T A B L E O F C O N T E N T S

APPENDICES

T I T L E P A G E
- O -

Assessment report relating to a group of three two-post mineral claims consisting of the SM No. 1, the SM No. 2 and the SM No. 3 claim, Victoria Mining Division Record numbers 187, 282 and 283 respectively. This group of claims is situate in the Goldstream Land District

Assessment work dealt with in this report was confined to one claim, the SM No. 1, located on the northwest slope of Ragged Mountain in Section 60 (currently described as Lot 60), Goldstream Land District. Grid reference of No. 1 post: 524655, Map 92 F/5, Edition 3. Estimated Latitude and longitude: 48° 26.6' north, 123° 38.7' west. The SM No. 2 claim is situate immediately east of the SM No. 1 and the SM No. 3 claim is located immediately south of the SM No. 2.

This report was prepared by E. Murphy, the owner of this group and will be submitted on September 5, 1980.

INTRODUCTION

The assessment work covered in the report was performed on the SM No. 1 claim which may be reached by driving north on the B.C. Forest Products Co.'s unused logging road which begins at the top of Barbour View Road at Saseenos, for a distance of about five miles and thence east on an intersecting unused logging road for a distance of approximately one-quarter mile to s small creek, a short distance beyond which the road becomes impassable for ordinary two-wheel drive vehicles. The location line of this claim crosses this road about one-quarter mile up a steep hill from the creek. The No. 1 post is six hundred feet west of the point where the location line crosses the road. A few hundred feet north of the point where the location line crosses the road the road makes a reverse turn and leads almost due south. It again crosses the location line, this time nine hundred east of the No. 1 post. The road continues in a southerly direction along the westerly slope of a hog's back ridge runnint north from the summit of Ragged Mountain.

Some three hundred feet or so from the point where it last intersects the location line the road is on or very close to the surface contact line between the basalt of the Metchosin Volcanic formation and the East Sooke olivine and augite gabbro formation. Both of these formations appeared in the tertiary period (Reference: Department of Mines Geological Survey May 44A) and may have been affected by the metallogenetic activity of that time (Reference "Mineral Deposits" by Lindgren, pages 997 - 1007). The elevation at this point is indicated by the contour lines on the map to be twelve or thirteen hundred feet, suggesting that the apex or cupola of the olivine and augite intrusive is there.

While it is accepted that both of these formations consist of sub-silicic rock which is not ordinarily favourable ground for hydrothermal deposits, consideration has been given to the fact that the apex of the gabbro intrusive is there, protected from erosion by the basalt of the Metchasin volcanic formation resting upon it. Then, too, an exposed granite formation nearby may assume some significance in this investigation.

This property was previously staked by the writer in 1972 but was forfeited in 1977.

The investigation dealt with in this report is confined to the SW No. 1 mineral claim and centres on a breccia exposed exposed by the old logging road some three hundred feet south of the point where it crosses the location line. The breccia appears at the contact between the gabbro and the basalt. The enclosed fragments are silicic and they contain visible pyrite, chalcopyrite, and unidentified white metallic minerals. The cementing material is largely calcite, suggesting that this may be a fault breccia. (Reference: Dictionary of Geology. D.G.A. Whitten. Page 470 - 471, vein)

DRILLING REPORT

The work covered in this report consisted of deepening a diamond drill hole 29' 11" deep which was the subject of an assessment report pertaining to this claim and submitted on September 5, 1979. This hole is located approximately fifty yards west of the breccia referred to and about fifty feet below it. This hole will be referred as site "A".

Sept. 11 Pack drill rods, core box, water tank and gas up to site "A".

Sept. 12 Continue drilling at site "A". Hole was down to 30' 4" but there were five inches of core sitting on the bottom. Drill over the core on the bottom and encounter hard rock. Took two hours to fill the core barrel which holds seventeen or eighteen inches of core. Pushed the hole down to 33' 6"

1 day @ $40.00

Sept. 17 Park in the usual place near the bottom of the first hill and pack gear and four gallons of water up to the site. Cache another four gallons of water near the car.

Sept. 18 Continue drilling at site "A". A considerable quantity of mud had settled at the bottom of the hole and it took some time and two gallons of water to flush it out. When the mud was cleared away from the bit it was found that the engine would not spin the rods. Pull the rods and grease them with lubriplate, a water resistant grease much lighter than the grease supplied with the drill. The rock was very hard and it took some time to fill the core barrel. Pulled the rods but lost half of the core. Fished for it and got it. Twelve inches of the core is very rich in finely disseminated sulphids of different colour. Down to 34' 8"

1 day @ $40.00

Sept. 23 Pack gear up to site. Leave ten gallons of water beside a skidder at the bottom of the hill. The skidder operator had volunteered to take water up the hill for me.

Skidder did not work on September 28 so I had to pack that ten gallons of water up th hill.

Sept. 24 Continue drilling. Went down to 35' 8" and ran out of drill rods. Ten inches or rod protruding from the hole. Down to 35' 8'

1 day @ $40.00

Approximately eighteen inches of core from 33' 6" to 35' 8' were sent to Chemex Labs for spectrographic analysis. See Appendix 3

Nov. 12 Pack drill rods, core box, water tank and gas up to site. It now requires two trips to get the gear up to the site from where the can iss parked near the creek in Soake Mountain Park. Sump dug last spring is now full of water.

Nov. 13 Take engine and packboard up to site. Took almost an hour and a half and seven gallons of water to drill down seventeen inches. Down to 37' 1"

1 day @ $40.00

Core consists of dark grey dolerite containind ilmenite and magnetic iron and and a hard, grey, grained rock. There are small quarts veinlets running through it which appear to dip vertically.

Nov. 20 Pack equipment in to site. Notice that water is now welling out of the hole at "A".

Nov. 21 Continue drilling. Rock appears to be felsite. Down to 38' 4".

1 day @ $40.00

Nov. 26 Pack equipment up to site.

Nov. 27 Continue drilling. Encounter hard rock. Took an hour and a half and ten gallons of water to fill the core barrel. Pulled the rods and lost four inches of core. Fished for it and got it. Down to 39' 10"

1 day @ $40.00

Feb.12, 1980 Start up toward the site but found the road was almost impassable due to washouts. A log culvert at the intersection of the P.C.F.P. road and the road leading up to the site was out and it was necessary to carry two heavy loads up to the site.

Feb. 13 Park at the interestion and pack the engine and packboard up to site. Get set up and start drilling at 11:40 a.m. Went down sixteen inches and the drill kicked. Pulled the rods but lost all the core. Fished for it and got it. Down to 41' 2"

1 day @ $40.00

March 31 Pack gear up to site. Fill empty one gallon containers with water at the sump in the creek and cache them in the usual place.

April 1 Continue drilling. Went down five inches and the core barrel jammed. Pulled the rods and recovered five inches of dolerite. Went down another sixteen inches and the drill kicked again. Pulled the rods and the core barrel came up empty. Fished for the lost core and recovered four inches of it--dolerite grading into gabbro. Had to leave twelve inches of core sitting on the bottom of the hole. (April fool's day). down to 42' 11"
1 day @ $40.00

April 10 Pack gear up to site. Fill five more one gallon containers at the creek. Water is still pouring out of the hole at "A" but the water level in the gravel excavation at "C" has dropped eight or nine inches.

April 11 Continue drilling. Got down over the twelve inches of core left in the hole and went down a further two feet ten inches. Down to 44' 9"
1 day @ $40.00

April 22 Pack drill rods, core box, water tank (a new one) up to site. Fill five more one gallon containers with water.

April 23 Continue drilling. Got down to forty-six feet and once again ran out of drill rods. Down to 46'
1 day @ $40.00

May 12 Pack gear up to site. Excavation at "C" is wet at the bottom but contains no water. Sump at the creek is almost empty. A probe shows six inches of water above the rock bottom. No water is issuing from the hole at "A" but can be seen about twelve inches below the collar.

May 13 Continue drilling. Encounter soft dolerite and fill the core barrel in a few minutes. Went down again and had the core barrel filled by 1:00 p.m. Stopped for lunch, pulled the rods, emptied the core barrel and started to pack up. Down to 48' 8"
1 day @ $40.00

May 22 Pack gear up to site.

May 28 Continue drilling. Rock varied from quite soft to very hard. Went down sixteen inches and recovered all the core. Went down a further sixteen inches and ran out of drill rods. Had only two inches above the collar. Afraid to go down any further so pulled the rods. Lost the core and was unable to get it with the care fisher. Down to 51' 4" (with 16 inches of core sitting on the bottom of the hole),

1 day @ $40.00

Core is beginning to looke interesting. Has the characteristics of a reticulated vein.

May 29 Pack gear up to site. Water is still welling out or the hole at "A" and there is a trickle of water in the small creek nearby.

May 30 Continue drilling. Drilled over the sixteen inches of core left in the hole and went down a further inch. Recovered all the core and went down again. Ran into extremely hard rock. Spent three hours and used twenty gallons of water (taken from the small creek nearby) to drill down twelve inches. It was then 2:00 p.m. and it was obvious that I would not be able to fill the core barrel that day so pulled the rods. Lost the core but fished for it and got it. Down to 52' 5"

1 day @ $40.00

Core is beautiful. It is rich in disseminated sulphides, shows crustification and extensive metamorphism, contains glassy quartz, milky quartz and chalcedonic quartz and some off-white feldspar. No albite striations could be seen. There was also a little unidentified dark mineral in it.

June 5 Pack gear up to site.

June 6 Continue drilling. New bit is cutting very nicely in hard rock. Down to 53' 9"

1 day @ $40.00

Core consists of quartz, feldspar, an unidentified dark mineral and a soft accessory dark mineral that could be chlorite or biotite. It appears to the untrained eye of a layman to be granite. It contains small quartz veinlets and a fair amount of metallic minerals.

Approximately eighteen inches of core from 50' to 53' 9" forwarded to Chemex Labs for spectragraphic ananysis.

Certificate of analysis (appendix No. 4) SP 607 shows that the rock is not granite. It contains five per cent of calcium although parallel albite striations could not be seen in it. Could possible be quartz diorite. It does, however, contain well above the concentration limit of molybdenum.

Speaking of epithermal deposits of the tertiary period, Lindgren says: "Cobalt, nickel, tungsten and molybdenum are not unknown, but are entirely subordinate. Their home is in the deeper deposits." (Reference: 'Mineral Deposits.' Waldemar Lindgren. Page 518).

This is the first indication of molybdenum in any of the rock sent for analysis by the writer, probably a dozen samples from this same area.

Aug. 18 Pack drill rods, core box, water tank, gas and engine up to site.

Aug. 19 Continue drilling at "A". Use water from cache left last spring. New bit is cutting beautifully. Filled the core barrel and went down again but was obliged to pull the rods after going down twelve inches, only four inches or rod were left above the collar. Left the core in the hole but fished for it and got it. Down to 56' 2"

1 day @ $40.00

TOTAL VALUE OF WORK DONE.....15 days @ $40.00.....$600.00

Small quartz veinlets are becoming larger and more humerous as the hole gets deeper and are more and more taking on the characteristics of a reticulated vein. Or they could be minor veinlets branching from a larger vein. (Reference: Outline of Geology. Longwell, Knopf et al. Page 333. The presence of molygdemum suggests that they are not gash veins. (Reference: The Dictionary of Geology. Page 306 and appendix).

Near the centre of a bulge in one of these veinlets about fifty-four feet from the top of the hole there is a speck of beautiful yellow gold.

It will be noted that on several occasions the supply of drill rods was exhausted before the core barrel could be filled. This was not due entirey to improvidence but, rather, to the fact that the drill was said to be limited to a depth of about thirty feet. It will be appreciated that, with the cost of drill rods being approximately $8.00 a foot, it would not be prudent to purchase more drill rods than would be required to drill a hole as deep as the engine will push the bit.

Core taken below the thirty foot point in this hole is being held at the writer's home at 5859 Sooke Road.

It must be admitted that the writer's qualifications are limited to a keen interest in prospecting and and related subjects and to twelve years of prospecting, eight of which have been devoted to the area in which these claims are situate.

(E. Murphy)

ADDENDUM

The writer has obtained a four-wheel drive vehicle and has applied for and been granted permission to clean off the old logging spur on which this work is being done.

BIBLIOGRAPHY

- o -

Assessment Report. Mineral Claim SM No. 1. Submitted by owner, E. Murphy, on September 5, 1979

Elementary Geology Applied to Prospecting. John T. Walker

Field Guide to Rocks and Minerals. Frederick H. Pough

Prospecting for Minerals. S. Herbert Cox.

The Data of Geochemistry. Frank Wigglesworth Clarke

Rocks and Rock Minerals. Pirsson & Knopf

Rocks and Minerals. Herbert S. Zim

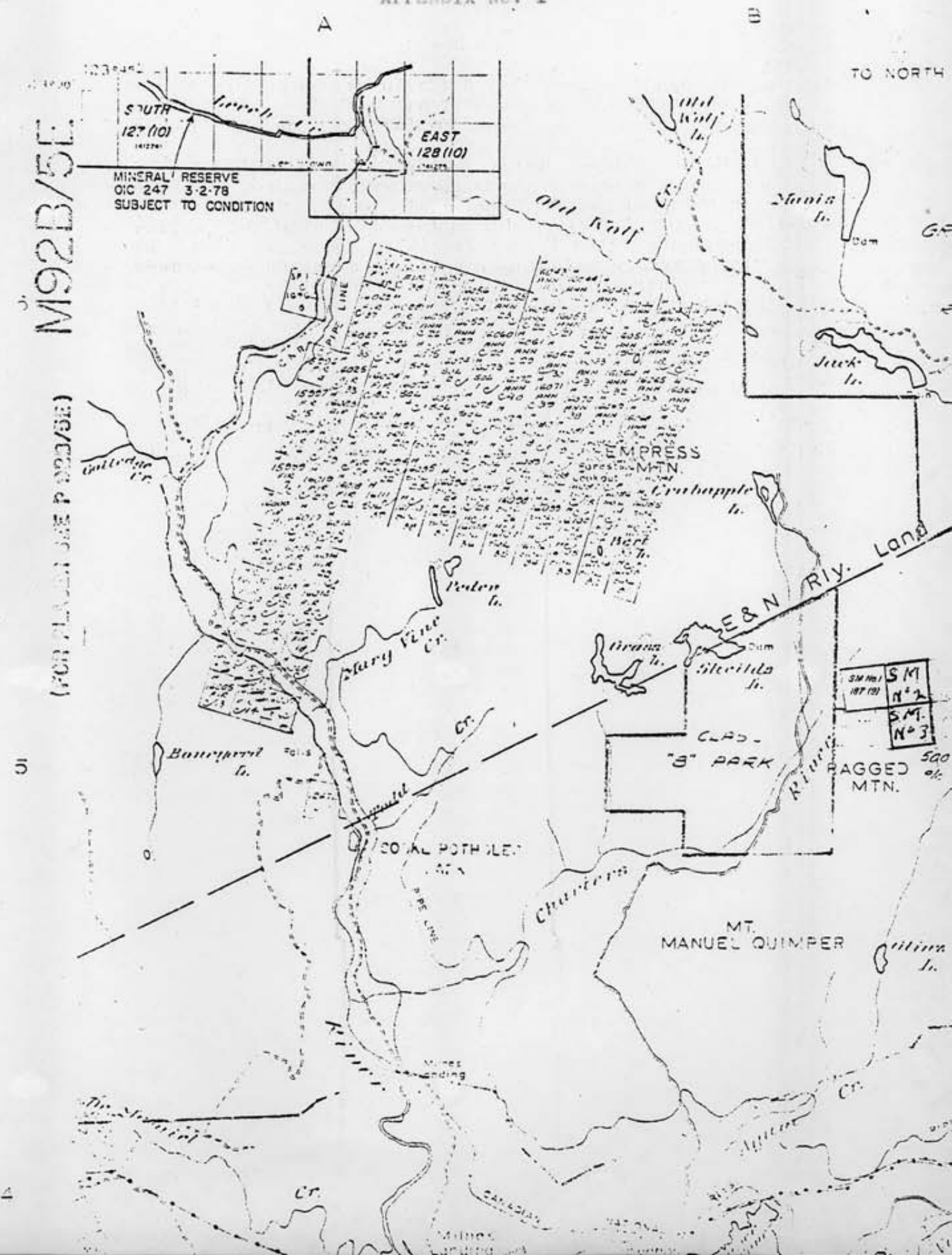
The Prospector's Handbook. Anderson

The Larousse Guide to Rocks, Minerals and Fossils.

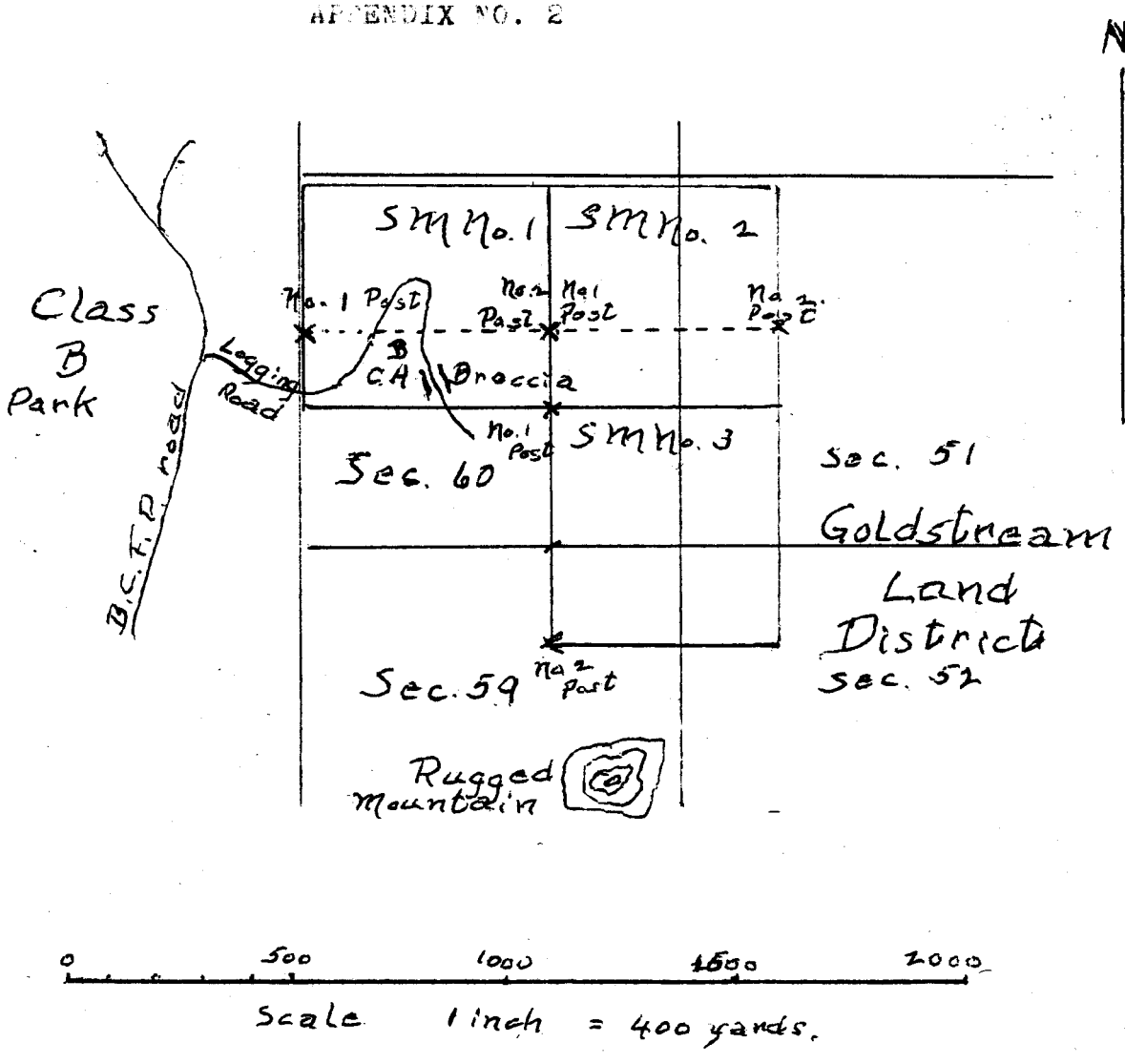
A Dictionary of Geology. D.G.A. Whitten with J.R.V. Brooks

Outlines of Geology. Longwell, Knopf et al

APPENDIX NO. 1



APPENDIX NO. 2



Plan map showing location of site "A" and the gravel excavation "C" and their relative position in relation to the breccia exposed by the old logging road.

APPENDIX 3

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: [redacted] 984-0221
AREA CODE: 604
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. SP 1238

TO: E. Murphy
5859 Sooke Rd
R.R. #1
Sooke, B.C.
ATTN: OS 1N0

INVOICE NO. 33144

RECEIVED Oct. 1/79

ANALYSED Oct. 10/79

SAMPLE NO. :	Lower Concentration Limit (PPM)	Sample #1/79
Antimony	50	bcl
Arsenic	50	bcl
Barium	5	10
Beryllium	5	bcl
Bismuth	5	bcl
Boron	20	bcl
Cadmium	20	bcl
Calcium	0.05%	10%
Chromium	10	100
Cobalt	10	10
Copper	1	50
Gallium	5	10
Germanium	20	bcl
Indium	50	bcl
Iron	0.05%	5%
Lead	5	5
Magnesium	0.02%	5%
Manganese	5	700
Molybdenum	10	bcl
Nickel	5	20
Niobium	50	bcl
Silver	1	bcl
Strontium	2	100
Tellurium	200	bcl
Thorium	200	bcl
Tin	10	bcl
Titanium	5	2000
Vanadium	20	150
Zinc	50	70
Zirconium	20	20

SEMI QUANTITATIVE SPECTROGRAPHIC ANALYSES

>5000 ppm => 5000 ppm		50 ppm	= 25–100 ppm
5000 ppm = 2500–10000 ppm		20 ppm	= 10–50 ppm
2000 ppm = 1000–4000 ppm		10 ppm	= 5–20 ppm
1000 ppm = 500–2000 ppm		5 ppm	= 2–10 ppm
500 ppm = 250–1000 ppm		2 ppm	= 1–4 ppm
200 ppm = 100–400 ppm		1 ppm	= 0.5–2 ppm
100 ppm = 50–200 ppm		bcl	= below concentration limit

Ranges for Iron, Calcium & Magnesium are reported in %

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: .....

APPENDIX 4

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: [redacted] 984-0221
AREA CODE: 604
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. SP 607

INVOICE NO. 36455

RECEIVED June 11/80

ANALYSED June 24/80

TO: E. Murphy
5859 Sooke Road
R.R. 1
ATTN: Sooke, B.C.
V0S 1N0

SAMPLE NO. :	Lower Concentration Limit (PPM)	Sample 1/80
Antimony	50	bcl
Arsenic	50	bcl
Barium	5	20
Beryllium	5	bcl
Bismuth	5	bcl
Boron	20	bcl
Cadmium	20	bcl
Calcium	0.05%	5%
Chromium	10	200
Cobalt	10	30
Copper	1	30
Gallium	5	20
Germanium	20	bcl
Indium	50	bcl
Iron	0.05%	1.5%
Lead	5	bcl
Magnesium	0.02%	2%
Manganese	5	200
Molybdenum	10	<100
Nickel	5	30
Niobium	50	bcl
Silver	1	bcl
Strontium	2	100
Tellurium	200	bcl
Thorium	200	bcl
Tin	10	bcl
Titanium	5	1000
Vanadium	20	200
Zinc	50	150
Zirconium	20	30

SEMI QUANTITATIVE SPECTROGRAPHIC ANALYSES

>5000 ppm => 5000 ppm	50 ppm	= 25–100 ppm
5000 ppm = 2500–10000 ppm	20 ppm	= 10–50 ppm
2000 ppm = 1000–4000 ppm	10 ppm	= 5–20 ppm
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Ranges for Iron, Calcium & Magnesium are reported in %

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: [signature]