

GOOSE PROJECT

SEPTEMBER 2021 MONTHLY REPORT

In compliance with:
Water Licence 2AM-BRP1831 (Amendment No.1)

Prepared by:
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Submitted to:
Nunavut Water Board (NWB)

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EXECUTIVE SUMMARY – ENGLISH

This report presents B2Gold Back River Corp.'s (B2Gold Nunavut's) September 2021 Monthly Monitoring Report for Water Licence 2AM-BRP1831 (Amendment No.1), also referred to as the Licence, issued by the Nunavut Water Board (NWB).

As set out in Part I, Item 18 of the Licence, B2Gold Nunavut is required to submit to the Board, within thirty (30) days following the month being reported, a Monthly Report. This report shall include:

- ◆ All data and information required by Part I and generated by the Monitoring Program in the Tables of Schedule I of the Licence;
- ◆ An assessment of data to identify areas of non-compliance with regulated Discharge parameters referred to in Part D and Part F of the Licence; and
- ◆ Documentation of conditions during spring freshet, major rain events, and periods of sustained precipitation including flow measurements, photographs, and notes.

AULAPKAIYINI NAITTUQ – INUINNAQTUN

Una uniudjut pidjutigiyaat B2Gold Back River Corp.'s (B2Gold Nunavut's) Apitilirvia 2021 Tatqighiutini Munaridjutikkut Uniudjutit haffumunga Imakkut Laisia 2AM-BRP1831(Ihuaqhaqtauuyuq No.1), taiyauvaktuqlu Laisimik, tuniyauyuq hapkunanga Nunavunmi Imaliqiyit Katimayiinin (NWB).

Iliuraqtauhimajumi uvani Ilangani I, Item 18 uumani Laisimi, B2Gold Nunavut pitqujauhijajuq tuniluni Katimajiinnun, iluani thirtyni (30) ublunik talvannga tatqirhiutimi unniutidjutimi, uuminnga Tatqiqhiutimi Unniudjutimik. Una taiguagakhaq ilaliutiyukhaq:

- ◆ Tamaita naunaipkutit hivunihijutilu aturiaqaqtut Ilagiyaani I-mi hanayauhimagulu Munarinigagut Havaamit naunaipkutini Naunaipkut I-mi Laisiuyuup;
- ◆ Ihivgiugutit naunaiyautinik naunaiyagiangani humi maliktaungitut maligagaqtut Iqainikkut kiklikhait titiraqhimayut uvani Ilangani D uvalu Ilangani F haffumani Laisimi; unalu
- ◆ Titiraqlugit qanuginiit upingaami mahaktiligaangat, nipalliqliaqnikkut, uvalu nipalukpalaanikkut ilaayut kuuknikkut aktilaangit, piksat, uvalu titiraqhimayut.

RÉSUMÉ EXÉCUTIF – FRANÇAIS

Ce rapport présente le Rapport Mensuel de Suivi de B2Gold Back River Corp. (B2Gold Nunavut) de septembre 2021 pour le Permis de l'Eau 2AM-BRP1831 (Amendement No.1) aussi appelé (le Permis) délivré par la Nunavut Water Board (NWB).

Comme indiqué dans la Partie I, Article 18 du Permis, B2Gold Nunavut a l'obligation de soumettre au Conseil dans les trente (30) jours suivant le mois concerné, un Rapport Mensuel. Ce rapport devra contenir:

- ◆ Toutes les données et informations requises par la Partie I et générées par le Programme de Suivi dans les tableaux de l'Annexe I du Permis;
- ◆ Une évaluation des données pour identifier les zones de non-conformité avec les paramètres de Décharge réglementés mentionnés dans la Partie D et la Partie F du Permis ;
et
- ◆ Une documentation des conditions pendant la crue printanière, les événements de pluie majeure, et les périodes de précipitations soutenues, y compris des mesures de débit, des photographies et des notes.

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ACRONYMS AND ABBREVIATIONS

B2Gold Nunavut	B2Gold Back River Corporation
the Licence	Water Licence 2AM-BRP1831 (Amendment No.1)
MLA	Marine Laydown Area
The Goose Mine	Refers to the mining operation being developed within the Goose Claims Group, and includes the open pits, the underground mine, and the on-site infrastructure such as the WRSAs, tailings storage facilities, power infrastructure, and process plant
The Goose Project	Encompasses the Goose Claims Group, Goose Mine, the WIR and the MLA
STP	Sewage Treatment Plant
WIR	Winter Ice Road
WRSA	Waste Rock Storage Area

1. INTRODUCTION

The Goose Mine is a gold mine located within the western Kitikmeot Region of southwestern Nunavut. It is situated approximately 400 km southwest of Cambridge Bay, 95 km southeast of the southern end of Bathurst Inlet (Kingaok), and 520 km northeast of Yellowknife, Northwest Territories, as illustrated in Figure 1. The Mine is located predominantly within the Queen Maud Gulf Watershed.

This report to the Nunavut Water Board was prepared to satisfy the requirements for a Monthly Monitoring Report for September 2021 for B2Gold Back River Corp.'s (B2Gold Nunavut's) Goose Project in accordance with Part I, Item 18 of Water Licence 2AM-BRP1831 (Amendment No.1), also referred to as the Licence.

As required by Part I, Items 16 and 17, all analyses were performed in an accredited laboratory according to ISO/IEC Standard 17025 and conducted as described in the most recent edition of "*Standard Methods for the Examination of Water and Wastewater*" or by other such methods approved by an Analyst.

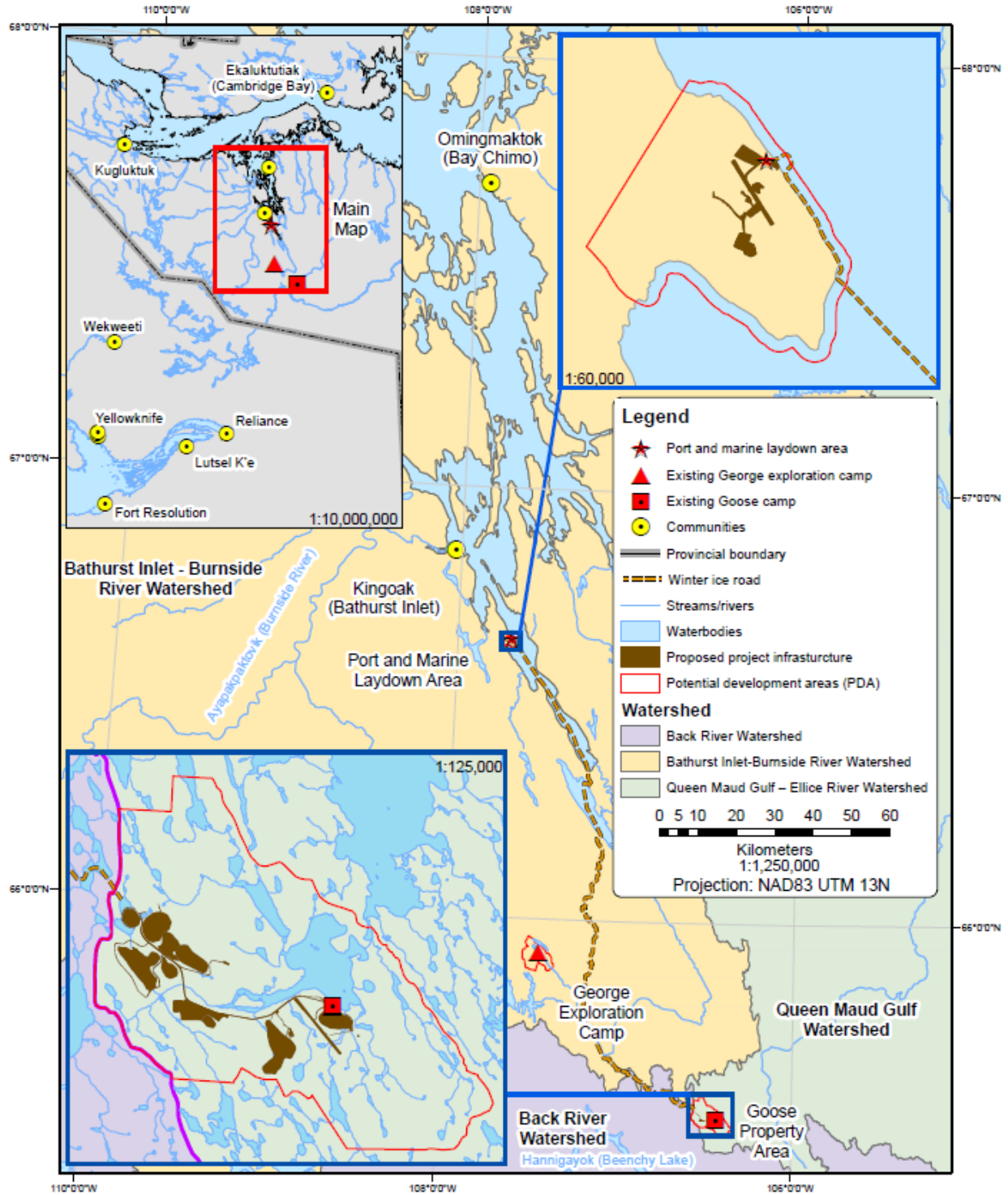


Figure 1 Goose Project Overview

2. REGULATORY REQUIREMENTS AND STATUS

2.1 PART I, Item 5

The Licensee shall, at least sixty (60) days prior to a change in Project Phase (Construction, Operations Stages), submit to the Board a written notification of the intent to change Project phase as per Part B, Item 9. Notifications may be provided separately or in accordance with the monthly monitoring report as per Part I, Item 18.

Compliance Status:

No change in Project Phase will occur over the next 60 days.

2.2 PART I, Item 8

The Licensee shall measure and record the following on a Monthly basis in cubic metres or as otherwise stated:

- a. The volume of fresh Water obtained from Big Lake;
- b. The volume of fresh Water obtained from Goose Lake;
- c. The volume of fresh Water obtained from MLA Pond S1, Pond S2, Lake 3, and Lake 4;
- d. The volume of fresh Water obtained from Llama Lake, Umwelt Lake, and other Water bodies approved by the Board for dewatering;
- e. The volume of fresh Water obtained from each Water source for the Interconnection Winter Ice Road and Winter Ice Road Service/Emergency Camps;
- f. The volume of Reclaim Water obtained from the Primary Water Pond, Tailings Storage Facility and/or Tailings Facilities for process Water at the process plant or alternative treatment system;
- g. The estimated volume of Greywater and Sewage released to the environment and/or to the Tailings Storage Facility and Tailings Facilities;
- h. The volume of sludge removed from the STP and the location and method of disposal;
- i. The volume of Effluent discharged from Landfarms, Fuel Tank Farms, and Fuel Storage Facilities;
- j. The estimated volume of Contact Water, WRSA Effluent, Ore Stockpile Effluent, or other Effluent/Water streams pumped into the Primary Water Pond, Tailings Storage Facility, Tailings Facilities, and/or transferred between ponds or facilities; and
- k. The volume of Effluent discharged at the Final Discharge Point.

Compliance Status:

The following is to comply with Part I, Item 8(a, b, c, d, e, f, g, h, i, j, and k). The MLA used seawater withdrawn from Bathurst Inlet. Goose Claims Group water use is undertaken under Water Licence 2BE-GOO2028.

No water was used for the Winter Ice Road (WIR) this month.

No reclaim water was obtained from these facilities for process water at the process plant this month. These facilities have not yet been commissioned.

Approximately 6 m³/day of greywater was released to the tundra from the MLA this month (see also Section 3). Goose Claims Group greywater discharge is undertaken under Water Licence 2BE-GOO2028.

The STP is not yet in operation.

Construction runoff that accumulated in the MLA fuel tank farm was tested and discharged prior to the first filling of the bulk fuel tank (see Section 3).

The Primary Water Pond, Tailings Storage Facility, and Tailings Facilities have not yet been constructed.

No effluent was discharged at the Final Discharge Point this month. Per Part F, Item 16 of the Licence, an Effluent Discharge Plan will be submitted to the Board at least 120 days prior to discharge of Effluent subject to Part F, Item 21 of the Licence.

2.3 PART I, Item 9

The Licensee shall measure and record the following on a Monthly basis in tonnes:

- a. Quantity of Waste placed within the Landfill(s) and Landfarm(s);
- b. Quantity of Waste Rock placed into, and total stored at, each Waste Storage Area and other locations approved by the Board;
- c. Dry tonnes of tailings placed into, and stored at, the Tailings Storage Facility and Tailings Facilities;
- d. Quantity of ore stockpiled and ore processed through the processing plant.

Compliance Status:

The following is to comply with Part I, Item 9(a, b, c, and d). No waste was deposited in the Landfill or Landfarm this month. The Landfill has not yet been constructed. No material was placed in either the Goose (BRP-51) or MLA (BRP-44) Landfarm this month; these facilities are not yet commissioned.

The Waste Rock Storage Areas have not yet been constructed. No waste rock has been generated to date.

The Tailings Storage Facility and Tailings Facilities have not yet been constructed. No tailings have been generated to date.

No ore has been mined under this Licence.

2.4 PART I, Item 20

No additional monitoring has been imposed by the Inspector this month.

3. SCHEDULE I REQUIREMENTS

The following is to comply with Part 1, Item 4, which requires the licensee to undertake the Monitoring Program provided in Table 1 and Table 2 of Schedule I.

A summary of monitoring activities completed this month to fulfill the requirements outlined in the Tables of Schedule I of the Licence is provided below. Non-compliances are identified where applicable.

No site seepage or runoff with the potential to enter a freshwater waterbody was observed. The MLA opened for the year this month and used seawater from Bathurst Inlet, no freshwater was used. Greywater from the MLA and construction runoff accumulating in the MLA fuel tank farm were discharged to the tundra. Goose Claims Group water use and waste discharge is undertaken under Water Licence 2BE-GOO2028.

3.1 BRP-40 and 41 MLA Bathurst Inlet Desalination Intake and Discharge

Water quality samples were collected from both BRP-40 and BRP-41 this month and results are provided in Appendix A.

3.2 BRP-42 MLA Greywater

The volume of greywater discharged at the MLA is reported in Section 2.2. No water was available for sampling at the sampling location downstream of the discharge point (BRP-42), likely due to the limited discharge quantity.

3.3 BRP-43 MLA Fuel Tank Farm

Construction runoff accumulating in the MLA fuel tank farm was tested and discharged prior to first filling of the bulk fuel tank. Pre-discharge water quality met the effluent quality limits outlined in Part D, Item 21 of the Licence (Table 3-1). All water was discharged >31 m from any waterbodies and in a manner to prevent erosion and direct connectivity with waterbodies.

Table 3-1 BRP-43 Water Quality Results Compared to Effluent Quality Limits

Parameter	Unit	Effluent Quality Limit		17-Sep-2021
		Maximum Average Concentration	Maximum Concentration of Any Grab Sample	
pH	pH units	6 - 9.5	6 - 9.5	6.67
Total Suspended Solids	mg/L	50	100	97.1
Total Oil and Grease	mg/L	no visible sheen	no visible sheen	<5.0, no visible sheen

APPENDIX A WATER QUALITY ANALYTICAL RESULTS

Table A-1 Water Quality Data for MLA Bathurst Inlet Desalination Intake and Discharge, Sites BRP-40 and BRP-41, September 2021

Client ID	DESAL IN	DESAL OUT
Sampling Date	07-09-2021 00:00	07-09-2021 00:00
ALS ID	YL2101206-001	YL2101206-002
Aggregate Organics		
oil & grease (gravimetric) mg/L	<5.0	<5.0
Anions and Nutrients		
ammonia, total (as N) mg/L	<0.0050	<0.0050
chloride mg/L	7680	7540
fluoride mg/L	<1.0	<1.0
nitrate (as N) mg/L	<0.050	<0.050
nitrite (as N) mg/L	<0.010	<0.010
phosphorus, total mg/L	0.0137	0.0122
silicate (as SiO ₂) mg/L		
sulfate (as SO ₄) mg/L	1060	1070
Cyanides		
cyanide, free mg/L	<0.0030	<0.0030
cyanide, strong acid dissociable (total) mg/L	<0.0030	0.0041
Dissolved Metals		
calcium, dissolved mg/L	162	168
magnesium, dissolved mg/L	495	508
potassium, dissolved mg/L	150	154
sodium, dissolved mg/L	4180	4280
Organic / Inorganic Carbon		
carbon, dissolved organic [DOC] mg/L	1.74	1.55
Physical Tests		
salinity psu	13.9	13.6
Total Metals		
calcium, total mg/L	171	173
magnesium, total mg/L	549	534
potassium, total mg/L	158	158
sodium, total mg/L	4470	4380