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REPORT
CONCERNING THE PERCUSSION DRILLING
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. 92 H/7 and 92 H/2

WRITTEN FOR: Emerald Star Mining Explorations Ltd.

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

CONSULTANT & AUTHOR: Dale E. Wallster
Geologist
430 - 890 W. Pender Street
Vancouver, B.C.
V6C 1K2

DATED: 15 December 1981

Part
1 of 3

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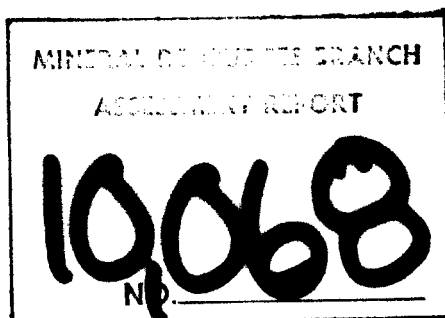
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MAPS

FIGURE 1 Location Map

FIGURE 2 Percussion Drill Hole Location Map

SUMMARY

Between February 16 to 19, May 21 to 26, and August 30 to September 7th, 1981, 646 meters of percussion drilling was performed on the Orb claim group. This property is located approximately 20 kilometers S10°W of Princeton, British Columbia.

The purpose of the drilling was to provide geochemical information concerning the subsurface lithologies. At present no pertinent geochemical data is available from the drill program. When this data is available it is hoped that any indications of mineralization of an economic tenor may be correlated to specific lithologic or stratigraphic units outlined by the drilling.

CONCLUSIONS

As no pertinent geochemical data is available from the drilling at present, no conclusions as to potential stratigraphic or lithologic target horizons may be formulated.

RECOMMENDATIONS

- (1) Samples obtained from the 1981 percussion drilling program should be submitted for geochemical analyses. These analyses should be for gold (fire assay extraction and atomic absorption analysis to a 5 ppb accuracy), silver, copper, zinc, mercury, arsenic, and antimony.

- (2) Subsequent to geochemical analyses, samples that have appreciable precious or base metal tenors should be correlated to a target lithologic type or stratigraphic horizon.
- (3) Prospecting, geological mapping, and geochemical surveys should then be undertaken in an attempt to outline and further delineate these potential lithologic and/or stratigraphic target areas.

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INTRODUCTION AND GENERAL REMARKS

This report discusses the nature, results and implications of percussion drilling completed over portions of the Orb #1, Orb #2, Orb #3 and Orb #4 Mineral Claims of the Similkameen Mining Division, B.C. It was written on behalf of Emerald Star Mining Explorations Ltd., the owner and operator of the claim group. The author has not visited the property but has examined percussion drill cuttings, reportedly from the drilling conducted on the property. Information contained in this report is based upon the author's investigation of the percussion drill cuttings, discussions with the Directors of Emerald Star Mining Explorations Ltd., and a review of the published geological reports concerning the Princeton region.

Percussion drilling was performed during the periods of February 16 to 19, 1981, and May 21 to 26, 1981 by Funk Brother's Drilling Co. Ltd., P.O. Box 2077, Merritt, B.C., VOK 2B0, and from August 30 to September 7, 1981 by L. Spence Percussion Drilling Ltd., 430-890 W. Pender Street, Vancouver,

B.C., V6C 1K2. This drilling had a total aggregate length of 646 meters (ten holes ranging in depth from 18.3 to 106.7 meters).

PROPERTY AND OWNERSHIP

The property consists of 4 mineral claims, staked in accordance with the modified grid system, 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/80
Orb #2	18	1357	22 December/80
Orb #3	6	1358	22 December/80
Orb #4	10	1406	19 May/81

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

An attempt to verify the legal status of these aforementioned claims was not an objective of this report, and thus any verdict as to their nature is beyond the scope of this report and the knowledge of the author.

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 and Oregon. Elevations on the property vary from a topographic high of approximately 1340 meters to a low of approximately 852 meters at the Similkameen River.

HISTORY

No known mineral exploration activities, other than those conducted by Emerald Star Mining Explorations Ltd. has occurred on the valid portions of the claim group. Mineral exploration has occurred on the GMAG claims, portions of which are overlapped by the Orb claim group. This work was performed on behalf of Aquitaine Canada Ltd. by C.A. Ager and Associates and is the subject of B.C. Assessment Report 5480. The GMAG claims which are overlapped by the Orb claims are still valid; however, their present owner is unknown to the author.

Mr. T. Proskin, of Emerald Star Mining Explorations Ltd., has reported to the author that placer mining activity has previously occurred on the Similkameen River in the vicinity of the claim group. Based upon this previous activity, it is the opinion of the Directors of Emerald Star Mining Explorations Ltd. that the Orb claims cover ground which is favorable to the occurrence of minerals with an economic tenor (particularly gold and copper).

GEOLOGY

On the property, government mapping (outlined in Preto, 1972) implies the presence of Middle Eocene - Princeton Group sedimentary and volcanic rocks in fault contact with Upper Triassic Nicola Group volcanic rocks. 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.

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.

The Nicola Group is volcanic rocks, sedimentary rocks (primarily of volcanic derivation), and intrusions which are consanguinious with the volcanic suite. These rocks are exposed in a belt which extends from Kamloops Lake to the International Boundary - a distance of 190 kilometers. Mineralized occurrences, mostly of copper, are common within this belt. Many of these are associated with shear zones and fractures located near the contact zones of the genetically related intrusive rocks.

On the claims, the Nicola Group rocks are members of the Wolf Creek Formation. At Sunday Creek the 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.

Rocks of the Nicola Group generally exhibit mineral assemblages characteristic of the greenschist facies of metamorphism.

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.

PERCUSSION DRILLING

Percussion drilling was performed by Funk Brothers Drilling Company Ltd. (Merritt, B.C.) and L. Spence Percussion Drilling Ltd. (Vancouver, B.C.). Both companies used Atlas Copco, above-hole hammer percussion drill rigs.

The purpose of drilling was to provide sub-surface geochemical, stratigraphic, and lithologic information. It is hoped that geochemical data, when available, will be correlateable with specific lithologic and stratigraphic units which may represent a potential target for further exploration activities.

The author was not on the property prior to or during drilling, and as such can offer no reasons as to why the percussion holes were spotted at specific sites. All data concerning drill hole locations, dip and azimuth of angle holes, depth of overburden, and total depth of hole was supplied by Mr. T. Proskin of Emerald Star Mining Explorations Ltd. The author did examine percussion drill cuttings, reportedly from the property, of those holes which were "drilled wet" (water flushing). Samples were taken over 10 foot (3 meter) intervals. For those holes which were "drilled dry", no examination of the returns has been attempted at present. This should be completed when geochemical data from the cuttings

is attained.

As lithologies were not examined in the field prior to drilling, color coding of the drill cuttings (in accordance with the Geological Society of America rock color chart) was applied. This allows the grouping of samples by color and is accomplished by comparing drill cuttings to a standardized color chart based upon the Munsell System - the most widely accepted system of color identification.

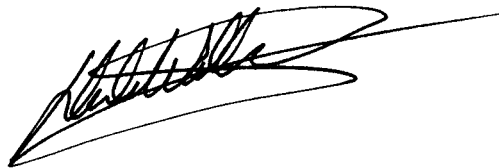
Using the Munsell System, any color may be assigned a number which represents the specific color qualities of hue, value, and chroma. Value is the property of lightness and is based on neutral grey axis grading from white to black. Chroma implies the degree of saturation of the color; that is, how vivid it is.

Logs based on color coding of the percussion drill holes are appended. Drilling intercepted volcanic rocks in all holes logged. Placing exact lithologic and stratigraphic names on the percussion cuttings is dependent upon a property examination, ie., the correlation of specific colors between outcrop observed in the field and the drill cuttings.

CONCLUSIONS

As no geochemical data is available at present, and no field examination of the property has occurred, the author does not feel that any pertinent conclusions may be formulated at present. Further work (i.e., geochemical evaluations of the drill cuttings and geological mapping of the property) is warranted.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Dale E. Wallster", written in a cursive style with a long horizontal flourish extending to the right.

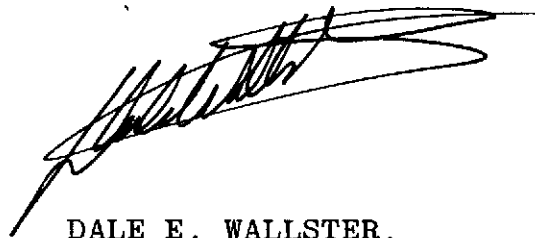
Dale E. Wallster,
Geologist.

15 December 1981

STATEMENT OF QUALIFICATIONS

I, DALE E. WALLSTER, of the City of Vancouver, Province of British Columbia, do hereby certify:

- (1) THAT I am currently a self-employed consulting geologist with offices at 430-890 West Pender Street, Vancouver, British Columbia.
- (2) THAT I am a graduate of the University of Western Ontario, 1979, and hold a Bachelor of Science (Honors) degree in Geology.
- (3) THAT since 1977 I have pursued my profession in geology. I have been employed as a geologist, actively involved in the search for mineral deposits in the Canadian Shield and the Western Cordillera of both the United States and Canada.
- (4) THAT I am the author of this report titled, REPORT CONCERNING THE PERCUSSION DRILLING OF THE ORB #1, ORB #2, ORB #3 and ORB #4 MINERAL CLAIMS. This report is compiled from my observations and references cited.
- (5) THAT I have no pecuniary interest in the properties which are the subject of this report, nor any in the vicinity. I do not expect to receive any interest as a result of writing this report.
- (6) THAT I consent to the use of this report in its entirety only, or in part only, by written permission.



DALE E. WALLSTER,
Geologist.

VANCOUVER, B.C.
15 December 1981

REFERENCES

- CHURCH, B.N., PRETO, V.A., and PEARSON, D.E. (1977).
GAC-SEG Guidebook - Volcanic Suites of Southern,
B.C.
- PRETO, V.A. (1972). Geology of Copper Mountain, BCDM,
Bulletin No. 59.
- RICE, H.M.A. (1947). Geology and Mineral Deposits of
the Princeton Map Area, B.C., G.S.C. Memoir 243.

AFFIDAVIT OF EXPENSES

Drilling expenses stated herein are those reported to the author by Mr. T. Proskin, Director of Emerald Star Mining Explorations Ltd.

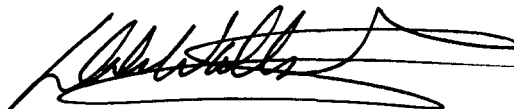
DRILLING

Invoice of Funk Brother's Drilling Co. Ltd.	\$ 7,900.00
Invoice of L. Spence Percussion Drilling Ltd.	<u>10,435.00</u>
	<u>\$ 18,335.00</u>

GEOLOGY

Logging percussion drill cuttings, geologist 1 day	\$ 200.00
Report: Geologist 2 days	400.00
Research costs, copying, draughting costs, etc.	153.33
	<u>\$ 753.33</u>
TOTAL DRILLING AND GEOLOGY	<u>\$ 19,088.33</u>

Respectfully submitted,



Dale E. Wallster,
Geologist.

15 December 1981

APPENDIX I

PERCUSSION DRILL LOGS

PERCUSSION DRILL HOLE LOGS

EMERALD STAR MINING EXPLORATIONS LTD.

ORB CLAIM GROUP - SUNDAY CREEK AREA - PRINCETON MINING DIVISION, B.C.

HOLE NO.	AZIMUTH DIP	FROM (METERS)	TO (METERS)	COLOUR DESIGNATION	DESCRIPTION	ROCK TYPE (TENTATIVE)
----------	-------------	---------------	-------------	--------------------	-------------	-----------------------

HOLES 1,3, and 4 drilled dry, therefore not logged at present (pending geochem)

2	vertical	0 3.0	3.0 18.3	N 4	-overburden -medium dark grey on fresh surface -rusty to olive brown oxidized surface - non-effervescent	volcanic
5	315° 30°	0 9.1	9.1 15.2	5Y 2/1	-overburden -bimodal -olive black fragments -minor reddish oxidized frags. light olive grey frags.	
		15.2	18.3	5Y 5/2		
		18.3	21.3	5Y 6/2		
		21.3	24.4	5Y 4/1	-olive grey -composed of 4 fragment types; greenish black volcanic fragments reddish oxidized fragments olive grey volcanic fragments whitish fragments (quartz, natrolite)	
		24.4	42.7	N 4		
		42.7	45.7	sample missing		
		45.7	51.8	N 4		
		51.8	61.0	5Y 4/1		
		61.0	76.2	N 4		
		76.2	88.4	5Y 4/1		
		88.4			end of hole	

HOLE NO.	AZIMUTH DIP	FROM (METERS)	TO (METERS)	COLOUR DESIGNATION	DESCRIPTION	
6	315° 30°	0	18.3		overburden	
		18.3	33.5	N 4		
			33.5	48.8	5G 2/1	greenish black volcanic fragments - less than 1 % reddish fragments - approximately 1% whitish fragments olive black fragments
			48.8	64.0	5Y 2/1	
			64.0	67.1	5G 2/1	
			67.1	70.1		sample missing
			70.1	73.2	5Y 2/1	
			73.2	79.3	5G 2/1	
			79.3	82.3		sample missing
			82.3	85.3	5G 2/1	
			85.3	94.5	N.4	End of Hole
7	360° 30°	0	9.1		overburden	
		9.1	12.2	5GY 4/1	-dark greenish grey -white fragments -amygdular andesite	
			12.2	24.4	5Y 4/1	
			24.4	45.7	5Y 3/2	olive grey - predominantly olive grey fragments - less than 1% reddish fragments - 8% whitish fragments
			45.7	48.8		sample missing
			48.8	51.8	5Y 3/2	
			51.8	57.9		samples missing
			57.9	67.1	5G 2/1	greenish black - no oxidized fragments
			67.1	85.3	5Y 2/1	
			85.3			End of Hole
8	315° 30°	0	9.1		overburden	
		9.1	21.3	5GY 4/1		
			21.3	24.4	5G 2/1	
			24.4	27.4		sample not colour coded
			27.4			End of Hole

HOLE NO.	AZIMUTH DIP	FROM (METERS)	TO	COLOUR DESIGNATION	DESCRIPTION
9	315° 30°	0	6.1		overburden
		6.1	9.1	5Y 4/1	olive grey
		9.1	15.2	5GY 4/1	
		15.2	18.3	5Y 2/1	
		18.3	24.4	N 2	greyish black
		24.4	27.4	5Y 2/1	
		27.4	30.5		sample missing
		30.5	33.5	5G 2/1	
		33.5	36.6		sample missing
		36.6	42.7	5G 2/1	
		42.7	45.7	5Y 2/1	
	45.7		End of Hole		
10	vertical	0	6.1		overburden
		6.1	12.2	10 YR 2/2	dusky yellowish brown
		12.2	21.3	5Y 4/1	olive grey
		21.3	27.4	5Y 2/1	olive black
		27.4	30.5		sample missing
		30.5	70.1	5Y 2/1	olive black
		70.1	79.3	5GY 4/1	dark greenish grey
		79.3	82.3	5G 2/1	greenish black
		82.3	85.3	5Y 2/1	olive black
			85.3		End of Hole

BRITISH COLUMBIA

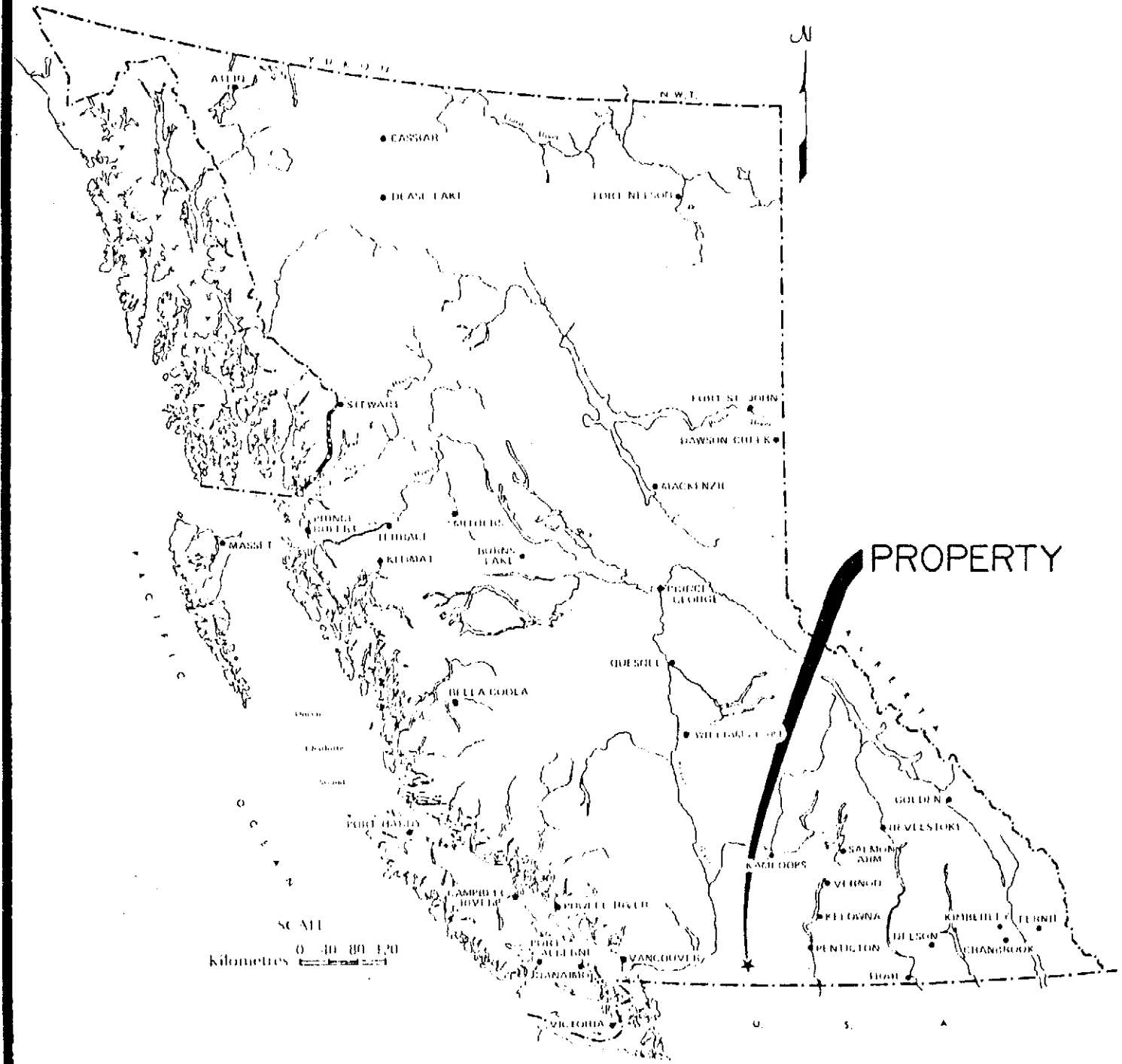
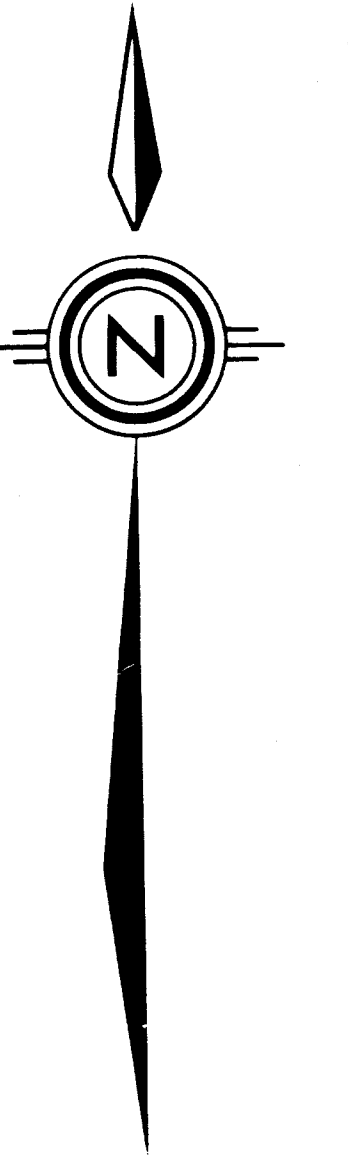
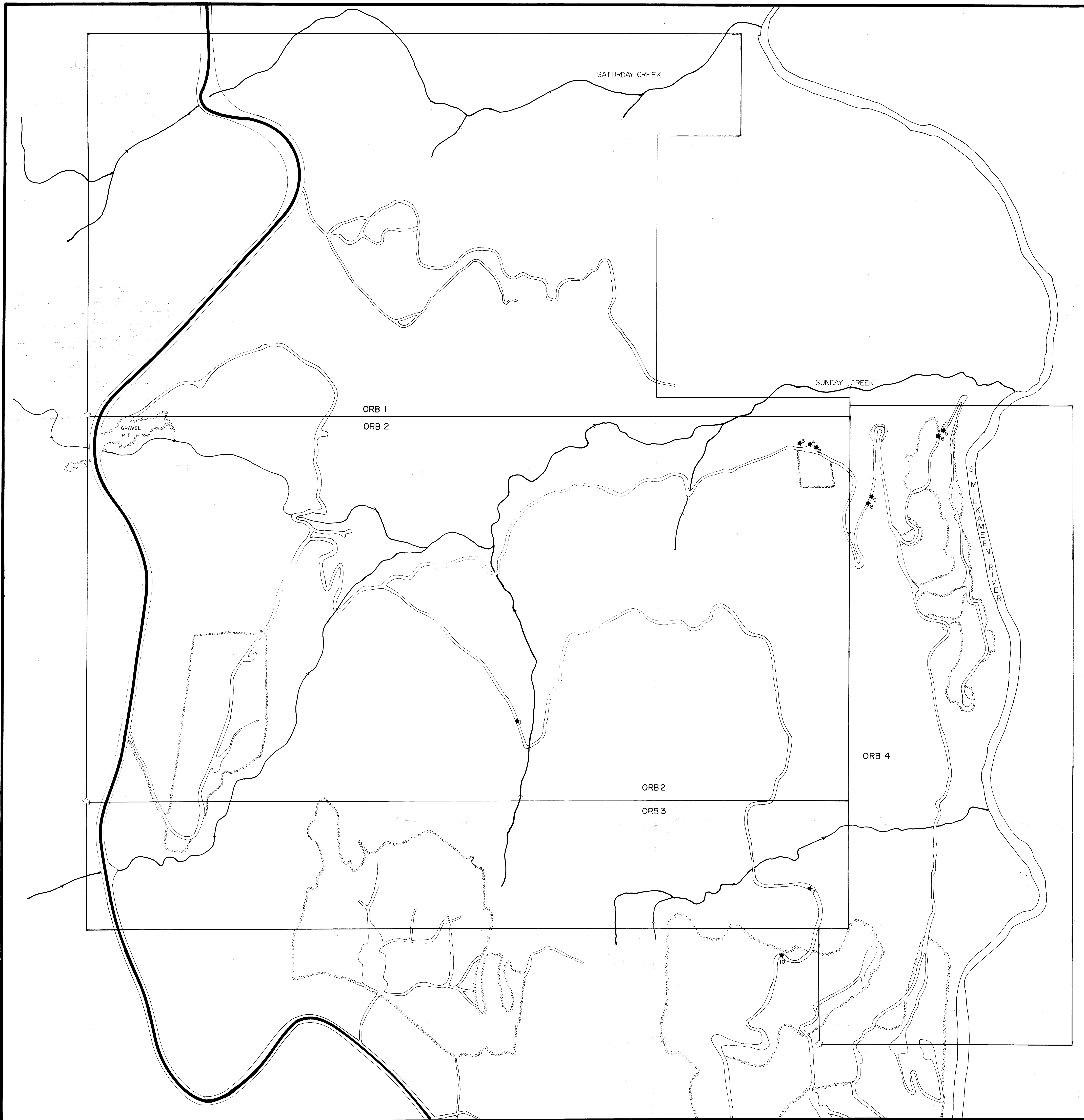


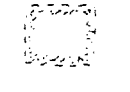

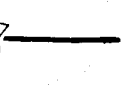



FIG. 1



LEGEND

-  HIGHWAY 3
-  STREAM
-  LOGGED AREA
-  LOGGING ROAD
-  LCP & CLAIM LINE
-  PERCUSSION DRILL SITE

MAP FROM AIRPHOTOS BC 79030-105 to 107

part 1
of 3

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
10,068

EMERALD STAR MINING
EXPLORATIONS LTD.

PERCUSSION DRILLING, 1981

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

DRAWN: DEW DEC: /81 FIG: 2

0 100 200
METERS