C-455-10-13

Dr. K. Kay.

~~C455-10-13.~~

J. P. Windish.

February 7th, 1956.

Yellowknife Visit.

I arrived in Yellowknife on January 14th and left on January 27th. During this time I collected all the usual grass and water samples and visited Mr. E. J. Colethorpe, Manager of Con Mines and Mr. K. Grogan, Mill Supervisor and Mr. R. Tait, Metallurgist of Giant. Mr. P. M. Pitcher the Giant Manager was out of town during my stay.

Giant has set up a pilot plant to test the operation of a new type of roasting process. Some tests were made just before Christmas; further testing is to be resumed very soon. Giant is hopeful that this new process will work out satisfactorily. If it does they intend scrapping their present roasting plant (consisting of an Allis-Chalmers roaster and a Dorrco roaster) and replacing it with this new type which will give a stack gas similar to that produced by the A-C. This type of gas has properties which enable arsenic to be collected from it by a Cottrell precipitator with an efficiency of upwards of 90%. The company has not decided what it will do if the new process does not prove satisfactory.

Meanwhile, their Cottrell is collecting about 70% of the arsenic contained in the roaster gases sent to the stack. This figure of 70% is the last one they have and was obtained some time in the Fall. Due to the difficulties and inconvenience of sampling in cold weather they have not taken any samples since then. I noticed that the plume from their stack seemed to be about the same density as it was in the summer of 1955 when we took our own samples and found their collection efficiency to be about 67%. This was considerably less dense in appearance than it was in the summer of 1954 when we found their collection efficiency to be about 40%.

When I visited Mr. Colethorpe at Con he volunteered the opinion that the Giant stack seemed to be putting out less smoke than when he first arrived in Yellowknife last July.

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Last spring during run-off time the arsenic in Con's drinking water rose to a relatively high level and stayed there much longer than it usually does at this time. Mr. Kurt Raht, Safety Engineer for CM & S Company thinks that it may be possible to find a stratum of water in Yellowknife Bay that contains less arsenic than the water they are now drawing in. Consequently it is planned to take samples of water at several different depths at each of several different distances out from shore in the direction of Mosher Island (their present supply is taken in this general area.) If a source of water having less arsenic than the present supply is found, the intake line will be lengthened so that the intake opening will draw water from this new location.

J. P. Windish.

JPW/ds