Cambridge Bay Soil & Water Treatment Facility

2019 Annual Report

Nunavut Water Board Licence 1BR-CST1723

2019 Annual Report

Cambridge Bay SWTF 2019 Annual Report
Version Number: V.1.0

March 31st, 2020

Table of Contents

LIST OF TABLES

APPENDICES

Appendix A Inspector Approval to Discharge
Appendix B Laboratory Certificates of Analysis (COA)
Appendix C Nunavut Water Board Annual Reporting Form

ᓇᐃᓕᑭᐊᓂᒪᔨᒥᑦ ᑐᑭᐊ

ᖃᑎᖅᑎᐅ ᐊᐳᕈᑎᓕᓗᑦ ᑲᑐᖅᑎᑎᑦ ᓄᓇᓗ ᐃᒥᖅᑕᕐᓗ ᓯᐃᓴᑦᖅᑐᖅ 2017-ᒥ ᐃᒪᓕᓗᓂᓗᑦ ᖃᑎᒪᓂᓂᑦ ᓯᐃᓴᖏᑕ ᓇᓴᐃᑎᖏᓐᓄ 1BR-CST1723 ᑕᑯᓇ ᓇᐸᐸᖅᑕᐅᔨᖅ ᐅᑭᐊᓗᑦ ᐊᖅᑐᐸ 2017-ᒥ

ᑕᑯᓇ ᐃᓗᓕᖅᖃᖅᑐᖅ ᓄᓇᒥᑦ ᓴᓗᒪᐃᑐᒥᑦ ᑐᑦᕿᒪᓇᖅᖃᖅᑐᖅ ᐅᖃᓪᓚᐊᖅᓴᓪᓕᐊᑦ, ᐊᐃᕐᓗ ᐊᐅᒥ ᓴᓇᓗᒪᐃᑐᒥᑦ ᐃᓗᓕᖅᑐᑦᓯᒪᔨᖅ ᑕᐃᒪᓗ ᐃᒪᓐᓕᑦ ᑐᑦᕿᒪᓇᖅᑐᖅ ᓴᓗᒪᐃᑐᓂᑦ ᐃᖅᖃᓯᓂᑦ ᐃᓗᓕᖅᖃᖅᑐᖅ. ᑕᓴᑦᓇ ᓴᓇᐅᑎᐅᔨᖅ ᐊᖏᕐᓂᐊ 35 ᐅᑐᕋᐅᑎᓂᑦ ᓴᓂᒧᑦ 49 ᐅᑐᐸᐅᑎᓂᑦ ᑕᑭᓂᖅᖃᓪᓚᓂ. ᐃᒪᖅᒧᑦ ᑐᑦᕿᒪᐊᐊ ᐊᖏᕐᓂᖅᖃᖅᑐᖅ 14 ᐅᑐᕋᐅᑎᓂᑦ ᓴᓂᒧᑦ 16 ᐅᑐᕋᐅᑎᓂᑦ ᑕᑭᓂᐊᖅᓚᓂ. ᐃᒪᖅ ᓴᓇᓗᒪᐃᑐᖅ ᑐᑦᕿᒪᐊᐊᑕ ᐊᖏᕐᓂᖏᓐ 170 ᑭᒃᓚᓇᒃ ᐅᑐᕋᐅᑎᑦ ᐊᖏᕐᓂᐊ. 2019-ᒥ ᐃᓗᓕᖅᑕᐅᔨᖅ ᐅᑐᕋᐅᑎᓂᑦ 56 ᐃᓗᓕᖅᑕᐅᓯᒪᓚᓂ ᑕᑦᓂᖏᓐ ᑎᑭᑎᑦᓗᒍ ᐃᓗᓕᖅᑐᖅᑕᐅᔨᒃᑐᖅ 2020-ᒧᑦ.

EXECUTIVE SUMMARY

The Kitikmeot Environmental Ltd. (KEL) soil and water treatment facility was licensed in 2017 by the Nunavut Water Board under water licence number 1BR-CST1723 and construction of the facility was completed in October 2017.

The facility consists of one soil treatment cell for the receipt of soil contaminated with petroleum hydrocarbons, one cell for the receipt of contaminated snow and water along with one cell for the storage of containerized hazardous waste material. The soil treatment cell dimensions are approximately 35 meters by 49 meters. The water cell and hazardous water storage cell dimensions are approximately 14 meters by 16 meters. The water cell is designed with a capacity of 170 cubic meters. In 2019 a total of 56 cubic meters of soil was deposited at the facility and will undergo treatment in 2020.

1.0 INTRODUCTION

Licensee:

Kitikmeot Environmental Ltd. (KEL)
PO Box 92, 10 Omilik Road
Cambridge Bay, Nunavut
X0B 0C0

The Cambridge Bay Soil and Water Treatment Facility (the Facility) is operated under the Nunavut Water Board (NWB) water licence 1BR-CST1723 originally issued to Kitnuna Environmental Ltd. In 2019, Kitikmeot Environmental Ltd took over the operation. An "Application for Assignment" is being submitted in April 2020 to the NWB.

This 2019 Annual Report serves to satisfy the requirements outlined in Part B, Item 1 of the water licence. A copy of the completed NWB Annual Reporting Form for 2019 can be found in Appendix C.

2.0 PART B, ITEM 1 – ANNUAL REPORT

a. The monthly and annual quantities of material deposited in the on-site Waste Management Facility:

56 cubic meters of soil, 6 cubic meters of snow and 0 cubic meters of water were deposited at the facility in 2019. Generator name, site and volumes are tabulated below:

Table 2-1: Quantity of Waste Deposited in 2019

Waste Description	Generator Name	Generator Site	Date Received	Volume
Soil Contaminated w/ Heating Oil	Kitnuna Projects Inc.	Natik Street & Kitnuna Compound (behind garage (8 Omilik Road))	June 4, 2019	56 m^3
Contaminated Snow	Tetra Tech – Infrastructure & Environmental	Northern Store	January 28, 2019	6 m^3

b. Characterization of soils treated at the Facility

No soil was treated at the Facility in 2019 and no confirmatory soil samples were collected.

c. The monthly and annual quantities of any effluent discharge from the Facility

Approval to discharge effluent water from the Facility was granted by Mr. Baba Pedersen on September 25, 2019. Correspondence approving the discharge can be found in Appendix A. A copy of the analytical can be found in Appendix B.

d. Waste backhauled to any Nunavut Community in 2019

No waste was backhauled to any Nunavut community in 2019.

e. GPS co-ordinates of all waste associated with the Project

The coordinates of the facility are 69°7.718' North and 105° 2.760 West.

f. Construction work, modification and major maintenance work completed at the Facility

No construction work, modification or major maintenance work was completed at the Facility in 2019.

g. Tabular summaries for all data and information generated under the "Monitoring Program"

Monitoring was not completed in 2019 and will begin in 2020. The 2020 Annual Report will contain tabulated laboratory data results and information generated under the "Monitoring Program".

h. Monitoring Program Data Analysis

Groundwater monitoring wells were installed in 2018 at locations surrounding the facility. The locations of these wells were established in accordance with Part K Item 1 of the water license. The requirements for the monitoring program were for one well to be installed upgradient of the Facility (CST-2) and two wells installed down gradient (CST-3, CST-4). The monitoring wells were installed by KEL on August 17-18, 2018.

As per Part K Item 7 of the license, a Water Monitoring Plan (WMP) was created and submitted to the NWB on May 12, 2017. The WMP will be revised once the groundwater monitoring wells have been sampled for the first time in 2020.

i. Summary of Studies

No studies were requested by the board in 2019. No studies have been requested or are planned for 2020 at this time

j. Unauthorized Discharges

No unauthorized discharges occurred in 2019.

k. Description of trenches or sumps excavated

No trenches or sumps were excavated in 2019.

l. Public consultation/participation report

No public consultations occurred in 2019.

m. Summary of Inspection Reports and Corrective Actions

No inspections or reports were prepared by an inspector in 2019.

n. Executive summary in English and in Inuktitut of all plans, reports, or studies conducted under this Licence

No reports, or studies were conducted in 2019.

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o. Additional details as requested by the Board

No additional details were requested by the Board in 2019.

APPENDIX A

Appendix A Inspector Approval to Discharge

Renee White

From: Pedersen, Baba (AADNC/AANDC) <baba.pedersen@canada.ca>
Sent: September 25, 2019 9:56 AM
To: Andrew Wheeler
Cc: Shawn Samborsky
Subject: RE: Cambridge Bay SWTF -1BR-CST1723-Water Discharge Request

Hello Andy,

Thanks for your call.
All looks well, **I approve your request to discharge**.
Until further notice, I am your contact on this file.

Koana,
Baba

Baba Pedersen
Resource Management/Water Resource Officer
Kitikmeot Region
Crown-Indiginous Relations and Northern Affairs Canada
Box 278, Kugluktuk, NU X0B-0E0
Phone 867-982-4306
Fax 867-982-4307
Cell 867-222-2839
Baba.pedersen@canada.ca

From: Andrew Wheeler [mailto:awheeler@kblenv.com]
Sent: Monday, September 23, 2019 7:24 AM
To: Pedersen, Baba (AADNC/AANDC)
Cc: Shawn Samborsky
Subject: RE: Cambridge Bay SWTF -1BR-CST1723-Water Discharge Request

Good Morning Baba,
This email is seeking approval to discharge water from the facility under NWB Water Licence No. 1BR-CST1723. A timely response would be appreciated so we can manage the water while it is liquid.

The tables below summarizes two recent samples from the facility drum storage area and retention pond. Neither of these locations have contained contaminated material to date. The drum storage area contains water (snow melt) from the landfarm which was relocated last summer, as indicated in the correspondence from Josh Foster below.

Supporting certificate of analysis from the laboratory is attached for reference.

Thank you,
Andy

Sampling Information				Volatile Organic Compounds				
Sample ID	Lab ID	Location	Date	Benzene	Toluene	Ethylbenzene	Xylenes (Total)	F1-BTEX (CS-
-	-	-	dd-mmm-yy	mg/L	mg/L	mg/L	mg/L	
NWB Water Licence No. 1BR-CST1723 Maximum Allowable Concentration				0.37	0.002	0.09	-	
Surface Water Monitoring Locations								
POND 1	WK9701	CST-1	04-Sep-19	<0.00040	<0.00040	<0.00040	<0.00089	<0.
POND 2	WK9702	CST-1	04-Sep-19	<0.00040	<0.00040	<0.00040	<0.00089	<0.

Andy Wheeler, B.Sc.
Project Manager

Phone 867.873.5263
Cell 403.816.3452
Fax 867.669.5555

Yellowknife Waste Facility
17 Cameron Road
Yellowknife, NT X1A 2P4
kblenv.com

From: Joshua Foster <jfoster@kblenv.com>
Sent: September 24, 2018 3:04 PM
To: Pedersen, Baba (AADNC/AANDC) <baba.pedersen@canada.ca>
Cc: Andrew Wheeler <awheeler@kblenv.com>
Subject: RE: Cambridge Bay SWTF -1BR-CST1723-Water Discharge Request

Hi Baba,

As per our email chain below, we have resampled the remaining water at the Cambridge Bay landfarm and it now meets criteria for discharge. I have included the tabulated results along with the laboratory analytical report. I'd like to request approval to discharge the water as per the license so we can get it empty before things completely freeze up.

Parameter	Guideline mg/L	Result
pH	6.0-9.0	7.95
TSS	50	< 3.0
Oil and Grease	15	<5.0
Total Lead	0.001	0.000062
Benzene	0.37	<0.00050
Toluene	0.002	<0.00045
Ethylbenzene	0.09	<0.00050
Xylenes	0.18	<0.00075

Let me know if you have any questions,

Josh

From: Pedersen, Baba (AADNC/AANDC) <baba.pedersen@canada.ca>
Sent: July 9, 2018 11:13 AM
To: Joshua Foster <jfoster@kblenv.com>
Subject: RE: Cambridge Bay SWTF -1BR-CST1723-Water Discharge Request

Hi Josh,

Thanks for the info. I agree with your request. You can go ahead with the Pond Discharge anytime. Keep me informed on the landfarm issue.

Koana,
Baba

From: Joshua Foster [mailto:jfoster@kblenv.com]
Sent: Monday, July 09, 2018 10:27 AM
To: Pedersen, Baba (AADNC/AANDC)
Subject: RE: Cambridge Bay SWTF -1BR-CST1723-Water Discharge Request

Hi Baba,

The test water results from the landfarm in Cambridge Bay are now available. I have put them into a table below and attached the laboratory certificate as well for you review.

Cambridge Bay Discharge Criteria				
	mg/L	POND	STF	22-Jun
pH	6.0-9.0	7.67	7.76	
TSS	50	18.3	53.2	
Oil and Grease	15	<2.0	<2.0	
Tota Lead	0.001	0.0013	0.00395	
Benzene	0.37	<0.00050	0.00073	
Toluene	0.002	<0.00050	0.00051	
Ethy benzene	0.09	<0.00050	0.00073	
Xylenes	0.18	0.0025	0.00392	
Water Licence 1BR-CST1723				

You'll notice that the water sitting in the landfarm (STF) does exceed the TSS and Lead guidelines. We will not pump this water off, but will instead wait for some of the sediment to settle out and then sample it again. The water from the ponds however, does meet the guidelines. The Total Lead Value is only higher based on the fact that a different number of significant digits are used by the lab. Based on these results, I would request that we discharge the pond waters and then pump the landfarm into the ponds where we can then wait for the sediment to settle and re-sample again at a later date. Please let me know your thoughts, and if you would like to discuss.

Many thanks,

Josh

From: Pedersen, Baba (AADNC/AANDC) [mailto:baba.pedersen@canada.ca]
Sent: June 19, 2018 2:55 PM
To: Joshua Foster <jfoster@kblenv.com>
Subject: RE: Cambridge Bay SWTF -1BR-CST1723-Water Discharge Request

Hello Josh,

Yes, I approve your request to discharge. As promised please send Test Results when available.

Koana,
Baba

From: Joshua Foster [mailto:jfoster@kblenv.com]
Sent: Tuesday, June 19, 2018 1:58 PM
To: Pedersen, Baba (AADNC/AANDC)
Subject: Cambridge Bay SWTF -1BR-CST1723-Water Discharge Request

Hi Baba,

I am requesting that we can discharge the water contained at the Soil Treatment Facility in Cambridge Bay. Currently the drum storage area and water retention pond are full of melted snow. Neither of these locations have ever contained contaminated material and we are requesting to discharge as per last year.

Melted snow in the landfarm may have come into contact with contaminated material, and I will collect a water sample and send you the results from that location for approval prior to pumping off. Could you kindly confirm approval to pump off the 2 cells that have not contained any contaminated material?

Thanks,

KEL

Josh Foster
Project Manager

Cell 780.289.9090
Office 867.873.5263
Fax 877.316.7991

Cambridge Bay Office
PO Box 92, 10 Omilik Road
Cambridge Bay, Nunavut
X0B 0C0
kblenv.com

Table 1: Surface Water Characterization Data
Client: KEL
Project: Facility operations
KEL File #: 4300

Sampling Information				Volatile Organic Compounds				Petroleum Hydrocarbons				Misc. Organic			Misc. Inorganics		Metals	
Sample ID	Lab ID	Location	Date	Benzene	Toluene	Ethylbenzene	Xylenes (Total)	F1-BTEX (C6-C10)	F2 (C10-C16)	F3 (C16-34)	F4 (C34-50)	Extractable Oil and Grease	Total Extractables C11 to C22	Total Extractables C23-C60	pH	Total Suspended Solids	Dissolved Lead (Pb)	Total Lead (Pb)
-	-	-	dd-mmm-yy	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	-	mg/L	mg/L	mg/L
NWB Water Licence No. 1BR-CST1723 Maximum Allowable Concentration				0.37	0.002	0.09	-	-	-	-	-	-	-	-	6.5-9.0	-	0.007	0.007
Surface Water Monitoring Locations																		
POND 1	WK9701	CST-1	04-Sep-19	<0.00040	<0.00040	<0.00040	<0.00089	<0.100	<0.10	<0.10	<0.20	-	<0.20	<0.20	7.79	<1.0	<0.00020	<0.00020
POND 2	WK9702	CST-1	04-Sep-19	<0.00040	<0.00040	<0.00040	<0.00089	<0.100	<0.10	<0.10	<0.20	-	<0.20	<0.20	7.85	1.3	<0.00020	<0.00020

Legend
mg/L milligrams per litre

Applicable Guidelines
- *Canadian Environmental Quality Guidelines* (CCME Water Quality Guidelines; CCME, 1998-2014) for the protection of freshwater aquatic life

Notes
- Parameters not measured and absence of applicable guideline indicated by "-"
- Analytical data reported by Bureau Veritas (Work Order #: B974403)
- Exceedance of applicable guidelines or background conditions indicated by shading; where multiple guidelines apply, the most stringent guideline was used

APPENDIX B

Appendix B Laboratory Certificates of Analysis (COA)

Your C.O.C. #: 1 of 1

Attention: Shawn Samborsky

KBL Environmental (AB) Ltd.
3601-75 Ave
Leduc, AB
CANADA T9E 0Z5

Report Date: 2019/09/20
Report #: R2784336
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BV LABS JOB #: B974403
Received: 2019/09/05, 14:42

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
BTEX/F1 in Water by HS GC/MS/FID	1	N/A	2019/09/07	AB SOP-00039	CCME CWS/EPA 8260d m
BTEX/F1 in Water by HS GC/MS/FID	1	N/A	2019/09/11	AB SOP-00039	CCME CWS/EPA 8260d m
F1-BTEX	1	N/A	2019/09/09		Auto Calc
F1-BTEX	1	N/A	2019/09/12		Auto Calc
Cadmium - low level CCME - Dissolved	2	N/A	2019/09/10		Auto Calc
CCME Hydrocarbons (F2-F4 in water) (1)	2	2019/09/10	2019/09/11	AB SOP-00037 / AB SOP-00040	CCME PHC-CWS m
Elements by ICP-Dissolved-Lab Filtered (2)	2	N/A	2019/09/07	AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS-Dissolved-Lab Filtered (3)	2	N/A	2019/09/09	AB SOP-00043	EPA 6020b R2 m
Lead (Total)	2	2019/09/19	2019/09/19	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
pH @25°C (4)	2	N/A	2019/09/19	AB SOP-00005	SM 23 4500 H+ B m
Total Extractable HC Calculation C11-C60	2	2019/09/06	2019/09/11		Auto Calc
Hydrocarbons(C11-C60) in Water by GC/FID	2	2019/09/10	2019/09/11	AB SOP-00037	CCME PHC-CWS m
Total Suspended Solids (NFR)	2	2019/09/19	2019/09/19	AB SOP-00061	SM 23 2540 D m

Remarks:

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

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

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

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by BV Labs, results relate to the supplied samples tested.

Your C.O.C. #: 1 of 1

Attention: Shawn Samborsky

KBL Environmental (AB) Ltd.
3601-75 Ave
Leduc, AB
CANADA T9E 0Z5

Report Date: 2019/09/20
Report #: R2784336
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BV LABS JOB #: B974403
Received: 2019/09/05, 14:42

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) Silica gel clean up employed.
(2) Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(3) Samples were filtered and preserved at the lab. Values may not reflect concentrations at the time of sampling. Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.
(4) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas Laboratories endeavours to analyze samples as soon as possible after receipt.

Encryption Key

Tim Li
Project Manager
20 Sep 2019 17:00:05

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Customer Solutions, Western Canada Customer Experience Team
Email: customersolutionswest@bvlabs.com
Phone# (780) 577-7100

==========

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

AT1 BTEX AND F1-F4 IN WATER (WATER)

BV Labs ID		WK9701		WK9702		
Sampling Date		2019/09/04		2019/09/04		
COC Number		1 of 1		1 of 1		
	UNITS	POND 1	QC Batch	POND 2	RDL	QC Batch
Ext. Pet. Hydrocarbon						
F2 (C10-C16 Hydrocarbons)	mg/L	ND	9582341	ND	0.10	9582341
F3 (C16-C34 Hydrocarbons)	mg/L	ND	9582341	ND	0.10	9582341
F4 (C34-C50 Hydrocarbons)	mg/L	ND	9582341	ND	0.20	9582341
Volatiles						
Benzene	ug/L	ND	9584487	ND	0.40	9579010
Toluene	ug/L	ND	9584487	ND	0.40	9579010
Ethylbenzene	ug/L	ND	9584487	ND	0.40	9579010
m & p-Xylene	ug/L	ND	9584487	ND	0.80	9579010
o-Xylene	ug/L	ND	9584487	ND	0.40	9579010
F1 (C6-C10)	ug/L	ND	9584487	ND	100	9579010
Surrogate Recovery (%)						
1,4-Difluorobenzene (sur.)	%	102	9584487	109		9579010
4-Bromofluorobenzene (sur.)	%	98	9584487	92		9579010
D4-1,2-Dichloroethane (sur.)	%	94	9584487	75		9579010
O-TERPHENYL (sur.)	%	97	9582341	95		9582341

RDL = Reportable Detection Limit
ND = Not detected

Bureau Veritas Laboratories Edmonton: 9331 - 48th Street T6B 2R4 Telephone (780)577-7100 Fax (780)450-4187

REG. METALS (CCME/AT1) – DISS. LAB FILT.

BV Labs ID		WK9701	WK9702		
Sampling Date		2019/09/04	2019/09/04		
COC Number		1 of 1	1 of 1		
	UNITS	POND 1	POND 2	RDL	QC Batch
Low Level Elements					
Dissolved Cadmium (Cd)	ug/L	ND	ND	0.020	9578668
Lab Filtered Elements					
Dissolved Aluminum (Al)	mg/L	0.015	0.016	0.0030	9581637
Dissolved Antimony (Sb)	mg/L	ND	ND	0.00060	9581637
Dissolved Arsenic (As)	mg/L	0.00026	0.00028	0.00020	9581637
Dissolved Barium (Ba)	mg/L	0.025	0.023	0.010	9579608
Dissolved Beryllium (Be)	mg/L	ND	ND	0.0010	9581637
Dissolved Boron (B)	mg/L	0.074	0.11	0.020	9579608
Dissolved Calcium (Ca)	mg/L	26	44	0.30	9579608
Dissolved Chromium (Cr)	mg/L	ND	ND	0.0010	9581637
Dissolved Cobalt (Co)	mg/L	ND	ND	0.00030	9581637
Dissolved Copper (Cu)	mg/L	0.00073	0.0011	0.00020	9581637
Dissolved Iron (Fe)	mg/L	ND	ND	0.060	9579608
Dissolved Lead (Pb)	mg/L	ND	ND	0.00020	9581637
Dissolved Lithium (Li)	mg/L	ND	ND	0.020	9579608
Dissolved Magnesium (Mg)	mg/L	17	24	0.20	9579608
Dissolved Manganese (Mn)	mg/L	ND	ND	0.0040	9579608
Dissolved Molybdenum (Mo)	mg/L	0.0030	0.0033	0.00020	9581637
Dissolved Nickel (Ni)	mg/L	ND	ND	0.00050	9581637
Dissolved Phosphorus (P)	mg/L	ND	ND	0.10	9579608
Dissolved Potassium (K)	mg/L	3.1	5.0	0.30	9579608
Dissolved Selenium (Se)	mg/L	ND	ND	0.00020	9581637
Dissolved Silicon (Si)	mg/L	ND	ND	0.10	9579608
Dissolved Silver (Ag)	mg/L	ND	ND	0.00010	9581637
Dissolved Sodium (Na)	mg/L	15	20	0.50	9579608
Dissolved Strontium (Sr)	mg/L	0.066	0.097	0.020	9579608
Dissolved Sulphur (S)	mg/L	28	49	0.20	9579608
Dissolved Thallium (Tl)	mg/L	ND	ND	0.00020	9581637
Dissolved Tin (Sn)	mg/L	ND	ND	0.0010	9581637
Dissolved Titanium (Ti)	mg/L	ND	ND	0.0010	9581637
Dissolved Uranium (U)	mg/L	0.0010	0.0015	0.00010	9581637
Dissolved Vanadium (V)	mg/L	ND	ND	0.0010	9581637
Dissolved Zinc (Zn)	mg/L	ND	ND	0.0030	9581637

RDL = Reportable Detection Limit
ND = Not detected

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KBL Environmental (AB) Ltd.

RESULTS OF CHEMICAL ANALYSES OF WATER

BV Labs ID		WK9701	WK9702		
Sampling Date		2019/09/04	2019/09/04		
COC Number		1 of 1	1 of 1		
	UNITS	POND 1	POND 2	RDL	QC Batch
Misc. Inorganics					
pH	pH	7.79	7.85	N/A	9594665
Total Suspended Solids	mg/L	ND	1.3	1.0	9594464

RDL = Reportable Detection Limit
N/A = Not Applicable
ND = Not detected

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		WK9701	WK9702		
Sampling Date		2019/09/04	2019/09/04		
COC Number		1 of 1	1 of 1		
	UNITS	POND 1	POND 2	RDL	QC Batch
Elements					
Total Lead (Pb)	mg/L	ND	ND	0.00020	9595356

RDL = Reportable Detection Limit
ND = Not detected

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VOLATILE ORGANICS BY GC-MS (WATER)

BV Labs ID		WK9701	WK9702		
Sampling Date		2019/09/04	2019/09/04		
COC Number		1 of 1	1 of 1		
	UNITS	POND 1	POND 2	RDL	QC Batch
Volatiles					
Xylenes (Total)	ug/L	ND	ND	0.89	9577375
F1 (C6-C10) - BTEX	ug/L	ND	ND	100	9577375

RDL = Reportable Detection Limit
ND = Not detected

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EXTRACTABLE HYDROCARBONS BY GC-FID (WATER)

BV Labs ID		WK9701	WK9702		
Sampling Date		2019/09/04	2019/09/04		
COC Number		1 of 1	1 of 1		
	UNITS	POND 1	POND 2	RDL	QC Batch
Calculated Parameters					
Total Extractables C11 to C60	mg/L	ND	ND	0.28	9578674
Ext. Pet. Hydrocarbon					
Total Extractables C11 to C22	mg/L	ND	ND	0.20	9582360
Total Extractables C23 to C60	mg/L	ND	ND	0.20	9582360
Surrogate Recovery (%)					
O-TERPHENYL (sur.)	%	97	95		9582360

RDL = Reportable Detection Limit
ND = Not detected

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GENERAL COMMENTS

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

Package 1	13.0°C

As per client request, additional analysis has been completed. 2 X PH, TSS, Total Lead. The client request was received 2019/09/18

Sample WK9701 [POND 1] : Sample was not homogenized before subsampling; sample results may be biased high for total suspended solids and total metals. Sample was analyzed past method specified hold time for Total Suspended Solids (NFR). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.

Sample WK9702 [POND 2] : Sample was not homogenized before subsampling; sample results may be biased high for total suspended solids and total metals. Sample was analyzed past method specified hold time for Total Suspended Solids (NFR). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9579010	DUO	Matrix Spike	1,4-Difluorobenzene (sur.)	2019/09/07		102	%	50 - 140
			4-Bromofluorobenzene (sur.)	2019/09/07		93	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2019/09/07		76	%	50 - 140
			Benzene	2019/09/07		83	%	50 - 140
			Toluene	2019/09/07		78	%	50 - 140
			Ethylbenzene	2019/09/07		81	%	50 - 140
			m & p-Xylene	2019/09/07		83	%	50 - 140
			o-Xylene	2019/09/07		86	%	50 - 140
			F1 (C6-C10)	2019/09/07		88	%	60 - 140
9579010	DUO	Spiked Blank	1,4-Difluorobenzene (sur.)	2019/09/07		104	%	50 - 140
			4-Bromofluorobenzene (sur.)	2019/09/07		93	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2019/09/07		74	%	50 - 140
			Benzene	2019/09/07		79	%	60 - 130
			Toluene	2019/09/07		76	%	60 - 130
			Ethylbenzene	2019/09/07		78	%	60 - 130
			m & p-Xylene	2019/09/07		81	%	60 - 130
			o-Xylene	2019/09/07		83	%	60 - 130
			F1 (C6-C10)	2019/09/07		122	%	60 - 140
9579010	DUO	Method Blank	1,4-Difluorobenzene (sur.)	2019/09/07		110	%	50 - 140
			4-Bromofluorobenzene (sur.)	2019/09/07		92	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2019/09/07		78	%	50 - 140
			Benzene	2019/09/07	ND, RDL=0.40		ug/L	
			Toluene	2019/09/07	ND, RDL=0.40		ug/L	
			Ethylbenzene	2019/09/07	ND, RDL=0.40		ug/L	
			m & p-Xylene	2019/09/07	ND, RDL=0.80		ug/L	
			o-Xylene	2019/09/07	ND, RDL=0.40		ug/L	
			F1 (C6-C10)	2019/09/07	ND, RDL=100		ug/L	
9579010	DUO	RPD	Benzene	2019/09/07	NC		%	30
			Toluene	2019/09/07	NC		%	30
			Ethylbenzene	2019/09/07	NC		%	30
			m & p-Xylene	2019/09/07	NC		%	30
			o-Xylene	2019/09/07	NC		%	30
			F1 (C6-C10)	2019/09/07	NC		%	30
9579608	ACY	Matrix Spike [WK9701-01]	Dissolved Barium (Ba)	2019/09/07		90	%	80 - 120
			Dissolved Boron (B)	2019/09/07		97	%	80 - 120
			Dissolved Calcium (Ca)	2019/09/07		98	%	80 - 120
			Dissolved Iron (Fe)	2019/09/07		99	%	80 - 120
			Dissolved Lithium (Li)	2019/09/07		90	%	80 - 120
			Dissolved Magnesium (Mg)	2019/09/07		95	%	80 - 120
			Dissolved Manganese (Mn)	2019/09/07		99	%	80 - 120
			Dissolved Phosphorus (P)	2019/09/07		97	%	80 - 120
			Dissolved Potassium (K)	2019/09/07		92	%	80 - 120
			Dissolved Silicon (Si)	2019/09/07		99	%	80 - 120
			Dissolved Sodium (Na)	2019/09/07		91	%	80 - 120
			Dissolved Strontium (Sr)	2019/09/07		92	%	80 - 120
			Dissolved Sulphur (S)	2019/09/07		96	%	80 - 120
9579608	ACY	Spiked Blank	Dissolved Barium (Ba)	2019/09/07		97	%	80 - 120
			Dissolved Boron (B)	2019/09/07		101	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Calcium (Ca)	2019/09/07		102	%	80 - 120
			Dissolved Iron (Fe)	2019/09/07		105	%	80 - 120
			Dissolved Lithium (Li)	2019/09/07		98	%	80 - 120
			Dissolved Magnesium (Mg)	2019/09/07		102	%	80 - 120
			Dissolved Manganese (Mn)	2019/09/07		104	%	80 - 120
			Dissolved Phosphorus (P)	2019/09/07		101	%	80 - 120
			Dissolved Potassium (K)	2019/09/07		99	%	80 - 120
			Dissolved Silicon (Si)	2019/09/07		103	%	80 - 120
			Dissolved Sodium (Na)	2019/09/07		99	%	80 - 120
			Dissolved Strontium (Sr)	2019/09/07		99	%	80 - 120
			Dissolved Sulphur (S)	2019/09/07		102	%	80 - 120
9579608	ACY	Method Blank	Dissolved Barium (Ba)	2019/09/07	ND, RDL=0.010		mg/L	
			Dissolved Boron (B)	2019/09/07	ND, RDL=0.020		mg/L	
			Dissolved Calcium (Ca)	2019/09/07	ND, RDL=0.30		mg/L	
			Dissolved Iron (Fe)	2019/09/07	ND, RDL=0.060		mg/L	
			Dissolved Lithium (Li)	2019/09/07	ND, RDL=0.020		mg/L	
			Dissolved Magnesium (Mg)	2019/09/07	ND, RDL=0.20		mg/L	
			Dissolved Manganese (Mn)	2019/09/07	ND, RDL=0.0040		mg/L	
			Dissolved Phosphorus (P)	2019/09/07	ND, RDL=0.10		mg/L	
			Dissolved Potassium (K)	2019/09/07	ND, RDL=0.30		mg/L	
			Dissolved Silicon (Si)	2019/09/07	ND, RDL=0.10		mg/L	
			Dissolved Sodium (Na)	2019/09/07	ND, RDL=0.50		mg/L	
			Dissolved Strontium (Sr)	2019/09/07	ND, RDL=0.020		mg/L	
			Dissolved Sulphur (S)	2019/09/07	ND, RDL=0.20		mg/L	
9579608	ACY	RPD [WK9701-01]	Dissolved Barium (Ba)	2019/09/07	1.2		%	20
			Dissolved Boron (B)	2019/09/07	0.56		%	20
			Dissolved Calcium (Ca)	2019/09/07	0.41		%	20
			Dissolved Iron (Fe)	2019/09/07	NC		%	20
			Dissolved Lithium (Li)	2019/09/07	NC		%	20
			Dissolved Magnesium (Mg)	2019/09/07	0.18		%	20
			Dissolved Manganese (Mn)	2019/09/07	NC		%	20
			Dissolved Phosphorus (P)	2019/09/07	NC		%	20
			Dissolved Potassium (K)	2019/09/07	0.38		%	20
			Dissolved Silicon (Si)	2019/09/07	NC		%	20
			Dissolved Sodium (Na)	2019/09/07	0.46		%	20
			Dissolved Strontium (Sr)	2019/09/07	0.39		%	20
			Dissolved Sulphur (S)	2019/09/07	0.30		%	20
9581637	APY	Matrix Spike [WK9701-01]	Dissolved Aluminum (Al)	2019/09/09		96	%	80 - 120
			Dissolved Antimony (Sb)	2019/09/09		92	%	80 - 120
			Dissolved Arsenic (As)	2019/09/09		93	%	80 - 120
			Dissolved Beryllium (Be)	2019/09/09		88	%	80 - 120
			Dissolved Chromium (Cr)	2019/09/09		92	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Cobalt (Co)	2019/09/09		92	%	80 - 120
			Dissolved Copper (Cu)	2019/09/09		91	%	80 - 120
			Dissolved Lead (Pb)	2019/09/09		93	%	80 - 120
			Dissolved Molybdenum (Mo)	2019/09/09		97	%	80 - 120
			Dissolved Nickel (Ni)	2019/09/09		91	%	80 - 120
			Dissolved Selenium (Se)	2019/09/09		93	%	80 - 120
			Dissolved Silver (Ag)	2019/09/09		92	%	80 - 120
			Dissolved Thallium (Tl)	2019/09/09		94	%	80 - 120
			Dissolved Tin (Sn)	2019/09/09		95	%	80 - 120
			Dissolved Titanium (Ti)	2019/09/09		90	%	80 - 120
			Dissolved Uranium (U)	2019/09/09		89	%	80 - 120
			Dissolved Vanadium (V)	2019/09/09		94	%	80 - 120
			Dissolved Zinc (Zn)	2019/09/09		92	%	80 - 120
9581637	APY	Spiked Blank	Dissolved Aluminum (Al)	2019/09/09		101	%	80 - 120
			Dissolved Antimony (Sb)	2019/09/09		92	%	80 - 120
			Dissolved Arsenic (As)	2019/09/09		92	%	80 - 120
			Dissolved Beryllium (Be)	2019/09/09		90	%	80 - 120
			Dissolved Chromium (Cr)	2019/09/09		94	%	80 - 120
			Dissolved Cobalt (Co)	2019/09/09		94	%	80 - 120
			Dissolved Copper (Cu)	2019/09/09		95	%	80 - 120
			Dissolved Lead (Pb)	2019/09/09		97	%	80 - 120
			Dissolved Molybdenum (Mo)	2019/09/09		96	%	80 - 120
			Dissolved Nickel (Ni)	2019/09/09		93	%	80 - 120
			Dissolved Selenium (Se)	2019/09/09		93	%	80 - 120
			Dissolved Silver (Ag)	2019/09/09		93	%	80 - 120
			Dissolved Thallium (Tl)	2019/09/09		95	%	80 - 120
			Dissolved Tin (Sn)	2019/09/09		95	%	80 - 120
			Dissolved Titanium (Ti)	2019/09/09		96	%	80 - 120
			Dissolved Uranium (U)	2019/09/09		91	%	80 - 120
			Dissolved Vanadium (V)	2019/09/09		97	%	80 - 120
			Dissolved Zinc (Zn)	2019/09/09		95	%	80 - 120
9581637	APY	Method Blank	Dissolved Aluminum (Al)	2019/09/10	ND, RDL=0.0030		mg/L	
			Dissolved Antimony (Sb)	2019/09/10	ND, RDL=0.00060		mg/L	
			Dissolved Arsenic (As)	2019/09/10	ND, RDL=0.00020		mg/L	
			Dissolved Beryllium (Be)	2019/09/10	ND, RDL=0.0010		mg/L	
			Dissolved Chromium (Cr)	2019/09/10	ND, RDL=0.0010		mg/L	
			Dissolved Cobalt (Co)	2019/09/10	ND, RDL=0.00030		mg/L	
			Dissolved Copper (Cu)	2019/09/10	ND, RDL=0.00020		mg/L	
			Dissolved Lead (Pb)	2019/09/10	ND, RDL=0.00020		mg/L	
			Dissolved Molybdenum (Mo)	2019/09/10	ND, RDL=0.00020		mg/L	
			Dissolved Nickel (Ni)	2019/09/10	ND, RDL=0.00050		mg/L	
			Dissolved Selenium (Se)	2019/09/10	ND, RDL=0.00020		mg/L	
			Dissolved Silver (Ag)	2019/09/10	ND, RDL=0.00010		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Thallium (Tl)	2019/09/10	ND, RDL=0.00020		mg/L	
			Dissolved Tin (Sn)	2019/09/10	ND, RDL=0.0010		mg/L	
			Dissolved Titanium (Ti)	2019/09/10	ND, RDL=0.0010		mg/L	
			Dissolved Uranium (U)	2019/09/10	ND, RDL=0.00010		mg/L	
			Dissolved Vanadium (V)	2019/09/10	ND, RDL=0.0010		mg/L	
			Dissolved Zinc (Zn)	2019/09/10	ND, RDL=0.0030		mg/L	
9581637	APY	RPD [WK9701-01]	Dissolved Aluminum (Al)	2019/09/09	6.7		%	20
			Dissolved Antimony (Sb)	2019/09/09	NC		%	20
			Dissolved Arsenic (As)	2019/09/09	15		%	20
			Dissolved Beryllium (Be)	2019/09/09	NC		%	20
			Dissolved Chromium (Cr)	2019/09/09	NC		%	20
			Dissolved Cobalt (Co)	2019/09/09	NC		%	20
			Dissolved Copper (Cu)	2019/09/09	9.6		%	20
			Dissolved Lead (Pb)	2019/09/09	NC		%	20
			Dissolved Molybdenum (Mo)	2019/09/09	0.64		%	20
			Dissolved Nickel (Ni)	2019/09/09	NC		%	20
			Dissolved Selenium (Se)	2019/09/09	NC		%	20
			Dissolved Silver (Ag)	2019/09/09	NC		%	20
			Dissolved Thallium (Tl)	2019/09/09	NC		%	20
			Dissolved Tin (Sn)	2019/09/09	NC		%	20
			Dissolved Titanium (Ti)	2019/09/09	NC		%	20
			Dissolved Uranium (U)	2019/09/09	3.2		%	20
			Dissolved Vanadium (V)	2019/09/09	NC		%	20
			Dissolved Zinc (Zn)	2019/09/09	NC		%	20
9582341	JR1	Matrix Spike	O-TERPHENYL (sur.)	2019/09/11		94	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2019/09/11		102	%	60 - 140
			F3 (C16-C34 Hydrocarbons)	2019/09/11		104	%	60 - 140
			F4 (C34-C50 Hydrocarbons)	2019/09/11		103	%	60 - 140
9582341	JR1	Spiked Blank	O-TERPHENYL (sur.)	2019/09/11		103	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2019/09/11		114	%	60 - 140
			F3 (C16-C34 Hydrocarbons)	2019/09/11		115	%	60 - 140
			F4 (C34-C50 Hydrocarbons)	2019/09/11		113	%	60 - 140
9582341	JR1	Method Blank	O-TERPHENYL (sur.)	2019/09/11		108	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2019/09/11	ND, RDL=0.10		mg/L	
			F3 (C16-C34 Hydrocarbons)	2019/09/11	ND, RDL=0.10		mg/L	
			F4 (C34-C50 Hydrocarbons)	2019/09/11	ND, RDL=0.20		mg/L	
9582341	JR1	RPD	F2 (C10-C16 Hydrocarbons)	2019/09/11	NC		%	30
			F3 (C16-C34 Hydrocarbons)	2019/09/11	NC		%	30
			F4 (C34-C50 Hydrocarbons)	2019/09/11	NC		%	30
9582360	JR1	Spiked Blank	O-TERPHENYL (sur.)	2019/09/11		103	%	60 - 140
			Total Extractables C11 to C22	2019/09/11		114	%	60 - 140
			Total Extractables C23 to C60	2019/09/11		114	%	60 - 140
9582360	JR1	Method Blank	O-TERPHENYL (sur.)	2019/09/11		108	%	60 - 140
			Total Extractables C11 to C22	2019/09/11	ND, RDL=0.20		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Extractables C23 to C60	2019/09/11	ND, RDL=0.20		mg/L	
9584487	DUO	Matrix Spike	1,4-Difluorobenzene (sur.)	2019/09/12		97	%	50 - 140
			4-Bromofluorobenzene (sur.)	2019/09/12		98	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2019/09/12		94	%	50 - 140
			Benzene	2019/09/12		72	%	50 - 140
			Toluene	2019/09/12		74	%	50 - 140
			Ethylbenzene	2019/09/12		78	%	50 - 140
			m & p-Xylene	2019/09/12		79	%	50 - 140
			o-Xylene	2019/09/12		79	%	50 - 140
			F1 (C6-C10)	2019/09/12		92	%	60 - 140
9584487	DUO	Spiked Blank	1,4-Difluorobenzene (sur.)	2019/09/12		97	%	50 - 140
			4-Bromofluorobenzene (sur.)	2019/09/12		98	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2019/09/12		93	%	50 - 140
			Benzene	2019/09/12		79	%	60 - 130
			Toluene	2019/09/12		81	%	60 - 130
			Ethylbenzene	2019/09/12		86	%	60 - 130
			m & p-Xylene	2019/09/12		86	%	60 - 130
			o-Xylene	2019/09/12		85	%	60 - 130
			F1 (C6-C10)	2019/09/12		107	%	60 - 140
9584487	DUO	Method Blank	1,4-Difluorobenzene (sur.)	2019/09/12		105	%	50 - 140
			4-Bromofluorobenzene (sur.)	2019/09/12		97	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2019/09/12		94	%	50 - 140
			Benzene	2019/09/12	ND, RDL=0.40		ug/L	
			Toluene	2019/09/12	ND, RDL=0.40		ug/L	
			Ethylbenzene	2019/09/12	ND, RDL=0.40		ug/L	
			m & p-Xylene	2019/09/12	ND, RDL=0.80		ug/L	
			o-Xylene	2019/09/12	ND, RDL=0.40		ug/L	
			F1 (C6-C10)	2019/09/12	ND, RDL=100		ug/L	
9584487	DUO	RPD	Benzene	2019/09/12	4.2		%	30
			Toluene	2019/09/12	NC		%	30
			Ethylbenzene	2019/09/12	NC		%	30
			m & p-Xylene	2019/09/12	NC		%	30
			o-Xylene	2019/09/12	NC		%	30
			F1 (C6-C10)	2019/09/12	NC		%	30
9594464	VFE	Matrix Spike	Total Suspended Solids	2019/09/19		93	%	80 - 120
9594464	VFE	Spiked Blank	Total Suspended Solids	2019/09/19		103	%	80 - 120
9594464	VFE	Method Blank	Total Suspended Solids	2019/09/19	ND, RDL=1.0		mg/L	
9594464	VFE	RPD	Total Suspended Solids	2019/09/19	0		%	20
9594665	MA4	Spiked Blank	pH	2019/09/19		100	%	97 - 103
9594665	MA4	RPD	pH	2019/09/19	0.27		%	N/A
9595356	JHS	Matrix Spike [WK9701-01]	Total Lead (Pb)	2019/09/19		91	%	80 - 120
9595356	JHS	Spiked Blank	Total Lead (Pb)	2019/09/19		90	%	80 - 120
9595356	JHS	Method Blank	Total Lead (Pb)	2019/09/19	ND, RDL=0.00020		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9595356	JHS	RPD [WK9702-01]	Total Lead (Pb)	2019/09/19	NC		%	20

N/A = Not Applicable

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

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

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

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

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

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

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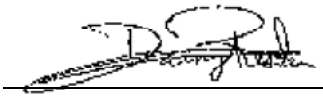
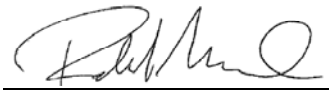
VALIDATION SIGNATURE PAGE

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

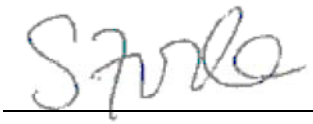


Daniel Reslan, cCT, QP, Organics Manager

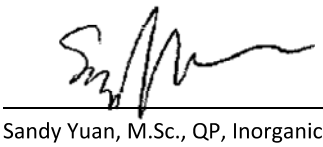
Justin Geisel, B.Sc., Organics Supervisor



Roland Menard, Analyst II



Suwan Fock, B.Sc., QP, Inorganics Senior Analyst



Sandy Yuan, M.Sc., QP, Inorganics Supervisor

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

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APPENDIX C

Appendix C Nunavut Water Board Annual Reporting Form

Nunavut Water Board

Standard Form for Annual Reporting Requirements of NWB2 Exploration Water Licenses

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Under the terms of your water licence issued by the Nunavut Water Board ("NWB") for the use of water and the disposal of waste into water associated with mineral exploration (NWB2 Licenses), Licensees are required to submit to the NWB an Annual Report no later than March 31st of the year following the calendar year being reported.

In order to aid the Licensee with the preparation of the Annual Report and facilitate its review by the NWB, Licensees are **required** to use the following form.

Recommendation and Helpful tips for use:

Metric units shall be used to report any relevant data.

How to Add additional space within Text boxes - Right click mouse on the row number (directly to the left of your screen) which falls within the text box range and click insert. **Do not drag or drop text box to modify size of the text box because formatting will not be maintained and data will be lost.** If you have large amounts of data recommend adding additional worksheets. Go to the help menu for assistance.

Electronic versions should be submitted in Adobe to ensure protection of your information. If you do not have shortcut keys to save as a PDF. Go to print menu . Choose to print "Entire Worksheet" then select printer option Adobe PDF and you will be prompted to save the document as a PDF document. Reminder ensure you have saved your document in Excel so that future changes can be made.

Modify the Header - Select "View" then "Header" from the main menu. Select "Custom Header" and change to reflect the valid Water Licence No.

Textboxes denoted with ***** are optional.

Annual Reports shall be submitted by either fax, mail or email in adobe acrobat or Excel format to:

Nunavut Water Board
c/o Manager of Licensing
P.O. Box 119
Gjoa Haven, NU X0B 1J0
Tel: 867-360-6338
Fax:867-360-6369
Email: licensing@nunavutwaterboard.org

NWB Annual Report **Year being reported:** Select 2019

License No: 1BR-CST1723 **Issued Date:** March 23, 2017
Expiry Date: March 22, 2023

Project Name: Cambridge Bay Soil and Water Treatment Facility Project

Licensee: Kitikmeot Environmental Ltd.

Mailing Address: P.O. Box 92, OMILIK Cambridge Bay, NU X0B 0C0

Name of Company filing Annual Report (if different from Name of Licensee please clarify relationship between the two entities, if applicable):

Kitikmeot Environmental Ltd. - new owner

General Background Information on the Project (*optional):

Licence Requirements: the licensee must provide the following information in accodance with

Part B Item 1

A summary report of water use and waste disposal activities, including, but not limited to: methods of obtaining water; sewage and greywater management; drill waste management; solid and hazardous waste management.

Water Source(s):

Water Quantity:

	Quantity Allowable Domestic (cu.m)
	Actual Quantity Used Domestic (cu.m)
	Quantity Allowable Drilling (cu.m)
	Total Quantity Used Drilling (cu.m)

Waste Management and/or Disposal

- ☐ Solid Waste Disposal
- ☐ Sewage
- ☐ Drill Waste
- ☐ Greywater
- ☐ Hazardous
- ☑ Other: soil and water treatment facility

Additional Details:

Please refer to 2019 Annual Report

A list of unauthorized discharges and a summary of follow-up actions taken.

Spill No.: (as reported to the Spill Hot-line)
Date of Spill:
Date of Notification to an Inspector:
Additional Details: (impacts to water, mitigation measures, short/long term monitoring, etc)

Revisions to the Spill Contingency Plan

SCP submitted and approved - no revision required or proposed

Additional Details:

Revisions to the Abandonment and Restoration Plan

AR plan submitted and approved - no revision required or proposed

Additional Details:

Progressive Reclamation Work Undertaken

Additional Details (i.e., work completed and future works proposed)

Results of the Monitoring Program including:

The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where sources of water are utilized;

Details attached

Additional Details:

The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where wastes associated with the licence are deposited;

Details attached

Additional Details:

Results of any additional sampling and/or analysis that was requested by an Inspector

No additional sampling requested by an Inspector or the Board

Additional Details: (date of request, analysis of results, data attached, etc)

Any other details on water use or waste disposal requested by the Board by November 1 of the year being reported.

No additional sampling requested by an Inspector or the Board

Additional Details: (Attached or provided below)

Any responses or follow-up actions on inspection/compliance reports

No inspection and/or compliance report issued by INAC

Additional Details: (Dates of Report, Follow-up by the Licensee)

Any additional comments or information for the Board to consider

Date Submitted:	March 31st, 2020	
Submitted/Prepared by:	Chris LeGoffe	
Contact Information:	**Tel:**	867.332.0896
	Fax:	
	email:	clegoffe@kblenv.com

GPS Coordinates for water sources utilized

Source Description	Latitude			Longitude		
	Deg °	Min '	Sec "	Deg °	Min '	Sec "

GPS Locations of areas of waste disposal

Location Description (type)	Latitude			Longitude		
	Deg °	Min '	Sec "	Deg °	Min '	Sec "