Type 'A' Water Licence Amendment

Attachment 2: Supplementary Technical Information for additional water withdrawal locations and water quantities along the Tote Road subject to this Amendment

1. Introduction

During the NIRB review process of the application for an amendment to the Project Certificate No. 005, Baffinland committed to undertake best efforts to minimize dust generation from the road haulage and shipping operation of ore via Milne Port. Attachment 2 of the Type A Water Licence amendment application provides a hydrological assessment for additional water take from proposed water bodies and streams along the Tote Road in order to support dust suppression activities for the Early Revenue Phase (ERP). The assessment includes the incremental water needs for dust suppression in addition to the quantities that were applied for in the amended and renewed Type B water licence (8BC-MRY1314) and the quantities already approved under Baffinland's Type A Water licence (2AM-MRY1325). Therefore the attached hydrological assessment addresses the cumulative proposed water requirements for the water volumes applied for in the Type B (8BC-MRY1314) and the additional operational water quantities required going forward under the amended Type A Water Licence application. Baffinland envisions that the proposed water requirements in the Type A Water Licence amendment application will also address water requirements that have been applied for under Type B (8BC-MRY1314) when it expires.

2. Document List

The documents and drawing which provide details to support the changes identified above are listed in the table below:

Document Title	Document Number	Description
Hydrology Assessment of Water Sources for Dust Suppression Along the Tote Road Mary River Project – Early Revenue Phase		Knight Piésold Ltd. has undertaken a review of potential water sources along the Milne Inlet Tote Road, to identify waterbodies (lakes and larger streams) suitable for water withdrawals for dust suppression purposes.
Proposed Dust Suppressant Water Sources	Figure 1	Proposed stream and tote road locations along the Tote Road

July 16, 2014

File No.:NB102-181/35-A.01
Cont. No.:NB14-00376

Mr. Oliver Curran
Director, Sustainable Development
Baffinland Iron Mines Corporation
#300 - 2275 Upper Middle Road East
Oakville, Ontario
Canada, L6H 0C3

Dear Oliver,

Re: Hydrology Assessment of Water Sources for Dust Suppression along the Tote Road
Mary River Project - Early Revenue Phase

1 – INTRODUCTION

Baffinland Iron Mines Corporation (Baffinland) will be completing construction of the Early Revenue Phase (ERP) of the Mary River Project in the second half of 2014, with mine operations beginning toward the end of the year. Concern has been raised by various interveners during the Nunavut Impact Review Board (NIRB) review of the ERP regarding the potential for increased dust generation associated with higher levels of road traffic over the tote road, in comparison to what was proposed in the original Project with a production rate of 18 million tonnes per annum initially approved under Project Certificate No. 005.

In response to these concerns, Baffinland has reviewed its plans to manage road dust and is proposing more intense dust suppression efforts. As part of this work, Knight Piésold Ltd. was asked to review potential water sources along the Milne Inlet Tote Road, to identify waterbodies (lakes and larger streams) suitable for water withdrawals for dust suppression purposes. This memo summarizes the results of this work and will, ultimately, support a request from Baffinland to amend its Type A Water Licence.

2 – BACKGROUND

Water trucks will be used to draw water from local watercourses and apply the water to the road. During the summer months, four trucks will be used to water the entire 100 km road. The water trucks will be equipped with onboard water pumps (Bowie 3300 pumps) that are powered by the truck's engine. The maximum operating rate of the water pumps is 233 U.S. gallons per minute, equivalent to 14.7 litres per second (L/s). The intake of each truck will be equipped with a fish screen in accordance with Department of Fisheries and Oceans requirements (DFO, 1995). Each truck has a capacity of 4,400 US Gallons, equivalent to 16,655 L (Hatch, 2014). At a maximum pumping rate of 14.7 L/s and a truck capacity of 16,655 L, each truck will be filled in just under 20 minutes.

Each load of water will be applied over approximately 1,260 m of single-lane road (or both lanes over half this distance). On this basis, 80 loads will be required to apply water over the entire road surface.

The more water take locations available, the less shuttling that the water trucks will need to do between water sources and a given application area. In addition to lessening the intensity of traffic along the road, more water take locations will reduce the time required to coat the entire road surface. The more often the fleet of water trucks can apply water to the road, the more effective the dust suppression efforts will be.

3 – METHODOLOGY

3.1 ASSUMPTIONS

The assumptions and inputs into calculations of water withdrawal are listed in Table 1. A number of conservative assumptions have been made with regard to the cycle time of trucks and the maximum number of truck loads that can occur on a given day.

Table 1 Assumptions and Inputs into Calculations of Water Withdrawal

Variables and Inputs	Assumption/Estimate
Road length (km)	100
Average Road Width (m)	7
Total Tote Road Area requiring dust suppression (m^2)	700,000
Water required per m^2 of road (USG)	0.5
Water required per single application on entire road (USG)	350,000
Water required per single application on entire road (m^3)	1,325
Number of truckloads required to complete single application	80
Average cycle time per load - fill, travel, apply and return (min)	40 to 80
Application Frequency	Continuous; 24 h/d
Average number of truck loads applied per day (incl. all 4 trucks)	80
Assumed max. number of truck loads per day (incl. contingency)	90
Daily maximum water consumption - based on assumed max. 90 number of trucks (m^3/d)	1,500
Application Rate - time to complete one application (days)	1

The four planned water trucks, working continuously 24 hours per day, will be able to apply water to the entire road surface in one 24-hour period. This does not consider downtime for maintenance and repair. It is more likely in practice that one application over the entire road surface will occur over a 2-day period. For added conservatism, the estimated maximum daily water consumption for road dust suppression has been rounded upward from the expected 1,325 m^3 to 1,500 m^3, from all water sources along the tote road.

3.2 METHOD OF ASSESSING CANDIDATE LAKES FOR WATER WITHDRAWAL

The starting point for the identification of potential water sources was to identify the largest water bodies located adjacent the tote road. This includes the existing approved water sources of Phillip's Creek (at Milne Port), Km32 Lake and Camp Lake, as well as other lakes located along the tote road. These water sources are listed in Table 2 and are shown on Figure 1.

Each of these waterbodies is reasonably large, particularly in the context of a single water withdrawal for dust suppression. The effect of a single water take from these sources is not measurable; however, repeated water takes have the potential to lower lake levels and reduce lake outflows.

The assessment methodology and thresholds applied in the Final Environmental Impact Statement (FEIS) have been carried forward in this assessment. The FEIS identified the reduction in lake outflow of 10% as a commonly applied threshold value (FEIS Volume 7, Page 19; Baffinland, 2012). On this basis, water can be withdrawn from a lake providing that the monthly water withdrawal volume did not exceed 10% of the mean monthly lake outflow volume without further evaluation. As an additional conservative measure, the 10% threshold was also applied to the 10-year return period dry year monthly flow estimate.

Table 2 summarizes the discharge data for stream gauging stations H1 through H5, which are relevant to assessing hydrology along the Milne Inlet Tote Road. Included in Table 2 are the minimum, mean and maximum

measured discharges as well as the calculated 10-year dry and 10-year wet discharges for the five stream gauging stations. The 10-year return period dry year flows were estimated from the 10-year low flows occurring in September.

Table 2 Hydrology Data Used in the Assessment

Station	Catchment Area (km^2)	Return Period	Discharge (m^3/s)				10-Year Dry Unit Runoff[2]
			June	July	August	September	($L/s/km^2$)
H1	250	10-Year Dry	2.51	2.82	0.97	0.26	1.06
		Minimum Measured	3.93	3.11	1.25	0.53	
		Mean Measured	9.01	7.45	3.97	1.88	
		Maximum Measured	12.66	10.31	7.44	3.07	
		10-Year Wet	15.50	13.52	8.48	4.32	
H2	210	10-Year Dry	2.51	3.53	0.87	0.23	1.10
		Minimum Measured	4.42	2.99	1.34	0.39	
		Mean Measured	8.99	9.32	3.57	1.64	
		Maximum Measured	12.09	14.34	6.66	2.62	
		10-Year Wet	15.46	16.92	7.63	3.77	
H3	30.5	10-Year Dry	0.46	0.66	0.12	0.04	1.25
		Minimum Measured	0.82	0.53	0.16	0.04	
		Mean Measured	1.65	1.75	0.51	0.27	
		Maximum Measured	2.24	2.81	1.05	0.48	
		10-Year Wet	2.84	3.18	1.08	0.62	
H4	8.3	10-Year Dry	0.13	0.10	0.03	0.01	1.03
		Minimum Measured	0.11	0.07	0.03	0.01	
		Mean Measured	0.45	0.25	0.13	0.06	
		Maximum Measured	0.72	0.38	0.25	0.11	
		10-Year Wet	0.78	0.46	0.28	0.14	
H5	5.3	10-Year Dry	0.07	0.05	0.03	0.01	1.19
		Minimum Measured	0.10	0.05	0.02	0.01	
		Mean Measured	0.25	0.14	0.11	0.04	
		Maximum Measured	0.38	0.22	0.22	0.08	
		10-Year Wet	0.42	0.25	0.23	0.10	

NOTES:

1. FROM THE BASELINE HYDROLOGY STUDY REPORT INCLUDED AS APPENDIX 7A OF THE FEIS (KNIGHT PIESOLD, 2012).
2. THE DISCHARGE MEASUREMENTS PRESENTED IN THE TABLE ARE ROUNDED. THE 10-YEAR DRY UNIT RUNOFF ESTIMATES CALCULATED FROM UNROUNDED DISCHARGE MEASUREMENTS.

The 10-year dry low flow estimate for stream gauging Station H4, located on a tributary of Camp Lake, was applied to the lake and stream assessments, since it is the lowest of the five calculated low flow estimates. It should be noted that the minimum measured flows (from September 2011) closely match the calculated low flow for the 10-year return period.

As an additional conservative measure, the lake assessment assumed that all water requirements for dust suppression would be provided from Phillips Creek (at the mouth) and the lakes along the tote road listed in Table 3. It was assumed for the assessment of lakes and the calculation of daily maximum water withdrawals that no streams would be used for water supply.

Table 3 Major Water Sources and Proposed Water Withdrawal Volumes

Lake Name	Location	Km Section of Road Covered		Length of Road Watered (km)	Current Water Usage (m^3/d)	Proposed Water Usage (m^3/d)	Daily Maximum Current & Proposed (m^3/d)
Phillip's Creek (MP-MRY-2)	km 0	0	16	16	367.5[1]	212	579.5
Km 32 Lake (MP-MRY-3)	km 32	16	43.5	27.5	367.5[1]	364	731.5
Katiktok Lake	km 56	43.5	67.5	24	--	318	318
Muriel Lake	km 80	67.5	83.5	16	--	212	212
David Lake	km 87	83.5	93.5	10	--	132	132
Camp Lake (MS-MRY-1)	km 100	93.5	100	6.5	657.5	86	743.5
Totals				**100**	**1,025[2]**	**1,325**	**1,692.5**

NOTES:

1. THE VOLUME OF 367.5 M^3/D COMPRISED OF 68.5 M^3/D APPROVED UNDER BAFFINLAND'S TYPE A WATER LICENCE (2AM-MRY-1325), PLUS 299 M^3/D PROPOSED BY A RECENTLY SUBMITTED APPLICATION TO AMEND BAFFINLAND'S TYPE B WATER LICENCE (8BC-MRY1314).
2. THE VOLUMES WITHDRAWN FROM KM 32 LAKE DURING SUMMER WILL NOT OCCUR WHEN WATER IS BEING WITHDRAWN FROM PHILLIP'S CREEK; THE SAME TOTAL VOLUME WILL BE WITHDRAWN FROM ONE SOURCE OR A COMBINATION OF THE TWO SOURCES ON A GIVEN DAY.

While Phillip's Creek was included as a major water source in Table 3 for the purpose of identifying the sections of road to be supplied by each major water source, it is assessed as a stream in the sections that follow.

3.3 METHOD OF ASSESSING STREAMS FOR WATER WITHDRAWAL

There are a number of larger streams that cross the tote road. The catchment areas of streams measured at the location that the streams cross the tote road were previously delineated by Knight Piésold (2007).

An assessment methodology was applied to screen which streams that cross the road have adequate flow such that water withdrawals for dust suppression would not affect local fisheries. Given the relatively short duration of truck water withdrawals, the instantaneous water take is the main potential concern. Water trucks will extract water from the stream at a maximum pumping rate if 14.7 L/s for a little less than 20 minutes, during which flow will be reduced in the stream. Within streams that provide fish habitat, this would result in a temporary reduction in the amount of fish habitat available, and if the temporary flow reduction was considerable, temporary stranding of fish could occur.

The hydrology value adopted for the lake assessment (1.03 $L/s/km^2$; see Table 2) was applied to the stream assessment.

Thresholds were identified and applied for fish-bearing and non-fish bearing waters. For fish-bearing streams, the removal of 20% of the 10-year low flow estimate was identified as an environmentally protective threshold.

Streams confirmed not to be fish habitat typically feed a downstream reach or collecting stream that is fish habitat. In these instances, the subject stream is only one contributor to the flow in the downstream fish habitat stream. Therefore, a higher threshold of 40% of the 10-year low flow was used.

Based on these thresholds, streams that cross the road and have suitably large catchment areas were identified, as follows:

- Fish bearing streams with a catchment area of at least 71.4 km^2
- Non-fish bearing streams with a catchment area of at least 28.3 km^2

These thresholds were applied to identify candidate streams along the tote road, the results of which are presented in Section 4.2.

4 – RESULTS

4.1 LAKE WATER SOURCES

Table 4 presents the assessment of the proposed water withdrawals from the five (5) lakes located along the length of the Milne Inlet Tote Road.

Table 4 Estimated Reductions in Lake Outflows Due to Water Withdrawals

Lake and Water Withdrawal Purposes	Withdrawal Rate (m^3/day)	Upstream Drainage Area (km^2)	Monthly Withdrawal Volume (m^3)	Reduction in Mean Monthly Discharge (%)				Reduction under Low Flow Conditions (%)
				June	July	August	Sept	
Km 32 Lake - Camp water plus dust suppression water	1,000	464	31,000	0.3	0.1	0.2	0.6	2.5
Katiktok Lake - Dust suppression water	318	87	6.758	0.1	0.1	0.2	0.7	4.2
Muriel Lake - Dust suppression water	212	194	6.572	0.04	0.04	0.06	0.2	1.3
David Lake - Dust suppression water	212	55	6.572	0.1	0.1	0.1	0.5	2.2
Camp Lake - Camp water plus dust suppression water	743.5	22.5[4]	23,048	7.5	1.2	1.4	3.8	27

NOTES:

1. THE MONTHLY MEAN UNIT RUNOFF AND MEASURED LOW FLOWS (FROM SEPTEMBER 2011) WERE FROM STATION H1 (CATCHMENT AREA OF 250 KM^2) FOR LAKES WITH CATCHMENT AREAS GREATER THAN 55 KM^2. STATION H3 WAS USED FOR LAKES WITH CATCHMENTS LESS THAN OR EQUAL TO 55 KM^2 (DAVID LAKE AND CAMP LAKE).
2. THE ANNUAL DISTRIBUTION OF STREAMFLOW WAS ASSUMED EQUAL TO THE 2007-2011 AVERAGE DISTRIBUTION AT MONITORING STATIONS H1 OR H3.
3. THE JUNE FLOW REDUCTION CONSIDERS BOTH THE MONTHLY WATER WITHDRAWAL PLUS THE PREVIOUS WINTER'S WATER WITHDRAWAL, FOR LAKES SUBJECT TO WINTER WITHDRAWALS.
4. THE CAMP LAKE CATCHMENT AREA APPLIED INCLUDES A REDUCTION THAT WILL OCCUR ONCE THE MAXIMUM EXTENT OF THE WASTE ROCK STOCKPILE AND OPEN PIT HAS BEEN REACHED DURING THE RAIL PHASE.

As noted above and in Table 3, two of the five lakes (Km32 Lake and Camp Lake) are currently used for camp water supply.

Each of the identified lakes will meet the threshold of 10% reduction of outflow under all flow conditions including 10-year return period low flow conditions that can be experienced during the month of September. The only exception to this is Camp Lake, which meets the 10% reduction of outflow threshold under mean flow conditions but not under low flow conditions. Under the 10-year low flow condition, however, a reduction of up to 27% of lake outflows could occur (Table 4), warranting further evaluation and consideration of potential effects to fish and fish habitat.

While the proposed water withdrawal in Camp Lake will exceed the 10% lake outflow reduction threshold under the 10-year low flow condition, there are site-specific conditions to be considered. The outflow stream of Camp Lake reports to Mary Lake. The stream is broad and shallow and has been observed on multiple occasions (and various flow conditions) to lack connectivity. The proposed water withdrawal can be expected to increase the frequency at which natural lack of connectivity occurs between the two lakes. Limited movement of adult Arctic Char occurs through this stream, and consequently, this stream was not identified as critical fish habitat (North/South Consultants Inc., 2012). As such, a reduction in flow of 27% of the 10-year low flow is not expected to cause fish stranding or meaningful effects to fish or fish habitat (North/South, 2014).

4.2 STREAM WATER SOURCES

Table 5 presents the crossing categories evaluated by Knight Piésold (2007) during road design work for the initial road construction supporting the 2007-2008 bulk sampling program. Only the extra-large crossings (all fish-bearing) meet the threshold (minimum catchment area) identified in Section 3.3 (71.4 km^2 for fish bearing streams and 28.3 km^2 for non-fish bearing streams).

Table 5 Milne Inlet Tote Road Crossing Categories

Crossing Category	Catchment Area (km^2)	Number of Crossings
Extra-Small	<0.5	174
Small	0.5 - 2.5	43
Medium	2.5 - 7.5	13
Large	7.5 - 30.0	14
Extra-Large	>30.0	5
	Total	**249**

The five (5) streams that meet these thresholds under all flow conditions are listed in Table 6 and are shown on Figure 1.

It should be noted that CV217 is located on the main outlet stream of Muriel Lake, which is also identified as a water source (Table 3). However, the catchment area of both is quite large, such that twice the water take from CV217 would not approach the threshold for fish-bearing streams.

An additional five (5) streams have been identified which, while not meeting the thresholds under low flow conditions, will have sufficient water throughout the year under mean flow conditions (Table 7). During a low flow dry year, these streams will also be capable of meeting the thresholds during the months of June and July, when flows are typically 400% of the annual runoff. During low flow dry years, however, water takes should be avoided during the months of August and September.

Table 6 Streams Meeting Water Take Criteria Under Any Flow Condition

ID	Coordinates		Chainage (m)	Catchment Area (km^2)	Fish Habitat Classification
	Northing (m)	Easting (m)			
Phillip's Creek	7,975,713	502,276	Milne Port	920	Marginal
CV128	7,965,895	513,545	17+683	473.4	Important
BG50	7,926,846	529,334	62+836	197.8	None
CV217	7,922,158	542,219	79+824	194.1	Important
CV223 (Tom River)	7,914,691	555,818	97+230	244.1	Important

Table 7 Streams Meeting Water Take Criteria Under Most Flow Conditions

ID	Coordinates		Chainage (m)	Catchment Area (km^2)	Fish Habitat Classification
	Northing (m)	Easting (m)			
CV099	7,948,820	521,811	37+840	28.6	Important
CV087	7,941,040	523,704	46+225	9.9	None
CV078	7,936,787	525,852	51+172	19.4	Important
BG32	7,921,622	540,706	78+163	11.5	None
BG17	7,917,643	550,703	90+168	13.8	None

It is recommended that an environmental coordinator visually inspect the streams in Table 7, and refer to ongoing stream gauging data (as necessary) to determine if flows are representative of wet, mean or typical, or dry year conditions. If stream flows are averaging less than mean flows for the year, this signals a drier year where caution should be taken and the streams be subject to inspection and confirmation by the environmental coordinator as described above before water withdrawals are made in August and September.

5 – CONCLUSIONS

This assessment has identified a total of five (5) lakes and ten (10) streams that have the capacity to supply the specified water volumes for dust suppression without causing meaningful effects on the local aquatic ecosystems. The assessment has applied a number of conservative assumptions (i.e., assuming all water is derived from lakes; conservative thresholds, requirement for inspection of select streams during suspected lower flow years), such that the confidence in this assessment is high.

The identified water sources, their location along the road, intended use, maximum daily water withdrawal and any applicable restrictions are summarized in Table 8.

Table 8 Summary of Proposed Tote Road Water Sources (Lakes and Streams)

ID	Coordinates		Proposed Maximum Daily Water Take (m^3)	Restrictions
	Northing (m)	Easting (m)		
Phillip's Creek	7,975,713	502,276	579.5[1, 2]	None
CV128	7,965,895	513,545	579.5	None
Km32 Lake	7,934,552	526,600	731.5[2]	None
CV099	7,948,820	521,811	110	June-July only during low flow (<mean flow) years
CV087	7,941,040	523,704	90	June-July only during low flow (<mean flow) years
CV078	7,936,787	525,852	75	June-July only during low flow (<mean flow) years
Katiktok Lake	7,921,987	542,508	318	None
BG50	7,926,846	529,334	150	None
BG32	7,921,622	540,706	120	June-July only during low flow (<mean flow) years
CV217	7,922,158	542,219	130	None
Muriel Lake	7,919,396	547,885	212	None
David Lake	7,914,684	557,793	132	None
BG17	7,917,643	550,703	75	June-July only during low flow (<mean flow) years
CV223 (Tom River)	7,914,691	555,818	135	None
Camp Lake	7,975,713	502,276	743.5[3]	None

NOTES:

1. THE VOLUME OF 579.5 M^3/D INCLUDES 68.5 M^3/D APPROVED UNDER BAFFINLAND'S TYPE A WATER LICENCE 2AM-MRY-1325), 299 M^3/D PROPOSED BY A RECENTLY SUBMITTED APPLICATION TO AMEND BAFFINLAND'S TYPE B WATER LICENCE (8BC-MRY1314), AND AN ADDITIONAL 212 M^3/D FOR DUST SUPPRESSION AS PROPOSED IN THIS ASSESSMENT.
2. THE VOLUMES WITHDRAWN FROM KM 32 LAKE DURING SUMMER WILL NOT OCCUR WHEN WATER IS BEING WITHDRAWN FROM PHILLIP'S CREEK; THE SAME TOTAL VOLUME WILL BE WITHDRAWN FROM ONE SOURCE OR A COMBINATION OF THE TWO SOURCES ON A GIVEN DAY.
3. THE VOLUME OF 743.5 M^3/D INCLUDES 657.5 M^3/D APPROVED UNDER BAFFINLAND'S TYPE A WATER LICENCE (2AM-MRY-1325), AND AN ADDITIONAL 86 M^3/D FOR DUST SUPPRESSION AS PROPOSED IN THIS ASSESSMENT.

6 – REFERENCES

Baffinland Iron Mines Corporation, 2012. *Mary River Project - Final Environmental Impact Statement.*

Bowie Industries Inc. n.d. Series 300 Rotary Pumps. Bowie, TX.

Department of Fisheries and Oceans Canada, 1995. *Freshwater Intake End-of-Pîpe Fish Screen Guideline.* Catalogue No. Fs 23-270 / 1995E. Ottawa: Communications Directorate, Minister of Supply and Services Canada.

Hatch Associates Ltd., 2014. Email to Richard Cook. Re: *Dust suppression road area and water truck information and calculations.* June 12, 2014.

Knight Piésold Ltd., 2007. *Bulk Sampling Program Road Upgrade Design Summary.* North Bay, Ontario. Ref. No. NB102-181/6-5 Rev A.

Knight Piésold Ltd., 2012. *Baseline Hydrology Report.* North Bay, Ontario. Ref. No. NB102-181/30-7 Rev 1.

Knight Piésold Ltd., 2014. Memorandum to: Oliver Curran, Baffinland Iron Mines Corporation. Re: *Increasing Milne Port`s Water Usage from Phillip`s Creek and Km 32 Lake. April 22, 2014.* North Bay, Ontario. Ref. No. NB14-00217.

North/South Consultants Inc. (North/South), 2012. *Baffinland Iron Mines Corporation - Mary River Project - Freshwater Aquatic Biota and Habitat Baseline Synthesis Report 2005-2011.*

Megan Cooley (North/South Consultants Inc.), personal communication. 2014.

Oilmen's Truck Tanks Inc. (Oilmen's), 2012. Letter to Camex Equipment. Re: *Water Tank Specifications.* September 25, 2012. Spartanburg, SC.

Potter, S., 2014, personal communication.

7 – CLOSURE

We trust this hydrology assessment meets your present requirements. Please contact the undersigned with any questions.

Yours truly,
KNIGHT PIESOLD LTD.

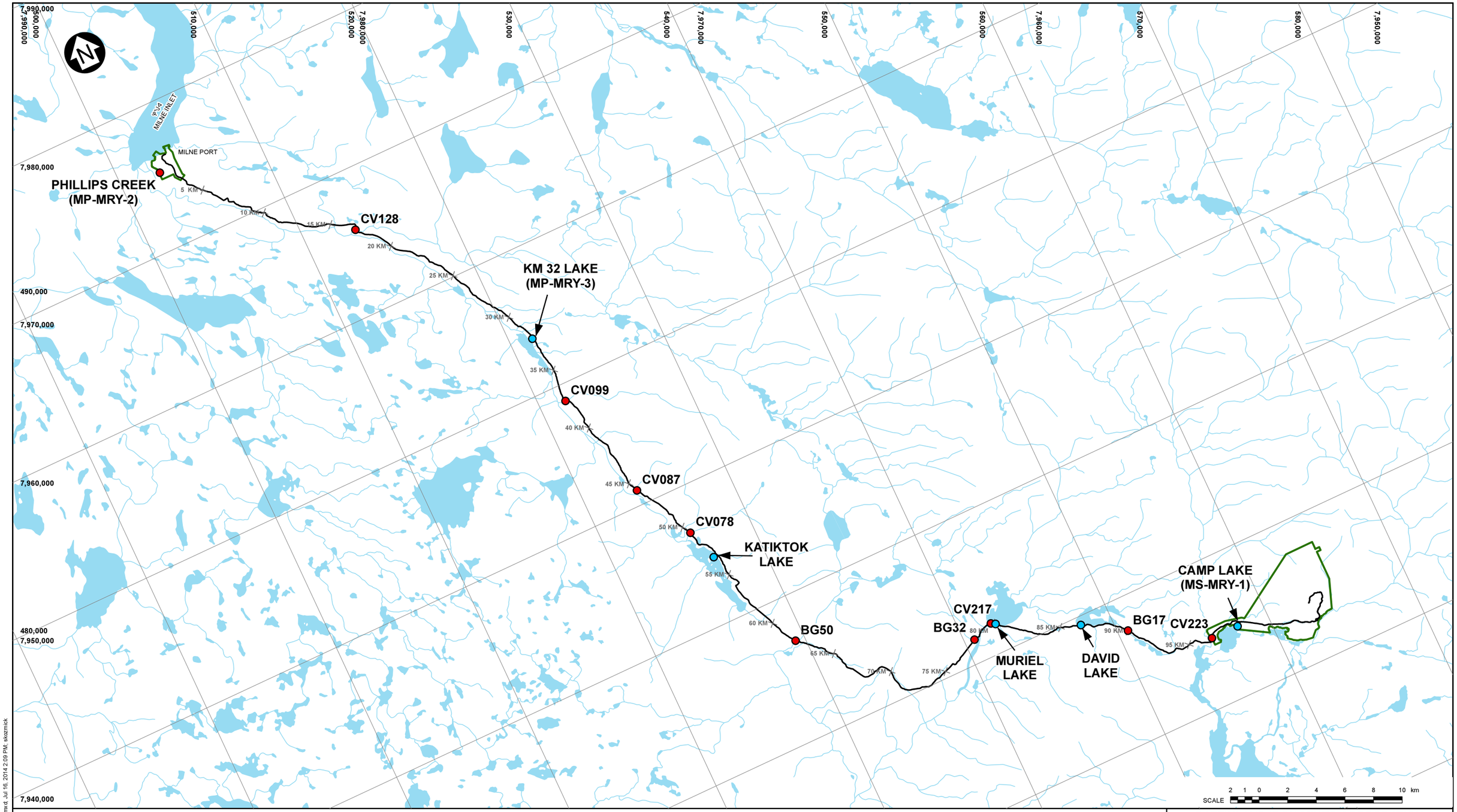
Signed: _____
Richard Cook, B.Sc.
Senior Scientist

Reviewed: _____
Steven R. Aiken, P.Eng.
Manager - Environmental Services

Approved: _____
Robert A. Mercer, Ph.D., P.Eng.
Managing Principal - North Bay

Attachments:
Figure 1 Rev 0 Proposed Dust Suppression Water Sources

/rac



LEGEND:

- PROPOSED STREAM WATER SOURCE
- PROPOSED LAKE WATER SOURCE
- MILNE INLET TOTE ROAD
- RIVER/STREAM/DRAINAGE
- WATER
- PROJECT DEVELOPMENT AREA

NOTES:

1. BASE MAP: HER MAJESTY THE QUEEN IN RIGHTS OF CANADA, DEPARTMENT OF NATURAL RESOURCES, (2004).
2. COORDINATE GRID IS UTM (NAD83) ZONE 17 AND IS IN METRES.

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHK'D	APP'D
0	16JUL'14	ISSUED WITH LETTER	RAC	SWK	RAC	RAC

BAFFINLAND IRON MINES CORPORATION

MARY RIVER PROJECT

PROPOSED DUST SUPPRESSION WATER SOURCES

Knight Piésold CONSULTING

P/A NO. NB102-181/35

REF NO. NB14-00376

FIGURE 1

REV 0

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