

# **Appendix C**

**Archaeological Impact  
Assessment of the San Gold  
Resources Tailings  
Management Area Expansion  
(Quaternary Consultants  
Limited)**

**ARCHAEOLOGICAL IMPACT  
ASSESSMENT OF  
THE SAN GOLD RESOURCES  
TAILINGS MANAGEMENT AREA  
EXPANSION**

Submitted to

Aecom Inc.

QUATERNARY  
CONSULTANTS  
LIMITED

June, 2009

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## **1.0 INTRODUCTION**

San Gold Resources, located at Bissett, Manitoba, is planning to expand the tailings management area which lies north of the mine proper and the community of Bissett. The existing tailings management area pond will be extended to the east (Figure 1). As part of the EIS, Aecom has retained Quaternary Consultants Ltd. to conduct an archaeological impact assessment of the development area.

A field team of archaeologists was dispatched to the area on May 26, 2009. The survey was conducted under the terms of Heritage Permit A27-09, issued by Historic Resources Branch, Manitoba Culture, Heritage and Tourism (Appendix A).

## **2.0 LOCATION AND SCOPE**

The San Gold Mine is located adjacent to the community of Bissett on the north shore of Rice Lake. The tailings pond areas (current and projected) lie primarily north of Highway PR 304. The location is depicted on Bissett 1:50,000 topographical map (52M/4). The map denotes no significant topographical features within the proposed tailings area (Figure 2).

The tailings pond is to be expanded in an eastward direction from its existing boundary. The northern boundary of the extension will be formed by a series of roughly eastward trending rock outcrops while its southern edge will parallel Manitoba PTH 304 through an area of dense forest. The southern edge will be a constructed berm (Plate 1) similar to that which exists along the edge of the previously constructed pond (Hutchison 2009:pers. comm.).

The Wanipigow River flows towards the west several hundred metres north of the impact area. While outside of the development area, the river may have provided Aboriginal people access to the outcrops that form the northern edge of the development. This ridge could have provided relatively easy foot travel as well as game-spotting locations. Hence, the northern ridge was examined during the archaeological investigation.

## **3.0 STUDY TEAM**

The project was directed by Sid Kroker, Senior Archaeologist of Quaternary Consultants Ltd. The field investigation team was led by David K. Riddle with Mark Paxton-MacRae as field assistant. The field report was prepared by David Riddle and the final report was compiled by Sid Kroker and Pam Goundry with assistance from David Riddle.

## **4.0 PHYSICAL SETTING**

The entire area is a standard Boreal Forest biome with a sphagnum moss, black spruce, and tamarack swamp in the central low-lying area. The outcrop ridge is characterized by an open jack pine and spruce

forest. The ridge is bare outcrop in many areas with a mixed covering of lichen, sphagnum and low brush in sheltered areas. Visibility is very good. (Plate 2).

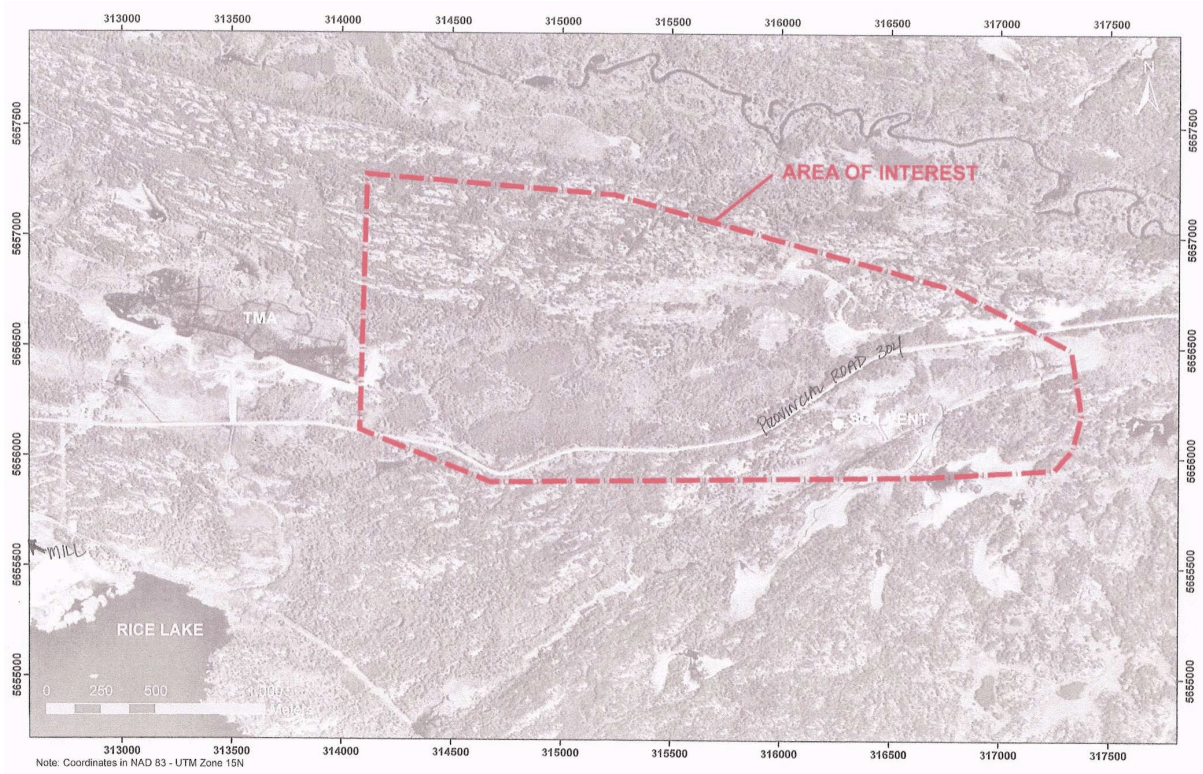


Figure 1: Tailings Management Expansion Area

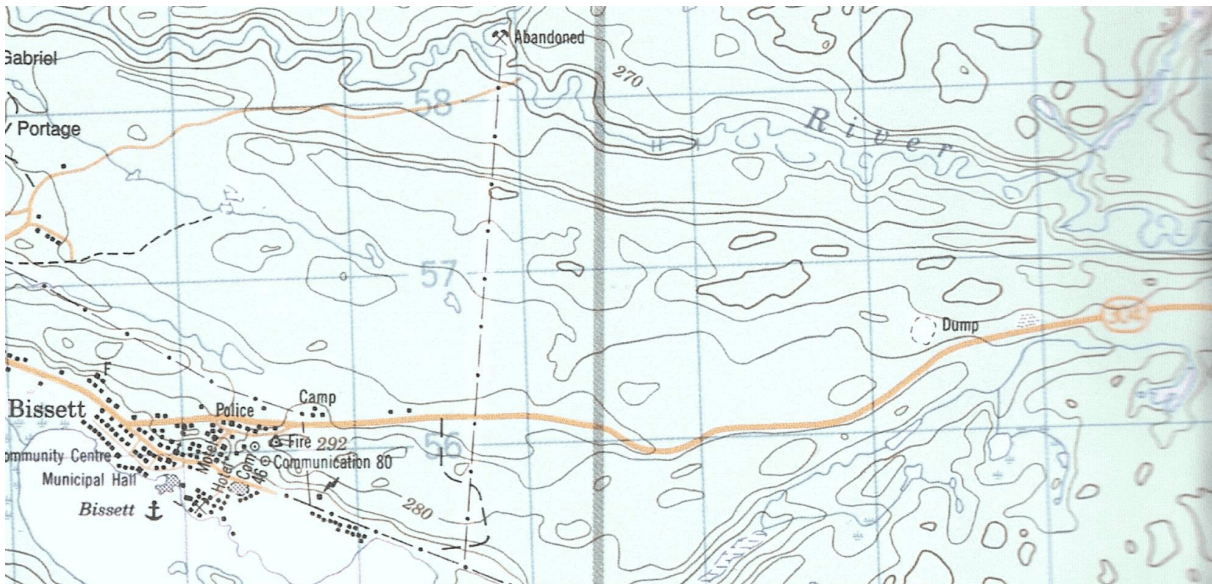


Figure 2: Enlarged Section of 1:50,000 Topographic Map



Plate 1: Berm of Existing Tailings Pond



Plate 2: Bedrock Ridge

## **5.0 PROJECT PREPARATION**

Upon arrival in Bissett on May 26, 2009, the crew attempted to contact Mr. John R. Hutchison, the San Gold Mill Manager and contact person for this project. He was unavailable at that time so a message was left indicating that the archaeological team would call again later in the afternoon. The crew then visited the site to become familiar with the area. The “area of interest” extends as far east as the Bissett garbage dump on the north side of PTH 304, a small area identified as SG1 and SG2 to the south west of the garbage dump on the south side of PTH 304, and the main area of development to the east of the current tailings pond (Figure 1).

The crew drove to the eastern limit of the area to the dump, looked briefly at the SG1 and SG2 areas, and finally along the San Gold Resources road on the southern side of the existing pond.

After this initial orientation, the crew returned to the San Gold Mine and contacted Mr. Hutchison. There was a general discussion relating to the project and the initial brief tour of the area. This discussion focused on the areas most likely and least likely to contain heritage resources. It was indicated that the majority of the archaeological investigations would focus on the outcrop areas to the north of the proposed development. During the discussion, Mr. Hutchison informed the archaeological crew that San Gold company policy required certain clothing and equipment to be worn at all times on the job site and that a waiver had to be signed to gain entry to the property. The crew was given a short safety seminar. The waiver was signed and the crew was outfitted with hard hats, safety glasses, and steel-toed rubber boots prior to returning to the investigation area.

## **6.0 INVESTIGATION METHODS**

The method of investigating the development area was by foot traverses, visually examining the ground surface. Had potential archaeological locations been identified, this method would have been augmented by shovel testing in those areas. The shovel tests would have consisted of the excavation of a small pit (50 cm by 50 cm) to the sterile sub-surface (clay or rock) to ascertain presence or absence of cultural resources. The traverses were recorded as GPS tracks and waypoints were taken at significant locations both for navigation and for feature location.

The low-lying area slated to become the tailings pond had thick sphagnum covering the ground. It quickly became obvious that the thick, saturated sphagnum layer would cover any archaeological resources that would date back beyond twenty years. In addition, there would be no resource utilization strategy that would result in campsites of any duration within this low-lying area. The area may have been accessed by hunting parties or plant gatherers in the past, but the primary occupation sites would have been either on Rice Lake or the Wanipigow River.

The investigation of the higher, bedrock outcrop ridge on the northern perimeter of the tailings area also was undertaken by foot traverse. For this survey, the route of the transect was determined by ease of

access rather than a pre-determined linear pattern as this would more likely replicate past utilization strategies.

## **7.0 OBSERVATIONS**

On the first day of investigation, the crew walked from the eastern end of the existing tailings pond north onto and along the eastern trending rock outcrops that will eventually form the northern edge of the expanded pond. Widespread modern mining activity was noted throughout the area. Nothing that could be definitely identified as early Aboriginal activity was located. The crew returned to the vehicle at the end of the day following the same outcrop system but investigating areas further north of the original transect.

The following day, the crew drove along PTH 304 to the point where a private San Gold road joins SG1 and SG2 to PTH 304. Leaving the vehicle, the crew walked a transect through heavy forest, bush, and swamp until eventually reaching the east/west trending outcrop. Upon reaching the outcrop area, the crew continued the transect westward to a point where it eventually joined the area searched the previous day.

Again, extensive mining activity was noted in many areas along this outcrop. Pits, blasted areas with evidence of drilling and chipping of quartz veins, as well as a veneer of broken glass and tin cans occurred throughout the area. Two rock features were identified as being potential evidence of early activity. These features are apparently arranged rock piles and were recorded as Waypoint 307 (Plate 3) and Waypoint 309. The feature at Waypoint 307 consists of a row of rocks piled on larger rocks and extends three metres north/south and 1.5 metres east/west. The feature at Waypoint 309 is even more minimal, consisting of one rock piled on a second. The primary reason for identifying these as potential heritage features is that they had a very thick lichen growth on the rock faces. No function could be attributed to either feature.

After walking westward to the point where the crew had terminated the survey the previous day, a reverse eastward transect was undertaken along the outcrop just to the north of the first westward transect. This second transect terminated at the Bissett garbage dump. Extensive mining activity was noted during the course of this work but no early activity was identified.

After returning to Bissett and meeting with Mr. Hutchison and confirming with him that the southern edge of the pond would be a constructed berm and that no work would be attempted in the low forest and swamp area, the crew returned to the site and investigated the SG1 and SG2 areas. Evidence of recent mining activity, road construction, and power line development was noted in this area. No early Aboriginal activity was identified. The crew returned to Bissett on the completion of this phase of the survey.

On the third day, the crew returned to the eastern end of the rock outcrop surveyed the previous day. Additional areas of the outcrop were inspected and a series of photographs were taken of the area. No early human activity was identified during this transect.





Plate 3: Rock Feature at Waypoint 307

## 8.0 DISCUSSION AND RECOMMENDATIONS

The Quaternary Consultants Ltd. crew walked several kilometres along two areas of rock outcrop north of the proposed tailings pond and several hundred metres along the outcrops at SG1 and SG2. During the course of the investigations widespread mining activity was identified on all outcrops located in the development area. Two features that may be related to earlier activity also were located. These features are of minor importance and may or may not be related to early Aboriginal activity. Their function could not be identified.

The potential of archaeological resources in the low-lying portion of the tailings pond expansion area is less than minimal. No identifiable cultural resources were observed during the intensive survey of the rock ridge at the northern edge of the tailings pond. Of all portions of the development zone, the ridge had the highest potential for past activity as a transit route, observation points, and potential quarry locations for tool-quality lithic resources.

Based upon the total lack of observed cultural resources, **Quaternary Consultants Ltd. can recommend that no further archaeological work is required for this project.**

APPENDIX A  
HERITAGE PERMIT

The Heritage Resources Act (Subsection 14(2) and Sections 52 and 53)



Culture, Heritage, Tourism and Sport

**Heritage Permit No. A27-09**

Pursuant to Section/Subsection 53 of *The Heritage Resources Act*:

Name: Sid Kroker  
 Quaternary Consultants Ltd.  
 Address: 130 Fort Street  
 Winnipeg, MB R3C 1C7

Attention: **Sid Kroker**

(hereinafter referred to as "the Permittee"),

is hereby granted permission to:

Heritage Resource Impact Assessment of areas associated with Bissett area mine tailings stockpile north of Rice Lake adjacent to PTH 304.

during the period:

May 25, 2009 to June 5, 2009

This permit is issued subject to the following conditions:

- (1) That the information provided in the application for this permit dated the 19th day of May 2009, is true in substance and in fact;
- (2) That the permittee shall comply with all the provisions of *The Heritage Resources Act* and any regulations or orders thereunder; PLEASE NOTE ATTACHMENT RE CUSTODY AND OWNERSHIP OF HERITAGE OBJECTS;
- (3) That the Permittee shall provide to the Minister a written report or reports with respect to the Permittee's activities pursuant to this permit, the form and content of which shall be satisfactory to the Minister and which shall be provided on the following dates:  

March 31<sup>st</sup>, 2010
- (4) That this permit is not transferable;
- (5) This permit may be revoked by the Minister where, in the opinion of the Minister, there has been a breach of any of the terms or conditions herein or of any provision of *The Heritage Resources Act* or any regulations thereunder;



(6) Special Conditions:

- a. The permittee must obtain permission from any landowner, lessee or regulatory authority as applicable, concerning access to any property to be examined;
- b. Neither the Government of Manitoba nor the party issuing this permit shall be liable for any damages resulting from any activities carried out pursuant to this permit, and the Permittee specifically agrees, in consideration for receiving this permit, to indemnify and hold harmless the Minister and the Government of Manitoba, the Minister and any employees and officials of the Government, against any and all actions, liens, demands, loss, liability, cost, damage and expense including, without limitations, reasonable legal fees, which the Government, Minister or any employee or official of the Government may suffer or incur by reasons of any of the activities pursuant to or related to this permit..
- c. The permittee has, along with this permit, received enclosure: *Provisions Regarding Found Human Remains Under THE HERITAGE RESOURCES ACT, And Manitoba's Policy Respecting the Reporting, Exhumation and Reburial of Found Human Remains (1987)*.

Dated at the City of Winnipeg, in Manitoba, this 4th day June, 2009

A handwritten signature in black ink, appearing to read "Neil F. [unclear]", written over a horizontal line. To the left of the signature is a stylized initial "f".  
Minister of Culture, Heritage, Tourism and Sport

**Manitoba Culture, Heritage, Tourism and Sport  
Historic Resources Branch**