teckcominco

John Knapp
Site Manager

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September 8, 2003

Indian and Northern Affairs Canada
Land Administration
Box 100
Iqaluit, NU
X0A 0H0

Attention: Carl McLean, Manager, Land Administration

Dear Mr. McLean,

Re: Polaris Mine Closure DIAND Inspection July 2 – 3, 2003

This letter has been written in response to your letter of July 22, 2003, regarding DIAND's comments respecting observations made during a site visit July 2nd – 3rd. Firstly, I wish to apologize for the delayed response to the concerns raised in your letter. Please be assured that your comments and concerns received immediate attention. The preparation of this response was delayed by a combination of personnel scheduling issues, coupled with the high workloads associated with the compressed summer construction season. I am confident that you will note significant progress, in compliance with approved procedures and protocols, during your next site visit, scheduled for the near future. For clarity, the concerns and questions raised in your letter of July 22nd have been copied to this letter and I will deal with each as they are presented.

Operational Landfill:

1) It was not clear who was responsible for inspecting construction of the cover material, since the GLL site staff are only involved with confirmation testing of the contaminated site reclamation aspects of the work. TC must ensure that the landfill cover is inspected to insure it meets the guidelines in the reclamation plan.

Teck Cominco representatives ensure that construction standards pertaining to the entire project are met. Compaction tests have been performed, and material sizing has been initiated. Recording of thermistor readings was initiated in March 1999 and continued throughout the course of the project until summer 2003. Thermistor data for this year has been reported in the 1st and 2nd quarter project reports to you and the NWB. The placement of the covercap during summer 2003 resulted in the destruction of these

instruments, but they will be reinstated upon completion of the construction work. Readings will be obtained, recorded, and reported as required by the terms of the Polaris Water License and Reclamation and Closure Plan approval.

As-builts will be prepared once construction is complete. Surveying is an ongoing process to maintain adequate construction controls and to ensure placement of sufficient cover materials. In August, 2003, following the placement of the underlying portion of the covercap, a Nunavut registered professional geotechnical engineer from EBA Engineering was engaged to conduct a site examination of the work undertaken to date and to ensure compliance with the design criteria. No significant issues were raised. This inspection was done as part of the annual geotechnical inspection of the landfill and other surface structures as required by our Water Licence, with the formal inspection report to be submitted by the middle of October.

Please forward information pertaining to the construction of the Operational Landfill to DIAND including thermistor readings, material testing results (moisture contents, grain size, density) and as-built drawings. The thermal analysis for the cover design assumed certain properties for the cover material(s). TC should verify that these assumptions are valid for the actual materials being placed. The final thickness of the cover should be based on the actual cover material properties.

Please see above. Material sizing and moisture results will be reported in the upcoming Quarterly report. All indications to date are that the covercap will exceed the design criteria, resulting in an increased factor of safety.

2) Tailing Thickener

A considerable amount of loose Styrofoam and fiberglass insulation was noted in the debris around the tailings thickener pad. This material is easily blown around and distributed over the site and must be cleaned up before the elements carry this material offsite. Once all of the contaminated fill is removed from the thickener pad and area TC must conduct confirmatory soil testing.

The loose Styrofoam and fibreglass that was noted in the area of the thickener has been contained and removed. Although the material spread to a greater than anticipated extent, it should be noted that the reason that it had not been cleaned up prior to the date of the inspection was that the tundra was still water logged and any effort to even walk in the area would have produced significant environmental degradation. Greater efforts to contain demolition debris are now being expended. Further, work schedules in areas involving foam insulation products are being reviewed for opportunities to further reduce the risks of spreading materials by wind.

No mention was made in the closure plan about retaining the lagoon and dikes, and filling with excavated spoil. If the lagoon remains, it will be a prominent embankment structure on the surface of the land, and hence will not satisfy the overall reclamation philosophy of returning the site to as natural a condition as possible. TC should clarify their position in writing for approval by DIAND and the other regulators.

Numerous approaches, suggestions, and opportunities are considered during any project. This holds true of the Polaris Reclamation and Closure Project as well. Teck Cominco confirms that there were discussions regarding the merits of utilising the overflow lagoon at the tailings thickener as a depository for some of the frozen core from the Garrow Lake dam. However, this idea has since been abandoned, and at no point did Teck Cominco Limited consider implementing this approach without the knowledge and agreement of the Regulatory parties concerned. We are cognisant of the attention this project is receiving, and of the need to follow the procedures and protocols established in conjunction with the Regulators. Any work plan that deviates from what is established in the Plan will be discussed with, and approved by, the appropriate regulators prior to implementation.

3) Frustration Lake Jetty

Concern was noted by the inspection team about the erosion of the road due the meltwater runoff. TC plans to flatten out the shoulders and generally contour the road to the surrounding terrain. We remind TC to ensure that natural drainage courses are not blocked and that excessive erosion will not be initiated due to improper contouring.

Teck Cominco acknowledges that the access road to the Frustration Lake jetty was partially washed out on the date of the inspection. This has been an ongoing difficulty even during the operational period. Teck Cominco confirms their intent to restore natural drainage courses and to remove improvements that impede the natural flows. During 2004, the Frustration Lake access road, the pipeline, culverts, and cribbing will be removed, and the roadway and pipebed recontoured to blend smoothly with the existing topography so as to not impede natural drainage.

4) Little Red Quarry

The preferred method of tire disposal is to shred the tires. However, if shredding is not possible, TC should ensure that all tires be placed into the bottom of the pit so that there is no chance that they could work their way to the surface. The tires should be dispersed so that there isn't a concentration of tires in any one area. Tires should be placed flat to minimize void space and subsequent settlement. If a lot of tires remain to be disposed of, another option may be to place them into an underground drift, where the landfilling protocols would not be an issue.

Teck Cominco Limited will ensure the tires are placed flat within areas of demolition debris. Where possible, the preferred location will be underwater, prior to covering with infill material, thereby eliminating the potential for void space. Tires will be dispersed to avoid concentrations of such debris in any given area.

Although there is photo documentation and surveying being done of the material placed into the quarry, a lot of the material does not appear to be placed in a manner that

minimizes voids. This issue must be corrected immediately and placement practices must conform to the protocols given in the joint authorization.

The placement and subsequent covering of demolition debris is a several-step process. If the material is observed in the early stages, it would be concluded that demolition protocols were not being followed. However, Teck Cominco is confident that the contractor is following the protocols, and doing a good job of placing material so as to minimize void spaces. Initially, material is discharged from the haul truck into large temporary stockpiles with significant void space. These piles are then rehandled with bulldozers or wheeled loaders to reduce the thickness of the material and to reduce the likelihood of void space when fill material is placed. Large pieces such as piping and structural steel columns that would create voids are processed with the hydraulic shears and siding is compacted in the bailer prior to burial. In many cases, an excavator fitted with the hydraulic shears is used to place large pieces underwater prior to covering with fill, which eliminates the possibility of void spaces remaining.

TC must ensure that they immediately implement a plan to cleanup any future spills or fluid releases within the LRD Quarry. ....It is important that TC ensure that wastes are clean of fluids before placing them into the LRD Quarry and that measures are in place to remove and deal with any contaminating fluids in the pit. We request that TC periodically conduct and record the results of confirmatory sampling of water quality, particularly for the presence of hydrocarbons and salts in the pit wastewater. These results must be provided to DIAND with the along with quarterly reports.

Steps have been taken to ensure compliance with this issue. Teck Cominco have conducted tests to verify that freezing point depression has not occurred. The test report is appended to this letter, and will be submitted with the next Quarterly Report. The need for immediate resolution of the issue precluded submission of the samples to an outside laboratory. Since the underlying question concerned the freezing point of the water, the water was sampled, cooled, and its freezing point noted. No significant difference from fresh water properties was noted.

TC must also provide DIAND with a quarterly report that includes an inventory of the material, locations of the material, and photo documentation of the debris disposed of in LRD.

This material has been submitted in the Quarterly reports as required under the terms of the joint Plan approval.

5) Mill Barge Complex

During demolition work, the north end of the barge rose a total of 1.4 m. TC should ensure that these conditions do not pose a threat to the safety of the demolition works underway.

The fact that the mill/barge complex would float during demolition was anticipated during the planning stages of the project and the resulting demolition plan was developed

to exploit this situation. In no case were employees or equipment placed at risk. The barge was free-floating from the outset, consistent with observations made by staff during the operating phase of the mine. As a result, there were no sudden movements or shifts in the barge while it rose in the excavation as its weight decreased during the course of demolition. Ultimately, before the hull integrity was compromised, the excavation was dewatered of accumulated meltwater that was disposed of underground as previously approved by DIAND, EC, and NWB. The final hull demolition is being done in the dry, and is progressing well.

As noted at the tailings thickener, TC must collect all loose insulation and materials that can blow around. Regular policing of the grounds around areas of demolition would ensure that debris is not carried off site by the wind.

Demolition is an ongoing process and loose insulation etc. is being exposed daily. Such material is collected on a daily basis in order to prevent dispersal by the wind. Other aspects of the project where this remains an issue, such as at the Tailings dam, are being evaluated for alternatives and opportunities that would diminish the risk of materials being spread by the elements.

6) Meltwater Runoff Disposal Area

TC was required to take at least one meltwater sample for analysis for potential hydrocarbon and mineral sulphide contamination. Please forward this information, as well as a revised description of the actual meltwater storage plan to DIAND.

Samples were taken and submitted to an outside laboratory for analysis. The results will be included in the next Quarterly Report, but they have been appended to this letter for your review during the upcoming site visit. Additionally, the meltwater, which ultimately accumulated in the barge area excavation, was tested several times to determine its salt content and to verify that the water would freeze as expected. All determinations indicated that although the water was contaminated, its physical properties, specifically its S.G. and freezing point, remained very similar to those of fresh water.

The meltwater disposal took place as described in the March 20th letter to DIAND, EC, and NWB. Non-contaminated meltwater was contained and directed through uncontaminated ditching to the ocean. Water that entered the industrial areas of the facility was automatically deemed to be contaminated. Initial meltwaters mobilized some hydrocarbons within the area, as expected, and were passed through an oil-water separator before being pumped into the underground receiving environment. Later, as the melt progressed, and hydrocarbons diminished, the water flows exceeded the capacity of the oil-water separator. This water, while contaminated, did not bear free hydrocarbons and was discharged directly into the underground workings. The receiving environment was checked routinely by the Underground Supervisor and his observations logged. At no time was water discharged without his knowledge and agreement. The remaining capacity of the receiving environment was monitored, and at not time was it exceeded. Ventilation checks with respect to volumes and air quality were conducted on

an ongoing basis to ensure environmental and safety issues were dealt with. Further, the discharged water was monitored to ensure there were no free hydrocarbons, and that it was freezing in place as expected.

7) Contaminated Soils Storage Area(s)

An updated estimate of the breakdown of contaminated soils placed underground must be provided to DIAND, as well as the locations being used for disposal.

The quantities and location maps are available in the quarterly report. The updated estimates for final quantities are not yet available due to difficulties in determining the contaminant boundaries in certain specific areas. This information will be provided in the Polaris Quarterly report as soon as it is available, as required by the terms of the joint approval of the Closure and Reclamation Plan. Teck Cominco Metals Limited would welcome the opportunity to discuss this further during your scheduled site visit.

8) Ammonium Nitrate Storage Area

DIAND's preferred method of disposing any unused amounts of ammonium nitrate is to mix it with diesel fuel into ANFO and detonate it on site at a safe location, rather than landfilling. This will also get rid of some of the leftover diesel fuel. This would also be subject to approval of the other regulators

The majority of this material will be consumed during the decommissioning period as stated in the Inspection Report. Significant quantities are required to produce the necessary rock and infill material for the Polaris landfill covercaps. It will not be used at Garrow Lake dam. Remaining quantities will be disposed of utilising methods that are acceptable to all the regulatory agencies concerned. There are, however, significant environmental and safety concerns relating to the destruction of Ammonium Nitrate by detonation. Since Ammonium Nitrate is not classified as a hazardous material Teck Cominco Limited recommends that this material be disposed of in the underground workings where it will be inaccessible and encapsulated due to the portal plugs. Additionally, the presence of permafrost throughout the underground workings will prevent any dispersal by water. Teck Cominco Metals Limited views this approach as consistent with the approvals already received under the closure plan.

9) Reclamation Costs and Schedule

TC must submit monthly and quarterly statements of the cost tracking for the decommissioning and reclamation activities, including the percentage of work completed and estimated cost to complete, as required by their Water License. This is required for ongoing assessment of their closure bond and security requirements.

The approval under the Water Licence that contains the bonding requirements specifies that schedule and cost forecasts are to be provided on a quarterly basis. We understand

the need for this information to be submitted so that DIAND and the NWB are aware of any significant changes to schedules or costs. The 1st and 2nd Quarterly reports for 2003 have been submitted and contain this information. The next formal report will be submitted by November 15, 2003 and contain both current costs and forecast costs to complete the decommissioning and reclamation work. If more frequent updates on progress and costs are desired, we suggest a monthly conference call where any significant issues can be discussed in a timely manner and provide an opportunity for other areas of interest to also be discussed.

We request TC to submit an updated list of activities and timelines for all aspects of the reclamation.

This has been recently submitted in the 2nd Quarter project report submitted to DIAND and the NWB.

We appreciate that DIAND feels that Teck Cominco is progressing very well towards our reclamation objectives and remain confident that all applicable standards and commitments are at the least being met, and in many cases exceeded.

Please feel free to contact me if the above leads to any concerns or further questions.

Yours truly,

Cominco Mining Partnership

John Knapp
Site Manager
Polaris Reclamation Project

Enclosures (2)

cc: Mr. Philippe DiPizzo, Nunavut Water Board
Mr. Bruce Donald, Reclamation Manager, TCL
Mr. Bob Hutchinson, General Manager, Projects, TCL
Mr. Walter Kuit, Director, Environmental Affairs, TCL
Ms. Colette Meloche, Environmental Assessment Specialist, EC

Gartner Lee Limited

To: Bruce Donald, Teck Cominco Ltd.

CC: John Knapp Date: August 15, 2003

From: Dennis Lu Ref: 23305

Subject: Freezing point of LRD Water

The purpose of this exercise was to determine the freezing point of water contained at the Little Red Dog Quarry (LRD). A sample was taken from the LRD on August 15, 2003 to characterize the freezing point. An electronic multimeter (YSI 85D) was used to determine the temperature and salinity. For the purposes of comparing the freezing point of LRD pit water to distilled water, a control sample of distilled water was run.

The samples were stored in 300mL beakers in the freezer until the samples were approximately 40% frozen. At this point the ice in the beaker was broken up and the instrument inserted in the ice/water mixture. The mixture was then stirred in order to maintain a constant temperature. When the readings became stable, temperature and salinity parameters were taken. The results from the experiment are as follows:

Parameter	LRD Water	Distilled Water (control)
Temperature	0.1°C	0.3°C
Salinity	1.1ppt	0.0ppt

A photo to illustrate the process is located below.

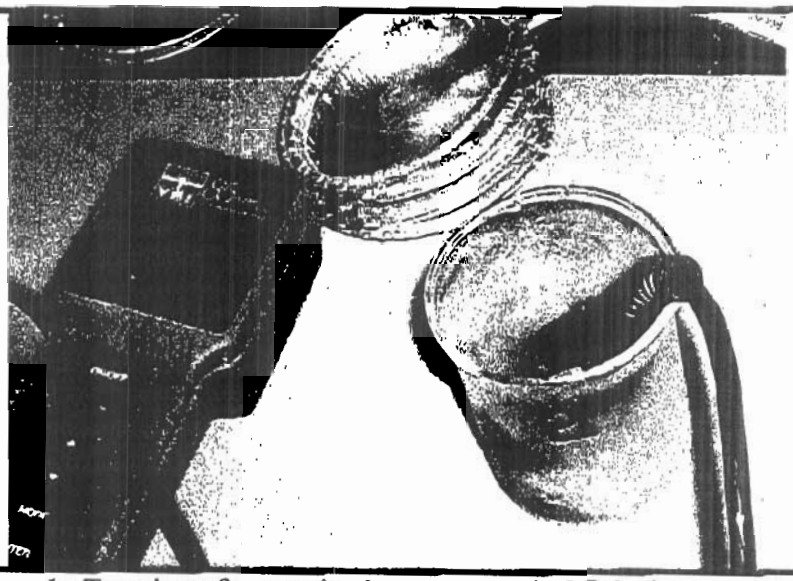

Photo 1: Top view of measuring instrument and LRD ice/water mixture.

Project	Polaris 23-305 Soil/Water Analysis
Report to	Gartner Lee Ltd.
ALS File No.	T1168
Date Received	05-07-03
Date:	14-07-03

RESULTS OF ANALYSIS

Sample ID	U/G	Water #1
Date Sampled		02-07-03
Time Sampled		
ALS Sample ID		9
Nature		Water
Physical Tests		
Hardness CaCO3		459
Total Metals		
Aluminum T-Al		<0.02
Antimony T-Sb		<0.001
Arsenic T-As		<0.002
Barium T-Ba		0.04
Beryllium T-Be		<0.005
Boron T-B		0.3
Cadmium T-Cd		0.0007
Calcium T-Ca		151
Chromium T-Cr		<0.001
Cobalt T-Co		0.003
Copper T-Cu		0.007
Iron T-Fe		<0.03
Lead T-Pb		0.044
Lithium T-Li		<0.05
Magnesium T-Mg		20
Manganese T-Mn		0.11
Mercury T-Hg		<0.0002
Molybdenum T-Mo		0.003
Nickel T-Ni		0.01
Selenium T-Se		<0.004
Silver T-Ag		<0.0001
Sodium T-Na		36
Thallium T-Tl		<0.0004
Titanium T-Ti		<0.05
Uranium T-U		0.0014
Vanadium T-V		<0.03
Zinc T-Zn		1.65
Inorganic Parameters		
Sulphide S		<0.02
Extractable Hydrocarbons		
EPH10-19		8.4
EPH19-32		<1