

RAM EXPLORATION LTD.

S4-#42 - 11955

Geological, Geochemical and  
Geophysical Report on  
the Spyder Claims  
Similkameen Mining Division  
(British Columbia)

NTS: 92H 7E

Lat 49° 16' 50" Long 120° 42' 00"

for

Primrose Resources Ltd.

by

C. Von Einsiedel, BSc.

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

11,955

January 11, 1984  
Vancouver, British Columbia

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## SUMMARY

Primrose Resources Ltd. holds two, contiguous mineral claim blocks, Spyder 1 and Spyder 2, located in the Whipsaw Creek area, Similkameen Mining Division. Previous studies conducted by Whipsaw Mines Ltd., (1970 - 1973) and World Wide Minerals (1982) showed that this area hosts a geologic environment favourable to the localization of intrusive related, base and precious metal mineralization. Significant discoveries of silver - lead - zinc - copper mineralization have been made to the east and west of the spyder claims (Poloni, 1982; Cavey, 1983).

Pursuant to a request by the directors of Primrose Resources Ltd, Ram Exploration Ltd conducted a preliminary exploration program comprised of geologic mapping, soil geochemistry and geophysics (ground magnetometer and VLF-EM) on the Spyder Claim Group. A strong geochemical anomaly (Cu), approximately coincident with an inferred fault, was identified in the eastern part of the Spyder 1 claim.

Results of this program clearly indicate that the property merits continued exploration. A follow-up program comprising detailed, geophysics and cat trenching in the anomalous area is recommended.

## INTRODUCTION

On behalf of Primrose Resources Ltd, Ram Exploration Ltd. completed preliminary phase exploration on the Spyder Claim Group, Similkameen Mining Division, B.C. Between October 20 and November 10, 1984 a crew of 4 men carried out geological, soil geochemical (680 samples) and geophysical surveys totalling 22 km of linecutting, ground magnetometer and VLF-EM surveys.

This report describes the results of these surveys and their significance relative to known mineral occurrences in the project area.

## PROPERTY

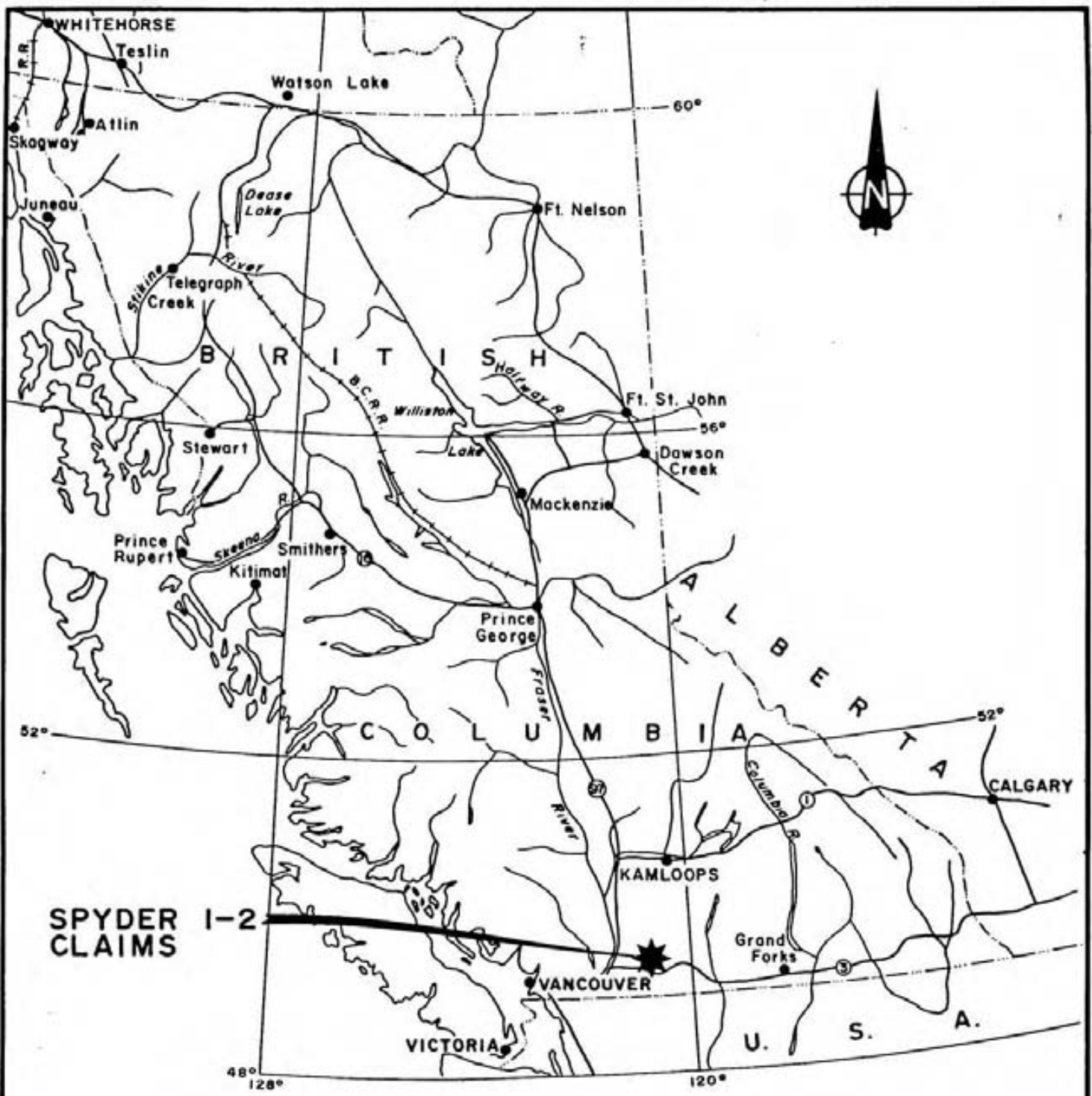
The Spyder Claim Group consists of two contiguous mineral claim blocks totalling 13 units located on map sheet 92-H-7E in the Similkameen Mining Division. Title is recorded as follows:

<u>Claim Name</u>	<u>No. Of Units</u>	<u>Record No.</u>	<u>Registered Owner</u>	<u>Expiry</u>
Spyder 1	9	1788 (1)	Primrose Res. Ltd.	Jan. 11, 1984
Spyder 2	4	1789 (1)	Primrose Res. Ltd.	Jan. 11, 1984

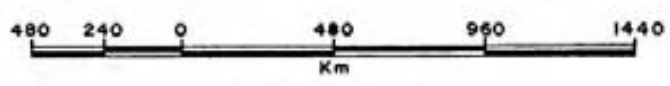
## LOCATION, ACCESS, TOPOGRAPHY

The Spyder claims are located on Whipsaw Creek, approximately 25 km south-west of Princeton, B.C. Access to the claims is via gravel logging roads for approximately 18 km south-west of the Hope - Princeton highway. The co-ordinates of the legal corner post are  $120^{\circ} 42' 00''$  W and  $49^{\circ} 16' 50''$  N.

The claims cover the north and south facing slopes of the Whipsaw Creek Valley. Topography consists of gently rolling hills crosscut by several small streams. Elevations on the property range from 1280m (4200 feet) to 1700m (5500 feet). Timber is abundant as well as considerable wind fall near the tops of hills and ridges.



PRIMOSE RESOURCES LTD.  
 LOCATION MAP  
 OF  
 SPYDER 1-2 CLAIMS



## HISTORY

The Princeton area has been an active mining interest since the early 1900's when numerous gold and platinum placer discoveries were made. Recent major discoveries include the Ingerbelle and Copper Mountain porphyry copper - gold deposits of Newmont Mines, the latter of which is currently in production.

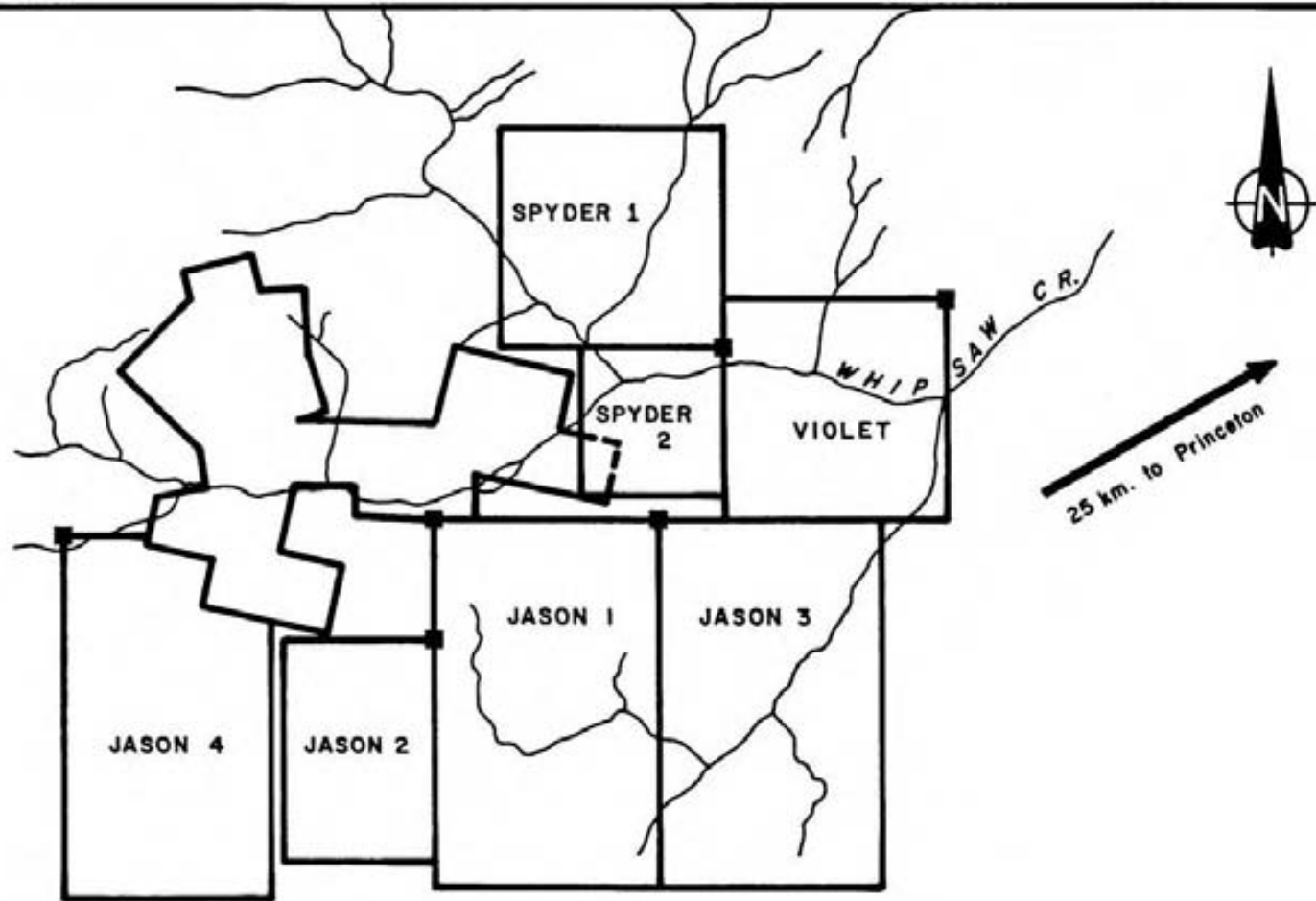
Of particular interest to the Spyder property are geological, geochemical and follow-up trenching and diamond drilling programs conducted by Whipsaw Mines Ltd. (Leighton, 1970 - Anderson, 1973) and World Wide Minerals (Poloni 1982).

Mineralized breccia zones were identified one to two kilometres west of the Spyder claims and several geochemical anomalies were reported. Part of one of these geochemical anomalies is located within the eastern part of the Spyder 1 claim. I am informed that mineralized occurrences to the west of the property have recently been tested by diamond drilling with favourable results, (C. Martin, personal communication - 1983).

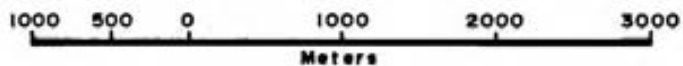
## REGIONAL GEOLOGY

As described by Leighton (1970) the Whipsaw property is situated in a complex geologic environment comprising a contact area between the Nicola volcanics and the Eagle granodiorite. The Nicola Group consists of metamorphosed volcanic and sedimentary rocks of Upper Triassic age dipping moderately west along a NNW axis. Within two kilometres of the Eagle granodiorite, (Jurassic age) the Nicola Group has been more strongly deformed and has undergone upper amphibolite grade contact metamorphism. Rocks within this aureole comprise the amphibolite schists and gneisses mapped on the Spyder property.

Photogeological studies conducted by Whipsaw mines Ltd. (1973) identified major N and WNW trending fault zones associated with WNW and WSW fracture zones. These structural zones are indicated on the accompanying plan map, (fig. 4).



PRIMOSE RESOURCES LTD.  
**CLAIM MAP**  
OF  
SPYDER 1-2 CLAIMS





## ECONOMIC GEOLOGY

The Spyder claims are of economic interest primarily because they are situated in a geologic environment similar to that at recently discovered showings to the west of the property. These occurrences consist of silver - lead - zinc - copper mineralization along altered breccia zones which attain widths of up to 30 m along a strike length of several hundred meters.

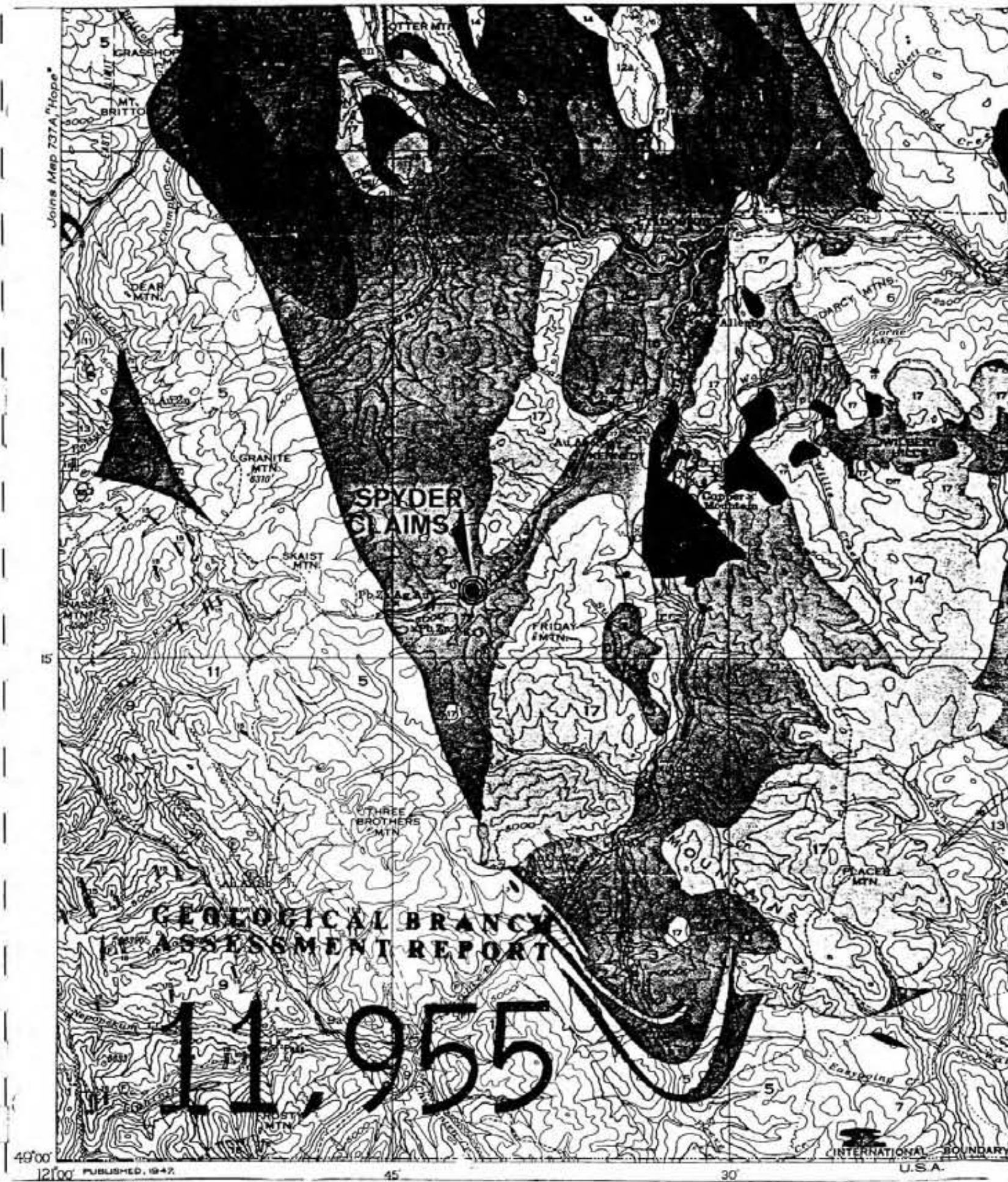
These breccia zones display shear controlled, disseminated to massive galena, sphalerite, chalcopyrite and precious metals (up to 15 oz. silver/ton and 0.20 oz. gold/ton are reported; - Poloni, 1982) associated with extensive sericitic and ankeritic alteration. It is important to note that one of these discoveries, the "BZ" zone was made by trenching a copper geochemical anomaly of similar magnitude to the anomaly defined on the Spyder property.

According to P. Anderson 1973, these mineralized breccia zones may be related to late stage hydrothermal activity associated with the Eagle granodiorite.

## 1983 EXPLORATION PROGRAM

Previous studies have shown that the principal exploration targets in this area are hydrothermally altered, metalliferous breccia zones hosted by Nicola Group volcanics. The principal objectives of the current exploration program were to:

- (i) provide reconnaissance scale geological, geochemical and geophysical data for the entire claim group, and
- (ii) define the extent of previously reported copper geochemical anomalies and, if possible, determine their significance.



GEOLOGICAL BRANCH  
ASSESSMENT REPORT

11, 1955

49°00' 12'00" PUBLISHED, 1947.

INTERNATIONAL BOUNDARY U.S.A.

LEGEND

- CENOZOIC**
- TERTIARY**  
**MIOCENE OR LATER**
- 19 Valley basalt: vesicular, varicoloured basalt
  - 18 Plateau basalt: amygdaloidal, brown basalt
- MIOCENE OR EARLIER**  
**PRINCETON GROUP**
- 17 16, Mainly shale, sandstone, and conglomerate; coal  
17, Varicoloured andesite and basalt
- CRETACEOUS OR TERTIARY**  
**UPPER CRETACEOUS OR LATER**
- 14, 15 14, OTTER INTRUSIONS: pink and grey granite and granodiorite  
15, LIGHTNING CREEK INTRUSIONS: grey quartz diorite
- CRETACEOUS**  
**LOWER CRETACEOUS**  
**KINGSDALE GROUP**
- 12a-b, 13 12a, mainly volcanic breccia; 12b, mainly andesite and basalt porphyry  
13, Andesite and basalt porphyry and volcanic breccia
- PASAYTEN GROUP**
- 11 Mainly grit and shale; 11a, mainly purple lava, tuff, and breccia
- SPENCE BRIDGE GROUP**
- 10 Hard, reddish andesite and basalt
- JURASSIC (?) AND CRETACEOUS**  
**UPPER JURASSIC (?) AND LOWER CRETACEOUS**  
**DEWDNEY CREEK GROUP**
- 9 Tuff, volcanic breccia, grit, argillite; 9a, mainly conglomerate
- MESOZOIC**
- JURASSIC OR LATER**
- COPPER MOUNTAIN INTRUSIONS: syenogabbro, augite diorite, pegmatite
- 5, 6, 7 COAST INTRUSIONS: 5, grey, slightly gneissic granodiorite; 6, mainly reddish, coarse-grained, siliceous granite and granodiorite; 7, light coloured granodiorite, quartz diorite, and gabbro
- Peridotite, pyroxenite, gabbro
- TRIASSIC**  
**UPPER TRIASSIC**  
**NICOLA GROUP**
- Varicoloured lava, argillite, tuff, limestone, chlorite and sericite schist

PRIMROSE RESOURCES LTD.  
PRINCETON PROJECT  
SPYDER CLAIMS  
REGIONAL GEOLOGY MAP

DATE : JAN 84 GSC : 888A  
SCALE : 1 inch = 4 miles NTS : 92H/7E  
RAM EXPLORATION LTD.

## GROUND CONTROL

To facilitate geological, geochemical and geophysical surveys a grid was established consisting of a baseline (025<sup>0</sup>) with profiles (115<sup>0</sup>) at 200m intervals. An estimated 22km of line were cut, flagged and picketed at 50m intervals. The grid is indicated on the accompanying plan map, (Fig. 4).

## GEOLOGIC MAPPING - PROPERTY GEOLOGY

The Spyder claims pose a difficult problem with regard to geologic mapping. With the exception of a few scattered exposures, the property is blanketed by a considerable thickness of glacial drift. To describe the geology of the Spyder claims, several inferences are made from surrounding geology as mapped by Leighton (1970).

Exposures that were examined consist of weathered and decomposed, NW striking, chlorite-hornblende schists and quartz-chlorite-hornblende gneisses. These rocks are believed to be metamorphosed intermediate volcanics of the Nicola Group (Leighton, 1970). Of economic interest, are highly oxidized fracture zones cutting chlorite-hornblende schists exposed in a trench south east of the Spyder 2 claim. These fractures showed sericitic and ankeritic alteration similar to that at silver - lead - zinc - copper occurrences (identified by Whipsaw Mines Ltd.) to the west of the Spyder property. Oxidized material collected from the trench was analyzed and returned anomalous values in copper - lead - zinc and silver.

Although exposure is limited, results of geologic mapping and the ground magnetometer survey indicate that the property is underlain primarily by Nicola Group volcanics. A semi-circular magnetic high located in the south east part of the property is interpreted as a shallow intrusive body, possibly related to the Eagle Granodiorite. This supports an earlier interpretation made from airborne magnetometer data (Glen E. White, 1983).

## GEOCHEMICAL SURVEY

### Introduction

To provide reconnaissance scale geochemical data, a total of 680 soil samples were collected at 25 to 50m intervals along Spyder grid lines. Samples of approximately 500g were collected from the "B" horizon when possible or otherwise from grey clay rich soils approximately 25 cm below the surface.

Samples were shipped to Vangeochem, Vancouver, B.C. where they were dried and sieved to minus 80 mesh. Sample splits of 0.5g were then digested in a hot aqua regia solution and were determined by atomic absorption for silver, copper, lead, and zinc. Analytical results are indicated on Fig. 5 through 8, and in Appendix A.

### Soil Conditions

Overburden within the survey area is of uniform character and is typically comprised of grey clay rich soils. Brown to red brown, zoned arid soils are found in some areas, usually at higher elevations.

### Results

To determine anomaly thresholds the log vs probability graph approach of Sinclair 1974 was used. Probability graphs showed that silver, lead and zinc contents of soils constitute single (background) log normally distributed populations. Only copper log vs probability graphs showed a bimodal distribution (background and anomalous populations). Estimates from copper log vs probability graphs indicate two overlapping populations

(i) background	mean 70.0
-97% of samples	std. dev. 32.0
	range 10 - 150 ppm
(ii) background	mean 280.0
-3% of samples	std. dev. 110.0
	range 120 - 1090 ppm

This threshold value is in close agreement with earlier studies (Leighton, 1970) which established an anomaly threshold of 100 ppm for copper geochemical values in the Whipsaw Creek area.

The current survey has defined a Copper geochemical anomaly (approximately 400 x 300m) roughly elongated along an east-west axis in the eastern part of the Spyder 1 claim. The anomaly consists of 16 anomalous values ranging from 100 to 435 ppm.

Numerous isolated, weakly anomalous Ag and zinc anomalies were also identified however these show no correlation with other anomalous areas and are believed to be simply the upper limit of a non-anomalous (background) population.

## **GEOPHYSICAL SURVEYS**

### **Introduction**

Ground magnetometer and VLF-EM surveys were performed over the Spyder grid to assist with geologic mapping and the identification of trenching targets in areas of extensive overburden. Station readings were taken at 25m intervals over a distance of 22 line kilometers.

### **Ground Magnetometer Survey**

The ground magnetometer survey was conducted using a GEM systems GSM-8 proton precession magnetometer. Survey lines were looped and a GEM systems GSM-18 base station magnetometer was maintained to allow for corrections due to diurnal variations of the earth's magnetic field. During the course of the surveys base station variation was found to be less than 30 gammas. Considering the 3000 gamma gradient across the property, drift corrections were deemed unnecessary for accurate interpretation. Total intensity magnetic field data, plotted from a base reading of 57000 gammas, is presented in Fig. 10).

## Results

Contoured data show a moderate magnetic gradient decreasing north across the property with a semi-circular magnetic high situated in the southern part of property. This magnetic high is interpreted as a shallow intrusive body possibly associated with the Eagle Granodiorite. Exposures of Nicola volcanics within the moderate magnetic gradient, north of the inferred intrusive, suggest that the majority of the property is underlain by this unit.

### VLF-EM Survey

The VLF-EM survey was carried out using a Geonics EM-16 receiver. This instrument measures the secondary electromagnetic fields generated by buried conductive bodies when subjected to a primary electromagnetic (radio) signal. The primary signal is provided by high frequency military radio transmitters located in the United States.

Readings were taken at 25m intervals along profiles (115<sup>0</sup>) and base and tie lines (025<sup>0</sup>) using transmitting stations located in Seattle (NLK-248 KH2) and Maine (17.8 KH2) respectively. Data is presented in profile form with conductor axes shown as bold dashed lines; see Fig. 9.

## Results

An evaluation of "in phase" VLF profiles, indicates that several N to NNE trending and E-W trending conductors are present on the Spyder claims. The N to NNE trending conductors show no coincident geochemical response and occur adjacent to creek beds. These conductors are interpreted as either non-mineralized fault zones or simply the conductivity anomaly caused by the creek itself.

Of potential economic significance is the roughly E-W trending conductor indicated in the south-east part of the Spyder 1 claim. This conductor is approximately coincident with an inferred fault and a copper geochemical

anomaly. These coincident results may represent the geochemical and geophysical signature of overburden covered, shear zone controlled mineralization.

## **CONCLUSION**

Preliminary exploration carried out on the Spyder claim group has identified coincident geochemical (copper) and geophysical (VLF-EM) anomalies which may be of considerable economic interest.

The geochemical anomaly corresponds to a previously defined anomaly (Leighton, 1970) which extends several hundred meters to the east of the present survey area. This anomaly shows copper geochemical results analagous to those which led to the discovery of the "BZ" zone (located 2km west of the Spyder property). This showing is described as "a highly oxidized and leached breccia zone about 100 feet (30m) wide with bordering, strongly pyritized, fractured and silicified rock" (Leighton, 1973).

The VLF-EM survey indicated a weak conductor approximately coincident with both a major fault (inferred from photo-geological study, Leighton, 1970) and the copper geochemical anomaly. Ground magmetometer data apparently did not distinguish a prominent change in magnetic response across the conductive zone.

## **RECOMMENDATIONS**

Results of the current survey clearly indicate that the claims merit continued exploration. A follow-up program of detailed geophysics followed by cat trenching is recommended.

Considering that previous operators have successfully identified buried mineralization associated with similar geochemical anomalies, follow up work should be focused on the geochemically anomalous zone within and adjoining the eastern part of Spyder 1 claim.

Detailed geophysics should be employed to identify targets (shear or fault zones associated with the geochemical anomaly) for follow-up cat trenching.

Estimated cost of the follow-up program would be \$15,000 including cat trenching.



## REFERENCES

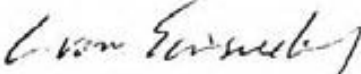
1. Anderson, P., 1973, Geological Report, Whipsaw Mines Ltd., Princeton Area, B.C. Assessment Report No. 4170.
2. Cavey, G., 1983. Report on the Spyder Claims, for Primrose Resources Ltd., Primrose file.
3. Leighton, D.G., 1970, Geological and Geochemical Report on the property of Whipsaw Mines Ltd., Princeton Area, B.C. Assessment Report No. 2802.
4. Poloni, R. 1982, Report on the Whipsaw Creek Property, Princeton Area, B.C. for World Wide Minerals contained in the company prospectus, issued by Canarim Investments, 1982.
5. Rice, H.M.A., 1944, Princeton Map Sheet, G.S.C. Map # 888A
6. White, G.E., 1983. Report on Airborne Magnetometer and VLF-EM Survey - Spyder Claims, Princeton Area, B.C. Primrose file.

## CERTIFICATE

I, CARL A. VON EINSIEDEL, of the city of Vancouver, British Columbia, hereby certify that:

1. I am a Consulting Geologist with offices at 404 - 850 West Hastings Street, Vancouver, British Columbia.
2. I hold a degree of Bachelor of Science in Geology from Carleton University in Ottawa, April, 1982.
3. I have completed undergraduate and post graduate courses in exploration geochemistry, geostatistics and geophysics.
4. I have been employed in my profession for the past six years.
5. I have no interest either directly or indirectly, nor do I expect to receive any interest in the property covered in this report or in the shares of Primrose Resources Ltd.
6. This report is based on field examinations made by myself between October 20 and November 10, 1983, evaluation of previous operators technical data, and on the results of geophysical and geochemical surveys.

Dated at Vancouver, British Columbia, this 13th day of January, 1984.

  
C. A. Von Einsiedel,  
Consulting Geologist

## APPENDIX A

### STATEMENT OF COSTS

#### Personnel

Geologist - C. Von Einsiedel	
12 @ 200.00	\$ 2,400.00
Geologic mapping and supervision	
Geophysics Operator - Bob Hamilton	
10 @ 150.00 VLF-EM Survey	1,500.00
22 line km	
10 @ 150.00 Ground Magnetometer	1,500.00
survey - 22 line km	
Field Assistant - William Flanagan	
20 @ 100.00 line cutting	2,000.00
- Dennis Richards	
20 @ 100.00 - 680 Soil	2,000.00
Samples	

#### Geophysical Rental

- GSM-8 Magnetometer/GSM-18 Base	
Station recorder 2 wks @ 650.00	1,300.00
- Geonics EM-16 VLF 3 wks @ 250.00	750.00

#### Vehicle Rental

Truck Rental 3 wks @ 250.00	750.00
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#### Analytical Costs

680 Soil Samples @ 4.50	3,060.00
-------------------------	----------

#### Accommodation / meals

72 man days @ 25.00	1,800.00
---------------------	----------

#### Shipping, transportation

600.00

#### Reports (including drafting & printing)

2,170.00

**TOTAL**

**\$ 19,830.00**

**APPENDIX B**

**ANALYTICAL RESULTS**

**GEOCHEMICAL SURVEY**

COPY

VANGEOCHEM LAB LIMITED

=====

1521 Pemberton Ave.  
North Vancouver B.C. V7P 2S3  
(604)986-5211 Telex: 04-352578

GEOCHEMICAL ANALYTICAL REPORT

CLIENT: RAM EXPLORATION  
ADDRESS: 404 - 850 W. Hastings St.  
: Vancouver B.C.  
: V6C 1E1

DATE: November 25 1983

REPORT#: 83-01-065

PROJECT#: None  
COPY SENT TO: RAM EXPLORATION  
SAMPLES ARRIVED: November 10 1983  
REPORT COMPLETED: November 25 1983  
ANALYSED FOR: Cu Pb Zn Ag

JOB#: 83498  
INVOICE#: 7665  
TOTAL SAMPLES: 685  
SAMPLE TYPE: 685 SOIL  
REJECTS: DISCARDED

PREPARED FOR: RAM EXPLORATION

ANALYSED BY: VGC Staff

SIGNED: 

GENERAL REMARK: None

VANGECHEM LAB LIMITED  
 1521 Pemberton Avenue  
 North Vancouver B.C. V7P 2S3  
 (604) 986-5211 Telex: 04-352578

PREPARED FOR: RAM EXPLORATION

NOTES: nd = none detected  
 : — = not analysed  
 : is = insufficient sample

REPORT NUMBER: 83-01-065

JOB NUMBER: 83498

PAGE 1 OF 18

SAMPLE #	Cu ppm	Pb ppm	Zn ppm	Ag ppm
BL 0+00	29	8	29	.5
BL 0+25	44	17	44	.5
BL 0+50	51	16	39	.6
BL 0+75	40	13	46	.2
BL 1+00	31	13	56	.5
BL 1+25	30	18	64	.4
BL 1+50	95	23	49	.6
BL 1+75	106	16	40	.6
BL 2+00	37	14	56	.3
BL 2+25	112	17	44	.7
BL 2+50	61	13	39	.6
BL 2+75	105	14	42	.4
BL 3+00	41	15	53	.3
BL 3+25	96	22	59	.9
BL 3+50	100	13	24	2.2 ✓
BL 3+75	14	10	80	.4
BL 4+00	18	12	72	.7
BL 4+25	66	17	54	.4
BL 4+50	81	11	50	.5
BL 4+75	56	14	54	.6
BL 5+00	54	19	61	.4
BL 5+25	27	14	72	.4
BL 5+50	28	18	56	.3
BL 5+75	26	16	63	.5
BL 6+00	61	15	79	.3
BL 6+25	74	19	81	.3
BL 6+50	72	16	58	.5
BL 6+75	16	14	59	.4
BL 7+00	34	13	51	.4
BL 7+25	49	15	54	.4
BL 7+50	35	15	70	.5
BL 7+75	36	18	81	.7
BL 8+00	74	14	74	.2
BL 8+25	74	16	63	.2
BL 8+50	96	27	276 ✓	1.0 ✓
BL 10+00N	38	13	40	.3
BL 10+25	60	11	48	nd
BL 10+50	45	9	26	.4
BL 10+75	50	14	40	.2
DETECTION LIMIT	1	2	1	0.1

COPY

WANGCHEM LAB LIMITED  
 1521 Pemberton Avenue  
 North Vancouver B.C. V7P 2S3  
 (604) 986-5211 Telex: 04-352578

PREPARED FOR: RAM EXPLORATION

NOTES: nd = none detected  
 : — = not analysed  
 : is = insufficient sample

REPORT NUMBER: 83-01-065

JOB NUMBER: 83498

PAGE 2 OF 18

SAMPLE #	Cu ppm	Pb ppm	Zn ppm	Ag ppm
BL 11+00	49	12	19	.2
BL 11+25	36	9	27	.2
BL 11+50	31	15	48	.4
BL 11+75	73	10	62	.4
BL 12+00	28	8	44	.2
BL 12+25	25	9	72	.4
BL 12+50	30	10	51	.2
BL 12+75	26	6	30	.2
BL 13+00	33	8	34	.4
BL 13+25	13	5	24	.1
BL 13+50	9	7	11	.3
BL 13+75	19	6	16	.3
BL 14+00	20	5	18	.2
BL 14+25	20	6	25	.4
BL 14+50	33	15	46	.3
BL 14+75	21	16	28	.4
BL 15+00	14	12	31	.4
BL 15+25	25	16	54	.5
BL 15+50	14	10	24	.1
BL 15+75	26	9	21	.4
BL 16+00	15	11	16	.1
BL 16+25	26	17	31	.3
BL 16+50	55	16	30	.2
BL 16+75	60	19	36	.4
BL 17+00	41	15	35	.4
BL 17+25	40	21	47	.4
BL 17+50	33	14	43	.2
BL 17+75	34	12	32	.3
BL 18+00	49	14	26	.2
BL 18+25	14	10	14	.1
BL 18+50	24	11	11	nd
BL 18+75	27	13	23	.2
BL 19+00	25	14	13	.3
BL 19+25	28	15	22	.1
BL 19+50	19	15	25	.3
BL 19+75	29	16	32	.3
BL 20+00	33	12	31	nd
BL 20+25	27	10	26	.4
BL 20+50	31	9	20	.4
DETECTION LIMIT	1	2	1	0.1

COPY

VANBEOCHEM LAB LIMITED  
 1521 Pemberton Avenue  
 North Vancouver B.C. V7P 2S3  
 (604) 986-5211 Telex: 04-352578

PREPARED FOR: RAM EXPLORATION

NOTES: nd = none detected  
 : — = not analysed  
 : is = insufficient sample

REPORT NUMBER: 83-01-065

JOB NUMBER: 83498

PAGE 3 OF 18

SAMPLE #	Cu ppm	Pb ppm	Zn ppm	Ag ppm
BL 20+75	42	9	19	.3
BL 21+00	33	11	24	.2
BL 21+25	31	11	27	.3
BL 21+50	26	13	31	.2
BL 21+75	26	10	29	.3
BL 22+00	36	12	30	.2
BL 22+25	30	15	26	.2
BL 22+50	31	16	30	.2
BL 22+75	47	19	38	.2
BL 23+00	27	15	25	.2
BL 23+25	26	6	23	.3
BL 23+50	39	11	29	.1
BL 23+75	43	18	20	.5
BL 24+00	69	13	26	.2
00N 0+00E	134	25	73	.9
00N 0+25E	79	15	43	.6
00N 0+50E	66	14	61	.4
00N 0+75E	29	11	39	.4
00N 1+00E	30	10	38	.2
00N 1+25E	83	9	29	.2
00N 1+50E	25	9	17	.2
00N 1+75E	81	16	29	.9
00N 2+00E	50	11	41	.3
00N 2+25E	92	15	47	.3
00N 2+50E	57	16	44	.3
00N 2+75E	66	17	45	.3
02N 0+00E	48	19	61	.7
02N 0+25E	66	19	52	.5
02N 0+50E	26	8	35	.2
02N 0+75E	26	10	33	.3
02N 1+00E	32	16	52	.3
02N 1+25E	79	13	45	.5
02N 1+50E	57	12	56	.3
02N 1+75E	40	14	55	.4
02N 2+00E	27	16	39	.3
02N 2+25E	46	18	42	.1
02N 2+50E	36	11	28	.1
02N 2+75E	57	10	28	.2
02N 3+00E	49	10	19	.4
DETECTION LIMIT	1	2	1	0.1

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**WANGCHEM LAB LIMITED**  
 1521 Pemberton Avenue  
 North Vancouver B.C. V7P 2S3  
 (604) 986-5211 Telex: 04-352578

PREPARED FOR: RAM EXPLORATION

NOTES: nd = none detected  
 : — = not analysed  
 : is = insufficient sample

REPORT NUMBER: 83-01-065

JOB NUMBER: 83498

PAGE 4 OF 18

SAMPLE #	Cu ppm	Pb ppm	Zn ppm	Ag ppm
02N 3+25E	43	15	23	.3
02N 3+50E	58	11	20	nd
02N 3+75E	55	18	25	.4
02N 4+00E	84	19	25	.4
02N 4+25E	156	20	22	.6
02N 4+50E	125	20	28	.7
02N 4+75E	91	17	37	.3
02N 5+00E	146	19	34	.6
02N 5+25E	44	15	36	.2
02N 5+50E	63	14	25	.2
02N 5+75E	37	15	21	nd
02N 6+00E	39	13	26	.3
02N 6+25E	60	17	34	.2
02N 6+50E	69	22	25	.6
02N 6+75E	95	19	34	.3
02N 7+00E	64	19	31	.4
02N 7+25E	70	16	32	.5
02N 7+50E	65	18	39	.2
04N 0+00E	41	19	54	.7
04N 0+25E	48	15	72	.8
04N 0+50E	32	17	35	.4
04N 0+75E	23	15	38	.4
04N 1+00E	30	16	55	.4
04N 1+25E	59	24	54	.3
04N 1+50E	36	15	68	.3
04N 1+75E	43	20	66	.1
04N 2+00E	26	19	49	.4
04N 2+25E	124	20	49	.7
04N 2+50E	35	15	27	.4
04N 2+75E	39	7	30	.1
04N 3+00E	75	10	42	.2
04N 3+25E	66	13	38	.2
04N 3+50E	79	16	41	.2
04N 3+75E	58	18	37	.3
04N 4+00E	49	15	33	.1
04N 4+25E	56	17	31	.1
04N 4+50E	105	11	30	.5
04N 4+75E	60	13	28	.3
04N 5+00E	70	10	18	.3
DETECTION LIMIT	1	2	1	0.1

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 1521 Pemberton Avenue  
 North Vancouver B.C. V7P 2S3  
 (604) 986-5211 Telex: 84-352578

PREPARED FOR: RAM EXPLORATION

NOTES: nd = none detected  
 : — = not analysed  
 : is = insufficient sample

REPORT NUMBER: 83-01-065

JOB NUMBER: 83498

PAGE 5 OF 18

SAMPLE #	Cu ppm	Pb ppm	Zn ppm	Ag ppm
04N 5+25E	24	13	22	.2
04N 5+50E	86	19	26	.7
04N 5+75E	49	11	32	.3
04N 6+00E	25	16	43	.3
04N 6+25E	51	18	35	.3
04N 6+50E	24	15	39	.3
04N 6+75E	49	14	36	.2
04N 7+00E	70	13	34	.3
04N 7+25E	46	8	25	.3
04N 7+50E	34	9	22	nd
04N 7+75E	31	9	24	.1
04N 8+00E	43	11	31	nd
04N 8+25E	60	14	33	.3
04N 8+50E	42	13	34	.2
04N 8+75E	57	15	38	.3
04N 9+00E	71	18	35	.5
04N 9+25E	55	20	35	.2
04N 9+50E	92	16	34	.5
04N 9+75E	80	21	29	.3
04N 10+00E	19	8	25	.1
04N 10+25E	38	11	34	nd
04N 10+50E	90	14	36	.3
06N 0+25E	44	10	67	.3
06N 0+50E	35	19	74	.5
06N 0+75E	37	22	69	.4
06N 1+00E	70	23	60	.3
06N 1+25E	34	21	64	.4
06N 1+50E	52	20	41	.1
06N 1+75E	41	14	34	.2
06N 2+00E	20	13	23	nd
06N 2+25E	26	18	31	.3
06N 2+50E	15	15	25	.1
06N 2+75E	25	19	38	.4
06N 3+00E	40	16	48	.2
06N 3+25E	30	15	46	.1
06N 3+50E	21	15	35	.2
06N 3+75E	36	11	33	.4
06N 4+00E	24	8	35	.1
06N 4+25E	24	10	22	.1
DETECTION LIMIT	1	2	1	0.1

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 North Vancouver B.C. V7P 2S3  
 (604) 986-5211 Telex: 04-352578

PREPARED FOR: RAM EXPLORATION

NOTES: nd = none detected  
 : - = not analysed  
 : is = insufficient sample

REPORT NUMBER: 83-01-065

JOB NUMBER: 83498

PAGE 6 OF 18

SAMPLE #	Cu ppm	Pb ppm	Zn ppm	Ag ppm
06N 4+50E	30	14	16	.3
06N 4+75E	44	11	35	.2
06N 5+00E	120	17	31	1.2
06N 5+25E	33	13	27	.1
06N 5+50E	43	16	36	.4
06N 5+75E	41	14	34	.3
06N 6+00E	45	13	16	.4
06N 6+25E	38	5	30	.1
06N 6+75E	32	18	29	.1
06N 7+00E	43	16	17	.3
06N 7+25E	30	10	24	.1
06N 7+75E	13	13	20	.2
06N 8+00E	32	14	36	nd
06N 8+25E	14	11	30	.2
06N 8+50E	13	16	24	.4
06N 8+75E	23	15	28	.2
06N 9+00E	52	16	31	.2
06N 9+25E	23	11	30	.3
06N 9+50E	35	10	30	.1
06N 9+75E	26	11	31	.1
06N 10+00E	31	11	21	.3
08N 0+00E	47	17	67	.4
08N 0+25E	65	19	79	.2
08N 0+50E	50	18	85	.3
08N 0+75E	110	16	66	.3
08N 1+00E	52	15	65	.2
08N 1+25E	111	19	99	.4
08N 1+50E	53	15	70	.2
08N 1+75E	24	11	26	.3
08N 2+00E	59	15	24	.3
08N 2+25E	44	7	30	.1
08N 2+50E	42	13	34	nd
08N 2+75E	99	14	33	.4
08N 3+00E	23	11	12	nd
08N 3+25E	76	12	36	.2
08N 3+50E	81	21	41	.4
08N 3+75E	120	16	22	.3
08N 4+00E	46	15	28	.3
08N 4+25E	51	12	30	.2
DETECTION LIMIT	1	2	1	0.1

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 1521 Pemberton Avenue  
 North Vancouver B.C. V7P 2S3  
 (604) 986-5211 Telex: 04-352578

PREPARED FOR: RAM EXPLORATION

NOTES: nd = none detected  
 : -- = not analysed  
 : is = insufficient sample

REPORT NUMBER: 83-01-065

JOB NUMBER: 83498

PAGE 7 OF 18

SAMPLE #	Cu ppm	Pb ppm	Zn ppm	Ag ppm
08N 4+50E	25	9	20	.3
08N 4+75E	16	8	14	.1
08N 5+00E	30	9	31	.2
08N 5+25E	10	11	30	.3
08N 5+50E	46	12	39	.1
08N 5+75E	33	18	61	.4
08N 6+00E	16	16	45	.1
08N 6+25E	113	20	44	.2
08N 6+50E	6	7	23	.1
08N 6+75E	60	11	30	.3
08N 7+00E	25	9	31	.1
08N 7+25E	28	8	27	nd
08N 7+50E	56	11	19	.1
08N 7+75E	67	12	22	.4
08N 8+00E	28	10	18	nd
08N 8+25E	32	11	19	.1
08N 8+50E	25	12	33	.1
08N 8+75E	46	15	32	.2
08N 9+00E	44	11	35	.2
10N 0+00E	55	10	41	.1
08N 0+50E	730 ✓	14	136	.1
10N 1+00E	44	9	52	.2
10N 1+50E	112	26	200 ✓	1.5 ✓
10N 2+00E	52	19	49	.1
10N 2+50E	47	14	41	.1
10N 3+00E	32	15	35	.1
10N 3+50E	46	15	32	.1
10N 4+00E	16	11	25	.2
10N 4+50E	15	6	17	nd
10N 5+00E	45	13	19	.2
10N 5+50E	41	12	11	.3
10N 6+00E	114	10	23	.2
10N 6+50E	28	11	31	nd
10N 7+00E	42	9	33	.3
10N 7+50E	25	10	24	.2
10N 8+00E	88	9	28	nd
10N 0+50W	25	9	39	nd
10N 1+00W	50	10	59	.4
10N 2+00W	28	6	31	.3
DETECTION LIMIT	1	2	1	0.1

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 North Vancouver B.C. V7P 2S3  
 (604) 986-5211 Telex: 04-352578

PREPARED FOR: RAM EXPLORATION

NOTES: nd = none detected  
 : — = not analysed  
 : is = insufficient sample

REPORT NUMBER: 83-01-065

JOB NUMBER: 83498

PAGE 8 OF 18

SAMPLE #	Cu ppm	Pb ppm	Zn ppm	Ag ppm
10N 2+50W	59	11	37	.2
10N 3+00W	38	13	28	.4
10N 3+50W	55	16	47	.2
10N 4+00W	64	16	57	.2
10N 4+50W	132	19	55	1.0
10N 5+00W	48	16	56	.4
10N 5+50W	51	15	48	.3
10N 6+00W	39	15	44	.4
10N 6+50W	26	15	39	.4
10N 7+00W	48	14	35	.3
10N 7+50W	63	12	34	.1
10N 8+00W	100	15	34	.5
12N 0+00E	39	15	43	.4
12N 0+50E	19	13	36	.2
12N 1+00E	26	14	35	.3
12N 1+50E	40	14	40	.2
12N 2+00E	13	11	33	.3
12N 2+50E	35	13	62	.1
12N 3+00E	74	14	45	.2
12N 3+50E	68	17	133	.5
12N 4+00E	100	21	187	.1
12N 4+50E	63	15	58	.4
12N 5+00E	92	18	73	.4
12N 5+50E	99	16	58	.1
12N 6+00E	31	14	63	.3
12N 6+50E	23	11	29	.1
12N 7+00E	102	13	44	.1
12N 7+50E	30	14	39	.1
12N 8+00W	29	11	24	.2
12N 8+50W	36	12	35	.5
12N 1+00W	23	14	32	.3
12N 1+50W	70	15	30	.3
12N 2+00W	40	12	30	.2
12N 2+50W	19	11	31	.2
12N 3+00W	115	15	42	.4
12N 3+50W	30	16	35	.2
12N 4+00W	40	15	30	.1
12N 4+50W	40	13	34	.2
12N 5+00W	42	13	33	.3
DETECTION LIMIT	1	2	1	0.1

CO<sub>2</sub>

VANSEDICHEM LAB LIMITED  
 1521 Pemberton Avenue  
 North Vancouver B.C. V7P 2S3  
 (604) 986-5211 Telex: 04-352578

PREPARED FOR: RAM EXPLORATION

NOTES: nd = none detected  
 : — = not analysed  
 : is = insufficient sample

REPORT NUMBER: 83-01-065

JOB NUMBER: 83498

PAGE 9 OF 18

SAMPLE #	Cu ppm	Pb ppm	Zn ppm	Ag ppm
12N 5+50W	37	9	26	.2
12N 6+00W	41	11	48	.3
12N 6+50W	55	12	47	.2
12N 7+00W	52	14	48	.2
12N 7+50W	1090 ✓	14	186	nd
12N 8+00W	42	15	45	.2
12N 8+50W	is	is	is	is
12N 9+00W	88	11	26	.2
14N 0+00E	19	11	35	nd
14N 0+25E	18	10	35	nd
14N 0+50E	90	11	33	.1
14N 0+75E	152	11	27	.2
14N 1+00E	177	13	35	.2
14N 1+25E	50	15	45	nd
14N 1+50E	210	14	27	.5
14N 1+75E	130	16	23	.3
14N 2+00E	68	16	43	nd
14N 2+25E	28	15	47	.2
14N 2+50E	80	15	45	nd
14N 2+75E	27	14	35	.1
14N 3+00E	45	13	35	nd
14N 3+25E	31	14	39	.2
14N 3+50E	119	15	38	.2
14N 3+75E	48	18	50	.1
14N 4+00E	40	16	49	.4
14N 4+25E	23	13	36	.1
14N 4+50E	38	14	43	.2
14N 4+75E	25	14	39	.2
14N 5+00E	23	11	28	.1
14N 5+25E	24	11	40	.2
14N 5+50E	44	14	45	.2
14N 5+75E	43	15	48	nd
14N 6+00E	48	18	57	.2
14N 6+25E	40	17	50	.4
14N 6+50E	40	16	51	.2
14N 6+75E	45	19	52	.1
14N 7+00E	48	15	48	.2
14N 8+00W	22	14	23	.2
14N 8+50W	45	11	33	nd
DETECTION LIMIT	1	2	1	0.1

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NO SAMPLE - ROAD

VANSEDCHEN LAB LIMITED  
1521 Pemberton Avenue  
North Vancouver B.C. V7P 2S3  
(604) 986-5211 Telex: 04-352578

PREPARED FOR: RRM EXPLORATION

NOTES: nd = none detected  
: - = not analysed  
: is = insufficient sample

REPORT NUMBER: 83-01-065

JOB NUMBER: 83498

PAGE 10 OF 18

SAMPLE #	Cu ppm	Pb ppm	Zn ppm	Ag ppm
14N 1+00W	40	9	26	.2
14N 1+50W	127	11	23	.2
14N 2+00W	50	11	24	.2
14N 2+50W	49	12	38	.1
14N 3+00W	58	14	24	.1
14N 3+50W	158	15	34	.3
14N 4+00W	50	15	41	.1
14N 4+50W	49	14	41	.2
14N 5+00W	22	11	23	.1
14N 5+50W	40	9	23	.1
14N 6+00W	31	10	33	.2
14N 6+50W	44	11	33	nd
14N 7+00W	56	15	45	.1
14N 7+50W	65	14	42	.3
14N 8+00W	123	11	26	.4
14N 8+50W	39	15	68	.2
14N 9+00W	40	11	36	nd
14N 9+50W	48	10	27	.1
14N 10+00W	47	10	26	nd
L15N 2+00E	19	11	15	.1
L15N 2+25E	23	9	22	nd
L15N 2+50E	33	15	37	.2
L15N 2+75E	40	14	31	.4
L15N 3+00E	43	16	32	.4
L15N 3+25E	61	14	29	.2
L15N 3+50E	48	14	30	.3
L15N 3+75E	32	11	25	nd
L15N 4+00E	36	9	15	.3
L15N 4+25E	23	9	20	.2
L15N 4+50E	19	10	33	.2
L15N 4+75E	40	10	25	.1
L15N 5+00E	61	14	43	nd
L15N 5+25E	43	13	38	nd
L15N 5+50E	52	14	44	nd
L15N 5+75E	40	14	40	nd
L15N 6+00E	45	14	42	nd
L15N 6+25E	23	11	47	nd
L15N 6+50E	16	9	31	.3
L15N 6+75E	23	8	23	nd
DETECTION LIMIT	1	2	1	0.1

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VANGEDICHEN LAB LIMITED  
 1521 Pemberton Avenue  
 North Vancouver B.C. V7P 2S3  
 (604) 986-5211 Telex: 04-352578

PREPARED FOR: RAM EXPLORATION

NOTES: nd = none detected  
 : -- = not analysed  
 : is = insufficient sample

REPORT NUMBER: 83-01-065 JOB NUMBER: 83498

PAGE 11 OF 18

SAMPLE #	Cu ppm	Pb ppm	Zn ppm	Ag ppm
L15N 7+00E	25	9	27	.1
L15N 7+25E	18	10	44	nd
L15N 7+50E	25	9	35	.1
L15N 7+75E	24	10	30	.2
L15N 8+00E	25	10	35	.1
16N 0+00E	32	14	34	.1
16N 0+25E	44	14	33	.3
16N 0+50E	31	12	39	.2
16N 0+75E	40	11	24	.2
16N 1+00E	20	10	22	.1
16N 1+25E	13	9	19	.1
16N 1+50E	58	10	23	.3
16N 1+75E	83	14	34	.3
16N 2+00E	19	13	35	nd
16N 2+25E	124	16	31	.2
16N 2+50E	111	13	30	nd
16N 2+75E	40	14	36	.1
16N 3+00E	32	13	37	.2
16N 3+25E	140	12	27	.3
16N 3+50E	62	11	91	nd
16N 3+75E	115	11	20	nd
16N 4+00E	24	12	22	nd
16N 4+25E	157	15	28	.2
16N 4+50E	118	11	20	nd
16N 4+75E	102	15	24	.2
16N 5+00E	200	16	30	.2
16N 5+25E	32	14	30	.1
16N 5+50E	27	11	30	.1
16N 0+00W	20	10	30	.2
16N 0+50W	23	11	20	.1
16N 1+00W	25	9	15	.2
16N 1+50W	20	10	23	nd
16N 2+00W	20	14	31	.1
16N 2+50W	39	16	40	.1
16N 3+00W	40	15	40	.4
16N 3+50W	20	16	43	.2
16N 4+00W	40	16	40	.3
16N 4+50W	25	12	31	nd
16N 5+00W	34	13	33	nd
DETECTION LIMIT	1	2	1	0.1

*21-29 dm*

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(604) 986-5211 Telex: 04-352578

PREPARED FOR: RAM EXPLORATION

NOTES: nd = none detected  
: — = not analysed  
: is = insufficient sample

REPORT NUMBER: 83-01-065

JOB NUMBER: 83498

PAGE 12 OF 18

SAMPLE #	Cu ppm	Pb ppm	Zn ppm	Ag ppm
16N 5+50W	23	8	15	.1
16N 6+00W	19	11	17	nd
16N 6+50W	38	10	25	nd
16N 7+00W	68	11	48	nd
16N 7+50W	49	11	35	nd
16N 8+00W	29	10	45	.1
16N 8+50W	41	10	48	.2
16N 9+00W	28	11	25	.2
16N 9+50W	48	9	27	.1
16N 10+00W	58	6	23	.1
L17N 2+00E	48	9	19	nd
L17N 2+25E	45	10	15	.3
L17N 2+50E	39	10	21	.2
L17N 2+75E	26	11	26	.2
L17N 3+00E	88	12	26	.2
L17N 3+25E	24	12	25	.1
L17N 3+50E	23	11	25	.1
L17N 3+75E	24	9	19	.1
L17N 4+00E	56	10	23	nd
L17N 4+25E	14	8	19	.1
L17N 4+50E	15	9	21	.1
L17N 4+75E	23	10	24	nd
L17N 5+00E	38	11	24	.1
L17N 5+25E	98	11	38	.1
L17N 5+50E	68	14	29	.2
L17N 5+75E	225	14	34	.1
L17N 6+00E	52	13	33	.1
L17N 6+25E	23	11	33	.2
L17N 6+50E	23	10	27	.1
L17N 6+75E	48	10	25	.3
L17N 7+00E	45	11	28	nd
18N 0+00E	98	16	29	.1
18N 0+25E	48	14	35	nd
18N 0+50E	35	13	35	.2
18N 0+75E	34	10	15	.1
18N 1+00E	52	15	24	.1
18N 1+25E	77	14	28	.1
18N 1+50E	36	11	29	.2
18N 1+75E	24	10	25	.1
DETECTION LIMIT	1	2	1	0.1

COPY

WANGCHEM LAB LIMITED  
 1521 Pemberton Avenue  
 North Vancouver B.C. V7P 2S3  
 (604) 986-5211 Telex: 04-352578

PREPARED FOR: RAM EXPLORATION

NOTES: nd = none detected  
 : — = not analysed  
 : is = insufficient sample

REPORT NUMBER: 83-01-065

JOB NUMBER: 83498

PAGE 13 OF 18

SAMPLE #	Cu ppm	Pb ppm	Zn ppm	Ag ppm
18N 2+00E	136	11	21	.1
18N 2+25E	35	10	35	.1
18N 2+50E	59	13	29	nd
18N 2+75E	34	15	26	.2
18N 3+00E	21	12	39	.3
18N 3+25E	133	15	26	nd
18N 3+50E	35	14	34	.1
18N 3+75E	51	11	16	nd
18N 4+00E	19	9	15	nd
18N 4+25E	78	10	12	nd
18N 4+50E	184	12	23	.2
18N 4+75E	195	14	30	.2
18N 0+00W	36	13	34	.1
18N 0+50W	43	15	45	nd
18N 1+00W	68	18	40	.3
18N 1+50W	99	15	26	.1
18N 2+00W	41	13	28	nd
18N 2+50W	84	13	23	.2
18N 3+00W	12	8	14	nd
18N 3+50W	31	11	42	.4
18N 4+00W	78	14	88	.2
18N 4+50W	137	16	34	.2
18N 5+00W	84	14	29	.2
18N 5+50W	98	14	36	.1
18N 6+00W	71	15	39	nd
18N 6+50W	25	13	38	.2
18N 7+00W	64	14	29	.1
18N 7+50W	45	11	24	nd
18N 8+00W	28	10	18	nd
18N 8+50W	36	11	25	nd
18N 9+00W	44	13	32	.1
18N 9+50W	55	14	51	.2
18N 10+00W	54	18	41	.3
18N 10+50W	48	15	48	.2
18N 11+00W	42	14	52	.3
20N 0+00E	56	14	33	.1
20N 0+50E	54	14	29	nd
20N 1+00E	36	10	23	nd
20N 1+50E	44	12	25	.3
DETECTION LIMIT	1	2	1	0.1

VANGECHEM LAB LIMITED  
 1521 Pemberton Avenue  
 North Vancouver B.C. V7P 2S3  
 (604) 986-5211 Telex: 04-352578

PREPARED FOR: RAM EXPLORATION

NOTES: nd = none detected  
 : -- = not analysed  
 : is = insufficient sample

REPORT NUMBER: 83-01-065 JOB NUMBER: 83498

PAGE 14 OF 18

SAMPLE #	Cu ppm	Pb ppm	Zn ppm	Ag ppm
20N 2+00E	25	6	7	nd
20N 2+50E	35	8	11	.1
20N 3+00E	31	9	22	nd
20N 3+50E	46	11	23	nd
20N 4+00E	61	11	40	.2
20N 0+00W	33	10	32	.1
20N 0+50W	35	12	25	.2
20N 1+00W	37	10	19	nd
20N 1+50W	25	11	29	.1
20N 2+00W	350	11	12	.5
20N 2+50W	49	9	20	.1
20N 3+00W	53	8	14	nd
20N 3+50W	23	9	19	.1
20N 4+00W	62	13	34	.1
20N 4+50W	29	14	29	nd
20N 5+00W	51	14	36	nd
20N 5+50W	40	15	31	.2
20N 6+00W	36	11	18	.2
20N 6+50W	40	10	28	nd
20N 7+00W	16	9	13	nd
20N 7+50W	26	11	15	nd
20N 8+00W	22	10	16	.1
20N 8+50W	50	14	31	nd
20N 9+00W	52	14	34	nd
20N 9+50W	38	12	23	.1
20N 10+00W	26	11	24	.1
20N 10+50W	27	12	29	.1
20N 11+00W	27	9	25	nd
20N 11+50W	105	19	26	nd
22N 0+00E	23	10	11	nd
22N 0+50E	21	6	10	nd
22N 1+00E	18	9	11	nd
22N 1+50E	35	10	19	.1
22N 2+00E	32	10	24	nd
22N 2+50E	62	11	14	nd
22N 3+00E	18	8	13	nd
22N 3+50E	35	8	11	nd
22N 0+50W	10	9	5	.1
22N 1+00W	40	10	9	nd
DETECTION LIMIT	1	2	1	0.1

CC

VANGEDCHEN LAB LIMITED  
 1521 Pemberton Avenue  
 North Vancouver B.C. V7P 2S3  
 (604) 966-5211 Telex: 04-352578

PREPARED FOR: RAM EXPLORATION

NOTES: nd = none detected  
 : — = not analysed  
 : is = insufficient sample

REPORT NUMBER: 83-01-065

JOB NUMBER: 83498

PAGE 15 OF 18

SAMPLE #	Cu ppm	Pb ppm	Zn ppm	Ag ppm
22N 1+50W	59	9	20	.2
22N 2+00W	15	11	24	.1
22N 2+50W	27	12	30	.3
22N 3+00W	22	11	26	.2
22N 3+50W	35	14	39	.1
22N 4+00W	79	14	23	.2
22N 4+50W	70	14	33	.1
22N 5+00W	50	11	25	.1
22N 5+50W	35	10	15	.1
22N 6+00W	23	10	15	.3
22N 6+50W	30	13	28	.2
22N 7+00W	28	15	26	.4
22N 7+50W	98	14	19	nd
22N 8+00W	89	16	30	.2
22N 8+50W	23	13	24	.3
22N 9+00W	120	16	26	.2
22N 9+50W	148	16	32	.3
22N 10+00W	41	15	26	.3
24N 0+00E	34	11	16	nd
24N 0+50E	32	10	8	.1
24N 1+00E	33	16	25	.1
24N 1+50E	48	14	19	.2
24N 2+00E	116	18	35	.2
24N 2+50E	70	15	14	.1
24N 0+00W	53	16	20	.3
24N 0+50W	48	15	20	.1
24N 1+00W	52	14	15	.1
24N 1+50W	38	11	10	.2
24N 2+00W	33	9	5	.2
24N 2+50W	45	14	24	nd
24N 3+00W	34	14	26	nd
24N 3+50W	39	16	37	.3
24N 4+00W	44	15	38	nd
TL 3E 12+00	84	18	38	.3
TL 3E 12+25	23	16	45	.3
TL 3E 12+50	78	15	19	.1
TL 3E 12+75	25	14	35	.1
TL 3E 13+25	17	13	20	nd
TL 3E 13+50	23	11	21	.2
DETECTION LIMIT	1	2	1	0.1

COIL

WANGCHEM LAB LIMITED  
1521 Pemberton Avenue  
North Vancouver B.C. V7P 2S3  
(604) 986-5211 Telex: 04-352578

PREPARED FOR: RAM EXPLORATION

NOTES: nd = none detected  
: -- = not analysed  
: is = insufficient sample

REPORT NUMBER: 83-01-065

JOB NUMBER: 83498

PAGE 16 OF 18

SAMPLE #	Cu ppm	Pb ppm	Zn ppm	Ag ppm
TL 3E 13+75	74	15	63	.3
TL 3E 14+00	29	16	45	nd
TL 3E 14+25	29	15	45	.3
TL 3E 14+50	36	18	47	.2
TL 3E 14+75	34	18	39	.2
TL 3E 15+00	30	16	35	.3
TL 3E 15+25	36	14	28	.1
TL 3E 15+50	27	13	16	.1
TL 3E 15+75	15	9	19	.1
TL 3E 16+00	18	10	10	.1
TL 3E 16+25	90	14	20	.7
TL 3E 16+50	95	15	32	.3
TL 3E 16+75	48	16	33	.3
TL 3E 17+00	36	18	44	.2
TL 3E 17+25	60	16	34	.4
TL 3E 17+50	31	15	29	.2
TL 3E 17+75	27	15	30	.4
TL 3E 18+00	115	16	35	.2
TL 3E 18+25	16	10	20	.1
TL 3E 18+50	22	9	15	nd
TL 3E 18+75	32	14	23	.1
TL 3E 19+00	103	15	23	nd
TL 3E 19+25	102	16	24	.2
TL 3E 19+50	20	14	25	.2
TL 3E 19+75	34	15	38	.2
TL 3E 20+00	48	17	32	.5
TL 3E 20+25	32	14	27	.1
TL 3E 20+50	30	13	15	.2
TL 3E 20+75	48	10	20	nd
TL 3E 21+00	34	13	24	nd
TL 4W 9+50	40	18	42	.2
TL 4W 10+00	50	21	56	nd
TL 4W 10+50	118	19	48	.6
TL 4W 11+00	45	18	48	.3
TL 4W 11+50	44	17	44	.2
TL 4W 12+00	50	14	35	nd
TL 4W 12+50	45	15	34	.1
TL 4W 13+00	54	18	31	.1
TL 4W 13+50	25	14	22	.1
DETECTION LIMIT	1	2	1	0.1



VANGEDICHEN LAB LIMITED  
 1521 Pemberton Avenue  
 North Vancouver B.C. V7P 2S3  
 (604) 986-5211 Telex: 04-352578

PREPARED FOR: RAM EXPLORATION

NOTES: nd = none detected  
 : - = not analysed  
 : is = insufficient sample

REPORT NUMBER: 83-01-065

JOB NUMBER: 83498

PAGE 17 OF 18

SAMPLE #	Cu ppm	Pb ppm	Zn ppm	Ag ppm
TL 4W 14+00	34	15	39	.5
TL 4W 14+50	57	16	45	.4
TL 4W 15+00	40	16	49	.3
TL 4W 15+50	53	15	33	.1
TL 4W 16+00	53	19	48	.3
TL 4W 16+50	63	19	56	.2
TL 4W 17+00	330	15	31	.5
TL 4W 17+50	71	15	34	.3
TL 4W 18+00	60	11	21	.4
TL 4W 18+50	24	11	24	.2
TL 4W 19+00	55	15	30	.3
TL 4W 19+50	44	14	31	.3
TL 4W 20+00	28	14	23	.1
TL 4W 20+50	98	16	29	.1
TL 4W 21+00	68	18	31	.3
TL 4W 21+50	51	16	35	.2
TL 4W 22+00	55	15	34	.1
TL 4W 22+50	26	14	31	.1
TL 4W 23+00	202	15	19	.1
TL SE 12+00	is	is	is	is
TL SE 12+25	is	is	is	is
TL SE 12+50	is	is	is	is
TL SE 12+75	is	is	is	is
TL SE 13+00	43	17	60	nd
TL SE 13+25	102	19	52	.2
TL SE 13+50	51	16	40	.1
TL SE 13+75	34	15	49	.2
TL SE 14+00	33	15	34	.1
TL SE 14+25	22	14	35	.2
TL SE 14+50	25	15	40	.2
TL SE 14+75	25	13	34	.1
TL SE 15+00	65	14	33	nd
TL SE 15+25	82	19	36	.3
TL SE 15+50	75	19	28	.4
TL SE 15+75	70	16	28	nd
TL SE 16+00	215	15	27	.3
TL SE 16+25	77	15	26	.2
TL SE 16+50	92	14	16	nd
TL SE 16+75	240	15	24	.2
DETECTION LIMIT	1	2	1	0.1

COF

NO SAMPLES

WANGECHEM LAB LIMITED  
1521 Pemberton Avenue  
North Vancouver B.C. V7P 2S3  
(604) 986-5211 Telex: 04-352578

PREPARED FOR: RAM EXPLORATION

NOTES: nd = none detected  
: -- = not analysed  
: is = insufficient sample

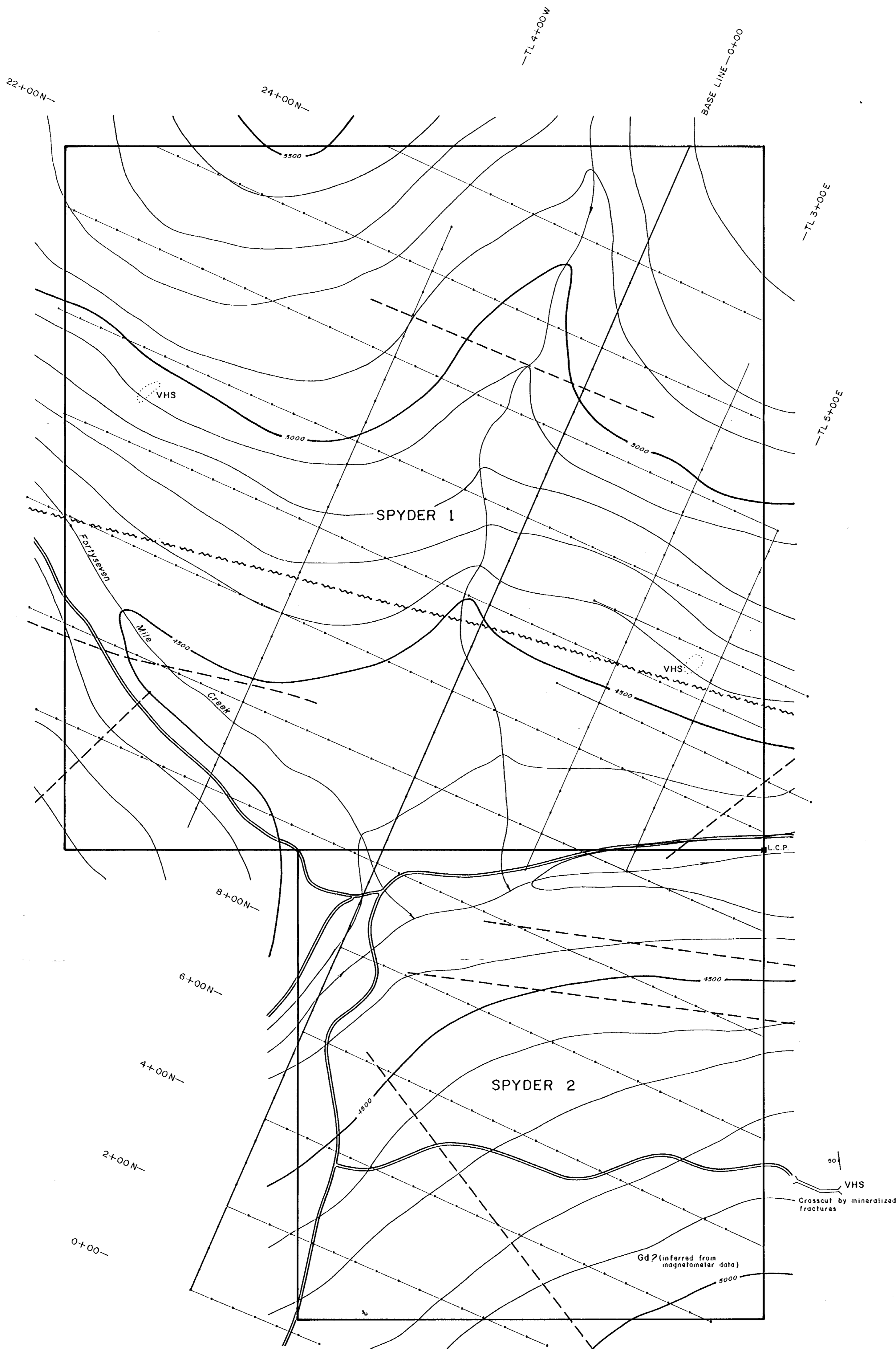
REPORT NUMBER: 83-01-065

JOB NUMBER: 83498

PAGE 18 OF 18

SAMPLE #	Cu ppm	Pb ppm	Zn ppm	Ag ppm
TL 5E 17+00	109	11	27	.1
TL 5E 17+25	218	14	34	.3
TL 5E 17+50	250	14	34	.3
TL 5E 17+75	184	15	36	.3
TL 5E 18+00	262	16	37	.3
TL 5E 18+25	418	14	20	.6
TL 5E 18+50	65	15	45	.5
TL 5E 18+75	65	13	29	.4
TL 5E 19+00	40	9	25	.3
TL 5E 19+25	37	10	23	.3
TL 5E 19+50	34	11	41	nd
TL 5E 19+75	40	12	43	.3
TL 5E 20+00	39	14	47	.3
TR NO. 1 A	86	16	39	.4
TR NO. 1 B	48	14	22	.1
TR NO. 1 C	126	15	45	nd
TR NO. 2 A	82	15	39	.2
TR NO. 2 B	85	14	20	.2
TR NO. 2 C	64	11	25	.2
TR NO. 3 A	83	12	26	.1
TR NO. 3 B	64	16	21	nd
TR NO. 3 C	114	17	48	nd
DETECTION LIMIT	1	2	1	0.1

COPY

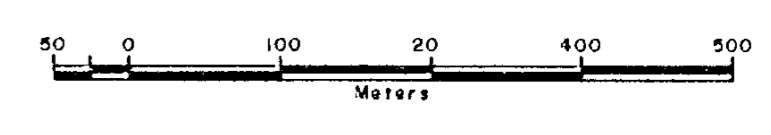


**LEGEND**

- VHS Upper Triassic Hornblende Schist (Nicola Volcanics)
- Gd Eagle Granodiorite - Jurassic Grey Biotite Granodiorite.  
(NOTE: The Presence of This Unit is Inferred From Ground Magnetometer Survey.)
- SYMBOLS**
- 1983 CONTROL LINES
- Stations
- ~ Creeks
- == Roads
- Contour Interval 100'
- - - Inferred Contact
- Area of Outcrop
- ↘ 50° Foliation, Dip
- ↘ 60° Fracture Zone, Dip
- ~ Inferred Fault (based on photo-geological survey 1970 assessment report No. 2802)
- - - Air Photo Linear
- ||| Trench

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**11,955**

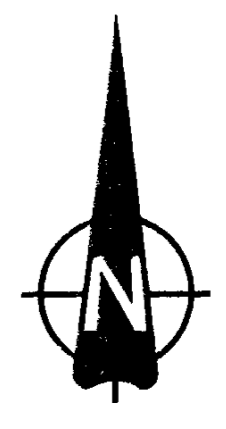
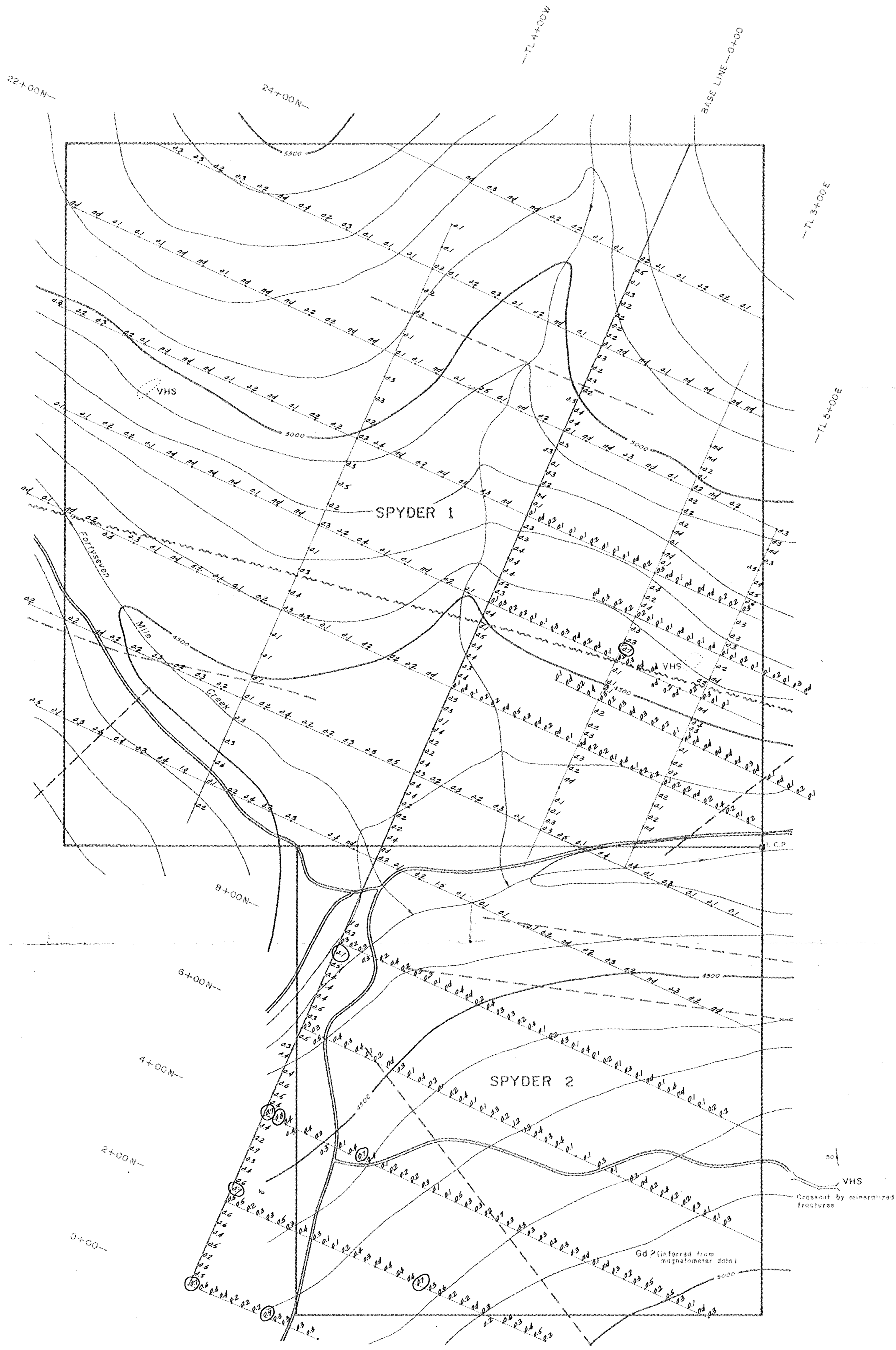


**PRIMOSE RESOURCES LTD.**  
— PRINCETON PROJECT —  
— SPYDER CLAIMS —  
SIMILKAMEEN MINING DIVISION — BRITISH COLUMBIA

**PROPERTY GEOLOGY AND BASE MAP**

RAM EXPLORATION LTD. VANCOUVER, B.C.	DWN. BY: I.M. CHK. BY: DATE: JAN. 1984	FIG. NO. <b>4</b>
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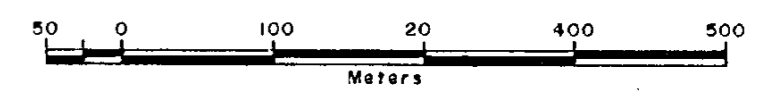


**LEGEND**

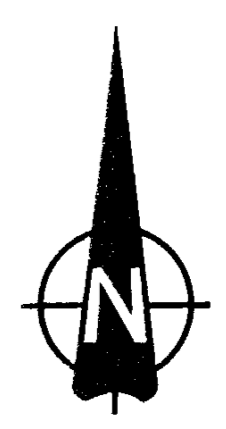
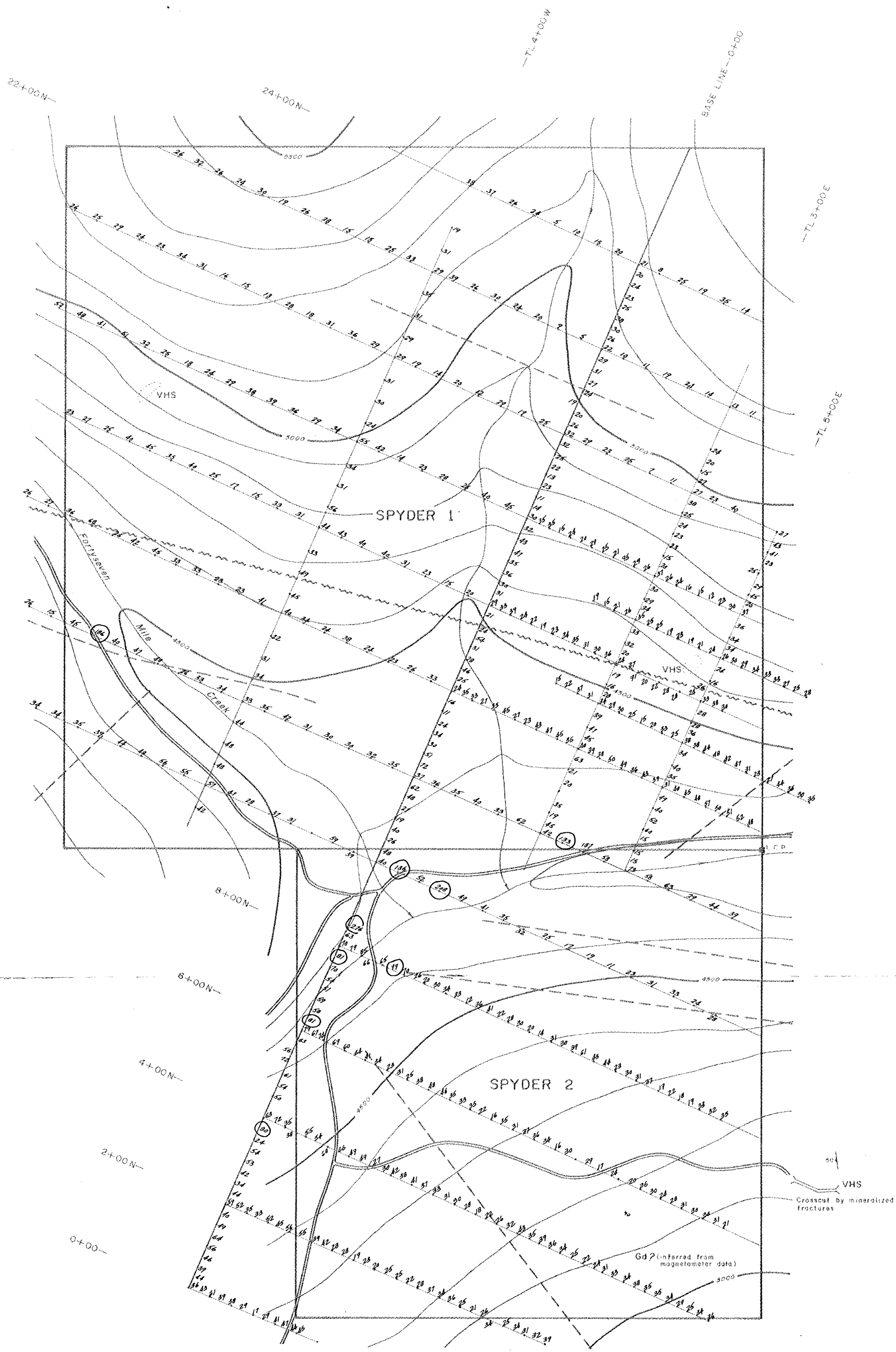
- VHS Upper Triassic Hornblende Schist (Nicola Volcanics)
- Gd Eagle Granodiorite - Jurassic Grey Biotite Granodiorite.  
(NOTE: The Presence of This Unit is Inferred From Ground Magnetometer Survey.)
- SYMBOLS**
- 1983 CONTROL LINES
- Stations
- Creeks
- Roads
- Contour Interval 100'
- - - Inferred Contact
- Area of Outcrop
- ↘ 30° Foliation, Dip
- ↘ 90° Fracture Zone, Dip
- ~ Inferred Fault (based on photo-geological survey 1970 assessment report No. 2802)
- - - Air Photo Linear
- || Trench
- High Values

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**11.955**



<b>PRIMOSE RESOURCES LTD.</b> — PRINCETON PROJECT — — SPYDER CLAIMS — SIMILKAMEEN MINING DIVISION — BRITISH COLUMBIA		
<b>SOIL GEOCHEMISTRY</b> SILVER ppm		
RAM EXPLORATION LTD. VANCOUVER, B.C.	OWN. BY: T.M. CHK. BY: DATE: JAN. 1984	FIG. NO. <b>5</b>

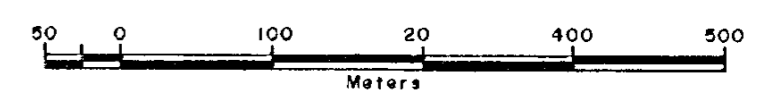


**LEGEND**

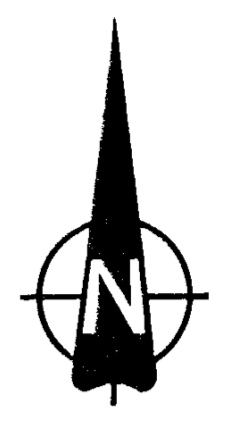
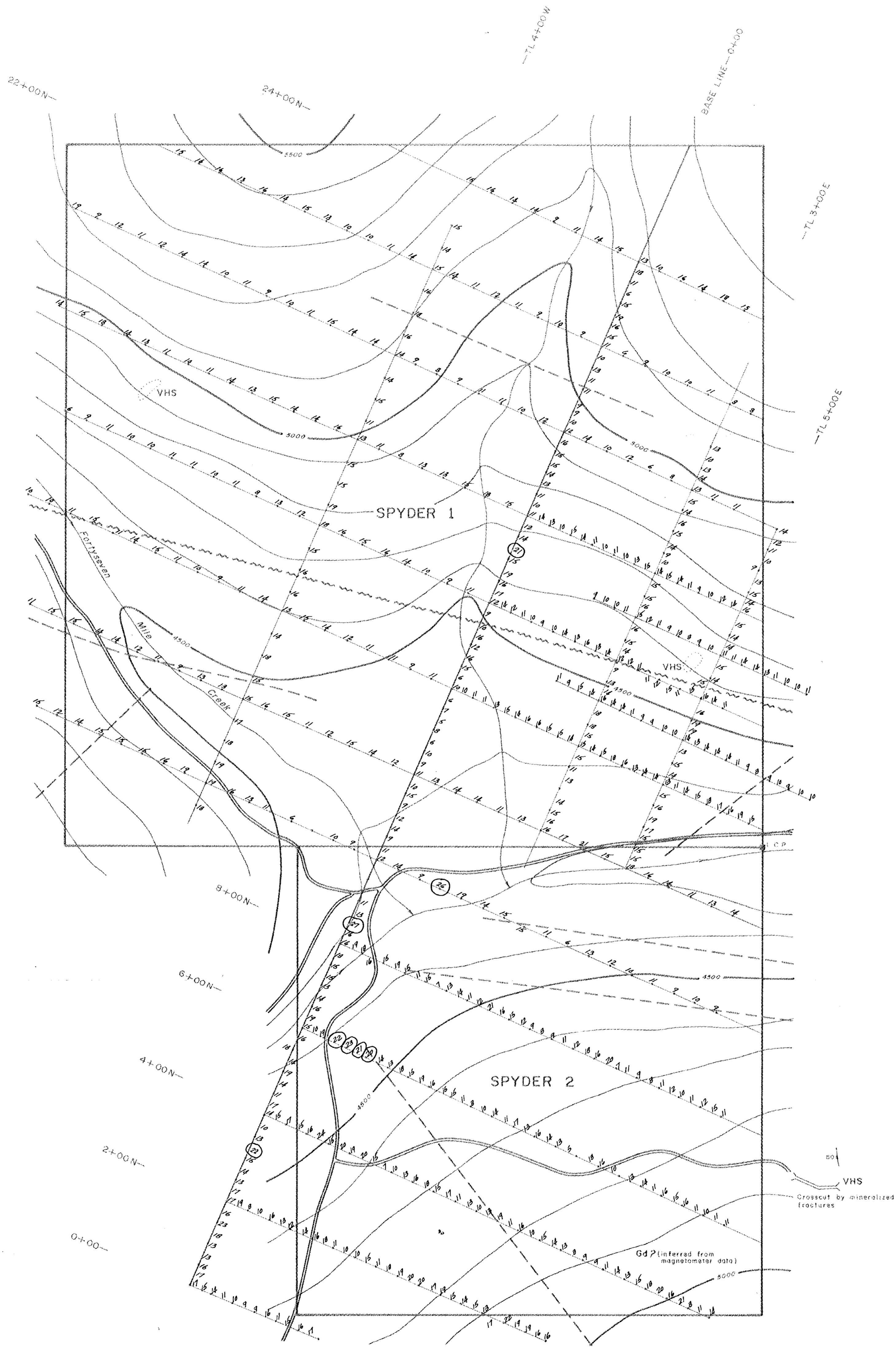
- VHS Upper Triassic Hornblende Schist (Nicola Volcanics)
- Gd Eagle Granodiorite - Jurassic Gray Biotite Granodiorite.  
(NOTE: The Presence of This Unit is Inferred From Ground Magnetometer Survey.)
- SYMBOLS**
- 1983 CONTROL LINES
- Stations
- Creeks
- Roads
- Contour Interval 100'
- - - Inferred Contact
- Area of Outcrop
- ↘ Foliation, Dip
- ↘ Fracture Zone, Dip
- ~ Inferred Fault (based on photo-geological survey 1970 assessment report No. 2802)
- Air Photo Linear
- Trench
- Spot High Values

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**11,955**



<b>PRIMOSE RESOURCES LTD.</b> — PRINCETON PROJECT — — SPYDER CLAIMS — SIMILKAMEEN MINING DIVISION — BRITISH COLUMBIA		
<b>SOIL GEOCHEMISTRY</b> ZINC ppm		
RAM EXPLORATION LTD. VANCOUVER, B.C.	DWN. BY: T.M. CHK. BY: DATE: JAN. 1984	FIG. NO. <b>6</b>

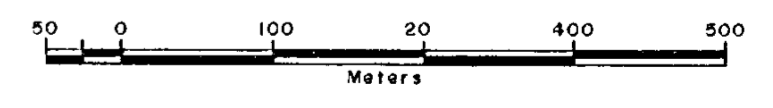


**LEGEND**

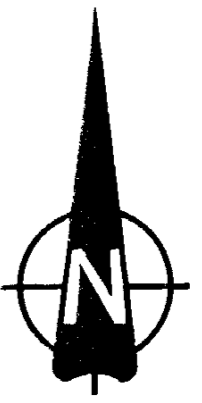
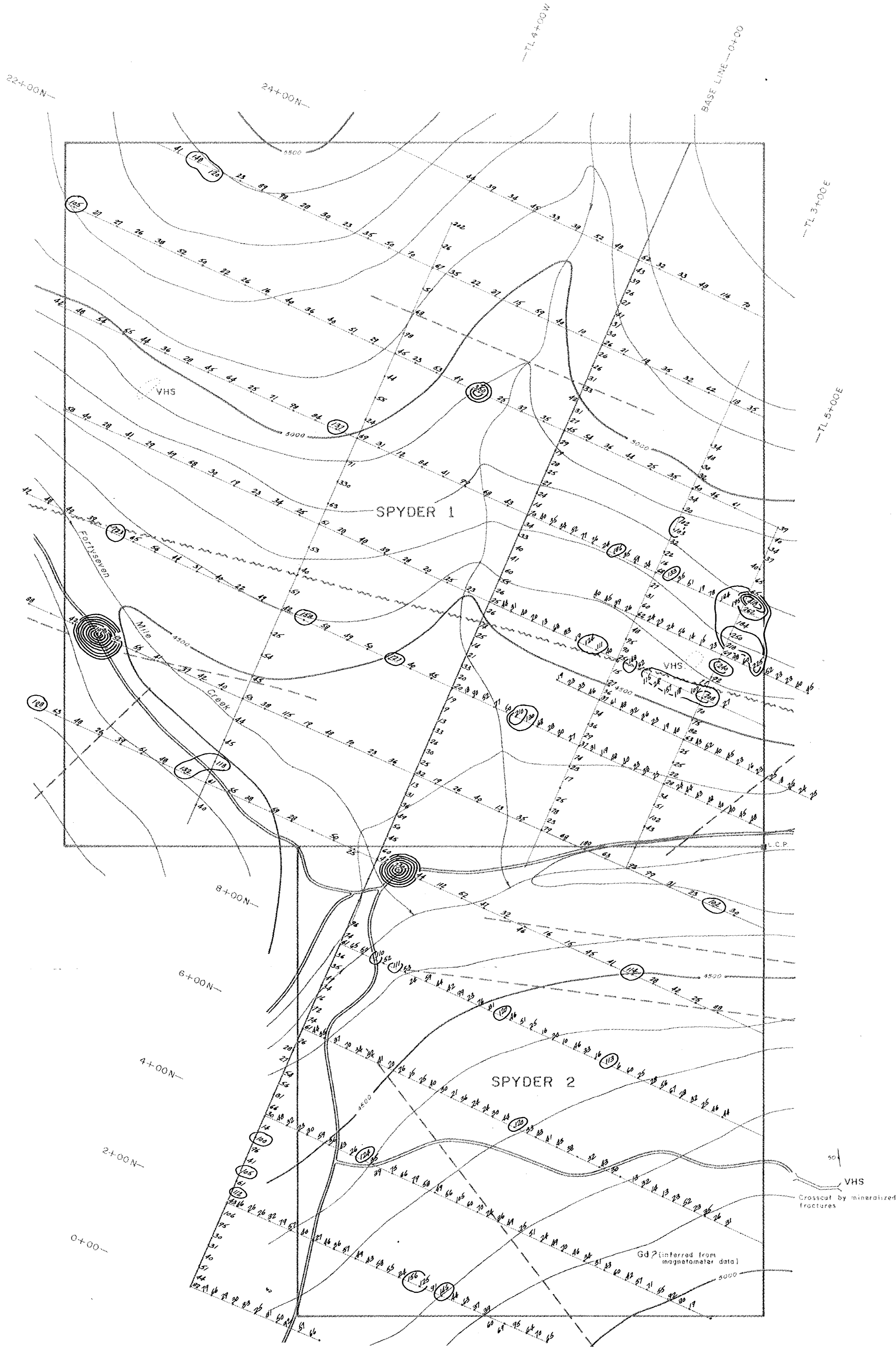
- VHS Upper Triassic Hornblende Schist (Nicola Volcanics)
- Gd Eagle Granodiorite — Jurassic Gray Biotite Granodiorite.  
(NOTE: The Presence of This Unit is Inferred From Ground Magnetometer Survey.)
- SYMBOLS**
- 1983 CONTROL LINES
- Stations
- Creeks
- Roads
- Contour Interval 100'
- - - Inferred Contact
- Area of Outcrop
- ↘ Foliation, Dip
- ↘ Fracture Zone, Dip
- ~ Inferred Fault (based on photo-geological survey 1970 assessment report No. 2802)
- Air Photo Linear
- Trench
- Spot High Values

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**11,955**



<b>PRIMOSE RESOURCES LTD.</b> — PRINCETON PROJECT — — SPYDER CLAIMS — SIMILKAMEEN MINING DIVISION — BRITISH COLUMBIA		
<b>SOIL GEOCHEMISTRY</b> LEAD ppm		
RAM EXPLORATION LTD. VANCOUVER, B.C.	OWN. BY: T.M. CHK. BY: DATE: JAN. 1984	FIG. NO. <b>7</b>



**LEGEND**

- VHS Upper Triassic Hornblende Schist (Nicola Volcanics)
- Gd Eagle Granodiorite - Jurassic Grey Biotite Granodiorite.  
(NOTE: The Presence of This Unit is Inferred From Ground Magnetometer Survey.)
- SYMBOLS**
- 1983 CONTROL LINES
- Stations
- ↙ Creeks
- == Roads
- Contour Interval 100'
- - - Inferred Contact
- Area of Outcrop
- ↘ Foliation, Dip
- ↘ Fracture Zone, Dip
- ~ Inferred Fault (based on photo-geological survey 1970 assessment report No. 2802)
- - - Air Photo Linear
- || Trench

CONTOUR INTERVAL: 100 ppm

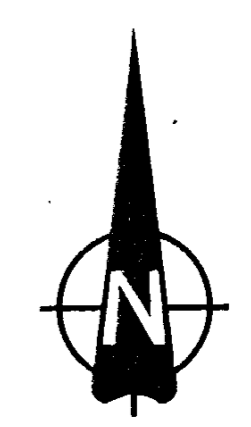
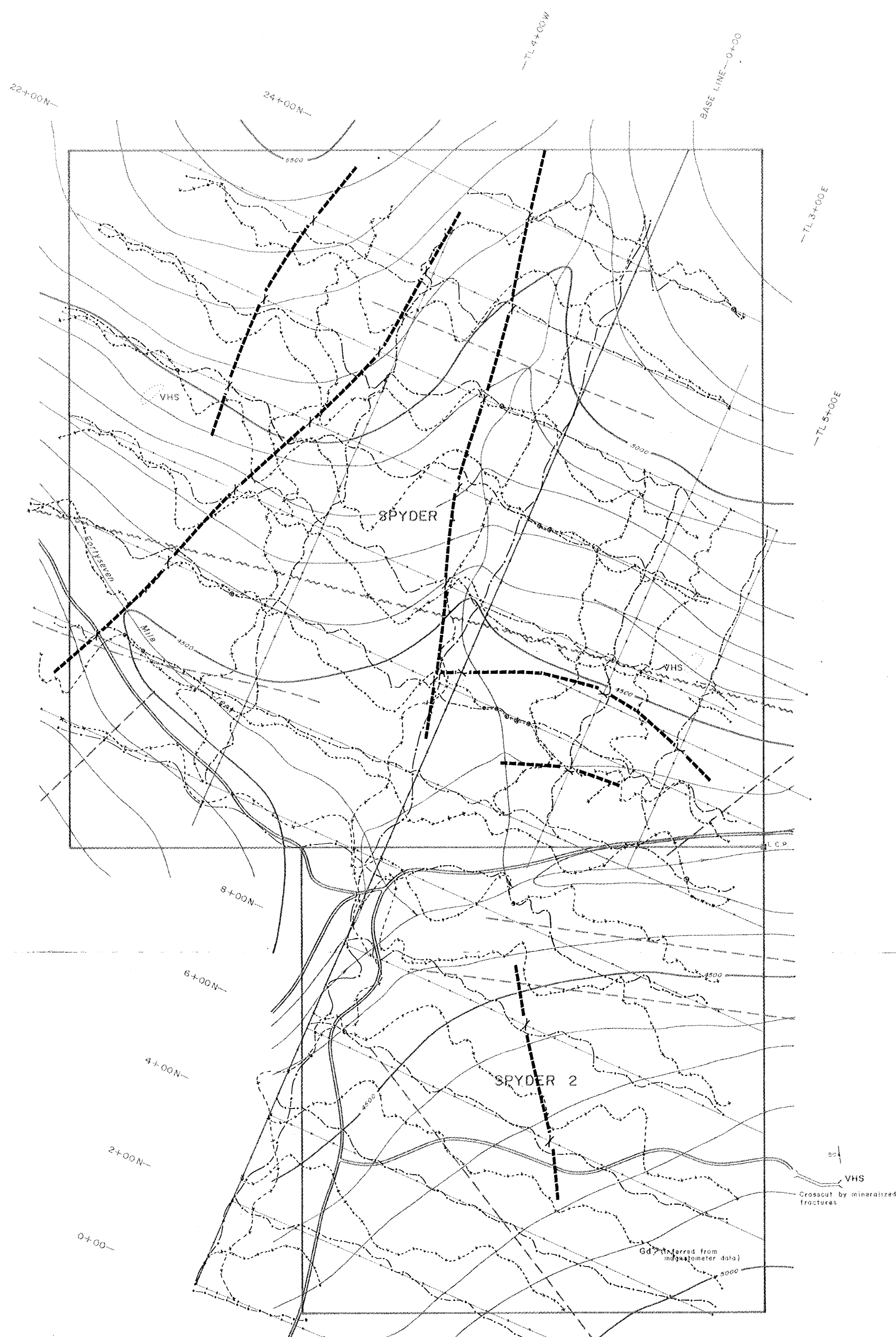
**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**11,955**



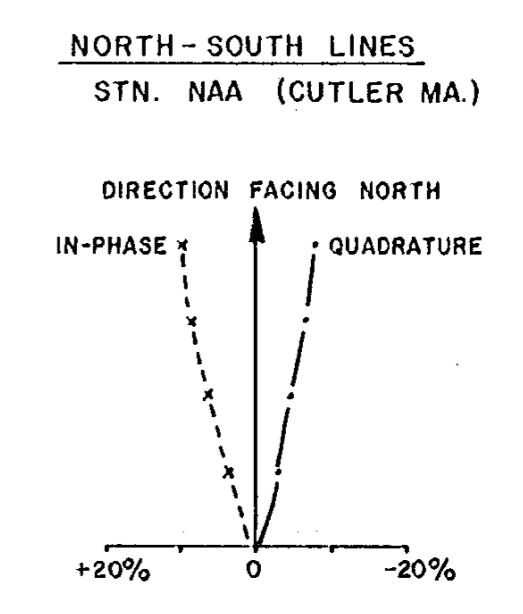
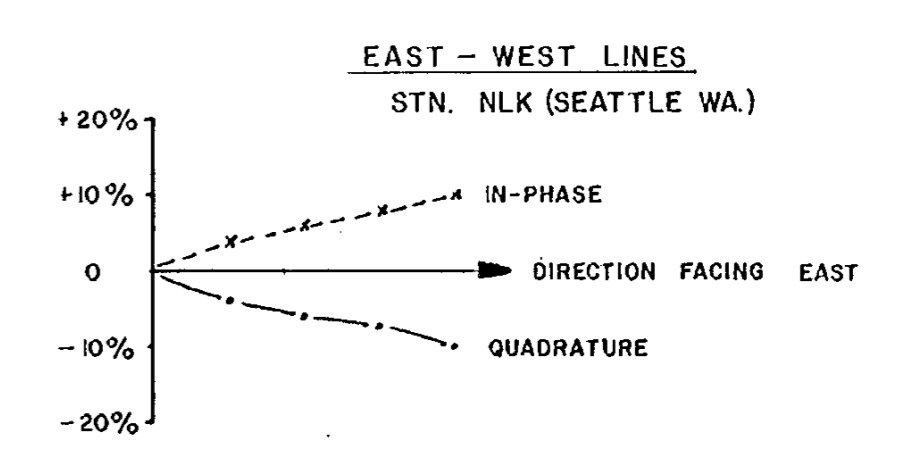
**PRIMOSE RESOURCES, LTD.**  
— PRINCETON PROJECT —  
— SPYDER CLAIMS —  
SIMILKAMEEN MINING DIVISION — BRITISH COLUMBIA

**SOIL GEOCHEMISTRY**  
COPPER ppm



**LEGEND**

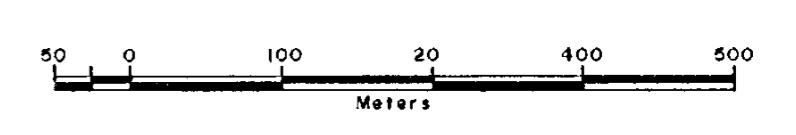
- VHS Upper Triassic Hornblende Schist (Nicola Volcanics)
  - Gd Eagle Granodiorite - Jurassic Grey Biotite Granodiorite.  
(NOTE: The Presence of This Unit is Inferred From Ground Magnetometer Survey.)
- SYMBOLS**
- 1983 CONTROL LINES
  - Stations
  - ~ Creeks
  - == Roads
  - Contour interval 100'
  - - - Inferred Contact
  - Area of Outcrop
  - ↘ Foliation, Dip
  - ↘ Fracture Zone, Dip
  - ~ Inferred Fault (based on photo-geological survey 1970 assessment report No. 2802)
  - Air Photo Linear
  - Trench
  - X Conductor Axis
  - Conductor



INSTRUMENT : GEONICS EM-16  
 OPERATOR : W.H.  
 FREQUENCY : NLK 24.8 KHz  
 NAA 17.8 KHz

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**11,955**



<b>PRIMOSE RESOURCES LTD.</b>		
— PRINCETON PROJECT —		
— SPYDER CLAIMS —		
SIMILKAMEEN MINING DIVISION — BRITISH COLUMBIA		
<b>VLF - EM SURVEY</b>		
<b>RAM EXPLORATION LTD.</b> VANCOUVER, B.C.	DWN. BY: T.M. CHK. BY: DATE: JAN. 1984	FIG. NO. <b>9</b>



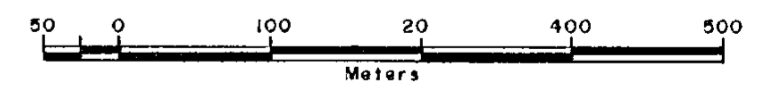
**LEGEND**

- VHS Upper Triassic Hornblende Schist (Nicola Volcanics)
- Gd Eagle Granodiorite - Jurassic Grey Biotite Granodiorite.  
(NOTE: The Presence of This Unit is Inferred From Ground Magnetometer Survey.)
- SYMBOLS**
- 1983 CONTROL LINES
- Stations
- Creeks
- Roads
- Contour Interval 100'
- - - Inferred Contact
- Area of Outcrop
- ↘ Foliation, Dip
- ↘ Fracture Zone, Dip
- ~ Inferred Fault (based on photo-geological survey 1970 assessment report No. 2802)
- Air Photo Linear
- Trench

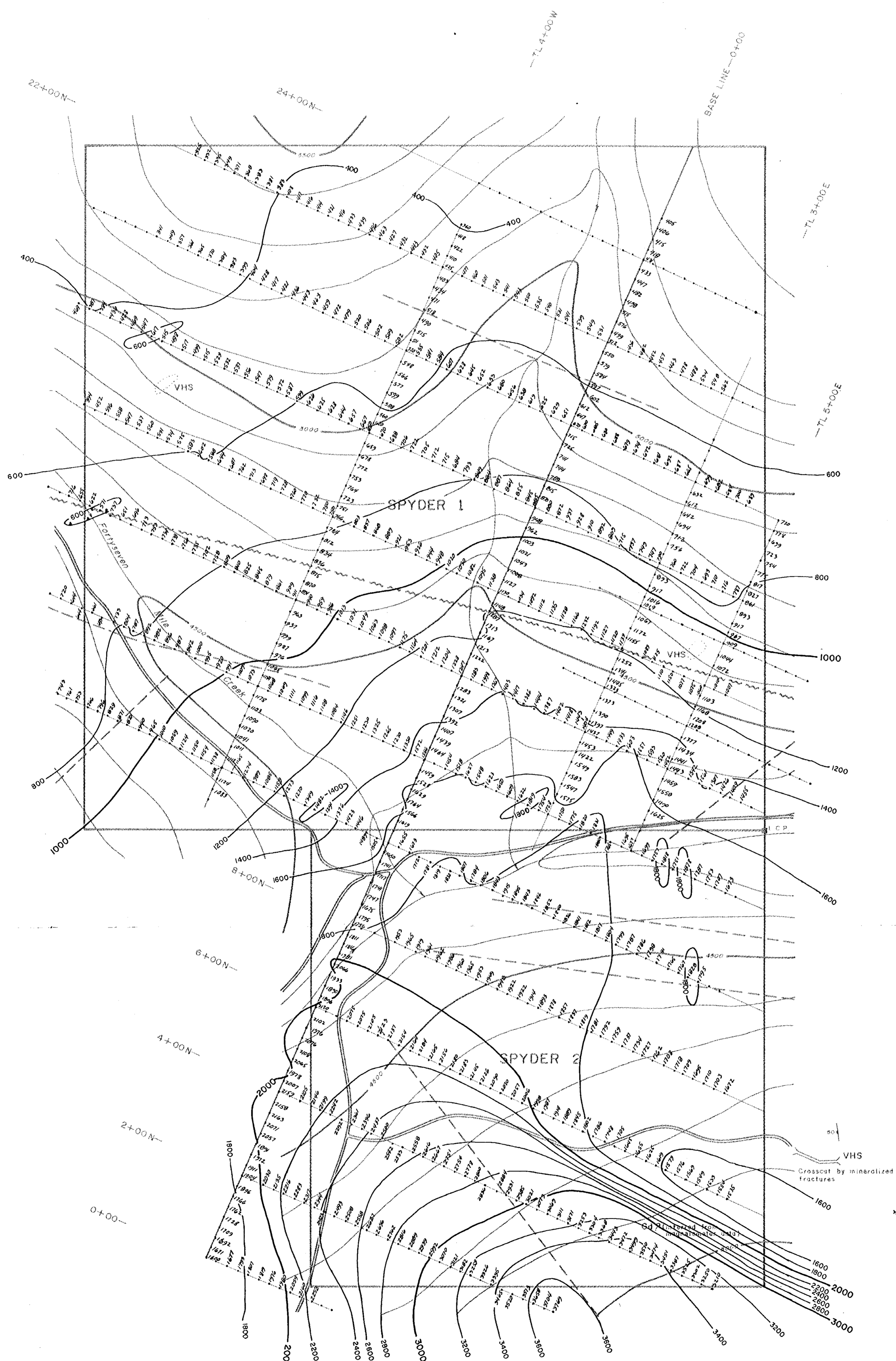
INSTRUMENT: GSM 8 PROTON PROCESSION MAGNETOMETER  
OPERATOR : W.H.  
CONTOUR INTERVAL: 200 Gammas

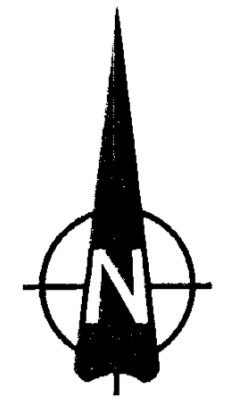
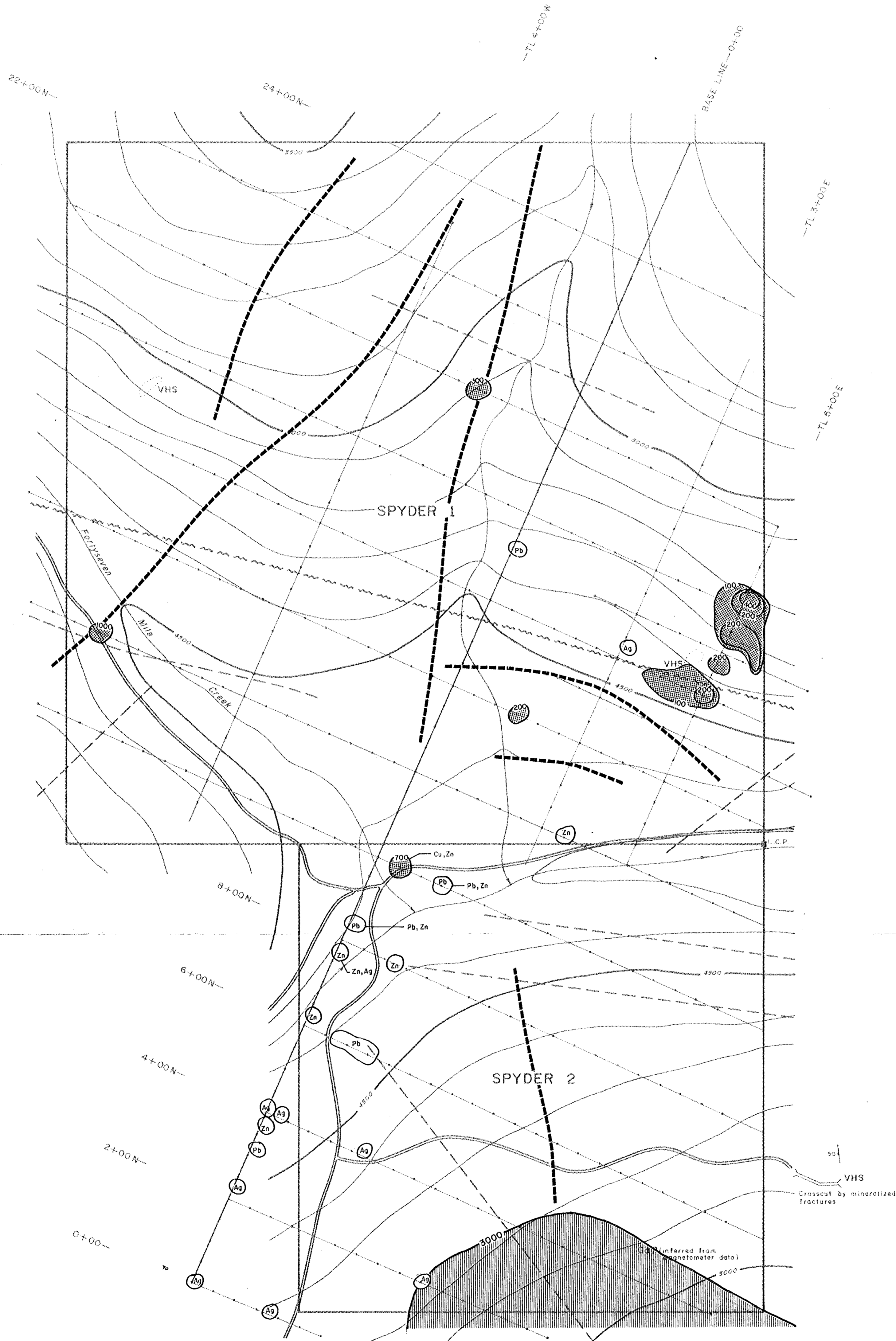
**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**11,955**



<b>PRIMOSE RESOURCES LTD.</b> — PRINCETON PROJECT — — SPYDER CLAIMS — SIMILKAMEEN MINING DIVISION — BRITISH COLUMBIA		
<b>TOTAL FIELD MAGNETIC SURVEY</b> TOTAL FIELD = + 57,000 GAMMAS		
<b>RAM EXPLORATION LTD.</b> VANCOUVER, B.C.	<small>OWN. BY: T.M. CHK. BY: DATE: JAN. 1984</small>	<small>FIG. NO. <b>10</b></small>



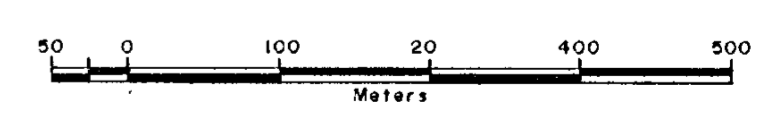


**LEGEND**

- VHS Upper Triassic Hornblende Schist (Nicola Volcanics)
- Gd Eagle Granodiorite - Jurassic Grey Biotite Granodiorite.  
(NOTE: The Presence of This Unit is Inferred From Ground Magnetometer Survey.)
- SYMBOLS**
- 1983 CONTROL LINES
- Stations
- ↪ Creeks
- == Roads
- Contour Interval 100'
- - - Inferred Contact
- Area of Outcrop
- ↘ Foliation, Dip
- ↘ Fracture Zone, Dip
- ~ Inferred Fault (based on photo-geological survey 1970 assessment report No. 2802)
- Air Photo Linear
- Trench
- VLF EM Conductor
- High Copper Values (ppm)
- Pb Spot High Lead
- Zn Spot High Zinc
- Ag Spot High Silver
- Magnetic High (Gammas)

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**PRIMOSE RESOURCES LTD.**  
— PRINCETON PROJECT —  
— SPYDER CLAIMS —  
SIMILKAMEEN MINING DIVISION — BRITISH COLUMBIA

**COMPILATION MAP**

RAM EXPLORATION LTD. VANCOUVER, B.C.	DWN. BY: T.M. CHK. BY: DATE: JAN. 1984	FIG. NO. 11
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