

## MELIADINE WEST GOLD PROJECT

### WASTE ROCK and ORE STORAGE MANAGEMENT PLAN for MATERIALS GENERATED DURING THE EXCAVATION OF THE EXPLORATION DECLINE at the TIRIGANIAQ DEPOSIT, MELIADINE WEST PROJECT

Addendum 1

COMAPLEX MINERALS CORPORATION CALGARY, AB

**April 2009** 



#### Introduction

This addendum responds to questions posed by the Nunavut Water Board (NWB) in a letter dated January 14, 2009 and presents an update to the **Waste Rock and Ore Storage Management Plan** (**August, 2007**) for waste rock generated from the development of the exploration decline at the Meliadine West Gold Project. Introduced in this addendum are important new results of ARD (acid – rock drainage) and metal leach testing completed by Golder Associates (April, 2009) on waste rock that would be disturbed by mining of the deposit. Results of this assessment, although for a different area of waste, add to those of the previous study on decline waste rock completed by SRK (2006). Also included are details for an updated and expanded water sampling program to monitor effects of the interaction of waste rock on surface with surface waters (to address NWB **item 7** stated below). Figure 1 and Figure 2 are as – built drawings of the site after completion of the bulk sample program and show the distribution of surface infrastructure as well as monitoring sites. Plate 1 is an illustrated photograph of the site.

#### **Addendum Objectives**

The objectives of this addendum are to respond to questions posed by the Nunavut Water Board (NWB) in their letter dated January 14, 2009. The questions are paraphrased below:

- 1. An explanation of tests and test methods used to measure acid and neutralization potential....
- 2. An explanation of tests and test methods used to measure metal leaching potential...
- 3. Identification of the limits used to decide what rocks are considered safe for road construction and pad construction...
- 4. Explanation of why waste rock was considered to be a modest risk of acid generation;
- 5. What parameters are being measured in the waste rock pad run-off and how often tests are to be taken;
- 6. A schedule for waste rock pad inspection, who is to perform the inspection and what inspection involves, and
- 7. Submission of as built drawings for the ore and waste rock storage plans including a cross section of the waste rock and ore storage berms and base.

#### Items 1 and 2: Acid Rock and Metal Leach Study Methodology

Test methods used to characterize ARD and metal leaching of 48 samples of rock along the decline alignment are described in Sections 4.2.2 (ARD test method) and 4.2.3 (metal leaching test method) in SRK (2006) submitted as Appendix I of the Waste Rock and Ore Storage Management Plan submitted in August 2007.



Similar test methods were used for subsequent sampling of deposit waste rock as described in the report on **Interim Static Test Report for Waste Rock from the Tiriganiaq Deposit, Meliadine West Gold Project, Near Rankin Inlet, Nunavut** (Golder, 2009) included with this addendum (Appendix A). The report briefly reviews previously presented (SRK, 2006) acid – base accounting (ABA) and metal leach data and presents the results from 74 samples submitted for static whole rock, trace metal and ABA testing and 45 samples submitted for metal leach testing. Details of the analytical procedures and results, as well as explanatory figures are given in Appendix A.

# **Item 3 – Define the Limits Used to Determine the Suitability of Waste Rock for Construction**

The limits on ARD potential are NP/AP data for the bulk of the decline rock, considering an (NP/AP) of 3 per INAC Guidance on ARD Prediction in the North (1992). Although few samples did not meet this criteria, buffering capacity was considered adequate to mitigate ARD, and as such, the bulk of the rock from the decline was considered to be non acid generating (per SRK 2006 report) and adequate for use for construction. Current monitoring shows no exceedence for any metals at the point of compliance in Pump Lake (Receiving Environment, Figure 1). Monitoring of waste rock pad drainage is ongoing.

# Item 4 – Details on Decline Waste Rock Classification as Moderate Risk of ARD Potential

This is based on the conclusion of the SRK report (2006) which states the following (p.10):

Test results indicate that the majority of the waste rock that would be produced from the proposed exploration decline would be non-acid generating. A few samples (<10%) from the hanging wall of the deposit were classified as acid generation or potentially acid generating. However, they contain significant amounts of neutralization potential. Provided that these isolated intervals of material are well distributed in the waste dump, ARD is unlikely to occur.

#### Items 5 and 6 – Monitoring of Waste Rock Pad

#### **Covering Ore Piles**

ARD tests on Iron Formation rock, which forms about 50% of the host rock for the ore, shows a variable potential for ARD (SRK, 2006). It was therefore considered possible that some of the ore stockpile material could be acid-generating. The ore piles shown on Figure 1 are exposed to weathering and will not be available for final disposal until a mine is operational or the site is decommissioned as per the **Abandonment and Restoration Plan (April, 2008)**. For both environmental and metallurgical reasons, it is desirable to limit the exposure of the ore piles to surface oxidation. Consequently Comaplex, in consultation with Golder Associates, proposes to completely cover the ore



piles shown on Figure 2 and Plate 1 with a water proof membrane that will protect the ore from oxidation and halt the infiltration of surface waters to the piles. The membrane will also limit the movement of air through the piles which can also enhance oxidation. We are currently evaluating options for the covering of the piles. We anticipate covering the piles during the summer of 2009.

#### **Monitoring Plan**

Figures 1 and 2 illustrate the drainage patterns of the site and monitoring stations both mandated by the NWB and initiated independently by Comaplex Minerals Corp. The KIA, in a letter dated March 18, 2009, requested that all monitoring sites shown on Figure 1 be sampled monthly to better assess the impacts of the surface infrastructure. Comaplex has agreed to this change in the monitoring plan for the calendar year 2009 and will commence monitoring of available sites, dependent on ice conditions, in late May, 2009 to continue monthly until September 2009, at which time, upon reception and analysis of results obtained in 2009, Comaplex proposes to re-evaluate sampling frequency. There has been no measureable affect from the exploration activities on the receiving water body shown on Figure 1 (Pump Lake).

Comaplex believes it is appropriate for requests or instructions from regulators for a particular resource (in this case surface waters) to be channeled through a central authority. This ensures all parties are aware of instructions forwarded to proponents and avoids conflicting instructions pertaining to specific resources.

#### Waste Rock / Ore Storage Pad Monitoring

Comaplex acknowledges the necessity of containing and testing the run-off from the waste rock pads. The containment of runoff is effectively provided by the primary containment area (Figures 1,2, Plate 1). Water sampling at P1 is also affected by other local run-off. Figures 1 and 2 indicate the location of a proposed drainage trench to be installed during the summer of 2009 after spring thaw. The trench will collect surface runoff from the waste rock pads and ore piles and deliver the waters to the primary containment area (P1). An additional water sampling site will be established (P3, Figure 2) at the toe of the pad at the end of the drainage trench where it will be possible to assess the quality of water draining directly off the pad. Sampling at P3 will likely need to be performed opportunistically during periods of sustained rainfall as this location will not be prepared for spring runoff. Testing at P3 will include the full suite of routine, nutrient and metal parameters and will include pH, ammonia, total suspended solids (TSS) and BTEX / TPH hydrocarbons.

Waste rock and ore storage pad inspection will be completed monthly, between May and September 2009, and will entail:

• Inspection of the ore pad covers for rips, tears and integrity of coverage



- Inspection of pad infrastructure (tents and tent contents) for rips, tears, other damage and fluid leaks from parked rolling equipment (mobile equipment is stored largely within shops with buried liners)
- Inspection of any drums within the lined drum storage area for leaks (Figure 2)
- Inspection of the pad toe for seeps.
- Estimate of the volume of water contained with the primary containment pond and sump.
- Inspection of portal area including all safety equipment pertaining to the portal (fence, doors/gates).
- Inspection of the culvert area (Figure 2) for seeps and operational condition

The results of these inspections will be kept on site and summarized in our annual report to regulators. The inspection will be directed by a Nunavut-registered professional engineer or geologist, either an employee or contractor, with a Level 3 Supervisor accreditation who will be accompanied by at least one other employee.

#### **Item 7 As-Built Drawings**

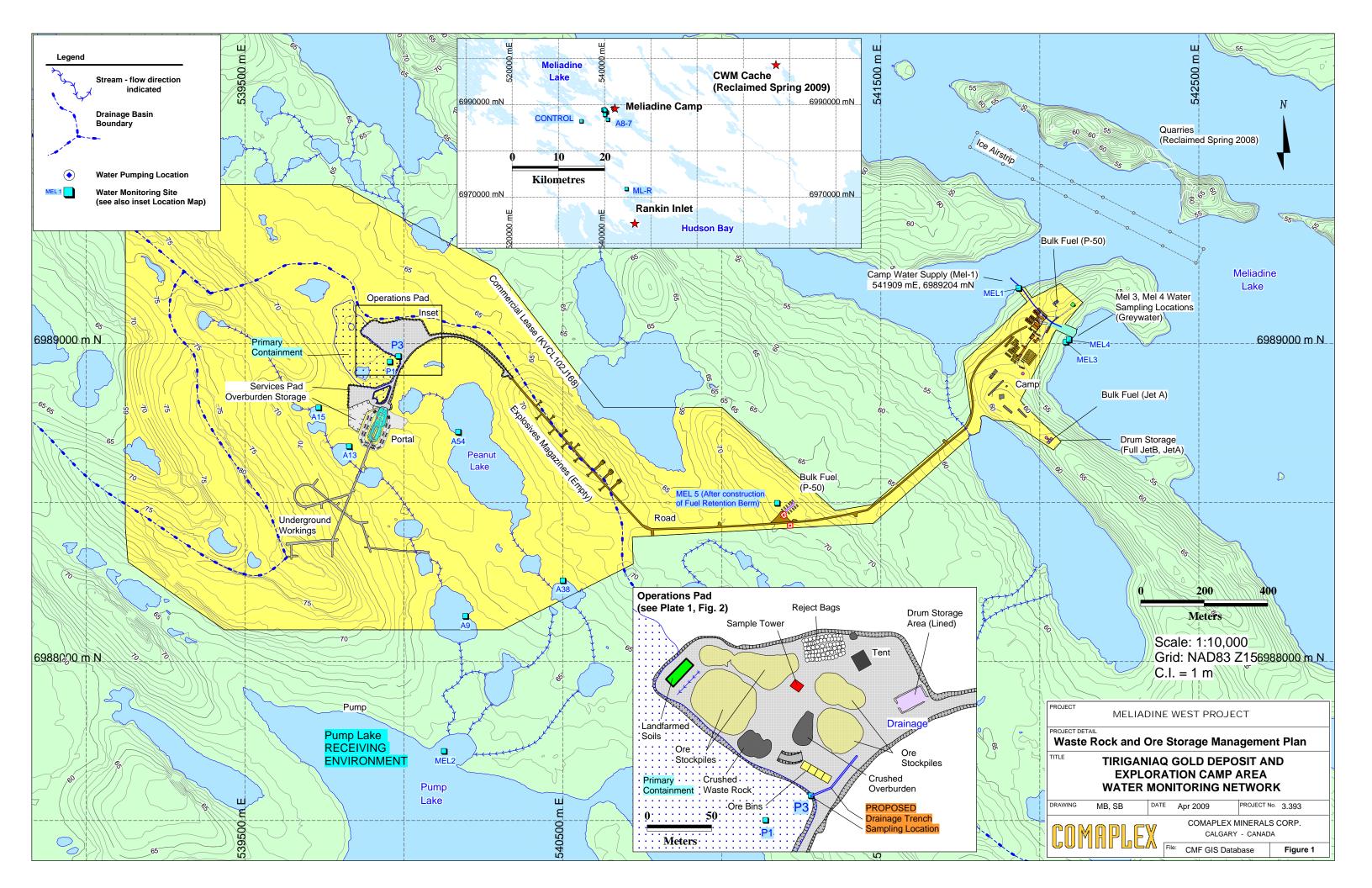
Figures 1 and 2 are preliminary as-built drawings showing the final layout of the site after completion of the Bulk Sample Program. A cross – section of the waste rock pads based on ground survey data is given in Figure 3. Additional surveying is required to complete final as-built drawings of the site and will be completed in June of 2009 once the snow melts. Updated detailed as-built plans, including cross-sections, stamped by a Nunavut registered engineer, will be forwarded to your office when the surveying is complete.

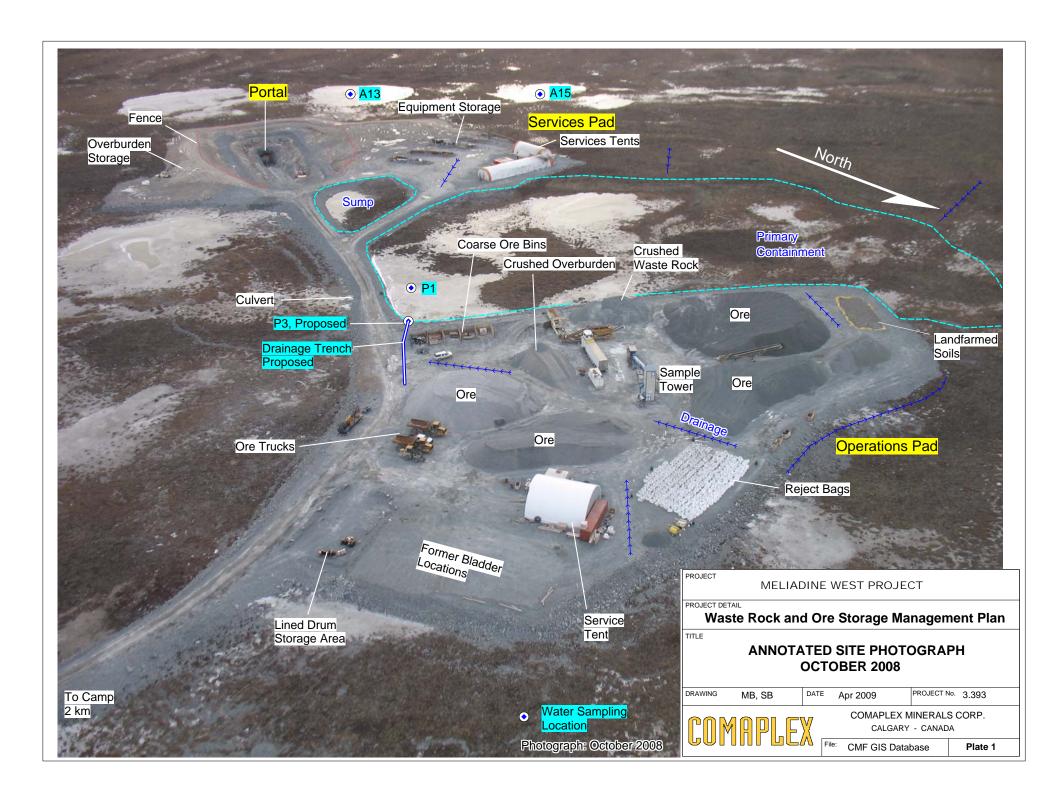
#### **References Cited:**

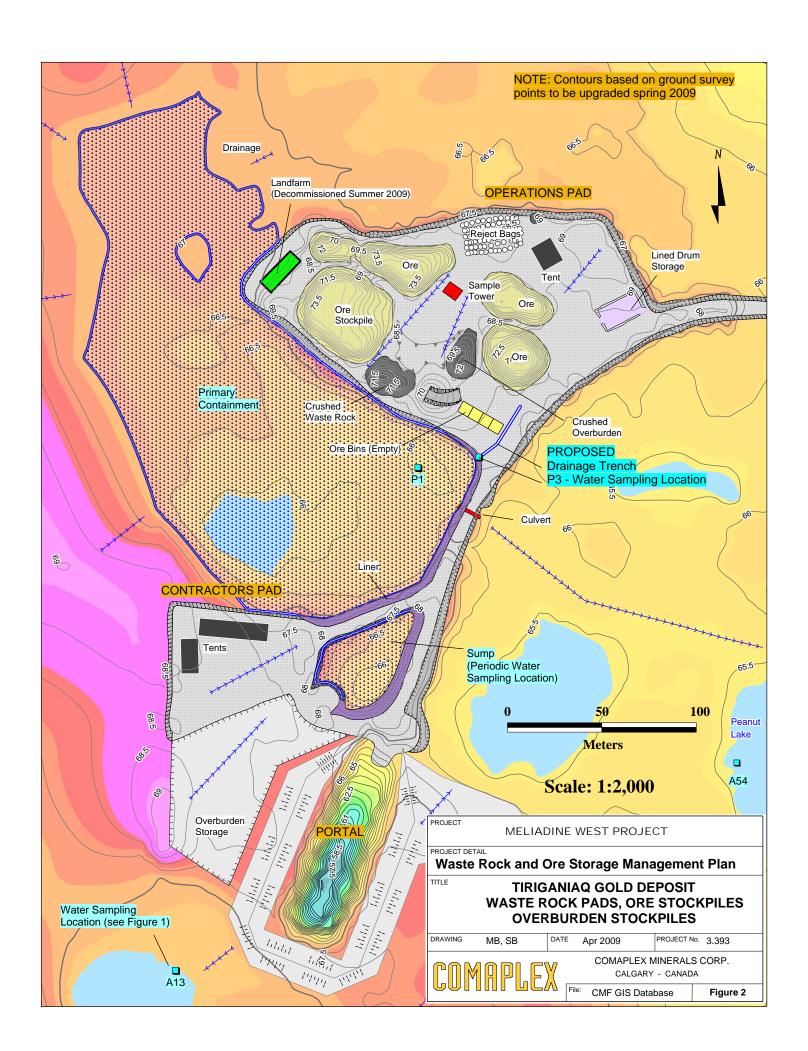
**SRK Consulting, 2006**: Tiriganiaq Geochemistry (Acid Base Accounting and Metals Leaching Analyses including Test Results). January 26, 2006.

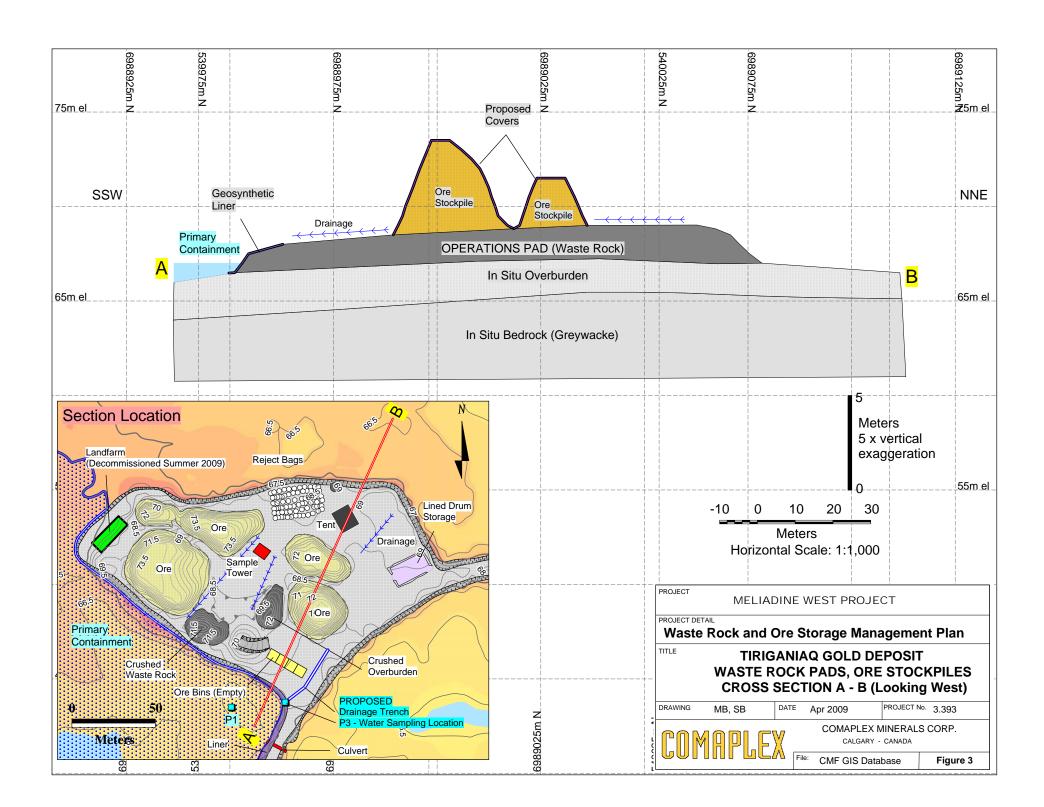
Waste Rock and Ore Storage Management Plan, 2007: Waste Rock and Ore Storage Management Plan, Meliadine West Gold Project, Underground Mineral Exploration and Bulk Sample Program, Comaplex Minerals Corp. August 2007.

**Abandonment and Reclamation Plan, 2008:** Abandonment and Restoration, Meliadine West Gold Project Camp and Underground Exploration Area, Comaplex Minerals Corp. April 2008.











#### **APPENDIX A:**

### **REPORT ON**

Interim Static Test Report for Waste Rock from the Tiriganiaq Deposit, Meliadine West Gold Project, Near Rankin Inlet, **Nunavut** 

**Report Prepared by Golder Associates Report Number:** 08-1122-0292

Submitted to: **Comaplex Minerals Corporation** 901-1015 4th St SW

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NOTE: This report is included separately on the CD.