



**Goose Exploration  
2019 Trenching Plan**

**Type B Water Licence  
2BE-GOO1520**

**May 2019**

## Introduction

Sabina Gold & Silver Corp. (Sabina) is proposing an excavated trenching program during the 2019 summer field season at the Goose property.

In accordance with Sabina's Type B Water Licence (No. 2BE-GOO1520) issued in support of exploration activities, in relation to trenching Part F, Item 7, Sabina is required to:

Provide to the Board for approval at least sixty (60) days prior to the beginning of any trenching operations, a proposed Trenching Plan which shall include the following:

- a) Size and location of trenches including GPS coordinates;
- b) Approximate dimensions (length, width and depth) of each trench;
- c) Proposed mitigation measures for the prevention of the transport of sediments, blasting residues, fly rock and other materials, from the trench area to nearby water bodies;
- d) Projected volume and quality of water discharged from each trench with potential treatment required; and
- e) Proposed monitoring program to be carried out on trench waste water prior to discharge.

## Purpose and Objective

The primary objective of the trenching program will be to uncover, examine and sample bedrock exposure within a proposed open pit area of the Goose Main deposit. It is expected this program will cause some surface disturbance of a portion of the vegetation and cover material within the proposed area that is not previously disturbed.

Historic operators previously excavated three trenches in this area (Map 1) in 2005 and expanded the excavations in 2006. The purpose of new and re- trenching efforts within this area is to further expose folded iron formation and quartz veins, to establish a general extent and orientation of mineralization and veining.

## Size, Location and Approximate Dimensions

Sabina proposes the excavation will be focused within the Trench Proposal Area (Area A, Map 1) and will be approximate 75-100 m long by 25 m wide (Area B, Map 1). Expected cover in this area is an average of 3 m thick resulting in the disturbance of approximately  $\sim 7600 \text{ m}^3$  of overburden material. Additional smaller excavations, focused on single outcrop exposures, may be conducted in pursuit of specific geological controls within Areas C and D (Map 1). We plan to conduct these activities during the months of July and August 2019. Following excavation, surface samples will be taken for geochemical analysis.

The Trench Proposal Area and the Planned Trench Area are outlined in Map 1. Details of this proposed trench are as follows:

- Planned Trench Area (Area B, Map 1):  $2536 \text{ m}^2$
- UTM coordinates of centroid: 434100.22, 7269630.70
- Average depth of Overburden:  $\sim 3 \text{ m}$
- Total volume of Overburden Disturbance:  $7608 \text{ m}^3$

## Proposed Mitigation

For the prevention of the transport of sediments, blasting residues, fly rock and other materials, from the trench area to nearby water bodies, Sabina will follow industry best practices and in accordance with existing licence requirements, including:

- Disturbed material will be appropriately handled by trained operators;
- Disturbed material will be stored in a proximal location within a pre-disturbed area as practicality and logistics allow;
- Disturbed material may be used for filling pre-existing depressions associated with other site activities; and
- Material will not be placed closer than 0.6 m for any other excavation edge.

If material (drill cuttings) previously sequestered within the historic sump location (Sump 1, Map 2) is disturbed through the excavation of the proposed trench that material will be relocated to the currently used drill cuttings sump (Sump 2, Map 2) or an alternative location in accordance with existing licence terms and conditions.

If Sabina determines additional exposure is necessary and blasting is required, Sabina will notify the Board and follow all licence requirements as provided above. Additional mitigation measures related to protection of freshwater sources is outlined in the next section.

The trenched area will be used throughout the 2019 summer field season. Sabina expects the excavated areas may be left exposed as ongoing work continues on site. Upon completion of works, reclamation will be conducted and will include the restoration of the natural landscape by replacing the overburden and appropriately contouring consistent with Part I of the Licence.

## Water Quantity, Monitoring, and Management

Following the clearing of overburden material, high pressure water pumps will be used to wash the exposed outcrop surface. An estimate of 600 cubic meters of water will be pumped from Goose Lake (Map 3) over the period of activity as a final stage of preparation.

Sabina will comply with the conditions applying to water use (Part C, Item 1 of 2BE-GOO1520) wherein the use of water from Goose Lake, Llama Lake and Umwelt Lake in summer, including proximal sources to drilling targets [and trenches] shall not exceed two hundred and sixty-seven (267) cubic metres per day. The volume of water for the purposes of this Licence shall not exceed two hundred and ninety-seven (297) cubic metres per day. The volume of water use will be recorded consistent with the monitoring requirements of the water Licence (Part J).

Consistent with current terms and conditions of the Licence, Sabina will:

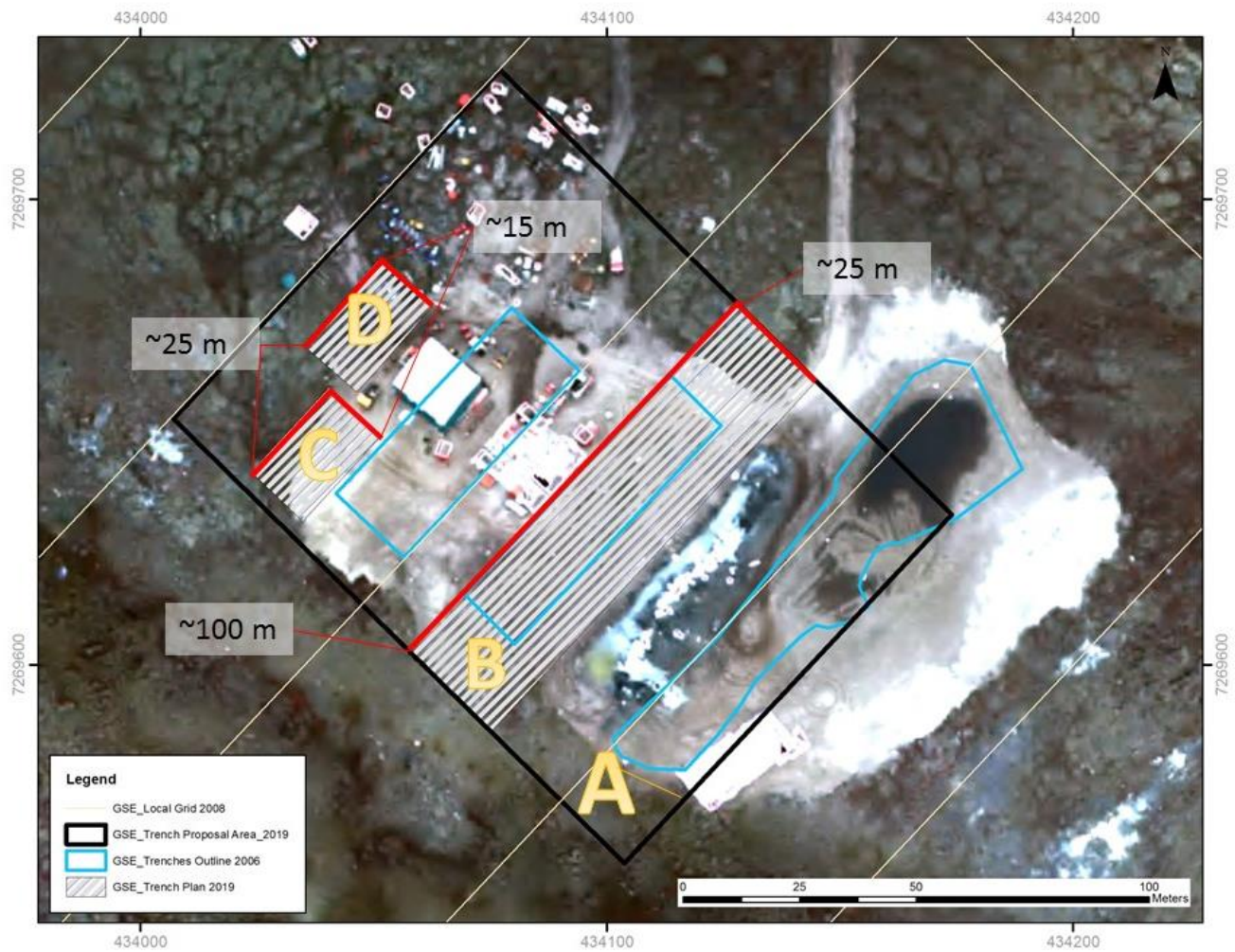
- Not remove any material from below the ordinary high water mark of any water body unless authorized;
- Not cause erosion to the banks of any body of water and shall provide necessary controls to prevent such erosion;

- Implement sediment and erosion control measure prior to and during the trenching program to prevent entry of sediment into water;
- Locate areas designated for waste disposal at a minimum distance of thirty (31) metres from the ordinary high water mark of any water body such that the quality, quantity or flow of water is not impaired
- Conduct the activity in such a way as to minimize impacts on surface drainage and shall immediately undertake corrective measures in the event of any impacts to surface drainage;

In addition, for the 2019 trenching program:

- Water used in the cleaning of the surface exposures will be monitored closely and pumped or drained into a designated natural depression or pre-constructed holding pond away from natural waterways.
- Silt fencing will be employed to reduce sediment transport if trench design enables direct drainage.
- Water storage will be inspected daily for evidence of contamination and sediment content prior to discharge.
- If water is pumped from trench, retention time within the temporary containment sumps will be suitable for the sediment to settle before being discharged back to the environment.
- Upon the identification of any water questionable for discharge, a water quality test will be taken and reviewed for acceptability prior to release to the natural environment.
- Results of any water quality monitoring will be provided to the NWB in the annual report as required under the current licence (Part B, Item 2).

# Map 1



Map 1: Area A: denotes the Trench Proposal Area (black square); Area B: denotes the Planned Main Trench Area (grey hash lines); Area C and D are areas where additional single outcrop excavation may take place (grey has lines). Blue outlines denote historic trench areas.

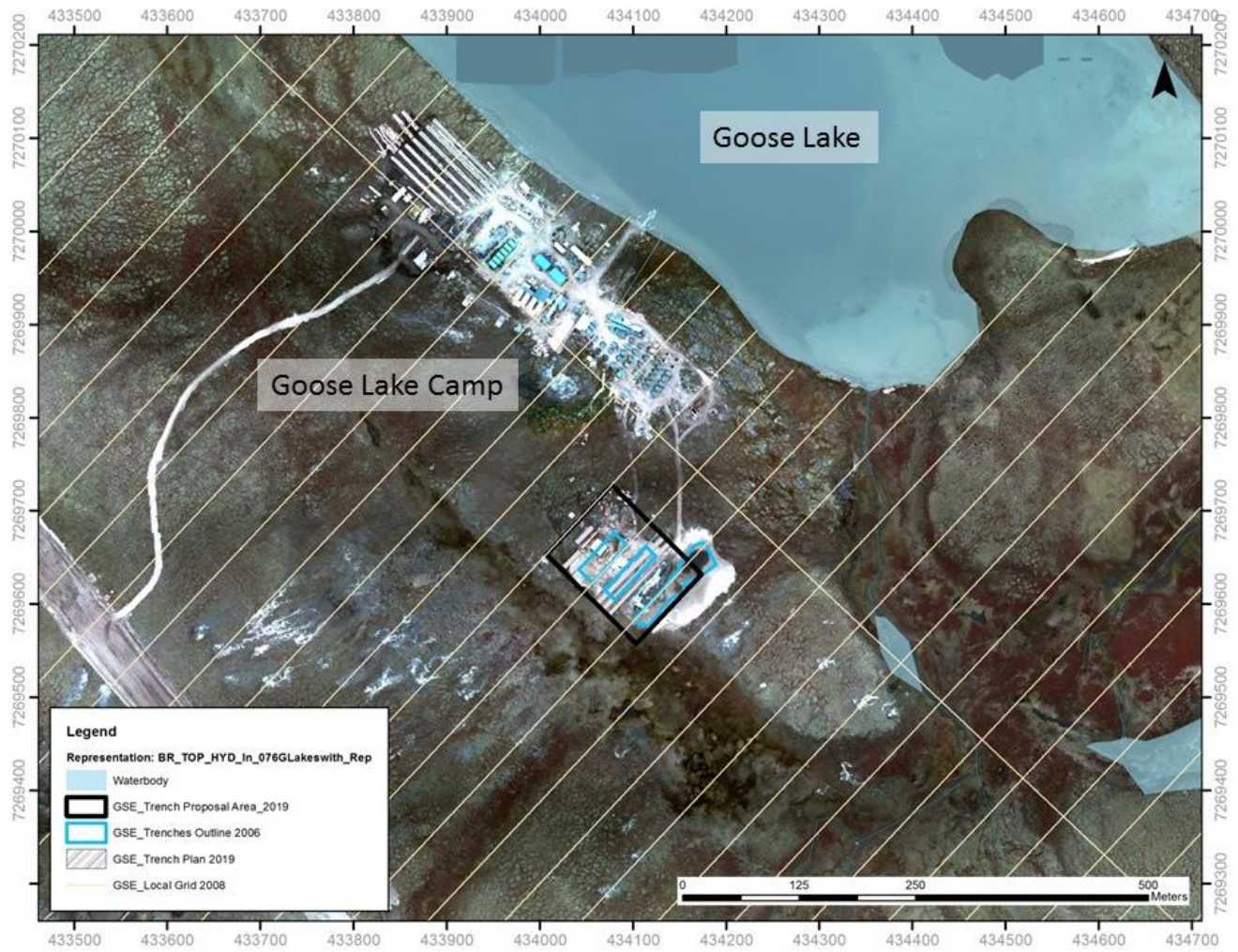


# Map 2



Map 2: Grey area demarcate historic drill sump (Sump 1) and current drill sump (Sump 2).

# Map 3



Map 3: Location of Proposed Trench Area relative to Goose Lake.