

November 15, 2001

Ms Dionne Filiatrault
Technical Advisor
Nunavut Water Board

Sent via e-mail

Dear Ms. Filiatrault

Re: Cullaton Lake Reclamation Program – 2001 Status Report

The attached report outlines the reclamation work completed at the Cullaton Lake mine site during the period of June to August, 2001.

It also is an application for an amendment to the approved Abandonment and Reclamation Plan for final reclamation of the Shear Lake waste rock pile. The original plan for this material was to leave it in place. However, as you are aware, this material began to generate acid runoff over the last couple of years. Our original intent was to place the material in Shear Lake. The final disposition was to encapsulate the material with 2 meters of cover in an area where any drainage would be directed away from the lake and Shear Creek. This is described in the report.

If you have any questions on the above, please contact me at 604-895-4410 or vbetts@homestake.com.

Yours truly,
Homestake Canada Inc.

Vernon Betts
Manager, Environment, Health and safety



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**Cullaton Lake Reclamation Project
2001 Status Report**

1.0 INTRODUCTION

This report is submitted to the Nunavut Water Board to accomplish the following purposes:

- To provide an update on reclamation work conducted at the Cullaton Mine Site under water Licence No. NWB1CUL9902 in 2001; and
- To apply for a revision to the approved Abandonment and Restoration Plan for the Cullaton Lake Mine site for final reclamation of the Shear Lake Waste Rock as described in Section 4 of this report.

2.0 BACKGROUND

The mine was partially developed in 1975 by O'Brien Gold Mines, with the development of a 110 m decline. However, for economic reasons the project was put on hold. In 1980 plans were developed to extend the decline and drill to confirm previous metallurgical testwork. Based on the results of this testwork a decision was made to develop the mine. The Cullaton Lake mine was in operation for four years, from 1981 to 1985, under Water Licence N6L2-0940. The two ore zones were mined during this time, first the B-Zone and then in 1984, the Shear-Zone. The mine closed in August 1985. Between September 1985 and summer 1991 the mine was in a care and maintenance phase.

International Corona Corporation (property owner since 1985) began decommissioning the property in 1991/92. Activities included the rehabilitation of the Tailings Pond #1 dam including construction of a spillway in the dam, covering of the exposed tailings with water or with till/mine rock, and the elimination of Tailings Pond #2 (the polishing pond). The fresh water intake, pump house and pipelines at the old diamond drill camp on the Kognak River were dismantled and removed in 1991.

Homestake Canada Inc., during an amalgamation with International Corona Corporation, acquired the property in 1993. After a review of the site in 1994, Homestake continued with the reclamation of the property. An Abandonment and Restoration Plan was developed in 1995 and submitted to Department of Indian Affairs and Northern Development (DIAND) and the Northwest Territories (NWT) Water Board in 1996.

In 1996, Homestake Canada Inc. (HCI) entered into an agreement with a contractor to complete reclamation of the Cullaton Lake site. As part of the payment for the project the contractor received ownership of the equipment remaining on site and was required to remove the equipment from the site. The contractor's intent was to sell the salvaged equipment to other mining projects.

By 1999, it was obvious that the contractor was not able to complete the project and remove the equipment. HCI had a number of discussions with the contractor regarding alternatives and schedules but was not able to resolve these issues.

In 2000, HCI engaged a consultant to review the equipment left on site and to determine if it was feasible to remove the equipment for sale. After the review, it was determined that the salvage value of the equipment was negligible and the best alternative was to dispose of the equipment on site.

Accordingly, HCI applied to the Nunavut Water Board for approval to return to the originally approved disposal method for the equipment, which was to bury it in the on site quarry pit. This application was submitted on October 4, 2000 and approval was received on December 11, 2000.

3.0 2001 WORK PROGRAM

3.1 Mobilization

The contractor chosen for the project was Ledcor Industries with camp support provided by PTI and management of the project provided by B&K Contracting.

An initial site visit was made with all contractors and HCI personnel on May 28, 2001 to review the required work and determine an appropriate camp site.

Mobilization began with the shipment of project equipment to Thompson, Manitoba during the week of June 4-9. Initial equipment movement to site was carried out starting the week of June 12 using a Hercules C130 aircraft. Final equipment movement was completed on June 22-24.

A tent camp consisting of 9 structures, which included 5 sleeping tents, 1 cook tent, 1 dining tent, 1 wash tent and 1 recreation tent was set up at the Shear Lake portal area. An average of 18 workers were on site for the project, including 9 from Arviat.

3.2 Equipment Disposal

Equipment disposal involved the hauling of all scrap equipment and materials from the airstrip, Shear Lake portal area and mill area to the Quarry Pit located adjacent to the tailings pond. This work began June 16th and was completed by July 31st.

Prior to placement in the Quarry Pit, all oils and fluids were drained from the equipment and collected for removal from the site. In addition, batteries, tires and hoses were removed from the equipment and collected for removal from the site.

All debris that was scattered around the site, including scrap metal and wood, was collected and moved to the Quarry Pit area. Wooden buildings were burned and the scrap from this process was also buried in the disposal area.

Prior to the material being placed in the pit, all water was pumped from the pit to the tailings pond. Material was then placed in the quarry pit and flattened using the dozer and track hoe that had been mobilized to the site. Larger machinery was cut into smaller pieces to ensure that it would fit into the pit and would not result in voids in the cover. Once all material was placed in the pit, 2 meters of cover was placed over the pit and then graded to form a smooth cover. Material for this was obtained by reclaiming roads in the area to prevent any further disturbance to the site.

Pictures of the material placement and covering of the Quarry Pit are shown in Appendix A.

The approved reclamation plan for the site allowed for concrete structures such as ball mill pedestals, building foundations and underground entrance areas to be left visible. This had been done up until this point. However, the equipment at the site included a rock hammer on a track hoe. This equipment was used to break up the concrete, which was subsequently buried in trenches adjacent to the building areas.

Pictures of the foundation destruction are shown in Appendix A.

The quarry pit and concrete burial areas were seeded with an arctic grass seed mix to enhance the reclamation of the area.

3.3 Material Removed From Site

All waste oils and hydraulic fluids from equipment to be buried were drained and placed in 45 gallon drums. Also, hydraulic hoses were removed from equipment and placed in drums. Tires, batteries and empty drums were also removed. This material was removed from site and taken to Thompson, Manitoba for proper disposal. This included over 100 tires and 40 drums of waste oil.

3.4 General Site Cleanup

In addition to the equipment cleanup, a general site cleanup was carried out. This included employees walking the entire site and collecting scrap metal, wood, styrofoam and other debris. Wood was burned on site while metal and other debris (such as pipes) was taken to the quarry pit and buried.

4.0 SHEAR LAKE WASTE ROCK DISPOSAL

4.1 Background

During the 2000 site visit and planning process HCI staff noticed dead vegetation around the toe of the Shear Lake Waste Rock area. Samples of the rock were collected and analysed in the fall of 2000. It was determined that the rock was generating acid from sulphides contained in the rock.

HCI reviewed production records from the 1980's and estimated the volume based on the area covered by the rock. This estimation determined that a maximum of 40,000 cubic meters of rock could be in the area. HCI then determined that the best solution for disposal of this material was to place it underwater in Shear Lake. Accordingly, an application was submitted to the Nunavut Water Board for approval to do so.

This application was forwarded to the Department of Fisheries and Oceans (DFO), who required an application from HCI to alter potential fish habitat. This was submitted on April 16, 2001. DFO conducted a site inspection on June 19th with HCI personnel and concluded that a habitat assessment and compensation plan was required before the authorization could be issued. Knight Piesold conducted the habitat assessment on June 27-29 and a final report issued to DFO on July 13th.

Unfortunately, DFO did not issue its authorization until late August and approval was still required from the Nunavut Impact Review Board and the Nunavut Water Board. This was the end of the construction season and HCI determined that it was unable to wait for final approvals without being in danger of being caught by winter and therefore being unable to demobilize the site.

4.2 On Site Investigations

HCI decided to determine exactly how much material was in the waste rock area to be removed. A trench was dug into the material using a tracked hoe. It was discovered that the waste rock was a thin layer (up to 30 cm. deep) on top of approximately 1 meter of finer material that acted as a base for the stockpile. The estimate of waste rock was reduced to approximately 1000 cubic meters based on this thickness and the stockpile area. The finer material was estimated at 10,000 to 15,000 cubic meters.

4.3 Alternate Solution

Based on the fact that the end of the construction season was approaching and a concern that placement of the material in Shear Lake would not be approved, HCI developed an alternate disposal method as a contingency plan. The waste rock would be scraped up into a pile. Some of the underlying fine base material would then be used to construct a pad adjacent to the Shear Lake portal area where drainage would be away from the lake. The waste rock would then be placed on the pad and encapsulated with compacted fine material. The entire area would then be covered with till obtained from the access road.

4.4 Waste Rock Disposal

Once it became apparent that timing of approvals would likely not allow disposal of the rock in Shear Lake in 2001, the contingency plan was implemented. HCI did not want to leave the waste rock in its current position for another season nor did we want to remobilize in 2002.

The waste rock was moved to the alternate location and encapsulated in late August. Pictures of this process and the final disposition of the rock are shown in Appendix A.

HCI believes that the encapsulation of the waste rock, including the proper shaping of the area to prevent water infiltration, will prevent future acid generation from the rock. In addition, the cover of 2 meters of fine material and till will leave the waste rock in a frozen state for much of the year. Therefore, HCI requests approval from the Nunavut Water Board to amend the approved Abandonment and Reclamation plan to approve the encapsulation as final reclamation for the waste rock.

5.0 FINAL SITE CLEANUP

Once all material was placed in the Quarry Pit and covered and the Shear Lake Waste Rock had been encapsulated, HCI proceeded with final site cleanup.

The first phase of this clean up was to reclaim the road from Shear Lake to the mill and tailings area. This included restoring all stream crossings to a natural state (See pictures in Appendix A). Culverts had already been removed and buried at the Quarry Pit and replaced with plastic pipe for the current season's work. These pipes were removed from site. Clumps of shrubs were excavated from the immediate road side and planted on the road surface to enhance revegetation of the road.

Once the crossings were reclaimed, ruts on the road from the summer's activity were smoothed over and contoured to reflect the local topography.

6.0 DEMOBILIZATION

Demobilization of the project began on September 1st and was completed on September 8th. Demobilization was accomplished with a Hercules C130 aircraft to remove large equipment and a Hawker Sidley to remove tires, empty drums, waste oil, etc.

7.0 WATER SAMPLING

The annual water samples were collected on July 26, 2001. The results are included in Appendix B for review.

8.0 CURRENT SITE CONDITION

At this time, HCI considers the Cullaton Lake Mine Site to be completely reclaimed. The airstrip has been left intact as approved in the Abandonment and Reclamation Plan, as emergency strips are valuable in northern areas. Also, at the request of employees from Arviat who stated they hunt in the area, a wooden shack was left at the airstrip as an emergency shelter.

As stated in Section 4, HCI feels that the encapsulation of the Shear Lake Waste Rock will prevent any future environmental issues with this rock. HCI would like to arrange an inspection of the site by the Nunavut Water Board in 2002 to begin the process of certifying that we have met the requirements of the Abandonment and Reclamation Plan so that the site may be returned to the government.

APPENDIX A
PROJECT PICTURES



Material placed in Quarry Pit



Cover being placed on Quarry Pit



Dozer and Hoe flattening scrap material



Cover being placed on Quarry Pit



Final slope on Quarry Pit Cover



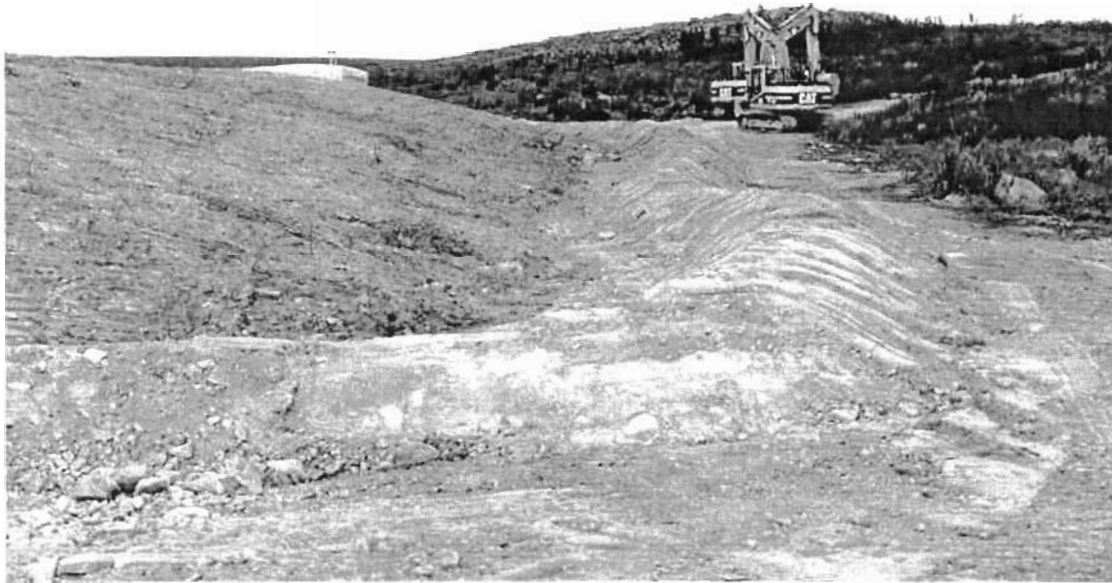
Waste Rock being picked up



Base prepared for waste rock encapsulation



Old waste rock pile after clean up



Encapsulated waste rock – 2 meter cover



Stream crossing before reclamation



Stream crossing after reclamation

**Appendix B
July 26, 2001
Water Sample Results**

Cullaton Lake Water Sampling
Water Licence NWB1CUL9902
26-Jul-01

Location	Sample Number	Field pH	Temp. Degrees C	Lab pH	Suspended Solids mg/l	Total Cyanide mg/l	Total Nickel mg
Pond #1 Discharge	940-2 A		8.24	21.6	8	4	0.015
	940-2 B				8.03	5	0.039
Pond #2 Discharge	940-3 A		9.06	21.6	8.29	<3	0.035
	940-3 B				8.41	<3	0.029
Pond # 1 Spillway	940-18 A		7.78	21.5	8.1	<3	0.009
	940-18 B				8.12	<3	0.007
Pond #1 piesometer	940-19 A		8.30	22.0	8.11	<3	0.01
	940-19 B				8.14	<3	0.008
East side Pond #1	940-20 A		8.62	24.3	8.43	5	0.019
	940-20 B				8.5	<3	0.019
Quarry	940-23	Dry - no water present					
Seepage	940-22	Dry - no water present					

Location	Sample Number	Total Arsenic mg/l	Total Copper mg/l	Total Lead mg/l	Total Mercury mg/l	Total Zinc mg/l
Pond #1 Discharge	940-2 A	0.0025	0.002	<0.001	<0.00005	<0.005
	940-2 B	0.0025	0.004	<0.001	<0.00005	<0.005
Pond #2 Discharge	940-3 A	0.0042	0.003	<0.001	<0.00005	<0.005
	940-3 B	0.0041	0.003	<0.001	<0.00005	<0.005
Pond # 1 Spillway	940-18 A	0.0023	0.002	<0.001	<0.00005	<0.005
	940-18 B	0.0023	0.002	<0.001	<0.00005	<0.005
Pond #1 piesometer	940-19 A	0.0024	0.002	<0.001	<0.00005	<0.005
	940-19 B	0.0025	0.002	<0.001	<0.00005	<0.005
East side Pond #1	940-20 A	0.0028	0.005	<0.001	<0.00005	<0.005
	940-20 B	0.0028	0.005	<0.001	<0.00005	<0.005
Quarry	940-23	Dry - no water present				
Seepage	940-22	Dry - no water present				