

GIANT YELLOWKNIFE MINES LIMITED
YELLOWKNIFE, N. W. T.
CANADA

June 27, 1966

Mr. J. W. Grainger,
District Engineer,
Dept. of National Health and Welfare,
Public Health Engineering Division,
541 Federal Public Building,
Edmonton, Alberta.

Dear Jack:

Further to our conversation of a couple of weeks ago, and to your request for further study of our water problems, I asked Ed Foster to review the studies done in past years and to get a picture of our situation at the present time. He has done this and I enclose a copy of his report to me. You will notice that since 1963 there has been a considerable change in the make-up of our effluent, especially with respect to the acidity of certain of the solutions and also with respect to the amount of soluble iron.

The three possible methods of reducing the concentration of soluble arsenic which were suggested in past years still in theory would work. However, all three of these suggestions have very serious drawbacks, the most important of which is the size of plant required to treat the several thousand tons of effluent produced each day.

At the present time the greatest offender is the overflow from the cottrell dust wash thickener. We don't know whether we can economically reduce the level of soluble arsenic in this solution, but if we could, it would certainly be a big help in reducing the effluent to a reasonable level of soluble arsenic.

Early last week we plugged a good number of the holes in the tailings dam and the Giant tap water assay immediately dropped. We have more work to do on the dam and hope to have it reasonably tight within another month. We feel that this is the only economic approach to reducing the tap water to an acceptable level of soluble arsenic.

If you have any ideas which could be of assistance to us, we would most certainly appreciate hearing from you. If you expect to be in Yellowknife during the summer, please drop in and we can discuss this whole problem in greater detail.

Yours very truly,

GIANT YELLOWKNIFE MINES LIMITED

Enc.
WAC/nh


W. A. Case
Mine Manager