

Permits

From: Angela Love
Sent: Thursday, May 12, 2016 12:10 PM
To: Permits
Subject: FW: Bulk Storage and Glycol Storage Area Hydrocarbon Sample Results
Attachments: L1765393.pdf; GK authorization letter water discharge May 12 2016.pdf

File: MV2005L2-0015

Hi Elaine,

Can you please put a copy of the below email as well as the attached documents into the file as well as onto the public registry under:

1. Permit-Licence-Other Issuances
External Authorizations

Titled:
MV2005L2-0015 – De Beers Gahcho Kue – Inspectors Authorization to Discharge Water within the Controlled Area – May 12_16

Thanks,
Angela

From: Andrew Howton [mailto:Andrew_Howton@gov.nt.ca]
Sent: May-12-16 11:48 AM
To: Kramers, Patrick
Cc: Marty Sanderson; Angela Love
Subject: RE: Bulk Storage and Glycol Storage Area Hydrocarbon Sample Results

Hello Patrick,

Please see the attached letter authorizing the discharge.

Thank you.

Andrew Howton
Resource Management Officer III
North Slave Regional Office
Department of Lands
Government of the Northwest Territories
#140 Bristol Avenue, Yellowknife Airport
Yellowknife NT, X1A 3T2

Phone: 867-767-9187 ext 24189
Cell: 867-444-6719
Email: andrew_howton@gov.nt.ca

From: Kramers, Patrick [<mailto:Patrick.Kramers@debeersgroup.com>]
Sent: Thursday, May 12, 2016 7:58 AM
To: Andrew Howton
Subject: Bulk Storage and Glycol Storage Area Hydrocarbon Sample Results

Hi Andrew

Please find the attached analytical results showing that hydrocarbon concentrations of the waters within the two 18 million litre bulk fuel tank containment as well as the airstrip glycol facility are below the Alberta Tier I Standards as well as CCME FWAL. We would like to request direct discharge of this water within the controlled area boundary. Discharge will commence once authorized and erosion mitigation measures will be in place at the point of discharge to prevent unnecessary impacts to the tundra. Water from the 18M litre tanks will be discharged towards Kennady Lake while the Airstrip glycol facility will be discharged over the road and over towards Area 7.

I've also included the results in a summary table below.

Analyte (mg/L)	Airstrip Glycol Fac.	Tank 1 (18M)	Tank 1 (18M) DUP	Tank 2 (18M)
Benzene	<0.00050	<0.00050	<0.00050	<0.00050
Ethylbenzene	<0.00050	<0.00050	<0.00050	<0.00050
Xylene	<0.00071	<0.00071	<0.00071	<0.00071
Toluene	<0.00050	<0.00050	<0.00050	<0.00050
F1 (C6-C10)	<0.10	<0.10	<0.10	<0.10
F2 (C10-C16)	<0.10	0.19	0.18	0.27
F3 (C16-C34)	<0.25	0.40	0.35	0.84
F4 (C34-C50)	<0.25	<0.25	<0.25	<0.25

Thanks
Patrick

Patrick Kramers

Environmental Superintendent / Gahcho Kué Project

The De Beers Group of Companies

Suite 300, 5120 49th Street
Yellowknife, NT X1A 1P8

Tel: 416 645 1695 ext.6622
Cell:867 445 9065

www.debeersgroup.com/canada



De Beers Canada Inc.
ATTN: Rob Mellow / Ryan Marshall
Gahcho Kue Mine c/o Deton'Cho Logistics
101 McMillan Street, PO Box 2608
Yellowknife NT X1A 2P9

Date Received: 06-MAY-16
Report Date: 11-MAY-16 20:03 (MT)
Version: FINAL

Client Phone: 867-873-6970

Certificate of Analysis

Lab Work Order #: L1765393
Project P.O. #: 42-547
Job Reference:
C of C Numbers: 14-20160506-01
Legal Site Desc:

Rick Zolkiewski
General Manager

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ADDRESS: 314 Old Airport Road, Unit 116, Yellowknife, NT X1A 3T3 Canada | Phone: +1 867 873 5593 |
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

		Sample ID	L1765393-1	L1765393-2	L1765393-3	L1765393-4
		Description	WATER	WATER	WATER	WATER
		Sampled Date	06-MAY-16	06-MAY-16	06-MAY-16	06-MAY-16
		Sampled Time	08:00	08:50	08:50	08:40
		Client ID	AIRSTRIP SUMP	TANK 1	TANK 1- DUP	TANK 2
Grouping	Analyte					
WATER						
Hydrocarbons	TEH10-30 (mg/L)	0.14	0.22	0.30	0.77	

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
BTX,F1-ED	Water	BTEX and F1 (C6-C10)	EPA 5021/8015&8260 GC-MS & FID
EPH-L-ME-FID-VA	Water	EPH in Water (Low Level)	BC Lab Manual
EPH is extracted from water using a hexane micro-extraction technique, with analysis by GC-FID, as per the BC Lab Manual. EPH results include PAHs and are therefore not equivalent to LEPH or HEPH.			
F2,F3,F4-ED	Water	F2, F3, F4	EPA 3510/CCME PHC CWS-GC-FID
Water samples are spiked with 2-BBTF surrogate, and extracted by reciprocal action shaker for 30 minutes using a single micro-extraction with 2 mL hexane. After extraction, hexane extracts are dispensed into GC vials for GC-FID analysis.			
OGG-SF-VA	Water	Oil & Grease by Gravimetric	BCMOE (2010), EPA1664A
The procedure involves an extraction of the entire water sample with hexane. This extract is then evaporated to dryness, and the residue weighed to determine Oil and Grease.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
ED	ALS ENVIRONMENTAL - EDMONTON, ALBERTA, CANADA

Chain of Custody Numbers:

14-20160506-01

GLOSSARY OF REPORT TERMS

Surrogate - A compound that is similar in behaviour to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

mg/kg - milligrams per kilogram based on dry weight of sample.

mg/kg wwt - milligrams per kilogram based on wet weight of sample.

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight of sample.

mg/L - milligrams per litre.

< - Less than.

D.L. - The reported Detection Limit, also known as the Limit of Reporting (LOR).

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1765393

Report Date: 12-MAY-16

Page 1 of 2

Client: De Beers Canada Inc.
Gahcho Kue Mine c/o Deton'Cho Logistics 101 McMillan Street, PO Box 2608
Yellowknife NT X1A 2P9

Contact: Rob Mellow / Ryan Marshall

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
EPH-L-ME-FID-VA	Water							
Batch	R3455645							
WG2304968-2	LCS							
TEH10-30			97.0		%		50-150	11-MAY-16
WG2304968-1	MB							
TEH10-30			<0.10		mg/L		0.1	11-MAY-16

Quality Control Report

Workorder: L1765393

Report Date: 12-MAY-16

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Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



16 Yellowknife Airport
Yellowknife, NT. X1A 3T2

Phone: (867)767-9187 ext. 24189
Fax: (867)446-0768

File: **MV2005L2-0015**

May 12th, 2016.

The De Beers Group of Companies
300-5120 49th Street
Yellowknife, NT.
X1A 1P8.

Attention: Patrick Kramers,
Environmental Superintendent, Gahcho Kué.

Re: Authorization to directly discharge water within the controlled area boundary.

Dear Mr. Kramers:

This letter is in response to the request submitted by the DeBeers Group of Companies on May 12th, 2016 seeking authorization to directly discharge water within the controlled area boundary from the Airstrip Glycol Facility, and Bulk Fuel Storage containment areas around 18 million liter tanks 1 and 2.

I have reviewed the Water License (MV2005L2-0015), the Operational Water Management Plan section 2.4.4 and the analytical results for the water in the contained areas and have determined that it is acceptable to directly discharge the water within the controlled area boundary as requested. As stated in the request the discharge must be directed towards Area 4 for the tank containments and Area 7 for the Glycol Facility sump and steps will be taken to ensure that no erosion results from the discharge.

If you have any questions or concerns do not hesitate to contact me at (867) 767-9187 ext. 24189 or Andrew_Howton@gov.nt.ca.

Sincerely,

Andrew Howton
Inspector (Resource Management Officer III),
North Slave District, GNWT

cc. *Marty Sanderson; Angela Love*