental Services Ltd. (Terra Firma) on February 28th, March 1st, 2nd, and 3rd, 2022, using a trailer-mounted D-50 Drilling Rig, to the depth of 15.12 m, 10.61 m and 11.13 m respectively. Detailed field logging and soil classification can be found in Appendix II.

Measures to minimize potential cross-contamination included:

- Removal of any dirt / debris from the drilling auger and equipment after each drilling.
- Thorough cleaning of all the drilling auger and equipment, removing dried and wet materials and cleaning all crevices within the equipment, and finally rinsing with a bucket of potable tap water.

Nine boreholes (BH1 – BH9) were drilled at the surficial soil to the depth of 0.5 m using a hand auger in the previous factory area. Soil samples were collected from each sample point for lab analyses.

5.3. SOIL SAMPLING

Soil samples for analyses were obtained into laboratory supplied containers, using laboratory supplied “Terra Core Soil Sampler” disposable sampling tool for small vials, then placed in a cooler with ice-packs. The soil samples were delivered to the laboratory for analysis, under signed chain of custody. Sample ID and tested parameters can be found in Appendix I.

5.4. FIELD SCREENING MEASUREMENTS

Since the Site is situated on the shallow soil area with approximately less than 1 m overburden above the gravel or bedrock layer underneath, the field screening for soil was not realistic. The three deep boreholes were converted into the groundwater monitoring wells, aiming to test the

groundwater quality; while the shallow soil from the previous factory area were collected for surficial soil quality test.

5.5. GROUNDWATER

5.5.1. MONITORING WELL INSTALLATION

Three deep boreholes were all converted into groundwater monitoring wells individually for this project. The groundwater monitoring well installation was also completed by Terra Firma.

Measures to minimize potential cross-contamination of the groundwater monitoring well included:

- Removal of any dirt / debris from the drilling auger and equipment after each drilling.
- Thorough cleaning of all the drilling auger and equipment, removing dried and wet materials, and cleaning all crevices within the equipment, and finally rinsing with a bucket of potable tap water.
- Groundwater monitoring wells were installed immediately after borehole drilling was completed.
- Each well screen and riser(s) was protected in each plastic bag before being taken out for installation. All groundwater monitoring wells were casing up type.

5.5.2. MONITORING WELL DEVELOPMENT METHOD

Three groundwater monitoring wells (BH101MW to BH103MW) were developed after the installation of groundwater monitoring wells, with the following procedures:

- The monitoring wells were investigated one day after the completion of the wells. BH102MW was recharged with water while other two monitoring wells did not contain enough water.
- Three groundwater monitoring wells were completely purged on March 4, 2022, then let naturally recharge before sampling.
- Based on the measured water level and the well diameter installed, estimate the volumes in litre of groundwater removed for each completed cycle.
- Additional information for monitoring well development method can be found in Appendix II, SOP – ENV006.1, Monitoring Well Development

5.6. FIELD MEASUREMENTS OF WATER QUALITY PARAMETERS

Prior to conducting groundwater sampling activities, light non-aqueous phase liquids (LNAPL) and dense non-aqueous phase liquids (DNAPL) were observed and discovered no sign of LNAPL or DNAPL. The temperatures of the groundwater were not tested on the groundwater while the pH parameters for each well were analyzed in the lab.

5.7. GROUNDWATER SAMPLING

Groundwater samples were taken on March 11, 2022, following a pre-sampling groundwater purge, using a submersible groundwater pump. The groundwater samples were collected directly into pre-cleaned, laboratory supplied sampling bottles (some with appropriate stabilizers/doses), and packed into a cooler with ice packs. The groundwater samples were delivered to the laboratory for analysis by hand, under signed chain of custody. The groundwater samples were not field filtered, and sample filtering was requested to be conducted by the laboratory prior to metals analysis.

5.8. SEDIMENT SAMPLING

Sediment sampling was not completed as sediment was not present at the site.

5.9. ANALYTICAL TESTING

Laboratory analytical services were provided by Testmark Laboratories Ltd. (Testmark) in their Mississauga office. Testmark is accredited by CALA to the standards of ISO 17025 – *General Requirements for the Competence of Testing and Calibration Laboratories* and licensed by the Ministry of Environment, Conservation and Parks (MECP).

5.10. RESIDUE MANAGEMENT

Drill cuttings including gravel generated from the borehole drill program were left on Site, and used to create a raised collar around the monitoring well steel monument. Purged water from monitoring wells was allowed to naturally seep back into the ground, as there were relatively little amounts. Waste cleaning waters were discharged and allowed to naturally seep back into the ground.

5.11. ELEVATION SURVEYING

King EPCM completed the elevation survey on the property on March 1st to 4th and March 11th, 2022, using a GPS coordinates meter at the three monitoring well locations (BH101MW – BH103MW) and the nine borehole locations (BH1 to BH9) respectively.

5.12. QA/QC MEASURES

Sampling containers and preservations were supplied by the laboratory prior to the start of the sampling program. All sample containers were labelled to specify the sample identifications. Soil samples were collected from the split-spoon auger sampler, then collected from bags into sample jars and vials provided by Testmark (using pre-supplied disposable tools for small sample vials), then immediately placed in a cooler with ice packs. Groundwater samples were collected with a

dedicated submersible groundwater pump, directly into supplied containers. After all soil and groundwater samples were collected, they were chilled and delivered to the laboratory, by hand, under signed chain of custody. Equipment cleaning procedures included:

- Don fresh latex / nitrile gloves prior to working
- The laboratory-supplied "Terra Core Soil Sampler" disposable sampling tools

For the QA/QC of both soil and groundwater sampling, two duplicate soil samples (BH1 and BH9), and one duplicate groundwater sample (BH101MW) were analyzed in Testmark.

6. REVIEW AND EVALUATION

6.1. GEOLOGY

Based on the review of historical geology records and onsite observation of borehole drilling program, the Site was situated on the shallow soil area with gravel, stone and bedrock underneath the surficial soil. The three deep boreholes contained approximately 0.5 m layer of surficial soil with grassy topsoil, followed by gravel and stone layers to the maximum depth of 10 – 15 m reaching the bedrock layer. The nine surface boreholes at the previous factory area contained approximately 0.5 m layer of shallow soil with grassy topsoil, followed by concrete remnant foundations or gravel and stone layers. According to the Site elevation survey completed by King EPCM on March 1st to 4th and March 11th, 2022, the general Site elevation is approximately 179 m above mean sea level (amsl). The detailed borehole & elevation information can be found in Appendix III.

6.2. GROUNDWATER ELEVATION AND FLOW DIRECTION

Groundwater elevation and monitoring well elevation were measured and calculated in the following table:
The monitoring well information is listed as a chart below:

	BH101 MW	BH102 MW	BH103 MW
Date of Well Installation	Mar. 2, 2022	Feb. 28, 2022	Mar. 1, 2022
Date of Groundwater Measurement	Mar. 3, 2022	Mar. 3, 2022	Mar. 3, 2022
Elevation of Well Surface (m)	179.69	178.54	179.30
Top of Screen Elevation (m)	167.57	170.93	171.76
Bottom of Screen Elevation (m)	164.57	167.93	168.76
Bottom of Monitoring Well (m)	164.57	167.93	168.76
Elevation of Groundwater Level (m)	168.21	177.77	177.43
Groundwater Well Depth (m)	15.12	10.61	11.13
Groundwater Depth (m)	3.40	9.84	8.26
Sampling Interval (m)	11.72 - 15.12	0.77 - 10.61	2.87 - 11.13
LNAPL Thickness	none	none	none
LNAPL Thickness	none	none	none

The borehole drill log with groundwater can be found in Appendix III. From the groundwater elevation in the three monitoring wells, it is determined that the overall ground water flow direction for the Site was towards southeast direction.

6.3. GROUNDWATER HYDRAULIC GRADIENTS AND CONDUCTIVITY

The interpreted horizontal groundwater flow direction was illustrated, and the groundwater gradient was calculated at approximately 3.6% or 9m/250m, trending southeast. The primary groundwater –bearing lithology type from the drilled boreholes contained gravelly sandy clay.

6.4. SOIL TEXTURE

Soil texture was analyzed as part of borehole field logging, as recorded in the borehole field long in Appendix III. Based on the results of the analysis, soil contained gravelly sandy clay from topsoil to gravelly stone to the bedrock layer. Overall the entire site is classified as "coarse textured" as per the definition of O. Reg. 153/04.

6.5. SOIL FIELD SCREENING

Since the Site is situated on the shallow soil area with approximately less than 1 m overburden above the gravel or bedrock layer underneath, the field screening for soil was not conducted. The three deep boreholes were converted into the groundwater monitoring wells, aiming to test the groundwater quality; while the shallow soil from the previous factory area were collected for surficial soil quality test.

6.6. SOIL QUALITY

Soil from all nine boreholes at the previous factory location within the surficial soil layer was sampled at approximately 0.5 m. Soil samples from each borehole were collected on March 1st, 2nd and 3rd for lab analyses for VOCs, petroleum hydrocarbons, metals and general chemistry parameters associated with the previous PCA's onsite.

Table 1 - Summary of Soil Samples Submitted for Chemical Analysis

Sample ID	Sample Location	Sample Date	Sample depth (m)	Rationale	Soil VOC	Soil F1-F4, BTEX	Soil Metals	Soil SAR, E/C, pH
BH1	Previous concrete factory location	Mar.1, 2022	0.5	APEC#1: PCA#12, PCA#30, PCA#39, PCA#46	x	x	x	x
BH2		Mar.1, 2022	0.5		x	x	x	x
BH3		Mar.1, 2022	0.5		x	x	x	x
BH4		Mar.2, 2022	0.5		x	x	x	x
BH5		Mar.1, 2022	0.5		x	x	x	x
BH6		Mar.2, 2022	0.5		x	x	x	x
BH7		Mar.2, 2022	0.5		x	x	x	x
BH8		Mar.3, 2022	0.5		x	x	x	x
BH9		Mar.3, 2022	0.5		x	x	x	x

Parameters tested in each soil sample were shown in Table 1. Nine soil samples submitted for laboratory analyses returned with seven samples exceeding the Criteria, with the exception of BH2 and BH7.
BH1 exceeded nickel and VOC benzene concentrations
BH3 exceeded nickel concentration
BH4 exceeded nickel concentration
BH5 exceeded lead concentration
BH6 exceeded lead and F3 concentrations
BH8 exceeded cadmium concentration
BH9 exceeded cobalt concentration

Therefore a soil remediation at the previous factory location would be required.
.

6.7. GROUNDWATER QUALITY

Three deep boreholes were developed into three groundwater monitoring wells individually after the completion of each borehole drilling. A 2" PVC pipe was installed inside each borehole, with a screen approximately 3 m from the bottom of the well. The groundwater was purged to remove all the volume, and the sample was taken after the recharge.

BH101MW was located at the south part of the previous factory location, and was developed into a groundwater monitoring well to a depth of 15.12 m. The groundwater level was approximately 11.7 m.

BH102MW was located at an abandoned pond area, northwest of the previous factory location, and was developed into a groundwater monitoring well to a depth of 10.61 m. The groundwater level was approximately 0.8 m.

BH103MW was located at the foot of a stockpile area, west of the previous factory location, and was developed into a groundwater monitoring well to a depth of 11.13 m. The groundwater level was approximately 2.9 m.

Table 2 – Summary of Groundwater Samples Submitted for Chemical Analysis

Sample ID	Sample Location	Sample Date	Sample depth (m)	Rationale	GW VOC	GW F1-F4, BTEX	GW Metals	GW pH
BH101 MW	southeast at previous factory location	Mar. 11, 2022	11.72 -15.12	APEC#1	x	x	x	x
BH102 MW	northwast near a small pond area	Mar. 11, 2022	0.77 - 10.61	Northwest to APEC#1, also to determine groundwater flow direction	x	x	x	x
BH103 MW	south and west at the base of the stockpile	Mar. 11, 2022	2.87 - 11.13	Southwest to APEC#1, also to determine groundwater flow direction	x	x	x	x

The analytical results indicated that the groundwater quality met the Criteria with the exception of the following well and parameters:
BH103MW exceeded benzene concentrations from BTEX and VOCs portions.

A second round of groundwater sampling would be required after further purging to remove any potential impact of stagnant water inside the wells and allow the recharging. Sample procedures would be strictly followed including filling the vials with full of groundwater sample without a headspace at the top of vials.

6.8. SEDIMENT QUALITY

Sediments were not evaluated during this investigation, as sediments were not present on Site.

6.9. QA/QC RESULTS

The QA/QC program for laboratory analysis consisted of the following:

- BH1, a duplicate soil sample of BH1 in the laboratory analysis.
- BH9, a duplicate soil sample of BH9 in the laboratory analysis.
- BH101MW, a duplicate groundwater sample of BH101MW in the laboratory analysis.

The concentration of tested parameters for the pair of BH1 and BH9 soil samples, and the pair of BH101MW groundwater samples showed generally acceptable correlations. There were no issues raised with regards to the duplicate samples for both soil and groundwater samples. There were no instances where samples were believed to be mishandled in accordance with the Analytical Protocol. The laboratory internal QA/QC can be seen as in the Certificate of Analysis in Appendix IV.

Two separate Certificates of Analysis were available in Appendix IV, and all complied with the regulation of Section 47 (3) of O. Reg. 153/04. All soil and groundwater samples sent to the laboratory were accounted for within the Certificate of Analysis, and all full Certificate of Analysis received have been included in full in Appendix IV.

The quality of the QA/QC program was satisfactory. From the analysis above, there were no concerns regarding the reliability or the consistency of the laboratory testing methods.

6.10. PHASE II CONCEPTUAL SITE MODEL

6.10.1. SITE SITUATION WITH PCA'S, APEC'S, AND COC'S

The Site has an area of approximately 563,000 m^2 (139 acres) according to the Site Survey. The Site is situated at the south of Highway 3, west of Killaly Street, east of Cement Road, north of Gord Harry Conservation Trail, Port Colborne, Ontario. The Site was on the industrial land use, with residential properties to the north, east and south, and a quarry pond to the west followed by the agricultural area. The previous concrete factory area was located southeast of the Site.

A draft Phase I ESA Report was completed by King EPCM on December 17th, 2021, with the findings of APEC's associated with the PCA's onsite in the previous concrete factory area including the COC's of petroleum hydrocarbons, VOC's, metals and general chemical parameters.

King EPCM reviewed the Phase I ESA report and all relevant information, and determined the following APEC's onsite to be investigated in the Phase II ESA. No offsite PCA's were identified that would create an APEC.

Soil investigation in the previous concrete factory area:
APEC#1:
PCA#12 Concrete, Cement and Lime Manufacturing,
PCA#30 Importation of Fill Material of Unknown Quality,
PCA#39 Paints Manufacturing, Processing and Bulk Storage
PCA#46 Rail Yards, Tracks and Spurs

Groundwater investigation including the location near the previous factory area, and two other locations at a stockpile and an abandoned pond area:
APEC#1:
PCA#12 Concrete, Cement and Lime Manufacturing,
PCA#30 Importation of Fill Material of Unknown Quality,
PCA#39 Paints Manufacturing, Processing and Bulk Storage
PCA#46 Rail Yards, Tracks and Spurs
APEC#2 and #3:
PCA#12 Concrete, Cement and Lime Manufacturing

Table 3 - Table of Areas of Potential Environmental Concerns

APEC	Location of APEC	PCA	Location of PCA (onsite or offsite)	COC	Media
APEC#1	Previous Concrete Factory Locatoin	PCA#12, PCA#30, PCA#39, PCA#46	Onsite (entire previous factory place)	PHC F1-F4, BTEX, VOC's, Metals, General Chemistry	Soil
APEC#1	Previous Concrete Factory Locatoin	PCA#12, PCA#30, PCA#39, PCA#46	Onsite (testing groundwater)	PHC F1-F4, BTEX, VOC's, Metals, General Chemistry	Groundwater
APEC#2,3	Northwest and southwest of previous Factory	Potential PCA#12	Onsite (near a small pond area, and at the base of a stockpile area)	PHC F1-F4, BTEX, VOC's, Metals, General Chemistry	Groundwater

For the scope of work in the Phase II ESA, nine boreholes (BH1 – BH9) were drilled at the previous concrete factory location on the surficial soil layer to test the local soil quality for any impacts from previous PCA's. Three deep boreholes (BH101MW – BH103MW) were drilled and developed into the groundwater monitoring wells at the previous factory area and two other nearby locations on the Site, to test the local groundwater quality for any impacts, and determine the groundwater flow direction.

The soil and groundwater criteria from the Ministry of Environment, Conservation and Parks (MECP) was applied, Table 7: Generic Site Condition Standards for Shallow Soils in a Non-Potable Ground Water Condition, with Land Use of Residential/Parkland/Institutional Property, with coarse textured soils, *Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (March 2021)*, (Criteria).

Based on the analytical results for soil and groundwater samples collected, it is the professional opinion from King EMPC that a soil remediation program is required for the contaminated surficial soil at the previous concrete factory area. Groundwater in the three monitoring wells would be re-purged completely and would be re-sampled after recharging.

6.10.2. PHYSICAL SETTING OF PHASE II PROPERTY

The surficial geology indicated that the Site was located in the Onondaga and Bois Blanc Formation. The surficial materials contained Cherty limestone including locally glausonitic sandstone of the Springvale Member. The Phase I property is located on a relatively flat area with a general elevation of approximate 180 m (amsl), with the quarry pond elevation of 176 m (amsl). The general surface drainage is towards the southwest direction in the region.

Based on OBM and MNRF Topographic Maps, the Site Survey by the Surveyor and the Site visit, the water body onsite was the existing Quarry Ponds on the property, which was categorized as

"provincially significant wetland" (PSW). The Site was at the downstream of the Area of Natural Significance (ANSI) for "Wainfleet Bog Wetland Complex", which would be further confirmed by a Natural Heritage Evaluation (NHE) Report to determine if the Site was situated as part of this ANSI area. However the previous concrete factory area and the borehole/groundwater well locations did not include land within 30 m of a water body.

The stratigraphy of the Phase II study area was generally surfaced with a layer of grassy topsoil and sandy clayed soil to approximately 0.5 m, followed by gravelly stone brown sandy clay underneath, wet or muddy with the depth of boreholes. Bedrock was encountered during the three deep boreholes drilled to 10 – 15 m. The Site was therefore considered as a shallow-soil property.

6.10.3. CONTAMINATES AND SITE CONDITION STANDARDS

Soil samples from nine boreholes (BH1 to BH7) at the previous factory area were collected on March 1st to 3rd, 2022. The analytical results indicated that heavy metals and some hydrocarbons exceeded the Criteria for all boreholes except BH2 and BH7. These exceedances could have been associated with the previous onsite contaminated activities in the factory, and a soil remediation program would be required for the exceedance.

The analytical results for soil exceedances were summarized in the following table:

Table 4 – Soil Analytical Results from Soil Borehole Samples on March 1st to 3rd, 2022

ID	Depth (m)	Location	Parameter	Exceedance	Criteria*
BH1	0.5	Southeast of factory	Nickel (µg/g)	**644**	**100**
			VOC Benzene (µg/g)	**0.25**	**0.21**
BH3	0.5	Southwest of factory	Nickel (µg/g)	**568**	**100**
BH4	0.5	East of factory	Nickel (µg/g)	**107**	**100**
BH5	0.5	Middle of factory	Lead (µg/g)	**172**	**120**
BH6	0.5	West of factory	Lead (µg/g)	**173**	**120**
			F3 (µg/g)	**1630**	**300**
BH8	0.5	North of factory	Cadmium (µg/g)	**1.38**	**1.2**
BH9	0.5	Northwest of factory	Cobalt (µg/g)	**34.8**	**22**

* Table 7: Generic Site Condition Standards for Shallow Soils in a Non-Potable Ground Water Condition, with Land Use of Residential/Parkland/Institutional Property, with coarse textured soils, *Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (March 2021)*

The BH101MW and BH103MW did not contain sufficient groundwater for sampling after the completion of well development on March 3rd, 2022. The groundwater samples from the three groundwater monitoring wells (BH101MW to BH103MW) were collected on March 11th, 2022 after the purge and recharge. The analytical results indicated that BH103MW exceeded the Criteria for benzene concentrations in BTEX and VOC portions. Due to the incomplete purging and sampling discrepancy, the volatile compound results might have been biased. It was required

that the groundwater would be re-sampled following strict purging and sampling procedures, including allowing the recharging time after complete purging.

The analytical results for the groundwater exceedances were summarized in the following table:

Table 5 – Groundwater Analytical Results from Groundwater Monitoring Wells on March 11th, 2022

ID	Location	Parameter	Exceedance	Criteria*
BH103MW	Near the stockpile area	Benzene via BTEX (µg/L)	**1.2**	**0.5**
		Benzene via VOC (µg/L)	**0.6**	**0.5**

* Table 7: Generic Site Condition Standards for Shallow Soils in a Non-Potable Ground Water Condition, with Land Use of Residential/Parkland/Institutional Property, with coarse textured soils, *Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (March 2021)*

6.10.4. DELINEATION OF CONTAMINATES AT SITE

No vertical or horizontal delineation of soil contaminates were required or planned at this time, as the Site was considered a shallow soil property with only a short layer of overburden, and the size of previous factory was estimated.

6.10.5. PATHWAYS AND EXPOSURE OF CONTAMINATES

No pathway or exposure analysis was required.

7. CONCLUSIONS

7.1. SUMMARY OF PHASE II ESA

The Phase II ESA identified that the soil quality for surface soil at the previous concrete factory area excceded the Criteria for heavy metals and hydrocarbon concentrations as follows:
Unit: µg/g:
BH1: Nickel 664 > 100
Benzene VOC 0.25 > 0.21
BH3: Nickel 568 > 100
BH4: Nickel 107 > 100
BH5: Lead 172 > 120
BH6: Lead 173 > 120;
F3 1630 > 300
BH8: Cadmium 1.38 > 1.2
BH9: Cobalt 34.8 > 22

Based on the findings of the Phase II ESA, it is the professional opinion from King EMPC that a remediation program is required for the surficial soil contaminated in the previous factory area.

Unfortunately, due to the very shallow soil cover is very shallow (BH1 – BH9 showed soil cover between 0m and 0.6m in thickness), King EPCM estimates that the off-site removal required is between 9,600m3 ~ 28,800m3 (1000 ~ 3000 truck loads) of soil, primarily for heavy metals contamination and a VERY small area of petroleum hydrocarbon contamination around BH6.

Groundwater shall be fully purged multiple times in order to wash out any drilling contaminates, and re-sampled at a later date, and currently does not pose a significant risk to the project.

7.2. SIGNATURES

The Phase II ESA property is located at Mapleview Port Colborne, Part of Lots 31, 32 & 33, Concession 1, Township of Humberstone, Killaly Street West, City of Port Colborne, Ontario (the Site). The Phase II ESA investigation was conducted under the supervision of Tony Wang, the principal engineer of King EPCM, and a Qualified Person (QP) as in accordance with O. Reg. 153/04 and updated by O. Reg. 511/09. This report was based the Certificate Date of March 11th, 2022.

King EPCM accepts no responsibility or liability for any changes or potential changes in the condition of the site after the Certificate Date. The sampling frequency and sampling locations are chosen based on the best practice guidelines, and to the best of our ability, on field conditions during the project. Conditions beyond sampling locations may vary. Furthermore, this assessment was limited to a study of those chemical parameters specifically addressed in this report. This report pertains, only, to the site specifically described in this report and not to any adjacent or other property.

This report has been prepared for the sole use of 1000046816 Ontario Limited (Client). King EPCM accepts no liability for claims arising from the use of this report, or from actions taken or decisions made as a result of this report, by parties other than the Client.

Respectfully,
King EPCM

Yu Tao (Tony) Wang, P. Eng.
Principal Engineer
Qualified Person, per O. Reg. 153/04

8. REFERENCES

Ontario Regulation 153/04, Record of Site Condition – Part XV.1 of the Act.

Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (March 2021).

Phase I Environmental Site Assessment, Part of Lots 31, 32 & 33, Concession 1, Township Of Humberstone, City of Port Colborne, Killaly Street West, Ontario. December 12th, 2021

Site Survey, Chambers and Associates Surveying Ltd.

APPENDIX I – SAMPLE ID AND TESTED PARAMETERS

Table 1 - Summary of Soil Samples Submitted for Chemical Analysis

Sample ID	Sample Location	Sample Date	Sample depth (m)	Rationale	Soil VOC	Soil F1-F4, BTEX	Soil Metals	Soil SAR, E/C, pH
BH1	Previous concrete factory location	Mar.1, 2022	0.5	APEC#1: PCA#12, PCA#30, PCA#39, PCA#46	x	x	x	x
BH2		Mar.1, 2022	0.5		x	x	x	x
BH3		Mar.1, 2022	0.5		x	x	x	x
BH4		Mar.2, 2022	0.5		x	x	x	x
BH5		Mar.1, 2022	0.5		x	x	x	x
BH6		Mar.2, 2022	0.5		x	x	x	x
BH7		Mar.2, 2022	0.5		x	x	x	x
BH8		Mar.3, 2022	0.5		x	x	x	x
BH9		Mar.3, 2022	0.5		x	x	x	x

Table 2 – Summary of Groundwater Samples Submitted for Chemical Analysis

Sample ID	Sample Location	Sample Date	Sample depth (m)	Rationale	GW VOC	GW F1-F4, BTEX	GW Metals	GW pH
BH101 MW	southeast at previous factory location	Mar. 11, 2022	11.72 -15.12	APEC#1	x	x	x	x
BH102 MW	northwast near a small pond area	Mar. 11, 2022	0.77 - 10.61	Northwest to APEC#1, also to determine groundwater flow	x	x	x	x
BH103 MW	south and west at the base of the stockpile	Mar. 11, 2022	2.87 - 11.13	Southwest to APEC#1, also to determine groundwater flow	x	x	x	x

Table 3 - Table of Areas of Potential Environmental Concerns

APEC	Location of APEC	PCA	Location of PCA (onsite or offsite)	COC	Media
APEC#1	Previous Concrete Factory Locatoin	PCA#12, PCA#30, PCA#39, PCA#46	Onsite (entire previous factory place)	PHC F1-F4, BTEX, VOC's, Metals, General Chemistry	Soil
APEC#1	Previous Concrete Factory Locatoin	PCA#12, PCA#30, PCA#39, PCA#46	Onsite (testing groundwater)	PHC F1-F4, BTEX, VOC's, Metals, General Chemistry	Groundwater
APEC#2,3	Northwest and southwest of previous Factory	Potential PCA#12	Onsite (near a small pond area, and at the base of a stockpile area)	PHC F1-F4, BTEX, VOC's, Metals, General Chemistry	Groundwater

Table 4: Soil Maximum Concentration Data

Certification Date of March 1-3, 2022 for all Soil Samples

Tested Parameter	Units	Table 7 Soil Residential, Coarse	Maximum Sample Concentration	Sample ID
PHC				
F1 - not incl. BTEX	µg/g	55	5	All Samples
F2	µg/g	98	29	All Samples
F3	µg/g	300	**1630**	**BH6**
F4	µg/g	2800	278	All Samples
Benzene	µg/g	0.21	0.054	All Samples
Ethylbenzene	µg/g	2	0.06	All Samples
Toluene	µg/g	2.3	0.19	All Samples
Xylene Total	µg/g	3.1	0.2	All Samples
Metals / Inorganics				
Antimony	µg/g	7.5	2.5	All Samples
Arsenic	µg/g	18	10.2	All Samples
Barium	µg/g	390	164	All Samples
Beryllium	µg/g	4	1.1	All Samples
Boron	µg/g	120		All Samples
Cadmium	µg/g	1.2	**1.38**	**BH8**
Chromium	µg/g	160	32.6	All Samples
Cobalt	µg/g	22	**34.8**	**BH9**
Copper	µg/g	140	14.4	All Samples
Lead	µg/g	120	**173**	**BH5,6**
Mercury	µg/g	0.27	0.13	All Samples
Molybdenum	µg/g	6.9	1.3	All Samples
Nickel	µg/g	100	**644**	**BH1,3,4**
Selenium	µg/g	2.4	1.2	All Samples
Silver	µg/g	20	0.6	All Samples
Thallium	µg/g	1	0.9	All Samples
Uranium	µg/g	23	0.8	All Samples
Vanadium	µg/g	86	47.2	All Samples
Zinc	µg/g	340	271	All Samples
VOC				
Acetone	µg/g	16	<0.5	All Samples
Bromodichloromethane	µg/g	13	<0.01	All Samples
Bromoform	µg/g	0.27	<0.01	All Samples
Bromomethane	µg/g	0.05	<0.02	All Samples
Carbon tetrachloride	µg/g	0.05	<0.01	All Samples
Chloroform	µg/g	0.05	<0.01	All Samples
Chlorobenzene	µg/g	2.4	<0.01	All Samples
Dichlorobenzene 1,2-	µg/g	3.4	<0.01	All Samples
Dichlorobenzene 1,3-	µg/g	4.8	<0.01	All Samples
Dichlorobenzene 1,4-	µg/g	0.083	<0.01	All Samples
Dichlorodifluoromethane	µg/g	16	<0.01	All Samples
Dichloroethane 1,1-	µg/g	3.5	<0.01	All Samples
Dichloroethane 1,2-	µg/g	0.05	<0.01	All Samples
Dichloroethylene 1,1-	µg/g	0.05	<0.01	All Samples
Dichloroethylene cis-1,2-	µg/g	3.4	<0.01	All Samples
dichloroethylene Trans-1,2-	µg/g	0.084	<0.01	All Samples
Dichloropropane 1,2-	µg/g	0.05	<0.01	All Samples

Table 4: Soil Maximum Concentration Data

Certification Date of March 1-3, 2022 for all Soil Samples

Tested Parameter	Units	Table 7 Soil Residential, Coarse	Maximum Sample Concentration	Sample ID
Dichloropropene cis - + trans-1,3-	µg/g	0.05	<0.021	All Samples
Hexane (n)	µg/g	2.8	0.15	All Samples
Methyl ethyl ketone	µg/g	16	<0.1	All Samples
Methyl isobutyl ketone (MIBK)	µg/g	1.7	<0.07	All Samples
Methyl tert-butyl ether (MTBE)	µg/g	0.75	<0.07	All Samples
Tetrachloroethane 1,1,1,2-	µg/g	0.058	<0.01	All Samples
Tetrachloroethane 1,1,2,2-	µg/g	0.05	<0.01	All Samples
Tetrachloroethylene	µg/g	0.28	<0.01	All Samples
Trichlorobenzene 1,2,4-	µg/g	0.36		All Samples
Trichloroethane 1,1,1-	µg/g	0.38	<0.01	All Samples
Trichloroethane 1,1,2-	µg/g	0.05	<0.02	All Samples
Trichloroethylene	µg/g	0.061	<0.01	All Samples
Trichlorofluoromethane	µg/g	4	<0.01	All Samples
Vinyl chloride	µg/g	0.02	<0.01	All Samples
General Chemistry				
pH			7.35	All Samples
Conductivity	µS/cm	700	345	All Samples
SAR		5	0.12	All Samples

Table 5: Groundwater Maximum Concentration Data

Certification Date March 11, 2022 for groundwater testing

Tested Parameter	Units	Table 7 Groundwater Coarse	Maximum Sample Concentration	Sample ID
Metals / Inorganics				
Antimony	µg/L	16000	17.5	All Samples
Arsenic	µg/L	1500	20	All Samples
Barium	µg/L	23000	127	All Samples
Beryllium	µg/L	53	<0.5	All Samples
Boron	µg/L	36000	4010	All Samples
Cadmium	µg/L	2.1	0.3	All Samples
Chromium	µg/L	640	11	All Samples
Copper	µg/L	69	63	All Samples
Lead	µg/L	20	7.9	All Samples
Molybdenum	µg/L	7300	19	All Samples
Nickel	µg/L	390	800	All Samples
Selenium	µg/L	50	10	All Samples
Silver	µg/L	1.2	<0.1	All Samples
Thallium	µg/L	400	0.2	All Samples
Uranium	µg/L	330	24	All Samples
Vanadium	µg/L	200	161	All Samples
Zinc	µg/L	890	228	All Samples
PHC				
F1 - not incl. BTEX	µg/L	420	100	All Samples
F2	µg/L	150	<100	All Samples
F3	µg/L	500	<500	All Samples
F4	µg/L	500	<100	All Samples
Benzene	µg/L	0.5	1.2	BH103MW
Ethylbenzene	µg/L	54	0.9	All Samples
Toluene	µg/L	320	3.2	All Samples
Xylene Total	µg/L	72	5.2	All Samples
VOC				
1,1,1,2-Tetrachloroethane	µg/L	28		All Samples
1,1,1-Trichloroethane	µg/L	6700		All Samples
1,1,2,2-Tetrachloroethane	µg/L	0.5	<0.5	All Samples
1,1,2-Trichloroethane	µg/L	0.5	<0.5	All Samples
1,1-Dichloroethane	µg/L	11	<0.5	All Samples
1,1-Dichloroethylene	µg/L	0.5	<0.5	All Samples
1,2-Dibromoethane	µg/L	0.2	<0.2	All Samples
1,2-Dichlorobenzene	µg/L	150	<0.5	All Samples
1,2-Dichloroethane	µg/L	0.5	<0.5	All Samples
1,2-Dichloropropane	µg/L	0.58	<0.5	All Samples
1,3-Dichlorobenzene	µg/L	7600	<0.5	All Samples
1,4-Dichlorobenzene	µg/L	0.5	<0.5	All Samples
Acetone	µg/L	100000	<30	All Samples
Bromomethane	µg/L	0.89	<0.5	All Samples
Carbon tetrachloride	µg/L	0.2	<0.2	All Samples
Chlorobenzene	µg/L	140	<0.5	All Samples
Chloroform	µg/L	2	<1	All Samples
cis - + trans-1,3-Dichloropropene	µg/L	0.5	<0.5	All Samples

cis-1,2-Dichloroethylene	µg/L	1.6	<0.5	All Samples
Dibromochloromethane	µg/L	65000	<2	All Samples
Dichlorodifluoromethane	µg/L	3500	<2	All Samples
Dichloromethane	µg/L	26	<5	All Samples
Methyl ethyl ketone	µg/L	21000	<20	All Samples
Methyl isobutyl ketone (MIBK)	µg/L	5200	<20	All Samples
Methyl tert-butyl ether (MTBE)	µg/L	15	<2	All Samples
n-Hexane	µg/L	5	<5	All Samples
Styrene	µg/L	43	<0.5	All Samples
Tetrachloroethylene	µg/L	0.5	<0.5	All Samples
Trans-1,2-dichloroethylene	µg/L	1.6	<0.5	All Samples
Trichloroethylene	µg/L	0.5	<0.5	All Samples
Trichlorofluoromethane	µg/L	2000	<5	All Samples
Vinyl chloride	µg/L	0.5	<0.1	All Samples
General Chemistry				
pH			10.2	All Samples

APPENDIX II – SAMPLING AND ANALYSIS PLAN

SAMPLING AND ANALYSIS PLAN
ENVIRONMENTAL SITE ASSESSMENT
PHASE II REPORT

OBJECTIVES

The purpose of the sampling and analysis plan is to ensure that all APECs previously identified during the Phase I ESA program has been considered, and an adequate sampling program to reflect all the possible Contaminates of Concern within the ESA Phase II property.

AREA OF POTENTIAL ENVIRONMENTAL CONCERN (APEC)

After reviewing the Phase I ESA program, the on-site APEC's related to the previous cabinetry manufacturing were the main concerns and were determined to be investigated. The off-site PCA's were not identified that would create an APEC.

The APEC's localized within the Site is listed below:

Soil investigation in the previous concrete factory area:
APEC#1:

PCA#12 Concrete, Cement and Lime Manufacturing,
PCA#30 Importation of Fill Material of Unknown Quality,
PCA#39 Paints Manufacturing, Processing and Bulk Storage
PCA#46 Rail Yards, Tracks and Spurs

Groundwater investigation including the location near the previous factory area, and two other locations at a stockpile and an abandoned pond area:
APEC#1:

PCA#12 Concrete, Cement and Lime Manufacturing,
PCA#30 Importation of Fill Material of Unknown Quality,
PCA#39 Paints Manufacturing, Processing and Bulk Storage
PCA#46 Rail Yards, Tracks and Spurs

APEC#2 and #3:

PCA#12 Concrete, Cement and Lime Manufacturing

CONTAMINATES OF CONCERN (COC)

From the above localized APEC's, the following COC's were identified for both soil and groundwater parameters:

1. Petroleum hydrocarbons (PHC F1 – F4, BTEX)
2. Volatile organic compounds (VOCs, including BTEX)
3. Metals (metal for soil, dissolved metals for groundwater)
4. General chemistry (Conductivity, SAR, pH, etc.)

STANDARD OPERATING PROCEDURES (SOP)

The following SOP's may be reviewed as part of the Appendix I, Sampling and Analysis Plan:

- SOP – ENV001.3, D-50 Borehole Drilling
- SOP – ENV002.1, Excavating with Machinery
- SOP – ENV003.1, Soil Sampling
- SOP – ENV004.1, Field Screening Measurements & Calibration Procedures
- SOP – ENV005.1, Monitoring Well Installation
- SOP – ENV006.1, Monitoring Well Development
- SOP – ENV007.1, Field Measurement of Water Quality Indicators & Calibration Procedures
- SOP – ENV008.1, Groundwater Sampling

FIELD QUALITY ASSURANCE (QA)

The following field quality assurance program is used to assure that the sampling procedure is appropriately designed and that samples tested are representative of the site conditions:

Decontamination Protocol:
All non-disposable tools are cleaned at the end of each project, prior to leaving site. Tools are also cleaned prior to use at each specific job site. In general, tools are cleaned with an Alconox cleaning solution using plastic and metallic brushes to remove soil particles, then rinsed with potable city tap water, or distilled water in the case of field testing equipment. Cleaning requirements are also detailed in the attached SOPs.

Equipment Calibration:
All field screening instruments are calibrated prior to usage at site by equipment supplier. Additional calibration was not conducted between field samples. All instruments are cleaned between each use, especially between each borehole.

Sample Preservation:
Soil samples shall be collected into pre-cleaned, appropriately preserved laboratory supplied containers, and placed on ice in insulated coolers for storage and transport. Where laboratory supplied containers are not used, alternative containers must be approved by laboratory prior to use for the intended testing media and tested contaminate. Soil and groundwater preservation requirements are handled by the laboratory, with preservatives within laboratory-supplied containers. A summary of preservatives used in each project shall be found below in the Laboratory Program section.

Sample Documentation:
All samples will be assigned a unique identification number, which is to be recorded in field sampling notes along with the date, time, project number, company name, location and requested analysis. All samples shall be handled and transported following chain of custody protocols and analyzed within laboratory method holding time requirements.

FIELD QUALITY CONTROL (QC)

The following field quality control program will be used to confirm the laboratory and field sampling validity:

QA/QC blanks:
The blank sample media used is plain bottled water, filled into laboratory pre-supplied container, then packed into a cooler, along with all other sampling bottles throughout the entire sampling program. The blanks are returned to the laboratory along with all other sampling containers at the end of the sampling program. Since there were less than ten samples this time, no blank sampling was conducted.

QA/QC duplicates:
A field duplicate of soil is submitted to the laboratory for chemical analysis. The laboratory will not be notified of the nature of the duplicate. The duplicate will be extracted within the same sample location at the same depth. Also the laboratory can perform duplicate sample analysis from the samples collected in the field. The field duplicate is intended to remove biases from both sampling techniques and analytical procedures. In this particular project, the duplicate samples were analyzed by the laboratory for soil quality of BH1 and BH9, and groundwater quality of BH101MW.

SAMPLING PROGRAM

A total of nice boreholes (BH1 to BH9) is designed for drilling, with testing parameters of specific Contaminates of Concern as previously describe above. Soil samples will be collected at the depths of 0.5 m from each borehole. Visual staining for petroleum hydrocarbons will be observed, and the field screening by headspace vapour analysis will be conducted in the field. Soil samples with the highest vapour reading or visible staining will be selected for the laboratory analyses.

Additional three boreholes (BH101MW to BH103MW) are designed to be drilled and be converted and installed as groundwater monitoring wells. Boreholes will be drilled to approximately 15 m or reaching the bedrock.

All soil and groundwater samples should be placed in laboratory supplied containers with appropriate stabilizers. Samples that test for VOC’s must be immediately placed in a chilled cooler until delivered to the laboratory. Sample ID, conditions, and other factors shall be recorded under chain of custody.

LABORATORY PROGRAM

Project Laboratory: Testmark Laboratories Ltd., Mississauga Office

Accreditation: CALA to the standards of ISO 17025 – *General Requirements for the Competence of Testing and Calibration Laboratories* and licensed by the Ministry of Environment, Conservation and Parks

Analytical Methods: The laboratory will use the methods specified in "Analytical Protocol", otherwise known as the *Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act*, Produced by Laboratory Services Branch, Ministry of the Environment, dated March 9, 2004, amended as of July 1, 2011.

Sample Containers and Preservations: Please see the illustrated Sampling Container guide from Testmark Laboratory.

Soil sample containers (a total of 5 laboratory-supplied containers):

- 40 ml vial, preserved with methanol (VOC, BTEX and F1)
- 250 ml jar (PHC F2-F4, metals, general chemistry)

Groundwater sample containers (a total of 5 laboratory-supplied containers):

- 40 ml vial, preserved (VOC, BTEX and F1)
- 1 L bottle (PHC F2-F4)
- 125 ml bottle (Dissolved metals)
- 120 ml bottle (Mercury)

SUBCONTRACTORS AND OTHER CONTACTORS

- Laboratory analysis: Testmark Laboratories Ltd., Mississauga Office
- Borehole drilling: Terra Firma Environmental Services Ltd.

APPENDIX III – FINALIZED BOREHOLE FIELD LOGS

KING EPCM
Flexible. Dependable. On-site Engineering.

BOREHOLE AND GROUNDWATER WELL LOG BH101 MW

PROJECT NUMBER	**DRILLING COMPANY** Terra Firma Environmental	**COORDINATES** N:4749890.98m E:641263.50m
PROJECT NAME Phase II ESA	**DRILLER**	**COORD SYS** UTM17
CLIENT 1000046816 Ontario Limited	**DRILL RIG** D-50 Drilling Rig	**SURFACE ELEVATION** 179.687m
ADDRESS Mapleview Port Colborne	**DRILLING METHOD** Continuous Flight Auger	**WELL TOC**
DRILLING DATE March 2, 2022	**TOTAL DEPTH** 15.12 m	**LOGGED BY** CC
LICENCE NO.	**DIAMETER** 2 Inch Well	**CHECKED BY** TW
COMPLETION	**CASING** Casing up type	**SCREEN** 3 m from the bottom of Well

COMMENTS GW sampled on March 11, 2022

Depth (m)	Samples	Sample Type	Is Analysed?	Water	Graphic Log	Material Description	Well Installation	Elevation (m)
0						Topsoil: grassland and topsoil		179
1						Bedrock: brown gravel/stone with sandy clay		178
2								177
3								176
4								175
5								174
6								173
7								172
8								171
9								170
10								169
11	BH101 GW	GW		▽				168
12								167
13								166
14								165
15						Termination Depth at: 15.12 m		164

KING EPCM
Flexible. Dependable. On-site Engineering.

BOREHOLE AND GROUNDWATER WELL LOG BH102 MW

PROJECT NUMBER	**DRILLING COMPANY** Terra Firma Environmental	**COORDINATES** N:4749890.98m E:641263.50m
PROJECT NAME Phase II ESA	**DRILLER**	**COORD SYS** UTM17
CLIENT 1000046816 Ontario Limited	**DRILL RIG** D-50 Drilling Rig	**SURFACE ELEVATION** 178.537m
ADDRESS Mapleview Port Colborne	**DRILLING METHOD** Continuous Flight Auger	**WELL TOC**
DRILLING DATE Febuary 28, 2022	**TOTAL DEPTH** 10.61 m	**LOGGED BY** SX
LICENCE NO.	**DIAMETER** 2 Inch Well	**CHECKED BY** TW

COMPLETION | **CASING** Casing up type | **SCREEN** 3 m from the bottom of Well

COMMENTS GW sampled on March 11, 2022

Depth (m)	Samples	Sample Type	Is Analysed?	Water	Graphic Log	Material Description	Well Installation	Elevation (m)
0						Topsoil: grassland and topsoil		178.5
0.5	BH102 GW	GW		▽		Gravel/stone: brown gravel/stone with sandy clay		178
1								177.5
1.5								177
2								176.5
2.5								176
3								175.5
3.5								175
4								174.5
4.5								174
5								173.5
5.5								173
6								172.5
6.5								172
7								171.5
7.5								171
8								170.5
8.5								170
9								169.5
9.5								169
10								168.5
10.5								168
11						Termination Depth at: 10.61 m		167.5

KING EPCM
Flexible. Dependable. On-site Engineering.

BOREHOLE AND GROUNDWATER WELL LOG BH103 MW

PROJECT NUMBER	**DRILLING COMPANY** Terra Firma Environmental	**COORDINATES** N:4749799.28m E:641016.77m
PROJECT NAME Phase II ESA	**DRILLER**	**COORD SYS** UTM17
CLIENT 1000046816 Ontario Limited	**DRILL RIG** D-50 Drilling Rig	**SURFACE ELEVATION** 179.3m
ADDRESS Mapleview Port Colborne	**DRILLING METHOD** Continuous Flight Auger	**WELL TOC**
DRILLING DATE March 2, 2022	**TOTAL DEPTH** 11.13 m	**LOGGED BY** CC
LICENCE NO.	**DIAMETER** 2 Inch Well	**CHECKED BY** TW

COMPLETION | **CASING** Casing up type | **SCREEN** 3 m from the bottom of Well

COMMENTS GW sampled on March 11, 2022

Depth (m)	Samples	Sample Type	Is Analysed?	Water	Graphic Log	Material Description	Well Installation	Elevation (m)
0						Topsoil: grassland and topsoil		179
0.5						Bedcork: brown gravel/stone with sandy clay		178.5
1								178
1.5	BH102 GW	GW		▽				177.5
2								177
2.5								176.5
3								176
3.5								175.5
4								175
4.5								174.5
5								174
5.5								173.5
6								173
6.5								172.5
7								172
7.5								171.5
8								171
8.5								170.5
9								170
9.5								169.5
10								169
10.5								168.5
11								
11.5						Termination Depth at: 11.13 m		168

APPENDIX IV – CERTIFICATE OF ANALYSIS

TESTMARK Laboratories
Committed to Quality and Service

V-TM-GEN-2021-6.6

GENERAL CHAIN OF CUSTODY FORM

Page 1 of 1

Please use our Drinking Water Chain of Custody Form for regulated drinking water samples

REPORT TO:		**INVOICE TO: (if different from Report)**		**PROJECT INFORMATION:**	
Client:	King EPCM	Client:		TM Quote #:	
Address:	204-304 Toronto Street South	Address:		Client P.O. #:	
	Uxbridge, ON., L9P 1Y2			Client Project #:	Maplevieu Point Colborne – Soil Sampling.
Contact:	Tony Wang	Contact:			
Email:	twan@kinepcm.com	Email:			
Phone:	647-459-5647 Fax:	Phone:	Fax:		

REPORTING/INVOICING FORMAT
☐ Fax ☑ Email ☐ Mail

QC DATA REPORTED
☐ Yes ☑ No

SAMPLE DISPOSAL
☐ Hold ☑ Dispose ☐ Return

TURN AROUND TIME (TAT)*
☐ Micro Only Rush ☐ ASAP
☐ 1 Business Day ☐ 2 Business Days
☐ 3 Business Days ☑ Standard
DUE DATE: Fri 11
* Prior arrangements must be made for rush/weekend/holiday work

LABORATORY USE ONLY
WORK ORDER NUMBER: **456505**

SAMPLING			SAMPLE DESCRIPTION (This Will Appear On The Report)	NUMBER OF CONTAINERS	ANALYSIS REQUESTED													METALS FIELD FILTERED (Y/N)	CONTAINERS RECEIVED	TEMP	Btl. Type	Lab ID
DATE (mm-dd-yy)	TIME pm	MATRIX **			PHC (F1-F4)	BTEX	VOC	Metals	SAR	pH	Cond					FIELD pH (if applicable)	FIELD TEMP (if applicable)					
3-1-22	3:10	Soil	BH1 (0.5m)	6	X	X	X	X	X	X	X								6	4.4°C	25g, 4V	1733280
3-1-22	3:46	Soil	BH2 (0.5m)	6	X	X	X	X	X	X	X											1733281
3-1-22	3:20	Soil	BH3 (0.5m)	6	X	X	X	X	X	X	X											1733282
3-2-22	12:50	Soil	BH4 (0.5m)	6	X	X	X	X	X	X	X											1733283
3-1-22	4:05	Soil	BH5 (0.5m)	6	X	X	X	X	X	X	X											1733284
3-2-22	12:20	Soil	BH6 (0.5m)	6	X	X	X	X	X	X	X											1733285
3-3-22	10:38	Soil	BH7 (0.5m)																			1733286
3-3-22	11:05	Soil	BH8 (0.5m)																			1733287
3-3-22	11:30	Soil	BH9 (0.5m)																			1733288

CONFIRMATION REPORT SENT as per historical 03/04/22 JH

**Matrix: B=Biota, GW=Groundwater, O=Oil, P=Paint, S=Soil, SL=Sludge, SW=Surface Water, W=Water, WW=Wastewater, SD=Sediment

☐ High Concentrations Expected

REGULATION
☑ O.Reg. 153 ☐ O.Reg. 406 Bulk ☐ O.Reg. 406 SPLP Leachate
Table ☐ 1 ☐ 2/2.1 ☐ 3/3.1 ☐ 4/4.1 ☐ 5/5.1 ☐ 6/6.1 ☐ 7/7.1 ☐ 8/8.1 ☐ 9/9.1
☐ Industrial / Commercial ☐ Residential / Parkland / Institutional ☐ Agricultural
☐ Groundwater ☐ Coarse Soil ☐ Fine Soil ☐ Surface ☐ Subsurface
☐ O.Reg. 558 ☐ PWQO ☐ MISA ☐ CofA ☐ MDMER ☐ ODWS ☐ None
Sewer Use: ☐ Sanitary ☐ Storm Municipality:
☐ Other:

COMMENTS/FIELD NOTES:
Cracked cap on one vial for sample "BH8 (0.5m)", proceed with analysis as per client: 03/04/22 JH

Sampled By	Date	Time
Chen Chen	3-3-2022	11:51

Relinquished to Testmark By (Signature)	Date	Time

Received By	Date	Time

Shipped By	Shipping Reference
Hand	N/A

Received at Testmark By	Date	Time
JH	03/04/22	12:05

456505 D

7 Margaret Street, Garson, ON, P3L 1E1 • 705-693-1121 (P) • 705-693-1124 (F) • customer.service@testmark.ca
1335 Riverside Drive, Timmins, ON, P4R 1A6 • 705-531-1121 (P) • 705-531-1125 (F) • timmins@testmark.ca
6820 Kitimat Road Unit #1, Mississauga, ON, L5N 5M3 • 905-321-1112 (P) • 905-821-2095 (F) • mississauga@testmark.ca
1470 Government Road, Kirkland Lake, ON P2N 3J1 • 705-642-3361 (P) • 705-642-3222 (F) • kirkland.lake@testmark.ca
1131 Central Ave., Unit 2 Thunder Bay, ON P7B 7C9 • 807-333-0921 (P) • 807-333-0924 (F) • thunder.bay@testmark.ca

TESTMARK Laboratories Ltd.
Committed to Quality and Service

CERTIFICATE OF ANALYSIS

Client:	Tony Wang	Work Order Number:	456505
Company:	KING EPCM	PO #:	
Address:	204-304 Toronto Street South Uxbridge, ON, L9P 1Y2	Regulation:	O.Reg 153 Table 1 Soil Agricultural/Other
		Project #:	Mapleview Port Colborne Soil Sampling
Phone:		DWS #:	
Email:	kingepcm@outlook.com	Sampled By:	C. Chen
Date Order Received:	3/4/2022	Analysis Started:	3/8/2022
Arrival Temperature:	4.4 °C	Analysis Completed:	3/11/2022

WORK ORDER SUMMARY

ANALYSES WERE PERFORMED ON THE FOLLOWING SAMPLES. THE RESULTS RELATE ONLY TO THE ITEMS TESTED.

Sample Description	Lab ID	Matrix	Type	Comments	Date Collected	Time Collected
BH1 (0.5m)	1733280	Soil	None	SAMPLE CONTAINED RESULT EXCEEDENCES.	3/1/2022	3:01 PM
BH2 (0.5m)	1733281	Soil	None	SAMPLE CONTAINED RESULT EXCEEDENCES.	3/1/2022	3:46 PM
BH3 (0.5m)	1733282	Soil	None	SAMPLE CONTAINED RESULT EXCEEDENCES.	3/1/2022	3:20 PM
BH4 (0.5m)	1733283	Soil	None	SAMPLE CONTAINED RESULT EXCEEDENCES.	3/2/2022	12:50 PM
BH5 (0.5m)	1733284	Soil	None	SAMPLE CONTAINED RESULT EXCEEDENCES.	3/1/2022	4:05 PM
BH6 (0.5m)	1733285	Soil	None	SAMPLE CONTAINED RESULT EXCEEDENCES.	3/2/2022	12:20 PM
BH7 (0.5m)	1733286	Soil	None	SAMPLE CONTAINED RESULT EXCEEDENCES.	3/3/2022	10:38 AM
BH8 (0.5m)	1733287	Soil	None	SAMPLE CONTAINED RESULT EXCEEDENCES.	3/3/2022	11:05 AM
BH9 (0.5m)	1733288	Soil	None	SAMPLE CONTAINED RESULT EXCEEDENCES.	3/3/2022	11:30 AM

METHODS AND INSTRUMENTATION

THE FOLLOWING METHODS WERE USED FOR YOUR SAMPLE(S):

Method	Lab	Description	Reference
BTEX/F1 Soil (A127)	Mississauga	Determination of PHC BTEX/F1 in Soil - Tier 1 CCME	Modified from CWS PHC Tier I CCME
Cond Soil (T12)	Mississauga	Determination of Conductivity in Soil	Modified from APHA-2510
ICPMS Reg. Water (A13)	Mississauga	Determination of Metals in Water by ICP/MS	Modified from SW846-6020

6820 Kitimat Road Unit 4, Mississauga, ON, L5N 5M3
Phone: (905) 821-1112 Fax: (905) 821-2095 Web: www.testmark.ca

CERTIFICATE OF ANALYSIS

KING EPCM

Work Order Number: 456505

Method	Lab	Description	Reference
ICPMS Soil (A13)	Mississauga	Determination of Metals in Soil by ICP/MS	Modified from SW846-6020A
Moisture (A99)	Mississauga	Determination of Percent Moisture	In-House
pH Soil (T02)	Mississauga	Determination of pH in Soil	Modified from APHA-4500 H+B
PHC F2-F4 Soil (A59)	Mississauga	Determination of PHC (F2-F4) in Soil - Tier 1 CCME by GC/FID	Modified from CWS PHC Tier I CCME
SAR (R98)	Mississauga	Determination of Sodium Adsorption Ratio	Modified from MOE
VOC Soil (Methanol) (A14)	Mississauga	Determination of Volatile Organic Compounds in Soil P&T/GC/MS	Modified from SW846-8260B

REPORT COMMENTS

Cracked cap on one vial for sample "BH (0.5m)", proceed with analysis as per client 03/04/22 YH
SAMPLE-SPECIFIC NOTES:
Sample 1733285: For the F2-F4 analysis, surrogate recovery was non-detectable due to the quantity of hydrocarbons present.

This report has been approved by:

Marc Creighton
Laboratory Director

6820 Kitimat Road Unit 4, Mississauga, ON, L5N 5M3
Phone: (905) 821-1112 Fax: (905) 821-2095 Web: www.testmark.ca

CERTIFICATE OF ANALYSIS

KING EPCM

Work Order Number: 456505

WORK ORDER RESULTS

Sample Description	BH1 (0.5m)		BH2 (0.5m)		BH3 (0.5m)		BH4 (0.5m)			
Sample Date	3/1/2022 3:01 PM		3/1/2022 3:46 PM		3/1/2022 3:20 PM		3/2/2022 12:50 PM			
Lab ID	1733280		1733281		1733282		1733283			
General Chemistry	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: O.Reg 153 Table 1 Soil Agricultural/Other
% Moisture	21.6	0.1	23.3	0.1	24.2	0.1	34.7	0.1	%	~
Conductivity	220	1	197	1	241	1	285	1	µS/cm	470
pH	7.27 [7.29]	N/A	7.07	N/A	7.35	N/A	6.99	N/A	pH	~
Sodium Adsorption Ratio (Calc.)	<0.02	0.02	0.03	0.02	<0.02	0.02	0.12	0.02	NA	1

Sample Description	BH5 (0.5m)		BH6 (0.5m)		BH7 (0.5m)		BH8 (0.5m)			
Sample Date	3/1/2022 4:05 PM		3/2/2022 12:20 PM		3/3/2022 10:38 AM		3/3/2022 11:05 AM			
Lab ID	1733284		1733285		1733286		1733287			
General Chemistry	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: O.Reg 153 Table 1 Soil Agricultural/Other
% Moisture	21.6	0.1	40.4	0.1	21.5	0.1	24.7	0.1	%	~
Conductivity	231	1	345	1	218	1	255	1	µS/cm	470
pH	7.28	N/A	7.01	N/A	7.16	N/A	7.26	N/A	pH	~
Sodium Adsorption Ratio (Calc.)	0.03	0.02	0.03	0.02	<0.02	0.02	<0.02	0.02	NA	1

Sample Description	BH9 (0.5m)			
Sample Date	3/3/2022 11:30 AM			
Lab ID	1733288			
General Chemistry	Result	MDL	Units	Criteria: O.Reg 153 Table 1 Soil Agricultural/Other
% Moisture	19.7	0.1	%	~

6820 Kitimat Road Unit 4, Mississauga, ON, L5N 5M3
Phone: (905) 821-1112 Fax: (905) 821-2095 Web: www.testmark.ca

CERTIFICATE OF ANALYSIS

KING EPCM

Work Order Number: 456505

Sample Description	BH9 (0.5m)
Sample Date	3/3/2022 11:30 AM
Lab ID	1733288

General Chemistry	Result	MDL	Units	Criteria: O.Reg 153 Table 1 Soil Agricultural/Other
Conductivity	221	1	µS/cm	470
pH	7.18	N/A	pH	~
Sodium Adsorption Ratio (Calc.)	<0.02	0.02	NA	1

Sample Description	BH1 (0.5m)		BH2 (0.5m)		BH3 (0.5m)		BH4 (0.5m)			
Sample Date	3/1/2022 3:01 PM		3/1/2022 3:46 PM		3/1/2022 3:20 PM		3/2/2022 12:50 PM			
Lab ID	1733280		1733281		1733282		1733283			
Metals	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: O.Reg 153 Table 1 Soil Agricultural/Other
Antimony	1.1	0.5	<0.5	0.5	2.5	0.5	<0.5	0.5	µg/g	1
Arsenic	7.0	0.5	4.5	0.5	8.6	0.5	6.4	0.5	µg/g	11
Barium	82	5	163	5	102	5	90	5	µg/g	210
Beryllium	0.6	0.5	1.1	0.5	0.7	0.5	0.7	0.5	µg/g	2.5
Cadmium	0.68	0.05	0.55	0.05	0.74	0.05	0.75	0.05	µg/g	1
Chromium	19.9	0.5	32.6	0.5	24.4	0.5	22.4	0.5	µg/g	67
Cobalt	14.10	0.05	12.90	0.05	13.90	0.05	10.20	0.05	µg/g	19
Copper	94	5	23.7	0.5	85	5	27.1	0.5	µg/g	62
Lead	57.8	0.5	18.6	0.5	76	5	38.4	0.5	µg/g	45
Mercury	0.08	0.05	<0.05	0.05	0.11	0.05	0.09	0.05	µg/g	0.16
Molybdenum	1.3	0.5	0.8	0.5	1.2	0.5	0.8	0.5	µg/g	2
Nickel	664	5	59	5	568	5	107	5	µg/g	37
Selenium	1.2	0.5	0.7	0.5	<0.5	0.5	0.9	0.5	µg/g	1.2
Silver	0.6	0.5	<0.5	0.5	<0.5	0.5	<0.5	0.5	µg/g	0.5

6820 Kitimat Road Unit 4, Mississauga, ON, L5N 5M3
Phone: (905) 821-1112 Fax: (905) 821-2095 Web: www.testmark.ca

CERTIFICATE OF ANALYSIS

KING EPCM

Work Order Number: 456505

Sample Description	BH1 (0.5m)		BH2 (0.5m)		BH3 (0.5m)		BH4 (0.5m)			
Sample Date	3/1/2022 3:01 PM		3/1/2022 3:46 PM		3/1/2022 3:20 PM		3/2/2022 12:50 PM			
Lab ID	1733280		1733281		1733282		1733283			
Metals	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: O.Reg 153 Table 1 Soil Agricultural/Other
Thallium	<0.5	0.5	<0.5	0.5	<0.5	0.5	<0.5	0.5	µg/g	1
Uranium	0.8	0.5	0.8	0.5	0.8	0.5	0.6	0.5	µg/g	1.9
Vanadium	28.0	0.5	47.2	0.5	33.3	0.5	31.0	0.5	µg/g	86
Zinc	236	5	83	5	177	5	90	5	µg/g	290

Sample Description	BH5 (0.5m)		BH6 (0.5m)		BH7 (0.5m)		BH8 (0.5m)			
Sample Date	3/1/2022 4:05 PM		3/2/2022 12:20 PM		3/3/2022 10:38 AM		3/3/2022 11:05 AM			
Lab ID	1733284		1733285		1733286		1733287			
Metals	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: O.Reg 153 Table 1 Soil Agricultural/Other
Antimony	1.5	0.5	2.4	0.5	0.9	0.5	1.1	0.5	µg/g	1
Arsenic	10.2	0.5	5.9	0.5	4.7	0.5	7.0	0.5	µg/g	11
Barium	97	5	164	5	47.0	0.5	85	5	µg/g	210
Beryllium	0.6	0.5	0.6	0.5	<0.5	0.5	0.6	0.5	µg/g	2.5
Cadmium	0.88	0.05	0.86	0.05	0.53	0.05	1.38	0.05	µg/g	1
Chromium	22.5	0.5	23.5	0.5	13.1	0.5	21.4	0.5	µg/g	67
Cobalt	13.10	0.05	9.76	0.05	8.52	0.05	13.00	0.05	µg/g	19
Copper	72	5	32.6	0.5	26.6	0.5	36.0	0.5	µg/g	62
Lead	172	5	173	5	77	5	72	5	µg/g	45
Mercury	0.13	0.05	0.12	0.05	0.06	0.05	0.08	0.05	µg/g	0.16
Molybdenum	1.1	0.5	1.1	0.5	0.9	0.5	1.3	0.5	µg/g	2
Nickel	74	5	59.5	0.5	51.2	0.5	62.5	0.5	µg/g	37
Selenium	0.9	0.5	<0.5	0.5	<0.5	0.5	0.8	0.5	µg/g	1.2

6820 Kitimat Road Unit 4, Mississauga, ON, L5N 5M3
Phone: (905) 821-1112 Fax: (905) 821-2095 Web: www.testmark.ca

CERTIFICATE OF ANALYSIS

KING EPCM

Work Order Number: 456505

Sample Description	BH5 (0.5m)		BH6 (0.5m)		BH7 (0.5m)		BH8 (0.5m)			
Sample Date	3/1/2022 4:05 PM		3/2/2022 12:20 PM		3/3/2022 10:38 AM		3/3/2022 11:05 AM			
Lab ID	1733284		1733285		1733286		1733287			
Metals	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: O.Reg 153 Table 1 Soil Agricultural/Other
Silver	<0.5	0.5	<0.5	0.5	<0.5	0.5	<0.5	0.5	µg/g	0.5
Thallium	<0.5	0.5	<0.5	0.5	<0.5	0.5	0.9	0.5	µg/g	1
Uranium	0.7	0.5	0.7	0.5	0.7	0.5	0.8	0.5	µg/g	1.9
Vanadium	29.5	0.5	27.9	0.5	17.0	0.5	26.6	0.5	µg/g	86
Zinc	199	5	271	5	91	5	214	5	µg/g	290

Sample Description	BH9 (0.5m)			
Sample Date	3/3/2022 11:30 AM			
Lab ID	1733288			
Metals	Result	MDL	Units	Criteria: O.Reg 153 Table 1 Soil Agricultural/Other
Antimony	0.6	0.5	µg/g	1
Arsenic	5.9	0.5	µg/g	11
Barium	143	5	µg/g	210
Beryllium	0.9	0.5	µg/g	2.5
Cadmium	0.97	0.05	µg/g	1
Chromium	28.5	0.5	µg/g	67
Cobalt	34.80	0.05	µg/g	19
Copper	73	5	µg/g	62
Lead	27.8	0.5	µg/g	45
Mercury	<0.05	0.05	µg/g	0.16
Molybdenum	1.0	0.5	µg/g	2
Nickel	42.1	0.5	µg/g	37

6820 Kitimat Road Unit 4, Mississauga, ON, L5N 5M3
Phone: (905) 821-1112 Fax: (905) 821-2095 Web: www.testmark.ca

CERTIFICATE OF ANALYSIS

KING EPCM

Work Order Number: 456505

Sample Description	BH9 (0.5m)
Sample Date	3/3/2022 11:30 AM
Lab ID	1733288

Metals	Result	MDL	Units	Criteria: O.Reg 153 Table 1 Soil Agricultural/Other
Selenium	1.0	0.5	µg/g	1.2
Silver	<0.5	0.5	µg/g	0.5
Thallium	<0.5	0.5	µg/g	1
Uranium	0.8	0.5	µg/g	1.9
Vanadium	41.9	0.5	µg/g	86
Zinc	225	5	µg/g	290

Sample Description	BH1 (0.5m)		BH2 (0.5m)		BH3 (0.5m)		BH4 (0.5m)			
Sample Date	3/1/2022 3:01 PM		3/1/2022 3:46 PM		3/1/2022 3:20 PM		3/2/2022 12:50 PM			
Lab ID	1733280		1733281		1733282		1733283			
Metals (Water)	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: O.Reg 153 Table 1 Soil Agricultural/Other
Calcium	84500	500	77300	500	82600	500	159000	500	ug/L	~
Magnesium	6130	50	6680	50	4600	50	8740	50	ug/L	~
Sodium	<1000	1000	1100	1000	<1000	1000	5600	1000	ug/L	~

Sample Description	BH5 (0.5m)		BH6 (0.5m)		BH7 (0.5m)		BH8 (0.5m)			
Sample Date	3/1/2022 4:05 PM		3/2/2022 12:20 PM		3/3/2022 10:38 AM		3/3/2022 11:05 AM			
Lab ID	1733284		1733285		1733286		1733287			
Metals (Water)	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: O.Reg 153 Table 1 Soil Agricultural/Other
Calcium	103000	500	142000	500	79300	500	84500	500	ug/L	~
Magnesium	9280	50	9490	50	6810	50	6210	50	ug/L	~

6820 Kitimat Road Unit 4, Mississauga, ON, L5N 5M3
Phone: (905) 821-1112 Fax: (905) 821-2095 Web: www.testmark.ca

CERTIFICATE OF ANALYSIS

KING EPCM

Work Order Number: 456505

Sample Description	BH5 (0.5m)		BH6 (0.5m)		BH7 (0.5m)		BH8 (0.5m)			
Sample Date	3/1/2022 4:05 PM		3/2/2022 12:20 PM		3/3/2022 10:38 AM		3/3/2022 11:05 AM			
Lab ID	1733284		1733285		1733286		1733287			
Metals (Water)	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: O.Reg 153 Table 1 Soil Agricultural/Other
Sodium	1100	1000	1300	1000	<1000	1000	<1000	1000	ug/L	~

Sample Description	BH9 (0.5m)			
Sample Date	3/3/2022 11:30 AM			
Lab ID	1733288			
Metals (Water)	Result	MDL	Units	Criteria: O.Reg 153 Table 1 Soil Agricultural/Other
Calcium	62400	500	ug/L	~
Magnesium	4990	50	ug/L	~
Sodium	<1000	1000	ug/L	~

Sample Description	BH1 (0.5m)		BH2 (0.5m)		BH3 (0.5m)		BH4 (0.5m)			
Sample Date	3/1/2022 3:01 PM		3/1/2022 3:46 PM		3/1/2022 3:20 PM		3/2/2022 12:50 PM			
Lab ID	1733280		1733281		1733282		1733283			
Petroleum Hydrocarbons (Soil)	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: O.Reg 153 Table 1 Soil Agricultural/Other
F1 (C6-C10) - Less BTEX (Calc.)	2	2	<2	2	3	2	3	2	µg/g	17
F1 (C6-C10) Incl. BTEX	3	2	<2	2	4	2	4	2	µg/g	~
F2 (C10-C16)	<10	10	<10	10	<10	10	<10	10	µg/g	10
F3 (C16-C34)	21	10	<10	10	73	10	<10	10	µg/g	240
F4 (C34-C50)	24	10	<10	10	77	10	<10	10	µg/g	120
Baseline @ C50	Yes	N/A	Yes	N/A	Yes	N/A	Yes	N/A	NA	~
Benzene	0.054	0.006	<0.006	0.006	0.031	0.007	0.035	0.009	µg/g	0.02

6820 Kitimat Road Unit 4, Mississauga, ON, L5N 5M3
Phone: (905) 821-1112 Fax: (905) 821-2095 Web: www.testmark.ca

CERTIFICATE OF ANALYSIS

KING EPCM

Work Order Number: 456505

Sample Description	BH1 (0.5m)		BH2 (0.5m)		BH3 (0.5m)		BH4 (0.5m)			
Sample Date	3/1/2022 3:01 PM		3/1/2022 3:46 PM		3/1/2022 3:20 PM		3/2/2022 12:50 PM			
Lab ID	1733280		1733281		1733282		1733283			
Petroleum Hydrocarbons (Soil)	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: O.Reg 153 Table 1 Soil Agricultural/Other
Ethylbenzene	0.04	0.01	<0.01	0.01	0.04	0.01	0.04	0.02	µg/g	0.05
Toluene	0.21	0.02	<0.02	0.02	0.15	0.02	0.15	0.03	µg/g	0.2
m+p-Xylene	0.12	0.01	0.01	0.01	0.14	0.01	0.14	0.02	µg/g	~
o-Xylene	0.10	0.02	<0.02	0.02	0.12	0.02	0.16	0.02	µg/g	~
Total Xylenes (Calc.)	0.22	0.02	<0.02	0.02	0.26	0.02	0.30	0.03	µg/g	0.05
1,4-dichlorobenzene-d4 (Surr.)	98	N/A	95.4	N/A	97.1	N/A	98.4	N/A	% Rec	~
o-Terphenyl (Surr.)	107	N/A	76.9	N/A	137	N/A	93.7	N/A	% Rec	~
undecane (Surr.)	96.3	N/A	95.6	N/A	96.5	N/A	96.1	N/A	% Rec	~
1,2-dichlorobenzene-d4 (Surr.)	88.5	N/A	96.4	N/A	89.7	N/A	95	N/A	% Rec	~

Sample Description	BH5 (0.5m)		BH6 (0.5m)		BH7 (0.5m)		BH8 (0.5m)			
Sample Date	3/1/2022 4:05 PM		3/2/2022 12:20 PM		3/3/2022 10:38 AM		3/3/2022 11:05 AM			
Lab ID	1733284		1733285		1733286		1733287			
Petroleum Hydrocarbons (Soil)	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: O.Reg 153 Table 1 Soil Agricultural/Other
F1 (C6-C10) - Less BTEX (Calc.)	5	2	<2	2	5	2	1	1	µg/g	17
F1 (C6-C10) Incl. BTEX	5	2	<2	2	6	2	2	1	µg/g	~
F2 (C10-C16)	<10	10	29	10	<10	10	<10	10	µg/g	10
F3 (C16-C34)	113	10	1630	10	70	10	137	10	µg/g	240
F4 (C34-C50)	29	10	278	10	76	10	254	10	µg/g	120
Baseline @ C50	Yes	N/A	Yes	N/A	Yes	N/A	Yes	N/A	NA	~
Benzene	0.045	0.008	0.01	0.01	0.026	0.007	0.013	0.006	µg/g	0.02
Ethylbenzene	0.05	0.02	<0.02	0.02	0.06	0.01	0.02	0.01	µg/g	0.05

6820 Kitimat Road Unit 4, Mississauga, ON, L5N 5M3
Phone: (905) 821-1112 Fax: (905) 821-2095 Web: www.testmark.ca

CERTIFICATE OF ANALYSIS

KING EPCM

Work Order Number: 456505

Sample Description	BH5 (0.5m)		BH6 (0.5m)		BH7 (0.5m)		BH8 (0.5m)			
Sample Date	3/1/2022 4:05 PM		3/2/2022 12:20 PM		3/3/2022 10:38 AM		3/3/2022 11:05 AM			
Lab ID	1733284		1733285		1733286		1733287			
Petroleum Hydrocarbons (Soil)	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: O.Reg 153 Table 1 Soil Agricultural/Other
Toluene	0.20	0.02	0.05	0.03	0.19	0.02	0.07	0.02	µg/g	0.2
m+p-Xylene	0.19	0.02	0.03	0.02	0.20	0.01	0.06	0.01	µg/g	~
o-Xylene	0.15	0.02	0.04	0.02	0.20	0.02	0.05	0.01	µg/g	~
Total Xylenes (Calc.)	0.34	0.02	0.07	0.03	0.40	0.02	0.11	0.02	µg/g	0.05
1,4-dichlorobenzene-d4 (Surr.)	96.8	N/A	98.2	N/A	97.1	N/A	95.5	N/A	% Rec	~
o-Terphenyl (Surr.)	96.9	N/A	ND	N/A	84.8	N/A	110	N/A	% Rec	~
undecane (Surr.)	90.5	N/A	95.9	N/A	97.5	N/A	96.1	N/A	% Rec	~
1,2-dichlorobenzene-d4 (Surr.)	85.1	N/A	99.1	N/A	84.2	N/A	90.6	N/A	% Rec	~

Sample Description	BH9 (0.5m)			
Sample Date	3/3/2022 11:30 AM			
Lab ID	1733288			
Petroleum Hydrocarbons (Soil)	Result	MDL	Units	Criteria: O.Reg 153 Table 1 Soil Agricultural/Other
F1 (C6-C10) - Less BTEX (Calc.)	2	1	µg/g	17
F1 (C6-C10) Incl. BTEX	2	1	µg/g	~
F2 (C10-C16)	<10 [<10]	10	µg/g	10
F3 (C16-C34)	<10 [<10]	10	µg/g	240
F4 (C34-C50)	16 [<10]	10	µg/g	120
Baseline @ C50	Yes [Yes]	N/A	NA	~
Benzene	0.028	0.005	µg/g	0.02

6820 Kitimat Road Unit 4, Mississauga, ON, L5N 5M3
Phone: (905) 821-1112 Fax: (905) 821-2095 Web: www.testmark.ca

CERTIFICATE OF ANALYSIS

KING EPCM

Work Order Number: 456505

Sample Description	BH9 (0.5m)
Sample Date	3/3/2022 11:30 AM
Lab ID	1733288

Petroleum Hydrocarbons (Soil)	Result	MDL	Units	Criteria: O.Reg 153 Table 1 Soil Agricultural/Other
Ethylbenzene	0.021	0.009	µg/g	0.05
Toluene	0.10	0.01	µg/g	0.2
m+p-Xylene	0.062	0.009	µg/g	~
o-Xylene	0.05	0.01	µg/g	~
Total Xylenes (Calc.)	0.12	0.01	µg/g	0.05
1,4-dichlorobenzene-d4 (Surr.)	99.3	N/A	% Rec	~
o-Terphenyl (Surr.)	84.7 [80.1]	N/A	% Rec	~
undecane (Surr.)	100	N/A	% Rec	~
1,2-dichlorobenzene-d4 (Surr.)	106	N/A	% Rec	~

Sample Description	BH1 (0.5m)		BH2 (0.5m)		BH3 (0.5m)		BH4 (0.5m)			
Sample Date	3/1/2022 3:01 PM		3/1/2022 3:46 PM		3/1/2022 3:20 PM		3/2/2022 12:50 PM			
Lab ID	1733280		1733281		1733282		1733283			
Volatile Organic Compounds	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: O.Reg 153 Table 1 Soil Agricultural/Other
Benzene	0.25	0.01	<0.01	0.01	0.023	0.008	0.01	0.01	µg/g	0.02
Ethylbenzene	0.20	0.01	<0.01	0.01	0.012	0.008	<0.01	0.01	µg/g	0.05
Toluene	0.78	0.01	<0.01	0.01	0.067	0.008	0.05	0.01	µg/g	0.2
m+p-Xylene	0.59	0.01	<0.01	0.01	0.037	0.008	0.03	0.01	µg/g	~
o-Xylene	0.74	0.01	<0.01	0.01	0.029	0.008	0.02	0.01	µg/g	~
Total Xylenes (Calc.)	1.33	0.02	<0.01	0.01	0.07	0.01	0.05	0.02	µg/g	0.05
1,1,1,2-Tetrachloroethane	<0.01	0.01	<0.01	0.01	<0.008	0.008	<0.01	0.01	µg/g	0.05

6820 Kitimat Road Unit 4, Mississauga, ON, L5N 5M3
Phone: (905) 821-1112 Fax: (905) 821-2095 Web: www.testmark.ca

CERTIFICATE OF ANALYSIS

KING EPCM

Work Order Number: 456505

Sample Description	BH1 (0.5m)		BH2 (0.5m)		BH3 (0.5m)		BH4 (0.5m)			
Sample Date	3/1/2022 3:01 PM		3/1/2022 3:46 PM		3/1/2022 3:20 PM		3/2/2022 12:50 PM			
Lab ID	1733280		1733281		1733282		1733283			
Volatile Organic Compounds	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: O.Reg 153 Table 1 Soil Agricultural/Other
1,1,1-Trichloroethane	<0.01	0.01	<0.01	0.01	<0.008	0.008	<0.01	0.01	µg/g	0.05
1,1,2,2-Tetrachloroethane	<0.01	0.01	<0.01	0.01	<0.01	0.01	<0.01	0.01	µg/g	0.05
1,1,2-Trichloroethane	<0.02	0.02	<0.01	0.01	<0.01	0.01	<0.01	0.01	µg/g	0.05
1,1-Dichloroethane	<0.01	0.01	<0.01	0.01	<0.008	0.008	<0.01	0.01	µg/g	0.05
1,1-Dichloroethylene	<0.01	0.01	<0.01	0.01	<0.008	0.008	<0.01	0.01	µg/g	0.05
1,2-Dibromoethane	<0.01	0.01	<0.01	0.01	<0.008	0.008	<0.01	0.01	µg/g	0.05
1,2-Dichlorobenzene	<0.01	0.01	<0.01	0.01	<0.008	0.008	<0.01	0.01	µg/g	0.05
1,2-Dichloroethane	<0.01	0.01	<0.01	0.01	<0.008	0.008	<0.01	0.01	µg/g	0.05
1,2-Dichloroethane-d4 (Surr)	108	N/A	109	N/A	107	N/A	109	N/A	% Rec	~
1,2-Dichloropropane	<0.01	0.01	<0.01	0.01	<0.008	0.008	<0.01	0.01	µg/g	0.05
1,3-Dichlorobenzene	<0.01	0.01	<0.01	0.01	<0.008	0.008	<0.01	0.01	µg/g	0.05
1,4-Dichlorobenzene	<0.01	0.01	<0.01	0.01	<0.008	0.008	<0.01	0.01	µg/g	0.05
1-Bromo-4-fluorobenzene (Surr.)	98.3	N/A	91.2	N/A	96.1	N/A	101	N/A	% Rec	~
Acetone	<0.5	0.5	<0.5	0.5	<0.5	0.5	<0.5	0.5	µg/g	0.5
Bromodichloromethane	<0.01	0.01	<0.01	0.01	<0.008	0.008	<0.01	0.01	µg/g	0.05
Bromoform	<0.01	0.01	<0.01	0.01	<0.008	0.008	<0.01	0.01	µg/g	0.05
Bromomethane	<0.02	0.02	<0.02	0.02	<0.01	0.01	<0.02	0.02	µg/g	0.05
Carbon tetrachloride	<0.01	0.01	<0.01	0.01	<0.008	0.008	<0.01	0.01	µg/g	0.05
Chlorobenzene	<0.01	0.01	<0.01	0.01	<0.008	0.008	<0.01	0.01	µg/g	0.05
Chloroform	<0.01	0.01	<0.01	0.01	<0.008	0.008	<0.01	0.01	µg/g	0.05
cis - + trans-1,3-Dichloropropene (Calc.)	<0.01	0.01	<0.01	0.01	<0.008	0.008	<0.01	0.01	µg/g	0.05
cis-1,2-Dichloroethylene	<0.01	0.01	<0.01	0.01	<0.009	0.009	<0.01	0.01	µg/g	0.05
cis-1,3-Dichloropropene	<0.01	0.01	<0.01	0.01	<0.008	0.008	<0.01	0.01	µg/g	~

6820 Kitimat Road Unit 4, Mississauga, ON, L5N 5M3
Phone: (905) 821-1112 Fax: (905) 821-2095 Web: www.testmark.ca

CERTIFICATE OF ANALYSIS

KING EPCM

Work Order Number: 456505

Sample Description	BH1 (0.5m)		BH2 (0.5m)		BH3 (0.5m)		BH4 (0.5m)			
Sample Date	3/1/2022 3:01 PM		3/1/2022 3:46 PM		3/1/2022 3:20 PM		3/2/2022 12:50 PM			
Lab ID	1733280		1733281		1733282		1733283			
Volatile Organic Compounds	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: O.Reg 153 Table 1 Soil Agricultural/Other
Dibromochloromethane	<0.01	0.01	<0.01	0.01	<0.008	0.008	<0.01	0.01	µg/g	0.05
Dichlorodifluoromethane	<0.02	0.02	<0.01	0.01	<0.01	0.01	<0.01	0.01	µg/g	0.05
Dichloromethane	0.03	0.03	<0.02	0.02	<0.02	0.02	<0.02	0.02	µg/g	0.05
Methyl ethyl ketone	<0.1	0.1	<0.09	0.09	<0.07	0.07	<0.1	0.1	µg/g	0.5
Methyl isobutyl ketone (MIBK)	<0.07	0.07	<0.05	0.05	<0.04	0.04	<0.05	0.05	µg/g	0.5
Methyl tert-butyl ether (MTBE)	<0.07	0.07	<0.05	0.05	<0.04	0.04	<0.05	0.05	µg/g	0.05
n-Hexane	0.15	0.03	<0.05	0.05	<0.05	0.05	<0.05	0.05	µg/g	0.05
Styrene	<0.02	0.02	<0.01	0.01	<0.01	0.01	<0.02	0.02	µg/g	0.05
Tetrachloroethylene	<0.01	0.01	<0.01	0.01	<0.008	0.008	<0.01	0.01	µg/g	0.05
Toluene-d8 (Surr.)	83.8	N/A	83.6	N/A	81.6	N/A	81.6	N/A	% Rec	~
Trans-1,2-dichloroethylene	<0.01	0.01	<0.01	0.01	<0.008	0.008	<0.01	0.01	µg/g	0.05
Trans-1,3-dichloropropene	<0.01	0.01	<0.01	0.01	<0.008	0.008	<0.01	0.01	µg/g	~
Trichloroethylene	<0.01	0.01	<0.01	0.01	<0.008	0.008	<0.01	0.01	µg/g	0.05
Trichlorofluoromethane	<0.01	0.01	<0.01	0.01	<0.009	0.009	<0.01	0.01	µg/g	0.05
Vinyl chloride	<0.01	0.01	<0.01	0.01	<0.008	0.008	<0.01	0.01	µg/g	0.02

Sample Description	BH5 (0.5m)		BH6 (0.5m)		BH7 (0.5m)		BH8 (0.5m)			
Sample Date	3/1/2022 4:05 PM		3/2/2022 12:20 PM		3/3/2022 10:38 AM		3/3/2022 11:05 AM			
Lab ID	1733284		1733285		1733286		1733287			
Volatile Organic Compounds	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: O.Reg 153 Table 1 Soil Agricultural/Other
Benzene	0.044	0.008	0.011	0.009	0.03	0.01	<0.009	0.009	µg/g	0.02
Ethylbenzene	0.012	0.008	<0.009	0.009	0.01	0.01	<0.009	0.009	µg/g	0.05

6820 Kitimat Road Unit 4, Mississauga, ON, L5N 5M3
Phone: (905) 821-1112 Fax: (905) 821-2095 Web: www.testmark.ca

CERTIFICATE OF ANALYSIS

KING EPCM

Work Order Number: 456505

Sample Description	BH5 (0.5m)		BH6 (0.5m)		BH7 (0.5m)		BH8 (0.5m)			
Sample Date	3/1/2022 4:05 PM		3/2/2022 12:20 PM		3/3/2022 10:38 AM		3/3/2022 11:05 AM			
Lab ID	1733284		1733285		1733286		1733287			
Volatile Organic Compounds	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: O.Reg 153 Table 1 Soil Agricultural/Other
Toluene	0.102	0.008	0.020	0.009	0.10	0.01	0.011	0.009	µg/g	0.2
m+p-Xylene	0.052	0.008	<0.009	0.009	0.06	0.01	<0.009	0.009	µg/g	~
o-Xylene	0.028	0.008	<0.009	0.009	0.05	0.01	<0.009	0.009	µg/g	~
Total Xylenes (Calc.)	0.08	0.01	<0.01	0.01	0.11	0.01	<0.01	0.01	µg/g	0.05
1,1,1,2-Tetrachloroethane	<0.008	0.008	<0.009	0.009	<0.01	0.01	<0.009	0.009	µg/g	0.05
1,1,1-Trichloroethane	<0.008	0.008	<0.009	0.009	<0.01	0.01	<0.009	0.009	µg/g	0.05
1,1,2,2-Tetrachloroethane	<0.008	0.008	<0.009	0.009	<0.01	0.01	<0.009	0.009	µg/g	0.05
1,1,2-Trichloroethane	<0.009	0.009	<0.01	0.01	<0.01	0.01	<0.01	0.01	µg/g	0.05
1,1-Dichloroethane	<0.008	0.008	<0.009	0.009	<0.01	0.01	<0.009	0.009	µg/g	0.05
1,1-Dichloroethylene	<0.008	0.008	<0.009	0.009	<0.01	0.01	<0.009	0.009	µg/g	0.05
1,2-Dibromoethane	<0.008	0.008	<0.009	0.009	<0.01	0.01	<0.009	0.009	µg/g	0.05
1,2-Dichlorobenzene	<0.008	0.008	<0.009	0.009	<0.01	0.01	<0.009	0.009	µg/g	0.05
1,2-Dichloroethane	<0.008	0.008	<0.009	0.009	<0.01	0.01	<0.009	0.009	µg/g	0.05
1,2-Dichloroethane-d4 (Surr)	109	N/A	109	N/A	110	N/A	113	N/A	% Rec	~
1,2-Dichloropropane	<0.008	0.008	<0.009	0.009	<0.01	0.01	<0.009	0.009	µg/g	0.05
1,3-Dichlorobenzene	<0.008	0.008	<0.009	0.009	<0.01	0.01	<0.009	0.009	µg/g	0.05
1,4-Dichlorobenzene	<0.008	0.008	<0.009	0.009	<0.01	0.01	<0.009	0.009	µg/g	0.05
1-Bromo-4-fluorobenzene (Surr.)	97.6	N/A	93.4	N/A	97	N/A	92.7	N/A	% Rec	~
Acetone	<0.5	0.5	<0.5	0.5	<0.5	0.5	<0.5	0.5	µg/g	0.5
Bromodichloromethane	<0.008	0.008	<0.009	0.009	<0.01	0.01	<0.009	0.009	µg/g	0.05
Bromoform	<0.008	0.008	<0.009	0.009	<0.01	0.01	<0.009	0.009	µg/g	0.05
Bromomethane	<0.01	0.01	<0.01	0.01	<0.02	0.02	<0.01	0.01	µg/g	0.05
Carbon tetrachloride	<0.008	0.008	<0.009	0.009	<0.01	0.01	<0.009	0.009	µg/g	0.05

6820 Kitimat Road Unit 4, Mississauga, ON, L5N 5M3
Phone: (905) 821-1112 Fax: (905) 821-2095 Web: www.testmark.ca

CERTIFICATE OF ANALYSIS

KING EPCM

Work Order Number: 456505

Sample Description	BH5 (0.5m)		BH6 (0.5m)		BH7 (0.5m)		BH8 (0.5m)			
Sample Date	3/1/2022 4:05 PM		3/2/2022 12:20 PM		3/3/2022 10:38 AM		3/3/2022 11:05 AM			
Lab ID	1733284		1733285		1733286		1733287			
Volatile Organic Compounds	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: O.Reg 153 Table 1 Soil Agricultural/Other
Chlorobenzene	<0.008	0.008	<0.009	0.009	<0.01	0.01	<0.009	0.009	µg/g	0.05
Chloroform	<0.008	0.008	<0.009	0.009	<0.01	0.01	<0.009	0.009	µg/g	0.05
cis - + trans-1,3-Dichloropropene (Calc.)	<0.008	0.008	<0.009	0.009	<0.01	0.01	<0.009	0.009	µg/g	0.05
cis-1,2-Dichloroethylene	<0.008	0.008	<0.01	0.01	<0.01	0.01	<0.01	0.01	µg/g	0.05
cis-1,3-Dichloropropene	<0.008	0.008	<0.009	0.009	<0.01	0.01	<0.009	0.009	µg/g	~
Dibromochloromethane	<0.008	0.008	<0.009	0.009	<0.01	0.01	<0.009	0.009	µg/g	0.05
Dichlorodifluoromethane	<0.009	0.009	<0.01	0.01	<0.01	0.01	<0.01	0.01	µg/g	0.05
Dichloromethane	<0.02	0.02	<0.02	0.02	<0.02	0.02	<0.02	0.02	µg/g	0.05
Methyl ethyl ketone	<0.07	0.07	<0.08	0.08	<0.1	0.1	<0.08	0.08	µg/g	0.5
Methyl isobutyl ketone (MIBK)	<0.04	0.04	<0.04	0.04	<0.05	0.05	<0.05	0.05	µg/g	0.5
Methyl tert-butyl ether (MTBE)	<0.04	0.04	<0.04	0.04	<0.05	0.05	<0.05	0.05	µg/g	0.05
n-Hexane	<0.05	0.05	<0.05	0.05	<0.05	0.05	<0.05	0.05	µg/g	0.05
Styrene	<0.01	0.01	<0.01	0.01	<0.02	0.02	<0.01	0.01	µg/g	0.05
Tetrachloroethylene	<0.008	0.008	<0.009	0.009	<0.01	0.01	<0.009	0.009	µg/g	0.05
Toluene-d8 (Surr.)	82.5	N/A	82.2	N/A	81.7	N/A	79.5	N/A	% Rec	~
Trans-1,2-dichloroethylene	<0.008	0.008	<0.009	0.009	<0.01	0.01	<0.009	0.009	µg/g	0.05
Trans-1,3-dichloropropene	<0.008	0.008	<0.009	0.009	<0.01	0.01	<0.009	0.009	µg/g	~
Trichloroethylene	<0.008	0.008	<0.009	0.009	<0.01	0.01	<0.009	0.009	µg/g	0.05
Trichlorofluoromethane	<0.008	0.008	<0.01	0.01	<0.01	0.01	<0.01	0.01	µg/g	0.05
Vinyl chloride	<0.008	0.008	<0.009	0.009	<0.01	0.01	<0.009	0.009	µg/g	0.02

6820 Kitimat Road Unit 4, Mississauga, ON, L5N 5M3
Phone: (905) 821-1112 Fax: (905) 821-2095 Web: www.testmark.ca

CERTIFICATE OF ANALYSIS

KING EPCM

Work Order Number: 456505

Sample Description	BH9 (0.5m)
Sample Date	3/3/2022 11:30 AM
Lab ID	1733288

Volatile Organic Compounds	Result	MDL	Units	Criteria: O.Reg 153 Table 1 Soil Agricultural/Other
Benzene	<0.008 [<0.008]	0.008	µg/g	0.02
Ethylbenzene	<0.008 [<0.008]	0.008	µg/g	0.05
Toluene	<0.008 [<0.008]	0.008	µg/g	0.2
m+p-Xylene	<0.008 [<0.008]	0.008	µg/g	~
o-Xylene	<0.008 [<0.008]	0.008	µg/g	~
Total Xylenes (Calc.)	<0.01 [<0.01]	0.01	µg/g	0.05
1,1,1,2-Tetrachloroethane	<0.008 [<0.008]	0.008	µg/g	0.05
1,1,1-Trichloroethane	<0.008 [<0.008]	0.008	µg/g	0.05
1,1,2,2-Tetrachloroethane	<0.008 [<0.008]	0.008	µg/g	0.05
1,1,2-Trichloroethane	<0.01 [<0.01]	0.01	µg/g	0.05
1,1-Dichloroethane	<0.008 [<0.008]	0.008	µg/g	0.05
1,1-Dichloroethylene	<0.008 [<0.008]	0.008	µg/g	0.05
1,2-Dibromoethane	<0.008 [<0.008]	0.008	µg/g	0.05
1,2-Dichlorobenzene	<0.008 [<0.008]	0.008	µg/g	0.05
1,2-Dichloroethane	<0.008 [<0.008]	0.008	µg/g	0.05
1,2-Dichloroethane-d4 (Surr)	112 [108]	N/A	% Rec	~

6820 Kitimat Road Unit 4, Mississauga, ON, L5N 5M3
Phone: (905) 821-1112 Fax: (905) 821-2095 Web: www.testmark.ca

CERTIFICATE OF ANALYSIS

KING EPCM

Work Order Number: 456505

Sample Description	BH9 (0.5m)
Sample Date	3/3/2022 11:30 AM
Lab ID	1733288

Volatile Organic Compounds	Result	MDL	Units	Criteria: O.Reg 153 Table 1 Soil Agricultural/Other
1,2-Dichloropropane	<0.008 [<0.008]	0.008	µg/g	0.05
1,3-Dichlorobenzene	<0.008 [<0.008]	0.008	µg/g	0.05
1,4-Dichlorobenzene	<0.008 [<0.008]	0.008	µg/g	0.05
1-Bromo-4-fluorobenzene (Surr.)	92 [91.8]	N/A	% Rec	~
Acetone	<0.5 [<0.5]	0.5	µg/g	0.5
Bromodichloromethane	<0.008 [<0.008]	0.008	µg/g	0.05
Bromoform	<0.008 [<0.008]	0.008	µg/g	0.05
Bromomethane	<0.01 [<0.01]	0.01	µg/g	0.05
Carbon tetrachloride	<0.008 [<0.008]	0.008	µg/g	0.05
Chlorobenzene	<0.008 [<0.008]	0.008	µg/g	0.05
Chloroform	<0.008 [<0.008]	0.008	µg/g	0.05
cis - + trans-1,3-Dichloropropene (Calc.)	<0.008 [<0.008]	0.008	µg/g	0.05
cis-1,2-Dichloroethylene	<0.009 [<0.009]	0.009	µg/g	0.05
cis-1,3-Dichloropropene	<0.008 [<0.008]	0.008	µg/g	~
Dibromochloromethane	<0.008 [<0.008]	0.008	µg/g	0.05
Dichlorodifluoromethane	<0.01 [<0.01]	0.01	µg/g	0.05

6820 Kitimat Road Unit 4, Mississauga, ON, L5N 5M3
Phone: (905) 821-1112 Fax: (905) 821-2095 Web: www.testmark.ca

CERTIFICATE OF ANALYSIS

KING EPCM

Work Order Number: 456505

Sample Description	BH9 (0.5m)
Sample Date	3/3/2022 11:30 AM
Lab ID	1733288

Volatile Organic Compounds	Result	MDL	Units	Criteria: O.Reg 153 Table 1 Soil Agricultural/Other
Dichloromethane	<0.02 [<0.02]	0.02	µg/g	0.05
Methyl ethyl ketone	<0.07 [<0.07]	0.07	µg/g	0.5
Methyl isobutyl ketone (MIBK)	<0.04 [<0.04]	0.04	µg/g	0.5
Methyl tert-butyl ether (MTBE)	<0.04 [<0.04]	0.04	µg/g	0.05
n-Hexane	<0.05 [<0.02]	0.05	µg/g	0.05
Styrene	<0.01 [<0.01]	0.01	µg/g	0.05
Tetrachloroethylene	<0.008 [<0.008]	0.008	µg/g	0.05
Toluene-d8 (Surr.)	79.4 [80.7]	N/A	% Rec	~
Trans-1,2-dichloroethylene	<0.008 [<0.008]	0.008	µg/g	0.05
Trans-1,3-dichloropropene	<0.008 [<0.008]	0.008	µg/g	~
Trichloroethylene	<0.008 [<0.008]	0.008	µg/g	0.05
Trichlorofluoromethane	<0.009 [<0.009]	0.009	µg/g	0.05
Vinyl chloride	<0.008 [<0.008]	0.008	µg/g	0.02

6820 Kitimat Road Unit 4, Mississauga, ON, L5N 5M3
Phone: (905) 821-1112 Fax: (905) 821-2095 Web: www.testmark.ca

CERTIFICATE OF ANALYSIS

KING EPCM

Work Order Number: 456505

LEGEND

Dates: Dates are formatted as mm/dd/year throughout this report.

[rr]: After a parameter name indicates a re-run of that parameter. If multiple re-runs exist they are suffixed by a number. Sample may not have been handled according to the recommended temperature, hold time and head space requirements of the method after the initial analysis.

MDL: Method detection limit or minimum reporting limit.

[ ]: Results for laboratory replicates are shown in square brackets immediately below the associated sample result for ease of comparison.

% Rec: Surrogate compounds are added to the sample in some cases and the recovery is reported as a % recovered.

~: In a criteria column indicates the criteria is not applicable for the parameter row.

Quality Control: All associated Quality Control data is available on request.

Exceedences: HIGHLIGHTED CELLS INDICATE THAT THE RESULT EXCEEDS A REGULATORY LIMIT. CALCULATED UNCERTAINTY ESTIMATIONS ARE NOT APPLIED FOR DETERMINING SAMPLE EXCEEDANCES.

Field Data: Reports containing Field Parameters represent data that has been collected and provided by the client. Testmark is not responsible for the validity of this data which may be used in subsequent calculations.

Sample Condition Deviations: A noted sample condition deviation may affect the validity of the result. Results apply to the sample(s) as received.

ICPMS Dustfall Insoluble: The ICPMS Dustfall Insoluble Portion method analyzes only the particulate matter from the Dustfall Sampler which is retained on the analysis filter during the Dustfall method.

6820 Kitimat Road Unit 4, Mississauga, ON, L5N 5M3
Phone: (905) 821-1112 Fax: (905) 821-2095 Web: www.testmark.ca

V-TM-GEN-2021-6.6

TESTMARK Laboratories
Committed to Quality and Service

GENERAL CHAIN OF CUSTODY FORM

Page 1 of 1

Please use our Drinking Water Chain of Custody Form for regulated drinking water samples

REPORT TO:
Client: King EPCM
Address: 204-304 Toronto Street South, Uxbridge, ON., L9P 1Y2
Contact: Tony Wang
Email: twang@kinepcm.com
Phone: 647-459-5647 Fax:

INVOICE TO: (if different from Report)
Client:
Address:
Contact:
Email:
Phone: Fax:

PROJECT INFORMATION:
TM Quote #:
Client P.O. #:
Client Project #: Maplewiew port Colborne - GW Sampling

REPORTING/INVOICING FORMAT
☐ Fax ☑ Email ☐ Mail

QC DATA REPORTED
☐ Yes ☑ No

SAMPLE DISPOSAL
☐ Hold ☑ Dispose ☐ Return

TURN AROUND TIME (TAT)*
☐ Micro Only Rush ☐ ASAP
☐ 1 Business Day ☐ 2 Business Days
☐ 3 Business Days ☑ Standard
DUE DATE: Mon 21st
* Prior arrangements must be made for rush/weekend/holiday work

SAMPLING

DATE (mm-dd-yy)	TIME	MATRIX **	SAMPLE DESCRIPTION (This Will Appear On The Report)	NUMBER OF CONTAINERS	PHC (F1-F4)	BTEX	VOC	Metals	pH	FIELD pH (if applicable)	FIELD TEMP (if applicable)	METALS FIELD FILTERED (Y/N)	CONTAINERS RECEIVED	TEMP	Btl. Type	Lab ID
3-11-22	16:11	GW	BH 101	7	X	X	X	X	X				7	8.5°C	(500mL,2M)	1735251
3-11-22	13:40	GW	BH 102	7	X	X	X	X	X				↓	↓	1AN ↓	1735252
3-11-22	16:41	GW	BH 103	7	X	X	X	X	X							1735253

CONFIRMATION SENT

as per client 03/14/22 jh

LABORATORY USE ONLY
WORK ORDER NUMBER: 457147

**Matrix: B=Biota, GW=Groundwater, O=Oil, P=Paint, S=Soil, SL=Sludge, SW=Surface Water, W=Water, WW=Wastewater, SD=Sediment

☐ High Concentrations Expected

REGULATION
☑ O.Reg. 153 ☐ O.Reg. 406 Bulk ☐ O.Reg. 406 SPLP Leachate
Table ☐ 1 ☐ 2/2.1 ☐ 3/3.1 ☐ 4/4.1 ☑ 5/5.1 ☐ 6/6.1 ☐ 7/7.1 ☐ 8/8.1 ☐ 9/9.1
☐ Industrial / Commercial ☐ Residential / Parkland / Institutional ☐ Agricultural
☑ Groundwater ☐ Coarse Soil ☐ Fine Soil ☐ Surface ☐ Subsurface
☐ O.Reg. 558 ☐ PWQO ☐ MISA ☐ CofA ☐ MDMER ☐ ODWS ☐ None
Sewer Use: ☐ Sanitary ☐ Storm Municipality:
☐ Other:

COMMENTS/FIELD NOTES:
Headspace in 1/4 vials for sample "BH 102" and in 2/4 vials for sample "BH 103", proceed with analysis as per client 03/14/22 jh

Sampled By: Chris CHEN	Date: MAR. 11. 2022	Time:
Received By:	Date:	Time:
Relinquished to Testmark By (Signature)	Date: 10:30 mm KG	Time:
Shipped By: Hand	Shipping Reference: N/A	
Received at Testmark By: KG jh	Date: 14/03/2022	Time: 10:30

7 Margaret Street, Garson, ON, P3L 1E1 • 705-693-1121 (P) • 705-693-1124 (F) • customer.service@testmark.ca
1335 Riverside Drive, Timmins, ON, P4R 1A6 • 705-531-1121 (P) • 705-531-1125 (F) • timmins@testmark.ca
6820 Kitimat Road Unit #1, Mississauga, ON, L5N 5M3 • 905-821-1112 (P) • 905-821-2095 (F) • mississauga@testmark.ca
1470 Government Road, Kirkland Lake, ON P2N 3J1 • 705-642-3361 (P) • 705-642-3222 (F) • kirkland.lake@testmark.ca
1131 Central Ave., Unit 2 Thunder Bay, ON P7B 7C9 • 807-333-0921 (P) • 807-333-0924 (F) • thunder.bay@testmark.ca

457147 D

TESTMARK Laboratories Ltd.
Committed to Quality and Service

CERTIFICATE OF ANALYSIS - REVISED

Supersedes report printed: 03/21/2022 16:50

Client:	Tony Wang	Work Order Number:	457147
Company:	KING EPCM	PO #:	
Address:	204-304 Toronto Street South Uxbridge, ON, L9P 1Y2	Regulation:	O.Reg 153 Table 5 Ground Water Stringent
		Project #:	Mapleview Port Colborne- GW Sampling
Phone:		DWS #:	
Email:	kingepcm@outlook.com	Sampled By:	Chris Chen
Date Order Received:	3/14/2022	Analysis Started:	3/15/2022
Arrival Temperature:	8.5 °C	Analysis Completed:	3/22/2022

WORK ORDER SUMMARY

ANALYSES WERE PERFORMED ON THE FOLLOWING SAMPLES. THE RESULTS RELATE ONLY TO THE ITEMS TESTED.

Sample Description	Lab ID	Matrix	Type	Comments	Date Collected	Time Collected
BH 101	1735251	Ground Water	None		3/11/2022	4:11 PM
BH 102	1735252	Ground Water	None		3/11/2022	1:40 PM
BH 103	1735253	Ground Water	None		3/11/2022	4:41 PM

METHODS AND INSTRUMENTATION

THE FOLLOWING METHODS WERE USED FOR YOUR SAMPLE(S):

Method	Lab	Description	Reference
BTEX/F1 Water (A127)	Mississauga	Determination of PHC BTEX/F1 in Water - Tier 1 CCME	Modified from CWS PHC Tier I CCME
ICPMS Dis. Water (A13)	Mississauga	Determination of Dissolved (Lab Filtered) Metals in Water by ICP/MS	Modified from SW846-6020
ICPMS Reg. Water (A13)	Mississauga	Determination of Metals in Water by ICP/MS	Modified from SW846-6020
pH of Water (A2.0)	Mississauga	Determination of Water pH by Ion Selective Electrode	Modified from APHA-4500H+ B
PHC F2-F4 Water (A59)	Mississauga	Determination of PHC (F2-F4) in Water - Tier 1 CCME by GC/FID	Modified from CWS PHC Tier I CCME
VOC Water (A14)	Mississauga	Determination of Volatile Organic Compounds in Water by P&T/GC/MS	Modified from EPA SW846-8260 B

REPORT COMMENTS

Headspace in 1/4 vials for sample "BH 102" and in 2/4 vials for sample "BH 103", proceed with with analysis as per client- 03/14/22- Y.H, K.G

6820 Kitimat Road Unit 4, Mississauga, ON, L5N 5M3
Phone: (905) 821-1112 Fax: (905) 821-2095 Web: www.testmark.ca

TESTMARK Laboratories Ltd.
Committed to Quality and Service

CERTIFICATE OF ANALYSIS - REVISED

Supersedes report printed: 03/21/2022 16:50

KING EPCM

Work Order Number: 457147

This report has been approved by:

Marc Creighton
Laboratory Director

6820 Kitimat Road Unit 4, Mississauga, ON, L5N 5M3
Phone: (905) 821-1112 Fax: (905) 821-2095 Web: www.testmark.ca

CERTIFICATE OF ANALYSIS - REVISED

Supersedes report printed: 03/21/2022 16:50

KING EPCM

Work Order Number: 457147

WORK ORDER RESULTS

Sample Description	BH 101		BH 102		BH 103			
Sample Date	3/11/2022 4:11 PM		3/11/2022 1:40 PM		3/11/2022 4:41 PM			
Lab ID	1735251		1735252		1735253			
General Chemistry	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: O.Reg 153 Table 5 Ground Water Stringent
pH	8.25	N/A	10.2	N/A	7.98	N/A	pH	~

Sample Description	BH 101		BH 102		BH 103			
Sample Date	3/11/2022 4:11 PM		3/11/2022 1:40 PM		3/11/2022 4:41 PM			
Lab ID	1735251		1735252		1735253			
Metals	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: O.Reg 153 Table 5 Ground Water Stringent
Antimony	<0.5	0.5	<0.5	0.5	18.1	0.5	ug/L	20000
Arsenic	15	1	2	1	22	1	ug/L	1900
Barium	128	1	30	1	50	1	ug/L	29000
Beryllium	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	67
Boron	3760	20	28	2	242	2	ug/L	45000
Cadmium	<0.1	0.1	0.2	0.1	0.3	0.1	ug/L	2.7
Chromium	4	1	7	1	13	1	ug/L	810
Cobalt	1.4	0.1	3.1	0.1	3.4	0.1	ug/L	66
Copper	2	1	19	1	66	1	ug/L	87
Lead	0.2	0.1	1.0	0.1	7.7	0.1	ug/L	25
Molybdenum	1	1	5	1	21	1	ug/L	9200
Nickel	16	1	12	1	28	1	ug/L	490
Selenium	3.6	0.5	0.9	0.5	5.4	0.5	ug/L	63

6820 Kitimat Road Unit 4, Mississauga, ON, L5N 5M3
Phone: (905) 821-1112 Fax: (905) 821-2095 Web: www.testmark.ca

CERTIFICATE OF ANALYSIS - REVISED

Supersedes report printed: 03/21/2022 16:50

KING EPCM

Work Order Number: 457147

Sample Description	BH 101		BH 102		BH 103			
Sample Date	3/11/2022 4:11 PM		3/11/2022 1:40 PM		3/11/2022 4:41 PM			
Lab ID	1735251		1735252		1735253			
Metals	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: O.Reg 153 Table 5 Ground Water Stringent
Silver	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L	1.5
Thallium	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L	510
Uranium	5	1	3	1	4	1	ug/L	420
Vanadium	2	1	6	1	45	1	ug/L	250
Zinc	17	1	9	1	15	1	ug/L	1100

Sample Description	BH 101		BH 102		BH 103			
Sample Date	3/11/2022 4:11 PM		3/11/2022 1:40 PM		3/11/2022 4:41 PM			
Lab ID	1735251		1735252		1735253			
Metals (Dissolved)	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: O.Reg 153 Table 5 Ground Water Stringent
Dissolved Antimony	<0.5 [<0.5]	0.5	0.5	0.5	17.4	0.5	ug/L	20000
Dissolved Arsenic	3 [3]	1	2	1	20	1	ug/L	1900
Dissolved Barium	127 [125]	1	31	1	48	1	ug/L	29000
Dissolved Beryllium	<0.5 [<0.5]	0.5	<0.5	0.5	<0.5	0.5	ug/L	67
Dissolved Boron	4010 [3980]	20	45	2	298	2	ug/L	45000
Dissolved Cadmium	<0.1 [<0.1]	0.1	0.2	0.1	0.3	0.1	ug/L	2.7
Dissolved Chromium	2 [2]	1	6	1	11	1	ug/L	810

6820 Kitimat Road Unit 4, Mississauga, ON, L5N 5M3
Phone: (905) 821-1112 Fax: (905) 821-2095 Web: www.testmark.ca

CERTIFICATE OF ANALYSIS - REVISED

Supersedes report printed: 03/21/2022 16:50

KING EPCM

Work Order Number: 457147

Sample Description	BH 101		BH 102		BH 103			
Sample Date	3/11/2022 4:11 PM		3/11/2022 1:40 PM		3/11/2022 4:41 PM			
Lab ID	1735251		1735252		1735253			
Metals (Dissolved)	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: O.Reg 153 Table 5 Ground Water Stringent
Dissolved Copper	1 [1]	1	21	1	63	1	ug/L	87
Dissolved Lead	0.2 [0.2]	0.1	1.4	0.1	7.9	0.1	ug/L	25
Dissolved Molybdenum	1 [<1]	1	5	1	19	1	ug/L	9200
Dissolved Nickel	14 [15]	1	12	1	27	1	ug/L	490
Dissolved Selenium	1.8 [2.0]	0.5	2.5	0.5	5.7	0.5	ug/L	63
Dissolved Silver	<0.1 [<0.1]	0.1	<0.1	0.1	<0.1	0.1	ug/L	1.5
Dissolved Thallium	<0.1 [<0.1]	0.1	0.2	0.1	<0.1	0.1	ug/L	510
Dissolved Uranium	5 [5]	1	3	1	4	1	ug/L	420
Dissolved Vanadium	1 [2]	1	6	1	40	1	ug/L	250
Dissolved Zinc	15 [16]	1	11	1	16	1	ug/L	1100

Sample Description	BH 101		BH 102		BH 103			
Sample Date	3/11/2022 4:11 PM		3/11/2022 1:40 PM		3/11/2022 4:41 PM			
Lab ID	1735251		1735252		1735253			
Petroleum Hydrocarbons (Water)	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: O.Reg 153 Table 5 Ground Water Stringent
F1 (C6-C10) - Less BTEX (Calc.)	<20	20	100	20	<20	20	ug/L	750
F1 (C6-C10) Incl. BTEX	<20	20	110	20	27	20	ug/L	~

6820 Kitimat Road Unit 4, Mississauga, ON, L5N 5M3
Phone: (905) 821-1112 Fax: (905) 821-2095 Web: www.testmark.ca

CERTIFICATE OF ANALYSIS - REVISED

Supersedes report printed: 03/21/2022 16:50

KING EPCM

Work Order Number: 457147

Sample Description	BH 101		BH 102		BH 103			
Sample Date	3/11/2022 4:11 PM		3/11/2022 1:40 PM		3/11/2022 4:41 PM			
Lab ID	1735251		1735252		1735253			
Petroleum Hydrocarbons (Water)	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: O.Reg 153 Table 5 Ground Water Stringent
F2 (C10-C16)	<100	100	<100	100	<100	100	ug/L	150
F3 (C16-C34)	<400	400	<300	300	<500	500	ug/L	500
F4 (C34-C50)	<100	100	<100	100	<100	100	ug/L	500
Baseline @ C50	Yes	N/A	Yes	N/A	Yes	N/A	NA	~
Benzene	0.4	0.2	0.5	0.2	1.2	0.2	ug/L	44
Ethylbenzene	<0.4	0.4	0.9	0.4	0.6	0.4	ug/L	2300
Toluene	<0.4	0.4	3.0	0.4	3.2	0.4	ug/L	18000
m+p-Xylene	0.5	0.4	3.4	0.4	1.7	0.4	ug/L	~
o-Xylene	<0.4	0.4	1.8	0.4	0.9	0.4	ug/L	~
Total Xylenes (Calc.)	0.5	0.4	5.2	0.4	2.6	0.4	ug/L	4200
1,4-dichlorobenzene-d4 (Surr.)	99.2	N/A	104	N/A	103	N/A	% Rec	~
o-Terphenyl (Surr.)	89.6	N/A	75.5	N/A	88.7	N/A	% Rec	~
undecane (Surr.)	101	N/A	98.2	N/A	100	N/A	% Rec	~

Sample Description	BH 101		BH 102		BH 103			
Sample Date	3/11/2022 4:11 PM		3/11/2022 1:40 PM		3/11/2022 4:41 PM			
Lab ID	1735251		1735252		1735253			
Volatile Organic Compounds	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: O.Reg 153 Table 5 Ground Water Stringent
Benzene	<0.2	0.2	0.3	0.2	0.6	0.2	ug/L	44
Ethylbenzene	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	2300

6820 Kitimat Road Unit 4, Mississauga, ON, L5N 5M3
Phone: (905) 821-1112 Fax: (905) 821-2095 Web: www.testmark.ca

CERTIFICATE OF ANALYSIS - REVISED

Supersedes report printed: 03/21/2022 16:50

KING EPCM

Work Order Number: 457147

Sample Description	BH 101		BH 102		BH 103			
Sample Date	3/11/2022 4:11 PM		3/11/2022 1:40 PM		3/11/2022 4:41 PM			
Lab ID	1735251		1735252		1735253			
Volatile Organic Compounds	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: O.Reg 153 Table 5 Ground Water Stringent
Toluene	<0.5	0.5	1.2	0.5	1.4	0.5	ug/L	18000
m+p-Xylene	<0.5	0.5	1.4	0.5	0.6	0.5	ug/L	~
o-Xylene	<0.5	0.5	0.6	0.5	<0.5	0.5	ug/L	~
Total Xylenes (Calc.)	<0.5	0.5	2.0	0.5	0.6	0.5	ug/L	4200
1,1,1,2-Tetrachloroethane	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	3.3
1,1,1-Trichloroethane	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	640
1,1,2,2-Tetrachloroethane	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	3.2
1,1,2-Trichloroethane	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	4.7
1,1-Dichloroethane	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	320
1,1-Dichloroethylene	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	1.6
1,2-Dibromoethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	0.25
1,2-Dichlorobenzene	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	4600
1,2-Dichloroethane	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	1.6
1,2-Dichloroethane-d4 (Surr)	98	N/A	97.9	N/A	102	N/A	% Rec	~
1,2-Dichloropropane	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	16
1,3-Dichlorobenzene	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	9600
1,4-Dichlorobenzene	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	8
1-Bromo-4-fluorobenzene (Surr.)	87.2	N/A	89	N/A	87.1	N/A	% Rec	~
Acetone	<30	30	<30	30	<30	30	ug/L	130000
Bromodichloromethane	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	85000
Bromoform	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	380
Bromomethane	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	5.6

6820 Kitimat Road Unit 4, Mississauga, ON, L5N 5M3
Phone: (905) 821-1112 Fax: (905) 821-2095 Web: www.testmark.ca

CERTIFICATE OF ANALYSIS - REVISED

Supersedes report printed: 03/21/2022 16:50

KING EPCM

Work Order Number: 457147

Sample Description	BH 101		BH 102		BH 103			
Sample Date	3/11/2022 4:11 PM		3/11/2022 1:40 PM		3/11/2022 4:41 PM			
Lab ID	1735251		1735252		1735253			
Volatile Organic Compounds	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: O.Reg 153 Table 5 Ground Water Stringent
Carbon tetrachloride	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	0.79
Chlorobenzene	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	630
Chloroform	<1	1	<1	1	<1	1	ug/L	2.4
cis - + trans-1,3-Dichloropropene (Calc.)	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	5.2
cis-1,2-Dichloroethylene	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	1.6
cis-1,3-Dichloropropene	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	~
Dibromochloromethane	<2	2	<2	2	<2	2	ug/L	82000
Dichlorodifluoromethane	<2	2	<2	2	<2	2	ug/L	4400
Dichloromethane	<5	5	<5	5	<5	5	ug/L	610
Methyl ethyl ketone	<20	20	<20	20	<20	20	ug/L	470000
Methyl isobutyl ketone (MIBK)	<20	20	<20	20	<20	20	ug/L	140000
Methyl tert-butyl ether (MTBE)	<2	2	<2	2	<2	2	ug/L	190
n-Hexane	<5	5	<5	5	<5	5	ug/L	51
Styrene	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	1300
Tetrachloroethylene	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	1.6
Toluene-d8 (Surr.)	101	N/A	99.3	N/A	101	N/A	% Rec	~
Trans-1,2-dichloroethylene	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	1.6
Trans-1,3-dichloropropene	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	~
Trichloroethylene	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	1.6
Trichlorofluoromethane	<5	5	<5	5	<5	5	ug/L	2500
Vinyl chloride	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L	0.5

6820 Kitimat Road Unit 4, Mississauga, ON, L5N 5M3
Phone: (905) 821-1112 Fax: (905) 821-2095 Web: www.testmark.ca

CERTIFICATE OF ANALYSIS - REVISED

Supersedes report printed: 03/21/2022 16:50

KING EPCM

Work Order Number: 457147

LEGEND

Dates: Dates are formatted as mm/dd/year throughout this report.

MDL: Method detection limit or minimum reporting limit.

[ ]: Results for laboratory replicates are shown in square brackets immediately below the associated sample result for ease of comparison.

% Rec: Surrogate compounds are added to the sample in some cases and the recovery is reported as a % recovered.

~: In a criteria column indicates the criteria is not applicable for the parameter row.

Quality Control: All associated Quality Control data is available on request.

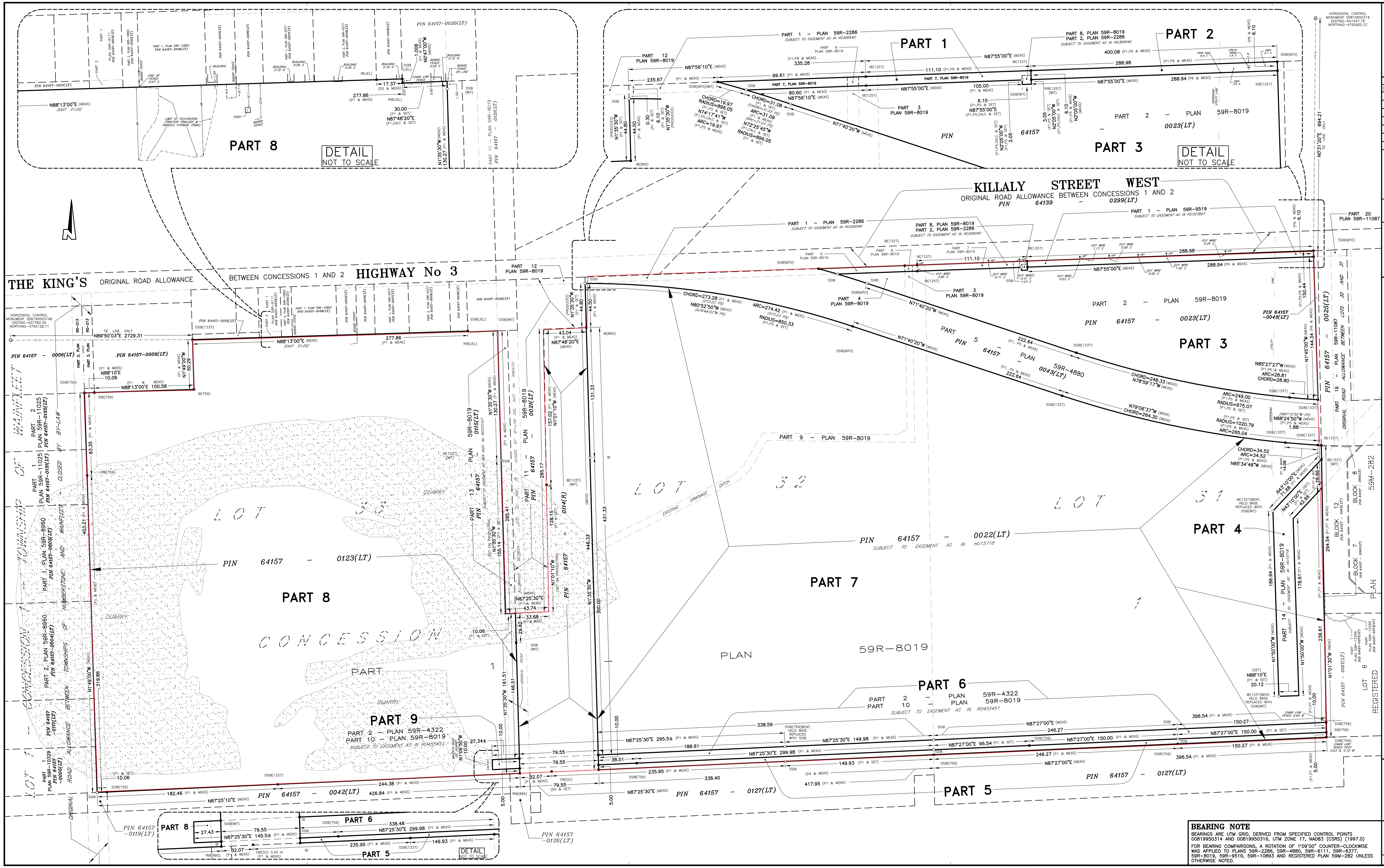
Field Data: Reports containing Field Parameters represent data that has been collected and provided by the client. Testmark is not responsible for the validity of this data which may be used in subsequent calculations.

Sample Condition Deviations: A noted sample condition deviation may affect the validity of the result. Results apply to the sample(s) as received.

ICPMS Dustfall Insoluble: The ICPMS Dustfall Insoluble Portion method analyzes only the particulate matter from the Dustfall Sampler which is retained on the analysis filter during the Dustfall method.

6820 Kitimat Road Unit 4, Mississauga, ON, L5N 5M3
Phone: (905) 821-1112 Fax: (905) 821-2095 Web: www.testmark.ca

APPENDIX V – SURVEY OF PHASE II PROPERTY



BEARING NOTE

BEARINGS ARE UTM GRID, DERIVED FROM SPECIFIED CONTROL POINTS 00819950314 AND 00819950316, UTM ZONE 17, NAD83 (CSRS) (1997.0)

FOR BEARING COMPARISONS, A ROTATION OF 1°09'00" COUNTER-CLOCKWISE WAS APPLIED TO PLANS 59R-2286, 59R-4880, 59R-6111, 59R-6377, 59R-8019, 59R-9519, 59R-10893 AND REGISTERED PLAN 59M-282 UNLESS OTHERWISE NOTED.

I REQUIRE THIS PLAN TO BE DEPOSITED UNDER THE LAND TITLES ACT.

DATE ____________________

____
DONALD G. CHAMBERS, B. Sc., O.L.S.

PLAN 59R-________

RECEIVED AND DEPOSITED

DATE ____________________

____
ASSISTANT DEPUTY LAND REGISTRAR FOR THE LAND TITLES DIVISION OF NIAGARA SOUTH(59)

SCHEDULE

PART	LOT	CONCESSION	PIN
1	PART OF LOTS 31 AND 32	CONCESSION 1	64157-0023(LT)
2	PART OF LOT 31		
3	PART OF LOTS 31 AND 32		
4	PART OF LOT 31		64157-0022(LT)
5	PART OF LOTS 31 AND 32		
6			
7			
8	PART OF LOT 33, PART OF THE ROAD ALLOWANCE BETWEEN LOTS 32 AND 33 (CLOSED BY BY-LAW No 205, INST. No RO64733) AND PART OF THE ROAD ALLOWANCE BETWEEN TOWNSHIPS OF WAINFLEET AND HUMBERSTONE CLOSED BY BY-LAW 546(1915) FOR THE TOWNSHIP OF HUMBERSTONE (UNREGISTERED)		64157-0123(LT)
9	PART OF LOT 33 AND PART OF THE ROAD ALLOWANCE BETWEEN LOTS 32 AND 33 (CLOSED BY BY-LAW No 205, INST. No RO64733)	CONCESSION 1	

PARTS 1, 2 AND 3: ALL OF PIN 64157-0023(LT)
PART 1 SUBJECT TO EASEMENT AS IN RO306540
PART 2 SUBJECT TO EASEMENT AS IN RO727807

PARTS 4, 5, 6 AND 7: ALL OF PIN 64157-0022(LT)
PARTS 4, 5, 6 AND 7 SUBJECT TO EASEMENT AS IN HU15718
PART 5 SUBJECT TO EASEMENT AS IN RO455451

PARTS 8 AND 9: ALL OF PIN 64157-0123(LT)
PART 9 SUBJECT TO EASEMENT AS IN RO455451

PLAN OF SURVEY OF

PART OF LOTS 31, 32 AND 33, CONCESSION 1 PART OF THE ROAD ALLOWANCE BETWEEN LOTS 32 AND 33, CONCESSION 1

CLOSED BY BY-LAW No 205, INSTRUMENT No RO64733

GEOGRAPHIC TOWNSHIP OF HUMBERSTONE

AND PART OF THE ROAD ALLOWANCE BETWEEN TOWNSHIPS OF WAINFLEET AND HUMBERSTONE

CLOSED BY BY-LAW 546(1915) FOR THE TOWNSHIP OF HUMBERSTONE (UNREGISTERED)

IN THE

CITY OF PORT COLBORNE

REGIONAL MUNICIPALITY OF NIAGARA

SCALE 1 : 1500

0 5 10 15 20 25 50 100 METRES

METRIC NOTE

DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

DISTANCE NOTE

DISTANCES ARE GROUND AND CAN BE CONVERTED TO GRID BY MULTIPLYING BY THE COMBINED SCALE FACTOR OF 0.99982.

SPECIFIED CONTROL POINTS (SCPs): UTM ZONE 17, NAD 83 (CSRS) (1997.0). CO-ORDINATES TO URBAN ACCURACY PER SEC. 14 (2) OF O.REG. 216/10

POINT ID	NORTHING	EASTING
SCP 00819950314	4750128.71	637782.09
SCP 00819950316	4750920.37	641647.76

CO-ORDINATES CANNOT, IN THEMSELVES, BE USED TO RE-ESTABLISH CORNERS OR BOUNDARIES SHOWN ON THIS PLAN.

LEGEND

■	DENOTES	SURVEY MONUMENT FOUND
□	"	SURVEY MONUMENT SET
SIB	"	STANDARD IRON BAR
SSIB	"	SHORT STANDARD IRON BAR
IB	"	IRON BAR
CC	"	CUT CROSS
RIB	"	ROUND IRON BAR
IP	"	IRON PIPE
MEAS	"	MEASURED
WIT	"	WITNESS
OU	"	ORIGIN UNKNOWN
N/S/E/W	"	NORTH/SOUTH/EAST/WEST
HP	"	HYDRO POLE
PIN	"	PROPERTY IDENTIFICATION NUMBER
P1	"	DEPOSITED PLAN 59R-8019
P2	"	DEPOSITED PLAN 59R-6111
P3	"	DEPOSITED PLAN 59R-10893
P4	"	DEPOSITED PLAN 59R-6377
P5	"	DEPOSITED PLAN 59R-4880
P6	"	DEPOSITED PLAN 59R-9519
P7	"	REGISTERED PLAN 59M-282
P8	"	DEPOSITED PLAN 59R-2286
D1	"	INSTRUMENT No RO247122 - PIN 64157-0015(LT)
D2	"	INSTRUMENT No RO473497 - PIN 64157-0016(LT)
D3	"	INSTRUMENT No RO756862 - PIN 64157-0019(LT)
D4	"	INSTRUMENT No BB51278 - PIN 64157-0114(R)
759	"	C. J. CLARKE, O.L.S.
895	"	D. A. LANE, O.L.S.
1257	"	R. LAROCQUE, O.L.S.
1337/MARR	"	D. G. MARR, O.L.S.
1654	"	D. G. CHAMBERS, O.L.S.
JEL	"	J. E. LANTHIER, O.L.S.

BARS FOUND BEAR THE NUMBER 1654 UNLESS OTHERWISE NOTED.

SURVEYOR'S CERTIFICATE

I CERTIFY THAT:

1) THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT AND THE LAND TITLES ACT AND THE REGULATIONS MADE UNDER THEM;
2) THE SURVEY WAS COMPLETED ON THE 17th DAY OF JANUARY, 2011.

____________ DATE ____________________ DONALD G. CHAMBERS, B. Sc., O.L.S.

CHAMBERS AND ASSOCIATES SURVEYING LTD

12 THOROLD ROAD EAST
WELLAND ONTARIO
L3C 3T2

(905) 735-7841 / 735-7844
FAX (905) 735-7333
don@casl-surveying.com

DRAWN BY:	DISK:	DWG:	FILE No:
D. H. T.	CIVIL 2010	06084-1_LT	06-84-1

APPENDIX VI – PHASE II CONCEPTUAL SITE MODEL

Good Night

Port

3

Property
Solutions Niagara

5

Killaly St W

BH102 MW

BH9 BH8 BH7

BH6 BH5 BH4

BH101 MW

BH3 BH2 BH1

BH103 MW

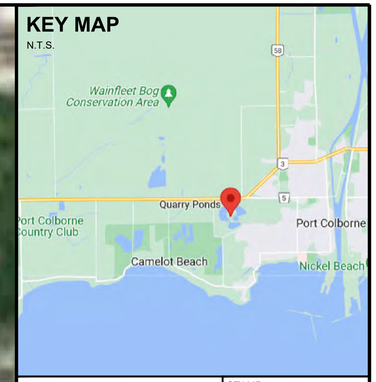
Quarry Ponds

St. Patrick's Catholic
Elementary School

outh
ouse

KEY MAP

N.T.S.



DRAWN	STAMP
S.X.	

DATE

MARCH 21, 2022

King EPCM
204-304 Toronto Street South
Uxbridge, ON, L9P 1Z7
www.KingEPCM.com
647-459-5647
General@KingEPCM.com

CLIENT

1000046816 ONTARIO LIMITED

PROJECT NAME

ENVIRONMENTAL SITE ASSESSMENT PHASE II INVESTIGATION

PROJECT LOCATION

MAPLEVIEW PORT COLBORNE, ONTARIO

PRINT TITLE

PHASE II CONCEPTUAL SITE MODEL

FILE No.

PHASE II ESA - V1

No.	ISSUED FOR:	DATE	DRAW BY	CHECK
V1	INTERNAL REVIEW	MAR 15, 2022	SX	TW

Port

3

Good Night

Property
Solutions Niagara

5

Killaly St W

BH102 MW

BH9 BH8 BH7

BH6 BH5 BH4

BH101 MW

BH3 BH2 BH1

Quarry Ponds

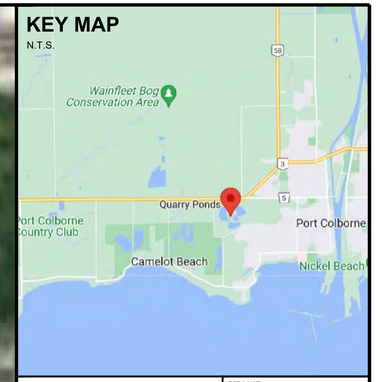
BH103 MW

Groundwater results, exceeding O. Reg.153/04 Table 7 Residential /Parkland Criteria (µg/L)
BH103 MW:
BTEX Benzene 1.2 > 0.5
VOC Benzene 0.6 > 0.5

Surface soil results, exceeding O. Reg.153/04 Table 7 Residential/Parkland Criteria (µg/g)
BH1: Ni 664 > 100
VOC Benzene 0.25 > 0.21
BH3: Ni 568 > 100
BH4: Ni 107 > 100
BH5: Pb 172 > 120
BH6: Pb 173 > 120
F3 1630 > 300
BH8: Cd 1.38 > 1.2
BH9: Co 34.8 > 22

KEY MAP

N.T.S.



DRAWN: S.X.

STAMP:

DATE: MARCH 21, 2022

King EPCM
204-304 Toronto Street South
Uxbridge, ON, L9P 1Z7
www.KingEPCM.com
647-459-5647
General@KingEPCM.com

CLIENT

1000046816 ONTARIO LIMITED

PROJECT NAME

ENVIRONMENTAL SITE ASSESSMENT PHASE II INVESTIGATION

PROJECT LOCATION

MAPLEVIEW PORT COLBORNE, ONTARIO

PRINT TITLE

SURFACE SOIL EXCEEDANCE

FILE No.

SOIL EXCEEDANCE PHASE II ESA - V1

No.	ISSUED FOR:	DATE	DRAW BY	CHECK
V1	INTERNAL REVIEW	MAR 15, 2022	SX	TW

1965