

November 6, 1970.

Mr. S. Homulos,
Chief Mining Engineer,
Department of Indian Affairs
and Northern Development,
Oil and Mineral Division,
Northern Economic Development
Branch,
OTTAWA 4, Ontario.

Dear Mr. Homulos:

In reply to your letter of October 15th, we have also been concerned about the apparent drop in efficiency of our As collection system. We have closely studied all Stack Filtration tests taken since 1964 and find that efficiency may never have been as high as reported due to a misuse of formulae, and further that recovery of As has been relatively constant during this period (see table following):

<u>Year</u>	<u>No. of Tests</u>	<u>Corrected Efficiency Average</u>
1964	4	98.18%
1965	Nil	-
1966	3	98.32%
1967	4	99.00%
1968	2	98.81%
1969	3	97.67%
1970	3	<u>98.35%</u>
Weighted average for all years:		98.39%

I am enclosing a copy of these tests showing reported versus corrected results. You will note that the highest efficiency was 99.31% in May 1966. We would be interested in seeing results of stack sampling done by the Department of National Health & Welfare as we feel our sampling method may not be truly accurate.

(Continued)

In recent years the character of our ore has been fluctuating more than in the past with regard to arsenic and sulphur content. This may be having an unknown adverse effect on the operation of the Baghouse and account for the apparent drop in efficiency from 99.00% in 1967 to the 98.35% of this year. Our Consulting Metallurgist, Mr. J. M. Mortimer, will be visiting the property early in December and we intend to discuss this and the points mentioned in your letter at that time.

We are constantly trying to improve efficiency and periodically make changes in bag design and fabric to achieve this end. Last year about this time we installed 300 new bags in compartment 3 of our 8 compartment Baghouse and since then have found that this section is not functioning well. Considerable time and effort has been spent in an attempt to correct the problem, but it has now been decided that we will replace these bags early in the New Year, about 12 months ahead of schedule. This undoubtedly will result in a small improvement in collection of As.

As to frequency of sampling, we have been unable to locate your original directive and the procedure being used has been handed down by word-of-mouth through several staff changes over the years. For the present year we have submitted two tests and I am including an additional one with this letter. We would appreciate receiving a re-issue of your instructions and any further comments you may have on our method or timing of Stack tests.

Yours very truly,

GIANT YELLOWKNIFE MINES LIMITED.

D. J. Emery,
Mine Manager.

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Encl.