

372 Bay Street Suite 901 Toronto, Ontario M5H 2W9 416-628-0216

December 30, 2013

Phyllis Beaulieu Manager of Licensing Nunavut Water Board P.O. Box 119 Gjoa Haven, NU X0B 1J0 (867) 360-6338

Re: 2BE-HOP1222 Interim Closure Plan Review

Dear Ms. Beaulieu,

We have reviewed Karén Kharatyan's letter dated November 15, 2013 regarding the NWB review of the *Hope Bay Project Windy Camp and Patch Lake Facility Final Closure Plan* ("Closure Plan"), originally submitted to the NWB on June 28, 2012.

As background, the NWB distributed the plan for comment on Aug. 1, 2012. Following an extension to the comment period, comments were received from AANDC, EC, and the KIA in October 2013. Hope Bay Mining Ltd. ("HBML") provided their response to the comments on February 14, 2013 (the "HBML Closure Plan Responses"). As explained by the NWB, because the NWB had received an application for the assignment of the licence on February 12, 2013, the NWB did not follow up with HBML's response to the comments. The project was transferred to TMAC Resources Ltd. ("TMAC") in March 2013. In its letter dated June 18, 2013 confirming the assignment of 2BE-HOP1222 to TMAC (the "Assignment Letter"), the NWB included specific comments relating to the Closure Plan. The NWB provided further guidance to TMAC regarding the closure plan in its letter dated November 15, 2013 (the "Closure Plan Letter").

TMAC plans to revise the Closure Plan to incorporate its responses outlined in the table below as well as the HBML Closure Plan Responses. Prior to final submission of the Closure Plan TMAC requests that the NWB confirm that, provided the Closure Plan is updated in this manner, there are no outstanding NWB information requirements relating to the Closure Plan.

It is TMAC's hope that this collaborative approach will ensure that all requirements of the licence and of the NWB are met in the most efficient way possible. It is TMAC's understanding that following the NWB's review of this correspondence, the NWB will be able to approve the final Closure Plan in short order without need for additional technical review or plan revisions.

TMAC Responses/ Requests for Clarification

In this letter, TMAC is addressing the information requests included in both the Assignment Letter and the Closure Plan Letter, and seeking confirmation that the NWB agrees with TMAC's

approach final to submission of the final Closure Plan update. We have presented this information in tabular format for ease of reference.

NWB Request TMAC Response or Request for

Clarification

Assignment Letter

Abandonment and Restoration Plan (Part I, Item 1)

An Abandonment and Restoration Plan (A&R Plan) submitted by the previous Licensee under Part I, Item 1 has not to date been approved by the Board. A revised plan was provided to the Board on une 28, 2012, and distributed for comments on August 1, 2012, with an initial comment period ending September 1, 2012, subsequently extended to October 1, 2012 by way of a request from Environment Canada. In addition, HBML submitted the December 31, 2012 Hope Bay Project Closure and Reclamation Cost Estimate – Update, which proposed security in the amount of \$5,641,000. HBML responded to comments received 2 on February 14, 2013. The NWB also received comments on the June 2012 A&R Plan, from the Kitikmeot Inuit Association which expressed the requirement for TMAC to update the Plan to include the responsibilities of the Licensee with respect to a Memorandum of Understanding with the KIA and the development of a "Long Term Monitoring Plan" to be included within the A&R Plan. The Board has therefore deferred approval of the Plan entitled "Hope Bay Project Windy Camp and Patch Lake Facility Final Closure Plan" dated June 2012, that was submitted by HBML.

TMAC Resources Inc. shall submit to the Board for approval within sixty (60) days following issuance of this assignment, an updated Abandonment and Restoration Plan that addresses the change in the Licence holder, requirements of the KIA and comments TMAC will update the Closure Plan to address the change in the licence holder as well as to reflect the further direction from the NWB received since the NWB confirmed assignment of the licence in June 2013.

TMAC requests that before TMAC submits a final updated Closure Plan, the NWB confirm the proposed responses to the various information requests are adequate and that there are no outstanding technical information requirements relating to the Closure Plan.

received during the review of the Plan.	
TMAC Resources Inc., in review and revision of the Plan, shall review/revise and confirm the included Windy Camp and Patch Lake Facility Closure Cost Estimate provided by HBML, for the purposes of the Board assessing the security requirements under the Act.	Please see attached memo from SRK Consulting (Canada) Inc. ("SRK") confirming that the closure cost estimate provided in January 2013 remains accurate.
Spill Contingency Plan (Part H) The Board acknowledges that a revised Spill Contingency Plan (SCP) was submitted by the previous Licensee in October 2012 which addressed changes in operation to reflect the status of the entire Hope Bay Belt project as it influences the activities, environmental and safety issues of the Windy Camp and the Hope Bay Regional Exploration Project. A Plan entitled "Hope Bay Mining Ltd. Spill Contingency Plan HB-ER-ENV-MP-001 (REV 5)" dated October 2012, was submitted that meets the SCP requirements for the Water Licenses 2AM-DOH0713, 2BB-BOS1217, and 2BE-HOP1222.	TMAC will provide the updated Spill Contingency Plan (which will apply belt wide) by January 31, 2014.
The Licensee shall submit to the Board for review within sixty (60) days following issuance of this assignment, an updated Spill Contingency Plan that addresses the change in Licence holder and comments received during the review.	
Landfarm Closure Report (Part I, Item 4) The Licensee was required under Part I, Item 4 to submit to the Board for review, a final closure report for the landfarm at the Windy site. The NWB received from HBML, the "Windy Camp Landfarm Closure Report" on August 10, 2012.	TMAC acknowledges the NWB's confirmation in the Closure Plan Letter that the information provided generally fulfills the requirements of Part I Item 4 of the Licence.
Closure Plan Letter	<u>I</u>
Although being generally satisfied with the responses provided by HBML with respect to the Final Closure Plan, the NWB requires	TMAC assumes that this statement refers to the HBML Closure Plan Responses. TMAC has reviewed this submission, and adopts it.

however that the following clarifications or information be included in the updates to the plan in addition to the Items identified in the Assignment letter.

Accordingly, TMAC plans to update the Closure Plan to include the information outlined in the HBML Closure Plan Responses as well as the additional information that TMAC commits to provide in this table.

TMAC requests that the NWB confirm that provided TMAC follows this approach, that there are no outstanding NWB information requirements relating to the Closure Plan.

The AANDC identified that the Plan provides little information on what in-situ bioremediation techniques will be applied and the criteria for off-site disposal. In its response the HBML referred to the Windy Camp Phase 3 Environmental Site (ESA) Assessment and Patch Lake Facility Phase 3 Environmental Site Assessment for details on remediation methods that will be used.

The Section 3.2.5 Remediation of Hydrocarbon Contaminated Soils of Plan indicates that two methods of remediation were selected for the hydrocarbon contaminated soils at Hope Bay: in situ bioremediation and excavation and offsite disposal. Windy Camp Phase 3 ESA recommends landfarming as the preferred remedial alternative for all the petroleum hydrocarbon affected areas at the old Windy Camp either at a purpose-built facility sited at an appropriate location, or by transporting the soils to the to the Patch Laydown site and adapting the bermed and lined former tank farm area to accommodate the soils for landfarming.

The NWB concurs with the AANDC that updated Plan should describe in-details the in situ bioremediation method and the criteria that will be followed to determine whether in-situ bioremediation or excavation will be applied.

Details of the in-situ bioremediation method and criteria will be included in the updated closure plan and details are as follows. As described in Section 3.2.5, in-situ bioremediation will only be used in two small localized contamination areas (P1B – the localized spill area south-west of the former drill shop and P5 – the former power generator site). These areas were selected for this form of treatment since the measured levels of hydrocarbon contamination is low, the area is localized and thus the treatment efficacy is high with minimal disturbance.

Treatment will consist of aerobic treatment whereby a proprietary oxygen releasing compound EHC-O (manufactured by Adventus Americas) will be applied to the affected area at an application arte of about 2.5 g EHC-O/kg of soil. This compound will be tilled into the soil active zone (done in summer season). At least one season after the compound has been added the impacted soils will be retested to determine if microbial activity has resulted in a reduced hydrocarbon contamination. If the soils still exceed compliance criteria, the treatment may be repeated or the soils will be excavated and removed as described in Section 3.2.5. Complete details that describe the effectiveness of this treatment is described in Appendix A of the Closure Plan.

TMAC requests that the NWB confirm that updating the Closure Plan to reflect this response will be sufficient to fulfil the

	NWB's request for information included in the Closure Plan Letter.
	the Closure Flan Letter.
The Board advises that construction and operation of a purpose-built landfarm facility is no longer included within the 2BE-HOP1222 Licence, and if this option is chosen the necessary information should be provided for the Board's consideration through an Amendment application.	Noted.
The Licensee is also advised that prior to using an alternative disposal for contaminated soils (encapsulating in place) the Board's written approval must be obtained.	Noted.
In its review the KIA indicated that Post-Closure Monitoring is inadequate, and stated that all areas where the tundra has been disturbed should be included in the monitoring program for permafrost degradation/reinstatement. Details of permafrost monitoring should clearly indicate if it is limited to visual inspections or includes instrumentation. HBML responded that areas with these issues have been included for reclamation and will be monitored. Long term monitoring plans will be included in the post-closure plan based on the potential predicted residual effects following completion of closure.	The Closure Plan will be updated to include more detailed post-closure monitoring information. Details are as follows. Any affected areas mentioned in the report, including the former landfarm area will be subject to post-closure monitoring as described in Section 4 of the Closure Plan. This includes monitoring of water quality and soil hydrocarbon content as described for other areas. This water quality and soil monitoring consist of physical sampling and analysis of representative samples in accordance with standard best practice. There are not, and have never been any ground temperature cables to monitor permafrost depth at either Patch Lake or Windy sites, and there is no plan
The NWB agrees with KIA that more detailed Post-Closure Monitoring information should be provided. The NWB notices that no Post-Closure Monitoring details were provided with respect to the former landfarm area as stated in the Report. Therefore the updated Plan shall contain more detailed Post-Closure, Monitoring information with respect to permafrost monitoring, and shall also include details on post-closure monitoring of the former landfarm area as such information becomes available to be	to install any instrumentation as part of the post-closure monitoring. Permafrost integrity will be evaluated based on annual visual inspection by a qualified Professional Geotechnical engineer. This is standard practice on this project as well as other permafrost environments. TMAC requests that the NWB confirm that updating the Closure Plan to reflect this response will be sufficient to fulfil the NWB's request for information included in the Closure Plan Letter.

included within the updated Plan.	

Thank you for considering our responses to these items. Should you have any questions regarding this letter, please do not hesitate to contact me at lea-marie.bowes-lyon@tmacresources.com or at 778-210-1676.

Sincerely,

Léa-Marie Bowes-Lyon Tenure and Permitting Manager TMAC Resources Inc.