

June 14, 1950

R. A. Gibson, Esq.,  
Deputy Commissioner,  
Administration of the Northwest Territories,  
Department of Resources and Development,  
Ottawa, Ont.

Dear Mr. Gibson:

As I wired you on June 5th, in reply to your telegram of the third, we have been carrying out arsenic determinations on water samples for the past several weeks. These include analyses of water from Yellowknife Bay in the vicinity of the camp, Baker Creek, and of our domestic water supply from the Bay. We are aware that the accurate determination of such minute quantities of arsenic (of the order of one part in ten million) is difficult and we have therefore sent out several samples for checking at other laboratories. I cannot say, as yet, that we are entirely satisfied with either our own or some of the outside determinations and, for your information I am listing below most of the analyses obtained to date.

Date (1950)	Origin of Sample	As <sub>2</sub> O <sub>3</sub> (Mg per litre)	
		Giant	As Other
March 11	Giant, Camp Tap Water	(0.006 ✓	0.0045
		(0.001 ✓	0.00075
17	Giant, " " "	0.012 ✓	0.009
	Ice, Baker Creek at Camp	1.000 ✓	0.750
20	Giant, Camp Tap Water	0.012 ✓	0.009 0.0075
21	Giant " " "	0.05 )	Less than 0.01-Con Mine
		0.0375 )	0.002-Provincial Laboratory
			0.00150 Edmonton
22	Yellowknife Bay, 500' east of Camp	0.007 ✓	0.005 " "
	Giant, Tap Water	0.05 ✓	0.05 - Beattie Gold Mines
28	Giant, " "	0.002 ✓	0.0015 0.037
31	Giant, " "	0.006 ✓	0.0045
April 1	Giant, " "	0.010 ✓	0.0075
5	Giant, " "	0.021 ✓	0.016
11	Giant, " "	0.031 ✓	0.023
15	Giant, " "	0.018 ✓	0.013
21	Giant, " "	0.080 ✓	0.060
25	Giant, " "	0.090 ✓	0.0675



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		As <sub>2</sub> O <sub>3</sub>	As	
May 18	Giant, Tap Water	0.180	0.135	
20	Giant, " "	0.170	0.127	
26	Baker Creek, above No. 2 Shaft	0.210	0.157	0.28 - Con Mine
	Giant, Tap Water	0.108	0.081	0.11 0.083 "
30	Giant, " "	0.226	0.169	
June 2	Giant, " "	0.239	0.179	
6	Giant, " "	0.200	0.150	
9	Giant, " "	0.148	0.111	
11	Giant, " "	0.244	0.183	
(11	Yellowknife Bay, Location 1-4)	0.020	0.015	

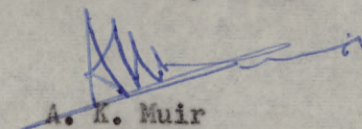
In view of the relatively low results reported by the Con Mine laboratory and the Alberta Provincial Analyst for the tap water on <sup>March</sup> April 21st, as compared with the determination made here, we are inclined to think that our analyses have generally been high.

You will note that the tap water increased considerably in arsenic content during the latter part of April, and since the twenty first of that month, we have been using water trucked from the Yellowknife town supply for domestic purposes here.

Sampling of water from the points marked on the map you forwarded with your letter of February 13th is now in progress and for your convenience, I am returning a copy of this map with the sample location numbers (1-1, 1-2, 1-3, 1-4, and 1-5) marked thereon. Sample locations for the tests now being made for vegetation are numbered on the map as 3-1 to 3-8 inclusive. These numbers, with appropriate data and analysis will be used in reporting the test results to you.

We are forwarding copies of this letter to Dr. O. L. Stanton, Medical Health Officer and to Dr. K. C. Charron of the Department of National Health and Welfare for their information. I trust that the foregoing will give you the information required and would assure you that the continuing survey which is now under way, will be carried out as set out in your previous letter.

Yours very truly

  
A. K. Muir  
General Manager

AKM/sm

cc: Dr. O.L. Stanton  
Dr. K.C. Charron