$82-613-\# 10663$.
Part $B$,

REPORT ON
PERCUSSION DRILLING
ON
ORB \#1 - 5, \& 7 MINERAL CLAIMS
SUNDAY CREEK AREA
SIMILKAMEEN MINING DIVISION, BC.

$$
\text { N.T.S. } 92 \mathrm{H} / 7 \text { AND } 92 / \mathrm{H} 2
$$

NORTH LATITUDE $\quad 49^{\circ} 15^{\prime} 10^{\prime \prime}$
WEST LONGITUDE $120^{\circ} 34^{\prime} 20^{\prime \prime}$

FOR:

EMERALD STAR MINING EXPLORATION LTD.
432 - 8th Street,
New Westminster, British Columbia

BY:
G. C. SINGHAI, PEng.

March 7, 1983.
CONTENTS Page No.
SUMMARY ..... (i)
INTRODUCTION ..... 1
PROPERTY AND OWNERSHIP ..... 2
LOCATION AND ACCES'S ..... 2
TOPOGRAPHY, VEGETATION AND CLIMATE ..... 3
PROGRAMME ..... 4
GEOLOGY ..... 4
DRILLING OF 1982 ..... 6
CONCLUSIONS ..... 8
CERTIFICATION ..... 9
APPENDIX "A" Invoices for Cost of Programme
I Drill Hole Logs
II Certification of Chemex Labs Ltd.
MAPS: 1. Location Map
2. Claim Map
3. Location of Drill Holes

## S U M M A R Y

The 84 mineral claim (units) of Emerald Star Mining Explorations Ltd. are located about 20 air kilometers south of Princeton in the Sunday Creek Area, Similkameen Mining Division, British Columbia.

During the period of July 12 - 14 and August 2 - 1l, 1982, a four percussion drill hole programme, totalling 236.28 meters, was completed. These holes were located on the basis of airborne geophysical survey conducted by Glen E. I. White Geophysical Services Itd. of Richmond, B.C., during 1982. This drilling was not very encouraging and was inconclusive.

The area is underlain by a sequence of Nicola Group or. rocks of Triassic age, and overlain by Princeton Formations of Eocene Age. The Nicola Group is intruded by the Copper Mountain intrusives of possibly Jurassic Age. The Nicola Group on the east is brought in contact with the younger Princeton Formation on the west by the NorthSouth trending "Boundary Fault".

The Ingerbelle producing mine and Copper Mountain copper is hosted by the Nicola Group of rocks; therefore further exploration work should be undertaken.

# REPORT ON <br> ORB \#I-5 AND 7 MINERAL CLAIMS <br> SUNDAY CREEK AREA <br> SIMIIKAMEEN MINING DIVISION, B.C. <br> FOR <br> EMERALD STAR MINING EXPLORATION LTD. 

## INTRODUCTION

This report is on six staked mineral claims located about 20 kilometers south of Princeton, covering Sunday Creek between Highway \#3 and the Similkameen River, in the Similkameen Mining Division, B.C. It is prepared at the request of Mr. Norris Proskin, the President of Emerald Star Mining Exploration Ltd., 432 - 8th Street, New Westminster, B.C.

This report discusses the percussion drilling results which was carried out during the period of July 12 - 14, and August $2-11,1982$, under the supervision of the author. The above drilling programme was to test the result of Magnetometer, Electromagnetometer survey, and Airborne VLF-EM and Magnetometer survey anomalies. This percussion drilling programme was completed by L. P. Spence Percussion Drilling Ltd., of 404-850 West Hastings Street,

Vancouver, B.C. It consists of four drill holes totalling 236.28 meters by Emerald Star Mining Explorations Ltd.

## PROPERTY AND OWNERSHIP

The property consists of six mineral claims, staked in accordance with the modified grid system of British Columbia. The details of these mineral claims are as follows: -


The mineral claims are owned by Emerald Star Mining Exploration Ltd.

LOCATION AND ACCESS: -

The property is situated approximately 20 air kilometers south of Princeton in the Sunday Creek Area, in the Similkameen Mining Division of British Columbia. The
property is centered approximately $49^{\circ} 15^{\prime} 10^{\prime \prime}$ North Latitude and $120^{\circ} 34^{\prime} 20^{\prime \prime}$ West Longitude.

The property is accessible by about 25 kilometers of Highway \#3, from Princeton to Sunday Summit which passes through the western part of the property, and thence by old logging and forestry road to Sunday Creek. Supplies are available from the town of Princeton.

TOPOGRAPHY, VEGETATION AND CLIMATE: -

The area is lcaoted on the northeast of Friday Mountain and in the valley of Sunday Creek. It is a transitional zone between the Interior Plateau to the north and the Cascade Mountains of Washington State. The elevation on the property varies from 1340 meters to a low of about 850 meters above sea level. The general slope of the area is gentle.

The claim area is covered by trees of commercial value and can be used for mining purposes. The climate of the area is moderate for the greater part of the year. It is typical coastal climate. It rains during summer months and has a heavy snowfall in the winter months. The temperature falls below zero occasionally.

The area is drained by Sunday Creek and Saturday Creek which are the tributaries of the Similkameen River. These creeks can supply all water required for exploration and mining. The exploration can be carried out throughout the year.

## PROGRAMME:

During the period of July 12 - 14 and August 2 - 11 , 1982, the following work was completed:

1. The company located and prepared four drill hole sites.
2. Four percussion drill holes have been completed totalling 236.28 meters.
3. The cuttings of rocks have been collected at intervals of every 3.3 meters, and test cuttings were logged, and mineralized sections were presented to Chemex Labs Ltd., 242 Brooksbank Avenue, North Vancouver, for analysis of Gold, Silver, and Copper.

GEOLOGY: -

The regional geology of the Copper Mountain area was mapped by V. A. Preto, the Geologist of British Columbia

Department of Mines and Petroleum Resources, during the period of 1968 - 69, to accompany Bulletin \#59 which was published in 1972. The study of this map indicates that the area is underlain by a sequence of volcanic Wolf Creek Formation of Nicola Group of Upper Triassic Age. These formations are overlain by volcanogenic rocks of Princeton Group of Middle Eocene Age. The Nicola Group of Rocks are intruded by the Copper Mountain Intrusive of Upper Triassic Age.

The Wolf Creek Formation of Nicola Group consists of Triassic basaltic Volcanics interbedded with varicoloured pyroclastic and sedimentary rocks. These formations are intruded by the Upper Triassic or Lower Jurassic Copper Mountain Intrusive which consist of diorite and latite porphyry dykes.

The Lower Volcanic Formation of Princeton Group of Middle Eocene consists of varicoloured andesitic and basaltic flows which are occasionally brecciated and tuffs.

The area is affected by the "Boundary Fault" trending North-South across the property, and brings the Nicola Group on the East in contact with Princeton Group of rocks on the West.

The Nicola Group of rocks are the main host rocks for the mineralzation of copper in the Copper Mountain area, and the Ingerbelle open pit mine of New Mont Mines Ltd., which are located about 2 kilometers and 10 kilometers north of the area, respectively.

## DRILLING OF 1982: -

The Company initiated a programe of percussion drilling and completed four drill holes totalling 236.28 meters during the period of July 12 - 14 , and August 2 - 11, 1982, in order to provide stratigraphic and lithological information. The drill sites were chosen by the Company. The author collected rock cutting at intervals of every 10 feet, and logged the cuttings. They were then submitted to Chemex Labs Ltd. where they were assayed for Gold, Silver and Copper.

The locations of these drill holes are marked on Map \#3. For details of the logs see Appendix \#l. The details of these holes are as follows.

ORB \# 1 - 82
It is a vertical hole drilled to the total depth of 70.12 meters ( 230.0 feet). It encountered 12.19 meters ( 40.0 feet) of overburden. It also intersected
some mineralized zones with minor chalcopyrite and pyrite, particularly close to the contact with granodiorite dykes. This holes is not assayed. For details see Log.

ORB \# 2-82
It is a vertical hole drilled to the total depth of 31.46 meters and encountered 9.15 meters of overburden. It had intersected sediments except andesitic dyke at 70.12 - 82.31 meters. This hole was assayed. Values are very good. See Appendix \#2.

ORB \# 3-82
This hole is drilled at $-73^{\circ}$ due $\mathrm{s} 80^{\circ} \mathrm{W}$ for the total depth of 25.91 meters. It intersected 3.04 meters of overburden and therest of ir was in andesite. It has been assayed but the values are very low. See Appendix \#2. This hole encountered a fault and lost circulation, and was therefore discontinued.

ORB \# 4-82
It is drilled to the total depth of 48.78 meters vertically. This hole could not get out of the overburden to the total depth and was therefore discontinued.

The above drilling programme is not very encouraging and is inconclusive. The drill holes were located on the basis of airborne VLF-EM and Magnetometer Survey which has outlined only geological contacts. However the property is located in a favourable geological environment and structure. The Copper and Gold producing Ingerbelle property and Copper Mountain property are located in similar type of Nicola Group Volcanic and sedimentary rocks of Triassic Age. Therefore some ground I.P. Survey should be carried out and the anomalous zones, if any, should be tested by trenching and diamond drilling.

Respectfully submitted:

DATED AT:
901-675 W. Hastings St. r)
Vancouver, B.C.
March 7, 1983


I, Gyan Chand Singhai of 5620 Clearwater Drive, Richmond, B.C. do hereby certify that:
(1) I am a member of the Association of Professional Engineers of British Columbia since 1969, and member of the Canadian Institute of Mining and Metallurgy.
(2) I am a post-graduate in Applied Geology (1959) from the University of Saugor, Sagar, Madhya Pradesh, India, and have been practising my profession since that time.
(3) I was teaching in the University of Saugor, Sagar, and Ravishankar University, Raipur, India, and practised my profession in India, Canada, West Indies, Mexico and Peru.
(4) This report is based as a result of personal examination of property on
and the information and data provided by Emerald Star Mining Exploration Ltd.
(5) I have no interst either directly or indirectly in the property herein, nor in any other properties, nor in in the securities of Emerald Star Mining Exploration Ltd.
(6) This report may be used for the purposes of a prospectus, if so desired.

DATED AT
901 - 675 W. Hastings St. .
Vancouver, B.C.
March 7, 1983


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$$
\mathrm{COST}
$$

Please see Appendix "A"

APPENDIX "A"

?

## Singhai Engineering

## INTERNATIONAL LTD.

 RICHMOND. BIC. 277-5117August 31, 1982

Statement to account

Attn: Dr. Norris Proskin
EMERALD STAR MINING EXPLORATIONS LTD.
432-8th Street
New Westminster, B.C.
VIM 3R7
In account with: Singhai Engineering International Ltd. Mr. G.C. Singhai, P.Eng.
're.

## DESCRIPTION

AMOUNT

1. G.C. Singhai wages to 11 days @ $\$ 350.00 /$ day
(July 12,13,14, Aug. 2,5,6,7,8,9,10, and 11).........\$ 3,850.00
2. Gas charges:
( $\$ 26.47+22.39+27.00+17.10+24.60+30.00+4.50=\$ 152.06$ ). $\$ 152.06$
3. Mileage: 700 miles ( 2 trips to Princeton at 350 miles per return trip) @ 25\$/mile................................... 175.00
4. Assaying charges................................................... 456.50

TOTAL BALANCE DUE
\$ 7 4,633.56 T


Thank You:
Singhai Engineering International Ltd.

Lei. Sivajhace

GCS/rs

## L. P, SPENCE PERCUSSION DRILLING LTD. 404 - 850 WEST HASTINGS STREET, VANCOUVER, B.C. V6C IEl

February 4, 1983

## INVOICE

EMERALD STAR MINING EXPLORATION LTD. 432 - 8TH STREET NORTH WEST VANCOUVER, B.C.

HOLE NO. TOTAL DEPTH OF HOLE

230 FT.
300 FT.
90 FT.
P.H. 3
P.H. 4

170 FT.
TOTAL FOOTAGE
790 FT. @
$\$ 6.00$ PER FT.
$=\$ 4,740.00$

TUTAL AMOUNT DUE UPON RECEIPT
$\$ 4,740.00$

[×.EITIONS. PRICES. AODITIONS CHECKED:
r:JRCHASE ORDER $\#$ :
DATE OF RECEIPT OF GOODS OR SERVICES:
RECEIVED BY: $\qquad$
AUTHORIZED FOR PAYMENT:
CHEQUE NUMBER:
DATE PiD $\qquad$

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EMERALD STAR MINING EXPLORATION LTD.

ROTARY DRILL HOLE NO. ORB \#1-82 ANGLE OF HOLE: VERTICAL TOTAL DEPTH: 230' NAME OF PROPERTY: ORB PRINCETON, B.C. DATE OF DRILLING: JULY 13, 1932 DATE OF LOGGING: AUGUST 2, 1982 LOGGED BY: G. C. SINGHAI

| FROM | TO | DESCRI P T I ON ORB \#l-82 |
| :--- | :--- | :--- |


| FROM | TO | DESCRIPTION ORB \#1-82 |
| :---: | :---: | :---: |
| 110 | 120 | Granite Dyke as above, but Volcanic is about $10 \%$. pyrite with quartz and my be chalcopyrite. |
| 120 | 130 | Volcanic Dark grey, fine-grained about $70 \%$ volcanic material and $30 \%$ Granitic material. Lower contact pyrite. |
| 130 | 140 | Volcanic Dark grey, fine-grained, $10 \%$ quartz with some pyrite, calcite. |
| 140 | 150 | Volcanic Dark grey as above with rosy colour quartz, calcite and pyrite, maybe some chalcopyrite. |
| 150 | 160 | Volcanic As above, with pyrite, epidote and calcite. |
| 160 | 170 | Contact of Dyke light grey, fine-grained, 40\% Granitic material, $60 \%$ Valcanic material. minor pyrite, minor epidote. |
| 170 | 180 | Granitic Dyke light grey, dyke Granitic. Quartz, calcite feldspar, and some pyrite. $30 \%$ volcanic material. |
| 180 | 190 | Lower Contact Grey, fine-grained. 50\% Granitic and 50\% Volcanic material, with quartz, calcite, feldspar and pyrite. |
| 190 | 200 | Volcanic Dark grey, granitic material 30\%, Volcanic material $70 \%$, quartz and calcite. Pyrite with quartz and volcanic rocks. |
| 200 | 210 | Volcanic as above. Dark grey, occasionally rusty quartz, pyrite. |
| 210 | 220 | Volcanic as aobve. minor pyrite. |
| 220 | 230 | Volcanic as above. Quartz, calcite and good pyrite. |

August 2, 1982


## EMERALD STAR MINING EXPLORATION LTD.

ROTARY DRILL HOLE NO. ORB \#2-82 ANGLE OF HOLE: VERTICAL BEARING:
TOTAL DEPTH OF HOLE: $300^{\prime}$ DATE OF DRILLING: AUGUST 6, 1982
DATE OF LOGGING: AUGUST 11, 1982 LOGGED BY: G. C. SINGHAI

| FROM | TO | D E S C R I P T I ON ORB \#2-82 |
| :--- | :--- | :--- | :--- |



AUGUST 11, 1982


## EMERALD STAR MINING EXPLORATION LTD.

ROTARY DRILL HOLE NO. ORB \#3-82 ANGLE OF HOLE: $-73^{\circ}$ TOTAL BEARING: $260^{\circ}$ TOTAL DEPTH: $85^{\prime} \quad$ DATE OF DRILLING: AUGUST 7, 1982

DATE OF LOGGING: 10 AUGUST, 1982 LOGGED BY: G. C. SINGHAI


AUGUST 10, 1982


## EMERALD STAR MINING EXPLORATION LTD.

ROTARY DRILL HOLE NO. ORB \#4-82 ANGLE OF HOLE: VERTICAL TOTAL DEPTH: $160^{\circ}$
DATE OF DRILLING: Commenced AUGUST 8, 1982, Completed AUGUST 9, 1982
DATE OF LOGGING: AUGUST 10, 1982 LOGGED BY: G. C. SINGHAI


August 10, 1982


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APPENDIX \#2

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# CHEMEX LABS LTD. 

212 BROOKSBANK AVE. NORTH VANCOUVER, B.C. CANADA

V7J 2C1

## CERTIFICATE DF ASSAY

TO: SINGHAI ENGINEERING
\$901-675 WEST HASTINES STREET
VANCOUVER, ठ.C.
V5Y 3E1

CERT. \# : A8212689-001-A
INVOICE \# : I8212689
DATE
25-ALG-82
P.O. $\#$ : NONE



## EMERALD STAR MINING EXPLORATIONS LTD. ORB CLAIMS

SIMILKAMEEN MD., B. C. LOCATION MAP



