Environment Canada | Environnement Canada

Prairie & Northern Region
Environmental Protection Branch
Twin Atria #2, Room 200
4999-98th Avenue
Edmonton, AB T6B 2X3

June 29, 2004

Greg Budge
Environmental Coordinator
Kinross Gold Corporation, Lupin Operations
9818 Edmonton International Airport
Edmonton, Alberta
T5J 2T2

Dear Mr. Budge:

Re: Historical Data Report Comments

The Technical Advisory Panel (TAP) has completed their review of "Lupin Gold Mine, Environmental Effects Monitoring Program, Historical Information Report", received December 9, 2003. The compiled review comments are appended. Please address the comments in the subsequent study design submission due no later than Dec 6, 2004.

If you have any questions or concerns, please do not hesitate to contact me [Email: Paula.Siwik@ec.gc.ca, Tel: (780) 951-8824, Fax: (780) 495-2758].

Sincerely,

Paula Siwik

Paula Siwik
Regional EEM Coordinator

Cc: Peter Blackall	Environment Canada, Regional Authorization Officer
Chuck Brumwell	Environment Canada, Northern Division Manager
Craig Broome	Environment Canada, Enforcement

Lupin Gold Mine Technical Advisory Panel

Chris Baron	Fisheries and Oceans Canada
Dionne Filiatrault	Nunavut Water Board
Meighan Wilson	Indian and Northern Affairs Canada
Anne Wilson	Environment Canada
Steve Harbicht	Environment Canada

Environment Effects Monitoring
Technical Advisory Panel Comments on "Lupin Gold Mine, Environmental Effects Monitoring Program, Historical Information Report"

General Comments

1. Mines are encouraged to follow guidance in the *Metal Mining Guidance Document* (MMGD). Other new material available for use is posted on the EEM web-site at **http://www.ec.gc.ca/eem/English/Whatsnew.cfm**.

Site Characterization

2. p. 7: Please provide more detail on the actual final discharge point. Are siphons used to move water from Pond #2 directly to Seep Ck or is effluent discharged into Dam 1 Lake or Dam 2 Lake?

3. p. 12: what percentage of the flow in Seep Creek is effluent during discharge? Please discuss how the creek flow will be affected during years of no effluent discharge.

Historical Monitoring Study Designs

4. p. 17: The TAP recommends that the current plume be delineated before submission of the study design. Please note specific information concerning the effluent plume is required under Schedule 5, 11 a) of the MMER.

Historical Information

5. p. 20: Please note, there has been a general shift in the EEM program towards the use of small-bodied forage fish as sentinel species. In general, these fish move less than large bodied fish species, and are therefore more likely to be exposed to effluent in water bodies receiving effluent discharge. The TAP recommends the use of at least one, preferable two, small bodied fish species in the adult fish survey. If historical reference areas do not have sufficient numbers of a suitable small bodied fish, other reference sites should be investigated.

6. p. 20: The historical fish data should facilitate the design of an Initial Monitoring Program. However, the sampling gear used in many of the past studies biased results towards larger bodied fish. The TAP recommends a field reconnaissance to determine the presence and abundance of small bodied fish in the exposure area.

7. p. 25: Could not find RL&L 1990.

8. p. 31: A number of fish had tissue mercury concentrations that exceed the MMER threshold for fish tissue (0.45 µg/g). Further discussion, and possibly investigation, may be warranted.

Conclusions

9. p. 34: The historical work provides valuable background and will facilitate the development of an Initial Monitoring study design. The benthic invertebrate recommendations presented in this section are valuable points. Based on the historical data, careful consideration must be given to exposure and reference area selection.

10. p. 35: If the adult fish survey moves into Seep Creek and includes Arctic Grayling, the TAP suggests a reconnaissance to determine the population structure and residence times of the individuals using the creek. It is possible that the majority of Arctic Grayling in Seep Creek are juveniles (p. 52 of RL&L and DFO 1991 report).

Appendix

11. Moore 1978: missing every second page

12. RL&L 1996: missing page 8 and every even numbered page from 30 onwards.