

455-10-13

Industrial Health Laboratory,
35 John St.,
Ottawa, Ontario,
May 22, 1950.

Mr. Kurt Raht,
The Consolidated Mining and Smelting
Company of Canada Limited,
Chapman Camp, B.C.

Dear Mr. Raht:

This is in reply to your letter dated March 31st, 1950, addressed to Dr. K. Kay. Before going into the matter Dr. Kay has asked me to apologize for the delay which was due to a combination of circumstances. Dr. Kay has been away in the United States on several extended trips and there have been numerous assignments which have interfered with the preparation of the analytical methods.

I am enclosing for your information one copy each of our Gutzeit method and our molybdenum blue method.

In my opinion, the molybdenum blue method is superior to the Gutzeit in every respect. It is reproducible from day to day and does not seem to be subject to variations due to different analysts. Conditions affecting the answer obtained by the Gutzeit method are extremely numerous and not easily controllable, which may account for a growing trend among chemists toward the use of the molybdenum blue method. It is the method most commonly employed in industrial hygiene work. The molybdenum blue method used here includes as part of its make up a distillation which, in our opinion, eliminates interferences not necessarily recognized when the Gutzeit method is used. We have found, also, several samples with which the Gutzeit method could not be used, but which were easily handled by the molybdenum blue method. You are undoubtedly familiar with the conditions affecting the Gutzeit method as outlined in Scott's Standard Methods of Analysis and the A.O.A.C.

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Smooth continuous curves in our experience are obtainable by the Gutzeit method for a given run made at the one time. However, curves for various runs were not superimposable and hence not reproducible.

I hope that this information will be of assistance to you, and I shall be glad to hear from you if I can be of any further service.

Yours very truly,

J. L. Monkman,
Chemist.

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