

**BRITISH COLUMBIA**  
**PROSPECTORS ASSISTANCE PROGRAM**  
**MINISTRY OF ENERGY AND MINES**  
**GEOLOGICAL SURVEY BRANCH**

**PROGRAM YEAR:** 2000/2001

**REPORT #:** PAP 00-18

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MINISTRY OF  
ENERGY & MINES

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SMITHERS, B.C.

**Snow Creek Report**

**Omineca Mining Division  
British Columbia**

- Prepared By-

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**Introduction:**

This report has been prepared due to the writers acceptance for the Prospectors Assistance Program, by the Provincial Government. This report reviews the geology, mineralization and exploration potential of the Snow Creek property (NTS map 93L12E).

Data on geology, mineralization and the results of previous exploration are summarized in maps and text in this report.

### Summary:

- The Snow property consists of a twenty unit block and four two post claims. The valley contains the headwaters of Tsai Creek to the south and Snow Creek to the north. The main Creek and its tributaries have cut a number of steep gorges which was the main target for outcrop. The property is southwest of Smithers and is accessible by a short helicopter flight from existing roads.
- There is no record of work on the property prior to 1987. Gold - silver mineralization was discovered as a result of follow - up of anomalous gold silt geochemistry detected by a government survey. The property was optioned to Lornex Mining Corp. And a detailed exploration program consisting of geological, geochemical and geophysical surveys was completed during the 1988 field season. In 1989, Pacific Rim Mining Corp. optioned the property and a limited exploration program, designed to complement the earlier Lornex work, was carried out. The property was then option to Homestake Canada Inc. in 1991. Additional work consisting of detailed geological mapping, "fill - in" soil geochemistry, detailed VLF-EM and magnetometer surveys were carried out. Homestake then carried out a diamond drilling program. Seven holes were drilled, only the first two were made public.
- The property is underlain primarily by intermediate to acid volcanoclastic rocks of the Hazelton Group. This package is intruded by an early Tertiary granitic stock. A swarm of feldspar porphyry dikes and sills which may be genetically related to the nearby stock locally intrude the older Hazelton rocks. A regional, north - trending fault cuts through the center of the property and may be the focus for subsidiary fault splays and gold - silver bearing sulphide mineralization. This mineralization is widespread within a 800 meter (and potentially larger) section along Snow Creek. Gold - silver mineralization is associated with pyrite and lesser chalcopyrite in fault and shear zones as well as more massive lenses or veins associated with some of the younger dikes. Grades are widely variable and some bonanza grade assays have been obtained from float and selected samples.

- It is difficult to trace individual zones because of extensive dike intrusions, post mineral faulting and lack of outcrop away from the creek. However, at least four promising zones of higher grade material have been identified. Samples of float may help pinpoint the location of a high grade Au, Ag and Cu vein. A trenching program is recommended for this area. Several geochemical and geophysical anomalies may indicate areas where mineralization is focused. There is an excellent chance of locating tonnages of economic grade gold - silver mineralization, and a diamond drill program is recommended to test this potential.

Location and Access.

The Snow property is located in west - central British Columbia in the Omineca mining division (NTS map 93L12E). The property is 35 km southwest of Smithers in the Hazelton Ranges. The legal corner post for the claim is at 54°39' north, 127°41' west.

Access to the property is by helicopter from Smithers. However, access roads along the Telkwa river to the southwest are presently within 12 km of the property, and decommissioned logging roads are within 8 km of the property.

# LOCATION MAP SNOW PROPERTY OMINCECA MINING DIVISION, B.C.

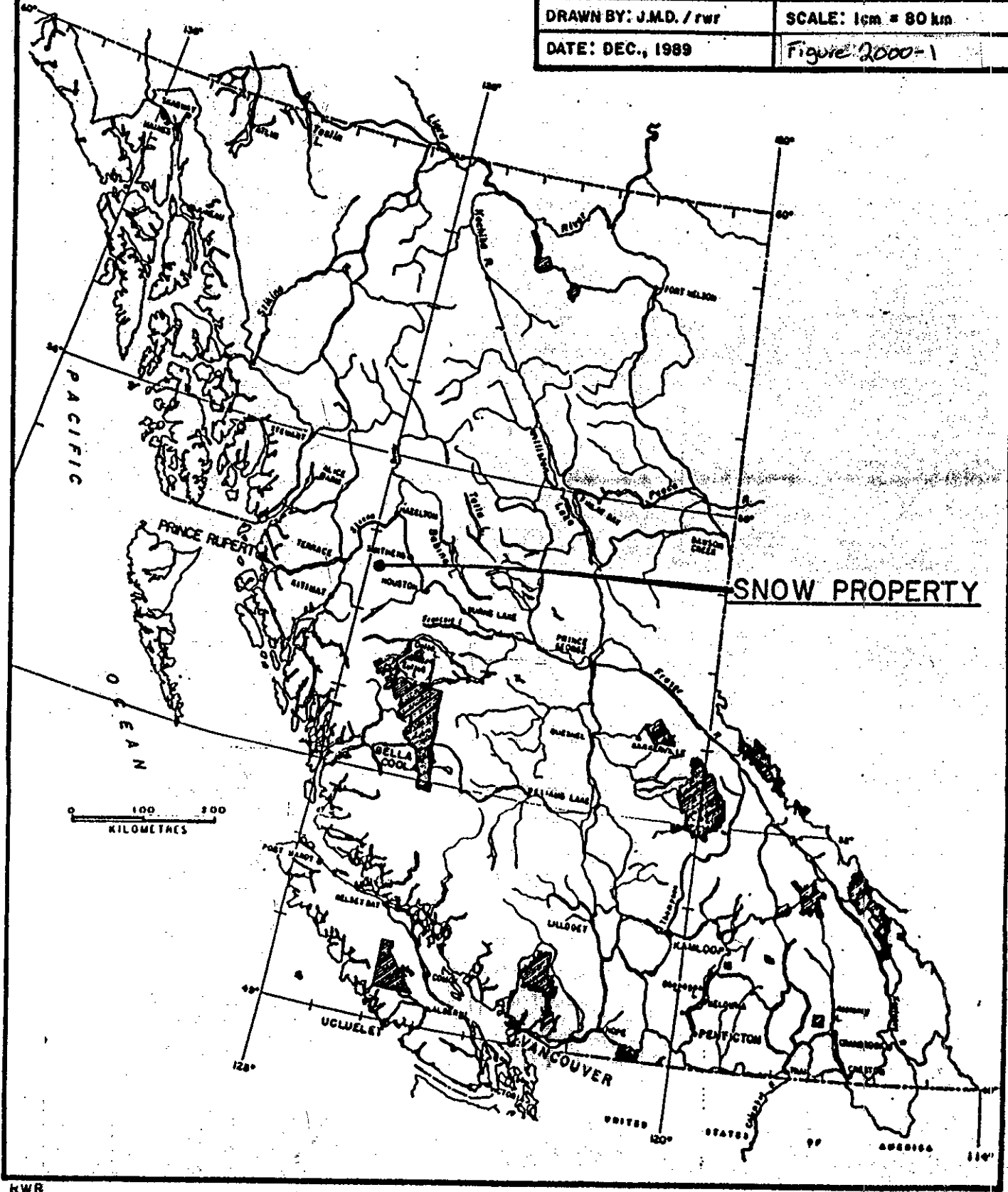
TECH. WORK BY: DAWSON GEOL. CONS. LTD.

DRAWN BY: J.M.D. / rwr

SCALE: 1cm = 80 km

DATE: DEC., 1989

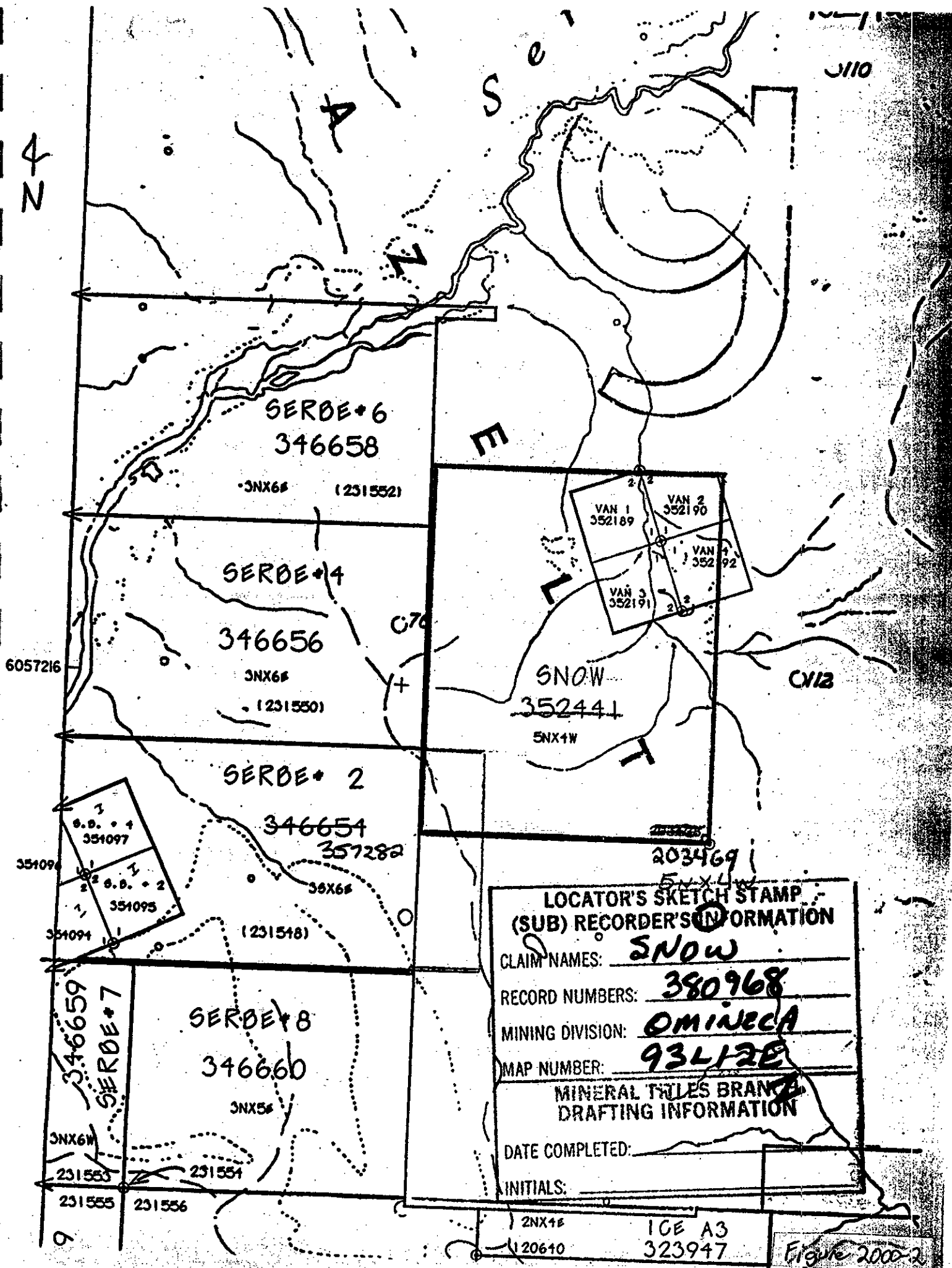
Figure 2000-1





4  
N

110



LOCATOR'S SKETCH STAMP  
 (SUB) RECORDER'S INFORMATION

CLAIM NAMES: SNOW

RECORD NUMBERS: 380968

MINING DIVISION: OMINECA

MAP NUMBER: 93412E

MINERAL TILES BRANCH  
 DRAFTING INFORMATION

DATE COMPLETED: \_\_\_\_\_

INITIALS: \_\_\_\_\_

2NX4E  
 120640  
 ICE A3  
 323947

Figure 2000-2

### Work History:

Mineral claims were originally staked by H. Van Alphen, following a 170 ppb Au stream sediment anomaly, obtained by the federal and provincial government regional geochemical survey (RGS) for the Smithers (93L) map area. In 1988 the property was optioned by Lornex Mining Corporation Ltd.

Lornex conducted an exploration program in 1988 consisting of geological mapping and rock sampling, soil geochemistry, as well as limited induced polarization and VLF-EM (AR 18014) geophysical surveys. Lornex's work identified numerous mineralized zones. The assays and geochemical analysis returned with highs of 178.6 g/t Au, 2315.7 g/t Ag, and 6.85% Cu. Several small areas with anomalous gold, silver and copper values in soils were identified peripheral to the creek mineralization.

In August, 1989, the property was optioned to Pacific Rim Mining Corp. This company carried out a brief exploration program, consisting of soil and silt sampling, and induced polarization surveys in an attempt to duplicated the Lornex assay results. An attempt was made to drill one of the mineralized zones, however, the equipment was incapable of penetrating the overburden and gouge zones.

In late September, 1991, Homestake Canada Ltd. explored the claims. The objectives of this work were to define to nature and extent of the mineralization on the previous work. Seven holes were drilled on the property, but results of only two of the drill holes were made public. The remainder of the core is currently stored in the Smithers area. The results of the two drill holes are described in the Homestake report. (AR 22056) (AR 22648)

Drill hole DH91SC01 failed to yield economically significant results. This hole intersected two narrow mineralized green gouge zones within the megacrystic feldspar porphyry (FSPP) unit. These zones correlated well with similar material sampled in outcrop exposed in a small, steep stream, about 50m south of the drill collar, but assays from the drill core are significantly lower than the outcrop. Whether these zones are mineralized fault gouge or sheared slivers of volcanic rock caught between two dykes is still not clear. The mineralized rock at the lower FSPP contact, which is only weakly anomalous in precious metals, likely corresponds to the targeted massive pyrite mineralization exposed in the Creek. Again, the amount of sulfides and assays are much lower in drill core than in surface sampling. No mineralization is associated with the lower FSPP units.

Drill hole DH91SC02 was targeted on a high grade, massive sulphide vein (Henk's Vein- best assay collected by J. Dawson of approximately 16 g/t Au over 5.0m) and intense, but shallow, IP response. The drill hole intersected the same units as mapped on surface and indicates that the intrusive units dip much more shallowly to the southwest than estimated from surface mapping. Even the Snow Creek Fault Zone appears to have a shallow dip here. Approximately 40m of mineralized volcanic rock was encountered but assays yielded only geochemically anomalous concentrations of precious metals. The sulphide rich rocks extend to a vertical depth of 50m below surface and appear to dip to the west as suggested by the IP data.

### Property Geology:

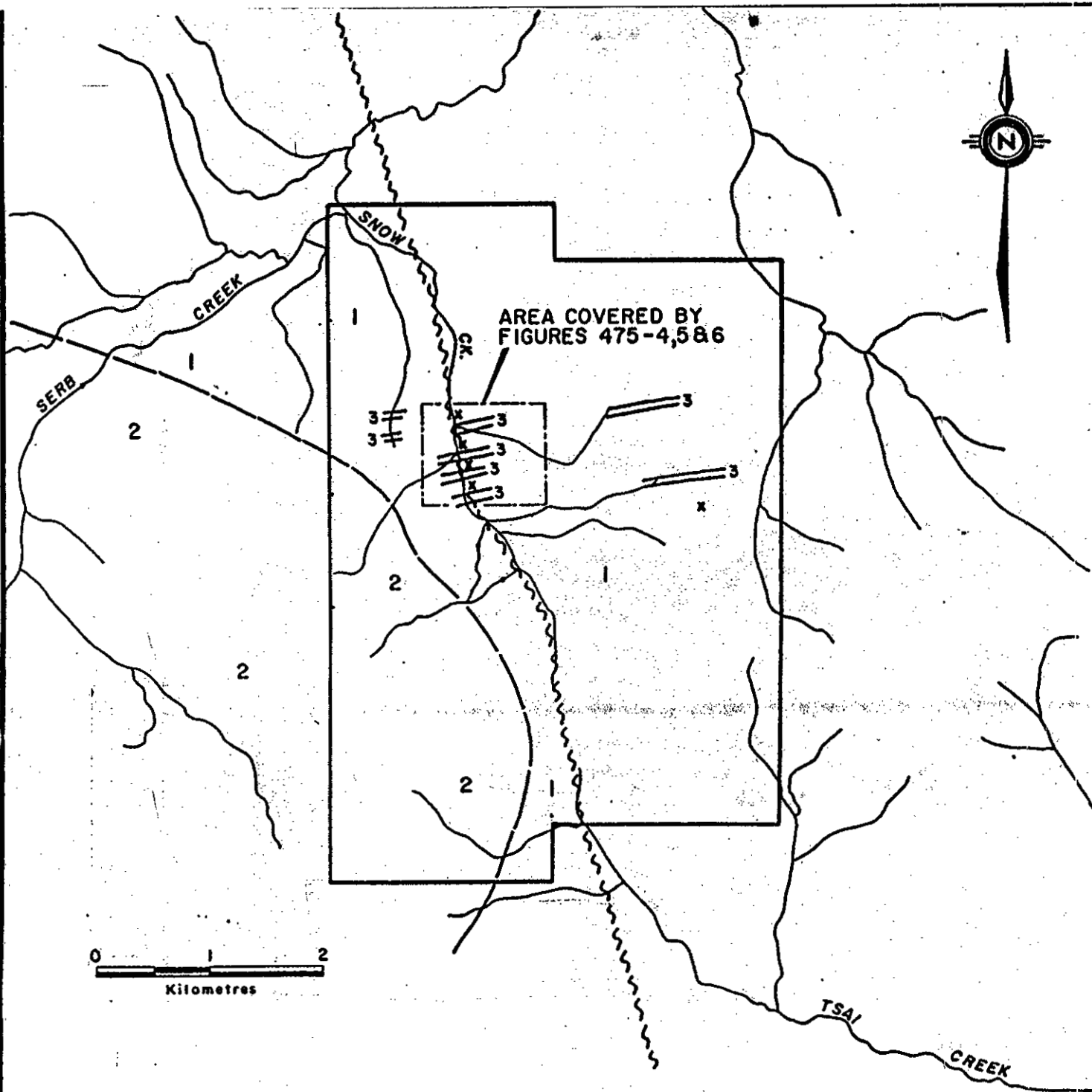
The Snow property is underlain primarily by intermediate to acid volcanoclastic rocks of the Lower Jurassic Hazelton Group. These rocks are intruded by a granitic stock of Eocene age. A swarm of felsic dikes and sills which may be related to the nearby stock, locally intrude the volcanoclastic rocks.

The volcanoclastic rocks have been assigned to the Telkwa Formation which form the base of the Hazelton Group. It consists of variegated red, maroon and grey-green tuff, breccia and flows. On the Snow property the fragmental units are most common. They usually consists of fine grained, thinly banded, grey and tan colored flows.

The Hazelton volcanics are intruded by a coarse grained, grey-white, quartz diorite stock in the southwest corner of the property. This stock has been correlated with the Eocene, Nanika Intrusions which outcrop fairly extensively in the Smithers district.

Feldspar porphyry dikes and sills intrude the Hazelton volcanics and the quartz diorite stock. These bodies are grey to buff in color and are usually porphyritic with anhedral to subhedral potash feldspar phenocrysts (approximately the composition of granodiorite). They are primarily dikes which are orientated in an easterly direction and dip steeply north and south. However, locally they may be very irregular in shape and approximate the attitude of the volcanoclastic. These dikes vary from less than a meter to more than 40 meters in thickness, but locally may appear thicker because of repetition by faulting. These dikes may be more numerous than shown on geology maps but lack of outcrop precludes an accurate estimate. Where these bodies are exposed in the main area of interest along Snow Creek they make up approximately 30 - 40% of the outcrop.

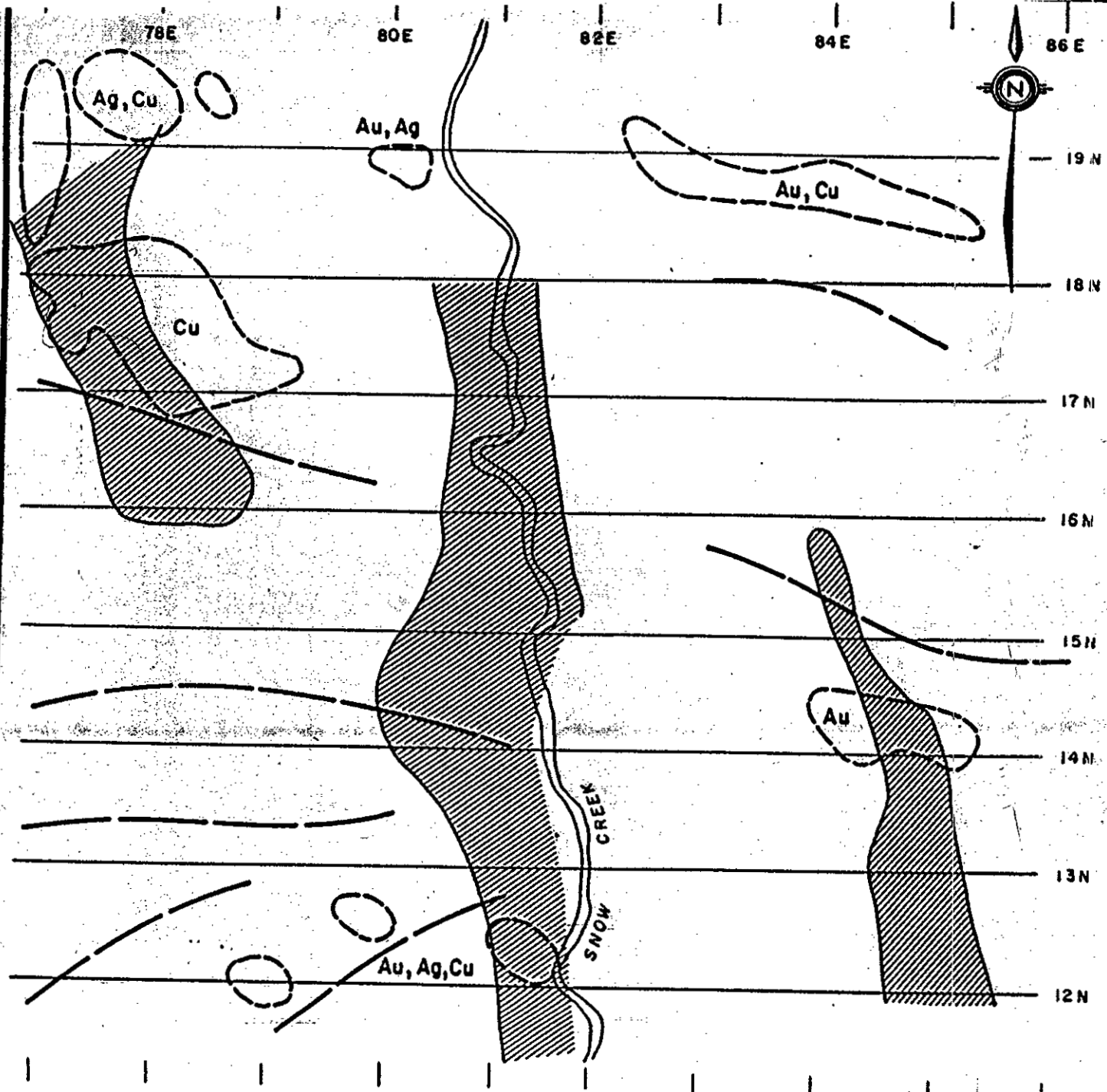
A major, north trending fault is interpreted to roughly parallel the trace of Snow Creek. This fault was not observed directly, however there are numerous small faults, shear and gouge zones of varying orientations observed in the main area of interest.



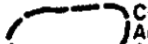

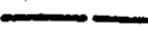
**LEGEND:**

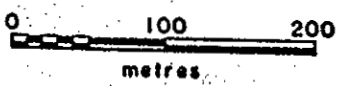
- 3 FELDSPAR PORPHYRY DIKES
- 2 QUARTZ DIORITE
- LOWER JURASSIC TELKWA FORMATION
- 1 INTERMEDIATE FELSIC TUFFS, BRECCIAS & MINOR FLOWS.
- FAULT APPROXIMATE
- GEOLOGICAL CONTACT
- x MINERALIZED ZONE

<b>GEOLOGY MAP</b>	
<b>SNOW PROPERTY</b>	
OMINECA MINING DIVISION BRITISH COLUMBIA	
TECH WORK BY: DAWSON GEOL. CONS. LTD.	SCALE: 1:50,000
DRAWN BY: JMD/ rwr	DATE: DECEMBER, 1989
APPROVED BY: J.M. DAWSON, P. Eng.	Figure 2000-3



**LEGEND:**

-  Cu  
Au  
Ag ANOMALOUS SOIL GEOCHEMISTRY ZONE (COPPER, GOLD, SILVER)
-  INDUCED POLARIZATION CHARGEABILITY ANOMALY
-  VLF-EM CONDUCTOR



<b>GEOPHYSICAL - GEOCHEMICAL COMPILATION</b> <b>MAIN MINERALIZED ZONES</b> <b>SNOW PROPERTY</b> OMINECA MINING DIVISION BRITISH COLUMBIA	
TECH WORK BY: DAWSON GEOL. CONS. LTD.	SCALE: 1:5,000
DRAWN BY: JMD/rwr	DATE: DECEMBER, 1989
APPROVED BY: J.M. DAWSON, P.Eng.	Figure 2000-4

**Mineralization:**

11 Mineralization on the property consists of sulphide fracture - fillings and sulphide rich quartz - carbonate veins proximal to feldspar porphyritic granodiorite dikes. Pyrite is the dominant sulphide with minor chalcopyrite and local sphalerite and galena. Individual mineralized veins and fractures trend northeast to southeast and exhibit steep north and south dips.

The mineralized zones are exposed along a 800 meter section in Snow Creek and are localized where the splay structures intersect the north - south trending regional fault. Individual pyritic zones are up to 27 meters wide. Due to glacial and talus cover, the mineralized zones were not traceable beyond Snow Creek. A total of 37 rock samples were collected and sent in for 32 element ICP.

Yenbatim  
from  
AR  
18014

### Showings on the Snow Property.

Discovery Showing: *previously known*

This showing was first found by Hank Van Alphen. A grab sample of pyritic fault gouge yielded assays of 489.09 g/ton Au and 246.8 g/ton Ag. Sample GC88-7 return assay results of 4.87 g/ton Au, 104.9 g/ton Ag and 0.6% Zn. The mineralization of this showing is small veins, and due to weathering, previous assay results could not be repeated. A chip sample of a 3 inch carbonate vein yielded 47.6 g/ton Ag and 0.17% Zn (sample MJS7).

Peninsula Showing: *previously known*

Previous sampling of this zone yielded some high grade veining. Sample GC88-8a, from a quartz vein, yielded 4.25 g/ton Au, 65.5 g/ton Ag and 0.2% Zn. Sample GC88-8b was from a pyrite vein. This sample returned assay results of 3.02 g/ton Au, 68.6 g/ton Ag, 0.2% Pb and 0.92% Zn.

Island Showing: *previously known*

The Island Showing has Snow Creek running along the east side and a dry creek bed on the west. Previous sampling was concentrated on the west side of the island. Samples yielded analysis of up to 69.9 g/ton Ag, 3.77 g/ton Au and 0.16% Zn (Sample 6319). 64.8 g/ton Ag, 3.84 g/ton Au and 0.26% Zn (Sample 6320). 70.6 g/ton Ag, 3.67 g/ton Au, 0.14% Zn and 0.16% Pb (sample 6322). New samples of the showing yielded assays of up to 136 g/ton Ag (sample MJS27).

Recent exploration concentrated on the east side of the island, as well as the far west bank. Three samples were obtained from a 18 meter long by 5 meters wide vein along Snow Creek. The assays returned elevated silver numbers, 139 g/ton Ag (sample MJS2). 70.6 g/ton Ag (sample MJS3). The third sample was from a 1" vein of highly weathered sulphide material. 196 g/ton Ag (sample S200).

Hand trenching was required on the <sup>new</sup> west bank, but outcrop showed that mineralization continued on from the original showing. A chip sample of highly fractured volcanics yielded assay results of 49.8 g/ton Ag (sample MJS26).



Falls Showing: *New showing*

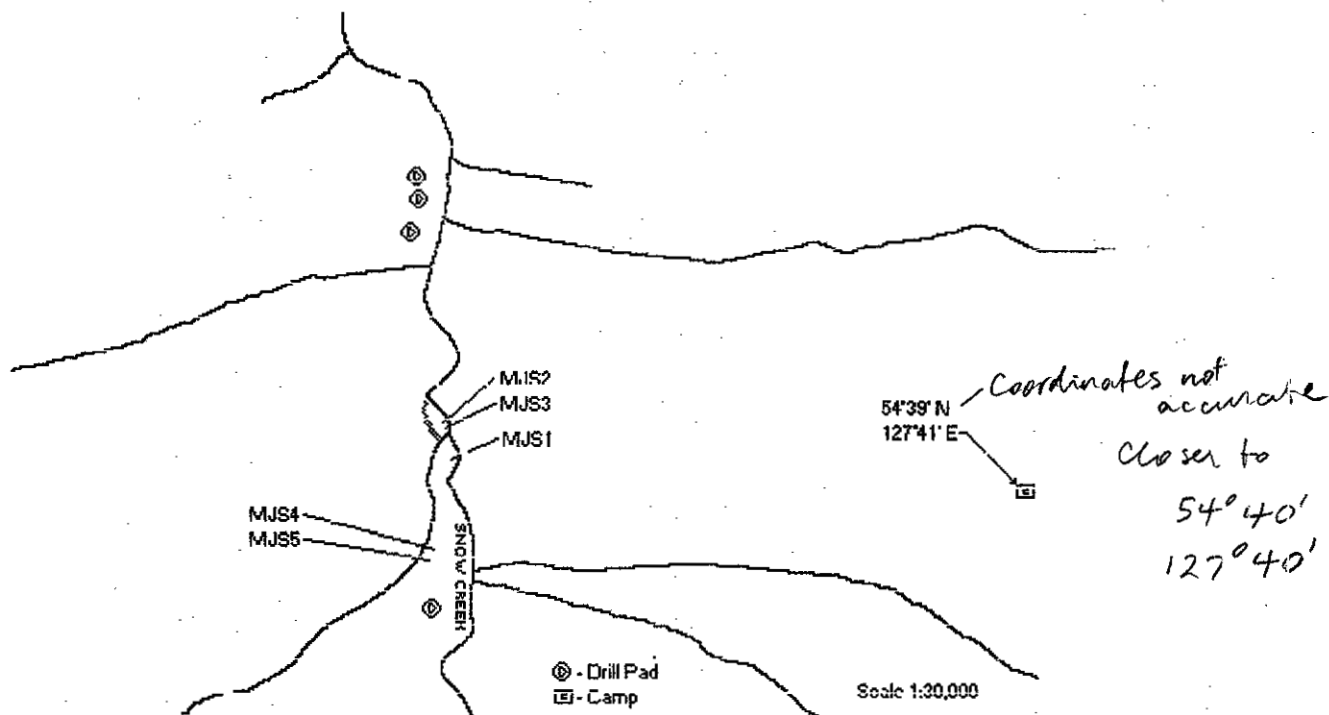
Half of the falls showing is hidden by a small waterfall. A mineralized vein, 3 meter long by 1 meter high, was sampled. Sample MJS30, is a chip sample of altered tuff with 50% pyrite. This sample returned results of 33.6 g/ton Ag and 0.12% Zn. Sample MJS31 is a chip sample of a 7 inch carbonate vein with 60% pyrite. It assayed 261 g/ton Ag and 0.27% Zn.

Creek Showing:

A float sample from a large boulder in creek yielded 79.8 g/ton Ag and 0.2% Zn (sample MJS11). This showing runs 30 meters along a tributary to Snow Creek. Samples were taken at 3 meter intervals along strike. Four samples of a carbonate vein yielded an average of 49.4 g/ton Ag and 0.31% Zn (samples MJS12-15). Sample MJS16 is a chip sample of maroon tuff with malachite and azurite staining. The assays returned low numbers for Ag but the Cu was 0.35%. Sample MJS17 was from higher up the hill, this sample was of Maroon tuff as well. This sample returned values of 0.24% Cu. Previous samples from the showing averaged 49.1 g/ton Ag, 3.18 g/ton Au, 0.62% Zn and 0.14% Pb.

A small creek to the north of the creek showing has been prospected. Although no outcrop yielded any substantial assay results, a high grade piece of float returned some impressive assays. Sample MJS21 returned assay numbers of 502 g/ton Ag, 14.6 % Cu and 0.19% Zn. Pacific Rim collected a sample of float that closely resembles sample MJS21. Sample 6301 returned assays of up to 178.63 g/ton Au, 2315.7 g/ton Ag and 6.85% Cu. A trenching program is suggested to locate the origins of the aforementioned samples

At the writing of this report the MJS samples had not been ~~sampled~~<sup>analyzed</sup> for gold.



**Snow Creek- Rock Sample Descriptions:**

Sample:

**MJS1** Rock Type: Granodiorite.  
 Grab from outcrop. Altered rock with mineralization in fine fractures. Rust along fractures. Trace malachite on surface. 3-4" vein.

Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
5.6	6	51	12	84

*Island show*

**MJS2** Rock Type: Altered Volcanics  
 Chip sample along 18 meters, veining up to 5 meters wide. Massive pyrite veins up to 6". Pyrite cubes up to 1cm. Manganese staining on surface.

Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
139	32	66	892	684

**MJS3** Rock Type: Grey Tuff.  
 Chip sample from outcrop. Gossanous surface, pyrite and chalcopyrite veins.

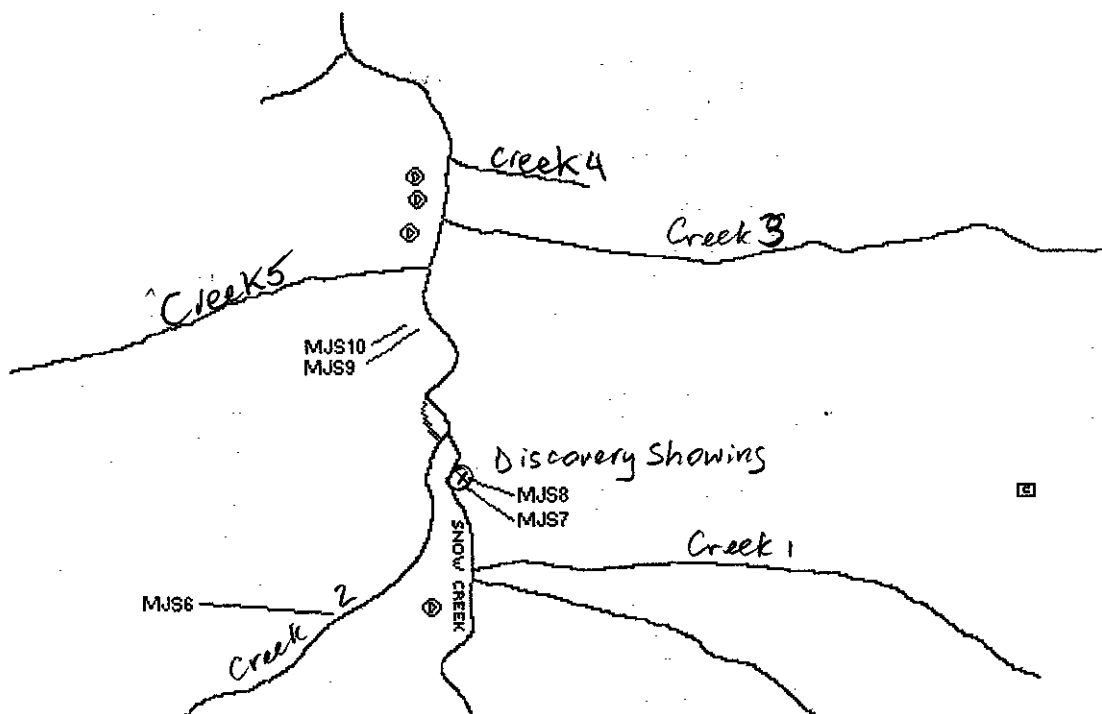
Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
70.6	12	130	970	966

**MJS4** Rock Type: Granodiorite.  
 Granodiorite with serpentine, rusty surface. Minor amounts of pyrite.

Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
3.2	8	28	180	374

**MJS5** Rock Type: Tuff  
 Grey Tuff with rust on surface, small veins of pyrite. Manganese staining on surface. 10 meter vein, strikes north. Pyrite cubes up to 3mm.

Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
3.2	14	41	72	222



MJS6                      Rock Type: Granodiorite.  
 Chip sample from outcrop, pyrite along dry fractures.

Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
19	14	3970	176	1995

Discovery Showing  
 MJS7                      Rock Type: Carbonate Vein.  
 Chip sample from the discovery showing. 20% pyrite with trace amounts of chalcopyrite.

Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
47.6	354	126	654	1725

MJS8                      Rock Type: Altered volcanics.  
 Chip sample from the discovery showing. Gossanous with vuggy fractures. Pyrite veining in fractures.

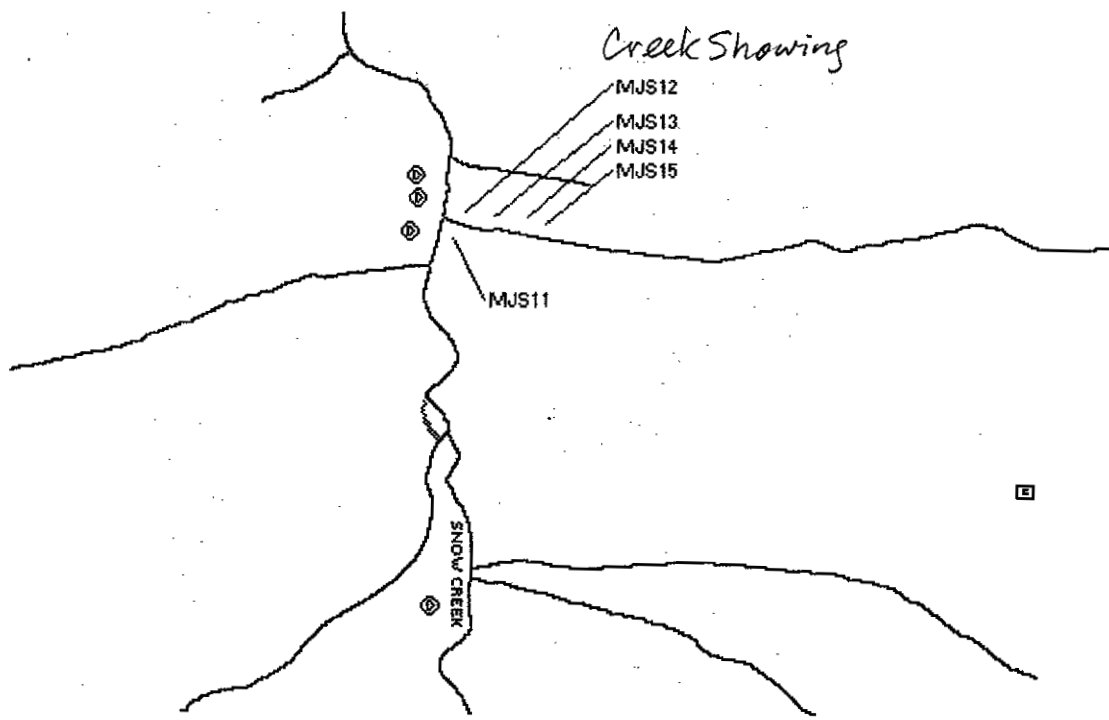
Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
4	20	14	118	378

MJS9                      Rock Type: Tuff.  
 Grab from outcrop. Maroon tuff with malachite and azurite staining. Trace amount of pyrite.

Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
13.6	2	5130	20	158

MJS10                      Rock Type: Tuff.  
 Grab from outcrop. Sample taken 15m above MJS9, but not along same contact. Maroon tuff with malachite and azurite staining. Pyrite and trace chalcopyrite disseminated throughout.

Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
20.2	2	6730	38	238



Creek Showings

MJS11

Rock Type: Massive Sulphide Boulders.

Large angular float. Massive pyrite and chalcopyrite.

Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
79.8	198	310	684	1980

MJS12 - MJS15

Rock Type: Carbonate vein.

Grab samples from outcrop. Samples collected at 3m intervals along creek bed. 15 - 30cm, carbonate and quartz vein, containing up to 50% sulphide minerals. Predominantly pyrite with chalcopyrite, and trace sphalerite. Vein is exposed 30 meters along strike.

MJS12

Rock Type: Carbonate vein.

15 inch vein of quartz and pyrite in creek bed.

Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
30	94	93	712	3050

MJS13

Rock Type: Carbonate vein.

30% sulphide minerals. Rusty surface. Pyrite and chalcopyrite.

Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
205	238	6540	312	890

MJS14

Rock Type: Carbonate Vein.

45% Sulphide minerals. Pyrite and chalcopyrite.

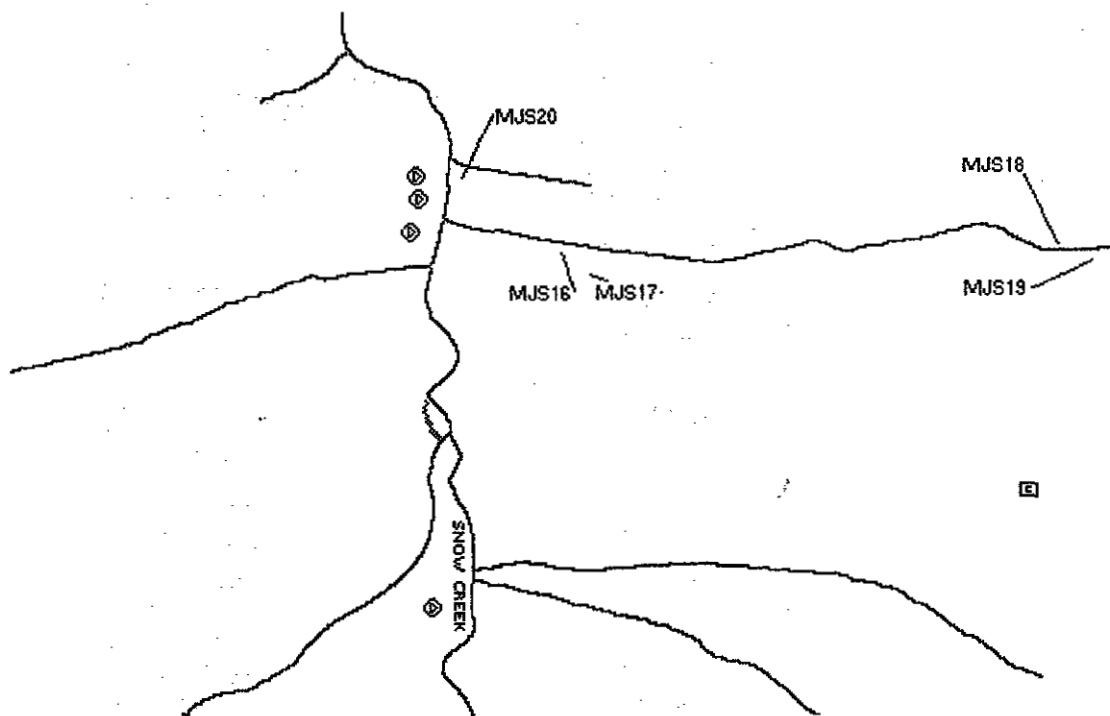
Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
13.8	12	119	4450	8750

MJS15

Rock Type: Carbonate Vein.

Chip sample is 90% pyrite. 24" vein dips under creek.

Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
48.8	90	200	194	488



*Creek Showing*

MJS16

Rock Type: Tuff.

Chip sample from float. Maroon tuff. Approximately a two ton boulder in creek bed. The whole boulder was covered in malachite and azurite staining.

Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
1	2	3490	100	256

MJS17

Rock Type: Tuff.

Chip sample from outcrop. 15m up creek from MJS16, on south side of creek. Maroon tuff with malachite and azurite staining.

Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
0.4	2	2420	22	126

MJS18

Rock Type: Tuff.

Chip sample from outcrop, dark colored tuff with small amounts of malachite on surface and along dry fractures. 1% pyrite, 1% carbonate.

Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
1.8	2	3960	12	94

MJS19

Rock Type: Altered Volcanics.

Grab sample from outcrop. 2m along strike, 1m along dip. Rusty volcanics with pyrite veining and pyrite disseminated throughout. Pyrite cubes up to 3mm.

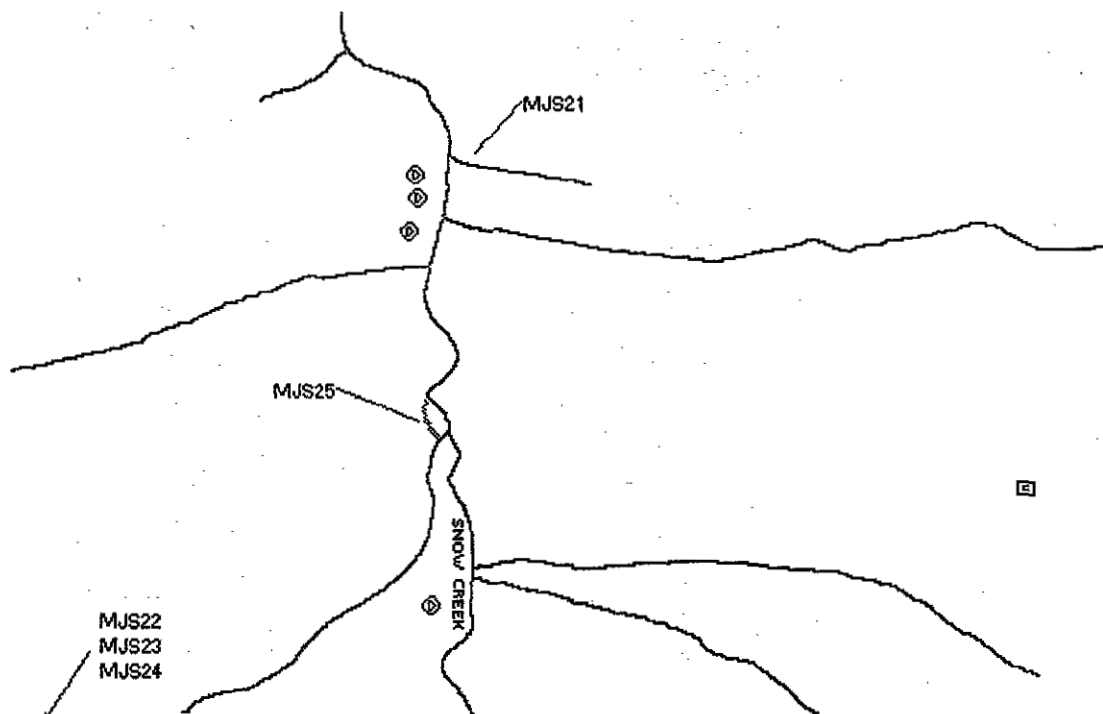
Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
18.6	30	3840	102	172

MJS20

Rock Type: Porphyritic Intrusion.

Chip sample from outcrop. Grey, medium-grained, porphyritic granodiorite dike. Rusty oxidation with small amounts of malachite on fresh surface.

Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
0.2	2	250	12	66



MJS21 *North of Creek Showing* Rock Type: Massive sulphide.  
 Grab from float. Large angular float. Massive pyrite, chalcopyrite, and trace bornite.  
 Rusty surface. Vuggy areas filled in with rust. Pyrite cubes up to 5mm.

Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
502	334	14600	1160	1900

MJS22 Rock Type: Granitic Porphyry.  
 Granitic rock with 25% carbonates. Rusty surface. Disseminated pyrite.

Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
1.2	2	226	10	28

MJS23 Rock Type: Porphyry.  
 K-Feldspar with 1% pyrite. Rusty surface. Chip sample from outcrop at 4W corner post for Snow claim.

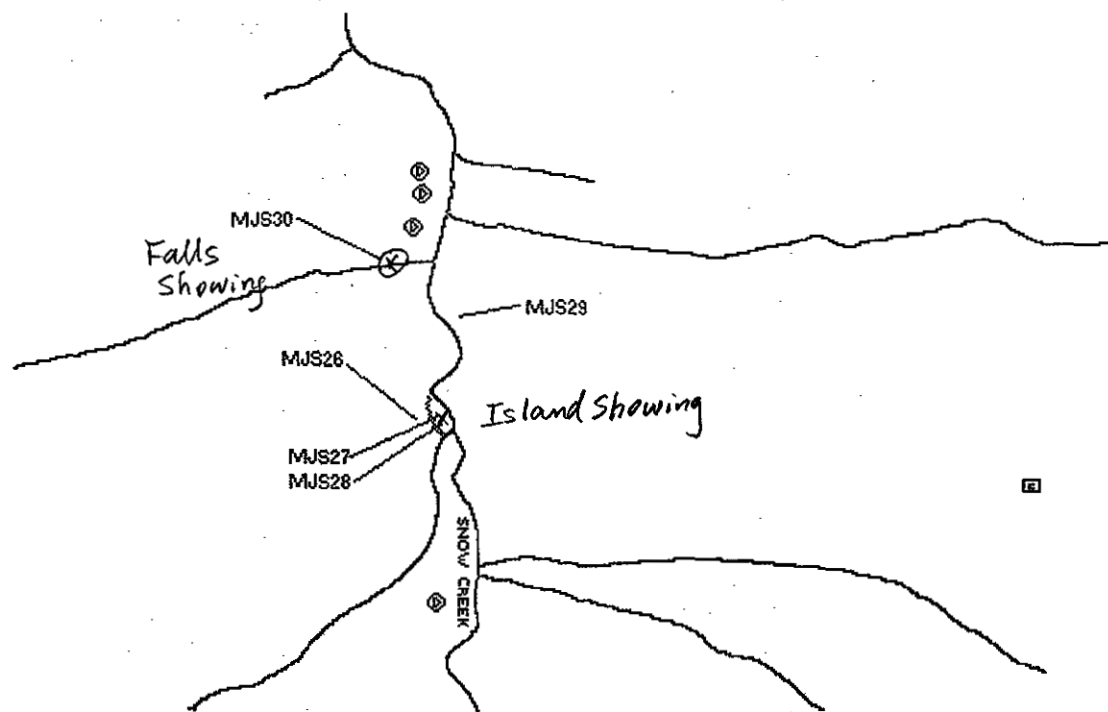
Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
1.6	2	252	12	24

MJS24 Rock Type: Porphyry.  
 K-Feldspar with 15% pyrite. Rusty surface. Chip sample from cliff, due west from camp. Cliff is west side of valley.

Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
1.2	2	197	14	44

*Island*  
 MJS25 Rock Type: Tuff.  
 Chip sample from bank on west side from the Island Showing. Numerous thin pyrite veins.

Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
5.2	8	187	40	196



**MJS26**                      Rock Type: Altered Volcanics.  
 Chip sample from outcrop. Sample taken from bank, west of Island Showing. Highly fractured with pyrite veins filling in voids.

Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
49.8	22	181	430	1020

**MJS27**                      Rock Type: Altered Volcanics.  
 Chip sample from Island Showing. Sampled along strike. 40% sulphide. Thin pyritic veins with disseminated sulfides within host rock.

Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
136	8	179	1020	4370

**MJS28**                      Rock Type: Altered Volcanics.  
 Chip sample from Island Showing. Rusty surface. Disseminated pyrite.

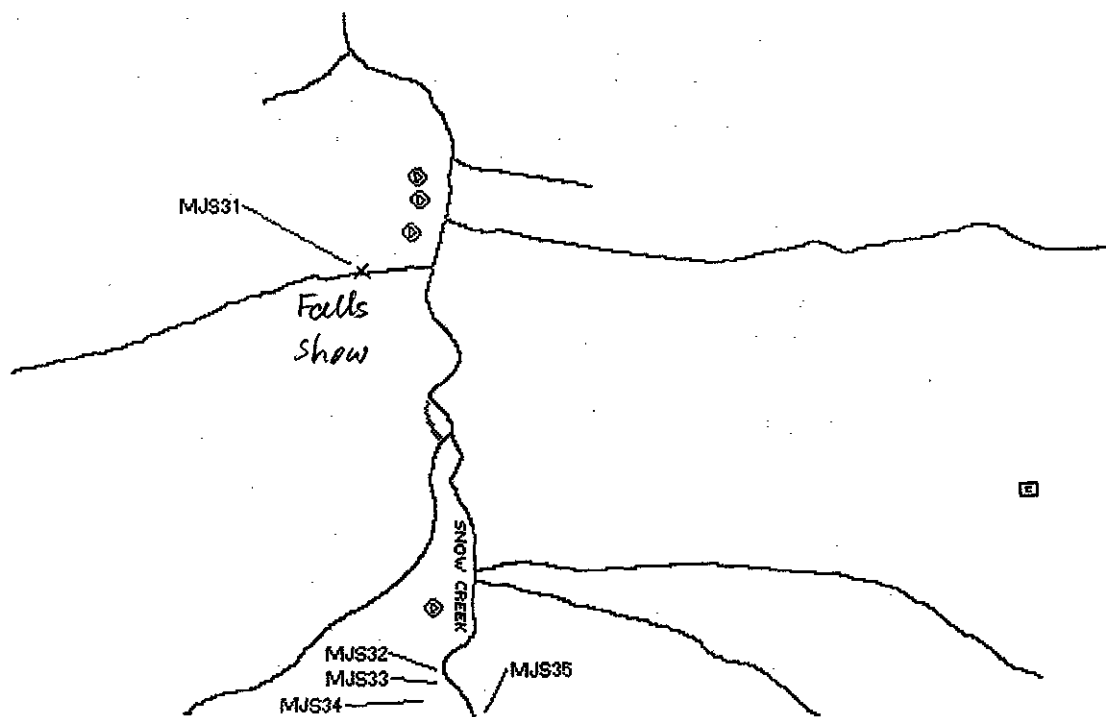
Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
14	12	344	374	2360

**MJS29**                      Rock Type: Tuff.  
 Green and maroon tuff. Chip sample from outcrop. Less than 1% pyrite and chalcopyrite. Malachite visible on surface.

Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
4.6	2	7090	10	158

**MJS30**                      Rock Type: Altered tuff.  
 Chip sample from Falls showing. Sample taken from a 5" vein of altered tuff. Pyrite veining is extensive with trace chalcopyrite and malachite. 50% pyrite, 10% quartz.

Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
33.6	60	208	370	1210



MJS31	Rock Type: Carbonate Vein.				
	Chip sample from the Falls Showing. 60% pyrite with cubes up to 1cm. 7" vein, 3 meters long, dipping at 40°.				
	Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
	261	164	318	712	2700
MJS32	Rock Type: Tuff.				
	Chip sample from outcrop. 8 meter vein dipping east into creek. Green tuff with 1cm pyrite veins.				
	Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
	3.8	2	1680	8	76
MJS33	Rock Type: Tuff.				
	Grab from outcrop. Green tuff with quartz and pyrite vein up to 2cm wide.				
	Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
	9.4	14	1440	12	56
MJS34	Rock Type: Tuff.				
	Green Tuff with disseminated pyrite. Vein is 1 meter wide. 5% pyrite.				
	Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
	4	8	63	62	210
MJS35	Rock Type: Tuff				
	Chip sample of gossanous Tuff. Disseminated pyrite.				
	Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
	5	8	518	130	606
MJS36	Rock Type: Tuff.				
	Chip sample from small creek bed. Grey tuff with 1% disseminated pyrite.				
	Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
	14	8	16	50	158
MJS37	Rock Type: Tuff.				
	Pale grey tuff. Highly fractured with very little pyrite.				
	Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
	6	8	64	50	130



	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Au(ppb)	Fe%	As	Sr	Cd	Sb	Bi	V	Ca%	P%	La	Cr	Mg%	Ba	B	Al%	K%	W
Quartz vein	5.1	111	436.7	2700	36.6	2	31	3390	2598	13.2	220	34	30	2	4	4	1.63	0.008	2	3	0.16	16	3	0.26	0.04	3.3
Fault Gouge	8	46.5	205	4450	56.6	4	27.5	1085	2778	13.2	163	4	42	2	3.5	27.5	0.07	0.025	3.5	2.5	0.64	25	4.6	1.1	0.31	5
Rhyolite	2.25	309	190	695	10.6	1.3	3.3	2492	318	1.95	28	37	15	7	7	2.25	0.009	0.002	24	5	0.04	32	28	25	0.125	5.5
Tuff	2.7	837.3	453	936	28.6	3.1	19	5189	1157	8.3	20	90	8	2	7	19.4	3.48	0.004	5.7	3.9	0.78	15.4	3	1.2	0.09	1.1
Altered Volcanics	13.7	11702	468	1977	507	5.8	20	11534	30591	9.4	73	194	21.5	2.5	9.3	63	7.25	0.303	7.5	5.8	1.21	22.8	4	1.4	0.08	15.8
Carbonate Vein	5.9	572	1151	4262	38.4	2	37	14297	3131	13	109	15	3	2.4	3.4	3.8	7.93	0.003	2	3.9	0.28	8.5	4.6	0.2	0.04	4.9
Breccia	2.3	1187	26	410	10.1	3.2	8.3	1506	519	5.3	12	15	3	2.4	3.7	30.3	0.6	0.06	7.9	5.1	0.53	28.9	3.6	1.1	0.1	1
Pyrite Vein	2	64	1645	7878	53.6	4	41	3020	3020	18.3	43	57	68	2	2	3	2.25	0.005	2	1	0.06	8	6	0.2	0.06	1
Porphyritic Intrusion	2	566	30	166	1.4	3	7	1031	6	2.16	2	97	1	2	2	21	2.18	0.068	21	6	0.66	62	7	1.2	0.19	1
Granodiorite	1	17	94	310	2.1	1	8	628	49	3.3	7	193	3	3	2	29	1.5	0.056	13	3	0.52	66	2	1.75	0.15	1
Average for 50 samples	3.82	868.9	317.28		23.8				3973																	

In the attempt to understand the relationship between the mineralization and the certain rock types I was to discover on Snow Creek, I correlated all known data into the table above. I hoped that by doing so I would be able to narrow down rocks that needed prospecting. This was just an aid to the prospecting. However, some of the numbers were elevated due to one or two samples that assayed as bonanza grade. -MTM.

**Michael Middleton**  
**Statement of Qualifications**

1990- Completed the Smithers Exploration's Bush Sills Course.

1992- Laborer at a high grading operation for Al Raven.

1994- Field assistant for CJL Enterprises Ltd.

1995- Full time field assistant for CJL Ent.

Soil and rock sampler, claim staker.

1996- Full time field assistant for CJL Ent.

Soil and rock sampler, claim staker, line cutter, and prospector.

1997- 2000- Prospector and field assistant for CJL Ent.

2000- Completed Geography 202, at College of New Caledonia.

2000- Completed Smithers Exploration Group's Advanced Prospecting Course.

### References

- Carter, N.C., 1981. Porphyry Copper and Molybdenum Deposits of West-Central British Columbia; BCMEMPR Bull. 64.
- Cope, G.R., 1988. Geology, Geochemistry and Geophysics of the Snow Option; BCMEMPR Assessment Report # 18014.
- Tipper, H.W., 1976. Geology of the Smithers Map Area, British Columbia; Geological Survey of Canada, Open File 351.
- Tipper, H.W. and Richards, T.A., 1976. Jurassic Stratigraphy and History of North-Central British Columbia. Geological Survey of Canada Bull. 270.

**Analytical Results**

Appendix D



# ALS Chemex

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Project: SNOW  
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 Invoice No. :10032736  
 P.O. Number :  
 Account :SLR

## CERTIFICATE OF ANALYSIS

### A0032736

SAMPLE	PREP CODE	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
MJS 1	205 226	5.6	1.09	6	< 10	90	< 0.5	< 2	0.15	< 0.5	11	44	51	4.52	< 10	< 1	0.19	< 10	0.67	760
MJS 2	205 226	>100.0	0.70	32	< 10	< 10	0.5	50	0.63	6.0	103	86	66	>15.00	< 10	< 1	0.14	< 10	0.41	1195
MJS 3	205 226	70.6	0.67	12	< 10	10	0.5	32	1.95	9.0	68	65	130	14.60	< 10	< 1	0.12	< 10	0.34	1575
MJS 4	205 226	3.2	1.37	8	< 10	20	< 0.5	< 2	2.52	2.0	8	35	28	5.32	10	< 1	0.10	< 10	0.89	4200
MJS 5	205 226	3.2	1.28	14	< 10	30	< 0.5	< 2	0.50	0.5	10	61	41	5.34	< 10	< 1	0.07	< 10	0.85	1340
MJS 6	205 226	19.0	2.16	14	< 10	30	< 0.5	< 2	1.02	17.0	26	83	3970	6.91	10	< 1	0.07	< 10	1.69	2650
MJS 7	205 226	47.6	0.33	354	< 10	< 10	< 0.5	10	2.40	17.0	21	68	126	11.30	< 10	< 1	0.04	< 10	0.19	2900
MJS 8	205 226	4.0	1.75	20	< 10	30	< 0.5	< 2	0.14	2.0	10	45	14	5.62	< 10	< 1	0.20	< 10	1.25	1200
MJS 9	205 226	13.6	0.81	2	< 10	40	0.5	< 2	1.54	0.5	6	62	5130	2.82	< 10	< 1	0.10	< 10	0.31	2130
MJS 10	205 226	20.2	0.84	2	< 10	40	0.5	< 2	0.94	1.0	4	71	6730	2.83	< 10	< 1	0.12	< 10	0.34	1570
MJS 11	205 226	79.8	0.23	198	< 10	< 10	0.5	24	5.57	24.5	86	52	310	>15.00	10	< 1	0.05	< 10	0.18	5660
MJS 12	205 226	30.0	0.19	94	< 10	< 10	0.5	8	11.55	30.5	38	38	93	>15.00	40	< 1	0.04	< 10	0.35	>10000
MJS 13	205 226	>100.0	0.13	238	< 10	< 10	< 0.5	12	2.70	10.0	25	49	6540	8.84	< 10	< 1	0.04	< 10	0.11	4080
MJS 14	205 226	13.8	0.19	12	< 10	10	< 0.5	12	12.70	98.0	12	10	119	3.37	30	< 1	0.03	< 10	0.28	>10000
MJS 15	205 226	48.8	0.07	90	< 10	< 10	< 0.5	12	0.22	5.0	63	43	200	12.80	< 10	< 1	0.04	< 10	0.03	355
MJS 16	205 226	1.0	0.45	< 2	< 10	20	< 0.5	< 2	1.01	2.5	3	34	3490	1.28	< 10	< 1	0.07	< 10	0.18	1455
MJS 17	205 226	0.4	1.87	2	< 10	30	0.5	< 2	2.08	2.0	15	39	2420	3.08	< 10	< 1	0.07	< 10	2.04	1185
MJS 18	205 226	1.8	0.71	2	< 10	40	< 0.5	< 2	0.44	4.0	5	26	3960	3.08	< 10	< 1	0.08	< 10	0.49	805
MJS 19	205 226	18.6	0.86	30	< 10	20	< 0.5	< 2	0.18	0.5	5	35	3840	4.10	< 10	< 1	0.07	< 10	0.48	895
MJS 20	205 226	0.2	0.92	2	< 10	60	< 0.5	< 2	0.51	< 0.5	4	31	250	1.67	< 10	< 1	0.09	< 10	0.37	255
MJS 21	205 226	>100.0	0.06	334	< 10	< 10	1.5	6	0.10	20.5	26	53	>10000	>15.00	< 10	< 1	0.01	< 10	0.04	170
MJS 22	205 226	1.2	0.45	2	< 10	190	< 0.5	< 2	0.49	< 0.5	3	99	226	1.69	< 10	< 1	0.19	< 10	0.27	175
MJS 23	205 226	1.6	0.76	< 2	< 10	180	< 0.5	74	0.27	< 0.5	5	72	252	2.24	< 10	< 1	0.35	< 10	0.61	120
MJS 24	205 226	1.2	1.00	< 2	< 10	40	0.5	32	0.23	< 0.5	6	44	197	4.79	< 10	< 1	0.15	< 10	0.89	255
MJS 25	205 226	5.2	1.39	8	< 10	< 10	< 0.5	< 2	0.17	< 0.5	10	52	187	5.19	10	< 1	0.03	< 10	0.98	1440
MJS 26	205 226	49.8	1.01	22	< 10	10	0.5	18	0.75	9.0	54	79	181	14.00	< 10	< 1	0.06	< 10	0.70	3130
MJS 27	205 226	>100.0	0.47	8	< 10	< 10	0.5	30	11.35	41.0	40	47	179	12.85	40	< 1	0.06	< 10	0.60	>10000
MJS 28	205 226	14.0	1.08	12	< 10	10	< 0.5	< 2	4.13	23.5	26	40	344	6.40	< 10	< 1	0.12	< 10	0.51	4630
MJS 29	205 226	4.6	1.32	< 2	< 10	60	< 0.5	< 2	0.47	< 0.5	8	43	7090	2.99	< 10	< 1	0.10	< 10	1.03	1100
MJS 30	205 226	33.6	0.75	60	< 10	20	0.5	< 2	1.45	11.5	74	59	208	12.15	< 10	< 1	0.19	< 10	0.40	1600
MJS 31	205 226	>100.0	0.10	164	< 10	< 10	0.5	4	2.09	29.5	100	53	318	>15.00	10	< 1	0.12	< 10	0.08	2090
MJS 32	205 226	3.8	1.07	2	< 10	80	< 0.5	< 2	2.55	0.5	23	30	1680	4.40	< 10	< 1	0.24	< 10	0.81	1120
MJS 33	205 226	9.4	0.61	14	< 10	10	0.5	< 2	3.72	1.5	424	66	1440	9.75	< 10	< 1	0.09	< 10	0.51	1315
MJS 34	205 226	4.0	0.81	8	< 10	30	< 0.5	< 2	2.87	1.0	10	39	63	4.72	< 10	< 1	0.09	< 10	0.51	2130
MJS 35	205 226	5.0	1.20	8	< 10	10	< 0.5	< 2	1.69	5.0	12	30	518	5.20	< 10	< 1	0.07	< 10	0.77	2080
MJS 36	205 226	14.0	0.17	8	< 10	30	< 0.5	6	0.22	1.0	4	62	16	1.97	< 10	< 1	0.07	< 10	0.03	475
MJS 37	205 226	6.0	1.28	8	< 10	60	0.5	14	0.11	< 0.5	17	63	64	5.15	< 10	< 1	0.29	< 10	0.69	695

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SAMPLE	PREP CODE	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
MJS 1	205 226	2	0.05	5	630	12	1.48	< 2	4	12	0.01	< 10	< 10	14	< 10	84
MJS 2	205 226	19	0.03	8	490	892	>5.00	< 2	2	26	< 0.01	< 10	< 10	16	< 10	684
MJS 3	205 226	27	0.04	5	1000	970	>5.00	< 2	3	48	< 0.01	< 10	< 10	16	< 10	966
MJS 4	205 226	5	0.06	6	1140	180	2.93	< 2	7	74	< 0.01	< 10	< 10	37	< 10	374
MJS 5	205 226	4	0.07	6	1090	72	2.56	< 2	9	19	0.01	< 10	< 10	62	< 10	222
MJS 6	205 226	4	0.05	28	720	176	3.83	< 2	10	27	0.01	< 10	< 10	60	< 10	1995
MJS 7	205 226	24	0.04	3	440	654	>5.00	< 2	1	71	< 0.01	< 10	< 10	8	< 10	1725
MJS 8	205 226	26	0.03	2	620	118	2.35	< 2	4	8	< 0.01	< 10	< 10	19	< 10	378
MJS 9	205 226	5	0.07	6	500	20	1.70	< 2	4	79	< 0.01	< 10	< 10	17	< 10	158
MJS 10	205 226	2	0.06	5	520	38	1.00	< 2	4	35	< 0.01	< 10	< 10	20	< 10	238
MJS 11	205 226	23	< 0.01	4	270	684	>5.00	< 2	< 1	159	< 0.01	< 10	< 10	10	< 10	1980
MJS 12	205 226	21	< 0.01	< 1	180	712	>5.00	2	< 1	299	< 0.01	< 10	< 10	8	< 10	3050
MJS 13	205 226	15	< 0.01	1	130	312	>5.00	2	< 1	54	< 0.01	< 10	< 10	4	< 10	890
MJS 14	205 226	6	< 0.01	< 1	100	4450	3.91	< 2	< 1	336	< 0.01	< 10	< 10	5	< 10	8750
MJS 15	205 226	16	< 0.01	3	160	194	>5.00	< 2	< 1	10	< 0.01	< 10	< 10	2	< 10	488
MJS 16	205 226	1	0.04	2	290	100	0.46	< 2	2	24	< 0.01	< 10	< 10	6	< 10	256
MJS 17	205 226	< 1	0.02	18	290	22	0.08	< 2	8	28	0.11	< 10	< 10	80	< 10	126
MJS 18	205 226	< 1	0.03	2	670	12	0.34	< 2	4	8	0.05	< 10	< 10	29	< 10	94
MJS 19	205 226	4	0.03	2	480	102	2.30	< 2	4	7	< 0.01	< 10	< 10	33	< 10	172
MJS 20	205 226	< 1	0.03	1	510	12	0.06	< 2	2	39	0.08	< 10	< 10	27	< 10	66
MJS 21	205 226	21	< 0.01	8	290	1160	>5.00	6	< 1	9	< 0.01	< 10	10	4	< 10	1900
MJS 22	205 226	45	0.03	1	560	10	0.60	< 2	1	76	0.05	< 10	< 10	20	250	28
MJS 23	205 226	115	0.06	1	830	12	0.90	< 2	3	27	0.14	< 10	< 10	52	< 10	24
MJS 24	205 226	4	0.03	2	1110	14	2.97	< 2	4	9	0.02	< 10	< 10	47	< 10	44
MJS 25	205 226	1	0.07	4	860	40	1.76	< 2	8	7	0.01	< 10	< 10	50	< 10	196
MJS 26	205 226	17	0.04	4	640	430	>5.00	< 2	4	26	< 0.01	< 10	< 10	28	< 10	1020
MJS 27	205 226	19	< 0.01	1	380	1020	>5.00	2	3	405	< 0.01	< 10	< 10	11	< 10	4370
MJS 28	205 226	10	0.03	3	1000	374	>5.00	< 2	6	104	< 0.01	< 10	< 10	18	< 10	2360
MJS 29	205 226	< 1	0.08	3	720	10	0.70	< 2	8	18	0.01	< 10	< 10	22	< 10	158
MJS 30	205 226	18	0.03	9	800	370	>5.00	< 2	4	31	0.09	< 10	< 10	42	< 10	1210
MJS 31	205 226	10	0.01	8	300	712	>5.00	< 2	< 1	58	< 0.01	< 10	< 10	9	10	2700
MJS 32	205 226	1	0.06	9	1400	8	0.92	< 2	9	43	0.09	< 10	< 10	72	< 10	76
MJS 33	205 226	< 1	0.03	6	520	12	>5.00	< 2	4	74	0.01	< 10	< 10	36	< 10	56
MJS 34	205 226	1	0.05	3	880	62	3.38	< 2	6	80	0.01	< 10	< 10	33	< 10	210
MJS 35	205 226	1	0.07	7	890	130	3.39	< 2	9	46	< 0.01	< 10	< 10	82	< 10	606
MJS 36	205 226	7	0.07	1	50	50	1.72	< 2	< 1	9	< 0.01	< 10	< 10	< 1	< 10	158
MJS 37	205 226	1	0.04	5	470	50	2.51	< 2	9	8	0.01	< 10	< 10	102	< 10	130

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## A0033285

SAMPLE	PREP CODE	Ag FA g/t	Cu %										
MJS 2	212 --	139	-----										
MJS 13	212 --	205	-----										
MJS 21	212 --	502	14.60										
MJS 27	212 --	136	-----										
MJS 31	212 --	261	-----										

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 Account : SLR

## CERTIFICATE OF ANALYSIS

### A0032743

SAMPLE	PREP CODE	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
EM 00	235 234	400	40	< 10	< 5	20	0.04	< 20	< 20	20	< 20	130
EM 20	235 234	600	25	< 10	5	30	0.11	< 20	< 20	60	< 20	110
EM 201	235 234	1000	45	< 10	5	35	0.16	< 20	< 20	120	< 20	255
EM 202	235 234	900	20	< 10	5	50	0.17	< 20	< 20	120	< 20	120
EM 203	235 234	800	15	10	5	45	0.15	< 20	< 20	120	< 20	100
EM 204	235 234	900	20	10	5	50	0.14	< 20	< 20	100	< 20	105
EM 301	235 234	800	65	< 10	5	35	0.07	20	< 20	60	< 20	255
EM 302	235 234	800	30	< 10	5	35	0.11	< 20	< 20	100	< 20	165
EM 303	235 234	800	25	< 10	5	30	0.10	< 20	< 20	100	< 20	165
EM 304	235 234	800	35	< 10	5	30	0.10	< 20	< 20	80	< 20	170
EM 401	235 234	800	50	< 10	5	90	0.14	< 20	< 20	60	< 20	220
EM 402	235 234	700	30	10	5	35	0.10	< 20	< 20	40	< 20	210

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A0032743

SAMPLE	PREP CODE	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Hg ppm	K %	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm
HM 00	235 234	1	0.87	< 10	220	< 5	< 10	0.32	< 5	5	60	15	2.22	< 10	0.40	0.33	520	< 5	0.11	10
HM 20	235 234	< 1	1.47	< 10	160	< 5	< 10	0.39	< 5	10	60	15	2.99	< 10	0.43	0.77	870	< 5	0.18	15
HM 201	235 234	1	1.65	< 10	100	< 5	< 10	0.69	< 5	20	60	70	6.22	< 10	0.31	1.11	1010	< 5	0.12	20
HM 202	235 234	< 1	1.77	10	140	< 5	< 10	0.72	< 5	15	50	35	5.27	< 10	0.32	1.01	810	< 5	0.16	20
HM 203	235 234	< 1	1.51	10	140	< 5	< 10	0.68	< 5	15	50	20	5.27	< 10	0.24	0.86	670	< 5	0.12	15
HM 204	235 234	< 1	1.81	10	160	< 5	< 10	0.65	< 5	10	50	10	4.32	< 10	0.32	0.89	770	< 5	0.18	15
HM 301	235 234	2	1.85	20	120	< 5	< 10	0.52	< 5	15	40	320	4.57	< 10	0.31	1.26	1260	< 5	0.10	20
HM 302	235 234	1	2.14	< 10	200	< 5	< 10	0.50	< 5	10	50	80	5.01	< 10	0.48	1.03	860	< 5	0.17	20
HM 303	235 234	< 1	1.70	< 10	160	< 5	< 10	0.49	< 5	15	50	70	4.63	< 10	0.32	0.99	930	< 5	0.11	15
HM 304	235 234	< 1	2.31	< 10	200	< 5	< 10	0.52	< 5	15	50	145	4.21	< 10	0.49	1.23	910	< 5	0.16	25
HM 401	235 234	1	2.04	10	120	< 5	< 10	1.19	< 5	15	30	440	3.94	< 10	0.37	1.04	1280	< 5	0.11	10
HM 402	235 234	< 1	1.48	< 10	160	< 5	< 10	0.36	< 5	5	40	15	3.62	< 10	0.31	0.52	1070	< 5	0.17	5

CERTIFICATION: \_\_\_\_\_



# ALS Chemex

Aurora Laboratory Services Ltd.  
 Analytical Chemists \* Geochemists \* Registered Assayers  
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BOX 662  
 SMITHERS, BC  
 V0J 2N0

Project: SNOW  
 Comments: ATN: MIKE MIDDLETON

Page Number :1  
 Total Pages :1  
 Certificate Date: 08-NOV-2000  
 Invoice No. :I0033414  
 P.O. Number :  
 Account :SLR

**CERTIFICATE OF ANALYSIS      A0033414**

SAMPLE	PREP CODE		Ag FA g/t									
S 200	212	--	196									

CERTIFICATION: \_\_\_\_\_



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 Certificate Date: 07-NOV-2000  
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## CERTIFICATE OF ANALYSIS A0032740

SAMPLE	PREP CODE	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
L14+25N 84+10E	201 202	3.6	3.93	14	< 10	60	0.5	< 2	0.04	< 0.5	5	19	32	6.39	10	< 1	0.06	< 10	0.34	280
L14+25N 84+20E	201 202	3.0	3.13	20	< 10	110	1.0	< 2	0.07	0.5	21	18	59	5.31	< 10	< 1	0.09	10	0.55	3130
L14+25N 84+30E	201 202	3.2	2.50	14	< 10	120	1.0	< 2	0.09	1.5	14	15	55	4.15	10	< 1	0.07	10	0.40	1520
L14+25N 84+40E	201 202	1.6	1.96	6	< 10	80	< 0.5	< 2	0.07	0.5	4	15	20	5.77	10	< 1	0.05	< 10	0.16	245
L14+25N 84+50E	201 202	1.0	1.83	< 2	< 10	60	< 0.5	< 2	0.05	< 0.5	3	11	15	4.59	10	< 1	0.03	< 10	0.17	105
L14+25N 84+60E	201 202	1.6	2.04	< 2	< 10	110	0.5	< 2	0.06	0.5	3	7	25	3.61	10	< 1	0.05	< 10	0.27	320
L14+25N 84+70E	201 202	0.6	1.15	2	< 10	120	< 0.5	< 2	0.06	< 0.5	5	10	30	2.45	< 10	< 1	0.07	< 10	0.17	2780
L14+25N 84+80E	201 202	2.0	1.86	6	< 10	60	< 0.5	< 2	0.06	0.5	3	9	19	2.50	10	< 1	0.07	< 10	0.18	360
L14+25N 84+90E	201 202	1.0	3.95	18	< 10	90	0.5	< 2	0.05	1.5	8	21	40	8.66	10	< 1	0.06	< 10	0.59	565
L14+25N 85+00E	201 202	4.6	2.31	18	< 10	70	0.5	< 2	0.05	1.5	9	11	37	7.65	20	< 1	0.08	< 10	0.29	855
S 200	201 202	>100.0	0.22	50	< 10	10	1.5	40	0.03	45.0	129	< 1	147	>15.00	40	< 1	0.07	< 10	0.18	290
S 201	201 202	2.0	2.01	8	< 10	90	0.5	< 2	0.34	1.0	12	17	57	4.12	< 10	< 1	0.08	< 10	0.87	1045
S 202	201 202	1.6	1.82	8	< 10	170	< 0.5	4	0.48	1.0	13	19	76	4.06	< 10	< 1	0.12	< 10	0.89	1020
S 203	201 202	0.2	1.31	14	< 10	230	< 0.5	2	0.47	1.5	10	18	49	2.87	< 10	< 1	0.20	10	0.70	1495
S 204	201 202	1.2	2.27	10	< 10	130	0.5	< 2	0.95	2.5	14	27	97	4.39	< 10	< 1	0.12	< 10	1.05	1630
S 205	201 202	0.2	1.62	8	< 10	120	< 0.5	< 2	0.44	< 0.5	11	18	49	3.57	< 10	< 1	0.11	< 10	0.74	1210
S 206	201 202	0.2	1.85	6	< 10	80	0.5	< 2	0.15	< 0.5	8	9	49	3.79	< 10	< 1	0.11	10	0.70	695
S 207	201 202	< 0.2	4.22	< 2	< 10	150	0.5	2	2.15	< 0.5	11	8	28	3.08	< 10	< 1	0.13	< 10	0.65	5330
S 208	201 202	0.4	1.78	10	< 10	170	< 0.5	< 2	0.22	< 0.5	10	17	23	3.66	< 10	< 1	0.12	< 10	0.54	2250
S 301	201 202	4.4	1.88	24	< 10	140	0.5	< 2	0.59	3.5	15	18	465	5.03	< 10	< 1	0.12	10	0.98	2260
S 302	201 202	0.2	1.59	2	< 10	150	0.5	< 2	0.37	< 0.5	7	7	25	3.01	< 10	< 1	0.08	10	0.52	735
S 303	201 202	1.4	2.83	10	< 10	110	< 0.5	< 2	0.15	< 0.5	7	18	91	4.57	< 10	< 1	0.06	< 10	0.51	565
S 304	201 202	< 0.2	2.38	28	< 10	90	0.5	< 2	0.22	< 0.5	35	11	599	6.54	< 10	< 1	0.10	10	0.92	3870
S 305	201 202	1.6	1.73	8	< 10	120	0.5	< 2	0.24	0.5	13	21	62	4.24	< 10	< 1	0.09	10	0.78	1115
S 306	201 202	0.2	1.65	8	< 10	180	0.5	< 2	0.36	0.5	11	19	78	3.48	< 10	< 1	0.16	10	0.82	1120
S 307	201 202	< 0.2	1.81	8	< 10	210	0.5	< 2	0.44	1.0	12	24	99	3.81	< 10	< 1	0.11	10	0.94	1750
S 401	201 202	29.6	2.91	42	< 10	60	1.0	< 2	0.66	3.0	36	4	1485	7.85	20	< 1	0.10	< 10	2.25	5370
S 402A	201 202	0.2	0.40	< 2	< 10	30	< 0.5	< 2	0.04	< 0.5	< 1	6	5	0.89	< 10	< 1	0.02	< 10	0.03	70
S 402B	201 202	0.8	1.21	2	< 10	120	< 0.5	< 2	0.16	0.5	5	9	14	1.46	< 10	< 1	0.05	< 10	0.17	1025
S 403	201 202	0.6	1.34	6	< 10	160	0.5	< 2	0.65	2.0	7	11	40	2.54	< 10	< 1	0.08	10	0.42	1735
RS 00	201 202	0.2	1.30	8	< 10	240	0.5	< 2	0.21	< 0.5	9	15	28	2.74	< 10	< 1	0.10	20	0.63	1185
RS 10	201 202	1.0	0.62	16	< 10	50	< 0.5	< 2	0.07	< 0.5	3	7	9	1.86	< 10	< 1	0.06	30	0.04	320
RS 20	201 202	1.2	1.76	8	< 10	150	0.5	< 2	0.37	< 0.5	12	18	53	3.62	< 10	< 1	0.06	< 10	0.66	1320
RS 30	201 202	7.8	2.58	12	< 10	1050	0.5	< 2	0.16	0.5	20	11	117	4.19	< 10	< 1	0.11	10	0.61	1180
RS 40	201 202	9.2	1.70	20	< 10	220	0.5	< 2	0.56	1.5	21	21	198	4.71	< 10	< 1	0.13	< 10	0.90	2360
RS 50	201 202	2.6	2.00	14	< 10	110	0.5	< 2	0.31	3.0	16	11	65	4.27	< 10	< 1	0.12	10	1.13	1965

CERTIFICATION:



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BOX 662  
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Page Number :1-B  
 Total Pages :1  
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 P.O. Number :  
 Account :SLR

## CERTIFICATE OF ANALYSIS

A0032740

SAMPLE	PREP CODE	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
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L14+25N 84+20E	201 202	4	0.01	11	1040	66	0.07	< 2	2	12	0.03	< 10	< 10	84	< 10	210
L14+25N 84+30E	201 202	3	0.01	9	980	46	0.05	< 2	1	14	0.05	< 10	< 10	71	< 10	154
L14+25N 84+40E	201 202	4	0.01	6	620	30	0.04	< 2	3	9	0.08	< 10	< 10	122	< 10	58
L14+25N 84+50E	201 202	2	0.01	6	360	20	0.03	< 2	1	9	0.03	< 10	< 10	77	< 10	46
L14+25N 84+60E	201 202	1	0.01	4	1230	14	0.05	< 2	< 1	11	0.01	< 10	< 10	48	< 10	68
L14+25N 84+70E	201 202	2	0.01	4	500	14	0.03	< 2	1	16	0.04	< 10	< 10	48	< 10	68
L14+25N 84+80E	201 202	2	0.01	5	1290	12	0.04	< 2	< 1	12	0.02	< 10	< 10	44	< 10	58
L14+25N 84+90E	201 202	2	0.01	11	1280	40	0.06	< 2	6	7	0.05	< 10	< 10	110	< 10	128
L14+25N 85+00E	201 202	3	0.01	6	1500	44	1.07	< 2	2	7	0.04	< 10	< 10	83	< 10	126
S 200	201 202	11	< 0.01	9	550	2960	>5.00	< 2	1	15	< 0.01	< 10	< 10	9	< 10	3460
S 201	201 202	5	0.02	13	940	66	0.11	< 2	5	40	0.07	< 10	< 10	78	< 10	190
S 202	201 202	8	0.02	14	1050	40	0.12	< 2	5	58	0.08	< 10	< 10	84	< 10	200
S 203	201 202	< 1	0.03	15	860	48	0.02	< 2	5	28	0.07	< 10	< 10	55	< 10	162
S 204	201 202	5	0.02	20	1230	38	0.13	2	6	102	0.13	< 10	< 10	92	< 10	298
S 205	201 202	6	0.02	13	1150	26	0.03	< 2	5	46	0.08	< 10	< 10	78	< 10	122
S 206	201 202	5	0.01	9	1010	22	0.01	< 2	5	16	0.03	< 10	< 10	55	< 10	144
S 207	201 202	2	0.01	7	1670	22	0.03	< 2	2	246	0.03	< 10	< 10	58	< 10	90
S 208	201 202	1	0.01	11	720	34	0.02	< 2	2	24	0.03	< 10	< 10	74	< 10	106
S 301	201 202	3	0.02	14	1030	110	0.05	< 2	7	53	0.06	< 10	< 10	82	< 10	260
S 302	201 202	< 1	0.01	6	1320	34	0.03	< 2	1	25	0.01	< 10	< 10	49	< 10	110
S 303	201 202	2	0.01	10	1110	40	0.02	< 2	4	18	0.07	< 10	< 10	82	< 10	118
S 304	201 202	2	0.01	9	1970	56	0.03	< 2	7	8	0.08	< 10	< 10	58	< 10	192
S 305	201 202	1	0.01	14	820	42	0.03	< 2	3	18	0.05	< 10	< 10	86	< 10	178
S 306	201 202	1	0.01	15	1220	56	0.02	< 2	5	24	0.04	< 10	< 10	69	< 10	222
S 307	201 202	1	0.01	17	890	64	0.03	< 2	6	31	0.04	< 10	< 10	75	< 10	238
S 401	201 202	3	< 0.01	12	890	398	0.17	< 2	16	20	0.05	< 10	< 10	208	< 10	638
S 402A	201 202	< 1	0.01	1	170	6	0.01	< 2	< 1	7	0.03	< 10	< 10	25	< 10	24
S 402B	201 202	3	0.01	4	560	32	0.03	< 2	1	30	0.02	< 10	< 10	32	< 10	110
S 403	201 202	2	0.01	6	1000	26	0.04	< 2	3	62	0.04	< 10	< 10	44	< 10	284
RS 00	201 202	1	0.01	10	220	38	0.03	< 2	4	17	0.03	< 10	< 10	48	< 10	170
RS 10	201 202	3	0.01	4	340	64	0.03	< 2	1	5	< 0.01	< 10	< 10	8	< 10	82
RS 20	201 202	5	0.01	10	760	30	0.02	< 2	4	31	0.04	< 10	< 10	73	< 10	156
RS 30	201 202	2	0.01	9	440	82	0.03	< 2	5	10	0.01	< 10	< 10	79	< 10	220
RS 40	201 202	4	0.01	16	770	136	0.06	< 2	6	35	0.06	< 10	< 10	73	< 10	276
RS 50	201 202	1	< 0.01	17	1020	122	0.02	< 2	7	11	0.01	< 10	< 10	35	< 10	310

CERTIFICATION:

MINISTRY OF  
ENERGY & MINES

DEC 12 2000

RECEIVED  
SMITHERS, B.C.

**Mineral Hill Report**

**Omineca Mining Division  
British Columbia**

- Prepared By-

Michael Middleton  
Box 842  
150 Mile House, B.C.  
VOK 2G0

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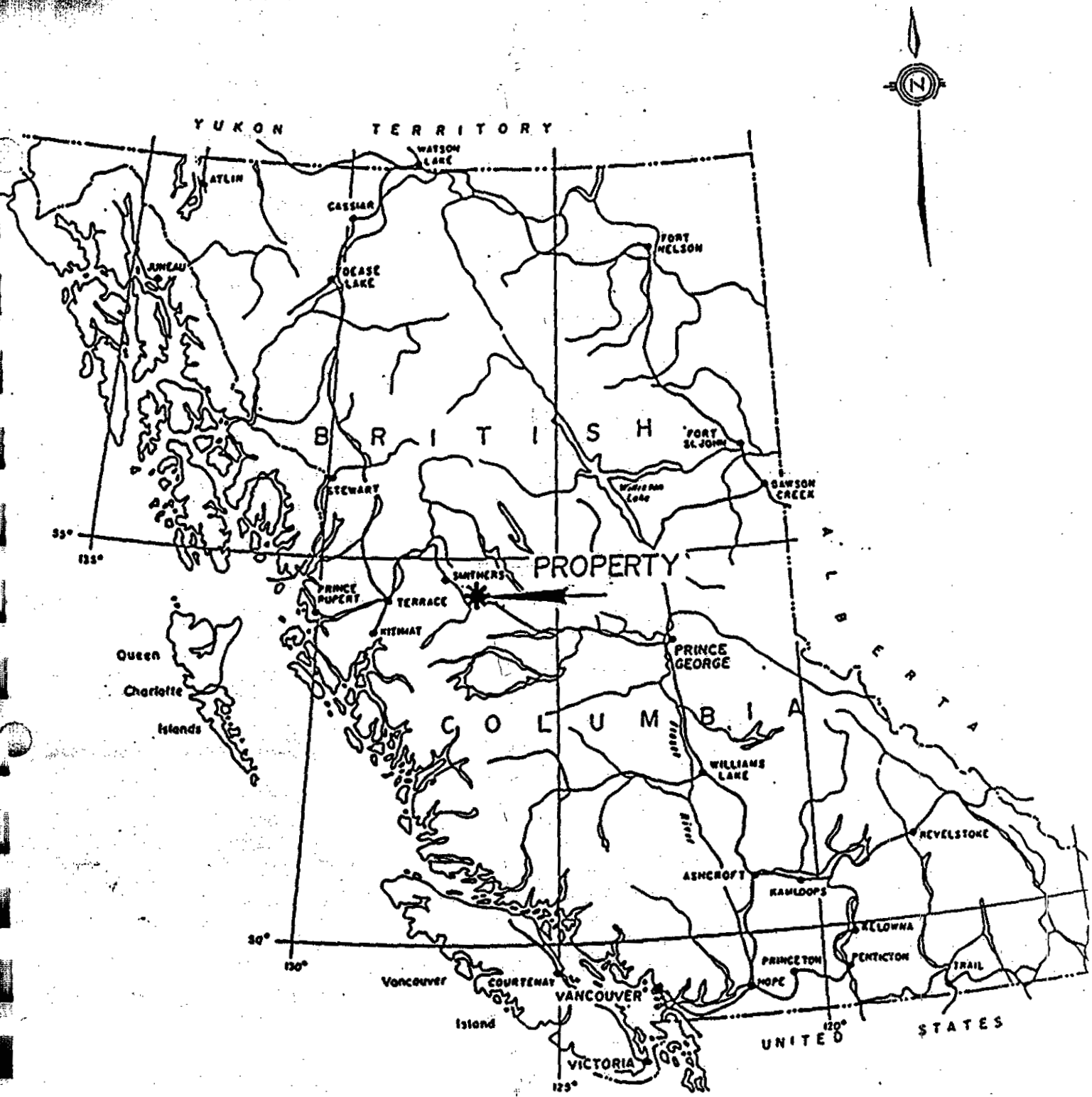
## Introduction

The Mineral Hill property is located close to Highway 16 between Houston and Smithers in the Omineca Mining Division. The property consists of four 2-post mineral claims and has a long history of exploration beginning prior to 1914. Exploration in the 1960's and 1970's was directed at porphyry- style molybdenum and copper mineralization. More recently, the principal exploration has shifted to vein or breccia- hosted precious metal mineralization.

During 2000, exploration was focused on locating previously sample tetrahedrite veins and prospecting numerous old trenches.

## Location and Access

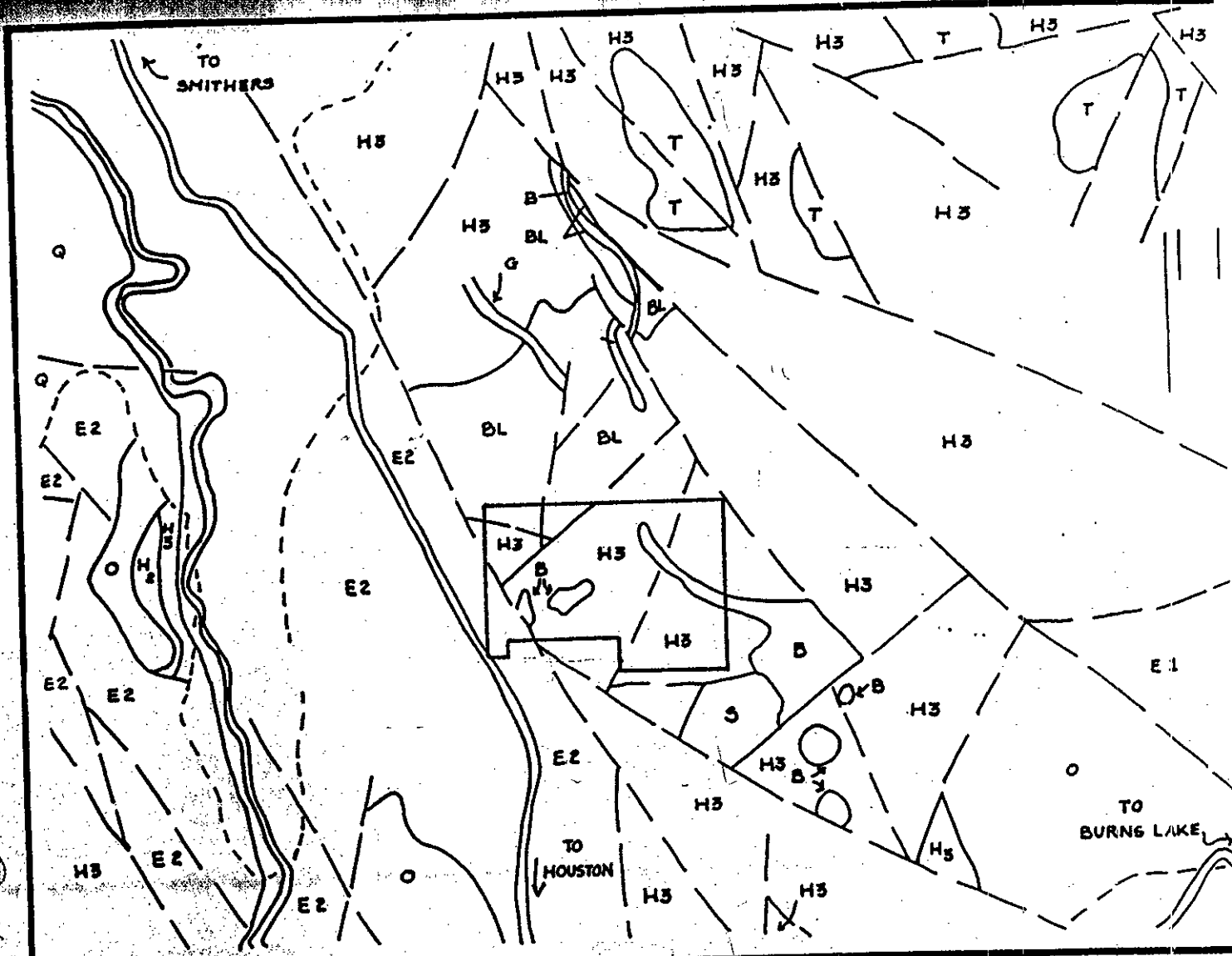
Mineral Hill is located approximately 14 km north of Houston in north- central British Columbia, and 1 km east of Highway 16 between Houston and Smithers. Geographic coordinates are 54°31' North and 126°44' West. Access to the claims is via Highway 16. From Highway 16, a gravel road leads through private property to the Mineral Hill claims via the north end of Fishpan Lake. Within the property, a network of roads and trails extends to all zones explored over the past 30 years.



*LOCATION MAP*

Robertson, Wallis & Associates





INTRUSIVE ROCKS

- [G] EOCENE - GOOSLY LAKE MONZONITE
- [B] LATE CRETACEOUS - BULKLEY GRANODIORITE, QUARTZ MONZONITE
- [T] EARLY JURASSIC - TOPLEY GRANODIORITE, QUARTZ MONZONITE

SEDIMENTARY AND VOLCANIC ROCKS

- [Q] QUATERNARY - ALLUVIUM
- ENDAKO GROUP
- [E1] LOWER MIOCENE: BASALT BRECCIA
- [E2] EOCENE - OLIGENE: ANDESITE, DACITE
- OOTSA LAKE GROUP
- [O] LATE CRETACEOUS - EOCENE: RHYOLITE, DACITE
- SKEENA GROUP
- [S] LOWER CRETACEOUS: SHALE, GREYWACKE

BOWSER LAKE GROUP

- [BL] UPPER JURASSIC: SHALE, SANDSTONE

HAZELTON GROUP

- [H1] MIDDLE JURASSIC SMITHERS FORMATION; GREYWACKE, SHALE
- [H2] LOWER JURASSIC: RED TUFF
- [H3] LOWER JURASSIC TELKWA FORMATION: RED, GREEN TUFF, BRECCIA FLOWS

- RAILWAY
- LIMIT OF OUTCROP
- FAULTS, LINEAMENTS



ROBERTSON, WALLIS AND ASSOCIATES		
SOUTHERN CROSS GOLD INC.		
MINERAL HILL REGIONAL GEOLOGY		
N.T.S: 93L10	TECHNICAL: R.R.	DATE: 01/88
SCALE:	DRAFTING: L.K.	FIGURE: 3

### Claims

Currently there are only four- two posts claims on Mineral Hill, all four are owned by Mike Middleton. Two claims are covering the Quartz Breccia Zone. The remaining claims cover the diamond drill holes in the northeast of Mineral Hill.

<u>Claim Name</u>	<u>Units</u>	<u>Record Number</u>
MH 1	1	470743
MH 2	1	470744
MH 3	1	470745
MH 4	1	470746

241814  
\*11600\*  
238620  
\*5028\*  
4NX4W  
87445

N  
↑  
↓  
N

North I.

South I.

L 6471 S.G.  
L 6476 L.S.  
L 6472 L.G.  
L 6477 C.G.  
L 6475 G.  
L 6474 C.G.  
L 6473  
L 6284 C.G.

Uppermine I.

GROUSE MTN.

McQuarrie Lake

604454

MH1  
670743  
MH2  
670744

MH3  
670745  
MH4  
670746

Fishpan I.

93L/10E

RES. MIN. & PLACER  
1/2 MILE EITHER SIDE  
O/C 2401, 16-JUL-70

## Regional Geological Setting

The property is situated within the Hazelton Trough of the Inter montane tectonic belt, an area underlain principally by Mesozoic volcanic and sedimentary rocks intruded by a variety of granitic rocks ranging in age from early Jurassic to Tertiary (figure 3).

In the Smithers- Houston area, northwest trending lower Jurassic Hazelton Group subaerial to subaqueous red and green pyroclastic and flow rocks with intercalated sediments are predominant. These are intruded by coeval Topley granitic rocks and by numerous granitic and lesser gabbroic stocks, dykes and plugs of late Cretaceous (Bulkley intrusives) and Tertiary age.

Structure of the region is dominated by northwest- striking fault structures along which vertical movement has been most prevalent.

A variety of mineral deposit types have been recognized in the general area, most common of which are polymetallic vein and replacement deposits (Cu, Pb, Zn, Ag, Mo, Au) developed in the Hazelton Group layered rocks commonly adjacent to younger granitic intrusions. The region is also well known for porphyry copper and molybdenum deposits of several styles and ages (Carter, 1981). Not as well defined are volcanogenic massive sulphide deposits, of which only a few have been recognized to date. Copper- zinc mineralization on Grouse Mountain 5 km north of Mineral Hill has massive sulphide affinities although cross-cutting relationships are evident.

Silver- copper mineralization at the Equity Silver Mine, located 40 km southeast of Houston, consists of disseminated vein and breccia filling sulphide and sulfosalt mineralization, sub- concordant with host- rock stratigraphy contained in a well- developed alteration zone, possibly related to hydrothermal fluid circulation at a high level in a porphyry system. Mineralization has characteristics of both massive sulphide and replacement types of mineral deposits. Production commenced in the Southern Tail deposit in 1980 and totaled 4.3 million tons grading 135 g/ton Ag, 0.45% Cu and 1.3 g/ton Au by December 1982. Production from the Main Zone orebody began in late 1983 with ore reserves of 21.6 million tons grading 109 g/ton Ag, 0.35% Cu and 0.85 g/ton Au (Cyr, Pease and Schroeter, 1984). In 1989 the Equity Silver mine shut down and reclamation of the mine site began.

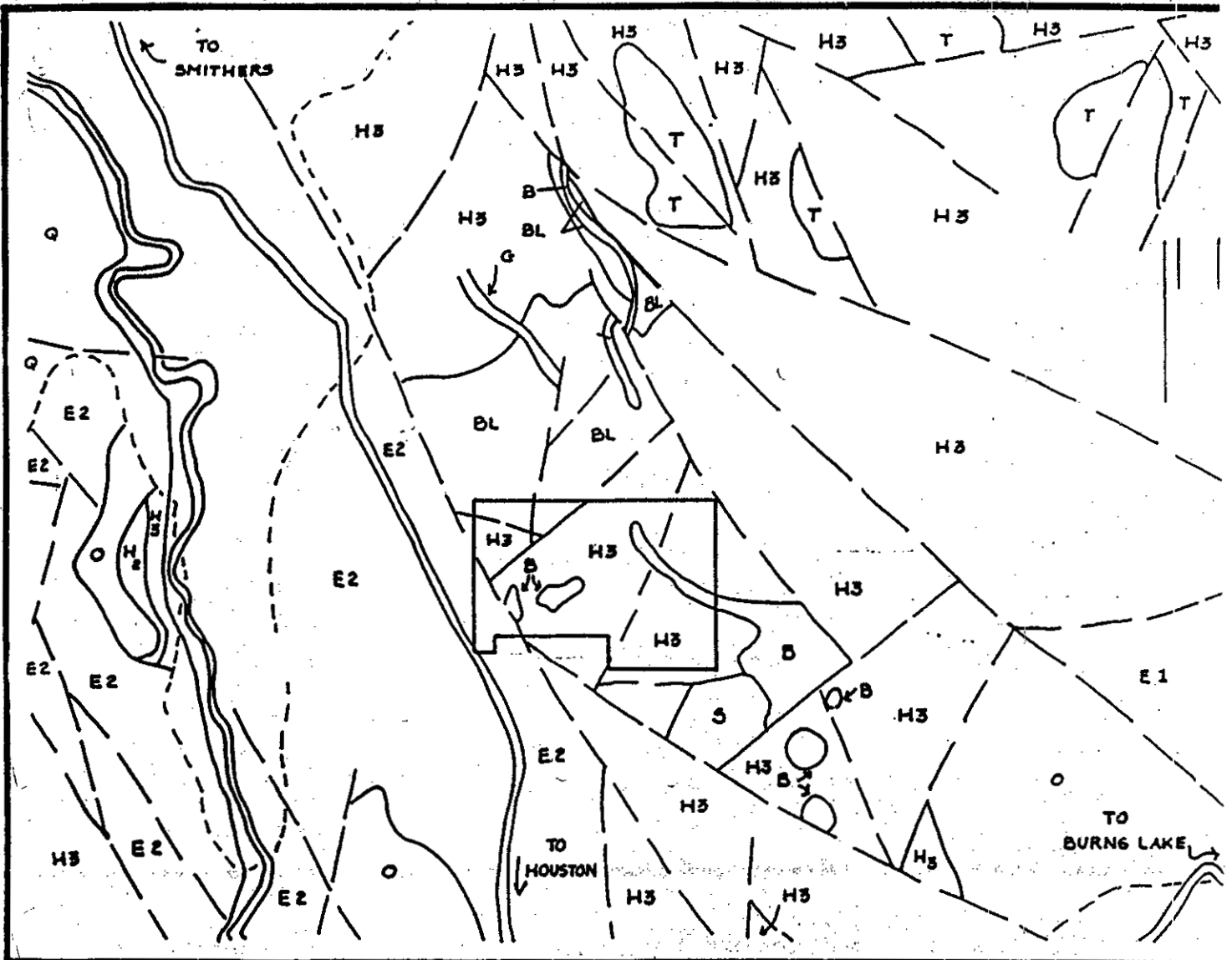
## Property Geology and Mineralization

the Mineral Hill property is largely underlain by a northwest striking sequence of volcanic rocks of the Telkwa Formation with lesser volumes of sedimentary rocks probably belonging to the Upper Jurassic Bowser Lake Group. In the areas drilled in 1987 these rocks are strongly hornfelsed by a variety of intrusive rocks of late Cretaceous age.

Volcanic rocks are predominantly andesitic flows and pyroclastics with lesser amounts of rhyolite and basalt. Sedimentary units include argillite, quartzite and greywacke with some limey varieties occurring locally. Gill and Myers (1984) reported a resistant trachytic flow unit with large feldspar laths capping low ridges on the upper plateau of Mineral Hill. This unit resembles Tertiary Goosly Lake volcanics elsewhere in the district.

Bodies of porphyritic quartz- monzonite and alaskite are the principal intrusive rocks occurring in the western part of the property. Further to the east on Mineral Hill are outcrops of medium grained diorite. Dykes of aplite and monzonite are present around the quartz- monzonite stock. These intrusions have produced a large area of hornfelsing (perhaps 2000 by 2500 meters) in the surrounding volcanic and sedimentary units. Hard fine- grained biotite hornfels is the most common in the South Alaskite Zone and green chlorite hornfels is more common in the North Quartz Breccia Zone. Hornfelsing hardened the rocks surrounding the intrusions and made them brittle and hence more susceptible to the development of fracture and breccia zones.

Typical mineralization consists of pyrite, pyrrhotite, molybdenite and chalcopyrite with quartz, calcite, minor siderite or feldspar in fractured intrusive rocks or zones of quartz breccia in hornfels. Silver- bearing tetrahedrite with galena, sphalerite and chalcopyrite occurs within both the Alaskite and Quartz Breccia zones.



INTRUSIVE ROCKS

- G** EOCENE - GOOSLY LAKE MONZONITE
- B** LATE CRETACEOUS - BULKLEY GRANODIORITE, QUARTZ MONZONITE
- T** EARLY JURASSIC - TOPLEY GRANODIORITE, QUARTZ MONZONITE

SEDIMENTARY AND VOLCANIC ROCKS

- Q** QUATERNARY - ALLUVIUM
- ENDAKO GROUP
- E1** LOWER MIOCENE - BASALT BRECCIA
- E2** EOCENE - OLIENE: ANDESITE, DACITE
- OOTSA LAKE GROUP
- O** LATE CRETACEOUS - EOCENE: RHYOLITE, DACITE
- SKEENA GROUP
- S** LOWER CRETACEOUS: SHALE, GREYWACKE

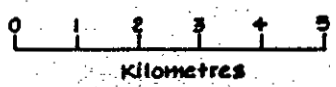
POWERS LAKE GROUP

- BL** UPPER JURASSIC: SHALE, SANDSTONE

HAZELTON GROUP

- H1** MIDDLE JURASSIC SMITHERS FORMATION; GREYWACKE, SHALE
- H2** LOWER JURASSIC: RED TUFF
- H3** LOWER JURASSIC TELKWA FORMATION: RED, GREEN TUFF, BRECCIA FLOWS

- RAILWAY
- LIMIT OF OUTCROP
- FAULTS, LINEAMENTS



ROBERTSON, WALLIS AND ASSOCIATES		
SOUTHERN CROSS GOLD INC.		
MINERAL HILL REGIONAL GEOLOGY		
N.T.S: 93L10	TECHNICAL: R.R.	DATE: 01/88
SCALE:	DRAFTING: L.K.	FIGURE: 35

### Summary of Previous Exploration

Initial work on the Mineral Hill property was carried out in 1914 or earlier when a 5 meter shaft was sunk on a narrow quartz vein containing silver, copper, lead and minor gold values. A number of other showings were explored in the 1920's by trenching, short adits and shallow shafts.

During the 1960's and 1970's. Considerable exploration was carried out for large tonnage molybdenum- copper mineralization. In 1966 Cominco and Moly mine Exploration Ltd. Completed a large program of geological, geophysical and geochemical surveys, trenching and 15 diamond drill holes (2225 meters). In 1967, Moly mine completed 102 percussion drill holes (2882 meters) and 13 diamond drill holes (1308 meters)(Sharp, 1968). In 1976, Granby Mining Corporation optioned the property and drilled 12 percussion holes (683 meters) in the Granby zone, east of the north Quartz Breccia zone. Granby completed seven percussion holes in 1978 (James, 1979) in the east edge of the quartz monzonite (575 meters) and three widely spaced diamond drill holes (902 meters) in the area of percussion drilling, in the Alaskite Zone and in the Breccia Zone. Samples of a 30 cm thick quartz vein was discovered in a old adit. This vein is hosted in altered, fine grained rhyolite and dacite very close to the volcanic- diorite contact. Galena, tetrahedrite, pyrite and sphalerite occur as fine grained masses within the quartz vein. Three samples were analysed and averaged 651 g/ton silver, 0.06% copper and 2.6% lead. Control of Granby Mining passed to Noranda in 1979; they carried out programs of prospecting, geochemical and geophysical surveys in 1981, 1983 and 1984 (Gills and Myers, 1984).

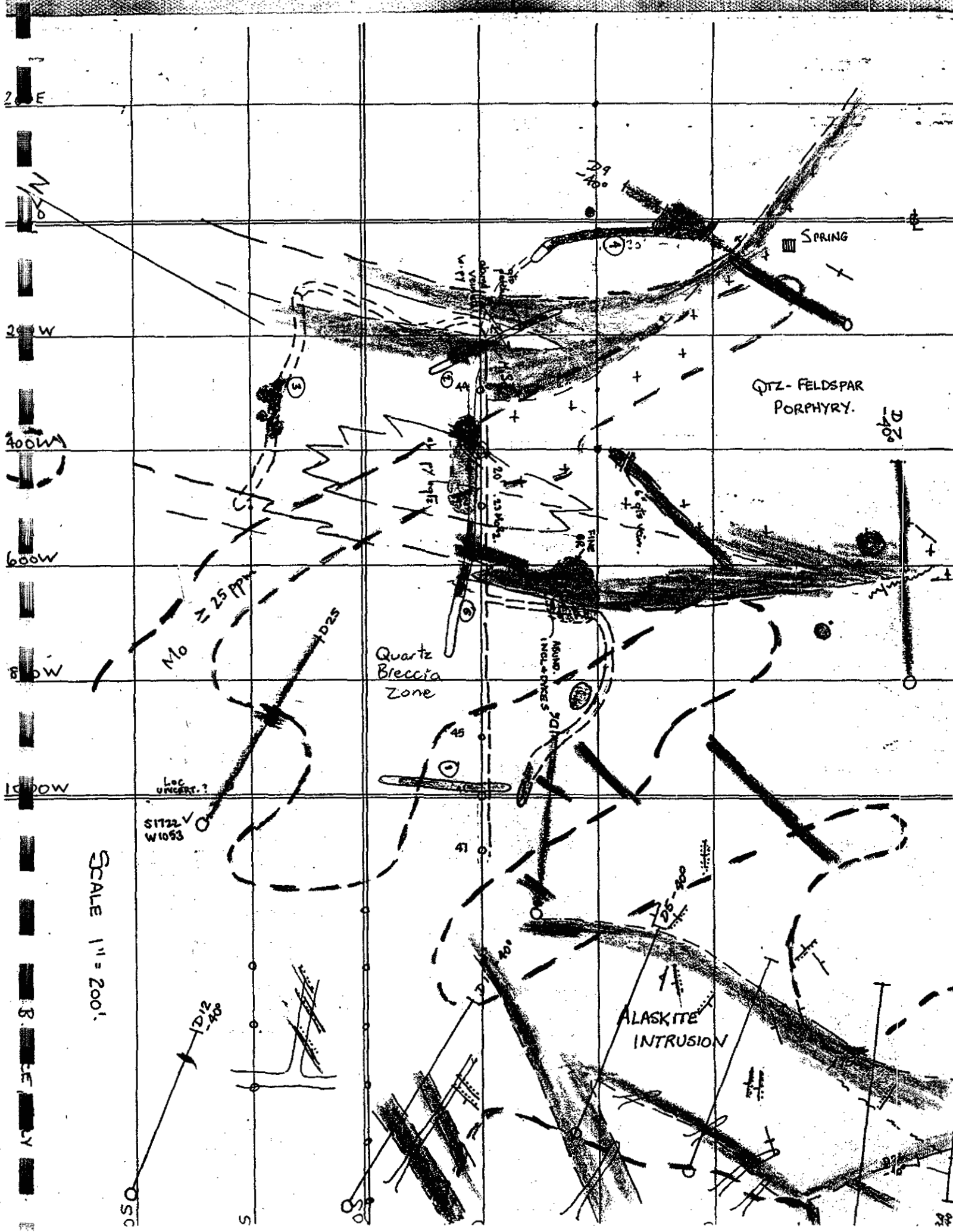
In summary, molybdenite grades of 0.10% MoS<sub>2</sub> are associated with closely spaced quartz veining and fractures in the Alaskite Zone. Some larger quartz veins peripheral to this zone carrying silver- lead- zinc values were tested by early workings and some of the more recent exploration. Molybdenite mineralization in the eastern part of the quartz monzonite generally grades less than 0.05% MoS<sub>2</sub>. Low molybdenite values were also found in Granby's drill testing of a hornfels zone in the northeast part of the of the Mineral Hill claim. The Quartz Breccia zone has approximate surface dimensions of 240 by 450 meters (Sharp, 1968) with grades of 0.05% MoS<sub>2</sub> indicated by extensive trenching and drilling.

Moly mine's drilling in 1966- 1967 indicated that a quartz vein system with sometimes significant silver values was present in the Quartz Breccia Zone. Diamond drill hole D- 16 intersected a narrow vein grading 135.8 g/ton silver. Hole D- 14 was the only hole completely analyzed for silver; values ranged from 0.06 to 3.7 oz/ton. Hole D- 20 included a 50 foot interval grading 1.2 oz/ton silver. Hole D- 16 is located approximately 300 meters southeast of hole D- 14, D- 20.

During 1985 the Mineral Hill property was optioned by Dafrey Resources who cleaned out and sampled some of the old trenches in the Quartz Breccia Zone and material from dumps at old workings on silver- bearing quartz veins elsewhere on the property. One sample by N.C. Carter, P.Eng. Contained 659 oz/ton silver and 0.29 oz/ton gold in a narrow tetrahedrite vein exposed in a trench in the southeast portion of the Quartz Breccia zone. Dafrey drilled 12 percussion holes in the Quartz Breccia and Alaskite Zones. At the same time, Lacana Mining Corporation compiled much of the earlier data on the property and assayed samples from the 1985 drilling, pulps from Moly mine's and Granby's percussion drilling and core from the top 200 meters of Granby's G78-1 drill hole in the Quartz Breccia Zone. These analyses indicated an area of silver mineralization within the Quartz Breccia Zone grading around 2 oz/ton silver, with dimensions of 10 by 30 by 250 meters; however, results from hole G78-1, drilled in the center of this block, showed no significant silver values. Further sampling from a 10 in. Sphalerite vein yielded 947.9 oz/ton Ag, 0.413 oz/ton Au and 18.5% Cu.

In 1987, southern Cross Gold Inc. completed eight diamond drill holes on the Mineral Hill claim totaling 521.8 meters. These holes intersected quartz veining of up to two feet of 6.91 oz/ton silver.





SCALE 1" = 200'

20 E  
20 W  
400 W  
600 W  
800 W  
1000 W  
OSC  
S

20 E  
20 W  
400 W  
600 W  
800 W  
1000 W  
OSC  
S

### Recent Exploration

Recent exploration concentrated on prospecting existing trenches around the Quartz Breccia and Alaskite Zones. Seven trenches were targeted and hand trenching was required to expose old trenches and locate quartz and tetrahedrite veins. Many small veins were observed and sampled, but due to lack of funds samples were not assayed. A creek traverse along a namely creek that cuts through the property yielded very little outcrop.

### Daily Report

- Day 1- -Located showings on north side of property and staked MH 1 and MH 2 claims on the Quartz Breccia Zone.
- Day 2- -Prospected trench were sample MH-6 (22,600 ppm Ag) was taken from a 10 inch tetrahedrite vein.
- Day 3- -Prospected around diamond drill hole DFY 85- 1, a 6.1 meter sample from this hole assayed 4493 g/ton Ag. Two old trenches were dug around this hole and many small quartz veins were still visible.
- Day 4- -Creek traverse on unnamed creek that cuts through the quartz Breccia Zone and diamond drill holes to the northeast.
- Day 5- -Prospected area around DDH in the northeast and staked mineral claims MH 3 and MH 4.
- Day 6- -Prospected old trenches along roads. Small quartz veins were abundant, samples were taken
- Day 7- -Prospected the East Cu, Ag Zone.
- Day 8- - Prospected old workings in center of property.
- Day 9- - Located ~~the~~ trenches in the northeast end of property. Samples resembled rocks from <sup>the</sup> Quartz Breccia Zone.

**Michael Middleton**  
**Statement of Qualifications**

1990- Completed the Smithers Exploration's Bush Sills Course.

1992- Laborer at a high grading operation for Al Raven.

1994- Field assistant for CJL Enterprises Ltd.

1995- Full time field assistant for CJL Ent.

Soil and rock sampler, claim staker.

1996- Full time field assistant for CJL Ent.

Soil and rock sampler, claim staker, line cutter, and prospector.

1997- 2000- Prospector and field assistant for CJL Ent.

2000- Completed Geography 202, at College of New Caledonia.

2000- Completed Smithers Exploration Group's Advanced Prospecting Course.

**Chris Warren**  
**Statement of Qualifications**

- 1990- Completed the Smithers Exploration Group's Bush Skills course.  
Worked at Duckling Creek as a Geological Assistant.
- 1991- Assisted in the instruction of the Smithers Exploration group's Bush Skills course. Worked as a line cutter
- 1992- Assisted in the instruction of the Smithers Exploration groups Bush Skills Course.  
Misc. claim staking jobs/ field assistant.
- 1993- Worked at a placer operation as a loader operator and did misc. claim staking jobs.
- 1994- Worked in mason Creek area doing placer testing, running magnometer/ computer work/ claim staking/ prospectors assistant.
- 1995- present- worked full time for CJL Enterprises Ltd.- claim staker/ line cutter/ camp construction/ prospector.

### References

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- Carter, N.C., 1981 : Porphyry Copper and Molybdenum Deposits, West- central British Columbia. B.C. Ministry of Energy, Mines and Petroleum Resources Bulletin 64, 150pp.
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- Tipper, H.W., Richards, T.A., 1976 : Geology, Smithers Map Area. Geological Survey of Canada Open File 351.

**Previous Assay Results**

**MIN-EN Laboratories Ltd.**

*Specialists in Mineral Environments*

705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE: (604) 980-5814 OR (604) 988-4524

TELEX: 04-352826

**CERTIFICATE OF ASSAY**

COMPANY: CJL ENTERPRISES  
PROJECT:  
ATTENTION: LORNE B. WARREN

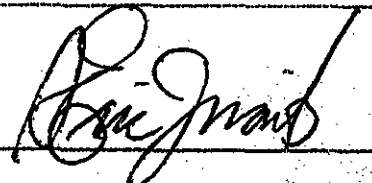
FILE: 5-501  
DATE: AUGUST 20/85.  
TYPE: ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON	CU %
M-A-4	32500.0	947.90	14.15	0.413	18.500

*Massive tetra. From Trench.  
LW*

Certified by



MIN-EN LABORATORIES LTD.

**MIN-EN Laboratories Ltd.**  
 Specialists in Mineral Environments  
 705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7H 1T2

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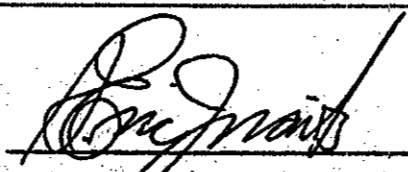
**CERTIFICATE OF ASSAY**

COMPANY: DAFREY RESOURCES LTD.  
 PROJECT: MINERAL HILL  
 ATTENTION: MR. L. SPENCE

FILE: 5-596R  
 DATE: SEPT. 12/85.  
 TYPE: PULP ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG	AG	AU	AU	
	G/TONNE	OZ/TON	G/TONNE	OZ/TON	
DFY85-1-40-50	24.2	0.71			} 70' of 4.8
DFY85-1-50-60	98.5	2.87	2.62	0.076	
DFY85-1-70-80	536.0	15.63			
DFY85-1-80-90	450.0	13.12			
DFY85-1-100-110	54.2	1.58	.93	0.027	
DFY85-1-110-120	9.2	0.27			

Certified by 

MIN-EN LABORATORIES LTD.



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TEL: (604) 980-5814 OR (604) 988-4524

TELEX: 04-352828

**CERTIFICATE OF ASSAY**

COMPANY: NICK CARTER  
 OBJECT: MINERAL HILL  
 ATTENTION: N.C. CARTER

FILE: 5-588  
 DATE: SEPT. 6/85.  
 TYPE: ROCK ASSAY

hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
6	22600.0	659.15	9.95	0.290
7	760.0	22.17	.22	0.006
8	112.0	3.27	.24	0.007

*3" Vein - 5" Vein  
 1.5" Waller - Hole 16 Area  
 2" Vein*

*No assay*

Certified by

MIN-EN LABORATORIES LTD.