

Your P.O. #: 997577 Your C.O.C. #: 407259

**Attention: Reporting** 

Agnico Eagle Meadowbank Meadowbank Keewatin, NU CANADA POX 0A1

Report Date: 2021/09/24

Report #: R6826050 Version: 2 - Final

## **CERTIFICATE OF ANALYSIS**

BV LABS JOB #: C1R2301 Received: 2021/09/21, 08:10

Sample Matrix: Water # Samples Received: 2

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	<b>Laboratory Method</b>	Analytical Method
Petroleum Hydro. CCME F1 & BTEX in Water	2	N/A	2021/09/22	CAM SOP-00315	CCME PHC-CWS m
Glycols in Water by GC/FID	2	N/A	2021/09/22	CAM SOP-00322	based on EPA 8015
Elements by CRC ICPMS (total) (1)	2	2021/09/23	2021/09/24	BBY7SOP-00003/BBY7SO	PEPA 6020B R2 m
				-00002	
Total Ammonia-N	2	N/A	2021/09/22	CAM SOP-00441	USGS I-2522-90 m
Total Oil and Grease	2	2021/09/21	2021/09/22	CAM SOP-00326	EPA1664B m,SM5520B m
Low Level Total Suspended Solids	2	2021/09/21	2021/09/22	CAM SOP-00428	SM 23 2540D m

#### Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas 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 Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas 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.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas 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 Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas 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 Bureau Veritas, results relate to the supplied samples tested.

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

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

- \* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
- (1) This test was performed by Bureau Veritas Burnaby, 4606 Canada Way , Burnaby, BC, V5G 1K5



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BV LABS JOB #: C1R2301 Received: 2021/09/21, 08:10

**Encryption Key** 

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

Katherine Szozda, Project Manager

Email: Katherine.Szozda@bureauveritas.com

Phone# (613)274-0573 Ext:7063633

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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.



## **RESULTS OF ANALYSES OF WATER**

BV Labs ID		QSE139			QSE139			QSE140		
Sampling Date		2021/09/13			2021/09/13			2021/09/13		
Sampling Date		10:50			10:50			11:00		
COC Number		407259			407259			407259		
	UNITS	ST-Km103.5	RDL	QC Batch	ST-Km103.5 Lab-Dup	RDL	QC Batch	ST-Km103.3	RDL	QC Batch
Inorganics										
Total Ammonia-N	mg/L	0.28	0.050	7591690	0.28	0.050	7591690	0.35	0.050	7591690
Total Suspended Solids	mg/L	<1	1	7590408				12	1	7590408
Metals										
Total Arsenic (As)	mg/L	0.00039	0.00010	7599240				0.00655	0.00010	7599240
Total Copper (Cu)	mg/L	0.00125	0.00050	7599240				0.00199	0.00050	7599240
Total Lead (Pb)	mg/L	<0.00020	0.00020	7599240				0.00026	0.00020	7599240
Total Nickel (Ni)	mg/L	0.0030	0.0010	7599240				0.0088	0.0010	7599240
Total Zinc (Zn)	mg/L	<0.0050	0.0050	7599240				<0.0050	0.0050	7599240
Petroleum Hydrocarbons	<u>.</u>		•							
Total Oil & Grease	mg/L	<0.50	0.50	7591345				<0.50	0.50	7591345
RDL = Reportable Detection										

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate



# **GLYCOLS BY GC-FID (WATER)**

BV Labs ID		QSE139	QSE139		QSE140		
Sampling Date		2021/09/13 10:50	2021/09/13 10:50		2021/09/13 11:00		
COC Number		407259	407259		407259		
	UNITS	ST-Km103.5	ST-Km103.5 Lab-Dup	RDL	ST-Km103.3	RDL	QC Batch
Glycols							
Propylene Glycol	mg/L	<5	<5	5	<30	30	7591916
Ethylene Glycol	mg/L	<5	<5	5	1300	30	7591916
Diethylene Glycol	mg/L	<5	<5	5	<30	30	7591916
Total Glycol	mg/L	<5	<5	5	1300	30	7591916

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate



# PETROLEUM HYDROCARBONS (CCME)

BV Labs ID		QSE139	QSE140		
Sampling Date		2021/09/13	2021/09/13		
Sampling Date		10:50	11:00		
COC Number		407259	407259		
	UNITS	ST-Km103.5	ST-Km103.3	RDL	QC Batch
BTEX & F1 Hydrocarbons					
Benzene	ug/L	<0.20	<0.20	0.20	7591475
Toluene	ug/L	<0.20	<0.20	0.20	7591475
Ethylbenzene	ug/L	<0.20	<0.20	0.20	7591475
o-Xylene	ug/L	<0.20	<0.20	0.20	7591475
p+m-Xylene	ug/L	<0.40	<0.40	0.40	7591475
Total Xylenes	ug/L	<0.40	<0.40	0.40	7591475
Surrogate Recovery (%)					
1,4-Difluorobenzene	%	102	103		7591475
4-Bromofluorobenzene	%	96	95		7591475
D10-o-Xylene	%	96	95		7591475
D4-1,2-Dichloroethane	%	110	107		7591475
RDL = Reportable Detection L	imit		•		
QC Batch = Quality Control Ba	atch				



## **TEST SUMMARY**

BV Labs ID: QSE139 Sample ID: ST-Km103.5 **Collected:** 2021/09/13

Matrix: Water

Shipped:

**Received:** 2021/09/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	7591475	N/A	2021/09/22	Abdikarim Ali
Glycols in Water by GC/FID	GC/FID	7591916	N/A	2021/09/22	Domnica Andronescu
Elements by CRC ICPMS (total)	ICP/MS	7599240	2021/09/23	2021/09/24	Andrew An
Total Ammonia-N	LACH/NH4	7591690	N/A	2021/09/22	Viorica Rotaru
Total Oil and Grease	BAL	7591345	2021/09/21	2021/09/22	Saumya Modh
Low Level Total Suspended Solids	BAL	7590408	2021/09/21	2021/09/22	Shaneil Hall

BV Labs ID: QSE139 Dup Sample ID: ST-Km103.5 Matrix: Water

Collected: 2021/09/13

Shipped:

2021/09/21 Received:

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Glycols in Water by GC/FID	GC/FID	7591916	N/A	2021/09/22	Domnica Andronescu
Total Ammonia-N	LACH/NH4	7591690	N/A	2021/09/22	Viorica Rotaru

BV Labs ID: QSE140 Sample ID: ST-Km103.3 Matrix: Water

Collected: 2021/09/13

Shipped:

**Received:** 2021/09/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	7591475	N/A	2021/09/22	Abdikarim Ali
Glycols in Water by GC/FID	GC/FID	7591916	N/A	2021/09/22	Domnica Andronescu
Elements by CRC ICPMS (total)	ICP/MS	7599240	2021/09/23	2021/09/24	Andrew An
Total Ammonia-N	LACH/NH4	7591690	N/A	2021/09/22	Viorica Rotaru
Total Oil and Grease	BAL	7591345	2021/09/21	2021/09/22	Saumya Modh
Low Level Total Suspended Solids	BAL	7590408	2021/09/21	2021/09/22	Shaneil Hall



## **GENERAL COMMENTS**

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

Package 1	9.3°C
Package 2	1.7°C
Package 3	1.3°C

Sample QSE140 [ST-Km103.3] : GLYCOLS Analysis : Due to high concentration of target analytes, sample required dilution. Reporting limits were adjusted accordingly.

Results relate only to the items tested.



#### **QUALITY ASSURANCE REPORT**

Agnico Eagle Your P.O. #: 997577 Sampler Initials: NS

			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
7591475	1,4-Difluorobenzene	2021/09/21	95	70 - 130	95	70 - 130	105	%				
7591475	4-Bromofluorobenzene	2021/09/21	99	70 - 130	104	70 - 130	95	%				
7591475	D10-o-Xylene	2021/09/21	99	70 - 130	95	70 - 130	98	%				
7591475	D4-1,2-Dichloroethane	2021/09/21	96	70 - 130	94	70 - 130	102	%				
7590408	Total Suspended Solids	2021/09/22					<1	mg/L	0	25	100	85 - 115
7591345	Total Oil & Grease	2021/09/22			97	85 - 115	<0.50	mg/L	1.8	25		
7591475	Benzene	2021/09/21	92	50 - 140	99	50 - 140	<0.20	ug/L	2.2	30		
7591475	Ethylbenzene	2021/09/21	102	50 - 140	106	50 - 140	<0.20	ug/L	2.1	30		
7591475	o-Xylene	2021/09/21	102	50 - 140	105	50 - 140	<0.20	ug/L	1.9	30		
7591475	p+m-Xylene	2021/09/21	94	50 - 140	95	50 - 140	<0.40	ug/L	NC	30		
7591475	Toluene	2021/09/21	87	50 - 140	90	50 - 140	<0.20	ug/L	12	30		
7591475	Total Xylenes	2021/09/21					<0.40	ug/L	NC	30		
7591690	Total Ammonia-N	2021/09/22	93	75 - 125	96	80 - 120	<0.050	mg/L	0.40	20		
7591916	Diethylene Glycol	2021/09/22	99	60 - 140	91	60 - 140	<5	mg/L	NC	40		
7591916	Ethylene Glycol	2021/09/22	103	60 - 140	97	60 - 140	<5	mg/L	NC	40		
7591916	Propylene Glycol	2021/09/22	105	60 - 140	104	60 - 140	<5	mg/L	NC	40		
7591916	Total Glycol	2021/09/22					<5	mg/L	NC	40		
7599240	Total Arsenic (As)	2021/09/24	98	80 - 120	98	80 - 120	<0.00010	mg/L	7.2	20		
7599240	Total Copper (Cu)	2021/09/24	95	80 - 120	97	80 - 120	<0.00050	mg/L	NC	20		
7599240	Total Lead (Pb)	2021/09/24	103	80 - 120	103	80 - 120	<0.00020	mg/L	NC	20		
7599240	Total Nickel (Ni)	2021/09/24	98	80 - 120	99	80 - 120	<0.0010	mg/L	NC	20		
7599240	Total Zinc (Zn)	2021/09/24	99	80 - 120	99	80 - 120	<0.0050	mg/L	NC	20		

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 (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).



## **VALIDATION SIGNATURE PAGE**

The analytical data and all QC contained in this report were reviewed and validated by:

ANT -
David Huang, BBY Scientific Specialist
Eva Pratific a
Ewa Praniic, M.Sc., C.Chem, Scientific Specialist

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



applicable regulatory guidelines.

Agnico Eagle Your P.O. #: 997577 Sampler Initials: NS

# Exceedance Summary Table – Metal Mining Effluent Reg Result Exceedances

Sample ID	BV Labs ID	Parameter	Criteria	Result	DL	UNITS
No Exceedances						
The exceedance summ	ary table is for information g	ourposes only and should not	be considered a compreh	ensive listing or	statement of	conformance to