

REPORT CONCERNING
STREAM SEDIMENT SAMPLING

OF THE

ORB #1, ORB #2, ORB #3 and ORB #4 MINERAL CLAIMS
SUNDAY CREEK AREA - SIMILKAMEEN MINING DIVISION
BRITISH COLUMBIA

LOCATION: 20 kilometers S10°W of Princeton, B.C.
49°15'N Latitude
120°34'W Longitude
N.T.S. 92H/7 and 92H/2

WRITTEN FOR: Emerald Star Mining Explorations Ltd.

OWNER & OPERATOR: Emerald Star Mining Explorations Ltd.
432 - 8th Street
New Westminster, B.C.
V3M 3R7

AUTHOR: Tod Proskin
432 - 8th Street
New Westminster, B.C.
V3M 3R7

DATED: 18 January 1983

part D

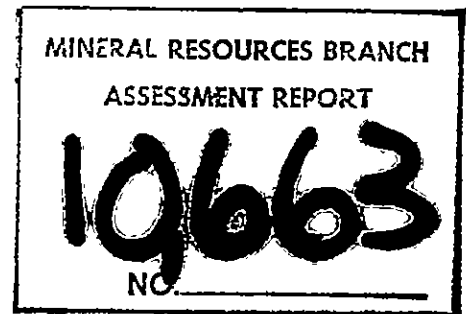


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SUMMARY

The Orb claim group is located approximately 20 kilometers S10°W of Princeton, British Columbia. Emerald Star Mining Exploration Ltd., of New Westminster, B.C., is the owner of these claims.

Between November 14 to 16, 1982, 29 stream silt sediment samples were collected from Sunday Creek and its tributaries. These samples were analyzed for Cu, Pb, Zn, Ag, As and Au. Only 2 samples may be regarded as being anomalous for Au.

CONCLUSIONS

Only 2 results may be deemed anomalous with respect to gold geochemistry. Analyses performed for Cu, Pb, Zn, Ag and As show no empirically obvious anomalous results.

Percussion Hole #4 has anomalous values of gold ranging from 18 to 136 ppb. Stream silt sample #8 may be the downstream expression of the lithologic or structural control of the anomalous values creating the anomaly for percussion Hole #4. Glen Whites report "Airborn VLF EM & magnetometer survey ORB,ORB 1-5,ORB 7 claims" outlines a distinctive magnetometer anomaly over sample 17 and 18 stream silt sample #18 is probably the down stream expression of this anomaly.

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SUNDAY CREEK AREA - SIMILKAMEEN MINING DIVISION
BRITISH COLUMBIA

INTRODUCTION AND GENERAL REMARKS

This report discusses the results of stream sediment sampling completed along Sunday Creek, a tributary to the Similkameen River. Sunday Creek drainage transects the ORB #1, ORB #2 and ORB #3 and ORB #4 Mineral Claims. The report was written on behalf of Emerald Star Mining Explorations Ltd., the owner and operator of the claim group.

Field work was conducted from November 14 to 16, 1982 by Tod Proskin (Director of Emerald Star Mining Explorations Ltd., New Westminster, and Brad Rifle (Exploration Services, Port Coquitlam). Geochemical analyses were performed by Acme Analytical Laboratories, 852 East Hastings Street, Vancouver, B.C.

PROPERTY AND OWNERSHIP

The property consists of 4 mineral claims staked in accordance with the modified grid system of the Province of British Columbia, and described as follows:

<u>CLAIM NAME</u>	<u>NO. OF UNITS</u>	<u>RECORD NO.</u>	<u>DATE RECORDED</u>
ORB #1	18	1356	22 December 1980
ORB #2	18	1357	22 December 1980
ORB #3	6	1358	22 December 1980
ORB #4	10	1406	19 May 1981

These claims are owned and operated by Emerald Star Mining Explorations Ltd. of New Westminster, B.C.

LOCATION AND ACCESS

The ORB #1 through #4 mineral claims are located approximately 20 kilometers S10°W of Princeton, B.C. (Figure 1). The property is situate over portions of Sunday Creek, an easterly flowing tributary to the Similkameen River. The geographical co-ordinates are 49°15'N Latitude and 120°34'W Longitude.

Access is via Highway 3, which passes through the western portions of the claim group (Figure 2) and subsequently via unimproved forestry roads.

PHYSIOGRAPHY AND TOPOGRAPHY

The claim group is located in a transitional zone between the Interior Plateau to the north, and the Cascade Mountains of Washington State. Elevations on the property vary from a topographic high of approximately 1340 meters to a low of approximately 850 meters at the Similkameen River.

GEOLOGY

Mapping by Preto implies the presence of Middle Eocene - Princeton Group sedimentary and volcanic rocks in fault contact with Upper Triassic Nicola Group volcanoclastic rocks underlying the property. The Nicola Group rocks are transected by north-trending microdiorite and latite porphyry dykes which may be related to the Upper Triassic Copper Mountain Stock.

Preto states that the Princeton Group lithologies are located on the western portion of the property. These rocks are northeast-trending, easterly-dipping conglomerates and sandstones and overlying varicolored andesite and basalt flows, breccias and tuffs. The sedimentary rocks, exposed in highway cuts between Saturday and Sunday Creeks are green pebble to coarse boulder conglomerates with thin interbeds of green sandstone. The most common volcanic rock type in the Princeton Group is a fine-grained hornblende andesite porphyry which varies in color from grey to brownish grey to red to light green, depending on the nature of oxidation. Often this quartz-poor andesite contains amygdules of white natrolite and analcite.

On the claims, the Nicola Group rocks are members of the Wolf Creek Formation. At Sunday Creek these rocks are bedded lithic-crystal or crystal tuffs composed mainly of sand-sized particles. At Saturday Creek the rocks are of a finer-grained nature. They include well-bedded, water

laid, cherty tuffs and volcanic sediments that consist of fine altered volcanic ash with clasts of volcanic rocks or feldspar crystals. Interbedded lithic and lapilli tuffs imply a volcanic origin for all of these rocks.

The "Boundary Fault" trends northerly across the property and marks the eastern boundary of the Tertiary volcanic and sedimentary rocks. It is believed that the fault movement was normal and thus the Tertiary rocks represent a down-dropped volcano-sedimentary sequence.

On a regional scale, the Nicola Group is volcanic rocks, sedimentary rocks (primarily of volcanic derivation), and intrusions which are consanguinuous with the volcanic suite. These rocks outcrop from Kamloops Lake to the International Boundary - a distance of 180 kilometers. As outlined by Church, et. al., (1977), the Nicola Group is subdivided into 3 belts, Western, Eastern and Central. As the Nicola rocks on the property are predominantly volcanoclastic in origin, it is possible that they are members of the southern assemblage of the Eastern Belt (cf. Church et al, 1977) and represent a distal, sedimentary facies which is laterally equivalent to the Central Belt of predominantly volcanic rocks (Preto, 1979).

Preto (1979) states that, in general, Nicola Group rocks are weakly metamorphosed and relatively unaltered except in localized areas of faulting, shearing, or intrusive activity.

Hosted by the Nicola Group are many mineralized occurrences, mostly of copper. Many of these are associated with shear zones and fractures located near the contact zones of Nicola Group rocks and genetically related intrusive rocks. The most important mineral deposits in the vicinity are porphyry - type deposits associated with the calc-alkalic Copper Mountain intrusions (Preto, 1972).

STREAM SEDIMENT GEOCHEMICAL SURVEY

stream sediment geochemical survey was conducted along Sunday Creek and its tributaries. Stream silt samples were collected and placed in labelled Kraft bags. Sample site locations (Figure 2) were marked with labelled fluorescent flagging tape.

The survey was conducted from November 14-16, 1982 by Brad Rifle of Exploration Services (Port Coquitlam) and Tod Proskin of Emerald Star Mining Explorations Ltd. Analytical analyses were performed by Acme Analytical Laboratories (852 E. Hastings Street, Vancouver, B.C.). Analytical methodology and results obtained are appended.

Geochemical analyses for gold indicate two relatively anomalous values - 26 ppb (Sample #8) and 22 ppb (Sample #18). Both these samples are approximately 7 to 8 X average values 3.82 ppb.

No reason may be given at this time for the anomalous values of Sample #18. Sample # 8's anomalous

value may be related to the fact that it is situated downstream from the lithologic or structural control which produced anomalous gold results in percussion drill hole #4 (Wallster 1982).

Analyses performed for Cu, Pb, Zn, Ag, and As show no empirically obvious anomalous values.

CONCLUSIONS

Only 2 results may be deemed anomalous with respect to gold geochemistry. Analyses performed for Cu, Pb, Zn, Ag and As show no empirically obvious anomalous results.

Percussion hole #4 has anomalous values of gold ranging from 18 to 136 ppb. Stream silt sample #8 may be the downstream expression of the lithologic or structural control of the anomalous values creating the anomaly for percussion hole #4.

STATEMENT OF QUALIFICATIONS

I, Tod Proskin, of the City of New Westminster,
Province of British Columbia, state that:

- (1) I am a Director and Officer of Emerald Star Mining Explorations Ltd., with offices at 432 - 8th Street, New Westminster, B.C.
- (2) I have completed the British Columbia Ministry of Energy, Mines and Petroleum Resources Sixth Annual Mineral Exploration Course for Prospectors held at Terrace, B.C., May 1-15, 1982.
- (3) I have completed the B.C. Yukon Chamber of Mines prospecting course Sept 1st 1981, to Dec 31st 1981

Tod Proskin,
Prospector.

18 January 1983

REFERENCES

CHURCH, B.N., PRETO, V.A. and PEARSON, D.E. (1977)
GAC-SEG Guidebook - Volcanic Suites of Southern, B.C.

PRETO, V.A. (1979)
Geology of the Nicola Group between Merritt and
Princeton, British Columbia, Ministry of Energy,
Mines and Petroleum Resources, Bulletin No. 69.

PRETO, V.A. (1972)
Geology of Copper Mountain, B.C.D.M., Bulletin
No. 59.

WALLSTER, D.E. (1981) Report concerning geochemical
studies of the ORB #1, ORB #2, ORB #3 and ORB #4
Mineral Claims, British Columbia Ministry of
Energy, Mines and Petroleum Resources Assessment
Files.

Affidavit of Expences :

FIELD WORK:

COST

Personel	T.Proskin & B.Rifle, Nov 15 to 17 3 days @ \$130.00/day each	\$780.00
Accommodation & Food	2 men for 2 days @ \$80.00/day	\$160.00
Transportation	4 W.D. for 2 days @ 40.00/	\$80.00
Assaying	Invoice from Acme Analytical Laboratories Ltd.	\$319.00
Survey Supplies	Flagging, Topographic chain & thred, ect.	\$140.00
		SUB-TOTAL <u>\$1479.00</u>

REPORT:

Secretarial	Copying, typing, ect.	\$180.00
Report Preparation	T.Proskin 3 days @ 100.00/ plus \$80.00 drafting & materials	\$280.00
		SUB-TOTAL <u>\$460.00</u>
		TOTAL <u>\$1939.00</u>

Respectfully submitted,

Tod Proskin

Tod Proskin,
Emerald Star Mining Explorations Ltd.

18 January 1983

APPENDIX A

ANALYTICAL METHODOLOGY

GEOCHEMICAL LABORATORY METHODOLOGY - 1981

SAMPLE PREPARATION

1. Soil samples are dried at 60°C and sieved to -80 mesh.
2. Rock samples are pulverized to -100 mesh.

Geochemical Analysis for Ag*, Bi*, Cd*, Co, Cu, Fe, Mn, Mo, Ni, Pb, Sb*, V, Zn

0.5 gram samples are digested hot dilute aqua regia in a boiling water bath and diluted to 10 ml with demineralized water.

All the above elements are determined in the acid solution by Atomic Absorption.

* denotes background correction.

Geochemical Analysis for Au

10.0 gram samples that have been ignited overnight at 600°C are digested with hot dilute aqua regia, and the clear solution obtained is extracted with Methyl Isobutyl Ketone.

Au is determined in the MIBK extract by Atomic Absorption using background correction (Detection Limit = 5 ppb direct AA and 1 ppb graphite AA.)

Geochemical Analysis for Au, Pd, Pt, Rh

10.0 - 30.0 gram samples are subjected to Fire assay preconcentration techniques to produce silver beads.

The silver beads are dissolved and Au, Pd, Pt, and Rh are determined in the solution by Atomic Absorption.

Geochemical Analysis for As

0.5 gram samples are digested with hot dilute aqua regia and diluted to 10 ml.

As is determined in the solution by Graphite Furnace Atomic Absorption.

ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B.C. V6A 1R6

Telephone : 253 - 3158

Geochemical Analysis for Barium

0.1 gram samples are digested with hot NaOH and EDTA solution.

Ba is determined in the solution by Atomic Absorption.

Geochemical Analysis for Uranium

0.5 gram samples are digested with hot aqua regia and diluted to 10 ml.

Aliquots of the acid extract are solvent extracted using a salting agent and aliquots of the solvent extract are fused with NaF, K_2CO_3 and Na_2CO_3 flux in a platinum dish.

The fluorescence of the pellet is determined on the Jarrel Ash Fluorometer.

Geochemical Analysis for Tungsten

1.0 gram samples are fused with KCl, KNO_3 and Na_2CO_3 flux in a test tube, and the fusions are leached with 10 ml water. W is in the solution determined by ICP with a detection of 1 ppm.

Geochemical Analysis for Fluorine

0.25 gram samples are fused with sodium hydroxide and leached with 10 ml water. The solution is neutralized, buffered, adjusted to pH 7.8 and diluted to 100 ml. Fluorine is determined by Specific Ion Electrode using an Orion Model 404 meter.

Geochemical Analysis for Tin

1.0 gram samples are fused with ammonium iodide in a test tube. The sublimed iodine is leached with dilute hydrochloric acid.

The solution is extracted with MIBK and tin is determined in the extract by Atomic Absorption.

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Interpretation of Results

Standard M-1 is a certified geochem standard used to monitor the results. M-1 has the following analysis.

1.	Mo	:	in ppm	M1	2.	ppm
2.	Cu	:	in ppm	M1	28.	ppm
3.	Pb	:	in ppm	M1	38.	ppm
4.	Zn	:	in ppm	M1	180.	ppm
5.	Ag	:	in ppm	M1	0.3	ppm
6.	Ni	:	in ppm	M1	32.	ppm
7.	Co	:	in ppm	M1	12.	ppm
8.	Mn	:	in ppm	M1	800.	ppm
9.	Fe	:	in %	M1	2.5	%
10.	As	:	in ppm	M1	8.	ppm
11.	U	:	in ppm	M1	3.	ppm
12.	IS	:	Internal Standard.			
13.	Th	:	in ppm	M1	3.	ppm
14.	IS	:	Internal Standard.			
15.	Cd	:	in ppm	M1	2.	ppm
16.	Sb	:	in ppm	M1	3.	ppm
17.	Bi	:	in ppm	M1	2.	ppm
18.	V	:	in ppm	M1	54.	ppm
19.	Ca	:	in %	M1	0.62	%
20.	P	:	in %	M1	0.11	%
21.	La	:	in ppm	M1	8.	ppm
22.	In	:	in ppm	M1	2.	ppm
23.	Mg	:	in %	M1	0.67	%
24.	Ba	:	in %	M1	0.023	%
25.	Ti	:	in %	M1	0.07	%
26.	B	:	in ppm	M1	12.	ppm
27.	Al	:	in %	M1	1.9	%
28.	IS	:	Internal Standard.			
29.	IS	:	Internal Standard.			
30.	W	:	in ppm	M1	1.	ppm

Notes:

1. Zinc over 5000 ppm interferes on W channel.
2. Iron over 1. % interferes on In and Sb channel.

Monitoring of Results:

If analysis of standard M-1 is different than the certification, then compensate (add or subtract) samples appropriately.

Standardization:

Complete set of USGS standards, Canadian Certified Reference Materials and 72 specpure metals from Johnson Matthey.

APPENDIX B

RESULTS OF ICP GEOCHEMICAL ANALYSES

ICP GEOCHEMICAL ANALYSIS

A .500 GRAM SAMPLE IS DIGESTED WITH 3 ML OF 3:1:3 HCL TO HNO3 TO H2O AT 90 DEG.C. FOR 1 HOUR. THE SAMPLE IS DILUTED TO 10 MLS WITH WATER.
 THIS LEACH IS PARTIAL FOR: Ca, P, Mg, Al, Ti, La, Na, K, Ni, Ba, Si, Sr, Cr AND B. Au DETECTION 3 ppm.
 AU: ANALYSIS BY AA FROM 10 GRAM SAMPLE. SAMPLE TYPE - SILT & SEDIMENT & ROCK

DATE RECEIVED DEC 9 1982 DATE REPORTS MAILED Dec 13/82 ASSAYER D. J. Toy DEAN TOYE, CERTIFIED B.C. ASSAYER

SAMPLE #	EMERALD STAR MINING PROJECT # 2 FILE # 82-1619						PAGE# 1
	CU ppm	PB ppm	ZN ppm	AG ppm	AS ppm	Au** ppb	
1	64	10	57	.1	6	4	
2	68	5	62	.2	6	5	
3	43	5	47	.1	5	4	
4	22	6	50	.1	7	2	
5	22	6	45	.2	2	2	
6	20	5	46	.1	4	2	
7	26	7	47	.2	2	2	
8	24	7	46	.1	4	26	
9	21	5	46	.1	3	2	
10	18	5	39	.1	2	2	
11	22	6	49	.1	2	2	
12	17	5	38	.1	2	2	
13	35	9	45	.1	4	2	
14	19	3	43	.1	3	4	
15	23	7	45	.2	4	2	
16	42	10	43	.1	2	2	
17	24	6	51	.1	2	2	
18	28	12	46	.1	4	22	
19	52	12	40	.1	2	2	
20	19	2	47	.1	2	2	
21	18	2	41	.1	2	2	
22	14	2	38	.1	3	2	
SS-1	32	10	43	.1	4	2	
SS-2	17	6	34	.1	2	2	
SS-3	27	14	44	.1	2	2	
SAT CREEK 1	28	8	55	.1	4	2	
150M OF SOUTH (501)	27	4	36	.2	2	2	
502 ROCK	19	4	41	.2	6	2	
503	20	4	45	.1	2	2	
STD A-1/AU	30	38	174	.3	12	480	

BRITISH COLUMBIA

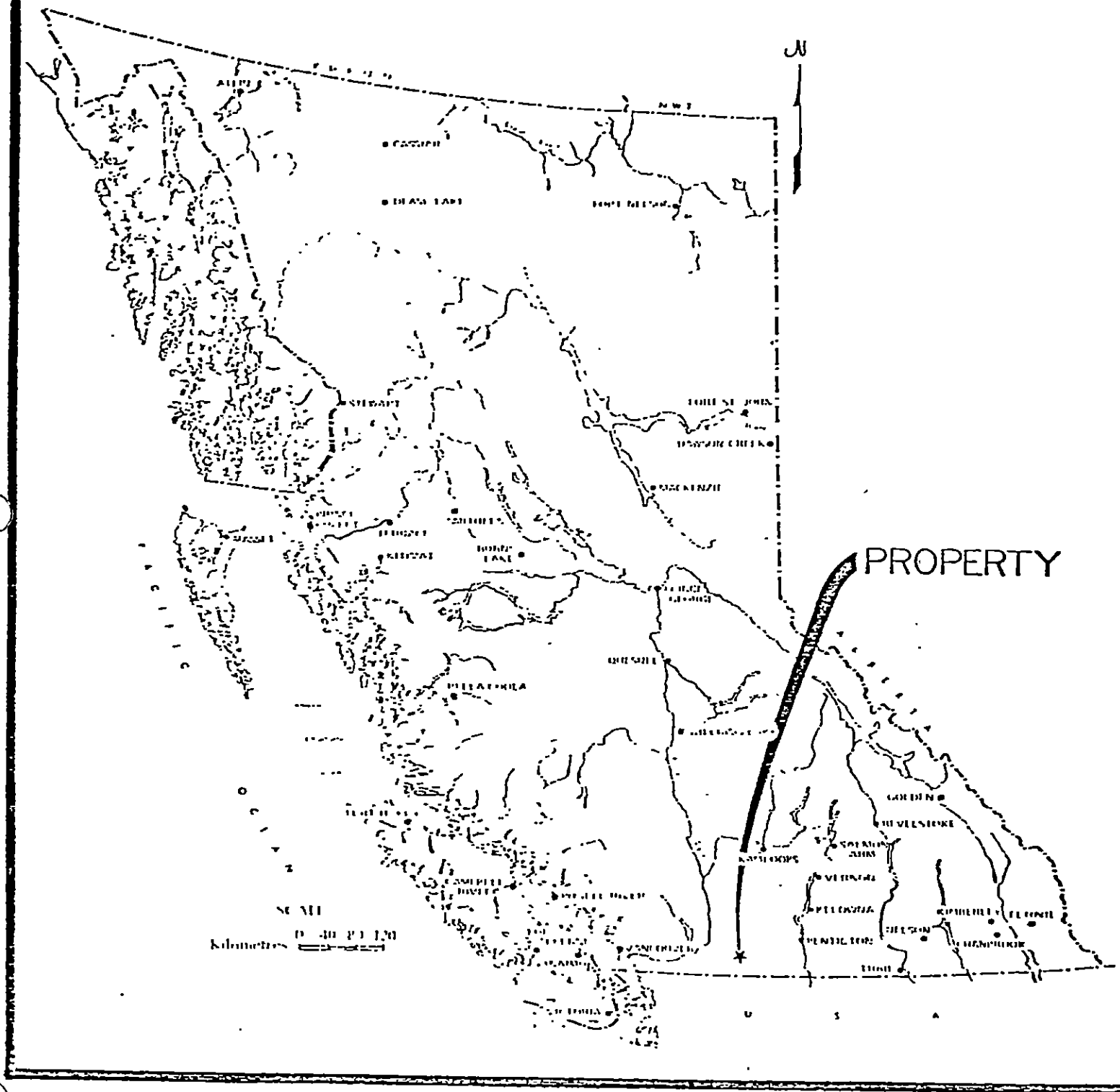
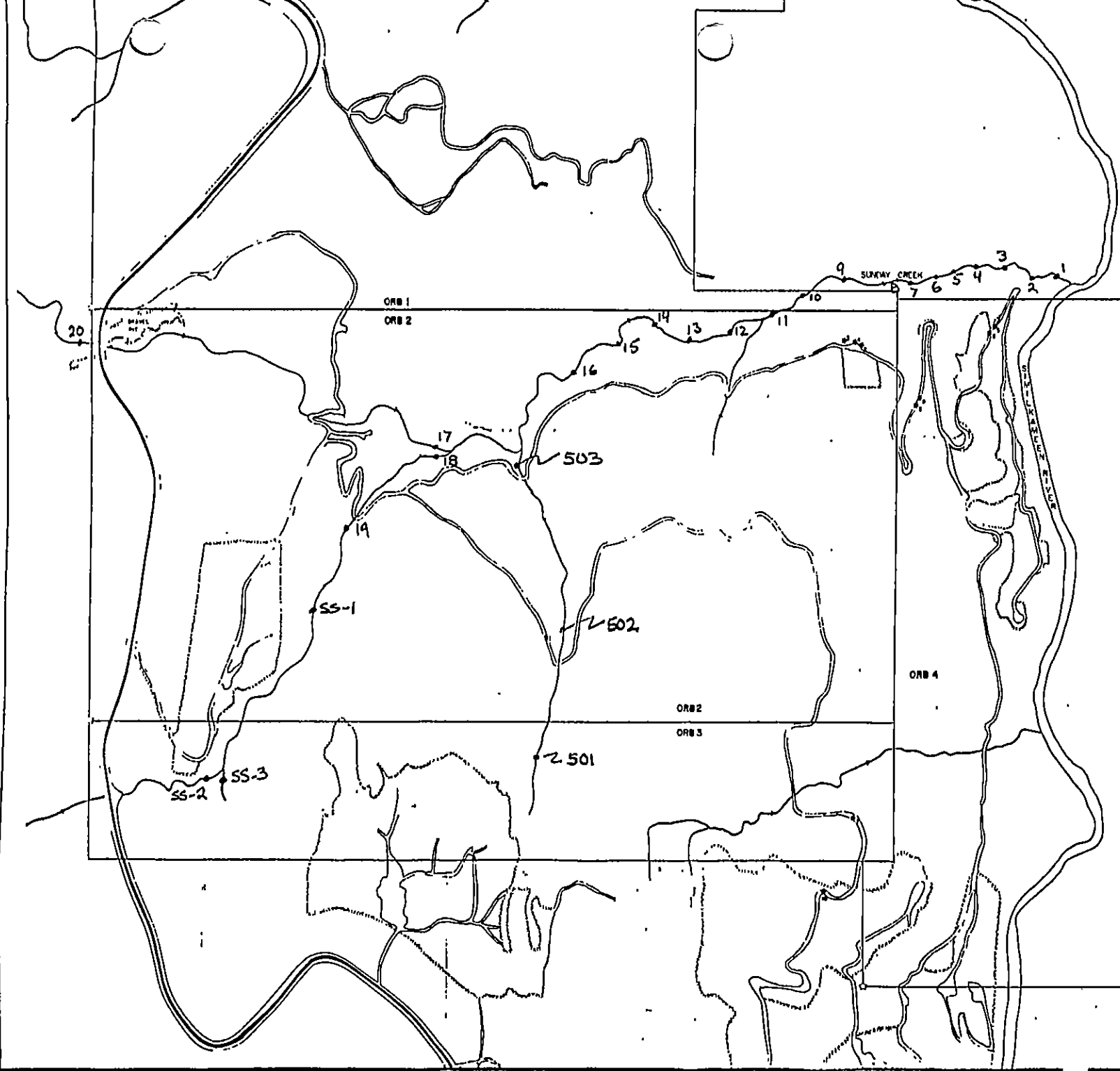


FIG. 1



LEGEND

- STREAMBED
- STREAM
- LOGGED AREA
- LOGGING ROAD
- LCP OR CLAIM LINE
- PERCUSSION DRILL SITE
- Stream Sediment Sample Site

MAP FROM AIRPHOTOS BC 70030 105 W MF

**STREAM SEDIMENT
SAMPLE LOCATIONS**

EMERALD STAR MINING
EXPLORATIONS LTD

ORB CLAIMS
SMILKAMEN M.D., B.C.

BRASH DEN DEC 2011 SHEET 1

0 100 200
METERS