m/035/002

DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY

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Governor

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Executive Director

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MEMORANDUM

TO: File

THROUGH: Dennis Frederick Dennis Frederick

FROM: Dan Hall Dan Hall

DATE: May 4, 2001

SUBJECT: 2000 Annual Report Summary and Ongoing Issues for the Bingham Canyon Mine and Leach Permit No. UGW 350010, Ground Water Discharge Permit.

In compliance with section K, permit reporting requirements of the Bingham Canyon Mine and Leach permit, Kennecott submitted the 2000 annual report. Reporting guidelines are detailed in Appendix E of the permit. In general, the annual report is required to document monitoring associated with the one of two wells sets in the permit; operational wells. The operational wells are intended to serve as a line of detection closer to the waste rock piles and leach circuit than the second set of wells, the compliance wells. In theory the operational wells will serve as an early detection for contamination that may escape the leach circuit and possibly cause contamination of the principal aquifer of the Jordan Valley. Should such a release occur Kennecott will be required to follow the guidelines of Appendix C as an interim action of a corrective action plan.

The permit, issued in 1999, suspended compliance and protection levels for the operational wells during the first permit term. It was agreed that Kennecott would conduct a study in an attempt to determine the effectiveness of the cut-off walls. The study will attempt to use isotopic tracers and age dating techniques to determine the age of water beyond the cut-off walls. Kennecott would like to argue that water and contamination to the Salt Lake valley aquifer has been stopped by the cut-off wall system. Therefore, the limits for operational wells should be set at the highest level of contamination beyond the walls. Otherwise, statistical data from the monitoring during the first permit term would be used to determine protection and compliance levels for the next permit term. The annual report provides the monitoring results and descriptive statistical data as stated in the permit.

The annual report does not include the study mentioned above. Sampling and analysis for the study has been completed, but modeling and interpretation of the data have not yet been completed. The permit does not state a submission date for this report but does set a date of 180 days prior to permit expiration, Kennecott must submit proposed limits for the wells. The proposed limits must be supported by the data and the report.

Compliance limits and protection levels have been set for the outer compliance well set. These wells are monitored on a quarterly basis as required in the permit and the results are submitted in the quarterly reports.

ONGOING ISSUES

Compliance schedule item 9 requires Kennecott to submit for approval, at least three wells with upward trends in sulfate or TDS for implementation of the interim actions outlined in Appendix C. These wells are have not been chosen, although discussions have been on-going with Kennecott. Results and analysis of the actions in Appendix C must be provided no later than 180 days prior to the expiration of the permit.

Kennecott submitted a Contaminant Investigation and Corrective Action Plan for the Keystone, Saints Rest and Dry Fork areas in compliance with schedule item 4. The submittal has not been approved and additional data and information has been requested, particularly on Dry Fork.

Kennecott submitted a mine closure plan in compliance with schedule item 3. The review and discussions with Kennecott and the Division of Oil, Gas and Mining (DOGM) have been productive although a formal approval of the plan is likely as much as a year or more away. Kennecott has requested and received 9 months to respond to comments form both DWQ and DOGM.

The isotopic and age dating study which Kennecott agreed to undertake should be completed and ready for review no later than June 1st.

DH:DO/FP:bjr

cc: Wayne Hedberg, DOGM
Brent Everett, DERR
Paula Doughty, Kennecott

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