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Water Resources Division
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P.O. Box 2200
Iqaluit, Nunavut
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August 8, 2001

Your file - Votre référence

NWB1BOS9801

Our file - Notre référence

Mr. Hugh Wilson
Manager, Environmental Affairs
Hope Bay Joint Venture
311 West First Street
North Vancouver, BC
V7M 1B5

Dear Mr. Wilson:

Re: Review of 2000 Annual Report - Boston Project

Please accept this letter as notification that the 2000 Annual Report submitted by Hope Bay Joint Venture as required under licence NWB1BOS9801 Part B, Item 5 has been reviewed and found satisfactory.

Attached for your records is the 2000 Compliance Report; compliance reports are prepared annually in order to assess the Licensee's compliance with the terms and conditions of their licence. During the year currently under review (2000), the Licensee has complied satisfactorily with the conditions of licence NWB2BOS9801; however, the sewage data is rather erratic and some improvements should be made to the "Exploration and Bulk Sampling Program - Waste Rock Disposal Plan" and the progressive reclamation activities.

As noted in the report, the monthly sewage data has irregularities. There is a large degree of variation between the values for BOD and suspended solids and the variations do not correlate. Generally, one would expect a high removal of suspended solids to be accompanied by a high removal of BOD but this is not the case. For example, in May the suspended solid's concentration was 3 mg/L and the BOD was 178 mg/L. The Licensee is asked to reexamine this data to determine the cause of such variations.

The Licensee is required to implement the "Exploration and Bulk Sampling Program - Waste Rock Disposal Plan" This document does not outline a procedure for testing/disposal of waste rock produced after October 1998 and the Plan should be updated to include the Licensee's Plan for future exploration, sampling, waste rock

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characterization and disposal.

In addition, the License requires progressive restoration of areas that are abandoned prior to closure of the operations. Although some restoration activities associated with the removal of wastes were completed, the Licensee did not initiate the restoration of contaminated soils or the unlined pit (a suspected salt contamination source). The Licensee should incorporate these activities into the current restoration schedule.

Should you have any questions or comments, please do not hesitate to contact me at (867) 975-4548 or by e-mail at johnsonmi@inac.gc.ca.

Sincerely,



Michelle Johnson
Kitikmeot/Kivalliq Regional Coordinator

c.c.: Ms. R. Becker, Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0

2000 Compliance Report for Water Licence NWB1BOS9801

Hope Bay Joint Venture - Boston Project

Prepared by: M. Johnson
Kitikmeot/Kivalliq Regional Coordinator
DIAND, Nunavut Regional Office
Iqaluit, NU

Date: August 8, 2001
Water Register: NWB1BOS9801

2000 Compliance Report

Hope Bay Joint Venture - Boston Project

Water Licence NWB1BOS9801

Introduction

The Nunavut Water Board issued licence NWB1BOS9801 in July 1998 to BHP and it was reissued in May 2000 to Cambiex Exploration Inc. and Miramar Hope Bay Ltd. (jointly known as the Hope Bay Joint Venture). The License has since been amended, most recently in August 2000. The License expired on July 31, 2001; a renewal application was submitted to the Board and is currently under review. This Report assesses compliance with the licence for the period between January 1, 2000 and December 31, 2000. The Licence permits the use of up to 150 cubic metres of water per day for ongoing advanced exploration activities at the Boston Gold Project.

The format of this report follows that of the Licence; however, conditions without licensee requirements for the year 2000 are not outlined as a compliance assessment does not apply.

Compliance Assessment

Part B - General Conditions

Condition Number and Summary	Compliance Assessment
1. The water use fee shall be paid annually.	The fee was received by the Board on April 11, 2001.
2. The security deposit shall be posted and maintained according to the Board's decision dated April 21, 1999.	The security deposits were received on January 5 and 9, 2001.
3. N/A	
4. N/A	
5. An Annual Report shall be filed prior to March 31 of the year following the calendar year reported.	The Report was received by the Board on March 31, 2001.
6. All research and studies shall follow specific ethical principles.	No research or studies were conducted in 2000.

Condition Number and Summary	Compliance Assessment
7. The Surveillance Network Program (SNP) shall be completed.	The SNP lacks analysis results for station 1652-4 for the months of June and July. The sampling requirements for this station are identical to 1652-5, once monthly during periods of sewage effluent flow. Results were not provided for station 1652-3 for the month of March.
8. N/A	
9. Meters and other such methods of measuring water usage and discharges shall be installed, operated, and maintained.	The flow measuring devices were found to be acceptable during the July 11, 2000 inspection.
10. Signs identifying water supply and waste disposal facilities, and SNP stations shall be maintained.	The Inspector did not identify any deficiencies in the signage at the site.
11. A copy of the Licence shall be kept at the site at all times.	The Licensee has complied with this section.

Part C - Conditions Applying to Water Use

Condition Number and Summary	Compliance Assessment
1. All water for domestic purposes shall be obtained from Spyder Lake, SNP 1652-1.	Refer to condition two.
2. All water for mine activities shall be obtained from Spyder Lake, SNP 1652-1a.	A licence amendment sated August 12, 2000 changed the water intake to station 1652-1a; all water was obtained from this location.
3. Quantities of water withdrawn shall not exceed 150 m ³ /day.	This requirement cannot be assessed using the information in the monthly data or annual report, monthly totals rather than daily totals are provided. Since the maximum monthly rate of 1686 m ³ equates to a daily average of 56.2 m ³ , it is inferred that this license requirement has been met.

Condition Number and Summary	Compliance Assessment
4. The fresh water intake shall be equipped with a mesh screen.	The fresh water intake was found to be acceptable during the July 11, 2000 inspection.

Part D - Conditions Applying to Waste Disposal

Condition Number and Summary	Compliance Assessment
1. All sewage shall be directed to the sewage disposal facilities or as otherwise approved by the Board.	The Licensee has complied with this condition.
2. The sewage disposal facilities shall be maintained to the satisfaction of an Inspector.	The 2000 Inspection did not note deficiencies in the sewage disposal facilities; however, the monthly data has irregularities. For the months of April, May, and June the suspended solids and BOD results were as follows; 86 and 87; 3 and 178; 42 and 108. All values are in mg/L and listed in respective order. The suspended solid's value for May seems rather unrealistic in comparison to the other months and such a low value would generally be accompanied by a lower BOD. Rather, the BOD reported for May is the highest of the three months. The results suggest either a sampling or analysis error or problems with the operation of the RBC.
3. Sewage sludge shall be disposed of in a sump located at least 30 m from the ordinary high water mark.	Sewage sludge was not removed from the RBC in 2000.
4. Sewage effluent at SNP 1652-4, 1652-5 shall meet the effluent requirements for BOD, Faecal Coliforms, TSS, Oil/Grease and pH.	Samples collected from these stations met the licence requirements.
5. N/A	
6. The Inspector shall be notified if minewater is encountered and requires treatment and discharge.	Minewater was not encountered in 2000.

Condition Number and Summary	Compliance Assessment
7. Discharged wastes (excluding sewage) shall meet effluent limits.	Only discharged wastes require sampling, samples from the central holding pond were collected although the report states that the liquid was not discharged. The July samples at this station met the effluent limits (for 1652-2) although the arsenic is approaching the grab sample limit.
8. All waste discharged shall be conducted in a manner that minimizes surface erosion.	Wastes were not discharged in 2000.
9. The Licensee shall continue to implement the "Exploration and Bulk Sampling Program - Waste Rock Disposal Plan"	The Licensee has complied with this condition; however, the document does not outline a procedure for testing/disposal of waste rock produced after October 1998.

Part E - Conditions Applying to the Undertaking

Condition Number and Summary	Compliance Assessment
1. No waste shall be deposited in any body of water, or on the banks thereof, which may impair water quality, quantity, or flow.	The Licensee has complied with this condition.
2. Areas designated for waste disposal shall be located at least 30 metres from the ordinary high water mark.	The Licensee has complied with this condition.
3. No land-based drilling or disposal of drilling wastes is to be done within 30 metres of the ordinary high water mark.	The Licensee has complied with this condition.
4. Machinery, parts, bulky material or scrap metal must not be disposed of in a manner whereby it might enter a water body.	The Licensee has complied with this condition, such materials are removed off site to the Giant Mine in Yellowknife. The current licence renewal application includes a proposal to dispose of the wastes in the unlined pit and adjacent area.

Part F - Conditions Applying to Construction

Condition Number and Summary	Compliance Assessment
1. Modifications, without the written consent of the Board, may be completed provided specific conditions are met.	No modifications were completed during 2000. The current licence renewal application includes proposals to establish a solid waste disposal site and a fuel tank farm. If implemented, these modifications must meet the requirements of Part F.
2. Modifications not meeting the specific conditions require must have the Board's written consent.	N/A.
3. As-built drawings of modifications must be submitted to the Board within 90 days of completion of the modifications.	N/A.

Part G - Conditions Applying to Studies

Condition Number and Summary	Compliance Assessment
1. N/A	
2. N/A	

Part H - Conditions Applying to Spill Prevention and Contingency Planning

Condition Number and Summary	Compliance Assessment
1. Fuels, chemicals, or other wastes shall not enter any waters. All fuel is to be stored at least 30 metres from the ordinary high water mark.	The Licensee has complied with this condition.
2. N/A	
3. N/A	

Condition Number and Summary	Compliance Assessment
4. The Spill Contingency Plan shall be reviewed and modified as required annually. The revisions shall be submitted to the Board for approval.	The Spill Contingency Plan was submitted in May 2000, pending approval by the Board.
5. Unauthorized discharges shall employ the Contingency Plan, be immediately reported, and be outlined in a report submitted to the Inspector within 30 days.	The Licensee has complied with this condition.

Part I - Conditions Applying to Abandonment and Restoration

Condition Number and Summary	Compliance Assessment
1. N/A	
2. N/A	
3. The Licensee shall implement the Abandonment and Restoration Plan as approved by the Board.	The Abandonment and Restoration Plan was received on May 26, 2001, pending approval by the Board.
4. The Licensee shall complete all reclamation work within the time schedule specified in the approved Plan.	The Licensee has complied with this condition.
5. The Licensee shall endeavor to carry out progressive restoration of areas that are abandoned prior to closure of the operations.	Although some restoration activities associated with the removal of wastes were completed, the Licensee did not initiate the restoration of contaminated soils or the unlined pit (a suspected salt contamination source). The Licensee should incorporate these activities into the current restoration schedule.
6. The Plan shall be reviewed annually and modified to reflect changing operations, technology, and the results of reclamation and other studies. The proposed modifications shall be submitted to the Board for approval.	The Plan was reviewed in 2000; however, the results of studies such as the 1999 Hope Bay Belt Site Assessment were not addressed or incorporated.

Conclusion

During the year currently under review (2000), the Licensee has complied satisfactorily with the conditions of licence NWB2BOS9801; however, the sewage data is rather erratic and some improvements should be made to the “Exploration and Bulk Sampling Program - Waste Rock Disposal Plan” and the progressive reclamation activities.

As noted previously, the monthly sewage data has irregularities. There is a large degree of variation between the values for BOD and suspended solids and the variations do not correlate. Generally, one would expect a high removal of suspended solids to be accompanied by a high removal of BOD but this is not the case. For example, in May the suspended solid's concentration was 3 mg/L and the BOD was 178 mg/L. The Licensee is asked to reexamine this data to determine the cause of such variations.

The Licensee is required to implement the “Exploration and Bulk Sampling Program - Waste Rock Disposal Plan” This document does not outline a procedure for testing/disposal of waste rock produced after October 1998 and the Plan should be updated to include the Licensee's Plan for future exploration, sampling, waste rock characterization and disposal.

In addition, the License requires progressive restoration of areas that are abandoned prior to closure of the operations. Although some restoration activities associated with the removal of wastes were completed, the Licensee did not initiate the restoration of contaminated soils or the unlined pit (a suspected salt contamination source). The Licensee should incorporate these activities into the current restoration schedule.