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1987 EXPLORATION PROGRAM
(SOIL GEOCHEMICAL AND VLF/EM SURVEYS)

ON THE

SUNRAY GROUP OF MINERAL CLAIMS

New Westminster M.D.

(NTS 92 H 6W)

GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,106


H.W. Nicholson

Feb. 12, 1988.

1987 EXPLORATION PROGRAM
ON THE
SUNRAY GROUP OF MINERAL CLAIMS

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1987 EXPLORATION PROGRAM
ON THE
SUNRAY GROUP OF MINERAL CLAIMS
New Westminster M.D. (NTS 92 H 6)

1. INTRODUCTION:

In 1976, Aquarius Resources Ltd.* made a reconnaissance exploration of their Hope Group of Mineral Claims which straddled the East Hozameen Fault for a distance of 2 km north from the Coquihalla River and included the old Emancipation Mine. The soil geochemical and the magnetometer surveys extended over most of the Sunray Group of claims. The 1987 Exploration Program, described in this report, completes the soil geochemical survey for gold on the Sunray Group adjacent to the East Hozameen Fault and include a VLF/EM survey of this area.

2. PROPERTY, LOCATION AND ACCESS:

The following Reverted Crown Grants were acquired by the author on Dec. 2, 1986 and grouped as the Sunray Group on Nov. 27, 1987.

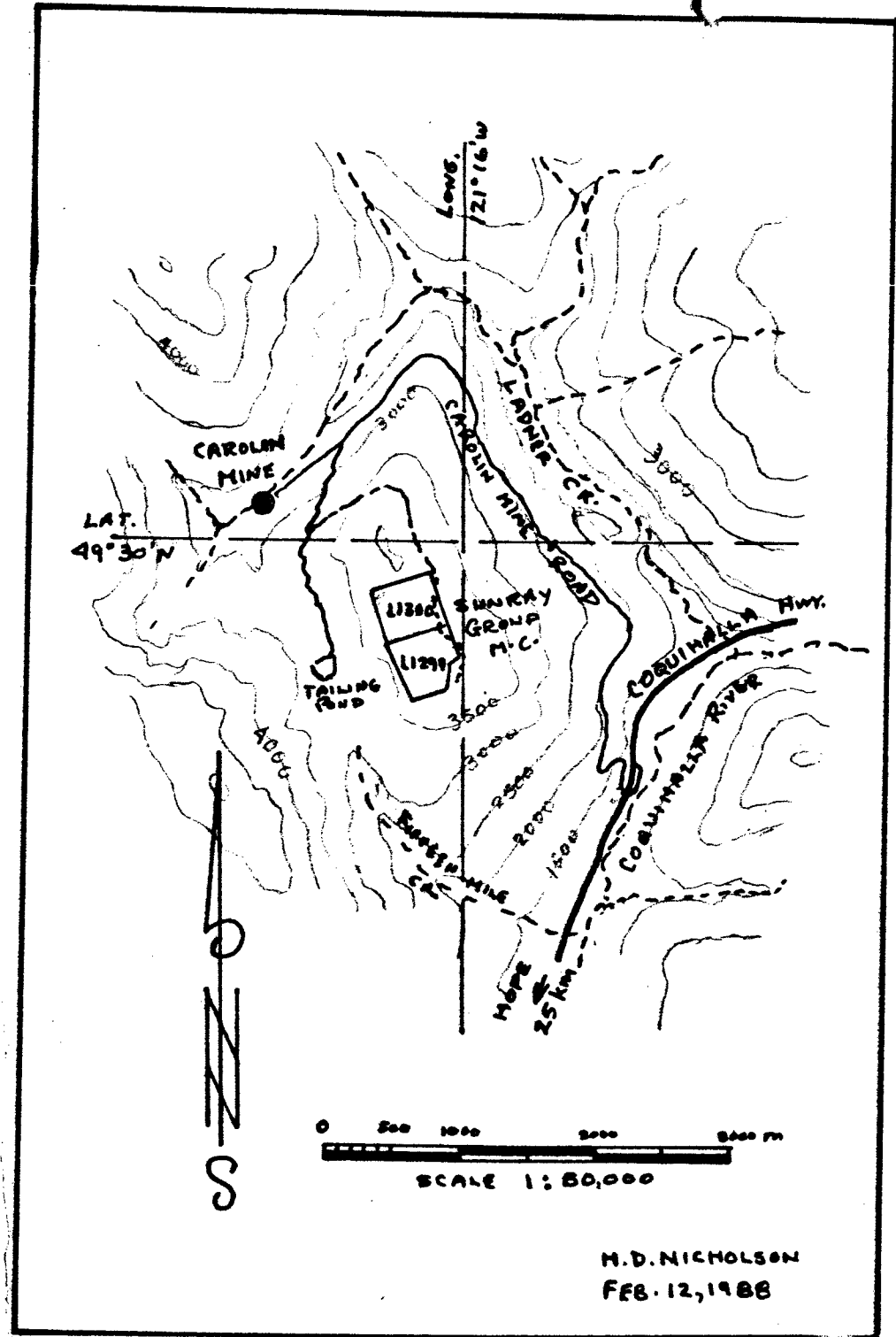
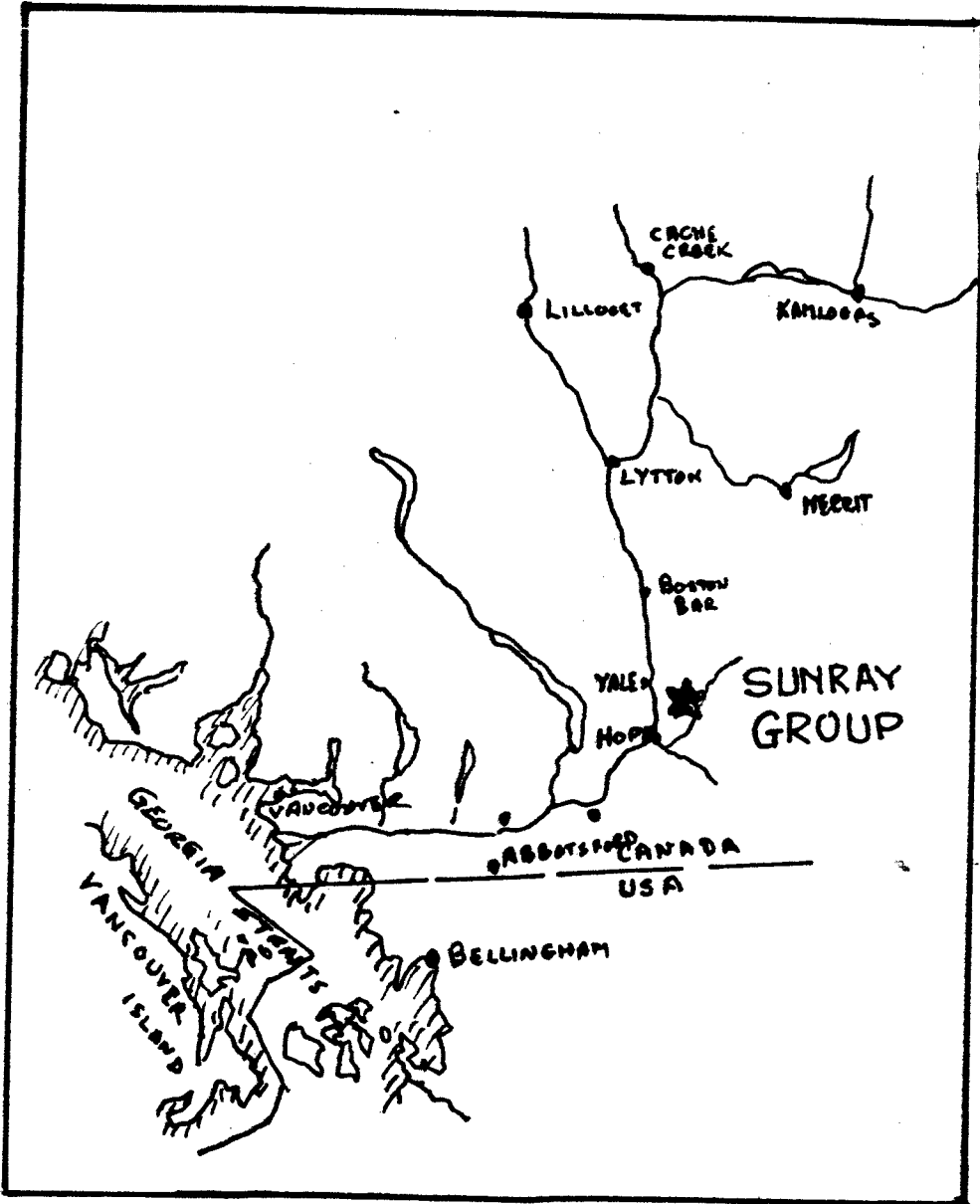
* Assessment Report #6236 of Aquarius Res. Ltd. on their Hope Group, prepared by Cochrane Consultants Ltd. in 1977.

MAP N°1

LOCATION MAP SHOWING THE

SUNRAY GROUP MINERAL CLAIMS

NEU WESTMINSTER M.D. (NTS 92 H6)



Name	Legal Descr.	Record No.
Raymond	Lot No. 1299 NWD	3101
Sunshine	Lot No. 1300 NWD	3102

The claims are located approx. 25km north-east of Hope, B.C. Access to the claims is by way of the Carolin Mine Road which joins the Coquihalla Highway just west of Ladner Creek (see map #2 on page 2). At approx. 6.5 km which is 900 m short of the mill, follow the tailings pond road to the left for 1 km up the hill and then take the logging road which is a 4 wheel drive road, to the east back up the hillside for 1 km and then runs south another 1km to the Sunray Claims. Arrangements must be made with the Vancouver office of Carolin Mines Ltd. in Vancouver for entry onto their property thru the gate which is located approx 3.5 km from the highway.

The claims are located at an elevation of 3600ft. at the top of a mountain which slopes steeply south to the Coquihalla River(elev. 1300 ft.), to the east and north into Ladner Creek (elev. 1500 to 2700ft.) and west to a saddle where the tailings pond is located (elev. 3200ft.)

The timber in this area which is chiefly mature cedar, larch, hemlock and fir has been logged easterly third of the Sunshine Claim and the northeast corner of the Raymond Claim to roughly half way down the slope to Ladner Creek. Most of the area covered by the 1987 Program was logged.

3. GEOLOGY:

The Geology of this area is shown on Map #2 which was copied from Open File Map 1986/1F * and is described in the reports of Dr. G. E. Ray entitle the "Coquihalla Gold Belt Project" 8 **. The rocks of the Ladner Series were found to be highly altered along the contact with the Serpentinite Belt which coincides with the East Hozameen Fault.

In the area bounded by lines 126S and 132S and Stations 1.0W and 8.0W there are numerous thin quartz veins up to 10 cm thick running perpendicular across the bedding in tension cracks. Grab samples were taken of these and will be assayed to compare with the soil geochemical results in these areas.

4. SOIL GEOCHEMICAL SURVEY:

Soil samples were taken from the top of the "B" horizon at 15 meter intervals along nine lines running parallel to the northerly boundary of the claim on a spacing of 30 meters and starting 30 meters east of the claim.

The organic layer is from 1 to 4 cm thick over the top and slopes but thickens to 15 to 30 cm on the benches on the westerly slopes where the humus and soils appear to be always saturated.

* Open File Map 1986/1F published by the Min. of E.M.&P.R.

** Geological Fieldwork Reports for 1981,2,&3 (Papers 1982-1, 1983-1 and 1984-1) from Min. Energy, Mines and Petroleum Res.

Under the organic layer, there is a 1 cm thick layer of white clay overlying the "B" horizon.

The "B" horizon is a light rust coloured sandy soil over most of the survey area except on the benches where the soil was saturated where it was a light grey colour. Around Sta 4.0 on Line 133S the soil was noticeably darker red.

The 158 soil samples were analyzed by Acme Analytical Laboratories Ltd. 852 E. Hastings St., Vancouver using the following method. A 10 gm sample was ignited at 600 deg. C, digested with hot aqua regia, extracted by MIBK, analysed by graphite furnace atomic absorption for gold with a detection of 1 ppb. The values ranged from 1 to 59 ppb.(see Appendix "A") and have been shown on Map #3. Sample values greater than 4ppb(representing the highest 16% of the samples) are shown as anomalous concentrations.

5. VLF/EM SURVEY:

Dip angles and relative field strengths were measured on lines 124S to 132S incl. using a SABRE model 27 VLF/EM receiver manufactured by Sabre Electronic Instrument Ltd., 4245 E. Hastings St., Burnaby, tuned to the Seattle transmitter on 18.6 khz. The dip angles are plotted on Map #4 and the Positive Filtered Data are shown Map #4A.

6. SUMMARY:

The results of this program do not show any strong anomalies. It is proposed to sample the quartz veins in the areas showing anomalous gold values and compare the results with the soil samples.

7. ACKNOWLEDGEMENTS:

The author wishes to acknowledge the assistance of Carolin Mines Ltd. for providing access and accommodation for the period of the program. The author also wishes to express his gratitude for the financial assistance from the Ministry of Energy, Mines and Petroleum Resources "FAME" Program.

8. STATEMENT OF EXPENSES:

The following is a summary of costs for this program for work done between June 27 and Oct. 19, 1987 and for the preparation of this report.

Labour- 15 days @ \$100	\$1500
Transportation 2230km @ \$0.15	335
Food	150
Instrument and Supplies	238
Geochemical analysis	820
Report preparation	125
TOTAL	\$3188


W.D. Nicholson

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9. STATEMENT OF QUALIFICATIONS:

The following is a list of studies and experience which qualify me to undertake the work outlined in this report.

- a) In 1956 I graduated from the University of British Columbia with a degree of Bachelor of Applied Science in Geological Engineering.
- b) During the Summers of 1945,6,7 and 8, I worked as a student assistant with the Geological Survey of Canada.
- c) In May 1985, I completed the Mineral Exploration for Prospectors sponsored by the Malaspina College and the Ministry of Energy, Mines and Petroleum Resources.

SCHEDULE "A"

ACME ANALYTICAL LABORATORIES LTD. DATE RECEIVED: NOV 3 1987
 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
 PHONE (604) 253-3158 FAX (604) 253-1716 DATE REPORT MAILED: *Nov. 13/87*

GEOCHEMICAL ANALYSIS CERTIFICATE

- SAMPLE TYPE: SOIL AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

ASSAYER: *D. Toye* DEAN TOYE, CERTIFIED B.C. ASSAYER

H.D. NICHOLSON File # 87-5452 Page 1

SAMPLE#	AU*
	ppb
L124 W6	1
L124 W5.5T	1
L124 W5.5	1
L124 W5.	1
L124 W4.5	1
L124 W4	5
L124 W3A	1
L124 W3	1
L124 W2.5	3
L124 W2	1
L124 W1.5	59
L124 W1	4
L124 W0.5	8
L124 0	6
L125 W9	9
L125 W8.5	1
L125 W8	5
L125 W7.5	1
L125 W7	1
L125 W6.5	1
L125 W6	1
L125 W5.5	2
L125 W3.5	1
L125 W3	3
L125 W2.5	1
L125 W2	5
L125 W1.5	3
L125 W1.	1
L125 W0.5	1
L125 W0	1
L126 W8	1
L126 W7.5	1
L126 W7	1
L126 W6.5	3
L126 W6	1
L126 W5.5A	1

SCHEDULE "A"

H.D. NICHOLSON FILE # 87-5452

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SAMPLE#	AU*
	ppb
L126 W5.5	1
L126 W5	1
L126 W4.5	1
L126 W4.	1
L126 W3	1
L126 W2.5	2
L126 W2	7
L126 W1.5	4
L126 W1	7
L126 W0.5	2
L126 W0A	1
L126 W0	4
L127 W10	6
L127 W9	4
L127 W8.5	2
L127 W8	2
L127 W7.5	4
L127 W7	8
L127 W6.5	5
L127 W6	2
L127 W5.5	1
L127 W5	1
L127 W4.5	1
L127 W4	1
L127 W3.5	1
L127 W3A	1
L127 W3	1
L127 W2.5	2
L127 W2	2
L127 W1.5	17
L127 W1.	1
L127 W0.5	1
L127 W0.	1
L128 W10	1
L128 W9	1
L128 W8	3

SCHEDULE "A"

H. D. NICHOLSON FILE # 87-5452

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SAMPLE#	AU* ppb
L128 W7.5	3
L128 W7	2
L128 W6.5	2
L128 W6	4
L128 W5.5	6
L128 W5	1
L128 W4.5	3
L128 W4.	4
L128 W3.5	3
L128 W3	2
L128 W2.5	1
L128 W2.	3
L128 W1.5	2
L128 W1.	2
L128 W0.5	2
L128 W0	4
L129 W10	3
L129 W9	1
L129 W8	9
L129 W7.5	3
L129 W7	1
L129 W6.5	8
L129 W6.	2
L129 W5.5	5
L129 W4.5	2
L129 W4	12
L129 W3.5	1
L129 W3	3
L129 W2.5	5
L129 W2	4
L129 W1	3
L129 W0.5	2
L129 W0	2
L130 W10	2
L130 W9	3
L130 W8	2

SCHEDULE "A"

H.D. NICHOLSON

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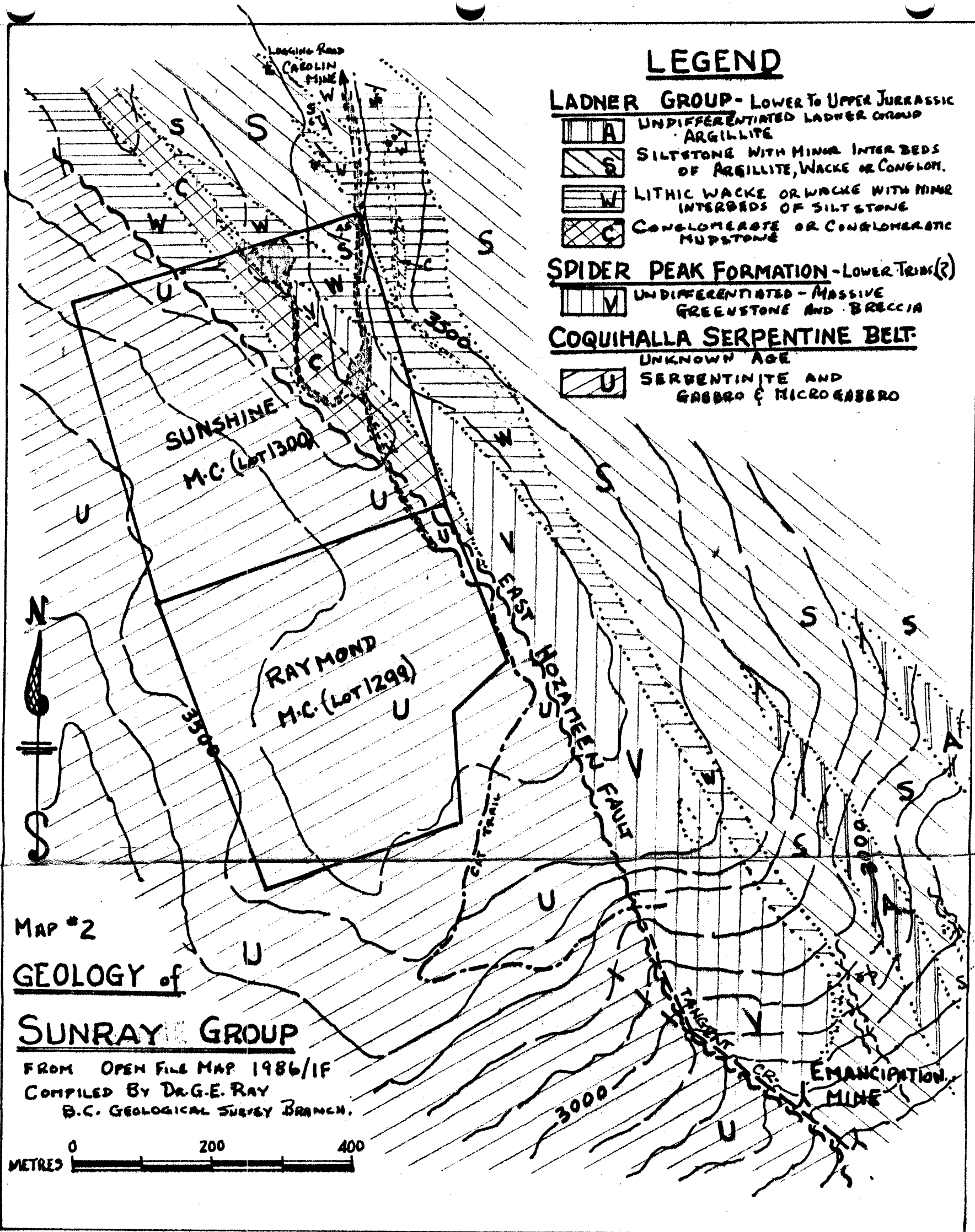
SAMPLE#	AU*
	ppb
L130 W7.5	4
L130 W7	1
L130 W6.5	2
L130 W6	1
L130 W5.5	1
L130 W5	1
L130 W4.5	2
L130 W4	1
L130 W3.5	1
L130 W3.	1
L130 W2.5	1
L130 W2	1
L130 W1.5	4
L130 W1	1
L130 W0.5	8
L130 W0	1
L131 W10	1
L131 W7.5	2
L131 W7	1
L131 W6.5	1
L131 W6	2
L131 W5.5	1
L131 W5	1
L131 W4.5	1
L131 W4	1
L131 W3.5	3
L131 W3	1
L131 W2	1
L131 W1.5	2
L131 W1	1
L131 W0.5	5
L131 W0	1
L132 W7	1
L132 W6.5	1
L132 W6	1
L132 W5	8

SCHEDULE "A"

H.D. NICHOLSON FILE # 87-5452

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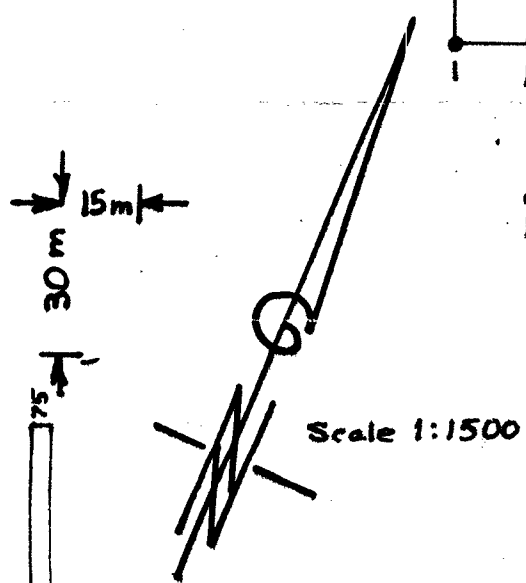
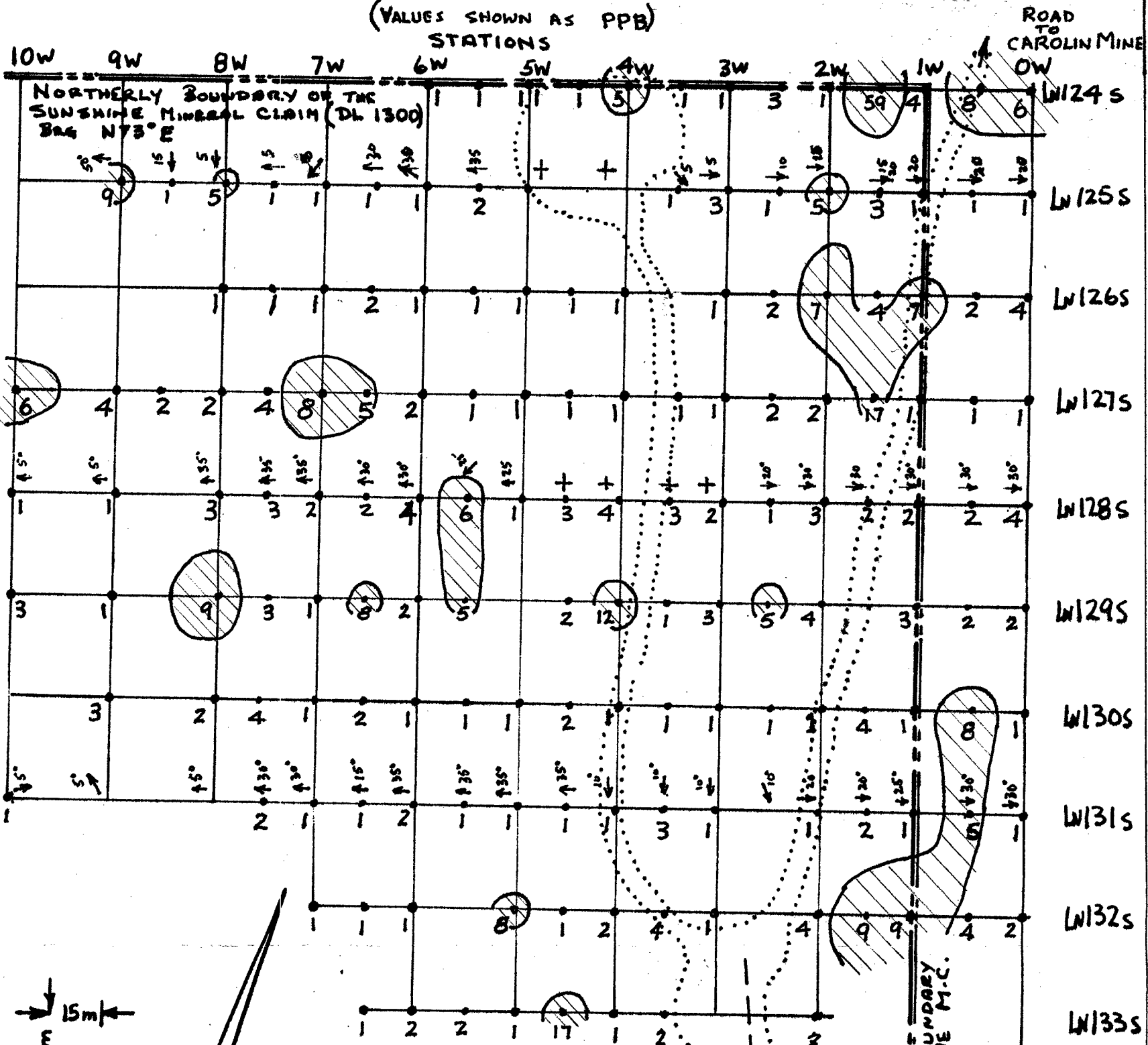
SAMPLE#	AU* ppb
L132 W4.5	1
L132 W4	2
L132 W3.5	4
L132 W3	1
L132 W2	4
L132 W1.5	9
L132 W1	9
L132 W0.5	4
L132 W0	2
L133 W6.5	1
L133 W6	2
L133 W5.5	2
L133 W5	1
L133 W4.5	17
L133 W4	1
L133 W3.5	2
L133 W2	3
L143.5 W5	1
L144 W5	1
L144 W5.5	3
L145.5 W6.5	1



GEOCHEMICAL SURVEY (SOIL)

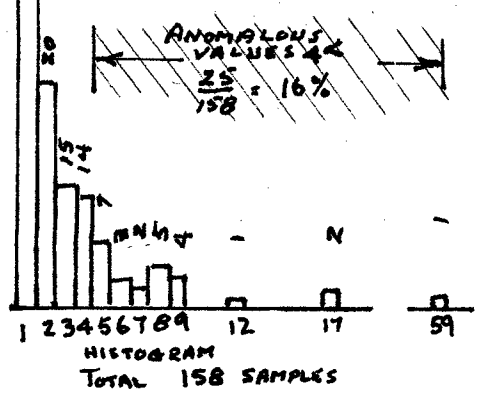
N.E. CORNER OF SUNRAY GROUP

(VALUES SHOWN AS PPB)



LINE 32S
 APPROX. LOCATION OF AQUARINS RES. SURVEY GRID
 BASELINE

MAP N°3
 SOIL SAMPLES FROM TOP OF "B" HORIZON
 AU ANALYSIS BY AA FROM 10 GRAM SAMPLE.
 SEE APPENDIX "A"

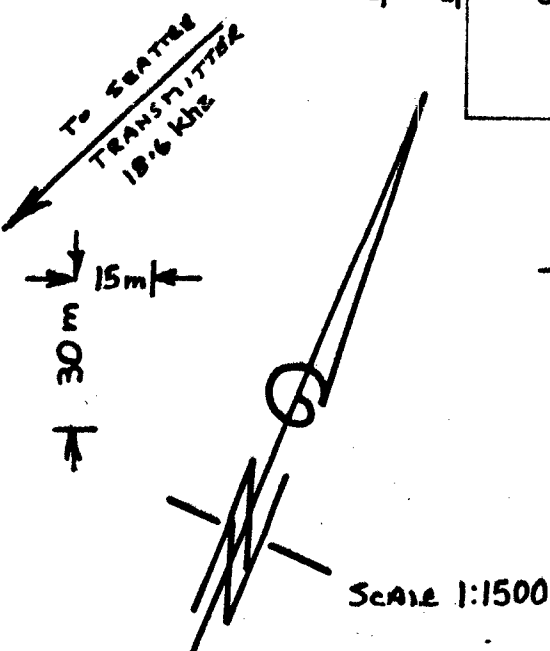
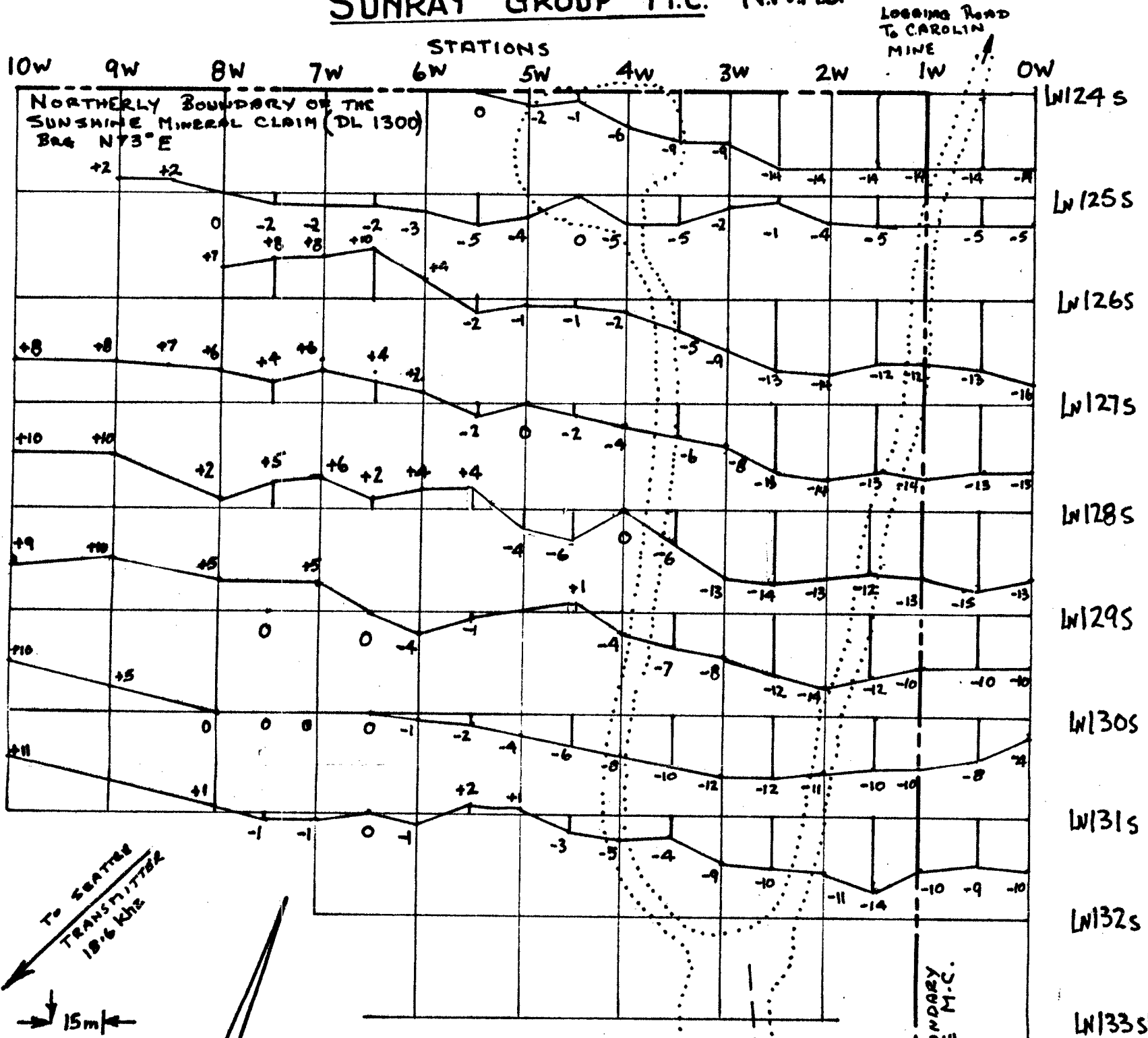


H.D. NICHOLSON
 FEB. 12, 1988.

VLF/EM SURVEY

N.E. CORNER OF

SUNRAY GROUP M.C. - NWMD



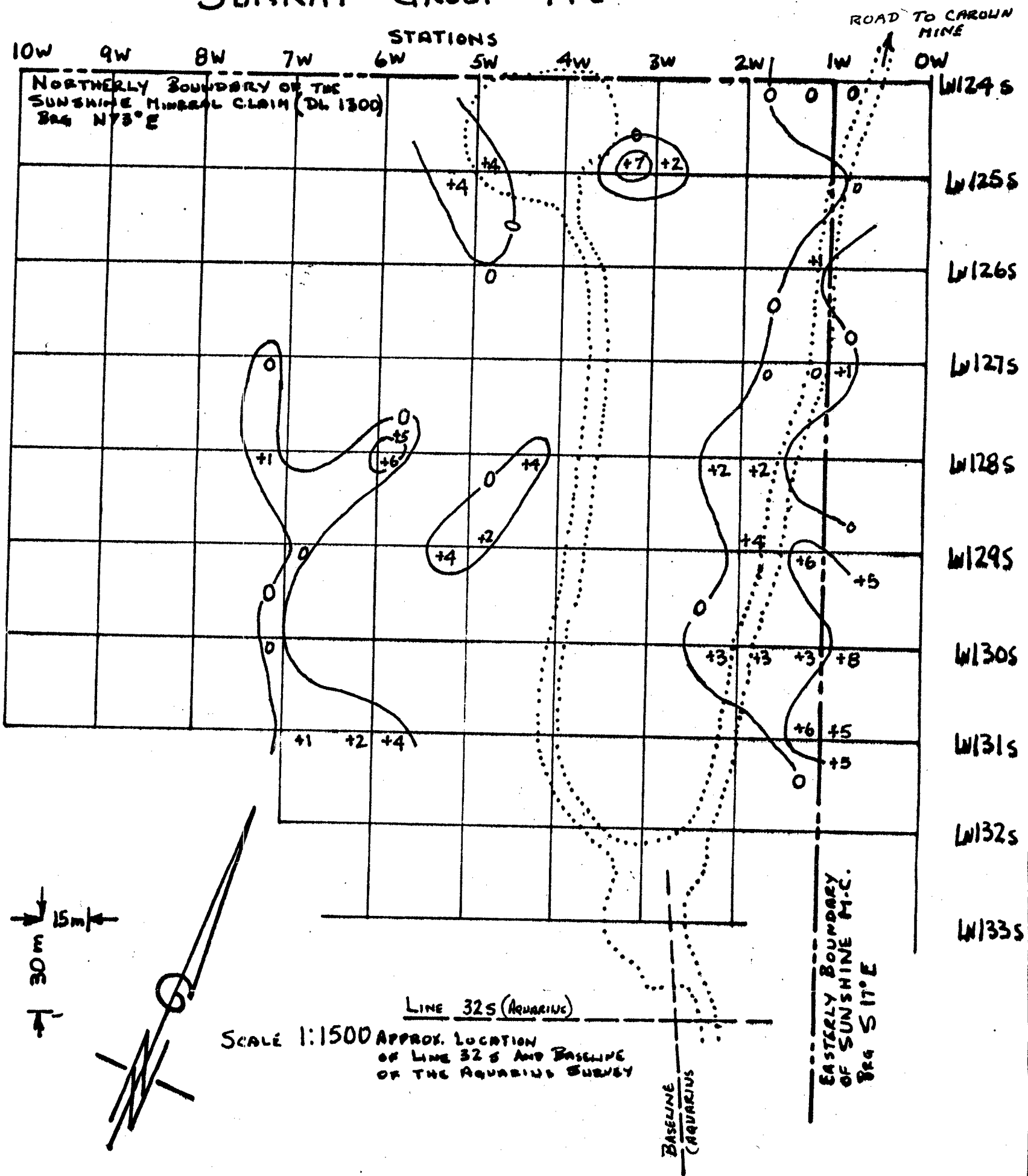
APPROX. LOCATION OF LINE 32 S AND BASELINE OF THE AQUARIUS SURVEY

MAP N°4
PLOT OF DIP ANGLES READINGS

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VLF/EM SURVEY

N.E. CORNER OF
SUNRAY GROUP M.C.



MAP N° 4A

PLOT OF "FILTERED" DIP ANGLE READINGS.

FILTERING TECHNIQUE BY D.C. FRASER - 1964
SEE PUBLICATION "GEOPHYSICS", Vol. 34 No 6
Pgs 958-967.

H.D. NICHOLSON
FEB. 12, 1988.