

'81- #102-#8939

EXPLORATION

NTS 104A/4E
Cassiar Land District
Latitude: $56^{\circ} 12'$
Long: $130^{\circ} 00'$

Mineralogy and Sampling of
the Betty Claims, Skeena
Mining Division, Betty Glacier,
Stewart, British Columbia

Report by:

Allan Ingelson

Operator: L. MacEachern

Owner: Allan Ingelson

October 20, 1980

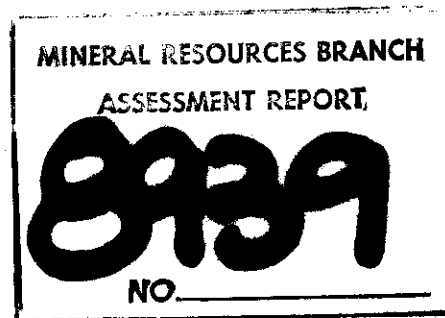


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The Betty Claims - Summary

The Betty Claims consist of six reverted Crown Grant claims on which initial exploration and development was carried on by the American Mining and Milling Co. during the 1920's. Rich silver values (400 oz. silver/ton) were reported from lenses of quartzose rock associated with sulphides, in the original Ministry of Mines annual reports.

Location and Access

Lat: $56^{\circ} 12^1$ Long: $130^{\circ} 00^1$ NTS 104A/4E

The Betty claims are located four miles north of Divide Lake on the southern edge of Betty Glacier. Access to the area is by helicopter or on foot via the Big Missouri Mine road. A poorly maintained trail from the Big Missouri dam leads north to the Spider Claims which are located at the north-east end of Long Lake. From Long Lake a series of creeks and small lakes extend north through alpine meadows to the Betty Claims.

History

The claims were located on September 16, 1920 and later Crown Granted in 1927. On the property there are a few remnants of a cabin constructed by the American Mining and Milling Co. during the 1920's. No original development work has been completed since the original efforts in the 1920's. The Betty Claims are described in the annual B.C. Ministry of Mines Reports: 1922 p.83; 1927 p.480.

Development Work

Work completed on the property consists of one tunnel 12-15 feet long, two pits, one open cut, and an inclined shaft approximately twenty-five feet in length. The tunnel is still intact with an assortment of hand tools piled in a wheelbarrow at the entrance.

Assay Averages - Technical Data and Interpretation

Chip samples from three locations were submitted to Loring Laboratories of Calgary. These samples were found to contain (averages only):

	Oz gold/ton	oz silver/ton	% Cu	% Pb	% Zn
Locality A	.08	57.42	-	-	-
Locality B	-	.92	-	1.44	4.85
Locality C	.030	59.14	.18	.70	4.90

Locality A - open cut

Locality B - tunnel

Locality C - pit

(For the respective sampling locations please refer to the appropriate map at the end of this report.)

Mineralogy of the Deposit

A suite of specimens collected from the assay sample locations by the writer were analyzed by a mineralogist at the Geological Survey of Canada, Ottawa. In an identification report dated September 12, 1980, seven additional mineral species not previously described from the Betty Claims were documented. Several of these species are of secondary origin. The most unusual mineral described is the selenide Naumannite Ag_2Se .

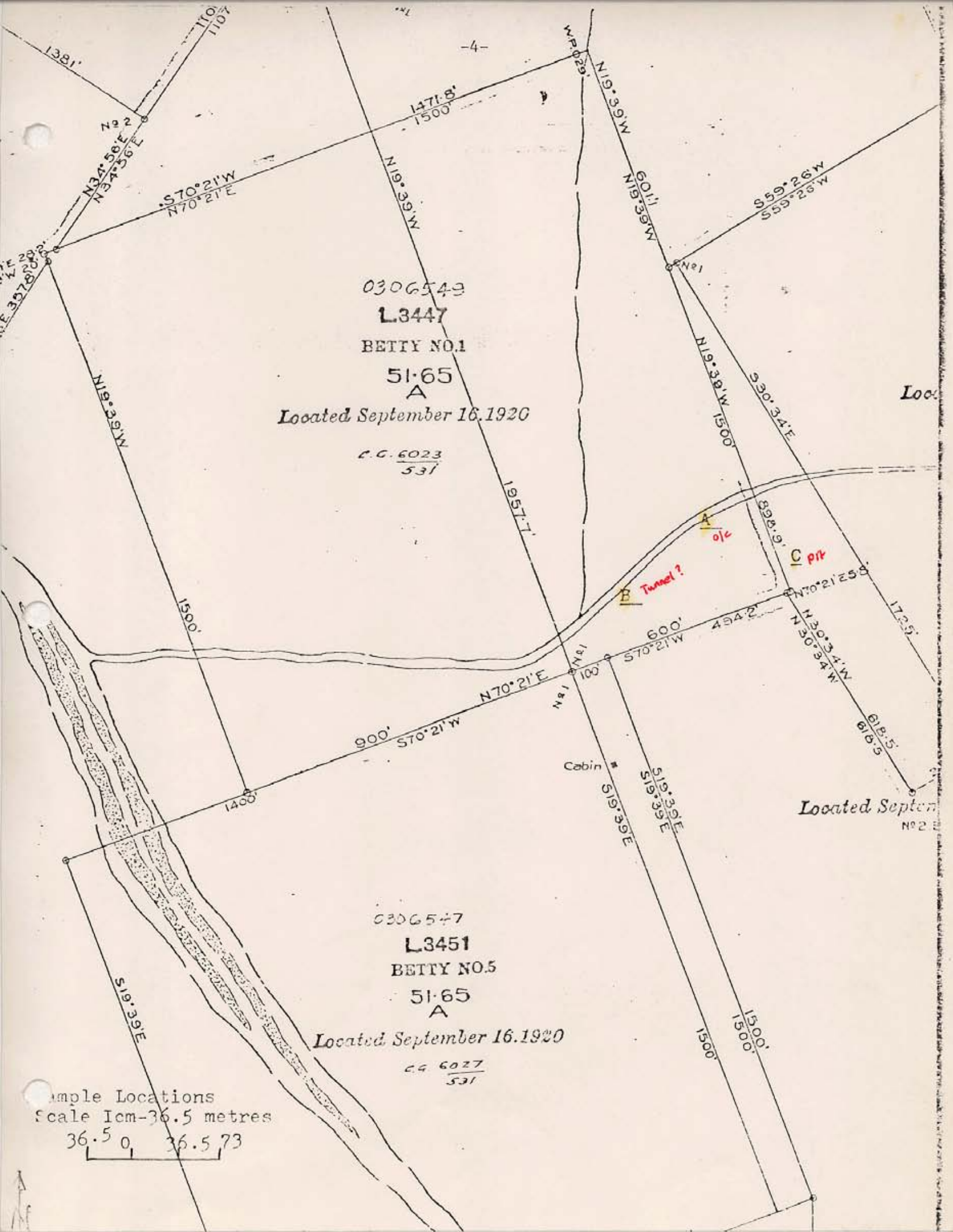
Mineralogy of the Deposit (cont.)

List of Minerals

Naumannite	-Black sooty to dull powdery masses associated with quartz crystals
Sphalerite	-Light yellowish to brown, with bluish tarnish or brown powder
Galena	-Grey metallic cubes
Pyrite	-Yellow metallic associated with pyrite, sphalerite
Malachite	-Bright green secondary mineral
Cerussite	-Grey coating on galena
Hydrozincite	-White powdery masses associated with malachite
Linarite	-Blue secondary mineral
Bronchantite	-Blue-green secondary mineral
Goethite	-Rusty powdery masses, coatings.

Economic Potential

To date this property has not been drilled and the original tunnel has not been extended two hundred feet to the contact (below the big cut) to establish the presence of commercial ore-bodies.



0306549
 L3447
 BETTY NO.1
 51.65
 A
 Located September 16.1920
 C.C. 6023
 531

0306547
 L3451
 BETTY NO.5
 51.65
 A
 Located September 16.1920
 C.C. 6027
 531

Sample Locations
 Scale 1cm=36.5 metres
 36.5 0 36.5 73

Loc.

Located Septem
 No. 2

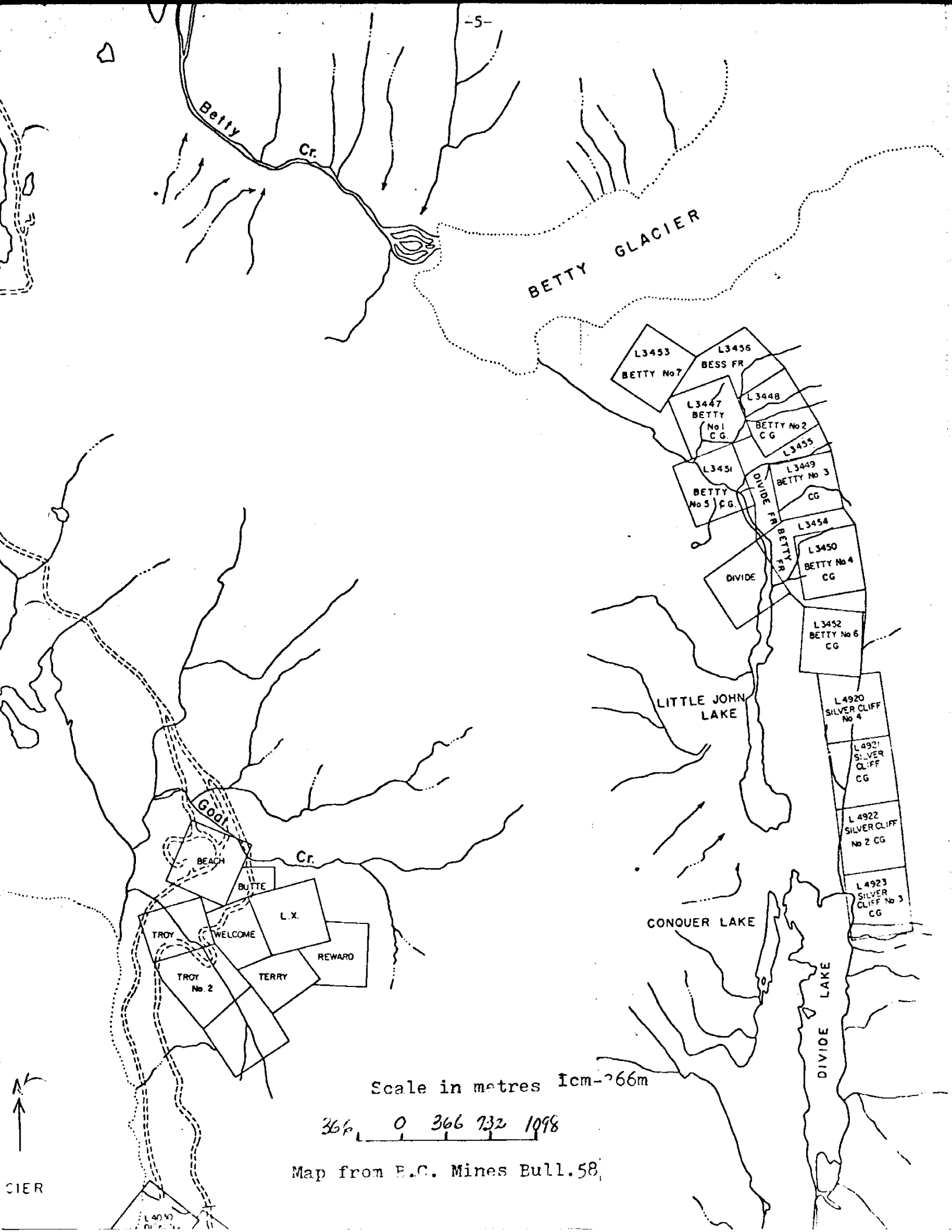
Tunnel?

Cabin

A o/c

C pit

-4-



BETTY GLACIER

Betty Cr.

L3453
BETTY No 7

L3456
BESS FR

L3447
BETTY
No 1
CG

L3448
BETTY No 2
CG

L3451
BETTY
No 5
CG

L3449
BETTY No 3
CG

DIVIDE
FR
BETTY
FR

L3454
L3450
BETTY No 4
CG

L3452
BETTY No 6
CG

LITTLE JOHN LAKE

L 4920
SILVER CLIFF
No 4

L 4921
SILVER
CLIFF
CG

L 4922
SILVER CLIFF
No 2 CG

L 4923
SILVER
CLIFF No 3
CG

CONQUER LAKE

DIVIDE LAKE

Good Cr.

BEACH

BUTTE

TROY

WELCOME

L.X.

REWARD

TROY
No 2

TERRY

Scale in metres 1cm = 266m

366 0 366 732 1098

Map from E.C. Mines Bull. 58



C I E R

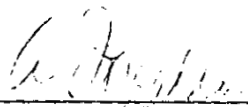
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Statement of Expenditures - 1980

Direct Expenditures

Labor: Allan Engelson, prospector, 5 man days at \$60.00/day during the period August 23 to Aug 28, 1980	\$ 300.00
D. Rhodes, field assistant, 5 man days at \$20.00/day	100.00
Transportation: Vancouver to Stewart	667.05
Meals:	100.00
Assays: Loring Labs	42.75
TOTAL	<u>\$1,209.80</u>

I have completed the above work and report:



 F.M.C. / #162384

Statement of Qualifications

The prospector which submitted this report has completed five undergraduate geology courses at the University of Alberta and University of Calgary: Geology 201 (Physical Geology, Laboratory); Geology 205 (Historical Geology, Laboratory); Geology 301 (Sedimentary and Petroleum Geology); Geology 305 Historical Geology of Western Canada (with an emphasis on mineral deposits of the Cordillera), Geology - Vertebrate Paleontology. The writer was employed for several summers as a geological researcher and sampler by the Devonian Group, Korite Ltd., and the Walker Mineralogical Society, Toronto.