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March 30, 2019

Licensing
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Re: February 2019 – Monthly Monitoring Report for Water Licence 2AM-DOH1335

This report is comprised of monitoring requirements as set out in Part I and Schedule I of water licence 2AM-DOH1335 Amendment 2, and additional requirements from CIRNAC.

During the subject period of this report the focus of activities at Doris North was underground and surface mining, construction, ore processing, water management and environmental compliance. No activities were conducted at Madrid under this licence in February.

Sampling locations monitored under this licence (seasonally or when facilities are operational) are provided in Figure 3 at the end of this report. Madrid infrastructure has not yet been constructed. Monitoring locations associated with Madrid infrastructure (MMS) will be established with the Inspector as per Part I Item 3 once these facilities have been constructed.

In February TMAC continued with the Doris Crown Pillar Recovery activities. These activities included underground blasting and removal of waste rock and ore via the underground workings. No surface blasting was conducted in February. Backfilling portions of the crown pillar area continued.

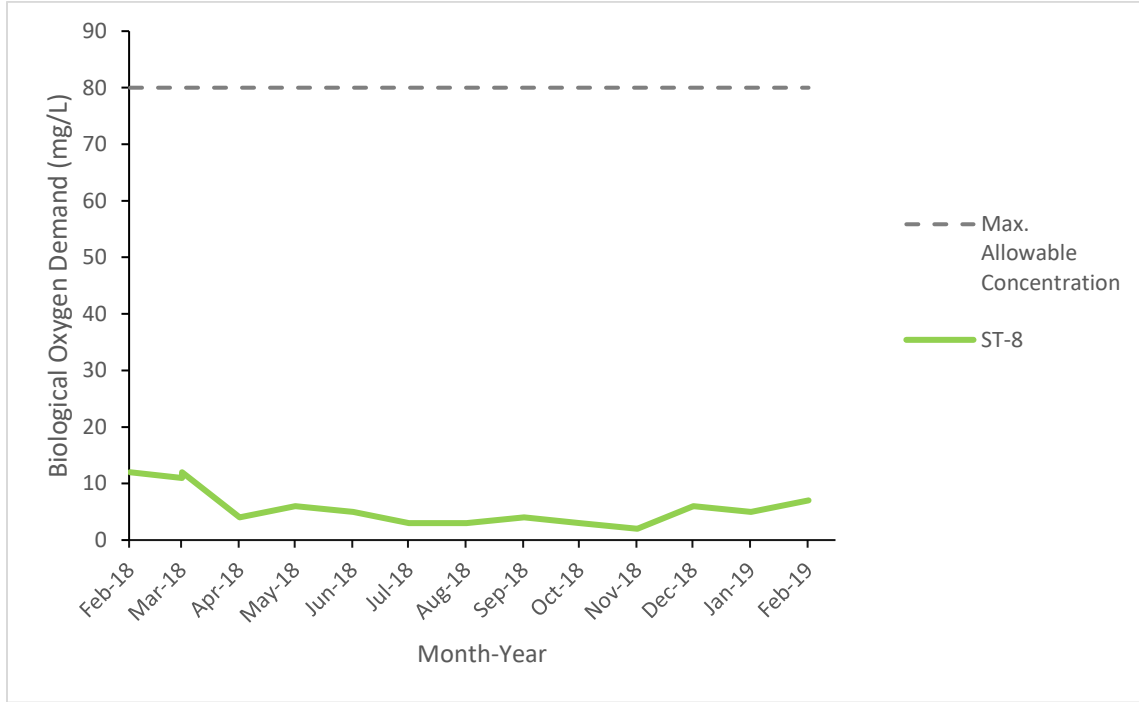
Site Wide Water Quality Monitoring Program (Part I Item 3 and Schedule I)

Water quality sampling was conducted in February at monitoring stations identified in Schedule I of the licence (ST-1 through ST-13, TL-1 through TL-12 and MMS-1 through MMS-10). Water quality samples were not collected for monitoring stations that were inactive during the month being reported (e.g., facilities that had not yet been constructed, were frozen during the month, or were not operationally active).

All parameters were compared to the applicable effluent quality limits outlined in Part F of the licence. No exceedances of effluent quality limits were observed in any samples collected this month. Results of all water quality monitoring are provided in Appendix A attached to this report.

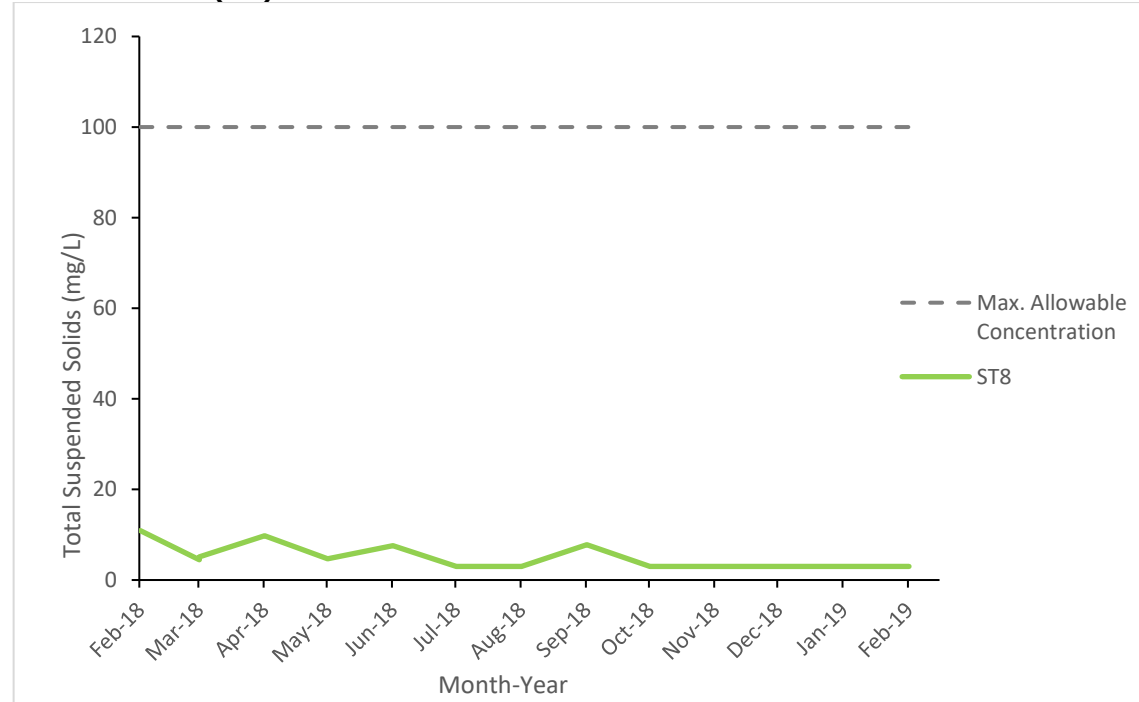
Figure 1 and 2 illustrates effluent quality characteristics for parameters of interest at select monitoring stations.

Figure 1. Biological Oxygen Demand Results Consistently Below Discharge Criteria for Wastewater Treatment Plant (ST8)



Note: Maximum Average Concentration as per Part F Item 4(b).

Figure 2. Total Suspended Solids Results Consistently Below Discharge Criteria for Wastewater Treatment Plant (ST8)



Note: Maximum Average Concentration as per Part F Item 4(b).

Flow and Volume Measurements (Part F, Part I and Schedule I)

Table 1. Effluent discharge, February 2019

| Facility | Station Code | Discharge Volume (m ³) | Exceedances of Discharge Criteria | Discharge Location | Licence Reference |
|---|--------------|------------------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Doris Sedimentation Pond | ST-1 | 0 | N/A | Tailings Impoundment Area | Part F Item 17 |
| Doris Contact Water Pond #1 | ST-2 | 0 | N/A | Tailings Impoundment Area | Part F Item 17, 18(a) |
| Non-Hazardous Landfill Sump | ST-3 | 0 | 0 | Facility not constructed | Part F Item 18(a) |
| Landfarm Sump | ST-4 | 0 | 0 | Tundra Discharge 13W 432450 7559600 | Part F Item 18(b) |
| Doris Plant Site Fuel Storage Area | ST-5 | 0 | 0 | Tundra Discharge | Part F Item 18(b) |
| Rob Bay Single 5ML Fuel Storage Area | ST-6a | 0 | 0 | Tundra Discharge | Part F Item 18(b) |
| Rob Bay Fuel Storage and Containment Berm | ST-6b | 0 | 0 | Tundra Discharge | Part F Item 18(b) |
| Doris Sewage Treatment Plant, Effluent | ST-8 | 1,148 | 0 | Tundra Discharge 13W 432933 7559057 | Part F Item 5(b-c) |
| Doris Sewage Treatment Plant, Sludge | N/A | 21.7 | N/A | Tailings Impoundment Area | Part I Item 5(f) |
| Doris Reagent and Cyanide Storage Facility Sump | ST-11 | 0 | N/A | Tailings Impoundment Area | Part F Item 17 |
| Doris Contact Water Pond #2 | ST-13 | 0 | N/A | Facility not constructed | Part F Item 17 |
| Doris Mine Water Discharge | TL-12 | 18,985 | N/A | Tailings Impoundment Area | |
| Madrid North Contact Water Pond | MMS-1 | 0 | N/A | Facility not constructed | Part F Item 17, 18(a) |
| Madrid South Primary Contact Water Pond | MMS-2 | 0 | N/A | Facility not constructed | Part F Item 17, 18(a) |
| Madrid South Secondary Contact Water Pond | MMS-3 | 0 | N/A | Facility not constructed | Part F Item 17, 18(a) |
| Madrid South Fuel Storage Facility | MMS-5 | 0 | 0 | Facility not constructed | Part F Item 18(b) |
| Madrid Brine Mixing Facility | MMS-6 | 0 | N/A | Facility not constructed | |
| Madrid North Connector | MMS-7 | 0 | N/A | No mining occurring at this time | |
| Madrid North Fuel Storage Facility | MMS-8 | 0 | 0 | Facility not constructed | Part F Item 18(b) |
| Madrid Mine Water Discharge | MMS-10 | 0 | N/A | Facility not constructed | |

Records of visual monitoring of discharge to tundra are maintained on file as per Part I Item 11.

Table 2. Discharge from TIA, February 2019

| Month | Number of days of discharge | Discharge Volume (m ³) | Exceedances of Discharge Criteria* |
|--------------------------|-----------------------------|------------------------------------|------------------------------------|
| January | 0 | 0 | 0 |
| February | 0 | 0 | 0 |
| Annual Cumulative | 0 | 0 | 0 |

* Discharge criteria as outlined in *Metal and Diamond Mining Effluent Regulations*.

Acute Lethality testing conducted as outlined in Part F Item 22 and Part I Item 14

Table 3. Water usage, February 2019

| Month | Windy Lake (ST-7A) | Doris Lake (ST-7) | | | | | Total Usage |
|-------------------------|----------------------------------|----------------------------------|---------------------------------------|-------------------------------------|------------------------------------|--------------------------------|------------------|
| | Domestic Water (m ³) | Domestic Water (m ³) | Surface Exploration (m ³) | Industrial Usage* (m ³) | Dust Suppression (m ³) | Winter Track (m ³) | |
| January | 1,438 | 0 | 0 | 16 | 0 | 432 | 1,886 |
| February | 1,341 | 0 | 0 | 48 | 0 | 275 | 1,664 |
| Annual Total | 2,779 | 0 | 0 | 64 | 0 | 707 | 3,550 |
| Annual Allowance | 43,800 | | | 1,930,000 | | 60,000 | 2,033,800 |

As permitted by water licence 2AM-DOH1335 Part E Item 1 and Part I Item 5(a)(b).

* Includes industrial uses such as mining, core processing, concrete batching, etc.

Table 4. Volume of Reclaim Water from the TIA for Process Water, February 2019

| Month | Reclaim Water (m ³) * |
|--------------------------|-----------------------------------|
| January | 64,572 |
| February | 57,207 |
| Annual Cumulative | 121,779 |

* As per Part E Item 5 and Part I Item 5(c)

Numbers rounded to the nearest cubic meter.

Table 5. Waste Rock and Process Volumes, February 2019

| Month | Waste Rock Management | | | | | Underground Void Space | | | Ore Processing and Tailings Management | | |
|------------------|--|--|---|--|---|--|---|---|--|---|---|
| | Produced from Mining Activity (tonnes) | Backfilled Directly to Underground Stopes (tonnes) | Returned Underground from Temporary Waste Rock Pile* (tonnes) | Moved to Temporary Waste Rock Pile (tonnes)* | Cumulative on Temporary Waste Rock Pile (tonnes)* | Volume Created from Mining Activities (tonnes) | Cumulative Volume Available for Backfill (tonnes) | Cumulative Volume Available for Backfill (m³) | Quantity of Ore Processed** (tonnes) | Total Dry Tailings Placed in TIA** (tonnes) | Total Dry Detoxified Tailings Placed Underground** (tonnes) |
| December Balance | - | - | - | - | 838,227 | - | 1,287,608 | 510,092 | - | - | - |
| January | 37,535 | 29,226 | 8,326 | 8,309 ^ | 838,210 | 27,861 | 1,259,747 | 523,016 | 45,387 | 44,133 | 1,054 |
| February | 34,681 | 29,440 | 76,020 | 5,241 | 767,431 | -27,625 | 1,287,372 | 540,300 | 47,479 | 46,178 | 1,261 |
| Cumulative Total | 72,216 | 58,666 | 84,346 | 13,550 | 767,431 | 236 | 1,287,372 | 540,300 | 92,866 | 90,311 | 2,315 |

* As per Part I Item 5(d)(e)

** As per Part I Item 6

Note: Void space created from mining activities is determined as the sum of the initial void space as calculated in March 2017 and void space created each month from mining activities. A negative volume of void space created in a month indicates that a higher volume of waste rock and detoxified tailings was returned underground compared to the volume of void space created from new mining activities.

^ A transcription error was identified in the January 2019 SNP report for the volume of waste rock moved to the temporary waste rock pile. This value has been corrected in Table 5 above.

Table 7. Doris Lake Water Level (ST-12), February 2019

| Month | Minimum Water Level (masl) | Maximum Water Level (masl) | Mean Water Level (masl) | Monthly Water Level Variation (masl)** | Comparison of Mean Water Level from Month to Month (masl)^ | Low Action Level Trigger (masl)* |
|----------|----------------------------|----------------------------|-------------------------|--|--|----------------------------------|
| January | 21.726 | 21.747 | 21.739 | 0.011 | 0.019 | 21.347 |
| February | 21.725 | 21.743 | 21.736 | 0.018 | -0.003 | 21.347 |

As per Part I Item 1 and outlined in the Hope Bay Project Aquatic Effects Monitoring Plan.

* Low action level trigger is relative to the average water level value (September 10-30, 2018) measured in Doris Lake. Low action level trigger (-0.42 m) outlined in Section 5.4 of the Doris Aquatic Effects Monitoring Plan, September 2016.

** Monthly Water Level Variation is calculated as the difference between the Maximum Water Level and the Minimum Water Level measured during the month.

^ Comparison of the change in water level from month to month. This value is calculated by subtracting the Mean Water Level of the current month from the Mean Water Level of the previous month (e.g. February Mean Water level - January Mean Water level). A positive value from this calculation indicates a rise in water level since the previous month; a negative value from this calculation indicates a drop in water level since the previous month.

Waste Management (Part F Item 10 and 11)

No waste backhaul occurred from the Doris Camp in February.

Summary of Assessments of Water Balance and Water Quality Model (Part F Item 24 and Part I Item 12 c)

Average monthly water quality, hydrologic, and climatic monitoring data were collected while in operations during February. Data will contribute to the assessment of the water and load balance model, and will be compared to the predicted water quality and elevation within the TIA and will be reported in the annual report for 2019.

Thermal Monitoring (Part I Items 7, 8 and Schedule I)

Thermal monitoring undertaken as per Part I Items 7, 8 and Schedule I is reported in the annual Geotechnical Report.

Site Freshet and Precipitation Conditions (Part I Item 12(d))

Visual monitoring was conducted of the diversion berm and site runoff structures. No issues were identified as these facilities were frozen.

Incident Reporting

Spill #19-048 – On February 9, 2019 an operator was loading ore using a 988 loader on the mill ore stockpile to transport to the mill crusher. The operator had scooped up the load and turned to begin backing up when he identified a trail of fluid originating from under the loader. The operator stopped the equipment immediately and called for assistance. Mechanics reported to the scene and found that a coolant hose line had failed allowing the radiator of the loader to drain onto the ground. A total of 50-60L of ethylene glycol 60-40 coolant was released to the snow covered crush pad.

Mechanics determined that extreme cold temperatures occurring at the time of the spill, combined with normal wear and tear of the equipment had caused the failure.

Spill pads were placed beneath the leak to reduce the amount of spill contacting the ground surface. The loader was then taken to the mechanical shop to replace the hose line. Contaminated materials were removed from the surface of the pad (spill pads, snow and crush) and taken to the waste management facility to be stored for offsite disposal.

TMAC internally reviewed the incident and identified the following corrective actions in order to reduce the likelihood of a reoccurrence:

- Continue performing pre-operational checks on all equipment prior to use to identify potential issues prior to using the equipment; and
- Continue performing preventative maintenance programs on all equipment at the recommended interval (every 500 operating hours).

Should there be any questions regarding this monthly report, please contact enviro@tmacresources.com.

Yours sincerely,



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Cc:

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Figure 3. 2AM-DOH1335 SNP Monitoring Locations

