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May 30, 2014

Phyllis Beaulieu,
Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU
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Re: April 2014 – Monthly Monitoring Report for Water Licence 2BE-HOP1222

This report is comprised of monitoring requirements as set out in Part J, Items 2 through 8, and 10 of water licence 2BE-HOP1222. Some monitoring requirements stipulated in this Part refer to facilities that have not been constructed, facilities that no longer exist, or facilities where activity is seasonal. Water levels in Windy Lake will be monitored in accordance with Part J, Item 9 during open water season.

The project is currently operating in a care and maintenance status with water management, drill exploration, and environmental compliance being the focus of current activities.

Part I Conditions Applying to Abandonment and Restoration

No reclamation work was completed at Windy Camp this month.

Part J Items 2, 3, 4, 5, 6, 10: Sewage Treatment Effluent, Bulk Fuel Containments, and Quarries

Windy Camp has been closed for operations since October 23, 2008; therefore the licence requirements relating to the WWTF (HOP-2 and HOP-3) are not applicable. HOP-5 (Bulk Fuel Storage – Windy Camp) and HOP-6 (Bulk Fuel Storage Facility – Patch Lake) were dismantled in 2012. HOP-8 has not been constructed. Water quality sampling and management was not required at HOP-7A, B or D (quarries A, B and D) as these facilities are presently frozen.

Part J Item 7: Under-Ice Drilling Samples

Under ice water quality samples were collected April 19 and 24 prior to the commencement of on-ice drilling. The analytical results are presented in Table 2 at the end of this report.

Part J Item 8: Water Use Volumes

This month, water was extracted from Windy Lake for domestic use at Doris Camp. Water for exploration drilling was extracted from Patch and Wolverine Lakes. Daily water usage for the month is presented in Table 1.

Table 1 : Daily water usage from Windy Lake, in cubic meters, April 2014.

Date	Windy Lake Domestic Consumption at Doris Camp (m ³)	Drill Water Usage (m ³)
April 2	24	
April 15	28	
April 26	24	
April 27	12	
April 30	-	3.8

In addition to these uses, 918 m³ of water was sprayed to construct winter ice roads.

Water quality monitoring results from licence 2AM-DOH1323, Schedule J for Station ST-7a, freshwater pumped from the Windy Lake freshwater intake, are presented in the monthly monitoring report for 2AM-DOH1323.

Incident Reporting

No incidents pertaining to this licence occurred this month.

Should there be any questions regarding this monthly report, please contact Katsky Venter or Lea-Marie Bowes-Lyon, ESR Site Managers for TMAC Resources Inc. at (867) 988-0569 or Katsky.Venter@tmacresouces.com or Lea-Marie.Bowes-Lyon@tmacresouces.com.

Yours sincerely,



Katsky Venter

Site Environmental Manager
Hope Bay Project

cc. Eva Paul, Water Resources Officer, AANDC

Table 2: Results of Water Quality Sampling Prior to On-Ice Drilling in Patch, Wolverine and Doris Lakes

ALS		PLN-APR14	PLS-APR14	*WLV-APR14A	*WLV-APR14AB	DLN-APR14	DLS-APR14
5/26/2014		L1447637-1	L1447637-2	L1447637-3	L1447637-4	L1447637-5	L1447637-6
L1447637		4/19/2014 12:00	4/19/2014 11:15	4/24/2014 9:00	4/24/2014 8:50	4/19/2014 16:35	4/19/2014 14:15
Analyte	Units	Water	Water	Water	Water	Water	Water
Hardness (as CaCO ₃)	mg/L	111	99.1	219	213	59.5	64.2
pH	pH	7.7	7.74	7.67	7.56	7.71	7.73
Total Suspended Solids	mg/L	3.2	<3.0	155	127	3.5	3.9
Alk. Total (as CaCO ₃)	mg/L	63.5	56	124	125	36.4	35.6
Ammonia, Total (as N)	mg/L	0.0051	0.006	0.0497	0.021	<0.0050	0.0056
Bromide (Br)	mg/L	0.431	0.38	0.82	0.77	0.264	0.285
Chloride (Cl)	mg/L	136	122	321	310	80.6	82.5
Fluoride (F)	mg/L	0.102	0.095	<0.20 *	<0.20 *	0.063	0.065
Nitrate (as N)	mg/L	0.0091	0.0066	<0.050 *	<0.050 *	<0.0050	<0.0050
Nitrite (as N)	mg/L	0.0018	<0.0010	<0.010 *	<0.010 *	<0.0010	<0.0010
Sulfate (SO ₄)	mg/L	4.14	3.86	<5.0 *	<5.0 *	3.45	3.54
Cyanide, Total	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0010	<0.0010
Aluminum (Al)-Total	mg/L	0.0143	0.0135	3.4	3.76	0.0062	0.0056
Antimony (Sb)-Total	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	0.000310	0.000035
Arsenic (As)-Total	mg/L	0.00067	0.00099	0.00194	0.002	0.00354	0.000335
Barium (Ba)-Total	mg/L	<0.020	<0.020	0.054	0.056	<0.0000050	0.00354
Beryllium (Be)-Total	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.000050	<0.0000050
Boron (B)-Total	mg/L	<0.10	<0.10	<0.10	<0.10	0.0329	0.0326
Cadmium (Cd)-Total	mg/L	<0.000010	<0.000010	0.000065	0.000059	0.0000214	<0.0000050
Calcium (Ca)-Total	mg/L	19.9	18	31.7	30.7	10.8	11.6
Chromium (Cr)-Total	mg/L	<0.0010	<0.0010	0.0074	0.0085	<0.00050	<0.00050
Cobalt (Co)-Total	mg/L	<0.00030	<0.00030	0.00217	0.00236	<0.00050	<0.000050
Copper (Cu)-Total	mg/L	<0.0020 **	<0.0020 **	0.0046	0.0047	0.00131	0.00134
Iron (Fe)-Total	mg/L	0.035	<0.030	8.26	9.01	<0.030	<0.030
Lead (Pb)-Total	mg/L	<0.00050	<0.00050	0.00126	0.00134	<0.000050	<0.000050
Lithium (Li)-Total	mg/L	0.0081	0.0073	0.0171	0.0169	0.00426	0.00451
Magnesium (Mg)-Total	mg/L	14.8	13.1	33.9	33.1	7.91	8.54
Manganese (Mn)-Total	mg/L	0.00693	0.00441	0.821	0.884	0.00889	0.00840
Moly. (Mo)-Total	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	0.000223	0.000238
Nickel (Ni)-Total	mg/L	<0.0010	<0.0010	0.0057	0.0063	0.00045	0.00048
Potassium (K)-Total	mg/L	5	4.3	7.8	7.6	2.7	3.0
Selenium (Se)-Total	mg/L	<0.00010	<0.00010	0.00012	0.00011	<0.00020	<0.00020
Silver (Ag)-Total	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.0000050	<0.0000050

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Analyte	Units	Water	Water	Water	Water	Water	Water
Sodium (Na)-Total	mg/L	68.6	61.5	158	153	39.2	42.4
Thallium (Tl)-Total	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.0000020	<0.0000020
Tin (Sn)-Total	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00020	<0.00020
Titanium (Ti)-Total	mg/L	<0.010	<0.010	0.161	0.176	<0.00020	<0.00020
Uranium (U)-Total	mg/L	<0.00020	<0.00020	0.00026	0.00027	0.0000335	0.0000356
Vanadium (V)-Total	mg/L	<0.0010	<0.0010	0.008	0.0089	0.000068	0.000070
Zinc (Zn)-Total	mg/L	<0.0050	0.0052	0.0188	0.0185	<0.0030	<0.0030
Oil and Grease	mg/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

*Note that Wolverine Lake is very shallow, and underice samples were observed to contain suspended lake sediments and algae.