THE GONSOLIDATED MINING AND SMELTING GOMPANY OF GANADA LIMITED

CABLE ADDRESS

Sullivan Concentrator, Chapman Camp, B. C. June 1, 1951.

Dr. Kingsley Kay, Chief, Industrial Hygiene Laboratories, Dept. of National Health & Welfare, 200 Kent St., Ottawa, Ontario.

Dear Dr. Kay:

Herewith are arsenic determinations on Con and Yellowknife domestic water, also arsenic determinations on various Lake waters. You will note that the testing frequency was stepped up to a weekly bases in April in accordance with the arrangement agreed to in your letter of December 29, 1950.

Con	Domestic Water	Yellowknife Domestic Water
Date	Mgs/L	Mgs/L
March 3, 1951 April 6, 1951 " 20, 1951 " 27, 1951 " 27, 1951 " 11, 1951 " 18, 1951 " 25, 1951	.01 V .01 V .01 V .01 V .055 V .03 V .095 V .05 V	.01 .01 .01 .01 .01 .06 .04 .04 .05 .05
Kam	Lake, North End	Kam Lake, West side, near Grace Lake
Date	Mgs/L	Mgs/L
Feb. 9, 1951 " 26, 1951 Mar.12, 1951 Apr. 4, 1951 " 19, 1951	1.8 2.4 1.8 1.6 1.6	1.8 1.8 2.2 1.2 1.2 1.2 1.2

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SHEET NO. 2 CONTINUATION OF LETTER TO Dr. Kingslev Kay

Date Mgs/L		Rat Lake Mgs/L	

Frame Lake, near swimming pool

Date		Mgs/L
Feb. 9,	1951	1.1 ⁶
" 26,	1951	1.0 A

At this date water frozen to bottom of lake. No further specimens possible until break-up.

You will note the increased arsenic content of domestic water taken from Yellowknife Bay, commencing with May 4th specimens and the decrease, commencing with May 25th specimens. This is obviously a result of the break-up period when arsenic accumulated in snow is run off into the bay. The pattern of increase and decrease is similar to last year, except that the crest was reached in about two weeks this year as compared to a full three weeks last year.

During the period May 23rd to 27th, there was a considerable rainfall in the Yellowknife area. This would have the effect of washing any residual arsenic deposit into the bay, and, although at this time there was considerable open water along the shoreline, it is possible that diffusion of drainage waters into the main body of bay water was somewhat restricted. Consequently, we may experience a slight temporary rise in the arsenic content of domestic water. I would expect such an increase to be of only minor degree and of short duration.

We are continuing the weekly sampling routine until the arsenic content returns to normal levels.

Yours truly,

KR:ij Copies: (6) W.G. Jewitt H.C. Geigerich G.E.B. Sinclair Dr.O.L. Stanton File