

## **Appendix 18**

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### **Meadowbank 2021 Quarry 22 Report**

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MEADOWBANK COMPLEX

**2021 Quarry 22 Report**

Prepared by:  
Agnico Eagle Mines Limited – Meadowbank Complex

March 2022

## EXECUTIVE SUMMARY

This document presents the Quarry 22 remediation method program of Petroleum Hydrocarbon (PHC) for Agnico Eagle Mines Limited (Agnico), Meadowbank Complex.

Following the AANDC inspection report in 2012, this report has been prepared to provide information regarding the Quarry 22 remediation, including but not limited to the contamination cause, the quantity of contaminated material transferred to the Meadowbank landfarm, results from soil sampling campaign and the decontamination further actions.

Since 2012, Agnico have submitted yearly updates by the Agnico Eagle Annual Report. Agnico intended to scarify and sampled on a year basic program. Some sampling campaign were however postponed due to peregrine falcon nesting activities in order to minimize mining disturbance on wildlife.

The 2021 sampling results (Table 1 below) indicate the presence of contamination remnants in the Quarry 22. Results were compared to the Canadian Council of Ministers of the Environment (CCME) remediation criteria for Industrial use of Coarse material and indicated that the concentration of contamination were exceeding the PHC Fraction 3 limits (1,700 mg/kg) in two sections of the Quarry, respectively 4,000 mg/kg for Q22-1 and 2,100 mg/kg for Q22-2.

For the 3<sup>rd</sup> consecutive sampling campaign, analysis results were below the CCME Remediation criteria for the PCH Fraction 1, 2 and 4.

Based on the degradation history of PHC's in the Meadowbank Landfarm and upon analysing results from the Quarry 22 soil sampling campaign (2014, 2016, 2018, 2020 & 2021), Agnico Eagle is confident that the natural degradation of Petroleum Hydrocarbon (PHC) related products is an effective remediation method for the Quarry 22.

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## **SECTION 1 • INTRODUCTION**

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### **1.1 BACKGROUND**

The AWAR (All Weather Access Road) is used to transport material, goods, and petroleum products from the Baker Lake Marshalling Facility to the Meadowbank Complex. The quarries along the road were used as a source of road building aggregate during the construction phase of the AWAR and mainly for road maintenance during the operation phase. Quarry 22 (Q22) may potentially be used in 2022 as a source of material but the extraction will be planned in order to not impact the remediation currently in progress. Quarry 22 was historically used as a temporary storage area for contaminated materials generated from the petroleum hydrocarbon spill clean-up activities prior to the establishment of the landfarm at the Meadowbank site. The use of Q22 as a temporary storage area ceased in 2012 when the Meadowbank Landfarm construction was completed.

In accordance with the AANDC Water Licence inspection dated March 2012, Agnico Eagle prepared and submitted an action plan (dated June 2, 2012) to the Inspector. The Plan consisted of a two phased approach. The first phase included an assessment and delineation of any residual contamination due to the storage and the second phase consisted of removing identified contaminated soils and coarse rock to the Landfarm at Meadowbank.

In 2013, a total of 4,413 m<sup>3</sup> of soil and coarse material was removed from Q22. Approximately half of this (1,930 m<sup>3</sup>) was placed in the landfarm in windrows for soil decontamination. The remaining coarse material, which was not contaminated with PHC's, was placed in the Meadowbank Waste Rock Storage Area, located north of Portage Pit. Residual, uncontaminated coarse rocks were used as pit wall sloping in Q22 for progressive reclamation.

The final reclamation of the quarries along AWAR will be done during the closure phase of the Meadowbank mine site as described in the Meadowbank Interim Reclamation and Closure Plan (SNC-LAVALIN INC., 2020).

It should be noted that this quarry site is located on Inuit Owned Land and is subject to the conditions of a KIA Land use lease.

### **1.2 OBJECTIVES**

The objectives of this report are as follows:

- Evaluate the contaminated reclamation;
- Document the movement of contaminated soil;
- Conduct annual sampling campaign and analyze results;
- Document the remediation actions.

## SECTION 2 • QUARRY 22

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### 2.1 2021 ACTIONS

Results from the September 2020 fall sampling campaign indicated some remnants of contamination when compared to the CCME remediation Criteria for Industrial Use of Coarse Material. Most of the remaining contamination was associated with Fraction 3 PHC hydrocarbons.

Taking into consideration the results from the previous sampling campaigns (2014, 2016, 2018 & 2020), Agnico Eagle intended to continue to scarify early spring the surface of Q22, with the back-end of a grader, allowing ground surface to be aerated thus increasing degradation of PHC. A bird deterrent cannon was deployed on May 25 to prevent falcon activities in the quarry before scarification occurred. The bird cannon was set in the interval *Random 10*, meaning a shot series is randomly chosen by the control-unit between 1 and 10 minutes, blasting at 120dB. The bird cannon was removed once peregrine falcon activity was observed in the quarry on June 1<sup>st</sup>. All activity within the area, including scarification, were postponed minimizing the impact of potential nesting for this species and therefore ensure proper conditions of nesting activity.

A sampling campaign was however completed late September to track the degradation of PHC with time. Scarification work was performed on September 25, 2021 and the samples were collected on September 30, 2021. Results are shown in Section 3.

Regular inspections of the quarry were also performed during the year to ensure that runoff, if any, would be free of any visible sheen and would not impact the environment. No issues with runoff water inside the quarry were noted in 2021.

### 2.2 SAMPLING

On September 30<sup>th</sup>, 2021, the Environment department sampled the soil from the substrate to further assess PHC degradation following the clean-up action since 2013 and to track rates of contamination reclamation.

To ensure result's consistency, the same grid system was used in all previous sampling campaign to divide the quarry in portions representing areas where contaminated material had been stored (Appendix A). As such, areas from 0 to 1 represent a smaller sampling area in size as more contaminated material was stored in this area (towards back/walls). Size increased as areas move from 1 to 2 to 3. Portions from 3 and beyond represented the largest in area. The surface included any material that was used for sloping along the walls (see Section 1.1 above). This area sampling design was adopted to ensure that the soil characterization was well assessed; in particular, in the areas that received most of the contaminated material.

Within each separate area (Q22-1 to Q-22-8) a composite soil sample was collected from the surface at 30 centimetres intervals covering the whole area. This composite sample was collected in a clean plastic bag by an environmental technician in accordance with standard sampling techniques. The composite plastic bag was then thoroughly stirred and mixed. Following this, a 250 ml sample was obtained, placed in a standard glass sample bottle, and sent to Agnico's external accredited lab. Sampling instruments were cleaned between each sample event.

## **SECTION 3 • RESULTS**

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The 2021 sampling results (Table 1 below) indicate the presence of contamination remnants in the Q22. Results were compared to the Canadian Council of Ministers of the Environment (CCME) remediation criteria for Industrial use of Coarse material, which is determined to be aligned with the definition of industrial land detailed in the Government of Nunavut Environmental Guidelines for the Management of Contaminated Sites Remediation. The results indicated that the concentration of contamination were exceeding the PCH Fraction 3 limits (1,700 mg/kg) in two sections of the Quarry, respectively 4,000 mg/kg for Q22-1 and 2,100 mg/kg for Q22-2.

The Q22-1 result was slightly higher than the previous sampling campaign. Result of 4,000 mg/kg in 2021 compared to 2,000 mg/kg in 2020. This variation can be explained by the scarification work perform that may have spread some material or by the higher Petroleum Hydrocarbon (PHC) concentration grab in the samples. As per the Q22-2 results, the concentration is consistently trending down since the beginning of the remediation program.

For the third consecutive sampling campaign (Table 2 below), analysis results were below the CCME Remediation criteria for the PHC Fraction 1, 2 and 4.

3.1 TABLE 1 – QUARRY 22 (2021) SAMPLING RESULTS

Sample date			30/09/2021	30/09/2021	30/09/2021	30/09/2021	30/09/2021	30/09/2021	30/09/2021	30/09/2021
Sample name			Q22-1	Q22-2	Q22-3	Q22-4	Q22-5	Q22-6	Q22-7	Q22-8
Parameter	CCME Remediation Criteria	Unit								
Petroleum Hydrocarbons - F1 (C6-C10)	320	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Petroleum Hydrocarbons - F2 (C10-C16)	260	mg/kg	96	32	< 10	< 10	< 10	< 10	< 10	< 10
Petroleum Hydrocarbons - F3 (C16-C34)	1700	mg/kg	4000	2100	270	690	200	660	250	440
Petroleum Hydrocarbons - F4 (C34-C50)	3330	mg/kg	910	570	68	170	54	160	63	120

Red values are above the CCME criteria

3.2 TABLE 2 – QUARRY 22 (2014, 2016, 2018, 2020 & 2021) SAMPLING RESULTS

Sample Location	Year 2014	Fraction 1	Fraction 2	Fraction 3	Fraction 4	Year 2016	Fraction 1	Fraction 2	Fraction 3	Fraction 4	Year 2018	Fraction 1	Fraction 2	Fraction 3	Fraction 4	Year 2020	Fraction 1	Fraction 2	Fraction 3	Fraction 4	Year 2021	Fraction 1	Fraction 2	Fraction 3	Fraction 4
Remediation criteria (mg/Kg)	Sampling Date	320	260	1700	3300	Sampling Date	320	260	1700	3300	Sampling Date	320	260	1700	3300	Sampling Date	320	260	1700	3300	Sampling Date	320	260	1700	3300
Q22-1	7/11/2014	0.06	400	10000	1900	9/5/2016	0.06	99	7000	1400	9/25/2018	0.71	52	8800	2000	9/24/2020	<10	<10	2000	450	9/30/2021	<10	96	4000	910
Q22-2	7/11/2014	0.06	130	4600	1100	9/5/2016	0.06	110	8100	1600	9/25/2018	<0.06	16	5300	1400	9/24/2020	<10	17	2300	670	9/30/2021	<10	32	2100	570
Q22-3	7/11/2014	0.06	10	1100	250	9/5/2016	0.06	58	3400	770	9/25/2018	0.74	<10	750	230	9/24/2020	<10	<10	180	<50	9/30/2021	<10	<10	270	68
Q22-4	7/11/2014	0.06	96	6800	1500	9/5/2016	0.06	37	2100	490	9/25/2018	<0.06	<10	1700	480	9/24/2020	<10	18	810	210	9/30/2021	<10	<10	690	170
Q22-5	7/11/2014	0.06	10	500	170	9/5/2016	0.06	<10	260	100	9/25/2018	<0.06	<10	170	73	9/24/2020	<10	<10	260	100	9/30/2021	<10	<10	200	54
Q22-6	7/11/2014	0.06	10	1600	570	9/5/2016	0.06	<10	470	180	9/25/2018	<0.06	<10	1600	500	9/24/2020	<10	<10	280	71	9/30/2021	<10	<10	660	160
Q22-7	7/11/2014	0.06	10	2200	520	9/6/2016	0.06	13	450	180	9/25/2018	<0.06	<10	290	110	9/24/2020	<10	<10	160	69	9/30/2021	<10	<10	250	63
Q22-8	7/11/2014	0.06	37	3100	660	9/6/2016	0.2	<10	400	160	9/25/2018	<0.06	<10	470	160	9/24/2020	<10	<10	1200	280	9/30/2021	<10	<10	440	120

Red Values are above the CCME criteria



### 3.3 FIGURES 1 TO 8 – SAMPLING CAMPAIGN COMPARATIVE RESULTS

Figure 1 – Comparative results 2014, 2016, 2018, 2020 & 2021 – Section Q22-1

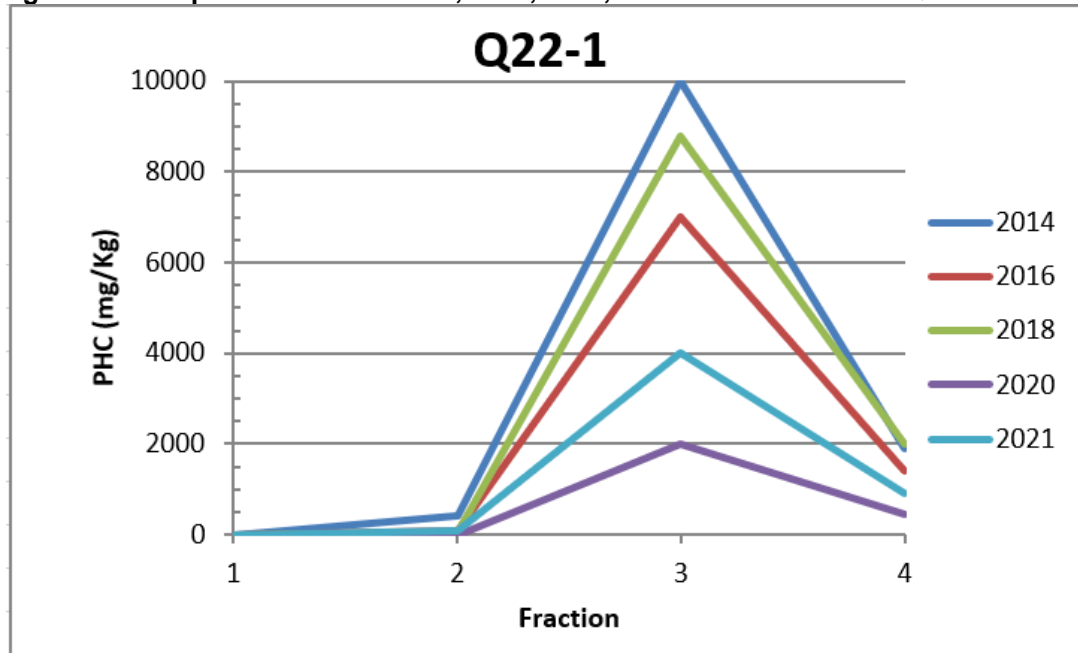


Figure 2 – Comparative results 2014, 2016, 2018, 2020 & 2021 – Section Q22-2

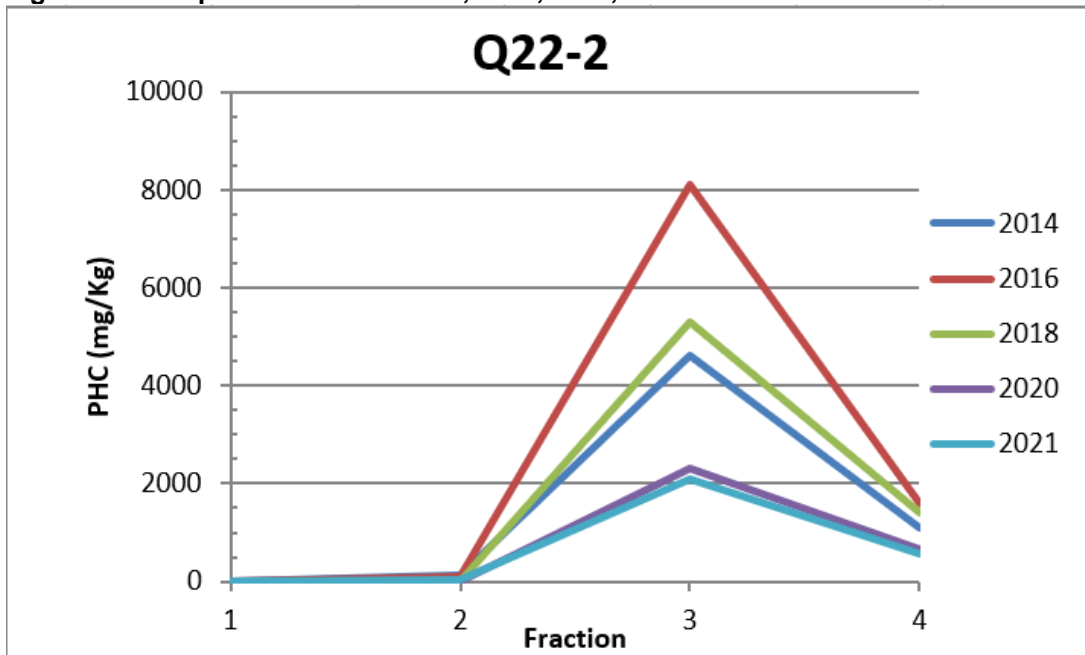


Figure 3 – Comparative results 2014, 2016, 2018, 2020 & 2021 – Section Q22-3

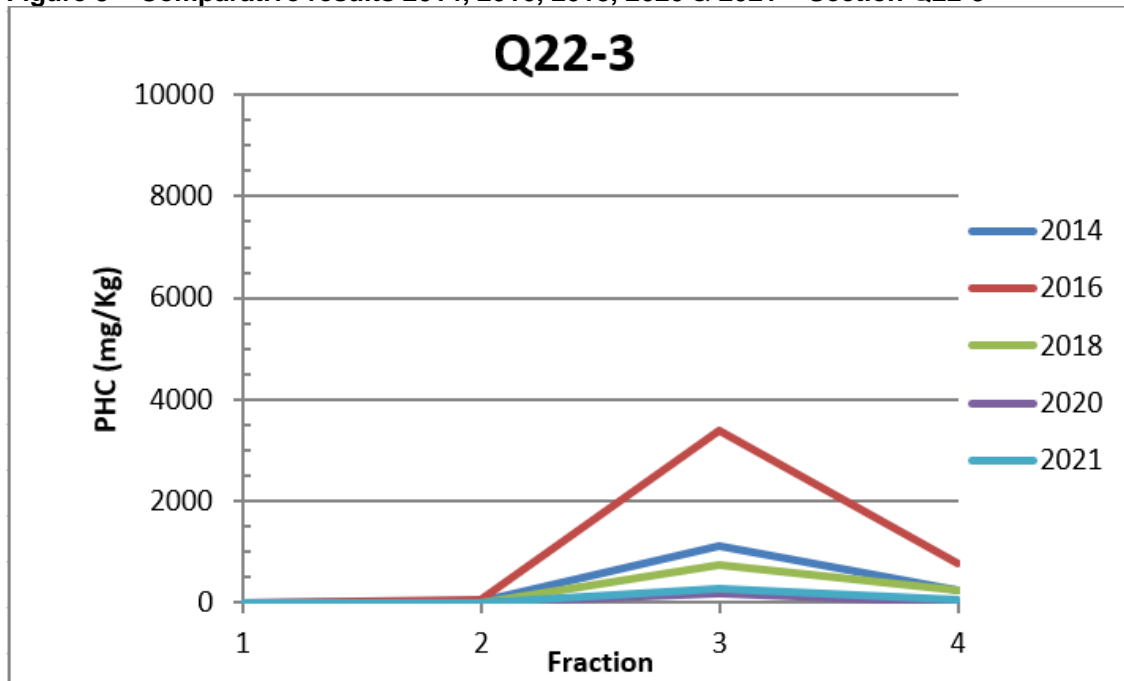


Figure 4 – Comparative results 2014, 2016, 2018, 2020 & 2021 – Section Q22-4

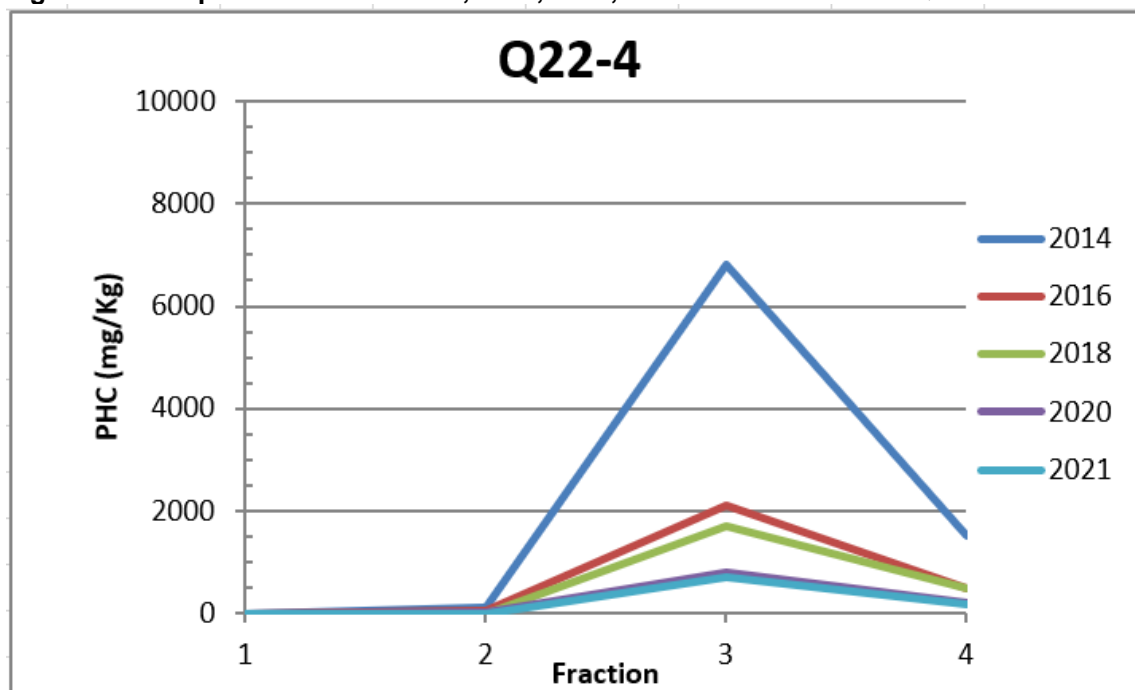


Figure 5 – Comparative results 2014, 2016, 2018, 2020 & 2021 – Section Q22-5

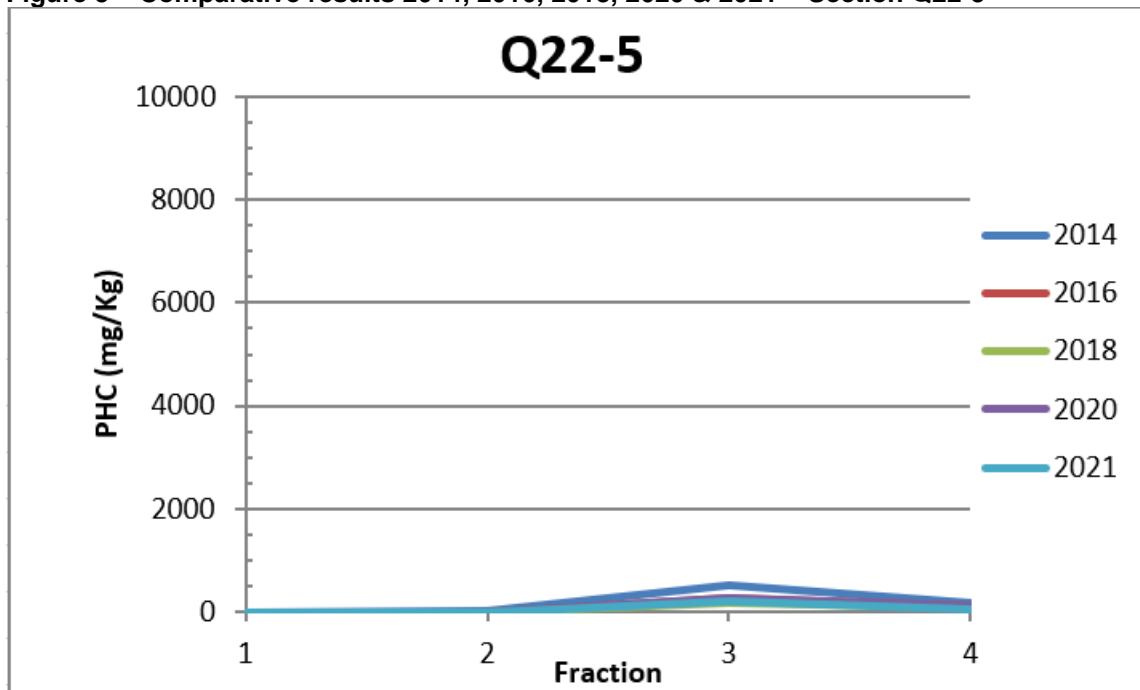


Figure 6 – Comparative results 2014, 2016, 2018, 2020 & 2021 – Section Q22-6

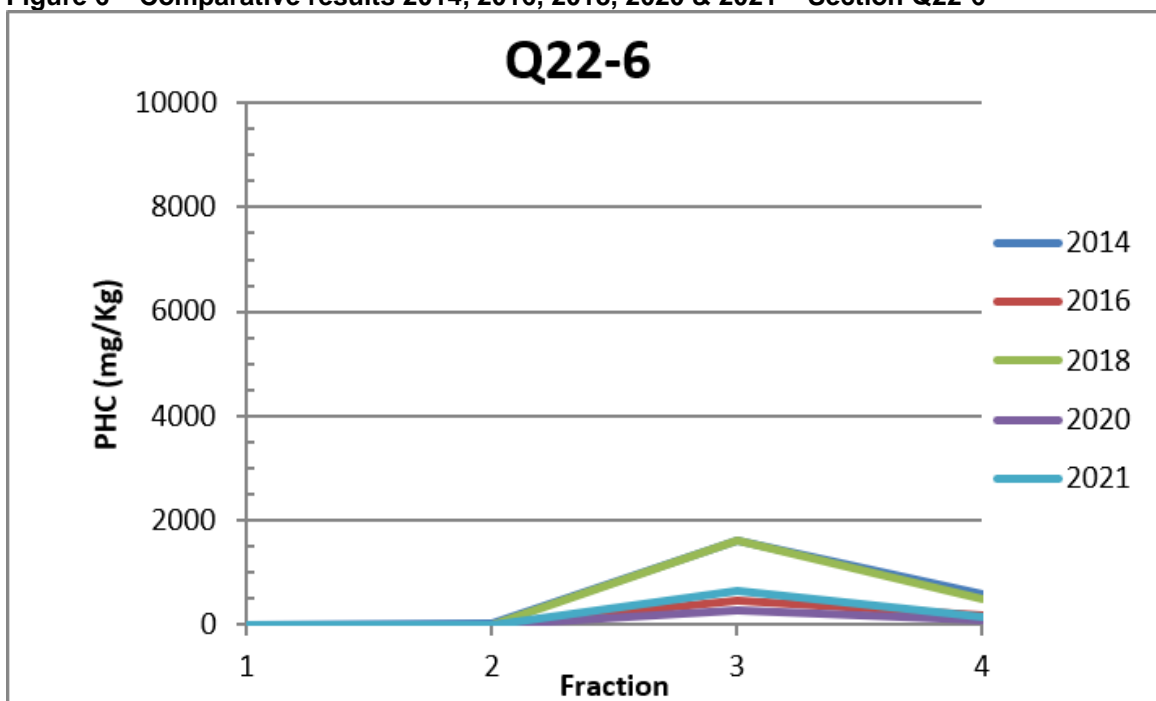


Figure 7 – Comparative results 2014, 2016, 2018, 2020 & 2021 – Section Q22-7

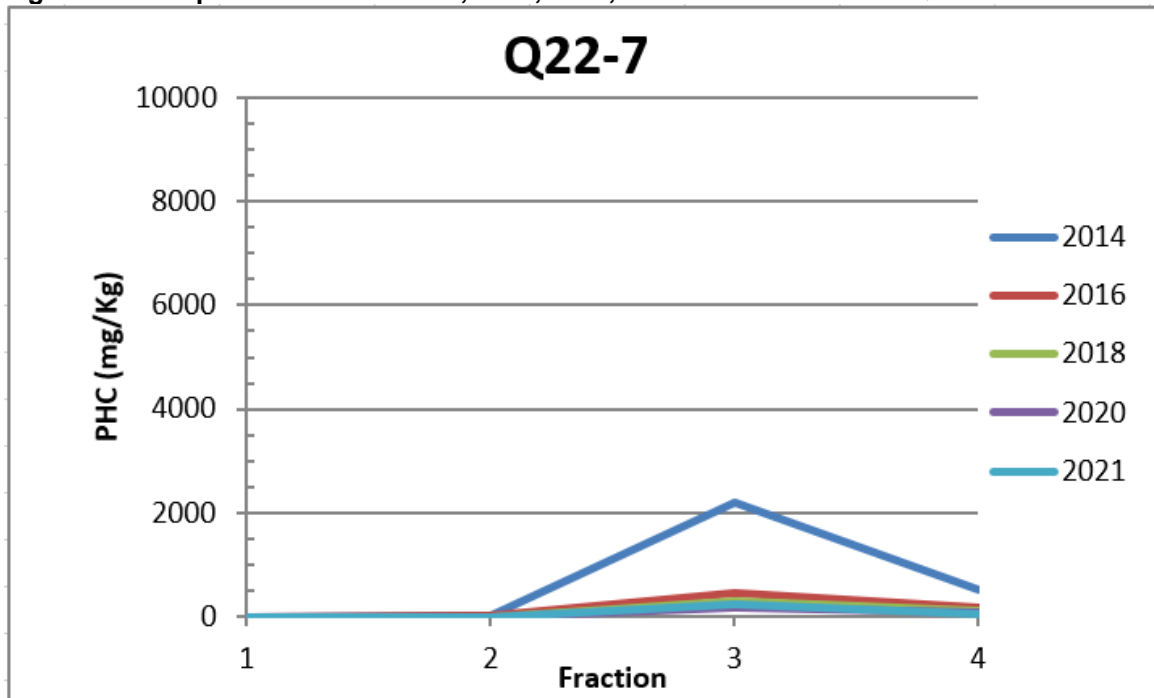
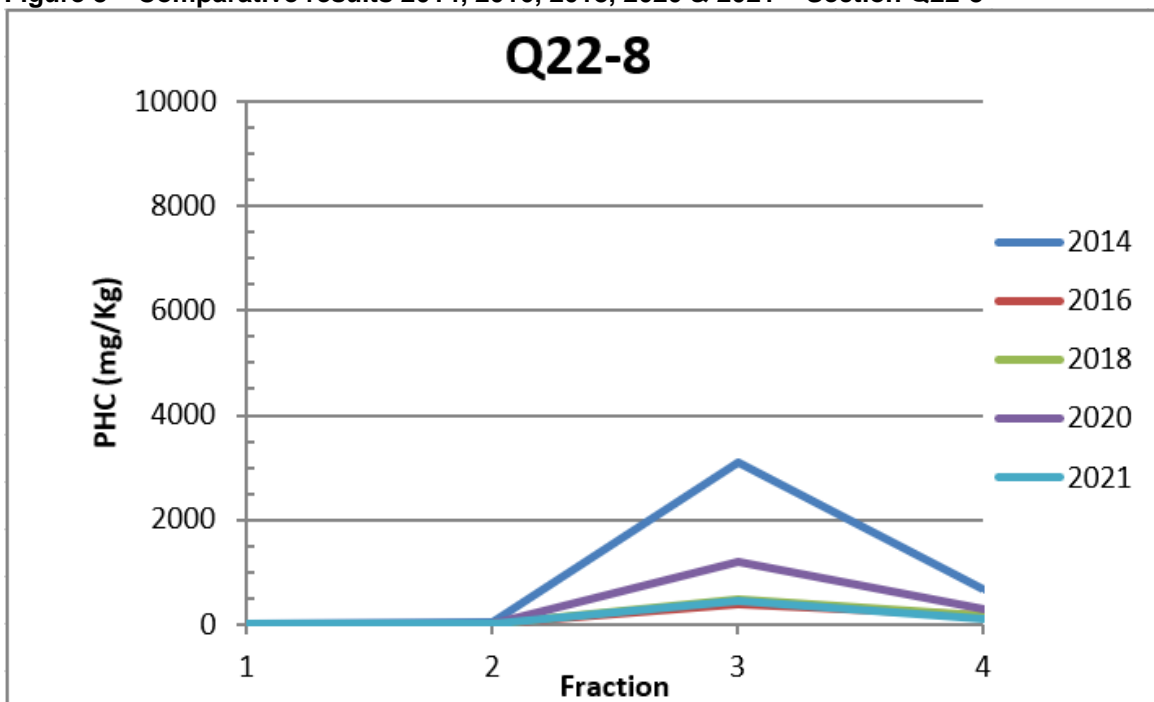


Figure 8 – Comparative results 2014, 2016, 2018, 2020 & 2021 – Section Q22-8



## **SECTION 4 • CONCLUSION/RECOMMENDATION**

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Based on the degradation history of PHC's in the Meadowbank Landfarm and upon analysing results from the Q22 soil sampling campaign (2014, 2016, 2018, 2020 & 2021), Agnico Eagle is confident that the natural degradation of Petroleum Hydrocarbon (PHC) related products is an effective remediation method for Q22.

Similar to 2021, falcon deterrence activities will take place in 2022 to prevent peregrine falcon to establish their nest in the quarry to accelerate the remediation process. If recurrent peregrine falcon activities are not observed, Agnico proposes to continue scarifying the surface areas in Q22 during the summer of 2022. According to the last three sampling campaigns, the focus and efforts should be deployed in section Q-22-1 and Q22-2 as they are the only two results above the CCME criteria for the PHC Fraction 3.

However, if any falcon activities are observed during the weekly quarry inspections, deterrence device will be removed. Agnico will evaluate and if needed, the area could be limited to any activity to ensure adequate bird protection management Agnico will then postpone the scarification until late September before the freeze up season in order to minimize mining disturbance on wildlife.

Another round of sampling is planned in 2022. Agnico is proposing to sample two (2) parcels (Q22-1 and Q22-2) and to stop the annual monitoring for parcel Q22-3 to Q22-8 as the results are below the contamination guideline since the last three (3) sampling campaigns. This new practice will be implemented in 2022.

Results will then be compared to the previous data to monitor the level of degradation and compliance to the CCME criteria. Following the 2022 soil sampling results, Agnico will review the next steps to be taken. If needed, further course of action could include removal of additional material. Nonetheless, Agnico considers the actual methodology to be a satisfactory solution to the remediation of the quarry.

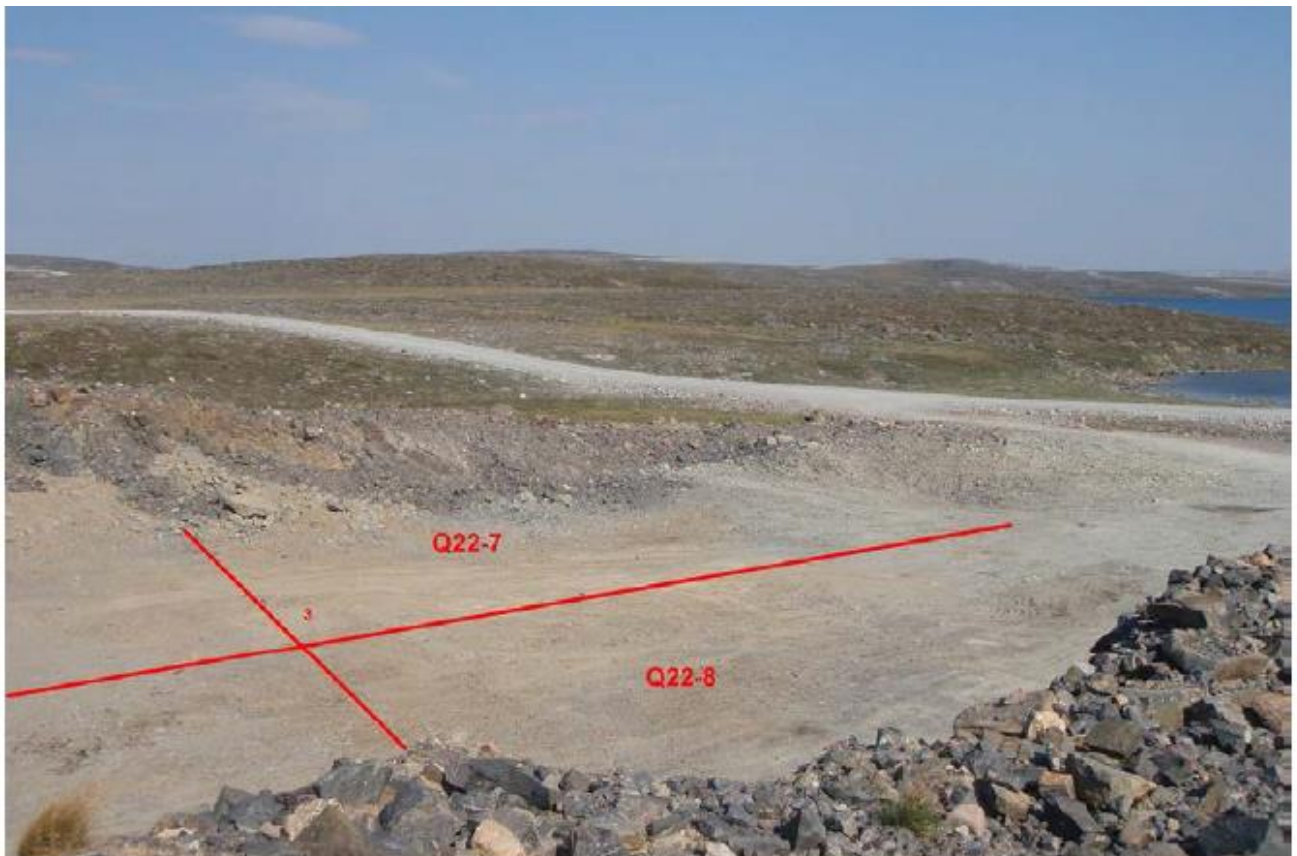
Agnico will continue to ensure that runoff stay within the site of the quarry during freshet and thus not impact any watercourses or surrounding environment. This item is part of the weekly AWAR inspection. To date there have not been any impacts to water outside of this quarry.

## **Appendix A**

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### **Area Delimitation – Quarry 22**

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## **Appendix B**

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### **Analytical Certificates - Quarry 22**

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Your P.O. #: 997577  
Site Location: MBK  
Your C.O.C. #: 417175

**Attention: Reporting**

Agnico Eagle  
Meadowbank  
Meadowbank  
Keewatin, NU  
CANADA POX 0A1

**Report Date: 2021/10/14**  
Report #: R6852656  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1T3852**

**Received: 2021/10/07, 14:40**

Sample Matrix: Soil  
# Samples Received: 8

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Petroleum Hydrocarbons F2-F4 in Soil (1)	8	2021/10/12	2021/10/13	CAM SOP-00316	CCME CWS m
Moisture	8	N/A	2021/10/09	CAM SOP-00445	Carter 2nd ed 51.2 m
Volatile Organic Compounds and F1 PHCs	8	N/A	2021/10/14	CAM SOP-00230	EPA 8260C 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) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas Laboratories conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.



Your P.O. #: 997577  
Site Location: MBK  
Your C.O.C. #: 417175

**Attention: Reporting**

Agnico Eagle  
Meadowbank  
Meadowbank  
Keewatin, NU  
CANADA P0X 0A1

**Report Date: 2021/10/14**  
Report #: R6852656  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1T3852**

**Received: 2021/10/07, 14:40**

Encryption Key

*Katherine Szozda*

Katherine Szozda  
Project Manager  
14 Oct 2021 18:01:58

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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BUREAU  
VERITAS

BV Labs Job #: C1T3852  
Report Date: 2021/10/14

Agnico Eagle  
Site Location: MBK  
Your P.O. #: 997577  
Sampler Initials: AAS

### CCME PETROLEUM HYDROCARBONS SOIL (SOIL)

BV Labs ID		QWV488	QWV489	QWV490	QWV491	QWV492	QWV493		
Sampling Date		2021/09/30 16:15	2021/09/30 16:20	2021/09/30 15:40	2021/09/30 15:50	2021/09/30 15:00	2021/09/30 15:00		
COC Number		417175	417175	417175	417175	417175	417175		
	UNITS	Q22-1	Q22-2	Q22-3	Q22-4	Q22-5	Q22-6	RDL	QC Batch
<b>Inorganics</b>									
Moisture	%	14	21	12	9.4	11	9.2	1.0	7629409
<b>Volatile Organics</b>									
Benzene	ug/g	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	0.0060	7629697
Ethylbenzene	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	7629697
Toluene	ug/g	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7629697
p+m-Xylene	ug/g	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7629697
o-Xylene	ug/g	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7629697
Total Xylenes	ug/g	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7629697
F1 (C6-C10)	ug/g	<10	<10	<10	<10	<10	<10	10	7629697
F1 (C6-C10) - BTEX	ug/g	<10	<10	<10	<10	<10	<10	10	7629697
<b>F2-F4 Hydrocarbons</b>									
F2 (C10-C16 Hydrocarbons)	ug/g	96	32	<10	<10	<10	<10	10	7631701
F3 (C16-C34 Hydrocarbons)	ug/g	4000	2100	270	690	200	660	50	7631701
F4 (C34-C50 Hydrocarbons)	ug/g	910	570	68	170	54	160	50	7631701
Reached Baseline at C50	ug/g	Yes	Yes	Yes	Yes	Yes	Yes		7631701
<b>Surrogate Recovery (%)</b>									
o-Terphenyl	%	88	93	93	90	89	92		7631701
4-Bromofluorobenzene	%	94	94	94	91	92	94		7629697
D10-o-Xylene	%	91	91	95	94	94	89		7629697
D4-1,2-Dichloroethane	%	103	103	96	90	101	98		7629697
D8-Toluene	%	100	99	103	105	101	101		7629697
RDL = Reportable Detection Limit									
QC Batch = Quality Control Batch									



BUREAU  
VERITAS

BV Labs Job #: C1T3852

Report Date: 2021/10/14

Agnico Eagle

Site Location: MBK

Your P.O. #: 997577

Sampler Initials: AAS

### CCME PETROLEUM HYDROCARBONS SOIL (SOIL)

BV Labs ID		QWV494		QWV495		
Sampling Date		2021/09/30 14:15		2021/09/30 14:00		
COC Number		417175		417175		
	UNITS	Q22-7	QC Batch	Q22-8	RDL	QC Batch
<b>Inorganics</b>						
Moisture	%	7.2	7629442	9.7	1.0	7629409
<b>Volatile Organics</b>						
Benzene	ug/g	<0.0060	7629697	<0.0060	0.0060	7629697
Ethylbenzene	ug/g	<0.010	7629697	<0.010	0.010	7629697
Toluene	ug/g	<0.020	7629697	<0.020	0.020	7629697
p+m-Xylene	ug/g	<0.020	7629697	<0.020	0.020	7629697
o-Xylene	ug/g	<0.020	7629697	<0.020	0.020	7629697
Total Xylenes	ug/g	<0.020	7629697	<0.020	0.020	7629697
F1 (C6-C10)	ug/g	<10	7629697	<10	10	7629697
F1 (C6-C10) - BTEX	ug/g	<10	7629697	<10	10	7629697
<b>F2-F4 Hydrocarbons</b>						
F2 (C10-C16 Hydrocarbons)	ug/g	<10	7631701	<10	10	7631701
F3 (C16-C34 Hydrocarbons)	ug/g	250	7631701	440	50	7631701
F4 (C34-C50 Hydrocarbons)	ug/g	63	7631701	120	50	7631701
Reached Baseline at C50	ug/g	Yes	7631701	Yes		7631701
<b>Surrogate Recovery (%)</b>						
o-Terphenyl	%	91	7631701	91		7631701
4-Bromofluorobenzene	%	90	7629697	95		7629697
D10-o-Xylene	%	91	7629697	90		7629697
D4-1,2-Dichloroethane	%	90	7629697	102		7629697
D8-Toluene	%	105	7629697	99		7629697
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						



BUREAU  
VERITAS

BV Labs Job #: C1T3852  
Report Date: 2021/10/14

Agnico Eagle  
Site Location: MBK  
Your P.O. #: 997577  
Sampler Initials: AAS

## TEST SUMMARY

**BV Labs ID:** QWV488  
**Sample ID:** Q22-1  
**Matrix:** Soil

**Collected:** 2021/09/30  
**Shipped:**  
**Received:** 2021/10/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7631701	2021/10/12	2021/10/13	Dennis Ngandu
Moisture	BAL	7629409	N/A	2021/10/09	Manpreet Kaur
Volatile Organic Compounds and F1 PHCs	GC/MSFD	7629697	N/A	2021/10/14	Blair Gannon

**BV Labs ID:** QWV489  
**Sample ID:** Q22-2  
**Matrix:** Soil

**Collected:** 2021/09/30  
**Shipped:**  
**Received:** 2021/10/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7631701	2021/10/12	2021/10/13	Dennis Ngandu
Moisture	BAL	7629409	N/A	2021/10/09	Manpreet Kaur
Volatile Organic Compounds and F1 PHCs	GC/MSFD	7629697	N/A	2021/10/14	Blair Gannon

**BV Labs ID:** QWV490  
**Sample ID:** Q22-3  
**Matrix:** Soil

**Collected:** 2021/09/30  
**Shipped:**  
**Received:** 2021/10/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7631701	2021/10/12	2021/10/13	Dennis Ngandu
Moisture	BAL	7629409	N/A	2021/10/09	Manpreet Kaur
Volatile Organic Compounds and F1 PHCs	GC/MSFD	7629697	N/A	2021/10/14	Blair Gannon

**BV Labs ID:** QWV491  
**Sample ID:** Q22-4  
**Matrix:** Soil

**Collected:** 2021/09/30  
**Shipped:**  
**Received:** 2021/10/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7631701	2021/10/12	2021/10/13	Dennis Ngandu
Moisture	BAL	7629409	N/A	2021/10/09	Manpreet Kaur
Volatile Organic Compounds and F1 PHCs	GC/MSFD	7629697	N/A	2021/10/14	Blair Gannon

**BV Labs ID:** QWV492  
**Sample ID:** Q22-5  
**Matrix:** Soil

**Collected:** 2021/09/30  
**Shipped:**  
**Received:** 2021/10/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7631701	2021/10/12	2021/10/13	Dennis Ngandu
Moisture	BAL	7629409	N/A	2021/10/09	Manpreet Kaur
Volatile Organic Compounds and F1 PHCs	GC/MSFD	7629697	N/A	2021/10/14	Blair Gannon



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BV Labs Job #: C1T3852

Report Date: 2021/10/14

Agnico Eagle

Site Location: MBK

Your P.O. #: 997577

Sampler Initials: AAS

## TEST SUMMARY

**BV Labs ID:** QWV493

**Sample ID:** Q22-6

**Matrix:** Soil

**Collected:** 2021/09/30

**Shipped:**

**Received:** 2021/10/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7631701	2021/10/12	2021/10/13	Dennis Ngandu
Moisture	BAL	7629409	N/A	2021/10/09	Manpreet Kaur
Volatile Organic Compounds and F1 PHCs	GC/MSFD	7629697	N/A	2021/10/14	Blair Gannon

**BV Labs ID:** QWV494

**Sample ID:** Q22-7

**Matrix:** Soil

**Collected:** 2021/09/30

**Shipped:**

**Received:** 2021/10/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7631701	2021/10/12	2021/10/13	Dennis Ngandu
Moisture	BAL	7629442	N/A	2021/10/09	Manpreet Kaur
Volatile Organic Compounds and F1 PHCs	GC/MSFD	7629697	N/A	2021/10/14	Blair Gannon

**BV Labs ID:** QWV495

**Sample ID:** Q22-8

**Matrix:** Soil

**Collected:** 2021/09/30

**Shipped:**

**Received:** 2021/10/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7631701	2021/10/12	2021/10/13	Dennis Ngandu
Moisture	BAL	7629409	N/A	2021/10/09	Manpreet Kaur
Volatile Organic Compounds and F1 PHCs	GC/MSFD	7629697	N/A	2021/10/14	Blair Gannon



### GENERAL COMMENTS

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

Package 1	15.7°C
Package 2	15.7°C
Package 3	14.0°C
Package 4	16.7°C
Package 5	16.0°C
Package 6	16.7°C
Package 7	14.3°C
Package 8	14.0°C
Package 9	16.3°C
Package 10	16.7°C
Package 11	15.3°C
Package 12	14.7°C
Package 13	15.0°C
Package 14	15.3°C
Package 15	14.0°C
Package 16	16.3°C
Package 17	16.0°C
Package 18	16.3°C

**Results relate only to the items tested.**



BV Labs Job #: C1T3852  
Report Date: 2021/10/14

## QUALITY ASSURANCE REPORT

Agnico Eagle  
Site Location: MBK  
Your P.O. #: 997577  
Sampler Initials: AAS

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7629697	4-Bromofluorobenzene	2021/10/13	103	60 - 140	102	60 - 140	93	%		
7629697	D10-o-Xylene	2021/10/13	84	60 - 130	85	60 - 130	93	%		
7629697	D4-1,2-Dichloroethane	2021/10/13	102	60 - 140	99	60 - 140	94	%		
7629697	D8-Toluene	2021/10/13	97	60 - 140	99	60 - 140	104	%		
7631701	o-Terphenyl	2021/10/13	91	60 - 130	84	60 - 130	90	%		
7629409	Moisture	2021/10/09							4.2	20
7629442	Moisture	2021/10/09							5.1	20
7629697	Benzene	2021/10/14	84	60 - 140	83	60 - 130	<0.0060	ug/g	NC	50
7629697	Ethylbenzene	2021/10/14	84	60 - 140	85	60 - 130	<0.010	ug/g	NC	50
7629697	F1 (C6-C10) - BTEX	2021/10/14					<10	ug/g	NC	30
7629697	F1 (C6-C10)	2021/10/14	98	60 - 140	88	80 - 120	<10	ug/g	NC	30
7629697	o-Xylene	2021/10/14	81	60 - 140	82	60 - 130	<0.020	ug/g	NC	50
7629697	p+m-Xylene	2021/10/14	87	60 - 140	87	60 - 130	<0.020	ug/g	NC	50
7629697	Toluene	2021/10/14	97	60 - 140	97	60 - 130	<0.020	ug/g	NC	50
7629697	Total Xylenes	2021/10/14					<0.020	ug/g	NC	50
7631701	F2 (C10-C16 Hydrocarbons)	2021/10/13	102	50 - 130	93	80 - 120	<10	ug/g	NC	30
7631701	F3 (C16-C34 Hydrocarbons)	2021/10/13	105	50 - 130	97	80 - 120	<50	ug/g	NC	30
7631701	F4 (C34-C50 Hydrocarbons)	2021/10/13	106	50 - 130	97	80 - 120	<50	ug/g	NC	30

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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BV Labs Job #: C1T3852  
Report Date: 2021/10/14

Agnico Eagle  
Site Location: MBK  
Your P.O. #: 997577  
Sampler Initials: AAS

### VALIDATION SIGNATURE PAGE

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

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

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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.



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VERITAS

BV Labs Job #: C1T3852

Report Date: 2021/10/14

Agnico Eagle

Site Location: MBK

Your P.O. #: 997577

Sampler Initials: AAS

**Exceedance Summary Table – Metal Mining Effluent Reg**  
**Result Exceedances**

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