

ALL OFFICIAL CORRESPONDENCE  
SHOULD BE ADDRESSED TO THE DIRECTOR.

DIVISION OF ORE DRESSING AND  
METALLURGY

G. C. MACKENZIE, B.SC., CHIEF OF DIVISION  
W. B. TIMM, B.SC., 1ST ENGINEER  
C. S. PARSONS, B.SC., 2ND ENGINEER  
H. C. MABEE, B.SC., CHEMIST  
R. J. TRAILL, ASST. CHEMIST  
B. M. DERRY, MILLMAN



MINES BRANCH

EUGENE HAANEL, PH. D.  
Director.

OTTAWA, Ont., Dec. 11th, 1918

Report of Ore Dressing and Metallurgical Laboratories.

Test No.- 104

A shipment of placer scheelite concentrates was received on August 13th, 1918, from D.E. Clindinin, Dawson, Y.T. This shipment consisted of 10 bags having a gross weight of 1301 pounds and a net weight of 1293 pounds.

A sample was cut out by means of the Jones Riffler Sampler for analysis.

Net Weight Received-----1293 pounds.

Analysis-----W<sub>3</sub>-----66.50%

Au.----- 8.30 ozs.

Ag.----- 1.20 ozs.

Content-----W<sub>3</sub>-----859.845 pounds

Au.----- 5.367 ozs.

Ag.----- 0.776 ozs.

The concentrate was crushed to pass a 40 mesh screen in rolls and the metallics caught on the screen. These metallics contained the coarse gold and represented approximately 55% of the gold values. They were melted down into Bullion.

Weight of Metallics-----150 grams.

Weight of Bullion obtained----3.12 ozs.

The concentrate through 40 mesh was sampled, weighed, and packed for shipment as follows:-

Gross Weight -----1300 pounds

Net Weight-----1285 pounds

Analysis-----W<sub>3</sub>-----66.90%

Au.----- 3.30 ozs.

Ag.----- 0.18 ozs.

104



ALL OFFICIAL CORRESPONDENCE  
SHOULD BE ADDRESSED TO THE DIRECTOR.  
DIVISION OF ORE DRESSING AND  
METALLURGY

G. C. MACKENZIE, B.SC., CHIEF OF DIVISION  
W. B. TIMM, B.SC., 1ST ENGINEER  
C. S. PARSONS, B.SC., 2ND ENGINEER  
H. C. MABEE, B.SC., CHEMIST  
R. J. TRAILL, ASST. CHEMIST  
B. M. DERRY, MILLMAN



MINES BRANCH  
EUGENE HAANEL, PH. D.  
*Director.*

"2"

OTTAWA, Ont., Dec. 11th, 1918.

Content-----"O<sub>3</sub>-----859.665 pounds

Au.----- 2.12 ozs.

Ag.----- 0.115 ozs.

Amalgamation and Cyanide Tests were made on Samples of the concentrate through 40 mesh. The results of the amalgamation tests were as follows:-

Assay before amalgamation-----Au.---3.30 ozs.

Ag.---0.18 ozs.

Assay after amalgamation-----Au.---0.21 ozs.

Ag.---0.03 ozs.

Extraction of gold values-----90.6%

Extraction of silver values-----83.3%

Cyanide Tests were made on samples of the concentrates, crushed to 40 mesh and crushed to 100 mesh but gave poor results. The tests made on the concentrate without washing showed an extraction of 50% of gold and silver values with a very high consumption of Cyanide; on the washed concentrate, the extraction was 20% of the gold values on the 40 mesh material and 60% on the 100 mesh material with a low consumption of Cyanide.

Conclusions:- From the above tests it was found that the gold and silver values in the concentrate was in the form of coarse flake, 55% of which could be caught as metallics in crushing to 40 mesh and 90% of the remaining gold values and 83% of the remaining silver values could be recovered by amalgamation.

(Sgd.).....*W.B. Timm*