THE COLLECTION OF LANDFILL MONITORING DATA AT THE FORMER **CAM-M DISTANT EARLY WARNING LINE SITE**

Cambridge Bay, Nunavut

Final report (2015)

(O/Ref.: CD2656) (Y/Ref.: DLCLFMP2(KITIK 12))

DEFENCE CONSTRUCTION CANADA

March 2016



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DEFENCE CONSTRUCTION CANADA

March 2016

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- ANNEX 3 Field Notes and Chain of Custody Forms
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1 **OUTLINE**

1.1 OBJECTIVE AND SCOPE OF WORK

The objective of the Defence Construction Canada (DCC) Landfill Monitoring Program is to collect sufficient information to assess the performance of landfills at former Distant Early Warning (DEW) Line Sites that have been remediated, from a geotechnical and environmental perspective. DCC has specified the requirements for the Landfill Monitoring Program in the document entitled "Terms of Reference – Contracting Services for the Collection of Landfill Monitoring Data – PIN-3 Lady Franklin Point, CAM-M Cambridge Bay, CAM-2 Gladman Point, CAM-3 Shepherd Bay, and CAM-4 Pelly Bay DEW LINE SITES, NUNAVUT TERRITORY, KITIKMEOT REGION DCC PROJECT #: DLCLFMP2 (KITIK12), March 20, 2012". This report contains a summary of the findings from the 2015 inspection of the CAM-M Cambridge Bay site.

During the 2015 monitoring program, a visual inspection was completed at all site landfills identified on the overall site plan (Figure CAM-M.1), in addition to soil and groundwater sampling and thermal monitoring completed at the Main Landfill North, Main Landfill South, and Tier II Disposal Facility. Soil sampling was also completed at the South Shore, West and Airstrip Landfills. Table I summarizes the monitoring requirements of the 2015 season. No deviations from the Terms of Reference (TOR) were experienced while completing the 2015 monitoring.

Table I: 2015 Monitoring Requirements for CAM-M Landfills

Landfill	Visual Inspection	Soil Sampling	Groundwater Sampling	Thermal Monitoring
Main Landfill North	√	✓	✓	✓
Main Landfill South	√	✓	√	✓
South Shore Landfill	√	√		
West Landfill	√	√		
Airstrip Landfill	✓	✓		
Tier II Disposal Facility	✓	✓	✓	✓

1.2 FIELD PROGRAM STAFF AND TIMING

The 2015 on-site field program at CAM-M Cambridge Bay was performed between August 16 and 23, 2015. Thermal monitoring was carried out on August 16 and 19, 2015, whereas landfill inspections and soil sampling were completed on August 22-23, 2015, and groundwater sampling on August 23-24, 2015. Englobe Corp. (Englobe) subcontracted Sila Remediation Inc. (Sila), from Igloolik, Nunavut to perform the fieldwork. The Sila field program was executed by Mr. Andrew Passalis with the assistance of three local representatives, whose names and responsibilities are detailed below:

- Mr. Andrew Passalis, Project Engineer (Sila)
- Kaylene Epilon, Field Technician (Sila)
- Gordon Anayoak, Field Technician (Sila)
- Joe Koaha, Wildlife Monitor (Sila)

1.3 2015 WEATHER CONDITIONS

Seasonally warm weather conditions were observed during the CAM-M Cambridge Bay monitoring event with daytime temperatures ranging between 4 °C to 8 °C. Skies were generally overcast to mostly cloudy throughout most days with periods of light rain observed during the morning of August 22, 2015. Winds ranged between 15-25 km/h from the northwest on August 16, 2015; between 20-25 km/h from the east on August 19, 2015; and between 20-30 km/h from the northeast on August 22 and 23, 2015.

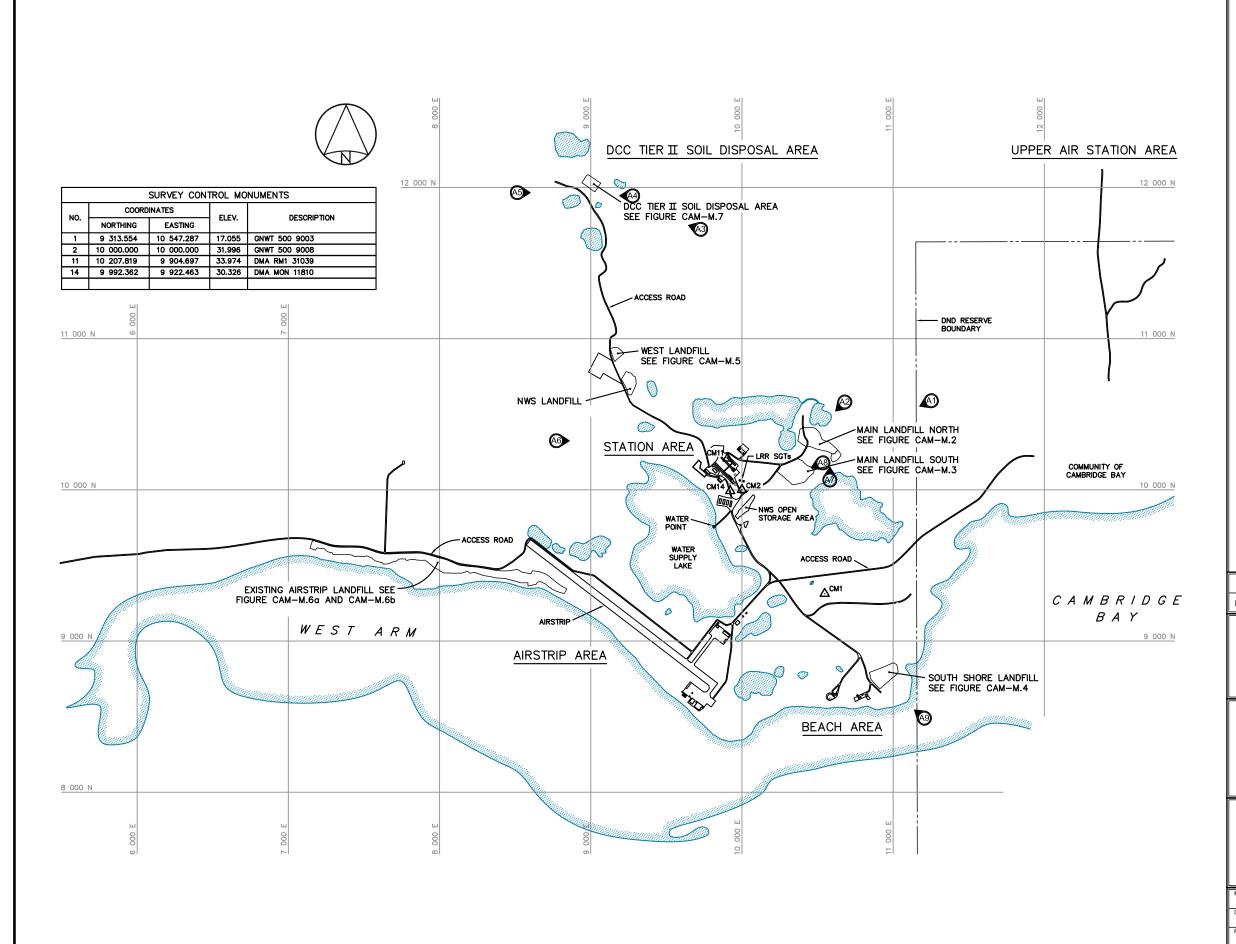
1.4 REPORT FORMAT

This report describes the work carried out in August 2015 at the six landfill sites at CAM-M Cambridge Bay. Results from soil and groundwater sampling, thermal monitoring, and visual inspection of the sites are also presented in the formats described in the TOR (Reference A). An electronic version of the report and its associated tables, figures, and data files are included in an Addendum DVD-ROM, which is appended to this report.

The report is organized with a separate section for each of the landfill areas. Each section contains all relevant information for that landfill area for the 2015 Landfill Monitoring Program. The following information is provided in each landfill section:

- · Visual inspection checklist
- Visual inspection drawing mark-up
- A selection of visual inspection photos
- Thermal monitoring inspection reports (where applicable)
- Summary of 2015 soil analytical data (where applicable)
- Summary of 2015 groundwater analytical data (where applicable)
- Monitoring well development/sampling reports (where applicable)

An overall site plan (Figure CAM-M.1) presents an overview of the current CAM-M site with the localization of each landfill areas. For the photographic record, a photographic index has been completed as per the TOR for each of the landfill areas. The full resolution photos are included in electronic format in the Addendum DVD-ROM attached to this report. Certificates of Analyses, Quality Assurance/Quality Control (QA/QC) analytical results and field notes are attached in the Annexes.



LEGEND

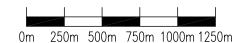
CM2 SURVEY CONTROL MONUMENT



WATERBODY



AERIAL PHOTOGRAPH



1	FINAL	16-03-04	P.L.	A.P.	M.F.
NO.	VERSION	DATE	BY	VERIF.	APPR



Construction de Défense Canada **Defence Construction Canada**

COLLECTION OF LANDFILL MONITORING DATA CAM-M, CAMBRIDGE BAY, NUNAVUT

OVERALL SITE PLAN



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DATE (month-year):

MARCH 2016 1 : 25,000 P. LÉGARÉ A. PASSALIS P. ENG M. FLEURY P. ENG PROJECT NO: CD2656_500_503 DRAWING NO: CD2656_500_503-CAM-MA

FIGURE CAM-M.1

2 METHODOLOGY

2.1 VISUAL INSPECTION

Data and information collected during the visual inspection of the CAM-M landfills are included in the visual inspection data sheets. These data sheets include inspection data such as the location of settlement, erosion, frost action, sloughing and cracking, animal burrows, vegetation cover and stress, staining, seepage points, exposed debris, and any other features of note.

Each feature was identified with an alphabetical or numerical tag to be used consistently each year in an effort to track changes in conditions for each specific feature.

Digital photos were taken to illustrate the current state of the landfills as well as features of interest. Annotated sketches/diagrams are included in the report for each landfill.

The photos were taken with a Sony DSC-TX5 10.2 megapixel (MP) digital camera. Full resolution digital jpg copies are available on the DVD-ROM appended to this report. The photo log, including the local coordinates from where the photo was taken, orientation (relative to map north), features of note, and picture numbers are included with each landfill report.

2.2 SOIL SAMPLING

The soil sampling methodology conformed to guidance provided in the following Canadian Council of Ministers of the Environment (CCME) documents:

- CCME Guidance Document on the Management of Contaminated Sites in Canada, April 1997, CCME PN 1279. (CCME catalogue http://www.ccme.ca/pdfs/cat_eng.pdf).
- CCME EPC-NCS62E Guidance Manual on Sampling, Analysis, and Data Management for Contaminated Sites - Volume I: Main Report, Dec 1993 (CCME catalogue - http://www.ccme.ca/pdfs/cat_eng.pdf).
- CCME EPC-NCS66E Guidance Manual on Sampling, Analysis, and Data Management for Contaminated Sites - Volume II: Analytical Method Summaries, Dec. 1993 (CCME catalogue - http://www.ccme.ca/pdfs/cat_eng.pdf).
- Reference method for the Determination of Petroleum Hydrocarbons in Soil Tier I Method, 2001.
- CCME Subsurface Assessment Handbook for Contaminated Sites, March 1994, EPC-NCSRP-48E (CCME catalogue - http://www.ccme.ca/pdfs/cat_eng.pdf).

Specific methodologies used for the collection of soil samples during the August 2015 landfill monitoring program are summarized in Englobe's Draft Standard Operating Procedures (SOPs), dated August 17, 2015 developed for the Kitik12 (DLCLFMP2 50503) and Kitik13 (DLCMON 53649) contracts. These included:

- Soil sample locations were identified through the use of a GPS and field observation of previously observed monitoring wells and/or sample tags left from previous monitoring events. For soil sampling near monitoring wells, samples were collected from undisturbed ground located between 2 to 4 m from the monitoring well. At each monitoring location, discrete soil samples were collected from two depths, surface sample (0.00 to 0.15 m), and subsurface sample (0.40 to 0.50 m). If the specified depth is not achieved after a reasonable effort has been made, the sample was collected near the zone of refusal. Test pits were dug using a hand shovel down to the prescribed sample depth or refusal, where encountered.
- Soil samples were collected as grab samples from the specified intervals and placed directly into clean laboratory supplied 125 mL glass containers with minimum headspace. Disposable nitrile gloves were used during the sample handling and were changed between each sample collection. Jars/bottles were cleaned prior to placement into the cooler. For the 2015 monitoring event, 27 soil sampling stations were visited. Shallow refusal, bedrock, frozen ground or frost was not encountered at any of the soil stations during the August 2015 sampling.
- Non-disposable sampling utensils and tools utilized during soil sample collection were cleaned between each sampling episode and rinsed with commercially available isopropyl alcohol and laboratory supplied distilled water.
- The location of soil samples were recorded using a surveyor's chain (from the center of the
 monitoring well) or using a GPS and photographed. Once sampling is completed, all the test
 pits were backfilled using the soil previously excavated.
- Quality assurance and quality control samples were collected for a minimum of 10% of the sample population. This included: six blind field duplicates; six field inter-laboratory duplicates; and one field duplicate to be sent to the owner's representative (ESG OPS CENTRE) in Kingston for archiving as specified by DCC. Duplicate samples were collected from a single sample location depth interval. Samples were prepared by homogenizing (thoroughly mixing) approximately 2.5 kg of soil in a clean stainless steel bowl followed by placement into the appropriate respective sample containers.

The soil samples were analyzed for requested parameters (TPH [F1-F4], total metals (As, Cd, Cr, Co, Cu, Pb, Ni, Zn and Hg) and PCBs) as specified by DCC.

Table II below summarizes the soil sampling at CAM-M during the August 2015 field program:

Table II: Summary of Soil Sampling at CAM-M - August 2015

Landfill Site	Soil Sample Locations							
Main Landfill North	MW-4	MW-5	MW-6	MW-7	MW-8			
Main Landfill South	MW-1	MW-2	MW-3	MW-9	MW-14			
South Shore Landfill	CM-1	CM-2	CM-3	CM-4				
West Landfill	CM-5	CM-6	CM-7					
Airstrip Landfill	CM-8	CM-9	CM-10	CM-11	CM-12			
Airstrip Landfill	CM-13							
Tier II Disposal Facility	MW-10	MW-11	MW-12	MW-13				

2.3 GROUNDWATER SAMPLING

The groundwater sampling methodology conformed to guidance provided in the following CCME documents:

- CCME EPC-NCS62E Guidance Manual on Sampling, Analysis and Data Management for Contaminated Sites - Volume I: Main Report, Dec 1993 (CCME catalogue - http://www.ccme.ca/pdfs/cat_eng.pdf).
- CCME EPC-NCS66E Guidance Manual on Sampling, Analysis and Data Management for Contaminated Sites - Volume II: Analytical Method Summaries, Dec. 1993 (CCME catalogue - http://www.ccme.ca/pdfs/cat_eng.pdf).

Specific methodologies used for the collection of groundwater samples during the August 2015 landfill monitoring program are summarized in Englobe's Draft Standard Operating Procedures (SOPs), dated August 17, 2015 developed for the Kitik12 (DLCLFMP2 50503) and Kitik13 (DLCMON 53649) contracts. These included:

• Free product and water level monitoring were completed using a Heron Model H.01L Interface Probe. Depths were recorded from the calibrated wire attached to the probe, using the top of the well casing as the reference datum. The end of the probe was lowered into the well, and programmed to emit a continuous audible signal when in contact with LNAPL, and an intermittent one when in contact with water. Depth and height of water column were measured and recorded in a field book, and if LNAPL was detected, thickness was also measured and recorded in a field book. The probe was then removed from the well and decontaminated between each well to reduce cross contamination. Decontamination included rinsing with Alconox soap and water, followed by an isopropyl alcohol rinse and finally rinsed with de-ionized organic free water (supplied by the laboratory).

- In addition to using an interface probe, any visual and/or olfactory evidence of free product
 was noted during monitoring and well purging activities (if present). Results of the free
 product monitoring and well purging observations are included in the Monitoring Well
 Sampling Logs.
- Monitoring during well purging was completed using a Spectra Field Pro peristaltic pump, equipped with a multi-parameter meter, flow cell, silicon head tubing and LDPE intake and outflow tubing. All tubing materials were replaced after use at each monitoring well. The multi-parameter meter was calibrated prior to the field program and checked daily with parameter specific calibration standards. There was no deviation in standard readings during 2015 field program.
- Purging at each monitoring well location was completed using the following procedures:
 - Install new silicon head tubing on the peristaltic pump;
 - Connect decontaminated field parameter monitoring equipment to the decontaminated flow cell;
 - Using new nitrile gloves and new LDPE tubing, install the intake tubing to the approximate midpoint of the last known water level (if available) and the bottom of the well:
 - Purge the groundwater at a low flow rate of approximately 100 millilitres per minute (mL/min);
 - Continue purging until the field parameters stabilized for three consecutive readings spaced at three to five minute intervals and/or purging of a minimum of one well volume (stabilization was determined by temperature and conductivity readings within +/- 3% and pH readings within +/- 0.1 pH units).
- Groundwater sampling was undertaken at the completion of the purging and consisted of the following:
 - After stabilization of the field parameters, the intake tubing to the flow cell was disconnected;
 - A new pair of nitrile gloves was adorned and water samples collected for each COC in the appropriate laboratory supplied containers, filling the inorganic containers first, followed by PCBs and lastly PHCs, and ensuring that the tubing did not contact any of the sample containers;
 - Collection of all sample containers in a single sampling event. The samples were not acidified and were not filtered;
- All full sample containers were placed in a cooler, with ice packs, for transportation to the receiving lab.
- A field blank was prepared using laboratory supplied travel blank water and pumping this
 water with the peristaltic pump using the same procedures established for groundwater
 sampling.

The 2015 field program included sampling monitoring wells at the Main Landfill North, Main Landfill South and Tier II Disposal Facility. Groundwater samples were collected at all monitoring well locations, with the exception of MW-4 and MW-10, which were dry at the time of monitoring. In addition, the well pipes at MW-5 and MW-9 were plugged with hydrated bentonite and consequently could not be sampled. A summary of the groundwater sampling undertaken at CAM-M is summarized in Table III.

In sampled wells, no signs of free-phase hydrocarbon product were detected. Monitoring Well Development and Sampling Record forms are included in appropriate sections in this report.

Table III: Summary of Groundwater Sampling at CAM-M - August 2015

Landfill Site		Groundw	ater Sample I	Locations	
Main Landfill North	MW-4 (dry)	MW-5 (bent)	MW-6	MW-7	MW-8
Main Landfill South	MW-1	MW-2	MW-3	MW-9 (bent)	MW-14
Tier II Disposal Facility	MW-10 (dry)	MW-11	MW-12	MW-13	

2.4 THERMAL MONITORING

The 2015 thermal monitoring program at CAM-M consisted of an inspection of thirteen thermistors and data loggers, the downloading of datasets and the manual reading of thermistors at all datalogger locations. Specific detailed information regarding temperature data is contained in the Main Landfill North, Main Landfill South and Tier II Disposal Facility sections of this report.

2.5 FIELD NOTES

Field notes from the 2015 Landfill Monitoring program, including soil and water sampling, are included in Annex 3 for reference. Notes were written in field books, previously prepared logs or entered directly into a field computer. The notes were scanned to an Adobe PDF document for future reference and backup. Locations of all observations and features for the visual inspection were recorded using a Garmin Oregon 400 hand held GPS, which included a combination of continuous tracks and discrete way points. Data sets collected from the individual vertical thermistors were downloaded directly to a field laptop computer.

2.6 QUALITY CONTROL

Sila implemented standard sample collection techniques to decrease the likelihood of compromising collected samples. The methods used for sample collection are summarized in Sections 2.2 and 2.3 of this report. The following measures were taken to minimize sample cross-contamination:

- All samples were placed directly into the appropriate laboratory-supplied containers (for the particular analysis).
- Soil samples were collected with the use of decontaminated sampling equipment and/or nitrile gloves that were used only once.
- Water samples were collected through the use of dedicated Waterra® foot valves and tubing.

Chain-of-Custody (COC) forms were prepared prior to mobilisation to the site and completed by the Project Engineer after sample collection. The samples were refrigerated prior to off-site shipment, in chilled coolers, by First Air Cargo directly to Maxxam (via Yellowknife) and Exova in Edmonton and ESG, via Ottawa to Kingston, Ontario (via Edmonton), where they were checked in by laboratory representatives. All analyses were completed as specified on COC forms.

Annex 1 provides a sample integrity report from Exova. This report indicates that all samples received were acceptable for analysis.

2.7 QA/QC PROCEDURES

Sila used standard QA/QC procedures as specified in the TOR and CCME Guidance Documents for this project. The following is a summary of the analytical QA/QC samples collected:

- 10% field Blind Duplicate Samples of soil and water were sent to Exova. Results can be found in Annex 1.
- 10% Inter-laboratory Duplicate Samples were sent to Maxxam (to determine if variation in procedures may cause significant difference in analytical results).
- 10% Archival Samples of soil were sent to ESG.

Exova has QA/QC measures for sample analysis. Exova QC samples will typically be introduced into the analytical stream on a batch basis, normally comprising 20% – 30% of the total sample throughput. A batch size of 15 – 20 typically includes one of each control standard, reference standard, surrogate spike, duplicate sample, and method blank. A control sample is a blank matrix fortified with analyte of interest and carried through all analytical steps to monitor lab performance (recovery & basis) on clean matrix. A reference sample is a sample with predetermined certified characteristics that undergoes the same processing as samples used to evaluate accuracy of procedure. A surrogate spike is an organic compound with similar chemical composition and behaviour in the analytical process used to monitor recovery in each sample. A duplicate sample occurs when client samples are analyzed in duplicate to monitor reproducibility in analysis and preparation. A method blank is a blank sample matrix carried through the same procedure as the samples, and is used to monitor for process contamination.

Maxxam follows similar in-house QA/QC procedures. Exova and Maxxam QA/QC reports can be found within the certificates of analysis in Annex 1.

2.8 PROJECT REFERENCES

The following references are specifically relevant to the 2015 Landfill Monitoring activities:

- A. Invitation to Tender Contractor Services for the Collection of Landfill Monitoring Data Nunavut Territory – Kitikmeot Region at PIN-3 (Lady Franklin Point), CAM-M (Cambridge Bay), CAM-2 (Gladman Point), CAM-3 (Shepherd Bay), CAM-4 (Pelly Bay) – DCC Project Number: DLCMON (KITIK) – March 26, 2012.
- B. Terms of Reference Services for the collection of Landfill Monitoring Data: PIN-3 (Lady Franklin Point), CAM-M (Cambridge Bay), CAM-2 (Gladman Point), CAM-3 (Shepherd Bay), CAM-4 (Pelly Bay). DEW Line Sites, Nunavut Territory, Kitikmeot Region DCC Project #: DLCLFMP2 (KITIK12).
- C. Contractor Services for the Collection of Landfill Monitoring Data Nunavut Territory Kitikikmeot Region at PIN-3 (Lady Franklin Point), CAM-M (Cambridge Bay), CAM-2 (Gladman Point), CAM-3 (Shepherd Bay), CAM-4 (Pelly Bay): Technical Proposal May 2012.
- D. Meeting Minutes June 16, 2015.
- E. Englobe's Draft Standard Operation Procedures (SOPs), August 17, 2015.
- F. Post-Field Progress Report, CAM-M Landfill Monitoring 2015, September 2015.

3 MAIN LANDFILL NORTH

3.1 SUMMARY

On August 22 and 23, 2015 a visual inspection was completed at the Main Landfill North. Soil sampling was completed at five stations located upgradient and downgradient of the landfill. Thermal monitoring was completed at five thermistor locations on August 16 and 19, 2015 and groundwater sampling was completed at three monitoring well locations on August 23, 2015.

No TPH or relatively high metal concentrations were detected in any of the soil samples collected. Detectable concentrations of PCB were noted in the surface samples collected at upgradient location MW-8 (0.3 mg/kg) and downgradient location MW-4 (0.06 mg/kg).

No PCB, TPH or relatively high metal concentrations were detected at any of the wells sampled, with the exception of downgradient well MW-6, which noted slightly elevated levels of lead (0.022 mg/L), nickel (0.128 mg/L) and zinc (2.4 mg/L).

As of 2015, no features with "significant" or "unacceptable" severity ratings were identified in the Preliminary Stability Assessment of the Main Landfill North. Indications of minor settlement were noted at six areas, including: one previously observed unchanged undulating area on the north cover (Feature I); a new pothole depression on the south crest (Feature J); two new depressions on the southwest crest (Feature K); a new localized depression in an area of vehicle rutting on the east cover (Feature N); and two new localized depressions on the northeast and north crests (Features Q and T) of the landfill. Former features A, B and H were not visible during the 2015 assessment.

Six general areas of surface erosion were noted on the side slopes at the Main Landfill North, including two previously observed areas on the northeast side slope and four new areas on the southeast, northeast (2) and north side slopes. The two previously observed areas, including eight closely spaced locations at Feature D (D1 to D8) and three locations at Feature E appear consistent with previous observations with no significant changes noted. New areas of erosion included: two locations on the southeast side slope (Features M1 and M2), five locations on the northeast side slope (Features O1 to O5); seven locations on the north side slope (Feature S1 and S2); and a single location on the northwest side slope (Feature U). All features appear to be relatively minor surface erosion, self-armouring and generally extend between the crest and toe at each location. All slopes appear stable.

Evidence of sparse vegetation growth was noted across the east cover and south, east and northeast side slopes at the Main Landfill North. Vegetation was not observed on this lobe during the previous 2010 assessment.

One new localized area of rust-coloured staining (Feature P) was observed in a well vegetated wet area located northeast of the landfill toe. This feature was not observed during the previous 2010 assessment. One relatively small area of ponded water was also noted immediately north of the landfill. This area was observed during the previous assessment, however no notations were made regarding the size and/or depth.

Tension cracks were observed at five locations, including two previously observed and three new locations on the Main Landfill North. Previously observed locations on the east crest (Feature F) and northeast side slope (Feature G) were either partially or completely filled or difficult to determine confirmation from previous assessment findings. New tension cracks were noted on the southwest side slope (Feature L), one locations on the northeast side slope (Feature G1) and one location on the northwest crest (Feature V). One new ponded area was also noted on the northeast side slope (Feature R)

At this time, the overall performance of the landfill is rated as acceptable.

The Visual Inspection Checklist is included in Table IV of this report and has been completed as per the TOR. Please refer to Figure CAM-M.2 for a sketch of the Main Landfill North detailing the location of photographs, settlement, erosional and staining features.

Table IV: Visual Inspection Checklist / Report - Main Landfill North

DEW LINE CLEANUP: POST-CONSTRUCTION – LANDFILL MONITORING VISUAL INSPECTION CHECKLIST

INSPECTION REPORT – PAGE 1 of 3

SITE NAME: CAM-M Cambridge Bay

LANDFILL DESIGNATION: Main Landfill North (Leachate Containment Landfill)

DATE OF INSPECTION: August 16, 19, 22-23, 2015

DATE OF PREVIOUS INSPECTION: August 28, 2010

INSPECTED BY: A. Passalis

REPORT PREPARED BY: A. Passalis

MONITORING EVENT NUMBER: 8 (Year 15)

The inspector/reporter represents to the best of his/her knowledge that the following statements and observations are true and correct and to the best of the preparer's actual knowledge, no material facts have been suppressed or misstated.

TABLE IV: MAIN LANDFILL NORTH VISUAL INSPECTION (PAGE 2 of 3)

Checklist Item	Present (Yes/No)	Location	Length (m)	Width (m)	Depth (m)	Extent	Description	Photographic Record	Severity Rating	Additional Comments
		FEATURE A See Figure CAM-M.2 (S crest)	7	8	3		Minor undulation and settlement in cap		Not Observable	Feature not observed.
		FEATURE B See Figure CAM-M.2 (SW shoulder)	15.5	14	8		Erosion generally following dozer tracks B7 is the worst case		Not Observable	Feature not observed.
		FEATURE I See Figure CAM-M.2 (N cover)	6	4	0.05		Undulating surface	MLFN-76	Acceptable	No signifcant change .
		FEATURE H See Figure CAM-M.2 (S crest)	4	23	7		Only a small section is visable		Not Observable	Feature not observed.
Settlement	Yes	FEATURE J See Figure CAM-M.2 (Below S crest) - New Obs.	0.6	0.5	0.1	Occassional	Pothole depression	MLFN-9, 10	Acceptable	New observation. Slope appears stable.
		FEATURE K See Figure CAM-M.2 (SW crest) - New Obs.	0.6 - 1.3	0.4 - 0.9	0.15		Pothole depressions	MLFN-19, 20	Acceptable	New observation. Two depressions (linear and pothole type on crest west of access road. Slope appears stable.
		FEATURE N See Figure CAM-M.2 (E cover) - New Obs.	1	1	0.1		Localized depression with ruts	MLFN-26	Acceptable	New observation. Vehicle ruts and depression on east cover.
		FEATURE Q See Figure CAM-M.2 (NE crest) - New Obs.	0.8	0.6	0.1 - 0.15		Localized depression on crest	MLFN-55, 56	Acceptable	New observation. Crest appears stable.
		FEATURE T See Figure CAM-M.2 (N crest) - New Obs.	0.6	0.4	0.2		Localized depression on crest	MLFN-78	Acceptable	New observation. Crest appears stable.
		FEATURE D See Figure CAM-M.2 (NE Slope)	10	0.15 - 0.4	0.1 - 0.15		Minor erosion	MLFN-64, 65, 67	Acceptable	Eight areas of minor erosion. Self armouring. Slope appears stable. No significant changes observed.
		FEATURE E See Figure CAM-M.2 (NE Slope)	11	0.2 - 0.9	0.1 - 0.2		Minor erosion	MLFN-57-63	Acceptable	Three areas of erosion. Self armouring. Slope appears stable. No significant changes observed.
		FEATURE M1 See Figure CAM-M.2 (SE side slope) - New Obs.	6	0.15 - 0.3	0.05 - 0.07		Minor erosion	MLFN-24, 25	Acceptable	New observation. Self armouring. Slope appears stable.
		FEATURE M2 See Figure CAM-M.2 (SE side slope) - New Obs.	7	0.2	0.05 - 0.1		Minor erosion	MLFN-27, 28	Acceptable	New observation. Self armouring. Slope appears stable.
		FEATURE O1 See Figure CAM-M.2 (NE side slope) - New Obs.	12	0.2 - 0.4	0.1 - 0.15		Minor erosion	MLFN-32, 33	Acceptable	New observation. Self armouring. Slope appears stable.
Erosion	Yes	FEATURE O2 See Figure CAM-M.2 (NE side slope) - New Obs.	10	0.3 - 0.5	0.1	Occassional	Minor erosion	MLFN-34, 35	Acceptable	New observation. Self armouring. Slope appears stable.
		FEATURE O3 See Figure CAM-M.2 (NE side slope) - New Obs. FEATURE O4	10	0.10 - 0.2	0.05 - 0.1		Minor erosion	MLFN-36, 37	Acceptable	New observation. Self armouring. Slope appears stable.
		See Figure CAM-M.2 (NE side slope) - New Obs. FEATURE 05	10	0.15 - 0.2	0.05 - 0.1		Minor erosion	MLFN-40	Acceptable	New observation. Self armouring. Slope appears stable.
		See Figure CAM-M.2 (NE side slope) - New Obs. FEATURE S1	10	0.1 - 0.2	0.05 - 0.1		Minor erosion	MLFN-41	Acceptable	New observation. Two areas. Self armouring. Slope appears stable.
		See Figure CAM-M.2 (N side slope) - New Obs. FEATURE S2	12	0.15 - 0.4	0.05 - 0.1		Minor erosion	MLFN-70, 71	Acceptable	New observation. Four areas. Self armouring. Slope appears stable.
		See Figure CAM-M.2 (N side slope) - New Obs.	11	0.15 - 0.25	0.03 - 0.05		Minor erosion	MLFN-74, 75	Acceptable	New observation. Three areas. Self armouring. Slope appears stable.
		FEATURE U See Figure CAM-M.2 (W side slope) - New Obs.	3	0.3	0.02 - 0.05		Minor erosion	MLFN-81	Acceptable	New observation. Three areas. Self armouring. Slope appears stable.

DOCUMENT FOR THE USE OF DEFENCE CONSTRUCTION CANADA

ENGLOBE CORP.

TABLE IV: MAIN LANDFILL NORTH VISUAL INSPECTION (PAGE 3 of 3)

Checklist Item	Present (Yes/No)	Location	Length (m)	Width (m)	Depth (m)	Extent	Description	Photographic Record	Severity Rating	Additional Comments
Frost Action	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not Observable	N/A
Animal Burrows	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not Observable	N/A
Vegetation	Yes	See Figure CAM-M.2 (E cover and S, E and NE side slopes) - New Obs.	between 150 and 250	between 12 and 25	N/A	two approximate zone with limited vegetation	Sparse vegetation growth across the east cover and south, east and northeast side slopes of the Main Landfill North.	N/A	Acceptable	New iobservation, General photos for documentation, no features of note.
Staining	Yes	FEATURE P See Figure CAM-M.2 (NE side) - New Obs.	15	3 -6	0.2	N/A	Ponded area with rust coloured staining	MLFN-45, 46	Acceptable	New observation. Vegetated ponded area downgradient of landfill toe. With minor rust coloured staining.
Vegetation Stress	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not Observable	N/A
Seepage Points	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not Observable	N/A
Debris Exposed	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not Observable	N/A
		MW-4	N/A	N/A	N/A	N/A	N/A	MLFN-11	Acceptable	Casing full of bentonite.
		MW-5	N/A	N/A	N/A	N/A	N/A	MLFN-31	Marginal	Casing full of bentonite and slip cap not secured. Unable to sample du to excessive bentonite in well pipe.
B (O livi (M iv. i l		MW-6	N/A	N/A	N/A	N/A	N/A	MLFN-47	Acceptable	Bentonite in casing.
Presence/Condition of Monitoring Instruments	Yes	MW-7	N/A	N/A	N/A	N/A	N/A	MLFN-72	Acceptable	Bentonite in casing.
		MW-8	N/A	N/A	N/A	N/A	N/A	MLFN-8	Acceptable	Casing full of bentonite.
		See Figure CAM-M.2	N/A	N/A	N/A	N/A	N/A	MLFN-1, 5, 7, 2, 6	Acceptable	VT-1, VT-2, VT-3, ITN1, ITN2 Thermistors are functioning properly.
		FEATURE L See Figure CAM-M.2 (SW side slope) - New Obs.	3.5	0.002 - 0.003	Unknown	<1%	Tension crack	MLFN-22	Acceptable	New observation. Hairline tension crack extending though depressions on southwest crest.
		FEATURE F See Figure CAM-M.2 (E crest)	12	up to 0.05	N/A	1%	Infilled crack	MLFN-52-54	Acceptable	Infilled crack, Observed in 2007 but not in 2010.
Other Features of Note	Yes	FEATURE G See Figure CAM-M.2 (NE side slope)	9	0-2 - 0.04	Unknown	<1%	Partially infilled crack	MLFN-50, 51	Acceptable	Tension crack on northeast side slope. Partially infilled. Difficult to determine if this is the same feature from 2010.
		FEATURE G1 See Figure CAM-M.2 (NE side slope) - New Obs.	30	0.002 - 0.03	Unknown	<1%	Partially infilled crack	MLFN-42-44, 48, 49	Acceptable	New observation. Partially infilled, discontinuous crack.
		FEATURE R See Figure CAM-M.2 (NE side) - New Obs.	4	3	Unknown	N/A	Ponded area	MLFN-66	Acceptable	New observation. Not in contact with landfill.
		FEATURE V See Figure CAM-M.2 (NW crest) - New Obs.	28	0.001 - 0.003	Unknown	N/A	Tension crack	MLFN-82, 83	Acceptable	New observation. Semi-continuous.
Additional Photos	Yes	See Figure CAM-M.2 and Photographic Record	N/A	N/A	N/A	N/A	General Photographic Record	N/A	Not Observable	General photos for documentation, no features of note.
Overall Landfill Performance:	Acceptable				ı	1		ı		

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3.2 PRELIMINARY STABILITY ASSESSMENT

The Preliminary Stability Assessment for Main Landfill North has been completed as per the TOR and is included as Table V hereafter.

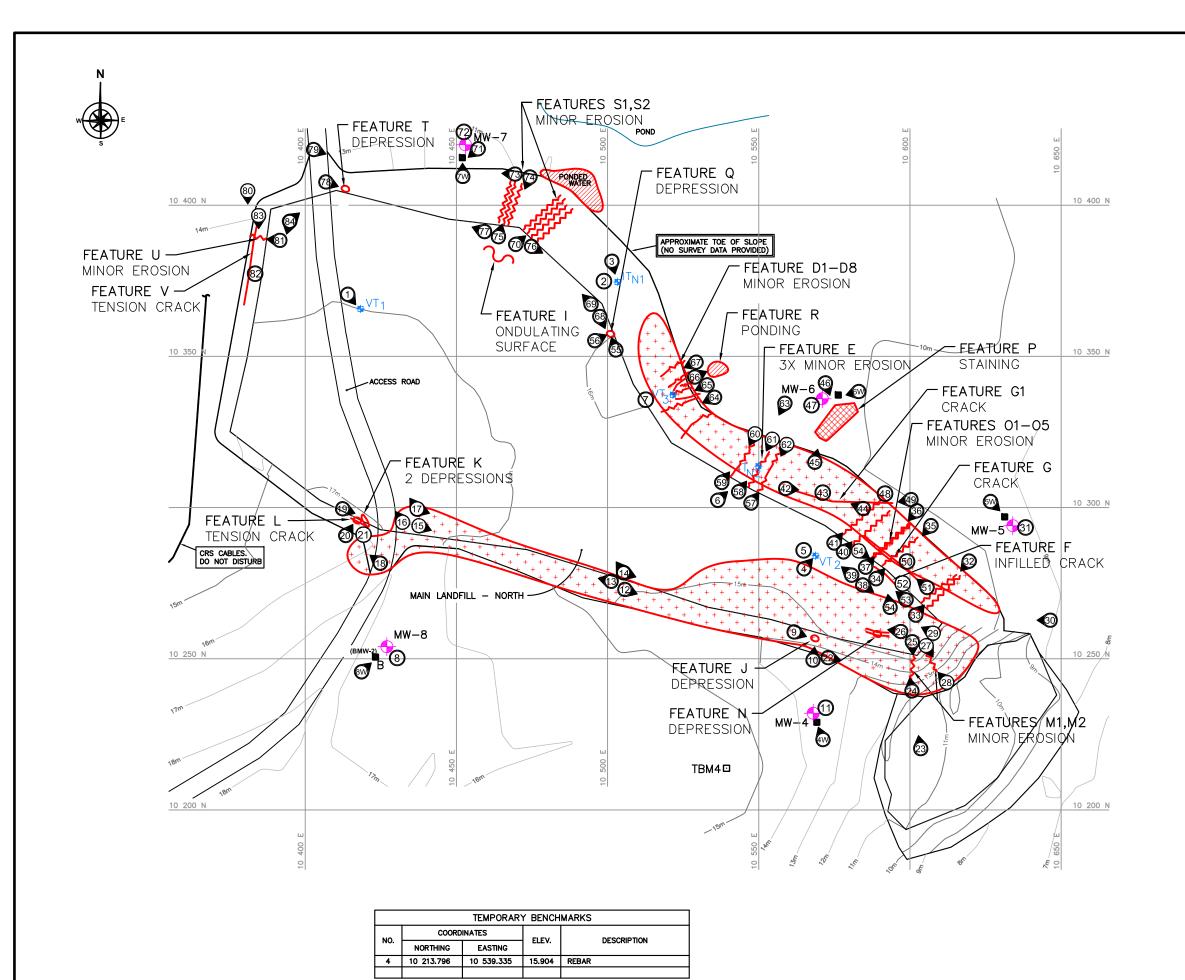
Table V: Preliminary Stability Assessment - Main Landfill North

Feature	Severity Rating	Extent
Settlement	Acceptable	Occasional
Erosion	Acceptable	Occasional
Frost Action	Not observed	None
Staining	Acceptable	Isolated
Vegetation Stress	Not observed	None
Seepage/Ponded Water	Acceptable	Isolated
Debris exposure	Not observed	None
Overall Landfill Performance	Acceptab	le

Performance/ Severity Rating	Description
Acceptable	Noted features are of little consequence. The landfill is performing as designed. Minor deviations in environmental or physical performance may be observed, such as isolated areas of erosion, settlement.
Marginal	Physical/environmental performance appears to be deteriorating with time. Observations may include an increase in size or number of features of note, such as differential settlement, erosion or cracking. No significant impact on landfill stability to date, but potential for failure is assessed as low or moderate.
Significant	Significant or potentially significant changes affecting landfill stability, such as significant changes in slope geometry, significant erosion or differential settlement; scarp development. The potential for failure is assessed as imminent.
Unacceptable	Stability of landfill is compromised to the extent that ability to contain waste materials is compromised. Examples may include: Debris exposed in erosion channels or areas of differential settlement. Liner exposed. Slope failure.
Fortend	Description
Extent Isolated	Description Singular facture
Occasional	Singular feature Features of note occurring at irregular intervals/locations
Numerous	Many features of note, impacted less than 50% of the surface area of the landfill
Extensive	Impacting greater than 50% of the surface area of the landfill

3.3 LOCATION PLAN

The Location Plan for the Main Landfill North has been completed as per the TOR and is presented in Figure CAM-M.2.



LEGEND

TBM4 TEMPORARY BENCHMARK

TO MONITORING WELL LOCATION

MONITORING SOIL SAMPLE LOCATION

TE VERTICAL THERMISTOR LOCATION

INCLINED THERMISTOR LOCATION

APPROXIMATE PHOTOGRAPH LOCATION AND PHOTO NUMBER

EROSION

TENSION CRACK

ONDULATING SURFACE

DEPRESSION

PONDING/STAINING

LIMITED VEGETATION

PON

PONDING



1	FINAL	16-03-29	P.L.	A.P.	M.F.
NO.	VERSION	DATE	BY	VERIF.	APPR.



COLLECTION OF LANDFILL MONITORING DATA

CAM-M, CAMBRIDGE BAY, NUNAVUT

MAIN LANDFILL NORTH



4495, Wilfrid-Hamel boulevard Suite 200 Quebec (Quebec) Canada, G1P 2J7 Phone: 418.653.4422 www.englobecorp.com

MEASUREMENT UNIT	SCALE:	DATE (month-year):		
MEASUREMENT UNIT Metre	1 : 1,250	MARCH 2016		
DRAWN BY:	VERIFIED BY:	APPROVED BY:		
DRAWN BY: P. LÉGARÉ	A. PASSALIS P. ENG	M. FLEURY P. ENG		
PROJECT NO:	DRAWING NO:	PAGE		
CD2656_500_503	CD2656_500_503-CAM-MB	PL		

3.4 PHOTOGRAPHIC RECORDS

The Photographic Record for the Main Landfill North has been completed as per the TOR and is included as Table VI hereafter. Full-sized photographs are contained in the Addendum DVD-ROM.

Table VI: Landfill Inspection Photo Log-Main Landfill North (page 1 of 2)

Photo	to Vantage Point		ne Point			
(MLFN-)	Filename	Size (MB)	Date	Easting Northing		Caption
	Figure CAM N		Date	Luoting	Horaning	Capiton
A1	CM15_8404	3,914 KB	21/08/2015	11238	10577	View looking west at Main Landfills North and South
A2	CM15 8408	3,848 KB	21/08/2015	10697	10588	View looking southwest at Main Landfills North and South
A7	CM15 8421	3,786 KB	21/08/2015	10592	10087	View looking north at Main Landfill North
General	010_0.121	0,100112	21,700,2010	.0002		The moderning means at many carreline modern
1	CM15 7530	4,319	16/08/2015	10418	10366	View looking southeast at VT-1
2	CM15 7531	4.258	16/08/2015	10503	10375	Downloading thermistor data at ITN1
3	CM15 7532	4,348	16/08/2015	10502	10379	View looking south at ITN1
4	CM15_7894	4,229	19/08/2015	10567	10282	View looking northeast at VT-2
5	CM15_7895	3,951	19/08/2015	10567	10285	View of datatalogger at VT-2 with new batteries
6	CM15 7896	4,366	19/08/2015	10543	10311	View northeast at ITN2. MW-6 in background
7	CM15_7897	3,870	19/08/2015	10521	10337	View of datalogger at VT-3
8	CM15_8583	4,323	22/08/2015	10427	10254	View of bentonite filled casing at MW-8
9	CM15 8586	4,170	22/08/2015	10565	10258	Feature J: View looking southeast at pothole depression below crest on south side of landfill (new)
10	CM15 8587	4,406	22/08/2015	10569	10254	Feature J: View looking north at pothole depression below crest on south side of landfill (new)
11	CM15 8588	4,382	22/08/2015	10569	10232	View of bentonite filled casing at MW-4
12	CM15 8589	4,038	22/08/2015	10506	10275	View looking southeast along south side of landfill
13	CM15_8590	4,225	22/08/2015	10503	10276	View looking northwest along south side of landfill
14	CM15_8591	1,325	08/09/2015	10505	10277	Panoramic view looking northwest to east across central cover from south side of landfill
15	CM15_8592	4,307	22/08/2015	10436	10294	View looking east along south side of landfill
16	CM15_8593	4,380	22/08/2015	10434	10295	View looking northwest across west cover of landfill
17	CM15_8594	1,287	08/09/2015	10435	10298	Panoramic view looking northwest to east across west cover from southeast side of landfill
18	CM15_8595	4,422	22/08/2015	10424	10282	View looking northwest along southeast side of landfill
19	CM15_8596	4,314	22/08/2015	10415	10298	Feature K: View looking southeast at two depressions on southeast side of landfill (new)
20	CM15_8597	4,439	22/08/2015	10416	10295	Feature K: View looking northeast at two depressions on southeast side of landfill (new)
21	CM15_8598	4,386	22/08/2015	10419	10294	Feature L: View of hairline crack extending through depressions on southeast side of landfill
22	CM15_8601	4,236	22/08/2015	10574	10250	View looking east-southeast along southeast side of landfill
23	CM15_8602	4,225	22/08/2015	10603	10221	View looking north at southeast side of landfill
24	CM15_8603	3,997	22/08/2015	10600	10243	Feature M1: View looking north at minor erosion on southeast side of landfill
25	CM15_8604	4,326	22/08/2015	10601	10252	Feature M1: View looking south at minor erosion on southeast side of landfill
26	CM15_8605	4,261	22/08/2015	10595	10259	Feature N: View looking west at depression and tire tracks on east cover of landfill
27	CM15_8606	4,204	22/08/2015	10606	10253	Feature M2: View looking southeast at minor erosion on southeast side of landfill (new)
28	CM15_8607	4,302	22/08/2015	10611	10244	Feature M2: View looking northwest at minor erosion on southeast side of landfill (new)
29	CM15_8608	4,346	22/08/2015	10607	10258	View looking northwest along centerline of landfill cover
30	CM15_8609	4,199	22/08/2015	10645	10262	View looking west at east side of landfill
31	CM15_8610	4,384	22/08/2015	10634	10294	View of bentonite filled casing at MW-5
32	CM15_8613	4,195	22/08/2015	10617	10279	Feature O1: View looking southwest at minor erosion on northeast side of landfill (new)
33	CM15_8614	4,424	22/08/2015	10604	10266	Feature O1: View looking northeast at minor erosion on northeast side of landfill (new)
34	CM15_8615	4,190	22/08/2015	10591	10280	Feature O2: View looking northeast at minor erosion on northeast side of landfill (new)
35	CM15_8616	4,298	22/08/2015	10605	10292	Feature O2: View looking southwest at minor erosion on northeast side of landfill (new)
36	CM15_8617	4,172	22/08/2015	10600	10297	Feature O3: View looking southwest at minor erosion on northeast side of landfill (new)
37	CM15_8618	4,420	22/08/2015	10587	10282	Feature O3: View looking northeast at minor erosion on northeast side of landfill (new)
38	CM15_8619	4,355	22/08/2015	10587	10277	View looking southeast along northeast crest of landfill
39	CM15_8620	4,381	22/08/2015	10584	10278	View looking northwest along northeast crest of landfill
40	CM15_8621	4,327	22/08/2015	10580	10288	Feature O4: View looking northeast at minor erosion on northeast sie of landfill (new)

Table VI: Landfill Visual Inspection Photo Log – Main Landfill North (page 2 of 2)

	andfill Visua	Inspection	n Photo Log			h (page 2 of 2)	
Photo					ge Point		
(MLFN-)	Filename	Size (MB)	Date	Easting	Northing	Caption	
41	CM15_8622	4,350	22/08/2015	10577	10290	Feature O5: View looking northeast at minor erosion on northeast sie of landfill (new)	
42	CM15_8623	4,362	22/08/2015	10562	10307	Feature G1: View looking southeast at tension crack on northeast side slope (new)	
43	CM15_8624	4,390	22/08/2015	10572	10303	Feature G1: View of tension crack on northeast side slope (new)	
44	CM15_8625	4,409	22/08/2015	10582	10301	Feature G1: View looking northwest at tension crack on northeast side slope (new)	
45	CM15_8626	4,438	22/08/2015	10569	10318	Feature P: View looking north at dense vegetation and ponding with iron staining near northeast toe of landfill (new)	
46	CM15_8629	4,411	22/08/2015	10573	10340	Feature P: View looking southeast at dense vegetation and ponding with iron staining near northeast toe of landfill (new)	
47	CM15 8630	4,322	22/08/2015	10570	10336	View of bentonite filled casing at MW-6	
48	CM15 8631	4,419	22/08/2015	10592	10302	Feature G1: View of tension crack on northeast side slope	
49	CM15 8632	4.180	22/08/2015	10599	10302	Feature G1: View looking northwest at tension crack on northeast side slope	
50	CM15 8634	4,226	22/08/2015	10599	10281	Feature G: View of tension crack on northeast side slope	
51	CM15 8635	4,357	22/08/2015	10604	10275	Feature G: View looking northwest at tension crack on northeast side slope	
52	CM15 8636	4,306	22/08/2015	10596	10275	Feature F: View of infilled tension crack on east crest of landfill	
53	CM15_8637	4,006	22/08/2015	10598	10271	Feature F: View looking northwest at infilled tension crack on east crest of landfill	
54	CM15 8638	4,040	22/08/2015	10585	10283	Feature F: Viewlooking southeast at infilled tension crack on east crest of landfill	
55	CM15 8639	4,192	22/08/2015	10502	10355	Feature Q: View looking northwest at depression on northeast crest of landfill (new)	
56	CM15 8640	4,216	22/08/2015	10497	10356	Feature Q: View looking northeast at depression on northeast crest of landfill (new)	
57	CM15 8641	4,099	22/08/2015	10549	10304	Feature E: View looking northeast at minor erosion on east side slope of landfill	
58	CM15 8642	4,321	22/08/2015	10544	10306	Feature E: View looking northeast at minor erosion on east side slope of landfill (new)	
59	CM15_8643	3,994	22/08/2015	10539	10310	Feature E: View looking northeast at minor erosion on east side slope of landfill	
60	CM15_8644	3,993	22/08/2015	10548	10322	Feature E: View looking southwest at minor erosion on east side slope of landfill	
61	CM15_8645	4,309	22/08/2015	10554	10320	Feature E: View looking southwest at minor erosion on east side slope of landfill (new)	
62	CM15_8646	4,278	22/08/2015	10558	10319	Feature E: View looking southwest at minor erosion on east side slope of landfill	
63	CM15_8647	4,346	22/08/2015	10559	10333	Feature E: View looking southwest at 3 areas of minor erosion on east side slope of landfill	
64	CM15_8648	4,311	22/08/2015	10534	10336	Feature D: View looking southwest at multiple areas of minor erosion on east side slope of landfill	
65	CM15_8649	4,154	22/08/2015	10531	10340	Feature D: View looking southwest at multiple areas of minor erosion near VT-3 on east side slope of landfill	
66	CM15_8650	4,408	22/08/2015	10528	10343	Feature R: View looking northeast at small ponded area near east toe of landfill	
67	CM15_8651	4,307	22/08/2015	10527	10347	Feature D: View looking southwest at multiple areas of minor erosion near VT-3 on east side slope of landfill	
68	CM15_8652	3,924	22/08/2015	10497	10365	View looking southeast along east crest of landfill	
69	CM15_8653	3,993	22/08/2015	10496	10367	View looking northwest along east crest of landfill	
70	CM15_8654	3,971	22/08/2015	10471	10389	Feature S1: View looking northeast at four areas of minor erosion on northeast side of landfill	
71	CM15_8655	3,582	22/08/2015	10488	10401	Feature S1: View looking southwest at four areas of minor erosion on northeast side of landfill	
72	CM15_8658	4,384	22/08/2015	10453	10421	View of bentonite filled casing at MW-7	
73	CM15_8661	3,767	22/08/2015	10470	10410	View looking west atong north toe of landfill	
74	CM15_8662	4,294	22/08/2015	10474	10408	Feature S2: View looking south at three areas of minor erosion on north side of landfill	
75	CM15_8663	3,877	22/08/2015	10464	10390	Feature S2: View looking north at three areas of minor erosion on north side of landfill	
76	CM15_8664	4,465	22/08/2015	10466	10389	View looking southeast along northeast crest of landfill	
77	CM15_8665	4,390	22/08/2015	10458	10391	View lookkng northwest along north crest of landfill	
78	CM15_8666	4,269	22/08/2015	10408	10407	Feature T: View looking east at depression on north crest of landfill	
79	CM15_8667	4,151	22/08/2015	10404	10418	View looking southeast at north side of landfill	
80	CM15_8668	3,779	22/08/2015	10382	10403	View looking south along northwest side of landfill	
81	CM15_8669	3,973	22/08/2015	10389	10388	Feature U: View looking west at minor erosion on west side of landfill (new)	
82	CM15_8670	4,345	22/08/2015	10382	10378	Feature V: View of tension crack extending along west side slope of landfill (new)	
83	CM15_8671	4,396	22/08/2015	10384	10395	Feature V: View looking south at tension crack extending along west side slope of landfill (new)	
84	CM15_8672	1,793	08/09/2015	10395	10394	Panoramic view looking northeast to south across cover from northwest area of landfill	
Soil Sampl	ing						
MW-4	CM15_8599	4,316	22/08/2015	10569	10229	Samples CM15-4WA/B located downgradient of Lobe 2	
4W	CM15_8600	4,325	22/08/2015	10571	10225	View looking southwest at MW-4 soil sampling location	
MW-5	CM15_8611	4,403	22/08/2015	10631	10296	Samples CM15-5WA/B located downgradient of landdfill	
5W	CM15_8612	4,300	22/08/2015	10627	10300	View looking west at MW-5 soil sampling location	
MW-6	CM15_8627	4,353	22/08/2015	10577	10338	Samples CM15-6WA/B located downgradient of landfill	
6W	CM15_8628	4,444	22/08/2015	10582	10338	View looking west at MW-6 soil sampling location	
MW-7	CM15_8656	4,306	22/08/2015	10452	10416	Samples CM15-7WA/B located downgradient landfill	
7W	CM15_8660	4,433	22/08/2015	10451.6	10412.3	View looking north at MW-7 soil sampling location	
MW-8	CM15_8584	4,325	22/08/2015	10423.5	10249.2	Samples CM15-8WA/B located upgradient of landfill	
8W	CM15_8585	4,329	22/08/2015	10421.2	10246.7	View looking northeast at MW-8 soil sampling location	

3.5 THERMISTOR ANNUAL MAINTENANCE REPORTS

Data from all thermistors was successfully retrieved with no errors encountered.

Review of the downloaded thermal data identified all analogues/thermocouples to be functioning properly during the 2010/2015 monitoring period.

All batteries were replaced, internal memories were reset and clocks were synchronized using the Prolog Software. Manual resistive readings were collected from the thermistor strings as per the TOR. Manual readings and inspection results for each thermistor are presented on the Thermistor Annual Maintenance Reports (VT-1 to VT-3, ITN1 and ITN2) included in this section of the report.

Contractor Name:	Sila Remediation Inc.	Inspection Date:	16/08/2015
Prepared By:	A.Passalis	· ·	

Thermistor Information

Site Name:	CAM-M	Thermistor Location	on	Main LF North	ı	
Thermistor Number:	VT-1	Inclination		Vertical		
Install Date:	1999-09-25	First Date Event		L	ast Date Event	30/08/2010
Coordinates and Ele	vation	N 10337.0	Е	10522.0	Elev	13.7
Length of Cable (m)	6.1	Cable Lead Above Groun	nd (m) 3.70	Nodal Points		7
Datalogger Serial #	805074			Cable Serial N	Number	TS-7NCV#2

Thermistor Inspection

		Good		
	Yes	No	Problem/Maintenance	
Casing	X			
Cover	x			
Data Logger	x			
Cable	x			
Beads	x			
Battery Installation Date		16/08/2015		
Battery Levels	Main _	11.34	Aux 13.50	

Manual Ground Temperature Readings

Bead	ohms	Degrees C
1	12.450	5.0741
2	13.666	3.4992
3	15.021	1.2587
4	16.895	-0.6745
5	17.876	-1.8357
6	18.890	-2.8583
7	19.680	-3.7264
-	-	•

Bead	ohms	Degrees C
-	-	-
-	-	-
-	-	-
-		
-		
-	-	-
-	-	-
-	-	-

Observations and Proposed Maintenance

Clock was 2:49 hrs slow. Memory at 87%.

Download thermistor data. File: Site_001_VT-1_Aug_16_2015

Change batteries (ULB1 - 03/21 and ULB15 - 06/21)

Reset clock and restart datalogger.

Contractor Name:	Sila Remediation Inc.	Inspection Date:	2015-08-19
Prepared By:	A.Passalis		

Thermistor Information

Site Name:	CAM-M	Thermistor Loca	ation	Main LF North	1	
Thermistor Number:	VT-2	Inclination		Vertical		
Install Date:	1999-09-25	First Date Even	t	L	ast Date Event	2010-08-30
Coordinates and Ele	vation	N 10284.0	Е	10569.0	Elev	15.3
Length of Cable (m)	6.1	Cable Lead Above Gr	ound (m)	3.70 Nodal Points		7
Datalogger Serial #	805136			Cable Serial I	Number	TS-7NCV#3

Thermistor Inspection

<u> </u>		Good		
	Yes	1	No	Problem/Maintenance
Casing	X		-	
Cover	x			
Data Logger	x			
Cable	x		-	
Beads	x		-	
Battery Installation Date		2015-08-19		
Battery Levels	Main _	11.34		Aux <u>13.75</u>

Manual Ground Temperature Readings

Bead	ohms	Degrees C
1	12.334	5.5657
2	12.774	4.9220
3	13.403	3.9138
4	14.320	2.6140
5	15.424	1.0044
6	16.604	-0.3134
7	17.34	-1.1796
-	-	-

Bead	ohms	Degrees C
-	-	-
-	-	-
-	-	-
-		
-		
_	-	-
_	-	-
-	-	-

Observations and Proposed Maintenance

Clock was 3:35 hrs slow. Memory at 87%.

Download thermistor data. File: Site_002_VT-2_Aug_19_2015

Change batteries (ULB1 - 03/21 and ULB15 - 06/21)

Reset clock and restart datalogger.

Contractor Name:	Sila Remediation Inc.	Inspection Date:	2015-08-19
Prepared By:	A.Passalis		

Thermistor Information

Site Name:	CAM-M	The	rmistor Locat	ion		Main LF Nort	h		
Thermistor Number:	VT-3	Incli	nation			Vertical			
Install Date:	1999-09-25	Firs	t Date Event			l	_ast Date E	Event	2010-08-29
Coordinates and Ele	vation	N 10	0366.0		E	10418.0	E	lev	15.7
Length of Cable (m)	6.1	Cable Lea	ad Above Gro	und (m)	3.70	Nodal Points			7
Datalogger Serial #	805146					Cable Serial	Number		TS-7NCV#1

Thermistor Inspection

		Good			
	Yes		No	Problem/Maintenance	
Casing	x		_		_
Cover	x		_	_	_
Data Logger	x		_		_
Cable	x		-		_
Beads	x		-		_
Battery Installation Date		2015-08-19			_
Battery Levels	Main _	11.34		Aux <u>13.02</u>	_

Manual Ground Temperature Readings

Bead	ohms	Degrees C
1	12.289	5.7279
2	12.545	5.3311
3	13.221	4.2483
4	14.098	2.9318
5	15.165	1.4725
6	16.560	-0.2957
7	17.099	-0.9830
-	-	-

Bead	ohms	Degrees C
-	-	-
_	-	-
_	_	_
_		
_		
-	-	-
-	-	-
-	-	-

Observations and Proposed Maintenance

Clock was 3:29 hrs slow. Memory at 98%.

Download thermistor data. File: Site_003_VT-3_Aug_19_2015

Change batteries (ULB1 - 03/21 and ULB15 - 06/21)

Reset clock and restart datalogger.

Contractor Name:	Sila Remediation Inc.	Inspection Date:	2015-08-16
Prepared By:	A.Passalis	•	

Thermistor Information

Site Name:	CAM-M	Thermistor Location		Main LF North		
Thermistor Number:	ITN-1	Inclination		Inclined		
Install Date:	1999-09-25	First Date Event		Last Da	ate Event	2010-08-3
Coordinates and Ele	vation	N 10366.0	Е	10418.0	Elev	Varies
Length of Cable (m)	22.5	Cable Lead Above Ground	d (m) Varies	Nodal Points		1
Datalogger Serial #	805063			Cable Serial Number	er TS	-7NCIA and B#

Thermistor Inspection

		Good]
	Yes		No	Problem/Maintenance
Casing	X			
Cover	X			
Data Logger	X			
Cable	X			
Beads			X	Bead 6 on Cable B, bad resistance reading
Battery Installation Date		2015-08-16		
Battery Levels	Main	11.34		Aux <u>13.38</u>

В

Manual Ground Temperature Readings

		inperature itt	
Α	Bead	ohms	Degrees C
	1	16.979	-0.9830
	2	17.394	-1.5995
	3	17.394	-1.7792
	4	17.203	-1.5995
	5	16.802	-1.2461
	6	15.899	-0.6567
	7	15.49	-0.4011
	8	16.110	-0.4735
		. 5. 1 10	2.1100

Bead	ohms	Degrees C
1	18.27	-0.7000
2	20.47	-2.3949
3	22.4	-4.8895
4	23.72	-6.9616
5	24.35	-8.3365
6	2104.5	-9.1625
-	-	-
-	-	-

Observations and Proposed Maintenance

Clock was 2:33 hrs slow. Memory at 100%.

Download thermistor data. File: Site_031_ITN1_Aug_16_2015

Change batteries (ULB1 - 03/21 and ULB15 - 06/21)

Reset clock and restart datalogger.

Contractor Name:	Sila Remediation Inc.	Inspection Date:	2015-08-19
Prepared By:	A.Passalis		

Thermistor Information

Site Name:	CAM-M		Thermistor Loca	ition		Main LF North	1		
Thermistor Number:	ITN-2		Inclination			Inclined			
Install Date:	1999-09-25		First Date Event			L	ast Date Ever	nt 20 °	10-08-30
Coordinates and Ele	vation	N	10314.0		E	10550.0	Elev	Varies	
Length of Cable (m)	22.5	Cable	e Lead Above Gro	ound (m)	Varies	Nodal Points			14
Datalogger Serial #	805107					Cable Serial I	Number T	S-7NCIA a	and B#3

Thermistor Inspection

		Good]
	Yes		No	Problem/Maintenance
Casing	X			
Cover	X			
Data Logger	X			
Cable	X			
Beads			X	Bead 6 on Cable B, bad resistance reading
Battery Installation Date		2015-08-19		
Battery Levels	Main	11.34		Aux 12.90

Manual Ground Temperature Readings

	nporataro re	
Bead	ohms	Degrees C
1	16.005	0.0012
2	15.719	0.4214
3	15.113	1.1152
4	14.839	1.4172
5	14.748	1.6309
6	13.846	2.7191
7	14.50	1.8896
8	15.226	0.7724

В

Bead	ohms	Degrees C
1	16.47	0.7724
2	18.00	-0.3134
3	20.25	-2.2554
4	21.92	-4.9081
5	22.68	-6.6532
6	358.1	-7.6106
-	-	-
-	-	-

Observations and Proposed Maintenance

Clock was 3:34 hrs slow. Memory at 100%.

Download thermistor data. File: Site_032_ITN2_Aug_19_2015

Change batteries (ULB1 - 03/21 and ULB15 - 06/21)

Reset clock and restart datalogger.

3.6 SOIL SAMPLE ANALYTICAL DATA

The soil chemical analysis results for the 2015 Main Landfill North samples are presented in Table VII hereafter. Certificates of analyses and results of field duplicates collected as part of the QA/QC program are presented in Annexes 1 and 2 at the end of this report.

Table VII: Main Landfill North Summary Table for Soil Analytical Data

Sample #			Parameters												
	Location	Depth (cm)	As	Cd	Cr	Co	Cu	Pb	Ni	Zn	Hg	PCBs	F1	F2	F3
	Location		[mg/kg]	[mg/kg]	[mg/kg]	[mg/kg]	[mg/kg]	[mg/kg]	[mg/kg]		[mg/kg]		C ₆ -C ₁₀	C ₁₀ -C ₁₆	C ₁₆ -C ₃₄
			. 0 01	. 0 0,	1 3 3,	1 3 31	1 3 31	1 3 31	. 0 02	. 0 0,	. 0 0.	. 0 0,	[mg/kg]	[mg/kg]	[mg/kg]
Detection Limit			0.2	0.01	0.5	0.1	1.0	0.1	0.5	1	0.05	0.05	10	40	40
Upgradient Soil Samples											•				
CM15-8WA	MW-8	0-15	3.5	0.11	46.8	5.2	12.0	9.5	25.9	22	<0.05	0.30	<10	<40	<40
CM15-8WB	IVIVV-0	40-50	3.0	0.12	28.7	3.6	10.2	5.2	22.7	16	0.05	<0.05	<10	43	<40
Downgradient Soil Samples															
CM15-4WA	MW-4	0-15	4.0	0.23	13.5	4.1	11.0	7.9	10.6	35	0.06	0.06	<10	<40	<40
CM15-4WB	10100-4	40-50	6.2	0.08	18.8	4.9	11.5	8.8	13.9	18	0.05	<0.05	<10	<40	<40
CM15-5WA		0-15	3.2	0.08	8.2	3.5	8.5	4.5	8.8	14	<0.05	<0.05	<10	<40	<40
CM15-5WB		40-50	3.3	0.02	15.7	5.8	11.9	6.3	12.9	6	<0.05	< 0.05	<10	<40	<40
CM15-BD3 (Intra-Lab Duplicate)	MW-5	40-50	3.3	0.02	16.8	6	10.5	6	12.6	6	<0.05	<0.05	<10	<40	<40
CM15-5WB (Inter-Lab Duplicate)		40-50	2.7	<0.05	17	5.5	11	5.9	13	<10	<0.050	<0.010	<12	<10	<50
Average value for CM15-5WB sample		40-50	3.1 ± 0.4	0.01 ± 0.01	16.5 ± 0.7	5.8 ± 0.3	11.1 ± 0.7	6.1 ± 0.2	12.8 ± 0.2	4 ± 3					
CM15-6WA	MW-6	0-15	3.2	0.04	25.6	7.0	14.1	6.2	17.3	29	<0.05	<0.05	<10	<40	<40
CM15-6WB	IVIVV-O	40-50	3.6	0.03	22.8	6.3	12.3	6.2	15.6	27	<0.05	<0.05	<10	<40	<40
CM15-7WA	MW-7	0-15	3.0	0.30	9.2	2.2	11.8	2.8	13.0	12	0.05	<0.05	<10	<40	<40
CM15-7WB	10100-7	40-50	9.0	0.09	32.9	8.4	15.1	7.5	24.4	32	<0.05	<0.05	<10	<40	<40

3.7 GROUNDWATER SAMPLE ANALYTICAL DATA

The groundwater chemical analysis results and evaluation for the analytical data for the 2015 Main Landfill North samples are presented in Table VIII hereafter. Certificates of analyses and results for groundwater samples collected as part of the QA/QC program are presented in Annexes 1 and 2, at the end of this report.

Table VIII: Main Landfill North Summary Table for Groundwater Analytical Data

						F	Parameters							
0		_							_			F1	F2	F3
Sample #	Location	As [mg/L]	Cd [mg/L]	Cr [mg/L]	Co [mg/L]	Cu [mg/L]	Pb [mg/L]	Ni [mg/L]	Zn [mg/L]	Hg [mg/L]	PCBs [mg/L]	C ₆ -C ₁₀ [mg/L]	C ₁₀ -C ₁₆ [mg/L]	C ₁₀ -C ₃₄ [mg/L]
Detection Limit		0.0002	0.00001	0.0005	0.0001	0.001	0.0001	0.0005	0.001	0.000005	0.00005	0.1	0.1	0.1
Upgradient Groundwater Sample														
CM15-8W	8-WM	< 0.0004	0.00003	0.0110	0.0006	0.003	0.0003	0.0294	0.671	< 0.000005	<0.00005	<0.1	<0.1	<0.1
Downgradient Groundwater Samp	Downgradient Groundwater Samples													
CM15-4W	MW-4	-	-	-	-	-	-	-	-	-		-	-	-
CM15-5W	MW-5	-	-	-	-	-	-	-	-	-	-	-	-	-
CM15-6W	MW-6	0.0080	0.00048	0.0460	0.0140	<0.010	0.0220	0.1280	2.400	<0.000005	<0.00005	<0.1	<0.1	<0.1
CM15-7W		0.0100	0.00007	0.0030	0.0020	< 0.005	< 0.0005	0.0593	0.110	< 0.000005	<0.00005	<0.1	<0.1	<0.1
CM15-BDW1 (Intra-Lab Duplicate)	MW-7	0.0093	0.00005	0.0030	0.0020	< 0.005	< 0.0005	0.0566	0.081	<0.005	<0.05	<0.1	<0.1	<0.1
CM15-7W (Inter-Lab Duplicate)	10100-7	0.0011	0.200040	0.2600	0.0031	0.0065	0.0016	0.1200	0.650	<0.006	<0.05	<0.1	<0.1	<0.2
Average value for CM15-7W sample		0.0068 ± 0.0049	0.0667 ± 0.1155	0.0887 ± 0.1484	0.0024 ± 0.0006			0.0786 ± 0.0359	0.280 ± 0.320					

3.8 MONITORING WELL SAMPLING / INSPECTION LOGS

The monitoring well sampling logs for MW-4 to MW-8 are presented in this section.

Site Name: CAM-M Landfill Name: Main Landfill North

Monitoring Well ID: MW-4
Sample Number(s) include dups.: CM15-4W
Bottles filled (by parameter type): N/A

Date of Sampling Event: N/A Time: N/A

Weather: 9C, Overcast, 15-25 km/h NW

Names of Samplers: A.Passalis

Description of Well Condition and Surrounding ground conditions (note ponding of water):

Bentonite to top of casing

Lock (condition, presence, model, manufacturer):

Pre-Measured Data (From Water Well Record Log)

*Depth of well installation (cm)= 350 Diameter of well (cm)= 5

*Depth to top of screen (cm)= 50 Length screened section (cm)= 200

note: *depths are from ground surface

Field Measurements

Measurement method (interface probe, tape, etc): Interface

Well pipe height above ground (cm) (to top of pipe)=

Static water level (cm) from top of pipe =

- dry
Static water level (cm) (below ground surface) calculated =

N/A

Measured well refusal depth (cm) (measure after sampling)=

125

Thickness of water column (cm)= N/A Static volume of water in well (mL)= N/A Free product thickness (mm)= 0 Evidence of sludge or siltation: No

Purging Information Summary*

Purging/sampling equipment, sampling technique

and equipment calibration information: N/A

Well purged (Y/N): N Recharge Rate: N/A

Volume Purged (L) (note multiple purging events if applicable):

Parameter	Initial	Stabilized	Final	Notes (if not stabilized)
рН	-	-	-	
Conductivity (uS/cm)	-	-	-	
Turbidity (NTU)	-	-	-	
Temperature (degC)	-	-	-	
Visual/olfactory observations (incl.				
presence of free product/sheen/glob siltation):	ouies,	N/A		

Decontamination of sampling equipment

Type of decontamination fluid (s): N/A

Number washes: N/A Number rinses: N/A

Other Relevant Comments: Protective casing full of bentonite

^{*} Complete field notes including full suite of water quality indicator parameters VS time as per EPA low flow sampling procedures should be apended to this summary.

Site Name: CAM-M Landfill Name: Main Landfill North

Monitoring Well ID: MW-5
Sample Number(s) include dups.: CM15-5W
Bottles filled (by parameter type): N/A

Date of Sampling Event: N/A Time: N/A

Weather: 9C, Overcast, 15-25 km/h NW

Names of Samplers: A.Passalis

Description of Well Condition and Surrounding ground conditions (note ponding of water):

Significant bentonite in well pipe, unable to sample

Lock (condition, presence, model, manufacturer): Good, KA1

Pre-Measured Data (From Water Well Record Log)

*Depth of well installation (cm)= 350 Diameter of well (cm)= 5

*Depth to top of screen (cm)= 50 Length screened section (cm)= 200

note: *depths are from ground surface

Field Measurements

 $\label{thm:measurement} \mbox{Measurement method (interface probe, tape, etc):} \qquad \mbox{Interface}$

Well pipe height above ground (cm) (to top of pipe)=

Static water level (cm) from top of pipe =

Static water level (cm) (below ground surface) calculated =

Measured well refusal depth (cm) (measure after sampling)=

68

Thickness of water column (cm)= 20 Static volume of water in well (mL)= 405

Free product thickness (mm)= 0 Evidence of sludge or siltation: No

Purging Information Summary*

Purging/sampling equipment, sampling technique and equipment calibration information: N/A

Well purged (Y/N): N Recharge Rate: N/A

Volume Purged (L) (note multiple purging events if applicable):

Parameter	Initial	Stabilized	Final	Notes (if not stabilized)
рН	-	-	-	
Conductivity (uS/cm)	-	-	-	
Turbidity (NTU)	-	-	-	
Temperature (degC)	-	-	-	
Visual/olfactory observations (incl.	colour, odour,			
presence of free product/sheen/glosiltation):	bules,	N/A		

Decontamination of sampling equipment

Type of decontamination fluid (s): N/A

Number washes: N/A Number rinses: N/A

Other Relevant Comments: N/A Number rinses: N/A

There was bentonite in both the casing and well pipe. Interface went

down, however sample tubing kept on getting plugged. Sample could

not be collected.

^{*} Complete field notes including full suite of water quality indicator parameters VS time as per EPA low flow sampling procedures should be apended to this summary.

Site Name: CAM-M Landfill Name: Main Landfill North

Monitoring Well ID: MW-6
Sample Number(s) include dups.: CM15-6W

Bottles filled (by parameter type): 200 mL/40 mL (Met), 1 L amber (PCBs), 1 L amber/3 x 40 mL (PHCs)

Date of Sampling Event: 2015-08-23 Time: 18:20

Weather: 9C, Overcast, 15-25 km/h NW

Names of Samplers: A.Passalis

Description of Well Condition and Surrounding ground conditions (note ponding of water):

Good condition, no ponding.

Lock (condition, presence, model, manufacturer): Good, KA1

Pre-Measured Data (From Water Well Record Log)

*Depth of well installation (cm)= 350 Diameter of well (cm)= 5
*Depth to top of screen (cm)= 50 Length screened section (cm)= 200

note: *depths are from ground surface

Field Measurements

Measurement method (interface probe, tape, etc): Interface

Well pipe height above ground (cm) (to top of pipe)=

Static water level (cm) from top of pipe =

Static water level (cm) (below ground surface) calculated = 12

Measured well refusal depth (cm) (measure after sampling)= 128

Thickness of water column (cm)= 90 Static volume of water in well (mL)= 1823

Free product thickness (mm)= 0 Evidence of sludge or siltation: No

Purging Information Summary*

Purging/sampling equipment, sampling technique and equipment calibration information:

Peristaltic pump with dedicated 1/4" LDPE tubing, multimeter, turbidimeter with daily calibration check

26

38

Well purged (Y/N): Y Recharge Rate: >200 mL/min

Volume Purged (L) (note multiple

purging events if applicable): 2.9

Parameter	Initial	Stabilized	Final	Notes (if not stabilized)
рН	7.6	7.4	7.4	
Conductivity (uS/cm)	6020	9950	10080	
Turbidity (NTU)	>500	206	195	
Temperature (degC)	1.0	1.2	1.2	

Visual/olfactory observations (incl. colour, odour,

siltation...):

Decontamination of sampling equipment

Type of decontamination fluid (s): Not required, dedicated tubing

Number washes: N/A Number rinses: N/A

Other Relevant Comments: Protective casing full of bentonite, bentonite in bottom of well pipe

^{*} Complete field notes including full suite of water quality indicator parameters VS time as per EPA low flow sampling procedures should be apended to this summary.

Site Name: CAM-M Landfill Name: Main Landfill North

Monitoring Well ID: MW-7

Sample Number(s) include dups.: CM15-7W, CM15-BDW1, CM15-7W (Maxxam)

Bottles filled (by parameter type): 3x200 mL/40 mL (Met), 3x1 L amber (PCBs), 3x1 L amber/9 x 40 mL (PHCs)

Date of Sampling Event: 2015-08-23 Time: 17:35

Weather: 9C, Overcast, 15-25 km/h NW

Names of Samplers: A.Passalis

Description of Well Condition and Surrounding ground conditions (note ponding of water):

Good condition, no ponding.

Lock (condition, presence, model, manufacturer): Good, KA1

Pre-Measured Data (From Water Well Record Log)

*Depth of well installation (cm)= 350 Diameter of well (cm)= 5

*Depth to top of screen (cm)= 50 Length screened section (cm)= 200

note: *depths are from ground surface

Field Measurements

Measurement method (interface probe, tape, etc): Interface

Well pipe height above ground (cm) (to top of pipe)= 31

Static water level (cm) from top of pipe = 37

Static water level (cm) (below ground surface) calculated = 6

Measured well refusal depth (cm) (measure after sampling)= 161

Thickness of water column (cm)= 124 Static volume of water in well (mL)= 2512

Free product thickness (mm)= 0 Evidence of sludge or siltation: No

Purging Information Summary*

Purging/sampling equipment, sampling technique and equipment calibration information:

Peristaltic pump with dedicated 1/4" LDPE tubing, multimeter, turbidimeter with daily calibration check

Well purged (Y/N): Y Recharge Rate: >200 mL/min

Volume Purged (L) (note multiple

purging events if applicable): 4.1

Parameter	Initial	Stabilized	Final	Notes (if not stabilized)
рН	7.5	7.3	7.3	
Conductivity (uS/cm)	10450	10330	10050	
Turbidity (NTU)	8.80	8.10	4.49	
Temperature (degC)	2.7	2.3	2.3	

Visual/olfactory observations (incl. colour, odour,

presence of free product/sheen/globules, Clear, colourless, odourless

siltation...):

Decontamination of sampling equipment

Type of decontamination fluid (s): Not required, dedicated tubing

Number washes: N/A Number rinses: N/A

Other Relevant Comments: Bentonite in protective casing

^{*} Complete field notes including full suite of water quality indicator parameters VS time as per EPA low flow sampling procedures should be appended to this summary.

Site Name: CAM-M Landfill Name: Main Landfill North

Monitoring Well ID: MW-8
Sample Number(s) include dups.: CM15-8W

Bottles filled (by parameter type): 200 mL/40 mL (Met), 1 L amber (PCBs), 1 L amber/3 x 40 mL (PHCs)

Date of Sampling Event: 2015-08-23 Time: 16:50

Weather: 9C, Overcast, 15-25 km/h NW

Names of Samplers: A.Passalis

Description of Well Condition and Surrounding ground conditions (note ponding of water):

Good condition, no ponding.

Lock (condition, presence, model, manufacturer): Good, KA1

Pre-Measured Data (From Water Well Record Log)

*Depth of well installation (cm)= 350 Diameter of well (cm)= 5

*Depth to top of screen (cm)= 50 Length screened section (cm)= 200

note: *depths are from ground surface

note. deptils are from ground st

Field Measurements

Measurement method (interface probe, tape, etc): Interface

Well pipe height above ground (cm) (to top of pipe)= 10

Static water level (cm) from top of pipe = 68

Static water level (cm) (below ground surface) calculated = 58

Measured well refusal depth (cm) (measure after sampling)= 173

Thickness of water column (cm)= 105 Static volume of water in well (mL)= 2127

Free product thickness (mm)= 0 Evidence of sludge or siltation: No

Purging Information Summary*

Purging/sampling equipment, sampling technique and equipment calibration information:

Peristaltic pump with dedicated 1/4" LDPE tubing, multimeter, turbidimeter with daily calibration check

Well purged (Y/N): Y Recharge Rate: >200 mL/min

Volume Purged (L) (note multiple

purging events if applicable): 3.0

Parameter	Initial	Stabilized	Final	Notes (if not stabilized)
рН	8.3	7.6	7.5	
Conductivity (uS/cm)	2580	2560	2550	
Turbidity (NTU)	13.1	12.8	12.7	
Temperature (degC)	3.6	2.6	2.6	

Visual/olfactory observations (incl. colour, odour,

presence of free product/sheen/globules, Clear, colourless, odourless

siltation...):

Decontamination of sampling equipment

Type of decontamination fluid (s): Not required, dedicated tubing

Number washes: N/A Number rinses: N/A

Other Relevant Comments: Protective casing full of bentonite

^{*} Complete field notes including full suite of water quality indicator parameters VS time as per EPA low flow sampling procedures should be apended to this summary.

4 MAIN LANDFILL SOUTH

4.1 SUMMARY

On August 23, 2015 a visual inspection was completed at the Main Landfill South. Soil sampling was completed at five stations located upgradient and downgradient of the landfill. Thermal monitoring was completed at four thermistor locations on August 19, 2015 and groundwater sampling was completed at four monitoring well locations on August 24, 2015.

Detectable concentrations of TPH (PHC F3 Fraction) were noted in three surface samples collected at upgradient location MW-9 (54 mg/kg) and downgradient locations MW-2 (101 mg/kg) and MW-3 (97 mg/kg). A detectable PCB concentration was also noted in the surface sample at MW-2 (0.1 mg/kg). Slightly elevated concentrations of several metals were also observed in the surface sample at MW-2, including: chromium (51.1 mg/kg), lead (12.2 mg/), mercury (0.11 mg/kg) and zinc (128 mg/kg).

No PCB, TPH or relatively high metal concentrations were detected at any of the wells sampled, with the exception of downgradient well MW-2, which noted slightly elevated levels of cadmium (0.16 mg/L), nickel (0.223 mg/L) and zinc (2.66 mg/L).

As of 2015, no features with "significant" or "unacceptable" severity ratings were identified in the Preliminary Stability Assessment of the Main Landfill South. Indications of minor settlement were noted at one newly observed area, consisting of two closely spaced pothole depressions on the southeast crest of the landfill. Ten areas of surface erosion were noted on the south, southeast and southwest side slopes of the Main Landfill South, including the re-assessment of four previously observed locations and six new ones. Previously observed features on the southeast side slope (Feature A), south corner slope (Feature D), south side slope (Feature G), and southwest side slope (Feature I), all appear consistent with the previous 2010 assessment, with no significant changes noted. New features, including: Features I1 and I2 on the southwest side slope; Features O, P and P1 on the south side slope; and Feature R on the southeast side slope, all consist of minor surface erosion. All features appear to be self-armouring and consist of relatively minor surface erosion that extends between the top crest and toe of slope. Features O and P were only observed on the lower slope areas. All slopes appear stable.

Evidence of sparse vegetation growth was noted across central and south cover areas and southwest and east side slopes at the Main Landfill South, whereas vegetation was restricted to the southeast cover during the previous 2010 assessment.

Two general areas of active seepage were noted on the southwest toe and south corner toe of the landfill, including the re-assessment of the previously observed seepage area on the south toe (Feature F). This area consisted of three notable seepage points that discharge to a localized shallow ponded area along the toe before draining overland to the southeast. Newly observed seepage points along the southeast toe (Feature M) were characterized by algal growth. Minor orange staining was also noted in the downgradient ponded area. The seepage area previously noted on the south bench (Feature E) was not observed during the 2105 assessment.

Tension cracks were noted at two new locations on the southwest side slopes, including a localized crack extending along the mid-slope bench (Feature L); and discontinuous parallel cracks extending 1 to 2 m above the toe on the southeast corner of the landfill (Feature N).

At this time, the overall performance of the landfill is rated as acceptable.

The Visual Inspection Checklist is included in Table IX of this report and has been completed as per the TOR. Please refer to Figure CAM-M.3 for a sketch of the Main Landfill South detailing the location of photographs, settlement, erosional, seepage and staining features.

Table IX: Visual Inspection Checklist / Report - Main Landfill South

DEW LINE CLEANUP: POST-CONSTRUCTION – LANDFILL MONITORING VISUAL INSPECTION CHECKLIST

INSPECTION REPORT – PAGE 1 of 2

SITE NAME: CAM-M Cambridge Bay

LANDFILL DESIGNATION: Main Landfill South (Leachate Containment Landfill)

DATE OF INSPECTION: August 19 and 23, 2015

DATE OF PREVIOUS INSPECTION: August 29, 2010

INSPECTED BY: A. Passalis

REPORT PREPARED BY: A. Passalis

MONITORING EVENT NUMBER: 8 (Year 15)

The inspector/reporter represents to the best of his/her knowledge that the following statements and observations are true and correct and to the best of the preparer's actual knowledge, no material facts have been suppressed or misstated.

TABLE IX: MAIN LANDFILL SOUTH VISUAL INSPECTION (PAGE 2 of 2)

Checklist Item	Present (Yes/No)	Location	Length (m)	Width (m)	Depth (m)	Extent	Description	Photographic Record	Severity Rating	Additional Comments
Settlement	Yes	FEATURE Q See Figure CAM-M.3 (SE crest) - New Obs.	0.5	0.4	0.15	Isolated (1%)	Localized depressions	MLFS-61, 62	Acceptable	New observation. Two locations. Crest appears stable.
		FEATURE A See Figure CAM-M.3 (SE corner bench)	3.0 - 4.5	0.2 - 0.3	0.05		Irregular erosion	MLFS-77	Acceptable	No Signifcant Change - Self armoring.
		FEATURE D See Figure CAM-M.3 (S Corner)	19	0.5 - 1.0	0.05 - 0.15		Minor erosion	MLFS-42, 45	Acceptable	No significant change observed. Self armoured. Slope appears stable.
		FEATURE I See Figure CAM-M.3 (SW slope)	12	0.1	0.05		Minor erosion	MLFS-22, 23	Acceptable	Barely noticeable. No significant change observed. Self armouring. No significant change.
		FEATURE I1 See Figure CAM-M.3 (SWslope) - New Obs.	3.5	0.1	0.05 - 0.1		Minor erosion	MLFS-15, 16	Acceptable	New observation. Self armouring. Slope appears stable.
Erosion	Yes	FEATURE I2 See Figure CAM-M.3 (SWslope) - New Obs.	4	0.2	0.05 - 0.1	Occasional	Minor erosion	MLFS-17, 18	Acceptable	New observation. Self armouring. Slope appears stable.
		FEATURE G See Figure CAM-M.3 (S side slope)	20	1.5	0.1 - 0.2		Minor erosion	MLFS-36-39	Acceptable	No change observed. Minor erosion channel - Self armoured.
		FEATURE O See Figure CAM-M.3 (S side slope)- New Obs.	6	0.1 - 0.3	0.05 - 0.1		Minor erosion	MLFS-32	Acceptable	New observation. Six locations. Self armouring.
		FEATURE P See Figure CAM-M.3 (S side slope)- New Obs.	5.5 - 10	0.3 - 0.6	0.05 - 0.1		Minor erosion	MLFS-53-56	Acceptable	New observation. Four locations. Self armouring.
		FEATURE P1 See Figure CAM-M.3 (S side slope)- New Obs.	9	0.3 - 0.5	0.05 - 0.1		Minor erosion	MLFS-59, 60	Acceptable	New observation. Single location. Self armouring.
		FEATURE R See Figure CAM-M.3 (SE side slope)- New Obs.	14	0.15	0.05 - 0.1		Minor erosion	MLFS-65, 66	Acceptable	New observation. Single location. Self armouring.
Frost Action	Yes	FEATURE J See Figure CAM-M.3 (S bench)	0.27	35	23		Frost Boil - NSC		Not Obsetrvable	Feature not observed.
Animal Burrows	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not Observable	N/A
Vegetation	Yes	See Figure CAM-M.3 (SW side and S cover)	N/A	N/A	N/A	3%	Limited vegetation growth	MLFS-8, 24, 44, 76, 78-81	N/A	N/A
Staining	Yes	FEATURE B See Figure CAM-M.3 (S toe)	0	9	3		Naturally stained rock	MLFS-71	Not Observable	Feature not observed.
Ottaming	. 35	FEATURE H See Figure CAM-M.3 (SW toe)	18	10	0.05	N/A	Orange staining with biological growth	MLFS-27, 31, 33	Acceptable	Orange staining and biological growth in ponded water. Trace sheen observed at toe.
Vegetation Stress	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not Observable	N/A
		FEATURE E See Figure CAM-M.3 (S comer bench)	0	0	0	N/A	Naturally stained rock	MLFS-4	Not Observable	Feature not observed.
Seepage Points	Yes	FEATURE F See Figure CAM-M.3 (S corner)	0.3 - 0.5	0.05 - 0.1	N/A	Isolated (1%)	Seepage points with algal growth	MLFS-48-50	Acceptable	Three locations. No significant chage observed.
		FEATURE M See Figure CAM-M.3 (SE comer) - New Obs.	20	6	N/A	Isolated (1%)	Orange stained ponded water with sheen	MLFS-30-32	Acceptable	New observation. Seepage points along southwest toe. Ponded water and algal growth.
Debris Exposed	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not Observable	N/A
		MW-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Casing filled with bentonite.
Presence/Condition of Monitoring	Yes	MW-2 MW-3	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	Casing filled with besterits, game heatenits in well sing
Instruments	1 69	MW-9	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	Casing filled with bentonite, some bentonite in well pipe. Casing and well pipe full of bentonite.
		MW-14	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Casing filled with bentonite.
Other Features of Note:	Yes	FEATURE L See Figure CAM-M.3 (SW side slope) - New Obs.	4	0.001 - 0.01	Unknown	Isolated (1%)	Tension crack	MLFS-19-21	Acceptable	New observation. Single crack extending along southwest side slope.
Other reatures of Note.	1 62	FEATURE N See Figure CAM-M.3 (SE side slope) - New Obs.	27	0.001 - 0.01	Unknown	Isolated (1%)	Parallel tension cracks	MLFS-28, 29, 34, 35	Acceptable	New observation. Discontinuous cracks 1 - 2 m above toe on lower bench slope.
Additional Photos	Yes	See Figure CAM-M.3 and Photographic Record	N/A	N/A	N/A	N/A	General Photographic Record	N/A	Not Observable	General photos for documentation, no features of note.
Overall Landfill Performance:	Acceptable		•			•	•	•		

4.2 PRELIMINARY STABILITY ASSESSMENT

The Preliminary Stability Assessment for Main Landfill South has been completed as per the TOR and is included as Table X hereafter.

Table X: Preliminary Stability Assessment - Main Landfill South

Feature	Severity Rating	Extent
Settlement	Acceptable	Isolated
Erosion	Acceptable	Occasional
Frost Action	Not observed	None
Staining	Acceptable	Isolated
Vegetation Stress	Not observed	None
Seepage/Ponded Water	Acceptable	Occasional
Debris exposure	Not observed	None
Overall Landfill Performance	nce Acceptable	

Performance/ Severity Rating	Description
Acceptable	Noted features are of little consequence. The landfill is performing as designed. Minor deviations in environmental or physical performance may be observed, such as isolated areas of erosion, settlement.
Marginal	Physical/environmental performance appears to be deteriorating with time. Observations may include an increase in size or number of features of note, such as differential settlement, erosion or cracking. No significant impact on landfill stability to date, but potential for failure is assessed as low or moderate.
Significant	Significant or potentially significant changes affecting landfill stability, such as significant changes in slope geometry, significant erosion or differential settlement; scarp development. The potential for failure is assessed as imminent.
Unacceptable	Stability of landfill is compromised to the extent that ability to contain waste materials is compromised. Examples may include: Debris exposed in erosion channels or areas of differential settlement. Liner exposed. Slope failure.
Extent	Description
Isolated	Singular feature
Occasional	Features of note occurring at irregular intervals/locations
Numerous	Many features of note, impacted less than 50% of the surface area of the landfill
Extensive	Impacting greater than 50% of the surface area of the landfill

4.3 LOCATION PLAN

The Location Plan for the Main Landfill South has been completed as per the TOR and is presented in Figure CAM-M.3.

LEGEND

TBM4 TEMPORARY BENCHMARK

MONITORING WELL LOCATION

MONITORING SOIL SAMPLE LOCATION

VI VERTICAL THERMISTOR LOCATION

🖶 INCLINED THERMISTOR LOCATION

APPROXIMATE PHOTOGRAPH LOCATION AND PHOTO NUMBER

--- EROSION

TENSION CRACK

SEEPAGE POINT

SETTLEMENT

SEEPAGE/WET AREA

LIMITED VEGETATION

PONDING



1	FINAL	16-03-04	P.L.	A.P.	M.F.
NO.	VERSION	DATE	BY	VERIF.	APPR.



COLLECTION OF LANDFILL MONITORING DATA

CAM-M, CAMBRIDGE BAY, NUNAVUT

MAIN LANDFILL SOUTH



4495, Wilfrid-Hamel boulevard Suite 200 Quebec (Quebec) Canada, G1P 2J7 Phone : 418.653.4422 www.englobecorp.com

MEASUREMENT UNIT	SCALE:	DATE (month-year):
MEASUREMENT UNIT Metre	1 : 1,250	MARCH 2016
DRAWN BY:	VERIFIED BY:	APPROVED BY:
DRAWN BY: P. LÉGARÉ	A. PASSALIS P. ENG	M. FLEURY P. ENG
PROJECT NO:	DRAWING NO:	PAGE
CD2656_500_503	CD2656_500_503-CAM-MC	PL

FIGURE CAM-M.3

4.4 PHOTOGRAPHIC RECORDS

The Photographic Record for the Main Landfill South has been completed as per the TOR and is included as Table XI hereafter. Full-sized photographs are contained in the Addendum DVD-ROM.

Table XI: Landfill Visual Inspection Photo Log – Main Landfill South (page 1 of 2)

Di4-				Vanta	a Daint	T
Photo (MLFS-)	Filename	Size (MB)	Date	Easting	ge Point Northing	Caption
Aerial (See Fig		Size (MB)	Date	Lasting	Northing	Сарион
Acriai (See Fig	CM15 8404	3,914	21/08/2015	11238	10577	View looking west at Main Landfills North and South
A2	CM15_8408	3,848	21/08/2015	10697	10577	View looking southwest at Main Landfills North and South
A8	CM15_8422	4,201	21/08/2015	10515	10174	View looking southwest at Main Landillis North and South
General	OW15_0422	7,201	21/00/2013	10010	10174	View looking southwest at Wain Earlain Gouth
deficial 1	CM15 7899	3,956	19/08/2015	10382	10114	View of datalogger at VT-4
2	CM15_7899 CM15_7900	4.344	19/08/2015	10398	10062	View of datalogger at V1-4 View of datalogger at ITS2
3	CM15_7900 CM15_7901	3,918	19/08/2015	10396	10062	View of datalogger at VT-5
4	CM15_7901 CM15_7902	4,353	19/08/2015	10401	10055	View looking southwest at VT-5
5	CM15_7902 CM15_8674	4,342	23/08/2015	10404	10140	View of bentonite filled casing at MW-9
6	CM15_8675	4,342	23/08/2015	10180	10140	View of bentonite filled well pipe at MW-9
7			23/08/2015	10180	10139	, ,
8	CM15_8678 CM15_8679	4,306 4,285	23/08/2015	10235	10123	View looking southeast along southwest side of landfill View looking northeast along northwest side of landfill
9	CM15_8680	1,064	08/09/2015	10233	10122	Panoramic view looking northeast to southeast across cover from west corner of landfill\
10	CM15_6660 CM15_8681	1,394	08/09/2015	10232	10123	ů – – – – – – – – – – – – – – – – – – –
11	_	4,236	23/08/2015	10317	10169	Panoramic view looking southwest to northeast across cover from northwest side of landfill
12	CM15_8682 CM15_8683	4,423	23/08/2015	10367	10201	View looking southwest along northwest side of landfill View looking southeast along northeast side of landfill
13	CM15_8684	841	08/09/2015	10374	10201	Panoramic view looking southeast to west across cover from north corner of landfill
14	CM15_8685	1,461	08/09/2015	10371	10198	· ·
15	CM15_6665 CM15_8686	4,330	23/08/2015	10339	10056	Panoramic view looking northwest to west across cover from southwest crest of landfill Feature I1: View looking southwest at minor erosion on southwest side of landfill (new)
16	CM15_8687	4,330	23/08/2015	10321	10037	Feature 11: View looking northeast at minor erosion on southwest side of landfill (new)
17	CM15_8688		23/08/2015	10310	10047	Feature 12: View looking northeast at minor erosion on southwest side of landfill (new)
18	CM15_8689	4,293 4,315	23/08/2015	10311	10053	Feature 12: View looking northeast at minor erosion on southwest side of landfill (new)
19	CM15_8690	4,313	23/08/2015	10316	10067	Feature L: View looking southwest at thirlor erosion on southwest side of landfill (new)
20	CM15_8691	4,350	23/08/2015	10303	10067	Feature L: View of tension crack extending along southwest side of landfill (new)
21	CM15_8692	4,309	23/08/2015	10310	10053	Feature L: View looking northwest at end of tension crack extending along southwest side of landfill (new)
22	CM15_8693	4,335	23/08/2015	10322	10053	Feature I: View looking south at minor erosion on southwest side of landfill
23	CM15_8693 CM15_8694	4,369	23/08/2015	10330	10036	View looking north at southwest corner slope of landfill
24	CM15_8695	4,283	23/08/2015	10323	10030	View looking northwest along mid bench on southwest corner of landfill
25	CM15_8696	4,399	23/08/2015	10336	10041	View looking northeast along mid bench on southwest corner of landfill
26	CM15_8699	4,305	23/08/2015	10340	10009	View of bentonite filled casing and well pipe at MW-1
27	CM15_8700	4,398	23/08/2015	10348	10030	Feature H: View looking east at seepage and ponding near southwest toe of landfill
28	CM15_0700	4,336	23/08/2015	10346	10035	Feature N: View looking east at seepage and pointing real southwest toe of landfill (new)
29	CM15_8701	4.267	23/08/2015	10353	10038	Feature N: View of parallel dicontinuous cracks on southwest toe of landfill (new)
30	CM15_6762	4,247	23/08/2015	10364	10040	Feature M: View looking southeast at seepage located on south toe of landfill
31	CM15 8704	4,405	23/08/2015	10370	10036	Features M & H: View looking west at seepage and ponding near southwest toe of landfill
		<u> </u>				Features N & H: View looking north at seepage and staining located on south toe of landfill. Feature O: Six
32	CM15_8705	4,296	23/08/2015	10368	10022	areas of minor erosion on lower slope (new)
33	CM15_8706	4,297	23/08/2015	10365	10032	Feature H: View of sheen on ponding on south toe of landfill
34	CM15_8707	4,350	23/08/2015	10370	10043	Feature N: View of parallel dicontinuous cracks on southwest toe of landfill (new)
35	CM15_8708	4,337	23/08/2015	10379	10044	Feature N: View looking southwest at dicontinuous cracks on southwest toe of landfill (new)
36	CM15_8709	4,361	23/08/2015	10381	10053	Feature G: View looking south at minor erosion on south side slope
37	CM15_8710	4,408	23/08/2015	10385	10026	Feature G: View looking north at minor erosion on south side slope
38	CM15_8711	4,267	23/08/2015	10385	10048	Feature G: View looking north at minor erosion on upper slope
39	CM15_8712	4,333	23/08/2015	10379	10064	Feature G: View looking south at minor erosion below crest on south side slope
40	CM15_8713	4,366	23/08/2015	10382	10063	View looking east along south crest of landfil

	ill Visual Inspection	on Photo Log	– Main Landfill S			
Photo				Vantage Point		
(MLFS-)	Filename	Size (MB)	Date	Easting	Northing	Caption
41	CM15_8714	4,296	23/08/2015	10377	10063	View looking west along south crest of landfill
42	CM15_8715	4,372	23/08/2015	10395	10066	Feature D: View looking south at minor erosion on south side slope
43	CM15_8716	4,268	23/08/2015	10402	10068	View looking northeast along southeast crest of landfill
44	CM15_8717	1,059	08/09/2015	10399	10070	Panoramic view looking west to northeast across cover from south side of landfill
45	CM15_8718	4,292	23/08/2015	10397	10043	Feature D: View looking north at minor erosion west of ITS2 on south side slope
46	CM15_8719	4,407	23/08/2015	10399	10018	View looking north at south side of landfill
47	CM15_8723	4,268	23/08/2015	10389	10019	View of bentonite filled casing at MW-14
48	CM15_8724	4,279	23/08/2015	10398	10037	Feature F: Seepage points along south toe of landfill
49	CM15_8725	4,253	23/08/2015	10391	10041	Feature F: View looking northeast at seepage points along south toe of landfill
50	CM15_8726	4,357	23/08/2015	10403	10043	Feature F: Seepage points along south toe of landfill
51	CM15_8727	4,313	23/08/2015	10396	10054	View looking west along midslope bench from southeast comer of landfill
52	CM15_8728	4,314	23/08/2015	10403	10054	View looking northeast along midslope bench from southeast corner of landfill
53	CM15_8729	4,372	23/08/2015	10411	10059	Feature P: View looking northwest at minor erosion on southeast corner of landfill (new)
54	CM15_8730	4,303	23/08/2015	10409	10060	Feature P: View looking southeast at minor erosion on southeast corner of landfill (new)
55	CM15_8731	4,347	23/08/2015	10413	10064	Feature P: View looking southeast at minor erosion on southeast corner of landfill (new)
56	CM15_8732	4,378	23/08/2015	10420	10054	Features P and E: View of erosion and seepage on southeast toe of landfill (new)
57	CM15_8733	4,444	23/08/2015	10423	10046	View looking northwest at south side of landffill
58	CM15_8734	4,258	23/08/2015	10449	10033	View of bentonite filled casing at MW-2
59	CM15 8738	4,378	23/08/2015	10429	10064	Feature P1: View looking northwest at minor erosion on southeast side slope of landfill (new)
60	CM15_8739	4,339	23/08/2015	10410	10077	Feature P1: View looking southeast at minor erosion on southeast side slope of landfill (new)
61	CM15 8740	4,330	23/08/2015	10413	10079	Feature Q: View looking northeast at depression on southeast crest of landfill (new)
62	CM15 8741	4,291	23/08/2015	10414	10086	Feature Q: View looking southeast at depression on southeast crest of landfill (new)
63	CM15 8742	4,304	23/08/2015	10444	10115	View looking southeast at ITS1
64	CM15 8743	4,267	23/08/2015	10447	10116	View looking southwest along southeast crest of landfill
65	CM15 8744	4,358	23/08/2015	10451	10114	Feature R: View looking southeast at minor erosion on soiutheast side of landfill (new)
66	CM15_8745	4,313	23/08/2015	10459	10109	Feature R: View looking southeast at minor erosion on solutheast lowe bench of landfill (new)
67	CM15 8746	4,435	23/08/2015	10460	10112	View looking northeast along midslope bench on east side of landfill
68	CM15 8747	4,375	23/08/2015	10456	10108	View looking southwest along midslope bench on east side of landfill
69	CM15_8748	1,035	08/09/2015	10482	10080	Panoramic view looking southwest to north at east side of landfill
70	CM15_8750	4,251	23/08/2015	10483	10121	View of bentonite in well casing at MW-3
71	CM15 8753	4,430	23/08/2015	10484	10124	View looking southwest along southeast toe of landfill
72	CM15 8754	4,415	23/08/2015	10479	10124	View looking northwest along northeast toe of landfill
73	CM15 8755	4,436	23/08/2015	10462	10128	Feature B: View looking west at east corner slope of landfill. No obvious stainign noted.
74	CM15 8756	4,414	23/08/2015	10462	10126	View looking northwest along northeast crest of landfill
75	CM15 8757	4,416	23/08/2015	10458	10127	View looking southwest along southeast crest of landfill
76	CM15 8758	1,780	08/09/2015	10473	10122	Panoramic view looking southwest to north across cover from east crest of landfill
77	CM15_8759	4,432	23/08/2015	10352	10105	Feature A: View looking northwest at irregualar erosion on east comer slope
78	CM15_8760	4,269	23/08/2015	10357	10105	View looking northwest across cover from centre of landfill
79	CM15_8761	4,374	23/08/2015	10357	10103	View looking northeast across cover from centre of landfill
80	CM15_8762	4,222	23/08/2015	10357	10103	View looking southeast across cover from centre of landfill
81	CM15_8763	4,404	23/08/2015	10333	10102	View looking southwest across cover from centre of landfill
Soil Sampling	3W10_0703	7,707	20/00/2013	10072	10011	The modeling southwest delega cover holl centre of failuin
	CM1E 9607	4 420	22/09/2015	10347	10015	Complex CM45 1MA/P leasted downgradient lendfill
MW-1 1W	CM15_8697	4,438	23/08/2015		10015	Samples CM15-1WA/B located downgradient landfill
	CM15_8698	4,413	23/08/2015	10347	10015	View looking southwest at MW-1 soil sampling location
MW-2	CM15_8736	4,390	23/08/2015	10448	10038	Samples CM15-2WA/B located downgradient of Lobe 2
2W	CM15_8737	4,436	23/08/2015	10449	10043	View looking south at MW-2 soil sampling location
MW-3	CM15_8751	4,400	23/08/2015	10513	10109	Samples CM15-3WA/B located downgradient of landfill
3W	CM15_8752	4,444	23/08/2015	10514	10105	View looking west at MW-3 soil sampling location
MW-9	CM15_8676	4,430	23/08/2015	10182	10142	Samples CM15-9WA/B located upgradient of Main Landfill South
9W	CM15_8677	4,330	23/08/2015	10184	10146	View looking southwest at MW-9 soil sampling location
MW-14	CM15_8720	4,383	23/08/2015	10389	10024	Samples CM15-14WA/B located downgradient of landfill
14W	CM15_8721	4,428	23/08/2015	10389	10029	View looking southeast at MW-14 soil sampling location

4.5 THERMISTOR ANNUAL MAINTENANCE REPORTS

Data from all thermistors was successfully retrieved with no errors encountered, with the exception of VT-4 and VT-5, where there were messages "Error reading the dataloggers setup information". There appears to be no impact on the data set stemming from this error message and there are no foreseeable impacts in the future from the same said message

Review of the downloaded thermal data identified all analogues/thermocouples to be functioning properly during the 2010/2015 monitoring period.

All batteries were replaced, internal memories were reset and clocks were synchronized using the Prolog Software. Manual resistive readings were collected from the thermistor strings as per the TOR. Manual readings and inspection results for each thermistor are presented on the Thermistor Annual Maintenance Reports (VT-4, VT-5, ITS1 and ITS2) included in this section of the report.

Contractor Name:	Sila Remediation Inc.	Inspection Date:	2015-08-19
Prepared By:	A.Passalis		

Thermistor Information

Site Name:	CAM-M		Thermistor Locatio	n	Main LF Sou	ıth	
Thermistor Number:	VT-4		Inclination		Vertical		
Install Date:	2000-09-09		First Date Event			Last Date Event	2010-08-30
Coordinates and Ele	vation	N	10111.0	Е	10385.0	Elev	16.5
Length of Cable (m)	6.1	Cabl	le Lead Above Grour	nd (m)	3.70 Nodal Points	3	7
Datalogger Serial #					Cable Seria	Number	TS-7NCV#4

Thermistor Inspection

		Good]
	Yes		No	Problem/Maintenance
Casing	Х		-	
Cover	X			
Data Logger	X			
Cable	x		-	
Beads	x		-	
Battery Installation Date		2015-08-19		
Battery Levels	Main _	11.34		Aux13.14

Manual Ground Temperature Readings

Bead	ohms	Degrees C
1	12.224	5.6904
2	12.378	5.5657
3	12.849	4.7897
4	13.598	3.6466
5	14.596	2.2081
6	15.750	0.6841
7	16.67	-0.3947
-	-	-

Bead	ohms	Degrees C
-	-	
-	_	-
_	_	-
-		
_		
_		_
		_
		-
-	-	-

Observations and Proposed Maintenance

Clock was 2:12 hrs slow. Memory at 80%. Error reading datalogger setup information.

Download thermistor data. File: Site_004_VT-4_Aug_19_2015

Change batteries (ULB1 - 03/21 and ULB15 - 06/21)

Reset clock and restart datalogger.

Contractor Name:	Sila Remediation Inc.	Inspection Date:	2015-08-19
Prepared By:	A.Passalis		

Thermistor Information

Site Name:	CAM-M		Thermistor Loca	ition		Main LF Sou	th		
Thermistor Number:	VT-5		Inclination			Vertical			
Install Date:	2000-09-09		First Date Event				Last Date	Event	2010-08-30
Coordinates and Ele	vation	N	10056.0		E	10401.0		Elev	11.5
Length of Cable (m)	6.1	Cable	Lead Above Gro	ound (m)	3.80	Nodal Points	3		7
Datalogger Serial #	805150					Cable Serial	Number	•	TS-7NCV#5

Thermistor Inspection

		Good			
	Yes	No	P	roblem/Maintenance	
Casing	X				
Cover	X				
Data Logger	x				
Cable	X				
Beads	x				
Battery Installation Date		2015-08-19			
Battery Levels	Main	11.34		Aux <u>13.02</u>	

Manual Ground Temperature Readings

Bead	ohms	Degrees C
1	11.823	7.6101
2	11.735	6.9093
3	11.983	6.2721
4	12.581	5.2721
5	13.384	5.2488
6	14.412	3.9687
7	15.41	1.1530
-	-	-

Bead	ohms	Degrees C
-	-	-
-	-	-
-	-	-
-		
-		
-	-	-
-	-	-
-	-	-

Observations and Proposed Maintenance

Clock was 1:56 hrs slow. Memory at 80%. Error reading datalogger setup information.

Download thermistor data. File: Site_005_VT-5_Aug_19_2015

Change batteries (ULB1 - 03/21 and ULB15 - 06/21)

Reset clock and restart datalogger.

Contractor Name:	Sila Remediation Inc.	Inspection Date:	2015-08-19
Prepared By:	A.Passalis		
r repared by.	A.Fassalis		

Thermistor Information

Site Name:	CAM-M		Thermistor Loca	cation Main LF Sou		th				
Thermistor Number:	ITS-1		Inclination			Inclined				
Install Date:	1999-07-12		First Date Even	t		l	_ast Date	Event	201	0-08-30
Coordinates and Ele	vation	N	10111.0		E	10448.0		Elev	Varies	
Length of Cable (m)	22.5	Cable	e Lead Above Gr	ound (m)	Varies	Nodal Points				14
Datalogger Serial #	807033					Cable Serial	Number	TS	-7NCIA a	nd B#1

Thermistor Inspection

		Good			
	Yes		No	Problem/I	Maintenance
Casing	X		_		
Cover	X		_		
Data Logger	X		_		
Cable	X		_		
Beads	X		_		
Battery Installation Date		2015-08-19			
Battery Levels	Main	11.34		Aux	13.38

В

Manual Ground Temperature Readings

Bead	ohms	Degrees C
1	9.182	12.3547
2	12.158	5.6605
3	15.565	0.4011
4	16.219	-0.7000
5	16.645	-1.0647
6	16.781	-1.5893
7	17.623	-2.2322
8	17.652	-2.4181
9	17.372	-2.1936

	Bead	ohms	Degrees C
	1	16.48	-0.3668
I	2	15.89	0.2418
Ī	3	14.068	2.6140
	4	14.078	2.5439
Ī	5	14.273	2.1906
Ī	-	-	-
	-	-	-

Observations and Proposed Maintenance

Clock was 3:02 hrs slow. Memory at 73%.

Download thermistor data. File: Site_041_ITS1_Aug_19_2015

Change batteries (ULB1 - 03/21 and ULB15 - 06/21)

Reset clock and restart datalogger.

Contractor Name:	Sila Remediation Inc.	Inspection Date:	2015-08-19
Prepared By:	A.Passalis		

Thermistor Information

Site Name:	CAM-M	Thermis	stor Location		Main LF South			
Thermistor Number:	ITS-2	Inclination	on		Inclined			
Install Date:	1999-07-14	First Da	te Event		Las	t Date Event	2010-	08-30
Coordinates and Ele	vation	N 10062	.0	E	10399.0	Elev	Varies	
Length of Cable (m)	22.5	Cable Lead A	bove Ground (m)	Varies	Nodal Points			14
Datalogger Serial #	805163				Cable Serial Nur	mber TS	-7NCIA and	B#2

Thermistor Inspection

		Good			
	Yes		No	Problem/l	Maintenance
Casing	x		_		
Cover	x		_		
Data Logger	x		_		
Cable	x		_		
Beads	x		_		
Battery Installation Date		2015-08-19			
Battery Levels	Main	11.34		Aux	13.38

В

Manual Ground Temperature Readings

ŀ	١	

Bead	ohms	Degrees C
1	9.551	11.7835
2	10.725	8.2321
3	14.203	2.1304
4	16.508	-0.8172
5	16.564	-1.0825
6	16.847	-1.4073
7	17.277	-1.8640
8	17.325	-2.0647
9	16.875	-1.6380

Bead	ohms	Degrees C
1	16.320	-0.2068
2	14.624	1.8896
3	13.388	3.1544
4	13.506	3.1344
5	13.876	2.5163
-	-	-

Observations and Proposed Maintenance

Clock was 2:10 hrs slow. Memory at 73%.

Download thermistor data. File: Site_042_ITS2_Aug_19_2015

Change batteries (ULB1 - 03/21 and ULB15 - 06/21)

Reset clock and restart datalogger.

4.6 SOIL SAMPLE ANALYTICAL DATA

The soil chemical analysis results for the 2015 Main Landfill South samples are presented in Table XII hereafter. Certificates of analyses and results of field duplicates collected as part of the QA/QC program are presented in Annexes 1 and 2 at the end of this report.

Table XII: Main Landfill South Summary Table for Soil Analytical Data

				Parameters											
Sample #	Location	Depth (cm)	As	Cd	Cr	Со	Cu	Pb	Ni	Zn	Hg	PCBs	F1	F2	F3
		(CIII)	[mg/kg]	[mg/kg]	[mg/kg]	[mg/kg]	[mg/kg]	[mg/kg]	[mg/kg]	[mg/kg]	[mg/kg]	[mg/kg]		C ₁₀ -C ₁₆ [mg/kg]	
Detection Limit			0.2	0.01	0.5	0.1	1.0	0.1	0.5	1	0.05	0.05	10	40	40
Upgradient Soil Samples								•				•			
CM15-9WA	MW-9	0-15	2.6	0.16	8.6	3.1	14.5	5.6	11.0	11	<0.05	< 0.05	<10	<40	54
CM15-9WB	10100-9	40-50	5.3	0.05	19.4	4.2	10.0	4.6	12.5	13	<0.05	< 0.05	<10	<40	<40
Downgradient Soil Samples															
CM15-1WA	MW-1	0-15	3.6	0.07	20.6	4.0	8.4	5.7	14.6	17	<0.05	< 0.05	<10	<40	<40
CM15-1WB	10100-1	40-50	5.9	0.05	14.1	3.2	7.3	3.6	8.5	13	<0.05	< 0.05	<10	<40	<40
CM15-2WA		0-15	3.0	0.53	51.1	3.8	21.0	12.2	14.5	128	0.11	0.1	<10	<40	101
CM15-2WB		40-50	3.0	0.02	10.3	2.5	3.4	3.2	7	9	<0.05	< 0.05	<10	<40	<40
CM15-BD5 (Intra-Lab Duplicate)	MW-2	40-50	3.0	0.01	10	2.7	3.5	3.1	6.9	9	<0.05	< 0.05	<10	<40	<40
CM15-2WB (Inter-Lab Duplicate)		40-50	2.7	< 0.05	10	2.4	3.9	3.1	6.4	<10	<0.050	<0.010	<12	<10	<50
Average value for CM15-2WB		40-50	2.9 ± 0.2	0.02 ± 0.01	10.1 ± 0.2	2.5 ± 0.2	3.6 ± 0.3	3.1 ± 0.1	6.8 ± 0.3	9 ± 0					
CM15-3WA	MW-3	0-15	2.3	0.13	10.1	3.6	15.8	4.9	17.5	32	0.09	< 0.05	<10	<40	97
CM15-3WB	10100-3	40-50	5.1	0.02	34.6	7.5	12.6	7.6	24.6	16	<0.05	<0.05	<10	<40	<40
CM15-14WA	MW-14	0-15	3.4	0.03	17.8	5.7	12.1	6.1	14.0	12	<0.05	< 0.05	<10	<40	<40
CM15-14WB	10100-14	40-50	3.5	0.02	17.6	6.1	13.3	6.8	14.8	10	<0.05	< 0.05	<10	<40	<40

4.7 GROUNDWATER SAMPLE ANALYTICAL DATA

The groundwater chemical analysis results and evaluation for the analytical data for the 2015 Main Landfill South samples are presented in Table XIII hereafter. Certificates of analyses and results for groundwater samples collected as part of the QA/QC program are presented in Annexes 1 and 2, at the end of this report.

Table XIII: Main Landfill South Summary Table for Groundwater Analytical Data

			Parameters											
												F1	F2	F3
Sample #	Location	As [mg/L]	Cd [mg/L]	Cr [mg/L]	Co [mg/L]	Cu [mg/L]	Pb [mg/L]	Ni [mg/L]	Zn [mg/L]	Hg [mg/L]	PCBs [mg/L]	C ₆ -C ₁₀ [mg/L]	C ₁₀ -C ₁₆ [mg/L]	C ₁₀ -C ₃₄ [mg/L]
Detection Li	mit	0.0002	0.00001	0.0005	0.0001	0.001	0.0001	0.0005	0.001	0.000005	0.00005	0.1	0.1	0.1
Upgradient	Upgradient Groundwater Sample													
CM15-9W	MW-9	-	-	-	-	-	-	-	-	-	-	-	-	-
Downgradi	ent Groun	dwater	Samples											
CM15-1W	MW-1	0.0020	0.00002	0.0489	0.0021	0.004	0.0004	0.0523	0.091	<0.00005	<0.00005	<0.1	<0.1	<0.1
CM15-2W	MW-2	<0.001	0.00016	0.0230	0.0020	0.007	0.0010	0.2230	2.660	<0.00005	<0.00005	<0.1	<0.1	<0.1
CM15-3W	MW-3	<0.0004	0.00003	0.0170	0.0084	<0.002	0.0004	0.0635	0.289	<0.00005	<0.00005	<0.1	<0.1	<0.1
CM15-14W	MW-14	0.0020	0.00003	0.0086	0.0054	0.006	0.0020	0.0190	0.020	<0.00005	<0.00005	<0.1	<0.1	<0.1

4.8 MONITORING WELL SAMPLING / INSPECTION LOGS

The monitoring well sampling logs for MW-1 to MW-3, MW-9 and MW-14 are presented in this section.

Site Name: CAM-M Landfill Name: Main Landfill South

Monitoring Well ID: MW-1
Sample Number(s) include dups.: CM15-1W

Bottles filled (by parameter type): 200 mL/40 mL (Met), 1 L amber (PCBs), 1 L amber/3 x 40 mL (PHCs)

Date of Sampling Event: 2015-08-24 Time: 8:30

Weather: 9C, P.Sunny, 15 km/h SE

Names of Samplers: A.Passalis

Description of Well Condition and Surrounding ground conditions (note ponding of water):

Good condition, no ponding.

Lock (condition, presence, model, manufacturer): Good, KA1

Pre-Measured Data (From Water Well Record Log)

*Depth of well installation (cm)= 350 Diameter of well (cm)= 5

*Depth to top of screen (cm)= 50 Length screened section (cm)= 200

note: *depths are from ground surface

Field Measurements

Measurement method (interface probe, tape, etc): Interface

Well pipe height above ground (cm) (to top of pipe)= 39

Static water level (cm) from top of pipe = 48

Static water level (cm) (below ground surface) calculated = 9

Measured well refusal depth (cm) (measure after sampling)= 182

Thickness of water column (cm)= 134 Static volume of water in well (mL)= 2715

Free product thickness (mm)= 0 Evidence of sludge or siltation: No

Purging Information Summary*

Purging/sampling equipment, sampling technique and equipment calibration information:

Peristaltic pump with dedicated 1/4" LDPE tubing, multimeter, turbidimeter with daily calibration check

Well purged (Y/N): Y Recharge Rate: >200 mL/min

Volume Purged (L) (note multiple

purging events if applicable): 3.5

Parameter	Initial	Stabilized	Final	Notes (if not stabilized)
рН	8.7	8.1	8.0	
Conductivity (uS/cm)	4400	3830	3870	
Turbidity (NTU)	24.4	16.0	14.9	
Temperature (degC)	1.2	1.6	1.5	

Visual/olfactory observations (incl. colour, odour,

presence of free product/sheen/globules, Clear, colourless, odourless

siltation...):

Decontamination of sampling equipment

Type of decontamination fluid (s): Not required, dedicated tubing

Number washes: N/A Number rinses: N/A

Other Relevant Comments: Protective casing full of bentonite

^{*} Complete field notes including full suite of water quality indicator parameters VS time as per EPA low flow sampling procedures should be apended to this summary.

Landfill Name: CAM-M Site Name: Main Landfill South

MW-2 Monitoring Well ID: Sample Number(s) include dups.: CM15-2W

Bottles filled (by parameter type): 200 mL/40 mL (Met), 1 L amber (PCBs), 1 L amber/3 x 40 mL (PHCs)

Date of Sampling Event: 2015-08-24 Time: 9:40

Weather: 9C, P.Sunny, 15 km/h SE

Names of Samplers: A.Passalis

Description of Well Condition and Surrounding ground conditions (note ponding of water):

Well pipe appears to have heaved or protective casing has settled in soft ground

Lock (condition, presence, model, manufacturer): Good, KA1

Pre-Measured Data (From Water Well Record Log)

5 *Depth of well installation (cm)= 350 Diameter of well (cm)= *Depth to top of screen (cm)= 50 Length screened section (cm)= 200

note: *depths are from ground surface

Field Measurements

Measurement method (interface probe, tape, etc): Interface Well pipe height above ground (cm) (to top of pipe)= 72 Static water level (cm) from top of pipe = 86

Static water level (cm) (below ground surface) calculated = 14 Measured well refusal depth (cm) (measure after sampling)= 162

Thickness of water column (cm)= 76 Static volume of water in well (mL)= 1540 Free product thickness (mm)= Evidence of sludge or siltation: No

Purging Information Summary*

Purging/sampling equipment, sampling technique and equipment calibration information:

Peristaltic pump with dedicated 1/4" LDPE tubing, multimeter, turbidimeter with daily calibration check

2.3

Well purged (Y/N): Recharge Rate: ~100 mL/min

Volume Purged (L) (note multiple

2.1 purging events if applicable):

Parameter	Initial	Stabilized	Final	Notes (if not stabilized)
рН	7.7	7.6	7.6	
Conductivity (uS/cm)	6650	6630	6620	
Turbidity (NTU)	21.1	18.6	19.2	
Temperature (degC)	1.8	2.1	2.3	

Visual/olfactory observations (incl. colour, odour,

presence of free product/sheen/globules, Clear, colourless, odourless

siltation...):

Decontamination of sampling equipment

Type of decontamination fluid (s): Not required, dedicated tubing

Number washes: Number rinses: N/A

Other Relevant Comments: Protective casing full of bentonite

^{*} Complete field notes including full suite of water quality indicator parameters VS time as per EPA low flow sampling procedures should be apended to this summary.

Site Name: CAM-M Landfill Name: Main Landfill South

Monitoring Well ID: MW-3
Sample Number(s) include dups.: CM15-3W

Bottles filled (by parameter type): 200 mL/40 mL (Met), 1 L amber (PCBs), 1 L amber/3 x 40 mL (PHCs)

Date of Sampling Event: 2015-08-24 Time: 10:20

Weather: 9C, P.Sunny, 15 km/h SE

Names of Samplers: A.Passalis

Description of Well Condition and Surrounding ground conditions (note ponding of water):

Possible bentonite in well pipe

Lock (condition, presence, model, manufacturer): Good, KA1

Pre-Measured Data (From Water Well Record Log)

*Depth of well installation (cm)= 350 Diameter of well (cm)= 5

*Depth to top of screen (cm)= 50 Length screened section (cm)= 200

note: *depths are from ground surface

Field Measurements

Measurement method (interface probe, tape, etc): Interface

Well pipe height above ground (cm) (to top of pipe)= 20

Static water level (cm) from top of pipe = 148

Static water level (cm) (below ground surface) calculated = 128

Measured well refusal depth (cm) (measure after sampling)= 169

Thickness of water column (cm)= 21 Static volume of water in well (mL)= 425

Free product thickness (mm)= 0 Evidence of sludge or siltation: No

Purging Information Summary*

Purging/sampling equipment, sampling technique and equipment calibration information:

Peristaltic pump with dedicated 1/4" LDPE tubing, multimeter, turbidimeter with daily calibration check

Well purged (Y/N): Y Recharge Rate: >200 mL/min

Volume Purged (L) (note multiple

purging events if applicable):

0.6

Parameter	Initial	Stabilized	Final	Notes (if not stabilized)
рН	8.1	8.0	8.0	
Conductivity (uS/cm)	2570	2310	2280	
Turbidity (NTU)	>500	19.2	18.2	
Temperature (degC)	1.7	2	2.1	

Visual/olfactory observations (incl. colour, odour, presence of free product/sheen/globules, siltation...):

Translucent to clear, white to colourless, odourless

Decontamination of sampling equipment

Type of decontamination fluid (s): Not required, dedicated tubing

Number washes: N/A Number rinses: N/A

Other Relevant Comments: Protective casing full of bentonite

^{*} Complete field notes including full suite of water quality indicator parameters VS time as per EPA low flow sampling procedures should be apended to this summary.

Site Name: CAM-M Landfill Name: Main Landfill South

Monitoring Well ID: MW-9 Sample Number(s) include dups.: CM15-9W Bottles filled (by parameter type): N/A

Date of Sampling Event: N/A Time:

Weather: 9C, Overcast, 15-25 km/h NW

Names of Samplers: A.Passalis

Description of Well Condition and Surrounding ground conditions (note ponding of water):

Good condition, no ponding.

Lock (condition, presence, model, manufacturer): Good, KA1

Pre-Measured Data (From Water Well Record Log)

*Depth of well installation (cm)= 350 Diameter of well (cm)= 5 *Depth to top of screen (cm)= Length screened section (cm)= 200 50

note: *depths are from ground surface

Field Measurements

Measurement method (interface probe, tape, etc): Interface

Well pipe height above ground (cm) (to top of pipe)= 24 Static water level (cm) from top of pipe = Bentonite Static water level (cm) (below ground surface) calculated = N/A Measured well refusal depth (cm) (measure after sampling)= N/A

Thickness of water column (cm)= N/A Static volume of water in well (mL)= N/A Free product thickness (mm)= N/A Evidence of sludge or siltation: N/A

N/A

Purging Information Summary*

Purging/sampling equipment, sampling technique and equipment calibration information:

Well purged (Y/N): Ν Recharge Rate: N/A

Volume Purged (L) (note multiple purging events if applicable):

Parameter	Initial	Stabilized	Final	Notes (if not stabilized)
рН	-	-	-	
Conductivity (uS/cm)	-	-	-	
Turbidity (NTU)	-	-	-	
Temperature (degC)	-	-	-	
Visual/olfactory observations (incl. presence of free product/sheen/glol		N/A		

siltation...):

Decontamination of sampling equipment

Type of decontamination fluid (s): N/A

Number washes: N/A N/A Number rinses:

Protective casing and well pipe full of bentonite. Unable to Other Relevant Comments:

purge/sample

^{*} Complete field notes including full suite of water quality indicator parameters VS time as per EPA low flow sampling procedures should be apended to this summary.

Site Name: CAM-M Landfill Name: Main Landfill South

Monitoring Well ID: MW-14
Sample Number(s) include dups.: CM15-14W

Bottles filled (by parameter type): 200 mL/40 mL (Met), 1 L amber (PCBs), 1 L amber/3 x 40 mL (PHCs)

Date of Sampling Event: 2015-08-24 Time: 9:10

Weather: 9C, P.Sunny, 15 km/h SE

Names of Samplers: A.Passalis

Description of Well Condition and Surrounding ground conditions (note ponding of water):

Good condition, no ponding.

Lock (condition, presence, model, manufacturer): Good, KA1

Pre-Measured Data (From Water Well Record Log)

*Depth of well installation (cm)= 350 Diameter of well (cm)= 5
*Depth to top of screen (cm)= 50 Length screened section (cm)= 200

note: *depths are from ground surface

Field Measurements

Measurement method (interface probe, tape, etc): Interface

Well pipe height above ground (cm) (to top of pipe)= 31

Static water level (cm) from top of pipe = 45

Static water level (cm) (below ground surface) calculated = 14

Measured well refusal depth (cm) (measure after sampling)= 184

Thickness of water column (cm)= 139 Static volume of water in well (mL)= 2816

Free product thickness (mm)= 0 Evidence of sludge or siltation: No

Purging Information Summary*

Purging/sampling equipment, sampling technique and equipment calibration information:

Peristaltic pump with dedicated 1/4" LDPE tubing, multimeter, turbidimeter with daily calibration check

Well purged (Y/N): Y Recharge Rate: >200 mL/min

Volume Purged (L) (note multiple

purging events if applicable): 4.0

Parameter	Initial	Stabilized	Final	Notes (if not stabilized)
рН	7.6	7.5	7.4	
Conductivity (uS/cm)	8650	6920	6840	
Turbidity (NTU)	20.0	12.5	18.6	
Temperature (degC)	2.0	2.1	2.3	

Visual/olfactory observations (incl. colour, odour,

presence of free product/sheen/globules, Clear, colourless, odourless

siltation...):

Decontamination of sampling equipment

Type of decontamination fluid (s): Not required, dedicated tubing

Number washes: N/A Number rinses: N/A

Other Relevant Comments: Protective casing full of bentonite

^{*} Complete field notes including full suite of water quality indicator parameters VS time as per EPA low flow sampling procedures should be apended to this summary.

5 **SOUTH SHORE LANDFILL**

5.1 SUMMARY

On August 22, 2015, a visual inspection was completed at the South Shore Landfill. Soil sampling was completed at four stations located upgradient and downgradient of the landfill.

The Hamlet of Cambridge Bay are in the process of constructing a new bulk tank farm immediately south of the South Shore Landfill. Site plans viewed at the General Contractors site office indicate a portion of the site development, including the operations shelter and fuel dispensers have been constructed on the south area of the landfill. Based on observations made during the 2015 assessment, it would appear the landfill cover was used for storage and staging of construction materials for the new tank farm. As a result, there were numerous heavy equipment tracks and rutting observed across the landfill cover. Several 1,000 L cubes containing lubricant, wire spools and fencing materials were also stockpiled on the east cover of the landfill. Two small areas of construction waste were noted on the south cover area.

No PCB or relatively high metal concentrations were detected in any of the soil samples collected. A detectable concentration of TPH (PHC F3 Fraction) was noted in the surface sample collected at down gradient location CM-2 (192 mg/kg). A slightly elevated concentration of zinc was also detected at depth at downgradient location CM-4 (54 mg/kg).

As of the 2015 monitoring event, no features were identified with "significant" or "unacceptable" severity ratings. The low lying area previously identified on the south cover (Feature C) has been reworked as part of the recent construction activities, and were not observed. Settlement features previously observed on the north and southwest cover areas were also not observed.

Two previously observed notations of debris, consisting of rusted metal drums (Features D1 and D2) were located in a boulder pile at the east end of the landfill. Two new areas of debris were identified, including two partially exposed cables located in a wet area east of the landfill (Feature I) and one piece of exposed geotextile was observed along the southeast side of the landfill (Feature L).

Other features of note included three previously observed subtle low lying areas containing desiccation cracks situated on the east and southeast cover (Features B, A1 and A2) and appear relatively unchanged from the previous assessment. As noted above, newly observed heavy equipment tracks and ruts were observed on the northeast cover (Feature H) and northwest side (Feature K) of the landfill.

One area of localized ponding was also noted on the northeast toe of the landfill (Feature J). Minor sheen (non-hydrocarbon) was also noted in this area. At this time, the overall performance of the landfill is rated as acceptable.

The Visual Inspection Checklist is included in Table XIV of this report and has been completed as per the TOR. Please refer to Figure CAM-M.4 for a sketch of the South Shore Landfill detailing the location of photographs, debris and ponding features.

Table XIV: Visual Inspection Checklist - South Shore Landfill

DEW Line Cleanup: Post-construction - Landfill Monitoring Visual Inspection Checklist

Inspection Report - Page 1 of 2

SITE NAME: CAM-M Cambridge Bay

LANDFILL DESIGNATION: South Shore Landfill - North (Previously observed Regrade Landfill)

DATE OF INSPECTION: August 22, 2015

DATE OF PREVIOUS INSPECTION: August 29, 2010

INSPECTED BY: A. Passalis

REPORT PREPARED BY: A. Passalis

MONITORING EVENT: 8 (Year 15)

The inspector/reporter represents to the best of his/her knowledge that the following statements and observations are true and correct and to the best of the preparer's actual knowledge, no material facts have been suppressed or misstated.

Checklist Item	Present (Yes/No)	Location	Length (m)	Width (m)	Depth (m)	Extent	Description	Photographic Record	Severity Rating	Additional Comments		
Settlement	Yes	FEATURE F See Figure CAM-M.4 (N Central cover)	11	1.3	0.35	<1%	Loader ruts in landfill cap		Not Observable	Feature not observed.		
		FEATURE G See Figure CAM-M.4 (SW cover)	11	3.4	0.35	<1%	3 Loader ruts side by side		Not Observable	Feature not observed. Recent construction and additional granular fill in area.		
Erosion	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not Observable	N/A		
Frost Action	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not Observable	N/A		
Animal Burrows	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not Observable	N/A		
Vegetation	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not Observable	N/A		
Staining	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not Observable	N/A		
Vegetation Stress	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not Observable	N/A		
Seepage Points	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not Observable	N/A		
		FEATURE D1 & D2 See Figure CAM-M.4 (E side)	1 - 1.2	0.6 - 0.7	N/A	<1%	Metal debris	SSLF-4	Acceptable	Crushed and partially buried drum at the edge of the landfill.		
Debris Exposed	Yes	Yes	FEATURE E See Figure CAM-M.4 (N Central cover)	0	0	0	<1%	2 - 8in pieces of cable protruding from landfill cap0-NSC		Not Observable	Feature not observed.	
		FEATURE I See Figure CAM-M.4 (E side) - New Obs.	0.4 - 0.5	0.03	N/A	<1%	Exposed cables	SSLF-21	Acceptable	New observation.		
		FEATURE L See Figure CAM-M.4 (SE side) - New Obs.	0.1	0.1	N/A	<1%	Exposed geotextile	SSLF-13	Acceptable	New observation.		
Presence/Condition of Monitoring Instruments	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not Observable	N/A		
		FEATURE A1 See Figure CAM-M.4 (SE comer)	10	8	0.1	Occassional	Subtle depression with	SSLF-10 Acceptable Localized s		Localized subtle depression with desication cracking. No significant changes noted.		
		FEATURE A2 See Figure CAM-M.4 (SE cover)	18	10	0.1	(<2%)	desication cracks		Acceptable	Localized subtle depression with desication clacking, no significant changes noted.		
		FEATURE B See Figure CAM-M.4 (E cover)	25	20	0.1	Occassional (7%)	Subtle depression with desication cracks	SSLF-26, 28	Acceptable	Localized subtle depression with desication cracking. No significant changes noted.		
Other Features of Note:	Yes	FEATURE C See Figure CAM-M.4 (N Central cover)	0	0	0.1	905 m² (4.5%)	Depression formerly with standing water		Not Observable	The area formerly encompassing Feature C appears to have been disturbed by recent activities associated with construction of the new tank farm. It appears the surface in this area of the landfill has been partially regraded, including the possible addition of granular materials		
				FEATURE H See Figure CAM-M.4 (NE cover) - New Obs.	30	0.3 - 0.5	0.05	<2%	Heavy equpment tracks / ruts	SSLF-5, 6	Acceptable	Appear to be associated with recent construction activities in area.
		FEATURE J See Figure CAM-M.4 (E side) - New Obs.	65	20	N/A	N/A	Localized ponding	SSLF-22, 23	Acceptable	Ponding in low lying areas east of landfill. Not in contact with landfill.		
		FEATURE K See Figure CAM-M.4 (NW side) - New Obs.	4 - 6	0.5	0.05 -0.1	Isolated (<1%)	Equipment ruts	SSLF-31	Acceptable	Heavy equipment ruts.		
Additional Photos	Yes	See Figure CAM-M.4 and Photographic Record	N/A	N/A	N/A	N/A	General Photographic Record	N/A	Not Observable	General photos for documentation, no features of note.		
Overall Landfill Performance:	Acceptable											

DOCUMENT FOR THE USE OF DEFENCE CONSTRUCTION CANADA ENGLOBE CORP. P:\129\B-0010209-1_KITIK12_13\OTP_1_Kitik12\CAM-M\Rapport 2015\Version 00\Text\\129-B-0010209-1-HG-R-0012-00.doc

5.2 PRELIMINARY STABILITY ASSESSMENT

The Preliminary Stability Assessment for South Shore Landfill has been completed as per the TOR and is included as Table XV hereafter.

Table XV: Preliminary Stability Assessment – South Shore Landfill

Feature	Severity Rating	Extent
Settlement	Not observed	None
Erosion	Not observed	None
Frost Action	Not observed	None
Staining	Not observed	None
Vegetation Stress	Not observed	None
Seepage/Ponded Water	Acceptable	Isolated
Debris exposure	Acceptable	Isolated
Overall Landfill Performance	Acceptab	le

Performance/ Severity Rating	Description
Acceptable	Noted features are of little consequence. The landfill is performing as designed. Minor deviations in environmental or physical performance may be observed, such as isolated areas of erosion, settlement.
Marginal	Physical/environmental performance appears to be deteriorating with time. Observations may include an increase in size or number of features of note, such as differential settlement, erosion or cracking. No significant impact on landfill stability to date, but potential for failure is assessed as low or moderate.
Significant	Significant or potentially significant changes affecting landfill stability, such as significant changes in slope geometry, significant erosion or differential settlement; scarp development. The potential for failure is assessed as imminent.
Unacceptable	Stability of landfill is compromised to the extent that ability to contain waste materials is compromised. Examples may include: Debris exposed in erosion channels or areas of differential settlement. Liner exposed. Slope failure.
Extent	Description
Isolated	Singular feature
Occasional	Features of note occurring at irregular intervals/locations
Numerous	Many features of note, impacted less than 50% of the surface area of the landfill
Extensive	Impacting greater than 50% of the surface area of the landfill

5.3 LOCATION PLAN

The Location Plan for the South Shore Landfill has been completed as per the TOR and is presented in Figure CAM-M.4.

LEGEND

TBM20
☐ TEMPORARY BENCHMARK

MONITORING SOIL SAMPLE LOCATION



APPROXIMATE PHOTOGRAPH LOCATION AND PHOTO NUMBER



CONSTRUCTION MATERIAL



CONSTRUCTION WASTE



PONDING



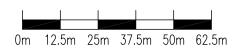
HEAVY EQUIPMENT RUTS



EXPOSED DEBRIS



DESSICATION CRACKS



1	FINAL	16-02-25	P.L.	A.P.	M.F.
NO.	VERSION	DATE	BY	VERIF.	APPR.



Construction de Défense Canada **Defence Construction Canada**

COLLECTION OF LANDFILL MONITORING DATA

CAM-M, CAMBRIDGE BAY, NUNAVUT

SOUTH SHORE LANDFILL



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MEASUREMENT UNIT	SCALE:	DATE (month-year):
Metre	1 : 1,250	MARCH 2016
DRAWN BY:	VERIFIED BY:	APPROVED BY:
P. LÉGARÉ	A. PASSALIS P. ENG	M. FLEURY P. ENG
PROJECT NO:	DRAWING NO:	PAGE
CD2656_500_503	CD2656_500_503-CAM-MD	PL

FIGURE CAM-M.4

5.4 PHOTOGRAPHIC RECORDS

The Photographic Record for the South Shore Landfill has been completed as per the TOR and is included in the following page as Table XVI. Full-sized photographs are contained in the Addendum DVD-ROM.

Table XVI: Landfill Visual Inspection Photo Log – South Shore Landfill

Photo		Size		Vantor	ge Point	Point				
(SSLF-)	Filename		Date	Easting	Northing	Constan				
		(MB)	Date	Lasting	Northing	Caption				
	Figure CAM M.1		10/00/0015	11100						
A9	CM15_7907	3,889	19/08/2015	11193	8507	View looking northwest at new tank farm and South Shore Landfill				
General										
1	CM15_8536	3,972	22/08/2015	10881	8738	View looking east at new pumphouse and bulk fuel tanks. Pumphouse is constructed on southwest area of landfill				
2	CM15_8537	3,788	22/08/2015	10888	8741	View looking northeast across cover area and construction materials stockpiled on northeast side of landfill cover				
3	CM15_8538	902	22/08/2015	10893	8748	Panoramic view looking north to southeast across cover from west side of landfill				
4	CM15_8539	4,294	22/08/2015	11040	8824	Feature D2: View looking south at metal debris in pile of boulder pile located near northeast toe of landfill				
5	CM15_8540	4,018	22/08/2015	11012	8809	View looking northeast at boulder pile located near northeast toe of landfill. Note: Feature H: heavy equpment ruts and totes of lube oil stored on east cover (new)				
6	CM15_8541	4,414	22/08/2015	11012	8805	Feature H View looking southwest at recent heavy equipment tracks on east cover of landfill (new). Note: soil stockpile and storage tank on south cover area				
7	CM15_8542	4,175	22/08/2015	11017	8805	View looking east at lube totes stockpiled on east cover of landfill				
8	CM15_8543	4,247	22/08/2015	11024	8800	View looking north at lube totes stockpiled on east cover of landfill				
9	CM15_8544	4,399	22/08/2015	11018	8787	View looking east at construction materials (fencing wire and poles and wire spools) piled on east cover of landfill				
10	CM15 8545	4,359	22/08/2015	11026	8791	Feature A1: View of descication cracking on cover of landfill				
11	CM15_8546	4,376	22/08/2015	11042	8787	View looking north along east side of landfill				
12	CM15 8547	4,306	22/08/2015	11038	8788	View looking southwest along southeast side of landfill				
13	CM15 8548	4,289	22/08/2015	11029	8768	Feature L: View looking northeast at exposed piece of geotextile located on southeast side of landfill (new)				
14	CM15 8550	4,402	22/08/2015	11017	8754	View looking northeast at disturbed ground on southeast crest and side slope of landfill				
15	CM15 8551	4,308	22/08/2015	11015	8754	View looking southwest at minor erosion on southeast cover of landfill				
16	CM15_8552	4,178	22/08/2015	11013	8763	View looking northwest at geomembrane pieces from new tank farm construction on southeast cover of landfill				
17	CM15 8553	4,123	22/08/2015	10995	8768	View looking west at storage tanks and soil stockpile on northwest cover of landfill				
18	CM15_8554	4,173	22/08/2015	10983	8765	View looking northeast at storage tanks and soil stockpile on northwest cover of landfill				
19	CM15_8555	4,212	22/08/2015	10989	8731	View looking southwest along south side of landfill. Note additional granular fill placed on south side as part of new tank farm construction				
20	CM15_8556	4,189	22/08/2015	10991	8734	View looking northeast along south side of landfill. Note additional granular fill placed on south side as part of new tank farm construction				
21	CM15_8559	4,352	22/08/2015	11048	8828	Feature I: View looking southwest at two large cables extending out of ground near east toe of landfill (new)				
22	CM15_8560	4,183	22/08/2015	11042	8836	Feature J: View looking south at ponded area east of landfill. Slight sheen observed on water (new).				
23	CM15_8561	4,163	22/08/2015	11042	8830	Feature J: View of slight sheen observed on ponded water located east of landfill (new)				
24	CM15 8562	4,275	22/08/2015	11000	8852	View looking southwest along northwest side of landfill				
25	CM15_6563	4,264	22/08/2015	11004	8852	View looking southeast along northeast side of landfill				
26	CM15_8564	4,424	22/08/2015	10998	8824	Feature B: View looking southeast at descication cracking in low areas on landfill cover				
27	CM15_8565	4,397	22/08/2015	11005	8823	View looking south at tee box located on east cover of landfill\				
28	CM15_8566	4,381	22/08/2015	10997	8800	Feature B: View looking north at descication cracks in low lying area on northeast cover of landfill				
29	CM15_8567	4,032	22/08/2015	10941	8825	View looking northeast along north crest of landfill				
30	CM15_6567	4,032	22/08/2015	10938	8824	View looking north crest of landfill				
31	CM15_8569	4,033	22/08/2015	10935	8815	Feature K: View looking northwest at heavy equipment ruts on north side of landfill (new)				
32	CM15_8572	4,250	22/08/2015	11012	8742	View looking southwest along outside toe of berm for new bulk tank farm. Digging at CM-4 soil sample location				
33	CM15 8573	4,381	22/08/2015	11015	8743	View looking southeast along northeast toe of new bulk tank farm berm				
34	CM15_6573	4,253	22/08/2015	10853	8793	View looking northeast along northwest side from west corner of landfill				
35	CM15_6578	4,253	22/08/2015	10834	8769	View looking south along west side from west corner of landfill				
36	CM15_8580	4,166	22/08/2015	10834	8765	View looking south along west side from west corner of landfill View looking southeast across west cover from northwest side of landfill				
37	CM15_8581	831	08/09/2015	10839	8767	Panoramic view looking northwest to south across cover from northwest side of landfill				
38	CM15_8582	4,245	22/08/2015	10828	8795	View looking southeast at northwest cover of landfill				
Soil Samplin		4,240	22/00/2010	10020	0133	Prow looking southbast at horthwest cover of failuill				
CM-1	CM15 8576	4,261	22/08/2015	10920	8832	Samples CM15-1A/B located upgradient of landfill				
S1	CM15_8576 CM15_8577	4,261	22/08/2015	10920	8832 8837	View looking southeast at CM-1 soil sampling location				
CM-2	CM15_8577 CM15_8570	4,312	22/08/2015	11050	8837 8851					
	CM15_8570 CM15_8571	3,978	22/08/2015	11050	8855	Samples CM15-2A/B located downgradient of landfill				
S2 CM 2						View looking southwest at CM-2 soil sampling location				
CM-3 S3	CM15_8557	4,306 4,294	22/08/2015	11042	8801 8802	Samples CM15-3A/B located downgradient of landfill				
	CM15_8558		22/08/2015	11047		View looking west at CM-3 soil sampling location				
CM-4	CM15_8574	4,275	22/08/2015	10995.2	8728	Samples CM15-4A/B located downgradient of landfill				
S4	CM15_8575	4,402	22/08/2015	10992	8724.6	View looking northeast at CM-4 soil sampling location				

5.5 SOIL SAMPLE ANALYTICAL DATA

The soil chemical analysis results for the 2015 South Shore Landfill samples are presented in Table XVII hereafter. Certificates of analyses and results of field duplicates collected as part of the QA/QC program are presented in Annexes 1 and 2 at the end of this report.

Table XVII: South Shore Landfill Summary Table for Soil Analytical Data

								Parame	ters						
Sample #	Location	Depth (cm)	As	Cd	Cr	Co	Cu	Pb	Ni	Zn	Hg	PCBs	F1	F2	F3
Gample #	Location		[mg/kg]	[mg/kg]	[mg/kg]	[mg/kg]	[mg/kg]	[mg/kg]	[mg/kg]	[mg/kg]	[mg/kg]		C ₆ -C ₁₀	C ₁₀ -C ₁₆	C ₁₆ -C ₃₄
													[mg/kg]	[mg/kg]	[mg/kg]
Detection Limit	Detection Limit				0.5	0.1	1.0	0.1	0.5	1	0.05	0.05	10	40	40
Upgradient Soil Samples															
CM15-1A		0-15	3.0	0.02	16.3	6.0	14.3	5.4	13.8	17	< 0.05	<0.05	<10	<40	<40
CM15-BD4 (Intra-Lab Duplicate)		0-15	2.8	0.02	16.6	5.6	11.2	5.9	12.4	16	< 0.05	<0.05	<10	<40	<40
CM15-1A (Inter-Lab Duplicate)	CM-1	0-15	2.4	<0.05	16.0	5.6	10	5.3	12	11	< 0.050	<0.010	<12	<10	54
Average value for CM15-1A sample		0-15	2.7 ± 0.3	0.01 ± 0.01	16.3 ± 0.3	5.7 ± 0.2	11.8 ± 2.2	5.5 ± 0.3	12.7 ± 0.9	15 ± 3					
CM15-1B		40-50	3.2	0.02	18.0	6.5	12.2	5.7	14.3	17	< 0.05	<0.05	<10	<40	<40
Downgradient Soil Samples															
CM15-2A	CM-2	0-15	4.3	0.02	17.3	5.9	12.0	8.4	18.1	12	< 0.05	<0.05	<10	<40	192
CM15-2B	OIVI-2	40-50	4.8	0.10	13.1	3.6	10.0	5.1	11.2	13	< 0.05	<0.05	<10	<40	<40
CM15-3A	CM-3	0-15	3.7	0.06	12.8	5.1	12.7	6.6	12.2	16	<0.05	<0.05	<10	<40	<40
CM15-3B	CIVI-3	40-50	3.5	0.03	14.5	5.6	13.9	7.9	14.2	11	< 0.05	<0.05	<10	<40	<40
CM15-4A	CM-4	0-15	3.5	0.02	12.4	4.5	8.1	6.7	10.3	9	<0.05	<0.05	<10	<40	<40
CM15-4B	CIVI-4	40-50	3.3	0.04	15.2	4.6	8.4	6.5	11.8	54	< 0.05	<0.05	<10	<40	<40

6 WEST LANDFILL

6.1 SUMMARY

On August 22, 2015, a visual inspection was completed at the West Landfill. Soil sampling was completed at three stations located upgradient and downgradient of the landfill.

No PCB or relatively high metal concentrations were detected in any of the soil samples collected. Detectable concentrations of TPH (PHC F3 Fraction) were noted in the surface and depth samples collected at down gradient location CM-6 (124 mg/kg and 127 mg/kg, respectively).

As of the 2015 monitoring event, no features were identified with "significant" or "unacceptable" severity ratings. Minor settlement was noted at two previously observed area located on the east toe (Feature B) and north side (Feature C) of the landfill. Feature C appears to be a natural feature and is located well outside the regraded area, and Feature B appears consistent with observations made during the previous 2010 assessment.

Evidence of minor erosion was observed at four locations, including two previously observed locations on the south toe (Feature A) and north corner (Feature D) of the landfill. Both features exhibited a marginal increase in size (length and depth) from the previous observations. Two new areas of minor erosion were observed on the northeast side slope (Features E and F). All features were self-armouring and slopes appear stable.

Sparse to medium vegetation growth was observed across the majority of landfill cover and side slope areas of the landfill with the exception of a localized densely vegetated sector located in a ponding area (Feature G). Vegetation growth was not noted during the previous 2010 assessment.

One area of localized ponding was also noted on the southeast toe of the landfill. (Feature G). This feature was not noted during the previous 2010 assessment.

At this time, the overall performance of the landfill is rated as acceptable.

The Visual Inspection Checklist is included in Table XVIII of this report and has been completed as per the TOR. Please refer to Figure CAM-M.5 for a sketch of the West Landfill detailing the location of photographs, settlement, erosional and ponding features.

Table XVIII: Visual Inspection Checklist - West Landfill

DEW Line Cleanup: Post-construction - Landfill Monitoring Visual Inspection Checklist

Inspection Report - Page 1 of 2

SITE NAME: CAM-M Cambridge Bay

LANDFILL DESIGNATION: West Landfill (Previously observed Regrade Landfill)

DATE OF INSPECTION: August 22, 2015

DATE OF PREVIOUS INSPECTION: August 29, 2010

INSPECTED BY: A. Passalis

REPORT PREPARED BY: A. Passalis

MONITORING EVENT: 8 (Year 15)

The inspector/reporter represents to the best of his/her knowledge that the following statements and observations are true and correct and to the best of the preparer's actual knowledge, no material facts have been suppressed or misstated.

TABLE XVIII: WEST LANDFILL VISUAL INSPECTION (PAGE 2 of 2)

Checklist Item	Present (Yes/No)	Location	Length (m)	Width (m)	Depth (m)	Extent	Description	Photographic Record	Severity Rating	Additional Comments
Settlement		FEATURE B See Figure CAM-M.5 (E toe)	3	1.2	0.15 - 0.2	<1%	Depression near toe of slope	WLF-20	Acceptable	No notable change from previous assessment.
Collisiidik		FEATURE C See Figure CAM-M.5 (N side)	61	0.2	0.14	<1%	Natural break point in slope	WLF-3, 6	Acceptable	This is a natural feature and is outside the area of the landfill regrade area.
		FEATURE D See Figure CAM-M.5 (N corner)	11	0.3 - 0.5	0.05 - 0.3	<1%	Two eroson channels	WLF-4, 5	Acceptable	Minor increase in length and depth from previous assessment. Self armouring.
Erosion	Yes	FEATURE A See Figure CAM-M.5 (S toe)	25	0.3 - 1.2	0.3	<1%	Minor erosion along southeast toe	WLF-14-16	Acceptable	Marginal increase in size of feature. Self armouring.
EIOSIOII	Tes	FEATURE E See Figure CAM-M.5 (NE side) - New Obs.	12	0.4 - 1.5	0.05 - 0.15	<1%	Minor erosion	WLF-9	Acceptable	New observation. Self armouring.
		FEATURE F See Figure CAM-M.5 (NE side) - New Obs.	10	0.3 - 0.5	0.05 - 0.1	<1%	Minor erosion	WLF-10, 11	Acceptable	New observation. Self armouring.
Frost Action	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not Observable	N/A
Animal Burrows	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not Observable	N/A
Vegetation	Yes	See Figure CAM-M.5 (cover and side slopes)	N/A	N/A	N/A	90%	Sparse to medium vegetation	WLF-2, 9, 10, 12	Acceptable	N/A
Staining	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not Observable	N/A
Vegetation Stress	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not Observable	N/A
Seepage Points	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not Observable	N/A
Debris Exposed	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not Observable	N/A
Presence/Condition of Monitoring Instruments	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not Observable	N/A
Other Features of Note:	No	FEATURE G See Figure CAM-M.5 (SE toe) - New Obs.	6	1 - 3	N/A	<1%	Minor ponding near toe of slope	WLF-18	Acceptable	New observation. Dense vegetation growth.
Additional Photos	Yes	See Figure CAM-M.5 and Photographic Record	N/A	N/A	N/A	N/A	General Photographic Record	N/A	Not Observable	General photos for documentation, no features of note.
erall Landfill Performance:	Acceptable		1	ı	<u> </u>	<u> </u>				

DOCUMENT FOR THE USE OF DEFENCE CONSTRUCTION CANADA

ENGLOBE CORP.

6.2 PRELIMINARY STABILITY ASSESSMENT

The Preliminary Stability Assessment for West Landfill has been completed as per the TOR and is included as Table XIX hereafter.

Table XIX: Preliminary Stability Assessment – West Landfill

Feature	Severity Rating	Extent			
Settlement	Acceptable	Isolated			
Erosion	Acceptable	Occasional			
Frost Action	Not observed	None			
Staining	Not observed	None			
Vegetation Stress	Not observed	None			
Seepage/Ponded Water	Acceptable	Isolated			
Debris exposure	Not observed	None			
Overall Landfill Performance	Acceptable				

Performance/ Severity Rating	Description
Acceptable	Noted features are of little consequence. The landfill is performing as designed. Minor deviations in environmental or physical performance may be observed, such as isolated areas of erosion, settlement.
Marginal	Physical/environmental performance appears to be deteriorating with time. Observations may include an increase in size or number of features of note, such as differential settlement, erosion or cracking. No significant impact on landfill stability to date, but potential for failure is assessed as low or moderate.
Significant	Significant or potentially significant changes affecting landfill stability, such as significant changes in slope geometry, significant erosion or differential settlement; scarp development. The potential for failure is assessed as imminent.
Unacceptable	Stability of landfill is compromised to the extent that ability to contain waste materials is compromised. Examples may include: Debris exposed in erosion channels or areas of differential settlement. Liner exposed. Slope failure.
Extent	Description
Isolated	Singular feature
Occasional	Features of note occurring at irregular intervals/locations
Numerous	Many features of note, impacted less than 50% of the surface area of the landfill
Extensive	Impacting greater than 50% of the surface area of the landfill

6.3 LOCATION PLAN

The Location Plan for the West Landfill has been completed as per the TOR and is presented in Figure CAM-M.5. Note that the figure is oriented with east on top. This was done to show the location of the NWS Landfill.

6.4 PHOTOGRAPHIC RECORDS

The Photographic Record for the West Landfill has been completed as per the TOR and is included in the following page as Table XX. Full-sized photographs are contained in the Addendum DVD-ROM.

Table XX: Landfill Visual Inspection Photo Log – West Landfill

Photo				Vantad	e Point	
(WLF-)	Filename	Size (MB)	Date	Easting	Northing	Caption
General		`				
1	CM15_8507	4,411	22/08/2015	9131	10940	View looking east alog north side of West Landfill
2	CM15_8508	4,288	22/08/2015	9129	10939	View looking south-southeast along west side of West Landfill
3	CM15_8509	1,239	08/09/2015	9130	10946	Panoramic view looking east to south from northwest corner of West Landfill. Note slope break on far left (Feature C)
4	CM15_8510	4,325	22/08/2015	9142	10942	Feature D: View looking east-northeast at erosion on slope north of landfill
5	CM15_8511	4,271	22/08/2015	9153	10947	Feature D: View looking west-southwest at erosion on slope north of landfill
6	CM15_8512	4,386	22/08/2015	9149	10948	View looking northeast at minor erosion and small ponded area north of landfill. Note slope break on left (Feature C)
7	CM15_8513	4,400	22/08/2015	9166	10944	View looknig west along north side of landfill
8	CM15_8514	4,305	22/08/2015	9172	10945	View looking southeast along northeast side of landfill
9	CM15_8515	4,394	22/08/2015	9176	10921	Feature E: View looking northeast at minor erosion on northeast side slope (new)
10	CM15_8516	4,354	22/08/2015	9190	10910	Feature F: View looking northeast at minor erosion on northeast side slope (new)
11	CM15_8517	4,376	22/08/2015	9204	10925	Feature F: View looking southwest at minor erosion on northeast side slope (new)
12	CM15_8518	4,418	22/08/2015	9199	10890	View looking northwest across cover from south side of landfill
13	CM15_8521	4,348	22/08/2015	9168	10846	View looking north at south corner of landfill
14	CM15_8522	4,345	22/08/2015	9195	10866	Feature A: View looking northeast at minor erosion in drainage channel extending along southeast toe of landfill
15	CM15_8523	4,375	22/08/2015	9209	10875	Feature A: View looking southwest at minor erosion in drainage channel extending along southeast toe of landfill
16	CM15_8524	4,355	22/08/2015	9217	10887	Feature A: View looking southwest at minor erosion in drainage channel extending along southeast toe of landfill
17	CM15_8525	4,371	22/08/2015	9232	10898	View looking west at east corner of landfill
18	CM15_8526	4,388	22/08/2015	9231	10896	Feature G: View looking southwest at ponded water and vegetation in drainage feature near toe on east corner of landfill
19	CM15_8527	4,248	22/08/2015	9227	10921	View looking southwest at east side of landfill
20	CM15_8528	4,363	22/08/2015	9218	10910	Feature B: View looking southwest at linear depression on east toe of landfill
21	CM15_8531	4,280	22/08/2015	9204	10935	View looking southwest at east side of landfill
22	CM15_8532	4,401	22/08/2015	9164	10937	View looking north at former drainage feature extending from north toe of landfill. Sample location CM-6A/B in background
Soil Sampling						
CM-5	CM15_8519	4,412	22/08/2015	9144	10902	Samples CM15-5A/B located upgradient of West Landfill
S5	CM15_8520	4,391	22/08/2015	9141	10899	View looking southwest at CM-5 soil sampling location
CM-6	CM15_8533	4,321	22/08/2015	9165	10949	Samples CM15-6A/B located downgradient of West Landfill
S6	CM15_8534	4,424	22/08/2015	9164.4	10952.9	View looking south at CM-6 soil sampling location
CM-7	CM15_8529	4,358	22/08/2015	9216.9	10918.5	Samples CM15-7A/B located downgradient of West Landfill
S7	CM15_8530	4,410	22/08/2015	9220	10920.8	View looking southwest at CM-7 soil sampling location

6.5 SOIL SAMPLE ANALYTICAL DATA

The soil chemical analysis results for the 2015 West Landfill samples are presented in Table XXI hereafter. Certificates of analyses and results of field duplicates collected as part of the QA/QC program are presented in Annexes 1 and 2 at the end of this report.

Table XXI: West Landfill Summary Table for Soil Analytical Data

								Parame	ters						
Sample #	Location	Depth	As	Cd	Cr	Co	Cu	Pb [mg/kg]	Ni	Zn	Hg	PCBs	F1	F2	F3
Gample #	Location	(cm)	[mg/kg]	[mg/kg]	[mg/kg]	[mg/kg]	[mg/kg]		[mg/kg]	[mg/kg]	[mg/kg]		C ₆ -C ₁₀	C ₁₀ -C ₁₆	C ₁₆ -C ₃₄
													[mg/kg]	[mg/kg]	[mg/kg]
Detection Limit			0.2	0.01	0.5	0.1	1.0	0.1	0.5	1	0.05	0.05	10	40	40
Upgradient Soil Samples											•			•	
CM15-5A	CM-5	0-15	2.4	0.03	8.7	2.5	4.8	3.8	6.0	7	<0.05	<0.05	<10	<40	<40
CM15-5B	CIVI-5	40-50	2.2	0.02	8.3	2.5	17.4	3.6	6,6	6	<0.05	< 0.05	<10	<40	<40
Downgradient Soil Samples															
CM15-6A	CM-6	0-15	2.2	0.10	11.5	3.1	10.7	5.9	9.3	21	0.05	<0.05	<10	<40	124
CM15-6B	CIVI-0	40-50	2.2	0.12	12.3	2.9	10.3	6.2	8.9	20	< 0.05	< 0.05	<10	<40	127
CM15-7A		0-15	2.1	0.59	10.3	2.1	10.7	3.1	8	8	<0.05	<0.05	<10	<40	<40
CM15-7B		40-50	1.0	0.25	5.7	1.5	4.1	1.8	4.1	5	< 0.05	< 0.05	<10	<40	<40
CM15-BD2 (Intra-Lab Duplicate)	CM-7	40-50	1.0	0.32	6.6	1.4	6.9	2.0	4.9	13	< 0.05	< 0.05	<10	<40	<40
CM15-7B (Inter-Lab Duplicate)		40-50	<1.0	0.19	4.5	1.1	3.9	1.6	3.2	<10	<0.050	<0.010	<12	<10	<50
Average value for CM15-7B sample		40-50	0.7 ± 0.6	0.25 ± 0.07	5.6 ± 1.1	1.3 ± 0.2	5.0 ± 1.7	1.8 ± 0.2	4.1 ± 0.9	6.0 ± 6.6					

7 AIRSTRIP LANDFILL

7.1 SUMMARY

On August 23, 2015, a visual inspection was completed at the Airstrip Landfill. Soil sampling was completed at six stations located upgradient and downgradient of the landfill areas.

No PCB or relatively high metal concentrations were detected in any of the soil samples collected. Detectable concentrations of TPH (PHC F3 Fraction) were noted in the surface samples collected at upgradient location CM-9 (59 mg/kg) and down gradient locations CM-10 (76 mg/kg), CM-12 (124 mg/kg) and CM-13 (137 mg/kg).

As of the 2015 monitoring event, no features were identified with "significant" or "unacceptable" severity ratings. Minor settlement was noted at eight locations across the landfill areas, including: one previously observed infilled crack on the south crest of Area 8 (Feature I); three new pothole and linear depressions on the north, west and southwest sides of Area 2 (Features K, L and M, respectively); one new linear depression on the west side of Area 3 (Feature N); one new linear depression on the southeast corner of Area 4 (Feature P); one new pothole depression on the south cover of Area 8 (Feature T); and one new pothole depression on the east area of the landfill (Feature W). As noted above, the one previously observed feature was completely infilled and was noted to have decreased in size from the previous 2010 assessment. The landfill cover was noted to be stable.

Two new areas of minor erosion were observed at the Airstrip Landfill, including one location on the southwest side of Area 3 (Feature O) and the other location on the east side of Area 11 (Feature V). One previously noted area of erosion on the south slope of Area 8 (Feature J) was not observed during the 2015 assessment.

Sparse to moderate vegetation growth was noted at Areas 5, 8 and 11 at the Airstrip Landfill. This is a notable increase from notations made during the previous 2010 assessment.

Partially exposed or surface debris was noted at six locations on the Airstrip Landfill, including three previously observed locations (Features B, F and H) and three new locations (Features Q, R and S). Debris consisted primarily of isolated small items (tin cans, cable, wire, crushed barrel) in proximity to Areas 1, 7 and 8.

Two drainage features were observed east of Area 5 (Feature U1) and west of Area 9 (Feature U2), and consisted of localized runoff extending from culverts within the all-weather road bordering the north side of the landfill. The drainage channels appeared stable and were not in contact with the respective landfill areas.

At this time, the overall performance of the landfill is rated as acceptable.

The Visual Inspection Checklist is included in Table XXII of this report and has been completed as per the TOR. Please refer to Figures CAM-M.6A and CAM-M.6B for a sketch of the Airstrip Landfill detailing the location of photographs, settlement, erosional and debris features.

Table XXII: Visual Inspection Checklist - Airstrip Landfill

DEW Line Cleanup: Post-construction - Landfill Monitoring Visual Inspection Checklist

Inspection Report - Page 1 of 2

SITE NAME: CAM-M Cambridge Bay

LANDFILL DESIGNATION: Airstrip Landfill (Previously observed Regrade Landfill)

DATE OF INSPECTION: August 23, 2015

DATE OF PREVIOUS INSPECTION: August 28, 2010

INSPECTED BY: A. Passalis

REPORT PREPARED BY: A. Passalis

MONITORING EVENT: 8 (Year 15)

The inspector/reporter represents to the best of his/her knowledge that the following statements and observations are true and correct and to the best of the preparer's actual knowledge, no material facts have been suppressed or misstated.

TABLE XXII: AIRSTRIP LANDFILL VISUAL INSPECTION (PAGE 2 of 2)

Checklist Item	Present (Yes/No)	Location	Length (m)	Width (m)	Depth (m)	Extent	Description	Photographic Record	Severity Rating	Additional Comments	
		FEATURE I See Figure CAM-M.6 (S crest - Area 8)	13	0.15	0.05	<1%	Infilled tension crack	ALF-29, 30	Acceptable	Completely infilled crack. Marginal decrease in size from previous assessment.	
		FEATURE K See Figure CAM-M.6 (N side - Area 2) - New Obs.	0.4	0.3	0.15	<1%	Pothole depression	ALF-8	Acceptable	New observation. Cover appears stable.	
		FEATURE L See Figure CAM-M.6 (W side - Area 2) - New Obs.	3	0.15	0.1	<1%	Linear depression	ALF-9	Acceptable	New observation. Cover appears stable.	
Settlement	Yes	FEATURE M See Figure CAM-M.6 (SW side - Area 2) - New Obs.	0.5	0.3	0.2	<1%	Pothole depression	ALF-10	Acceptable	New observation. Cover appears stable.	
		FEATURE N See Figure CAM-M.6 (W side - Area 3) - New Obs.	2.5	0.1	0.1	<1%	Linear depression	ALF-12	Acceptable	New observation. Cover appears stable.	
		FEATURE P See Figure CAM-M.6 (SE comer - Area 4) - New Obs.	3	0.3	0.15	<1%	Linear depression	ALF-20	Acceptable	New observation. Cover and side slope appear stable.	
		FEATURE T See Figure CAM-M.6 (S cover - Area 8) - New Obs.	0.3	0.2	0.15	<1%	Pothole depression	ALF-31	Acceptable	New observation. Cover and side slope appear stable.	
		FEATURE W See Figure CAM-M.6 (Below fill - E area) - New Obs.	1.2	1.2	0.4	<1%	Pothole depression	ALF-58, 59	Acceptable	New observation. Located away from regrade areas.	
		FEATURE J See Figure CAM-M.4 (S slope - Area 8)	0	0	0	<1%	Rills	ALF-32, 33	Not Observable	Feature not observed.	
Erosion	Yes	FEATURE O See Figure CAM-M.6 (SW side - Area 3) - New Obs.	4.5	0.2	0.15	<1%	Minor erosion	ALF-13	Acceptable	New observation. Self armouring.	
		FEATURE V See Figure CAM-M.6 E side - Area 11) - New Obs.	5	0.3 - 0.5	0.05 - 0.15	<1%	Minor erosion	ALF-39, 40	Acceptable	New observation. Self armouring.	
Frost Action	No No	N/A N/A	N/A N/A	N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	Not Observable	N/A N/A	
Animal Burrows	INO		N/A	N/A	IN/A	N/A		IVA	Not Observable	IVA	
Vegetation Staining	Yes	See Figure CAM-M.4 (Areas 5, 8, 11) N/A	0 N/A	0 N/A	0 N/A	3% N/A	Sparse to moderate vegetation growth	ALF-16, 29-33, 40-43	Acceptable Not Observable	Notable increase from the 2010 assessment. N/A	
Vegetation Stress	No No	N/A	N/A N/A	N/A N/A	N/A	N/A N/A	N/A N/A	N/A	Not Observable	N/A N/A	
Seepage Points	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not Observable	N/A	
		FEATURE B See Figure CAM-M.6 (W of Area 1)	2	0.01	N/A	<1%	Partially exposed cable	ALF-3	Acceptable	No change from previous assessment.	
		FEATURE H See Figure CAM-M.6 (downslope of graded areas)	0	0	0	<1%	Scattered rusted tin cans	ALF-54, 55	Acceptable	No change from previous assessment.	
Debris Exposed	Yes	Feature F See Figure CAM-M.6 (Toe of slope - Area 8)	0	0	0	<1%	Crushed barrel	ALF-27	Acceptable	No change from previous assessment.	
		Feature Q See Figure CAM-M.6 (Cover - Area 7) - New Obs.	0.6	0	0	<1%	Partly exposed cable	ALF-21	Acceptable	New Observation.	
		Feature R See Figure CAM-M.6 (Toe ofslope- Area 8) - New Obs.	0.15	0.04	N/A	<1%	Piece of hose	ALF-25	Acceptable	New Observation. Surface debris.	
		Feature S See Figure CAM-M.6 (Toe ofslope- Area 8) - New Obs.	0.3	0.005	N/A	<1%	Piece of wire	ALF-28	Acceptable	New Observation. Partially exposed debris.	
Other Fred		FEATURE U1 See Figure CAM-M.6 (E of Area 5) - New Obs.	17	1 - 2	0.3	<1%	Drainage Feature	ALF-14, 15	Acceptable	New observation. Excavated channel south of road culvert. Not in contact with regraded area.	
Other Features of Note:	No	FEATURE U2 See Figure CAM-M.6 (W of Area 9) - New Obs.	25	0.3 - 0.8	0.1 - 0.3	<1%	Drainage Feature	ALF-34	Acceptable	New observation. Natural drainage channel extending south of road culvert. Not in conta- with regraded area.	
Additional Photos	Yes	See Figure CAM-M.6 and Photographic Record	N/A	N/A	N/A	N/A	General Photographic Record	N/A	Not Observable	General photos for documentation, no features of note.	
Overall Landfill Performance:	Acceptable		•							•	

7.2 PRELIMINARY STABILITY ASSESSMENT

The Preliminary Stability Assessment for Airstrip Landfill has been completed as per the TOR and is included as Table XXIII hereafter.

Table XXIII: Preliminary Stability Assessment – Airstrip Landfill

Feature	Severity Rating	Extent
Settlement	Acceptable	Occasional
Erosion	Acceptable	Isolated
Frost Action	Not observed	None
Staining	Not observed	None
Vegetation Stress	Not observed	None
Seepage/Ponded Water	Not observed	None
Debris exposure	Acceptable	Isolated
Overall Landfill Performance	Acceptal	ble

Performance/ Severity Rating	Description
Acceptable	Noted features are of little consequence. The landfill is performing as designed. Minor deviations in environmental or physical performance may be observed, such as isolated areas of erosion, settlement.
Marginal	Physical/environmental performance appears to be deteriorating with time. Observations may include an increase in size or number of features of note, such as differential settlement, erosion or cracking. No significant impact on landfill stability to date, but potential for failure is assessed as low or moderate.
Significant	Significant or potentially significant changes affecting landfill stability, such as significant changes in slope geometry, significant erosion or differential settlement; scarp development. The potential for failure is assessed as imminent.
Unacceptable	Stability of landfill is compromised to the extent that ability to contain waste materials is compromised. Examples may include: Debris exposed in erosion channels or areas of differential settlement. Liner exposed. Slope failure.
Extent	Description
Isolated	Singular feature
Occasional	Features of note occurring at irregular intervals/locations
Numerous	Many features of note, impacted less than 50% of the surface area of the landfill
Extensive	Impacting greater than 50% of the surface area of the landfill

7.3 LOCATION PLAN

The Location Plan for the Airstrip Landfill has been completed as per the TOR and is presented in Figures CAM-M.6A and CAM-M.6B.

LEGEND

CAM100 ☐ TEMPORARY BENCHMARK

MONITORING SOIL SAMPLE LOCATION

8 APPROXIMATE PHOTOGRAPH LOCATION

A EXPOSED/SURFACE DEBRIS

DEPRESSION / SETTLEMENT



1	FINAL	16-03-29	P.L.	A.P.	M.F.
NO.	VERSION	DATE	BY	VERIF.	APPR.



COLLECTION OF LANDFILL MONITORING DATA

CAM-M, CAMBRIDGE BAY, NUNAVUT

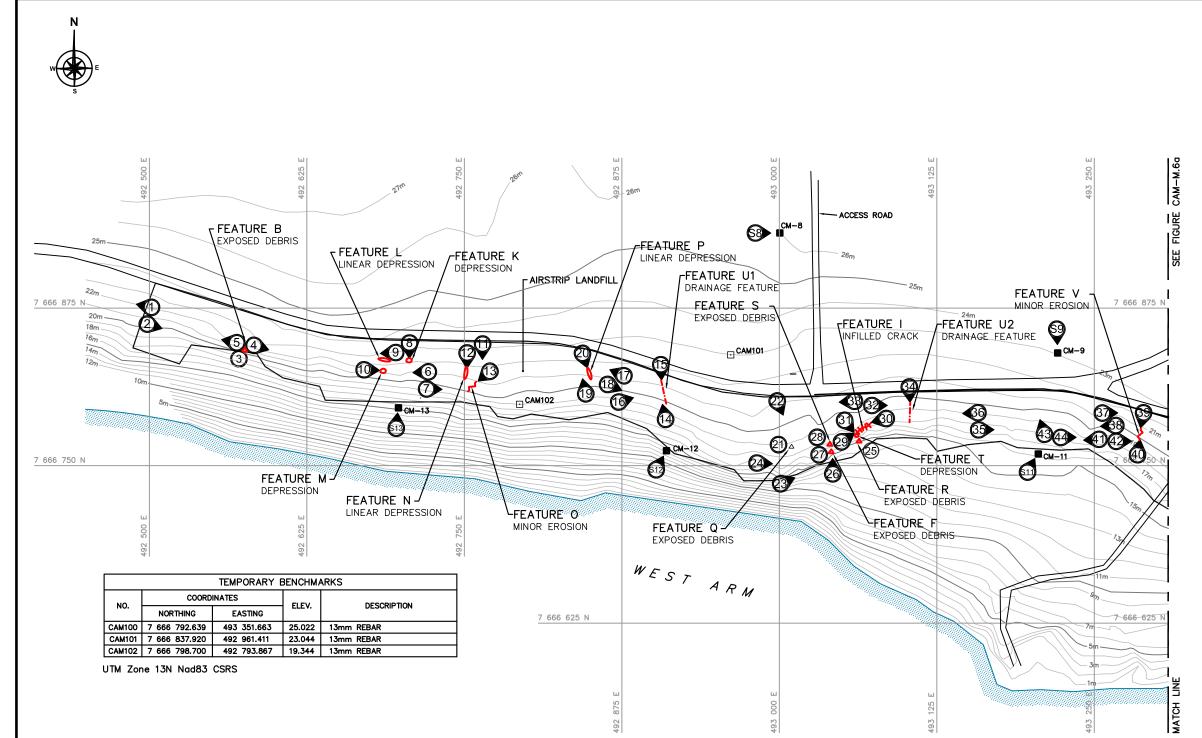
AIRSTRIP LANDFILL



4495, Wilfrid-Hamel boulevard Quebec (Quebec) Canada, G1P 2J7 Phone: 418.653.4422 www.englobecorp.com

MEASUREMENT UNIT	SCALE:	DATE (month-year):
Metre	1 : 3,000	MARCH 2016
DRAWN BY:	VERIFIED BY:	APPROVED BY:
P. LÉGARÉ	A. PASSALIS P. ENG	M. FLEURY P. ENG
PROJECT NO:	DRAWING NO:	PAGE
CD2656_500_503	CD2656_500_503-CAM-MF	PL

FIGURE CAM-M.6a



LEGEND

CAM101 ☐ TEMPORARY BENCHMARK

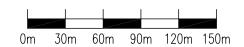
MONITORING SOIL SAMPLE LOCATION

3 APPROXIMATE PHOTOGRAPH LOCATION

A EXPOSED/SURFACE DEBRIS

CONTRACT EROSION

DEPRESSION / SETTLEMENT



1	FINAL	16-03-29	P.L.	A.P.	M.F.
NO.	VERSION	DATE	BY	VERIF.	APPR.



COLLECTION OF LANDFILL MONITORING DATA CAM-M, CAMBRIDGE BAY, NUNAVUT

AIRSTRIP LANDFILL



4495, Wilfrid-Hamel boulevard Suite 200 Quebec (Quebec) Canada, G1P 2J7 Phone: 418.653.4422 www.englobecorp.com

MEASUREMENT UNIT Metre	SCALE: 1 : 3,000	DATE (month-year): MARCH 2016			
drawn by: P. LÉGARÉ	VERIFIED BY: A. PASSALIS P. ENG	APPROVED BY: M. FLEURY P. ENG			
PROJECT NO: CD2656_500_503	DRAWING NO: CD2656_500_503-CAM-MG	PAGE PL			

FIGURE CAM-M.6b

7.4 PHOTOGRAPHIC RECORDS

The Photographic Record for the Airstrip Landfill has been completed as per the TOR and is included in the following page as Table XXIV. Full-sized photographs are contained in the Addendum DVD-ROM.

Table XXIV: Landfill Visual Inspection Photo Log – Airstrip Landfill

Photo		Size		Vanta	ge Point	
(ALF-)	Filename	(MB)	Date	Easting	Northing	Caption
General	01445 0704	4.000	00/00/0045	100500	7000074	No. 1 at 12 and 15 and 15 at 1
2	CM15_8764 CM15_8765	4,323 4,338	23/08/2015 23/08/2015	492500 492498	7666871 7666868	View looking west from west end of Airstrip Landfill area View looking east from west end of Airstrip Landfill area
3	CM15_8766	4,350	23/08/2015	492576	7666840	Feature B: View of piece of partially exposed cable
4	CM15_8767	4,236	23/08/2015	492578	7666845	View looking east at rough grading west of Area 1
5	CM15_8768	4,279	23/08/2015	492575	7666845	View looking west at rough grading west of Area 1
6	CM15_8769	4,292	23/08/2015	492722	7666821	View looking west between Areas 2 & 3
7	CM15_8770	4,304	23/08/2015	492721	7666818	View looking east between Areas 2 & 3
8	CM15_8771	4,278	23/08/2015	492706	7666839	Feature K: View looking south at pothole depression on north side of Area 2 (new)
9	CM15_8772	4,323	23/08/2015	492693	7666833	Feature L: View looking west at linear depression on west side of Area 2 (new)
10 11	CM15_8773 CM15_8774	4,382 4,381	23/08/2015 23/08/2015	492682 492764	7666825 7666834	Feature M: View looking east at small depression on southwest side of Area 2 (new)
12	CM15_8775	4,330	23/08/2015	492751	7666828	View looking south aross Area 3 Feature N: View looking south at linear depression on west side of Area 3 (new)
13	CM15_8776	4,382	23/08/2015	492760	7666816	Feature O: View looking southwest at minor erosion on southwest corner of Area 3 (new)
14	CM15_8782	4,438	23/08/2015	492908	7666799	Feature U1: View looking northwest at drainage feature located east of Area 5 (new)
15	CM15_8783	4,329	23/08/2015	492906	7666817	Feature U1: View looking southeast at drainage feature located east of Area 5 (new)
16	CM15_8784	4,395	23/08/2015	492883	7666803	View looking northeast across cover of Area 5
17	CM15_8785	4,417	23/08/2015	492871	7666820	View looking northwest between Areas 4 & 5
18	CM15_8786	4,354	23/08/2015	492870	7666817	View looking southeast between Areas 4 & 5
19 20	CM15_8787 CM15_8788	4,371 4,287	23/08/2015 23/08/2015	492847 492849	7666818 7666827	View looking northwest at sparse vegetation on cover of Area 4
21	CM15_8791	4,418	23/08/2015	493008	7666765	Feature P: View looking southeast at linear depression at southeast of Area 4 (new) Feature Q: View of partially exposed cable on cover of Area 7
22	CM15_8791	4,418	23/08/2015	493003	7666790	View looking southwest across cover of Area 7
23	CM15_8793	4,303	23/08/2015	493004	7666739	View looking northeast at crest of slope
24	CM15_8794	4,364	23/08/2015	492994	7666749	View lookinng east along south toe of Area 7
25	CM15_8795	4,433	23/08/2015	493064	7666770	Feature R: Piece of hose debris near toe of slope of Area 8 (new)
26	CM15_8796	4,208	23/08/2015	493043	7666746	View looking north at south slope of Area 8
27	CM15_8797	4,320	23/08/2015	493040	7666760	Feature F: View of crushed drum at toe of south slope of Area 8
28	CM15_8798	4,367	23/08/2015	493039	7666768	Feature S: View of partially exposed black wire on south slope of Area 8 (new)
29	CM15_8799	4,268	23/08/2015	493058	7666774	Feature I: View looking northeast at infilled tension crack on south crest of Area 8
30 31	CM15_8800 CM15_8801	4,380 4,352	23/08/2015 23/08/2015	493073 493061	7666785 7666774	Feature I: View looking southwest at infilled tension crack on south crest of Area 8 Feature T: View looking southeast at pothole depression on south cover of Area 8
32	CM15_8802	4,332	23/08/2015	493068	7666798	View looking east across cover of Area 8
33	CM15_8803	4,430	23/08/2015	493064	7666798	View looking west across cover of Area 8
34	CM15_8804	4,298	23/08/2015	493103	7666801	Feature U2: View looking south at drainage feature located west of Area 9 (new)
35	CM15_8805	4,183	23/08/2015	493158	7666782	View looking east between Areas 9 & 10
36	CM15_8806	4,306	23/08/2015	493159	7666787	View looking west between Areas 9 & 10
37	CM15_8809	4,297	23/08/2015	493261	7666785	View looking east at sparse vegetation on cover of Area 11
38	CM15_8810	4,391	23/08/2015	493261	7666783	View looking west at sparse vegetation on cover of Area 11
39 40	CM15_8811	4,306	23/08/2015	493287 493285	7666780	Feature V: View looking south at minor erosion on east side of Area 11 (new)
41	CM15_8812 CM15_8813	4,338 4,274	23/08/2015 23/08/2015	493258	7666768 7666770	Feature V: View looking north at minor erosion on east side of Area 11 (new) View looking west along south toe of Area 11
42	CM15_8814	4,369	23/08/2015	493262	7666770	View looking east along south toe of Area 11
43	CM15_8815	4,394	23/08/2015	493214	7666776	View looking northwest along west side of Area 11
44	CM15_8816	4,363	23/08/2015	493217	7666774	View looking east from southwest corner of Area 11
45	CM15_8819	4,305	23/08/2015	493733	7666671	View looking east west of Area 12
46	CM15_8820	4,280	23/08/2015	493731	7666675	View looking west, west of Area 12
47	CM15_8821	4,375	23/08/2015	493876	7666636	View looking east near large gravel stockpile
48 49	CM15_8822 CM15_8823	4,389 4,393	23/08/2015 23/08/2015	493872 493955	7666642 7666633	View looking west near large gravel stockpile View looking west from east end of Airstrip Landfill area
50	CM15_8826	4,393	23/08/2015	493935	7666707	View looking west from east end of Aristrip Landilli area View looking west at new monitoring well installed downgradient of new land treatment cell
51	CM15_8827	4,324	23/08/2015	493615	7666645	View looinig southeast from CM-10 at cliff along south side of Airstrip Landfill
52	CM15_8828	4,281	23/08/2015	493606	7666685	View looking northwest at new monitoring well installed downgradient of new land treatment cell
53	CM15_8829	4,400	23/08/2015	493601	7666690	View looking southeast at new monitoring well installed downgradient of new land treatment cell
54	CM15_8830	4,341	23/08/2015	493532	7666706	Feature H: View looking south at miscellaneous tin can debris
55	CM15_8831	4,340	23/08/2015	493532	7666697	Feature H: View of miscellaneous tin can debris
56	CM15_8832	4,426	23/08/2015	493510	7666705	View looking west across landfill area
57	CM15_8833	4,345	23/08/2015	493510	7666701	View looking east across landfill area
58	CM15_8834	4,428	23/08/2015	493544	7666697	Feature W: View of depression below fill area (new)
59 60	CM15_8835	4,405	23/08/2015 23/08/2015	493543	7666703	Feature W: View looking south at depression below fill area (new) View looking west across landfill area
61	CM15_8836 CM15_8837	4,353 4,435	23/08/2015	493876 493872	7666636 7666642	View looking east across landfill area
		4,433	23/00/2013	493072	7000042	View looking east across landiii alea
Soil Samp	-					
CM-8	CM15_8807	4,395	23/08/2015	492998	7666934	Samples CM15-8A/B located upgradient of Area 7
S8 CM 0	CM15_8808	4,457	23/08/2015 23/08/2015	492992	7666934	View looking east at CM-8 soil sampling location
CM-9 S9	CM15_8817 CM15_8818	4,409 4,350	23/08/2015	493222 493221	7666840 7666846	Samples CM15-9A/B located upgradient of Area 11 View looking south at CM-9 soil sampling location
CM-10	CM15_8838	4,350	23/08/2015	493221	7666702	Samples CM15-10A/B located downgradient of Airstrip Landfill
S10	CM15_8839	4,420	23/08/2015	493576	7666698	View looking north at CM-10 soil sampling location
CM-11	CM15_8824	4,365	23/08/2015	493206	7666759	Samples CM15-11A/B located downgradient of Area 11
S11	CM15_8825	4,373	23/08/2015	493205	7666752	View looking northeaset at CM-11 soil sampling location
CM-12	CM15_8789	4,342	23/08/2015	492910	7666761	Samples CM15-12A/B located downgradient of Area 6
S12	CM15_8790	4,287	23/08/2015	492906.4	7666754	View looking northeast at CM-12 soil sampling location
CM-13	CM15_8777	4,397	23/08/2015	492697.6	7666794.6	Samples CM15-13A/B located downgradient of Area 2
S13	CM15_8778	4,359	23/08/2015	492697.4	7666786.9	View looking north at CM-13 soil sampling location

7.5 SOIL SAMPLE ANALYTICAL DATA

The soil chemical analysis results for the 2015 Airstrip Landfill samples are presented in Table XXV hereafter. Certificates of analyses and results of field duplicates collected as part of the QA/QC program are presented in Annexes 1 and 2 at the end of this report.

Table XXV: Airstrip Summary Table for Soil Analytical Data

								Parame	ters												
Sample #	Sample # Location		As [mg/kg]	Cd [mg/kg]	Cr [mg/kg]	Co [mg/kg]	Cu [mg/kg]	Pb [mg/kg]	Ni [mg/kg]	Zn [mg/kg]	Hg [mg/kg]	PCBs [mg/kg]	F1 C ₆ -C ₁₀ [mg/kg]	F2 C ₁₀ -C ₁₆ [mg/kg]	F3 C ₁₆ -C ₃₄ [mg/kg]						
Detection Limit		0.2	0.01	0.5	0.1	1.0	0.1	0.5	1	0.05	0.05	10	40	40							
Upgradient Soil Samples																					
CM15-8A		0-15	1.7	0.07	13.0	3.5	8.4	3.7	9.5	17	<0.05	<0.05	<10	<40	<40						
CM15-8B		40-50	2.8	0.04	24.2	6.7	12.7	5.4	16.7	24	<0.05	<0.05	<10	<40	<40						
CM15-BD6 (Intra-Lab Duplicate)	CM-8	40-50	3.2	0.05	22.7	7.0	14.5	5.6	15.9	27	<0.05	<0.05	<10	<40	<40						
CM15-8B (Inter-Lab Duplicate)		40-50	2.4	<0.05	23.0	6.4	14	5.3	15	35	<0.050	<0.010	<12	<10	<50						
Average value for CM15-8B Sample		40-50	2.8 ± 0.4	0.05 ± 0.01	23.3 ± 0.8	6.7 ± 0.3	13.7 ± 0.9	5.4 ± 0.2	15.9 ± 0.9	29 ± 6											
CM15-9A	CM-9	0-15	1.3	0.18	12.4	2.0	22.0	2.9	13.8	15	0.07	<0.05	<10	<40	59						
CM15-9B	Civi-9	40-50	2.9	0.02	15.7	6.6	12.2	4.8	12.8	14	<0.05	<0.05	<10	<40	<40						
Downgradient Soil Samples			•												_						
CM15-10A	CM-10	0-15	5.1	0.10	16.4	6.1	14.7	12.3	13.6	20	<0.05	<0.05	<10	<40	76						
CM15-10B	OIVI-10	40-50	3.6	0.02	24.0	12.7	56.2	13.1	22.5	20	<0.05	<0.05	<10	<40	<40						
CM15-11A	CM-11	0-15	2.5	0.07	10.4	3.1	10.6	5.1	8.2	13	0.06	<0.05	<10	<40	<40						
CM15-11B	OIVI-11	40-50	1.8	0.01	9.2	3.1	5.3	3.0	6.7	8	<0.05	<0.05	<10	<40	<40						
CM15-12A	CM-12	0-15	3.6	0.06	12.7	4.1	9.3	12.6	9.0	19	<0.05	<0.05	<10	<40	124						
CM15-12B	CIVI-12	40-50	6.6	0.02	23.4	6.4	14.9	9.8	11.7	17	<0.05	<0.05	<10	<40	<40						
CM15-13A		0-15	3.2	0.13	15.1	4.2	9.9	8.8	10.9	30	0.06	<0.05	<10	<40	137						
CM15-13B		40-50	2.8	0.02	7.6	2.9	5.5	3.8	8.8	6	< 0.05	< 0.05	<10	<40	<40						
CM15-BD1 (Intra-Lab Duplicate)	CM-13	40-50	2.6	0.03	11	2.2	4.2	3.4	12.4	7	0.08	<0.05	<10	<40	<40						
CM15-13B (Inter-Lab Duplicate)		40-50	1.9	0	12	1.9	3.6	3.4	6.4	<10	< 0.050	<0.010	<12	<10	<50						
Average value for CM15-13B Sample		40-50	2.7 ± 0.1	0.02 ± 0.02	10.2 ± 2.3	2.6 ± 0.5	4.9 ± 0.9	3.6 ± 0.3	10.6 ± 2.5	6.5 ± 0.7											

8 TIER II DISPOSAL FACILITY

8.1 SUMMARY

On August 22, 2015 a visual inspection was completed at the Tier II Disposal Facility. Soil sampling was completed at four stations located upgradient and downgradient of the facility. Thermal monitoring was completed at four thermistor locations on August 16, 2015 and groundwater sampling was completed at four monitoring well locations on August 23, 2015.

No PCB or relatively high metal concentrations were detected in any of the soil samples collected. A detectable concentration of TPH (PHC F3 Fraction) was noted in the depth sample collected at downgradient location MW-12 (67 mg/kg). Slightly elevated concentrations of cadmium, copper and mercury were detected in the surface sample collected at downgradient location MW-11 (0.15 mg/kg, 32.4 mg/kg and 0.1 mg/kg, respectively).

No PCB, TPH or relatively high metal concentrations were detected at any of the wells sampled, with the exception of downgradient well MW-11, which noted slightly elevated levels of nickel (0.584 mg/L).

As of the 2015 monitoring event, no features were identified with "significant" or "unacceptable" severity ratings. Indications of minor settlement were noted at four locations on the Tier II Disposal Facility, including two previously observed locations on the northeast crest, including a partially infilled crack (Feature D) and an irregular shaped depression (Feature E). Both features exhibited a minor increase in depth from the previous 2010 assessment. Two new settlement features, consisting of localized pothole depressions were noted on the northeast toe (Feature M) and northwest crest (Feature O). Settlement features B3 and B4, noted during the previous 2010 assessment were not observed.

Evidence of minor surface erosion was noted at twelve locations at the Tier II Disposal Facility, including six previously observed areas on the southeast side slope (Feature B), northeast side slope (Features F and I1 to I3) and northwest side slope (Feature J). Feature B was previously identified as a tension crack, Feature B1 and is possibly infilled. Similarly Feature F was also the location of former tension crack. There was a notable decrease in the size of Features I1 to I3, whereas Feature J was consistent with the previous 2010 assessment. New areas of minor erosion were observed on the northeast side slope (Features I4 and L), three locations on the northwest side slope (Features J2 to J4) and one location on the east slope (Feature K). The majority of features were noted to be self-armouring.

Four seepage points were noted within a wetted area along the north toe of the Tier II Disposal Facility. This feature (Feature N) also includes localized algal growth in the immediate area of each seepage point. This feature was not observed during the previous 2010 assessment. Previously noted seepage along the northeast toe was not observed during the 2015 assessment.

Two previously observed locations of exposed geotextile debris were observed on the southeast side slope (Features A1 and A2), and were consistent with the previous assessment.

Two previously observed tension cracks were re-assessed on the southeast corner slope (Feature B2) and east crest (Feature C) of the Tier II Disposal Facility. Feature B2 exhibited a notable increase in size, where Feature C was infilled and appeared consistent with the previous 2010 assessment.

Very sparse vegetation was observed on the south cover and southwest and southeast side slopes. There was no vegetation noted during the previous 2010 assessment.

At this time, the overall performance of the landfill is rated as acceptable.

The Visual Inspection Checklist is included in Table XXVI of this report and has been completed as per the TOR. Please refer to Figure CAM-M.7 for a sketch of the Tier II Disposal Facility detailing the location of photographs, settlement, erosional, debris and seepage features.

Table XXVI: Visual Inspection Checklist - Tier II Disposal Facility

DEW Line Cleanup: Post-construction - Landfill Monitoring Visual Inspection Checklist

Inspection Report - Page 1 of 3

SITE NAME: CAM-M Cambridge Bay

LANDFILL DESIGNATION: Tier II Disposal Facility (New Landfill)

DATE OF INSPECTION: August 22, 2015

DATE OF PREVIOUS INSPECTION: August 28, 2010

INSPECTED BY: A. Passalis

REPORT PREPARED BY: A. Passalis

MONITORING EVENT NUMBER: 8 (YEAR15)

The inspector/reporter represents to the best of his/her knowledge that the following statements and observations are true and correct and to the best of the preparer's actual knowledge, no material facts have been suppressed or misstated.

TABLE XXVI: TIER II DISPOSAL FACILITY VISUAL INSPECTION (PAGE 2 of 3)

Checklist Item	Present (Yes/No)	Location	Length (m)	Width (m)	Depth (m)	Extent	Description	Photographic Record	Severity Rating	Additional Comments
		FEATURE B3 See Figure CAM-M.7 (SE slope)	10	0,16	0,16	<1%	B3 at the toe of the slope	TII-22, 25	Not Observable	Feature not observed. Assumed to be infilled.
		FEATURE B4 See Figure CAM-M.7 (SE slope)	6	0,05	0,06	<1%	B4 Tension Crack	TII-22, 25	Not Observable	Feature not observed. Assumed to be infilled.
		FEATURE D See Figure CAM-M.7 (NE crest)	5	0,05	0,1	Isolated (<1%)	Partially infilled crack	TII-37-29	Acceptable	Minor increase in depth. Crest appears stable.
Settlement	Yes	FEATURE E See Figure CAM-M.7 (NE crest)	1,4	1	0,25	Isolated (<1%)	Irregular depression	TII-42, 43	Acceptable	Minor increase in depth. Crest appears stable.
		FEATURE G See Figure CAM-M.7 (NE crest)	15,75	0,01	0,02	<1%	Hairline tension crack at crest	TII-48	Not Observable	Feature not observed. Assumed to be infilled.
		FEATURE M See Figure CAM-M.7 (NE toe) - New Obs.	0,7	0,5	0,15	Isolated (<1%)	Pothole depression	TII-35, 36	Acceptable	New observation. Localized depression.
		FEATURE O See Figure CAM-M.7 (NW crest) - New Obs.	1,2	1	0,1	Isolated (<1%)	Pothole depression	TII-60	Acceptable	New observation. Localized depression.
		FEATURE B See Figure CAM-M.7 (SE slope)	15	0,2	0,1		Minor erosion	TII-19, 20	Acceptable	Formerly identified as B1 (tension crack) in 2010. Possibly infilled.
		FEATURE F See Figure CAM-M.7 (NE slope)	3	0.1 - 0.15	0.02 - 0.03		Minor erosion	TII-32, 33	Acceptable	Former location of crack. Minor settlement also noted.
		FEATURE I1 See Figure CAM-M.7 (NE slope)	18	0,3	0,05		Minor erosion	TII-44	Acceptable	Minor decrease in size from previous 2010 assessment. Self armouring. Slope appears stable.
		FEATURE I2 See Figure CAM-M.7 (NE slope)	17	0,3	0.05 - 0.10		Minor erosion	TII-45, 57	Acceptable	Minor decrease in size from previous 2010 assessment. Self armouring. Slope appears stable.
		FEATURE I3 See Figure CAM-M.7 (NE slope)	18	0,3	0,05		Minor erosion	TII-46, 56	Acceptable	Minor decrease in size from previous 2010 assessment. Self armouring. Slope appears stable.
		FEATURE I4 See Figure CAM-M.7 (NE slope) - New Obs.	5 - 8	0.3 - 0.9	0.05 - 0.1		Minor erosion	TII-53-55	Acceptable	New observation. Three areas near base of slope. Self armouring. Slope appears stable. Seepage in area.
Erosion	Yes	FEATURE J See Figure CAM-M.7 (NW slope)	11	0.15 - 0.3	0.05 - 0.1	Occational	Minor erosion	TII-61, 62	Acceptable	No Signifcant Change.
		FEATURE J2 See Figure CAM-M.7 (NW slope) - New Obs.	8	0.15 - 0.2	0.05 - 0.07		Minor erosion	TII-63, 64	Acceptable	New observation. Self armouring and slope appears stable.
		FEATURE J3 See Figure CAM-M.7 (NW slope) - New Obs.	8	0.2 - 0.3	0.05 - 0.07		Minor erosion	TII-65, 66	Acceptable	New observation. Self armouring and slope appears stable.
		FEATURE J4 See Figure CAM-M.7 (NW slope) - New Obs.	5	0.15 - 0.2	0,05		Minor erosion	TII-67	Acceptable	New observation. Self armouring and slope appears stable.
		FEATURE K See Figure CAM-M.7 (E slope) - New Obs.	1,5	0,15	0,05		Minor erosion	TII-28	Acceptable	New observation. Self armouring and slope appears stable.
		FEATURE L See Figure CAM-M.7 (NE slope) - New Obs.	6	0,2	0,05		Minor erosion	TII-34	Acceptable	New observation. Self armouring and slope appears stable.

TABLE XXVI: TIER II DISPOSAL FACILITY VISUAL INSPECTION (PAGE 3 of 3)

Checklist Item	Present (Yes/No)	Location	Length (m)	Width (m)	Depth (m)	Extent	Description	Photographic Record	Severity Rating	Additional Comments
Frost Action	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not Observable	N/A
Animal Burrows	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not Observable	N/A
Vegetation	Yes	See Figure CAM-M.7 (S cover , SE and SW side slopes)	N/A	N/A	N/A	N/A	Sparse vegetation	TII-17, 14, 49, 70	Acceptable	N/A
Staining	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not Observable	N/A
Vegetation Stress	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not Observable	N/A
Seepage Points	Yes	FEATURE H See Figure CAM-M.7 (NE slope toe)	0	0	0	90 m² (<1%)	Seepage area from toe of landfill		Not Observable	Feature not observed.
Зеераде Рошк	res	FEATURE N See Figure CAM-M.7 (N side slope toe) - New Obs.	1.0 - 1.2	0.15 - 0.2	N/A	<2%	4 Seepage points	TII-53, 54	Acceptable	Four locations near toe of slope. Algal growth noted in area.
Debris Exposed	Yes	FEATURE A1 See Figure CAM-M.7 (SE slope)	0	0	0	0.5 m² (<1%)	Exposed geotextile	TII-9	Acceptable	No changes observed.
Deblis Exposed	103	FEATURE A2 See Figure CAM-M.7 (SE slope)	0	0	0	1 m² (<1%)	Exposed geotextile	TII-10, 11	Acceptable	No changes observed.
		MW-10	N/A	N/A	N/A	N/A	N/A	TII-6	Acceptable	No well cap. Bentonite in casing and pipe. Well dry.
Presence/Condition of Monitoring Instruments	Voo	MW-11	N/A	N/A	N/A	N/A	N/A	TII-24	Acceptable	Bentonite in casing.
Presence/Condition of Monitoring instruments	Yes	MW-12	N/A	N/A	N/A	N/A	N/A	TII-41	Acceptable	Bentonite in casing.
		MW-13	N/A	N/A	N/A	N/A	N/A	TII-58	Acceptable	Bentonite in casing.
Other Featues of Note	Voo	FEATURE B2 See Figure CAM-M.7 (SE corner slope)	8	0.2	0.2	<1%	Tension Crack	TII-21-23	Acceptable	Noteable increase in size from 2010 assessment.
Other realues of Note	Yes	FEATURE C See Figure CAM-M.7 (E crest and slope)	4 - 10	0.1	0.05 - 0.1	<1%	Infilled cracks	TII-29-31	Acceptable	No signifcant change from previous 2010 assessment.
Additional Photos	Yes	See Figure CAM-M.7 and Photographic Record	N/A	N/A	N/A	N/A	General Photographic Record	N/A	Not Observable	General photos for documentation, no features of note.
Overall Landfill Performance:	Acceptable					ı	•		•	

DOCUMENT FOR THE USE OF DEFENCE CONSTRUCTION CANADA

ENGLOBE CORP.

8.2 PRELIMINARY STABILITY ASSESSMENT

The Preliminary Stability Assessment for Tier II Disposal Facility has been completed as per the TOR and is included as Table XXVII hereafter.

Table XXVII: Preliminary Stability Assessment – Tier II Disposal Facility

Feature	Severity Rating	Extent
Settlement/Cracks	Acceptable	Occasional
Erosion	Acceptable	Occasional
Frost Action	Not observed	None
Staining	Not observed	None
Vegetation Stress	Not observed	None
Seepage/Ponded Water	Acceptable	Occasional
Debris Exposure	Acceptable	Isolated
Overall Landfill Performance	Ассер	otable

Performance/ Severity Rating	Description
Acceptable	Noted features are of little consequence. The landfill is performing as designed. Minor deviations in environmental or physical performance may be observed, such as isolated areas of erosion, settlement.
Marginal	Physical/environmental performance appears to be deteriorating with time. Observations may include an increase in size or number of features of note, such as differential settlement, erosion or cracking. No significant impact on landfill stability to date, but potential for failure is assessed as low or moderate.
Significant	Significant or potentially significant changes affecting landfill stability, such as significant changes in slope geometry, significant erosion or differential settlement; scarp development. The potential for failure is assessed as imminent.
Unacceptable	Stability of landfill is compromised to the extent that ability to contain waste materials is compromised. Examples may include: Debris exposed in erosion channels or areas of differential settlement. Liner exposed. Slope failure.
Extent	Description
Isolated	Singular feature
Occasional	Features of note occurring at irregular intervals/locations
Numerous	Many features of note, impacted less than 50% of the surface area of the landfill
Extensive	Impacting greater than 50% of the surface area of the landfill

8.3 LOCATION PLAN

The Location Plan for the Tier II Disposal Facility has been completed as per the TOR and is included in the following page as Figure CAM-M.7.

LEGEND

CM27 TEMPORARY BENCHMARK

♦ MONITORING WELL LOCATION

MONITORING SOIL SAMPLE LOCATION

THERMISTOR LOCATION

3 APPROXIMATE PHOTOGRAPH LOCATION AND PHOTO NUMBER

SPARSE VEGETATION

EROSION

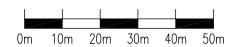
TENSION CRACK

SEEPAGE POINT

O DEPRESSION HOLE

WET AREA

△ EXPOSED/SURFACE DEBRIS



1	FINAL	16-03-29	P.L.	A.P.	M.F.
NO.	VERSION	DATE	BY	VERIF.	APPR.



Construction de Défense Canada Defence Construction Canada

COLLECTION OF LANDFILL MONITORING DATA

TIER II DISPOSAL FACILITY



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MEASUREMENT UNIT Metre	SCALE: 1 : 1,000	DATE (month-year): MARCH 2016			
DRAWN BY: P. LEGARE	VERIFIED BY: A. PASSALIS P. ENG	APPROVED BY: M. FLEURY P. ENG			
PROJECT NO: CD2656_500_503	DRAWING NO: CD2656_500_503-CAM-MH	PAGE PL			

FIGURE CAM-M.7

8.4 PHOTOGRAPHIC RECORDS

The Photographic Record for Tier II Disposal Facility has been completed as per the TOR and is included as Table XXVIII hereafter. Full-sized photographs are contained in the Addendum DVD-ROM.

Table XXVIII: Landfill Visual Inspection Photolog – Tier II Disposal Facility

Photo		Size		Vantag	ge Point	
(TII-)	Filename	(MB)	Date		Northing	Caption
Aerial (Se	e Figure CAM CM15_8409	M.1) 3,831	21/08/2015	9730	11731	View looking west at Tier II DF
A4	CM15_8410	4,034	21/08/2015	9249	11945	View looking west at Tier II DF
A5	CM15_8413	3,535	21/08/2015	8561	11969	View looking east at Tier II DF
General 1	CM15_7524	4,299	16/08/2015	8953	12028	View looking north at TA-4
2	CM15_7525	4,018	16/08/2015	8952	12036	Data logger at TA-4
3	CM15_7526 CM15_7527	4,191 4,288	16/08/2015 16/08/2015	8955 8987	12034 12070	Changing batteries at TA-4 View looking southwest at TA-3
5	CM15_7527 CM15_7529	4,292	16/08/2015	9043	12070	View looking southwest at TA-3 View looking southwest at TA-2
6	CM15_8427	4,461	22/08/2015	8958	11973	View of bentonite filled casing at MW-10
7 8	CM15_8428 CM15_8429	977 4,275	22/08/2015 22/08/2015	8966 9031	11978 11953	Panoramic view looking northwest to east at south side of Tier II DF View looking north at southeast comer of Tier II DF
9	CM15_8430	4,421	22/08/2015	9039	11981	Feature A1: View of exposed piece of geotextile
10	CM15_8432	4,393	22/08/2015	9054	12003	Feature A2:View of exposed piece of geotextile
11 12	CM15_8433 CM15_8434	4,342 4,367	22/08/2015 22/08/2015	9063 9064	12002 12029	Feature A2: View looking northwest at exposed piece of geotextile on southeast slide slope View looking northwest along north crest of Tier II DF
13	CM15_8435	4,361	22/08/2015	9065	12026	View looking southwest along east crest of Tier II DF
14	CM15_8436	1,752	08/09/2015	9061	12025	Panoramic view looking south to northwest from east corner of Tier II DF
15 16	CM15_8438 CM15_8439	4,331 4,327	22/08/2015 22/08/2015	9028 9024	11974 11974	View looking northeast along east crest of Tier II DF View looking northwest along south crest of Tier II DF
17	CM15_8440	1,672	08/09/2015	9026	11978	Panoramic view looking west to northeast from south corner of Tier II DF
18	CM15_8441	4,414	22/08/2015	8989	12006	View looking northeast at TA-1
19 20	CM15_8444 CM15_8445	4,331 4,396	22/08/2015 22/08/2015	9064 9074	12012 12025	Feature B: View looking northeast along at minor erosion along east toe of Tier II DF Feature B: View looking southwestat minor erosion along east toe of Tier II DF
21	CM15_8446	4,404	22/08/2015	9076	12023	Feature B2: View looking northeast at tension cracks on east side slope of Tier II DF
22	CM15_8447	4,407	22/08/2015	9084	12031	Feature B2: View looking southwest at tension cracks on east side slope of Tier II DF
23 24	CM15_8448 CM15_8449	4,344 4,344	22/08/2015 22/08/2015	9081 9096	12027 12033	Feature B2: View of tension cracks on east side slope of Tier II DF View of bentonite filled casing and well pipe at MW-11
25	CM15_8452	4,445	22/08/2015	9089	12033	View looking southwest along easst toe of Tier II DF
26	CM15_8453	4,287	22/08/2015	9082	12034	View looking northwest along north toe of Tier II DF
27 28	CM15_8454 CM15_8455	4,297 4,396	22/08/2015 22/08/2015	9088 9085	12035 12040	View looking west upslope on east corner of Tier II DF Feature K: View looking west at minor erosion on east corner of Tier II DF (new)
29	CM15_8456	4,327	22/08/2015	9056	12033	Feature C: View looking west at infilled crack on east crest of Tier II DF
30	CM15_8457	4,371	22/08/2015	9050	12037	Feature C: View looking southeast at infilled crack on east crest of Tier II DF
31	CM15_8458	4,361	22/08/2015	9060	12037	Feature C: View at partially infilled crack 2 m below east crest on Tier II DF
32	CM15_8459	4,426	22/08/2015	9044	12040	Feature F: View looking northeast at settlement / minor erosion on north side of Tier II DF (former location of crack)
33 34	CM15_8460	4,361	22/08/2015	9056	12048	Feature F: View looking southwest at settlement / minor erosion on north side of Tier II DF (former location of crack)
	CM15_8461	4,288	22/08/2015		12044	Feature L: View looking northeast at minor erosion on northeast side slope of Tier II DF (new)
35 36	CM15_8462 CM15_8463	4,346 4,356	22/08/2015	9054	12055	Feature M: View looking northwest at pothole depression on northeast side slope of Tier II DF (new) Feature M: View looking southwest at pothole depression on northeast side slope of Tier II DF (new)
37	CM15 8464	4,249	22/08/2015	9042	12048	Feature D: View looking northwest at infilled crack on norheast crest of Tier II DF.
38	CM15_8465	4,380	22/08/2015	9030	12052	Feature D: View looking southesat at infilled crack on norheast crest of Tier II DF.
39 40	CM15_8466 CM15_8467	4,291 1,021	22/08/2015 08/09/2015	9035 9050	12049 12083	Feature D: View of infilled crack on norheast crest of Tier II DF. Panoramic view looking southeast to west at northeast side of Tier II DF
41	CM15_8468	4,402	22/08/2015	9054	12078	View of benotnite filled casing at MW-12
42	CM15_8471	4,325	22/08/2015	9015	12064	Feature E: View looking southeast at depression on northeast crest of Tier II DF
43 44	CM15_8472 CM15_8473	4,392 4,304	22/08/2015 22/08/2015	9018 9008	12058 12063	Feature E: View looking northeast at depression on northeast crest of Tier II DF Feature I1: View looking northeast at minor erosion on northeast side slope of Tier II DF
45	CM15_8474	4,291	22/08/2015	9004	12067	Feature 12: View looking northeast at minor erosion on northeast side slope of Tier II DF
46	CM15_8475	4,295	22/08/2015	8995	12075	Feature I3: View looking northeast at minor erosion on northeast side slope of Tier II DF
47 48	CM15_8476 CM15_8477	4,322 4,387	22/08/2015 22/08/2015	8977 8981	12082 12082	View looking southwest along northwest crest of Tier II DF View looking southest along northeast crest of Tier II DF
49	CM15_8478	2,070	08/09/2015	8980	12079	Panoramic view looking southeast to southwest from north corner of Tier II DF
50	CM15_8480	4,387	22/08/2015	8978	12103	View looking south at north corner slope of Tier II DF
51 52	CM15_8481 CM15_8482	4,370 4,454	22/08/2015 22/08/2015	8978 8975	12106 12105	View looking southeast along northeast toe of Tier II DF View looking southwest along northwest toe of Tier II DF
53	CM15_8484	4,426	22/08/2015	8994	12109	Feature I4: View looking southwest at minor erosion on north side slope of Tier II DF
54	CM15_8485	4,382	22/08/2015	8993	12101	Feature N: View of seepage along north toe of Tier II DF (new)
55 56	CM15_8486 CM15_8487	4,261 4,431	22/08/2015 22/08/2015	9001 9009	12101 12094	Feature N: View looking southwest at minor erosion on northeast side slope of Tier II DF (new) Feature I3: View looking southwest at minor erosion on northeast side slope of Tier II DF
57	CM15_8488	4,213	22/08/2015	9018	12086	Feature I2: View looking southwest at minor erosion on northeast side slope of Tier II DF
58	CM15_8493	4,247	22/08/2015	8977	12115	View of bentonite filled casing at MW-13
59 60	CM15_8494 CM15_8495	4,183 4,305	22/08/2015 22/08/2015	8968 8966	12124 12069	View looking southeast at north corner slope of Tier II DF Feature O: View looking southwest at depression on northwest crest of Tier II DF (new)
61	CM15_8496	4,398	22/08/2015	8965	12063	Feature J: View looking northwest at minor erosion on northwest side slope of Tier II DF
62	CM15_8497	4,353	22/08/2015	8950	12074	Feature J: View looking southeast at minor erosion on northwest side slope of Tier II DF
63 64	CM15_8498 CM15_8499	4,359 4,304	22/08/2015 22/08/2015	8951 8962	12066 12057	Feature J2: View looking southeast at minor erosion on northwest side slope of Tier II DF (new) Feature J2: View looking northwest at minor erosion on northwest side slope of Tier II DF (new)
65	CM15_8500	4,400	22/08/2015	8958	12053	Feature J3: View looking northwest at minor erosion on northwest side slope of Tier II DF (new)
66	CM15_8502	4,335	22/08/2015	8946	12061	Feature J3: View looking southeast at minor erosion on northwest side slope of Tier II DF (new)
67 68	CM15_8503 CM15_8504	4,407 4,287	22/08/2015 22/08/2015	8954 8944	12045 12028	Feature J4: View looking northwest at minor erosion on northwest side slope of Tier II DF (new) View looking southeast along southwest crest of Tier iI DF
69	CM15_8505	4,339	22/08/2015	8942	12028	View looking northeast along northwest crest of Tier II DF
70	CM15_8506	1,357	08/09/2015	8945	12031	Panoramic view looking north to southeast from west corner of Tier II DF
Soil Samp MW-10		4,398	22/08/2015	8960	11972	Samples CM15-10WA/B located upgradient of Tier II DF
10W	CM15_8442 CM15_8443	4,398	22/08/2015 22/08/2015	8956	11972	View looking northeast at MW-10 soil sampling location
MW-11	CM15_8450	4,411	22/08/2015	9094	12033	Samples CM15-11WA/B located downgradient of Tier II DF
11W MW-12	CM15_8451	4,325	22/08/2015	9100	12038	View looking southwest at MW-11 soil sampling location
MW-12 12W	CM15_8469 CM15_8470	4,379 4,327	22/08/2015 22/08/2015	9056 9060	12082 12087	Samples CM15-12WA/B located downgradient of Tier II DF View looking southwest at MW-12 soil sampling location
MW-13	CM15_8491	4,390	22/08/2015	8978	12117.7	Samples CM15-13WA/B located downgradient of Tier II DF
13W	CM15_8492	4,322	22/08/2015	8980.5	12121.1	View looking southwest at MW-13 soil sampling location

8.5 THERMISTOR ANNUAL MAINTENANCE REPORTS

Data from all thermistors was successfully retrieved with no errors encountered.

Review of the downloaded thermal data identified all analogues/thermocouples to be functioning properly during the 2010/2015 monitoring period.

All batteries were replaced, internal memories were reset and clocks were synchronized using the Prolog Software. Manual resistive readings were collected from the thermistor strings as per the TOR. Manual readings and inspection results for each thermistor are presented on the Thermistor Annual Maintenance Reports (TA-1 to TA-4) included in this section of the report.

Contractor Name:	Sila Remediation Inc.	Inspection Date:	2015-08-16
Prepared By:	A.Passalis		

Thermistor Information

Site Name:	CAM-M	Thermistor Loca	ition	Tier II Dispos	al Facility	
Thermistor Number	: TA-1	Inclination		Vertical		
Install Date:	1999-09-25	First Date Event			Last Date Event	2010-08-30
Coordinates and Ele	evation	N 12007.0	Е	8994.0	Elev	43.8
Length of Cable (m)	7.5	Cable Lead Above Gro	ound (m) 4.40	Nodal Points	i	7
Datalogger Serial #	805175			Cable Serial	Number	TS-7NCA#2

Thermistor Inspection

		Good		
	Yes	No	0	Problem/Maintenance
Casing	X		_	
Cover	X		_	
Data Logger	x		_	
Cable	x		_	
Beads	x		_	
Battery Installation Date		2015-08-16		
Battery Levels	Main _	11.34		Aux 12.65

Manual Ground Temperature Readings

Bead	ohms	Degrees C
1	10.609	8.7273
2	11.586	6.4268
3	12.881	4.5577
4	14.878	1.5932
5	16.570	-0.3668
6	17.986	-1.9437
7	19.556	-3.5041
-	-	-

-	-
-	-
_	-
	_
	-
	-

Observations and Proposed Maintenance

Clock was 22d 6:31h slow. Power interuption notice.

Download thermistor data. File: Site_021_TA1_Aug_16_2015

Change batteries (ULB1 - 03/21 and ULB15 - 06/21)

Reset clock and restart datalogger.

Contractor Name:	Sila Remediation Inc.	Inspection Date:	2015-08-16
Prepared By:	A.Passalis		

Thermistor Information

Site Name:	CAM-M	Thermistor Location	on	Tier II Dispos	al Facility	
Thermistor Number:	TA-2	Inclination		Vertical		
Install Date:	1999-09-25	First Date Event		L	ast Date Event	2010-08-30
Coordinates and Ele	vation	N 12017.0	Е	9037.0	Elev	43.4
Length of Cable (m)	7.5	Cable Lead Above Grou	nd (m) 4	I.40 Nodal Points		7
Datalogger Serial #	805072			Cable Serial	Number	TS-7NCA#4

Thermistor Inspection

		Good		
	Yes	1	Vo	Problem/Maintenance
Casing	X		-	
Cover	x		-	
Data Logger	x			
Cable	x		-	
Beads	x		-	
Battery Installation Date		2015-08-16		
Battery Levels	Main _	11.34		Aux <u>12.53</u>

Manual Ground Temperature Readings

Bead	ohms	Degrees C
1	10.536	8.8934
2	11.778	6.6068
3	13.108	4.1385
4	15.376	1.1933
5	16.807	-0.7282
6	18.112	-2.1265
7	19.29	-3.3735
-	-	-

Bead	ohms	Degrees C
-	-	-
-	-	-
-	-	-
-		
-		
-	_	-
-	-	-
-	-	-

Observations and Proposed Maintenance

Clock was 30d 22:07h slow. Power interuption notice.

Download thermistor data. File: Site_022_TA2_Aug_16_2015

Change batteries (ULB1 - 03/21 and ULB15 - 06/21)

Reset clock and restart datalogger.

Contractor Name:	Sila Remediation Inc.	Inspection Date:	2015-08-16
Prepared By:	A.Passalis		

Thermistor Information

Site Name:	CAM-M	Thermistor L	ocation	Tier II Dispos	al Facility	
Thermistor Number:	TA-3	Inclination		Vertical		
Install Date:	1999-09-25	First Date Ev	vent		ast Date Event	2010-08-30
Coordinates and Ele	vation	N 12067.0	Е	8985.0	Elev	43.0
Length of Cable (m)	7.5	Cable Lead Above	Ground (m)	4.60 Nodal Points		7
Datalogger Serial #	805132			Cable Serial	Number	TS-7NCA#1

Thermistor Inspection

		Good		
	Yes	1	Vo	Problem/Maintenance
Casing	X		-	
Cover	x		-	
Data Logger	x			
Cable	x		-	
Beads	x		-	
Battery Installation Date		2015-08-16		
Battery Levels	Main _	11.34		Aux <u>12.53</u>

Manual Ground Temperature Readings

Bead	ohms	Degrees C
1	9.582	10.9091
2	11.700	6.6068
3	13.084	4.3706
4	15.762	0.6841
5	17.258	-1.0953
6	18.501	-2.4569
7	19.862	-3.8260
-	-	-

Bead	ohms	Degrees C
-	-	-
-	-	-
-	-	-
-		
-		
-	-	-
_	-	-
-	-	-

Observations and Proposed Maintenance

Clock was 2:16h slow.

Download thermistor data. File: Site_023_TA3_Aug_16_2015

Change batteries (ULB1 - 03/21 and ULB15 - 06/21)

Reset clock and restart datalogger.

Contractor Name:	Sila Remediation Inc.	Inspection Date:	2015-08-16
Prepared By:	A.Passalis		

Thermistor Information

Site Name:	CAM-M	Thermistor Lo	ocation	Tier II Dispos	al Facility	
Thermistor Number	: TA-4	Inclination		Vertical		
Install Date:	1999-09-25	First Date Ev	ent	L	ast Date Event	2010-08-30
Coordinates and Ele	evation	N 12035.0	Е	8954.0	Elev	44.2
Length of Cable (m)	7.5	Cable Lead Above	Ground (m) 4	I.60 Nodal Points		7
Datalogger Serial #	805060			Cable Serial	Number	TS-7NCA#3

Thermistor Inspection

		Good		
	Yes		No	Problem/Maintenance
Casing	X		_	
Cover	X		_	
Data Logger	X		_	
Cable	X		_	
Beads	X		_	
Battery Installation Date		2015-08-16		
Battery Levels	Main	11.34		Aux12.77

Manual Ground Temperature Readings

Bead	ohms	Degrees C
1	9.93	10.0654
2	11.586	6.9668
3	12.575	5.2488
4	14.914	1.8343
5	16.589	-0.3134
6	17.759	-1.6560
7	18.759	-2.8298
-	-	-

Bead	ohms	Degrees C
-	-	-
-	-	-
-	-	-
-		
-		
-	-	-
-	-	-
-	-	-

Observations and Proposed Maintenance

Clock was 2:44h slow.

Download thermistor data. File: Site_024_TA4_Aug_16_2015

Change batteries (ULB1 - 03/21 and ULB15 - 06/21)

Reset clock and restart datalogger.

8.6 SOIL SAMPLE ANALYTICAL DATA

The soil chemical analysis results for the 2015 Tier II Disposal Facility samples are presented in Table XXIX hereafter. Certificates of analyses and results of field duplicates collected as part of the QA/QC program are presented in Annexes 1 and 2 at the end of this report.

Table XXIX: Tier II Summary Table for Soil Analytical Data

			Parameters												
Sample #	Location	Depth	As	Cd	Cr	Co	Cu	Pb	Ni	Zn	Hg	PCBs	F1	F2	F3
Sample #	Location	(cm)	_			••				[mg/kg]	_		C ₆ -C ₁₀	C ₁₀ -C ₁₆	C ₁₆ -C ₃₄
			[99]	[991	[9,91	[99]	[99]	[991	[99]	[991	[9,91	[991	[mg/kg]	[mg/kg]	[mg/kg]
Detection Limit	•		0.2	0.01	0.5	0.1	1.0	0.1	0.5	1	0.05	0.05	10	40	40
Upgradient So	oil Sample	s													
CM15-10WA	MW-10	0-15	2.3	0.03	14.3	3.3	6.4	3.8	12.7	11	< 0.05	< 0.05	<10	<40	<40
CM15-10WB	10100-10	40-50	2.2	0.04	19.2	2.9	6.0	3.7	12.2	10	<0.05	<0.05	<10	<40	<40
Downgradien	t Soil Sam	ples													
CM15-11WA	MW-11	0-15	2.7	0.15	10.3	3.0	32.4	6.3	15.6	10	0.10	< 0.05	<10	<40	<40
CM15-11WB	10100-11	40-50	1.4	0.02	4.5	2.2	3.6	2.9	3.1	5	<0.05	<0.05	<10	<40	<40
CM15-12WA	MW-12	0-15	2.0	0.02	20.2	4.1	8.5	4.0	14.5	11	<0.05	<0.05	<10	<40	<40
CM15-12WB	10100-12	40-50	2.9	0.05	24.4	3.5	8.1	5.1	20.8	14	<0.05	<0.05	<10	<40	67
CM15-13WA	MW-13	0-15	2.0	0.04	6.5	1.4	3.4	3.1	5.3	7	<0.05	<0.05	<10	<40	<40
CM15-13WB	10100-13	40-50	2.0	0.02	10.6	2.1	3.5	3.2	7.2	7	<0.05	<0.05	<10	<40	<40

8.7 GROUNDWATER SAMPLE ANALYTICAL DATA

The groundwater chemical analysis results and evaluation for the analytical data for the 2015 Tier II Disposal Facility samples are presented in Table XXX hereafter. Certificates of analyses and results for groundwater samples collected as part of the QA/QC program are presented in Annexes 1 and 2, at the end of this report.

Table XXX: Tier II Summary Table for Groundwater Analytical Data

		Parameters												
0									_			F1	F2	F3
Sample #	Location	As [mg/L]	Cd [mg/L]	Cr [mg/L]	Co [mg/L]	Cu [mg/L]	Pb [mg/L]	Ni [mg/L]	Zn [mg/L]	Hg [mg/L]	PCBs [mg/L]	C ₆ -C ₁₀ [mg/L]	C ₁₀ -C ₁₆ [mg/L]	C ₁₀ -C ₃₄ [mg/L]
Detection Limit		0.0002	0.00001	0.0005	0.0001	0.001	0.0001	0.0005	0.000001	0.000005	0.00005	0.1	0.1	0.1
Upgradient	Groundw	ater Sar	mple	•										
CM15-10W	MW-10		-	-	-	-	-	-	-	-	-	-	-	-
Downgradio	ent Groun	dwater	Samples											
CM15-11W	MW-11	0.0012	0.00004	0.0248	0.0107	0.006	0.0014	0.5840	0.000775	<0.00005	<0.00005	<0.1	<0.1	<0.1
CM15-12W	MW-12	0.0009	0.00002	0.1070	0.0060	0.003	0.0005	0.0300	0.000498	<0.00005	<0.00005	<0.1	<0.1	<0.1
CM15-13W	MW-13	0.0040	<0.00002	0.0095	<0.0005	<0.005	0.0030	0.0210	0.000060	<0.00005	<0.00005	<0.1	<0.1	<0.1

8.8 MONITORING WELL SAMPLING / INSPECTION LOGS

The monitoring well sampling logs for MW-10 to MW-13 are presented in this section.

Site Name: CAM-M Landfill Name: Tier II Disposal Facility

Monitoring Well ID: MW-10
Sample Number(s) include dups.: CM15-10W
Bottles filled (by parameter type): N/A

Date of Sampling Event: N/A Time: N/A

Weather: 9C, Overcast, 15-25 km/h NW

Names of Samplers: A.Passalis

Description of Well Condition and Surrounding ground conditions (note ponding of water):

Good condition, no ponding.

Lock (condition, presence, model, manufacturer): Good, KA1

Pre-Measured Data (From Water Well Record Log)

*Depth of well installation (cm)= 350 Diameter of well (cm)= 5

*Depth to top of screen (cm)= 50 Length screened section (cm)= 200

note: *depths are from ground surface

Field Measurements

Measurement method (interface probe, tape, etc): Interface

Well pipe height above ground (cm) (to top of pipe)=

Static water level (cm) from top of pipe = - dry
Static water level (cm) (below ground surface) calculated = N/A

Measured well refusal depth (cm) (measure after sampling)= 161

Thickness of water column (cm)= N/A Static volume of water in well (mL)= N/A Free product thickness (mm)= 0 Evidence of sludge or siltation: No

Purging Information Summary*

Purging/sampling equipment, sampling technique and equipment calibration information: N/A

Well purged (Y/N): N Recharge Rate: N/A

Volume Purged (L) (note multiple purging events if applicable):

Parameter	Initial	Stabilized	Final	Notes (if not stabilized)
рН	-	-	-	
Conductivity (uS/cm)	-	-	-	
Turbidity (NTU)	-	-	-	
Temperature (degC)	-	-	-	
Visual/olfactory observations (incl.	colour, odour,			
presence of free product/sheen/glosiltation):	obules,	N/A		

Decontamination of sampling equipment

Type of decontamination fluid (s): N/A

Number washes: N/A Number rinses: N/A

Other Relevant Comments: Evidence of bentonite in pipe

^{*} Complete field notes including full suite of water quality indicator parameters VS time as per EPA low flow sampling procedures should be apended to this summary.

Site Name: CAM-M Landfill Name: Tier II Disposal Facility

Monitoring Well ID: MW-11 Sample Number(s) include dups.: CM15-11W

Bottles filled (by parameter type): 200 mL/40 mL (Met), 1 L amber (PCBs), 1 L amber/3 x 40 mL (PHCs)

Date of Sampling Event: 2015-08-23 Time: 15:25

Weather: 9C. Overcast, 15-25 km/h NW

Names of Samplers: A.Passalis

Description of Well Condition and Surrounding ground conditions (note ponding of water):

Good condition, no ponding.

Lock (condition, presence, model, manufacturer): Good, KA1

Pre-Measured Data (From Water Well Record Log)

*Depth of well installation (cm)= 350 Diameter of well (cm)= 5

*Depth to top of screen (cm)= 50 Length screened section (cm)= 200

*note: *depths are from ground surface

Field Measurements

Measurement method (interface probe, tape, etc): Interface

Well pipe height above ground (cm) (to top of pipe)= 32

Static water level (cm) from top of pipe = 135

Static water level (cm) (below ground surface) calculated = 103

Measured well refusal depth (cm) (measure after sampling)= 173

Thickness of water column (cm)= 38 Static volume of water in well (mL)= 770

Free product thickness (mm)= 0 Evidence of sludge or siltation: No

Purging Information Summary*

Purging/sampling equipment, sampling technique Peristaltic pump with dedicated 1/4" LDPE tubing, and equipment calibration information: Purging/sampling equipment, sampling technique Peristaltic pump with dedicated 1/4" LDPE tubing, and equipment calibration information:

Well purged (Y/N): Y Recharge Rate: ~150 mL/min

Volume Purged (L) (note multiple

purging events if applicable): 1.1

Parameter	Initial	Stabilized	Final	Notes (if not stabilized)
рН	9	8.1	7.9	
Conductivity (uS/cm)	1360	1974	1844	
Turbidity (NTU)	14.5	20.6	17.5	
Temperature (degC)	2.8	2.2	2.2	

Visual/olfactory observations (incl. colour, odour,

presence of free product/sheen/globules, Clear, colourless, odourless

siltation...):

Decontamination of sampling equipment

Type of decontamination fluid (s): Not required, dedicated tubing

Number washes: N/A Number rinses: N/A

Other Relevant Comments: Protective casing full of bentonite

^{*} Complete field notes including full suite of water quality indicator parameters VS time as per EPA low flow sampling procedures should be apended to this summary.

Site Name: CAM-M Landfill Name: Tier II Disposal Facility

Monitoring Well ID: MW-12 Sample Number(s) include dups.: CM15-12W

Bottles filled (by parameter type): 200 mL/40 mL (Met), 1 L amber (PCBs), 1 L amber/3 x 40 mL (PHCs)

Date of Sampling Event: 2015-08-23 Time: 15:50

Weather: 9C, Overcast, 15-25 km/h NW

Names of Samplers: A.Passalis

Description of Well Condition and Surrounding ground conditions (note ponding of water):

Good condition, no ponding.

Lock (condition, presence, model, manufacturer): Good, KA1

Pre-Measured Data (From Water Well Record Log)

*Depth of well installation (cm)= 350 Diameter of well (cm)= 5

*Depth to top of screen (cm)= 50 Length screened section (cm)= 200

*note: *depths are from ground surface

Field Measurements

Measurement method (interface probe, tape, etc): Interface 22 Well pipe height above ground (cm) (to top of pipe)= Static water level (cm) from top of pipe = 112 Static water level (cm) (below ground surface) calculated = 90 Measured well refusal depth (cm) (measure after sampling)= 150 Thickness of water column (cm)= 38 Static volume of water in well (mL)= 770 Free product thickness (mm)= Evidence of sludge or siltation: No

Purging Information Summary*

Purging/sampling equipment, sampling technique Peristaltic pump with dedicated 1/4" LDPE tubing, and equipment calibration information: Purging/sampling equipment, sampling technique Peristaltic pump with dedicated 1/4" LDPE tubing, and equipment calibration information:

Well purged (Y/N): Y Recharge Rate: ~100 mL/min

Volume Purged (L) (note multiple

purging events if applicable): 0.9

Parameter	Initial	Stabilized	Final	Notes (if not stabilized)
рН	7.6	7.4	7.3	
Conductivity (uS/cm)	3610	3430	3630	
Turbidity (NTU)	10.5	19.2	15.5	
Temperature (degC)	3.1	2.1	2.1	

Visual/olfactory observations (incl. colour, odour,

presence of free product/sheen/globules, Clear, colourless, odourless

siltation...):

Decontamination of sampling equipment

Type of decontamination fluid (s): Not required, dedicated tubing

Number washes: N/A Number rinses: N/A

Other Relevant Comments: Protective casing full of bentonite

^{*} Complete field notes including full suite of water quality indicator parameters VS time as per EPA low flow sampling procedures should be apended to this summary.

Landfill Name: Site Name: CAM-M Tier II Disposal Facility

Monitoring Well ID: MW-13 Sample Number(s) include dups.: CM15-13W

Bottles filled (by parameter type): 200 mL/40 mL (Met), 1 L amber (PCBs), 1 L amber/3 x 40 mL (PHCs)

Time: 16:30 Date of Sampling Event: 2015-08-23

Weather: 9C, Overcast, 15-25 km/h NW

Names of Samplers: A.Passalis

Description of Well Condition and Surrounding ground conditions (note ponding of water):

Good condition, no ponding.

Lock (condition, presence, model, manufacturer): Good, KA1

Pre-Measured Data (From Water Well Record Log)

Measurement method (interface probe, tape, etc):

*Depth of well installation (cm)= Diameter of well (cm)= 350 *Depth to top of screen (cm)= 50 Length screened section (cm)= 200 note: *depths are from ground surface

Field Measurements

Well pipe height above ground (cm) (to top of pipe)= 10 Static water level (cm) from top of pipe = 114 Static water level (cm) (below ground surface) calculated = 104 Measured well refusal depth (cm) (measure after sampling)= 143 Thickness of water column (cm)= 29 Static volume of water in well (mL)= 587

Interface

Free product thickness (mm)= Evidence of sludge or siltation: **Purging Information Summary***

Purging/sampling equipment, sampling technique Peristaltic pump with dedicated 1/4" LDPE tubing, and equipment calibration information: multimeter, turbidimeter with daily calibration check

Well purged (Y/N): Υ Recharge Rate: ~150 mL/min

Volume Purged (L) (note multiple

0.9 purging events if applicable):

Parameter	Initial	Stabilized	Final	Notes (if not stabilized)
рН	8.0	7.9	7.9	
Conductivity (uS/cm)	4660	4950	4850	
Turbidity (NTU)	16.2	31.5	35.6	
Temperature (degC)	3.2	2.3	2.3	

Visual/olfactory observations (incl. colour, odour,

presence of free product/sheen/globules, Clear, colourless, odourless

siltation...):

Decontamination of sampling equipment

Type of decontamination fluid (s): Not required, dedicated tubing

Number washes: N/A Number rinses: N/A Protective casing full of bentonite, evidence of bentonite in well pipe

Other Relevant Comments:

No

^{*} Complete field notes including full suite of water quality indicator parameters VS time as per EPA low flow sampling procedures should be apended to this summary.

ANNEX 1

Laboratory Results



CONFIRMATION-RECEIPT OF SAMPLES FOR ANALYSIS

Maxxam Job # B574425

Client Project #: KITIK12, CAM-M 7 Samples Samples Received 2015/08/26 Site Location: CAMBRIDGE BAY Client Confirmation 2015/08/27

Expected Report Delivery 2015/09/04 18:00

Report will be sent to: Invoice will be sent to: **ANDREW PASSALIS** JEAN-PIERRE PELLETIER EnGlobe Corp SILA REMEDIATION

1260, boul. Lebourgneuf Blvd bureau/suite 250 4495 BL. WILFRID- HAMEL, BUR 1

Québec **QUEBEC** G2K 2G2 G1P 2T7

Ph 418-626-1688 Ph 4186534422-5892 Fax 418-647-2540 Fax 418-653-3583

andrew.passalis@gmail.com Jean-Pierre.Pelletier@lvm.ca

We have received the following samples:

CM15-13B Sampled 2015/08/22 COC# G102366 Matrix: SOIL

Maxxam #: MZ5673

AT1 BTEX and F1-F4 in Soil *Elements by ICPMS - Soils

Environmental Sample Disposal Fee

Polychlorinated Biphenyls

CM15-7B Sampled 2015/08/22 Matrix: SOIL

Maxxam #: MZ5674

AT1 BTEX and F1-F4 in Soil *Elements by ICPMS - Soils **Environmental Sample Disposal Fee**

Polychlorinated Biphenyls

CM15-5WB Sampled 2015/08/22 Matrix: SOIL

Maxxam #: MZ5675

AT1 BTEX and F1-F4 in Soil *Elements by ICPMS - Soils Environmental Sample Disposal Fee Polychlorinated Biphenyls

CM15-1A Sampled 2015/08/22 Matrix: SOIL

Maxxam #: MZ5676

AT1 BTEX and F1-F4 in Soil *Elements by ICPMS - Soils **Environmental Sample Disposal Fee** Polychlorinated Biphenyls



CM15-2WB Sampled 2015/08/23 Matrix: SOIL

Maxxam #: MZ5677

AT1 BTEX and F1-F4 in Soil *Elements by ICPMS - Soils

Environmental Sample Disposal Fee

Polychlorinated Biphenyls

CM15-8B Sampled 2015/08/23 Matrix: SOIL

Maxxam #: MZ5678

AT1 BTEX and F1-F4 in Soil
*Elements by ICPMS - Soils
Environmental Sample Disposal Fee

Polychlorinated Biphenyls

CM15-7W Sampled 2015/08/23 Matrix: WATER

Maxxam #: MZ5679

AT1 BTEX and F1-F4 in Water Cadmium - low level CCME (Total) *Elements by ICPMS - Total Environmental Sample Disposal Fee Mercury - Low Level (Total) Polychlorinated Biphenyls

Comments:

- Unless special storage arrangements are made, all samples will be discarded 60 days after receipt of samples.
- Non-regular samples are flagged as (C) Composite by lab, (H) Hold, or (L) Leachate.
- If there are any problems with the submitted samples, a Sample Integrity Form (SIF) detailing conditions will be included in this confirmation.
- For revisions please contact your Maxxam Project Management team at Ph (403) 291-3077 or Fax (403) 291-9468. Your Project Manager is: Alina Kenstavicius Alternate Project Manager Alina Kenstavicius

A Bureau Veritas Group Company		ay, Burnaby, BC Ca	inada V	5G 11			34 7276 T 1 Job#:		1 800	665 85	666 Fax:	604 73		A		CH		Page:	2366		
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CMIS-8B	10	72/ 2/12		-			Y	*				-		RE	CEN	/ED	IN	FI	X	2	
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020 (05/10)							o/a Maxxam														



Your Project #: KITIK12, CAM-M Site Location: CAMBRIDGE BAY

Your C.O.C. #: G102366

Attention: ANDREW PASSALIS

EnGlobe Corp QUEBEC 1260, boul. Lebourgneuf Blvd bureau/suite 250 Québec, QC CANADA G2K 2G2

Report Date: 2015/09/04

Report #: R2036029 Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B574425 Received: 2015/08/26, 09:20

Sample Matrix: Soil # Samples Received: 6

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	Laboratory Method	Analytical Method
BTEX/F1 by HS GC/MS/FID (MeOH extract) (1)	6	2015/08/28	2015/09/01	AB SOP-00039	CCME CWS/EPA 8260c m
CCME Hydrocarbons (F2-F4 in soil) (1, 2)	6	2015/08/28	2015/08/30	AB SOP-00036 / AB SOP- 00040	CCME PHC-CWS
Elements by ICPMS - Soils (1)	6	2015/09/01	2015/09/01	AB SOP-00001 / AB SOP- 00043	EPA 200.8 R5.4 m
Moisture (1)	6	N/A	2015/08/31	AB SOP-00002	CCME PHC-CWS
Polychlorinated Biphenyls (1)	6	2015/09/02	2015/09/02	CAL SOP-00149	EPA 8082A R1 m

Sample Matrix: Water # Samples Received: 1

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	Laboratory Method	Analytical Method
BTEX/F1 in Water by HS GC/MS/FID (1)	1	N/A	2015/09/04	AB SOP-00039	CCME CWS/EPA 8260c m
Cadmium - low level CCME (Total) (1)	1	2015/08/28	2015/08/31	AB WI-00065	Auto Calc
CCME Hydrocarbons (F2-F4 in water) (1)	1	2015/08/30	2015/08/31	AB SOP-00037 / AB SOP-	CCME PHC-CWS m
				00040	
Mercury - Low Level (Total) (1)	1	2015/09/01	2015/09/02	CAL SOP-00007	EPA 1631 RE 20460 m
Elements by ICPMS - Total (1)	1	2015/08/30	2015/08/31	AB SOP-00014 / AB SOP-	EPA 200.8 R5.4 m
				00043	
Polychlorinated Biphenyls (1)	1	2015/08/28	2015/08/31	CAL SOP-00149	EPA 8082A R1 m

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

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

⁽¹⁾ This test was performed by Maxxam Calgary Environmental

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



Your Project #: KITIK12, CAM-M Site Location: CAMBRIDGE BAY

Your C.O.C. #: G102366

Attention: ANDREW PASSALIS

EnGlobe Corp QUEBEC 1260, boul. Lebourgneuf Blvd bureau/suite 250 Québec, QC CANADA G2K 2G2

Report Date: 2015/09/04

Report #: R2036029 Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B574425 Received: 2015/08/26, 09:20

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager. Alina Kenstavicius, Project Manager Email: AKenstavicius@maxxam.ca

Phone# (403)219-3669

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



EnGlobe Corp

Client Project #: KITIK12, CAM-M Site Location: CAMBRIDGE BAY

Sampler Initials: AP

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		MZ5673		MZ5674		MZ5675	MZ5676		
Sampling Date		2015/08/22		2015/08/22		2015/08/22	2015/08/22		
COC Number		G102366		G102366		G102366	G102366		
	UNITS	CM15-13B	QC Batch	CM15-7B	QC Batch	CM15-5WB	CM15-1A	RDL	QC Batch
Physical Properties									
Moisture	%	4.6	8021661	20	8021654	9.4	7.7	0.30	8021661
Ext. Pet. Hydrocarbon									
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	8019788	<10	8019788	<10	<10	10	8019788
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	8019788	<50	8019788	<50	<50	50	8019788
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	8019788	<50	8019788	<50	<50	50	8019788
Reached Baseline at C50	mg/kg	Yes	8019788	Yes	8019788	Yes	Yes		8019788
Volatiles									
Benzene	mg/kg	<0.0050	8021608	<0.0050	8021608	<0.0050	<0.0050	0.0050	8021608
Toluene	mg/kg	<0.020	8021608	<0.020	8021608	<0.020	<0.020	0.020	8021608
Ethylbenzene	mg/kg	<0.010	8021608	<0.010	8021608	<0.010	<0.010	0.010	8021608
Xylenes (Total)	mg/kg	<0.040	8021608	<0.040	8021608	<0.040	<0.040	0.040	8021608
m & p-Xylene	mg/kg	<0.040	8021608	<0.040	8021608	<0.040	<0.040	0.040	8021608
o-Xylene	mg/kg	<0.020	8021608	<0.020	8021608	<0.020	<0.020	0.020	8021608
F1 (C6-C10) - BTEX	mg/kg	<12	8021608	<12	8021608	<12	<12	12	8021608
F1 (C6-C10)	mg/kg	<12	8021608	<12	8021608	<12	<12	12	8021608
Surrogate Recovery (%)									
1,4-Difluorobenzene (sur.)	%	95	8021608	99	8021608	106	96		8021608
4-Bromofluorobenzene (sur.)	%	102	8021608	104	8021608	102	103		8021608
D10-ETHYLBENZENE (sur.)	%	91	8021608	94	8021608	90	97		8021608
D4-1,2-Dichloroethane (sur.)	%	91	8021608	96	8021608	106	96		8021608
O-TERPHENYL (sur.)	%	103	8019788	115	8019788	97	112		8019788
RDL = Reportable Detection Lir	nit								



EnGlobe Corp

Client Project #: KITIK12, CAM-M Site Location: CAMBRIDGE BAY

Sampler Initials: AP

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		MZ5677	MZ5678		
Sampling Date		2015/08/23	2015/08/23		
COC Number		G102366	G102366		
	UNITS	CM15-2WB	CM15-8B	RDL	QC Batch
Physical Properties					
Moisture	%	11	12	0.30	8021654
Ext. Pet. Hydrocarbon					
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	10	8019788
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	<50	50	8019788
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	50	8019788
Reached Baseline at C50	mg/kg	Yes	Yes		8019788
Volatiles					
Benzene	mg/kg	<0.0050	<0.0050	0.0050	8021608
Toluene	mg/kg	<0.020	<0.020	0.020	8021608
Ethylbenzene	mg/kg	<0.010	<0.010	0.010	8021608
Xylenes (Total)	mg/kg	<0.040	<0.040	0.040	8021608
m & p-Xylene	mg/kg	<0.040	<0.040	0.040	8021608
o-Xylene	mg/kg	<0.020	<0.020	0.020	8021608
F1 (C6-C10) - BTEX	mg/kg	<12	<12	12	8021608
F1 (C6-C10)	mg/kg	<12	<12	12	8021608
Surrogate Recovery (%)					
1,4-Difluorobenzene (sur.)	%	98	126		8021608
4-Bromofluorobenzene (sur.)	%	101	100		8021608
D10-ETHYLBENZENE (sur.)	%	92	86		8021608
D4-1,2-Dichloroethane (sur.)	%	98	119		8021608
O-TERPHENYL (sur.)	%	108	103		8019788
RDL = Reportable Detection Li	nit				



EnGlobe Corp

Client Project #: KITIK12, CAM-M Site Location: CAMBRIDGE BAY

Sampler Initials: AP

AT1 BTEX AND F1-F4 IN WATER (WATER)

Maxxam ID		MZ5679		
Sampling Date		2015/08/23		
COC Number		G102366		
	UNITS	CM15-7W	RDL	QC Batch
Ext. Pet. Hydrocarbon				
F2 (C10-C16 Hydrocarbons)	mg/L	<0.10	0.10	8021140
F3 (C16-C34 Hydrocarbons)	mg/L	<0.20	0.20	8021140
F4 (C34-C50 Hydrocarbons)	mg/L	<0.20	0.20	8021140
Volatiles				
Benzene	ug/L	<0.40	0.40	8025008
Toluene	ug/L	<0.40	0.40	8025008
Ethylbenzene	ug/L	<0.40	0.40	8025008
m & p-Xylene	ug/L	<0.80	0.80	8025008
o-Xylene	ug/L	<0.40	0.40	8025008
Xylenes (Total)	ug/L	<0.80	0.80	8025008
F1 (C6-C10) - BTEX	ug/L	<100	100	8025008
F1 (C6-C10)	ug/L	<100	100	8025008
Surrogate Recovery (%)				
1,4-Difluorobenzene (sur.)	%	104		8025008
4-Bromofluorobenzene (sur.)	%	100		8025008
D4-1,2-Dichloroethane (sur.)	%	103		8025008
O-TERPHENYL (sur.)	%	100		8021140
RDL = Reportable Detection Lir	nit		•	



EnGlobe Corp

Client Project #: KITIK12, CAM-M Site Location: CAMBRIDGE BAY

Sampler Initials: AP

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		MZ5673	MZ5674	MZ5675	MZ5676	MZ5677	MZ5678						
Sampling Date		2015/08/22	2015/08/22	2015/08/22	2015/08/22	2015/08/23	2015/08/23						
COC Number		G102366	G102366	G102366	G102366	G102366	G102366						
	UNITS	CM15-13B	CM15-7B	CM15-5WB	CM15-1A	CM15-2WB	CM15-8B	RDL	QC Batch				
Polychlorinated Biphenyls													
Aroclor 1016	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8024388				
Aroclor 1221	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8024388				
Aroclor 1232	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8024388				
Aroclor 1242	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8024388				
Aroclor 1248	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8024388				
Aroclor 1254	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8024388				
Aroclor 1260	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8024388				
Aroclor 1262	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8024388				
Aroclor 1268	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8024388				
Total Aroclors	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8024388				
Surrogate Recovery (%)													
NONACHLOROBIPHENYL (sur.)	%	85	87	82	64	96	79		8024388				
RDL = Reportable Detection Lim	it												



EnGlobe Corp

Client Project #: KITIK12, CAM-M Site Location: CAMBRIDGE BAY

Sampler Initials: AP

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		MZ5673		MZ5674	MZ5675		MZ5676		MZ5677		
Sampling Date		2015/08/22		2015/08/22	2015/08/22		2015/08/22		2015/08/23		
COC Number		G102366		G102366	G102366		G102366		G102366		
	UNITS	CM15-13B	QC Batch	CM15-7B	CM15-5WB	QC Batch	CM15-1A	QC Batch	CM15-2WB	RDL	QC Batch
Elements											
Total Arsenic (As)	mg/kg	1.9	8022995	<1.0	2.7	8022978	2.4	8022995	2.7	1.0	8022978
Total Cadmium (Cd)	mg/kg	<0.050	8022995	0.19	<0.050	8022978	<0.050	8022995	<0.050	0.050	8022978
Total Chromium (Cr)	mg/kg	12	8022995	4.5	17	8022978	16	8022995	10	1.0	8022978
Total Cobalt (Co)	mg/kg	1.9	8022995	1.1	5.5	8022978	5.6	8022995	2.4	0.50	8022978
Total Copper (Cu)	mg/kg	3.6	8022995	3.9	11	8022978	10	8022995	3.9	1.0	8022978
Total Lead (Pb)	mg/kg	3.4	8022995	1.6	5.9	8022978	5.3	8022995	3.1	0.50	8022978
Total Mercury (Hg)	mg/kg	<0.050	8022995	<0.050	<0.050	8022978	<0.050	8022995	<0.050	0.050	8022978
Total Nickel (Ni)	mg/kg	6.4	8022995	3.2	13	8022978	12	8022995	6.4	1.0	8022978
Total Zinc (Zn)	mg/kg	<10	8022995	<10	<10	8022978	11	8022995	<10	10	8022978
RDL = Reportable Detection L	imit										

Maxxam ID		MZ5678						
Sampling Date		2015/08/23						
COC Number		G102366						
	UNITS	CM15-8B	RDL	QC Batch				
Elements								
Total Arsenic (As)	mg/kg	2.4	1.0	8022995				
Total Cadmium (Cd)	mg/kg	<0.050	0.050	8022995				
Total Chromium (Cr)	mg/kg	23	1.0	8022995				
Total Cobalt (Co)	mg/kg	6.4	0.50	8022995				
Total Copper (Cu)	mg/kg	14	1.0	8022995				
Total Lead (Pb)	mg/kg	5.3	0.50	8022995				
Total Mercury (Hg)	mg/kg	<0.050	0.050	8022995				
Total Nickel (Ni)	mg/kg	15	1.0	8022995				
Total Zinc (Zn)	mg/kg	35	10	8022995				
RDL = Reportable Detection L	imit							



EnGlobe Corp

Client Project #: KITIK12, CAM-M Site Location: CAMBRIDGE BAY

Sampler Initials: AP

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		MZ5679							
Sampling Date		2015/08/23							
COC Number		G102366							
	UNITS	CM15-7W	RDL	QC Batch					
Low Level Elements									
Total Cadmium (Cd)	ug/L	0.049	0.040	8019096					
RDL = Reportable Detection Limit									



EnGlobe Corp

Client Project #: KITIK12, CAM-M Site Location: CAMBRIDGE BAY

Sampler Initials: AP

POLYCHLORINATED BIPHENYLS BY GC-ECD (WATER)

Maxxam ID		MZ5679		
Sampling Date		2015/08/23		
COC Number		G102366		
	UNITS	CM15-7W	RDL	QC Batch
Polychlorinated Biphenyls				
Aroclor 1016	mg/L	<0.000050	0.000050	8019095
Aroclor 1221	mg/L	<0.000050	0.000050	8019095
Aroclor 1232	mg/L	<0.000050	0.000050	8019095
Aroclor 1242	mg/L	<0.000050	0.000050	8019095
Aroclor 1248	mg/L	<0.000050	0.000050	8019095
Aroclor 1254	mg/L	<0.000050	0.000050	8019095
Aroclor 1260	mg/L	<0.000050	0.000050	8019095
Aroclor 1262	mg/L	<0.000050	0.000050	8019095
Aroclor 1268	mg/L	<0.000050	0.000050	8019095
Total Aroclors	mg/L	<0.000050	0.000050	8019095
Surrogate Recovery (%)				
NONACHLOROBIPHENYL (sur.)	%	108		8019095
RDL = Reportable Detection Lim	it			



EnGlobe Corp

Client Project #: KITIK12, CAM-M Site Location: CAMBRIDGE BAY

Sampler Initials: AP

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		MZ5679						
Sampling Date		2015/08/23						
COC Number		G102366						
	UNITS	CM15-7W	RDL	QC Batch				
Elements								
Total Arsenic (As)	mg/L	0.012	0.00040	8021207				
Total Chromium (Cr)	mg/L	0.0025	0.0020	8021207				
Total Cobalt (Co)	mg/L	0.0023	0.00060	8021207				
Total Copper (Cu)	mg/L	0.0049	0.00040	8021207				
Total Lead (Pb)	mg/L	<0.00040	0.00040	8021207				
Total Nickel (Ni)	mg/L	0.055	0.0010	8021207				
Total Zinc (Zn)	mg/L	0.071	0.0060	8021207				
Low Level Elements								
Total Mercury (Hg)	ug/L	<0.0060 (1)	0.0060	8023296				
RDL = Reportable Detection L (1) Due to the sample matrix,		required dilutio	n. Detecti	on limit				

was adjusted accordingly



EnGlobe Corp

Client Project #: KITIK12, CAM-M Site Location: CAMBRIDGE BAY

Sampler Initials: AP

GENERAL COMMENTS

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

Package 1 4.3°C

Sample MZ5674-01: Headspace was noted in sample container at the time of volatiles extraction.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER) Comments

Sample MZ5679-01 Elements by ICPMS - Total: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly

Results relate only to the items tested.



QUALITY ASSURANCE REPORT

EnGlobe Corp

Client Project #: KITIK12, CAM-M

Site Location: CAMBRIDGE BAY

Sampler Initials: AP

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPI	D	QC Sta	ndard
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8019095	NONACHLOROBIPHENYL (sur.)	2015/08/31	90	30 - 130	85	30 - 130	89	%				
8019788	O-TERPHENYL (sur.)	2015/08/29	79	50 - 130	86	50 - 130	104	%				<u> </u>
8021140	O-TERPHENYL (sur.)	2015/08/30	81	50 - 130	84	50 - 130	87	%				1
8021608	1,4-Difluorobenzene (sur.)	2015/09/01	96	60 - 140	96	60 - 140	112	%				
8021608	4-Bromofluorobenzene (sur.)	2015/09/01	108	60 - 140	104	60 - 140	95	%				1
8021608	D10-ETHYLBENZENE (sur.)	2015/09/01	92	60 - 130	92	60 - 130	88	%				
8021608	D4-1,2-Dichloroethane (sur.)	2015/09/01	97	60 - 140	97	60 - 140	105	%				
8024388	NONACHLOROBIPHENYL (sur.)	2015/09/02	98	30 - 130	85	30 - 130	76	%				
8025008	1,4-Difluorobenzene (sur.)	2015/09/04	104	70 - 130	106	70 - 130	106	%				
8025008	4-Bromofluorobenzene (sur.)	2015/09/04	101	70 - 130	99	70 - 130	99	%				
8025008	D4-1,2-Dichloroethane (sur.)	2015/09/04	103	70 - 130	103	70 - 130	104	%				
8019095	Aroclor 1016	2015/08/31					<0.000050	mg/L	NC	40		1
8019095	Aroclor 1221	2015/08/31					<0.000050	mg/L	NC	40		
8019095	Aroclor 1232	2015/08/31					<0.000050	mg/L	NC	40		1
8019095	Aroclor 1242	2015/08/31					<0.000050	mg/L	NC	40		
8019095	Aroclor 1248	2015/08/31					<0.000050	mg/L	NC	40		
8019095	Aroclor 1254	2015/08/31					<0.000050	mg/L	NC	40		
8019095	Aroclor 1260	2015/08/31	77	30 - 130	76	30 - 130	<0.000050	mg/L	NC	40		
8019095	Aroclor 1262	2015/08/31					<0.000050	mg/L	NC	40		1
8019095	Aroclor 1268	2015/08/31					<0.000050	mg/L	NC	40		
8019095	Total Aroclors	2015/08/31					<0.000050	mg/L	NC	40		
8019788	F2 (C10-C16 Hydrocarbons)	2015/08/29	NC	50 - 130	105	70 - 130	<10	mg/kg	0.49	50		
8019788	F3 (C16-C34 Hydrocarbons)	2015/08/29	NC	50 - 130	108	70 - 130	<50	mg/kg	7.7	50		
8019788	F4 (C34-C50 Hydrocarbons)	2015/08/29	NC	50 - 130	101	70 - 130	<50	mg/kg	NC	50		
8021140	F2 (C10-C16 Hydrocarbons)	2015/08/30	91	50 - 130	95	70 - 130	<0.10	mg/L	NC	40		
8021140	F3 (C16-C34 Hydrocarbons)	2015/08/30	97	50 - 130	100	70 - 130	<0.20	mg/L	NC	40		<u> </u>
8021140	F4 (C34-C50 Hydrocarbons)	2015/08/30	91	50 - 130	96	70 - 130	<0.20	mg/L	NC	40		
8021207	Total Arsenic (As)	2015/08/30	95	80 - 120	96	80 - 120	0.00030, RDL=0.00020	mg/L	3.2	20		
8021207	Total Chromium (Cr)	2015/08/30	104	80 - 120	102	80 - 120	<0.0010	mg/L	4.9	20		
8021207	Total Cobalt (Co)	2015/08/30	101	80 - 120	103	80 - 120	<0.00030	mg/L	5.2	20		 [



QUALITY ASSURANCE REPORT(CONT'D)

EnGlobe Corp

Client Project #: KITIK12, CAM-M

Site Location: CAMBRIDGE BAY

Sampler Initials: AP

			Matrix	Spike	Spiked	Blank	Method I	Blank	RP	D	QC Sta	ndard
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8021207	Total Copper (Cu)	2015/08/30	93	80 - 120	100	80 - 120	<0.00020	mg/L	1.6	20		<u> </u>
8021207	Total Lead (Pb)	2015/08/30	95	80 - 120	98	80 - 120	<0.00020	mg/L	7.0	20		<u> </u>
8021207	Total Nickel (Ni)	2015/08/30	97	80 - 120	102	80 - 120	<0.00050	mg/L	5.2	20		1
8021207	Total Zinc (Zn)	2015/08/30	83	80 - 120	90	80 - 120	<0.0030	mg/L	15	20		
8021608	Benzene	2015/09/01	113	60 - 140	109	60 - 140	<0.0050	mg/kg	NC	50		1
8021608	Ethylbenzene	2015/09/01	105	60 - 140	103	60 - 140	<0.010	mg/kg	NC	50		
8021608	F1 (C6-C10) - BTEX	2015/09/01					<12	mg/kg	NC	50		1
8021608	F1 (C6-C10)	2015/09/01	97	60 - 140	112	60 - 140	<12	mg/kg	NC	50		
8021608	m & p-Xylene	2015/09/01	103	60 - 140	102	60 - 140	<0.040	mg/kg	NC	50		<u> </u>
8021608	o-Xylene	2015/09/01	105	60 - 140	104	60 - 140	<0.020	mg/kg	NC	50		
8021608	Toluene	2015/09/01	95	60 - 140	126	60 - 140	<0.020	mg/kg	NC	50		1
8021608	Xylenes (Total)	2015/09/01					<0.040	mg/kg	NC	50		1
8021654	Moisture	2015/08/31					<0.30	%	1.3	20		
8021661	Moisture	2015/08/31					<0.30	%	2.8	20		1
8022978	Total Arsenic (As)	2015/09/01	97	75 - 125	101	75 - 125	<1.0	mg/kg	NC	35	102	50 - 150
8022978	Total Cadmium (Cd)	2015/09/01	94	75 - 125	99	75 - 125	<0.050	mg/kg	NC	35		1
8022978	Total Chromium (Cr)	2015/09/01	96	75 - 125	99	75 - 125	<1.0	mg/kg	NC	35	93	41 - 159
8022978	Total Cobalt (Co)	2015/09/01	90	75 - 125	94	75 - 125	<0.50	mg/kg	NC	35	87	75 - 125
8022978	Total Copper (Cu)	2015/09/01	94	75 - 125	99	75 - 125	<1.0	mg/kg	NC	35	91	73 - 127
8022978	Total Lead (Pb)	2015/09/01	96	75 - 125	102	75 - 125	<0.50	mg/kg	NC	35	93	54 - 146
8022978	Total Mercury (Hg)	2015/09/01	103	75 - 125	106	75 - 125	<0.050	mg/kg				1
8022978	Total Nickel (Ni)	2015/09/01	95	75 - 125	99	75 - 125	<1.0	mg/kg	NC	35	102	61 - 139
8022978	Total Zinc (Zn)	2015/09/01	94	75 - 125	99	75 - 125	<10	mg/kg	NC	35	97	72 - 128
8022995	Total Arsenic (As)	2015/09/01	99	75 - 125	111	75 - 125	<1.0	mg/kg	NC	35	101	50 - 150
8022995	Total Cadmium (Cd)	2015/09/01	100	75 - 125	112	75 - 125	<0.050	mg/kg	NC	35		1
8022995	Total Chromium (Cr)	2015/09/01	105	75 - 125	111	75 - 125	<1.0	mg/kg	7.3	35	96	41 - 159
8022995	Total Cobalt (Co)	2015/09/01	96	75 - 125	109	75 - 125	<0.50	mg/kg	NC	35	95	75 - 125
8022995	Total Copper (Cu)	2015/09/01	96	75 - 125	110	75 - 125	<1.0	mg/kg	NC	35	93	73 - 127
8022995	Total Lead (Pb)	2015/09/01	107	75 - 125	111	75 - 125	<0.50	mg/kg	NC	35	94	54 - 146
8022995	Total Mercury (Hg)	2015/09/01	112	75 - 125	119	75 - 125	<0.050	mg/kg	NC	35		
8022995	Total Nickel (Ni)	2015/09/01	100	75 - 125	109	75 - 125	<1.0	mg/kg	6.8	35	100	61 - 139



QUALITY ASSURANCE REPORT(CONT'D)

EnGlobe Corp

Client Project #: KITIK12, CAM-M

Site Location: CAMBRIDGE BAY

Sampler Initials: AP

			Matrix	Spike	Spiked	Blank	Method I	Blank	RP	D	QC Sta	ndard
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8022995	Total Zinc (Zn)	2015/09/01	101	75 - 125	108	75 - 125	<10	mg/kg	NC	35	97	72 - 128
8023296	Total Mercury (Hg)	2015/09/02	NC	80 - 120	82	80 - 120	<0.0020	ug/L	NC	20		
8024388	Aroclor 1016	2015/09/02					<0.010	mg/kg	NC	50		
8024388	Aroclor 1221	2015/09/02					<0.010	mg/kg	NC	50		
8024388	Aroclor 1232	2015/09/02					<0.010	mg/kg	NC	50		
8024388	Aroclor 1242	2015/09/02					<0.010	mg/kg	NC	50		
8024388	Aroclor 1248	2015/09/02					<0.010	mg/kg	NC	50		
8024388	Aroclor 1254	2015/09/02					<0.010	mg/kg	NC	50		
8024388	Aroclor 1260	2015/09/02	80	30 - 130	74	30 - 130	<0.010	mg/kg	NC	50		
8024388	Aroclor 1262	2015/09/02					<0.010	mg/kg	NC	50		
8024388	Aroclor 1268	2015/09/02					<0.010	mg/kg	NC	50		
8024388	Total Aroclors	2015/09/02					<0.010	mg/kg	NC	50		
8025008	Benzene	2015/09/04	112	70 - 130	110	70 - 130	<0.40	ug/L	NC	40		
8025008	Ethylbenzene	2015/09/04	109	70 - 130	105	70 - 130	<0.40	ug/L	NC	40		
8025008	F1 (C6-C10) - BTEX	2015/09/04					<100	ug/L	NC	40		
8025008	F1 (C6-C10)	2015/09/04	92	70 - 130	88	70 - 130	<100	ug/L	NC	40		
8025008	m & p-Xylene	2015/09/04	110	70 - 130	105	70 - 130	<0.80	ug/L	NC	40		
8025008	o-Xylene	2015/09/04	106	70 - 130	106	70 - 130	<0.40	ug/L	NC	40		
8025008	Toluene	2015/09/04	108	70 - 130	105	70 - 130	<0.40	ug/L	NC	40		
8025008	Xylenes (Total)	2015/09/04					<0.80	ug/L	NC	40		

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

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

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of the native sample concentration).

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (one or both samples < 5x RDL).



EnGlobe Corp

Client Project #: KITIK12, CAM-M Site Location: CAMBRIDGE BAY

Sampler Initials: AP

VALIDATION SIGNATURE PAGE

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

New York
Dennis Ngondu, Organics – Supervisor
Ghayasuddin Khan, M.Sc., B.Ed., P.Chem, Scientific Specialist
Junchi Gas Janet Gao, Supervisor
Janet Gao, Supervisor

Veronica Falk, Scientific Specialist

1/enicatelk

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Report Transmission Cover Page

Bill To: SILA Remediation

Report To: SILA Remediation

250-1260 Boul Lebourgneuf Name:

Quebec, QC, Canada G2K 2G2

Attn: Jean-Pierre Pelletier

Sampled By: A. Passalis

Company: Sila

Project: ID:

KIRIK12

Location: Cambridge Bay LSD: CAM-M

P.O.: 20433

Acct code:

Lot ID: 1091627

C0009013

Date Received: Sep 2, 2015 Date Reported: Dec 23, 2015

Control Number:

Report Number: 2071646

Contact & Affiliation	Address	Delivery Commitments				
Angela Lyster Exova - Employees	Bay 5, 2712 - 37 Avenue, c/o Exova Calgary, Alberta T1Y 5L3 Phone: (403) 291-2022 Fax: (403) 291-2021 Email: angela.lyster@exova.com	On [Report Approval] send (Test Report, COC) by Email - Single Report				
Andrew Passalis SILA Remediation	350, rue Franquet Sainte-Foy, Quebec G1P 4P3 Phone: (204) 791-4938 Fax: (418) 653-3583 Email: andrew.passalis@gmail.com	On [Report Approval] send (COC, Test Report) by Email - Single Report				
Jean-Pierre Pelletier SILA Remediation	250-1260 Boul Lebourgneuf Quebec, Quebec G2K 2G2 Phone: (581) 984-2585 Fax: null Email: jean-pierre.pelletier@lvm.ca	On [Report Approval] send (COC, Test Report) by Email - Single Report On [Lot Approval and Final Test Report Approval] send (Invoice) by Email - Single Report On [Lot Approval and Final Test Report Approval] send (Invoice) by Email - Single Report On [Lot Approval and Final Test Report Approval] send (Invoice) by Email - Single Report On [Lot Approval and Final Test Report Approval] send (Invoice) by Email - Single Report On [Lot Approval and Final Test Report Approval] send (Invoice) by Email - Single Report				

Notes To Clients:

- Report was issued to remove the metals not originally requested and to adjust detection limits for extractable hydrocarbons and PCB's as requested by Jean-Pierre Pelletier of Englobe. Previous report 2039029.
- · Analysis was performed on samples 1-73 that exceeded the recommended holding time for CCMEC analysis.
- Note that due to required lower detection limit for PCB analysis in both water and soil the Nominal Detection limit was set to 0.05.

T: +1 (780) 438-5522 F: +1 (780) 434-8586 E: Edmonton@exova.com W: www.exova.com



1091627

C0009013

2071646

1091627-3

Sep 2, 2015

Dec 23, 2015

Analytical Report

Bill To: SILA Remediation

250-1260 Boul Lebourgneuf Name:

Quebec, QC, Canada

G2K 2G2

Attn: Jean-Pierre Pelletier Sampled By: A. Passalis

Report To: SILA Remediation

Company: Sila Project: ID:

KIRIK12

1091627-1

Location: Cambridge Bay

LSD: CAM-M P.O.: 20433

Reference Number

Acct code:

Lot ID:

Control Number:

Date Received:

Date Reported:

Report Number:

1091627-2

Aug 22, 2015 Aug 22, 2015 Sample Date Aug 22, 2015 Sample Time NA NA NA Sample Location **Sample Description** CM15-1A CM15-1B CM15-2A Matrix Soil Soil Soil Nominal Detection Analyte Units Results Results Results Limit **Metals Strong Acid Digestion** 3.0 3.2 4.3 0.2 Arsenic Strong Acid Extractable mg/kg Cadmium Strong Acid Extractable mg/kg 0.02 0.02 0.02 0.01 Chromium Strong Acid Extractable mg/kg 16.3 18.0 17.3 0.5 Cobalt Strong Acid Extractable mg/kg 6.0 6.5 5.9 0.1 Copper Strong Acid Extractable mg/kg 14.3 12.2 12.0 1 Lead Strong Acid Extractable mg/kg 5.4 5.7 8.4 0.1 Mercury Strong Acid Extractable mg/kg < 0.05 < 0.05 < 0.05 0.05 Nickel Strong Acid Extractable mg/kg 13.8 14.3 18.1 0.5 Zinc Strong Acid Extractable 17 17 mg/kg 12 1 Mono-Aromatic Hydrocarbons - Soil < 0.005 < 0.005 0.005 Benzene Dry Weight < 0.005 mg/kg Toluene Dry Weight < 0.02 < 0.02 < 0.02 mg/kg 0.02 Ethylbenzene Dry Weight < 0.010 <0.010 <0.010 0.01 mg/kg mg/kg Total Xylenes (m,p,o) Dry Weight < 0.03 < 0.03 < 0.03 0.03 Volatile Petroleum Hydrocarbons - Soil **Extraction Date** Volatiles 3-Sep-15 3-Sep-15 3-Sep-15 F1 C6-C10 Dry Weight mg/kg <10 <10 <10 10 Dry Weight F1 -BTEX mg/kg <10 <10 <10 10 **Extractable Petroleum Hydrocarbons - Soil** 3-Sep-15 **Extraction Date** Total Extractables 3-Sep-15 3-Sep-15 F2c C10-C16 Dry Weight <40 <40 <40 40 mg/kg Dry Weight <40 <40 192 40 F3c C16-C34 mg/kg Dry Weight <40 <40 286 40 F4c C34-C50 mg/kg F4HTGCc C34-C50+ Dry Weight <40 <40 589 40 mg/kg % C50+ % <5 <5 38.8 Silica Gel Cleanup Silica Gel Cleanup Done Done Done Soil % Moisture Moisture Soil % Moisture % by weight 7.68 8.84 13.20 Polychlorinated Biphenyls - Soil Aroclor 1016 Dry Weight < 0.05 < 0.05 < 0.05 0.05 mg/kg Aroclor 1221 Dry Weight < 0.05 < 0.05 < 0.05 0.05 mg/kg

< 0.05

< 0.05

< 0.05

< 0.05

mg/kg

mg/kg

mg/kg

mg/kg

< 0.05

< 0.05

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< 0.05

< 0.05

< 0.05

< 0.05

0.05

0.05

0.05

0.05

Dry Weight

Dry Weight

Dry Weight

Dry Weight

Aroclor 1232

Aroclor 1242

Aroclor 1248

Aroclor 1254

Exova 7217 Roper Road NW Edmonton, Alberta T6B 3J4, Canada

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Analytical Report

Bill To: SILA Remediation

Project:

Lot ID: 1091627

Report To: SILA Remediation

ID: Name: KIRIK12

Control Number: C0009013

250-1260 Boul Lebourgneuf Quebec, QC, Canada

Location:

Cambridge Bay

20433

Date Received: Sep 2, 2015

G2K 2G2

Attn: Jean-Pierre Pelletier

LSD: P.O.:

Date Reported: CAM-M

Dec 23, 2015

Sampled By: A. Passalis

Acct code:

Report Number: 2071646

Company: Sila

Reference Number Sample Date Sample Time

1091627-1 Aug 22, 2015 NA

1091627-2 Aug 22, 2015

1091627-3 Aug 22, 2015

Sample Location

NA

NA

Sample Description Matrix

CM15-1A Soil

CM15-1B Soil

CM15-2A Soil

Analyte		Units	Results	Results	Results	Nominal Detection Limit
Polychlorinated Bipher	yls - Soil - Continued					
Aroclor 1260	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1262	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1268	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Total PCBs	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Polychlorinated Bipher	yls - Soil - Surrogate					
Decachlorobiphenyl	Surrogate	%	110	120	110	50-150

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Analytical Report

Bill To: SILA Remediation

Project:

Lot ID: 1091627

Report To: SILA Remediation

ID: Name:

Control Number: C0009013

250-1260 Boul Lebourgneuf

Location: Cambridge Bay

KIRIK12

Date Reported:

Date Received: Sep 2, 2015 Dec 23, 2015

Quebec, QC, Canada G2K 2G2

Attn: Jean-Pierre Pelletier

LSD: P.O.: Acct code: CAM-M 20433

Report Number: 2071646

Sampled By: A. Passalis

Company: Sila

Reference Number Sample Date Sample Time NA

1091627-4 Aug 22, 2015

1091627-5 Aug 22, 2015

1091627-6 Aug 22, 2015

			Aug 22, 2010	Aug 22, 2015	Aug 22, 2010	
		Sample Time	NA	NA	NA	
		ample Location				
	Sam	ple Description	CM15-2B	CM15-3A	CM15-3B	
		Matrix	Soil	Soil	Soil	
Analyte		Units	Results	Results	Results	Nominal Detection Limit
Metals Strong Acid Dige	stion					
Arsenic	Strong Acid Extractable	mg/kg	4.8	3.7	3.5	0.2
Cadmium	Strong Acid Extractable	mg/kg	0.10	0.06	0.03	0.01
Chromium	Strong Acid Extractable	mg/kg	13.1	12.8	14.5	0.5
Cobalt	Strong Acid Extractable	mg/kg	3.6	5.1	5.6	0.1
Copper	Strong Acid Extractable	mg/kg	10.0	12.7	13.9	1
Lead	Strong Acid Extractable	mg/kg	5.1	6.6	7.9	0.1
Mercury	Strong Acid Extractable	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Nickel	Strong Acid Extractable	mg/kg	11.2	12.2	14.2	0.5
Zinc	Strong Acid Extractable	mg/kg	13	16	11	1
Mono-Aromatic Hydroca	rbons - Soil					
Benzene	Dry Weight	mg/kg	< 0.005	< 0.005	< 0.005	0.005
Toluene	Dry Weight	mg/kg	< 0.02	< 0.02	<0.02	0.02
Ethylbenzene	Dry Weight	mg/kg	<0.010	< 0.010	< 0.010	0.01
Total Xylenes (m,p,o)	Dry Weight	mg/kg	< 0.03	< 0.03	< 0.03	0.03
Volatile Petroleum Hydro	ocarbons - Soil					
Extraction Date	Volatiles		3-Sep-15	3-Sep-15	3-Sep-15	
F1 C6-C10	Dry Weight	mg/kg	<10	<10	<10	10
F1 -BTEX	Dry Weight	mg/kg	<10	<10	<10	10
Extractable Petroleum H	ydrocarbons - Soil					
Extraction Date	Total Extractables		3-Sep-15	3-Sep-15	3-Sep-15	
F2c C10-C16	Dry Weight	mg/kg	<40	<40	<40	40
F3c C16-C34	Dry Weight	mg/kg	<40	<40	<40	40
F4c C34-C50	Dry Weight	mg/kg	<40	<40	<40	40
F4HTGCc C34-C50+	Dry Weight	mg/kg	<40	<40	<40	40
% C50+		%	<5	<5	<5	
Silica Gel Cleanup						
Silica Gel Cleanup			Done	Done	Done	
Soil % Moisture						
Moisture	Soil % Moisture	% by weight	28.40	7.23	8.82	
Polychlorinated Bipheny	rls - Soil					
Aroclor 1016	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1221	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1232	Dry Weight	mg/kg	<0.05	<0.05	< 0.05	0.05
Aroclor 1242	Dry Weight	mg/kg	<0.05	< 0.05	< 0.05	0.05
Aroclor 1248	Dry Weight	mg/kg	<0.05	< 0.05	< 0.05	0.05
Aroclor 1254	Dry Weight	mg/kg	<0.05	<0.05	< 0.05	0.05

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Analytical Report

Bill To: SILA Remediation

Project:

Lot ID: 1091627

Report To: SILA Remediation

ID: Name:

Control Number: C0009013

250-1260 Boul Lebourgneuf Quebec, QC, Canada

Location: Cambridge Bay

KIRIK12

Date Received: Sep 2, 2015
Date Reported: Dec 23, 2015

G2K 2G2

LSD: CAM-M P.O.: 20433 Report Number: 2071646

Attn: Jean-Pierre Pelletier

Sampled By: A. Passalis Company: Sila Acct code:

		Reference Number Sample Date	1091627-4 Aug 22, 2015	1091627-5 Aug 22, 2015	1091627-6 Aug 22, 2015	
		Sample Time	NA	NA	NA	
		Sample Location				
		Sample Description	CM15-2B	CM15-3A	CM15-3B	
		Matrix	Soil	Soil	Soil	
Analyte		Units	Results	Results	Results	Nominal Detection Limit
Polychlorinated Bipheny	ls - Soil - Continued					_
Aroclor 1260	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1262	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1268	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Total PCBs	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Polychlorinated Bipheny	ls - Soil - Surrogate					
Decachlorobiphenyl	Surrogate	%	110	120	120	50-150

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Analytical Report

Bill To: SILA Remediation

Project:

Lot ID: 1091627

Report To: SILA Remediation

ID: Name:

Control Number: C0009013

250-1260 Boul Lebourgneuf Quebec, QC, Canada

Location: Cambridge Bay

KIRIK12

20433

Date Received: Sep 2, 2015 Date Reported: Dec 23, 2015

G2K 2G2

LSD:

CAM-M Report Number: 2071646

Attn: Jean-Pierre Pelletier Sampled By: A. Passalis

P.O.: Acct code:

Company: Sila

Reference Number Sample Date

1091627-7 Aug 22, 2015

1091627-8 Aug 22, 2015

1091627-9 Aug 22, 2015

		Sample Time Sample Location Sample Description	NA CM15-4A	NA CM15-4B	NA CM15-5A	
	Sam					
		Matrix	Soil	Soil	Soil	
Analyte		Units	Results	Results	Results	Nominal Detection Limit
Metals Strong Acid Dige	stion					
Arsenic	Strong Acid Extractable	mg/kg	3.5	3.3	2.4	0.2
Cadmium	Strong Acid Extractable	mg/kg	0.02	0.04	0.03	0.01
Chromium	Strong Acid Extractable	mg/kg	12.4	15.2	8.7	0.5
Cobalt	Strong Acid Extractable	mg/kg	4.5	4.6	2.5	0.1
Copper	Strong Acid Extractable	mg/kg	8.1	8.4	4.8	1
Lead	Strong Acid Extractable	mg/kg	6.7	6.5	3.8	0.1
Mercury	Strong Acid Extractable	mg/kg	<0.05	< 0.05	< 0.05	0.05
Nickel	Strong Acid Extractable	mg/kg	10.3	11.8	6.0	0.5
Zinc	Strong Acid Extractable	mg/kg	9	54	7	1
Mono-Aromatic Hydroca	rbons - Soil					
Benzene	Dry Weight	mg/kg	< 0.005	< 0.005	< 0.005	0.005
Toluene	Dry Weight	mg/kg	<0.02	< 0.02	< 0.02	0.02
Ethylbenzene	Dry Weight	mg/kg	<0.010	< 0.010	< 0.010	0.01
Total Xylenes (m,p,o)	Dry Weight	mg/kg	< 0.03	< 0.03	< 0.03	0.03
Volatile Petroleum Hydro	ocarbons - Soil					
Extraction Date	Volatiles		3-Sep-15	3-Sep-15	3-Sep-15	
F1 C6-C10	Dry Weight	mg/kg	<10	<10	<10	10
F1 -BTEX	Dry Weight	mg/kg	<10	<10	<10	10
Extractable Petroleum H	lydrocarbons - Soil					
Extraction Date	Total Extractables		3-Sep-15	3-Sep-15	3-Sep-15	
F2c C10-C16	Dry Weight	mg/kg	<40	<40	<40	40
F3c C16-C34	Dry Weight	mg/kg	<40	<40	<40	40
F4c C34-C50	Dry Weight	mg/kg	<40	<40	<40	40
F4HTGCc C34-C50+	Dry Weight	mg/kg	<40	<40	<40	40
% C50+		%	<5	<5	<5	
Silica Gel Cleanup						
Silica Gel Cleanup			Done	Done	Done	
Soil % Moisture						
Moisture	Soil % Moisture	% by weight	5.55	7.37	4.30	
Polychlorinated Bipheny	/ls - Soil					
Aroclor 1016	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1221	Dry Weight	mg/kg	<0.05	<0.05	<0.05	0.05
Aroclor 1232	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1242	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1248	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1254	Dry Weight	mg/kg	< 0.05	<0.05	< 0.05	0.05

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Analytical Report

Bill To: SILA Remediation

Project:

Lot ID: 1091627

Report To: SILA Remediation

ID: Name:

Control Number: C0009013

250-1260 Boul Lebourgneuf Quebec, QC, Canada

Location: Cambridge Bay

KIRIK12

CAM-M

20433

Date Received: Sep 2, 2015 Date Reported: Dec 23, 2015

G2K 2G2

LSD: Attn: Jean-Pierre Pelletier P.O.: Report Number: 2071646

Sampled By: A. Passalis

Company: Sila

Acct code:

		Reference Number	1091627-7	1091627-8	1091627-9	
		Sample Date	Aug 22, 2015	Aug 22, 2015	Aug 22, 2015	
		Sample Time	NA	NA	NA	
		Sample Location				
		Sample Description	CM15-4A	CM15-4B	CM15-5A	
		Matrix	Soil	Soil	Soil	
Analyte		Units	Results	Results	Results	Nominal Detection Limit
Polychlorinated Biphen	yls - Soil - Continue	d				
Aroclor 1260	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1262	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1268	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Total PCBs	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Polychlorinated Biphen	yls - Soil - Surrogate	e				
Decachlorobiphenyl	Surrogate	%	110	110	120	50-150



Analytical Report

Bill To: SILA Remediation

Project:

Lot ID: 1091627

Report To: SILA Remediation

ID: Name:

Control Number: C0009013

250-1260 Boul Lebourgneuf Quebec, QC, Canada

Location: Cambridge Bay Date Received: Sep 2, 2015 Date Reported: Dec 23, 2015

G2K 2G2

LSD: Attn: Jean-Pierre Pelletier P.O.: Report Number: 2071646

Sampled By: A. Passalis

Acct code:

20433

KIRIK12

CAM-M

Company: Sila

	Refe	erence Number Sample Date	1091627-10 Aug 22, 2015	1091627-11 Aug 22, 2015	1091627-12 Aug 22, 2015	
		Sample Time	NA	NA	NA	
		ample Location				
	Sam	ple Description	CM15-5B	CM15-6A	CM15-6B	
		Matrix	Soil	Soil	Soil	
Analyte		Units	Results	Results	Results	Nominal Detection Limit
Metals Strong Acid Diges	tion					
Arsenic	Strong Acid Extractable	mg/kg	2.2	2.2	2.2	0.2
Cadmium	Strong Acid Extractable	mg/kg	0.02	0.10	0.12	0.01
Chromium	Strong Acid Extractable	mg/kg	8.3	11.5	12.3	0.5
Cobalt	Strong Acid Extractable	mg/kg	2.5	3.1	2.9	0.1
Copper	Strong Acid Extractable	mg/kg	17.4	10.7	10.3	1
Lead	Strong Acid Extractable	mg/kg	3.6	5.9	6.2	0.1
Mercury	Strong Acid Extractable	mg/kg	< 0.05	0.05	< 0.05	0.05
Nickel	Strong Acid Extractable	mg/kg	6.6	9.3	8.9	0.5
Zinc	Strong Acid Extractable	mg/kg	6	21	20	1
Mono-Aromatic Hydrocarl	bons - Soil					
Benzene	Dry Weight	mg/kg	< 0.005	< 0.005	< 0.005	0.005
Toluene	Dry Weight	mg/kg	<0.02	< 0.02	< 0.02	0.02
Ethylbenzene	Dry Weight	mg/kg	< 0.010	<0.010	<0.010	0.01
Total Xylenes (m,p,o)	Dry Weight	mg/kg	< 0.03	< 0.03	< 0.03	0.03
Volatile Petroleum Hydrod	carbons - Soil					
Extraction Date	Volatiles		3-Sep-15	3-Sep-15	3-Sep-15	
F1 C6-C10	Dry Weight	mg/kg	<10	<10	<10	10
F1 -BTEX	Dry Weight	mg/kg	<10	<10	<10	10
Extractable Petroleum Hy	drocarbons - Soil					
Extraction Date	Total Extractables		3-Sep-15	3-Sep-15	3-Sep-15	
F2c C10-C16	Dry Weight	mg/kg	<40	<40	<40	40
F3c C16-C34	Dry Weight	mg/kg	<40	124	127	40
F4c C34-C50	Dry Weight	mg/kg	<40	<40	<40	40
F4HTGCc C34-C50+	Dry Weight	mg/kg	<40	<40	<40	40
% C50+	, ,	%	<5	<5	<5	
Silica Gel Cleanup						
Silica Gel Cleanup			Done	Done	Done	
Soil % Moisture						
Moisture	Soil % Moisture	% by weight	3.87	67.50	53.10	
Polychlorinated Biphenyl						
Aroclor 1016	Dry Weight	mg/kg	<0.05	<0.05	< 0.05	0.05
Aroclor 1221	Dry Weight	mg/kg	<0.05	<0.05	< 0.05	0.05
Aroclor 1232	Dry Weight	mg/kg	<0.05	<0.05	<0.05	0.05
Aroclor 1242	Dry Weight	mg/kg	<0.05	<0.05	< 0.05	0.05
Aroclor 1248	Dry Weight	mg/kg	<0.05	<0.05	<0.05	0.05
Aroclor 1254	Dry Weight	mg/kg	<0.05	<0.05	< 0.05	0.05

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Analytical Report

Bill To: SILA Remediation

Project:

Lot ID: 1091627

Report To: SILA Remediation

ID: Name:

Control Number: C0009013

250-1260 Boul Lebourgneuf Quebec, QC, Canada

Location: Cambridge Bay

KIRIK12

CAM-M

20433

Date Received: Sep 2, 2015 Date Reported: Dec 23, 2015

G2K 2G2

LSD: Attn: Jean-Pierre Pelletier P.O.: Report Number: 2071646

Sampled By: A. Passalis

Company: Sila

Acct code:

		Reference Number Sample Date	1091627-10 Aug 22, 2015	1091627-11 Aug 22, 2015	1091627-12 Aug 22, 2015	
		Sample Time	Aug 22, 2013 NA	Aug 22, 2013 NA	NA NA	
		Sample Location	INA	NA	NA	
		Sample Description	CM15-5B	CM15-6A	CM15-6B	
		Matrix	Soil	Soil	Soil	
Analyte		Units	Results	Results	Results	Nominal Detection Limit
Polychlorinated Biphen	yls - Soil - Continue	d				
Aroclor 1260	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1262	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1268	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Total PCBs	Dry Weight	mg/kg	< 0.05	< 0.05	<0.05	0.05
Polychlorinated Biphen	yls - Soil - Surrogate	•				
Decachlorobiphenyl	Surrogate	%	110	130	130	50-150

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Analytical Report

Bill To: SILA Remediation

Project:

Lot ID: 1091627

Report To: SILA Remediation

ID: Name:

Control Number: C0009013

250-1260 Boul Lebourgneuf Quebec, QC, Canada

Location:

Sep 2, 2015 Date Received:

G2K 2G2

Cambridge Bay LSD: CAM-M

Date Reported: Dec 23, 2015

Attn: Jean-Pierre Pelletier

P.O.:

Report Number: 2071646

Sampled By: A. Passalis

Company: Sila

Acct code:

Reference Numbe	_
Neierence Munibe	1
Sample Date	•
Sample Time	•

1091627-13 Aug 22, 2015 NA

1091627-14 Aug 22, 2015

1091627-15 Aug 23, 2015

KIRIK12

20433

		Sample Time	NA	NA NA	NA	
		Sample Location				
	Sam	ple Description	CM15-7A	CM15-7B	CM15-8A	
		Matrix	Soil	Soil	Soil	
Analyte		Units	Results	Results	Results	Nominal Detection Limit
Metals Strong Acid Diges	stion					
Arsenic	Strong Acid Extractable	mg/kg	2.1	1.0	1.7	0.2
Cadmium	Strong Acid Extractable	mg/kg	0.59	0.25	0.07	0.01
Chromium	Strong Acid Extractable	mg/kg	10.3	5.7	13.0	0.5
Cobalt	Strong Acid Extractable	mg/kg	2.1	1.5	3.5	0.1
Copper	Strong Acid Extractable	mg/kg	10.7	4.1	8.4	1
Lead	Strong Acid Extractable	mg/kg	3.1	1.8	3.7	0.1
Mercury	Strong Acid Extractable	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Nickel	Strong Acid Extractable	mg/kg	8.0	4.1	9.5	0.5
Zinc	Strong Acid Extractable	mg/kg	8	5	17	1
Mono-Aromatic Hydroca	rbons - Soil					
Benzene	Dry Weight	mg/kg	< 0.005	< 0.005	< 0.005	0.005
Toluene	Dry Weight	mg/kg	< 0.02	<0.02	< 0.02	0.02
Ethylbenzene	Dry Weight	mg/kg	<0.010	< 0.010	< 0.010	0.01
Total Xylenes (m,p,o)	Dry Weight	mg/kg	< 0.03	< 0.03	< 0.03	0.03
Volatile Petroleum Hydro	ocarbons - Soil					
Extraction Date	Volatiles		3-Sep-15	3-Sep-15	3-Sep-15	
F1 C6-C10	Dry Weight	mg/kg	<10	<10	<10	10
F1 -BTEX	Dry Weight	mg/kg	<10	<10	<10	10
Extractable Petroleum Hy	ydrocarbons - Soil					
Extraction Date	Total Extractables		3-Sep-15	3-Sep-15	3-Sep-15	
F2c C10-C16	Dry Weight	mg/kg	<40	<40	<40	40
F3c C16-C34	Dry Weight	mg/kg	<40	<40	<40	40
F4c C34-C50	Dry Weight	mg/kg	<40	<40	<40	40
F4HTGCc C34-C50+	Dry Weight	mg/kg	<40	<40	<40	40
% C50+		%	<5	<5	<5	
Silica Gel Cleanup						
Silica Gel Cleanup			Done	Done	Done	
Soil % Moisture						
Moisture	Soil % Moisture	% by weight	19.10	21.00	40.00	
Polychlorinated Bipheny	ls - Soil					
Aroclor 1016	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1221	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1232	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1242	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1248	Dry Weight	mg/kg	< 0.05	<0.05	< 0.05	0.05
Aroclor 1254	Dry Weight	mg/kg	< 0.05	<0.05	< 0.05	0.05

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Analytical Report

Bill To: SILA Remediation

Report To: SILA Remediation ID:

250-1260 Boul Lebourgneuf

Quebec, QC, Canada

Surrogate

G2K 2G2 Attn: Jean-Pierre Pelletier

Sampled By: A. Passalis

Company: Sila

Decachlorobiphenyl

Project:

KIRIK12

Cambridge Bay

Name:

LSD: CAM-M P.O.: 20433

Acct code:

Location:

Lot ID: 1091627

140

50-150

Control Number: C0009013 Sep 2, 2015 Date Received:

Date Reported: Dec 23, 2015 Report Number: 2071646

		Reference Number	1091627-13	1091627-14	1091627-15	
		Sample Date	Aug 22, 2015	Aug 22, 2015	Aug 23, 2015	
		Sample Time	NA	NA	NA	
		Sample Location				
		Sample Description	CM15-7A	CM15-7B	CM15-8A	
		Matrix	Soil	Soil	Soil	
Analyte		Units	Results	Results	Results	Nominal Detection Limit
Polychlorinated Bipl	nenyls - Soil - Continue	d				
Aroclor 1260	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1262	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1268	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Total PCBs	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Polychlorinated Bipl	henyls - Soil - Surrogate	е				

130

150



1091627

C0009013

2071646

Sep 2, 2015

Dec 23, 2015

Lot ID:

Control Number:

Date Received:

Date Reported:

Report Number:

Analytical Report

Report To:

Bill To: SILA Remediation

250-1260 Boul Lebourgneuf Name:

Quebec, QC, Canada

G2K 2G2 LSD: Jean-Pierre Pelletier P.O.:

Sampled By: A. Passalis

SILA Remediation

Company: Sila

Attn:

Project:

ID:

KIRIK12

Location: Cambridge Bay CAM-M

20433

Acct code:

Reference Number 1091627-16 1091627-17 1091627-18 Sample Date Aug 23, 2015 Aug 23, 2015 Aug 23, 2015 NA NA

Sample Time NA Sample Location

CM15-9B **Sample Description** CM15-8B CM15-9A Matrix Soil Soil Soil Nominal Detection Units Results Results Analyte Results Limit **Metals Strong Acid Digestion** 2.8 2.9 Arsenic Strong Acid Extractable mg/kg 1.3 0.2 Cadmium Strong Acid Extractable 0.04 0.18 0.02 0.01 mg/kg Chromium Strong Acid Extractable mg/kg 24.2 12.4 15.7 0.5 Cobalt 2.0 0.1 Strong Acid Extractable mg/kg 6.7 6.6 Copper Strong Acid Extractable mg/kg 12.7 22.0 12.2 1 Lead Strong Acid Extractable 5.4 2.9 4.8 0.1 mg/kg Mercury Strong Acid Extractable < 0.05 0.07 < 0.05 0.05 mg/kg Nickel 0.5 Strong Acid Extractable mg/kg 16.7 13.8 12.8 Zinc Strong Acid Extractable mg/kg 24 15 14 1 Mono-Aromatic Hydrocarbons - Soil Benzene Dry Weight mg/kg < 0.005 < 0.005 < 0.005 0.005 Dry Weight < 0.02 < 0.02 0.02 Toluene mg/kg < 0.02 Ethylbenzene Dry Weight < 0.010 < 0.010 < 0.010 0.01 mg/kg Total Xylenes (m,p,o) Dry Weight mg/kg < 0.03 < 0.03 < 0.03 0.03 Volatile Petroleum Hydrocarbons - Soil **Extraction Date** Volatiles 3-Sep-15 3-Sep-15 3-Sep-15 F1 C6-C10 <10 <10 <10 10 Dry Weight mg/kg F1 -BTEX Dry Weight <10 <10 <10 10 mg/kg **Extractable Petroleum Hydrocarbons - Soil Extraction Date** Total Extractables 3-Sep-15 3-Sep-15 3-Sep-15 F2c C10-C16 Dry Weight mg/kg <40 <40 <40 40 F3c C16-C34 Dry Weight mg/kg <40 59 <40 40 F4c C34-C50 Dry Weight 47 40 mg/kg <40 <40 F4HTGCc C34-C50+ Dry Weight mg/kg <40 47 <40 40 % C50+ % <5 <5 <5 Silica Gel Cleanup Silica Gel Cleanup Done Done Done Soil % Moisture Soil % Moisture % by weight 11.50 71.90 12.80 Moisture Polychlorinated Biphenyls - Soil Aroclor 1016 Dry Weight < 0.05 < 0.05 < 0.05 0.05 mg/kg 0.05 Aroclor 1221 Dry Weight mg/kg < 0.05 < 0.05 < 0.05 Aroclor 1232 Dry Weight mg/kg < 0.05 < 0.05 < 0.05 0.05 Dry Weight 0.05 Aroclor 1242 mg/kg < 0.05 < 0.05 < 0.05 Aroclor 1248 Dry Weight mg/kg < 0.05 < 0.05 < 0.05 0.05 Aroclor 1254 Dry Weight mg/kg < 0.05 < 0.05 < 0.05 0.05

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Analytical Report

Bill To: SILA Remediation

Report To: SILA Remediation 250-1260 Boul Lebourgneuf

Quebec, QC, Canada

G2K 2G2

Attn: Jean-Pierre Pelletier Sampled By: A. Passalis

Company: Sila Project: ID:

KIRIK12

Name:

LSD: CAM-M P.O.: 20433

Matrix

Acct code:

Location:

Cambridge Bay

Date Reported:

Soil

Date Received: Sep 2, 2015 Dec 23, 2015

Soil

C0009013

Lot ID: 1091627

Report Number: 2071646

Control Number:

Reference Number 1091627-16 1091627-17 1091627-18 Sample Date Aug 23, 2015 Aug 23, 2015 Aug 23, 2015 Sample Time NA NA NA Sample Location **Sample Description** CM15-8B CM15-9A CM15-9B

Nominal Detection Analyte Units Results Results Results Limit Polychlorinated Biphenyls - Soil - Continued Aroclor 1260 Dry Weight mg/kg < 0.05 < 0.05 < 0.05 0.05 Aroclor 1262 Dry Weight < 0.05 < 0.05 < 0.05 0.05 mg/kg Aroclor 1268 Dry Weight < 0.05 < 0.05 0.05 mg/kg < 0.05 Total PCBs Dry Weight 0.05 mg/kg < 0.05 < 0.05 < 0.05 Polychlorinated Biphenyls - Soil - Surrogate Decachlorobiphenyl Surrogate % 150 150 150 50-150

Soil



Bill To: SILA Remediation

Project:

Lot ID: 1091627

Sep 2, 2015

Report To: SILA Remediation

ID: Name:

Control Number: C0009013

250-1260 Boul Lebourgneuf Quebec, QC, Canada

Location: Cambridge Bay

KIRIK12

CAM-M

20433

G2K 2G2

Date Reported: Dec 23, 2015

Date Received:

Attn: Jean-Pierre Pelletier

P.O.:

Report Number: 2071646

Sampled By: A. Passalis

Acct code:

LSD:

Company: Sila

	S	erence Number Sample Date Sample Time ample Location ple Description	1091627-19 Aug 23, 2015 NA CM15-10A	1091627-20 Aug 23, 2015 NA CM15-10B	1091627-21 Aug 23, 2015 NA CM15-11A	
		Matrix	Soil	Soil	Soil	
Analyte		Units	Results	Results	Results	Nominal Detection Limit
Metals Strong Acid Digest	tion					
Arsenic	Strong Acid Extractable	mg/kg	5.1	3.6	2.5	0.2
Cadmium	Strong Acid Extractable	mg/kg	0.10	0.02	0.07	0.01
Chromium	Strong Acid Extractable	mg/kg	16.4	24.0	10.4	0.5
Cobalt	Strong Acid Extractable	mg/kg	6.1	12.7	3.1	0.1
Copper	Strong Acid Extractable	mg/kg	14.7	56.2	10.6	1
Lead	Strong Acid Extractable	mg/kg	12.3	13.1	5.1	0.1
Mercury	Strong Acid Extractable	mg/kg	< 0.05	< 0.05	0.06	0.05
Nickel	Strong Acid Extractable	mg/kg	13.6	22.5	8.2	0.5
Zinc	Strong Acid Extractable	mg/kg	20	20	13	1
Mono-Aromatic Hydrocart	oons - Soil					
Benzene	Dry Weight	mg/kg	< 0.005	< 0.005	< 0.005	0.005
Toluene	Dry Weight	mg/kg	< 0.02	< 0.02	< 0.02	0.02
Ethylbenzene	Dry Weight	mg/kg	<0.010	< 0.010	< 0.010	0.01
Total Xylenes (m,p,o)	Dry Weight	mg/kg	< 0.03	< 0.03	< 0.03	0.03
Volatile Petroleum Hydrod	carbons - Soil					
Extraction Date	Volatiles		3-Sep-15	3-Sep-15	3-Sep-15	
F1 C6-C10	Dry Weight	mg/kg	<10	<10	<10	10
F1 -BTEX	Dry Weight	mg/kg	<10	<10	<10	10
Extractable Petroleum Hye		0 0				
Extraction Date	Total Extractables		3-Sep-15	3-Sep-15	3-Sep-15	
F2c C10-C16	Dry Weight	mg/kg	<40	<40	<40	40
F3c C16-C34	Dry Weight	mg/kg	76	<40	<40	40
F4c C34-C50	Dry Weight	mg/kg	<40	<40	<40	40
F4HTGCc C34-C50+	Dry Weight	mg/kg	42	<40	<40	40
% C50+	,	%	10.5	<5	<5	
Silica Gel Cleanup				-		
Silica Gel Cleanup			Done	Done	Done	
Soil % Moisture						
Moisture	Soil % Moisture	% by weight	23.90	12.80	43.80	
Polychlorinated Biphenyls		,				
Aroclor 1016	Dry Weight	mg/kg	<0.05	<0.05	<0.05	0.05
Aroclor 1221	Dry Weight	mg/kg	<0.05	<0.05	<0.05	0.05
Aroclor 1232	Dry Weight	mg/kg	<0.05	<0.05	<0.05	0.05
Aroclor 1242	Dry Weight	mg/kg	<0.05	<0.05	<0.05	0.05
Aroclor 1248	Dry Weight	mg/kg	<0.05	<0.05	<0.05	0.05
Aroclor 1254	Dry Weight	mg/kg	<0.05	<0.05	<0.05	0.05

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Analytical Report

Bill To: SILA Remediation

Polychlorinated Biphenyls - Soil - Surrogate

Surrogate

Decachlorobiphenyl

Project:

Lot ID: 1091627

130

50-150

Report To: SILA Remediation

ID: Name:

Control Number: C0009013

250-1260 Boul Lebourgneuf Quebec, QC, Canada

Location: Cambridge Bay

%

KIRIK12

CAM-M

20433

Date Received: Sep 2, 2015

G2K 2G2

LSD:

Date Reported: Dec 23, 2015

Attn: Jean-Pierre Pelletier

P.O.:

Report Number: 2071646

Sampled By: A. Passalis

Acct code:

Company: Sila

		Reference Number	1091627-19	1091627-20	1091627-21	
		Sample Date	Aug 23, 2015	Aug 23, 2015	Aug 23, 2015	
		Sample Time	NA	NA	NA	
		Sample Location				
		Sample Description	CM15-10A	CM15-10B	CM15-11A	
		Matrix	Soil	Soil	Soil	
Analyte		Units	Results	Results	Results	Nominal Detection
-		••	Results	Results	Results	Limit
Polychlorinated Biph	enyls - Soil - Continue		Results	Results	Results	Limit
Polychlorinated Biph Aroclor 1260	nenyls - Soil - Continue Dry Weight		<0.05	<0.05	<0.05	<u>Limit</u> 0.05
,	•	d				
Aroclor 1260	Dry Weight	d mg/kg	<0.05	<0.05	<0.05	0.05

150

150



Bill To: SILA Remediation

Project:

Lot ID: 1091627

Report To: SILA Remediation

ID: Name:

Control Number: C0009013

250-1260 Boul Lebourgneuf Quebec, QC, Canada

Location:

Date Received: Sep 2, 2015
Date Reported: Dec 23, 2015

G2K 2G2

LSD: P.O.: CAM-M Report Numb

Attn: Jean-Pierre Pelletier Sampled By: A. Passalis

Acct code:

Report Number: 2071646

Company: Sila

Reference Number Sample Date Sample Time Sample Location 1091627-22 Aug 23, 2015

KIRIK12

20433

Cambridge Bay

1091627-23 Aug 23, 2015 1091627-24 Aug 23, 2015

		•				
		Sample Time	NA	NA	NA	
		ample Location				
	Sam	ple Description	CM15-11B	CM15-12A	CM15-12B	
		Matrix	Soil	Soil	Soil	
Analyte		Units	Results	Results	Results	Nominal Detection Limit
Metals Strong Acid Dige	stion					
Arsenic	Strong Acid Extractable	mg/kg	1.8	3.6	6.6	0.2
Cadmium	Strong Acid Extractable	mg/kg	0.01	0.06	0.02	0.01
Chromium	Strong Acid Extractable	mg/kg	9.2	12.7	23.4	0.5
Cobalt	Strong Acid Extractable	mg/kg	3.1	4.1	6.4	0.1
Copper	Strong Acid Extractable	mg/kg	5.3	9.3	14.9	1
Lead	Strong Acid Extractable	mg/kg	3.0	12.6	9.8	0.1
Mercury	Strong Acid Extractable	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Nickel	Strong Acid Extractable	mg/kg	6.7	9.0	11.7	0.5
Zinc	Strong Acid Extractable	mg/kg	8	19	17	1
Mono-Aromatic Hydroca	arbons - Soil					
Benzene	Dry Weight	mg/kg	< 0.005	< 0.005	< 0.005	0.005
Toluene	Dry Weight	mg/kg	<0.02	<0.02	<0.02	0.02
Ethylbenzene	Dry Weight	mg/kg	<0.010	<0.010	< 0.010	0.01
Total Xylenes (m,p,o)	Dry Weight	mg/kg	<0.03	< 0.03	< 0.03	0.03
Volatile Petroleum Hydro	ocarbons - Soil					
Extraction Date	Volatiles		3-Sep-15	3-Sep-15	3-Sep-15	
F1 C6-C10	Dry Weight	mg/kg	<10	<10	<10	10
F1 -BTEX	Dry Weight	mg/kg	<10	<10	<10	10
Extractable Petroleum H	lydrocarbons - Soil					
Extraction Date	Total Extractables		3-Sep-15	3-Sep-15	3-Sep-15	
F2c C10-C16	Dry Weight	mg/kg	<40	<40	<40	40
F3c C16-C34	Dry Weight	mg/kg	<40	124	<40	40
F4c C34-C50	Dry Weight	mg/kg	<40	<40	<40	40
F4HTGCc C34-C50+	Dry Weight	mg/kg	<40	45	<40	40
% C50+		%	<5	<5	<5	
Silica Gel Cleanup						
Silica Gel Cleanup			Done	Done	Done	
Soil % Moisture						
Moisture	Soil % Moisture	% by weight	6.76	11.40	9.19	
Polychlorinated Bipheny	/ls - Soil					
Aroclor 1016	Dry Weight	mg/kg	<0.05	< 0.05	< 0.05	0.05
Aroclor 1221	Dry Weight	mg/kg	<0.05	< 0.05	< 0.05	0.05
Aroclor 1232	Dry Weight	mg/kg	<0.05	< 0.05	< 0.05	0.05
Aroclor 1242	Dry Weight	mg/kg	<0.05	< 0.05	< 0.05	0.05
Aroclor 1248	Dry Weight	mg/kg	<0.05	< 0.05	< 0.05	0.05
Aroclor 1254	Dry Weight	mg/kg	<0.05	< 0.05	< 0.05	0.05

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Analytical Report

Bill To: SILA Remediation

Project:

Lot ID: 1091627

1091627-24

Aug 23, 2015

NA

Report To: SILA Remediation

ID: Name:

Control Number: C0009013

250-1260 Boul Lebourgneuf Quebec, QC, Canada

Location: Cambridge Bay

KIRIK12

CAM-M

20433

Date Received: Sep 2, 2015 Date Reported: Dec 23, 2015

G2K 2G2

LSD: P.O.: Acct code:

Report Number: 2071646

Attn: Jean-Pierre Pelletier Sampled By: A. Passalis

Company: Sila

> **Reference Number** 1091627-22 1091627-23 Sample Date Aug 23, 2015 Aug 23, 2015 Sample Time NA NA

Sample Location **Sample Description** CM15-11B CM15-12A CM15-12B

Matrix Soil Soil Soil Nominal Detection Analyte Units Results Results Results Limit Polychlorinated Biphenyls - Soil - Continued Aroclor 1260 Dry Weight mg/kg < 0.05 < 0.05 < 0.05 0.05 Aroclor 1262 Dry Weight < 0.05 < 0.05 < 0.05 0.05 mg/kg Aroclor 1268 Dry Weight < 0.05 < 0.05 0.05 mg/kg < 0.05 Total PCBs Dry Weight < 0.05 0.05 mg/kg < 0.05 < 0.05 Polychlorinated Biphenyls - Soil - Surrogate Decachlorobiphenyl Surrogate % >150 150 >150 50-150



Bill To: SILA Remediation

G2K 2G2

Project:

Lot ID: 1091627

Report To: SILA Remediation

ID: Name:

Control Number: C0009013

250-1260 Boul Lebourgneuf Quebec, QC, Canada

Location: Cambridge Bay

KIRIK12

20433

LSD: CAM-M

Date Received: Sep 2, 2015
Date Reported: Dec 23, 2015

Attn: Jean-Pierre Pelletier Sampled By: A. Passalis

P.O.: Acct code: Report Number: 2071646

Company: Sila

Reference Number
Sample Date
Sample Time

1091627-25 Aug 23, 2015 1091627-26 Aug 23, 2015 1091627-27 Aug 23, 2015

		•	-	-	-	
		Sample Time	NA	NA	NA	
		ample Location				
	Sam	ple Description	CM15-13A	CM15-13B	CM15-1WA	
		Matrix	Soil	Soil	Soil	
Analyte		Units	Results	Results	Results	Nominal Detection Limit
Metals Strong Acid Dige	stion					
Arsenic	Strong Acid Extractable	mg/kg	3.2	2.8	3.6	0.2
Cadmium	Strong Acid Extractable	mg/kg	0.13	0.02	0.07	0.01
Chromium	Strong Acid Extractable	mg/kg	15.1	7.6	20.6	0.5
Cobalt	Strong Acid Extractable	mg/kg	4.2	2.9	4.0	0.1
Copper	Strong Acid Extractable	mg/kg	9.9	5.5	8.4	1
Lead	Strong Acid Extractable	mg/kg	8.8	3.8	5.7	0.1
Mercury	Strong Acid Extractable	mg/kg	0.06	< 0.05	< 0.05	0.05
Nickel	Strong Acid Extractable	mg/kg	10.9	8.8	14.6	0.5
Zinc	Strong Acid Extractable	mg/kg	30	6	17	1
Mono-Aromatic Hydroca	arbons - Soil					
Benzene	Dry Weight	mg/kg	< 0.005	< 0.005	< 0.005	0.005
Toluene	Dry Weight	mg/kg	<0.02	<0.02	< 0.02	0.02
Ethylbenzene	Dry Weight	mg/kg	<0.010	<0.010	< 0.010	0.01
Total Xylenes (m,p,o)	Dry Weight	mg/kg	< 0.03	< 0.03	< 0.03	0.03
Volatile Petroleum Hydro	ocarbons - Soil					
Extraction Date	Volatiles		3-Sep-15	3-Sep-15	3-Sep-15	
F1 C6-C10	Dry Weight	mg/kg	<10	<10	<10	10
F1 -BTEX	Dry Weight	mg/kg	<10	<10	<10	10
Extractable Petroleum H						
Extraction Date	Total Extractables		3-Sep-15	3-Sep-15	3-Sep-15	
F2c C10-C16	Dry Weight	mg/kg	<40	<40	<40	40
F3c C16-C34	Dry Weight	mg/kg	137	<40	<40	40
F4c C34-C50	Dry Weight	mg/kg	144	<40	<40	40
F4HTGCc C34-C50+	Dry Weight	mg/kg	182	<40	<40	40
% C50+		%	11.9	<5	<5	
Silica Gel Cleanup						
Silica Gel Cleanup			Done	Done	Done	
Soil % Moisture						
Moisture	Soil % Moisture	% by weight	28.00	5.24	26.70	
Polychlorinated Bipheny	/ls - Soil					
Aroclor 1016	Dry Weight	mg/kg	<0.05	< 0.05	< 0.05	0.05
Aroclor 1221	Dry Weight	mg/kg	<0.05	< 0.05	< 0.05	0.05
Aroclor 1232	Dry Weight	mg/kg	<0.05	< 0.05	< 0.05	0.05
Aroclor 1242	Dry Weight	mg/kg	<0.05	<0.05	< 0.05	0.05
Aroclor 1248	Dry Weight	mg/kg	<0.05	<0.05	< 0.05	0.05
Aroclor 1254	Dry Weight	mg/kg	<0.05	<0.05	< 0.05	0.05

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Analytical Report

Bill To: SILA Remediation

Project:

LSD:

Lot ID: 1091627

Report To: SILA Remediation

ID: Name:

Control Number: C0009013

250-1260 Boul Lebourgneuf Quebec, QC, Canada

Location: Cambridge Bay

20433

KIRIK12

CAM-M

Date Received: Sep 2, 2015 Date Reported: Dec 23, 2015

G2K 2G2 Attn: Jean-Pierre Pelletier

P.O.:

Report Number: 2071646

Sampled By: A. Passalis

Company: Sila

Acct code:

Reference Number Sample Date Sample Time

1091627-25 Aug 23, 2015 NA

1091627-26 Aug 23, 2015 NA

1091627-27 Aug 23, 2015

Sample Location

Sample Description CM15-13A CM15-13B

CM15-1WA Soil

NA

Matrix Soil Soil

Analyte		Units	Results	Results	Results	Nominal Detection Limit
Polychlorinated Biphen	yls - Soil - Continued					
Aroclor 1260	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1262	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1268	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Total PCBs	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Polychlorinated Biphen	yls - Soil - Surrogate					
Decachlorobiphenyl	Surrogate	%	140	150	130	50-150



Bill To: SILA Remediation

Report To: SILA Remediation

250-1260 Boul Lebourgneuf

Quebec, QC, Canada G2K 2G2

Attn: Jean-Pierre Pelletier

Sampled By: A. Passalis

Company: Sila Project: ID:

KIRIK12

Name:

Location: Cambridge Bay LSD: CAM-M

P.O.: 20433

Acct code:

Lot ID: 1091627

Control Number: C0009013 Date Received: Sep 2, 2015

Dec 23, 2015 Date Reported: Report Number: 2071646

	Refe	Reference Number Sample Date		1091627-29 Aug 23, 2015	1091627-30 Aug 23, 2015	
		Sample Time	NA	NA	NA	
		mple Location				
	Samp	le Description	CM15-1WB	CM15-2WA	CM15-2WB	
		Matrix	Soil	Soil	Soil	
Analyte		Units	Results	Results	Results	Nominal Detection
Metals Strong Acid Dige	stion					
Arsenic	Strong Acid Extractable	mg/kg	5.9	3.0	3.0	0.2
Cadmium	Strong Acid Extractable	mg/kg	0.05	0.53	0.02	0.01
Chromium	Strong Acid Extractable	mg/kg	14.1	51.1	10.3	0.5
Cobalt	Strong Acid Extractable	mg/kg	3.2	3.8	2.5	0.1
Copper	Strong Acid Extractable	mg/kg	7.3	21.0	3.4	1
Lead	Strong Acid Extractable	mg/kg	3.6	12.2	3.2	0.1
Mercury	Strong Acid Extractable	mg/kg	< 0.05	0.11	< 0.05	0.05
Nickel	Strong Acid Extractable	mg/kg	8.5	14.5	7.0	0.5
Zinc	Strong Acid Extractable	mg/kg	13	128	9	1
Mono-Aromatic Hydroca	rbons - Soil					
Benzene	Dry Weight	mg/kg	< 0.005	< 0.005	< 0.005	0.005
Toluene	Dry Weight	mg/kg	< 0.02	< 0.02	< 0.02	0.02
Ethylbenzene	Dry Weight	mg/kg	< 0.010	< 0.010	< 0.010	0.01
Total Xylenes (m,p,o)	Dry Weight	mg/kg	< 0.03	< 0.03	< 0.03	0.03
Volatile Petroleum Hydro	ocarbons - Soil					
Extraction Date	Volatiles		3-Sep-15	3-Sep-15	3-Sep-15	
F1 C6-C10	Dry Weight	mg/kg	<10	<10	<10	10
F1 -BTEX	Dry Weight	mg/kg	<10	<10	<10	10
Extractable Petroleum H	lydrocarbons - Soil					
Extraction Date	Total Extractables		3-Sep-15	3-Sep-15	3-Sep-15	
F2c C10-C16	Dry Weight	mg/kg	<40	<40	<40	40
F3c C16-C34	Dry Weight	mg/kg	<40	101	<40	40
F4c C34-C50	Dry Weight	mg/kg	<40	58	<40	40
F4HTGCc C34-C50+	Dry Weight	mg/kg	<40	58	<40	40

<5

Done

10.70

< 0.05

< 0.05

< 0.05

<0.05

<0.05

< 0.05

<5

Done

77.80

< 0.05

< 0.05

< 0.05

<0.05

<0.05

0.1

<5

Done

12.00

< 0.05

< 0.05

< 0.05

< 0.05

< 0.05

< 0.05

0.05

0.05

0.05

0.05

0.05

0.05

%

% by weight

mg/kg

mg/kg

mg/kg

mg/kg

mg/kg

mg/kg

Soil % Moisture

Dry Weight

Dry Weight

Dry Weight

Dry Weight

Dry Weight

Dry Weight

% C50+

Silica Gel Cleanup Silica Gel Cleanup

Polychlorinated Biphenyls - Soil

Soil % Moisture Moisture

Aroclor 1016

Aroclor 1221

Aroclor 1232

Aroclor 1242

Aroclor 1248

Aroclor 1254

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Analytical Report

Bill To: SILA Remediation

Project:

Lot ID: 1091627

Report To: SILA Remediation

ID: Name: KIRIK12 Control Number: C0009013

250-1260 Boul Lebourgneuf Quebec, QC, Canada

Location: Cambridge Bay Date Received: Sep 2, 2015 Date Reported: Dec 23, 2015

G2K 2G2

CAM-M 20433

Attn: Jean-Pierre Pelletier

LSD: P.O.:

Report Number: 2071646

Sampled By: A. Passalis

Acct code:

Company: Sila

		Reference Number	1091627-28	1091627-29	1091627-30	
		Sample Date	Aug 23, 2015	Aug 23, 2015	Aug 23, 2015	
		Sample Time	NA	NA	NA	
		Sample Location				
		Sample Description	CM15-1WB	CM15-2WA	CM15-2WB	
		Matrix	Soil	Soil	Soil	
Analyte		Units	Results	Results	Results	Nominal Detection Limit
Polychlorinated Biphen	yls - Soil - Continue	d				
Aroclor 1260	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1262	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1268	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Total PCBs	Dry Weight	mg/kg	< 0.05	0.1	< 0.05	0.05
Polychlorinated Biphen	yls - Soil - Surrogat	е				
Decachlorobiphenyl	Surrogate	%	>150	140	130	50-150



Bill To: SILA Remediation

Project:

P.O.:

Lot ID: 1091627

Report To: SILA Remediation

ID: Name:

Control Number: C0009013

250-1260 Boul Lebourgneuf Quebec, QC, Canada

Location: Cambridge Bay

KIRIK12

CAM-M

20433

Date Received: Sep 2, 2015 Date Reported: Dec 23, 2015

G2K 2G2

LSD:

Report Number: 2071646

Attn: Jean-Pierre Pelletier Sampled By: A. Passalis

Acct code:

Company: Sila

	Ref	Sample Date	1091627-31 Aug 23, 2015	1091627-32 Aug 23, 2015	1091627-33 Aug 23, 2015	
	_	Sample Time	NA	NA	NA	
		ample Location	ON445 OV44	ONAS OWD	01445 01444	
	Sam	ple Description	CM15-3WA Soil	CM15-3WB Soil	CM15-9WA Soil	
		Matrix				Nominal Detection
Analyte		Units	Results	Results	Results	Limit
Metals Strong Acid Diges						
Arsenic	Strong Acid Extractable	mg/kg	2.3	5.1	2.6	0.2
Cadmium	Strong Acid Extractable	mg/kg	0.13	0.02	0.16	0.01
Chromium	Strong Acid Extractable	mg/kg	10.1	34.6	8.6	0.5
Cobalt	Strong Acid Extractable	mg/kg	3.6	7.5	3.1	0.1
Copper	Strong Acid Extractable	mg/kg	15.8	12.6	14.5	1
Lead	Strong Acid Extractable	mg/kg	4.9	7.6	5.6	0.1
Mercury	Strong Acid Extractable	mg/kg	0.09	< 0.05	< 0.05	0.05
Nickel	Strong Acid Extractable	mg/kg	17.5	24.6	11.0	0.5
Zinc	Strong Acid Extractable	mg/kg	32	16	11	1
Mono-Aromatic Hydroca	rbons - Soil					
Benzene	Dry Weight	mg/kg	< 0.005	< 0.005	< 0.005	0.005
Toluene	Dry Weight	mg/kg	<0.02	< 0.02	< 0.02	0.02
Ethylbenzene	Dry Weight	mg/kg	< 0.010	< 0.010	< 0.010	0.01
Total Xylenes (m,p,o)	Dry Weight	mg/kg	< 0.03	< 0.03	< 0.03	0.03
Volatile Petroleum Hydro	carbons - Soil					
Extraction Date	Volatiles		3-Sep-15	3-Sep-15	3-Sep-15	
F1 C6-C10	Dry Weight	mg/kg	<10	<10	<10	10
F1 -BTEX	Dry Weight	mg/kg	<10	<10	<10	10
Extractable Petroleum Hy	, ,	0 0				
Extraction Date	Total Extractables		3-Sep-15	3-Sep-15	3-Sep-15	
F2c C10-C16	Dry Weight	mg/kg	<40	<40	<40	40
F3c C16-C34	Dry Weight	mg/kg	97	<40	54	40
F4c C34-C50	Dry Weight	mg/kg	51	<40	<40	40
F4HTGCc C34-C50+	Dry Weight	mg/kg	54	<40	<40	40
% C50+	,	%	<5	<5	<5	
Silica Gel Cleanup						
Silica Gel Cleanup			Done	Done	Done	
Soil % Moisture						
Moisture	Soil % Moisture	% by weight	63.70	10.90	54.80	
Polychlorinated Bipheny		, ,		. 3.00	200	
Aroclor 1016	Dry Weight	mg/kg	<0.05	<0.05	<0.05	0.05
Aroclor 1221	Dry Weight	mg/kg	< 0.05	<0.05	<0.05	0.05
Aroclor 1232	Dry Weight	mg/kg	< 0.05	<0.05	<0.05	0.05
Aroclor 1242	Dry Weight	mg/kg	<0.05	<0.05	<0.05	0.05
Aroclor 1248	Dry Weight	mg/kg	<0.05	<0.05	<0.05	0.05
Aroclor 1254	Dry Weight	mg/kg	<0.05	<0.05	<0.05	0.05

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Analytical Report

Bill To: SILA Remediation

Report To: SILA Remediation

Project: ID:

KIRIK12

20433

Lot ID: 1091627

250-1260 Boul Lebourgneuf

Name:

Control Number: C0009013

Date Received: Sep 2, 2015

Quebec, QC, Canada

Location: LSD:

Acct code:

Cambridge Bay Date Reported:
CAM-M Papert Number:

: Dec 23, 2015

G2K 2G2

Polychlorinated Biphenyls - Soil - Surrogate

Surrogate

Decachlorobiphenyl

Attn: Jean-Pierre Pelletier P.O.:

Report Number: 2071646

Sampled By: A. Passalis

Company: Sila

Reference Number Sample Date

1091627-31 Aug 23, 2015 1091627-32 Aug 23, 2015 1091627-33 Aug 23, 2015

Sample Time Sample Location

NA

NA

NA

Sample Description

%

CM15-3WA Soil

140

CM15-3WB

150

CM15-9WA

130

50-150

		Matrix	Soil	Soil	Soil	
Analyte		Units	Results	Results	Results	Nominal Detection Limit
Polychlorinated Bipl	nenyls - Soil - Continued					
Aroclor 1260	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1262	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1268	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Total PCBs	Dry Weight	mg/kg	< 0.05	<0.05	< 0.05	0.05



Bill To: SILA Remediation

Project:

1091627 Lot ID:

Sep 2, 2015

Dec 23, 2015

Report To: SILA Remediation ID: Name:

Control Number: C0009013

Date Received:

Date Reported:

250-1260 Boul Lebourgneuf Quebec, QC, Canada

Location: Cambridge Bay

KIRIK12

G2K 2G2

LSD: CAM-M

Attn: Jean-Pierre Pelletier

Sila

P.O.: 20433

Sampled By: A. Passalis

Company:

Acct code:

Report Number: 2071646

Reference Number Sample Date

1091627-34

1091627-35 Aug 23, 2015

1091627-36 Aug 23, 2015

Sample Time Sample Location

NA

NA

Cobalt 4.2 Strong Acid Extractable mg/kg Copper Strong Acid Extractable mg/kg 10.0 Lead Strong Acid Extractable 4.6 mg/kg

Zinc Mono-Aromatic Hydrocarbons - Soil

Benzene Toluene

Total Xylenes (m,p,o) Dry Weight Volatile Petroleum Hydrocarbons - Soil

F1 C6-C10 Dry Weight F1 -BTEX Dry Weight

Extraction Date F2c C10-C16 Dry Weight

F4HTGCc C34-C50+ % C50+

Soil % Moisture Moisture

Aroclor 1016 Aroclor 1221

Aug 23, 2015 NA

CM15-14WA

CM15-14WB

Sample Description CM15-9WB Matrix Soil Soil Soil Nominal Detection Units Results Results Analyte Results Limit **Metals Strong Acid Digestion** 3.5 Arsenic Strong Acid Extractable mg/kg 5.3 3.4 0.2 Cadmium Strong Acid Extractable 0.05 0.03 0.02 0.01 mg/kg Chromium Strong Acid Extractable mg/kg 19.4 17.8 17.6 0.5 5.7 0.1 6.1 12.1 13.3 1 6.1 6.8 0.1 Strong Acid Extractable < 0.05 < 0.05 < 0.05 0.05 Mercury mg/kg Nickel 12.5 0.5 Strong Acid Extractable mg/kg 14.0 14.8 Strong Acid Extractable mg/kg 13 12 10 1 Dry Weight mg/kg < 0.005 < 0.005 < 0.005 0.005 Dry Weight < 0.02 < 0.02 0.02 mg/kg < 0.02 Ethylbenzene Dry Weight < 0.010 < 0.010 < 0.010 0.01 mg/kg mg/kg < 0.03 < 0.03 < 0.03 0.03 **Extraction Date** Volatiles 3-Sep-15 3-Sep-15 3-Sep-15 <10 <10 <10 10 mg/kg <10 <10 <10 10 mg/kg **Extractable Petroleum Hydrocarbons - Soil** Total Extractables 3-Sep-15 3-Sep-15 3-Sep-15 mg/kg <40 <40 <40 40 F3c C16-C34 Dry Weight mg/kg <40 <40 <40 40 F4c C34-C50 Dry Weight <40 40 mg/kg <40 <40 Dry Weight mg/kg <40 <40 <40 40 % <5 <5 <5 Silica Gel Cleanup Silica Gel Cleanup Done Done Done Soil % Moisture % by weight 13.60 10.40 8.01 Polychlorinated Biphenyls - Soil Dry Weight < 0.05 < 0.05 < 0.05 0.05 mg/kg 0.05 Dry Weight mg/kg < 0.05 < 0.05 < 0.05 Aroclor 1232 Dry Weight mg/kg < 0.05 < 0.05 < 0.05 0.05 0.05 Aroclor 1242 Dry Weight mg/kg < 0.05 < 0.05 < 0.05 Aroclor 1248 Dry Weight mg/kg < 0.05 < 0.05 < 0.05 0.05 Aroclor 1254 Dry Weight mg/kg < 0.05 < 0.05 < 0.05 0.05

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Analytical Report

Bill To: SILA Remediation

nediation Project:

ID: KIRIK12

RIK12

250-1260 Boul Lebourgneuf Quebec, QC, Canada

Name: Location:

LSD:

Cambridge Bay

CAM-M

20433

Date Received: Sep 2, 2015
Date Reported: Dec 23, 2015

Control Number:

G2K 2G2

Report To: SILA Remediation

Attn: Jean-Pierre Pelletier

P.O.: Acct code: Report Number: 2071646

Lot ID: 1091627

C0009013

Sampled By: A. Passalis

Company: Sila

 Reference Number
 1091627-34
 1091627-35
 1091627-36

 Sample Date
 Aug 23, 2015
 Aug 23, 2015
 Aug 23, 2015

 Sample Time
 NA
 NA
 NA

Sample Location

Sample Description (

CM15-9WB CM15-14WA CM15-14WB

Matrix Soil Soil Soil Nominal Detection Analyte Units Results Results Results Limit Polychlorinated Biphenyls - Soil - Continued Aroclor 1260 Dry Weight mg/kg < 0.05 < 0.05 < 0.05 0.05 Aroclor 1262 Dry Weight < 0.05 < 0.05 < 0.05 0.05 mg/kg Aroclor 1268 Dry Weight < 0.05 < 0.05 0.05 mg/kg < 0.05 Total PCBs Dry Weight mg/kg < 0.05 < 0.05 < 0.05 0.05 Polychlorinated Biphenyls - Soil - Surrogate Decachlorobiphenyl Surrogate % 130 130 150 50-150



Bill To: SILA Remediation

Project:

Lot ID: 1091627

Sep 2, 2015

Report To: SILA Remediation

ID: Name:

Control Number: C0009013

250-1260 Boul Lebourgneuf Quebec, QC, Canada

Location: Cambridge Bay

KIRIK12

CAM-M

LSD:

Date Reported: Dec 23, 2015

Date Received:

G2K 2G2 Attn: Jean-Pierre Pelletier

P.O.: 20433

Sampled By: A. Passalis

Acct code:

Report Number: 2071646

Company: Sila

Reference Number Sample Date

1091627-37 Aug 22, 2015

1091627-38 Aug 22, 2015

1091627-39 Aug 22, 2015

		Gample Date	Aug 22, 2015	Aug 22, 2015	Aug 22, 2019	
		Sample Time	NA	NA	NA	
		ample Location				
	Sam	ple Description	CM15-4WA	CM15-4WB	CM15-5WA	
		Matrix	Soil	Soil	Soil	
Analyte		Units	Results	Results	Results	Nominal Detection Limit
Metals Strong Acid Dige	estion					
Arsenic	Strong Acid Extractable	mg/kg	4.0	6.2	3.2	0.2
Cadmium	Strong Acid Extractable	mg/kg	0.23	0.08	0.08	0.01
Chromium	Strong Acid Extractable	mg/kg	13.5	18.8	8.2	0.5
Cobalt	Strong Acid Extractable	mg/kg	4.1	4.9	3.5	0.1
Copper	Strong Acid Extractable	mg/kg	11.0	11.5	8.5	1
Lead	Strong Acid Extractable	mg/kg	7.9	8.8	4.5	0.1
Mercury	Strong Acid Extractable	mg/kg	0.06	0.05	< 0.05	0.05
Nickel	Strong Acid Extractable	mg/kg	10.6	13.9	8.8	0.5
Zinc	Strong Acid Extractable	mg/kg	35	18	14	1
Mono-Aromatic Hydroca	arbons - Soil					
Benzene	Dry Weight	mg/kg	<0.005	< 0.005	< 0.005	0.005
Toluene	Dry Weight	mg/kg	<0.02	< 0.02	< 0.02	0.02
Ethylbenzene	Dry Weight	mg/kg	<0.010	< 0.010	< 0.010	0.01
Total Xylenes (m,p,o)	Dry Weight	mg/kg	< 0.03	< 0.03	< 0.03	0.03
Volatile Petroleum Hydr	ocarbons - Soil					
Extraction Date	Volatiles		3-Sep-15	3-Sep-15	3-Sep-15	
F1 C6-C10	Dry Weight	mg/kg	<10	<10	<10	10
F1 -BTEX	Dry Weight	mg/kg	<10	<10	<10	10
Extractable Petroleum H	lydrocarbons - Soil					
Extraction Date	Total Extractables		3-Sep-15	3-Sep-15	3-Sep-15	
F2c C10-C16	Dry Weight	mg/kg	<40	<40	<40	40
F3c C16-C34	Dry Weight	mg/kg	<40	<40	<40	40
F4c C34-C50	Dry Weight	mg/kg	<40	<40	<40	40
F4HTGCc C34-C50+	Dry Weight	mg/kg	<40	<40	<40	40
% C50+		%	<5	<5	<5	
Silica Gel Cleanup						
Silica Gel Cleanup			Done	Done	Done	
Soil % Moisture						
Moisture	Soil % Moisture	% by weight	2.76	3.55	24.30	
Polychlorinated Biphen	yls - Soil					
Aroclor 1016	Dry Weight	mg/kg	<0.05	< 0.05	< 0.05	0.05
Aroclor 1221	Dry Weight	mg/kg	<0.05	<0.05	< 0.05	0.05
Aroclor 1232	Dry Weight	mg/kg	<0.05	< 0.05	< 0.05	0.05
Aroclor 1242	Dry Weight	mg/kg	<0.05	<0.05	< 0.05	0.05
Aroclor 1248	Dry Weight	mg/kg	<0.05	<0.05	< 0.05	0.05
Aroclor 1254	Dry Weight	mg/kg	0.06	<0.05	< 0.05	0.05

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Analytical Report

Bill To: SILA Remediation

Project:

Lot ID: 1091627

Report To: SILA Remediation

ID: Name:

LSD:

Control Number: C0009013

250-1260 Boul Lebourgneuf Quebec, QC, Canada

Location: Cambridge Bay

KIRIK12

CAM-M

20433

Date Received: Date Reported:

Sep 2, 2015 Dec 23, 2015

G2K 2G2 Attn: Jean-Pierre Pelletier

P.O.:

Report Number:

2071646

Sampled By: A. Passalis

Company: Sila Acct code:

Reference Number Sample Date Sample Time Sample Location

1091627-37 Aug 22, 2015 NA

< 0.05

0.06

1091627-38 Aug 22, 2015

1091627-39 Aug 22, 2015

NA

NA

CM15-4WA **Sample Description** Matrix Soil

CM15-4WB

< 0.05

< 0.05

CM15-5WA

< 0.05

< 0.05

Limit

0.05

0.05

0.05

0.05

Soil Soil Nominal Detection Analyte Units Results Results Results Polychlorinated Biphenyls - Soil - Continued Aroclor 1260 Dry Weight mg/kg < 0.05 < 0.05 < 0.05 Aroclor 1262 Dry Weight < 0.05 < 0.05 < 0.05 mg/kg

mg/kg

mg/kg

%

Aroclor 1268 Dry Weight Total PCBs Dry Weight Polychlorinated Biphenyls - Soil - Surrogate

Surrogate

Decachlorobiphenyl

130 150 150 50-150



Bill To: SILA Remediation

Project:

Lot ID: 1091627

Report To: SILA Remediation

ID: Name:

Control Number: C0009013

250-1260 Boul Lebourgneuf Quebec, QC, Canada

Location:

Date Received: Sep 2, 2015

G2K 2G2

Cambridge Bay LSD: CAM-M

KIRIK12

20433

Date Reported: Dec 23, 2015

Attn: Jean-Pierre Pelletier P.O.:

Sampled By: A. Passalis

Acct code:

Report Number: 2071646

Company: Sila

	Refe	erence Number Sample Date	1091627-40 Aug 22, 2015	1091627-41 Aug 22, 2015	1091627-42 Aug 22, 2015	
		Sample Time	NA	NA	NA	
	Sa	ample Location				
	Sam	ple Description	CM15-5WB	CM15-6WA	CM15-6WB	
		Matrix	Soil	Soil	Soil	
Analyte		Units	Results	Results	Results	Nominal Detection
Metals Strong Acid Digesti	ion					
Arsenic	Strong Acid Extractable	mg/kg	3.3	3.2	3.6	0.2
Cadmium	Strong Acid Extractable	mg/kg	0.02	0.04	0.03	0.01
Chromium	Strong Acid Extractable	mg/kg	15.7	25.6	22.8	0.5
Cobalt	Strong Acid Extractable	mg/kg	5.8	7.0	6.3	0.1
Copper	Strong Acid Extractable	mg/kg	11.9	14.1	12.3	1
Lead	Strong Acid Extractable	mg/kg	6.3	6.2	6.2	0.1
Mercury	Strong Acid Extractable	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Nickel	Strong Acid Extractable	mg/kg	12.9	17.3	15.6	0.5
Zinc	Strong Acid Extractable	mg/kg	6	29	27	1
Mono-Aromatic Hydrocarb	ons - Soil					
Benzene	Dry Weight	mg/kg	< 0.005	< 0.005	< 0.005	0.005
Toluene	Dry Weight	mg/kg	<0.02	< 0.02	<0.02	0.02
Ethylbenzene	Dry Weight	mg/kg	<0.010	<0.010	<0.010	0.01
Total Xylenes (m,p,o)	Dry Weight	mg/kg	< 0.03	< 0.03	< 0.03	0.03
Volatile Petroleum Hydroca	arbons - Soil					
Extraction Date	Volatiles		3-Sep-15	3-Sep-15	3-Sep-15	
F1 C6-C10	Dry Weight	mg/kg	<10	<10	<10	10
F1 -BTEX	Dry Weight	mg/kg	<10	<10	<10	10
Extractable Petroleum Hyd	Irocarbons - Soil					
Extraction Date	Total Extractables		3-Sep-15	3-Sep-15	3-Sep-15	
F2c C10-C16	Dry Weight	mg/kg	<40	<40	<40	40
F3c C16-C34	Dry Weight	mg/kg	<40	<40	<40	40
F4c C34-C50	Dry Weight	mg/kg	<40	<40	<40	40
F4HTGCc C34-C50+	Dry Weight	mg/kg	<40	<40	<40	40
% C50+		%	<5	<5	<5	
Silica Gel Cleanup						
Silica Gel Cleanup			Done	Done	Done	
Soil % Moisture						
Moisture	Soil % Moisture	% by weight	8.65	15.00	13.20	
Polychlorinated Biphenyls						
Aroclor 1016	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1221	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1232	Dry Weight	mg/kg	<0.05	<0.05	<0.05	0.05
Aroclor 1242	Dry Weight	mg/kg	<0.05	<0.05	<0.05	0.05
Aroclor 1248	Dry Weight	mg/kg	<0.05	<0.05	<0.05	0.05
Aroclor 1254	Dry Weight	mg/kg	<0.05	<0.05	<0.05	0.05

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Analytical Report

Bill To: SILA Remediation

Report To: SILA Remediation 250-1260 Boul Lebourgneuf

Quebec, QC, Canada

G2K 2G2

Surrogate

Attn: Jean-Pierre Pelletier Sampled By: A. Passalis

Company: Sila

Decachlorobiphenyl

Project: ID:

Name:

KIRIK12

Location: Cambridge Bay LSD: CAM-M

P.O.: 20433

%

Acct code:

Lot ID: 1091627

140

50-150

Control Number: C0009013 Date Received: Sep 2, 2015

Date Reported: Dec 23, 2015 Report Number: 2071646

Reference Number 1091627-40 1091627-41 1091627-42 Sample Date Aug 22, 2015 Aug 22, 2015 Aug 22, 2015 Sample Time NA NA NA Sample Location **Sample Description** CM15-5WB CM15-6WA CM15-6WB Matrix Soil Soil Soil Nominal Detection Analyte Units Results Results Results Limit Polychlorinated Biphenyls - Soil - Continued Aroclor 1260 Dry Weight mg/kg < 0.05 < 0.05 < 0.05 0.05 Aroclor 1262 Dry Weight < 0.05 < 0.05 < 0.05 0.05 mg/kg Aroclor 1268 Dry Weight < 0.05 < 0.05 0.05 mg/kg < 0.05 Total PCBs Dry Weight mg/kg < 0.05 < 0.05 < 0.05 0.05 Polychlorinated Biphenyls - Soil - Surrogate

150

150



Bill To: SILA Remediation

Project:

Lot ID: 1091627

Sep 2, 2015

Dec 23, 2015

Report To: SILA Remediation

ID: Name:

Control Number: C0009013

Date Received:

Date Reported:

250-1260 Boul Lebourgneuf Quebec, QC, Canada

Location: Camb

G2K 2G2

Cambridge Bay

KIRIK12

G2K 2G2

LSD: CAM-M P.O.: 20433

Attn: Jean-Pierre Pelletier Sampled By: A. Passalis

Acct code:

Report Number: 2071646

Company: Sila

Reference Number Sample Date Sample Time Sample Location 1091627-43 Aug 22, 2015 1091627-44 Aug 22, 2015 1091627-45 Aug 22, 2015

		•	-			
		Sample Time	NA	NA	NA	
		ample Location				
	Sam	ple Description	CM15-7WA	CM15-7WB	CM15-8WA	
		Matrix	Soil	Soil	Soil	
Analyte		Units	Results	Results	Results	Nominal Detection Limit
Metals Strong Acid Dige	estion					
Arsenic	Strong Acid Extractable	mg/kg	3.0	9.0	3.5	0.2
Cadmium	Strong Acid Extractable	mg/kg	0.30	0.09	0.11	0.01
Chromium	Strong Acid Extractable	mg/kg	9.2	32.9	46.8	0.5
Cobalt	Strong Acid Extractable	mg/kg	2.2	8.4	5.2	0.1
Copper	Strong Acid Extractable	mg/kg	11.8	15.1	12.0	1
Lead	Strong Acid Extractable	mg/kg	2.8	7.5	9.5	0.1
Mercury	Strong Acid Extractable	mg/kg	0.05	< 0.05	< 0.05	0.05
Nickel	Strong Acid Extractable	mg/kg	13.0	24.4	25.9	0.5
Zinc	Strong Acid Extractable	mg/kg	12	32	22	1
Mono-Aromatic Hydroca	arbons - Soil					
Benzene	Dry Weight	mg/kg	< 0.005	< 0.005	< 0.005	0.005
Toluene	Dry Weight	mg/kg	<0.02	<0.02	< 0.02	0.02
Ethylbenzene	Dry Weight	mg/kg	<0.010	<0.010	<0.010	0.01
Total Xylenes (m,p,o)	Dry Weight	mg/kg	< 0.03	< 0.03	< 0.03	0.03
Volatile Petroleum Hydro	ocarbons - Soil					
Extraction Date	Volatiles		3-Sep-15	3-Sep-15	3-Sep-15	
F1 C6-C10	Dry Weight	mg/kg	<10	<10	<10	10
F1 -BTEX	Dry Weight	mg/kg	<10	<10	<10	10
Extractable Petroleum H	lydrocarbons - Soil					
Extraction Date	Total Extractables		3-Sep-15	3-Sep-15	3-Sep-15	
F2c C10-C16	Dry Weight	mg/kg	<40	<40	<40	40
F3c C16-C34	Dry Weight	mg/kg	<40	<40	<40	40
F4c C34-C50	Dry Weight	mg/kg	<40	<40	<40	40
F4HTGCc C34-C50+	Dry Weight	mg/kg	53	<40	<40	40
% C50+		%	16.4	<5	35.1	
Silica Gel Cleanup						
Silica Gel Cleanup			Done	Done	Done	
Soil % Moisture						
Moisture	Soil % Moisture	% by weight	67.80	15.40	15.70	
Polychlorinated Bipheny	yls - Soil					
Aroclor 1016	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1221	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1232	Dry Weight	mg/kg	<0.05	<0.05	< 0.05	0.05
Aroclor 1242	Dry Weight	mg/kg	<0.05	<0.05	< 0.05	0.05
Aroclor 1248	Dry Weight	mg/kg	<0.05	<0.05	< 0.05	0.05
Aroclor 1254	Dry Weight	mg/kg	<0.05	< 0.05	0.3	0.05

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Analytical Report

Bill To: SILA Remediation

Project:

Lot ID: 1091627

Report To: SILA Remediation

ID:

Control Number: C0009013

250-1260 Boul Lebourgneuf

Name:

Date Received: Sep 2, 2015

Quebec, QC, Canada

Location: Cambridge Bay LSD: CAM-M

KIRIK12

20433

Date Reported: Dec 23, 2015 Report Number: 2071646

G2K 2G2

Attn: Jean-Pierre Pelletier P.O.:

Sampled By: A. Passalis Acct code:

Company: Sila

Units	Results	Results	Results	Nominal Detection
Matrix	Soil	Soil	Soil	
Sample Description	CM15-7WA	CM15-7WB	CM15-8WA	
Sample Location				
Sample Time	NA	NA	NA	
Sample Date	Aug 22, 2015	Aug 22, 2015	Aug 22, 2015	
Reference Number	1091627-43	1091627-44	1091627-45	

		Wallix	3011	3011	3011	
Analyte		Units	Results	Results	Results	Nominal Detection Limit
Polychlorinated Biphen	yls - Soil - Continued					
Aroclor 1260	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1262	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1268	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Total PCBs	Dry Weight	mg/kg	< 0.05	< 0.05	0.3	0.05
Polychlorinated Biphen	yls - Soil - Surrogate					
Decachlorobiphenyl	Surrogate	%	140	150	140	50-150



Bill To: SILA Remediation

Project:

Lot ID: 1091627

Dec 23, 2015

Report To: SILA Remediation

ID: Name: KIRIK12 Control Number: C0009013 Date Received: Sep 2, 2015

250-1260 Boul Lebourgneuf Quebec, QC, Canada

Location: Cambridge Bay

G2K 2G2

CAM-M

Attn: Jean-Pierre Pelletier

LSD: P.O.: 20433

Report Number: 2071646

Date Reported:

Sampled By: A. Passalis

Acct code:

Company: Sila

Reference Number Sample Date

1091627-46 Aug 22, 2015

1091627-47 Aug 22, 2015

1091627-48 Aug 22, 2015

		Sample Time	NA NA	NA NA	NA NA	
	Sa	ample Location				
	Sam	ple Description	CM15-8WB	CM15-10WA	CM15-10WB	
		Matrix	Soil	Soil	Soil	
Analyte		Units	Results	Results	Results	Nominal Detection Limit
Metals Strong Acid Dige	stion					
Arsenic	Strong Acid Extractable	mg/kg	3.0	2.3	2.2	0.2
Cadmium	Strong Acid Extractable	mg/kg	0.12	0.03	0.04	0.01
Chromium	Strong Acid Extractable	mg/kg	28.7	14.3	19.2	0.5
Cobalt	Strong Acid Extractable	mg/kg	3.6	3.3	2.9	0.1
Copper	Strong Acid Extractable	mg/kg	10.2	6.4	6.0	1
Lead	Strong Acid Extractable	mg/kg	5.2	3.8	3.7	0.1
Mercury	Strong Acid Extractable	mg/kg	0.05	< 0.05	< 0.05	0.05
Nickel	Strong Acid Extractable	mg/kg	22.7	12.7	12.2	0.5
Zinc	Strong Acid Extractable	mg/kg	16	11	10	1
Mono-Aromatic Hydroca	rbons - Soil					
Benzene	Dry Weight	mg/kg	< 0.005	< 0.005	< 0.005	0.005
Toluene	Dry Weight	mg/kg	< 0.02	< 0.02	<0.02	0.02
Ethylbenzene	Dry Weight	mg/kg	<0.010	< 0.010	< 0.010	0.01
Total Xylenes (m,p,o)	Dry Weight	mg/kg	< 0.03	< 0.03	< 0.03	0.03
Volatile Petroleum Hydro	ocarbons - Soil					
Extraction Date	Volatiles		3-Sep-15	3-Sep-15	3-Sep-15	
F1 C6-C10	Dry Weight	mg/kg	<10	<10	<10	10
F1 -BTEX	Dry Weight	mg/kg	<10	<10	<10	10
Extractable Petroleum H	ydrocarbons - Soil					
Extraction Date	Total Extractables		3-Sep-15	3-Sep-15	3-Sep-15	
F2c C10-C16	Dry Weight	mg/kg	<40	<40	<40	40
F3c C16-C34	Dry Weight	mg/kg	43	<40	<40	40
F4c C34-C50	Dry Weight	mg/kg	<40	<40	<40	40
F4HTGCc C34-C50+	Dry Weight	mg/kg	45	<40	<40	40
% C50+		%	19.1	<5	<5	
Silica Gel Cleanup						
Silica Gel Cleanup			Done	Done	Done	
Soil % Moisture						
Moisture	Soil % Moisture	% by weight	41.80	5.05	6.74	
Polychlorinated Bipheny	/ls - Soil					
Aroclor 1016	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1221	Dry Weight	mg/kg	<0.05	<0.05	< 0.05	0.05
Aroclor 1232	Dry Weight	mg/kg	<0.05	<0.05	< 0.05	0.05
Aroclor 1242	Dry Weight	mg/kg	<0.05	<0.05	<0.05	0.05
Aroclor 1248	Dry Weight	mg/kg	<0.05	<0.05	<0.05	0.05
Aroclor 1254	Dry Weight	mg/kg	<0.05	<0.05	<0.05	0.05

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Analytical Report

Bill To: SILA Remediation

Report To: SILA Remediation

250-1260 Boul Lebourgneuf

Quebec, QC, Canada

Surrogate

G2K 2G2

Attn: Jean-Pierre Pelletier Sampled By: A. Passalis

Company: Sila

Decachlorobiphenyl

Project:

ID: Name: KIRIK12

Location: Cambridge Bay

LSD: CAM-M P.O.: 20433

Acct code:

Lot ID: 1091627

140

50-150

Control Number: C0009013 Sep 2, 2015 Date Received:

Date Reported: Dec 23, 2015 Report Number: 2071646

		Reference Number	1091627-46	1091627-47	1091627-48	
		Sample Date	Aug 22, 2015	Aug 22, 2015	Aug 22, 2015	
		Sample Time	NA	NA	NA	
		Sample Location				
		Sample Description	CM15-8WB	CM15-10WA	CM15-10WB	
		Matrix	Soil	Soil	Soil	
Analyte		Units	Results	Results	Results	Nominal Detection Limit
	henyls - Soil - Continue		Results	Results	Results	
	henyls - Soil - Continue Dry Weight		Results <0.05	Results <0.05	Results <0.05	
Polychlorinated Bipl	•	d				Limit
Polychlorinated Bipl Aroclor 1260	Dry Weight	d mg/kg	<0.05	<0.05	<0.05	<u>Limit</u>
Polychlorinated Bipl Aroclor 1260 Aroclor 1262	Dry Weight Dry Weight	d mg/kg mg/kg	<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	0.05 0.05

140

140



Bill To: SILA Remediation

Project:

Lot ID: 1091627

Report To: SILA Remediation

ID: Name:

Control Number: C0009013

250-1260 Boul Lebourgneuf Quebec, QC, Canada

Location: Cambridge Bay

KIRIK12

CAM-M

20433

Date Received: Sep 2, 2015

G2K 2G2

LSD:

Date Reported: Dec 23, 2015

Attn: Jean-Pierre Pelletier

P.O.:

Report Number: 2071646

Sampled By: A. Passalis

Company: Sila

Acct code:

Reference Number Sample Date Sample Time

1091627-49 Aug 22, 2015

1091627-50 Aug 22, 2015

1091627-51 Aug 22, 2015

		oampie bate	Aug 22, 2010	Aug 22, 2013	Aug 22, 2010	
	_	Sample Time	NA	NA	NA	
		ample Location				
	Sam	ple Description	CM15-11WA	CM15-11WB	CM15-12WA	
		Matrix	Soil	Soil	Soil	N : 15 : 6
Analyte		Units	Results	Results	Results	Nominal Detection Limit
Metals Strong Acid Dige	stion					
Arsenic	Strong Acid Extractable	mg/kg	2.7	1.4	2.0	0.2
Cadmium	Strong Acid Extractable	mg/kg	0.15	0.02	0.02	0.01
Chromium	Strong Acid Extractable	mg/kg	10.3	4.5	20.2	0.5
Cobalt	Strong Acid Extractable	mg/kg	3.0	2.2	4.1	0.1
Copper	Strong Acid Extractable	mg/kg	32.4	3.6	8.5	1
Lead	Strong Acid Extractable	mg/kg	6.3	2.9	4.0	0.1
Mercury	Strong Acid Extractable	mg/kg	0.10	< 0.05	< 0.05	0.05
Nickel	Strong Acid Extractable	mg/kg	15.6	3.1	14.5	0.5
Zinc	Strong Acid Extractable	mg/kg	10	5	11	1
Mono-Aromatic Hydroca	rbons - Soil					
Benzene	Dry Weight	mg/kg	< 0.005	< 0.005	< 0.005	0.005
Toluene	Dry Weight	mg/kg	< 0.02	< 0.02	< 0.02	0.02
Ethylbenzene	Dry Weight	mg/kg	<0.010	< 0.010	< 0.010	0.01
Total Xylenes (m,p,o)	Dry Weight	mg/kg	< 0.03	< 0.03	< 0.03	0.03
Volatile Petroleum Hydro	ocarbons - Soil					
Extraction Date	Volatiles		3-Sep-15	3-Sep-15	3-Sep-15	
F1 C6-C10	Dry Weight	mg/kg	<10	<10	<10	10
F1 -BTEX	Dry Weight	mg/kg	<10	<10	<10	10
Extractable Petroleum H	ydrocarbons - Soil					
Extraction Date	Total Extractables		3-Sep-15	3-Sep-15	3-Sep-15	
F2c C10-C16	Dry Weight	mg/kg	<40	<40	<40	40
F3c C16-C34	Dry Weight	mg/kg	<40	<40	<40	40
F4c C34-C50	Dry Weight	mg/kg	<40	<40	<40	40
F4HTGCc C34-C50+	Dry Weight	mg/kg	<40	<40	<40	40
% C50+		%	14.8	<5	<5	
Silica Gel Cleanup						
Silica Gel Cleanup			Done	Done	Done	
Soil % Moisture						
Moisture	Soil % Moisture	% by weight	64.20	4.71	17.40	
Polychlorinated Bipheny	/ls - Soil					
Aroclor 1016	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1221	Dry Weight	mg/kg	< 0.05	<0.05	< 0.05	0.05
Aroclor 1232	Dry Weight	mg/kg	< 0.05	<0.05	< 0.05	0.05
Aroclor 1242	Dry Weight	mg/kg	< 0.05	<0.05	< 0.05	0.05
Aroclor 1248	Dry Weight	mg/kg	< 0.05	<0.05	< 0.05	0.05
Aroclor 1254	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05

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Analytical Report

Bill To: SILA Remediation

Attn: Jean-Pierre Pelletier

Polychlorinated Biphenyls - Soil - Surrogate

Surrogate

Decachlorobiphenyl

ID:

Report To: SILA Remediation

250-1260 Boul Lebourgneuf Name:

Quebec, QC, Canada

G2K 2G2

Sampled By: A. Passalis

Company: Sila

Project:

KIRIK12

Location:

LSD:

Cambridge Bay CAM-M

P.O.: 20433

%

Acct code:

Lot ID: 1091627

120

50-150

Control Number: C0009013 Date Received: Sep 2, 2015

Date Reported: Dec 23, 2015 Report Number: 2071646

		Reference Number	1091627-49	1091627-50	1091627-51	
		Sample Date	Aug 22, 2015	Aug 22, 2015	Aug 22, 2015	
		Sample Time	NA	NA	NA	
		Sample Location				
		Sample Description	CM15-11WA	CM15-11WB	CM15-12WA	
		Matrix	Soil	Soil	Soil	
Analyte		Units	Results	Beaulta	D 14 -	Nominal Detection
		••	Results	Results	Results	Limit
Polychlorinated Bipl	nenyls - Soil - Continue		Results	Results	Results	Limit
Polychlorinated Bipl Aroclor 1260	nenyls - Soil - Continue Dry Weight		<0.05	<0.05	<0.05	<u>Limit</u>
,	•	d				
Aroclor 1260	Dry Weight	d mg/kg	<0.05	<0.05	<0.05	0.05

140

140



Bill To: SILA Remediation

Project:

Lot ID: 1091627

Report To: SILA Remediation

ID: Name:

Control Number: C0009013

250-1260 Boul Lebourgneuf Quebec, QC, Canada

Location: Cambridge Bay

KIRIK12

CAM-M

20433

Date Received: Sep 2, 2015 Date Reported: Dec 23, 2015

G2K 2G2

LSD:

Attn: Jean-Pierre Pelletier

P.O.: Acct code: Report Number: 2071646

Sampled By: A. Passalis Company: Sila

Reference Number

1091627-52 Aug 22, 2015

1091627-53 Aug 22, 2015 1091627-54

Sample Date

Aug 22, 2015

Sample	Time
Sample Loc	ation
Sample Descri	ption

	•	Sample Time	NA	NA	NA	
		ample Location ple Description	CM15-12WB	CM15-13WA	CM15-13WB	
	Sain	Matrix	Soil	Soil	Soil	
Analyte		Units	Results	Results	Results	Nominal Detection
Metals Strong Acid Dige	estion		rtodato	riodano	riodulio	Limit
Arsenic	Strong Acid Extractable	mg/kg	2.9	2.0	2.0	0.2
Cadmium	Strong Acid Extractable	mg/kg	0.05	0.04	0.02	0.01
Chromium	Strong Acid Extractable	mg/kg	24.4	6.5	10.6	0.5
Cobalt	Strong Acid Extractable	mg/kg	3.5	1.4	2.1	0.1
Copper	Strong Acid Extractable	mg/kg	8.1	3.4	3.5	1
Lead	Strong Acid Extractable	mg/kg	5.1	3.1	3.2	0.1
Mercury	Strong Acid Extractable	mg/kg	<0.05	<0.05	<0.05	0.05
Nickel	Strong Acid Extractable	mg/kg	20.8	5.3	7.2	0.5
Zinc	Strong Acid Extractable	mg/kg	14	7	7	1
Mono-Aromatic Hydroca	•	9.1.9		·	·	
Benzene	Dry Weight	mg/kg	<0.005	<0.005	< 0.005	0.005
Toluene	Dry Weight	mg/kg	<0.02	<0.02	<0.02	0.02
Ethylbenzene	Dry Weight	mg/kg	<0.010	<0.010	<0.010	0.01
Total Xylenes (m,p,o)	Dry Weight	mg/kg	<0.03	<0.03	< 0.03	0.03
Volatile Petroleum Hydr		3 3				
Extraction Date	Volatiles		3-Sep-15	3-Sep-15	3-Sep-15	
F1 C6-C10	Dry Weight	mg/kg	<10	<10	<10	10
F1 -BTEX	Dry Weight	mg/kg	<10	<10	<10	10
Extractable Petroleum F	, ,	3 3				
Extraction Date	Total Extractables		3-Sep-15	3-Sep-15	3-Sep-15	
F2c C10-C16	Dry Weight	mg/kg	<40	<40	<40	40
F3c C16-C34	Dry Weight	mg/kg	67	<40	<40	40
F4c C34-C50	Dry Weight	mg/kg	<40	<40	<40	40
F4HTGCc C34-C50+	Dry Weight	mg/kg	46	<40	<40	40
% C50+	, ,	%	12.8	25.7	<5	
Silica Gel Cleanup						
Silica Gel Cleanup			Done	Done	Done	
Soil % Moisture						
Moisture	Soil % Moisture	% by weight	10.20	12.10	4.59	
Polychlorinated Biphen	yls - Soil					
Aroclor 1016	Dry Weight	mg/kg	< 0.05	<0.05	< 0.05	0.05
Aroclor 1221	Dry Weight	mg/kg	<0.05	<0.05	< 0.05	0.05
Aroclor 1232	Dry Weight	mg/kg	<0.05	<0.05	< 0.05	0.05
Aroclor 1242	Dry Weight	mg/kg	<0.05	<0.05	< 0.05	0.05
Aroclor 1248	Dry Weight	mg/kg	<0.05	<0.05	< 0.05	0.05
Aroclor 1254	Dry Weight	mg/kg	< 0.05	<0.05	< 0.05	0.05

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Analytical Report

Bill To: SILA Remediation

Project:

Lot ID: 1091627

Report To: SILA Remediation

ID: Name:

Control Number: C0009013 Date Received:

250-1260 Boul Lebourgneuf Quebec, QC, Canada

Location: Cambridge Bay

KIRIK12

CAM-M

20433

Sep 2, 2015 Date Reported: Dec 23, 2015

G2K 2G2

Attn: Jean-Pierre Pelletier

LSD: P.O.:

Report Number: 2071646

Sampled By: A. Passalis

Company: Sila

Acct code:

Reference Number Sample Date

1091627-52 Aug 22, 2015

1091627-53 Aug 22, 2015

1091627-54 Aug 22, 2015

Sample Time **Sample Location** NA

NA

NA

Sample Description

CM15-12WB

CM15-13WA

CM15-13WB

		Matrix	Soil	Soil	Soil	
Analyte		Units	Results	Results	Results	Nominal Detection Limit
Polychlorinated Biphen	yls - Soil - Continued					
Aroclor 1260	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1262	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1268	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Total PCBs	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Polychlorinated Biphen	yls - Soil - Surrogate					
Decachlorobiphenyl	Surrogate	%	120	120	110	50-150



Bill To: SILA Remediation

Project:

Lot ID: 1091627

Report To: SILA Remediation

ID: Name:

Control Number: C0009013

250-1260 Boul Lebourgneuf Quebec, QC, Canada

Location:

Date Received: Sep 2, 2015 Date Reported: Dec 23, 2015

G2K 2G2

LSD:

CAM-M

Attn: Jean-Pierre Pelletier

P.O.:

Report Number: 2071646

Sampled By: A. Passalis

Acct code:

20433

KIRIK12

Cambridge Bay

Company: Sila

Reference Number Sample Date Sample Time

1091627-55 Aug 22, 2015

1091627-56 Aug 22, 2015

1091627-57 Aug 22, 2015

NA

	_	Sample Time	NA	NA	NA	
		ample Location	OMAE DD4	CM45 DD2	0145 880	
	Sam	ple Description	CM15-BD1	CM15-BD2	CM15-BD3	
		Matrix	Soil	Soil	Soil	Nominal Detection
Analyte		Units	Results	Results	Results	Limit
Metals Strong Acid Dige	stion					
Arsenic	Strong Acid Extractable	mg/kg	2.6	1.0	3.3	0.2
Cadmium	Strong Acid Extractable	mg/kg	0.03	0.32	0.02	0.01
Chromium	Strong Acid Extractable	mg/kg	11.0	6.6	16.8	0.5
Cobalt	Strong Acid Extractable	mg/kg	2.2	1.4	6.0	0.1
Copper	Strong Acid Extractable	mg/kg	4.2	6.9	10.5	1
Lead	Strong Acid Extractable	mg/kg	3.4	2.0	6.0	0.1
Mercury	Strong Acid Extractable	mg/kg	0.08	< 0.05	< 0.05	0.05
Nickel	Strong Acid Extractable	mg/kg	12.4	4.9	12.6	0.5
Zinc	Strong Acid Extractable	mg/kg	7	13	6	1
Mono-Aromatic Hydroca	arbons - Soil					
Benzene	Dry Weight	mg/kg	< 0.005	< 0.005	< 0.005	0.005
Toluene	Dry Weight	mg/kg	< 0.02	<0.02	< 0.02	0.02
Ethylbenzene	Dry Weight	mg/kg	< 0.010	<0.010	< 0.010	0.01
Total Xylenes (m,p,o)	Dry Weight	mg/kg	< 0.03	< 0.03	< 0.03	0.03
Volatile Petroleum Hydro	ocarbons - Soil					
Extraction Date	Volatiles		3-Sep-15	3-Sep-15	3-Sep-15	
F1 C6-C10	Dry Weight	mg/kg	<10	<10	<10	10
F1 -BTEX	Dry Weight	mg/kg	<10	<10	<10	10
Extractable Petroleum H	lydrocarbons - Soil					
Extraction Date	Total Extractables		3-Sep-15	3-Sep-15	3-Sep-15	
F2c C10-C16	Dry Weight	mg/kg	<40	<40	<40	40
F3c C16-C34	Dry Weight	mg/kg	<40	<40	<40	40
F4c C34-C50	Dry Weight	mg/kg	<40	<40	<40	40
F4HTGCc C34-C50+	Dry Weight	mg/kg	<40	<40	<40	40
% C50+	, 0	%	<5	<5	<5	
Silica Gel Cleanup						
Silica Gel Cleanup			Done	Done	Done	
Soil % Moisture						
Moisture	Soil % Moisture	% by weight	4.34	21.00	7.31	
Polychlorinated Bipheny	/ls - Soil	, 0				
Aroclor 1016	Dry Weight	mg/kg	<0.05	< 0.05	<0.05	0.05
Aroclor 1221	Dry Weight	mg/kg	<0.05	<0.05	<0.05	0.05
Aroclor 1232	Dry Weight	mg/kg	<0.05	<0.05	<0.05	0.05
Aroclor 1242	Dry Weight	mg/kg	< 0.05	<0.05	<0.05	0.05
Aroclor 1248	Dry Weight	mg/kg	< 0.05	<0.05	<0.05	0.05
Aroclor 1254	Dry Weight	mg/kg	< 0.05	<0.05	<0.05	0.05

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Analytical Report

Bill To: SILA Remediation

n Project:

Report To: SILA Remediation ID: 250-1260 Boul Lebourgneuf Nam

ID: KIRIK12 Name:

Quebec, QC, Canada G2K 2G2 Location: Cambridge Bay LSD: CAM-M

20433

Attn: Jean-Pierre Pelletier

P.O.: Acct code:

Sampled By: A. Passalis

Company: Sila

Lot ID: 1091627

Control Number: C0009013

Date Received: Sep 2, 2015

Date Reported: Dec 23, 2015 Report Number: 2071646

Reference Number 1091627-55 1091627-56 1091627-57 Sample Date Aug 22, 2015 Aug 22, 2015 Aug 22, 2015 Sample Time NA NA NA **Sample Location Sample Description** CM15-BD1 CM15-BD2 CM15-BD3

		Matrix	Soil	Soil	Soil	
Analyte		Units	Results	Results	Results	Nominal Detection Limit
Polychlorinated Biphen	yls - Soil - Continued					
Aroclor 1260	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1262	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1268	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Total PCBs	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Polychlorinated Biphen	yls - Soil - Surrogate					
Decachlorobiphenyl	Surrogate	%	110	120	120	50-150



Analytical Report

Bill To: SILA Remediation

Project: ID:

Lot ID: 1091627

Report To: SILA Remediation

Name:

Control Number: C0009013 Date Received: Sep 2, 2015

Quebec, QC, Canada

250-1260 Boul Lebourgneuf

Location: Cambridge Bay

G2K 2G2

CAM-M

KIRIK12

Attn: Jean-Pierre Pelletier

LSD: P.O.: 20433

Sampled By: A. Passalis

Acct code:

Date Reported: Report Number: 2071646

Company: Sila

Reference Number Sample Date Sample Time

1091627-58 Aug 22, 2015

1091627-59 Aug 22, 2015 NA

1091627-60 Aug 22, 2015

NA

Dec 23, 2015

NA

		•				
		ample Location				
	Sam	ple Description	CM15-BD4	CM15-BD5	CM15-BD6	
		Matrix	Soil	Soil	Soil	
Analyte		Units	Results	Results	Results	Nominal Detection Limit
Metals Strong Acid Dige	stion					
Arsenic	Strong Acid Extractable	mg/kg	2.8	3.0	3.2	0.2
Cadmium	Strong Acid Extractable	mg/kg	0.02	0.01	0.05	0.01
Chromium	Strong Acid Extractable	mg/kg	16.6	10.0	22.7	0.5
Cobalt	Strong Acid Extractable	mg/kg	5.6	2.7	7.0	0.1
Copper	Strong Acid Extractable	mg/kg	11.2	3.5	14.5	1
Lead	Strong Acid Extractable	mg/kg	5.9	3.1	5.6	0.1
Mercury	Strong Acid Extractable	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Nickel	Strong Acid Extractable	mg/kg	12.4	6.9	15.9	0.5
Zinc	Strong Acid Extractable	mg/kg	16	9	27	1
Mono-Aromatic Hydroca	rbons - Soil					
Benzene	Dry Weight	mg/kg	< 0.005	< 0.005	< 0.005	0.005
Toluene	Dry Weight	mg/kg	< 0.02	<0.02	< 0.02	0.02
Ethylbenzene	Dry Weight	mg/kg	<0.010	< 0.010	<0.010	0.01
Total Xylenes (m,p,o)	Dry Weight	mg/kg	< 0.03	< 0.03	< 0.03	0.03
Volatile Petroleum Hydro	ocarbons - Soil					
Extraction Date	Volatiles		3-Sep-15	3-Sep-15	3-Sep-15	
F1 C6-C10	Dry Weight	mg/kg	<10	<10	<10	10
F1 -BTEX	Dry Weight	mg/kg	<10	<10	<10	10
Extractable Petroleum H	ydrocarbons - Soil					
Extraction Date	Total Extractables		3-Sep-15	3-Sep-15	3-Sep-15	
F2c C10-C16	Dry Weight	mg/kg	<40	<40	<40	40
F3c C16-C34	Dry Weight	mg/kg	<40	<40	<40	40
F4c C34-C50	Dry Weight	mg/kg	<40	<40	<40	40
F4HTGCc C34-C50+	Dry Weight	mg/kg	<40	<40	<40	40
% C50+		%	<5	<5	<5	
Silica Gel Cleanup						
Silica Gel Cleanup			Done	Done	Done	
Soil % Moisture						
Moisture	Soil % Moisture	% by weight	7.72	10.90	11.40	
Polychlorinated Bipheny	rls - Soil					
Aroclor 1016	Dry Weight	mg/kg	< 0.05	< 0.05	<0.05	0.05
Aroclor 1221	Dry Weight	mg/kg	< 0.05	<0.05	< 0.05	0.05
Aroclor 1232	Dry Weight	mg/kg	< 0.05	< 0.05	<0.05	0.05
Aroclor 1242	Dry Weight	mg/kg	< 0.05	< 0.05	<0.05	0.05
Aroclor 1248	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1254	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05

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Analytical Report

Bill To: SILA Remediation

Project: ID:

Lot ID: 1091627

Report To: SILA Remediation

Name:

Control Number: C0009013

250-1260 Boul Lebourgneuf Quebec, QC, Canada

Location: Cambridge Bay

KIRIK12

CAM-M

20433

Date Received: Sep 2, 2015 Date Reported: Dec 23, 2015

G2K 2G2

LSD: Attn: Jean-Pierre Pelletier P.O.: Report Number: 2071646

Sampled By: A. Passalis

Acct code:

Company: Sila

		Reference Number	1091627-58	1091627-59	1091627-60	
		Sample Date	Aug 22, 2015	Aug 22, 2015	Aug 22, 2015	
		Sample Time	NA	NA	NA	
		Sample Location				
		Sample Description	CM15-BD4	CM15-BD5	CM15-BD6	
		Matrix	Soil	Soil	Soil	
Analyte		Units	Results	Results	Results	Nominal Detection Limit
Polychlorinated Bipheny	ls - Soil - Continue	d				
Aroclor 1260	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1262	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1268	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Total PCBs	Dry Weight	mg/kg	< 0.05	< 0.05	< 0.05	0.05
Polychlorinated Bipheny	ls - Soil - Surrogate	•				
Decachlorobiphenyl	Surrogate	%	120	110	120	50-150



Analytical Report

Bill To: SILA Remediation

Project:

Lot ID: 1091627

Report To: SILA Remediation

ID: Name:

Control Number: C0009013

250-1260 Boul Lebourgneuf Quebec, QC, Canada

Location: Cambridge Bay

KIRIK12

20433

Date Received: Sep 2, 2015 Date Reported: Dec 23, 2015

G2K 2G2

LSD: P.O.: CAM-M

Report Number: 2071646

Sampled By: A. Passalis

Company: Sila

Attn: Jean-Pierre Pelletier

Acct code:

Reference Number Sample Date

1091627-61 Aug 23, 2015 NA

1091627-62 Aug 23, 2015

1091627-63 Aug 24, 2015

Sample Time

NA

NA

		Sample Location				
		Sample Description	CM15-1W	CM15-2W	CM15-3W	
		Matrix	Water	Water	Water	
Analyte		Units	Results	Results	Results	Nominal Detection Limit
Metals Total						
Mercury	Total	mg/L	< 0.000005	< 0.000005	< 0.000005	0.000005
Arsenic	Total	mg/L	0.002	<0.001	< 0.0004	0.0002
Cadmium	Total	mg/L	0.00002	0.00016	0.00003	0.00001
Chromium	Total	mg/L	0.0489	0.023	0.017	0.0005
Cobalt	Total	mg/L	0.0021	0.002	0.0084	0.0001
Copper	Total	mg/L	0.004	0.007	< 0.002	0.001
Lead	Total	mg/L	0.0004	0.001	0.0004	0.0001
Nickel	Total	mg/L	0.0523	0.223	0.0635	0.0005
Zinc	Total	mg/L	0.091	2.66	0.289	0.001
Mono-Aromatic Hydrocarbo	ons - Water	· ·				
Benzene		mg/L	<0.001	<0.001	<0.001	0.001
Toluene		mg/L	< 0.0004	< 0.0004	< 0.0004	0.0004
Ethylbenzene		mg/L	<0.001	<0.001	< 0.001	0.001
Total Xylenes (m,p,o)		mg/L	<0.001	<0.001	<0.001	0.001
Volatile Petroleum Hydroca	rbons - Water	•				
F1 -BTEX		mg/L	<0.1	<0.1	<0.1	0.1
F1 C6-C10		mg/L	<0.1	<0.1	<0.1	0.1
F2 C10-C16		mg/L	<0.1	<0.1	<0.1	0.1
Extractable Petroleum Hydr	ocarbons - Water					
F3 C16-C34		mg/L	<0.1	<0.1	<0.1	0.1
F4 C34-C50		mg/L	<0.1	<0.1	<0.1	0.1
F4HTGC C34-C50+		mg/L	<0.1	<0.1	<0.1	0.1
Polychlorinated Biphenyls -	- Water					
Aroclor 1016		ug/L	<0.05	<0.05	< 0.05	0.05
Aroclor 1221		ug/L	<0.05	<0.05	< 0.05	0.05
Aroclor 1232		ug/L	<0.05	<0.05	< 0.05	0.05
Aroclor 1242		ug/L	<0.05	<0.05	< 0.05	0.05
Aroclor 1248		ug/L	<0.05	<0.05	< 0.05	0.05
Aroclor 1254		ug/L	<0.05	<0.05	< 0.05	0.05
Aroclor 1260		ug/L	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1262		ug/L	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1268		ug/L	< 0.05	<0.05	< 0.05	0.05
Total PCBs		ug/L	< 0.05	<0.05	< 0.05	0.05
Polychlorinated Biphenyls -	- Water - Surrogat	=				
Decachlorobiphenyl	Surrogate	%	95	85	74	50-150



Analytical Report

Bill To: SILA Remediation

Project:

Lot ID: 1091627

Report To: SILA Remediation

ID: Name:

Control Number: C0009013

250-1260 Boul Lebourgneuf Quebec, QC, Canada

Location:

Date Received: Sep 2, 2015 Date Reported: Dec 23, 2015

G2K 2G2

LSD:

Acct code:

Attn: Jean-Pierre Pelletier P.O.:

Sampled By: A. Passalis

Report Number: 2071646

Company: Sila

Reference Number Sample Date Sample Time **Sample Location**

1091627-64 Aug 24, 2015

1091627-65 Aug 24, 2015 1091627-66

NA

KIRIK12

CAM-M

20433

Cambridge Bay

NA

Aug 24, 2015 NA

Matrix Water Water Water Analyte Units Results Results Results Nominal Detection Limit			Sample Description	CM15-14W	CM15-6W	CM15-7W	
Merelar Total Mercury			•				
Mercury Total mg/L <0,000005	Analyte		Units	Results	Results	Results	Nominal Detection
Arsenic Total mg/L 0.002 0.008 0.010 0.00001 Cadmium Total mg/L 0.00038 0.0064 0.0003 0.00001 Chormium Total mg/L 0.0086 0.046 0.003 0.0001 Copper Total mg/L 0.006 -0.01 -0.005 0.001 Lead Total mg/L 0.002 0.022 -0.005 0.001 Nickel Total mg/L 0.019 0.128 0.0593 0.0001 Nickel Total mg/L 0.022 2.40 0.11 0.001 Mono-Aromatic Hydrocarbors - Water mg/L <0.001	Metals Total						Littie
Cadmium Total mg/L 0.00030 0.00048 0.00007 0.00005 Chromium Total mg/L 0.0086 0.046 0.003 0.0005 Cobalt Total mg/L 0.0086 0.014 0.002 0.001 Copper Total mg/L 0.002 0.022 -0.005 0.001 Lead Total mg/L 0.002 0.022 -0.005 0.0001 Klickel Total mg/L 0.002 2.40 0.11 0.001 Bronzene Total mg/L <0.001 <0.001 <0.001 0.001 Toluene mg/L <0.001 <0.001 <0.001 0.001 0.001 Toluene mg/L <0.001 <0.001 <0.001 0.001 0.001 Tollene mg/L <0.001 <0.001 <0.001 0.001 0.001 Tollene mg/L <0.001 <0.001 <0.001 0.001 0.001 Total X	Mercury	Total	mg/L	<0.00005	<0.000025	<0.00005	0.000005
Chromium Total mg/L 0.0086 0.046 0.003 0.0006 Cobalt Total mg/L 0.0054 0.014 0.002 0.0001 Copper Total mg/L 0.002 0.022 <0.0005	Arsenic	Total	mg/L	0.002	0.008	0.010	0.0002
Cobalt Total mg/L 0.0054 0.014 0.002 0.0011 Copper Total mg/L 0.006 <0.01	Cadmium	Total	mg/L	0.00030	0.00048	0.00007	0.00001
Copper Total mg/L 0.006 <0.01 <0.005 0.001 Lead Total mg/L 0.002 0.022 <0.0005	Chromium	Total	mg/L	0.0086	0.046	0.003	0.0005
Lead Total mg/L 0.002 0.022 <0.0005 0.0001 Nickel Total mg/L 0.019 0.128 0.0593 0.0005 Zinc Total mg/L 0.02 2.40 0.11 0.001 Mono-Aromatic Hydrocarbors - Water Benzene mg/L <0.001	Cobalt	Total	mg/L	0.0054	0.014	0.002	0.0001
Nickel Total mg/L 0.019 0.128 0.0593 0.0001 Zinc Total mg/L 0.02 2.40 0.11 0.001 Mono-Aromatic Hydrocarbons - Water mg/L <0.001	Copper	Total	mg/L	0.006	<0.01	< 0.005	0.001
Zinc Total mg/L 0.02 2.40 0.11 0.001 Mono-Aromatic Hydrocarbons - Water mg/L <0.001 <0.001 <0.001 0.001 Toluene mg/L <0.0004	Lead	Total	mg/L	0.002	0.022	< 0.0005	0.0001
Mono-Aromatic Hydrocarbons - Water May L <0.001 <0.001 <0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.0004 0.001 0.001 0.001 0.01 0.01 0.01 0.1	Nickel	Total	mg/L	0.019	0.128	0.0593	0.0005
Benzene mg/L <0.001 <0.001 <0.001 0.001 Toluene mg/L <0.0004	Zinc	Total	mg/L	0.02	2.40	0.11	0.001
Tollene mg/L <0.0004 <0.0004 <0.0004 0.0004 Ethylbenzene mg/L <0.001	Mono-Aromatic Hydroc	arbons - Water					
Ethylbenzene mg/L <0.001 <0.001 <0.001 0.001 Total Xylenes (m,p,o) mg/L <0.001	Benzene		mg/L	<0.001	<0.001	<0.001	0.001
Total Xylenes (m,p,o) mg/L <0.001 <0.001 <0.001 0.001 Volatile Petroleum Hydrocarbons - Water mg/L <0.1 <0.1 <0.1 0.1 F1 -BTEX mg/L <0.1 <0.1 <0.1 0.1 F1 -BCC10-C16 mg/L <0.1 <0.1 <0.1 <0.1 0.1 Extractable Petroleum Hydrocarbons - Water Wg/L <0.1 <0.1 <0.1 <0.1 0.1 Extractable Petroleum Hydrocarbons - Water mg/L <0.1 <0.1 <0.1 <0.1 0.1 Extractable Petroleum Hydrocarbons - Water mg/L <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.0 <0.0 <0.0	Toluene		mg/L	< 0.0004	< 0.0004	< 0.0004	0.0004
Volatile Petroleum Hydrocarbons - Water F1 - BTEX mg/L <0.1	Ethylbenzene		mg/L	<0.001	<0.001	<0.001	0.001
F1 - BTEX mg/L <0.1 <0.1 <0.1 0.1 F1 C6-C10 mg/L <0.1	Total Xylenes (m,p,o)		mg/L	<0.001	<0.001	<0.001	0.001
F1 C6-C10 mg/L <0.1 <0.1 <0.1 0.1 F2 C10-C16 mg/L <0.1 <0.1 <0.1 <0.1 Extractable Petroleum Hydrocarbons - Water W V <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 </td <td>Volatile Petroleum Hyd</td> <td>rocarbons - Water</td> <td></td> <td></td> <td></td> <td></td> <td></td>	Volatile Petroleum Hyd	rocarbons - Water					
F2 C10-C16 mg/L	F1 -BTEX		mg/L	<0.1	<0.1	<0.1	0.1
### Part	F1 C6-C10		mg/L	<0.1	<0.1	<0.1	0.1
F3 C16-C34 mg/L <0.1 <0.1 <0.1 0.1 F4 C34-C50 mg/L <0.1	F2 C10-C16		mg/L	<0.1	<0.1	<0.1	0.1
F4 C34-C50 mg/L <0.1 <0.1 <0.1 0.1 F4HTGC C34-C50+ mg/L <0.1	Extractable Petroleum	Hydrocarbons - Wat	er				
F4HTGC C34-C50+ mg/L <0.1 <0.1 0.1 Polychlorinated Biphenyls - Water Aroclor 1016 ug/L <0.05	F3 C16-C34		mg/L	<0.1	<0.1	<0.1	0.1
Polychlorinated Biphenyls - Water Aroclor 1016 ug/L <0.05	F4 C34-C50		mg/L	<0.1	<0.1	<0.1	0.1
Aroclor 1016 ug/L <0.05	F4HTGC C34-C50+		mg/L	<0.1	<0.1	<0.1	0.1
Aroclor 1221 ug/L <0.05	Polychlorinated Bipher	nyls - Water					
Aroclor 1232 ug/L <0.05	Aroclor 1016		ug/L	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1242 ug/L <0.05	Aroclor 1221		ug/L	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1248 ug/L <0.05	Aroclor 1232		ug/L	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1254 ug/L <0.05	Aroclor 1242		ug/L	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1260 ug/L <0.05	Aroclor 1248		ug/L	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1262 ug/L <0.05	Aroclor 1254		ug/L	< 0.05	< 0.05	< 0.05	0.05
Aroclor 1268 ug/L <0.05 <0.05 <0.05 0.05 Total PCBs ug/L <0.05 <0.05 <0.05 0.05 0.05 Polychlorinated Biphenyls - Water - Surrogate	Aroclor 1260		ug/L	<0.05	<0.05	< 0.05	0.05
Total PCBs ug/L <0.05 <0.05 0.05 Polychlorinated Biphenyls - Water - Surrogate	Aroclor 1262		ug/L	<0.05	< 0.05	< 0.05	0.05
Polychlorinated Biphenyls - Water - Surrogate	Aroclor 1268		ug/L	<0.05	< 0.05	< 0.05	0.05
	Total PCBs		ug/L	<0.05	< 0.05	< 0.05	0.05
Decachlorobiphenyl Surrogate % 86 75 82 50-150	Polychlorinated Bipher	yls - Water - Surrog	ate				
	Decachlorobiphenyl	Surrogate	%	86	75	82	50-150



Analytical Report

Bill To: SILA Remediation

Project:

1091627 Lot ID:

Report To: SILA Remediation

Name:

LSD:

ID:

Control Number: C0009013

Quebec, QC, Canada

250-1260 Boul Lebourgneuf

Location: Cambridge Bay

KIRIK12

CAM-M

20433

Dec 23, 2015 Date Reported:

G2K 2G2

Attn: Jean-Pierre Pelletier P.O.: Report Number:

Date Received:

Sampled By: A. Passalis Acct code:

2071646

Company: Sila

> **Reference Number** Sample Date Sample Time Sample Location

1091627-67 Aug 24, 2015 NA

1091627-68 Aug 23, 2015 NA

1091627-69 Aug 23, 2015

Sep 2, 2015

NA

Sample Description CM15-8W CM15-11W CM15-12W Matrix Water Water Water Nominal Detection Units Results Analyte Results Results Limit **Metals Total** < 0.000005 < 0.000005 < 0.000005 0.000005 Mercury Total mg/L Arsenic Total < 0.0004 0.0012 0.0009 0.0002 mg/L Cadmium Total mg/L 0.00003 0.00004 0.00002 0.00001 Chromium Total 0.011 0.0248 0.107 0.0005 mg/L Cobalt Total mg/L 0.0006 0.0107 0.0060 0.0001 Total 0.003 0.006 0.003 0.001 Copper mg/L Lead Total 0.0003 0.0014 0.0005 0.0001 mg/L Nickel Total 0.0294 0.0300 0.0005 0.584 mg/L Total 0.671 0.498 Zinc mg/L 0.775 0.001 Mono-Aromatic Hydrocarbons - Water Benzene mg/L < 0.001 < 0.001 < 0.001 0.001 < 0.0004 < 0.0004 < 0.0004 0.0004 Toluene mg/L Ethylbenzene < 0.001 < 0.001 < 0.001 0.001 mg/L Total Xylenes (m,p,o) mg/L < 0.001 < 0.001 < 0.001 0.001 Volatile Petroleum Hydrocarbons - Water F1 -BTEX mg/L < 0.1 < 0.1 < 0.1 0.1 F1 C6-C10 < 0.1 < 0.1 < 0.1 0.1 mg/L F2 C10-C16 < 0.1 <0.1 < 0.1 0.1 mg/L **Extractable Petroleum Hydrocarbons - Water** F3 C16-C34 mg/L < 0.1 < 0.1 < 0.1 0.1 F4 C34-C50 mg/L < 0.1 < 0.1 < 0.1 0.1 F4HTGC C34-C50+ mg/L < 0.1 < 0.1 < 0.1 0.1 Polychlorinated Biphenyls - Water Aroclor 1016 ug/L < 0.05 < 0.05 < 0.05 0.05 Aroclor 1221 ug/L < 0.05 < 0.05 < 0.05 0.05 < 0.05 < 0.05 < 0.05 0.05 Aroclor 1232 ug/L Aroclor 1242 ug/L < 0.05 < 0.05 < 0.05 0.05 < 0.05 0.05 Aroclor 1248 < 0.05 < 0.05 ug/L Aroclor 1254 < 0.05 < 0.05 < 0.05 0.05 ug/L Aroclor 1260 < 0.05 < 0.05 < 0.05 0.05 ug/L Aroclor 1262 < 0.05 0.05 ug/L < 0.05 < 0.05 Aroclor 1268 ug/L < 0.05 < 0.05 < 0.05 0.05 Total PCBs ug/L < 0.05 < 0.05 < 0.05 0.05 Polychlorinated Biphenyls - Water - Surrogate Decachlorobiphenyl Surrogate % 86 86 82 50-150

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Analytical Report

Bill To: SILA Remediation

Project:

1091627 Lot ID:

Report To: SILA Remediation

ID: Name: KIRIK12 Control Number: C0009013

250-1260 Boul Lebourgneuf Quebec, QC, Canada

Location:

Date Received: Sep 2, 2015 Cambridge Bay Dec 23, 2015 Date Reported:

G2K 2G2

LSD: P.O.: Report Number:

Attn: Jean-Pierre Pelletier

Sila

2071646

Sampled By: A. Passalis

Company:

Acct code:

Reference Number Sample Date Sample Time Sample Location

1091627-70 Aug 23, 2015

1091627-71 Aug 23, 2015

1091627-72 Aug 23, 2015

NA

CAM-M

20433

NA

NA

CM15-BDW1 CM15-FB **Sample Description** CM15-13W Water Matrix Water Water Nominal Detection Units Results Results Analyte Results Limit **Metals Total** < 0.000005 < 0.000005 < 0.000005 0.000005 Mercury Total mg/L Antimony Total < 0.001 0.0002 mg/L 0.0093 Arsenic Total mg/L 0.004 < 0.0002 0.0002 Cadmium Total < 0.00002 0.00005 < 0.00001 0.00001 mg/L Chromium Total mg/L 0.0095 0.003 < 0.0005 0.0005 Cobalt Total < 0.0005 0.002 < 0.0001 0.0001 mg/L Copper Total < 0.005 < 0.005 < 0.001 0.001 mg/L Total 0.003 < 0.0005 < 0.0001 0.0001 Lead mg/L Nickel 0.021 0.0566 < 0.0005 0.0005 Total mg/L Zinc Total mg/L 0.060 0.081 < 0.001 0.001 Mono-Aromatic Hydrocarbons - Water < 0.001 < 0.001 <0.001 0.001 Benzene mg/L Toluene < 0.0004 < 0.0004 < 0.0004 0.0004 mg/L < 0.001 Ethylbenzene mg/L < 0.001 < 0.001 0.001 Total Xylenes (m,p,o) mg/L < 0.001 < 0.001 < 0.001 0.001 Volatile Petroleum Hydrocarbons - Water F1 -BTEX < 0.1 <0.1 <0.1 0.1 mg/L F1 C6-C10 < 0.1 <0.1 < 0.1 0.1 mg/L F2 C10-C16 < 0.1 mg/L < 0.1 < 0.1 0.1 **Extractable Petroleum Hydrocarbons - Water** 0.1 F3 C16-C34 mg/L < 0.1 < 0.1 < 0.1 F4 C34-C50 mg/L < 0.1 < 0.1 < 0.1 0.1 F4HTGC C34-C50+ mg/L < 0.1 < 0.1 < 0.1 0.1 Polychlorinated Biphenyls - Water Aroclor 1016 ug/L < 0.05 < 0.05 < 0.05 0.05 Aroclor 1221 < 0.05 < 0.05 < 0.05 0.05 ug/L Aroclor 1232 ug/L < 0.05 < 0.05 < 0.05 0.05 < 0.05 0.05 Aroclor 1242 < 0.05 < 0.05 ug/L Aroclor 1248 < 0.05 < 0.05 < 0.05 0.05 ug/L Aroclor 1254 < 0.05 < 0.05 < 0.05 0.05 ug/L Aroclor 1260 < 0.05 0.05 ug/L < 0.05 < 0.05 Aroclor 1262 ug/L < 0.05 < 0.05 < 0.05 0.05 Aroclor 1268 ug/L < 0.05 < 0.05 < 0.05 0.05 Total PCBs ug/L < 0.05 < 0.05 < 0.05 0.05 Polychlorinated Biphenyls - Water - Surrogate Decachlorobiphenyl Surrogate % 87 81 89 50-150

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Analytical Report

Bill To: SILA Remediation

Project: ID:

Lot ID: 1091627

Report To: SILA Remediation

Name:

Control Number: C0009013

250-1260 Boul Lebourgneuf Quebec, QC, Canada

Location:

Date Received: Sep 2, 2015 Date Reported: Dec 23, 2015

G2K 2G2

LSD: P.O.:

Report Number: 2071646

Attn: Jean-Pierre Pelletier Sampled By: A. Passalis

Acct code:

Company: Sila

Reference Number

1091627-73 Aug 23, 2015

KIRIK12

CAM-M

20433

Cambridge Bay

Sample Date Sample Time

NA

Sample Location

CM15-TB

Sample Description

Matrix

Water

		Matrix	Water			
Analyte		Units	Results	Results	Results	Nominal Detection Limit
Metals Total						
Mercury	Total	mg/L	< 0.000005			0.000005
Arsenic	Total	mg/L	< 0.0004			0.0002
Barium	Total	mg/L	<0.002			0.001
Cadmium	Total	mg/L	<0.00001			0.00001
Chromium	Total	mg/L	<0.001			0.0005
Cobalt	Total	mg/L	<0.0002			0.0001
Copper	Total	mg/L	<0.002			0.001
Lead	Total	mg/L	<0.0002			0.0001
Nickel	Total	mg/L	<0.001			0.0005
Zinc	Total	mg/L	0.004			0.001
Mono-Aromatic Hydrod	carbons - Water					
Benzene		mg/L	<0.001			0.001
Toluene		mg/L	< 0.0004			0.0004
Ethylbenzene		mg/L	<0.001			0.001
Total Xylenes (m,p,o)		mg/L	<0.001			0.001
Volatile Petroleum Hyd	rocarbons - Water					
F1 -BTEX		mg/L	<0.1			0.1
F1 C6-C10		mg/L	<0.1			0.1
F2 C10-C16		mg/L	<0.1			0.1
Extractable Petroleum	Hydrocarbons - Water					
F3 C16-C34		mg/L	<0.1			0.1
F4 C34-C50		mg/L	<0.1			0.1
F4HTGC C34-C50+		mg/L	<0.1			0.1
Polychlorinated Bipher	nyls - Water					
Aroclor 1016		ug/L	< 0.05			0.05
Aroclor 1221		ug/L	< 0.05			0.05
Aroclor 1232		ug/L	< 0.05			0.05
Aroclor 1242		ug/L	< 0.05			0.05
Aroclor 1248		ug/L	<0.05			0.05
Aroclor 1254		ug/L	<0.05			0.05
Aroclor 1260		ug/L	<0.05			0.05
Aroclor 1262		ug/L	<0.05			0.05
Aroclor 1268		ug/L	<0.05			0.05
Total PCBs		ug/L	<0.05			0.05
	nyls - Water - Surrogate	Ü				
Decachlorobiphenyl	Surrogate	%	92			50-150

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Lot ID: 1091627

Analytical Report

Bill To: SILA Remediation Project:

Report To: SILA Remediation ID: KIRIK12 Control Number: C0009013

250-1260 Boul Lebourgneuf Name: Control Number: Cooper S

Date Received: Sep 2, 2015

Quebec, QC, CanadaLocation:Cambridge BayDate Reported:Dec 23, 2015G2K 2G2LSD:CAM-MReport Number:2071646

Attn: Jean-Pierre Pelletier P.O.: 20433

Sampled By: A. Passalis Acct code:

Company: Sila

Approved by:

Benjamin Morris, B.Sc

7217 Roper Road NW Edmonton, Alberta T6B 3J4, Canada

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Lot ID: 1091627

Control Number: C0009013

Methodology and Notes

Bill To: SILA Remediation Project:

Report To: SILA Remediation ID: KIRIK12

> 250-1260 Boul Lebourgneuf Name:

Date Received: Sep 2, 2015 Quebec, QC, Canada Location: Cambridge Bay Date Reported: Dec 23, 2015 LSD: G2K 2G2 CAM-M Report Number: 2071646 Attn: Jean-Pierre Pelletier P.O.: 20433

Sampled By: A. Passalis Acct code:

Company: Sila

Method of Analysis				
Method Name	Reference	Method	Date Analysis Started	Location
BTEX-CCME - Soil	CCME	* Reference Method for Canada-Wide Standard for PHC in Soil, CWS PHCS TIER 1	02-Sep-15	Exova Calgary
BTEX-CCME - Soil	US EPA	 Volatile Organic Compounds in Various Sample Matrices Using Equilibrium Headspace Analysis/Gas Chromatography Mass Spectrometry, 5021/8260 	02-Sep-15	Exova Calgary
BTEX-CCME - Water	US EPA	* Volatile Organic Compounds in Various Sample Matrices Using Equilibrium Headspace Analysis/Gas Chromatography Mass Spectrometry, 5021/8260	03-Sep-15	Exova Calgary
Mercury (Total) in water	EPA	* Mercury in Water by Cold Vapor Atomic Fluorescence Spectrometry, 245.7	10-Sep-15	Exova Edmonton
Metals ICP (Hot Block) in soil	EPA	 * Sample Preparation Procedure for Spectrochemical Determination of Total Recoverable Elements, October 1999, 200.2 	02-Sep-15	Exova Edmonton
Metals ICP (Hot Block) in soil	EPA	 * Sample Preparation Procedure for Spectrochemical Determination of Total Recoverable Elements, October 1999, 200.2 	03-Sep-15	Exova Edmonton
Metals ICP-MS (Total) in water	APHA/USEPA	* Metals By Inductively Coupled Plasma/Mass Spectrometry, APHA 3125 B / USEPA 200.2, 200.8	03-Sep-15	Exova Edmonton
PCB - Soil	US EPA	 Polychlorinated Biphenyls (PCBs) by Gas Chromatography, 8082A 	02-Sep-15	Exova Calgary
PCB - Water	US EPA	 Polychlorinated Biphenyls (PCBs) by Gas Chromatography, 8082A 	03-Sep-15	Exova Calgary
TEH-CCME - Water	EPA/CCME	 Separatory Funnel Liquid-liquid Extraction/CCME, EPA 3510/CCME 	03-Sep-15	Exova Calgary
TEH-CCME-Soil (Shake)	CCME	 * Reference Method for Canada-Wide Standard for PHC in Soil, CWS PHCS TIER 1 	02-Sep-15	Exova Calgary

* Reference Method Modified References

CCME Canadian Council of Ministers of the Environment

EPA/CCME Environmental Protection Agency Test Methods - US/CCME

SW-846 Test Methods for Evaluating Solid Waste

US EPA US Environmental Protection Agency Test Methods 7217 Roper Road NW Edmonton, Alberta T6B 3J4, Canada

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Lot ID: 1091627

Control Number:

C0009013

Methodology and Notes

Bill To: SILA Remediation Project:

Report To: SILA Remediation ID: KIRIK12

> 250-1260 Boul Lebourgneuf Name:

Date Received: Sep 2, 2015 Quebec, QC, Canada Location: Cambridge Bay Date Reported: Dec 23, 2015 G2K 2G2 LSD: CAM-M Report Number: 2071646 20433

Attn: Jean-Pierre Pelletier P.O.: Sampled By: A. Passalis Acct code:

Company: Sila

Comments:

- Report was issued to remove the metals not originally requested and to adjust detection limits for extractable hydrocarbons and PCB's as requested by Jean-Pierre Pelletier of Englobe. Previous report 2039029.
- · Analysis was performed on samples 1-73 that exceeded the recommended holding time for CCMEC analysis.
- Note that due to required lower detection limit for PCB analysis in both water and soil the Nominal Detection limit was set to 0.05.

Please direct any inquiries regarding this report to our Client Services group. Results relate only to samples as submitted.

The test report shall not be reproduced except in full, without the written approval of the laboratory.



Analytical Report

Bill To: SILA Remediation

Report To: SILA Remediation

250-1260 Boul Lebourgneuf

Quebec, QC, Canada G2K 2G2

Attn: Jean-Pierre Pelletier

Sampled By: A. Passalis

Company: Sila

Project:

Name:

KIRIK12

Location: Cambridge Bay LSD: CAM-M

P.O.:

20433 Acct code:

Date Reported: Dec 23, 2015 Report Number: 2071646

Control Number:

Date Received:

Lot ID: 1091627

C0009013

Sep 2, 2015

Petroleum Hydrocarbons in Soil

Batch Notes

- The method used complies with the Reference Method for the Canada Wide Standards for Petroleum Hydrocarbons in Soil - Tier 1, April 2001, including Addendum 1, and is accredited for use in Exova.
- 2. Modifications of the method: See Notes and Methodology for nonconformances (if applicable).
- Qualifications on results: See Notes and Methodology for nonconformances (if applicable). 3.
- Silica gel treatment is performed for fractions F2, F3, F4.
- F1-BTEX: BTEX has been subtracted from the F1 fraction. 5.
- 6. If analyzed, naphthalene has been subtracted from fraction F2 and selected PAHs have been subtracted from fraction F3.
- 7. F4HTGC is reported when more than 5% of the total carbon envelope elutes past C50.
- Exova does not routinely report Gravimetric Heavy Hydrocarbons (F4G or F4G-sg), F4HTGC through extended range high temperature GC is reported instead.
- When both F4(C₃₄-C₅₀) and F4HTGC are reported, F4HTGC is the final F4 that is to be used for interpreting the CWS.
- Quality criteria met for the batch: Data is reported in Quality Control Section of report (if requested).
 - -nC6 and nC10 response factors (RF) are within 30% of RF for toluene
 - -nC₁₀, nC₁₆ and nC₃₄ RFs are within 10% of each other
 - -nC50 RF is within 30% of the average RF for nC10+nC16+nC34
 - -linearity is within 15% for each of the calibrated carbon ranges
- 11. Batch data for analytical quality control are available on request.
- 12. Extraction and analysis holding times were met: See Notes and Methodology for nonconformances (if applicable).

Approved by:

Benjamin Morris, B.Sc

Client Services Team Leader

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Quality Control

Bill To: SILA Remediation Project:

Report To: SILA Remediation

250-1260 Boul Lebourgneuf

Quebec, QC, Canada G2K 2G2

Metals Strong Acid Digestion

Sampled By: A. Passalis Company: Sila

Attn: Jean-Pierre Pelletier

ID:

KIRIK12

Name: Location: Cambridge Bay

LSD: CAM-M P.O.: 20433

Acct code:

Sep 2, 2015 Date Reported: Dec 23, 2015 Report Number: 2071646

Control Number:

Date Received:

Lot ID: 1091627

C0009013

Blanks	Units	Measured	Lower Limit	Upper Limit	Passed Q0
1474411-2		September 02, 2015			
Antimony	ug/L	-0.00161299	-0.1	0.2	ye
Arsenic	ug/L	-0.002075	-0.2	0.2	ye
Barium	ug/L	0.0244442	-1	1	ye
Beryllium	ug/L	-4.14979e-005	-0.1	0.1	ye
Cadmium	ug/L	-5.85381e-005	-0.01	0.01	ye
Chromium	ug/L	-0.137079	-0.5	0.5	ye
Cobalt	ug/L	0.00241379	-0.1	0.1	ye
Copper	ug/L	0.00983349	-0.6	1.2	ye
Lead	ug/L	0.0249371	-5.0	5.0	ye
Molybdenum	ug/L	-0.0331273	-1.0	1.0	ye
Nickel	ug/L	0.0414058	-0.4	0.7	ye
Selenium	ug/L	-0.05834	-0.3	0.3	ye
Silver	ug/L	8.6344e-005	-0.09	0.14	ye
Thallium	ug/L	0.00485008	-0.04	0.04	ye
Tin	ug/L	-0.0514587	-0.4	0.4	ye
Uranium	ug/L	0.0029895	-0.5	0.5	ye
Vanadium	ug/L	-0.0458892	-0.1	0.1	ye
Zinc	ug/L	0.304268	-1	1	ye
1474413-2		September 02, 2015			
Antimony	ug/L	-0.0295406	-0.1	0.2	ye
Arsenic	ug/L	0.0106186	-0.2	0.2	ye
Barium	ug/L	0.0406688	-1	1	ye
Beryllium	ug/L	0.00411209	-0.1	0.1	ye
Cadmium	ug/L	-0.000201424	-0.01	0.01	ye
Chromium	ug/L	-0.1216	-0.5	0.5	ye
Cobalt	ug/L	0.00156399	-0.1	0.1	ye
Copper	ug/L	-0.569244	-0.6	1.2	ye
Lead	ug/L	0.0574124	-5.0	5.0	ye
Mercury	ug/L	0.000727048	-0.045	0.045	ye
Molybdenum	ug/L	0.00448273	-1.0	1.0	ye
Nickel	ug/L	-0.071089	-0.4	0.7	ye
Selenium	ug/L	-0.000331062	-0.3	0.3	ye
Silver	ug/L	-0.000856867	-0.09	0.14	ye
Thallium	ug/L	0.00713633	-0.04	0.04	ye
Tin	ug/L	-0.0463037	-0.4	0.4	ye
Uranium	ug/L	0.01758	-0.5	0.5	ye
Vanadium	ug/L	-0.033565	-0.1	0.1	ye
Zinc	ug/L	-0.433577	-1	1	ye
1474414-2	J	September 02, 2015			ŕ
Antimony	ug/L	0.00388006	-0.1	0.2	ye
Arsenic	ug/L	0.0146574	-0.2	0.2	ye:

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Lot ID: 1091627

Control Number: C0009013

Quality Control

Bill To: SILA Remediation Project:

Report To: SILA Remediation ID: KIRIK12

250-1260 Boul Lebourgneuf

Name: Date Received: Sep 2, 2015 Quebec, QC, Canada Location: Cambridge Bay Date Reported: Dec 23, 2015 G2K 2G2 LSD: CAM-M Report Number: 2071646 Attn: Jean-Pierre Pelletier P.O.: 20433

Sampled By: A. Passalis Acct code:

lanks	Units	Measured	Lower Limit	Upper Limit	Passed
Barium	ug/L	0.0417029	-1	1	
Beryllium	ug/L	0.0023395	-0.1	0.1	
Cadmium	ug/L	-0.000904047	-0.01	0.01	
Chromium	ug/L	-0.0627025	-0.5	0.5	
Cobalt	ug/L	0.00193687	-0.1	0.1	
Copper	ug/L	0.0198018	-0.6	1.2	
Lead	ug/L	0.101658	-5.0	5.0	
Mercury	ug/L	0.00118351	-0.045	0.045	
Molybdenum	ug/L	-0.030189	-1.0	1.0	
Nickel	ug/L	0.0434135	-0.4	0.7	
Selenium	ug/L	-0.00375406	-0.3	0.3	
Silver	ug/L	-0.00146563	-0.09	0.14	
Thallium	ug/L	0.00280187	-0.04	0.04	
Tin	ug/L	-0.170971	-0.4	0.4	
Uranium	ug/L	0.0082788	-0.5	0.5	
Vanadium	ug/L	0.0244621	-0.1	0.1	
Zinc	ug/L	0.161257	-1	1	
474417-2		September 02, 2015			
Antimony	ug/L	0.00075262	-0.1	0.2	
Arsenic	ug/L	0.00933838	-0.2	0.2	
Barium	ug/L	-0.000886213	-1	1	
Beryllium	ug/L	0.00241918	-0.1	0.1	
Cadmium	ug/L	-0.00124091	-0.01	0.01	
Chromium	ug/L	-0.0662597	-0.5	0.5	
Cobalt	ug/L	0.00175621	-0.1	0.1	
Copper	ug/L	0.0342102	-0.6	1.2	
Lead	ug/L	0.0430698	-5.0	5.0	
Mercury	ug/L	0.00109473	-0.045	0.045	
Molybdenum	ug/L	-0.027456	-1.0	1.0	
Nickel	ug/L	0.0210119	-0.4	0.7	
Selenium	ug/L	-0.000351207	-0.3	0.3	
Silver	ug/L	-0.000965808	-0.09	0.14	
Thallium	ug/L	0.00717316	-0.04	0.04	
Tin	ug/L	-0.133327	-0.4	0.4	
Uranium	ug/L	0.0122983	-0.5	0.5	
Vanadium	ug/L	0.0397348	-0.1	0.1	
Zinc	ug/L	0.0296377	-1	1	
474573-2	<u> </u>	September 03, 2015			
Antimony	ug/L	0.00261431	-0.1	0.2	
Arsenic	ug/L	0.00201431	-0.1	0.2	
Barium	ug/L	0.00943496	-0.2 -1	1	
Beryllium	ug/L	0.291552	-0.1	0.1	

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Lot ID: 1091627

Control Number: C0009013

Quality Control

Bill To: SILA Remediation Project:

Report To: SILA Remediation ID: KIRIK12

250-1260 Boul Lebourgneuf

Name: Date Received: Sep 2, 2015 Quebec, QC, Canada Location: Cambridge Bay Date Reported: Dec 23, 2015 G2K 2G2 LSD: CAM-M Report Number: 2071646 Attn: Jean-Pierre Pelletier P.O.: 20433

Sampled By: A. Passalis Acct code:

Metals Strong Acid	Digestion - Con	tinued			
Blanks	Units	Measured	Lower Limit	Upper Limit	Passed QC
Cadmium	ug/L	0.00321562	-0.01	0.01	yes
Chromium	ug/L	-0.0960246	-0.5	0.5	yes
Cobalt	ug/L	0.00684648	-0.1	0.1	yes
Copper	ug/L	0.129266	-0.6	1.2	yes
Lead	ug/L	0.112483	-5.0	5.0	yes
Molybdenum	ug/L	0.0138797	-1.0	1.0	yes
Nickel	ug/L	0.0659869	-0.4	0.7	yes
Selenium	ug/L	-0.0878491	-0.3	0.3	yes
Silver	ug/L	0.000308285	-0.09	0.14	yes
Thallium	ug/L	0.00314102	-0.04	0.04	yes
Tin	ug/L	0.0285611	-0.4	0.4	yes
Uranium	ug/L	0.00599703	-0.5	0.5	yes
Vanadium	ug/L	0.0189401	-0.1	0.1	yes
Zinc	ug/L	0.66836	-1	1	yes
1475663-2		September 08, 2015			
Antimony	ug/L	-0.000670503	-0.1	0.2	yes
Arsenic	ug/L	0.0179402	-0.2	0.2	yes
Barium	ug/L	0.1567	-1	1	yes
Beryllium	ug/L	0.00406597	-0.1	0.1	yes
Cadmium	ug/L	2.06694e-006	-0.01	0.01	yes
Chromium	ug/L	-0.247605	-0.5	0.5	yes
Cobalt	ug/L	0.00392221	-0.1	0.1	yes
Copper	ug/L	0.0767098	-0.6	1.2	yes
Lead	ug/L	0.0302967	-5.0	5.0	yes
Mercury	ug/L	0.00207735	-0.045	0.045	yes
Molybdenum	ug/L	0.0221634	-1.0	1.0	yes
Nickel	ug/L	0.0032504	-0.4	0.7	yes
Selenium	ug/L	-0.0637252	-0.3	0.3	yes
Silver	ug/L	7.00824e-005	-0.09	0.14	yes
Thallium	ug/L	0.0047145	-0.04	0.04	yes
Tin	ug/L	-0.0702605	-0.4	0.4	yes
Uranium	ug/L	0.00666669	-0.5	0.5	yes
Vanadium	ug/L	-0.00242057	-0.1	0.1	yes
Zinc	ug/L	0.576562	-1	1	yes
1475663-41		September 08, 2015			
Antimony	ug/L	0.000222521	-0.1	0.2	yes
Arsenic	ug/L	0.00489826	-0.2	0.2	yes
Barium	ug/L	0.0693225	-1	1	yes
Beryllium	ug/L	0.00396606	-0.1	0.1	yes
Cadmium	ug/L	5.82295e-005	-0.01	0.01	yes
Chromium	ug/L	-0.230724	-0.5	0.5	yes
Cobalt	ug/L	0.00144222	-0.1	0.1	yes
					-

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Lot ID: 1091627

Control Number: C0009013

Quality Control

Bill To: SILA Remediation Project:

Report To: SILA Remediation ID: KIRIK12

> 250-1260 Boul Lebourgneuf Name:

Date Received: Sep 2, 2015 Quebec, QC, Canada Location: Cambridge Bay Date Reported: Dec 23, 2015 G2K 2G2 LSD: CAM-M Report Number: 2071646 Attn: Jean-Pierre Pelletier P.O.: 20433

Sampled By: A. Passalis Acct code:

	Metals Strong Acid Dig	estion - Co	ontinued				
Lead ug/L 0.00867196 -5.0 5.0 yes Mercury ug/L 0.00211295 -0.045 0.045 yes Molybedrum ug/L 0.0171848 -1.0 1.0 -yes Sicheri ug/L 0.04141391 -0.4 0.7 -yes Silver ug/L -0.0482903 -0.3 0.3 yes Silver ug/L -0.04856-005 -0.09 0.14				Lower Limit	Upper Limit		Passed QC
Molybdenum	Copper	ug/L	0.0360613	-0.6	1.2		yes
Molybdenum ug/L 0.0171848 -1.0 1.0 yes Nickel ug/L 0.01141391 -0.4 0.7 yes Selenium ug/L -0.0628083 -0.3 0.3 yes Silver ug/L -4.04085e-005 -0.09 0.14 -9.8 Thallium ug/L -0.0415836 -0.4 0.04 .9es Uranium ug/L 0.00153933 -0.5 0.5 yes Zinc ug/L 0.0415481 -0.1 0.1 yes Zinc ug/L 0.342134 -1 1 1 yes Zinc mg/g 2.2 2	Lead	ug/L	0.00867196	-5.0	5.0		yes
Nickel	Mercury	ug/L	0.00211295	-0.045	0.045		yes
Selenium ug/L -0.0628083 -0.3 0.3 yes Silver ug/L -4.04065e-005 -0.09 0.14 yes Thallium ug/L 0.0015102 -0.04 0.04 yes Tin ug/L 0.00153393 -0.5 0.5 yes Vanadium ug/L 0.0115481 -0.1 0.1 yes Zinc ug/L 0.342134 -1 1 dboolute Criteria pyss Client Sample Replicates Units Replicate 1 Replicate 2 % RSD Criteria Absolute Criteria pyss Alt74411-4 September 02, 2015 4 20 0.4 yes Arsenic mg/kg 2.5 2.9 2.0 0.4 yes Barium mg/kg 0.01 0.1 20 0.2 yes Beryllium mg/kg 0.05 0.05 2.0 0.2 yes Cadmium mg/kg 0.05 0.0 0.2 yes	Molybdenum	ug/L	0.0171848	-1.0	1.0		yes
Silver ug/L -4.04085e-005 -0.09 0.14 yes Tallium ug/L -0.0415836 -0.4 0.04 yes Uranium ug/L -0.0415836 -0.4 0.05 yes Vanadium ug/L -0.015481 -0.1 0.15 yes Zinc ug/L 0.0342134 -1 1 yes Clien Sample Replicates Units Replicate 1 Replicate 2 % RSD Criteria Absolute Criteria Passed CC 1474411-4 September 02, 2015 - 4 20 0.4 yes Assenic mg/kg 0.2 0.4 20 0.4 yes Barium mg/kg 0.1 0.1 20 0.2 yes Barium mg/kg 0.05 0.05 20 0.02 yes Barium mg/kg 0.01 0.1 20 0.2 yes Chromium mg/kg 0.05 0.05 0.0 0.2 <	Nickel	ug/L	0.0141391	-0.4	0.7		yes
Thallium ug/L 0.0015102 -0.04 0.04 yes Tin ug/L -0.0415336 -0.4 0.4 yes Uranium ug/L 0.00153393 -0.5 0.5 yes Vanadium ug/L -0.0115481 -0.1 0.1 yes Zinc ug/L 0.342134 -1.1 0.1 Absolute Criteria yes Zinc ug/L 0.342134 -1.1 0.1 Absolute Criteria yes Zinc Urits Replicate 1 Replicate 2 %RSD Criteria Absolute Criteria yes Zinc Urits Replicate 1 Replicate 2 %RSD Criteria Absolute Criteria yes Actinimory mg/kg 0.2 0.4 20 0.4 yes Arsenic mg/kg 0.2 0.4 20 0.4 yes Barium mg/kg 0.0 0.0 0.0 0.0 0.0 yes Cadmium mg/kg 0.0	Selenium	ug/L	-0.0628083	-0.3	0.3		yes
Tin ug/L -0.415836 -0.4 0.4 yes Uranidum ug/L 0.00153393 -0.5 0.5 yes Zinc ug/L -0.0115481 -0.1 0.1 yes Zinc ug/L 0.342134 -1 1 1 yes Client Sample Replicates Units Replicate 1 Replicate 2 % RSD Criteria Absolute Criteria Passed QC 1474411-4 September 02, 2015	Silver	ug/L	-4.04085e-005	-0.09	0.14		yes
Uranium ug/L 0.00153393 -0.5 0.5 yes yes Vanadium ug/L -0.0115481 -0.1 0.1 yes yes Zinc ug/L 0.342134 -1 1 1 yes Client Sample Replicates Units Replicate 1 Replicate 2 % RSD Criteria Masolute Criteria Passed QC 1474411-4 September 02, 2015	Thallium	ug/L	0.0015102	-0.04	0.04		yes
Vanadium ug/L -0.0115481 -0.1 0.1 yes Zine ug/L 0.342134 -1 1 1 Wass yes Client Sample Replicates Units Replicate 1 Replicate 2 % RSD Criteria Absolute Criteria Passed QC 1474411-4 September 02, 2015	Tin	ug/L	-0.0415836	-0.4	0.4		yes
Zinc ug/L 0.342134 -1 1 the policate of the polica	Uranium	ug/L	0.00153393	-0.5	0.5		yes
Client Sample Replicates Units Replicate 1 Replicate 2 % RSD Criteria Absolute Criteria Passed QC 1474411-4 September 02, 2015	Vanadium	ug/L	-0.0115481	-0.1	0.1		yes
1474411-4	Zinc	ug/L	0.342134	-1	1		yes
Antimony mg/kg 0.2 0.4 20 0.4 yes Arsenic mg/kg 2.5 2.9 20 0.4 yes Barium mg/kg 1.4 1.5 20 2 yes Beryllium mg/kg 0.1 0.1 20 0.2 yes Cadmium mg/kg 0.05 0.05 20 0.02 yes Chomium mg/kg 7.6 8.1 20 1.1 yes Cobalt mg/kg 2.2 2.2 20 0.2 yes Copper mg/kg 9.0 9.6 20 2.2 yes Lead mg/kg 7.5 8.5 20 0.2 yes Molybdenum mg/kg 5.2 5.3 20 0.2 yes Nickel mg/kg 5.2 5.3 20 0.7 yes Selenium mg/kg 0.1 0.1 20 0.22 yes	Client Sample Replicates	Units	Replicate 1	Replicate 2	% RSD Criteria	Absolute Criteria	Passed QC
Arsenic mg/kg 2.5 2.9 20 0.4 yes Barium mg/kg 14 15 20 2 yes Beryllium mg/kg 0.1 0.1 20 0.2 yes Cadmium mg/kg 0.05 0.05 20 0.02 yes Chromium mg/kg 7.6 8.1 20 1.1 yes Cobalt mg/kg 2.2 2.2 20 0.2 yes Copper mg/kg 9.0 9.6 20 0.2 yes Copper mg/kg 9.0 9.6 20 0.2 yes Molybdenum mg/kg <1.0	1474411-4		September 02, 2015				
Barium mg/kg 14 15 20 2 yes Beryllium mg/kg 0.1 0.1 20 0.2 yes Cadmium mg/kg 0.05 0.05 20 0.02 yes Chromium mg/kg 7.6 8.1 20 1.1 yes Cobalt mg/kg 9.0 9.6 20 2.2 yes Copper mg/kg 9.0 9.6 20 0.2 yes Lead mg/kg 7.5 8.5 20 0.2 yes Molybdenum mg/kg 4.10 <1.0	Antimony	mg/kg	0.2	0.4	20	0.4	yes
Beryllium mg/kg 0.1 0.1 20 0.2 yes Cadmium mg/kg 0.05 0.05 20 0.02 yes Chomium mg/kg 7.6 8.1 20 1.1 yes Cobalt mg/kg 2.2 2.2 20 0.2 yes Copper mg/kg 9.0 9.6 20 2.2 yes Lead mg/kg 7.5 8.5 20 0.2 yes Molybdenum mg/kg 4.1.0 <1.0	Arsenic	mg/kg	2.5	2.9	20	0.4	yes
Cadmium mg/kg 0.05 0.05 20 0.02 yes Chromium mg/kg 7.6 8.1 20 1.1 yes Cobalt mg/kg 2.2 2.2 20 0.2 yes Copper mg/kg 9.0 9.6 20 2.2 yes Lead mg/kg 7.5 8.5 20 0.2 yes Molybdenum mg/kg 4.1.0 <1.0	Barium	mg/kg	14	15	20	2	yes
Chromium mg/kg 7.6 8.1 20 1.1 yes Cobalt mg/kg 2.2 2.2 20 0.2 yes Copper mg/kg 9.0 9.6 20 2.2 yes Lead mg/kg 7.5 8.5 20 0.2 yes Molybdenum mg/kg 4.1.0 <1.0	Beryllium	mg/kg	0.1	0.1	20	0.2	yes
Cobalt mg/kg 2.2 2.2 2.0 0.2 yes Copper mg/kg 9.0 9.6 20 2.2 yes Lead mg/kg 7.5 8.5 20 0.2 yes Molybdenum mg/kg <1.0	Cadmium	mg/kg	0.05	0.05	20	0.02	yes
Copper mg/kg 9.0 9.6 20 2.2 yes Lead mg/kg 7.5 8.5 20 0.2 yes Molybdenum mg/kg <1.0	Chromium	mg/kg	7.6	8.1	20	1.1	yes
Lead mg/kg 7.5 8.5 20 0.2 yes Molybdenum mg/kg <1.0	Cobalt	mg/kg	2.2	2.2	20	0.2	yes
Molybdenum mg/kg <1.0 <1.0 20 2.2 yes Nickel mg/kg 5.2 5.3 20 1.1 yes Selenium mg/kg <0.3	Copper	mg/kg	9.0	9.6	20	2.2	yes
Nickel mg/kg 5.2 5.3 20 1.1 yes Selenium mg/kg <0.3	Lead	mg/kg	7.5	8.5	20	0.2	yes
Selenium mg/kg <0.3 <0.3 20 0.7 yes Silver mg/kg <0.1	Molybdenum	mg/kg	<1.0	<1.0	20	2.2	yes
Silver mg/kg <0.1 <0.1 20 0.22 yes Thallium mg/kg 0.10 0.12 20 0.11 yes Tin mg/kg <1.0	Nickel	mg/kg	5.2	5.3	20	1.1	yes
Thallium mg/kg 0.10 0.12 20 0.11 yes Tin mg/kg <1.0	Selenium	mg/kg	<0.3	<0.3	20	0.7	yes
Tin mg/kg <1.0 <1.0 20 2.2 yes Uranium mg/kg 0.5 0.6 20 1.1 yes Vanadium mg/kg 9.7 10.2 20 0.2 yes Zinc mg/kg 21 21 20 2 yes 1474411-21 September 02, 2015 Antimony mg/kg <0.2	Silver	mg/kg	<0.1	<0.1	20	0.22	yes
Uranium mg/kg 0.5 0.6 20 1.1 yes Vanadium mg/kg 9.7 10.2 20 0.2 yes Zinc mg/kg 21 21 20 2 yes 1474411-21 September 02, 2015 Antimony mg/kg <0.2	Thallium	mg/kg	0.10	0.12	20	0.11	yes
Vanadium mg/kg 9.7 10.2 20 0.2 yes Zinc mg/kg 21 21 20 2 yes 1474411-21 September 02, 2015 Antimony mg/kg <0.2	Tin	mg/kg	<1.0	<1.0	20	2.2	yes
Zinc mg/kg 21 21 20 2 yes 1474411-21 September 02, 2015 Antimony mg/kg <0.2	Uranium	mg/kg	0.5	0.6	20	1.1	yes
September 02, 2015 Antimony mg/kg <0.2 <0.2 20 0.4 yes Arsenic mg/kg 4.3 3.8 20 0.4 yes Barium mg/kg 20 18 20 2 yes Beryllium mg/kg 0.5 0.4 20 0.2 yes Cadmium mg/kg 0.02 0.02 20 0.02 yes Chromium mg/kg 17.3 14.9 20 1.1 yes Cobalt mg/kg 5.9 6.0 20 0.2 yes Copper mg/kg 12.0 14.4 20 2.2 yes	Vanadium	mg/kg	9.7	10.2	20	0.2	yes
Antimony mg/kg <0.2 <0.2 20 0.4 yes Arsenic mg/kg 4.3 3.8 20 0.4 yes Barium mg/kg 20 18 20 2 yes Beryllium mg/kg 0.5 0.4 20 0.2 yes Cadmium mg/kg 0.02 0.02 20 0.02 yes Chromium mg/kg 17.3 14.9 20 1.1 yes Cobalt mg/kg 5.9 6.0 20 0.2 yes Copper mg/kg 12.0 14.4 20 2.2 yes	Zinc	mg/kg	21	21	20	2	yes
Arsenic mg/kg 4.3 3.8 20 0.4 yes Barium mg/kg 20 18 20 2 yes Beryllium mg/kg 0.5 0.4 20 0.2 yes Cadmium mg/kg 0.02 0.02 20 0.02 yes Chromium mg/kg 17.3 14.9 20 1.1 yes Cobalt mg/kg 5.9 6.0 20 0.2 yes Copper mg/kg 12.0 14.4 20 2.2 yes	1474411-21		September 02, 2015				
Barium mg/kg 20 18 20 2 yes Beryllium mg/kg 0.5 0.4 20 0.2 yes Cadmium mg/kg 0.02 0.02 20 0.02 yes Chromium mg/kg 17.3 14.9 20 1.1 yes Cobalt mg/kg 5.9 6.0 20 0.2 yes Copper mg/kg 12.0 14.4 20 2.2 yes	Antimony	mg/kg	<0.2	<0.2	20	0.4	yes
Beryllium mg/kg 0.5 0.4 20 0.2 yes Cadmium mg/kg 0.02 0.02 20 0.02 yes Chromium mg/kg 17.3 14.9 20 1.1 yes Cobalt mg/kg 5.9 6.0 20 0.2 yes Copper mg/kg 12.0 14.4 20 2.2 yes	Arsenic	mg/kg	4.3	3.8	20	0.4	yes
Cadmium mg/kg 0.02 0.02 20 0.02 yes Chromium mg/kg 17.3 14.9 20 1.1 yes Cobalt mg/kg 5.9 6.0 20 0.2 yes Copper mg/kg 12.0 14.4 20 2.2 yes		mg/kg	20	18	20	2	yes
Chromium mg/kg 17.3 14.9 20 1.1 yes Cobalt mg/kg 5.9 6.0 20 0.2 yes Copper mg/kg 12.0 14.4 20 2.2 yes	Beryllium	mg/kg	0.5	0.4	20	0.2	yes
Cobalt mg/kg 5.9 6.0 20 0.2 yes Copper mg/kg 12.0 14.4 20 2.2 yes	Cadmium	mg/kg	0.02	0.02	20	0.02	yes
Copper mg/kg 12.0 14.4 20 2.2 yes	Chromium	mg/kg		14.9	20	1.1	yes
	Cobalt	mg/kg	5.9	6.0		0.2	yes
Lead mg/kg 8.4 7.9 20 0.2 yes	Copper						yes
	Lead	mg/kg	8.4	7.9	20	0.2	yes



Lot ID: 1091627

Sep 2, 2015

Control Number: C0009013

Report Number: 2071646

Date Reported: Dec 23, 2015

Date Received:

Quality Control

Bill To: SILA Remediation Project:

Report To: SILA Remediation ID: KIRIK12

250-1260 Boul Lebourgneuf Name:

Quebec, QC, CanadaLocation:Cambridge BayG2K 2G2LSD:CAM-M

Attn: Jean-Pierre Pelletier P.O.: 20433

Sampled By: A. Passalis Acct code:

Metals Strong Acid Dige	estion - Co	ontinued				
Client Sample Replicates	Units	Replicate 1	Replicate 2	% RSD Criteria	Absolute Criteria	Passed QC
Molybdenum	mg/kg	<1.0	<1.0	20	2.2	yes
Nickel	mg/kg	18.1	15.9	20	1.1	yes
Selenium	mg/kg	<0.3	<0.3	20	0.7	yes
Silver	mg/kg	<0.1	<0.1	20	0.22	yes
Thallium	mg/kg	0.13	0.12	20	0.11	yes
Tin	mg/kg	<1.0	<1.0	20	2.2	yes
Uranium	mg/kg	1.4	1.1	20	1.1	yes
Vanadium	mg/kg	14.2	13.5	20	0.2	yes
Zinc	mg/kg	12	12	20	2	yes
1474413-4		September 02, 2015				
Antimony	mg/kg	<0.2	<0.2	20	0.4	yes
Arsenic	mg/kg	3.5	3.9	20	0.4	yes
Barium	mg/kg	26	28	20	2	yes
Beryllium	mg/kg	0.4	0.4	20	0.2	yes
Cadmium	mg/kg	0.03	0.03	20	0.02	yes
Chromium	mg/kg	14.5	15.8	20	1.1	yes
Cobalt	mg/kg	5.6	5.8	20	0.2	yes
Copper	mg/kg	13.9	16.4	20	2.2	yes
Lead	mg/kg	7.9	8.7	20	0.2	yes
Molybdenum	mg/kg	<1.0	<1.0	20	2.2	yes
Nickel	mg/kg	14.2	15.4	20	1.1	yes
Selenium	mg/kg	<0.3	<0.3	20	0.7	yes
Silver	mg/kg	<0.1	<0.1	20	0.22	yes
Thallium	mg/kg	0.15	0.16	20	0.11	yes
Tin	mg/kg	<1.0	<1.0	20	2.2	yes
Uranium	mg/kg	1.1	1.1	20	1.1	yes
Vanadium	mg/kg	14.5	14.9	20	0.2	yes
Zinc	mg/kg	11	12	20	2	yes
1474413-21		September 02, 2015				
Antimony	mg/kg	<0.2	<0.2	20	0.4	yes
Arsenic	mg/kg	2.5	2.3	20	0.4	yes
Barium	mg/kg	45	41	20	2	yes
Beryllium	mg/kg	0.3	0.3	20	0.2	yes
Cadmium	mg/kg	0.07	0.07	20	0.02	yes
Chromium	mg/kg	10.4	9.2	20	1.1	yes
Cobalt	mg/kg	3.1	2.9	20	0.2	yes
Copper	mg/kg	10.6	10.7	20	2.2	yes
Lead	mg/kg	5.1	4.8	20	0.2	yes
Molybdenum	mg/kg	<1.0	<1.0	20	2.2	yes
Nickel	mg/kg	8.2	7.2	20	1.1	yes
Selenium	mg/kg	<0.3	<0.3	20	0.7	yes
Silver	mg/kg	<0.1	<0.1	20	0.22	yes



Lot ID: 1091627

Sep 2, 2015

Control Number: C0009013

Report Number: 2071646

Date Reported: Dec 23, 2015

Date Received:

Quality Control

Bill To: SILA Remediation Project:

Report To: SILA Remediation ID: KIRIK12

250-1260 Boul Lebourgneuf Name:

Quebec, QC, Canada Location: Cambridge Bay G2K 2G2 LSD: CAM-M

Attn: Jean-Pierre Pelletier P.O.: 20433

Sampled By: A. Passalis Acct code:

Client Sample Replicates	Units	Replicate 1	Replicate 2	% RSD Criteria	Absolute Criteria	Passed (
Thallium	mg/kg	0.10	0.09	20	0.11)
Tin	mg/kg	<1.0	<1.0	20	2.2	<u>, </u>
Uranium	mg/kg	1.1	1.1	20	1.1	,
Vanadium	mg/kg	14.8	13.8	20	0.2	<u>, </u>
Zinc	mg/kg	13	12	20	2	· ·
1474414-4		September 02, 2015				
Antimony	mg/kg	<0.2	<0.2	20	0.4	y
Arsenic	mg/kg	6.6	7.3	20	0.4	
Barium	mg/kg	28	28	20	2	
Beryllium	mg/kg	0.6	0.6	20	0.2	
Cadmium	mg/kg	0.02	0.03	20	0.02	
Chromium	mg/kg	23.4	22.1	20	1.1	
Cobalt	mg/kg	6.4	6.6	20	0.2	
Copper	mg/kg	14.9	16.2	20	2.2	
Lead	mg/kg	9.8	10.2	20	0.2	
Molybdenum	mg/kg	2.3	2.6	20	2.2	
Nickel	mg/kg	11.7	12.4	20	1.1	
Selenium	mg/kg	<0.3	<0.3	20	0.7	
Silver	mg/kg	<0.1	<0.1	20	0.22	
Thallium	mg/kg	0.14	0.14	20	0.11	
Tin	mg/kg	<1.0	<1.0	20	2.2	
Uranium	mg/kg	0.9	0.9	20	1.1	
Vanadium	mg/kg	22.5	21.9	20	0.2	
Zinc	mg/kg	17	15	20	2	
	mg/kg		10	20	-	
474414-21		September 02, 2015	0.0	00	0.4	
Antimony	mg/kg	<0.2	<0.2	20	0.4	
Arsenic	mg/kg	3.2	3.5	20	0.4	
Barium	mg/kg	31	30	20	2	
Beryllium	mg/kg	0.2	0.2	20	0.2	
Cadmium	mg/kg	0.08	0.08	20	0.02	
Chromium	mg/kg	8.2	8.4	20	1.1	
Cobalt	mg/kg	3.5	3.7	20	0.2	
Copper	mg/kg	8.5	8.6	20	2.2	
Lead	mg/kg	4.5	4.6	20	0.2	
Molybdenum	mg/kg	<1.0	<1.0	20	2.2	
Nickel	mg/kg	8.8	8.7	20	1.1	
Selenium	mg/kg	<0.3	<0.3	20	0.7	
Silver	mg/kg	<0.1	<0.1	20	0.22	
Thallium	mg/kg	0.08	0.07	20	0.11	
Tin	mg/kg	<1.0	<1.0	20	2.2	
Uranium	mg/kg	0.8	0.8	20	1.1	
Vanadium	mg/kg	11.9	12.3	20	0.2	



1091627

C0009013

Lot ID:

Quality Control

Bill To: SILA Remediation Project:

Report To: SILA Remediation ID: KIRIK12 Control Number:

250-1260 Boul Lebourgneuf Name:

Date Received: Sep 2, 2015 Cambridge Bay Quebec, QC, Canada Location: Dec 23, 2015 Date Reported: G2K 2G2 LSD: CAM-M Report Number: 2071646

Attn: Jean-Pierre Pelletier P.O.: 20433

Sampled By: A. Passalis Acct code: Company: Sila

Metals Strong Acid Digestion - Continued % RSD Criteria **Client Sample Replicates** Units Replicate 1 Replicate 2 **Absolute Criteria** Passed QC Zinc mg/kg 14 15 20 2 yes 1474417-4 September 02, 2015 <0.2 20 0.4 Antimony mg/kg < 0.2 yes 3.6 4.3 20 0.4 yes Arsenic mg/kg 2 Barium mg/kg 46 48 20 yes Beryllium mg/kg 0.4 0.5 20 0.2 yes Cadmium mg/kg 0.03 0.04 20 0.02 yes Chromium 22.8 24.3 20 1.1 mg/kg yes Cobalt mg/kg 6.3 6.4 20 0.2 yes 13.9 20 2.2 Copper mg/kg 12.3 yes Lead mg/kg 6.2 7.1 20 0.2 yes <1.0 1.0 20 2.2 Molybdenum mg/kg yes Nickel 16.1 20 1.1 mg/kg 15.6 yes 20 Selenium 0.7 mg/kg < 0.3 < 0.3 yes Silver < 0.1 20 0.22 mg/kg < 0.1 yes Thallium mg/kg 0.14 0.16 20 0.11 yes Tin mg/kg <1.0 <1.0 20 2.2 ves Uranium mg/kg 1.2 1.2 20 1.1 yes Vanadium 29.8 31.1 20 0.2 mg/kg yes Zinc mg/kg 27 28 20 2 yes 1474417-21 September 02, 2015 Antimony mg/kg < 0.2 <0.2 20 0.4 yes 0.4 Arsenic mg/kg 3.3 3.3 20 yes mg/kg 43 43 20 2 **Barium** yes Beryllium 0.3 0.3 20 0.2 mg/kg yes Cadmium mg/kg 0.02 0.02 20 0.02 yes Chromium mg/kg 16.8 14.2 20 1.1 yes Cobalt 6.0 5.7 20 0.2 mg/kg yes Copper mg/kg 10.5 10.3 20 2.2 yes 20 Lead mg/kg 6.0 6.2 0.2 yes Molybdenum mg/kg <1.0 <1.0 20 2.2 yes 20 Nickel mg/kg 12.6 11.3 1.1 yes Selenium < 0.3 20 0.7 yes mg/kg < 0.3 Silver 0.22 < 0.1 20 mg/kg < 0.1 yes Thallium 0.08 mg/kg 0.08 20 0.11 yes 20 2.2 Tin mg/kg <1.0 <1.0 yes Uranium mg/kg 0.9 0.9 20 1.1 yes Vanadium mg/kg 15.9 16.5 20 0.2 yes Zinc 6 6 20 2 mg/kg yes 1474573-21 September 03, 2015 0.5 20 0.4 Antimony mg/kg 0.4 yes 20 yes Arsenic mg/kg 9.5 9.5 0.4

T: +1 (780) 438-5522 F: +1 (780) 434-8586 E: Edmonton@exova.com W: www.exova.com



Lot ID: 1091627

Control Number: C0009013

Quality Control

Bill To: SILA Remediation Project:

Report To: SILA Remediation ID: KIRIK12

250-1260 Boul Lebourgneuf

Name: Date Received: Sep 2, 2015 Quebec, QC, Canada Location: Cambridge Bay Date Reported: Dec 23, 2015 G2K 2G2 LSD: CAM-M Report Number: 2071646

Attn: Jean-Pierre Pelletier P.O.: 20433

Sampled By: A. Passalis Acct code:

Client Sample Replicates	Units	Replicate 1	Replicate 2	% RSD Criteria	Absolute Criteria	Passed Q
Barium	mg/kg	212	220	20	2	ye
Beryllium	mg/kg	0.7	0.7	20	0.2	ye
Cadmium	mg/kg	0.17	0.17	20	0.02	ye
Chromium	mg/kg	34.4	37.3	20	1.1	ye
Cobalt	mg/kg	9.2	9.5	20	0.2	ye
Copper	mg/kg	21.9	22.0	20	2.2	ye
Lead	mg/kg	10.9	11.1	20	0.2	ye
Molybdenum	mg/kg	<1.0	<1.0	20	2.2	ye
Nickel	mg/kg	33.2	33.4	20	1.1	ye
Selenium	mg/kg	0.6	0.6	20	0.7	ye
Silver	mg/kg	0.1	0.1	20	0.22	ye
Thallium	mg/kg	0.19	0.18	20	0.11	ye
Tin	mg/kg	<1.0	<1.0	20	2.2	ye
Uranium	mg/kg	2.0	2.0	20	1.1	ye
Vanadium	mg/kg	30.3	31.5	20	0.2	ye
Zinc	mg/kg	66	68	20	2	y
1475663-21		September 08, 2015				
Antimony	mg/kg	<0.2	<0.2	20	0.4	y
Arsenic	mg/kg	5.0	4.9	20	0.4	y.
Barium	mg/kg	77	80	20	2	y.
Beryllium	mg/kg	0.2	0.2	20	0.2	y.
Cadmium	mg/kg	0.18	0.17	20	0.02	ye
Chromium	mg/kg	4.6	4.6	20	1.1	y.
Cobalt	mg/kg	5.2	5.2	20	0.2	y.
Copper	mg/kg	4.1	4.2	20	2.2	y.
Lead	mg/kg	3.6	3.6	20	0.2	y.
Molybdenum	mg/kg	<1.0	<1.0	20	2.2	y.
Nickel	mg/kg	11.6	11.8	20	1.1	y.
Selenium	mg/kg	<0.3	<0.3	20	0.7	y
Silver	mg/kg	<0.1	<0.1	20	0.22	y
Thallium	mg/kg	0.09	0.09	20	0.11	y.
Tin	mg/kg	<1.0	<1.0	20	2.2	y
Uranium	mg/kg	0.5	0.5	20	1.1	у
Vanadium	mg/kg	9.1	9.3	20	0.2	y.
Zinc	mg/kg	29	29	20	2	y
1475663-38		September 08, 2015				•
Antimony	mg/kg	0.6	0.6	20	0.4	W
Arsenic	mg/kg	11.3	11.3	20	0.4	ye ve
Barium		241	250	20		у
Beryllium	mg/kg	1.0	1.1		2	у
Cadmium	mg/kg	0.33		20 20	0.2 0.02	у
Chromium	mg/kg mg/kg	0.33 42.7	0.33 40.0	20	1.1	y y



Lot ID: 1091627

Sep 2, 2015

Control Number: C0009013

Report Number: 2071646

Date Reported: Dec 23, 2015

Date Received:

Quality Control

Bill To: SILA Remediation Project:

Report To: SILA Remediation ID: KIRIK12

250-1260 Boul Lebourgneuf Name:

Quebec, QC, CanadaLocation:Cambridge BayG2K 2G2LSD:CAM-M

Attn: Jean-Pierre Pelletier P.O.: 20433

Sampled By: A. Passalis Acct code:

Metals Strong Acid Dige	estion - Co	ontinued				
Client Sample Replicates	Units	Replicate 1	Replicate 2	% RSD Criteria	Absolute Criteria	Passed QC
Cobalt	mg/kg	15.2	14.6	20	0.2	yes
Copper	mg/kg	35.7	35.3	20	2.2	yes
Lead	mg/kg	13.5	13.8	20	0.2	yes
Molybdenum	mg/kg	1.1	1.0	20	2.2	yes
Nickel	mg/kg	42.2	40.9	20	1.1	yes
Selenium	mg/kg	0.9	0.7	20	0.7	yes
Silver	mg/kg	0.1	0.1	20	0.22	yes
Thallium	mg/kg	0.32	0.31	20	0.11	yes
Tin	mg/kg	<1.0	<1.0	20	2.2	yes
Uranium	mg/kg	1.4	1.4	20	1.1	yes
Vanadium	mg/kg	72.5	70.1	20	0.2	yes
Zinc	mg/kg	107	106	20	2	yes
Control Sample	Units	Measured	Lower Limit	Upper Limit		Passed QC
1474411-1		September 02, 2015				
Antimony	mg/kg	38.0	34.2	42.0		yes
Arsenic	mg/kg	38.1	36.3	43.9		yes
Barium	mg/kg	200	189	219		yes
Beryllium	mg/kg	19.0	17.4	22.2		yes
Cadmium	mg/kg	1.99	1.88	2.28		yes
Chromium	mg/kg	99.5	94.2	107.8		yes
Copper	mg/kg	198	179.5	210.5		yes
Lead	mg/kg	19.5	18.6	21.8		yes
Molybdenum	mg/kg	215	186.8	222.8		yes
Nickel	mg/kg	99.3	91.6	108.4		yes
Selenium	mg/kg	36.8	36.1	42.9		yes
Silver	mg/kg	20.2	18.70	22.90		yes
Thallium	mg/kg	10.0	9.57	11.23		yes
Tin	mg/kg	203	185.9	215.9		yes
Uranium	mg/kg	101	86.0	116.0		yes
Vanadium	mg/kg	20.3	18.4	22.4		yes
Zinc	mg/kg	189	180	220		yes
1474413-1		September 02, 2015				
Antimony	mg/kg	39.9	34.2	42.0		yes
Arsenic	mg/kg	39.9	36.3	43.9		yes
Barium	mg/kg	201	189	219		yes
Beryllium	mg/kg	18.5	17.4	22.2		yes
Cadmium	mg/kg	2.09	1.88	2.28		yes
Chromium	mg/kg	102	94.2	107.8		yes
Cobalt	mg/kg	19.9	18.5	22.5		yes
Copper	mg/kg	201	179.5	210.5		yes
Lead	mg/kg	21.1	18.6	21.8		yes
Mercury	mg/kg	3.20	2.240	4.160		yes

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Lot ID: 1091627

C0009013

Control Number:

Quality Control

Bill To: SILA Remediation Project:

Report To: SILA Remediation ID: KIRIK12

250-1260 Boul Lebourgneuf

Name: Date Received: Sep 2, 2015 Quebec, QC, Canada Location: Cambridge Bay Date Reported: Dec 23, 2015 G2K 2G2 LSD: CAM-M Report Number: 2071646 Attn: Jean-Pierre Pelletier P.O.: 20433

Sampled By: A. Passalis Acct code:

Metals Strong Acid	Digestion - Contin	ued			
Control Sample	Units	Measured	Lower Limit	Upper Limit	Passed QC
Molybdenum	mg/kg	205	186.8	222.8	yes
Nickel	mg/kg	101	91.6	108.4	yes
Selenium	mg/kg	38.1	36.1	42.9	yes
Silver	mg/kg	20.1	18.70	22.90	yes
Thallium	mg/kg	9.87	9.57	11.23	yes
Tin	mg/kg	209	185.9	215.9	yes
Uranium	mg/kg	101	86.0	116.0	yes
Vanadium	mg/kg	20.4	18.4	22.4	yes
Zinc	mg/kg	198	180	220	yes
1474414-1	5	September 02, 2015			
Antimony	mg/kg	38.7	34.2	42.0	yes
Arsenic	mg/kg	38.8	36.3	43.9	yes
Barium	mg/kg	195	189	219	yes
Beryllium	mg/kg	18.8	17.4	22.2	yes
Cadmium	mg/kg	1.98	1.88	2.28	yes
Chromium	mg/kg	99.0	94.2	107.8	yes
Cobalt	mg/kg	19.4	18.5	22.5	yes
Copper	mg/kg	198	179.5	210.5	yes
Lead	mg/kg	20.6	18.6	21.8	yes
Mercury	mg/kg	3.17	2.240	4.160	yes
Molybdenum	mg/kg	199	186.8	222.8	yes
Nickel	mg/kg	97.7	91.6	108.4	yes
Selenium	mg/kg	38.9	36.1	42.9	yes
Silver	mg/kg	19.4	18.70	22.90	yes
Thallium	mg/kg	9.82	9.57	11.23	yes
Tin	mg/kg	201	185.9	215.9	yes
Uranium	mg/kg	97.2	86.0	116.0	yes
Vanadium	mg/kg	19.9	18.4	22.4	yes
Zinc	mg/kg	193	180	220	yes
1474417-1	Ş	September 02, 2015			
Antimony	mg/kg	37.7	34.2	42.0	yes
Arsenic	mg/kg	37.3	36.3	43.9	yes
Barium	mg/kg	201	189	219	yes
Beryllium	mg/kg	20.0	17.4	22.2	yes
Cadmium	mg/kg	1.93	1.88	2.28	yes
Chromium	mg/kg	96.4	94.2	107.8	yes
Copper	mg/kg	187	179.5	210.5	yes
Lead	mg/kg	21.4	18.6	21.8	yes
Mercury	mg/kg	3.21	2.240	4.160	yes
Molybdenum	mg/kg	194	186.8	222.8	yes
Nickel	mg/kg	96.1	91.6	108.4	yes
Selenium	mg/kg	39.8	36.1	42.9	yes



Lot ID: 1091627

Control Number: C0009013

Quality Control

Bill To: SILA Remediation Project:

Report To: SILA Remediation ID: KIRIK12

> 250-1260 Boul Lebourgneuf Name:

Date Received: Sep 2, 2015 Quebec, QC, Canada Location: Cambridge Bay Date Reported: Dec 23, 2015 G2K 2G2 LSD: CAM-M Report Number: 2071646 Attn: Jean-Pierre Pelletier P.O.: 20433

Sampled By: A. Passalis Acct code:

ontrol Sample	Units	Measured	Lower Limit	Upper Limit	Passed
Thallium	mg/kg	10.2	9.57	11.23	
Tin	mg/kg	195	185.9	215.9	
Uranium	mg/kg	103	86.0	116.0	
Vanadium	mg/kg	19.5	18.4	22.4	
Zinc	mg/kg	188	180	220	
174573-1	S	September 03, 2015			
Antimony	mg/kg	39.2	34.2	42.0	
Arsenic	mg/kg	37.7	36.3	43.9	
Barium	mg/kg	213	189	219	
Beryllium	mg/kg	19.5	17.4	22.2	
Cadmium	mg/kg	2.10	1.88	2.28	
Chromium	mg/kg	95.8	94.2	107.8	
Copper	mg/kg	193	179.5	210.5	
Lead	mg/kg	19.9	18.6	21.8	
Molybdenum	mg/kg	206	186.8	222.8	
Nickel	mg/kg	97.0	91.6	108.4	
Selenium	mg/kg	41.6	36.1	42.9	
Silver	mg/kg	20.6	18.70	22.90	
Thallium	mg/kg	10.7	9.57	11.23	
Uranium	mg/kg	104	86.0	116.0	
Vanadium	mg/kg	19.3	18.4	22.4	
Zinc	mg/kg	189	180	220	
175663-1	S	September 08, 2015			
Antimony	mg/kg	37.9	34.2	42.0	
Arsenic	mg/kg	39.2	36.3	43.9	
Barium	mg/kg	201	189	219	
Beryllium	mg/kg	18.8	17.4	22.2	
Cadmium	mg/kg	1.95	1.88	2.28	
Chromium	mg/kg	102	94.2	107.8	
Cobalt	mg/kg	19.8	17.0	23.0	
Copper	mg/kg	196	179.5	210.5	
Lead	mg/kg	20.0	18.6	21.8	
Mercury	mg/kg	3.11	2.240	4.160	
Molybdenum	mg/kg	209	174.8	234.8	
Nickel	mg/kg	100	91.6	108.4	
Selenium	mg/kg	38.9	36.1	42.9	
Silver	mg/kg	20.2	18.70	22.90	
Thallium	mg/kg	10.3	8.90	11.90	
Tin	mg/kg	203	185.9	215.9	
Uranium	mg/kg	99.8	86.0	116.0	
Vanadium	mg/kg	20.3	18.4	22.4	
Zinc	mg/kg	190	170	230	

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Lot ID: 1091627

Sep 2, 2015

Control Number: C0009013

Report Number: 2071646

Date Reported: Dec 23, 2015

Date Received:

Quality Control

Bill To: SILA Remediation Project:

Report To: SILA Remediation ID:

250-1260 Boul Lebourgneuf

Quebec, QC, Canada G2K 2G2

LSD: CAM-M Attn: Jean-Pierre Pelletier P.O.: 20433

Name:

Location:

KIRIK12

Cambridge Bay

Sampled By: A. Passalis Acct code:

Control Sample	Units	Measured	Lower Limit	Upper Limit	Passed
475663-40		September 08, 2015			
Antimony	mg/kg	38.2	34.2	42.0	
Arsenic	mg/kg	38.0	36.3	43.9	
Barium	mg/kg	202	189	219	
Beryllium	mg/kg	19.1	17.4	22.2	
Cadmium	mg/kg	2.01	1.88	2.28	
Chromium	mg/kg	98.6	94.2	107.8	
Cobalt	mg/kg	19.5	17.0	23.0	
Copper	mg/kg	195	179.5	210.5	
Lead	mg/kg	20.4	18.6	21.8	
Mercury	mg/kg	3.20	2.240	4.160	
Molybdenum	mg/kg	208	174.8	234.8	
Nickel	mg/kg	98.9	91.6	108.4	
Selenium	mg/kg	37.1	36.1	42.9	
Silver	mg/kg	20.0	18.70	22.90	
Thallium	mg/kg	10.7	8.90	11.90	
Tin	mg/kg	202	185.9	215.9	
Uranium	mg/kg	101	86.0	116.0	
Vanadium	mg/kg	19.7	18.4	22.4	
Zinc	mg/kg	190	170	230	
474411-3	0 0	September 02, 2015			
Antimony	mg/kg	4.1	1.8	7.2	
Arsenic	mg/kg	100	81.0	121.0	
Barium	mg/kg	246	227	287	
Beryllium	mg/kg	0.5	0.4	0.9	
Cadmium	mg/kg	2.16	1.49	2.63	
Chromium	mg/kg	36.1	31.0	42.8	
Cobalt	mg/kg	12.8	11.4	16.0	
Copper	mg/kg	213	180.0	270.0	
Lead	mg/kg	123	106.0	154.0	
Molybdenum	mg/kg	2.7	2.1	4.0	
Nickel	mg/kg	64.5	51.8	78.2	
Selenium	mg/kg	0.7	0.3	0.9	
Silver		0.9	0.42	1.38	
Thallium	mg/kg mg/kg	0.34	0.42	0.36	
Tin		3.0	2.4	6.8	
	mg/kg	1.2			
Uranium	mg/kg		0.8	1.4	
Vanadium	mg/kg	43.0	37.6	47.2	
Zinc	mg/kg	567	480	720	
474413-3		September 02, 2015			
Antimony	mg/kg	4.7	1.8	7.2	
Arsenic	mg/kg	103	81.0	121.0	

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Lot ID: 1091627

C0009013

Control Number:

Quality Control

Bill To: SILA Remediation Project:

Report To: SILA Remediation ID: KIRIK12

250-1260 Boul Lebourgneuf

Name: Date Received: Sep 2, 2015 Quebec, QC, Canada Location: Cambridge Bay Date Reported: Dec 23, 2015 G2K 2G2 LSD: CAM-M Report Number: 2071646 20433

Attn: Jean-Pierre Pelletier P.O.: Sampled By: A. Passalis Acct code:

Control Sample	Digestion - Continuous Units	Measured	Lower Limit	Upper Limit	Passed QC
Barium	mg/kg	weasured 247	227	287	
Beryllium	mg/kg	0.7	0.4	0.9	yes
					yes
Cadmium Chromium	mg/kg	2.23	1.49	2.63	yes
	mg/kg	37.0	31.0	42.8	yes
Cobalt	mg/kg	13.4	11.4	16.0	yes
Copper	mg/kg	220	180.0	270.0	yes
Molybdenum	mg/kg	2.9	2.1	4.0	yes
Nickel	mg/kg	65.3	51.8	78.2	yes
Selenium	mg/kg	0.6	0.3	0.9	yes
Silver	mg/kg	1.0	0.42	1.38	yes
Tin	mg/kg	3.9	2.4	6.8	yes
Vanadium	mg/kg	42.6	37.6	47.2	yes
Zinc	mg/kg	592	480	720	yes
1474414-3		September 02, 2015			
Antimony	mg/kg	4.1	1.8	7.2	yes
Arsenic	mg/kg	99.5	81.0	121.0	yes
Beryllium	mg/kg	0.6	0.4	0.9	yes
Cadmium	mg/kg	2.17	1.49	2.63	yes
Chromium	mg/kg	36.4	31.0	42.8	yes
Cobalt	mg/kg	12.9	11.4	16.0	yes
Copper	mg/kg	221	180.0	270.0	yes
Lead	mg/kg	127	106.0	154.0	yes
Molybdenum	mg/kg	2.7	2.1	4.0	yes
Nickel	mg/kg	66.6	51.8	78.2	yes
Selenium	mg/kg	0.5	0.3	0.9	yes
Silver	mg/kg	1.0	0.42	1.38	yes
Tin	mg/kg	3.0	2.4	6.8	yes
Uranium	mg/kg	1.2	0.8	1.4	yes
Vanadium	mg/kg	41.6	37.6	47.2	yes
Zinc	mg/kg	590	480	720	yes
1474417-3		September 02, 2015			·
Antimony	mg/kg	4.3	1.8	7.2	yes
Arsenic	mg/kg	97.0	81.0	121.0	yes
Barium	mg/kg	241	227	287	yes
Beryllium		0.7	0.4	0.9	•
Cadmium	mg/kg mg/kg	2.11	1.49	2.63	yes
Chromium	mg/kg	37.1	31.0	42.8	yes
Cobalt		13.0	11.4	16.0	yes
	mg/kg				yes
Copper	mg/kg	212	180.0	270.0	yes
Lead	mg/kg	130	106.0	154.0	yes
Molybdenum	mg/kg	2.9	2.1	4.0	yes
Nickel	mg/kg	65.7	51.8	78.2	yes

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Lot ID: 1091627

Control Number: C0009013

Quality Control

Bill To: SILA Remediation Project:

Report To: SILA Remediation ID: KIRIK12

250-1260 Boul Lebourgneuf

Name: Date Received: Sep 2, 2015 Quebec, QC, Canada Location: Cambridge Bay Date Reported: Dec 23, 2015 G2K 2G2 LSD: CAM-M Report Number: 2071646 P.O.: 20433

Attn: Jean-Pierre Pelletier Sampled By: A. Passalis Acct code:

Metals Strong Acid	Digestion - Contin	ued			
Control Sample	Units	Measured	Lower Limit	Upper Limit	Passed QC
Selenium	mg/kg	0.5	0.3	0.9	yes
Silver	mg/kg	1.0	0.42	1.38	yes
Tin	mg/kg	4.0	2.4	6.8	yes
Vanadium	mg/kg	42.6	37.6	47.2	yes
Zinc	mg/kg	587	480	720	yes
1474573-3	5	September 03, 2015			
Antimony	mg/kg	4.4	1.8	7.2	yes
Arsenic	mg/kg	103	81.0	121.0	yes
Barium	mg/kg	248	227	287	yes
Beryllium	mg/kg	0.6	0.4	0.9	yes
Cadmium	mg/kg	2.26	1.49	2.63	yes
Chromium	mg/kg	38.2	31.0	42.8	yes
Cobalt	mg/kg	13.0	11.4	16.0	yes
Copper	mg/kg	214	180.0	270.0	yes
Lead	mg/kg	126	106.0	154.0	yes
Molybdenum	mg/kg	2.4	2.1	4.0	yes
Nickel	mg/kg	65.3	51.8	78.2	yes
Selenium	mg/kg	0.8	0.3	0.9	yes
Silver	mg/kg	1.0	0.42	1.38	yes
Thallium	mg/kg	0.33	0.22	0.36	yes
Tin	mg/kg	3.1	2.4	6.8	yes
Uranium	mg/kg	1.3	0.8	1.4	yes
Vanadium	mg/kg	43.7	37.6	47.2	yes
Zinc	mg/kg	570	480	720	yes
1475663-3		September 08, 2015			
Antimony	mg/kg	4.4	3.4	5.8	yes
Arsenic	mg/kg	114	88.0	124.0	yes
Barium	mg/kg	234	202	292	yes
Cadmium	mg/kg	2.24	1.81	2.71	yes
Chromium	mg/kg	40.4	31.6	46.6	yes
Cobalt	mg/kg	14.8	11.6	15.6	yes
Copper	mg/kg	224	175.0	283.0	yes
Lead	mg/kg	127	106.0	154.0	yes
Mercury	mg/kg	0.36	0.240	0.420	yes
Molybdenum	mg/kg	2.8	1.9	3.7	yes
Nickel	mg/kg	71.6	51.8	84.2	yes
Selenium	mg/kg	0.8	0.5	0.8	yes
Silver	mg/kg	1.1	0.73	1.39	yes
Thallium	mg/kg	0.33	0.31	0.49	yes
Tin	mg/kg	3.5	2.8	4.6	yes
Uranium	mg/kg	1.3	1.0	1.6	yes
Vanadium	mg/kg	46.8	34.2	55.8	yes
	5 5				,

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Lot ID: 1091627

Control Number: C0009013

Quality Control

Bill To: SILA Remediation Project:

Report To: SILA Remediation ID: KIRIK12

250-1260 Boul Lebourgneuf

Name: Date Received: Sep 2, 2015 Quebec, QC, Canada Location: Cambridge Bay Date Reported: Dec 23, 2015 G2K 2G2 LSD: CAM-M Report Number: 2071646 Attn: Jean-Pierre Pelletier P.O.: 20433

Sampled By: A. Passalis Acct code:

Metals Strong Acid	_				
Control Sample	Units	Measured	Lower Limit	Upper Limit	Passed QC
Zinc	mg/kg	630	460	748	yes
1475663-42	5	September 08, 2015			
Antimony	mg/kg	4.5	3.4	5.8	yes
Arsenic	mg/kg	115	88.0	124.0	yes
Barium	mg/kg	246	202	292	yes
Cadmium	mg/kg	2.30	1.81	2.71	yes
Chromium	mg/kg	41.8	31.6	46.6	yes
Cobalt	mg/kg	14.6	11.6	15.6	yes
Copper	mg/kg	236	175.0	283.0	yes
Lead	mg/kg	136	106.0	154.0	yes
Mercury	mg/kg	0.34	0.240	0.420	yes
Molybdenum	mg/kg	3.1	1.9	3.7	yes
Nickel	mg/kg	73.7	51.8	84.2	yes
Selenium	mg/kg	0.8	0.5	0.8	yes
Silver	mg/kg	1.1	0.73	1.39	yes
Thallium	mg/kg	0.37	0.31	0.49	yes
Tin	mg/kg	4.0	2.8	4.6	yes
Uranium	mg/kg	1.4	1.0	1.6	yes
Vanadium	mg/kg	48.1	34.2	55.8	yes
Zinc	mg/kg	641	460	748	yes
Metals Total					
Blanks	Units	Measured	Lower Limit	Upper Limit	Passed QC
1474882-5	5	September 03, 2015			
Aluminum	mg/L	0.0014	-0.01	0.02	yes
Calcium	mg/L	0.0082	-0.1	0.1	yes
Iron	mg/L	0.002	-0.01	0.02	yes
Magnesium	mg/L	-0.0001	-0.04	0.04	yes
Manganese	mg/L	-0.0004	-0.003	0.003	yes
Potassium	mg/L	0.0268	-0.1	0.2	yes
Silicon	mg/L	-0.0137	-0.03	0.04	yes
Sodium	mg/L	-0.0148	-0.1	0.2	yes
Sulfur	mg/L	0.0268	-0.1	0.2	yes
1474882-43	5	September 03, 2015			
Aluminum	mg/L	-0.003	-0.01	0.02	yes
Calcium	mg/L	0.0151	-0.1	0.1	yes
Iron	mg/L	0.0042	-0.01	0.02	yes
Magnesium	mg/L	-0.0172	-0.04	0.04	yes
Manganese	mg/L	-0.0007	-0.003	0.003	yes
Potassium	mg/L	0.0422	-0.1	0.2	yes
Silicon	mg/L	-0.0122	-0.03	0.04	yes
Sodium	mg/L		-0.1	0.2	yes

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Quality Control

Bill To: SILA Remediation Project:

Lot ID: 1091627 Report To: SILA Remediation ID: KIRIK12 Control Number: C0009013

250-1260 Boul Lebourgneuf Name:

Date Received: Sep 2, 2015 Quebec, QC, Canada Location: Cambridge Bay Date Reported: Dec 23, 2015 G2K 2G2 LSD: CAM-M Report Number: 2071646 Attn: Jean-Pierre Pelletier P.O.: 20433

Sampled By: A. Passalis Acct code:

Metals Total - Conti	nued				
Blanks	Units	Measured	Lower Limit	Upper Limit	Passed QC
Sulfur	mg/L	-0.0028	-0.1	0.2	yes
1474885-5		September 03, 2015			
Antimony	ug/L	0.00100983	-0.2	0.2	yes
Arsenic	ug/L	0.000953706	-0.2	0.2	yes
Barium	ug/L	0.0194376	-1	1	yes
Beryllium	ug/L	0.00488355	-0.1	0.1	yes
Bismuth	ug/L	0.00575508	-0.5	0.5	yes
Boron	ug/L	0.771809	-1	3	yes
Cadmium	ug/L	0.00118342	-0.007	0.012	yes
Chromium	ug/L	0.00693928	-0.7	0.3	yes
Cobalt	ug/L	0.000979621	-0.1	0.1	yes
Copper	ug/L	-0.0577003	-1	1	yes
Lead	ug/L	0.00825073	-0.1	0.1	yes
Lithium	ug/L	0.0475363	-1	1	yes
Molybdenum	ug/L	0.440288	-1	1	yes
Nickel	ug/L	-0.223598	-0.5	0.5	yes
Selenium	ug/L	0.00546651	-0.2	0.2	yes
Silver	ug/L	0.000758652	-0.02	0.10	yes
Strontium	ug/L	0.0195911	-1	1	yes
Thallium	ug/L	0.000626521	-0.05	0.05	yes
Tin	ug/L	-0.832518	-1	1	yes
Titanium	ug/L	0.02174	-0.5	0.5	yes
Uranium	ug/L	0.00230199	-0.5	0.5	yes
Vanadium	ug/L	0.0103704	-0.1	0.1	yes
Zinc	ug/L	0.0794488	-0	1	yes
Zirconium	ug/L	0.670239	-1	1	yes
1474885-44		September 03, 2015			
Antimony	ug/L	-0.000444286	-0.2	0.2	yes
Arsenic	ug/L	0.00300679	-0.2	0.2	yes
Barium	ug/L	0.0254218	-1	1	yes
Beryllium	ug/L	0.00271149	-0.1	0.1	yes
Bismuth	ug/L	0.00226259	-0.5	0.5	yes
Boron	ug/L	0.549471	-1	3	yes
Cadmium	ug/L	0.00100658	-0.007	0.012	yes
Chromium	ug/L	0.00651829	-0.7	0.3	yes
Cobalt	ug/L	0.000375596	-0.1	0.1	yes
Copper	ug/L	-0.058549	-1	1	yes
Lead	ug/L	0.00939172	-0.1	0.1	yes
Lithium	ug/L	0.0471884	-1	1	yes
Molybdenum	ug/L	0.445666	-1	1	yes
Nickel	ug/L	-0.288017	-0.5	0.5	yes
Selenium	ug/L	0.00211811	-0.2	0.2	yes



Lot ID: 1091627

Sep 2, 2015

Control Number: C0009013

Quality Control

Bill To: SILA Remediation Project:

Report To: SILA Remediation ID: KIRIK12

> 250-1260 Boul Lebourgneuf Name:

Date Received: Quebec, QC, Canada Location: Cambridge Bay Date Reported: Dec 23, 2015 G2K 2G2 LSD: CAM-M Report Number: 2071646

Attn: Jean-Pierre Pelletier P.O.: 20433

Sampled By: A. Passalis Acct code:

Blanks	Units	Measured	Lower Limit	Upper Limit		Passed Q
Silver	ug/L	-0.000179821	-0.02	0.10		ye
Strontium	ug/L	0.0203045	-1	1		ye
Thallium	ug/L	0.000572406	-0.05	0.05		ye
Tin	ug/L	-0.814212	-1	1		ye
Titanium	ug/L	-0.0139669	-0.5	0.5		ye
Uranium	ug/L	0.00100454	-0.5	0.5		ye
Vanadium	ug/L	0.00705162	-0.1	0.1		y
Zinc	ug/L	-0.0115001	-0	1		y
Zirconium	ug/L	0.0314479	-1	1		y
1476552-5		September 10, 2015				
Mercury	ug/L	0.0012	-0.038000	0.070000		y
Client Sample Replicates	Units	Replicate 1	Replicate 2	% RSD Criteria	Absolute Criteria	Passed C
1474882-16		September 03, 2015				
Aluminum	mg/L	0.08	0.10	15	0.03	y
Calcium	mg/L	30.2	31.1	15	0.6	y.
Iron	mg/L	0.09	0.10	15	0.20	y.
Magnesium	mg/L	11.1	11.4	15	0.40	y.
Manganese	mg/L	0.009	0.010	15	0.010	у
Potassium	mg/L	0.8	0.8	15	1.2	у
Silicon	mg/L	1.58	1.66	15	0.10	у
Sodium	mg/L	4.9	5.1	15	1.2	у
Sulfur	mg/L	5.2	5.3	15	0.1	у
1474882-32		September 03, 2015				
Aluminum	mg/L	1.1	0.99	15	0.03	у
Calcium	mg/L	143	142	15	0.6	у
Iron	mg/L	0.44	0.37	15	0.20	у
Magnesium	mg/L	138	138	15	0.40	у
Manganese	mg/L	0.19	0.18	15	0.010	y
Potassium	mg/L	29.4	29.4	15	1.2	y
Silicon	mg/L	4.37	4.12	15	0.10	у
Sodium	mg/L	211	210	15	1.2	у
Sulfur	mg/L	272	268	15	0.1	у
1474882-50		September 03, 2015				
Aluminum	mg/L	1.5	1.4	15	0.03	у
Calcium	mg/L	535	480	15	0.6	у
Iron	mg/L	1.4	1.2	15	0.20	у
Magnesium	mg/L	640	566	15	0.40	у
Manganese	mg/L	0.18	0.16	15	0.010	у
Potassium	mg/L	120	107	15	1.2	у
Silicon	mg/L	5.4	4.9	15	0.10	у
Sodium	mg/L	3560	3160	15	1.2	у
Sulfur	mg/L	421	375	15	0.1	у

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Quality Control

Bill To: SILA Remediation ID:

Report To: SILA Remediation

250-1260 Boul Lebourgneuf

Quebec, QC, Canada

G2K 2G2

Attn: Jean-Pierre Pelletier Sampled By: A. Passalis

Company: Sila

Project:

Name:

Location:

KIRIK12

Cambridge Bay

LSD: CAM-M P.O.: 20433

Acct code:

Date Received: Sep 2, 2015 Date Reported: Dec 23, 2015

Control Number:

Report Number: 2071646

Lot ID: 1091627

C0009013

Metals Total - Continue	d					
Client Sample Replicates	Units	Replicate 1	Replicate 2	% RSD Criteria	Absolute Criteria	Passed QC
1474885-17		September 03, 2015				
Antimony	ug/L	<0.2	<0.2	15	0.4	yes
Arsenic	ug/L	1.4	1.5	15	0.4	yes
Barium	ug/L	64	62	15	2	yes
Beryllium	ug/L	<0.1	<0.1	15	0.2	yes
Bismuth	ug/L	<0.5	<0.5	15	1.1	yes
Boron	ug/L	24	23	15	4	yes
Cadmium	ug/L	0.007	0.006	15	0.022	yes
Chromium	ug/L	<0.5	<0.5	15	1.1	yes
Cobalt	ug/L	<0.1	<0.1	15	0.2	yes
Copper	ug/L	<1	<1	15	2	yes
Lead	ug/L	<0.1	<0.1	15	0.2	yes
Lithium	ug/L	9	9	15	2	yes
Molybdenum	ug/L	2	2	15	2	yes
Nickel	ug/L	0.9	0.9	15	1.1	yes
Selenium	ug/L	0.3	0.4	15	0.4	yes
Silver	ug/L	<0.01	<0.01	15	0.22	yes
Strontium	ug/L	304	310	15	2	yes
Thallium	ug/L	<0.05	<0.05	15	0.11	yes
Tin	ug/L	<1	<1	15	2	yes
Titanium	ug/L	1.1	1.3	15	1.1	yes
Uranium	ug/L	1.3	1.3	15	1.1	yes
Vanadium	ug/L	0.7	0.7	15	0.2	yes
Zinc	ug/L	<1	<1	15	2	yes
1474885-37		September 03, 2015				
Antimony	ug/L	<2	<2	15	0.4	yes
Arsenic	ug/L	8	8	15	0.4	yes
Barium	ug/L	90	80	15	2	yes
Beryllium	ug/L	<1	<1	15	0.2	yes
Bismuth	ug/L	<5	<5	15	1.1	yes
Boron	ug/L	660	620	15	4	yes
Cadmium	ug/L	0.48	0.48	15	0.022	yes
Chromium	ug/L	46	50	15	1.1	yes
Cobalt	ug/L	14	14	15	0.2	yes
Copper	ug/L	<10	<10	15	2	yes
Lead	ug/L	22	20	15	0.2	yes
Lithium	ug/L	130	120	15	2	yes
Molybdenum	ug/L	10	10	15	2	yes
Nickel	ug/L	128	124	15	1.1	yes
Selenium	ug/L	<2	<2	15	0.4	yes
Silver	ug/L	<0.1	<0.1	15	0.22	yes
Strontium	ug/L	1910	1790	15	2	yes

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Lot ID: 1091627

Sep 2, 2015

Control Number: C0009013

Report Number: 2071646

Date Reported: Dec 23, 2015

Date Received:

Quality Control

Bill To: SILA Remediation Project:

Report To: SILA Remediation ID: KIRIK12

250-1260 Boul Lebourgneuf Name:

Quebec, QC, CanadaLocation:Cambridge BayG2K 2G2LSD:CAM-M

Attn: Jean-Pierre Pelletier P.O.: 20433

Sampled By: A. Passalis Acct code:

Metals Total - Continue	d					
Client Sample Replicates	Units	Replicate 1	Replicate 2	% RSD Criteria	Absolute Criteria	Passed QC
Thallium	ug/L	<0.5	<0.5	15	0.11	yes
Tin	ug/L	<10	<10	15	2	yes
Titanium	ug/L	438	384	15	1.1	yes
Uranium	ug/L	42	40	15	1.1	yes
Vanadium	ug/L	11	12	15	0.2	yes
Zinc	ug/L	2400	2260	15	2	yes
Zirconium	ug/L	30	30	15	2	yes
1474885-59		September 03, 2015				
Antimony	ug/L	<1	<1	15	0.4	yes
Arsenic	ug/L	1	1	15	0.4	yes
Barium	ug/L	30	30	15	2	yes
Beryllium	ug/L	<0.5	<0.5	15	0.2	yes
Bismuth	ug/L	<2	<2	15	1.1	yes
Boron	ug/L	585	598	15	4	yes
Cadmium	ug/L	0.19	0.20	15	0.022	yes
Chromium	ug/L	17	17	15	1.1	yes
Cobalt	ug/L	9.1	9.3	15	0.2	yes
Copper	ug/L	<5	5	15	2	yes
Lead	ug/L	<0.5	<0.5	15	0.2	yes
Lithium	ug/L	96	96	15	2	yes
Molybdenum	ug/L	20	20	15	2	yes
Nickel	ug/L	135	138	15	1.1	yes
Selenium	ug/L	<1	<1	15	0.4	yes
Silver	ug/L	<0.05	< 0.05	15	0.22	yes
Strontium	ug/L	1610	1630	15	2	yes
Thallium	ug/L	<0.3	<0.3	15	0.11	yes
Tin	ug/L	<5	<5	15	2	yes
Titanium	ug/L	7.5	7.9	15	1.1	yes
Uranium	ug/L	6.6	6.5	15	1.1	yes
Vanadium	ug/L	1	1	15	0.2	yes
Zinc	ug/L	55400	57700	15	2	yes
Zirconium	ug/L	<5	<5	15	2	yes
1476552-23		September 10, 2015				
Mercury	mg/L	<0.00005	<0.00005	10	0.000300	yes
1476552-43		September 10, 2015				
Mercury	mg/L	<0.00005	< 0.000005	10	0.000300	yes
Control Sample	Units	Measured	Lower Limit	Upper Limit		Passed QC
1474882-4		September 03, 2015				
Aluminum	mg/L	4.03	3.61	4.45		yes
Calcium	mg/L	52.9	48.4	54.2		yes
Iron	mg/L	2.12	1.83	2.19		yes
Magnesium	mg/L	20.4	18.14	22.14		yes

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Quality Control

Bill To: SILA Remediation

Report To: SILA Remediation

Attn: Jean-Pierre Pelletier

ID:

KIRIK12

CAM-M

20433

Cambridge Bay

Lot ID: 1091627

250-1260 Boul Lebourgneuf

Name:

Project:

Control Number: C0009013 Date Received: Sep 2, 2015

Quebec, QC, Canada

Location: LSD:

Date Reported: Dec 23, 2015

G2K 2G2

P.O.:

Report Number: 2071646

Sampled By: A. Passalis

Acct code:

Control Sample	Units	Measured	Lower Limit	Upper Limit	Passed Q
Manganese	mg/L	0.531	0.472	0.568	y€
Potassium	mg/L	52.2	45.8	55.8	ує
Silicon	mg/L	2.12	1.81	2.21	ye
Sodium	mg/L	53.1	45.9	56.0	ye
Sulfur	mg/L	10.5	8.9	10.9	ye
1474882-42	;	September 03, 2015			
Aluminum	mg/L	3.95	3.61	4.45	у
Calcium	mg/L	52.0	48.4	54.2	у
Iron	mg/L	2.08	1.83	2.19	у
Magnesium	mg/L	20.0	18.14	22.14	у
Manganese	mg/L	0.523	0.472	0.568	у
Potassium	mg/L	51.6	45.8	55.8	у
Silicon	mg/L	2.07	1.81	2.21	у
Sodium	mg/L	52.4	45.9	56.0	у
Sulfur	mg/L	10.3	8.9	10.9	у
1474885-4	;	September 03, 2015			
Antimony	ug/L	12.2	10.8	13.2	у
Arsenic	ug/L	12.0	10.8	12.9	У
Barium	ug/L	61	54	68	У
Beryllium	ug/L	5.8	4.9	6.8	У
Bismuth	ug/L	30.9	26.2	35.8	у
Boron	ug/L	122	102	139	у
Cadmium	ug/L	0.628	0.567	0.687	у
Chromium	ug/L	30.6	26.5	33.7	у
Cobalt	ug/L	5.9	5.2	6.8	у
Copper	ug/L	60	53	67	У
Lead	ug/L	6.3	5.2	7.1	у
Lithium	ug/L	62	53	77	У
Molybdenum	ug/L	60	56	66	у
Nickel	ug/L	29.8	25.6	33.4	у
Selenium	ug/L	11.8	9.9	13.5	у
Silver	ug/L	6.08	5.39	7.13	у
Strontium	ug/L	60	54	69	у
Thallium	ug/L	3.11	2.81	3.89	у
Tin	ug/L	62	56	66	у
Titanium	ug/L	31.4	26.6	35.7	у
Uranium	ug/L	31.2	25.7	36.3	у
Vanadium	ug/L	6.1	5.1	7.2	у
Zinc	ug/L	60	53	67	у
Zirconium	ug/L	61	53	67	У
1474885-43	;	September 03, 2015			
Antimony	ug/L	12.4	10.8	13.2	у

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Quality Control

Bill To: SILA Remediation

Report To: SILA Remediation

250-1260 Boul Lebourgneuf

Quebec, QC, Canada

G2K 2G2
Attn: Jean-Pierre Pelletier

Sampled By: A. Passalis

Company: Sila

Project: ID:

Name:

KIRIK12

Location: Cambridge Bay LSD: CAM-M

P.O.: 20433

Acct code:

Lot ID: 1091627

Control Number: C0009013

Date Received: Sep 2, 2015

Date Reported: Dec 23, 2015

Report Number: 2071646

Metals Total - Cor	ntinued				
Control Sample	Units	Measured	Lower Limit	Upper Limit	Passed QC
Arsenic	ug/L	11.8	10.8	12.9	yes
Barium	ug/L	61	54	68	yes
Beryllium	ug/L	5.9	4.9	6.8	yes
Bismuth	ug/L	31.4	26.2	35.8	yes
Boron	ug/L	125	102	139	yes
Cadmium	ug/L	0.642	0.567	0.687	yes
Chromium	ug/L	30.0	26.5	33.7	yes
Cobalt	ug/L	5.8	5.2	6.8	yes
Copper	ug/L	60	53	67	yes
Lead	ug/L	6.3	5.2	7.1	yes
Lithium	ug/L	62	53	77	yes
Molybdenum	ug/L	59	56	66	yes
Nickel	ug/L	29.5	25.6	33.4	yes
Selenium	ug/L	12.1	9.9	13.5	yes
Silver	ug/L	6.01	5.39	7.13	yes
Strontium	ug/L	59	54	69	yes
Thallium	ug/L	3.07	2.81	3.89	yes
Tin	ug/L	63	56	66	yes
Titanium	ug/L	30.6	26.6	35.7	yes
Uranium	ug/L	31.2	25.7	36.3	yes
Vanadium	ug/L	6.0	5.1	7.2	yes
Zinc	ug/L	59	53	67	yes
Zirconium	ug/L	61	53	67	yes
1476552-4		September 10, 2015			
Mercury	mg/L	0.000724	0.000600	0.000960	yes
1474885-29		September 03, 2015			
Antimony	ug/L	39.8	37.5	43.1	yes
Arsenic	ug/L	39.6	36.5	43.5	yes
Barium	ug/L	200	186	216	yes
Beryllium	ug/L	19.4	17.1	21.9	yes
Bismuth	ug/L	102	91.3	106.3	yes
Boron	ug/L	392	343	436	yes
Cadmium	ug/L	2.11	1.915	2.205	yes
Chromium	ug/L	101	90.0	110.0	yes
Cobalt	ug/L	19.6	18.1	21.7	yes
Copper	ug/L	198	182	214	yes
Lead	ug/L	20.6	18.0	24.0	yes
Lithium	ug/L	199	173	222	yes
Molybdenum	ug/L	201	189	225	yes
Nickel	ug/L	99.1	90.0	110.0	yes
Selenium	ug/L	41.1	36.1	42.9	yes
Silver	ug/L	20.0	18.00	22.00	yes

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Lot ID: 1091627

Sep 2, 2015

Control Number: C0009013

Quality Control

Bill To: SILA Remediation Project:

Report To: SILA Remediation ID: KIRIK12

> 250-1260 Boul Lebourgneuf Name:

Date Received: Quebec, QC, Canada Location: Cambridge Bay Date Reported: Dec 23, 2015 G2K 2G2 LSD: CAM-M Report Number: 2071646

Attn: Jean-Pierre Pelletier P.O.: 20433

Sampled By: A. Passalis Acct code:

Metals Total - Cont	inued				
Control Sample	Units	Measured	Lower Limit	Upper Limit	Passed QC
Strontium	ug/L	197	182	212	yes
Thallium	ug/L	10.0	9.16	10.96	yes
Tin	ug/L	208	191	213	yes
Titanium	ug/L	98.9	91.5	106.3	yes
Uranium	ug/L	103	90.2	109.0	yes
Vanadium	ug/L	20.2	16.9	22.1	yes
Zinc	ug/L	198	183	218	yes
1474885-55		September 03, 2015			
Antimony	ug/L	39.7	37.5	43.1	yes
Arsenic	ug/L	39.6	36.5	43.5	yes
Barium	ug/L	196	186	216	yes
Beryllium	ug/L	18.8	17.1	21.9	yes
Bismuth	ug/L	99.1	91.3	106.3	yes
Boron	ug/L	387	343	436	yes
Cadmium	ug/L	2.11	1.915	2.205	yes
Chromium	ug/L	102	90.0	110.0	yes
Cobalt	ug/L	19.8	18.1	21.7	yes
Copper	ug/L	200	182	214	yes
Lead	ug/L	20.6	18.0	24.0	yes
Lithium	ug/L	194	173	222	yes
Molybdenum	ug/L	206	189	225	yes
Nickel	ug/L	100	90.0	110.0	yes
Selenium	ug/L	41.4	36.1	42.9	yes
Silver	ug/L	20.4	18.00	22.00	yes
Strontium	ug/L	200	182	212	yes
Thallium	ug/L	9.85	9.16	10.96	yes
Tin	ug/L	209	191	213	yes
Titanium	ug/L	99.6	91.5	106.3	yes
Uranium	ug/L	99.9	90.2	109.0	yes
Vanadium	ug/L	20.4	16.9	22.1	yes
Zinc	ug/L	201	183	218	yes
1476552-30		September 10, 2015			
Mercury	mg/L	0.00281	0.002600	0.003200	yes
1476552-54		September 10, 2015			
Mercury	mg/L	0.00276	0.002600	0.003200	yes
1474885-28	o o	September 03, 2015			•
Antimony	ug/L	12.0	10.8	13.2	VOC
Arsenic	ug/L	12.0	10.8	13.2	yes
Barium	ug/L	61	55	67	yes
Beryllium	ug/∟ ug/L	6.0	5.2	6.5	yes yes
Bismuth	ug/L	31.1	27.5	33.5	yes
Boron	ug/L	123	108	132	yes
501011		120	100	102	

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Lot ID: 1091627

Control Number: C0009013

Quality Control

Bill To: SILA Remediation Project:

Report To: SILA Remediation ID: KIRIK12

> 250-1260 Boul Lebourgneuf Name:

Date Received: Sep 2, 2015 Quebec, QC, Canada Location: Cambridge Bay Date Reported: Dec 23, 2015 G2K 2G2 LSD: CAM-M Report Number: 2071646 20433

Attn: Jean-Pierre Pelletier P.O.: Sampled By: A. Passalis Acct code:

Metals Total - Conti	nued				
Control Sample	Units	Measured	Lower Limit	Upper Limit	Passed QC
Cadmium	ug/L	0.622	0.560	0.692	yes
Chromium	ug/L	31.2	27.0	33.0	yes
Cobalt	ug/L	6.0	5.4	6.6	yes
Copper	ug/L	61	54	66	yes
Lead	ug/L	6.2	5.4	6.6	yes
Lithium	ug/L	64	53	66	yes
Molybdenum	ug/L	59	54	66	yes
Nickel	ug/L	30.4	27.0	33.0	yes
Selenium	ug/L	12.2	10.3	13.4	yes
Silver	ug/L	6.19	5.40	6.60	yes
Strontium	ug/L	60	54	66	yes
Thallium	ug/L	3.00	0.00	6.00	yes
Tin	ug/L	61	54	66	yes
Titanium	ug/L	30.9	27.0	33.0	yes
Uranium	ug/L	30.0	27.0	33.0	yes
Vanadium	ug/L	6.3	5.4	6.6	yes
Zinc	ug/L	61	57	69	yes
Zirconium	ug/L	61	54	66	yes
1474885-54	5	September 03, 2015			
Antimony	ug/L	12.1	10.8	13.2	yes
Arsenic	ug/L	11.9	10.8	13.2	yes
Barium	ug/L	59	55	67	yes
Beryllium	ug/L	5.9	5.2	6.5	yes
Bismuth	ug/L	30.1	27.5	33.5	yes
Boron	ug/L	123	108	132	yes
Cadmium	ug/L	0.647	0.560	0.692	yes
Chromium	ug/L	30.8	27.0	33.0	yes
Cobalt	ug/L	5.9	5.4	6.6	yes
Copper	ug/L	60	54	66	yes
Lead	ug/L	6.1	5.4	6.6	yes
Lithium	ug/L	63	53	66	yes
Molybdenum	ug/L	59	54	66	yes
Nickel	ug/L	29.6	27.0	33.0	yes
Selenium	ug/L	12.8	10.3	13.4	yes
Silver	ug/L	6.13	5.40	6.60	yes
Strontium	ug/L	59	54	66	yes
Thallium	ug/L	2.93	0.00	6.00	yes
Tin	ug/L	62	54	66	yes
Titanium	ug/L	30.6	27.0	33.0	yes
Uranium	ug/L	30.0	27.0	33.0	yes
Vanadium	ug/L	6.3	5.4	6.6	yes
Zinc	ug/L	60	57	69	yes

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1091627

C0009013

Sep 2, 2015

Quality Control

Bill To: SILA Remediation

Report To: SILA Remediation

250-1260 Boul Lebourgneuf Name:

Quebec, QC, Canada G2K 2G2

G2K 2G2
Attn: Jean-Pierre Pelletier

Sampled By: A. Passalis

Company: Sila

Metals Total - Continued

Project: ID:

KIRIK12

Location: Cambridge Bay LSD: CAM-M

P.O.: 20433

Acct code:

Date Reported: Dec 23, 2015 Report Number: 2071646

Control Number:

Date Received:

Lot ID:

Control Sample Units Measured **Lower Limit Upper Limit Passed QC** Zirconium ug/L 60 54 66 yes 1476552-29 September 10, 2015 0.000700 0.000880 0.000718 Mercury mg/L yes 1476552-53 September 10, 2015 0.000712 0.000700 0.000880 Mercury mg/L yes 1474885-27 September 03, 2015 Antimony ug/L 2.0 1.8 2.2 yes Arsenic ug/L 2.1 1.7 2.2 yes Barium ug/L 10 9 yes 11 Beryllium ug/L 1.0 8.0 1.1 yes **Bismuth** ug/L 5.2 4.8 5.6 ves 21 23 Boron ug/L 17 yes 0.108 0.092 Cadmium ug/L 0.116 yes Chromium ug/L 5.3 4.6 5.4 yes Cobalt 1.0 0.9 1.1 ug/L yes Copper ug/L 10 9 11 yes Lead ug/L 1.0 0.9 1.1 yes Lithium ug/L 10 9 11 ves 10 9 Molybdenum ug/L 11 yes 4.9 5.5 Nickel ug/L 4.5 yes Selenium ug/L 1.9 1.6 2.2 yes Silver ug/L 1.05 0.89 1.13 yes Strontium ug/L 10 9 11 yes Thallium ug/L 0.49 0.48 0.57 yes Tin ug/L 10 9 11 yes Titanium 5.2 4.2 5.7 ug/L yes Uranium ug/L 5.0 4.5 5.5 yes 0.9 Vanadium ug/L 1.1 1.2 yes Zinc ug/L 10 9 11 yes 9 Zirconium ug/L 11 11 yes 1474885-53 September 03, 2015 2.2 Antimony ug/L 2.0 1.8 yes Arsenic ug/L 2.0 1.7 2.2 yes Barium ug/L 10 9 11 yes 8.0 Beryllium ug/L 1 1.1 yes **Bismuth** ug/L 5.1 4.8 5.6 yes Boron 22 23 ug/L 17 yes Cadmium ug/L 0.108 0.092 0.116 yes Chromium ug/L 5.2 4.6 5.4 yes Cobalt ug/L 1 0.9 1.1 yes Copper ug/L 10 9 11 yes Lead ug/L 1.0 0.9 1.1 yes

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Quality Control

Bill To: SILA Remediation

Report To: SILA Remediation

ID: Name:

Project:

KIRIK12

CAM-M

20433

Control Number: C0009013

Lot ID: 1091627

250-1260 Boul Lebourgneuf Quebec, QC, Canada

Location: LSD:

Cambridge Bay

Date Received: Sep 2, 2015
Date Reported: Dec 23, 2015

G2K 2G2

Attn: Jean-Pierre Pelletier P.O.:

Acct code:

Report Number: 2071646

Sampled By: A. Passalis Company: Sila

Metals Total - Conti	inued				
Control Sample	Units	Measured	Lower Limit	Upper Limit	Passed QC
Lithium	ug/L	10	9	11	yes
Molybdenum	ug/L	10	9	11	yes
Nickel	ug/L	4.7	4.5	5.5	yes
Selenium	ug/L	2.1	1.6	2.2	yes
Silver	ug/L	1.02	0.89	1.13	yes
Strontium	ug/L	10	9	11	yes
Thallium	ug/L	0.49	0.48	0.57	yes
Tin	ug/L	10	9	11	yes
Titanium	ug/L	4.9	4.2	5.7	yes
Uranium	ug/L	5.0	4.5	5.5	yes
Vanadium	ug/L	1.1	0.9	1.2	yes
Zinc	ug/L	10	9	11	yes
Zirconium	ug/L	11	9	11	yes
1476552-28		September 10, 2015			
Mercury	mg/L	0.000072	0.000064	0.000093	yes
1476552-52		September 10, 2015			
Mercury	mg/L	0.000071	0.000064	0.000093	yes
1474882-3		September 03, 2015			
Aluminum	mg/L	19.8	18.80	20.60	yes
Calcium	mg/L	250	236.0	263.6	yes
Iron	mg/L	9.47	9.07	10.15	yes
Magnesium	mg/L	96.6	92.78	104.72	yes
Manganese	mg/L	2.40	2.260	2.560	yes
Potassium	mg/L	248	234.2	261.8	yes
Silicon	mg/L	10.2	9.13	10.93	yes
Sodium	mg/L	248	228.8	269.4	yes
Sulfur	mg/L	148	135.5	165.3	yes
1474882-2		September 03, 2015			
Aluminum	mg/L	3.94	3.49	4.47	yes
Calcium	mg/L	52.3	46.5	56.5	yes
Iron	mg/L	2.06	1.86	2.26	yes
Magnesium	mg/L	20.0	17.79	21.81	yes
Manganese	mg/L	0.524	0.466	0.568	yes
Potassium	mg/L	49.8	45.0	55.0	yes
Silicon	mg/L	2.07	1.92	2.22	yes
Sodium	mg/L	51.2	45.9	55.9	yes
Sulfur	mg/L	10.2	9.2	11.2	yes
1474882-1		September 03, 2015			
Aluminum	mg/L	0.40	0.36	0.44	yes
Calcium	mg/L	5.4	4.8	5.8	yes
Iron	mg/L	0.22	0.19	0.25	yes

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Lot ID: 1091627

Control Number: C0009013

Quality Control

Bill To: SILA Remediation Project:

Report To: SILA Remediation ID: KIRIK12

> 250-1260 Boul Lebourgneuf Name:

Date Received: Sep 2, 2015 Quebec, QC, Canada Location: Cambridge Bay Date Reported: Dec 23, 2015 G2K 2G2 LSD: CAM-M Report Number: 2071646 Attn: Jean-Pierre Pelletier P.O.: 20433

Sampled By: A. Passalis Acct code:

Metals Total - Continue Control Sample	Units	Measured	Lower Limit	Upper Limit	Passed QC
		2.01	1.84	2.20	
Magnesium	mg/L	0.054	0.047	0.059	yes
Manganese Potassium	mg/L	5.3	4.7	5.7	yes
	mg/L				yes
Silicon Sodium	mg/L	0.19 5.2	0.17 4.8	0.23 5.6	yes
	mg/L				yes
Sulfur	mg/L	3.0	2.8	3.3	yes
Mono-Aromatic Hydro	carbons - S	oil			
Blanks	Units	Measured	Lower Limit	Upper Limit	Passed QC
1474420-17		September 02, 2015			
Benzene	ng	0	-0.005	0.005	yes
Toluene	ng	0	-0.06	0.06	yes
Ethylbenzene	ng	0	-0.030	0.030	yes
Total Xylenes (m,p,o)	ng	0	-0.09	0.09	yes
Styrene	ng	0	-0.030	0.030	yes
1474422-17		September 02, 2015			
Benzene	ng	0	-0.005	0.005	yes
Toluene	ng	0	-0.06	0.06	yes
Ethylbenzene	ng	0	-0.030	0.030	yes
Total Xylenes (m,p,o)	ng	0	-0.09	0.09	yes
Styrene	ng	0	-0.030	0.030	yes
1474424-17		September 02, 2015			
Benzene	ng	0	-0.005	0.005	yes
Toluene	ng	0	-0.06	0.06	yes
Ethylbenzene	ng	0	-0.030	0.030	yes
Total Xylenes (m,p,o)	ng	0	-0.09	0.09	yes
Styrene	ng	0	-0.030	0.030	yes
1474426-17		September 02, 2015			
Benzene	ng	0	-0.005	0.005	yes
Toluene	ng	0	-0.06	0.06	yes
Ethylbenzene	ng	0	-0.030	0.030	yes
Total Xylenes (m,p,o)	ng	0	-0.09	0.09	yes
Styrene	ng	0	-0.030	0.030	yes
1474429-17		September 02, 2015			
Benzene	ng	0	-0.005	0.005	yes
Toluene	ng	0	-0.06	0.06	yes
Ethylbenzene	ng	0	-0.030	0.030	yes
Total Xylenes (m,p,o)	ng	0	-0.09	0.09	yes
Styrene	ng	0	-0.030	0.030	yes
1474432-17		September 02, 2015			
Benzene	ng	0	-0.005	0.005	yes

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Lot ID: 1091627

C0009013

Control Number:

Quality Control

Bill To: SILA Remediation Project:

ID: KIRIK12 Report To: SILA Remediation

250-1260 Boul Lebourgneuf

Name: Date Received: Sep 2, 2015 Quebec, QC, Canada Location: Cambridge Bay Date Reported: Dec 23, 2015 G2K 2G2 LSD: CAM-M Report Number: 2071646 Attn: Jean-Pierre Pelletier P.O.: 20433

Sampled By: A. Passalis Acct code:

Mono-Aromatic Hydro	carbons - S	Soil -			
Continued Blanks	Units	Magazzad	Lauran Limit	llanar limit	Passed QC
		Measured	Lower Limit -0.06	Upper Limit	
Toluene	ng	0		0.06	yes
Ethylbenzene	ng	0	-0.030	0.030	yes
Total Xylenes (m,p,o)	ng	0	-0.09	0.09	yes
Styrene Calibration Check	ng Units	0 % Recovery	-0.030 Lower Limit	0.030 Upper Limit	yes Passed QC
1474420-16	• · · · · ·	September 02, 2015	20001 20001	oppor zimit	1 40004 40
Benzene	ng	96.60	85	115	yes
Toluene	ng	95.40	85	115	yes
Ethylbenzene	ng	103.20	85	115	yes
Total Xylenes (m,p,o)	ng	112.67	85	115	yes
Styrene	ng	100.20	85	115	yes
1474422-16	rig	September 02, 2015	00	113	ycs
Benzene	na	96.60	85	115	V00
Toluene	ng	95.40	85	115	yes
Ethylbenzene	ng	103.20	85	115	yes
•	ng	112.67	85	115	yes
Total Xylenes (m,p,o)	ng	100.20	85	115	yes
Styrene	ng		65	115	yes
1474424-16		September 02, 2015			
Benzene	ng	106.20	85	115	yes
Toluene	ng	100.80	85	115	yes
Ethylbenzene	ng	105.60	85	115	yes
Total Xylenes (m,p,o)	ng	110.00	85	115	yes
Styrene	ng	87.20	85	115	yes
1474426-16		September 02, 2015			
Benzene	ng	106.60	85	115	yes
Toluene	ng	98.00	85	115	yes
Ethylbenzene	ng	102.80	85	115	yes
Total Xylenes (m,p,o)	ng	114.00	85	115	yes
Styrene	ng	112.80	85	115	yes
1474429-16		September 02, 2015			
Benzene	ng	106.60	85	115	yes
Toluene	ng	96.00	85	115	yes
Ethylbenzene	ng	102.80	85	115	yes
Total Xylenes (m,p,o)	ng	114.00	85	115	yes
Styrene	ng	112.80	85	115	yes
1474432-16		September 02, 2015			
Benzene	ng	106.60	85	115	yes
Toluene	ng	98.00	85	115	yes
Ethylbenzene	ng	102.80	85	115	yes
Total Xylenes (m,p,o)	ng	114.00	85	115	yes



1091627

C0009013

Lot ID:

Control Number:

Quality Control

Bill To: SILA Remediation Project:

Report To: SILA Remediation ID: KIRIK12

> 250-1260 Boul Lebourgneuf Name:

Date Received: Sep 2, 2015 Quebec, QC, Canada Location: Cambridge Bay Date Reported: Dec 23, 2015 G2K 2G2 LSD: CAM-M Report Number: 2071646 20433

Attn: Jean-Pierre Pelletier P.O.: Sampled By: A. Passalis Acct code:

Company: Sila

Continued **Calibration Check**

Toluene

Ethylbenzene

Total Xylenes (m,p,o)

Total Xylenes (m,p,o)

m,p-Xylene

o-Xylene

Styrene

1474429-5

Benzene

Toluene

Ethylbenzene

m,p-Xylene

o-Xylene

Mono-Aromatic Hydrocarbons - Soil -

Calibration Check	Units	% Recovery	Lower Limit	Upper Limit		Passed QC
Styrene	ng	112.80	85	115		yes
Client Sample Replicates	Units	Replicate 1	Replicate 2	% RSD Criteria	Absolute Criteria	Passed QC
1474420-5		September 02, 2015				
Benzene	mg/kg	<0.005	< 0.005	50	0.010	yes
Toluene	mg/kg	<0.02	<0.02	50	0.04	yes
Ethylbenzene	mg/kg	<0.010	<0.010	50	0.020	yes
m,p-Xylene	mg/kg	<0.02	< 0.02	50	0.04	yes
o-Xylene	mg/kg	<0.02	< 0.02	50	0.04	yes
Total Xylenes (m,p,o)	mg/kg	<0.03	< 0.03	50	0.06	yes
Styrene	mg/kg	<0.010	<0.010	50	0.020	yes
1474422-5		September 02, 2015				
Benzene	mg/kg	<0.005	< 0.005	50	0.010	yes
Toluene	mg/kg	<0.02	< 0.02	50	0.04	yes
Ethylbenzene	mg/kg	<0.010	<0.010	50	0.020	yes
m,p-Xylene	mg/kg	<0.02	<0.02	50	0.04	yes
o-Xylene	mg/kg	<0.02	<0.02	50	0.04	yes
Total Xylenes (m,p,o)	mg/kg	<0.03	< 0.03	50	0.06	yes
Styrene	mg/kg	<0.010	<0.010	50	0.020	yes
1474424-5		September 02, 2015				
Benzene	mg/kg	<0.005	< 0.005	50	0.010	yes
Toluene	mg/kg	<0.02	<0.02	50	0.04	yes
Ethylbenzene	mg/kg	<0.010	<0.010	50	0.020	yes
m,p-Xylene	mg/kg	<0.02	<0.02	50	0.04	yes
o-Xylene	mg/kg	<0.02	<0.02	50	0.04	yes
Total Xylenes (m,p,o)	mg/kg	<0.03	< 0.03	50	0.06	yes
Styrene	mg/kg	<0.010	<0.010	50	0.020	yes
1474426-5		September 02, 2015				
Benzene	mg/kg	<0.005	< 0.005	50	0.010	yes

< 0.02

< 0.010

< 0.02

< 0.02

< 0.03

< 0.010

< 0.005

< 0.02

< 0.02

< 0.02

< 0.03

< 0.010

September 02, 2015

< 0.02

< 0.010

< 0.02

< 0.02

< 0.03

< 0.010

< 0.005

< 0.02

< 0.02

< 0.02

< 0.03

< 0.010

50

50

50

50

50

50

50

50

50

50

50

50

0.04

0.020

0.04

0.04

0.06

0.020

0.010

0.020

0.04

0.04

0.04

0.06

yes

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mg/kg



Lot ID: 1091627

C0009013

Control Number:

Quality Control

Bill To: SILA Remediation Project:

ID: KIRIK12 Report To: SILA Remediation

> 250-1260 Boul Lebourgneuf Name:

Date Received: Sep 2, 2015 Quebec, QC, Canada Location: Cambridge Bay Date Reported: Dec 23, 2015 G2K 2G2 LSD: CAM-M Report Number: 2071646 20433

Attn: Jean-Pierre Pelletier P.O.: Sampled By: A. Passalis Acct code:

Client Sample Replicates	Units	Replicate 1	Replicate 2	% RSD Criteria	Absolute Criteria	Passed QC
Styrene	mg/kg	<0.010	<0.010	50	0.020	yes
1474432-5		September 02, 2015				
Benzene	mg/kg	<0.005	< 0.005	50	0.010	yes
Toluene	mg/kg	<0.02	< 0.02	50	0.04	yes
Ethylbenzene	mg/kg	<0.010	<0.010	50	0.020	yes
m,p-Xylene	mg/kg	<0.02	< 0.02	50	0.04	ye
o-Xylene	mg/kg	<0.02	< 0.02	50	0.04	yes
Total Xylenes (m,p,o)	mg/kg	<0.03	< 0.03	50	0.06	yes
Styrene	mg/kg	<0.010	<0.010	50	0.020	yes
Matrix Spike	Units	% Recovery	Lower Limit	Upper Limit		Passed QC
1474420-4		September 02, 2015				
Benzene	mg/kg	83	80	120		ye
Toluene	mg/kg	83	80	120		yes
Ethylbenzene	mg/kg	96	80	120		yes
Total Xylenes (m,p,o)	mg/kg	108	80	120		yes
1474422-4		September 02, 2015				
Benzene	mg/kg	90	80	120		ye
Toluene	mg/kg	86	80	120		ye
Ethylbenzene	mg/kg	108	80	120		ye
Total Xylenes (m,p,o)	mg/kg	100	80	120		yes
1474424-4		September 02, 2015				
Benzene	mg/kg	99	80	120		ye
Toluene	mg/kg	99	80	120		ye
Ethylbenzene	mg/kg	114	80	120		ye
Total Xylenes (m,p,o)	mg/kg	102	80	120		yes
1474426-4		September 02, 2015				
Benzene	mg/kg	86	80	120		yes
Toluene	mg/kg	87	80	120		ye
Ethylbenzene	mg/kg	108	80	120		ye
Total Xylenes (m,p,o)	mg/kg	92	80	120		ye
1474429-4		September 02, 2015				
Benzene	mg/kg	80	80	120		yes
Toluene	mg/kg	82	80	120		ye
Ethylbenzene	mg/kg	90	80	120		ye
Total Xylenes (m,p,o)	mg/kg	102	80	120		ye
1474432-4		September 02, 2015				
Benzene	mg/kg	81	80	120		yes
Toluene	mg/kg	88	80	120		ye:
Ethylbenzene	mg/kg	94	80	120		yes
Total Xylenes (m,p,o)	mg/kg	106	80	120		yes



Lot ID: 1091627

Control Number: C0009013

Quality Control

Bill To: SILA Remediation Project:

KIRIK12 Report To: SILA Remediation ID:

> 250-1260 Boul Lebourgneuf Name:

Date Received: Sep 2, 2015 Quebec, QC, Canada Location: Cambridge Bay Date Reported: Dec 23, 2015 G2K 2G2 LSD: CAM-M Report Number: 2071646 Attn: Jean-Pierre Pelletier P.O.: 20433

Sampled By: A. Passalis Acct code:

Company: Sila

Mono-Aromatic Hydrocarbons - Soil -Continued

Mono-Aromatic Hydrocarbons - Water

Blanks	Units	Measured	Lower Limit	Upper Limit		Passed QC
1474732-15		September 03, 2015				
Benzene	ng	0	-0.002	0.002		yes
Toluene	ng	0	-0.0015	0.0015		yes
Ethylbenzene	ng	0	-0.002	0.002		yes
Total Xylenes (m,p,o)	ng	0	-0.002	0.002		yes
1474733-15		September 03, 2015				
Benzene	ng	0	-0.002	0.002		yes
Toluene	ng	0	-0.0015	0.0015		yes
Ethylbenzene	ng	0	-0.002	0.002		yes
Total Xylenes (m,p,o)	ng	0	-0.002	0.002		yes
Calibration Check	Units	% Recovery	Lower Limit	Upper Limit		Passed QC
1474732-14		September 03, 2015				
Benzene	ng	108.40	85	115		yes
Toluene	ng	101.60	85	115		yes
Ethylbenzene	ng	90.00	85	115		yes
Total Xylenes (m,p,o)	ng	94.00	85	115		yes
1474733-14		September 03, 2015				
Benzene	ng	88.20	85	115		yes
Toluene	ng	87.20	85	115		yes
Ethylbenzene	ng	90.40	85	115		yes
Total Xylenes (m,p,o)	ng	95.33	85	115		yes
Client Sample Replicates	Units	Replicate 1	Replicate 2	% RSD Criteria	Absolute Criteria	Passed QC
1474732-3		September 03, 2015				
Benzene	mg/L	<0.001	< 0.001	15	0.002	yes
Toluene	mg/L	<0.0004	< 0.0004	15	0.0020	yes
Ethylbenzene	mg/L	<0.001	< 0.001	15	0.002	yes
Total Xylenes (m,p,o)	mg/L	<0.001	<0.001	15	0.002	yes
1474733-3		September 03, 2015				
Benzene	mg/L	<0.001	< 0.001	15	0.002	yes
Toluene	mg/L	<0.0004	< 0.0004	15	0.0020	yes
Ethylbenzene	mg/L	<0.001	< 0.001	15	0.002	yes
Total Xylenes (m,p,o)	mg/L	<0.001	< 0.001	15	0.002	yes
Matrix Spike	Units	% Recovery	Lower Limit	Upper Limit		Passed QC
1474732-2		September 03, 2015				
Benzene	mg/L	101	85	115		yes
Toluene	mg/L	93	85	115		yes
Ethylbenzene	mg/L	87	85	115		yes
Total Xylenes (m,p,o)	mg/L	88	85	115		yes

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Lot ID: 1091627

C0009013

Control Number:

Quality Control

Bill To: SILA Remediation Project:

Report To: SILA Remediation ID: KIRIK12

> 250-1260 Boul Lebourgneuf Name:

Date Received: Sep 2, 2015 Quebec, QC, Canada Location: Cambridge Bay Date Reported: Dec 23, 2015 G2K 2G2 LSD: CAM-M Report Number: 2071646

Attn: Jean-Pierre Pelletier P.O.: 20433

Sampled By: A. Passalis Acct code:

Matrix Spike	Units	% Recovery	Lower Limit	Upper Limit		Passed QC
1474733-2		September 03, 2015				
Benzene	mg/L	89	85	115		yes
Toluene	mg/L	87	85	115		yes
Ethylbenzene	mg/L	91	85	115		yes
Total Xylenes (m,p,o)	mg/L	93	85	115		yes
Volatile Petroleum Hyd	rocarbons	- Soil				
Blanks	Units	Measured	Lower Limit	Upper Limit		Passed QC
1474420-17		September 02, 2015				
F1 C6-C10	ng	0	-10	10		yes
1474422-17		September 02, 2015				
F1 C6-C10	ng	0	-10	10		yes
1474424-17	•	September 02, 2015				•
F1 C6-C10	ng	0	-10	10		yes
1474426-17	J	September 02, 2015				,
F1 C6-C10	ng	0	-10	10		yes
1474429-17	9	September 02, 2015	. •			, , ,
F1 C6-C10	ng	0 September 02, 2013	-10	10		yes
	''g		10	10		yco
1474432-17 F1 C6-C10	na	September 02, 2015 0	-10	10		V00
Client Sample Replicates	ng Units	Replicate 1	Replicate 2	% RSD Criteria	Absolute Criteria	yes Passed QC
1474420-5	Oillis	-	Replicate 2	70 NOD Omena	Absolute Officia	1 43304 40
F1 C6-C10	mg/kg	September 02, 2015 <10	<10	50	0	V00
F1 -BTEX	mg/kg	<10	<10	50	0	yes yes
	mg/kg		710	00	O .	you
1474422-5 F1 C6-C10	ma/ka	September 02, 2015 <10	<10	50	0	V00
F1 -BTEX	mg/kg mg/kg	<10	<10	50	0	yes yes
	mg/kg		210	30	O .	ycs
1474424-5 F1 C6-C10		September 02, 2015	-10	50	0	
F1 -BTEX	mg/kg mg/kg	<10 <10	<10 <10	50 50	0	yes yes
	mg/kg		<10	30	O	yes
1474426-5		September 02, 2015	.40	50	0	
F1 C6-C10 F1 -BTEX	mg/kg	<10 <10	<10	50 50	0	yes
	mg/kg		<10	30	U	yes
1474429-5	,,	September 02, 2015	40	50		
F1 C6-C10	mg/kg	<10	<10	50	0	yes
F1 -BTEX	mg/kg	<10	<10	50	0	yes
1474432-5 F1 C6-C10	mg/kg	September 02, 2015 <10		_		
		-10	<10	50	0	yes



Lot ID: 1091627

Control Number: C0009013

Quality Control

Bill To: SILA Remediation Project:

Report To: SILA Remediation ID: KIRIK12

> 250-1260 Boul Lebourgneuf Name:

Date Received: Sep 2, 2015 Quebec, QC, Canada Location: Cambridge Bay Date Reported: Dec 23, 2015 G2K 2G2 LSD: CAM-M Report Number: 2071646 Attn: Jean-Pierre Pelletier P.O.: 20433

Sampled By: A. Passalis Acct code:

Continued Matrix Spike	Units	9/ Pagayary	Lower Limit	Upper Limit	Passed QC
-	Ullits	% Recovery	Lower Lillin	Opper Limit	rasseu QC
1474420-2		September 02, 2015	00	400	
F1 C6-C10	mg/kg	95	80	120	yes
1474422-2	_	September 02, 2015			
F1 C6-C10	mg/kg	91	80	120	yes
1474424-2		September 02, 2015			
F1 C6-C10	mg/kg	107	80	120	yes
1474426-2		September 02, 2015			
F1 C6-C10	mg/kg	103	80	120	yes
1474429-2		September 02, 2015			
F1 C6-C10	mg/kg	. 86	80	120	yes
1474432-2		September 02, 2015			
F1 C6-C10	mg/kg	100	80	120	yes
	0 0				•
Volatile Petroleum Hydi	rocarbons	- Water			
Blanks	Units	Measured	Lower Limit	Upper Limit	Passed QC
1474732-15		September 03, 2015			
F1 -BTEX	ng	0	-0.3	0.3	yes
F1 C6-C10	ng	0	-0.3	0.3	yes
F2 C10-C16	ng	0	-0.3	0.3	yes
1474733-15		September 03, 2015			
F1 -BTEX	ng	0	-0.3	0.3	yes
F1 C6-C10	ng	0	-0.3	0.3	yes
F2 C10-C16	ng	0	-0.3	0.3	yes
Calibration Check	Units	% Recovery	Lower Limit	Upper Limit	Passed QC
1474732-16		September 03, 2015			
F2 C10-C16	ng	114.00	80	120	yes
Client Sample Replicates	Units	Replicate 1	Replicate 2	% RSD Criteria	Absolute Criteria Passed QC
1474732-3		September 03, 2015			
F1 C6-C10	mg/L	<0.1	<0.1	50	yes
F2 C10-C16	mg/L	<0.1	<0.1	50	yes
1474733-3		September 03, 2015			
F1 C6-C10	mg/L	<0.1	<0.1	50	yes
F2 C10-C16	mg/L	<0.1	<0.1	50	yes
Extractable Petroleum I	- - - - - - - - - - - - - - - - - - -	ons -			
Soil	-				
Blanks	Units	Measured	Lower Limit	Upper Limit	Passed QC
1474419-15		September 02, 2015			
F2c C10-C16	ug/mL	•	-10		



Lot ID: 1091627

C0009013

Control Number:

Quality Control

Bill To: SILA Remediation Project:

ID: KIRIK12 Report To: SILA Remediation

> 250-1260 Boul Lebourgneuf Name:

Date Received: Sep 2, 2015 Quebec, QC, Canada Location: Cambridge Bay Date Reported: Dec 23, 2015 G2K 2G2 LSD: CAM-M Report Number: 2071646 Attn: Jean-Pierre Pelletier P.O.: 20433

Sampled By: A. Passalis Acct code:

Extractable Petroleum Soil - Continued	Hydrocarb	ons -			
Blanks	Units	Measured	Lower Limit	Upper Limit	Passed QC
F3c C16-C34	ug/mL	0	-30	30	yes
F4c C34-C50	ug/mL	0	-20	20	yes
F4HTGCc C34-C50+	ug/mL	0	-20	20	yes
1474421-15		September 02, 2015			
F2c C10-C16	ug/mL	0	-10	10	yes
F3c C16-C34	ug/mL	0	-30	30	yes
F4c C34-C50	ug/mL	0	-20	20	yes
F4HTGCc C34-C50+	ug/mL	0	-20	20	yes
1474423-15		September 02, 2015			
F2c C10-C16	ug/mL	0	-10	10	yes
F3c C16-C34	ug/mL	0	-30	30	yes
F4c C34-C50	ug/mL	0	-20	20	yes
F4HTGCc C34-C50+	ug/mL	0	-20	20	yes
1474425-15		September 02, 2015			
F2c C10-C16	ug/mL	0	-10	10	yes
F3c C16-C34	ug/mL	0	-30	30	yes
F4c C34-C50	ug/mL	0	-20	20	yes
F4HTGCc C34-C50+	ug/mL	0	-20	20	yes
1474428-15		September 02, 2015			
F2c C10-C16	ug/mL	0	-10	10	yes
F3c C16-C34	ug/mL	0	-30	30	yes
F4c C34-C50	ug/mL	0	-20	20	yes
F4HTGCc C34-C50+	ug/mL	0	-20	20	yes
Calibration Check	Units	% Recovery	Lower Limit	Upper Limit	Passed QC
1474419-14		September 02, 2015			
F2c C10-C16	ug/mL	96.42	85	115	yes
F3c C16-C34	ug/mL	98.47	85	115	yes
F4c C34-C50	ug/mL	98.36	85	115	yes
F4HTGCc C34-C50+	ug/mL	97.84	85	115	yes
1474421-14		September 02, 2015			
F2c C10-C16	ug/mL	94.76	85	115	yes
F3c C16-C34	ug/mL	96.27	85	115	yes
F4c C34-C50	ug/mL	96.66	85	115	yes
F4HTGCc C34-C50+	ug/mL	95.49	85	115	yes
1474423-14		September 02, 2015			
F2c C10-C16	ug/mL	98.54	85	115	yes
F3c C16-C34	ug/mL	99.66	85	115	yes
F4c C34-C50	ug/mL	98.63	85	115	yes
F4HTGCc C34-C50+	ug/mL	97.15	85	115	yes
1474425-14		September 02, 2015			



Lot ID: 1091627

Control Number: C0009013

Quality Control

Bill To: SILA Remediation Project:

Report To: SILA Remediation ID: KIRIK12

> 250-1260 Boul Lebourgneuf Name:

Date Received: Sep 2, 2015 Quebec, QC, Canada Location: Cambridge Bay Date Reported: Dec 23, 2015 G2K 2G2 LSD: CAM-M Report Number: 2071646 Attn: Jean-Pierre Pelletier P.O.: 20433

Sampled By: A. Passalis Acct code:

Extractable Petroleum I Soil - Continued	Hydrocarb	ons -				
Calibration Check	Units	% Recovery	Lower Limit	Upper Limit		Passed QC
F2c C10-C16	ug/mL	96.42	85	115		yes
F3c C16-C34	ug/mL	98.47	85	115		yes
F4c C34-C50	ug/mL	98.36	85	115		yes
F4HTGCc C34-C50+	ug/mL	97.84	85	115		yes
1474428-14	ug/IIIL	September 02, 2015	00	110		,00
F2c C10-C16	ug/mL	98.93	85	115		yes
F3c C16-C34	ug/mL	101.40	85	115		yes
F4c C34-C50	ug/mL	96.72	85	115		yes
F4HTGCc C34-C50+	ug/mL	93.92	85	115		yes
Client Sample Replicates	Units	Replicate 1	Replicate 2	% RSD Criteria	Absolute Criteria	Passed QC
1474419-3		September 02, 2015				
F2c C10-C16	mg/kg	<40	<40	50	10	yes
F3c C16-C34	mg/kg	<40	<40	50	10	yes
F4c C34-C50	mg/kg	<40	<40	50	10	yes
F4HTGCc C34-C50+	mg/kg	<40	<40	50	10	yes
1474421-3		September 02, 2015				•
F2c C10-C16	mg/kg	<40	<40	50	10	yes
F3c C16-C34	mg/kg	124	142	50	10	yes
F4c C34-C50	mg/kg	<40	43	50	10	yes
F4HTGCc C34-C50+	mg/kg	<40	43	50	10	yes
1474423-3		September 02, 2015				
F2c C10-C16	mg/kg	<40	<40	50	10	yes
F3c C16-C34	mg/kg	<40	<40	50	10	yes
F4c C34-C50	mg/kg	<40	<40	50	10	yes
F4HTGCc C34-C50+	mg/kg	<40	<40	50	10	yes
1474425-3		September 02, 2015				
F2c C10-C16	mg/kg	<40	<40	50	10	yes
F3c C16-C34	mg/kg	97	95	50	10	yes
F4c C34-C50	mg/kg	51	52	50	10	yes
F4HTGCc C34-C50+	mg/kg	54	54	50	10	yes
1474428-3		September 02, 2015				
F2c C10-C16	mg/kg	<40	<40	50	10	yes
F3c C16-C34	mg/kg	<40	<40	50	10	yes
F4c C34-C50	mg/kg	<40	<40	50	10	yes
F4HTGCc C34-C50+	mg/kg	<40	<40	50	10	yes
1474430-3		September 02, 2015				
F2c C10-C16	mg/kg	<40	<40	50	10	yes
F3c C16-C34	mg/kg	<40	<40	50	10	yes
F4c C34-C50	mg/kg	<40	<40	50	10	yes
F4HTGCc C34-C50+	mg/kg	<40	<40	50	10	yes



Lot ID: 1091627

C0009013

Control Number:

Quality Control

Bill To: SILA Remediation Project:

ID: KIRIK12 Report To: SILA Remediation

> 250-1260 Boul Lebourgneuf Name:

Date Received: Sep 2, 2015 Quebec, QC, Canada Location: Cambridge Bay Date Reported: Dec 23, 2015 G2K 2G2 LSD: CAM-M Report Number: 2071646 Attn: Jean-Pierre Pelletier P.O.: 20433

Sampled By: A. Passalis Acct code:

Company: Sila

Matrix Spike	Units	% Recovery	Lower Limit	Upper Limit	Passed QC
1474419-2		September 02, 2015			
F2c C10-C16	mg/kg	85	65	135	yes
F3c C16-C34	mg/kg	99	65	135	yes
F4c C34-C50	mg/kg	95	65	135	yes
F4HTGCc C34-C50+	mg/kg	112	65	135	yes
1474421-2		September 02, 2015			
F2c C10-C16	mg/kg	80	65	135	yes
F3c C16-C34	mg/kg	96	65	135	yes
F4c C34-C50	mg/kg	98	65	135	yes
F4HTGCc C34-C50+	mg/kg	97	65	135	yes
1474423-2		September 02, 2015			
F2c C10-C16	mg/kg	81	65	135	yes
F3c C16-C34	mg/kg	89	65	135	yes
F4c C34-C50	mg/kg	85	65	135	yes
F4HTGCc C34-C50+	mg/kg	82	65	135	yes
1474425-2		September 02, 2015			
F2c C10-C16	mg/kg	82	65	135	yes
F3c C16-C34	mg/kg	95	65	135	yes
F4c C34-C50	mg/kg	91	65	135	yes
F4HTGCc C34-C50+	mg/kg	97	65	135	yes
1474428-2		September 02, 2015			
F2c C10-C16	mg/kg	94	65	135	yes
F3c C16-C34	mg/kg	96	65	135	yes
F4c C34-C50	mg/kg	92	65	135	yes
F4HTGCc C34-C50+	mg/kg	91	65	135	yes
1474430-2		September 02, 2015			
F2c C10-C16	mg/kg	103	65	135	yes
F3c C16-C34	mg/kg	117	65	135	yes
F4c C34-C50	mg/kg	111	65	135	yes
F4HTGCc C34-C50+	mg/kg	105	65	135	yes
Extractable Petroleum	Hydrocarb	ons -			
Vater					
Blanks	Units	Measured	Lower Limit	Upper Limit	Passed QC
1474727-16		September 03, 2015			
F2 C10-C16	ug/mL	0	-0.2	0.2	yes
F3 C16-C34	ug/mL	0	-0.2	0.2	yes
F3+ C34+	ug/mL	0	-0.2	0.2	yes
F4 C34-C50	ug/mL	0	-0.2	0.2	yes
F4HTGC C34-C50+	ug/mL	0	-0.2	0.2	yes

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Lot ID: 1091627

C0009013

Control Number:

Quality Control

Bill To: SILA Remediation Project:

ID: KIRIK12 Report To: SILA Remediation

> 250-1260 Boul Lebourgneuf Name:

Date Received: Sep 2, 2015 Quebec, QC, Canada Location: Cambridge Bay Date Reported: Dec 23, 2015 G2K 2G2 LSD: CAM-M Report Number: 2071646 Attn: Jean-Pierre Pelletier P.O.: 20433

Sampled By: A. Passalis Acct code:

Extractable Petroleum	n Hydrocarb	ons -				
Water - Continued Blanks	Units	Measured	Lower Limit	Upper Limit		Passed QC
1474728-16		September 03, 2015				
F2 C10-C16	ug/mL	0	-0.2	0.2		yes
F3 C16-C34	ug/mL	0	-0.2	0.2		yes
F3+ C34+	ug/mL	0	-0.2	0.2		yes
F4 C34-C50	ug/mL	0	-0.2	0.2		yes
F4HTGC C34-C50+	ug/mL	0	-0.2	0.2		yes
Calibration Check	Units	% Recovery	Lower Limit	Upper Limit		Passed QC
1474727-15		September 03, 2015				
F2 C10-C16	ug/mL	95.78	85	115		yes
F3 C16-C34	ug/mL	104.49	85	115		yes
F3+ C34+	ug/mL	102.58	85	115		yes
F4 C34-C50	ug/mL	104.19	85	115		yes
F4HTGC C34-C50+	ug/mL	102.58	85	115		yes
1474728-15		September 03, 2015				
F2 C10-C16	ug/mL	98.93	85	115		yes
F3 C16-C34	ug/mL	101.40	85	115		yes
F3+ C34+	ug/mL	93.92	85	115		yes
F4 C34-C50	ug/mL	96.72	85	115		yes
F4HTGC C34-C50+	ug/mL	93.92	85	115		yes
Replicates	Units	Replicate 1	Replicate 2	% RSD Criteria	Absolute Criteria	Passed QC
1474727-4		September 03, 2015				
F2 C10-C16	mg/L	95.9	95.2	15	0.2	yes
F3 C16-C34	mg/L	110	102	15	0.2	yes
F3+ C34+	mg/L	87.4	84.7	15	0.2	yes
F4 C34-C50	mg/L	96.1	93.3	15	0.2	yes
F4HTGC C34-C50+	mg/L	87.4	84.7	15	0.2	yes
1474728-4		September 03, 2015				
F2 C10-C16	mg/L	99.4	101	15	0.2	yes
F3 C16-C34	mg/L	107	104	15	0.2	yes
F3+ C34+	mg/L	115	110	15	0.2	yes
F4 C34-C50	mg/L	107	103	15	0.2	yes
F4HTGC C34-C50+	mg/L	115	110	15	0.2	yes
Matrix Spike	Units	% Recovery	Lower Limit	Upper Limit		Passed QC
1474727-2		September 03, 2015				
F2 C10-C16	mg/L	96	80	120		yes
F3 C16-C34	mg/L	110	80	120		yes
F3+ C34+	mg/L	87	80	120		yes
F4 C34-C50	mg/L	96	80	120		yes
F4HTGC C34-C50+	mg/L	87	80	120		yes
1474728-2		September 03, 2015				

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yes

Lot ID: 1091627

C0009013

Control Number:

Quality Control

Bill To: SILA Remediation Project:

ID: KIRIK12 Report To: SILA Remediation

> 250-1260 Boul Lebourgneuf Name:

Date Received: Sep 2, 2015 Quebec, QC, Canada Location: Cambridge Bay Date Reported: Dec 23, 2015 G2K 2G2 LSD: CAM-M Report Number: 2071646 Attn: Jean-Pierre Pelletier P.O.: 20433

Sampled By: A. Passalis Acct code:

Company: Sila

Water - Continued Matrix Spike	Units	% Recovery	Lower Limit	Upper Limit	Passed QC
F2 C10-C16	mg/L	99	80	120	yes
F3 C16-C34	mg/L	107	80	120	yes
F3+ C34+	mg/L	115	80	120	yes
F4 C34-C50	mg/L	107	80	120	yes
F4HTGC C34-C50+	mg/L	115	80	120	yes
Polychlorinated Biph	enyls - Soil				
Blanks	Units	Measured	Lower Limit	Upper Limit	Passed QC
1474435-2		September 02, 2015			
Aroclor 1016	ug/mL	0	-0.3	0.3	yes
Aroclor 1221	ug/mL	0	-0.3	0.3	yes
Aroclor 1232	ug/mL	0	-0.3	0.3	yes
Aroclor 1242	ug/mL	0	-0.3	0.3	yes
Aroclor 1248	ug/mL	0	-0.3	0.3	yes
Aroclor 1254	ug/mL	0	-0.3	0.3	yes
Aroclor 1260	ug/mL	0	-0.3	0.3	yes
Aroclor 1262	ug/mL	0	-0.3	0.3	yes
Aroclor 1268	ug/mL	0	-0.3	0.3	yes
1474436-2		September 02, 2015			
Aroclor 1016	ug/mL	0	-0.3	0.3	yes
Aroclor 1221	ug/mL	0	-0.3	0.3	yes
Aroclor 1232	ug/mL	0	-0.3	0.3	yes
Aroclor 1242	ug/mL	0	-0.3	0.3	yes
Aroclor 1248	ug/mL	0	-0.3	0.3	yes
Aroclor 1254	ug/mL	0	-0.3	0.3	yes
Aroclor 1260	ug/mL	0	-0.3	0.3	yes
Aroclor 1262	ug/mL	0	-0.3	0.3	yes
Aroclor 1268	ug/mL	0	-0.3	0.3	yes
1474437-2		September 02, 2015			
Aroclor 1016	ug/mL	0	-0.3	0.3	yes
Aroclor 1221	ug/mL	0	-0.3	0.3	yes
Aroclor 1232	ug/mL	0	-0.3	0.3	yes
Aroclor 1242	ug/mL	0	-0.3	0.3	yes
Aroclor 1248	ug/mL	0	-0.3	0.3	yes
Aroclor 1254	ug/mL	0	-0.3	0.3	yes
Aroclor 1260	ug/mL	0	-0.3	0.3	yes
Aroclor 1262	ug/mL	0	-0.3	0.3	yes
Aroclor 1268	ug/mL	0	-0.3	0.3	yes
1474438-2		September 02, 2015			
Aroclor 1016	ug/mL	0	-0.3	0.3	yes
	3	-			,

0

-0.3

0.3

ug/mL

Aroclor 1221

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Lot ID: 1091627

Control Number: C0009013

Quality Control

Bill To: SILA Remediation Project:

Report To: SILA Remediation ID: KIRIK12

> 250-1260 Boul Lebourgneuf Name:

Date Received: Sep 2, 2015 Quebec, QC, Canada Location: Cambridge Bay Date Reported: Dec 23, 2015 G2K 2G2 LSD: CAM-M Report Number: 2071646 20433

Attn: Jean-Pierre Pelletier P.O.: Sampled By: A. Passalis Acct code:

Blanks	Units	Measured	Lower Limit	Upper Limit	Passed Q0
Aroclor 1232	ug/mL	0	-0.3	0.3	ye:
Aroclor 1242	ug/mL	0	-0.3	0.3	ye
Aroclor 1248	ug/mL	0	-0.3	0.3	ye:
Aroclor 1254	ug/mL	0	-0.3	0.3	ye
Aroclor 1260	ug/mL	0	-0.3	0.3	ye:
Aroclor 1262	ug/mL	0	-0.3	0.3	ye
Aroclor 1268	ug/mL	0	-0.3	0.3	ye:
1474439-2	-	September 02, 2015			
Aroclor 1016	ug/mL	0	-0.3	0.3	yes
Aroclor 1221	ug/mL	0	-0.3	0.3	ye:
Aroclor 1232	ug/mL	0	-0.3	0.3	ye:
Aroclor 1242	ug/mL	0	-0.3	0.3	ye:
Aroclor 1248	ug/mL	0	-0.3	0.3	ye:
Aroclor 1254	ug/mL	0	-0.3	0.3	ye:
Aroclor 1260	ug/mL	0	-0.3	0.3	ye:
Aroclor 1262	ug/mL	0	-0.3	0.3	ye:
Aroclor 1268	ug/mL	0	-0.3	0.3	ye
1474440-2		September 02, 2015			
Aroclor 1016	ug/mL	0	-0.3	0.3	yes
Aroclor 1221	ug/mL	0	-0.3	0.3	ye:
Aroclor 1232	ug/mL	0	-0.3	0.3	ye
Aroclor 1242	ug/mL	0	-0.3	0.3	ye
Aroclor 1248	ug/mL	0	-0.3	0.3	ye
Aroclor 1254	ug/mL	0	-0.3	0.3	ye
Aroclor 1260	ug/mL	0	-0.3	0.3	ye
Aroclor 1262	ug/mL	0	-0.3	0.3	yes
Aroclor 1268	ug/mL	0	-0.3	0.3	yes
Calibration Check	Units	% Recovery	Lower Limit	Upper Limit	Passed Q0
1474435-1		September 02, 2015			
Aroclor 1260	ug/mL	110.00	80	120	yes
1474436-1		September 02, 2015			
Aroclor 1260	ug/mL	110.00	80	120	ye
1474437-1	-	September 02, 2015			
Aroclor 1254	ug/mL	110.00	80	120	ye:
Aroclor 1260	ug/mL	110.00	80	120	ye:
1474438-1	J	September 02, 2015			•
Aroclor 1254	ug/mL	110.00	80	120	ye
Aroclor 1260	ug/mL	110.00	80	120	ye
	~g/****			.20	y C.
1474439-1 Aroclor 1254	ug/mL	September 02, 2015 110.00	80	120	ye

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Lot ID: 1091627

Control Number: C0009013

Quality Control

Bill To: SILA Remediation Project:

Report To: SILA Remediation ID: KIRIK12

> 250-1260 Boul Lebourgneuf Name:

Date Received: Sep 2, 2015 Quebec, QC, Canada Location: Cambridge Bay Date Reported: Dec 23, 2015 G2K 2G2 LSD: CAM-M Report Number: 2071646 20433

Attn: Jean-Pierre Pelletier P.O.: Sampled By: A. Passalis Acct code:

Continued						
Calibration Check	Units	% Recovery	Lower Limit	Upper Limit		Passed QC
Aroclor 1260	ug/mL	110.00	80	120		yes
1474440-1		September 02, 2015				
Aroclor 1260	ug/mL	90.00	80	120		yes
Client Sample Replicates	Units	Replicate 1	Replicate 2	% RSD Criteria	Absolute Criteria	Passed QC
1474435-5		September 02, 2015				
Aroclor 1016	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1221	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1232	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1242	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1248	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1254	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1260	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1262	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1268	mg/kg	<0.05	< 0.05	50	0.2	yes
Total PCBs	mg/kg	<0.05	< 0.05	50	0.2	yes
1474436-5		September 02, 2015				
Aroclor 1016	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1221	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1232	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1242	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1248	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1254	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1260	mg/kg	<0.05	<0.05	50	0.2	yes
Aroclor 1262	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1268	mg/kg	<0.05	< 0.05	50	0.2	yes
Total PCBs	mg/kg	<0.05	< 0.05	50	0.2	yes
1474437-5		September 02, 2015				
Aroclor 1016	mg/kg	<0.05	<0.05	50	0.2	yes
Aroclor 1221	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1232	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1242	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1248	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1254	mg/kg	<0.05	<0.05	50	0.2	yes
Aroclor 1260	mg/kg	<0.05	<0.05	50	0.2	yes
Aroclor 1262	mg/kg	<0.05	<0.05	50	0.2	yes
Aroclor 1268	mg/kg	<0.05	<0.05	50	0.2	yes
Total PCBs	mg/kg	<0.05	<0.05	50	0.2	yes
1474438-5	0 0	September 02, 2015				,
Aroclor 1016	mg/kg	<0.05	<0.05	50	0.2	VAS
Aroclor 1221	mg/kg	<0.05	<0.05	50	0.2	yes yes
Aroclor 1232	mg/kg	<0.05	<0.05	50	0.2	yes

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Lot ID: 1091627

Sep 2, 2015

Control Number: C0009013

Report Number: 2071646

Date Reported: Dec 23, 2015

Date Received:

Quality Control

Bill To: SILA Remediation Project:

Report To: SILA Remediation ID: KIRIK12

250-1260 Boul Lebourgneuf Name:

Quebec, QC, CanadaLocation:Cambridge BayG2K 2G2LSD:CAM-M

Attn: Jean-Pierre Pelletier P.O.: 20433

Sampled By: A. Passalis Acct code:

Continued Client Sample Replicates	Units	Replicate 1	Replicate 2	% RSD Criteria	Absolute Criteria	Passed QC
Aroclor 1242	mg/kg	<0.05	<0.05	50	0.2	yes
Aroclor 1248	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1254	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1260	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1262	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1268	mg/kg	<0.05	< 0.05	50	0.2	yes
Total PCBs	mg/kg	<0.05	< 0.05	50	0.2	yes
1474439-5		September 02, 2015				·
Aroclor 1016	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1221	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1232	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1242	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1248	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1254	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1260	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1262	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1268	mg/kg	<0.05	< 0.05	50	0.2	yes
Total PCBs	mg/kg	<0.05	<0.05	50	0.2	yes
1474440-5		September 02, 2015				
Aroclor 1016	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1221	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1232	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1242	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1248	mg/kg	<0.05	<0.05	50	0.2	yes
Aroclor 1254	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1260	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1262	mg/kg	<0.05	< 0.05	50	0.2	yes
Aroclor 1268	mg/kg	<0.05	< 0.05	50	0.2	yes
Total PCBs	mg/kg	<0.05	< 0.05	50	0.2	yes
Matrix Spike	Units	% Recovery	Lower Limit	Upper Limit		Passed QC
1474435-4		September 02, 2015				
Aroclor 1260	mg/kg	109	50	150		yes
1474436-4		September 02, 2015				
Aroclor 1260	mg/kg	84	50	150		yes
1474437-4		September 02, 2015				
Aroclor 1260	mg/kg	141	50	150		yes
1474438-4		September 02, 2015				
Aroclor 1260	mg/kg	136	50	150		yes
1474439-4	-	September 02, 2015				-
Aroclor 1260	mg/kg	135	50	150		yes



yes

Quality Control

Bill To: SILA Remediation Project:

Report To: SILA Remediation ID: KIRIK12

Name:

250-1260 Boul Lebourgneuf

Quebec, QC, Canada Location:
G2K 2G2 LSD:
Attn: Jean-Pierre Pelletier P.O.:

Sampled By: A. Passalis Acct code:

Company: Sila

Lot ID: 1091627

Control Number: C0009013

Date Received: Sep 2, 2015

Date Reported: Dec 23, 2015

Report Number: 2071646

Continued Matrix Spike	Units	% Recovery	Lower Limit	Upper Limit	Passed QC
1474440-4		September 02, 2015			
Aroclor 1260	mg/kg	106	50	150	yes
Polychlorinated Biphe	enyls - Soil -				
Surrogate					
Blanks	Units	Measured	Lower Limit	Upper Limit	Passed QC
1474435-2		September 02, 2015			
Decachlorobiphenyl	%	116.316	50	150	yes
1474436-2		September 02, 2015			
Decachlorobiphenyl	%	138.746	50	150	yes
1474437-2		September 02, 2015			·
Decachlorobiphenyl	%	135.745	50	150	yes
1474438-2	,0		00	100	, 00
	%	September 02, 2015 132.543	50	150	V00
Decachlorobiphenyl	70		50	150	yes
1474439-2		September 02, 2015			
Decachlorobiphenyl	%	136.027	50	150	yes
1474440-2		September 02, 2015			
Decachlorobiphenyl	%	95.9574	50	150	yes
Polychlorinated Biphe	enyls - Wate	r			
Blanks	Units	Measured	Lower Limit	Upper Limit	Passed QC
1474675-16		September 03, 2015			
Aroclor 1016	ug/mL	0	-0.3	0.3	yes
Aroclor 1221	ug/mL	0	-0.3	0.3	yes
Aroclor 1232	ug/mL	0	-0.3	0.3	yes
Aroclor 1242	ug/mL	0	-0.3	0.3	yes
Aroclor 1248	ug/mL	0	-0.3	0.3	yes
Aroclor 1254	ug/mL	0	-0.3	0.3	yes
Aroclor 1260	ug/mL	0	-0.3	0.3	yes
Aroclor 1262	ug/mL	0	-0.3	0.3	yes
Aroclor 1268	ug/mL	0	-0.3	0.3	yes
1474735-16		September 03, 2015			
Aroclor 1016	ug/mL	0	-0.3	0.3	yes
Aroclor 1221	ug/mL	0	-0.3	0.3	yes
Aroclor 1232	ug/mL	0	-0.3	0.3	yes
Aroclor 1242	ug/mL	0	-0.3	0.3	yes
Aroclor 1248	ug/mL	0	-0.3	0.3	yes
Aroclor 1254	ug/mL	0	-0.3	0.3	yes
Aroclor 1260	ug/mL	0	-0.3	0.3	yes

0

-0.3

0.3

Cambridge Bay

CAM-M

20433

ug/mL

Aroclor 1262

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Lot ID: 1091627

C0009013

Control Number:

Quality Control

Bill To: SILA Remediation Project:

Report To: SILA Remediation ID: KIRIK12

> 250-1260 Boul Lebourgneuf Name:

Date Received: Sep 2, 2015 Quebec, QC, Canada Location: Cambridge Bay Date Reported: Dec 23, 2015 G2K 2G2 LSD: CAM-M Report Number: 2071646 Attn: Jean-Pierre Pelletier P.O.: 20433

Sampled By: A. Passalis Acct code:

Continued Blanks	Units	Measured	Lower Limit	Upper Limit		Passed Q0
Aroclor 1268	ug/mL	0	-0.3	0.3		ye
Calibration Check	Units	% Recovery	Lower Limit	Upper Limit		Passed Q
1474675-15		September 03, 2015				
Aroclor 1260	ug/mL	110.00	80	120		ye
1474735-15		September 03, 2015				
Aroclor 1260	ug/mL	100.00	80	120		ye
Replicates	Units	Replicate 1	Replicate 2	% RSD Criteria	Absolute Criteria	Passed Q
1474675-13		September 03, 2015	•			
Aroclor 1016	ug/L	<0.05	<0.05	20	0.2	ye
Aroclor 1221	ug/L	<0.05	< 0.05	20	0.2	ye
Aroclor 1232	ug/L	<0.05	< 0.05	20	0.2	ye
Aroclor 1242	ug/L	<0.05	< 0.05	20	0.2	ye
Aroclor 1248	ug/L	<0.05	< 0.05	20	0.2	ye
Aroclor 1254	ug/L	<0.05	< 0.05	20	0.2	ye
Aroclor 1260	ug/L	<0.05	< 0.05	20	0.2	ye
Aroclor 1262	ug/L	<0.05	< 0.05	20	0.2	ye
Aroclor 1268	ug/L	<0.05	< 0.05	20	0.2	y€
1474735-4	Ü	September 03, 2015				,
Aroclor 1016	ug/L	<0.05	<0.05	20	0.2	ye
Aroclor 1221	ug/L	<0.05	< 0.05	20	0.2	ye
Aroclor 1232	ug/L	<0.05	< 0.05	20	0.2	ye
Aroclor 1242	ug/L	<0.05	< 0.05	20	0.2	y e
Aroclor 1248	ug/L	<0.05	< 0.05	20	0.2	y e
Aroclor 1254	ug/L	<0.05	< 0.05	20	0.2	ye Ye
Aroclor 1260	ug/L	<0.05	< 0.05	20	0.2	y€
Aroclor 1262	ug/L	<0.05	< 0.05	20	0.2	ye
Aroclor 1268	ug/L	<0.05	< 0.05	20	0.2	yε
Matrix Spike	Units	% Recovery	Lower Limit	Upper Limit		Passed Q
1474675-11		September 03, 2015		••		
Aroclor 1260	ug/L	105	50	150		ye
1474735-2	ug/L	September 03, 2015	00	100		yc
Aroclor 1260	ua/l	107	50	150		VC
Arocior 1260	ug/L	107	50	150		ye
olychlorinated Biphe	nyls - Wate	r -				
Surrogate Blanks	Units	Measured	Lower Limit	Upper Limit		Passed Q
1474675-16		September 03, 2015				
Decachlorobiphenyl	%	85.9995	50	150		ye
1474735-16	, -	September 03, 2015		.50		, ,
Decachlorobiphenyl	%	90.1505	50	150		ye



Lot ID: 1091627

C0009013

Sep 2, 2015

Dec 23, 2015

Control Number:

Date Received:

Date Reported:

Report Number: 2071646

Quality Control

Bill To: SILA Remediation Project:

Report To: SILA Remediation ID: KIRIK12

250-1260 Boul Lebourgneuf Name:

Quebec, QC, Canada Location: Cambridge Bay
G2K 2G2 LSD: CAM-M
Attn: Jean-Pierre Pelletier P.O.: 20433

Sampled By: A. Passalis Acct code:

Company: Sila

Surrogate - Continued

Polychlorinated Biphenyls - Water -

Blanks Units Measured Lower Limit Upper Limit Passed QC

Samples and Related Quality Checks

1091627-1

BTEX-CCME - Soil

 Spike
 1474420-2

 Spike
 1474420-4

 Duplicate - Cli
 1474420-5

 Calibration Ck
 1474420-16

 Blank
 1474420-17

Metals ICP (Hot Block) in soil

 Internal Std
 1474411-1

 Blank
 1474411-2

 Internal Std
 1474411-3

 Duplicate - Cli
 1474411-4

 Duplicate - Cli
 1474411-21

PCB - Soil

 Calibration Ck
 1474435-1

 Blank
 1474435-2

 Spike
 1474435-4

 Duplicate - Cli
 1474435-5

TEH-CCME-Soil (Shake)

 Spike
 1474419-2

 Duplicate - Cli
 1474419-3

 Calibration Ck
 1474419-14

 Blank
 1474419-15

1091627-2

BTEX-CCME - Soil

 Spike
 1474420-2

 Spike
 1474420-4

 Duplicate - Cli
 1474420-5

 Calibration Ck
 1474420-16

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Blank	1474420-17
Metals ICP (Hot Block) in soil	
Internal Std	1474411-1
Blank	1474411-2
Internal Std	1474411-3
Duplicate - Cli	1474411-4
Duplicate - Cli	1474411-21
PCB - Soil	
Calibration Ck	1474435-1
Blank	1474435-2
Spike	1474435-4
Duplicate - Cli	1474435-5
TEH-CCME-Soil (Shake)	
Spike	1474419-2
Duplicate - Cli	1474419-3
Calibration Ck	1474419-14
Blank	1474419-15
1091627-3	
BTEX-CCME - Soil	
Spike	1474420-2
Spike	1474420-4
Duplicate - Cli	1474420-5
Calibration Ck	1474420-16
Blank	1474420-17
Metals ICP (Hot Block) in soil	
Internal Std	1474411-1
Blank	1474411-2
Internal Std	1474411-3
Duplicate - Cli	1474411-4
Duplicate - Cli	1474411-21
PCB - Soil	
Calibration Ck	1474435-1
Blank	1474435-2
Spike	1474435-4
Duplicate - Cli	1474435-5
TEH-CCME-Soil (Shake)	
Spike	1474419-2
Duplicate - Cli	1474419-3
Calibration Ck	1474419-14
Blank	1474419-15
1091627-4	
BTEX-CCME - Soil	
Spike	1474420-2
Spike	1474420-4
Duplicate - Cli	1474420-5
Calibration Ck	1474420-16

Blank	1474420-17
Metals ICP (Hot Block) in soil	
Internal Std	1474411-1
Blank	1474411-2
Internal Std	1474411-3
Duplicate - Cli	1474411-21
PCB - Soil	
Calibration Ck	1474435-1
Blank	1474435-2
Spike	1474435-4
Duplicate - Cli	1474435-5
TEH-CCME-Soil (Shake)	
Spike	1474419-2
Duplicate - Cli	1474419-3
Calibration Ck	1474419-14
Blank	1474419-15
1091627-5	
BTEX-CCME - Soil	
Spike	1474420-2
Spike	1474420-4
Duplicate - Cli	1474420-5
Calibration Ck	1474420-16
Blank	1474420-17
Metals ICP (Hot Block) in soil	
Internal Std	1474411-1
Blank	1474411-2
Internal Std	1474411-3
Duplicate - Cli	1474411-21
PCB - Soil	
Calibration Ck	1474435-1
Blank	1474435-2
Spike	1474435-4
Duplicate - Cli	1474435-5
TEH-CCME-Soil (Shake)	
Spike	1474419-2
Duplicate - Cli	1474419-3
Calibration Ck	1474419-14
Blank	1474419-15
1091627-6	
BTEX-CCME - Soil	
Spike	1474420-2
Spike	1474420-4
Duplicate - Cli	1474420-5
Calibration Ck	1474420-16
Blank	1474420-17
Metals ICP (Hot Block) in soil	

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Internal Std	1474413-1	Paç
Blank	1474413-2	
Internal Std	1474413-3	
Duplicate - Cli	1474413-4	
Duplicate - Cli	1474413-21	
PCB - Soil	1474410 21	
Calibration Ck	1474435-1	
Blank	1474435-2	
Spike	1474435-4	
Duplicate - Cli	1474435-5	
TEH-CCME-Soil (Shake)	1111166 6	
Spike	1474419-2	
Duplicate - Cli	1474419-3	
Calibration Ck	1474419-14	
Blank	1474419-15	
1091627-7		
BTEX-CCME - Soil		
Spike	1474420-2	
Spike	1474420-4	
Duplicate - Cli	1474420-5	
Calibration Ck	1474420-16	
Blank	1474420-17	
Metals ICP (Hot Block) in soil	1474420 17	
Internal Std	1474413-1	
Blank	1474413-2	
Internal Std	1474413-3	
Duplicate - Cli	1474413-4	
Duplicate - Cli	1474413-21	
PCB - Soil	•	
Calibration Ck	1474435-1	
Blank	1474435-2	
Spike	1474435-4	
Duplicate - Cli	1474435-5	
TEH-CCME-Soil (Shake)		
Spike	1474419-2	
Duplicate - Cli	1474419-3	
Calibration Ck	1474419-14	
Blank	1474419-15	
1091627-8		
BTEX-CCME - Soil		
Spike	1474420-2	
Spike	1474420-4	
Duplicate - Cli	1474420-5	
Calibration Ck	1474420-16	
Blank	1474420-17	
Metals ICP (Hot Block) in soil		

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Internal Std	1474413-1	Page
Blank	1474413-2	
Internal Std	1474413-3	
Duplicate - Cli	1474413-4	
Duplicate - Cli	1474413-21	
PCB - Soil		
Calibration Ck	1474435-1	
Blank	1474435-2	
Spike	1474435-4	
Duplicate - Cli	1474435-5	
TEH-CCME-Soil (Shake)		
Spike	1474419-2	
Duplicate - Cli	1474419-3	
Calibration Ck	1474419-14	
Blank	1474419-15	
1091627-9		
BTEX-CCME - Soil		
Spike	1474420-2	
Spike	1474420-4	
Duplicate - Cli	1474420-5	
Calibration Ck	1474420-16	
Blank	1474420-17	
Metals ICP (Hot Block) in soil		
Internal Std	1474413-1	
Blank	1474413-2	
Internal Std	1474413-3	
Duplicate - Cli	1474413-4	
Duplicate - Cli	1474413-21	
PCB - Soil		
Calibration Ck	1474435-1	
Blank	1474435-2	
Spike	1474435-4	
Duplicate - Cli	1474435-5	
TEH-CCME-Soil (Shake)		
Spike	1474419-2	
Duplicate - Cli	1474419-3	
Calibration Ck	1474419-14	
Blank	1474419-15	
1091627-10		
BTEX-CCME - Soil		
Spike	1474420-2	
Spike	1474420-4	
Duplicate - Cli	1474420-5	
Calibration Ck	1474420-16	
Blank	1474420-17	
Metals ICP (Hot Block) in soil		

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		Page
Internal Std	1474413-1	. 49
Blank	1474413-2	
Internal Std	1474413-3	
Duplicate - Cli	1474413-4	
Duplicate - Cli	1474413-21	
PCB - Soil		
Calibration Ck	1474435-1	
Blank	1474435-2	
Spike	1474435-4	
Duplicate - Cli	1474435-5	
TEH-CCME-Soil (Shake)		
Spike	1474419-2	
Duplicate - Cli	1474419-3	
Calibration Ck	1474419-14	
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1091627-11		
BTEX-CCME - Soil		
Spike	1474422-2	
Spike	1474422-4	
Duplicate - Cli	1474422-5	
Calibration Ck	1474422-16	
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Metals ICP (Hot Block) in soil		
Internal Std	1474413-1	
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Internal Std	1474413-3	
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PCB - Soil	•	
Calibration Ck	1474436-1	
Blank	1474436-2	
Spike	1474436-4	
Duplicate - Cli	1474436-5	
TEH-CCME-Soil (Shake)		
Spike	1474421-2	
Duplicate - Cli	1474421-3	
Calibration Ck	1474421-14	
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1091627-12		
BTEX-CCME - Soil		
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Metals ICP (Hot Block) in soil		

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Internal Std	1474413-1	
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PCB - Soil		
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Spike	1474436-4	
Duplicate - Cli	1474436-5	
TEH-CCME-Soil (Shake)		
Spike	1474421-2	
Duplicate - Cli	1474421-3	
Calibration Ck	1474421-14	
Blank	1474421-15	
1091627-13		
BTEX-CCME - Soil		
Spike	1474422-2	
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Duplicate - Cli	1474422-5	
Calibration Ck	1474422-16	
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Metals ICP (Hot Block) in soil		
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Internal Std	1474413-3	
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Duplicate - Cli	1474413-21	
PCB - Soil		
Calibration Ck	1474436-1	
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Spike	1474436-4	
Duplicate - Cli	1474436-5	
TEH-CCME-Soil (Shake)		
Spike	1474421-2	
Duplicate - Cli	1474421-3	
Calibration Ck	1474421-14	
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1091627-14		
BTEX-CCME - Soil		
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Duplicate - Cli	1474422-5	
Calibration Ck	1474422-16	
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Metals ICP (Hot Block) in soil		

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Internal Std	1474413-1	Pa
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Duplicate - Cli	1474413-4	
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PCB - Soil		
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Spike	1474436-4	
Duplicate - Cli	1474436-5	
TEH-CCME-Soil (Shake)		
Spike	1474421-2	
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Calibration Ck	1474421-14	
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1091627-15		
BTEX-CCME - Soil		
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Metals ICP (Hot Block) in soil		
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PCB - Soil		
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Spike	1474436-4	
Duplicate - Cli	1474436-5	
TEH-CCME-Soil (Shake)		
Spike	1474421-2	
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Calibration Ck	1474421-14	
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1091627-16		
BTEX-CCME - Soil		
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Metals ICP (Hot Block) in soil		

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Internal Std	1474413-1
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Spike	1474421-2
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Calibration Ck	1474421-14
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1091627-17	
BTEX-CCME - Soil	
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Spike	1474436-4
Duplicate - Cli	1474436-5
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Spike	1474421-2
Duplicate - Cli	1474421-3
Calibration Ck	1474421-14
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1091627-18	
BTEX-CCME - Soil	
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Duplicate - Cli	1474422-5
Calibration Ck	1474422-16
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Metals ICP (Hot Block) in soil	

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Internal Std	1474413-1
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PCB - Soil	
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Spike	1474421-2
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Calibration Ck	1474421-14
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1091627-19	
BTEX-CCME - Soil	
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Calibration Ck	1474421-14
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1091627-20	
BTEX-CCME - Soil	
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Spike	1474422-4
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Calibration Ck	1474422-16
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Metals ICP (Hot Block) in soil	

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Calibration Ck	1474421-14	
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BTEX-CCME - Soil		
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Metals ICP (Hot Block) in soil		
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Duplicate - Cli	1474437-5	
TEH-CCME-Soil (Shake)		
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Calibration Ck	1474423-14	
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1091627-22		
BTEX-CCME - Soil		
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Calibration Ck	1474424-16	
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Metals ICP (Hot Block) in soil		

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PCB - Soil	4.474.407.4	
Calibration Ck	1474437-1	
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1091627-23		
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Metals ICP (Hot Block) in soil		
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TEH-CCME-Soil (Shake)		
Spike	1474423-2	
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Calibration Ck	1474423-14	
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1091627-24		
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Metals ICP (Hot Block) in soil	4474444	
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Internal Std	1474414-3	Page
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PCB - Soil		
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Calibration Ck	1474423-14	
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1091627-25		
BTEX-CCME - Soil		
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Calibration Ck	1474424-16	
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Duplicate - Cli	1474437-5	
TEH-CCME-Soil (Shake)		
Spike	1474423-2	
Duplicate - Cli	1474423-3	
Calibration Ck	1474423-14	
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1091627-26		
BTEX-CCME - Soil		
Spike	1474424-2	
Spike	1474424-4	
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Calibration Ck	1474424-16	
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Metals ICP (Hot Block) in soil		
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PCB - Soil		
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TEH-CCME-Soil (Shake)		
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Calibration Ck	1474423-14	
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1091627-27		
BTEX-CCME - Soil		
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Metals ICP (Hot Block) in soil		
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TEH-CCME-Soil (Shake)		
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Calibration Ck	1474423-14	
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1091627-28		
BTEX-CCME - Soil		
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Duplicate - Cli	1474424-5	
Calibration Ck	1474424-16	
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Metals ICP (Hot Block) in soil		
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PCB - Soil		
Calibration Ck	1474437-1	
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Spike	1474437-4	
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TEH-CCME-Soil (Shake)		
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Calibration Ck	1474423-14	
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1091627-29		
BTEX-CCME - Soil		
Spike	1474424-2	
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Duplicate - Cli	1474424-5	
Calibration Ck	1474424-16	
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Metals ICP (Hot Block) in soil		
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PCB - Soil		
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Duplicate - Cli	1474437-5	
TEH-CCME-Soil (Shake)		
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Duplicate - Cli	1474423-3	
Calibration Ck	1474423-14	
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1091627-30		
BTEX-CCME - Soil		
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Duplicate - Cli	1474424-5	
Calibration Ck	1474424-16	
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Metals ICP (Hot Block) in soil		
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Duplicate - Cli	1474414-4	
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PCB - Soil		
Calibration Ck	1474437-1	
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Calibration Ck	1474423-14	
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1091627-31		
BTEX-CCME - Soil		
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Duplicate - Cli	1474426-5	
Calibration Ck	1474426-16	
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Metals ICP (Hot Block) in soil	147 4420-17	
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PCB - Soil	17777721	
Calibration Ck	1474438-1	
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Spike	1474438-4	
Duplicate - Cli	1474438-5	
TEH-CCME-Soil (Shake)	147 4430-3	
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Duplicate - Cli	1474425-3	
Calibration Ck	1474425-14	
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1091627-32	1474420 10	
BTEX-CCME - Soil	4.474.400.0	
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Metals ICP (Hot Block) in soil	4.474.4.4	
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Calibration Ck	1474438-1	
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Duplicate - Cli	1474438-5	
TEH-CCME-Soil (Shake)		
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Duplicate - Cli	1474425-3	
Calibration Ck	1474425-14	
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1091627-33		
BTEX-CCME - Soil		
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Calibration Ck	1474426-16	
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PCB - Soil		
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TEH-CCME-Soil (Shake)		
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Duplicate - Cli	1474425-3	
Calibration Ck	1474425-14	
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1091627-34		
BTEX-CCME - Soil		
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Calibration Ck	1474426-16	
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Metals ICP (Hot Block) in soil		
Internal Std	1474414-1	
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Calibration Ck	1474438-1	
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Calibration Ck	1474425-14	
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BTEX-CCME - Soil		
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Calibration Ck	1474426-16	
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Metals ICP (Hot Block) in soil	1474420-17	
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PCB - Soil	14/44/4-21	
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BTEX-CCME - Soil		
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Duplicate - Cli	1474426-5	
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Metals ICP (Hot Block) in soil	1474420-17	
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Internal Std	1474414-3	· ·
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PCB - Soil		
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TEH-CCME-Soil (Shake)		
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Calibration Ck	1474425-14	
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1091627-37		
BTEX-CCME - Soil		
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PCB - Soil		
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Spike	1474438-4	
Duplicate - Cli	1474438-5	
TEH-CCME-Soil (Shake)		
Spike	1474425-2	
Duplicate - Cli	1474425-3	
Calibration Ck	1474425-14	
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1091627-38		
BTEX-CCME - Soil		
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Metals ICP (Hot Block) in soil		
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Internal Std	1474414-3	
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PCB - Soil		
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Duplicate - Cli	1474438-5	
TEH-CCME-Soil (Shake)		
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Calibration Ck	1474425-14	
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1091627-39		
BTEX-CCME - Soil		
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Duplicate - Cli	1474426-5	
Calibration Ck	1474426-16	
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Metals ICP (Hot Block) in soil		
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PCB - Soil		
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Spike	1474438-4	
Duplicate - Cli	1474438-5	
TEH-CCME-Soil (Shake)		
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Duplicate - Cli	1474425-3	
Calibration Ck	1474425-14	
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1091627-40		
BTEX-CCME - Soil		
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Spike	1474426-4	
Duplicate - Cli	1474426-5	
Calibration Ck	1474426-16	
Blank	1474426-17	
Metals ICP (Hot Block) in soil	1717720 11	
Internal Std	1474414-1	
Blank	1474414-2	
DIATIK	1414414-2	

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	Internal Std	1474414 2	Page
		1474414-3 1474414-21	
	Duplicate - Cli PCB - Soil	1474414-21	
	Calibration Ck	1474438-1	
	Blank	1474438-2	
	Spike	1474438-4	
	Duplicate - Cli	1474438-5	
	TEH-CCME-Soil (Shake)	147 4430-3	
	Spike	1474425-2	
	Duplicate - Cli	1474425-3	
	Calibration Ck	1474425-14	
	Blank	1474425-15	
100	1627-41	1474420 10	
109			
	BTEX-CCME - Soil	4474400 0	
	Spike	1474429-2	
	Spike	1474429-4	
	Duplicate - Cli	1474429-5	
	Calibration Ck	1474429-16	
	Blank	1474429-17	
	Metals ICP (Hot Block) in soil	4474444	
	Internal Std	1474414-1	
	Blank	1474414-2	
	Internal Std	1474414-3	
	Duplicate - Cli	1474414-21	
	PCB - Soil	4.474.420.4	
	Calibration Ck	1474439-1	
	Blank	1474439-2	
	Spike	1474439-4	
	Duplicate - Cli TEH-CCME-Soil (Shake)	1474439-5	
	, ,	1474428-2	
	Spike Duplicate - Cli	1474428-3	
	Calibration Ck	1474428-14	
	Blank	1474428-15	
400		147 4420-13	
109	1627-42		
	BTEX-CCME - Soil	4.74.400.0	
	Spike	1474429-2	
	Spike	1474429-4	
	Duplicate - Cli	1474429-5	
	Calibration Ck	1474429-16	
	Blank	1474429-17	
	Metals ICP (Hot Block) in soil	4474447.4	
	Internal Std	1474417-1	
	Blank	1474417-2	
	Internal Std	1474417-3	
	Duplicate - Cli	1474417-4	

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Duplicate - Cli	1474417-21
PCB - Soil	
Calibration Ck	1474439-1
Blank	1474439-2
Spike	1474439-4
Duplicate - Cli	1474439-5
TEH-CCME-Soil (Shake)	
Spike	1474428-2
Duplicate - Cli	1474428-3
Calibration Ck	1474428-14
Blank	1474428-15
1091627-43	
BTEX-CCME - Soil	
Spike	1474429-2
Spike	1474429-4
Duplicate - Cli	1474429-5
Calibration Ck	1474429-16
Blank	1474429-17
Metals ICP (Hot Block) in soil	
Internal Std	1474417-1
Blank	1474417-2
Internal Std	1474417-3
Duplicate - Cli	1474417-4
Duplicate - Cli	1474417-21
PCB - Soil	1717711 21
Calibration Ck	1474439-1
Blank	1474439-2
Spike	1474439-4
Duplicate - Cli	1474439-5
TEH-CCME-Soil (Shake)	1474400 0
Spike	1474428-2
Duplicate - Cli	1474428-3
Calibration Ck	1474428-14
Blank	1474428-15
1091627-44	1474420-13
BTEX-CCME - Soil	4.7.4.00
Spike	1474429-2
Spike	1474429-4
Duplicate - Cli	1474429-5
Calibration Ck	1474429-16
Blank	1474429-17
Metals ICP (Hot Block) in soil	
Internal Std	1474417-1
Blank	1474417-2
Internal Std	1474417-3
Duplicate - Cli	1474417-4

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Duplicate - Cli	1474417-21
PCB - Soil	
Calibration Ck	1474439-1
Blank	1474439-2
Spike	1474439-4
Duplicate - Cli	1474439-5
TEH-CCME-Soil (Shake)	
Spike	1474428-2
Duplicate - Cli	1474428-3
Calibration Ck	1474428-14
Blank	1474428-15
1091627-45	
BTEX-CCME - Soil	
Spike	1474429-2
Spike	1474429-4
Duplicate - Cli	1474429-5
Calibration Ck	1474429-16
Blank	1474429-17
Metals ICP (Hot Block) in soil	
Internal Std	1474417-1
Blank	1474417-2
Internal Std	1474417-3
Duplicate - Cli	1474417-4
Duplicate - Cli	1474417-21
PCB - Soil	
Calibration Ck	1474439-1
Blank	1474439-2
Spike	1474439-4
Duplicate - Cli	1474439-5
TEH-CCME-Soil (Shake)	
Spike	1474428-2
Duplicate - Cli	1474428-3
Calibration Ck	1474428-14
Blank	1474428-15
1091627-46	
BTEX-CCME - Soil	
Spike	1474429-2
Spike	1474429-4
Duplicate - Cli	1474429-5
Calibration Ck	1474429-16
Blank	1474429-17
Metals ICP (Hot Block) in soil	
Internal Std	1474417-1
Blank	1474417-2
Internal Std	1474417-3
Duplicate - Cli	1474417-4
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Duplicate Cli	1474417 04
Duplicate - Cli PCB - Soil	1474417-21
Calibration Ck	1474439-1
Blank	1474439-1
Spike	1474439-4
Duplicate - Cli	1474439-5
TEH-CCME-Soil (Shake)	4.474.400.0
Spike	1474428-2
Duplicate - Cli	1474428-3
Calibration Ck	1474428-14
Blank	1474428-15
1091627-47	
BTEX-CCME - Soil	
Spike	1474429-2
Spike	1474429-4
Duplicate - Cli	1474429-5
Calibration Ck	1474429-16
Blank	1474429-17
Metals ICP (Hot Block) in soil	
Internal Std	1474417-1
Blank	1474417-2
Internal Std	1474417-3
Duplicate - Cli	1474417-4
Duplicate - Cli	1474417-21
PCB - Soil	
Calibration Ck	1474439-1
Blank	1474439-2
Spike	1474439-4
Duplicate - Cli	1474439-5
TEH-CCME-Soil (Shake)	
Spike	1474428-2
Duplicate - Cli	1474428-3
Calibration Ck	1474428-14
Blank	1474428-15
1091627-48	
BTEX-CCME - Soil	
Spike	1474429-2
Spike	1474429-4
Duplicate - Cli	1474429-5
Calibration Ck	1474429-16
Blank	1474429-17
Metals ICP (Hot Block) in soil	
Internal Std	1474417-1
Blank	1474417-2
Internal Std	1474417-3
Duplicate - Cli	1474417-4
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Duplicate - Cli	1474417-21	
PCB - Soil		
Calibration Ck	1474439-1	
Blank	1474439-2	
Spike	1474439-4	
Duplicate - Cli	1474439-5	
TEH-CCME-Soil (Shake)		
Spike	1474428-2	
Duplicate - Cli	1474428-3	
Calibration Ck	1474428-14	
Blank	1474428-15	
1091627-49		
BTEX-CCME - Soil		
Spike	1474429-2	
Spike	1474429-4	
Duplicate - Cli	1474429-5	
Calibration Ck	1474429-16	
Blank	1474429-17	
Metals ICP (Hot Block) in soil		
Internal Std	1474417-1	
Blank	1474417-2	
Internal Std	1474417-3	
Duplicate - Cli	1474417-4	
Duplicate - Cli	1474417-21	
PCB - Soil		
Calibration Ck	1474439-1	
Blank	1474439-2	
Spike	1474439-4	
Duplicate - Cli	1474439-5	
TEH-CCME-Soil (Shake)		
Spike	1474428-2	
Duplicate - Cli	1474428-3	
Calibration Ck	1474428-14	
Blank	1474428-15	
1091627-50		
BTEX-CCME - Soil		
Spike	1474429-2	
Spike	1474429-4	
Duplicate - Cli	1474429-5	
Calibration Ck	1474429-16	
Blank	1474429-17	
Metals ICP (Hot Block) in soil		
Internal Std	1474417-1	
Blank	1474417-2	
Internal Std	1474417-3	
Duplicate - Cli	1474417-4	

Duplicate - Cli	1474417-21
PCB - Soil	
Calibration Ck	1474439-1
Blank	1474439-2
Spike	1474439-4
Duplicate - Cli	1474439-5
TEH-CCME-Soil (Shake)	
Spike	1474428-2
Duplicate - Cli	1474428-3
Calibration Ck	1474428-14
Blank	1474428-15
1091627-51	
BTEX-CCME - Soil	
Spike	1474432-2
Spike	1474432-4
Duplicate - Cli	1474432-5
Calibration Ck	1474432-16
Blank	1474432-17
Metals ICP (Hot Block) in soil	
Internal Std	1474417-1
Blank	1474417-2
Internal Std	1474417-3
Duplicate - Cli	1474417-4
Duplicate - Cli	1474417-21
PCB - Soil	
Calibration Ck	1474440-1
Blank	1474440-2
Spike	1474440-4
Duplicate - Cli	1474440-5
TEH-CCME-Soil (Shake)	
Spike	1474430-2
Duplicate - Cli	1474430-3
1091627-52	
BTEX-CCME - Soil	
Spike	1474432-2
Spike	1474432-4
Duplicate - Cli	1474432-5
Calibration Ck	1474432-16
Blank	1474432-17
Metals ICP (Hot Block) in soil	
Internal Std	1474417-1
Blank	1474417-2
Internal Std	1474417-3
Duplicate - Cli	1474417-4
Duplicate - Cli	1474417-21
PCB - Soil	

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Calibration Ck	1474440-1
Blank	1474440-2
Spike	1474440-4
Duplicate - Cli	1474440-5
TEH-CCME-Soil (Shake)	
Spike	1474430-2
Duplicate - Cli	1474430-3
1091627-53	
BTEX-CCME - Soil	
Spike	1474432-2
Spike	1474432-4
Duplicate - Cli	1474432-5
Calibration Ck	1474432-16
Blank	1474432-17
Metals ICP (Hot Block) in soil	
Internal Std	1474417-1
Blank	1474417-2
Internal Std	1474417-3
Duplicate - Cli	1474417-4
Duplicate - Cli	1474417-21
PCB - Soil	
Calibration Ck	1474440-1
Blank	1474440-2
Spike	1474440-4
Duplicate - Cli	1474440-5
TEH-CCME-Soil (Shake)	
Spike	1474430-2
Duplicate - Cli	1474430-3
1091627-54	
BTEX-CCME - Soil	
Spike	1474432-2
Spike	1474432-4
Duplicate - Cli	1474432-5
Calibration Ck	1474432-16
Blank	1474432-17
Metals ICP (Hot Block) in soil	147 4432 17
Internal Std	1474417-1
Blank	1474417-2
Internal Std	1474417-3
Duplicate - Cli	1474417-4
Duplicate - Cli	1474417-21
PCB - Soil	17/77// 21
Calibration Ck	1474440-1
Blank	1474440-2
Spike	1474440-4
Duplicate - Cli	1474440-5
Daphoato On	17177 7 0 0

TEH-CCME-Soil (Shake)	
Spike	1474430-2
Duplicate - Cli	1474430-3
1091627-55	
BTEX-CCME - Soil	
Spike	1474432-2
Spike	1474432-4
Duplicate - Cli	1474432-5
Calibration Ck	1474432-16
Blank	1474432-17
Metals ICP (Hot Block) in soil	
Internal Std	1475663-1
Blank	1475663-2
Internal Std	1475663-3
Duplicate - Cli	1475663-21
Duplicate - Cli	1475663-38
Internal Std	1475663-40
Blank	1475663-41
Internal Std	1475663-42
PCB - Soil	
Calibration Ck	1474440-1
Blank	1474440-2
Spike	1474440-4
Duplicate - Cli	1474440-5
TEH-CCME-Soil (Shake)	
Spike	1474430-2
Duplicate - Cli	1474430-3
1091627-56	
BTEX-CCME - Soil	
Spike	1474432-2
Spike	1474432-4
Duplicate - Cli	1474432-5
Calibration Ck	1474432-16
Blank	1474432-17
Metals ICP (Hot Block) in soil	
Internal Std	1474417-1
Blank	1474417-2
Internal Std	1474417-3
Duplicate - Cli	1474417-4
Duplicate - Cli	1474417-21
PCB - Soil	
Calibration Ck	1474440-1
Blank	1474440-2
Spike	1474440-4
Duplicate - Cli	1474440-5
TEH-CCME-Soil (Shake)	

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Spike	1474430-2
Duplicate - Cli	1474430-3
1091627-57	1474430-3
BTEX-CCME - Soil	
Spike	1474432-2
Spike	1474432-4
Duplicate - Cli	1474432-5
Calibration Ck	1474432-16
Blank	1474432-17
Metals ICP (Hot Block) in soil	
Internal Std	1474417-1
Blank	1474417-2
Internal Std	1474417-3
Duplicate - Cli	1474417-4
Duplicate - Cli	1474417-21
PCB - Soil	
Calibration Ck	1474440-1
Blank	1474440-2
Spike	1474440-4
Duplicate - Cli	1474440-5
TEH-CCME-Soil (Shake)	
Spike	1474430-2
Duplicate - Cli	1474430-3
1091627-58	
BTEX-CCME - Soil	
Spike	1474432-2
Spike	1474432-4
Duplicate - Cli	1474432-5
Calibration Ck	1474432-16
Blank	1474432-17
Metals ICP (Hot Block) in soil	
Internal Std	1474417-1
Blank	1474417-2
Internal Std	1474417-3
Duplicate - Cli	1474417-21
PCB - Soil	
Calibration Ck	1474440-1
Blank	1474440-2
Spike	1474440-4
Duplicate - Cli	1474440-5
TEH-CCME-Soil (Shake)	
Spike	1474430-2
Duplicate - Cli	1474430-3
1091627-59	
BTEX-CCME - Soil	
Spike	1474432-2

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Spike	1474432-4	Page 12
Duplicate - Cli	1474432-5	
Calibration Ck	1474432-16	
Blank	1474432-17	
Metals ICP (Hot Block) in soil		
Internal Std	1474417-1	
Blank	1474417-2	
Internal Std	1474417-3	
Duplicate - Cli	1474417-21	
PCB - Soil		
Calibration Ck	1474440-1	
Blank	1474440-2	
Spike	1474440-4	
Duplicate - Cli	1474440-5	
TEH-CCME-Soil (Shake)		
Spike	1474430-2	
Duplicate - Cli	1474430-3	
1091627-60		
BTEX-CCME - Soil		
Spike	1474432-2	
Spike	1474432-4	
Duplicate - Cli	1474432-5	
Calibration Ck	1474432-16	
Blank	1474432-17	
Metals ICP (Hot Block) in soil		
Internal Std	1474573-1	
Blank	1474573-2	
Internal Std	1474573-3	
Duplicate - Cli	1474573-21	
PCB - Soil		
Calibration Ck	1474440-1	
Blank	1474440-2	
Spike	1474440-4	
Duplicate - Cli	1474440-5	
TEH-CCME-Soil (Shake)		
Spike	1474430-2	
Duplicate - Cli	1474430-3	
1091627-61		
BTEX-CCME - Water		
Spike	1474732-2	
Duplicate - Cli	1474732-3	
Calibration Ck	1474732-14	
Blank	1474732-15	
Calibration Ck	1474732-16	
Mercury (Total) in water		
Internal Std	1476552-4	
		

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Blank	1476552-5	Page 12
Duplicate - Cli	1476552-23	
Internal Std	1476552-28	
Internal Std	1476552-29	
Internal Std	1476552-30	
Duplicate - Cli	1476552-43	
Internal Std	1476552-52	
Internal Std	1476552-53	
Internal Std	1476552-54	
Metals ICP-MS (Total) in water	147 0032-04	
Internal Std	1474885-4	
Blank	1474885-5	
Duplicate - Cli	1474885-17	
Internal Std	1474885-27	
Internal Std	1474885-28	
Internal Std	1474885-29	
Duplicate - Cli	1474885-37	
Internal Std	1474885-43	
Blank	1474885-44	
Internal Std	1474885-53	
Internal Std	1474885-54	
Internal Std	1474885-55	
Metals Trace (Total) in water		
Internal Std	1474882-1	
Internal Std	1474882-2	
Internal Std	1474882-3	
Internal Std	1474882-4	
Blank	1474882-5	
Duplicate - Cli	1474882-16	
Duplicate - Cli	1474882-32	
Internal Std	1474882-42	
Blank	1474882-43	
PCB - Water		
Spike	1474675-11	
Int. Duplicate	1474675-13	
Calibration Ck	1474675-15	
Blank	1474675-16	
TEH-CCME - Water		
Spike	1474727-2	
Int. Duplicate	1474727-4	
Calibration Ck	1474727-15	
Blank	1474727-16	
1091627-62		
BTEX-CCME - Water		
Spike	1474732-2	
Duplicate - Cli	1474732-3	
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Calibration Ck	1474732-14
Blank	1474732-15
Calibration Ck	1474732-16
Mercury (Total) in water	
Internal Std	1476552-4
Blank	1476552-5
Duplicate - Cli	1476552-23
Internal Std	1476552-28
Internal Std	1476552-29
Internal Std	1476552-30
Duplicate - Cli	1476552-43
Internal Std	1476552-52
Internal Std	1476552-53
Internal Std	1476552-54
Metals ICP-MS (Total) in water	
Internal Std	1474885-4
Blank	1474885-5
Duplicate - Cli	1474885-17
Internal Std	1474885-27
Internal Std	1474885-28
Internal Std	1474885-29
Duplicate - Cli	1474885-37
Internal Std	1474885-43
Blank	1474885-44
Internal Std	1474885-53
Internal Std	1474885-54
Internal Std	1474885-55
Metals Trace (Total) in water	
Internal Std	1474882-1
Internal Std	1474882-2
Internal Std	1474882-3
Internal Std	1474882-4
Blank	1474882-5
Duplicate - Cli	1474882-16
Duplicate - Cli	1474882-32
Internal Std	1474882-42
Blank	1474882-43
PCB - Water	1474002-43
	1474675-11
Spike	
Int. Duplicate	1474675-13
Calibration Ck	1474675-15
Blank	1474675-16
TEH-CCME - Water	4.47.4707.0
Spike	1474727-2
Int. Duplicate	1474727-4
Calibration Ck	1474727-15
Blank	1474727-16

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BTEX-CCME - Water	
Spike	1474732-2
Duplicate - Cli	1474732-3
Calibration Ck	1474732-14
Blank	1474732-15
Calibration Ck	1474732-16
Mercury (Total) in water	
Internal Std	1476552-4
Blank	1476552-5
Duplicate - Cli	1476552-23
Internal Std	1476552-28
Internal Std	1476552-29
Internal Std	1476552-30
Duplicate - Cli	1476552-43
Internal Std	1476552-52
Internal Std	1476552-53
Internal Std	1476552-54
Metals ICP-MS (Total) in water	
Internal Std	1474885-4
Blank	1474885-5
Duplicate - Cli	1474885-17
Internal Std	1474885-27
Internal Std	1474885-28
Internal Std	1474885-29
Duplicate - Cli	1474885-37
Internal Std	1474885-43
Blank	1474885-44
Internal Std	1474885-53
Internal Std	1474885-54
Internal Std	1474885-55
Metals Trace (Total) in water	
Internal Std	1474882-1
Internal Std	1474882-2
Internal Std	1474882-3
Internal Std	1474882-4
Blank	1474882-5
Duplicate - Cli	1474882-16
Duplicate - Cli	1474882-32
Internal Std	1474882-42
Blank	1474882-43
PCB - Water	
Spike	1474675-11
Int. Duplicate	1474675-13
Calibration Ck	1474675-15
Blank	1474675-16
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TEH-CCME - Water	
Spike	1474727-2
Int. Duplicate	1474727-4
Calibration Ck	1474727-15
Blank	1474727-16
1091627-64	
BTEX-CCME - Water	
Spike	1474732-2
Duplicate - Cli	1474732-3
Calibration Ck	1474732-14
Blank	1474732-15
Calibration Ck	1474732-16
Mercury (Total) in water	
Internal Std	1476552-4
Blank	1476552-5
Duplicate - Cli	1476552-23
Internal Std	1476552-28
Internal Std	1476552-29
Internal Std	1476552-30
Duplicate - Cli	1476552-43
Internal Std	1476552-52
Internal Std	1476552-53
Internal Std	1476552-54
Metals ICP-MS (Total) in water	
Internal Std	1474885-4
Blank	1474885-5
Duplicate - Cli	1474885-17
Internal Std	1474885-27
Internal Std	1474885-28
Internal Std	1474885-29
Duplicate - Cli	1474885-37
Internal Std	1474885-43
Blank	1474885-44
Internal Std	1474885-53
Internal Std	1474885-54
Internal Std	1474885-55
Metals Trace (Total) in water	
Internal Std	1474882-1
Internal Std	1474882-2
Internal Std	1474882-3
Internal Std	1474882-4
Blank	1474882-5
Duplicate - Cli	1474882-32
Internal Std	1474882-42
Blank	1474882-43
Duplicate - Cli	1474882-50

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PCB - Water	
Spike	1474675-11
Int. Duplicate	1474675-13
Calibration Ck	1474675-15
Blank	1474675-16
TEH-CCME - Water	111 1010 10
Spike	1474727-2
Int. Duplicate	1474727-4
Calibration Ck	1474727-15
Blank	1474727-16
1091627-65	
BTEX-CCME - Water	4.47.4700.0
Spike	1474732-2
Duplicate - Cli	1474732-3
Calibration Ck	1474732-14
Blank	1474732-15
Calibration Ck	1474732-16
Mercury (Total) in water	
Internal Std	1476552-4
Blank	1476552-5
Duplicate - Cli	1476552-23
Internal Std	1476552-28
Internal Std	1476552-29
Internal Std	1476552-30
Duplicate - Cli	1476552-43
Internal Std	1476552-52
Internal Std	1476552-53
Internal Std	1476552-54
Metals ICP-MS (Total) in water	
Internal Std	1474885-4
Blank	1474885-5
Duplicate - Cli	1474885-17
Internal Std	1474885-27
Internal Std	1474885-28
Internal Std	1474885-29
Duplicate - Cli	1474885-37
Internal Std	1474885-43
Blank	1474885-44
Internal Std	1474885-53
Internal Std	1474885-54
Internal Std	1474885-55
Metals Trace (Total) in water	
Internal Std	1474882-1
Internal Std	1474882-2
Internal Std	1474882-3
Internal Std	1474882-4

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Diami	4.74000 5
Blank	1474882-5
Duplicate - Cli	1474882-32
Internal Std	1474882-42
Blank	1474882-43
Duplicate - Cli	1474882-50
PCB - Water	
Spike	1474675-11
Int. Duplicate	1474675-13
Calibration Ck	1474675-15
Blank	1474675-16
TEH-CCME - Water	4.7.4707.0
Spike	1474727-2
Int. Duplicate	1474727-4
Calibration Ck	1474727-15
Blank	1474727-16
1091627-66	
BTEX-CCME - Water	
Spike	1474732-2
Duplicate - Cli	1474732-3
Calibration Ck	1474732-14
Blank	1474732-15
Calibration Ck	1474732-16
Mercury (Total) in water	
Internal Std	1476552-4
Blank	1476552-5
Duplicate - Cli	1476552-23
Internal Std	1476552-28
Internal Std	1476552-29
Internal Std	1476552-30
Duplicate - Cli	1476552-43
Internal Std	1476552-52
Internal Std	1476552-53
Internal Std	1476552-54
Metals ICP-MS (Total) in water	
Internal Std	1474885-4
Blank	1474885-5
Internal Std	1474885-27
Internal Std	1474885-28
Internal Std	1474885-29
Duplicate - Cli	1474885-37
Internal Std	1474885-43
Blank	1474885-44
Internal Std	1474885-53
Internal Std	1474885-54
Internal Std	1474885-55
Duplicate - Cli	1474885-59

Metals Trace (Total) in water	
Internal Std	1474882-1
Internal Std	1474882-2
Internal Std	1474882-3
Internal Std	1474882-4
Blank	1474882-5
Duplicate - Cli	1474882-32
Internal Std	1474882-42
Blank	1474882-43
Duplicate - Cli	1474882-50
PCB - Water	
Spike	1474675-11
Int. Duplicate	1474675-13
Calibration Ck	1474675-15
Blank	1474675-16
TEH-CCME - Water	
Spike	1474727-2
Int. Duplicate	1474727-4
Calibration Ck	1474727-15
Blank	1474727-16
1091627-67	
BTEX-CCME - Water	
Spike	1474732-2
Duplicate - Cli	1474732-3
Calibration Ck	1474732-14
Blank	1474732-15
Calibration Ck	1474732-16
Mercury (Total) in water	
Internal Std	1476552-4
Blank	1476552-5
Duplicate - Cli	1476552-23
Internal Std	1476552-28
Internal Std	1476552-29
Internal Std	1476552-30
Duplicate - Cli	1476552-43
Internal Std	1476552-52
Internal Std	1476552-53
Internal Std	1476552-54
Metals ICP-MS (Total) in water	
Internal Std	1474885-4
Blank	1474885-5
Internal Std	1474885-27
Internal Std	1474885-28
Internal Std	1474885-29
Duplicate - Cli	1474885-37
Internal Std	1474885-43

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Blank	1474885-44	
Internal Std	1474885-53	
Internal Std	1474885-54	
Internal Std	1474885-55	
Duplicate - Cli	1474885-59	
Metals Trace (Total) in water		
Internal Std	1474882-1	
Internal Std	1474882-2	
Internal Std	1474882-3	
Internal Std	1474882-4	
Blank	1474882-5	
Duplicate - Cli	1474882-32	
Internal Std	1474882-42	
Blank	1474882-43	
Duplicate - Cli	1474882-50	
PCB - Water		
Spike	1474675-11	
Int. Duplicate	1474675-13	
Calibration Ck	1474675-15	
Blank	1474675-16	
TEH-CCME - Water		
Spike	1474727-2	
Int. Duplicate	1474727-4	
Calibration Ck	1474727-15	
Blank	1474727-16	
1091627-68		
BTEX-CCME - Water		
Spike	1474732-2	
Duplicate - Cli	1474732-3	
Calibration Ck	1474732-14	
Blank	1474732-15	
Calibration Ck	1474732-16	
Mercury (Total) in water		
Internal Std	1476552-4	
Blank	1476552-5	
Duplicate - Cli	1476552-23	
Internal Std	1476552-28	
Internal Std	1476552-29	
Internal Std	1476552-30	
Duplicate - Cli	1476552-43	
Internal Std	1476552-52	
Internal Std	1476552-53	
Internal Std	1476552-54	
Metals ICP-MS (Total) in water		
Internal Std	1474885-4	
Blank	1474885-5	

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Internal Std	1474885-27	Page
Internal Std	1474885-28	
Internal Std	1474885-29	
Duplicate - Cli	1474885-37	
Internal Std	1474885-43	
Blank	1474885-44	
Internal Std	1474885-53	
Internal Std	1474885-54	
Internal Std	1474885-55	
Duplicate - Cli	1474885-59	
Metals Trace (Total) in water		
Internal Std	1474882-1	
Internal Std	1474882-2	
Internal Std	1474882-3	
Internal Std	1474882-4	
Blank	1474882-5	
Duplicate - Cli	1474882-32	
Internal Std	1474882-42	
Blank	1474882-43	
Duplicate - Cli	1474882-50	
PCB - Water		
Spike	1474675-11	
Int. Duplicate	1474675-13	
Calibration Ck	1474675-15	
Blank	1474675-16	
TEH-CCME - Water		
Spike	1474727-2	
Int. Duplicate	1474727-4	
Calibration Ck	1474727-15	
Blank	1474727-16	
1091627-69		
BTEX-CCME - Water		
Spike	1474732-2	
Duplicate - Cli	1474732-3	
Calibration Ck	1474732-14	
Blank	1474732-15	
Calibration Ck	1474732-16	
Mercury (Total) in water		
Internal Std	1476552-4	
Blank	1476552-5	
Duplicate - Cli	1476552-23	
Internal Std	1476552-28	
Internal Std	1476552-29	
Internal Std	1476552-30	
Duplicate - Cli	1476552-43	
Internal Std	1476552-52	

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		Page
Internal Std	1476552-53	
Internal Std	1476552-54	
Metals ICP-MS (Total) in water		
Internal Std	1474885-4	
Blank	1474885-5	
Internal Std	1474885-27	
Internal Std	1474885-28	
Internal Std	1474885-29	
Duplicate - Cli	1474885-37	
Internal Std	1474885-43	
Blank	1474885-44	
Internal Std	1474885-53	
Internal Std	1474885-54	
Internal Std	1474885-55	
Duplicate - Cli	1474885-59	
Metals Trace (Total) in water		
Internal Std	1474882-1	
Internal Std	1474882-2	
Internal Std	1474882-3	
Internal Std	1474882-4	
Blank	1474882-5	
Duplicate - Cli	1474882-32	
Internal Std	1474882-42	
Blank	1474882-43	
Duplicate - Cli	1474882-50	
PCB - Water		
Spike	1474675-11	
Int. Duplicate	1474675-13	
Calibration Ck	1474675-15	
Blank	1474675-16	
TEH-CCME - Water		
Spike	1474727-2	
Int. Duplicate	1474727-4	
Calibration Ck	1474727-15	
Blank	1474727-16	
1091627-70		
BTEX-CCME - Water		
Spike	1474732-2	
Duplicate - Cli	1474732-3	
Calibration Ck	1474732-14	
Blank	1474732-15	
Calibration Ck	1474732-16	
Mercury (Total) in water		
Internal Std	1476552-4	
Blank	1476552-5	
Duplicate - Cli	1476552-23	
Dapiloato Oil	117 0002 20	

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		Daga 133 of 13
Internal Std	1476552-28	Page 132 of 13
Internal Std	1476552-29	
Internal Std	1476552-30	
Duplicate - Cli	1476552-43	
Internal Std	1476552-52	
Internal Std	1476552-53	
Internal Std	1476552-54	
Metals ICP-MS (Total) in water		
Internal Std	1474885-4	
Blank	1474885-5	
Internal Std	1474885-27	
Internal Std	1474885-28	
Internal Std	1474885-29	
Duplicate - Cli	1474885-37	
Internal Std	1474885-43	
Blank	1474885-44	
Internal Std	1474885-53	
Internal Std	1474885-54	
Internal Std	1474885-55	
Duplicate - Cli	1474885-59	
Metals Trace (Total) in water		
Internal Std	1474882-1	
Internal Std	1474882-2	
Internal Std	1474882-3	
Internal Std	1474882-4	
Blank	1474882-5	
Duplicate - Cli	1474882-32	
Internal Std	1474882-42	
Blank	1474882-43	
Duplicate - Cli	1474882-50	
PCB - Water		
Spike	1474675-11	
Int. Duplicate	1474675-13	
Calibration Ck	1474675-15	
Blank	1474675-16	
TEH-CCME - Water		
Spike	1474727-2	
Int. Duplicate	1474727-4	
Calibration Ck	1474727-15	
Blank	1474727-16	
1091627-71		
BTEX-CCME - Water		
Spike	1474733-2	
Duplicate - Cli	1474733-3	
Calibration Ck	1474733-14	
Plank	1474733 15	

1474733-15

Blank

Calibration Ck	1474733-16
Mercury (Total) in water	
Internal Std	1476552-4
Blank	1476552-5
Duplicate - Cli	1476552-23
Internal Std	1476552-28
Internal Std	1476552-29
Internal Std	1476552-30
Duplicate - Cli	1476552-43
Internal Std	1476552-52
Internal Std	1476552-53
Internal Std	1476552-54
Metals ICP-MS (Total) in water	
Internal Std	1474885-27
Internal Std	1474885-28
Internal Std	1474885-29
Duplicate - Cli	1474885-37
Internal Std	1474885-43
Blank	1474885-44
Internal Std	1474885-53
Internal Std	1474885-54
Internal Std	1474885-55
Duplicate - Cli	1474885-59
Metals Trace (Total) in water	
Internal Std	1474882-1
Internal Std	1474882-2
Internal Std	1474882-3
Internal Std	1474882-4
Blank	1474882-5
Duplicate - Cli	1474882-32
Internal Std	1474882-42
Blank	1474882-43
Duplicate - Cli	1474882-50
PCB - Water	
Spike	1474735-2
Int. Duplicate	1474735-4
Calibration Ck	1474735-15
Blank	1474735-16
TEH-CCME - Water	
Spike	1474728-2
Int. Duplicate	1474728-4
Calibration Ck	1474728-15
Blank	1474728-16
1091627-72	
BTEX-CCME - Water	
Spike	1474733-2

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Duplicate - Cli	1474733-3
Calibration Ck	1474733-14
Blank	1474733-15
Calibration Ck	1474733-16
Mercury (Total) in water	
Internal Std	1476552-4
Blank	1476552-5
Internal Std	1476552-28
Internal Std	1476552-29
Internal Std	1476552-30
Duplicate - Cli	1476552-43
Internal Std	1476552-52
Internal Std	1476552-53
Internal Std	1476552-54
Metals ICP-MS (Total) in water	
Internal Std	1474885-27
Internal Std	1474885-28
Internal Std	1474885-29
Duplicate - Cli	1474885-37
Internal Std	1474885-43
Blank	1474885-44
Internal Std	1474885-53
Internal Std	1474885-54
Internal Std	1474885-55
Duplicate - Cli	1474885-59
Metals Trace (Total) in water	
Internal Std	1474882-1
Internal Std	1474882-2
Internal Std	1474882-3
Internal Std	1474882-4
Blank	1474882-5
Duplicate - Cli	1474882-32
Internal Std	1474882-42
Blank	1474882-43
Duplicate - Cli	1474882-50
PCB - Water	
Spike	1474735-2
Int. Duplicate	1474735-4
Calibration Ck	1474735-15
Blank	1474735-16
TEH-CCME - Water	
Spike	1474728-2
Int. Duplicate	1474728-4
Calibration Ck	1474728-15
Blank	1474728-16
607 70	

BTEX-CCME - Water	
Spike	1474733-2
Duplicate - Cli	1474733-3
Calibration Ck	1474733-14
Blank	1474733-15
Calibration Ck	1474733-16
Mercury (Total) in water	
Internal Std	1476552-4
Blank	1476552-5
Internal Std	1476552-28
Internal Std	1476552-29
Internal Std	1476552-30
Duplicate - Cli	1476552-43
Internal Std	1476552-52
Internal Std	1476552-53
Internal Std	1476552-54
Metals ICP-MS (Total) in water	
Internal Std	1474885-27
Internal Std	1474885-28
Internal Std	1474885-29
Duplicate - Cli	1474885-37
Internal Std	1474885-43
Blank	1474885-44
Internal Std	1474885-53
Internal Std	1474885-54
Internal Std	1474885-55
Duplicate - Cli	1474885-59
Metals Trace (Total) in water	
Internal Std	1474882-1
Internal Std	1474882-2
Internal Std	1474882-3
Duplicate - Cli	1474882-32
Internal Std	1474882-42
Blank	1474882-43
Duplicate - Cli	1474882-50
PCB - Water	
Spike	1474735-2
Int. Duplicate	1474735-4
Calibration Ck	1474735-15
Blank	1474735-16
TEH-CCME - Water	
Spike	1474728-2
Int. Duplicate	1474728-4
Calibration Ck	1474728-15
Blank	1474728-16

Project Id

Project Name

Confirmation of Service Request

KIRIK12

Lot ID: 1091627

Number of Samples: 73

Printed Date: Oct 06, 2015

Please verify the following service request. If you have corrections or questions, please contact Client Services.

Main Contact:	Primary Administrator:	Invoice Delivery To:	Bill Paid by:
Attn: Jean-Pierre Pelletier	Attn: Jean-Pierre Pelletier	Attn: Accounts Payable	Attn: Jean-Pierre Pelletier
SILA Remediation	SILA Remediation	SILA Remediation	SILA Remediation
250-1260 Boul Lebourgneuf	250-1260 Boul Lebourgneuf	350, rue Franquet	250-1260 Boul Lebourgneuf
Quebec, QC G2K 2G2	Quebec, QC G2K 2G2	Sainte-Foy, QC G1P 4P3	Quebec, QC G2K 2G2
Phone: (581) 984-2585	Phone: (581) 984-2585	Phone: (418) 653-4422	Phone: (581) 984-2585
		Fax: (418) 653-3583	
Agreement Id 105540		Well Name	

Well Location

Field

Project Location Project Legal PO# Proj. Acct. Code	Cambridge Bay CAM-M 20433	Formation Elevation KB Elevation GR Drilling License	
Control Id	C0009013	Sampled By	A. Passalis
Report Due	Sep 11, 2015	Sampling Company	Sila
Received Date	Sep 02, 2015	Est. Disposal Date	Oct 11, 2015

Service Information

Date Sampled Priority Sample Description	1 5185730 08-22-2015 Normal CM15-1A	Service 05 PCB2 DISP CCMEC	Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron
Date Sampled Priority Sample Description	2 5185731 08-22-2015 Normal CM15-1B	Service 05 PCB2 DISP CCMEC	Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron
Date Sampled Priority Sample Description	3 5185732 08-22-2015 Normal CM15-2A	Service 05 PCB2 DISP CCMEC	Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron
Date Sampled Priority Sample Description	4 5185733 08-22-2015 Normal CM15-2B	Service 05 PCB2 DISP CCMEC	Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron



Confirmation of Service Request

Lot ID: 1091627

Number of Samples: 73

Printed Date: Oct 06, 2015

Fleas	<u> </u>	•	if you have corrections or questions, please contact Client Services.
Sample Id	5	Service	Service Name
	5185734	05	Drying, Grinding, 2mm sieve
Data Campled	09 22 2015	PCB2	B PCBs in soil or sediments
Date Sampled	08-22-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-3A		by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
Sample Id	6	Service	Service Name
Sample Id	5185735	05	Drying, Grinding, 2mm sieve
	3103733	PCB2	B PCBs in soil or sediments
Date Sampled	08-22-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-3B	COMEC	by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
Sample Id	7	Service	Service Name
-	5185736	05	Drying, Grinding, 2mm sieve
Date Sampled	08-22-2015	PCB2	B PCBs in soil or sediments
Priority	Normal	DISP	Environmental Disposal Fee
Sample	CM15-4A	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Description	JIVI IO 7/1	TT44 ~ - P	by Cold Extraction
		TT44-noB	CCME metals in soil no HWS Boron
Sample Id	8	Service	Service Name
	5185737	05	Drying, Grinding, 2mm sieve
Data Campled	00.22.2045	PCB2	B PCBs in soil or sediments
Date Sampled	08-22-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-4B		by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
Sample Id	9	Service	Service Name
Sample Id	5185738	05	Drying, Grinding, 2mm sieve
		PCB2	B PCBs in soil or sediments
Date Sampled	08-22-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-5A		by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
Sample Id	10	Service	Service Name
Sample Id	5185739	05	Drying, Grinding, 2mm sieve
		PCB2	B PCBs in soil or sediments
Date Sampled	08-22-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-5B		by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
Comple Isl	11	Service	Service Name
Sample Id	5185740	05	Drying, Grinding, 2mm sieve
	J 1037 40	PCB2	B PCBs in soil or sediments
Date Sampled	08-22-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-6A	JOINILO	by Cold Extraction
Description		TT44-noB	

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Confirmation of Service Request

Lot ID: 1091627

Number of Samples: 73

Printed Date: Oct 06, 2015

i leas		•	if you have corrections or questions, please contact Client Services.
Sample Id	12	Service	Service Name
	5185741	05	Drying, Grinding, 2mm sieve
Data Campled	08 22 2015	PCB2	B PCBs in soil or sediments
Date Sampled	08-22-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-6B		by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
Sample Id	13	Service	Service Name
Sample lu	5185742	05	Drying, Grinding, 2mm sieve
	0100142	PCB2	B PCBs in soil or sediments
Date Sampled	08-22-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-7A	0020	by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
	4.4	Service	Service Name
Sample Id	14	05	Drying, Grinding, 2mm sieve
	5185743	PCB2	B PCBs in soil or sediments
Date Sampled	08-22-2015	DISP	
Priority	Normal	CCMEC	Environmental Disposal Fee P.COME Hydrogophona: PTEX E1 E4 in Sail
Sample	CM15-7B	CONEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
Sample Id	15	Service	Service Name
	5185744	05	Drying, Grinding, 2mm sieve
Date Sampled	08-23-2015	PCB2	B PCBs in soil or sediments
Priority	Normal	DISP	Environmental Disposal Fee
Sample	CM15-8A	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Description	OWITS-OA	TT44 D	by Cold Extraction
		TT44-noB	CCME metals in soil no HWS Boron
Sample Id	16	Service	Service Name
	5185745	05	Drying, Grinding, 2mm sieve
Date Sampled	08-23-2015	PCB2	B PCBs in soil or sediments
•		DISP	Environmental Disposal Fee
Priority	Normal CM4.5 OD	CCMEC	BCCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-8B		by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
Sample Id	17	Service	Service Name
	5185746	05	Drying, Grinding, 2mm sieve
Data Campiled	00 00 0045	PCB2	B PCBs in soil or sediments
Date Sampled	08-23-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-9A		by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
Sample Id	18	Service	Service Name
Sample Iu	5185747	05	Drying, Grinding, 2mm sieve
		PCB2	B PCBs in soil or sediments
Date Sampled	08-23-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-9B	-	by Cold Extraction
Description		TT44-noB	

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Confirmation of Service Request

Lot ID: 1091627

Number of Samples: 73

Printed Date: Oct 06, 2015

	, ,	<u> </u>	If you have corrections or questions, please contact Client Services.
Sample Id	19	Service	Service Name
<u> </u>	5185748	05	Drying, Grinding, 2mm sieve
Date Sampled	08-23-2015	PCB2	B PCBs in soil or sediments
		DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-10A		by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
Sample Id	20	Service	Service Name
Sample lu	5185749	05	Drying, Grinding, 2mm sieve
	0.007.10	PCB2	B PCBs in soil or sediments
Date Sampled	08-23-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-10B	0020	by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
	24	Service	Service Name
Sample Id	21	05	Drying, Grinding, 2mm sieve
	5185750	PCB2	B PCBs in soil or sediments
Date Sampled	08-23-2015	_	
Priority	Normal	DISP	Environmental Disposal Fee
Sample	CM15-11A	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
Sample Id	22	Service	Service Name
	5185751	05	Drying, Grinding, 2mm sieve
Date Sampled	08-23-2015	PCB2	B PCBs in soil or sediments
Priority	Normal	DISP	Environmental Disposal Fee
•	CM15-11B	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample Description	CIVITS-TTB		by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
Sample Id	23	Service	Service Name
- Campiona	5185752	05	Drying, Grinding, 2mm sieve
Data Camada d	00 00 0045	PCB2	B PCBs in soil or sediments
Date Sampled	08-23-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-12A		by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
Sample Id	24	Service	Service Name
	5185753	05	Drying, Grinding, 2mm sieve
Data Camarila I		PCB2	B PCBs in soil or sediments
Date Sampled	08-23-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-12B		by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
Sample Id	25	Service	Service Name
	5185754	05	Drying, Grinding, 2mm sieve
	010010 1	PCB2	B PCBs in soil or sediments
Date Sampled	08-23-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-13A	JOINLO	by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron

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			if you have corrections of questions, please contact client services.
Sample Id	26	Service	Service Name
	5185755	05	Drying, Grinding, 2mm sieve
		PCB2	B PCBs in soil or sediments
Date Sampled	08-23-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-13B	COMEC	by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
<u> </u>		1144-1100	
Sample Id	27	Service	Service Name
Gumpio iu	5185756	05	Drying, Grinding, 2mm sieve
		PCB2	B PCBs in soil or sediments
Date Sampled	08-23-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-1WA	0020	by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
Sample Id	28	Service	Service Name
,	5185757	05	Drying, Grinding, 2mm sieve
Data Campled	00 22 2015	PCB2	B PCBs in soil or sediments
Date Sampled	08-23-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-1WB		by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
		Service	Service Name
Sample Id	29		
_	5185758	05	Drying, Grinding, 2mm sieve
Date Sampled	08-23-2015	PCB2	B PCBs in soil or sediments
Priority	Normal	DISP	Environmental Disposal Fee
			DOOME Unidon and area DTEV EA EA to Oat
•		CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-2WA		by Cold Extraction
•		TT44-noB	
Sample Description	CM15-2WA		by Cold Extraction
Sample	CM15-2WA	TT44-noB Service	by Cold Extraction CCME metals in soil no HWS Boron Service Name
Sample Description	CM15-2WA	TT44-noB Service 05	by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve
Sample Description	CM15-2WA	TT44-noB Service 05 PCB2	by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments
Sample Description Sample Id	CM15-2WA 30 5185759	TT44-noB Service 05 PCB2 DISP	by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee
Sample Description Sample Id Date Sampled Priority	CM15-2WA 30 5185759 08-23-2015 Normal	TT44-noB Service 05 PCB2	by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample Description Sample Id Date Sampled Priority Sample	30 5185759 08-23-2015	Service 05 PCB2 DISP CCMEC	by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction
Sample Description Sample Id Date Sampled Priority	CM15-2WA 30 5185759 08-23-2015 Normal	TT44-noB Service 05 PCB2 DISP	by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample Description Sample Id Date Sampled Priority Sample Description	CM15-2WA 30 5185759 08-23-2015 Normal	Service 05 PCB2 DISP CCMEC	by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction
Sample Description Sample Id Date Sampled Priority Sample	30 5185759 08-23-2015 Normal CM15-2WB	TT44-noB Service 05 PCB2 DISP CCMEC TT44-noB	by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron
Sample Description Sample Id Date Sampled Priority Sample Description Sample Id	30 5185759 08-23-2015 Normal CM15-2WB	TT44-noB Service 05 PCB2 DISP CCMEC TT44-noB Service	by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name
Sample Description Sample Id Date Sampled Priority Sample Description Sample Id Date Sampled	30 5185759 08-23-2015 Normal CM15-2WB 31 5185760 08-23-2015	TT44-noB Service 05 PCB2 DISP CCMEC TT44-noB Service 05	by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve
Sample Description Sample Id Date Sampled Priority Sample Description Sample Id	30 5185759 08-23-2015 Normal CM15-2WB 31 5185760 08-23-2015 Normal	TT44-noB Service 05 PCB2 DISP CCMEC TT44-noB Service 05 PCB2 DISP	by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee
Sample Description Sample Id Date Sampled Priority Sample Description Sample Id Date Sampled	30 5185759 08-23-2015 Normal CM15-2WB 31 5185760 08-23-2015	TT44-noB Service 05 PCB2 DISP CCMEC TT44-noB Service 05 PCB2	by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample Description Sample Id Date Sampled Priority Sample Description Sample Id Date Sampled Priority	30 5185759 08-23-2015 Normal CM15-2WB 31 5185760 08-23-2015 Normal	TT44-noB Service 05 PCB2 DISP CCMEC TT44-noB Service 05 PCB2 DISP	by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee
Sample Description Sample Id Date Sampled Priority Sample Description Sample Id Date Sampled Priority Sample Description	30 5185759 08-23-2015 Normal CM15-2WB 31 5185760 08-23-2015 Normal CM15-3WA	TT44-noB Service 05 PCB2 DISP CCMEC TT44-noB Service 05 PCB2 DISP CCMEC TT44-noB	by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron
Sample Description Sample Id Date Sampled Priority Sample Description Sample Id Date Sampled Priority Sampled Priority Sample	30 5185759 08-23-2015 Normal CM15-2WB 31 5185760 08-23-2015 Normal CM15-3WA	TT44-noB Service 05 PCB2 DISP CCMEC TT44-noB Service 05 PCB2 DISP CCMEC TT44-noB	by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron
Sample Description Sample Id Date Sampled Priority Sample Description Sample Id Date Sampled Priority Sample Description	30 5185759 08-23-2015 Normal CM15-2WB 31 5185760 08-23-2015 Normal CM15-3WA	TT44-noB Service 05 PCB2 DISP CCMEC TT44-noB Service 05 PCB2 DISP CCMEC TT44-noB	by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve
Sample Description Sample Id Date Sampled Priority Sample Description Sample Id Date Sampled Priority Sample Description Sample Id Date Sampled Priority Sample Description	30 5185759 08-23-2015 Normal CM15-2WB 31 5185760 08-23-2015 Normal CM15-3WA	TT44-noB Service 05 PCB2 DISP CCMEC TT44-noB Service 05 PCB2 DISP CCMEC TT44-noB Service 05 PCB2 DISP CCMEC	by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments
Sample Description Sample Id Date Sampled Priority Sample Description Sample Id Date Sampled Priority Sample Description Sample Id Date Sampled Description	30 5185759 08-23-2015 Normal CM15-2WB 31 5185760 08-23-2015 Normal CM15-3WA	TT44-noB Service 05 PCB2 DISP CCMEC TT44-noB Service 05 PCB2 DISP CCMEC TT44-noB Service 05 PCB2 DISP CCMEC	by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee
Sample Description Sample Id Date Sampled Priority Sample Description Sample Id Date Sampled Priority Sample Id Date Sampled Priority Sample Description Sample Id Date Sampled Priority	30 5185759 08-23-2015 Normal CM15-2WB 31 5185760 08-23-2015 Normal CM15-3WA 32 5185761 08-23-2015 Normal	TT44-noB Service 05 PCB2 DISP CCMEC TT44-noB Service 05 PCB2 DISP CCMEC TT44-noB Service 05 PCB2 DISP CCMEC	by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments
Sample Description Sample Id Date Sampled Priority Sample Description Sample Id Date Sampled Priority Sample Description Sample Id Date Sampled Priority Sample Description	30 5185759 08-23-2015 Normal CM15-2WB 31 5185760 08-23-2015 Normal CM15-3WA	TT44-noB Service 05 PCB2 DISP CCMEC TT44-noB Service 05 PCB2 DISP CCMEC TT44-noB Service 05 PCB2 DISP CCMEC	by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in Soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction
Sample Description Sample Id Date Sampled Priority Sample Description Sample Id Date Sampled Priority Sample Id Date Sampled Priority Sample Description Sample Id Date Sampled Priority	30 5185759 08-23-2015 Normal CM15-2WB 31 5185760 08-23-2015 Normal CM15-3WA 32 5185761 08-23-2015 Normal	TT44-noB Service 05 PCB2 DISP CCMEC TT44-noB Service 05 PCB2 DISP CCMEC TT44-noB Service 05 PCB2 DISP CCMEC	by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron



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	, ,	<u> </u>	If you have corrections or questions, please contact Client Services.
Sample Id	33	Service	Service Name
	5185762	05	Drying, Grinding, 2mm sieve
Date Sampled	08-23-2015	PCB2	B PCBs in soil or sediments
Priority	Normal	DISP	Environmental Disposal Fee
Sample	CM15-9WA	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Description	CIVITS-9VVA		by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
Sample Id	34	Service	Service Name
Gampiora	5185763	05	Drying, Grinding, 2mm sieve
Data Camulad	00 00 0045	PCB2	B PCBs in soil or sediments
Date Sampled	08-23-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-9WB		by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
Sample Id	35	Service	Service Name
Sample IU	5185764	05	Drying, Grinding, 2mm sieve
		PCB2	B PCBs in soil or sediments
Date Sampled	08-23-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-14WA	-	by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
Sample Id	36	Service	Service Name
Sample Id	5185765	05	Drying, Grinding, 2mm sieve
	3103703	PCB2	B PCBs in soil or sediments
Date Sampled	08-23-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-14WB	0020	by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
0	27	Service	Service Name
Sample Id	37	05	Drying, Grinding, 2mm sieve
	5185766	PCB2	B PCBs in soil or sediments
Date Sampled	08-22-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-4WA	CONIEC	by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
Sample Id	38	Service	Service Name
	5185767	05 DODO	Drying, Grinding, 2mm sieve
Date Sampled	08-22-2015	PCB2	B PCBs in soil or sediments
Priority	Normal	DISP	Environmental Disposal Fee
Sample	CM15-4WB	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Description	SWITE AVE	TT/// 20D	by Cold Extraction CCME metals in soil no HWS Boron
		TT44-noB	
Sample Id	39	Service	Service Name
	5185768	05	Drying, Grinding, 2mm sieve
Data Sampled	09 22 2015	PCB2	B PCBs in soil or sediments
Date Sampled	08-22-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-5WA		by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron

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Pleas	se verily the following servi	ce request.	If you have corrections or questions, please contact Client Services.
Sample Id	40	Service	Service Name
Gampiora	5185769	05	Drying, Grinding, 2mm sieve
Data Campled	00 00 0045	PCB2	B PCBs in soil or sediments
Date Sampled	08-22-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-5WB		by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
Sample Id	41	Service	Service Name
Sample lu	5185770	05	Drying, Grinding, 2mm sieve
		PCB2	B PCBs in soil or sediments
Date Sampled	08-22-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-6WA		by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
Sample Id	42	Service	Service Name
Sample Id	5185771	05	Drying, Grinding, 2mm sieve
D. 6		PCB2	B PCBs in soil or sediments
Date Sampled	08-22-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-6WB		by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
Sample Id	43	Service	Service Name
Sample lu	5185772	05	Drying, Grinding, 2mm sieve
		PCB2	B PCBs in soil or sediments
Date Sampled	08-22-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-7WA		by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
Sample Id	44	Service	Service Name
Sample Id	5185773	05	Drying, Grinding, 2mm sieve
		PCB2	B PCBs in soil or sediments
Date Sampled	08-22-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-7WB		by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
Sample Id	45	Service	Service Name
Sample Id	5185774	05	Drying, Grinding, 2mm sieve
Data Camerile I		PCB2	B PCBs in soil or sediments
Date Sampled	08-22-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-8WA		by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
Sample Id	46	Service	Service Name
Sample la	5185775	05	Drying, Grinding, 2mm sieve
Data Camerile I		PCB2	B PCBs in soil or sediments
Date Sampled	08-22-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-8WB		by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron

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		ce request.	
Sample Id	47	Service	Service Name
	5185776	05	Drying, Grinding, 2mm sieve
		PCB2	B PCBs in soil or sediments
Date Sampled	08-22-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-10WA	COMEC	by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
<u> </u>		1144-1100	
Sample Id	48	Service	Service Name
	5185777	05	Drying, Grinding, 2mm sieve
		PCB2	B PCBs in soil or sediments
Date Sampled	08-22-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-10WB		by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
Sample Id	49	Service	Service Name
	5185778	05	Drying,Grinding, 2mm sieve
Date Sampled	08-22-2015	PCB2	B PCBs in soil or sediments
•		DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-11WA		by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
0	50	Service	Service Name
Sample Id		05	Drying,Grinding, 2mm sieve
	5185779	PCB2	B PCBs in soil or sediments
Date Sampled	08-22-2015		
Priority	Normal	DISP	Environmental Disposal Fee
Sample	CM15-11WB	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Description	G.W.16 11112	TT44 == D	by Cold Extraction
		TT44-noB	CCME metals in soil no HWS Boron
Sample Id	51	Service	Service Name
Jampie ia	5185780	05	Drying, Grinding, 2mm sieve
		PCB2	B PCBs in soil or sediments
Date Sampled	08-22-2015		
Date Sampled Priority	08-22-2015 Normal	DISP	Environmental Disposal Fee
•			Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Priority	Normal	DISP CCMEC	Environmental Disposal Fee
Priority Sample Description	Normal CM15-12WA	DISP CCMEC TT44-noB	Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron
Priority Sample Description	Normal CM15-12WA	DISP CCMEC TT44-noB	Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name
Priority Sample	Normal CM15-12WA	DISP CCMEC TT44-noB Service 05	Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve
Priority Sample Description Sample Id	Normal CM15-12WA 52 5185781	DISP CCMEC TT44-noB Service 05 PCB2	Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments
Priority Sample Description Sample Id Date Sampled	Normal CM15-12WA 52 5185781 08-22-2015	DISP CCMEC TT44-noB Service 05 PCB2 DISP	Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee
Priority Sample Description Sample Id Date Sampled Priority	Normal CM15-12WA 52 5185781 08-22-2015 Normal	DISP CCMEC TT44-noB Service 05 PCB2	Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Priority Sample Description Sample Id Date Sampled Priority Sample	Normal CM15-12WA 52 5185781 08-22-2015	DISP CCMEC TT44-noB Service 05 PCB2 DISP	Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction
Priority Sample Description Sample Id Date Sampled Priority	Normal CM15-12WA 52 5185781 08-22-2015 Normal	DISP CCMEC TT44-noB Service 05 PCB2 DISP	Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Priority Sample Description Sample Id Date Sampled Priority Sample Description	Normal CM15-12WA 52 5185781 08-22-2015 Normal CM15-12WB	DISP CCMEC TT44-noB Service 05 PCB2 DISP CCMEC TT44-noB	Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron
Priority Sample Description Sample Id Date Sampled Priority Sample	Normal CM15-12WA 52 5185781 08-22-2015 Normal CM15-12WB	DISP CCMEC TT44-noB Service 05 PCB2 DISP CCMEC TT44-noB	Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name
Priority Sample Description Sample Id Date Sampled Priority Sample Description	Normal CM15-12WA 52 5185781 08-22-2015 Normal CM15-12WB	DISP CCMEC TT44-noB Service 05 PCB2 DISP CCMEC TT44-noB Service 05	Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve
Priority Sample Description Sample Id Date Sampled Priority Sample Description	Normal CM15-12WA 52 5185781 08-22-2015 Normal CM15-12WB	DISP CCMEC TT44-noB Service 05 PCB2 DISP CCMEC TT44-noB Service 05 PCB2	Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments
Priority Sample Description Sample Id Date Sampled Priority Sample Description Sample Id Date Sampled	Normal CM15-12WA 52 5185781 08-22-2015 Normal CM15-12WB	DISP CCMEC TT44-noB Service 05 PCB2 DISP CCMEC TT44-noB Service 05 PCB2 DISP	Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee
Priority Sample Description Sample Id Date Sampled Priority Sample Description Sample Id Date Sampled Priority	Normal CM15-12WA 52 5185781 08-22-2015 Normal CM15-12WB 53 5185782 08-22-2015 Normal	DISP CCMEC TT44-noB Service 05 PCB2 DISP CCMEC TT44-noB Service 05 PCB2	Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Priority Sample Description Sample Id Date Sampled Priority Sample Description Sample Id Date Sampled Priority Sample Sampled Priority Sample	Normal CM15-12WA 52 5185781 08-22-2015 Normal CM15-12WB 53 5185782 08-22-2015	DISP CCMEC TT44-noB Service 05 PCB2 DISP CCMEC TT44-noB Service 05 PCB2 DISP CCMEC	Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction
Priority Sample Description Sample Id Date Sampled Priority Sample Description Sample Id Date Sampled Priority	Normal CM15-12WA 52 5185781 08-22-2015 Normal CM15-12WB 53 5185782 08-22-2015 Normal	DISP CCMEC TT44-noB Service 05 PCB2 DISP CCMEC TT44-noB Service 05 PCB2 DISP	Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil

Confirmation of Service Request

Lot ID: 1091627

Number of Samples: 73

Printed Date: Oct 06, 2015

1 leas	se verify the following servi		il you have corrections of questions, please contact client services.
Sample Id	54	Service	Service Name
	5185783	05	Drying, Grinding, 2mm sieve
Data Canada d	00 00 0045	PCB2	B PCBs in soil or sediments
Date Sampled	08-22-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-13WB		by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
		Service	Service Name
Sample Id	55	05	Drying,Grinding, 2mm sieve
	5185784		
Date Sampled	08-22-2015	PCB2	B PCBs in soil or sediments
Priority	Normal	DISP	Environmental Disposal Fee
•	CM15-BD1	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CIVITO-BDT		by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
Sample Id	56	Service	Service Name
Sample Iu	5185785	05	Drying, Grinding, 2mm sieve
		PCB2	B PCBs in soil or sediments
Date Sampled	08-22-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-BD2	COMEC	by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
Sample Id	57	Service	Service Name
	5185786	05	Drying, Grinding, 2mm sieve
Date Sampled	08-22-2015	PCB2	B PCBs in soil or sediments
•		DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-BD3		by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
Commute Lat	58	Service	Service Name
Sample Id	5185787	05	Drying,Grinding, 2mm sieve
	3103767	PCB2	B PCBs in soil or sediments
Date Sampled	08-22-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-BD4	CCIVIEC	by Cold Extraction
Description		TT44-noB	CCME metals in soil no HWS Boron
F			
Sample Id	59	Service	Service Name
	5185788	05	Drying, Grinding, 2mm sieve
Data Camarala d		PCB2	B PCBs in soil or sediments
Date Sampled	08-22-2015	DISP	Environmental Disposal Fee
Priority	Normal	CCMEC	B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Sample	CM15-BD5		by Cold Extraction
Sample Description	CM15-BD5	TT44-noB	by Cold Extraction CCME metals in soil no HWS Boron
Description			CCME metals in soil no HWS Boron
-	60	Service	CCME metals in soil no HWS Boron Service Name
Description		Service 05	CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve
Description	60	Service 05 PCB2	CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments
Description Sample Id Date Sampled	60 5185789 08-22-2015	Service 05 PCB2 DISP	CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee
Description Sample Id Date Sampled Priority	60 5185789 08-22-2015 Normal	Service 05 PCB2	CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil
Description Sample Id Date Sampled Priority Sample	60 5185789 08-22-2015	Service 05 PCB2 DISP CCMEC	CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction
Description Sample Id Date Sampled Priority	60 5185789 08-22-2015 Normal	Service 05 PCB2 DISP	CCME metals in soil no HWS Boron Service Name Drying, Grinding, 2mm sieve B PCBs in soil or sediments Environmental Disposal Fee B CCME Hydrocarbons: BTEX, F1-F4 in Soil

Confirmation of Service Request

Lot ID: 1091627

Number of Samples: 73

Printed Date: Oct 06, 2015

	61	Service	If you have corrections or questions, please contact Client Services. Service Name
Sample Id	5185790	HG	Total Hg
	0.00.00	TW22	Total metals - water
Date Sampled	08-23-2015	PCB3	B PCBs in water
Priority	Normal	DISP	Environmental Disposal Fee
Sample	CM15-1W		B CCME BTEX, F1-F4+ in water by
Description		4	GC/FID/MSD
Sample Id	62	Service	Service Name
Sample Id	5185791	HG	Total Hg
	0.00.0.	TW22	Total metals - water
Date Sampled	08-23-2015	PCB3	B PCBs in water
Priority	Normal	DISP	Environmental Disposal Fee
Sample	CM15-2W		B CCME BTEX, F1-F4+ in water by
Description		4	GC/FID/MSD
Sample Id	63	Service	Service Name
Sample Iu	5185792	HG	Total Hg
		TW22	Total metals - water
Date Sampled	08-24-2015	PCB3	B PCBs in water
Priority	Normal	DISP	Environmental Disposal Fee
Sample	CM15-3W		B CCME BTEX, F1-F4+ in water by
Description		4	GC/FID/MSD
Sample Id	64	Service	Service Name
Sample id	5185793	HG	Total Hg
		TW22	Total metals - water
Date Sampled	08-24-2015	PCB3	B PCBs in water
Priority	Normal	DISP	Environmental Disposal Fee
Sample	CM15-14W	CCMEW1-	B CCME BTEX, F1-F4+ in water by
Description		4	GC/FID/MSD
Sample Id	65	Service	Service Name
Gampic id	5185794	HG	Total Hg
		TW22	Total metals - water
Date Sampled	08-24-2015	PCB3	B PCBs in water
Priority	Normal	DISP	Environmental Disposal Fee
Sample	CM15-6W	CCMEW1-	B CCME BTEX, F1-F4+ in water by
Description		4	GC/FID/MSD
Sample Id	66	Service	Service Name
	5185795	HG	Total Hg
Data Campled	09 24 2015	TW22	Total metals - water
Date Sampled	08-24-2015	PCB3	B PCBs in water
Priority	Normal CN44.5.734	DISP	Environmental Disposal Fee
Sample	CM15-7W	CCMEW1-	B CCME BTEX, F1-F4+ in water by
Description		4	GC/FID/MSD
Sample Id	67	Service	Service Name
34	5185796	HG	Total Hg
Data Campled		TW22	Total metals - water
Date Sampled	08-24-2015	PCB3	B PCBs in water
Priority	Normal	DISP	Environmental Disposal Fee
Sample	CM15-8W	CCMEW1-	B CCME BTEX, F1-F4+ in water by
Description		4	GC/FID/MSD
		•	

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Confirmation of Service Request

Lot ID: 1091627

Number of Samples: 73

Printed Date: Oct 06, 2015

	68	Service		Service Name	de contact Gilent Gervices.
Sample Id	5185797	HG		Total Hg	
	3103737	TW22		Total metals - water	
Date Sampled	08-23-2015	PCB3		B PCBs in water	
Priority	Normal	DISP		Environmental Disposal Fee	
Sample	CM15-11W	_	W1-	B CCME BTEX, F1-F4+ in water by	
Description		4		GC/FID/MSD	
Sample Id	69	Servi	e	Service Name	
Sample id	5185798	HG		Total Hg	
		TW22		Total metals - water	
Date Sampled	08-23-2015	PCB3		B PCBs in water	
Priority	Normal	DISP		Environmental Disposal Fee	
Sample	CM15-12W	CCME	W1-	B CCME BTEX, F1-F4+ in water by	
Description		4		GC/FID/MSD	
Sample Id	70	Servi	e	Service Name	
Gampioia	5185799	HG		Total Hg	
Date Sampled	08-23-2015	TW22		Total metals - water	
Priority	06-23-2015 Normal	PCB3		B PCBs in water	
•	CM15-13W	DISP		Environmental Disposal Fee	
Sample Description	CIVITO-13VV		W1-	B CCME BTEX, F1-F4+ in water by	
		4		GC/FID/MSD	
Sample Id	71	Servi	ce	Service Name	
,	5185800	HG		Total Hg	
Date Sampled	08-23-2015	TW22		Total metals - water	
Priority	Normal	PCB3		B PCBs in water	
Sample	CM15-BDW1	DISP	3474	Environmental Disposal Fee	
Description	S	4	VV1-	B CCME BTEX, F1-F4+ in water by GC/FID/MSD	
Sample Id	72	Servi o HG	e	Service Name Total Hg	
	5185801	TW22		Total metals - water	
Date Sampled	08-23-2015	PCB3		B PCBs in water	
Priority	Normal	DISP		Environmental Disposal Fee	
Sample	CM15-FB		W1-	B CCME BTEX, F1-F4+ in water by	
Description		4		GC/FID/MSD	
Completel	73	Servi	e e	Service Name	
Sample Id	5185802	HG	-	Total Hg	
		TW22		Total metals - water	
Date Sampled	08-23-2015	PCB3		B PCBs in water	
Priority	Normal	DISP		Environmental Disposal Fee	
Sample	CM15-TB		W1-	B CCME BTEX, F1-F4+ in water by	
Description		4		GC/FID/MSD	
Other Billable S	arvicas	Service	San	vice Name	Quantity
Julei Billable 3	GI 410G3	05		ng,Grinding, 2mm sieve	60.00
		CCMEC	-	ME Hydrocarbons: BTEX, F1-F4 in Soil	60.00
				·	
		CCMEC		ME Hydrocarbons: BTEX, F1-F4 in Soil	60.00
		CCMEW1-4	CCN	ME BTEX, F1-F4+ in water by	13.00
		CCMEW1-4	CCN	ME BTEX, F1-F4+ in water by	13.00
		DISP	Envi	ironmental Disposal Fee	73.00
				•	

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Confirmation of Service Request

Lot ID: 1091627

Number of Samples: 73

Printed Date: Oct 06, 2015

Please verify the following service request. If you have corrections or questions, please contact Client Services.

Other Billable Services	Service	Service Name	Quantity	
	DISP	Environmental Disposal Fee	73.00	
	HG	Total Hg	13.00	
	HG	Total Hg	13.00	
	PCB2	PCBs in soil or sediments	60.00	
	PCB2	PCBs in soil or sediments	60.00	
	PCB3	PCBs in water	13.00	
	PCB3	PCBs in water	13.00	
	TT44-noB	CCME metals in soil no HWS Boron	60.00	
	TT44-noB	CCME metals in soil no HWS Boron	60.00	
	TW22	Total metals - water	13.00	
	TW22	Total metals - water	13.00	

Service Count

Service Name	Service Code	Service Quantity
CCME BTEX, F1-F4+ in water by GC/FID/MSD	CCMEW1-4	13
CCME Hydrocarbons: BTEX, F1-F4 in Soil by Cold Extraction	CCMEC	60
CCME metals in soil no HWS Boron	TT44-noB	60
Drying, Grinding, 2mm sieve	05	60
Environmental Disposal Fee	DISP	73
PCBs in soil or sediments	PCB2	60
PCBs in water	PCB3	13
Total Hg	HG	13
Total metals - water	TW22	13

Notes

Note that due to required lower detection limit for PCB analysis in both water and soil the Nominal Detection limit was set to 0.05.

Analysis was performed on samples 1-73 that exceeded the recommended holding time for CCMEC analysis.

If required for invoice approval, please sign and return to the address indicated at the top of the page.

(Signature)

Report Delivery Plan

Contact	Company	Address
Andrew Passalis	SILA Remediation	350, rue Franquet
		Sainte-Foy, QC G1P 4P3
		Phone: (204) 791-4938 Fax: (418) 653-3583
<u>Copies</u> <u>Deli</u>	<u>ivery</u> <u>Format</u>	Email: andrew.passalis@gmail.com
1 Email - S	Single Report PDF	
Jean-Pierre Pelletier	SILA Remediation	250-1260 Boul Lebourgneuf
		Quebec, QC G2K 2G2
		Phone: (581) 984-2585 Fax:
<u>Copies</u> <u>Deli</u>	<u>ivery</u> <u>Format</u>	Email: jean-pierre.pelletier@lvm.ca
1 Email - S	Single Report PDF	

T: +1 (780) 438-5522 F: +1 (780) 434-8586 E: Edmonton@exova.com W: www.exova.com



Sample Integrity Scorecard

Lot ID: 1091627

Client: SILA Remediation Agreement Name: Special Project - Cambridge Bay

PROCESS	DATA QUALITY
Was the waybill clearly filled in? Yes	Were the samples received within recommended holding times? No *
Were the sample containers packaged well? Yes If No, please explain:	Were samples received in containers appropriate to the matrix and analysis required? Yes
Was the COC received? Yes	Were the expected number of samples received? Yes If No, please explain:
Was the COC filled in adequately and legibly? Yes If No, please explain:	Was the sample received in the prescribed temperature range? Yes Please provide
Was the COC received without damage? Yes If No, please explain:	temperature °C: Were all samples received intact (not damaged/broken)? Yes
Were Exova supplies used? Yes If No, please explain:	If No, please explain: Were all samples received without adhesive tape sealing the lids?
Were the sample containers clearly labelled?	Yes If No, please explain:
Yes If No, please explain:	For water samples only, were they received without a noticeable layer of sediment? Yes If No, please explain:
	Was sufficient sample volume received? Yes If No, please explain:
	Were the samples submitted on sampling date? Yes If No, please explain:

Were non-conformance/verification notes entered into Sample Login for any of the above items that did not meet Exova's sample or COC requirements?

Yes

NON-CONFORMANCES					
Process	0				
Data Quality	1				
TOTAL	1				

Created by: Benjamin Morris Date created: September 03, 2015

ANNEX 2

QA/QC Discussion

QUALITY ASSURANCE / QUALITY CONTROL

Quality Assurance/Quality Control (QA/QC) program was implemented to monitor the quality of the analytical results. The main objective of this QA/QC program is to insure that sampling data and analysis results are complete, precise, exact, representative and comparable. The review consisted of evaluating sample collection/handling methodology, general laboratory comments, field (blind) duplicate samples, and inter-laboratory duplicate samples.

1. LABORATORIES

Samples collected during the monitoring program were submitted to laboratories accredited by the Canadian Association for Laboratory Accreditation (CALA):

Main Laboratory

- EXOVA
- 7217 Roper Road NW
- Edmonton, Alberta
- T6B 3J4, Canada
- CALA Registration number: 2602

Quality Assurance Laboratory

- Maxxam Analytics International Corporation
- o/a Maxxam Analytics Edmonton
- 9331 48th Street T6B 2R4
- CALA Registration number: 2996

2. FIELD QA/QC

Standard sample collection techniques were implemented to decrease the likelihood of compromising collected samples, such as:

- Pre-cleaned sample containers were provided by the laboratory.
- Monitoring equipment was decontaminated between sampling stations and dedicated sampling systems were utilized.
- Soil samples were placed directly in the laboratory provided jars/bottles and were not mixed.
- Disposable nitrile glove were worn and disposed of after each sample collection.
- Jars/bottles were cleaned prior to placement into the cooler.
- Water samples were collected using low flow methods (peristaltic pump) and the use of dedicated tubing.

- Ice Packs or bagged ice (Ziplock bags) were used to ensure that sample temperature would be kept below 10°C during transportation.
- Samples were kept at the laboratory at temperatures below 4°C.

A sample integrity report from Exova is provided in Annex 1. It should be noted that some PHC analyses were performed after method recommended holding time (Fractions F1 for Exova). As a result of commercial air cargo limitations between Yellowknife and Edmonton (Canadian North), the samples destined to the Exova laboratory were delayed in Yellowknife and subsequently not received until September 2, 2015. These holding time exceedances could have contributed to the lower concentrations reported. Samples were received within the recommended holding times for all other parameters. The laboratory report from Maxxam indicated that all samples were extracted within the recommended holding times.

The CCME CWS for PHC in *Soil User Guidance* document indicates that sample jars should be filled to minimize the potential for PHC loss (no headspace). Inter-Laboratory duplicate sample CM15-7B was noted by the laboratory (Maxxam) as being received with headspace whereas there was no mention from Exova indicating the presence of headspace within the corresponding duplicate sample. Due to the headspace, the results from the Maxxam sample could report concentrations of F1 lower than what they actually are. However, petroleum hydrocarbons results (PHC F1-F4) for both the Exova and Maxxam duplicates were below the method detection limit, which limits the uncertainty concerning the Maxxam results.

The following is a summary of the analytical QA/QC procedure implemented in the field:

- 10% field Blind Duplicate Samples of soil and water were sent to Exova: six blind duplicate soil samples (CM15-BD1 through CM15-BD6) and one blind duplicate groundwater sample (CM15-BDW1) were submitted, as an independent check on data reproducibility, and to assess the field QA/QC protocols. One field blank (CM15-FB) and one travel blank (CM15-TB) were submitted for analysis.
- 10% Inter-laboratory Duplicate Samples were sent to Maxxam: six blind duplicate soil samples (CM15-13B, CM15-7B, CM15-5WB, CM15-1A, CM15-2WB and CM15-8B) and one blind duplicate groundwater sample (CM15-7W) were submitted to determine if variation in procedures may cause significant difference in analytical results.
- 10% Archival Samples of soil were sent to ESG.

3. LABORATORIES QA/QC

Quality assurance documents from Exova indicate that the soil samples were in the following batches:

- Batches 1474411, 1474413, 1474414, 1474417, 1475663 and 1474573 for metals
- Batches 1474435, 1474436, 1474437, 1474438, 1474439, and 1474440 for PCBs
- Batches 1474419, 1474421, 1474423, 1474425, 1474428 and 1474430for TPH

The water samples were analyzed was analyzed the following batches:

- Batch 1476552 for mercury
- Batch 1474885 for metals
- Batches 1474675 and 1474735 for PCBs
- Batches 1474727 and 1474728 for TPH

Quality assurance documents from Maxxam indicate that the soil samples were in the following batches:

- Batch 8022995 and 8022978 for metals
- Batch 8024388 for PCBs
- Batch 8021668 for PHC Fraction F1
- Batch 8021661 for PHC fraction F2-F3

The water samples were analyzed was analyzed the following batches:

- Batch 8021207 for most metal
- Batch 8032396 for mercury
- Batch 8019095 for PCBs
- Batch 8025008 for PHC fraction F1
- Batch 8021140 for PHC fraction F2-F3

4. DATA MANAGEMENT AND INTERPRETATION

4.1. FIELD WORK

The relative percent difference (RPD) is used to evaluate the sample result variability. RPD values of 30 % for each parameter analyzed from the same laboratory are considered an indication of acceptable duplicate sample variability. For soil samples (and especially for metal parameters), a RPD greater than 30 % may be the result of:

- Sample heterogeneity. Even though mixing of sub-samples was performed, it is still
 possible that the soil was not perfectly homogenous prior to placement in jars.
- Metal particles in the sample would make the sample heterogeneous and therefore a lot of variability for some specific elements (the metals would be present as flecks and would not be a part of the soil matrix this creates a high level of variability in the sample). Notice that the results are very low and well below any guideline limit so these flecks may not even be visible or may just be a part of the soil material.

A third possibility is the digestion. It is possible that there are slight variations to the acid
digestion which could lead to a higher extraction of certain recalcitrant elements.
Chromium does tend to be one of those recalcitrant elements. Nickel generally does not
fall in this category but if the chromium and nickel are together in a compound, this may
be possible.

For groundwater samples, a RPD greater than 30 % may reflect difference in sample turbidity or natural variability. These performance criteria are applicable when the concentrations of the original and duplicate sample are five times or greater than the laboratory method detection limit, since the uncertainty increases dramatically as the concentration approaches the detection limit. Table I provides the detection limit for each parameter and the associated minimum concentration to be reached in order to be eligible for RPD calculation.

Table I: Minimum Concentration for QA/QC RPD Calculation

	[Soil			Water	
Parameter	Laboratory	Units	MDL	RPD Minimum*	Units	MDL	RPD Minimum*
As	Exova	mg/kg	0.2	1.0	mg/L	0.0002	0.0010
AS	Maxxam	mg/kg	1.0	1.0	mg/L	0.0002	0.0010
Cd	Exova	mg/kg	0.01	0.05	mg/L	0.00001	0.00005
Cu	Maxxam	mg/kg	0.10	0.05	mg/L	0.00002	0.00010
Cr	Exova	mg/kg	0.5	2.5	mg/L	0.0005	0.0025
Ci	Maxxam	mg/kg	1.0	1.0	mg/L	0.0010	0.0050
Co	Exova	mg/kg	0.1	0.5	mg/L	0.0001	0.0005
CO	Maxxam	mg/kg	1.0	0.5	mg/L	0.0003	0.0015
Cu	Exova	mg/kg	1.0	5.0	mg/L	0.0010	0.0050
Cu	Maxxam	mg/kg	5.0	1.0	mg/L	0.0002	0.0010
Pb	Exova	mg/kg	0.1	0.5	mg/L	0.0001	0.0005
PU	Maxxam	mg/kg	1.0	0.5	mg/L	0.0002	0.0010
Ni	Exova	mg/kg	0.5	2.5	mg/L	0.0005	0.0025
INI	Maxxam	mg/kg	1.0	1.0	mg/L	0.0005	0.0025
Zn	Exova	mg/kg	1	5	mg/L	0.001	0.005
211	Maxxam	mg/kg	10	10	mg/L	0.003	0.015
Hg	Exova	mg/kg	0.05	0.25	mg/L	0.000005	0.000025
пв	Maxxam	mg/kg	0.05	0.05	mg/L	0.000006	0.000030
Total PCBs	Exova	mg/kg	0.10	0.50	mg/L	0.00005	0.00025
TOTAL PCBS	Maxxam	mg/kg	0.01	0.05	mg/L	0.00005	0.00025
PHC F1	Exova	mg/kg	10	50	mg/L	0.1	0.5
PHCFI	Maxxam	mg/kg	12	60	mg/L	0.1	0.5
PHC F2	Exova	mg/kg	40	200	mg/L	0.10	0.50
FIIC FZ	Maxxam	mg/kg	10	50	mg/L	0.71	3.55
PHC F3	Exova	mg/kg	40	200	mg/L	0.1	0.5
PHC F3	Maxxam	mg/kg	50	250	mg/L	1.4	7.0

^{*:} The RPD Minimum is the minimum concentration to be reached for QA/QC Relative Percent Difference Calculation

4.1.1. SOIL SAMPLES

Six blind duplicate soil samples were submitted for intra- and inter-laboratory comparisons. The original and duplicate intra- and inter-laboratory metal, PCB and PHC soil sample results are summarized in Tables II, along with the calculated RPD for each parameter. As noted in the tables, several of the results from the original and/or duplicate samples were below or within five times the laboratory method detection limits, and therefore RPD values were not calculated for these parameters.

Review of results indicated relatively minor differences in most metal concentrations within the intra-laboratory duplicate samples. The highest RPD values calculated were 88.9 % for zinc and 48.1 % for nickel (BD2).

Results from the inter-laboratory duplicate samples shows that the acceptance criterion was exceeded for soil samples CM-13B for chromium (44.9 %) and nickel (31.6 %), CM15-1A for chromium (43.3 %), cobalt (76.5 %), copper (98.5 %), lead (49.4 %) and nickel (52.6 %). The intra- and inter-laboratory samples show good coherence with the exception of the metal analysis for CM15-1A which showed high RDPs for a number of different metals. This situation is probably caused by soil heterogeneity.

4.1.2. WATER SAMPLES

One blind duplicate groundwater sample (CM15-BDW1 / CM215-7W) was submitted for intraand inter-laboratory comparisons. The original and duplicate intra- and inter-laboratory metal, PCB and PHC sample results are summarized in Table III, along with the calculated RPD for each parameter. As noted in the table, all organic parameters from the original and/or duplicate samples were below or within five times the laboratory method detection limits, and therefore RPD values were not calculated for these parameters.

Review of the intra-laboratory results indicated minor differences in the metal concentrations, with three out of nine concentrations being less than the minimum required to calculated RPD values. One exception was cadmium which had a calculated RPD value of 33.3 %.

Review of the inter-laboratory duplicate results indicated notable differences in concentrations and calculated RPD values, with reported values ranging between 43.1 % and 195.4 %

Overall, the soil and groundwater sample results are coherent and within the same range of results for intra- and inter-laboratory samples, with the exception of the inter-laboratory water sample. The analytical results are considered to be acceptable and representative of the site conditions. The results also validate the field QA/QC procedures.

The results from field blank sample (CM15-FB) and travel blank sample (CM15-TB) that were submitted for metals, PCB and PHC analyses are also summarized in Tables III. All parameter concentrations were below the detection limit, with the exception of zinc, which had a concentration equal to four times the detection limit in the travel blank sample.

4.2. LABORATORIES

QA/QC results from both laboratories do not raise any concern or provide any explanation concerning the concentration difference noticed in the inter-laboratory duplicate samples.

It should be noted that inter-laboratory variations are common. QA/QC results from both laboratories are appended.

4.2.1. BLANKS

All blanks from both laboratories, for both matrices and for all parameters were below the detection limits.

4.2.2. ANALYTICAL DUPLICATES

All analytical duplicates from both laboratories met the acceptance criteria for both matrices and for all parameters.

4.2.3. CONTROL SAMPLES

All control samples from both laboratories, for both matrices and for all parameters had concentrations between the upper and lower concentration established for each parameter.

Table II: Soil Chemical Analysis Results - Quality Assurance Samples

							Р	aramet	ers					
Sample #	Laboratory	Λο.	Cd	Cr	Co	Cu	Pb	Ni	Zn	U.	PCBs	F1	F2	F3
Cumpic ii		As [ma/ka]					mg/kg]			Hg [ma/ka]		C ₆ -C ₁₀	C ₁₀ -C ₁₆	C ₁₆ -C ₃₄
		[mg/ng]			[mg/kg]		[mg/kg]		[mg/kg]			[mg/kg]	[mg/kg]	[mg/kg]
MDL (Exova)	(5.)	0.2	0.01	0.5	0.1	1.0	0.1	0.5	1	0.05	0.05	10	40	40
RPD Minimum MDL (Maxxam)	` '	1.0	0.05	2.5	0.5	5.0	0.5	2.5	5	0.25	0.25	50	200	200
RPD Minimum		1.0 5.0	0.05	1.0 5.0	0.5 2.5	1.0 5.0	0.5 2.5	1.0 5.0	10 50	0.05	0.01	12 60	10 50	50 250
ICI B Williamani	(Maxxam)	3.0	0.20	5.0	2.0	0.0	2.0	3.0	30	0.20	0.00	00	30	250
				Intra-L	ab Dup	licate S	Sample	s (Exov	a)					
CM15-13B	Exova	2.8	0.02	7.6	2.9	5.5	3.8	8.8	6	<0.05	<0.05	<10	<40	<40
CM15-BD1		2.6	0.03	11.0	2.2	4.2	3.4	12.4	7	0.08	< 0.05	<10	<40	<40
Relative % Diffe	erence	7.4	40.0	36.6	27.5	26.8	11.1	34.0	15.4	N/A	N/A	N/A	N/A	N/A
CM15-7B		1.0	0.25	5.7	1.5	4.1	1.8	8.0	5	<0.05	<0.05	<10	<40	<40
CM15-7B	Exova	1.0	0.23	6.6	1.3	6.9	2.0	4.9	13	<0.05	<0.05	<10	<40	<40
Relative % Diffe	erence	0.0	24.6	14.6	6.9	50.9	10.5	48.1	88.9	N/A	N/A	N/A	N/A	N/A
CM15-5WB	Exova	3.3	0.02	15.7	5.8	11.9	6.3	12.9	6	<0.05	<0.05	<10	<40	<40
CM15-BD3		3.3	0.02	16.8	6.0	10.5	6.0	12.6	6	<0.05	<0.05	<10	<40	<40
Relative % Diffe	erence	0.0	N/A	6.8	3.4	12.5	4.9	2.4	0.0	N/A	N/A	N/A	N/A	N/A
CM15-1A		3.0	0.02	16.3	6.0	14.3	5.4	13.8	17	<0.05	<0.05	<10	<40	<40
CM15-1A CM15-BD4	Exova	2.8	0.02	16.6	5.6	11.2	5.4	12.4	16	<0.05	<0.05	<10	<40	<40
Relative % Diffe	erence	6.9	0.02	1.8	6.9	24.3	8.8	10.7	6.1	N/A	N/A	N/A	N/A	N/A
rtolativo 70 Billo	5101100	0.0	0.0	1.0	0.0	24.0	0.0	10.7	0.1	14//	14//1	13//1	14/71	14/71
CM15-2WB	F	3.0	0.02	10.3	2.5	3.4	3.2	7.0	9	< 0.05	< 0.05	<10	<40	<40
CM15-BD5	Exova	3.0	0.01	10.0	2.7	3.5	3.1	6.9	9	<0.05	<0.05	<10	<40	<40
Relative % Diffe	erence	0.0	66.7	3.0	7.7	2.9	3.2	1.4	0.0	N/A	N/A	N/A	N/A	N/A
CM15-8B	Exova	2.8	0.04	24.2	6.7	12.7	5.4	16.7	24	<0.05	<0.05	<10	<40	<40
CM15-BD6 Relative % Diffe	ronco	3.2 13.3	0.05 22.2	22.7 6.4	7.0 4.4	14.5 13.2	5.6 3.6	15.9 4.9	27 11.8	<0.05 N/A	<0.05 N/A	<10 N/A	<40 N/A	<40 N/A
Relative /6 Dille	sierice	13.3	22.2	0.4	4.4	13.2	3.0	4.9	11.0	IN/A	IN/A	IN/A	IN/A	IN/A
			Inte	r-Lab D	Ouplicat	e Samp	les (Ex	ova-Ma	xxam)					
CM15-13B	Exova	2.8	0.02	7.6	2.9	5.5	3.8	8.8	6	<0.05	<0.05	<10	<40	<40
	Maxxam	1.9	<0.05	12.0	1.9	3.6	3.4	6.4	<10	< 0.050	<0.010	<12	<10	<50
Relative % Diffe	erence	38.3	N/A	44.9	41.7	41.8	11.1	31.6	N/A	N/A	N/A	N/A	N/A	N/A
		1 40	0.05		1 4 =	1 4 4	4.0	0.0		0.05	0.05	40	50	50
CM15-7B	Exova Maxxam	1.0 <1.0	0.25	5.7 4.5	1.5 1.1	4.1 3.9	1.8	8.0 3.2	5 <10	<0.05 <0.050	<0.05	<10 <12	<50 <10	<50 <50
Relative % Diffe		N/A	27.3	23.5	30.8	5.0	11.8	85.7	N/A	N/A	N/A	N/A	N/A	N/A
TROIGHTO 70 DING	Sicrioc	IWA	27.5	20.0	30.0	3.0	11.0	00.7	IN/A	INA	IN/A	IN/A	IN/A	IN//A
CM45 5WD	Exova	3.3	0.02	15.7	5.8	11.9	6.3	12.9	6	< 0.05	< 0.05	<10	<40	<40
CM15-5WB	Maxxam	2.7	<0.05	17.0	5.5	11.0	5.9	13.0	<10	< 0.050	< 0.010	<12	<10	<50
Relative % Diffe	erence	20.0	N/A	8.0	5.3	7.9	6.6	0.8	N/A	N/A	N/A	N/A	N/A	N/A
					1 .									
CM15-1A	Exova	3.0	0.02	10.3	2.5	3.4	3.2	7.0	9	<0.05		<10	<50	<50
Relative % Diffe	Maxxam	2.4	<0.05	16.0	5.6	10.0	5.3	12.0	11		<0.010	<12 N/A	<10	54
Relative % Dille	erence	22.2	N/A	43.3	76.5	98.5	49.4	52.6	20.0	N/A	N/A	N/A	N/A	N/A
	Exova	0.5	<0.01	2.4	0.8	<1.0	1.0	1.2	7	<0.05	<0.05	<10	<50	<50
CM15-2WB	Maxxam	2.7	<0.05	10.0	2.4	3.9	3.1	6.4	<10		<0.010	<12	<10	<50
Relative % Diffe		137.5	N/A	122.6	100.0	N/A	102.4	136.8	N/A	N/A	N/A	N/A	N/A	N/A
CM15-8B	Exova	2.8	0.04	24.2	6.7	12.7	5.4	16.7	24	<0.05		<10	<50	<50
	Maxxam	2.4	<0.05	23.0	6.4	14.0	5.3	15.0	35		< 0.010	<12	<10	<50
Relative % Diffe	erence	15.4	N/A	5.1	4.6	9.7	1.9	10.7	37.3	N/A	N/A	N/A	N/A	N/A

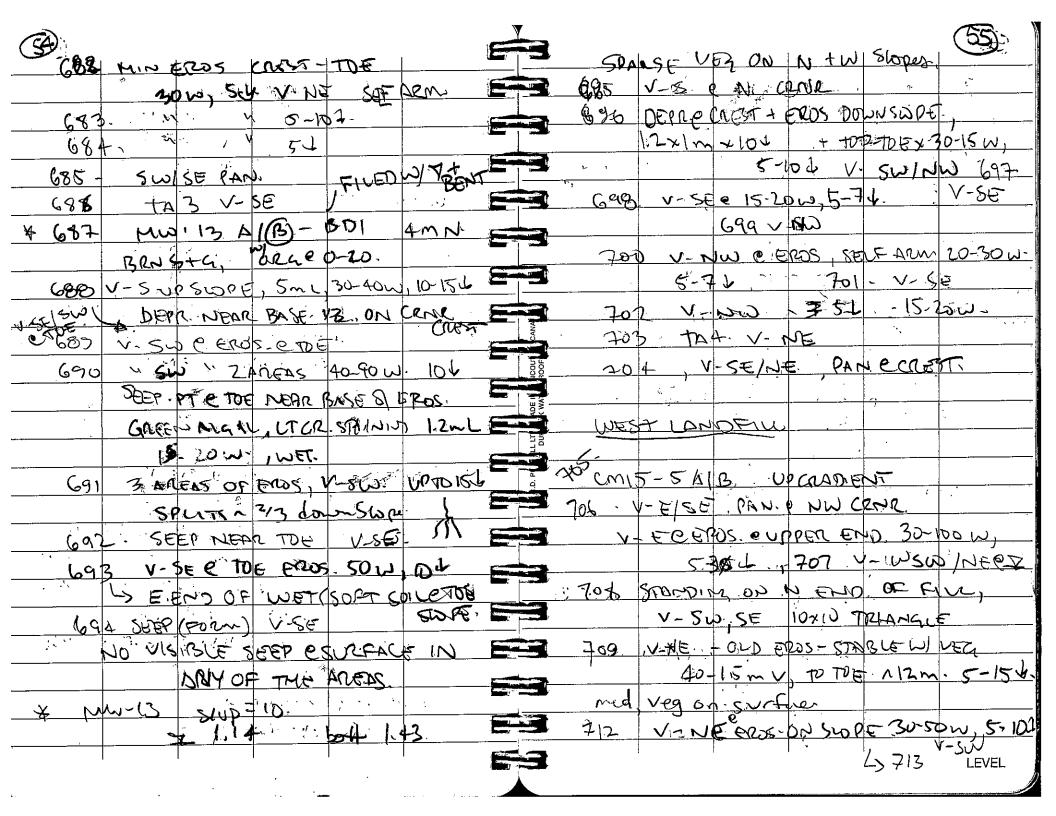
Table III: Groundwater Chemical Analysis Results - Quality Control Samples

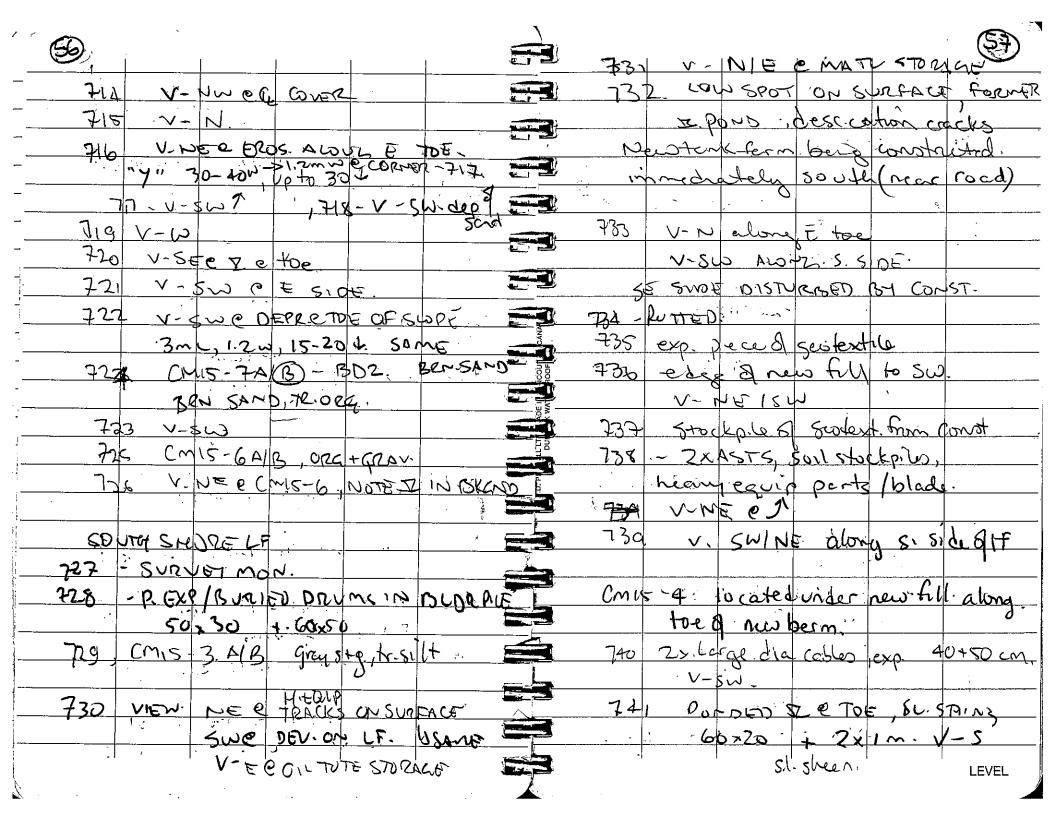
							Р	aramete	rs					
Sample #	Laboratory	_		_					_			F1	F2	F3
Sample #	Laboratory	As [mg/L]	Cd [mg/L]	Cr [mg/L]	Co [mg/L]	Cu [mg/L]	Pb [mg/L]	Ni [mg/L]	Zn [mg/L]	Hg [mg/L]	PCBs [mg/L]	C ₆ -C ₁₀ [mg/L]	C ₁₀ -C ₁₆ [mg/L]	C ₁₀ -C ₃₄ [mg/L]
MDL (Exova)		0.0002	0.00001	0.0005	0.0001	0.0010	0.0001	0.0005	0.001	0.000005	0.00005	0.1	0.1	0.1
RPD Minimui	m (Exova)	0.0010	0.00005	0.0025	0.0005	0.0050	0.0005	0.0025	0.005	0.000025	0.00025	0.5	0.50	0.5
MDL (Maxxa	,	0.0002	0.00002	0.0010	0.0003	0.0002	0.0002	0.0005	0.003	0.000006	0.00005	0.1	0.1	0.2
RPD Minimui	m (Maxxam)	0.0010	0.00010	0.0050	0.0015	0.0010	0.0010	0.0025	0.015	0.000030	0.00025	0.5	0.5	1.0
				In	tra-Lab	Duplicat	e Sample	es (Exova	a)			_		
CM15-7W	Exova	0.0100	0.00007	0.0030	0.0020		< 0.0005		0.110	< 0.000005		<0.1	<0.1	<0.1
CM15-BDW1	LXOVA	0.0093	0.00005	0.0030	0.0020	<0.005	< 0.0005	0.0566	0.081	<0.000005	<0.00005	<0.1	<0.1	<0.1
Relative % D	ifference	7.3	33.3	0.0	0.0	N/A	N/A	4.7	30.4	N/A	N/A	N/A	N/A	N/A
												-		
				Inter-L	ab Dupli	cate Sai	nples (E	xova-Ma	xxam)					
CM15-7W	Exova	0.0100	0.00007	0.0030	0.0020	<0.005	< 0.0005	0.0593	0.110	<0.000005	<0.00005	<0.1	<0.1	<0.1
CIVITS-7 VV	Maxxam	0.0011	0.00024	0.2600	0.0031	0.0065	0.0016	0.1200	0.650	<0.00006	<0.00005	<0.1	<0.1	<0.2
Relative % D	ifference	160.4	109.7	195.4	43.1	N/A	N/A	67.7	142.1	N/A	N/A	N/A	N/A	N/A
		1			1	1	1		ı	T	1	1	1	ī
CM15-FB	Field Blank	<0.0002	<0.00001	<0.0005	<0.0001	<0.001	<0.0001	<0.0005	<0.001	<0.00005	<0.00005	<0.1	<0.1	<0.1
CM15-TB	Travel Blank	<0.0004	<0.00001	<0.001	<0.0002	<0.002	<0.0002	<0.001	0.004	<0.00005	<0.00005	<0.1	<0.1	<0.1

ANNEX 3

Field Notes and Chain of Custody Forms

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AUGUST 24, 2015, 9°C, RS, My MW 3 TOTAL 15 m 1	is well
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T1.2, 1.6, 1.6, 1.8 T1.2, 1.6, 1.6, 1.8 VOL PH- 9.1, 8.0, 8.0 Grey Doss Comp 4.40, 386, 383, 937 TURG 244, 16, 0, 14.9 CHC TURG 244, 16, 0, 14.9 CHC	is well
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Sample Identification	Identification	Туре	Sampled	ВТЕХ/УРН	VOC/VPH	EPH	PAH	CCME-	CCME	BCB	Pheno	Disso		Totals I	Chlorid	Total S	H .	000	Coliforn	Aspestos	& X		1	Ō	HOLD
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advising =	nvoice to:	Report To			Report Results	Regulatory Requirement
-1	Company: SILA REMER Address: 1260 BOULLER QUEBEC, SOI	Company:	-Jame		E-Mail X	
	Address: 1260 BOULLEY	SUIGNEVIT Address:		<u></u>	Mail	Ab Tier 1
Project Information	CHEREO SOL	72			Online	SPIGEC
1 tolograps W 1 1 1 1 1 1 1 1	Attention: $\frac{1}{58}$ PFL FTC	Attention:		- Wet	Fax	BCCSR
1 TOTO TAUTION					PDF X	Other (list below)
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Legal Location: CAM~IM F	Fax: 418.64+.25	erelagion Email 1:	m	- 44	QA/QC X	
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0.0	Copy of report:	Copy of in			-	1,32, 1,5
RU	USH Priority		\$		Company:	SILA
Emergency (contact lab for turnaround and pricin		around will default to a 100% RUSH und time to match. Please contact				
Priority 1-2 working days (100% surcharge)	the lab prior to submitting RUSH	samples. If not all samples require	FI-F4 Metals		This section	n for Lab use only
Urgent 2-3 working days (50% surcharge)	RUSH, please indicate in the spe	cial instructions.	agi 1			
Date Required: ROUTING TAT.	Signature: UW				Date/Time s	tamp:
***************************************			S E S			
Special Instructions/Comments (please include contact info	rmation including ph. # it different from abo	ivej.	BTEX (CME)			
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2 - 175		_				- 1 1 1 1
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4 -28			 332 - 		 	
5 734			 ((((()			Indicate any samples that were not clearly labeled
6 -'3B		_				4. Indicate any samples not
7 -4A			<u> </u>		_ -	received within the required
8 -48						hold time or temp.
9 5A						5. Indicate any missing or extra samples
10 - 55					 	
11 6A			<u> </u>			6. Indicate any samples that were received broken
12 65				1		7. Indicate any samples
13 - +A			IXXX	, , ,	 	where sufficient volume was
14 - 1 6	1,1,1,2					not received 8. Indicate any samples
15 -6A	15/8/25	1				received in an inappropriate
Submission of this form acknowledges acceptance of Exo		Indicate lot # or affix barcod	e here			Container
and Conditions (http://www.exova.com/about/terms-and-	conditions/)			# and size of cooler		AKE
Please indicate any potentially hazardous samples			•	Temp. received:	Delivery Metho	u:
5	C 0009013		•	D- national from	Waybill:	
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		Testing,			<u></u>	· · · · · · · · · · · · · · · · · · ·									
E>	(OVa	calibrating, advising	Invoice to:			Report To								Report Results	Regulatory Requirement
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-	Urgent 2-	3 working days (50% surcharge)		RUSH, please indicate in the special	alstructions.		Containers	P(- F4	뵈					Date (Time)	-1
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ANNEX 4

Scope of the Report and Limitation of Liability



SCOPE OF THE REPORT AND LIMITATION OF LIABILITY

A – Recipient and Use

This report ("Report") was prepared by Englobe Corp. ("Englobe") at the request and for the sole benefit of the Client ("Client"), and is intended to be used exclusively by the Client.

B -Site Conditions

Any description of the target site ("Site"), soil and/or groundwater included in the Report is only provided as an indication to the Client, and unless otherwise specifically mentioned in the Report such description shall not at any time and under any circumstances be used for purposes other than to gain a better understanding of the Site and to fulfil the requirements of the mandate assigned to Englobe by the Client ("Mandate").

All information, including but not limiting the comprehensiveness of the data, charts, descriptions, drawings, tables, analysis results, compilations, and any conclusion and recommendation included in the Report, shall arise from the direct observation of the Site during a specific period, namely the fulfilment of the Mandate, and from the interpretation of such information and data available during the same period.

The content of the Report shall not apply in any way or to any part of the Site or to any parameter, material or analysis excluded from the Mandate.

Englobe shall not be held responsible for the presence of any substance or material of a different nature, or of a similar nature but with different concentrations, as those indicated in the Report, and this in any part or parts of the Site excluded from the Mandate.

The content of the Report, including its conclusions and recommendations, shall not apply to any period preceding or following the Mandate. The physiochemical conditions of the Site, and the type and degree of contamination identified on the Site, may vary within a given period depending on a number of factors, especially the current activities taking place on the Site and/or on lands adjacent to the Site.

A review of the Report and/or changes in the parameters, conclusions and/or recommendations may prove to be necessary in the event of a change in the Site conditions or the discovery of pertinent information subsequent to the production of the Report.



C - Legislation, Regulations, Guidelines and Policies

The interpretation of the data and observations concerning the Site, as well as the conclusions and recommendations resulting from these, shall take into account the laws, regulations, standards, policies and/or guidelines applicable to the Project and that are in effect at the time of the fulfilment of the Mandate. In the event no current law, regulation, policy, guideline or standard applies to the project, Englobe shall take into account proven environmental and professional rules and practices when drawing up the Report.

Any change in the legislation, regulations, standards, policies and/or guidelines applicable to the project may result in the need to review the Report and/or modify its parameters, conclusions and/or recommendations.

D – Use of Report

The Report is intended for the exclusive use of the Client and shall only be used for the purpose it was meant for.

The content of the Report and its conclusions and recommendations only apply to the Site and may not, at any time and under any circumstances, apply to any land adjacent to the Site or to any other land located in the vicinity of the Site.

Any reproduction in any form whatsoever and any distribution or use of the Report, in whole or in part, by a person other that the Client, is strictly forbidden without the prior written consent of Englobe. Englobe makes no declaration and pledges no responsibility towards any person other than the Client with regard to the content of the Report and the conclusions and recommendations expressed therein.

Englobe is in no way responsible for any loss, fine or penalty, or for any expense, damage or other prejudice of any type whatsoever, sustained by a person other than the Client as a result of the unauthorized use of the Report.

No provision of the Report shall be construed as or considered to be a legal opinion of Englobe's.

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