

List of copied reports for Preto.

~~Plaza~~ ~~1949~~ 1949 pp A115-124 (Guilherme)

✓ Lode Metals 1956, pp 47-69

✓ 1957 pp 29-31

✓ 1958, p. 29

✓ 1959, p. 39

✓ 1961 pp 46-48

✓ 1962 pp 58-60

✓ 1963 pp 58-59

✓ 1964 pp 97-98

✓ 1965 pp 158-9

from
Mark
area

J. M. Carr

92I/9w & 10E

Memo - Kamloops.

- 1) Look for 6' quartz-chry vein which is supposed to cut Kamloops volcanics $\frac{1}{2}$ way between T.C.H. and Kamloops Lake, NW of I.M. mine. (Livingston rept p. 20)
- 2) Picrite - Livingston (p 10)
has it cutting Tranquille sediments and volcanics on N slope of Coal Hill. J.M.C. figures the rock is ~~not~~ picrite all right but that the soft Tranquille sed. are draping over it, not cut by it. This locality is very important to establish the age of the picrite.
- 3) Clifton Gp. 4 holes drilled by Horanuk in 1958. See if we can find the core + locate holes
- 4) D.M. Group (1959) - Adamet Mines drilled a hole just NE of shaft (Livingston p. 24)

Galaxy

- 1957. \approx 200 ft of small diameter D.D.H.
- 1961 - Mainly on Evening Star + Golden Star claims - 9004' (surface, totalling 4263'), 4435' trenching, road construction, peccen + geophys.
- 1962 - Same place as above. 11 surface D.D.H's (tot 5416'), 3378' trenching, 2000' roads.
- 1963 - IP survey on above ground, 8 surface D.D.H (2963' tot)
- 1964 - IP on entire property.

Makao

- 1957 - EM survey made by Shield Surveys on 7 claims East of a point 1 mile south of Python workings.
- 1958 - 66 ft. D.D.H and 220' of trenching. Also self-potential survey.
- 1961 8 D.D.H (total 3126'), trenching, stripping, road building. This work was partly close and NE of Monday shaft, and partly 1500' E of this shaft.
- 1963 - IP survey, stripping and DD.
- 1964 - Optioned by hollowing hills. 11,865' percussion drilling.

SPINBOLD

Ajax.

1957. 4552 ft DDH on 11 SE-inclined holes (See JMC blue book "AJAX")

1961 2 DDH surface (tot 1004 ft).

D.M.

1957 soil sampling + geol mapping.

4 holes (living-tonis rept)
p. 24

~~(D.M.)~~ 1958 optioned by Morande who did geol mapping, EM, self-potential and trenching + 800' of DDH (B.X.) - Option was dropped

→ 1959 - 3 DDH holes (total 797') -

Cadamet

→ 1962 - 3 DDH's (837' tot)

Cadamet.

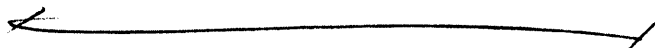
Iron Mask

1961

Call + Stack

See Opened up mine - see details
in Ann. Rept.

1962. 11,000' underground DSH. , then allowed mine to flood.



1965

Vanco took over 9 companies: Kamloops Copper,
Mackay, Galaxy etc.

Work was done by Sulmac Services and included
geological, geophysical, geochemical surveys and
some DSH on Galaxy property

KAMLOOPS MINES LIMITED.

J Argall Manager.

This Company is working the Iron Mask Mine which is situated about six miles southerly from Kamloops.

Shipments are made from a siding near Cheery Creek about three miles distant from the Mine.

Ore is transported from the Mine to the siding by horse teams and sleighs during the winter, and on wagons drawn by traction engine during the summer.

The product from this Mine consists of copper ore and concentrates.

The values of the ore are from 5 to 10% copper with about \$2. gold and silver.

The value of the concentrates per ton is about as follows:—

Au.—.13oz. Ag.—2.5oz. Cu.—12.2%. Fe.—31%. Si.₂—19.9%
Al.—11.9%. Ca—4.9%. S.—12.4%.

During the winter months the Concentrator plant is not operating .

The production from this mine is about 200 tons of concentrate per week during the season when the plant is in operation, and about 200 tons of ore per week.

The Manager informed me that at the present time he is shipping to the Trail and Grand Forks Smelters. He also informed me the treatment rate charged for his ore, inclusive of freight from the Siding to the Trail Smelter was \$3.50 per ton, and the rate to Grand Forks, freight inclusive, is \$4.00 per ton.

The deductions made are 1% off wet assay and 4 cts. per lb. copper off New York price for electrolytic copper.

He informed me that if the Tyee Co. would smelt his ore at the same rates for freight and treatment and deduct only .8 % from the wet assay, that he would make a contract to ship 5000 tons at the rate of 200 tons per week, and if satisfactory would increase contract to 10,000 tons.

I also met Mr. John Merrish a Director of the Company who is out from England on an inspection tour. This gentleman complained bitterly relative to the deductions made by the Smelting Companies between the wet and dry assay.

The Manager informed me that he could step down about 12,000 tons of ore which he did not desire to concentrate above the 200 foot level.

The Mine is opened to the 600 foot level.

The Post Office address of this Company is Kamloops, B.C.

John M. Merrish

Kamloops
Victoria, B.C.

Feb. 14, 1905.

My dear Mr. Kiddie:—

With regard to shipments of ore from Kamloops the chief difficulty with which the Mine Owners there have to contend is the haulage from the mines to the railroad. The local owners of teams want to charge \$1.50 per ton for hauling ore down hill a distance of about 3 1/2 miles. The road is such as would be considered a good wagon road and if such teams and wagons were employed as are usually used for hauling ore in mining camps 5 tons should be taken out at a load with 4 horses.

It appears to me as though this ore should be hauled at a considerably less cost, in fact one of the mine owners told me himself that if he owned his own teams he could haul ore at a cost not to exceed 75 cts. per ton.

This gentleman has between 4 and 5000 tons of low grade fluxing ore, which we can buy for the Smelter provided we could obtain a rate for hauling such as the grade of the ore would stand for instance \$1. per ton.

Yours very truly,

J. M. Brown

Victoria, B.C

Feb. 14, 1905.

Dear Mr. Kiddie:—

During my recent trip to Kamloops I found I could obtain for the Tyee Copper Company about 5000 tons of low grade ore the chief value of which would be for its fluxing qualities.

The chief difficulty which presents itself is the railroad freight from Kamloops to Ladysmith but as I understand that sometime back the C.P.R. Co hauled iron ore from the Glen Iron Mines near Kamloops to Vancouver for \$1. per ton I presume of course you can obtain the same rate to Ladysmith as there would be no necessity to break bulk at Vancouver.

The iron ore which I referred to was taken out for the Everett smelter for fluxing purposes.

The fact that at the present time there are a large number of cars being hauled through Kamloops to the Coast empty which after they reach Vancouver are loaded with ore for the North West Territories will undoubtedly prove a very strong argument with the Railroad Co. in influencing them to make you the same rate as they made to the Everett people. I am reliably informed that for some time past the C.P.R. has been hauling quite a large number of empty cars from Kamloops to the Coast which are returned loaded with lumber.

Yours very truly,

John M. Brown

1) Makao

92I/9w610E

JMC's notes

According to the Co. (28 Sep 56 press announcement): 343 tons per vert. ft over 3776 sq ft
at 2.06% Cu. (9 1/2 cu ft. \approx per ton)

i.e. for 300' depth (from surface to level) 68,600 tons
(new adit proposed 300' lower than existing one; if
potential continues to that depth, it would give
total 171,500 tons.

Copperhead: area of 2350 sq ft at 1%+ (195 tons per vert. ft) (39,000 tons for
200' vert.)

Makao Pythm: $30' \times 200' \times 1\% \times 200' \text{ vert.} = 1,200,000 \text{ cu ft.}$
 $= 100,000 \text{ tons at } 1\%+$

2) Kamloops Copper

$1277 \times .5 \times 80' \text{ vert} = \del{480,000} 480,000 \text{ cu ft at } 2\frac{1}{2}\%$
 $= 40,000 \frac{\text{tons}}{\text{cu ft}} \text{ at } 2.5\% \text{ or better}$

[Co. comp ~~4,000~~ 1,100' x 6' x (80) at 4.4% Cu (\approx 700 tons per vert. ft).

NB - This figure assumes the \$10' zones are continuous with Larsson
— seems very unlikely. Actual proved figure is far less — ca. 6,000 tons
on basis of 100' x 3' x (60) . & 10 cu ft per ton.

92I/9w610E

92I/9w4ne



WHEN REPLYING PLEASE REFER TO

FILE NO.....

DEPARTMENT OF MINES AND PETROLEUM RESOURCES
VICTORIA

August 8, 1967.

Mr. V. A. Preto,
Geologist,
c/o General Delivery,
Kamloops, B. C.

Dear Mr. Preto:

Further to my last letter, enclosed is copy of letter from L. G. Phelan re Kimberly Copper Mines' holes and core.

After meeting Carr at Quilchena and discussing what you could and should do, you should proceed at once to Howson Basin. This is because the Basin is high, and there would easily be snow (permanently) after September 15th. If you get to the Basin August 30th or 31st you will do what seems wise in a maximum time of two weeks, although it is not essential that you stay that long. Sutherland Brown or Carter will probably pay you a visit.

You will then return to do the work at Quilchena and then the Newmont property opposite Copper Mountain.

Yours very truly,

M. S. Hedley,
Chief, Mineralogical Branch.

MSH:rm

Encl.: letter - Phelan



1967 CENTENARY OF THE CONFEDERATION OF CANADA.

92I N2010

2373

L. G. PHELAN, M.A.Sc., P. ENG.
CONSULTING GEOLOGIST
Suite 508 - 80 Richmond St. West,
TORONTO 1, Ontario.

August 4, 1967.

Mr. M. S. Hedley,
Chief, Mineralogical Branch,
Department of Mines & Petroleum Resources,
VICTORIA, B.C.

Dear Sir:-

Your letter to Kimberly Copper Mines re drilling in the Iron Mask batholith area has been referred to me for reply.

U Kimberly drilled three holes on the crown-granted claims just north of Knutsford. Hole #1, on claim L.1449 is vertical and collared at 8 / 00 N, 22 / 00 E. Hole #2, on L. 1447, is at 7 / 30S, 43 / 20E, and Hole #3 is at 8 / 20S, 41 / 00E. Both strike southwest and dip at - 45°. I believe our line grid should still be visible so you can relocate the collars.

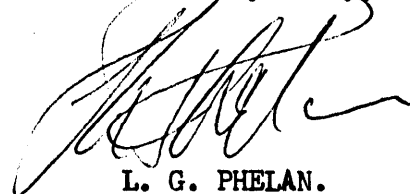
We then drilled four holes in the vicinity of the Joker adits; #1 at 0 / 90S, 0 / 15W; #2 at 1 / 50S, 2 / 00E, both vertical; #3 at 0 / 00S, 15 / 00E, striking at 85° and dipping at - 45°; and #4 at 1 / 30S, 0 / 60E, also vertical. Again I believe the line grid should be readily located.

We also attempted two holes several hundred feet to the north; but failed to reach bedrock.

All of the above core is, I believe, stored in the shack near the Joker adit, and you are most welcome to examine it. I would be interested in reading the results of your study.

By the way, are you the Hedley who was doing post-graduate work at Toronto about 1951, when I was there? If so, best regards. I'll drop in when next out there.

Yours very truly,



L. G. PHELAN.

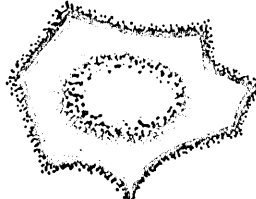
LGP/HMc

DEPT. OF MINES AND PETROLEUM RESOURCES		
Rec'd AUG 4 1967		
<i>[Handwritten initials]</i>		
	7/8/67	<i>[Handwritten initials]</i>

XEROX to Mr. Preto

Mr. V. A. Preto

For information.



July 26th, 1967.

Department of Mines &
Petroleum Resources,
Victoria, B. C.

2317

Attention: Mr. M. S. Hedley,
Chief, Mineralogical Branch

Dear Mr. Hedley:

We acknowledge and thank you for your letter dated July 21st, 1967 and have forwarded your request to our Engineer, Mr. L. G. Phelan, who will supply all information to you.

Core recovery on holes numbered 1, 2, 3, 7 & 8 in the Iron Mask area near Kamloops was not too successful and we should mention that much better results were obtained with percussion drilling.

You may be assured of our permission for your geologists to examine core from the above mentioned drill holes. If you need any further information, we will gladly comply with your request.

Yours truly,
KIMBERLEY COPPER MINES LTD.

C. C. Rollins

C. C. Rollins,
President

CCR/am

DEPT. OF MINES AND PETROLEUM RESOURCES	
Date: _____	
SKV	
MSK	

KIMBERLEY COPPER MINES LIMITED

11th floor 20 Toronto Street Toronto 1 Ontario 363-5861

92E/19W/10E

Feb. 26/68

1036

Dear Dr. Preto;

This is a nice reference to Ed's work, and I believe he will be as pleased as we are. I know he discussed his work and mapping with Mike Carr who was happy to take advantage of the detailed studies Ed had made. It sounds fine. Sincerely,
Ralph Haed

DEPT. OF ...
MAY 2 1969
GARY
ALB

0000

KAMLOOPS

IRON MASK BATHOLITH - EASTERN PART

by
V. A. G. P.

Geology of the
Copper

Considerable more work has been done by exploration companies on the eastern part of the Iron Mask batholith since 1956 when J. M. Carr studied the geology of this complex pluton and of its associated copper deposits. This work, mainly in the form of diamond drilling, trenching, geophysical surveys of various types, and some geological mapping, has added information on the petrology of the batholith, and on the distribution, and perhaps origin, of the copper deposits associated with it. Perhaps the most valuable contribution is the work by E. Livingston, formerly with New Jersey Zinc Exploration Company (Canada) Ltd., who in 1960 distinguished two new suites of intrusive rocks younger than the Iron Mask batholith and closely associated with the copper mineralization. These two groups of rocks he named Sugarloaf porphyritic diorite and Cherry Creek porphyry. Subsequent diamond drilling and other work by various exploration companies has confirmed, to the present writer's satisfaction, Livingston's original distinction and petrographic description of the two post-Iron Mask intrusive suites. The age of the two units, and that of the associated mineralization, however, is not, in this writer's opinion, post-Kamloops Group, as suggested by Livingston, but probably older and pre-Kamloops.

The following paragraphs are a brief description of the Sugarloaf and Cherry Creek intrusive suites, of their relationship to copper mineralization and structural setting with respect to the Iron Mask batholith. Figure is a generalized geological map of the eastern part of the Iron Mask batholith, modified after Carr, 1956, and in part after

92INFC10

PROPERTY FILE

GENESIS OF MAGNETITE DEPOSITS IN
THE IRON MASK BATHOLITH, SOUTH-CENTRAL
BRITISH COLUMBIA (NTS: 94I/9&10)

Introduction

The Iron Mask batholith, near Kamloops, B.C., contains several magnetite rich rock units and a number of dyke-like magnetite lodes. Genesis of the magnetite lodes is not understood; possible petrogenetic interrelations between the lodes and the batholithic rocks are being investigated by studying trace element patterns in magnetite from several localities and from different occurrence types.

Masters candidate Mr. Robert Cann is conducting the study at the Department of Geological Sciences, The University of British Columbia, under the direction of ^{Dr.} Colin Godwin. Financial support is from the British Columbia Department of Mines and Petroleum Resources, and from The University of British Columbia.

Purpose

Significant magnetite, in the form of dyke-like lodes (Cockfield, 1948) occur in close spatial relationship to copper deposits, such as the Afton Mine. The genetic relationship of these massive magnetite lodes to nearby copper deposits is unknown, as is the origin of the magnetite deposits. However, the proximity of these deposits to very magnetite rich units of the Iron Mask batholith suggests that they might be magmatic injection deposits. The three main objectives of this study therefore, are to:

- 1) determine the origin of the magnetite lodes (e.g. magmatic, vein),
- 2) determine which intrusive unit they originated from if they are magmatic,
- 3) determine if relationships exist between magnetite deposits and copper mineralization in the same area.

PROPERTY FILE

921/9&10

General

Field Work

Field work in the area was completed this summer. Magnetite lodes exposed in three pits 3/4 of a mile (1.2 kilometres) south-east of Afton (Fig. 1) were mapped at a scale of 1 inch = 10 feet (1 cm = 1.2 m) and a large amount of core from the Afton property was examined for relationships between magnetite lodes and copper mineralization. More than 40 samples were collected (Fig. 1) for the purpose of separating and analyzing the magnetite. Sampling was on units defined by Northcote (1977). In addition to the samples shown on Fig. 1, massive, disseminated and vein-like magnetite was sampled at Cherry Bluffs (approximately 7 miles (11 kilometres) west of Afton), and disseminated magnetite was sampled in fresh picrite on Watching Creek (Cockfield, 1948) on the north side of Kamloops Lake.

Laboratory Work

The principal method used in this study will be analysis of the magnetite for the trace elements Ti, Cr, V, Cu, Pb, Zn, Mg, Mn, Ag, Ni, Co and Cd. Distributions of these trace elements will allow correlation to be made that might indicate the unit which is the source of the magnetite in the lodes, and the genesis of these deposits. In addition, the stages of differentiation of units in the Iron Mask batholith might be reflected in the abundance of certain trace elements. Analyses will be conducted during the winter of 1977-1978 by the atomic absorption method.

Conclusion

Results of this study should help our understanding of the genesis of the Iron Mask batholith and associated mineral deposits.

References

- Cockfield, W.E., 1948. Geology and mineral deposits of Nicola map-area, British Columbia. Geol. Surv. Can., Mem. 249.
- Northcote, K.E., 1977. Geology map of the Iron Mask batholith and accompanying notes. B.C. Dept. of Mines and Petrol. Resources, Preliminary Map. No. 26.

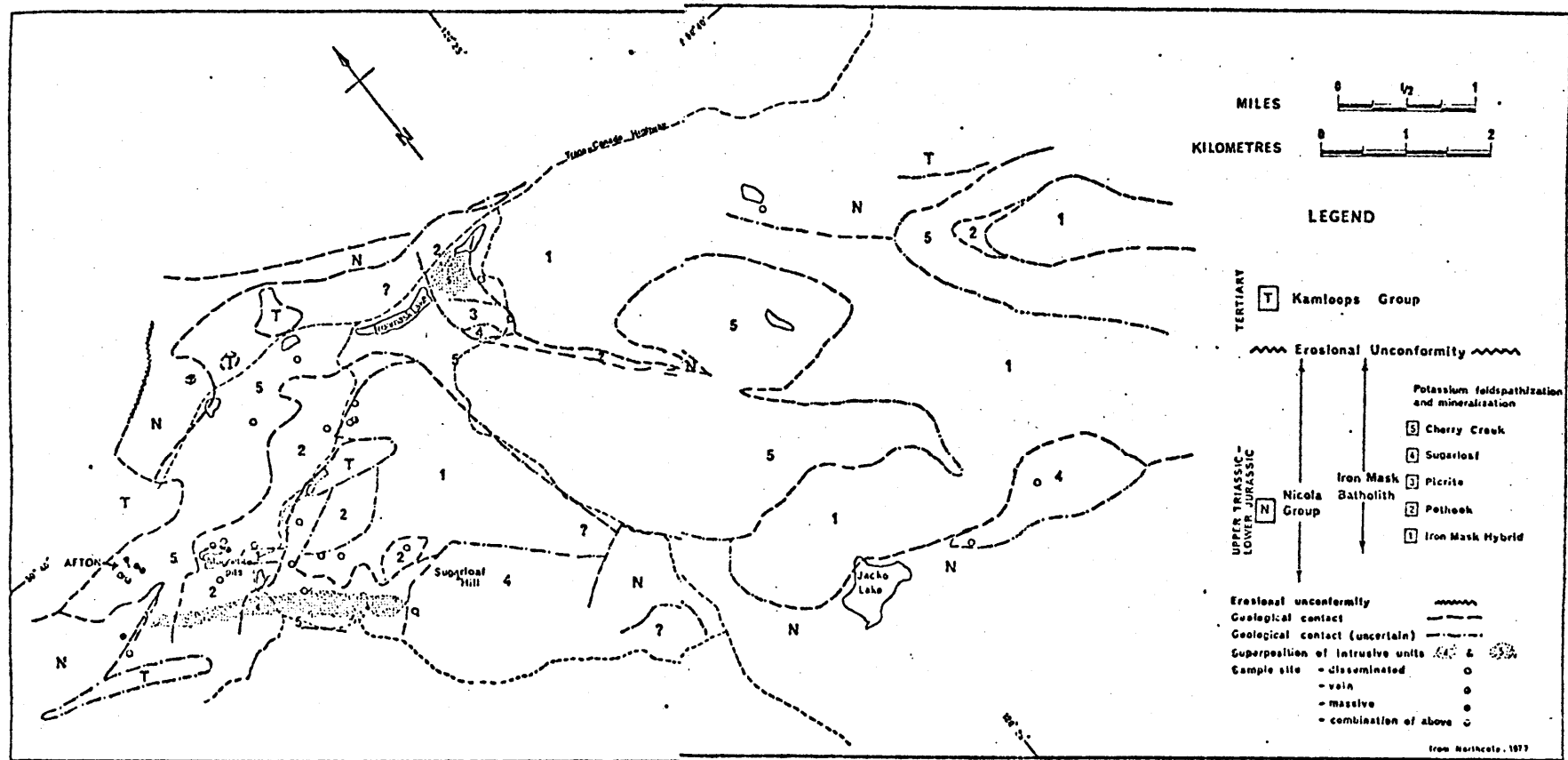
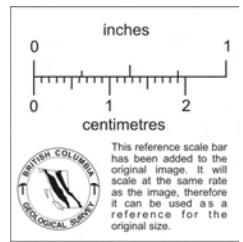


Fig. 1: General geology and sample sites for magnetite study, Iron Mask batholith.