

86-1025 - 15692

DIAMOND DRILLING REPORT
FOR
EMERALD STAR MINING EXPLORATIONS LTD.
ON THE
ORB 1 TO 5 AND 7 MINERAL CLAIMS.
SIMILKAMEEN MINING DIVISION

MAP NTS: 92H/7E and 92H/2E

LATITUDE: 49° 15.8' ~~40"~~ North.
LONGITUDE: 120° ~~30' 22"~~ WEST.
32.7'

FILMED

Author: W H THOMPSON. (Consultant - Interex Development Corp.)
Date of work: May 01, 1986 to May 27, 1986.
Date of report: June 02, 1986.

Property Owner: Emerald Star Mining Explorations Ltd.
Operator: Emerald Star Mining Explorations Ltd.



W H Thompson

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

15,692

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(1)

DIAMOND DRILLING REPORT
ON
THE ORB MINERAL CLAIMS

SUNDAY CREEK AREA OF THE SIMILKAMEEN MINING DIVISION.

FOR

EMERALD STAR MINING EXPLORATIONS LTD.

1.0 INTRODUCTION

This report is on the diamond drilling results on the staked Orb mineral claims that include the Orb 1 to 5, and 7, metric claims that make up 84 units 20 kilometers south of Princeton British Columbia. The area covered by the claims is known as the Sunday Creek area. The report was prepared at the request of Mr. Ryun Sinclair, President of Emerald Star Mining Explorations Ltd. Suite 106 - 525 Seymour St., Vancouver, B.C. V6B 3H9.

The report is based on the results of a diamond drilling programme that was conducted during the month of May 1986. The Author was responsible for supervision of the drilling programme and core logging of the drilled holes spotted or located by Emerald Star personnel. The drilling programme was based on recommendations from prospecting done by Emerald Star personnel, who had located sulphide rich surface exposures of volcanic rocks.

2.0 SUMMARY OF THE RESULTS OF THE DRILLING PROGRAMME

The drilling programme resulted in the intersecting of a sequence of layered volcanic andesites and tuffs of the Nicola Group which is Middle Eocene in age. Significant sulphides and carbonate rich zones were observed in the core. The core was assayed for copper silver and gold, but no significant assays other than anomalous copper and silver were obtained.

3.0 PROPERTY AND OWNERSHIP

The property consists of six (6) mineral claims that consist of eighty four (84) units staked in the modified grid system. The list of claims and specific details are as follows:

Name	No. of units	record No.	Expiry date
ORB #1	18	1356	Dec. 22, 1987
ORB #2	18	1357	Dec. 22, 1987
ORB #3	6	1358	Dec. 22, 1987
ORB #4	10	1406	May 19, 1987
ORB #5	20	1563	Sept. 15, 1988
ORB #7	12	1565	Sept. 15, 1988

Total units 84.

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

4.0 LOCATION AND ACCESS

The property is located about 20 km by air south of Princeton in the Similkameen Mining Division. The property lies on and around Sunday Creek and the center of the property is approximately at a Latitude of: 49° 15' 20" North and a Longitude of 120° 34' 20" West.

Access to the property is via Highway 3 about 25 km. South of Princeton B.C. Two wheel drive summer access to the drill locations, is by gravel logging roads that wander across the property.

5.0 TOPOGRAPHY, VEGETATION AND CLIMATE

The elevation of the property is between 850.0 m and 1,340 m and lies between the interior plateau to the North and the Cascade mountains to the South. Summer average rainfall is 197 mm, with an average temperature of 17.8° C. during the hottest month of July. Winter snow fall averages 168 cm with an average temperature of -7.9° C. during the coldest month of January. This provides a climate conducive for the growth of excellent pine and spruce forests on medium to gentle slopes. Sunday Creek runs into the Similkameen River which also passes through the property, either of the water courses would supply adequate water for mining and exploration purposes.

6.0 HISTORY AND PREVIOUS WORK DONE ON THE PROPERTY

Emerald Star Mining Explorations Ltd. is the first company to record significant work in the area of the Orb claims. The area has obviously been gone over several times in staking rushes, when the mines were found in the area. Placer mining in the Similkameen River has been ongoing since the early 1900's for both gold and later platinum. Some of the Orb mineral claims overlap placer claims on the Similkameen River.

Emerald Star Mining Explorations Ltd. Conducted a small survey of stream sediment sampling during the period from 1981 to 1982. During March 1982 Western Geophysical Aero Data Ltd. conducted an airborne survey using VLF - EM and a Magnetometer. No significant VLF anomalies were discovered, but an Induced Polarization survey was recommended over the best magnetic anomalies.

A two phase percussion drilling programme was conducted previous to the 1986 programme. The programme consisted of a total of 882.26 meters of drilling in 14 drill holes. The first phase was conducted during 1981 from February to September, and the second Phase was conducted from July to August in 1982. The intent of the programme was to provide stratigraphic and lithological information in an area covered largely by glacial till.

7.0 THE 1986 DRILLING PROGRAMME

Interex Development Corp. was contracted to supervise the drilling and logging of the core from holes spotted by Emerald Star personnel.

Three NQ diamond drill holes were drilled on the Orb 2-4 boundary (see map 3 enclosed). A total of 500 feet (152.4 meters) was drilled. All the drill holes intersected layered intermediate pyroclastic volcanic rocks. The rocks consisted mainly of andesitic tuffs that were variably sheared, faulted, with graphitic, carbonate, and sulphide rich zones. No commercial quantities of mineralization was observed. A few samples were split and assayed for gold, silver and copper. No commercial values were obtained from the assays.

The alteration of the andesites, specifically the carbonate, and the sulphide alteration was significant, and could be followed up using methods recommended previously by G.C. Singhai M Tech., P.Eng. in his November 1985 report for Emerald Star Mining Explorations Ltd. The follow-up methods would include a ground controlled survey grid with a geochemical and geophysical survey combined with geological mapping.

The diamond drill core is stored at: 432-8th. St. New Westminster, B.C. V3M 3R7.

8.0 GEOLOGY

The regional geology was mapped in by H.M.A. Rice in 1939-44 (map 888A Geological Survey of Canada) and also by V.A. Preto for the B.C. Department of Mines and Petroleum Resources in 1968-69 to accompany Bulletin # 59 (Published in 1972). Both maps indicate that the Orb claims are underlain by Upper Triassic Nicola Group volcanic rocks. Preto further classifies the rocks as the Wolf Creek Formation.

These rocks are intruded by the Triassic Copper Mountain intrusive. The Nicola volcanics are the primary host for many of the local copper deposits such as the Ingerbelle deposit of Newmont Mines Ltd.

8.1 MINERALIZATION

The area hosts several types of sulphide deposits, these include bornite deposits, where the ratio of bornite to chalcopyrite is relatively high, also chalcoprite-hematite, and chalcoprite-pyrite deposits.

The drilling on the Orb claims intersected pyrrhotite and pyrite mineralization that often occurred with carbonate, and graphitic alteration. No thin sections or specific rock analysis was done to better identify the fine grained andesitic rocks and the other accompanying alteration.

8.2 SAMPLING AND ASSAY RESULTS

Only a few more promising sections of the core were split and assayed for copper, gold and silver. One sample was analysed for platinum and chromium. The analyses were done by two labs using standard fire assay, and rock geochemical procedures. The labs that did the analyses were: (1) Kamloops Research and Assay Laboratory Ltd. of Kamloops B.C. and (2) Chemex Labs Ltd. of Vancouver B.C.

All the core should be split and analysed, so far the best results obtained were 135ppm Cu, and 0.2ppm Ag. No significant gold was discovered.

9.0 CONCLUSIONS AND RECOMMENDATIONS

Significant but uneconomic sulphide and carbonate mineralization has been located on surface and in drill holes. An airborne survey, some ground geophysics and ground geochemistry, combined with a percussion drilling programme that provided stratigraphic and lithological information was done prior to the 1986 programme. The 1986 programme, consisted of diamond drilling that was recommended by Emerald Star personnel on the basis of prospecting, rather than follow-up, as recommended by Singhai in his report dated November 07, 1985. The report was titled: "Report On The Orb # 1-5, & 7 Mineral Claims". If Emerald Star Mining Explorations Ltd. intends to continue working on the Orb Claims then it is recommended that the follow-up programme that Mr. Singhai recommended is in order. Some small changes could be considered, these would be in the order of data accumulated. Compass lines would initially be utilised to conduct the geochemical surveys combined with a magnetometer survey and mapping. The results of this accumulated data would then be analysed before an I.P. survey is conducted on cut picket lines, in selective areas.

The follow-up programme would be done in three phases each phase depending on the preceding phase. The recommendations are as follows:

10.0 REVISED RECOMMENDATIONS FORM SINGHAI REPORT.

Phase I.

(1) North south cut and picketed, base lines would be used for ground control over areas of magnetic low anomalies. Compass grid lines would be established perpendicular to the base line at 60 meter intervals, with stations marked every 30 meters.

(2) The gridded areas would be covered by a soil survey, and a magnetometer survey. The soil samples would be analysed by soil geochemical methods for copper, gold and silver.

(3) The whole area should be mapped and prospected.

Phase II.

(1) Geochemical and geophysical anomalies would be re-prospected, with some additional closer spaced sampling on the anomalies.

(2) Cut out good picket lines over the anomalous geochemical and magnetic areas, and conduct I.P. surveys over these areas.

Phase III.


(1) Trench anomalous areas where overburden is not a significant factor. Sample and map the trenches.

(2) Drill the best anomalies.

Dated at:
1003-470 Granville St.
Vancouver B.C.
V6C 1V5

Ph:(604)688-4155.
June 02, 1986.

Respectfully submitted:



W.H. Thompson.

11.0 ESTIMATED COST

PHASE I

1. Mobilization/Demobilization	\$ 1000.00
2. Picketed base line and compass grid lines 15 km at \$120.00/km = \$ 1800.00	\$ 1800.00
3. Soil survey. Two persons at 300/day X 10 days	\$ 3000.00
Assay costs 500 X \$ 10.00	\$ 5000.00
Shipping, packing, sample bags, etc.	\$ 400.00
Boarding and lodging	\$ 1000.00
Transportation	\$ 40.00
4. Magnetometer survey \$ 200.00/Km	\$ 3000.00
5. Mapping and project management 30 days all-up costs	\$13200.00
PHASE I TOTAL COSTS-----	\$28440.00

PHASE II

1. Geochemical sampling follow-up, and prospecting	\$ 5000.00
2. Five Km of picket lines over the best anomalies	\$ 1000.00
3. Five Km of I.P. survey at \$ 580.00/Km	\$ 2900.00
PHASE II TOTAL COSTS-----	\$ 8900.00

PHASE III

1. Trenching	\$ 8000.00
2. Diamond drilling. 800 feet (243 m) at \$20/foot	\$16000.00
Supervision of drilling, trenching and sampling	\$ 8000.00
Splitting core and assaying	\$ 4000.00
Final data compilation and reports	\$ 3000.00

PHASE III TOTAL COSTS----- \$39000.00

TOTAL COSTS OF PHASE I, PHASE II AND PHASE III	\$75,440.00
PLUS 10% CONTINGENCY	\$ 7,540.00

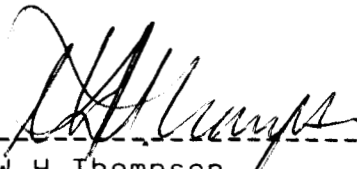
TOTAL	\$82,980.00

CERTIFICATION

I, WILLIAM H THOMPSON of # 1003-470 Granville St, Vancouver, B.C. Canada. V6C 1V5. Telephone (604) 688-4155, do certify that:

- (1) I am an Associate Member of the Geological Association of Canada.
- (2) I attended the Universities of Victoria and Saskatchewan and studied Geology.
- (3) I have been employed both on a full time basis, and as a geological consultant throughout Canada and the U.S.A. by Mining and exploration companies such as DeKalb Mining Corporation, Essex Mineral Corp. (U.S. Steel), American Smelting and Refining Co. (ASARCO), and Dumbarton Mines Ltd.
- (4) This report is based on the personal examination of the property, and the supervision of the diamond drilling program that was conducted during the month of May, 1986 from the period May 15 to May 27, 1986.
- (5) I have no interest, either directly or indirectly in the property herein, nor any securities of Emerald Star Mining Explorations Ltd.

Dated at 1003-470 Granville St., Vancouver, B.C. Canada. V6C 1V5
June 02, 1986.



W H Thompson.

Costs incurred.

Drilling.	14639.75
Support.	3509.75
Chemex Labs,	566.50
Kamboops Research & Assay	57.00
	18 773.00

REK .

Bibliography

1. Glen E. White, E. Trent Pezzot. March 26, 1982.
Airborne VLF-EM & Magnetometer VLF-EM & Magnetometer Survey
Orb, Orb 1-5, Orb 7 Claims.
2. G.C. Singhai. November 7, 1985.
Report on Orb # 1-5, & 7 Mineral Claims. Sunday Creek area.
3. M.C. Hanson. 1983.
Report on Very Low Frequency Electromagnetic Surveys on the Orb
group of Mineral claims.
4. V.A. Petro. 1979.
Geology of the Nicola Group Between Merrit and Princeton, B.C.
B.C. Min. of Energy Mines and Petroleum Resources, Bul. No. 69.
5. V.A. Petro
Geology of Copper Mountain. B.C. Min. of Energy Mines and Petroleum
Res., Bul. No. 59.

(11)

APPENDIX I.

DRILL HOLE LOGS AND CROSS-SECTIONS OF 1986.

Diamond Drill Record

INTEREX DEVELOPMENT CORP.

#1003 - 470 Granville Street
Vancouver, British Columbia
Canada V6C 1V5
(604) 688-4155

Hole No. Rainbow-2 second page

Property _____

Project No. _____

Commenced _____

Completed _____

Length (1 ft = 0.305 m)

Bearing _____

Dip _____

Lat. _____

Dep. _____

Elev. _____

Hor. Comp. _____

Ver. Comp. _____

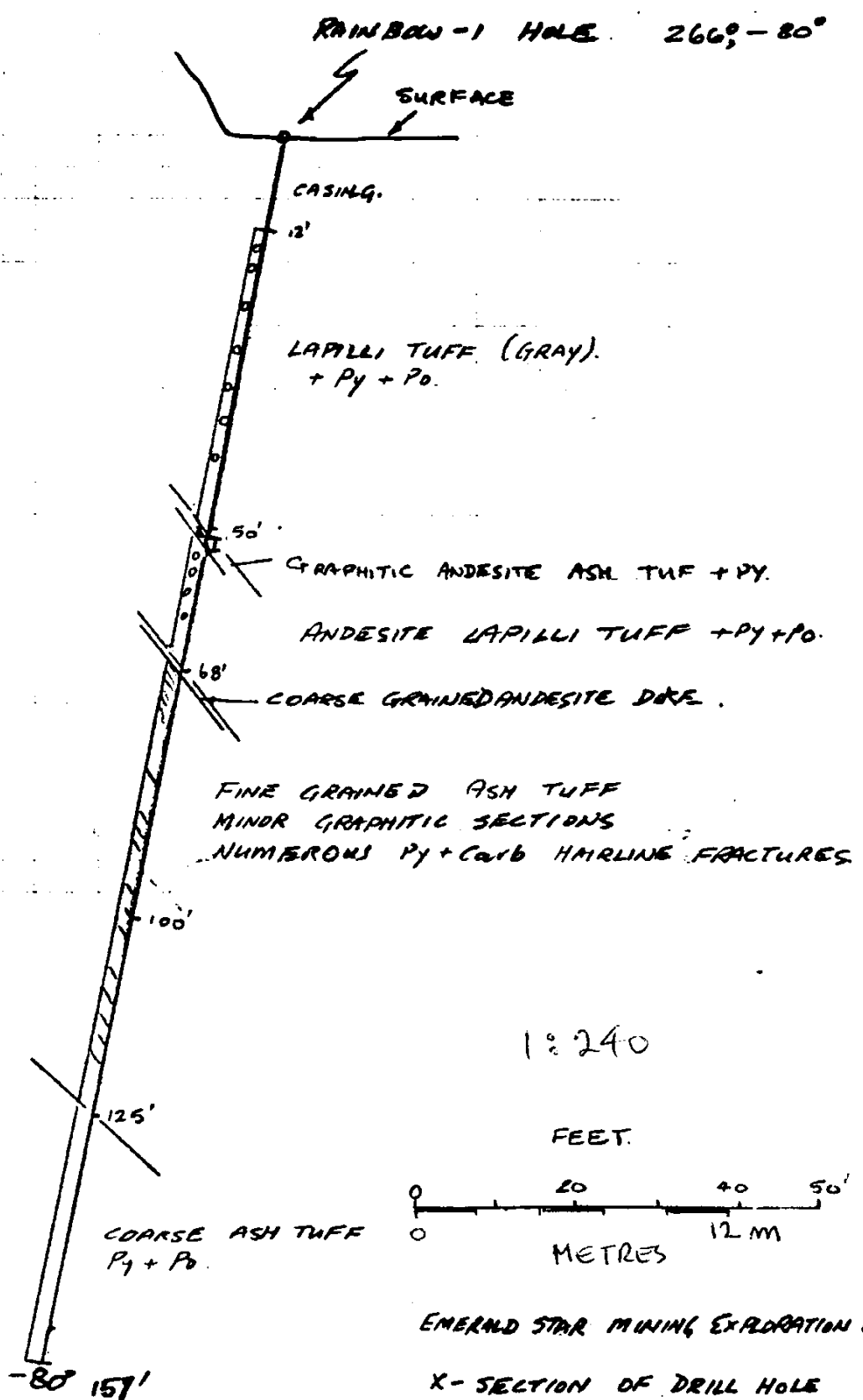
Eich. al _____

True Dip _____

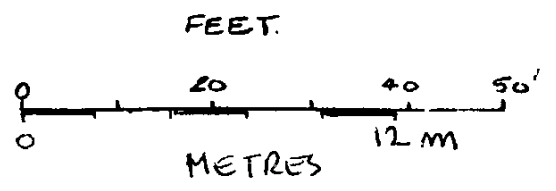
Logged by _____

Date Logged _____

Elev.	From	To	Description	Assay No.	Assay Length	Analysis			
						Au %/ton	Ag %/ton		
			veins of carbonate. The veins & shears are often pyrite & pyrrhotite filled, also disseminated po. throughout core. Contact 70° CA (top). Lower contact 70° CA.		18'-21.5'	<0.003	0.6		
36.0	50.5		Andesite-section of finer grained gray ash tuff lower contact 50° CA. minor graphitic bands to 2". 45'-46.5' fracture zone limonitic fractures.						
50.5	81.0		Andesite-mottled largely massive fine grained gray material. Occasional indications of banding at 73' at 20° CA. Occasional evidence of brecciation. There are also random hairline carbonate/py stringers. The core has disseminated pyrite & pyrrhotite throughout.		63'-68'	<0.003	0.24		
81.0	84.0		Andesite-Hornblende porphyritic grey dike minor sulphides. Upper contact at 50° CA with 1/16" carbonate vein. Hornblende						



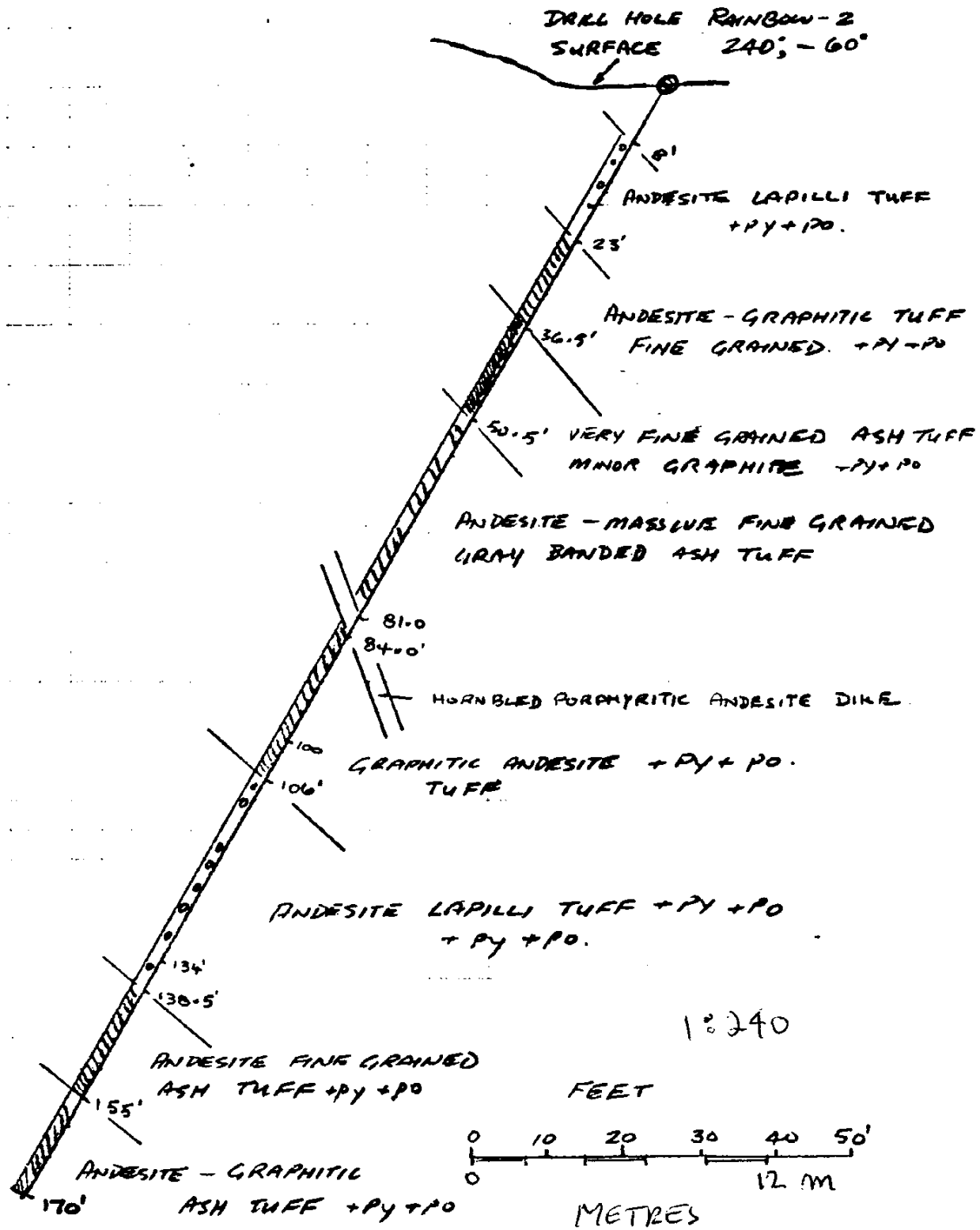
1:240



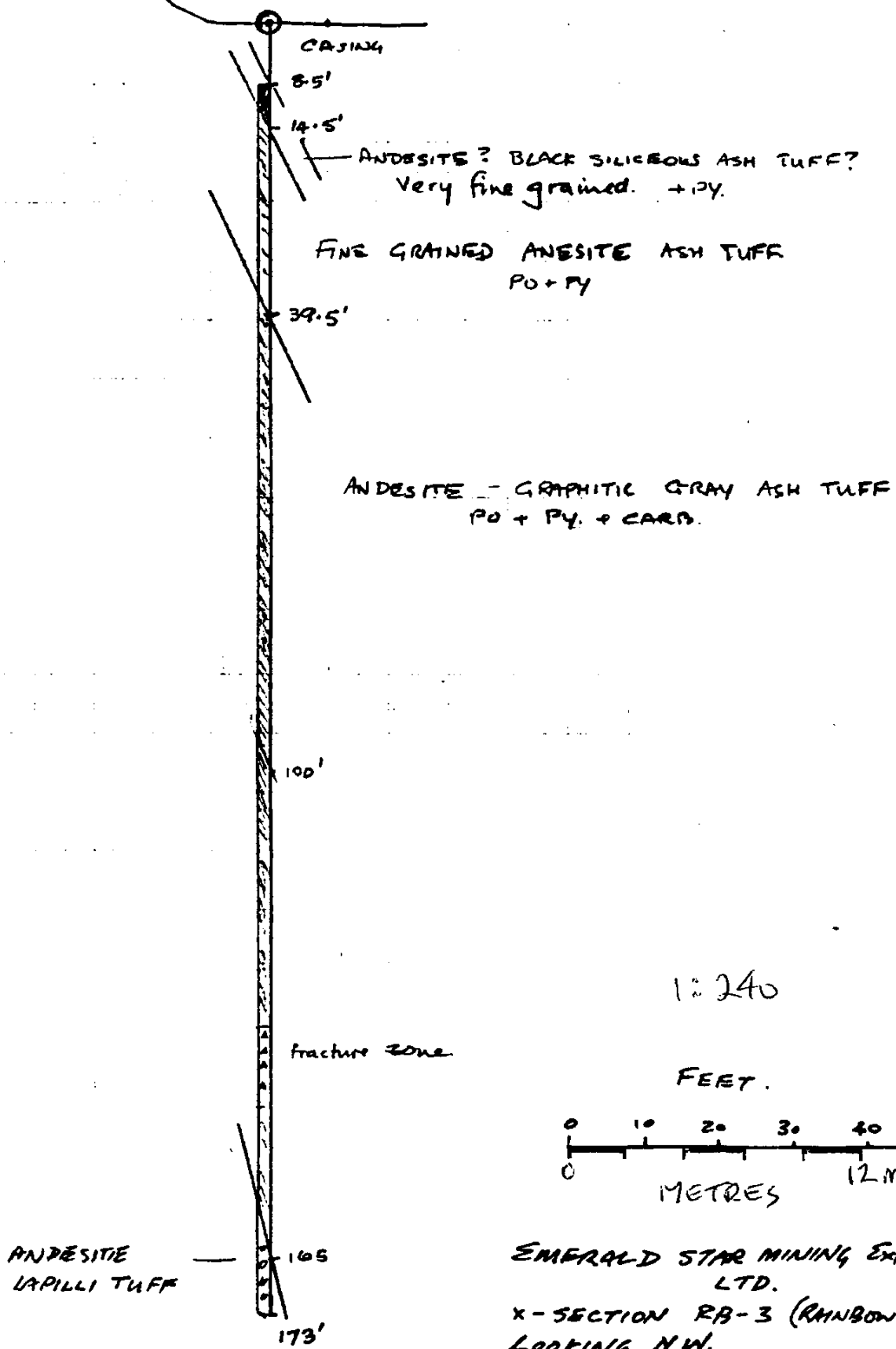
EMERALD STAR MINING EXPLORATION LTD.

X-SECTION OF DRILL HOLE
RB-1 (RAINBOW-1).
LOOKING NORTH.

DRAWN BY: W THOMPSON JUNE 2 1986.

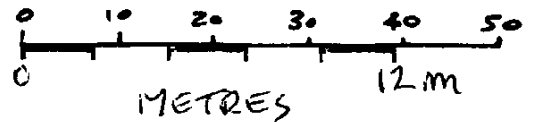


SURFACE
 ↙ RAINBOW-3 DRILL HOLE. -90° 173'



1:240

FEEET.



EMERALD STAR MINING EXPLORATION LTD.
 X-SECTION RB-3 (RAINBOW-3)
 LOOKING NW.


DRAWN BY: W. THOMPSON.
 JUNE 1986.

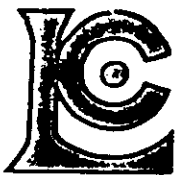
APPENDIX II

CERTIFICATES OF ASSAY FROM CHEMEX LABS

AND

KAMLOOPS RESEARCH AND ASSAY LABS LTD.

Location of 2 samples identified in
report; 15 other assay results not
identified - added to file. 



Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers

212 Brooksbank Ave.
North Vancouver, B.C.
Canada V7J 2C1

Phone: (604) 984-0221
Telex: 043-52597

CERTIFICATE OF ASSAY

TO : EMERALD STAR MINING EXPLORATION LTD.

106 - 525 SEYMOUR ST.
VANCOUVER, BC
V6B 3H9

** CERT. # : A8613234-001-A
INVOICE # : I8613234
DATE : 9-JUN-86
P.O. # : NONE

ATTN: R. SINCLAIRE CC: INTEREX

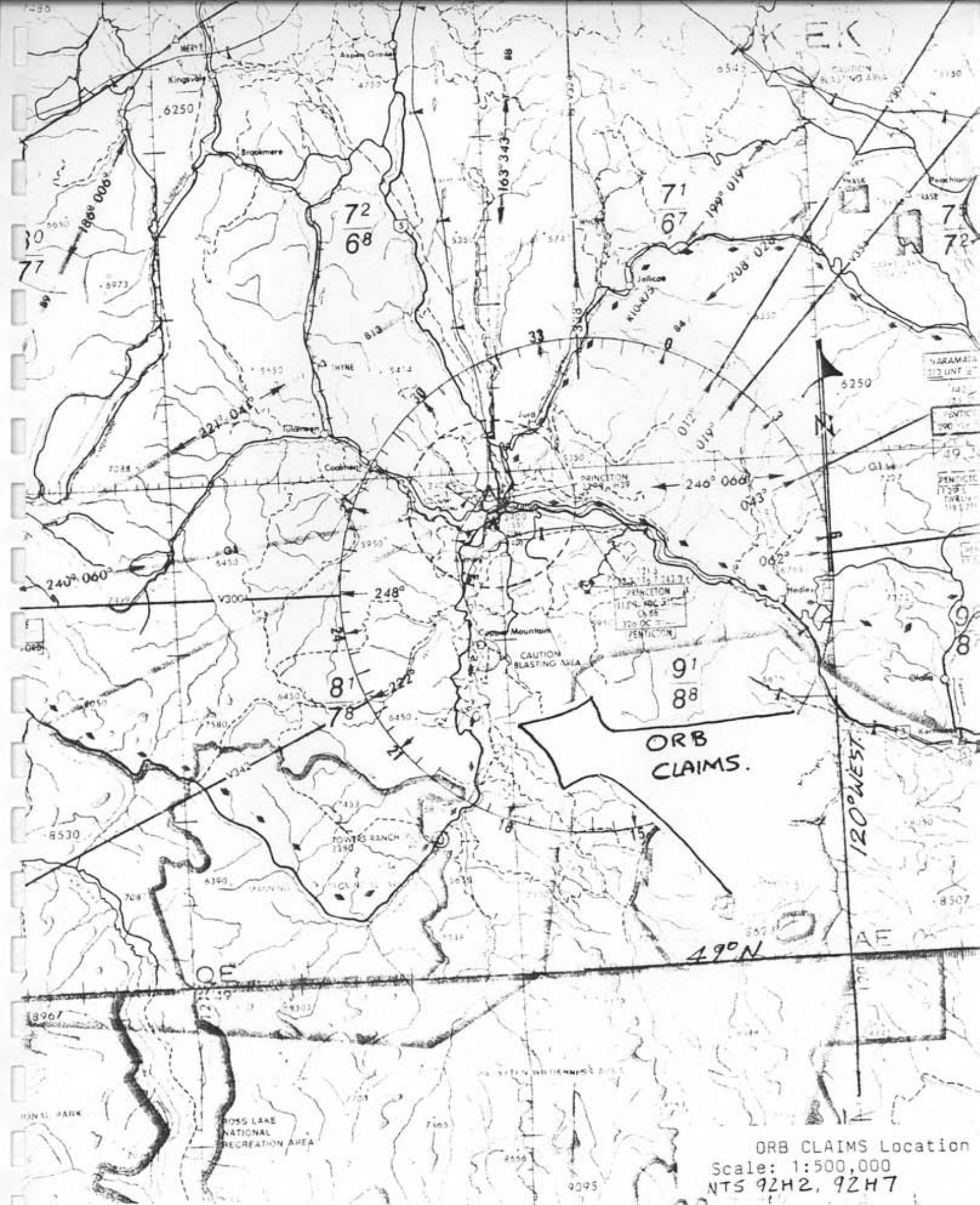
Sample description	Prep code	Ag FA oz/T	Au FA oz/T				
RB-2 18-21-5	207	0.60	<0.003	--	--	--	--
RB-2 63-68	207	0.24	<0.003	--	--	--	--

VOI rev 4/85

.....
Registered Assayer, Province of British Columbia

MAPS

1. LOCATION MAP
2. CLAIM MAP OF THE ORB 1-5 & 7 MINERAL CLAIMS
3. LOCATIONS OF DRILL HOLES DRILLED IN 1986



ORB CLAIMS.

120° WEST

49° N

ORB CLAIMS Location
 Scale: 1:500,000
 NTS 92H2, 92H7

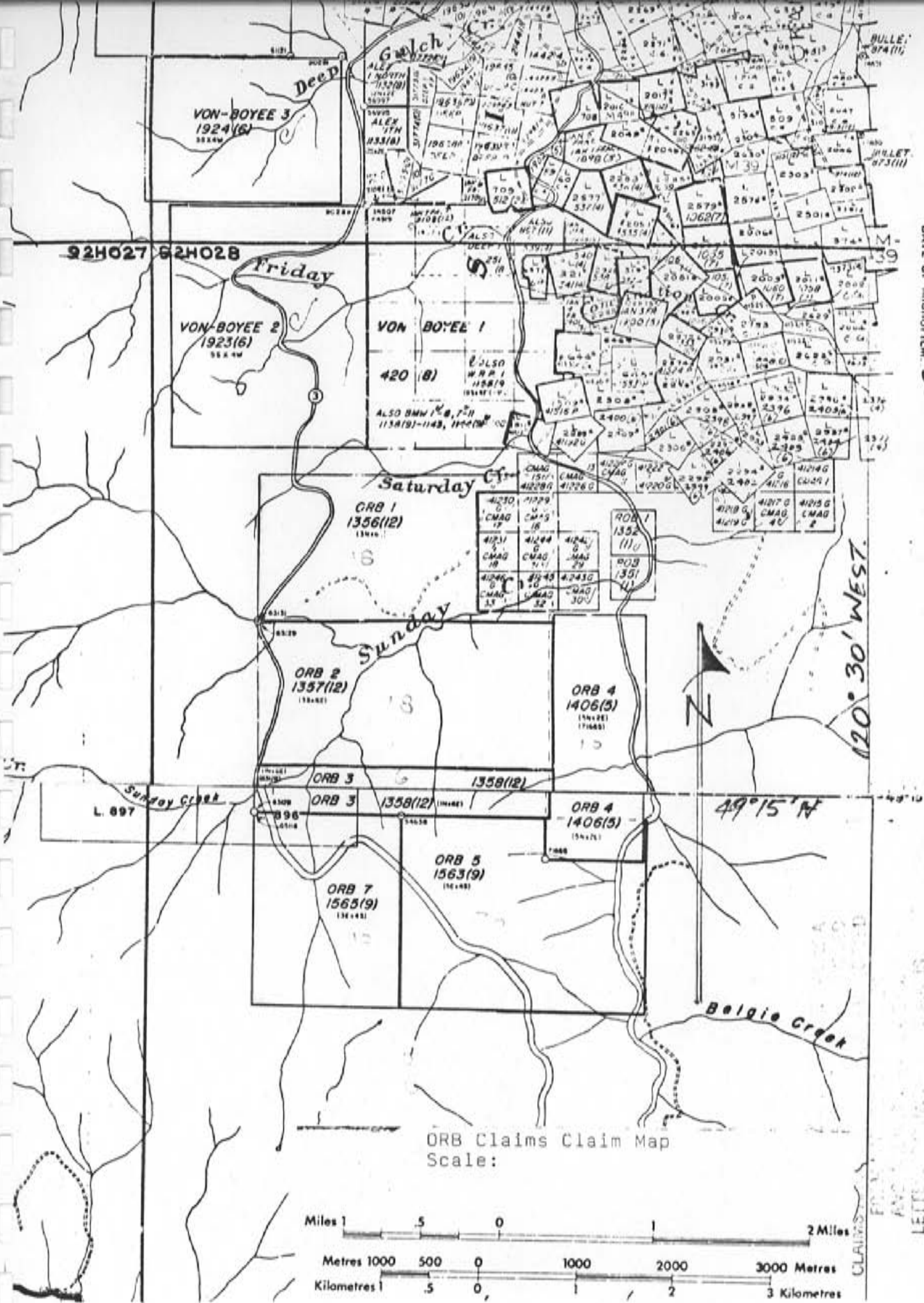
1 2 Miles
 2000 3000 Metres
 2 3 Kilometres

UNLESS VERIFIED OR SURVEYED, THE MAP POSITION OF A LEGAL CORNER POST IS BASED ON THE LOCATOR'S SKETCH FOR FURTHER INFORMATION, APPLY TO THE OFFICE OF THE MINING DIVISION CONCERNED.

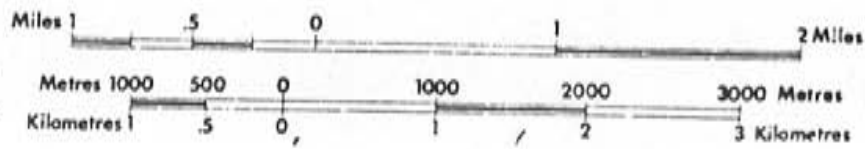
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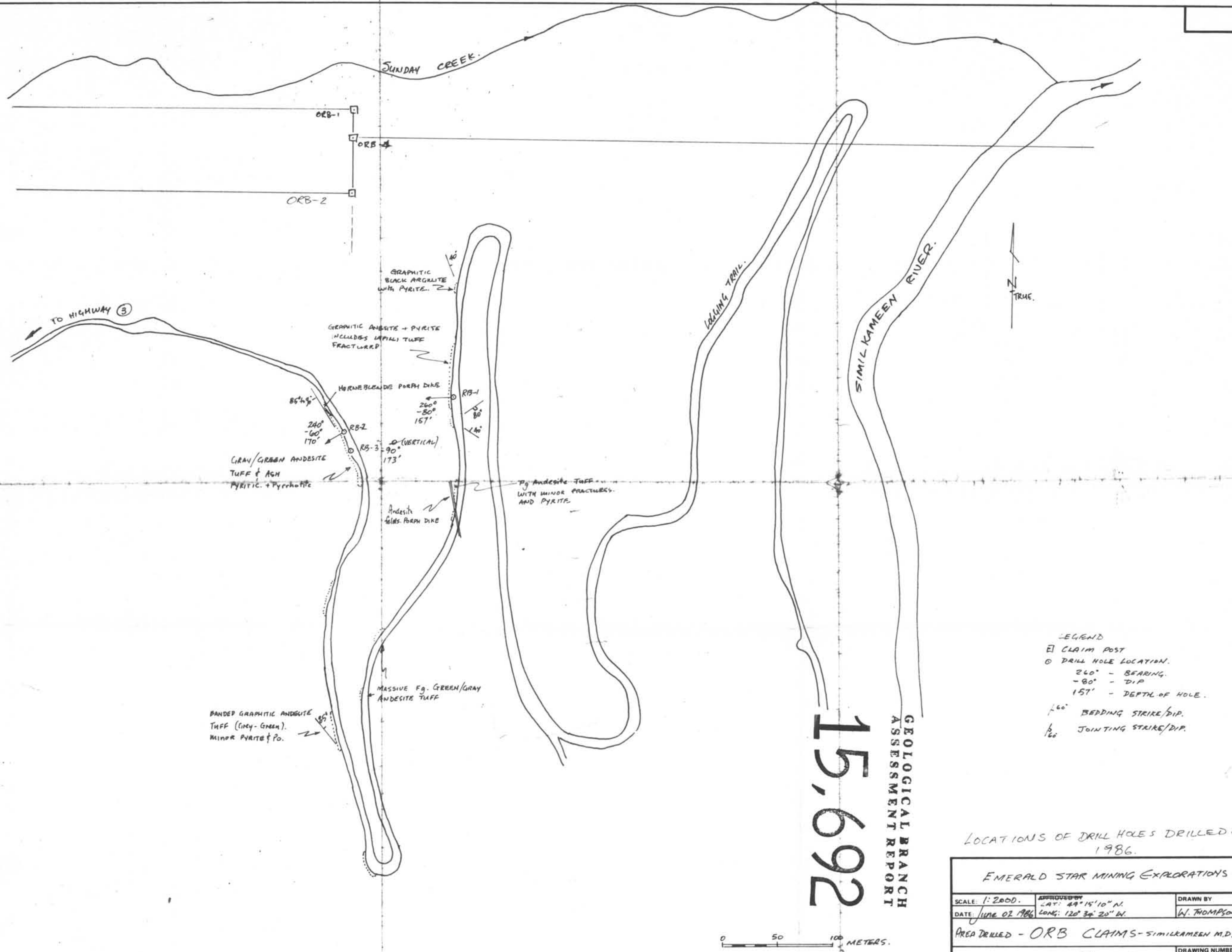
92H

MINING AND PETROLEUM RESOURCES
 SERVICE BUREAU OF MINING
 LETTERS



ORB Claims Claim Map
 Scale:





LEGEND
 □ CLAIM POST
 ○ DRILL HOLE LOCATION.
 240° - BEARING.
 - 60° - DIP
 157' - DEPTH OF HOLE.
 / 60° BEDDING STRIKE/DIP.
 / 80° JOINTING STRIKE/DIP.

LOCATIONS OF DRILL HOLES DRILLED IN 1986.

EMERALD STAR MINING EXPLORATIONS LTD.		
SCALE: 1:2000.	APPROVED BY LAT: 49° 15' 10" N.	DRAWN BY
DATE: June 02 1986	LONG: 120° 34' 20" W.	W. THOMPSON.
AREA DRILLED - ORB CLAIMS - SIMILKAMEEN M.D.		
DRILL HOLE LOCATIONS & ROUGH GEOLOGY.		DRAWING NUMBER 03.

