

Ph: 204-277-5411

June 03, 2015

Ms. Tracey Braun Manitoba Conservation Environmental Approvals 123 Main St., Ste. 160 Winnipeg, MB R3C 1A5 Ph: 204-945-7012

Fax: 204-945-5229

Re: San Gold Corporation, Rice Lake Mine: Temporary utilization of the East Tailings Pond as a Polishing Pond for discharge purposes.

Dear Ms Braun,

This letter is to request a minor Notice of Alteration to utilize the newly constructed East Tailings Pond as a temporary Polishing Pond for discharge purposes. San Gold proposes discharging water that is currently stored in the East Tailings Pond directly to the environment via the licenced discharge point. Under Environmental Act Licence 2628RR (EA Licence) effluent must be discharged only from the Polishing Pond when conditions in relation to discharge in the EA Licence are met. San Gold proposes discharging water from the East Tailings Pond as this is most feasible means of reducing water volumes in the Tailings Management Area (TMA).

The following sections outline the current operational condition of the TMA, planned discharge proposal, plan to meet licence conditions and potential environmental impacts. A \$500 cheque payable to the Minister of Finance is attached with this letter.

## Recent History of TMA

Over the last two years the TMA has been managed based on operational requirements which have involved several minor operational modifications that were typical prior to 2013. This was primarily due to delays in permitting and construction of the East Tailings Pond in addition to, poor water quality in the Polishing Pond which prevented the annual discharge of effluent to the environment. No discharges occurred in 2013 and 2014 as the metals concentration of the effluent were above the limits set in the



Ph: 204-277-5411

Metal Mining Effluent Regulation (MMER). This led to an accumulation of water in both the Tailings Pond and Polishing Pond which resulted in water levels nearing the freeboard level.

To assist in reducing water volumes, four evaporators were installed at the Polishing Pond during the summer of 2014. The evaporators provided a mechanical means of enhancing the evaporation levels from the pond. The evaporators provided enough water reduction to maintain the freeboard levels, ensuring continued operation of the facility whilst Dyke 9 was constructed and the East Tailings Pond was approved for use.

The East Tailing Pond was completed in November 2014 and approved for water storage on December 17<sup>th</sup> 2014. Water was transferred from the Polishing Pond to the East Tailings Pond in January 2015 with approximately 500,000m³ of water being transferred. Water is again being transferred to the East Tailings Pond as part of the spring melt management. No tailings or effluent directly from the Tailings Pond has been added to the East Tailings Pond.

### **Current Operational Condition of TMA**

San Gold Corporation suspended operations at the Rice Lake Mine facility on April 14<sup>th</sup> 2015 and temporally put the facility into care and maintenance and no additional tailings has been added to the Tailings Pond since milling activities were suspended. Dewatering of the mines is continuing with this water reporting to the Tailings Pond.

The Polishing Pond has higher deleterious substance concentrations than the East Tailings Pond due to the regular addition of Tailings Pond water to the Polishing Pond. Therefore, the East Tailings Pond is being used as a temporary Polishing Pond as water in this pond has had sufficient retention time to finish the treatment process and bring water quality to the required levels for discharge. The East Tailings Pond was a virgin area that still had the natural vegetation over the base of the pond. This vegetation included cat tails and other species that grow in bog conditions. The phytoremediation capacity of these species has assisted in reducing the metals and nutrient content of the water, greatly improving the water quality. It is expected that as spring growth of vegetation occurs the phytoremediation potential of this vegetation will improve water quality further. In addition, the large catchment area of the East Tailings Pond provided significant dilution capacity during the spring melt.

Recent water sampling of all the ponds indicates that the water in the East Tailings Pond is of discharge quality and meets the specifications outlined in the MMER. The MMER max monthly mean concentration is used to ensure effluent will meet the monthly requirements.



Ph: 204-277-5411

Table 2: Summary of water quality results

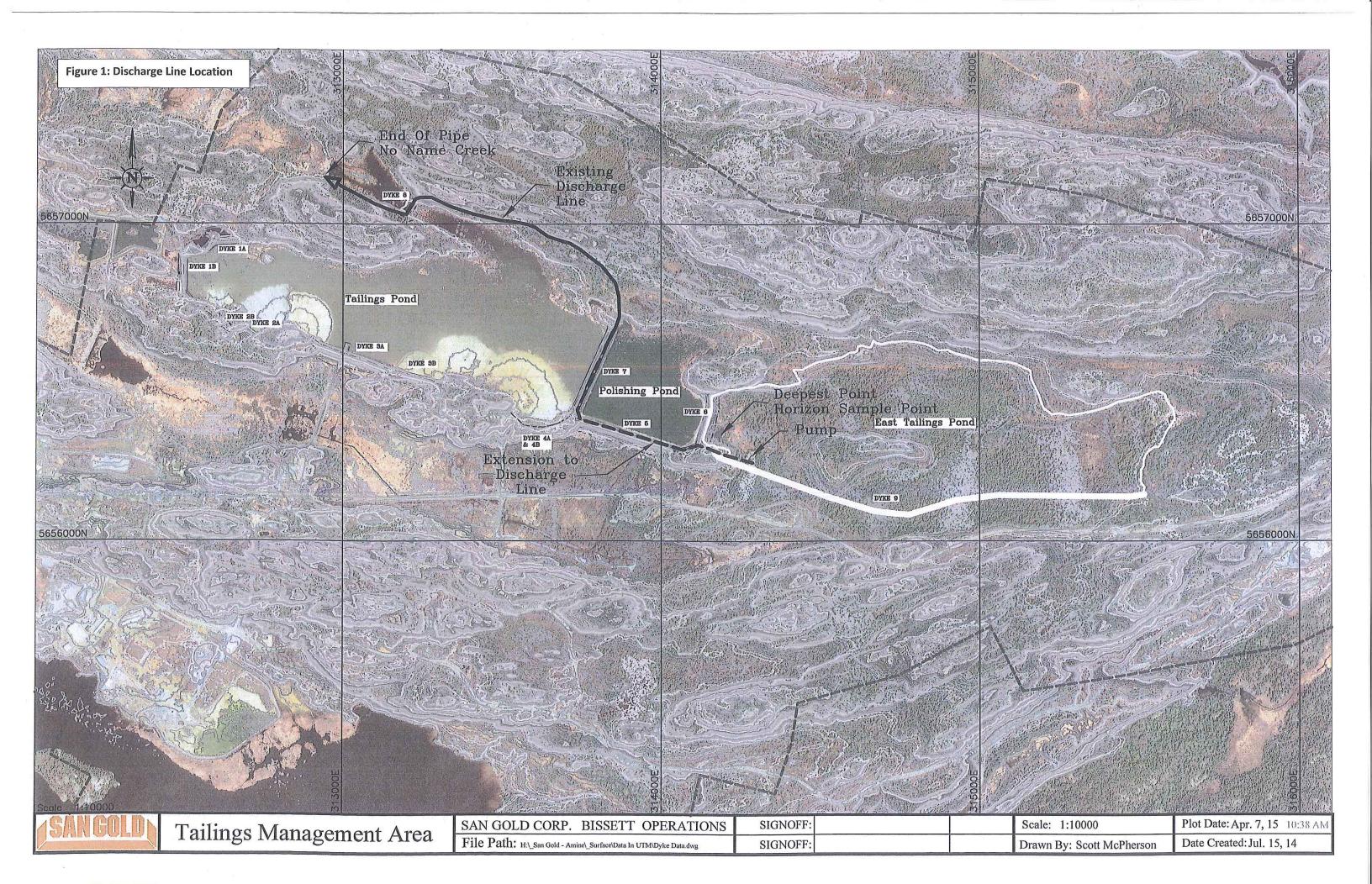
| Parameter                        | MMER Max<br>Monthly Mean<br>Concentration | March Tailings<br>Pond Sample<br>Results | April Polishing<br>Pond Sample<br>Results | April East Tailings Pond Sample Results |
|----------------------------------|---|--|---|---|
| pH (pH units)                    | 6.0-9.5                                   | 8.17                                     | 7.89                                      | 7.62                                    |
| Arsenic (mg/L)                   | 0.50                                      | 0.0039                                   | 0.00064                                   | 0.00049                                 |
| Copper (mg/L)                    | 0.30                                      | 1.57                                     | 0.158                                     | 0.0395                                  |
| Cyanide (mg/L)                   | 1.00                                      | 1.76                                     | 0.0169                                    | <0.0020                                 |
| Lead (mg/L)                      | 0.20                                      | 0.000248                                 | 0.000129                                  | <0.00009                                |
| Nickle (mg/L)                    | 0.50                                      | 0.0746                                   | 0.0080                                    | 0.0025                                  |
| Zinc (mg/L)                      | 0.50                                      | 0.0045                                   | 0.0079                                    | 0.0031                                  |
| Total Suspended<br>Solids (mg/L) | 15.00                                     | <5.0                                     | 9.0                                       | <5.0                                    |

# **Proposed Discharge**

The proposed discharge will occur directly from the East Tailings Pond and be discharged to the environment via the discharge pipeline and the End of Pipe, No Name Creek discharge point. The discharge will occur during the licenced discharge period. Water currently stored in the East Tailings Pond will be discharged using the existing discharge infrastructure with a small section of pipe being extended to the East Tailings Pond (Figure 1). The East Tailings Pond currently contains approximately 750,000m3 of Polishing Pond water and at the time of discharge will hold around 900,000m³. This water will have had sufficient retention time to ensure deleterious substance levels are within the MMER requirements as shown in Table 2.

San Gold anticipates the discharge will begin in late August, 2015 and will take approximately six to eight weeks to complete the discharge of 700,000m³ to 900,000m³ of effluent.

All standard pre, during and post discharge sampling, monitoring and reporting will be conducted following the same routine and procedures as previous discharge campaigns. All required notices to Manitoba Conservation, Environment Canada and Hollow Water First Nations will be made prior to, during and post discharge.





Ph: 204-277-5411

## Plan to meet Licence conditions

A description of alterations to licence conditions and how they will be met is provided below.

45. The Licencee shall, once every two months in each operating year, and between the time that the polishing ponds have been filled with mine water from the tailings ponds and the time that effluent release from the polishing ponds is commenced, collect a surface sample of mine water from the polishing ponds and analyze the sample for those parameters listed in Appendix D of this Licence.

As the East Tailings Pond is acting as a temporary Polishing Pond the East Tailings Pond will be sampled every 2 months with the Polishing Pond prior to discharge.

49. The Licencee shall, prior to the initiation of any effluent discharge campaign, collect at least three samples, one each from the surface, middle and bottom of the water column at the deepest location in the polishing pond, analyze each sample for those parameters listed in Appendix D of this Licence, and test each sample for acute lethality to rainbow trout and Daphnia magna by means of tests carried out in a manner consistent with the procedures identified in the federal Metal Mining Effluent Regulations.

Three horizon samples will be collected from the deepest point in the East Tailings Pond and analyzed for the parameters listed in Appendix D of EA Licence 2628RR and each sample will be tested for acute lethality of trout and daphnia magna. See Figure 1 for the location of the deepest point in the East Tailings Pond.

#### **Potential Environmental Effects**

No environmental effects are anticipated, as the discharge will only occur when all licenced discharge criteria are met. The only alteration of licenced discharge criteria is water will be drawn from the East Tailings Pond and due to the improved water quality in this pond there is unlikely to be any negative environmental effects.



Ph: 204-277-5411

If you have any concerns or require further information please don't hesitate to contact me on (204) 277-5411 ext 204

Regards,

Amelia Bauer

**Environmental Superintendent** 

San Gold Corporation

P.O. Box 1000, Bissett, MB. ROE 0J0

Ph: 204-277-5411 Ext. 204

C: 204-612-4970

amelia.bauer@sangold.ca

cc. Mike Kernick, General Mine Manager, San Gold Corporation Neil Rentz, Enforcement Officer, Manitoba Conservation