

ARIS SUMMARY SHEET

District Geologist, Prince George

Off Confidential: 92.08.28

ASSESSMENT REPORT 21610

MINING DIVISION: Cariboo

PROPERTY: Spanish Creek
LOCATION: LAT 52 36 30 LONG 121 17 30
UTM 10 5829854 615681
NTS 093A11W

CAMP: 036 Cariboo - Quesnel Belt

CLAIM(S): Hobson 1-2
OPERATOR(S): Shiney Min. Ex.
AUTHOR(S): Matherly, M.
REPORT YEAR: 1991, 56 Pages
COMMODITIES
SEARCHED FOR: Gold
KEYWORDS: Triassic-Jurassic, Quesnel Terrane, Volcanics, Quartz veins, Pyrite
Chalcopyrite, Malachite, Galena

WORK
DONE: Prospecting
PROS 250.0 ha

RELATED
REPORTS: 17912, 19415
MINFILE: 093A

1991 REPORT
for the
SPANISH CREEK PROPERTIES

Cariboo Mining Division

NTS 93A/11

Lat. $52^{\circ} 36' 30''$, $52^{\circ} 37' 30''$
Long. $121^{\circ} 26' 00''$, $121^{\circ} 11' 00''$

Owner: Merle Matherly,
Box 422,
150 Mile House, B.C.
VOK 2G0

Operators: Merle Matherly, Sheran Paterson
Box 422,
150 Mile House, B.C.
VOK 2G0

Report by: Merle Matherly, Sheran Paterson

August 31, 1991

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LOG NO: SEP 03 1991	RD.
ACTION:	
FILE NO:	

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

21,610

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(Fig. 6E, 6C, 6D, 6E, 6F), 212 zone

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1.0 COVER LETTER

The Spanish Creek Properties constitute a Gold prospect located in the Cariboo - Quesnel Gold Belt, 110 kilometres northeast from the city of Williams Lake in north - central British Columbia.

The geologic setting formed by the Eureka Thrust Fault, defines the boundary between two major tectonic plates, the Intermontane and Omineca belts.

Exploration in 1991 outlined two mineralized zones, transgressive quartz veins in chlorite schist carrying anomalous gold and copper values.

All exploration work - reference: 1988 Assessment Reports (No. 17751, 17912), 1989 Assessment Report (No. 19415); and the work conducted in 1991, indicates that advanced and more detailed exploration is required for this Gold prospect.

2.0 REGIONAL HISTORY

The project area is situated near four, present - day, major deposits with economic potential: Mt. Polley copper-gold project, located 20 kilometres slightly southwest/ QR gold deposit, located 30 kilometres northwest/ Eaglet fluorspar deposit, located 20 kilometres slightly southeast/ Frasergold (Eureka Peak) gold prospect, located 50 kilometres southeast.

Recent placer mining activity is presently in existence in the area: Cedar Creek, Lower Spanish Creek, Cariboo River, Keithley Creek, Winkley Creek, Antler Creek, and many others.

Two placer claims are presently in testing stages along Upper Spanish Creek in the southern portion of the Spanish Creek Properties.

From 1978 to 1980, Gavex Gold Mines held placer claims on Upper Spanish Creek in the southern portion of these properties; and old placer claim posts, dating 1950's, have been discovered on No Name Creek in the western portion of the properties.

This area has a known hardrock and placer mining history dating as early as the mid 1800's. Some old mining sites existed relatively near the Spanish Creek Properties: Cariboo-Hudson Mine; Au, Ag, W, Pb, Zn; located 30 kilometres due north; Roundtop Mtn. at Cunningham and Simlock Creeks/ Providence (Independence); Ag, Pb; located about .5 kilometres northwest; Blackbear Mtn. at Blackbear Creek/ Bullion Pit; placer gold; Cariboo River; located 19 kilometres slightly northwest/ Cedar Creek; placer gold; Spanish Mtn; located 13 kilometres almost due west/ Golden Horn; placer gold; Mt. Warren at Winkley Creek; located 15 kilometres slightly southwest/ Kitchener; placer gold; Keithley Creek; located 19 kilometres slightly northwest on Keithley Creek Mtn.

3.0 PROPERTY HISTORY

The target mineralization on the properties is gold. Thrust zones and known faults are of particular interest with some emphasis on contacts between rock units (et al. Geology, Quesnel Lake - west half - British Columbia, G.S.C. Map 3 - 1961).

Preliminary study of the Spanish Creek area, 1981 to 1983, led to the discovery of one zone, and hand-pick rock specimens collected from transgressive veins, quartz with galena, in sericite schist revealed notable silver, lead and some gold values.

Further investigation, 1988, discovered mineralization in chlorite and sericite schists and black phyllite rock units over various locations of the properties. Significant copper, silver, lead and some gold values were determined from analyzed hand-pick rock specimens.

A large soil reconnaissance grid, 1989, identified extensive gold, silver, copper, lead and zinc in-soil anomalies.

In 1991 a chosen area of chlorite schist was systematically mapped and two zones, 212 and 217, with mineralized clusters of transgressive quartz veins were located. Follow-up mapping and rock sampling outlined the zones, and significant gold, silver and copper values were determined from hand-pick rock specimens, quartz with chalcopyrite and pyrites. The resulting data decided further follow-up and soils were then collected to determine the extent of mineralization over the 212 zone.

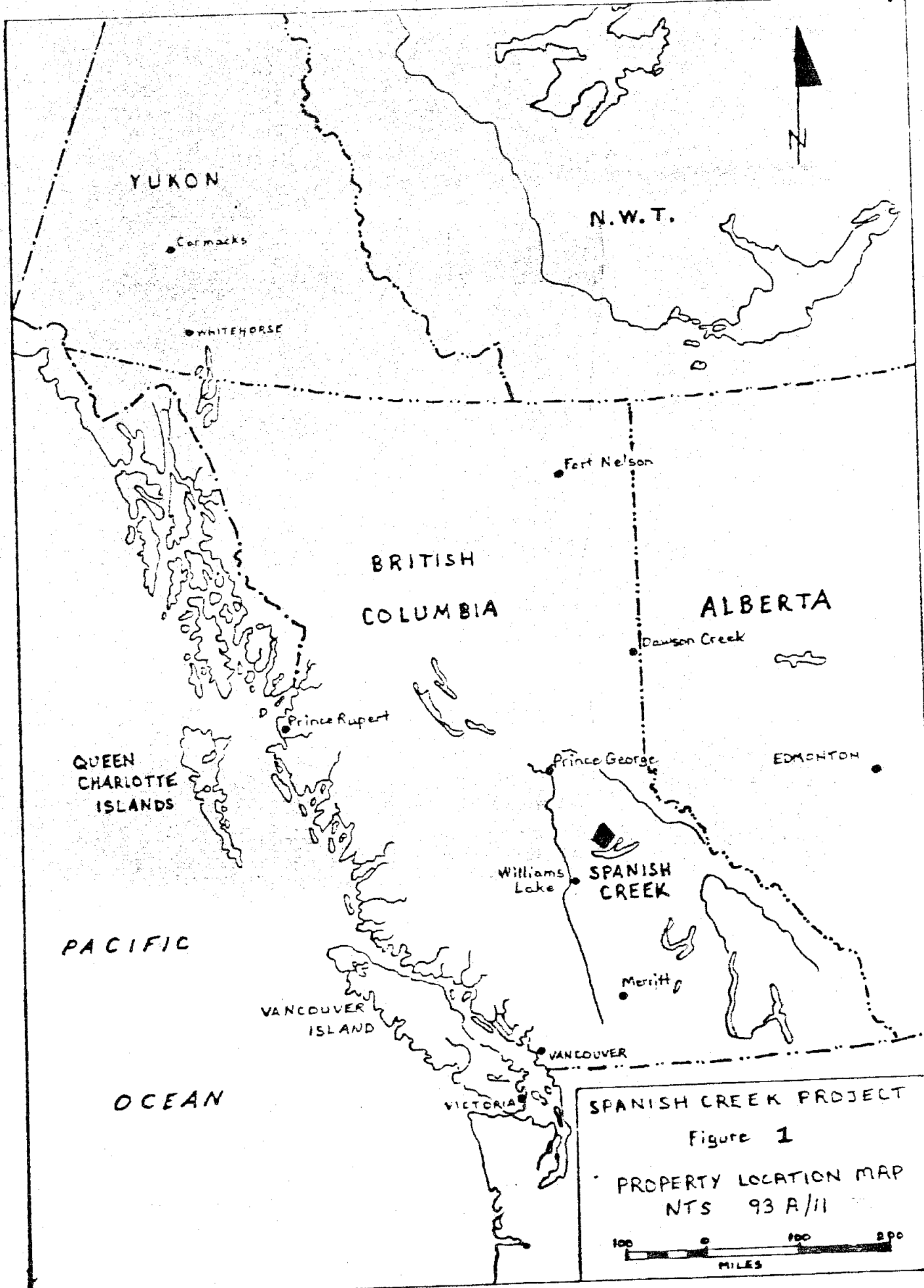
The 1991 work program described in this report was employed during the period between Aug. 15, 1990 and August 15, 1991.

4.0 LOCATION and ACCESS

The Spanish Creek Properties are located 110 kilometres northeast from the city of Williams Lake in north-central British Columbia as shown on Figure 1.

Access is provided by paved road to the community of Likely from Williams Lake, and the remaining 20 kilometres by the 1300, Spanish Lake, forestry road.

The properties are cut by two drainage systems, known to carry flour gold, that flow into Spanish Lake. The claims lie on the east and west flanks of Upper Spanish Creek between Mount Brew and Blackbear Mountain. The area is of moderate relief and well logged providing excellent access to and through the properties by old and new roads.



5.0 PHYSIOGRAPHY AND CLIMATE

The properties are situated northwest from the north shore of Quesnel Lake. This region is fairly mountainous terrain of moderate relief with elevations averaging 1200 to 1600 metres; the exception is Mount Brew whose height reaches up to 2000 metres.

The environment offers many water courses, lakes, and is well forested with spruce, fir, pine, cedar and poplar trees, and foliated with broadleaf vegetation. A minimum of 50% of the properties are clear cut from logging activities.

Reasonable weather conditions for exploration work may be expected from mid June to the end of October. Winter snow pack can occasionally reach three to five metres.

6.0 CLAIM STATUS

This prospect presently consists of 3 contiguous claims, totalling 44 units, 1100 square hectares, as shown on Figures 2 and 3.

The Spanish Creek claims are wholly owned by Merle Matherly.

Table 1 - Mineral Claim Schedule

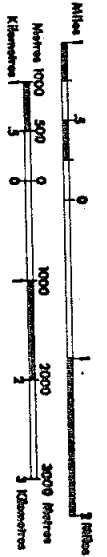
<u>Claim Name</u>	<u>No. of Units</u>	<u>Record No.</u>	<u>Yr. Staked</u>
Hobson 1	20	8753	Oct. 28/87.
Hobson 2	20	8754	Oct. 28/87.
Teddy	4	9295	Aug. 22/88.

TO WEST SEE MAP 9

TO EAST SEE MAP 10

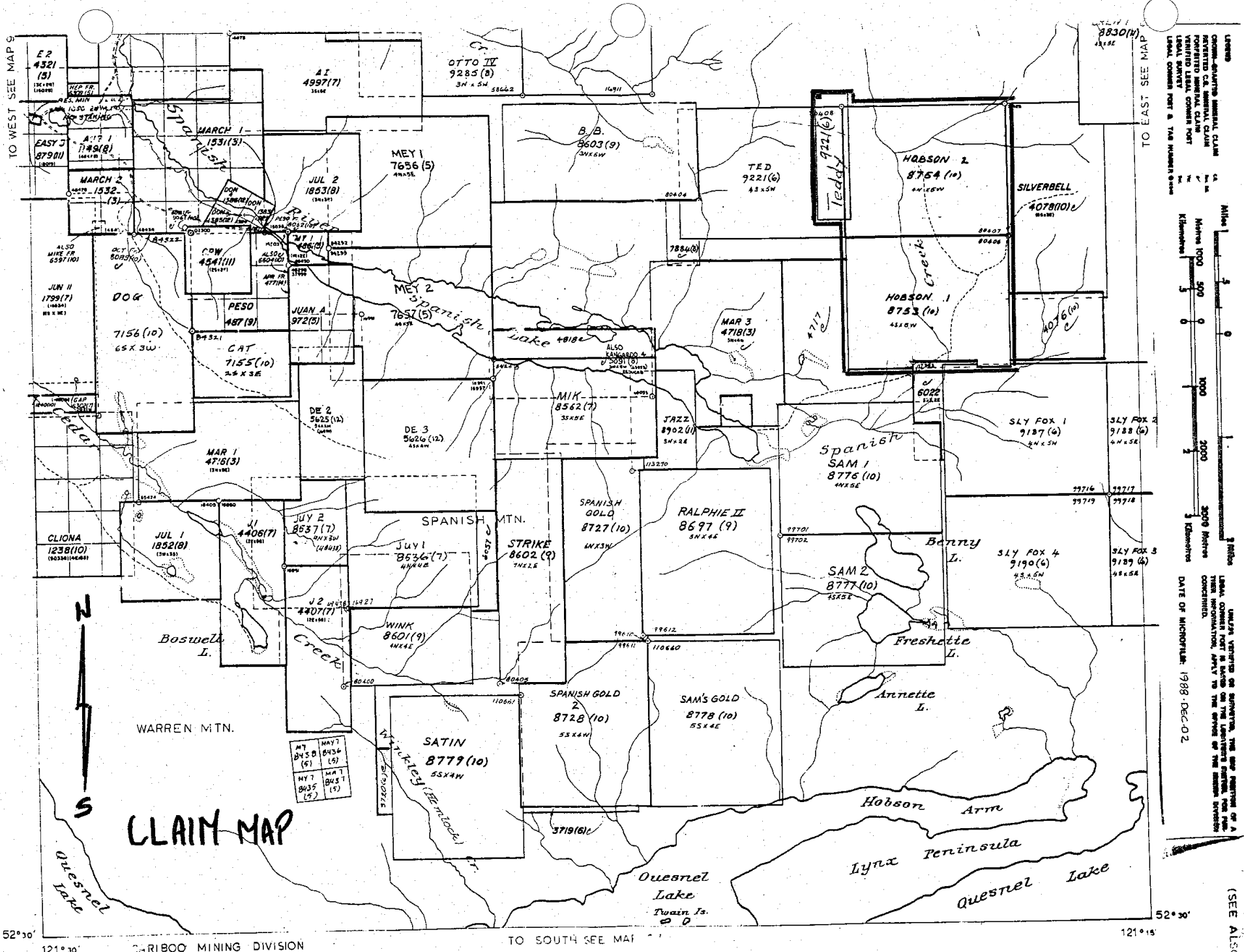
LEGEND

- OWNER-GRANTOR MINERAL CLAIM
- REVERTED OR ABANDONED CLAIM
- UNPATENTED MINERAL CLAIM
- LOCAL OWNER PORT & TID WALKING STRIP



UNLAW VIOLATED OR VIOLATING, THE USE HEREIN OF A LOCAL OWNER PORT IS BASED ON THE LATEST DATA FOR PORT, TID WALKING STRIP, AND TID WALKING STRIP INFORMATION, AS SET FORTH IN THE LEGEND OF THIS MAP. DATE OF MICROFILM: 1988-DEC-02

(SEE ALSO 93)



CLAIM MAP

52° 30' 121° 30' CARIBOO MINING DIVISION TO SOUTH SEE MAP 11 121° 15' 52° 30'

7.0 REGIONAL GEOLOGY

The Spanish Creek project area lies within the Quesnel Terrane, Triassic and Jurassic, pelitic and volcanic rock of the Intermontane belt, where the Eureka Thrust Fault defines the boundary between the Omineca, Barkerville Terrane, and Intermontane tectonic belts. Mineralization occurs in quartz veins and as disseminations.

8.0 PROPERTY GEOLOGY

Five main rock units and three lesser units have been identified:

- Chlorite Schist - occurs for a minimum 4 square kilometres
- in contact with phyllite and sericite schist rock units
- chlorite-rich, copper-rich (mostly chalcopyrite, malachite), much carbonated (ankerite, siderite), quartz lenses and transgressive veins, some epidote veins
- some quartzite occurs near a contact of chlorite schist and phyllite rock units

- Sericite Schist - in contact with chlorite schist rock unit
- contact with chlorite schist is defined by dolomitic masses with associated mariposite
- commonly contains quartz lenses and transgressive veins
- quartzite occurs as a body alongside sericite schist, and sometimes along each side of transgressive quartz veins

- Black Phyllite - Triassic, Cariboo series
- four recognized units: greasy, graphitic with pyrites/ carbonate coated vesicules in light honey-combed phyllite/ banded metals in carbonated graphitic phyllite/ knotty phyllite with carbonate nodule fillings

- in contact with chlorite schist and green volcanic breccia rock units
- commonly contains quartz lenses and transgressive veins
- some quartzite occurs at a contact of phyllite and chlorite schist rock units

Volcanic Breccia - occurs in west portion of properties and trends northwest

- green, marine origin
- silica-rich, carbonated
- mineralization unknown

Ultramafics

- green, greasy, with carbonate phenocrysts
- occurs at a contact of sericite and chlorite schists which sandwich mariposite in dolomitic mass
- malachite stain also occurs in this rock

Dolomitic mass

- with mariposite
- appears to occur mostly at contacts between sericite and chlorite schist rock units

Quartzite

- occurs as a body near a contact of chlorite schist and phyllite rock units
- occurs as a body alongside sericite schist
- occurs as fairly thin layers along each side of transgressive quartz veins
- often contains metal disseminations

Serpentinite

- greasy, flaky, pale green to white colour
- occurs at contact between sericite and chlorite schists

9.0 MINERALIZATION

9.1

The properties have recognized types of mineralization:

- transgressive quartz veins in which the metals: chalcopryite, galena, pyrites and malachite; occur massive, as vug fillings, stains, and sometimes disseminations in chlorite and sericite schists and black phyllites. Surface widths of veins are not fully identified.
- concordant and transgressive quartz carbonate lenses with metals such as chalcopryite, pyrites and malachite occur mostly as disseminations, vug fillings, stains and sometimes massive in chlorite and sericite schists and black phyllites. The lenses appear numerous and narrow but surface widths are not fully identified.
- disseminated metals occur in: chlorite schist (chalcopryite, pyrites), black phyllite (pyrites), sericite schist (pyrites), quartzite (pyrites, some chalcopryite), concordant and transgressive quartz carbonate lenses (chalcopryite, pyrites, malachite).
- massive metals occur in: transgressive quartz veins (chalcopryite, galena, malachite, pyrites) in chlorite and sericite schists and black phyllite rock units; quartz carbonate lenses in chlorite schist (chalcopryite, some malachite, pyrites); quartz lenses in sericite schist (pyrites); quartz lenses in black phyllites (pyrites); sometimes in quartzites (pyrites, some chalcopryite).
- banded metals occur in: chlorite schist (pyrites) and black phyllites (pyrites).
- carbonates (ankerite, siderite) occur: massive in quartz lenses in chlorite schist, black phyllites and ultramafics; as various sized phenocrysts in chlorite schist, ultramafics, black phyllites, volcanic breccia and serpentinite; as a body of dolomitic mass with mariposite at contacts between chlorite schist and sericite schist.
- staining occurs as malachite in chlorite schist and limonite in all rock units.

9.2

1. The quartz veining occurs as several kinds: transgressive copper/gold, silver/lead/zinc and massive pyrites :

The copper/gold type is found in chlorite schist - as vug fillings, masses, sometimes disseminations; and analyzed rock samples have values up to .131 ounces per ton gold, .3387 ounces per ton silver, and 4.54 percent copper.

The silver/lead/zinc type is found in sericite schist - as vug fillings, masses, sometimes disseminations; and analyzed rock samples have values up to .066 ounces per ton gold, 15.75 ounces per ton silver, 24.0 percent lead, and .64 percent zinc.

The massive pyrite type is found in sericite and chlorite schists, black phyllites; and analyzed rock samples have values up to .058 ounces per ton gold, .116 ounces per ton silver, and 1.36 percent copper.

2. Quartz ankerite lenses are widespread throughout chlorite-rich rocks. Analyzed rock samples have values up to .18 ounces per ton gold, .232258 ounces per ton silver, 1.1776 percent copper, and .0498 percent zinc.

3. Disseminated copper is distributed between leaves of chlorite schist and is identified by malachite staining. Analyzed rock samples have values up to .68 percent copper.

10.0 ROCK GEOCHEMISTRY

Two persons applied 15 days conducting rock and soil geochemistry to target gold mineralization.

The program began with reconnaissance rock sampling through the properties to assist in locating areas with gold mineralization. Two zones; 212 and 217 were outlined in the Hob. N. area of Hobson 2 claim. A total of 60 hand specimens were collected from which 40 samples were analyzed for : gold, silver, copper, lead and zinc; as shown in Appendix 1.

Outcrop exposure at 212 and 217 zones outlined in Hob. N. area, was conducted to expose mineralized quartz veins for geologic mapping and sampling projects; as shown on Appendix 2, Figure 5A.

Subsequent rock sampling and geologic mapping was conducted over 212 zone (L36+00E - L36+80E, 1+20N - 2+20N) and 217 zone (L34+00E - L35+10E, 0+00BL - 0+80S) to determine gold values. A total of 18 hand pick specimens were collected and analyzed for : gold, silver, copper, lead and zinc; as shown on Appendix 2, Figures 5B, 5C, 5D; and on Appendix 3

11.0 SOIL GEOCHEMISTRY

Follow-up soil sampling 212 zone was conducted over a 100 metre grid of 6 compass lines spaced 20 metres apart and marked at 20 metre intervals (L36+00E - L37+00E, 1+20N - 2+20N) to determine the extent of mineralization. 35 soils were taken from the B horizon (red coloured sand/silt), at 6 to 30 centimetre depths, and put in brown kraft paper envelopes using short-handled tree planting shovels. The soil samples were subsequently analyzed for : gold, silver, copper, lead and zinc; as shown on Appendices 4 and 5.

12.0 INTERPRETATION

Appendices 1, 2 and 4 reference geology, line numbers, topography, streams, claim boundaries, and demonstrate defined trends and areas of anomalous values.

The anomalies displayed by gold may be reflecting anomalous, possibly even economically significant, concentrations of this metal in the underlying or nearby bedrock. This interpretation is supported by the fact that gold anomalies tend to define strong trends, which clearly contrast from the background values.

Since gold is the primary target, the gold anomalies should be given first priority in follow-up. Although strong silver, copper, lead and zinc values were defined and of a notable order of magnitude, they should be assigned a lower priority in follow-up. The present outlined zones may be considered adequate to define further geochemistry and machine trenching.

13.0 CONCLUSIONS

1. The Spanish Creek properties are almost entirely underlain by middle Triassic to early Jurassic sedimentary and volcanic rocks of the Quesnel Terrane.
2. Alteration and mineralization are likely associated with fault structures and contacts between rock units.
3. Extensive chlorite-rich zones trend northwest across the Hobson 2 claim. Anomalous gold and copper values are indicated in this claim.
4. Gold values in transgressive quartz veins were outlined. These warrant follow-up surveys.
5. Strong silver, copper, lead and zinc values were also defined in transgressive quartz veins.
6. The present outlined zones may be considered adequate to target further geochemistry and machine trenching.

14.0 RECOMMENDATIONS

1. An extensive reconnaissance geologic mapping program to outline outcrop density and locate further mineralized areas of interest.
2. A program of detailed geologic mapping, hand trenching and rock sampling to outline specific mineralized zones and target gold values.
3. Grid establishment over targeted mineralized gold zones for follow-up soil surveys.
4. Follow-up closed soil grid surveys over targeted mineralized gold zones to determine the extent of mineralization.
5. Machine trenching 212 and 217 zones; and #3 Landing (1981 - 1983 discovery) zone to expose mineralized structures at the surface.

15.0 STATEMENT OF EXPENDITURES

The following table outlines the 1991 expenditures incurred on the claims.

Table 2 - Statement of Expenditures

Salaries (geologic mapping & sampling, soil sampling)

M. Matherly 15 days @ \$200/day	\$	3,000.00	
S. Paterson 15 days @ \$200/day	\$	<u>3,000.00</u>	
			\$ 6,000.00

Geochemical Analysis (Au, Ag, Cu, Pb, Zn)

35 soil samples	\$	481.25	
40 rock samples of which were:	\$	724.00	
26 rock assays (Appendix 3)	\$	<u>187.00</u>	
			\$ 1,207.12

Camp Costs

15 days @ \$40/day x 2 persons	\$	<u>1,200.00</u>	
			\$ 1,200.00

Vehicle Costs

15 days @ \$50/day	\$	<u>750.00</u>	
			\$ 750.00

Report Preparation

M. Matherly, 2 days @ \$200/day	\$	400.00	
S. Paterson, 2 days @ \$200/day	\$	<u>400.00</u>	
			\$ 800.00

Total

\$ 9,957.12

16.0 STATEMENT OF QUALIFICATIONS

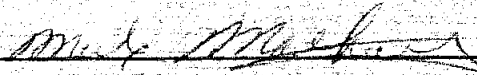
We, Mr. Merle Matherly and Ms. Sheran Paterson, of 150 Mile House, B.C. do certify that:

- 1. We are prospectors and maintain valid free miners' permits.
- 2. We have attended the Prospector's Course at Cariboo College, 1979, (instructor - Dr. Gary Bysouth, senior geologist, Gibraltar Mines Ltd., McLeese Lake, B.C.)
- 3. We have completed the Advanced Mineral Exploration Course for Prospectors, Ministry of Energy, Mines and Petroleum Resources, B.C. :

Merle Matherly at David Thompson University Center, Nelson, B.C. 1981.

Sheran Paterson at Northwest College, Terrace, B.C. 1982.

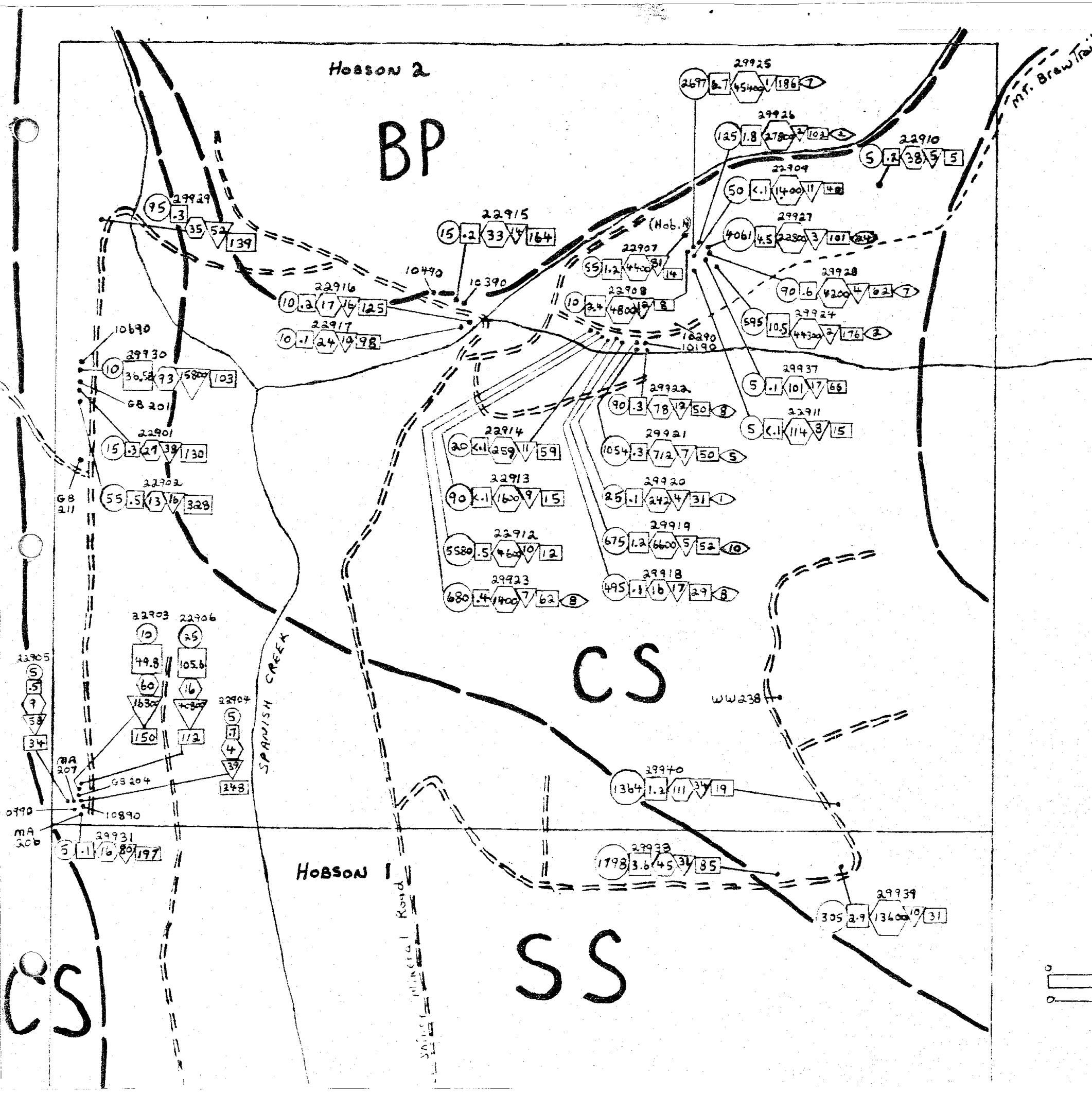
- 4. We have also completed Mineralogy 12, Ministry of Education, B.C.
- 5. From 1978 to the present, we have been actively engaged in field exploration.
- 6. We personally executed and supervised the work program as described, and have compiled and analyzed the resulting data.



 Merle Matherly



 Sheran Paterson



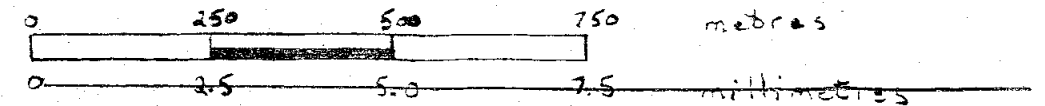
LEGEND
 SPANISH CREEK PROPERTIES
 Hobson 1 + 2 claims
 NTS 93 A/111 W

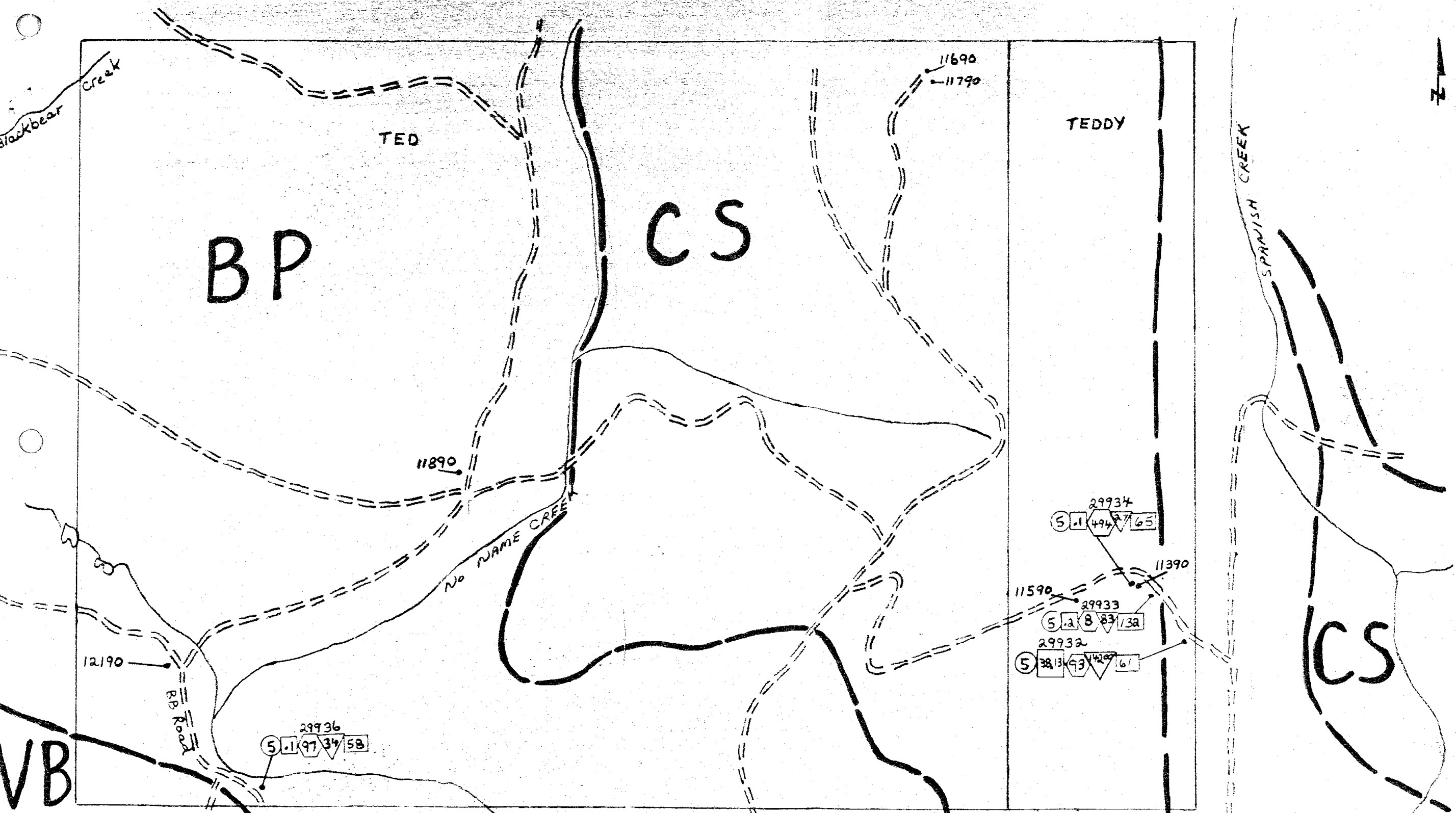
Rock SAMPLE LOCATION MAP (update)

PPB ○ Au (gold)
 PPM □ Ag (silver)
 □ Cu (copper)
 ▽ Pb (lead)
 □ Zn (zinc)
 ○ As (arsenic)
 assay reference numbers outside element symbols

GEOLOGY
 CS chlorite schist
 BP black phyllite
 SS sericite schist
 VB green volcanic breccia

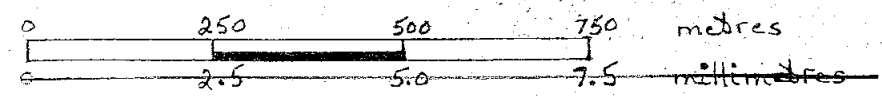
SCALE
 1:10000





VB

SCALE
1:10000



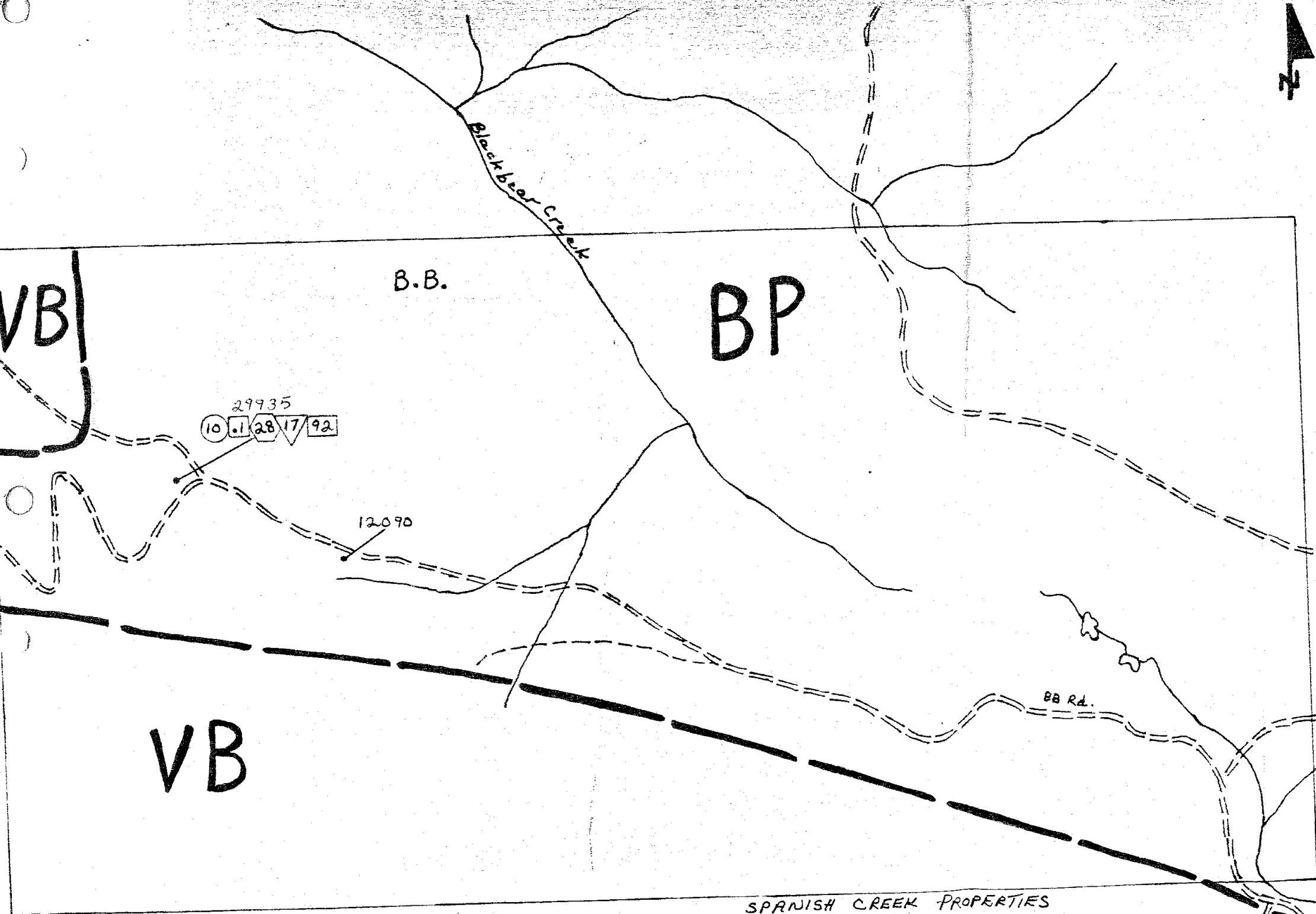
SPANISH CREEK PROPERTIES
Ted + Teddy claims
NTS 93 A/11 W

CS

SS

By: Sharon Paterson, 1991

FIG. 4C



VB

B.B.

BP

Blackbear Creek

BB Rd.

29935
10 128 17 92

12090

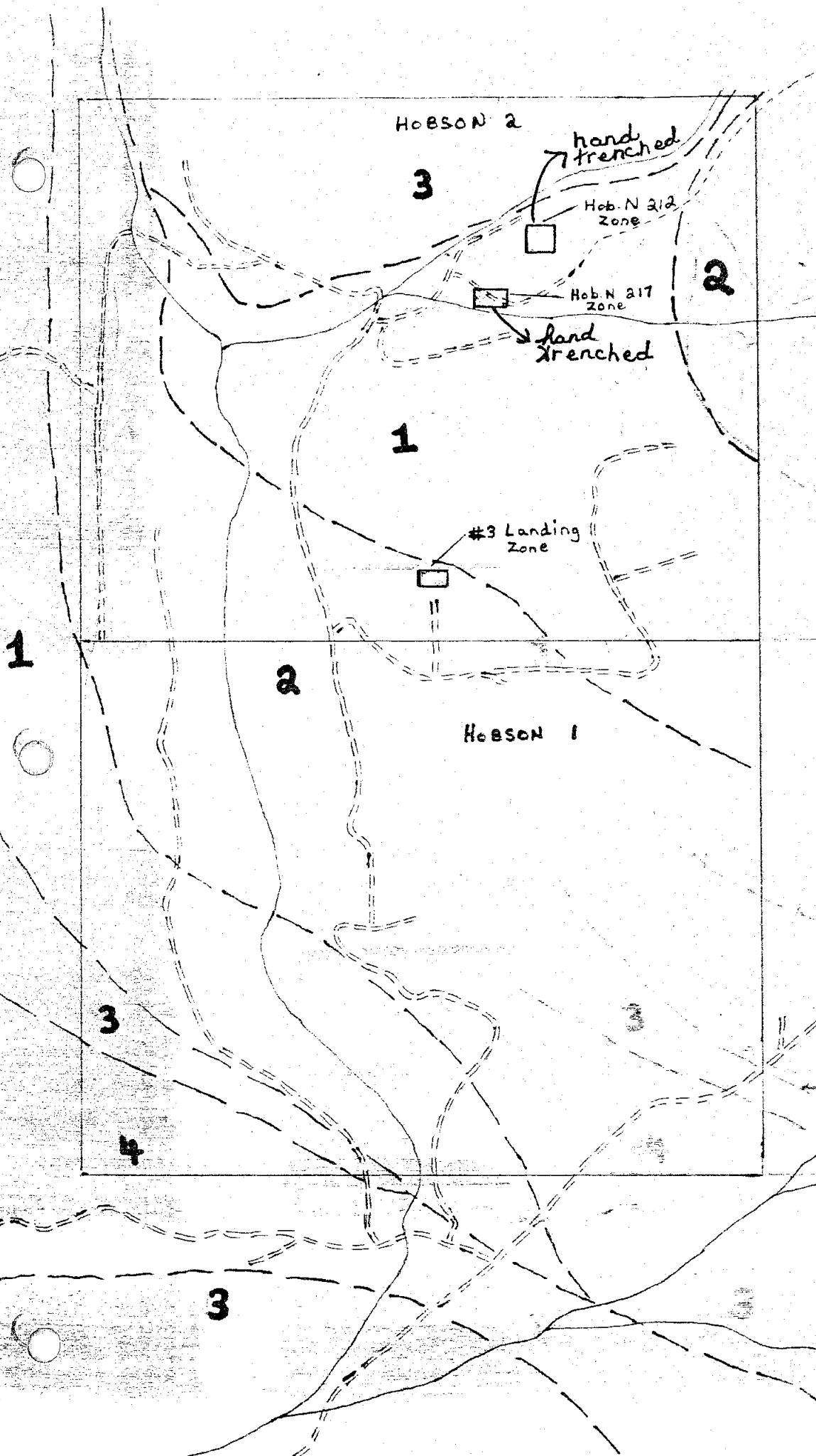
SPANISH CREEK PROPERTIES
B.B. claim
NTS 93 A/W

By: Theresa Peterson, 1991

SCALE 1:10000

0	250	500	750 metres
0	2.5	5.0	7.5 millimetres

FIG. 5A



LEGEND

Location Map
 Spanish Creek Property
 HOBSON 2 claim
 NTS 93-A/11W

QUARTZ VEIN ZONE

■ zones: 212, 217,
 #3 Landing

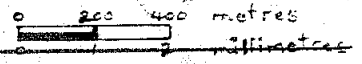
ROCK TYPES

- 1 chlorite schist
- 2 sericite schist
- 3 black phyllite
- 4 volcanic breccia-green (marine)

By: SHERAN PATERSON, 1990

scale:

1:20000



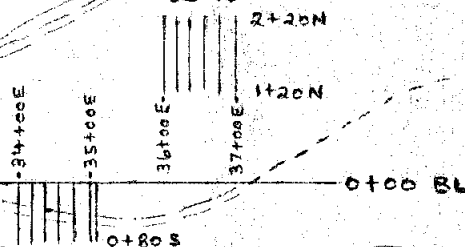
HOBSON 2

FIG. 5B

Mt. Brew
trail

N

212 ZONE (Hob. N.)



SPANISH CREEK PROPERTIES
Hobson 2 claim
NTS 93 A/11W

Hob. N. Rock Geochemistry grid map
212 ZONE L 36+00E - L 37+00E
217 ZONE L 34+00E - L 35+10E

SCALE
1:10 000



FIG. 5B

By: Theresa Peterson, 1991



36+00E
36+10E
36+20E
36+30E
36+40E
36+50E
36+60E
36+70E
36+80E

2+20N

2+10N

2+00N

1+90N

1+80N

1+70N

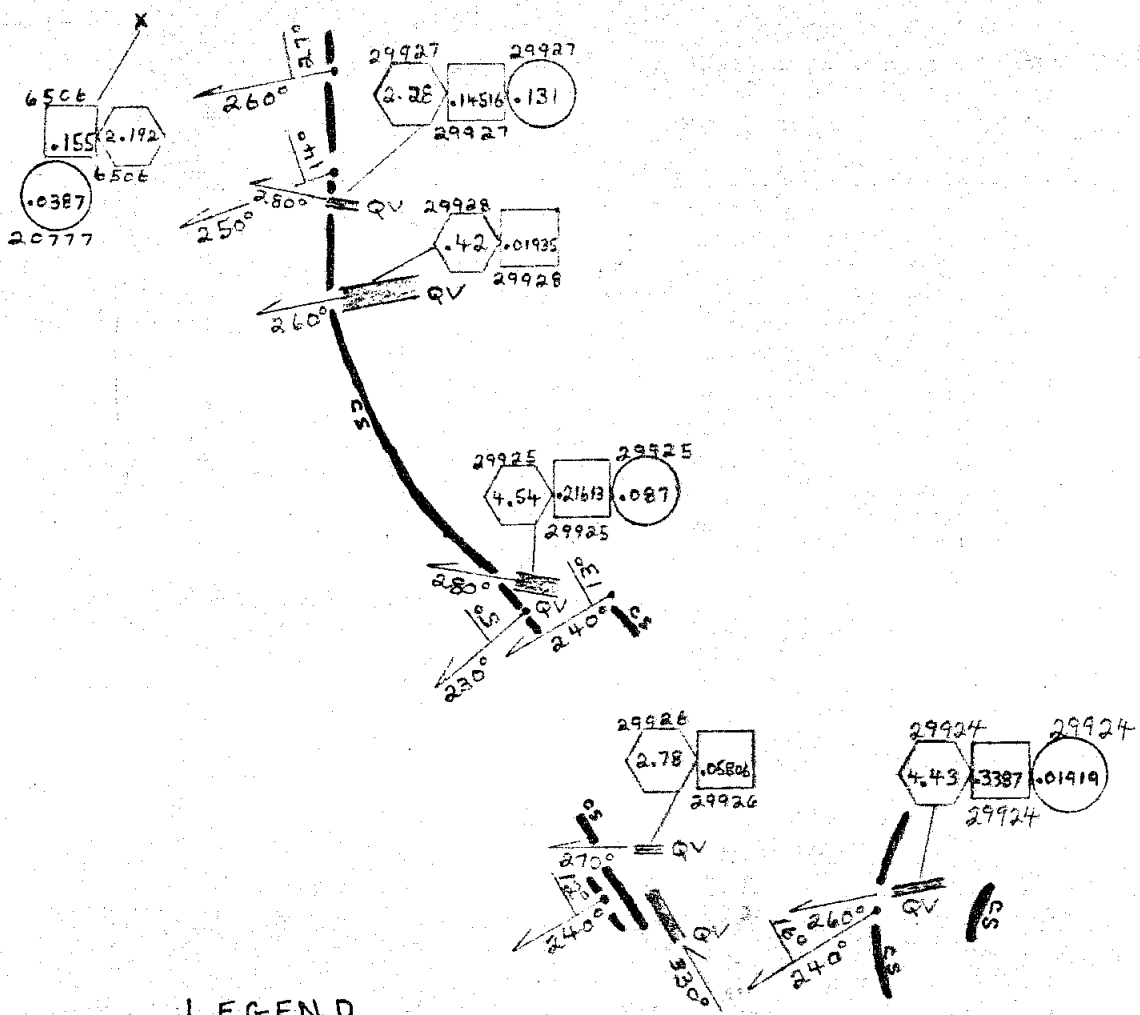
1+60N

1+50N

1+40N

1+30N

1+20N



LEGEND

- SPANISH CREEK PROPERTIES**
 Hobson 2 claim
 NTS 93 A/11 W
Hob. No. 212 zone Geological Map
- QV quartz vein
 - CS chlorite schist
 - local float sample
 - strike, dip angles
 - Lines 36+00E - 36+80E

- Au (gold) oz/T
 - Ag (silver) oz/T
 - Cu (copper) %
- assay reference numbers outside element symbols

SCALE 1:500

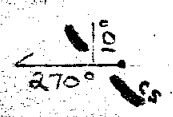
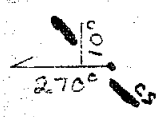
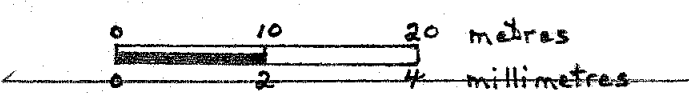


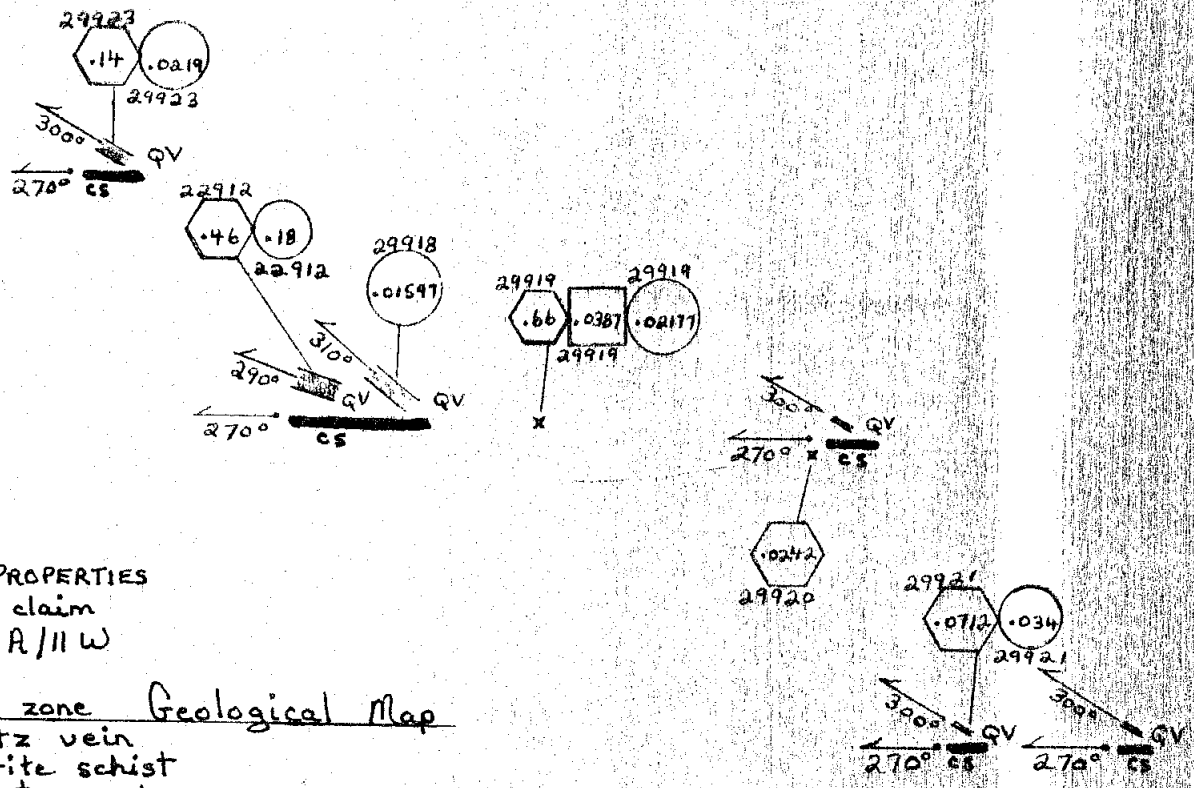
FIG. 5D

FIG. 5D



BL 0+00 34+00E
34+10E
34+20E
34+30E
34+40E
34+50E
34+60E
34+70E
34+80E
34+90E
35+00E
35+10E

0+10S
0+20S
0+30S
0+40S
0+50S
0+60S
0+70S
0+80S



LEGEND

SPANISH CREEK PROPERTIES
Hobson 2 claim
NTS 93 R/11 W

Hob. N. 217 zone Geological Map

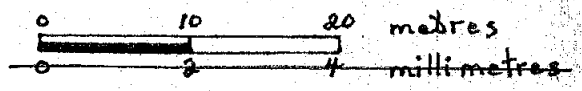
- ≡ QV quartz vein
- ▬ CS chlorite schist
- X local float sample
- ↑ strike, dip angles

Lines 34+00E - 35+10E

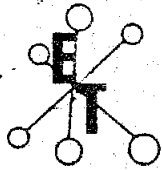
- Au (gold) oz/T
- Ag (silver) oz/T
- ⬡ Cu (copper) %

assay reference numbers outside
element symbols

SCALE 1:500



By: *Harlan Paterson, 1994*



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ASSAYING - ENVIRONMENTAL TESTING
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JULY 23, 1990

CERTIFICATE OF ANALYSIS ETK 90-314

SHINEY MINERAL EXPLORATION
BOX 422
150 MILE HOUSE, B.C.
V0K 1G0

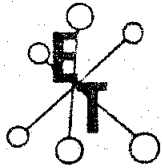
SAMPLE IDENTIFICATION: 17 ROCK samples received JULY 16, 1990

ET#	Description	AU (ppb)	AG (ppm)	CU (ppm)	PB (ppm)	ZN (ppm)
314 - 1	22901- G	15	.3	27	38	130
314 - 2	22902-	55	.5	13	16	328
314 - 3	22903-	10	>30.0	60	>1000	150
314 - 4	22904- M.A.	5	.7	4	39	248
314 - 5	22905-	5	.5	9	58	34
314 - 6	22906-	25	>30.0	16	>1000	112
314 - 7	22907- H.N.	55	1.2	>1000	81	14
314 - 8	22908-	10	2.4	>1000	12	8
314 - 9	22909-	50	<0.1	>1000	11	40
314 - 10	22910-	5	.2	38	5	5
314 - 11	22911-	5	<0.1	114	8	15
314 - 12	22912-	>1000	.5	>1000	10	12
314 - 13	22913-	90	<0.1	>1000	9	15
314 - 14	22914-	20	<0.1	259	11	59
314 - 15	22915- U.J.	15	.2	33	14	164
314 - 16	22916-	10	.2	17	16	125
314 - 17	22917-	10	.1	24	10	98

NOTE: > = GREATER THAN
< = LESS THAN

ECO-TECH LABORATORIES LTD.
JUTTA JEALOUSE
B.C. Certified Assayer

SC90/K2



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JULY 23, 1990

CERTIFICATE OF ANALYSIS ETK 90-314

SHINEY MINERAL EXPLORATION
BOX 422
150 MILE HOUSE, B.C.
V0K 1S0

A S S A Y S

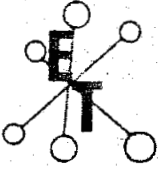
SAMPLE IDENTIFICATION: 17 ROCK samples received JULY 16, 1990

ET#	Description	AU (g/t)	AU (oz/t)	AG (g/t)	CU (%)	PB (%)
314 - 3	22903-3.6 305			48.2		1.68
314 - 6	22906-mp 810			102.2		4.08
314 - 7	22907-4.0 212				.44	
314 - 8	22908- 913				.48	
314 - 9	22909- 214				.14	
314 - 12	22912- 217	6.178 *	.18		.46	
314 - 13	22913- 218				.16	

NOTE: * SAMPLE SCREENED & METALLICS ASSAYED

Jutta Jealouse
ECO-TECH LABORATORIES LTD.
JUTTA JEALOUSE
B.C. Certified Assayer

SC90/K2



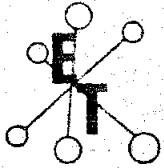
ECO-TECH LABORATORIES LTD.

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METALLIC CALCULATION

SAMPLE NUMBER	-140 VALUE	+140 VALUE	CALCULATED VALUE
314-12	3.2	313.7405	6.17737



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OCTOBER 5, 1990

CERTIFICATE OF ANALYSIS ETK 90-642

=====

SHINEY MINERALS

BOX 422

150 MILE HOUSE, B.C., V0K 2G0

ATTENTION: MERLE MATHERLY

SAMPLE IDENTIFICATION: 11 ROCK samples received SEPTEMBER 27, 1990

ET#	Description	AU (ppb)	AG (ppm)	CU (ppm)	PB (ppm)	ZN (ppm)	AS (ppm)
642 - 1	29918	495	.1	16	17	29	8
642 - 2	29919	675	1.2	>1000	5	52	10
642 - 3	29920	25	.1	242	4	31	1
642 - 4	29921	>1000	.8	712	7	50	5
642 - 5	29922	90	.3	78	12	50	8
642 - 6	29923	680	.4	>1000	7	62	8
642 - 7	29924	595	10.5	>1000	2	176	2
642 - 8	29925	>1000	6.7	>1000	1	186	7
642 - 9	29926	125	1.8	>1000	2	102	2
642 - 10	29927	>1000	4.5	>1000	3	101	24
642 - 11	29928	90	.6	>1000	4	62	7

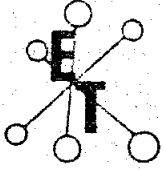
NOTE: > = GREATER THAN
< = LESS THAN

ECO-TECH LABORATORIES LTD.

JUTTA JEALOUSE

B.C. Certified Assayer

3090/A5



ECO-TECH LABORATORIES LTD.

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OCTOBER 5, 1990

CERTIFICATE OF ANALYSIS ETK 90-642

SHINEY MINERALS

BOX 422

150 MILE HOUSE, B.C., V0K 2G0

A S S A Y S

ATTENTION: MORLE MATHERLY

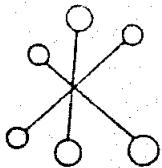
SAMPLE IDENTIFICATION: 11 ROCK samples received SEPTEMBER 27, 1990

ET#	Description	AU (g/t)	AU (oz/t)	CU (%)
642 - 2	29919			.66
642 - 4	29921	1.15	.034	
642 - 6	29923			.14
642 - 7	29924			4.43
642 - 8	29925	2.99	.087	4.54
642 - 9	29926			2.78
642 - 10	29927	4.48	.131	2.28
642 - 11	29928			.42

NOTE:

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B.C. Certified Assayer

SC90/K3



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ASSAYING - ENVIRONMENTAL TESTING

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JANUARY 7, 1991

CERTIFICATE OF ANALYSIS ETK 91-2

SHINEY MINERAL EXPL.
1054 MARTIN AVE.
KELOWNA, B.C.
V1Y 6V5

ATTENTION: MERLE MATHERLY

SAMPLE IDENTIFICATION: 12 ROCK samples received JANUARY 4, 1990
PROJECT: SPANISH CREEK

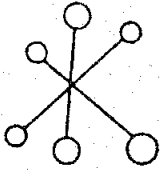
ET#	DESCRIPTION	AU (ppt)	AG (ppm)	CU (ppm)	FE (ppm)	ZN (ppm)
2	1 29929	95	.3	35	52	139
2	2 29930	10	>30.0	93	>1000	103
2	3 29931	5	.1	16	80	197
2	4 29932	5	>30.0	7	>1000	61
2	5 29933	5	.2	8	83	132
2	6 29934	5	.1	494	27	65
2	7 29935	10	.1	28	17	92
2	8 29936	5	.1	97	34	58
2	9 29937	5	.1	101	17	66
2	10 29938	>1000	3.6	45	31	85
2	11 29939	305	2.9	>1000	10	31
2	12 29940	>1000	1.2	111	34	19

NOTE: < = less than

ECO-TECH LABORATORIES LTD.
FRANK J. PEZZOTTI
B.C. CERTIFIED ASSAYER

cc: SHINEY MINERAL EXPL.
1056 MARTIN AVE.
KELOWNA, B.C.

SC91/K1



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ASSAYING - ENVIRONMENTAL TESTING

10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

JANUARY 7, 1991

CERTIFICATE OF ASSAY ETK 91-2

SHINEY MINERAL EXPL.
1056 MARTIN AVE.
KELOWNA, B.C.
V1Y 6N5

ATTENTION: MERLE MATHERLY

SAMPLE IDENTIFICATION: 12 ROCK samples received JANUARY 4, 1990
PROJECT: SPANISH CREEK

ET#	DESCRIPTION	AU		AG		CU (%)	PB (%)
		(g/t)	(oz/t)	(g/t)	(oz/t)		
2	29930			35.4	1.03		1.58
2	29932			42.2	1.23		1.42
2	29938	1.98	.058				
2	29939					1.36	
2	29940	1.52	.044				

NOTE: < = less than

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B.C. CERTIFIED ASSAYER

cc: SHINEY MINERAL EXPL.
1056 MARTIN AVE.
KELOWNA, B.C.

ET91/K1

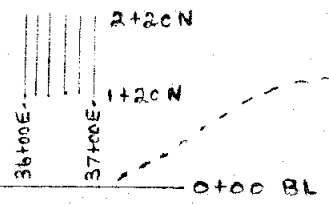
FIG. 6A

HOBSON 2

Mt. Brew Trail



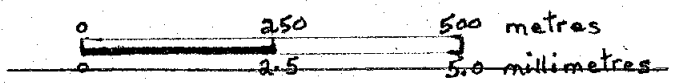
212 ZONE (Hob.N.)



Hobson 3

SPANISH CREEK PROPERTIES
 Hobson 2 claim
 NTS 93 A/UW
 212 ZONE (Hob.N.) soil grid map
 L 36+00E - 37+00E

SCALE
 1:10 000



By: Arthur Paterson, 19

FIG. 6B

36+20N

36+00E

36+20E

36+40E

36+60E

36+80E

37+00E

N

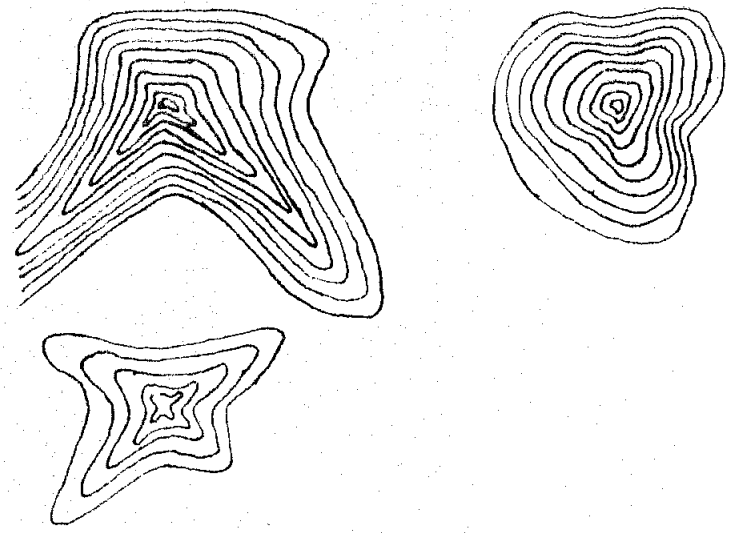
36+00N

36+20N

36+40N

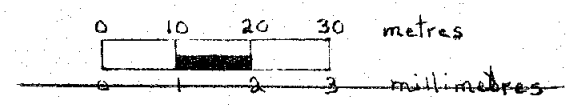
36+60N

36+80N



212 ZONE

Scale 1:1000



LEGEND

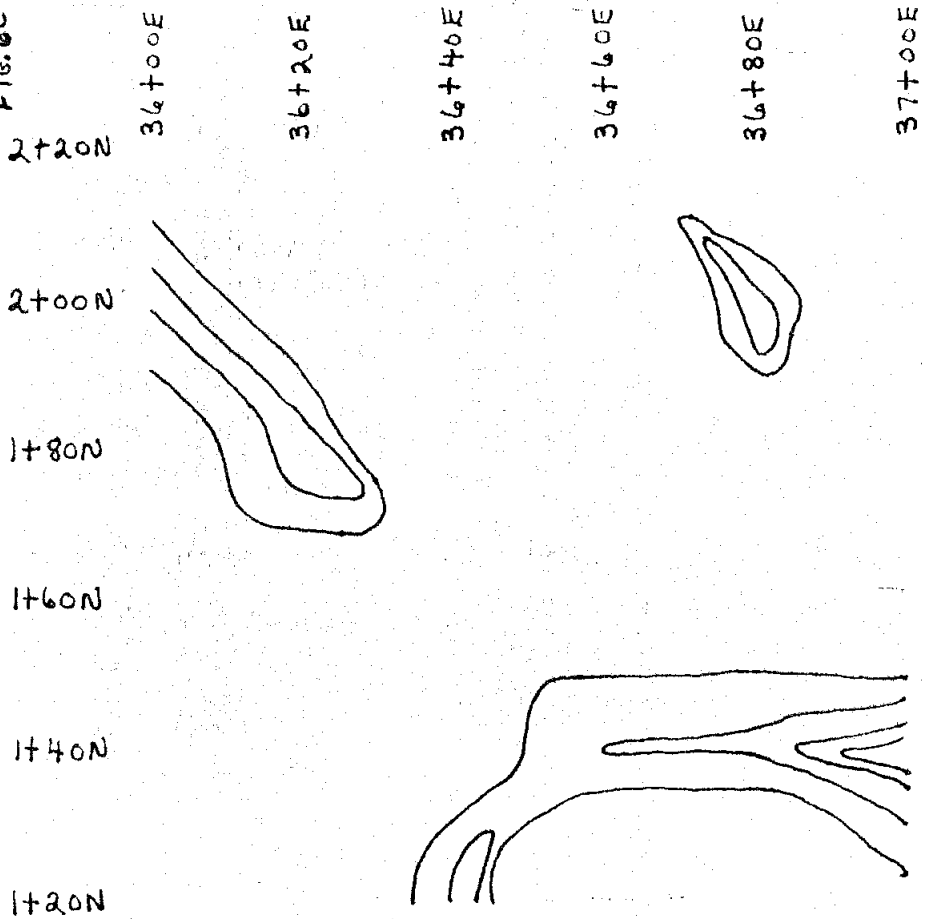
SPANISH CREEK PROPERTIES
Hobson 2 claim
NTS 93 A/11W

Au (gold) soil anomaly grid map/212 zone
lines 36+00E - 37+00E

Contour Interval 1 ppb
4 ppb cut off

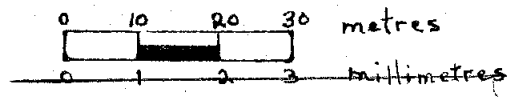
By: Shevan Peterson 1991

FIG. 6C



212 ZONE

Scale 1:1000



LEGEND

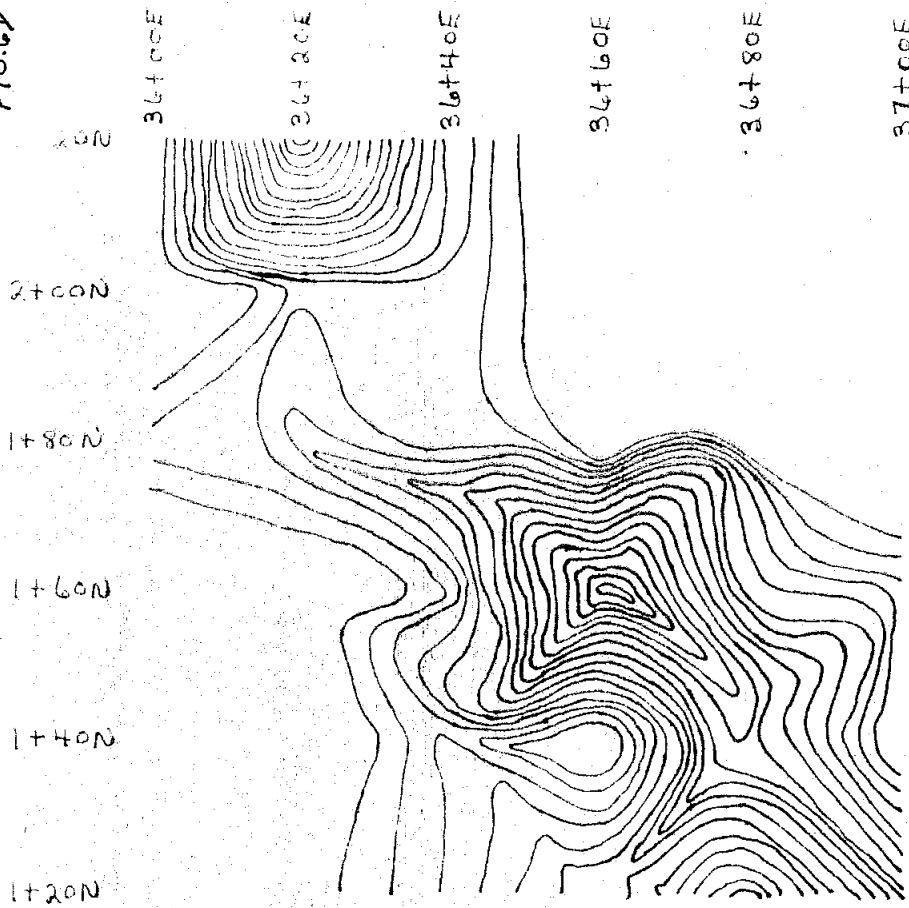
SPANISH CREEK PROPERTIES
 Hobson 2 claim
 NTS 93 A/11 W

Ag (silver) soil anomaly grid map / 212 Zone
 lines 36+00E - 37+00E

Contour Interval .05 ppm
 1.5 ppm cutoff

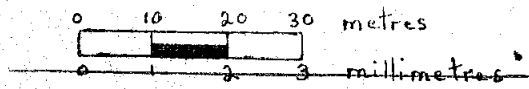
Richard P. ... 1991

FIG. 67



212 ZONE

Scale 1:1000



LEGEND

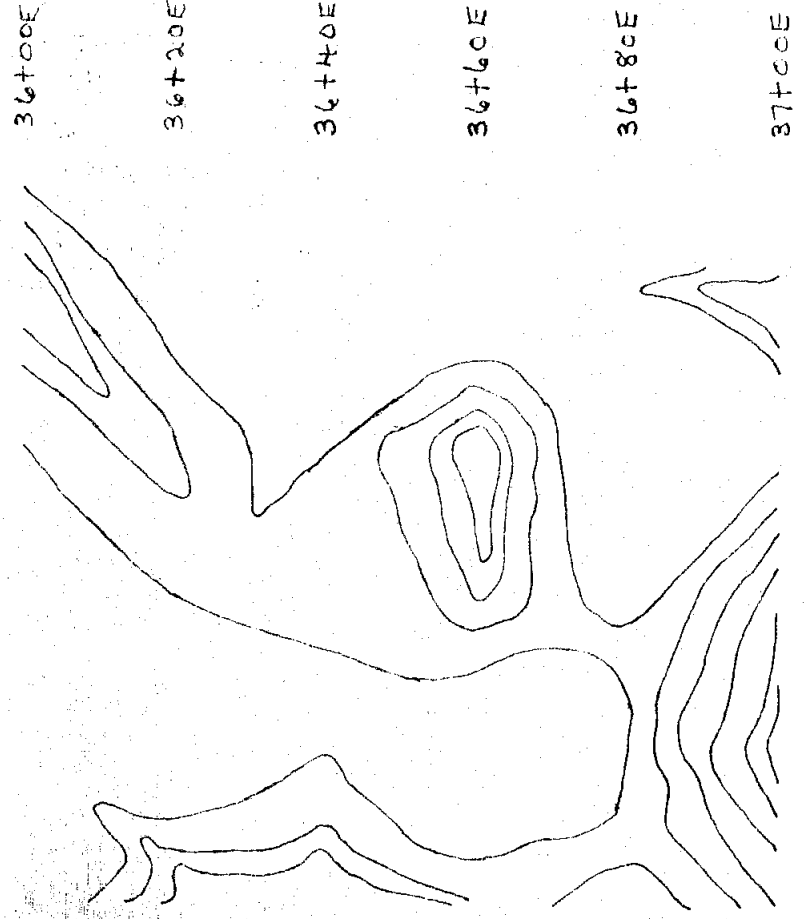
SPANISH CREEK PROPERTIES
Hobson 2 claim
NTS 93A/11W

Cu (copper) soil anomaly grid map/212 Zone
lines 36+00E - 37+00E

Contour Interval 10 ppm
50 ppm cut off

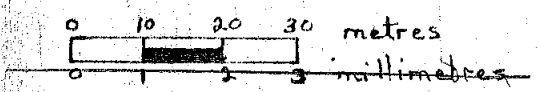
FIG. 6E

2+20N
2+00N
1+80N
1+60N
1+40N
1+20N



212 ZONE

Scale 1:1000



LEGEND

SPANISH CREEK PROPERTIES
Hobson 2 claim
NTS 93 A/11 W

Pb (lead) soil anomaly grid map/212 Zone
lines 36+00E - 37+00E

Contour Interval 1 ppm
12 ppm cut off

FIG. 6F

2+20N

36+00E

36+20E

36+40E

36+60E

36+80E

37+00E

Z

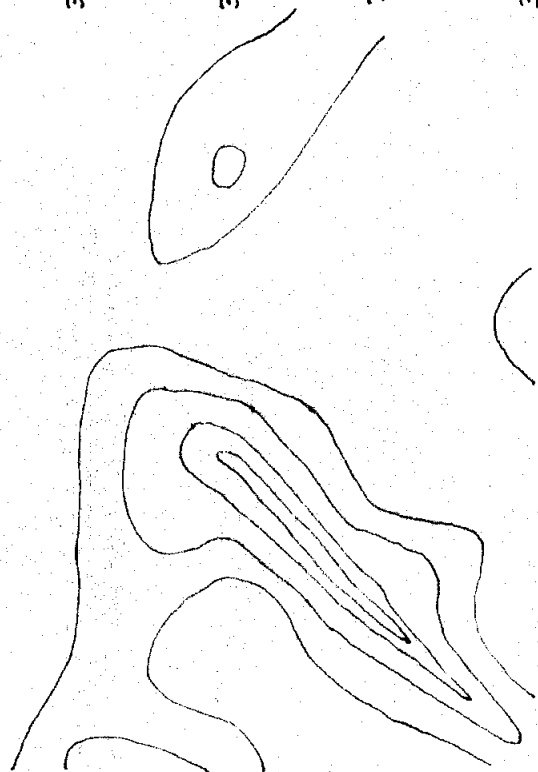
2+00N

1+80N

1+60N

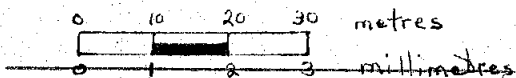
1+40N

1+20N



212 ZONE

Scale 1:1000



LEGEND

SPANISH CREEK PROPERTIES

Hobson 2 claim

NTS 93 A/11 W

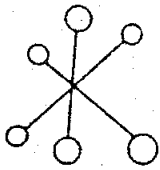
Zn (zinc) soil anomaly grid map / 212 zone

lines 36+00E - 37+00E

Contour Interval 10 ppm

70 ppm cut off

By: *Sherran Paterson*, 1991



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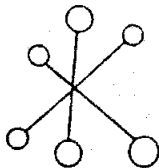
NOVEMBER 19, 1990

CERTIFICATE OF ANALYSIS ETK 90-721

SHINEY MINERAL EXPL.
BOX 422
150 MILE HOUSE, B.C.
V0A 2G0

SAMPLE IDENTIFICATION: 35 SOIL samples received NOVEMBER 9, 1990
PROJECT: SPANISH CREEK

ET#	DESCRIPTION	AU (ppb)	AS (ppm)	CU (ppm)	PB (ppm)	ZN (ppm)
721 - 1	L 36+00 E 2 + 20 N	<5	.1	96	11	71
721 - 2	L 36+00 E 2 + 00 N	<5	.2	22	14	48
721 - 3	L 36+00 E 1 + 80 N	<5	.1	65	12	44
721 - 4	L 36+00 E 1 + 60 N	10	.1	18	11	40
721 - 5	L 36+00 E 1 + 40 N	<5	.1	18	11	60
721 - 6	L 36+00 E 1 + 20 N	5	<.1	33	10	65
721 - 7	L 36+20 E 2 + 20 N	<5	<.1	218	9	57
721 - 8	L 36+20 E 2 + 00 N	<5	.1	66	11	58
721 - 9	L 36+20 E 1 + 80 N	15	.2	88	13	67
721 - 10	L 36+20 E 1 + 60 N	<5	.1	29	12	44
721 - 11	L 36+20 E 1 + 40 N	10	<.1	23	10	53
721 - 12	L 36+20 E 1 + 20 N	<5	<.1	38	14	61
721 - 13	L 36+40 E 2 + 20 N	5	.1	76	9	52
721 - 14	L 36+40 E 2 + 00 N	<5	<.1	61	9	57
721 - 15	L 36+40 E 1 + 80 N	5	<.1	68	12	63
721 - 16	L 36+40 E 1 + 60 N	10	.1	59	11	71
721 - 17	L 36+40 E 1 + 40 N	<5	.1	72	12	70
721 - 18	L 36+40 E 1 + 20 N	<5	.2	73	14	83
721 - 19	L 36+60 E 2 + 20 N	<5	.1	15	9	67
721 - 20	L 36+60 E 2 + 00 N	<5	<.1	22	10	81
721 - 21	L 36+60 E 1 + 80 N	5	<.1	23	15	54
721 - 22	L 36+60 E 1 + 60 N	<5	.1	204	14	99
721 - 23	L 36+60 E 1 + 40 N	<5	.2	34	9	51
721 - 24	L 36+60 E 1 + 20 N	<5	<.1	117	13	79
721 - 25	L 36+80 E 2 + 20 N	<5	<.1	20	9	74
721 - 26	L 36+80 E 2 + 00 N	<5	.2	36	12	52
721 - 27	L 36+80 E 1 + 80 N	15	.1	28	9	53
721 - 28	L 36+80 E 1 + 60 N	5	.1	94	11	58
721 - 29	L 36+80 E 1 + 40 N	<5	.2	149	12	99
721 - 30	L 36+80 E 1 + 20 N	<5	<.1	50	11	55



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SHINEY MINERAL EXPL.

NOVEMBER 19, 1990

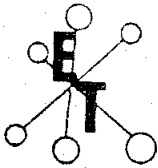
ET#	DESCRIPTION	AU (ppb)	AG (ppm)	CU (ppm)	FB (ppm)	ZN (ppm)
721 - 31	L 37+00 E 2 + 00 N	<5	<.1	14	13	54
721 - 32	L 37+00 E 1 + 80 N	<5	.1	20	11	77
721 - 33	L 37+00 E 1 + 60 N	<5	<.1	83	16	61
721 - 34	L 37+00 E 1 + 40 N	<5	.3	62	17	56
721 - 35	L 37+00 E 1 + 20 N	<5	.1	141	14	78

NOTE: < = less than

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JUTTA JEALOUSE
B.C. CERTIFIED ASSAYER

TO: SHINEY MINERAL EXPL.
1056 MARTIN AVE.
KELOWNA, B.C.

1090045



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ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

GEOCHEMICAL LABORATORY METHODS

SAMPLE PREPARATION (STANDARD)

1. Soil or Sediment: Samples are dried and then sieved through 80 mesh nylon sieves.
2. Rock, Core: Samples dried- (if necessary), crushed, riffled to pulp size and pulverized to approximately -140 mesh.

METHODS OF ANALYSIS

All methods have either known or in-house standards carried through entire procedure to ensure validity of results.

1. Multi Element Cd, Cr, Co, Cu, Fe (acid soluble),
Pb, Mn, Ni, Ag, Zn, Mo

Digestion

Hot aqua-regia

Finish

Atomic Absorption, background correction applied where appropriate

A) Multi Element ICP

Digestion

Hot aqua regia

Finish

ICP

2. Antimony

Digestion

Hot aqua regia

Finish

Hydride generation A.A.S.

3. Arsenic

Digestion

Hot aqua regia

Finish

Hydride generation A.A.S.

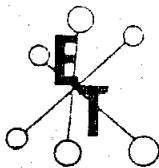
4. Barium

Digestion

Lithium Metaborate fusion

Finish

Atomic Absorption



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5. Beryllium

Digestion

Hot aqua regia

Finish

Atomic Absorption

6. Bismuth

Digestion

Hot aqua regia

Finish

Atomic Absorption

7. Chromium

Digestion

Sodium Peroxide Fusion

Finish

Atomic Absorption

8. Fluorine

Digestion

Lithium Metaborate Fusion

Finish

Ion Selective Electrode

9. Mercury

Digestion

Hot aqua regia

Finish

Cold vapor generation
A.A.S.

10. Phosphorus

Digestion

Lithium Metaborate Fusion

Finish

I.C.P. finish

11. Selenium

Digestion

Hot aqua regia

Finish

Hydride generation A.A.S.

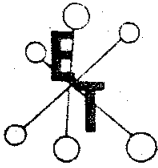
12. Tellurium

Digestion

Hot aqua regia
Potassium Bisulphate Fusion

Finish

Hydride generation A.A.S.
Colorimetric or I.C.P.



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13. Tin

Digestion

Ammonium Iodide Fusion

Finish

Hydride generation A.A.S.

14. Tungsten

Digestion

Potassium Bisulphate Fusion

Finish

Colorimetric or I.C.P.

15. Gold

Digestion

Fire Assay Preconcentration
Followed by Aqua Regia

Finish

Atomic Absorption

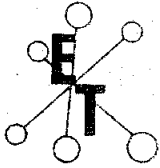
16. Platinum, Palladium, Rhodium

Digestion

Fire Assay Preconcentration
Followed by Aqua Regia

Finish

Graphite Furnace A.A.S.



ECO-TECH LABORATORIES LTD.

ASSAYING - ENVIRONMENTAL TESTING

10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

I N V O I C E

DATE: JULY 23, 1990

SHINEY MINERAL EXPLORATION
BOX 422
150 MILE HOUSE, B.C.
VOK 1G0

INVOICE #: ETK 90-314

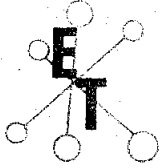
A N A L Y S E S		PRICE/SAMPLE	AMOUNT
17	SAMPLE PREP. (ROCK/CORE)	3.75	63.75
.25	SCREEN PREPARED PULP TO -140 MESH	5.00	
.25	PULVERIZE ADDITIONAL -10 MESH	5.00	
17	AU GEOCHEM	7.25	123.25
17	SETS AG/CU/PB/ZN GEOCHEM	5.50	93.50
1	METALLIC	20.00	20.00
	AG ASSAY	8.50	17.00
5	CU ASSAY	6.50	32.50
2	PB ASSAY	6.50	13.00

TOTAL DUE & PAYABLE UPON RECEIPT: 363.00

PAYMENT RECEIVED ON ACCOUNT 280.50

BALANCE OWING 82.50

TERMS: NET 30 DAYS. INTEREST AT RATE OF 1-1/2% PER MONTH (18% PER ANNUM)
WILL BE CHARGED ON OVERDUE ACCOUNTS.



ECO-TECH LABORATORIES LTD.

ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

I N V O I C E

DATE: OCTOBER 5, 1990

SHINEY MINERALS
BOX 422
150 MILE HOUSE, B.C.
VOK 2G0

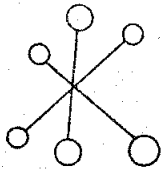
INVOICE #: ETK 90-642

ATTENTION: MERLE MATHERLY

A N A L Y S E S		PRICE/SAMPLE	AMOUNT
11	SAMPLE PREP. (ROCK)	3.75	41.25
11	AU GEOCHEM	6.75	74.25
11	AG/CU/PB/ZN GEOCHEM	5.50	60.50
1	AS GEOCHEM	4.50	49.50
3	AU ASSAY	8.50	25.50
7	CU ASSAY	6.50	45.50

TOTAL DUE & PAYABLE UPON RECEIPT: 296.50

TERMS: NET 30 DAYS. INTEREST AT RATE OF 1-1/2% PER MONTH (18% PER ANNUM)
WILL BE CHARGED ON OVERDUE ACCOUNTS.



ECO-TECH LABORATORIES LTD.

ASSAYING - ENVIRONMENTAL TESTING

10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

I N V O I C E

SHINEY MINERAL EXPL.
1056 MARTIN AVE.
KELOWNA, B.C.
V1Y 6V5

DATE: JANUARY 7, 1991

ATTENTION: MERLE MATHERLY

INVOICE #: ETK 90-2

A N A L Y S E S

PRICE/SAMPLE

AMOUNT

PROJECT: SPANISH CREEK

12	SAMPLE PREP. (ROCK)	3.75	45.00
12	AU GEOCHEM	7.25	87.00
12	AG/CU/PB/ZN GEOCHEM	5.50	66.00
2	AU ASSAY	8.50	17.00
2	AG ASSAY	8.50	17.00
1	CU ASSAY	6.50	6.50
2	PB ASSAY	6.50	13.00

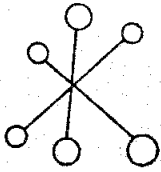
SUB TOTAL: 251.50

& 7% G.S.T.: 17.61

TOTAL DUE & PAYABLE UPON RECEIPT: 269.11

G. S. T. REGISTRATION NUMBER R101565356

TERMS: NET 30 DAYS. INTEREST AT RATE OF 1-1/2% PER MONTH (18% PER ANNUM)
WILL BE CHARGED ON OVERDUE ACCOUNTS.



ECO-TECH LABORATORIES LTD.

ASSAYING - ENVIRONMENTAL TESTING

10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

I N V O I C E

DATE: NOVEMBER 19, 1990

SHINEY MINERAL EXPL.
BOX 422
150 MILE HOUSE, B.C.
V0K 2G0

INVOICE #: ETR 90-701

A N A L Y S E S

PRICE/SAMPLE

AMOUNT

PROJECT: SPANISH CREEK

35	SAMPLE PREP. (SOIL)	1.00	35.00
35	AU GEOCHEM	7.25	253.75
35	AG/CU/PB/ZN GEOCHEM	5.50	192.50

TOTAL DUE & PAYABLE UPON RECEIPT: 481.25

TERMS: NET 30 DAYS. INTEREST AT RATE OF 1-1/2% PER MONTH (18% PER ANNUM)
WILL BE CHARGED ON OVERDUE ACCOUNTS.