

83-#474 - 11460

UTAH MINES LTD.
ISLAND COPPER MINE
P.O. BOX 370
PORT HARDY, B.C. V0N 2P0
TELEPHONE (604) 949-6326

September 26, 1983.

Ministry of Energy, Mines & Petroleum Resources,
Douglas Building,
Government Street,
Victoria, B.C.,
V8V 1X4.


Dear Sirs:

Re: Assessment Report -
Stock Group of Mineral Claims

The accompanying report, in duplicate, is being submitted in compliance with regulations governing assessment work under the Mineral Act, revised to January 1st, 1978.

Credit is requested for diamond drilling performed between July 25th and July 27th, 1983.

Yours truly,


J.A. Fleming,
Chief Geologist.

JAF:ebh

enclosures:

c.f. 9.4.

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

11,460

REPORT ON DIAMOND DRILLING SUBMITTED FOR

ASSESSMENT WORK ON THE STOCK GROUP OF

MINERAL CLAIMS

Hole Location	Latitude	50°	35½' N
	Longitude	127°	23¼' W
Mining Division	-	Nanaimo	
N.T.S. Location	-	Map 92 ^L /11	1:50000
Detailed Location	-	About 2100 meters east of Rupert Inlet on the W.F.P. Rupert Mainline Road.	
Owners	-	Utah Mines Ltd. Gordon Milbourne	
Operator	-	Utah Mines Ltd.	
Author	-	John Fleming	
Date Submitted	-	September 26, 1983.	

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MAPS:

- | | |
|---|---------------|
| (1) Index Map, Sheet 92 ^L /11 N.T.S. | 4 |
| (2) Claim Map, Showing Drill Hole Location | (Back Pocket) |

APPENDICES:

Copy of Drill Hole Logs (Back Pocket)

OBJECTIVE:

The hole (R-13) was drilled on mineral claim Sun (64). The hole is 5.5 km. east of the Island Copper pit. Lying just to the east of the east margin of the Rupert monzonite porphyry stock it was drilled to test this zone for possible mineralization, associated with the stock. The nearest known diamond drill hole is 600 meters to the west.

WORK PERFORMED:

1. One hole was diamond drilled to NQ size between July 25th and July 27, 1983. Total depth, 127.1 meters.
2. Located on Sun (64) mineral claim, it is situated on the W.F.P. Rupert mainline logging road, about 2100 meters east of Rupert Inlet.
3. Particulars of the hole are:

<u>Hole</u>	<u>Inclination</u>	<u>Length</u>	<u>Collar Elev.</u>	<u>Collar Co-ordinates</u>
R-13	-90°	127 M	321.6 M	2700 N and 46600 E

The survey co-ordinate position of the hole is based on that in use at the mine.

4. Drill core logs are attached to the report. Logging was done by J.A. Fleming, B.Sc., McGill University, who is on the mine staff. All core is stored at the mine site.
5. An itemized Cost Statement is included in the report.
6. An index Map (1:50000 NTS) and a detailed Claim Map, form part of the report and show the drill hole location and the position of the Stock Group of claims.

STATEMENT OF COSTS
FOR THE
STOCK GROUP OF CLAIMS

CONTRACTOR'S CHARGES

A. Diamond Drilling Contractor:

<u>Overburden -</u>		
R-13 80 ft. @ \$16.00	=	\$1,280.00
<u>Rock -</u>		
80' x 417' @ \$16.00	=	5,392.00
<u>Field Costs -</u>		
Moving, setting up, water lines, set casing, etc.	=	1,363.30
<u>Extra Charges -</u>		
Mobilization cost @ 7.65% of total charge for contract	=	275.00

B. Other Contractors:

1) D-6 Cat and Operator -		
Move and prepare site - \$6.0 hours @ \$55.00	=	330.00
Standby rate - 2 days @ \$110.00	=	220.00
2) Lowbed trailer, tractor and operator		
Move D-6 Cat to and from site;		
3.5 hours @ \$62.50	=	218.75
3) Highboy trailer, tractor and operator -		
Move drill to site - 5.0 hours @ \$60.00	=	300.00
4) Water truck and operator -		
Supply water to the site - 37 hours @ \$35.00	=	1,295.00

UTAH COSTS

1. Core House Labour	=	200.00
2. Geological Supervision	=	600.00
3. Company Overhead @ 25% of labour, + Supervision	=	200.00
4. Core Boxes 19 @ \$5.05	=	95.95
5. Preparation of Report	=	300.00
6. Survey of Holes	=	200.00
		200.00
Total:-		\$12,270.00

Total Footage Drilled - 417 feet

Cost Per Foot Drilled - \$29.42

RESULTS

The hole passed through light green-grey and reddish orange, massive, medium grained, sericite, chlorite and epidote altered andesite (crystal ?) tuff with sections of intense fracturing with associated intense sericite alterations. At 75.3 meters it passed into medium to dark green-grey, alliotriomorphic, strongly chlorite altered, mesocratic intrusive cut by numerous dykes of brick red, white, chlorite (+ sericite) altered, quartz-feldspar porphyry. A short section of light green-grey, medium grained tuff was encountered at 121.3 meters.

The hole indicates that the Rupert monzonite stock, and the possibly closely related quartz-feldspar porphyry system extend, but do not necessarily subcrop, well east of the stock as mapped on surface.

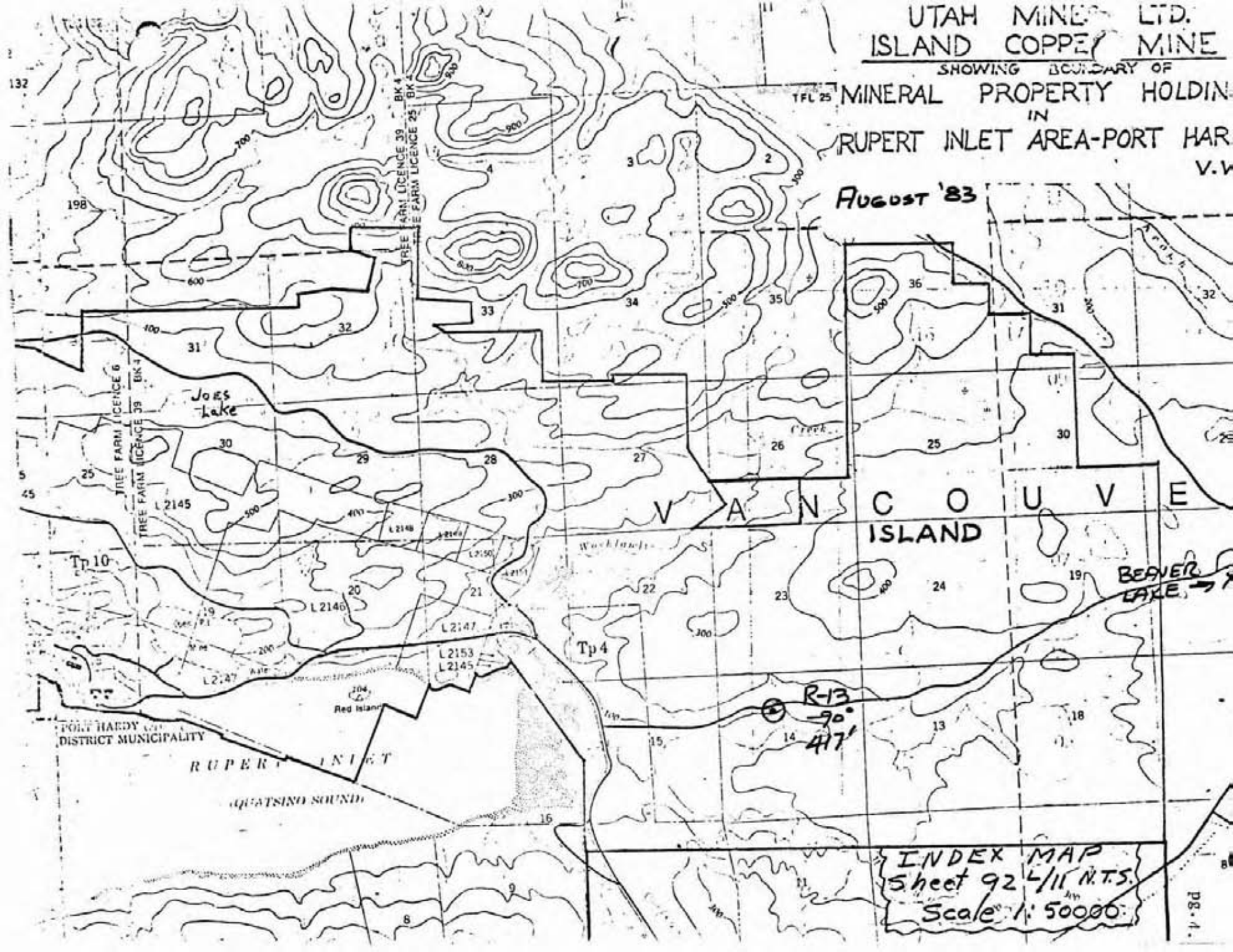
CONCLUSION

No copper or molybdenum minerals were encountered in the hole. However, the presence of the quartz-feldspar porphyry dykes and the chlorite and sericite alterations in the overlying pyritized tuffs indicate that hydrothermal activity related to porphyry intrusions existed in the area. This suggests that the area could be favourable for the discovery of a mineralized porphyry system akin to the Island Copper porphyry copper deposit.

UTAH MINES LTD.
ISLAND COPPER MINE

SHOWING BOUNDARY OF
TFL 25 MINERAL PROPERTY HOLDING
IN
RUPERT INLET AREA-PORT HARDY
V.V.

AUGUST '83



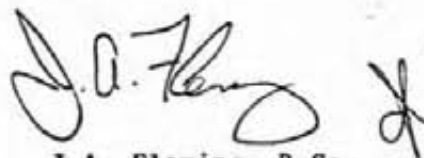
INDEX MAP
Sheet 92 4/11 N.T.S.
Scale 1:50000

STATEMENT OF QUALIFICATIONS

I submit that I am qualified to prepare and present this report for assessment credit. My qualifications are as follows:

- 1) I have a B.Sc., (Majors Geology) 1971 from McGill University.
- 2) I have been employed as a geologist continuously since June, 1968, and am presently Chief Geologist, Island Copper Mine, Utah Mines Ltd.
- 3) I have been a Fellow of the Geological Association of Canada since 1974.

I declare that I personally supervised the drilling program, logged the core and wrote the report. The R.Q.D., magnetic susceptibility and percent recovery measurements were taken by a technician under my direction.



J.A. Fleming, B.Sc.,
Chief Geologist.

ISLAND COPPER MINE.

HOLE NO. R13

CASING COLLAR ELEV.: 0.5' ABOVE GROUND ELEV.: 1055'

COORDINATES: 2700 N. 26600 E.

INCLINATION: -90° BEARING: -

PROJECT: RUPERT MAIN - EAST OF RUPERT INLET
 DATE STARTED: 25TH JULY '83
 DATE FINISHED: 28TH JULY '83
 TOTAL DEPTH: 47'

PAGE NO: 1 OF 6

REF. TO CLAIM CORNER:

SCALE: 1" = 10'

LOGGED BY: J.F. (J.A. FLEMING)

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS: HOLE COLLARED IMMEDIATELY SOUTH OF THE M+B. RUPERT MAINLINE ABOUT 2100 METERS EAST OF THE EAST END OF RUPERT INLET.	AVE CORE RECY / HOLE	MAG. SUSCEPT. SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	NQ CORE SIZE	SAMPLE INTERVAL	% RECY. SAMP. INT.	ESTIMATED
	CHLORITE	EPIDOTE	SERIKITE	HEMATITE												
60							<p>0-81' NO CORE. - NOTE -</p> <p>FRACTURE & INFILLING DENSITY SCALE FRACT. (LOWEST → HIGHEST) = 1 → 6 INFILLING DEGREE (LOWEST → HIGHEST) A → E</p> <p>ALTERATION INTENSITY SCALE LOW - MOD. - HIGH - INTENSE</p> <p>R.O.D. = % OF CORE IN PIECES ≥ 4" IN LENGTH.</p> <p>MAGNETIC SUSCEPTIBILITY READINGS IN M.G.S. UNITS</p>	99.4%								96%
70							<p>81'-247' ANDESITIC TUFF (FELDSPAR PORPHYRY?)</p> <p>LT. GRAY, GRAY, BRILL. RED W. STRKS. OF WHITE, ORANGE AND APPLE GREEN. ROCK IS GENERALLY MOD. SOFT.</p> <p>TUFF IS MOD. GRND WITH SUB-RND. CLASTS OF FELD. AND DARK CHL. ALTD. MAFICS (PYROX?) IN FN GRND MATRIX. FELD ARE MOSTLY WHITE COLOURED AND SOFT OUT TO SERIK. PLTNS.</p> <p>PLTNS ARE SERIK. AFTL. CHL. AND EPID. SERIK. IS FEWN, BEING MOST INT. WHERE ASSOC. W. SHEARS. EPID. OCCURS AS SPOTS & VNITS.</p> <p>ROCK IS HIGHLY FRACTURED WITH HIGH % OF INFILLING W. CALCITE, WHITE ZELLITE, PYRITE, EPIDOTE. SECTIONS OF UNIT ARE BLOCKIATED, SHEARL. W. FRAGS. OF TUFF AND VEIN MATERIAL IN SOFT AFTL. CAUSH. MATRIX. SHORT SECTIONS (20-30 CM) SCATT. THRO. UNIT W. FINE BALECCIA + STR. SERIK. PLTNS (ROCK V-SOFT)</p> <p>MINERALIZATION W. PYR. IS FEWN. WITH PR. EUMEDRA & VNITS. ABT 3-5% + LOCALLY > 5%. HEM. STAIN IS NOT WIDESPREAD.</p>									
80																
90																
100																
110																
120																

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<0.1

HOLE NO. R13

PROJECT:

PAGE NO: 4. OF 6

CASING COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED:

REF. TO CLAIM CORNER:

COORDINATES:

N. E.

DATE FINISHED:

SCALE: 1" = 10'

INCLINATION:

BEARING:

TOTAL DEPTH: 417'

LOGGED BY: JH

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED
	CHLORITE	EPIDOTE	SERICITE	MONTM.												
240							81-247 ANDESITE TUFF (FELDSPAR PORPHYRY?) CONT.						247			96
250							233-247 HIGHLY FRACTURED, SHEATHED AND SERICITE ALT. TUFF SIMILAR TO 175'-205'. SERIC. ALTN. STRONGEST FROM 233'-240' W. SOFT SERICITE MTD AND CARBONATE INFILLING BLENDED AND GRAVELLED VOLCANIC. ROCK IS DARK, W. MOD MAGN ALTN. FROM 240' TO 245'				247	92	7			20.1
260							40cm OF MUDDY GOUGE AT CONTACT D.K. STOCK ROCK 10cm SOFT SERIC. MTD ORANGE Q.F.P. 247-447 GREEN, CHLORITIZED, MEDIUM TO COARSE GRAINED INTENSIVE (DIOPTIC STOCK?) CUT BY WHITE TO REDDISH, QUARTZ-FELDSPAR PORPHYRY DYKES.				257	100	28			
270							30cm FILL GOUGE HIGH FRACT. & ALTN. WHITE QFP DK 'STOCK RK'				267	100	50			
280							30cm FILL GOUGE HIGH FRACT. & ALTN. WHITE QFP DK 'STOCK RK'				277	100	60			
290							30cm FILL GOUGE HIGH FRACT. & ALTN. WHITE QFP DK 'STOCK RK'				287	100	53			
							30cm FILL GOUGE HIGH FRACT. & ALTN. WHITE QFP DK 'STOCK RK'				297	100	30			
							10cm QFP 3cm CHILLED MARGIN DK 'STOCK RK'				297	100	30			

Most of the section (>80%) consists of the med. to dark green-grey intensive. The contacts of the porphyry dykes are sharp, some with narrow (2-3cm) chilled margins. Locally, shoots of porphyry cut the green-grey intensive, establishing the later age of the light coloured porphyries. An unusual textural feature is, that near the contacts with the porphyry dykes, the more granular (med-dk) intensive appears finer grained than further away from the contacts. This feature has been noticed in other holes east of Rupert Inlet (eg R10)

Main alteration is chloritization of the mafics in all the core. Altns in the dark intensive have converted the feldspars to such an extent that crystal faces are not evident (also diagenetic).

HOLE NO. R13

CASING COLLAR ELEV.:

COORDINATES:

INCLINATION: -20°

GROUND ELEV.:

N. E.

BEARINGS:

PROJECT:

DATE STARTED:

DATE FINISHED:

TOTAL DEPTH: 417'

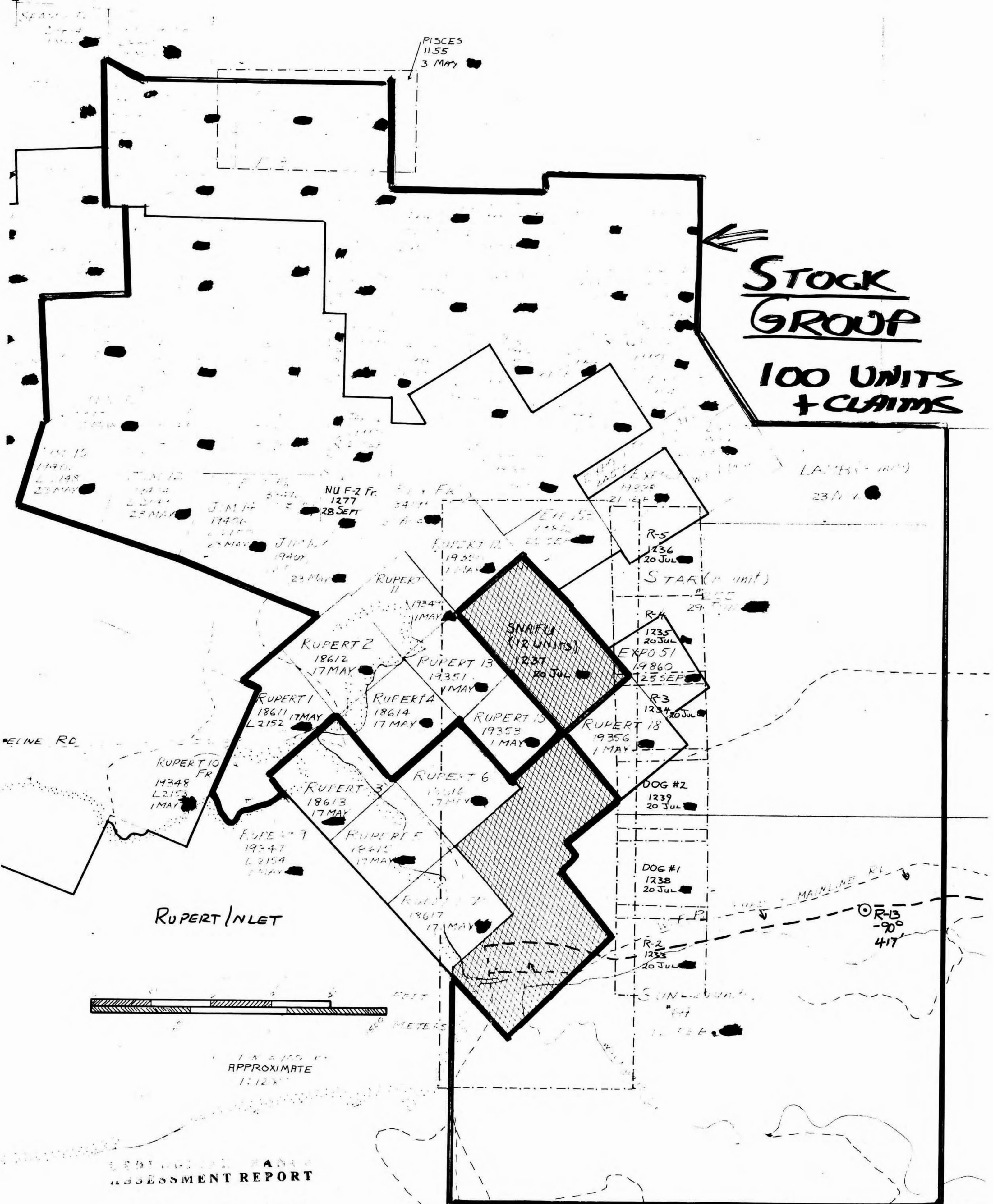
PAGE NO: 5 OF 6

REF. TO CLAIM CORNER:

SCALE: 1" = 10'

LOGGED BY: JF

SECTION	ALTERATION			FRACTURING	MINERAL GEOLOGY	COMMENTS:	AVE CORE RECY / HOLE	MAGN & SWEET SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	NO CORE SIZE	SAMPLE INTERVAL	% RECY. SAMP. INT.	ESTI-MATED
	CALCITE	EPIDOTE	SERICITE											
300						247' - MOD GREEN-GRY INTUSIVE AND Q.F.P. (CONT.)								90%
						DESCRIPTIVE GEOLOGY								LO.1
300						300cm Q.F.P. NO CONTACTS			307	100	61			
310						25cm Q.F.P. SAMPLE				100	48			
						50cm Q.F.P.								
320						12cm Q.F.P. OR. ZED. STAIN			317					
						20cm OR. Q.F.P.								
						40cm Q.F.P.				100	71			
						S-SHEAR CONTACT								
						50 15cm Q.F.P.			327					
						12cm SALMON PINK Q.F.P.								
330						2cm Q.F.P.				100	70			
						30cm Q.F.P.								
340						4cm Q.F.P. SHOOT								
						254-265 ORANGE QUARTZ-FELDSPAR PORPHYRY, MEDIUM GRAINED. FEW SMS. W/ STA. SERICITE AVENS. RED STAIN IS PLIN. THIN. MATRIX-POSS. HORN STAIN. OR ZED. STAIN.			337					
						265-275 FAULT & HIGH CRACKLE ZONE W/ 20cm DARK, FOLIATED GOUGE AT 265 AND STR. SERICITE AVENS THRU REST W/ SHEARS, MINOR GOUGE AND STR. SICKEN-SIDED FRAGTS. RIL MOD. LIMY.				100	61			
						275-281 CHL-SERIC ALD 'STOCK RIL' PYL 235%								
						281-288 LEUCOCITIC Q.F.P. - 13% WHITE W/ <10% GRAY CHL ALD. PHTYLOS. AMPHIBOLIC GR. MASS.			347					
350						288-293 MED GRAY 'STOCK RIL'								
						293-300 ALT 9-7% 'STOCK RIL' AND 90% WHITE Q.F.P. 'STOCK RIL' HAS ~30% CHL MATRICES AND Q.F.P. <10%. CHILLED SHARD, 2cm THIN AT 291. GR. SIZE IN 'STOCK RIL' QUITE VARIABLE (MED-COARSE).				100	55			
360						50 50cm Q.F.P.			357					



ASSESSMENT REPORT

11,460

1) TO ACCOMPANY ASSESSMENT REPORT ON THE STOCK GROUP BY J.A. FLEMING B.Sc. AUGUST 1983

2) LOCATION OF DRILL HOLE R-13

Utah Mines Ltd.		
ISLAND COPPER MINE		
Port Hardy, B.C.		
Drawn by AFTER J.L.	MINERAL PROPERTY STATUS MAP	Date FEB 7/83
Traced by		Scale APPROX. 1"=1000'
Approved by JA		Revision
Bench Elev.		Drg. No.