BC Geological Survey Assessment Report 40038

Ministry of Energy and Mines
BC Geological Survey

Assessment Report
Title Page and Summary

TYPE OF REPORT [type of survey(s)]: Metallurgical

TOTAL COST: 3840

AUTHOR(S): Arbic

SIGNATURE(S):

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S):

YEAR OF WORK: 2021

STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): 5857300,301

PROPERTY NAME: Hauk Creek

CLAIM NAME(S) (on which the work was done):

COMMODITIES SOUGHT:

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN:

MINING DIVISION: 400790E 5408827N Z10

NTS/BCGS:

LATITUDE: ____ ° ____ ' ____ " **LONGITUDE:** ____ ° ____ ' ____ " **(at centre of work)**

OWNER(S):

1) 2)

MAILING ADDRESS:

OPERATOR(S) [who paid for the work]:

1) 2)

MAILING ADDRESS:

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:

Next Page

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for...)			
Soil			
Silt			
Rock			
Other			
DRILLING (total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying			
Petrographic			
Mineralographic			
Metallurgic	1		3840
PROSPECTING (scale, area)			
PREPARATORY / PHYSICAL			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail			
Trench (metres)			
Underground dev. (metres)			
Other			
		TOTAL COST:	

Technical Report

Experimental Comparison of Assays of Non Magnetic Concentrates and Magnetic Concentrates of Ore from Hauk Creek

Victoria Mining District

92C

UTM Co-ordinates
400790E 5408827N

Owner of Claims is Dean Arbic FMC# (133434)

Report Written by Dean Arbic

Work Performed and Supervised by Dean Arbic

Event Numbers
5857300
5857301

Report Date March 15 2022

Table of Contents

Introduction and Claim Location and Geological History

The samples in this report is from a claim group in the Cowichan Valley. The sample tested in this report is from claims owned by the author and located in the Gordon River Area on a tributary of it called Hauk Creek.

The sample is from an old gold/lead/zinc quartz vein called the Paget Deposit. To get to the claims you travel 11 kilometers west on SouthShore Road from the town of Lake Cowichan to the Gordon mainline and drive 16 kilometers southwest to the Gordon River. And if you turn right and the road intersection at the Hauk Creek and the Gordon river and drive 8 kilometers north to the claim group where I found this sample . The samples are from the Corona claim.

The Paget showing is located on a southern facing slope over Hauk Creek, approximately 7 kilometres south of Caycuse on Cowichan Lake. The workings are located at 808 and 758 metres elevation and consist of an upper and lower tunnel.

The area is underlain by granite, diorite and granodiorite of the Early to Middle Jurassic Island Plutonic Suite.

The upper tunnel was driven at 070 degrees for 18.3 metres on a well-defined quartz vein. The vein is about 1.8 metres wide and is mineralized with arsenopyrite, pyrite, sphalerite and minor galena. High gold values have been reported, but the values must be sporadic because a sample from the dump containing arsenopyrite assayed negative results.

The lower tunnel, almost parallel with the upper tunnel, was also reported to be 18.3 metres long. The tunnel is flooded however and therefore cannot be explored. This tunnel was apparently in gravel and no ore was encountered.

In 1980, Union Miniere completed a program of soil sampling and prospecting on the area as the Lui claim. In 2013, the area was prospected as the Annular claim (owned by the author of this report) and one sample of magnetite float assayed 18 grams per ton gold.

The objective of this report is to determine if a simple method can be used to extract any metals from the ore. After the ore was selected and crushed it was magnetically separated and roasted then mixed with flux and fired in a kiln, to find out if certain metals respond differently to the same flux. It has been a long term goal of mine to produce metals from my claims and it has proven to be much more difficult than I expected.

Technical Work Description

Four kilograms of ore that resembles a type if Franklinite due to the zinc iron and manganese content, but then it also has lead and copper, silver and gold, was sliced and crushed up. To reveal the metallic distribution within. Two kilograms with the most metallic luster and blebs were broken up with a hammer and anvil into smaller chunks and placed in the Electric Ball mill and crushed for two hours.

Sixty-eight grams of ore crushed into particles approximately sized 200 mesh. was removed from the Ball Mill in a slurry form. And placed in a Homemade Electric Magnetic Hydrocyclone. Of the 68.2 grams of Ore that was placed in the Seperator, 34 grams was highly magnetic and was seperated from the other 34.2 grams. Both samples were placed in Pyrex dishes and dried in an oven at 400 degrees F. for an hour each. Then each sample was weighed then placed in the Muffle Furnace at 1000 degrees F. on ceramic clay dishes for 3 hours. Then 34.2 grams of Non magnetic ore was mixed with 70 grams of Melting Flux and placed in graphite crucible heated to 1100 Degrees F. for 2 hours. And also 34 grams of the Highly magnetic ore was mixed with 70 grams of the same flux and heated for 2 hours. The crucibles were poured and the prills inspected.

Steps and Procedures;

Step #1 4 kilograms was studied by slicing and crushing and analysed under the microscope.

Step #2 2 kilograms further crushed with a hammer and anvil to fit in the Electric Ball Mill.

Step #4 Slurry was extracted from the mill containing 68.2 grams of ore that was placed in the Magnetic Seperater.

Step #5 34 grams of highly magnetic material was taken out and 34.2 grams of non magnetic material was taken out.

Step #6 the samples were dried in an oven then 5 grams of slaked lime was added roasted at 1100 degress F. for 3 hours each.

Step #7 the sample were mixed with flux and placed in graphite crucibles and melted at 1100 degrees F. for 2 hours then poured into a prill mold analysed and weighed.

The melting Flux consists of Anhydrous Borax, Sodium Carbonate and Silica Sand.

Statement of Cost for Events # 5857300, #5857300

Microscopic Analysis of samples 3 hours @ $125 per hour …..... $375.00
May - June 2021

Sample prep; Hand Crushing, screening, 2 hours @ $125 per hour.....$250.00

Ball Mill Operating 2 hours @ 150 per hour.....$300.00
July 2021

Magnetic Seperater Hydrocylone Operating 2 hours @ $200 per hour.....$400.00
Nov 2021

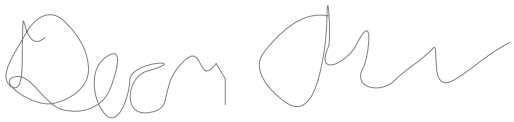
Drying Oven operating and weighing 2 Hour @ $125 per hour.....$250.00

Muffle furnace operation 5 hours @ $300 per hour …..$1500.00
Nov - Dec 2021

Microscopic Photographs and Report Cost.....$548.00

Material costs; clay crucibles, flux, electricity, Safety supplies, parts.....$217.00

Technical Work Total.....$3840.00



I Dean Arbic declare this to be true and correct.....March 15 2022

Equipment and Tools Used

Hand tools and supplies; Hammer and anvil, screens, thongs, Graphite Prill Mold, and Clay One Shot Crucibles, Ceramic trays, Pyrex bakeware, High Temp. Safety clothing, PPE.

Smelting Flux; GPK Premium Melting Flux

Electric Homemade Ball Mill 8 amp. 120 volt. AC.

Homemade Magnetic Hydrocyclone Seperator; electric impeller @ 3 amp. 120 volt. AC., Electric water pump @ 2.5 amp. 12 volt DC., 4 electromagnets @ 3 amps. 12 volt. DC each, Neodynum Magnetic Hand Wand.

Household Toaster oven 1500 watts

Amaco 15 amp small Enameling/Muffle Electric Furnace

GEM Bifocular Geology Microscope Magnification 10X-30X with WebCam

Report Written on a Lenovo Idea Pad laptop Computer with Apache Open Office 4.1.1 and photos labelled by Windows Paint Program and Acrobat Adobe Reader

Photography by Anita Genovese Arbic and Divinity Arbic using a I Phone and Sony Cyber-shot 16.1 mp digital camera.

Qualifications : 20 years Feild work and self taught Experimental Assay techiniques, Grade 12 High School Diploma from Erindale Secondary High..

References

MINFILE No 092C 086
MINFILE No 092C 046

Interpretations and Conclusions

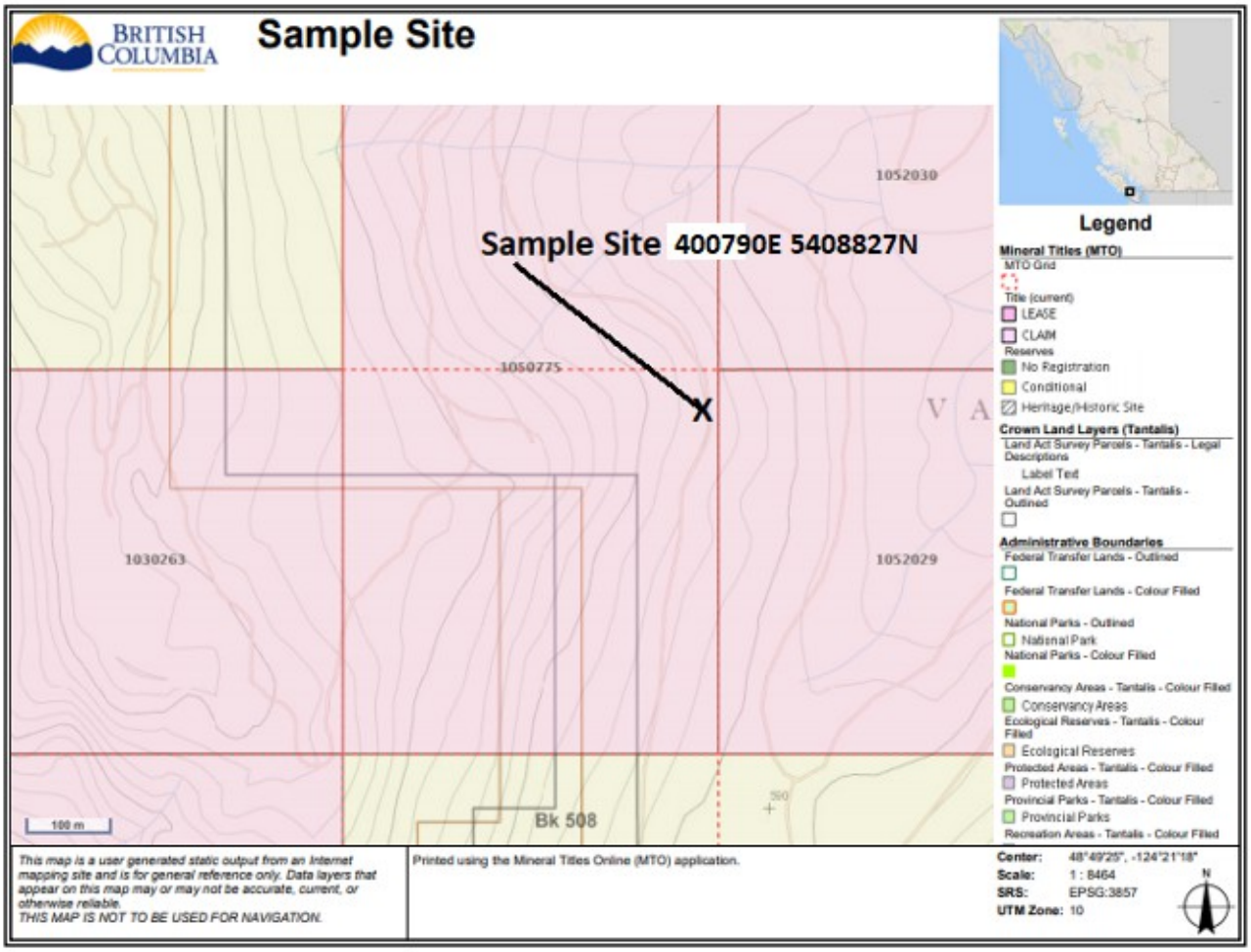
This project was very interesting. After the ore was crushed and was run through the magnetic separator The ore was separated pretty well half magnetic and half non magnetic. When the non magnetic ore was being roasted I noticed some had started melting while roasting at 400 degrees F. I took a piece and took a photo with the microscope at 30X mag. This could be because previous assays of samples from this location indicated that ore in this area carries zinc, lead copper silver and 1420 grams per ton manganese. The natural occuring manganese may have acted like flux and began melting some lead or zinc at a lower temperature than expected.

The non magnetic ore did produce a metallic button in the green glassy prill. But the button is very small and only weighs 0.54 grams. It is a dark metal grey and may be magnanese. I will send any buttons produced from this work to a lab to confirm what it is at a later date.

The magnetic ore didnt produce a button. But upon looking at it under the microscope I noticed it was full of small bubbles that are silvery in the middle and brassy in the surrounding bubbles. These bubbles may show that two types of metal were escaping as gas. Based on this I will be building a system to collect and condense the exhaust gases to see what metals are escaping as vapours. But no really useful result was produced from this experiment. This method will not produce any product from this ore and magnetically separating the ore had little effect on the results.

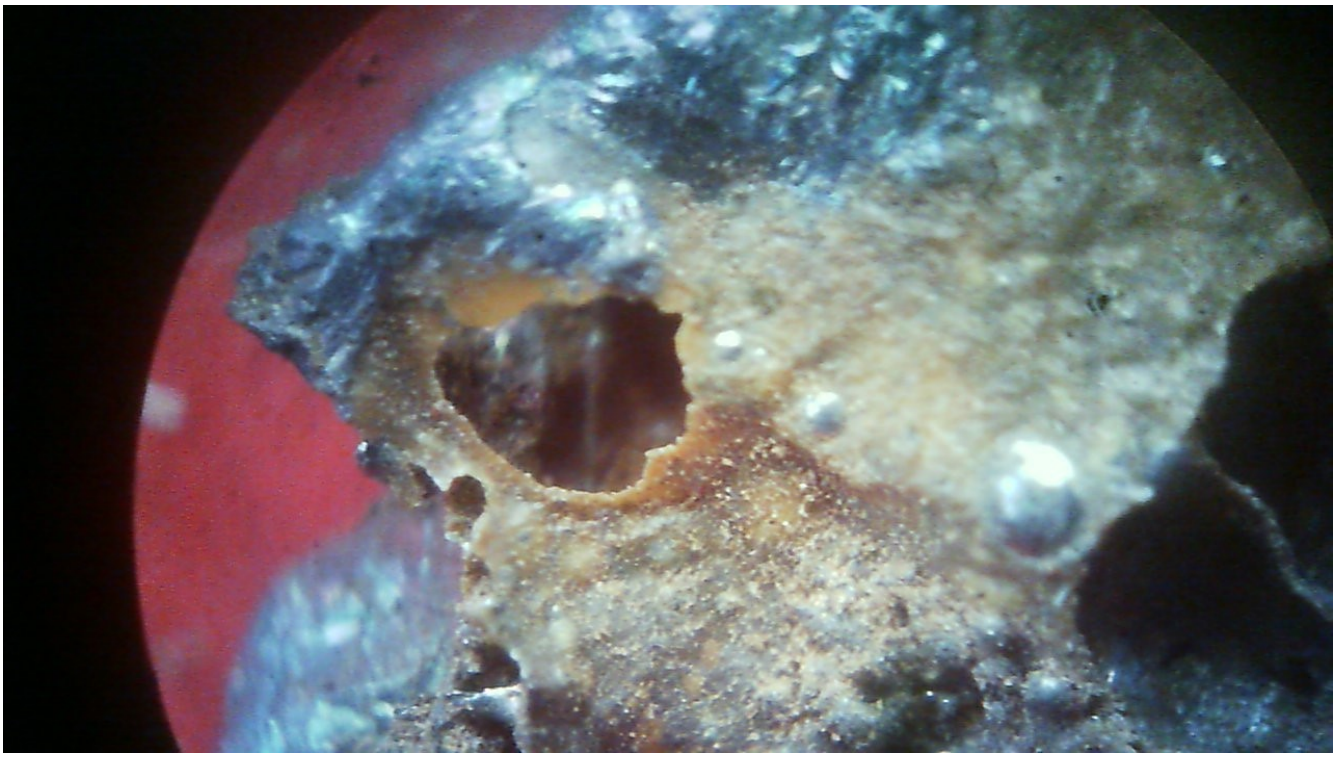
Current Claim Description

Title Number	Claim Name	Issue Date	Good To Date	New Good To Date	# of Days For-ward	Area in Ha	Applied Work Value	Sub-mission Fee
988262	ANNULAR	2012/MAY/20	2022/MAR/12	2023/JUL/12	487	21.27	$ 567.40	$ 0.00
1030263	TOTAL	2014/AUG/13	2022/MAR/12	2023/JUL/12	487	21.27	$ 567.53	$ 0.00
1050775	CORONA	2017/MAR/15	2022/MAR/11	2023/JUL/12	488	42.53	$ 850.10	$ 0.00
1052029	DIANA	2017/MAY/17	2022/MAR/11	2023/JUL/12	488	21.27	$ 406.87	$ 0.00


BRITISH COLUMBIA
Sample Site
Sample Site 400790E 5408827N
1052030
1050775
1030263
1052029
Bk 508
100 m
Legend
Mineral Titles (MTO)
MTO Grid
Title (current)
LEASE
CLAIM
Reserves
No Registration
Conditional
Heritage/Historic Site
Crown Land Layers (Tantalis)
Land Act Survey Parcels - Tantalis - Legal Descriptions
Label Text
Land Act Survey Parcels - Tantalis - Outlined
Administrative Boundaries
Federal Transfer Lands - Outlined
Federal Transfer Lands - Colour Filled
National Parks - Outlined
National Park
National Parks - Colour Filled
Conservancy Areas - Tantalis - Colour Filled
Conservancy Areas
Ecological Reserves - Tantalis - Colour Filled
Ecological Reserves
Protected Areas - Tantalis - Colour Filled
Protected Areas
Provincial Parks - Tantalis - Colour Filled
Provincial Parks
Recreation Areas - Tantalis - Colour Filled
This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.
THIS MAP IS NOT TO BE USED FOR NAVIGATION.
Printed using the Mineral Titles Online (MTO) application.
Center: 48°49'25", -124°21'18"
Scale: 1 : 8464
SRS: EPSG:3857
UTM Zone: 10
N

Sample Photo

Microscopic Picture of Roasted Ore



This picture shows how some of the non magnetic ore started melting during roasting at 30X magnification.

Photo of Button produced from the Non Magnetic Ore

30X Magnification

Microscopic Photo of Prill Glass of Magnetic Ore