0455-10-13

Laboratory Services, Occupational Health Laboratory, 200 Kent Street, Ottawa, Ontario.

May 31, 1956.

Mr. R.J.C. Tait, Mill Superintendent, Giant Yellowknife Gold Mines Ltd., Yellowknife, N.W.T.

Dear Bob:

Following are the results of our analysis of the three samples you sent us. The amount by which our result differs from yours is shown as "per cent variation".

Table 1

Sample	0.H. Analysis	Giant Analysis	% Variation
A B C	40.65% As 252 mg As/1 0.043 mg As/1	40.22% As 239.99 mg As/1 0.075 mg As ₂ 0 ₃ /1	+1.06 +5.00
		(E0.057 mg As/1)	-24.5

Sample C was done seven times, the results ranging from 0.042 to 0.045.

The samples which we sent you were made up by appropriate dilutions of a standard stock solution of reagent grade As₂O₃. In the following, "per cent variation" indicates the amount by which your result differs from ours. The figures should not be interpreted too rigidly as your analyses were reported to only one significant figure; addition of two more significant figures might change the per cent variation figures appreciably.

Table 2

Sample	Amt. As203 added	Giant analysis	% Variation
1	5.94 mg/1	6 mg As ₂ 0 ₂ /1	+1.0
2	1.85	2 2	+8.1
3	0.04	0	
4	7.93	8	0.88

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Comparison of the two tables indicates that analyses in the lowest range (less than 0.05 parts per million which is the range that we usually find in tap waters) is rather unsatisfactory. I think that it would be desirable to run another series of four water samples ranging from 0.10 parts per million As down to about 0.01 parts per million. We shall therefore ship you four such samples today and include the analyses with the shipment.

Sincerely,

Art J.

J.P. Windish Industrial Hygienist