State of Utah
DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY

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Reply to: State of Utah
Division of Water Quality
Department of Environmental Quality
Salt Lake City, Utah 84114-4870

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MINERALS PROGRAM
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December 19, 1991

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DIVISION OF
OIL GAS & MINING

Mr. Frank Wicks
Vice President and General Manager
Barrick Mercur Gold Mine
P.O. Box 838
Tooele, Utah 84704

RE: Final Stipulation and Consent Order, Dump Leach No. 2, Notice of Violation and Order, Docket Number GW90-03.

Dear Mr. Wicks:

We have reviewed your August 15, 1991 comments on the draft Stipulation and Consent Order. Based on these comments and our August 22, 1991 meeting, we have been able to incorporate the majority of your concerns in the final version of the Consent Order. We apologize for taking this long to respond because key staff were diverted to another very pressing project.

As outlined in the Consent Order, Barrick agrees not to operate Dump Leach No. 2 beyond July 31, 1992 without a valid ground water discharge permit in place, to continue ground water monitoring at the dump leach until further notice by the Executive Secretary, to submit several plans and work schedules for the neutralization, closure and post-closure monitoring of the facility, and to complete said activities in a timely fashion.

Enclosed you will find two copies of the final Consent Order. Please sign both copies and return them to us as soon as possible.

As we discussed in our August 22 meeting, this action will require a 30 day public comment period which will begin shortly after return of the final signed version. After conclusion of the public comment period and barring any significant adverse comments, the Consent Order will be executed. However, please be advised that any adverse comments from the public may be cause to renegotiate the content of the Consent Order.

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If you have any questions or comments, please call Loren Morton at 538-6146. We appreciate your cooperation in this matter.

Sincerely,

Utah Water Quality Board

Don A. Ostler, P.E.
Executive Secretary

Enclosure

DAO:lbm:lm

cc: Ken Alkema, DEQ
Fred Nelson, Attorney General's Office
Ken Bousfield, DDW/S
Myron Bateman, Tooele County Health Dept.
Glade Shelly, Utah County Health Dept.
Wayne Hedberg, DOGM
David Bird, Parsons, Behle, & Latimer
George Condrat, Dames & Moore

Q:BMD2SCO3.LTR
FILE:OW-BARRICK DUMP 2

BEFORE THE UTAH WATER QUALITY BOARD

--oo0oo--

In the Matter of:	:	
Barrick Mercur Gold Mine	:	STIPULATION AND CONSENT ORDER
Docket Number GW 90-03-A	:	

--oo0oo--

This STIPULATION AND CONSENT ORDER is issued by the Utah Water Quality Board (the "Board") representing the State of Utah (the "State") pursuant to the Utah Water Quality Act (the "Act"); Section 19-5-101 et seq., Utah Code Annotated, 1953 as amended.

STIPULATION

1. The parties agree that the Board has jurisdiction over this matter.

2. Barrick Mercur Gold Mine (Barrick) operates a gold leaching facility in T.6S., R.3W., Sec. 5, SE¼, SE¼, Tooele County, Utah; herein referred to as Dump Leach No. 2.

3. Barrick was issued a Construction Permit for Dump Leach No. 2 on September 19, 1985 for construction of a facility designed to incorporate control technology to prevent the discharge of pollutants to waters of the state. The permitted liner system design included a primary flexible membrane liner, a leak detection system, and secondary clay liner, in descending order.

4. Full scale operation of Dump Leach No. 2 began on July 2, 1986. On July 14, 1986 Barrick notified the Executive Secretary of the presence of fluid in the leak detection system of Dump Leach No. 2. Subsequent chemical analysis of this fluid indicated failure of the flexible membrane liner.

5. The pregnant liquor contained within Dump Leach No. 2 has the potential to adversely impact public health and the environment, based on analyses submitted by Barrick on August 28, 1989. These analyses showed concentrations of pH, fluoride, Nitrate (as N), cadmium, copper, lead, silver and zinc in excess of the Ground Water Quality Standards; and concentrations of total cyanide and nickel in excess of EPA Drinking Water Health Advisories.

6. In a September, 1989 cyanide attenuation study of the clay secondary liner, Barrick demonstrated that a barren cyanide solution, after passing through samples of the clay secondary liner exceeded the EPA Drinking Water Health Advisory for total cyanide.

7. Dump Leach No. 2 is found in the recharge area for the drinking water supply aquifer in Cedar Valley, Utah County. The closest drinking water source is approximately five miles downgradient from the Dump Leach No. 2 facility.

8. Total cyanide was detected in ground water quality samples collected from well MW-9 at Dump Leach No. 2, a well completed in the uppermost bedrock aquifer. One sample collected on March 7, 1990 was reported by Barrick to contain a total cyanide concentration in excess of the EPA Drinking Water Health Advisory.

9. Based on the above facts, the Executive Secretary determined that pregnant liquor leachates released from the clay secondary liner constitute a discharge of wastewater from Dump Leach No. 2 to ground water.

10. Wastewater discharge by Barrick is subject to the requirements of the Act, and sections R448-1 and 6 of the Utah Administrative Code (the "Code"). Barrick is also subject to all applicable provisions of the Code.

11. Notice of Violation and Order, Docket No. GW90-03, was issued to Barrick by the Executive Secretary on December 3, 1990 based on the above mentioned facts.

12. Barrick responded in a timely manner to the Notice of Violation and Order on January 2, 1991 and requested a hearing before the Board pursuant to 26-11-12 Utah Code Annotated 1953, as amended (UCA).

13. As stated in their January 2, 1991 response, Barrick maintains that the available ground water quality data do not indicate there has been a release of process solution (pregnant liquor) to ground water.

14. In their January 2, 1991 response Barrick also provided information which cited the total cyanide content of the March 7, 1990 ground water quality sample from well MW-9 as a laboratory error.

15. The parties now desire to resolve this matter fully without further admissions and without further administrative or judicial proceedings except to the extent provided below by entering into this CONSENT ORDER. By so doing, Barrick withdraws its request for a hearing before the Board.

16. Notice of Violation and Order, Docket No. GW 90-03, shall be resolved by completion of terms of this CONSENT ORDER.

17. For the purpose of this CONSENT ORDER the parties agree and stipulate to the above stated facts. None of the stipulations related herein shall be considered admissions by any person related or unrelated to this CONSENT ORDER for purposes other than determining the basis of this CONSENT ORDER.

ORDER

1. Barrick will continue ground water quality monitoring of existing monitoring well MW-9 at Dump Leach No. 2 on a monthly basis until the Executive Secretary can determine background ground water quality conditions. Thereafter, this well will be monitored for ground water quality on a quarterly basis similarly to existing wells MW-5 and MW-7 until further notice by the Executive Secretary. Ground water sampling will include all the chemical parameters, methods, and procedures required for Dump Leach No. 3 in Ground Water Quality Discharge Permit No. UGW450001. Barrick shall submit the results of monthly monitoring to the Executive Secretary in writing by the 15th day of the following month. Barrick shall submit the results of quarterly monitoring to the Executive Secretary in writing according to the following schedule:

Quarter	Report Due on
1st (Jan., Feb., Mar.)	April 15
2nd (April, May, June)	July 15
3rd (July, Aug., Sept.)	October 15
4th (Oct., Nov., Dec.)	January 15

2. Barrick shall not operate nor actively leach Dump Leach No. 2 beyond July 31, 1992 without authorization of a valid ground water discharge permit. If Barrick elects to apply for a ground water discharge permit, said permit application should be submitted to the Executive Secretary no later than January 31, 1992.

3. Barrick shall submit on or before March 1, 1992, a detailed work plan and compliance schedule for neutralization of Dump Leach No. 2 for Executive Secretary approval. The work plan will include detailed information on how Dump Leach No. 2 will be neutralized, leachate/rinsate quality parameters to be monitored, concentration limits for neutralization, and quarterly reporting of leachate/rinsate monitoring. The compliance schedule will include: commencement of neutralization on or before August 3, 1992, specific intermediate steps, milestones and time frames for completion of neutralization, dates for submittal of quarterly monitoring reports, and the final date by which neutralization shall be complete.

   The Executive Secretary shall review the Neutralization Work Plan and Compliance Schedule, or revisions thereto, and notify Barrick of approval or disapproval. In the event of disapproval the Executive Secretary shall specify the deficiencies in writing. Within 30 days of receipt of written deficiencies Barrick shall submit a revised Work Plan and Compliance Schedule that corrects all specified deficiencies. Upon Executive Secretary approval of the Work Plan and Compliance Schedule, Barrick shall execute and complete neutralization of Dump Leach No. 2 in compliance with the approved time frames and schedule.

4. Barrick shall submit on or before April 1, 1992 a detailed work plan and compliance schedule for closure of Dump Leach No. 2 for Executive Secretary approval. The work plan will include final construction-ready engineering plans and specifications and detailed description of all construction procedures, methods and materials for closure of Dump Leach No. 2. Closure design shall comply with the criteria provided Barrick for Dump Leach No. 3 in a letter dated May 7, 1990. Barrick shall submit an As-Built report to document the closure as per the approved plans and design. The compliance schedule will include the date closure construction will begin, which shall represent the earliest date possible; all intermediate steps, milestones, and time frames; the final date by which closure will be completed, and the date by which the As-Built Report will be submitted.

   The Executive Secretary shall review the Closure Work Plan and Compliance Schedule, or revisions thereto, and notify Barrick of approval or disapproval. In the event of disapproval the Executive Secretary shall specify the deficiencies in writing. Within 30 days of receipt of written deficiencies Barrick shall submit a revised Work Plan and Compliance Schedule that corrects all specified deficiencies. Upon Executive Secretary approval of the Work Plan and Compliance Schedule, Barrick shall execute and complete the closure of Dump Leach No. 2 in compliance with the approved time frames and schedule.

5. Barrick shall submit on or before July 1, 1992 a detailed plan and compliance schedule for post-closure monitoring of Dump Leach No. 2 for Executive Secretary approval. This plan shall comply with the criteria provided Barrick for Dump Leach No. 3 in a letter dated May 7, 1990. Ground water monitoring shall be limited to the existing monitoring wells at Dump Leach No. 2. The compliance schedule will include the date post-closure monitoring will begin, all intermediate steps, milestones, and time frames, and the date monitoring will cease.

   The Executive Secretary shall review the Post-closure Monitoring Plan and Compliance Schedule, or revisions thereto, and notify Barrick of approval or disapproval. In the event of disapproval the Executive Secretary shall specify the deficiencies in writing. Within 30 days of receipt of written deficiencies Barrick shall submit a revised Work Plan and Compliance Schedule that corrects all specified deficiencies. Upon Executive Secretary approval of the Work Plan and Compliance Schedule, Barrick shall execute and complete the closure of Dump Leach No. 2 in compliance with the approved time frames and schedule.

6. Barrick shall pay stipulated penalties to the Division of Water Quality in the event Barrick fails to meet the deadlines for each work plan, plan, report, deficiency response thereto, cessation of active leaching, neutralization, and closure of Dump Leach No. 2 as follows:

Required Ground Water Monitoring Reports	$200.00____ per day
Required Leachate Neutralization Reports	$200.00____ per day

Cessation of Active Leaching of Dump Leach No. 2	$1000.00___ per day
Neutralization Work Plan and Compliance Schedule	$500.00____ per day
Closure Work Plan and Compliance Schedule	$500.00____ per day
Post-closure Monitoring Plan and Compliance Schedule	$500.00____ per day
Commencement of Neutralization	$1000.00___ per day
Commencement of Closure	$1000.00___ per day
Completion of Closure	$1000.00___ per day

Amounts payable under this provision will be remitted within 30 days of written notice from the Executive Secretary that a deadline has been exceeded.

Barrick may petition the Executive Secretary for extension of any deadline imposed by this order for events beyond Barrick's control, including without limitation acts of God, public enemy, unforeseen strikes or work stoppages, fire, explosion, flood, tornado, earthquake, lightning, riot, sabotage or war. The Executive Secretary shall evaluate the petition and either grant it or deny it, in writing. Barrick may appeal any denied extension to the Water Quality Board within 10 days of receipt of the denial. Any fine levied under this section shall accumulate from the original due date unless the appeal is granted and a revised due date is set by either the Executive Secretary or the Board.

7. Nothing in this CONSENT ORDER shall constitute or be construed as a waiver by the State of its right to initiate enforcement action, including civil penalties, against Barrick in the event of future noncompliance with the Utah Water Pollution Control Act, nor shall the State be precluded in any way from taking appropriate action to abate an imminent endangerment to public health or the environment should such a situation arise at Barrick's facilities. Nothing in this CONSENT ORDER shall constitute or be construed as a release from any claim, to include natural resource damage claims, cause of action, or demand in law or equity which the State or Barrick may have against each other or any person, firm, partnership, or corporation for any liability arising out of or relating in any way to the release of pollutants to waters of the State.

8. This CONSENT ORDER expressly contemplates submission of certain plans, proposals and reports by Barrick to the Executive Secretary for his review and approval. Where opportunity for review and approval is provided, Barrick shall not proceed with the proposed activity unless and until approvals have been received. If agreement by Barrick and the Executive Secretary cannot be reached regarding any plan, proposal or report under this CONSENT ORDER, Barrick or the Executive Secretary may commence a declaratory order proceeding under the Utah Administrative Procedures Act and applicable regulations of the Board to resolve the disputed plan, proposal or report. The Board's decision in any adjudicative proceeding shall constitute final agency action and be subject to judicial review under applicable state law.

9. Barrick's failure to meet or satisfy any requirements set out in this CONSENT ORDER shall be excused for a reasonable time to the extent the failure is caused by events beyond

Barrick's control, including without limitation acts of God, public enemy, unforeseen strikes or work stoppages, fire, explosion, flood, tornado, earthquake, lightning, riot, sabotage or war.

This CONSENT ORDER shall become effective upon execution by Barrick and the Executive Secretary of Utah Water Quality Board.

DATED this ____ day of _____, 1991.

Barrick Mercur Gold Mine

By:_____

Title _____

Utah Water Quality Board

By:_____

Don A. Ostler, P.E.
Executive Secretary

BMD2RF3.SCO