



**Royal Oak
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January 12, 1996

Ms. Laura M. Johnston
Division Manager
Environmental Protection Branch
Environment Canada
P.O. Box 370
Yellowknife, N.W.T.
X1A 2N3

Dear Ms. Johnston;

**RE: DRAFT REPORT - "REDUCING ARSENIC RELEASES TO THE ENVIRONMENT
IN THE NORTHWEST TERRITORIES - ACTION PLAN TO DEVELOP CONTROL
OPTIONS"**

Royal Oak Mines Inc appreciates the opportunity to assess the aforementioned document. The report has been reviewed and we would like to offer the following comments to assist in finalizing this document:

- 1) The approach proposed by the Environmental Protection Branch is well thought out and takes into account all of the technical and socio-economic issues that need to be considered in determining an acceptable balance on this issue.

However, we are concerned that to adequately inform the public, the comprehensive report should also include a quantitative probabilistic risk assessment of the impact on human health and the receiving environment that results from each of the management options that are being considered. This should then be compared with the risk as calculated by a similar analysis that is associated with the current emission situation.

In order for this task to be included, it is suggested that a new heading (section) titled "Health/Environmental Impacts" be integrated between Tasks C and D;

- 2) We are also questioning the proposed time schedule. Specifically, it is felt that there has not been sufficient time budgeted between now and the end of March 1996 to conduct an adequate job in collecting, assembling and interpreting all of the technical and socio-economic information which will be required to propose management options that properly take into



account all of the factors involved. If the comprehensive report does not include sufficient information on all of the technical and socio-economic factors surrounding this issue then the public will not be adequately informed. Hence they will not be in a position to meaningfully participate in reaching consensus on an appropriate management option for the reduction of arsenic emissions.

Finding the acceptable balance through risk assessment requires understanding, not only by those directly involved in the industry, but those who influence society's decisions through the media and through politics. Education is a key component in gaining a general appreciation for the balanced approach required. Without an adequately informed public, this consensus will be resolved on the basis of emotion rather than on a sound evaluation of risk; and

- 3) The reported annual releases for 1993 of 3.0 tonnes to the air on page 1 of the document is considered to be low compared to previous years. In reviewing the stack sampling data collected over the past 5 - 6 years, it appears that a number of 10 - 11 tonnes would seem more accurate.

We trust that the above outlined comments will be beneficial in finalizing this document. Should you require clarification or have any questions with regards to the above, please feel free to contact Mr. Erik Madsen, Superintendent Environmental Services at (403) 669-3729 or the undersigned at (403) 669-3701.

Yours sincerely;

Royal Oak Mines Inc.

John Stard
Mine Manager
Giant Mine