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July 20, 2015

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Dear Ms. Beaulieu, Ms. Aredes;

Re: Part G Item 19 of 2AM-DOH1323, Request for Approval of Revised *Waste Rock and Ore Management Plan - Responses to Party Comments (EC)*

With respect to the Request for approval of the revised Doris *Waste Rock and Ore Management Plan* (*WR&OMP I*) submitted to the Nunavut Water Board (NWB) on May 1, 2015, TMAC Resources Inc. (TMAC) provided responses to comments received from Aboriginal Affairs and Northern Development Canada (AANDC) and the Kitikmeot Inuit Association (KIA) on July 10, 2015. Responses to comments received from Environment Canada (EC) are addressed herein in Table 1, with responses to and/or clarifications provided for each item.

Note that the majority of comments from EC pertain to material that has not changed since the *WR&OMP* was approved in 2010. Prior to this approval, the NWB sent the *WR&OMP* (2010) out for Party comment on Feb 10, 2011. In response, EC provided comments on March 10, 2011. The *WR&OMP* (2010) was subsequently approved by the NWB on March 30, 2012 through Motion No. 2011-21-L09.

Further, TMAC wishes to provide all Parties commenting with context for consideration of both the *WR&OMP I* and the *Hope Bay Waste Rock and Ore Management Plan* (*WR&OMP II*) submitted in June 2015 as part of a resubmission of an Application for Amendment to 2AM-DOH1323. TMAC recognizes that the timing of the submissions and the difference in content is confusing, yet purposeful.

WR&OMP 1

As stated in the request for approval of the *WR&OMP I* (April 2015):

- TMAC wishes to utilize Pad T for waste rock storage in the near term (2015-2016).
- TMAC wishes to achieve this through approval of a revised *WR&OMP* (I).
- The revisions to the *WR&OMP* I are restricted to the addition of Pad T; no changes to waste rock characterization, handling or segregation are proposed.
- The revisions to the *WR&OMP I* are based on the current mine plan, permitted under 2AM-DOH1323. This mine plan results in some unmineralised waste rock to be left on site at closure.

The *WR&OMP I* remains largely similar to the approved version of the *WR&OMP* (2010); waste rock characterization, handling and segregation, along with facility closure will occur in accordance with current approved procedures and closure planning.

WR&OMP II

As a component of the recent submission to the NWB, *Revisions to TMAC Resources Inc. Amendment Application No. 1 of Project Certificate 003 and Water Licence 2AM-DOH1323*, TMAC has submitted an updated *Hope Bay Waste Rock and Ore Management Plan* (*WR&OMP II*). This Plan has been revised to support a new mine plan and differs substantially from both the current approved *WR&OMP* (2010) and the revised version, the *WR&OMP I* currently under review in the Pad T submission, in the following ways:

- Revised approach to waste rock characterization, handling and segregation.
- Under the new mine plan, all waste rock will be used either for construction (if deemed suitable) or as backfill underground, with no waste rock on surface at closure.
- Revised approach to closure of waste rock facilities.
- Assumes Pad T has been permitted and will be the approved waste rock pad, once operations under a revised 2AM-DOH1323 commence (late 2016).

WR&OM Implementation Plan

Figure 1 illustrates the relationship between the current approved *WR&OMP* (2010), the *WR&OMP I* currently under review (April 2015) and the revised *WR&OMP II* (June 2015) recently submitted, as well as the related mine plans and water licences.

It is understood that proceeding in this manner will allow TMAC to construct and utilize Pad T for waste rock storage in the near term to support current approved development activities. Changes in waste rock characterization, handling and segregation procedures would be implemented following approval of 2AM-DOH1323 Amendment 1 (2016). Proceeding in this manner ensures timely, efficient and compliant waste rock characterization, handling, segregation and storage to support current development and future mining.

TMAC is committed to participating in an open and collaborative dialogue to facilitate a timely and thorough understanding and review of the various licences in place and reviews underway.

Should you have any questions regarding the responses, or require any further information, please contact me at john.roberts@tmacresources.com.

Yours sincerely,

M. John Roberts
Vice President, Environmental Affairs
Hope Bay Project
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Encl.

<table>
<tr><th></th><th colspan="3">2015</th><th colspan="4">2016</th><th colspan="4">2017</th></tr>
<tr><th></th><th>YTD</th><th>Q3</th><th>Q4</th><th>Q1</th><th>Q2</th><th>Q3</th><th>Q4</th><th>Q1</th><th>Q2</th><th>Q3</th><th>Q4</th></tr>
<tr><td>Mine Plan</td><td colspan="5">• Current
• 698,700 t ore
• Doris zone only
• Waste rock on surface at closure</td><td colspan="6">• Revised
• 2.5M t ore
• Doris, Connector and Central zones
• No waste rock on surface at closure</td></tr>
<tr><td rowspan="2">Water Licence</td><td colspan="5">2AM-DOH1323</td><td colspan="6" rowspan="2">2AM-DOH1323 Amendment 1</td></tr>
<tr><td colspan="5">(Review of 2AM-DOH1323 Amendment 1)</td></tr>
<tr><td>Waste Rock and Ore Management Plan</td><td colspan="3">Current
(2010)</td><td colspan="3">WR&OMP I
(April 2015)</td><td colspan="6">WR&OMP II
(June 2015)</td></tr>
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Figure 1 Implementation of the various versions of the Waste *Rock and Ore Management Plan*.

Table 1 Part G Item 19 of 2AM-DOH1323, Request for Approval of Revised *Waste Rock and Ore Management Plan* (WR&OMP I)- *Responses to EC Comments*

ITEM	TOPIC	PARTY COMMENT	PARTY REQUEST	TMAC RESPONSE
EC June 8, 2015				
Issue #1 ML/ARD Potential, Geochemical characterization				
E1	Buffering capacity	Re. Section 2.5.1: The statement *"…but contained such low concentrations of sulphide that buffering by silicate minerals is* ***likely to be sufficient*** *to maintain neutral pH conditions in these rocks"* cannot be substantiated. In many cases, it is found that the contribution of silicate minerals in neutralization of (PAG) sulphide is minimal. In addition, the reaction of silicate minerals is also very slow such that it's contribution to neutralization may not be useful at the start of acid generation, if it happens early.	What other mitigation plan does the proponent have to mitigate the acid generation if it occurs? EC recommends that silicate minerals should not be solely relied on to buffer any potential PAG or uncertain samples.	The material in question in the Party Request has not changed since the *Waste Rock and Ore Management Plan* (*WR&OMP*) was approved in 2010. Accordingly, TMAC concludes that the understanding of ML/ARD potential remains valid and does not plan additional mitigation measures for acid generation in relation to the current request for approval under part G Item 19 of 2AM-DOH1323.
Issue #2 ML/ARD Potential, Geochemical Characterization				
E2	Classification	Re. Section 2.5.1 Table 2: Table 2 reports that of the 34 Diabase samples (2011) classified under the TIC/AP method, 62% and 24% of the samples were classified as uncertain and PAG respectively; therefore, it is not clear how the Proponent conclude that *"given the consistently low AP, (Diabase) should be managed as non-PAG"* when the majority of the samples are classified as uncertain or PAG.	EC recommends that the Proponent clarify why the samples classified as "uncertain of PAG" are not separated out and treated as moderate risk.	As noted in the *WR&OMP I*, the majority of the diabase samples have sulphide concentrations of less than 0.1% and based on NP/AP ratios, 100% of the samples were classified as non-PAG. The presence of modest amounts of NP is a direct indication that the silicate minerals are contributing to pH buffering. The description of ML/ARD characterization results presented in the WRMP was intended to be a high level summary of results to provide context for the management recommendations. Representative samples of the diabase have been subjected to mineralogical characterization and kinetic tests (humidity cell tests) to establish what types of silicate minerals are present that could contribute to buffering and to assess the relative rates of sulphide oxidation. Subsequent to this revision of the *WR&OMP* (I; April 2015) these results were compiled in to a summary document on kinetic testing at Doris (SRK 2015). This document has been appended. In this document, humidity cell results are presented for two diabase samples. Results are also presented for a field barrel test on diabase.

				The mineralogical results for these two samples indicate that the diabase was predominantly comprised of amphibole, chlorite, epidote and plagioclase which are all calcium/magnesium silicates that release alkalinity as they weather. The results of the kinetic tests showed that 1)pH conditions in these tests remained neutral for the entire test duration of 57 weeks, and 2) rates of sulphide oxidation in the diabase were extremely low (less than 1 mg/kg/week), indicating that release of alkalinity from weathering of silicate minerals is likely to be sufficient to maintain neutral pH conditions over time. Along with the static testing data, they provide a strong degree of assurance that neutral pH conditions will be maintained in this material. SRK has recently published a paper on the management of mine wastes with a low sulphide content (Day and Kennedy, 2015) that describes the theoretical basis for silicate buffering as well as a case study on how these reactions can be taken into account. A copy of the paper is available on request.

Issue #3 Classification Procedures				
E3	Inspection	Re. Section 3.3.2: It is not clear whether the geological inspection and method of classification overrides the previously classified units or if this is a reclassification of rocks within that unit. If the rock units have been previously classified as non-PAG-uncertain and PAG based on static and kinetic methods for ARD/ML before placement, how does the geological inspection of the waste rock by the mine geologist fit into the classification that was done before placement?	It is recommended that the Proponent clarify whether the geological inspection overrides the previously classified segregation method (in the event that visually inspected waste rock was classified as non-PAG and then used for construction before confirmatory laboratory testing). If the confirmatory laboratory test result indicates that it is uncertain or PAG, though partially addressed in Section 5.3.2-Post Inspection, please explain how regular this post inspection would be and if there would be continuous monitoring of seepage from the infrastructure area that cannot be safely accessed.	The material in question in the Party Request has not changed since the *WR&OMP* was approved in 2010. Accordingly, TMAC concludes that the sample classification and related inspection practices remain valid.
Issue #4 Period of Waste Rock Deposition and Backfilling, Annual Inspections and Review				
E4	**Inspection frequency**	Re. Section 5.1.1: It is uncertain whether annual inspections (i.e., once a year) is adequate, given that some waste rock placed in the pile would have been covered by other waste rock material.	EC recommends that the Proponent carry out more frequent inspections.	The material in question in the Party Request has not changed since the *WR&OMP* was approved in 2010. Accordingly, TMAC concludes that the inspection frequency remain suitable.

Issue #5 Period of Waste Rock Deposition and Backfilling, Annual Inspections and Review				
E5	**Metal Leaching**	Re. Section 5.1.1: It is unclear as to what the Proponent means by *environmentally-significant level of metal leaching* in the sentence *"The objective of this program is to confirm that an environmentally-significant level of metal leaching is not occurring from the rock"*. The Proponent also states that *"The seep surveys will be completed annually during freshet for at least two years following the period of waste rock deposition and backfilling activities"*.	How does the Proponent quantify the environmentally significant level of metal leaching? EC recommends that the Proponent clarify what is meant by *environmentally significant level of metal leaching*; and explain how long the Proponent plans to continue the seep survey.	The material in question in the Party Request has not changed since the *WR&OMP* was approved in 2010. Accordingly, TMAC concludes that the current understanding of metal leaching and the schedule of seep sampling remains valid.

Day, S.J. and Kennedy, C.B,, 2015. Setting ARD management criteria for mine wastes with low sulfide content. Proceedings of the 10th International Conference on Acid Rock Drainage (ICARD), Santiago Chile, April 2015.

SRK, 2015. Kinetic Testing of Waste Rock and Ore from the Doris Deposits, Hope Bay. Report prepared for TMAC Resources Inc. by SRK Consulting (Canada) Inc., June 2015.