

ASSESSMENT REPORT
SILVER LICHEN GROUP

NATURE OF REPORT: Crone Electromagnetic Survey

CLAIMS: Red, Jim, Don

MINING DIVISION: Kamloops

NATIONAL TOPOGRAPHIC SERIES: 82M3 W

LATITUDE: ~~51°20'~~ North 51° 05'

LONGITUDE: 119° 23' West

OWNER AND OPERATOR: Orell Resources Ltd.

AUTHOR: James Black, P.Eng.

DATE: April 15, 1983

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

11,253

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- Geology 1:5000	Appended to Back
- Pseudo - Sections	" " "

INTRODUCTION

LOCATION AND ACCESS

(i) The Silver Lichen Mineral Claims are located six (6) Kilometers north -east of the junction of Kwikoit and Scotch Creeks on an unnamed mountain between the elevations of 1,200 and 1,700 meters. Scotch Creek drains into Shuswap Lake. The location is shown on the index map accompanying the grid lay out map appended. The claims are on NTS82M3 sheet.

Access is by way of Squilax, crossing the Shuswap River and continuing east on the north side of the lake to Scotch Creek road. This road is followed 18 kilometers to a logging road. This logging road is followed about 6 kilometers east to the centre of the claim group.

HISTORY AND OWNER

(ii) An outcrop of galena was discovered on a trail crossing the property in about 1966. A little stripping was done at that time, however, the property was allowed to go dormant until 1976. John Spelay restaked the prospect for Orell Resources Ltd, who now owns and operates the property. Geological mapping, geochemical surveys and geophysical surveys have been undertaken since 1977 with moderately encouraging results. Trenching of the mineralized showings on the Red and Jim claims uncovered a phyllite limestone greenstone sequence of rock with the mineralized section starting at the phyllite-limestone contact and continuing into the limestone for 1.7 metres. The results of the geochemical survey yielded weak anomalies, except in the vicinity of the discovery showing, and tend to reflect the nature of the underlying bedrock. Geological mapping outlined a moderately dipping monocline containing a broad flecture. The lithology on the claim group was mapped and found to vary through limestone, greenstone to a phyllite which in part contains siliceous tuffs and chert.

SUMMARY OF WORK PERFORMED:

(iii) Geophysical

12,680 meters of gridline was established on the Jim, Red and Don claims with picketed stations every 40 meters. The grid lines were 100 meters apart. The

grid lines had a bearing of N30° W.

Measurements of the 390 Hz, 1830 Hz and 5010 Hz frequencies were taken of each station and the results are presented in contour form on individual "pseudo-sections" of the lines surveyed. These contour maps can be found in the jacket of this report.

SURVEY SPECIFICATIONS

(iv) The Crone Electromagnetic Survey on the Silver Lichen claim group was carried out by equipment supplied by Crone Geophysics Ltd. of 3607 Wolfedale Road, Mississauga, Ontario, L5C 1V8. Manpower was provided by Orell Resources Ltd. consisting of a third year geology student, Luke Burlett, two college students, Kevin Kane and Tom O'Brien and the president of Orell Resources Ltd., Cyril Cecil Kane, prospector. The survey was a follow-up to earlier work completed in 1979 but the direction of the grid lines changed to intersect the rock structure at a right angle. The personnel used has previous experience in the use of the Crone equipment having received field instructions from Crone personnel in the use of the instruments and completing other surveys in previous years.

With the Crone horizontal shootback EM method both operators traverse along the same line. Both operators in turn transmit and receive-measuring the dip angle of the field. The two dip angles are then added together and equal "0" if no conductors are present. The station measured is the mid-point between the two men. The separation between the two men can vary from 100' to 600' (30 meters to 200 meters). Readings are generally taken at two frequencies if a conductor is detected. The ratio of the resultant dip angles permits an evaluation of the conductivity of the body.

OPERATION- The way the coils are held in the transmit and receive positions is very important and is as follows:

The two operators proceed along the survey line until they reach their positions. The leading operator receives first (switch at Rx). The trailing operator who is

the chief operator (he records the readings) places his coil in the transmit position - accurately horizontal - and switches it on Tx. Note both operators must be perpendicular to the line of traverse with the other operator always on his left hand side.

The gain control position is not critical - if the field strength meter remains off scale when the coil is rotated, then the gain is set too high.

- | (1) | OPERATOR RECEIVING | OPERATOR TRANSMITTING |
|-----|--|--|
| | - Switch at Rx | - Switch at Tx |
| | - Coil moved to Null | - Coil Horizontal |
| | - Inclinator read on red scale (Example -8°) | - Inclinator accurately kept on red T mark |
| | - Other operator to his left | - Other operator to his left |

(2) Leading operator shouts "Off" and calls reading -8° to chief (over 300' use Walki-Talkies)

(3) Both operators remaining in the same position and facing in the same direction reverse the procedure

- | LEADING OPERATOR TRANSMITTING | OPERATOR RECEIVING |
|--|--|
| - Switch at Tx | - Switch at Rx |
| - Coil Horizontal | - Coil moved to Null |
| - Inclinator accurately kept on red T mark | - Inclinator read on red scale (Example $+8^{\circ}$) |
| - Other operator to his left | - Other operator to his left |

(4) Operator records readings - Shouts "Off" - Both men switch to "Off" and move to next station

FREQUENCIES - In most areas use 1830 Hz for basic coverage and 390 Hz in anomalous areas. In areas of highly conductive background conditions where the 1830 Hz frequency produces -5° to -20° readings over wide areas then both 390 Hz and 1830 Hz frequencies should be used for basic coverage. In the exploration for weak conductors use 5010 Hz and 1830 Hz.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

During the summer of 1982, Orell Resources Ltd undertook a Crone horizontal shootback electromagnetic survey over the Red, Jim and Don claims.

The survey did not locate any responses that could be considered anomalous except in an area close to known mineral outcrop. The anomaly is weak to moderate in intensity.

Any further work of a geophysical nature should be undertaken on the southwest sector of the Silver Lichen claim group.

ITEMIZED COST STATEMENT

1. Grid lay out and line cutting - Wages	\$1,386.45
2. Survey with Crone EM-Wages	1,952.14
3. Equipment rental - Crone Geophysics	571.71
4. Supplies	91.56
5. Vehicles - 4 X 4 23.85 Days	1,192.31
6. Camp Costs 23.85 Days (4 men)	1,192.31
7. Drafting 10 Days	850.00
8. Engineer Report	500.00
	<u>\$7,736.48</u>

<u>CLAIM</u>	<u>RECORD NUMBER</u>
Red	524 (9)
Jim	826 (5)
Don	1082 (11)

AUTHOR'S QUALIFICATIONS

I am a graduate in geological engineering from the University of B.C. and have a Ph.D. in economic geology from McGill University. I am a registered geological engineer with the Association of Professional Engineers of B.C. I have had over 40 years experience in examination and exploration of mineral occurrences, especially in the cordilleran area.

Aug 19/83
JMB

J M. Black, P.Eng.

CERTIFICATE

I, J.M. Black of North Vancouver, B.C. do hereby certify that

- i) I am a geological engineer with an office at 843 Prospect Avenue, North Vancouver, B.C., V7R 2M2.
- ii) I am a graduate of UBC with degree of M.Sc. in geological engineering, 1935. I am a graduate of McGill University with degree of Ph.D. in economic geology, 1942. I am a member of the Association of Professional Engineers of B.C. I have practiced my profession for over 40 years.
- iii) I am the author of the accompanying report, which is based on personal knowledge of the property.
- iv) I have no beneficial interest in the property or claims discussed and I do not expect to receive any.

Aug 19/83
J.M. Black
J.M. Black, P.Eng.

PLEASE NOTE: THIS REPORT IS TO BE KEPT CONFIDENTIAL FOR ONE YEAR. IT WILL BE AVAILABLE TO THE PUBLIC ON May 12/84.

MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES
MINERAL RESOURCES BRANCH
ASSESSMENT REPORT COVER SHEET

Name _____ Fig _____ No _____
Mining Inventory Nos _____ NTS _____
✓ Lat 51° 05' 5" Long 119° 0' 23.7" NTS 82 N / 3W
✓ Mining Division KAMLOOPS Location _____

✓ Claims (Central Records) Red, Jim, Pat, Don, Mike, Fir, Silver King, B.C., ETC.
Claims (total) Pat Mike Fir Silver gal

✓ Owner 1. Orell Res. Ltd. 2. _____
Address P.O. Box 1388, Salmon Arm, B.C. V0E 2T0
✓ Operator 1. SAME 2. _____
Address _____

Owner/Operator 3. _____
Metals Ag Pb Zn

Geological description Trenching uncovered argentiferous lead and zinc sulphide mineralization in a phyllite limestone-greenstone sequence facies, which in part contains siliceous tuffs and chert. The rocks structure are deformed into a moderately dipping monocline with a broad flexure.

277 ✓ Work done Geophysical

Type	Amount	Claims Worked On
<u>ENGR</u>	<u>12.7 km</u>	<u>Jim Red Don</u>
<u>LINE</u>	<u>12.7 km</u>	

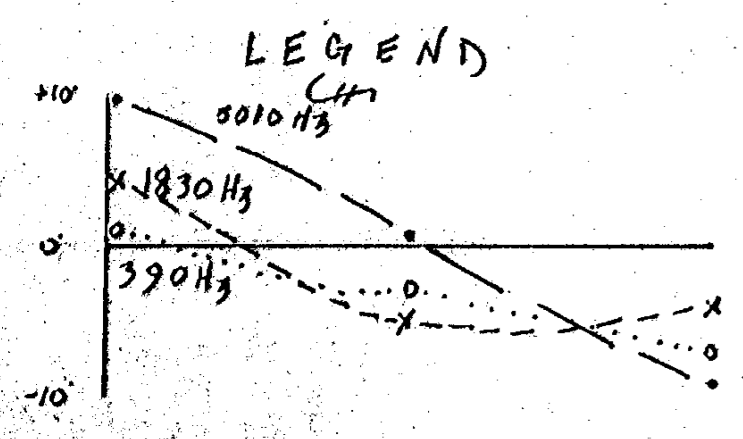
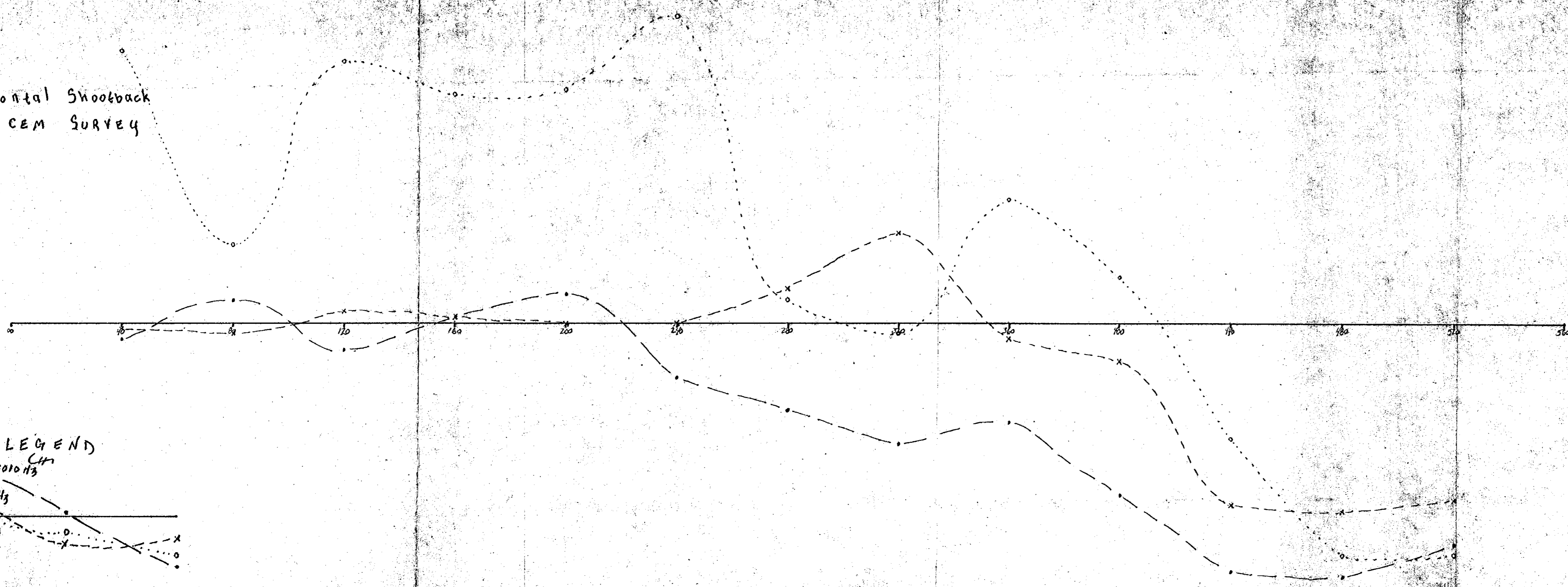
✓ Author(s) James M. Black (15.4.83)
✓ Aff. date May 12, 20/83 Year of work 1982-1983 To geology August 30, 1983
Attention _____ Information class 3
Comments O.K.

(Cross EN Horizontal shootback)

Horizontal Shootback
CEM SURVEY

GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,253



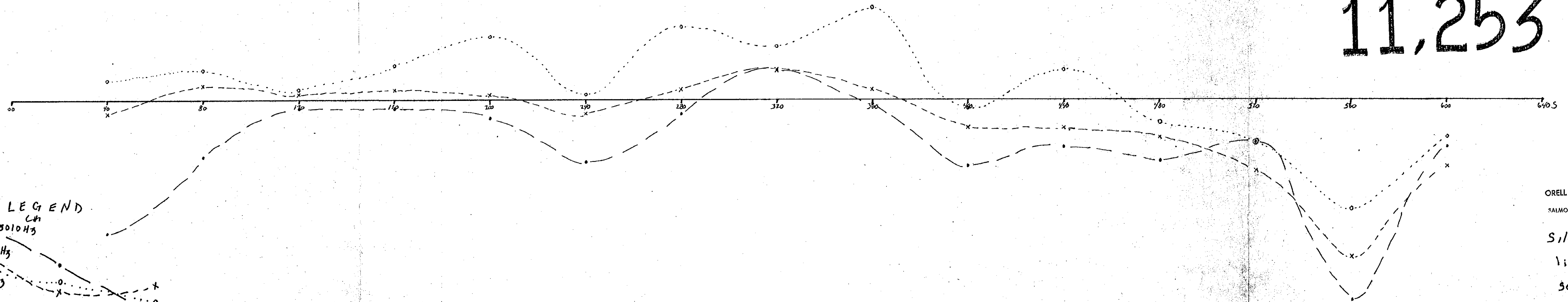
ORELL RESOURCES LTD.
BOX 3188
SALMON ARM, B.C. V0E 2T0

Silver Lichen
line 14+00E
Scale 1:1000

Horizontal Shootback
CEM SURVEY

GEOLOGICAL BRANCH
ASSESSMENT REPORT

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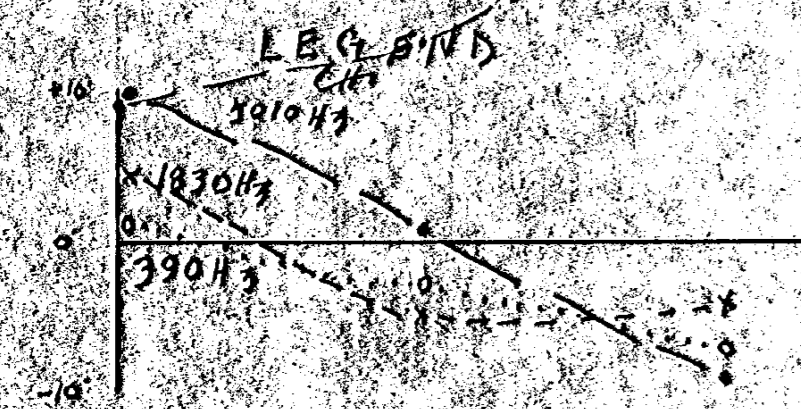
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BOX 3188
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line 1300E
Scale 1:1000

Horizontal Shootback
CEM SURVEY

GEOLOGICAL BRANCH
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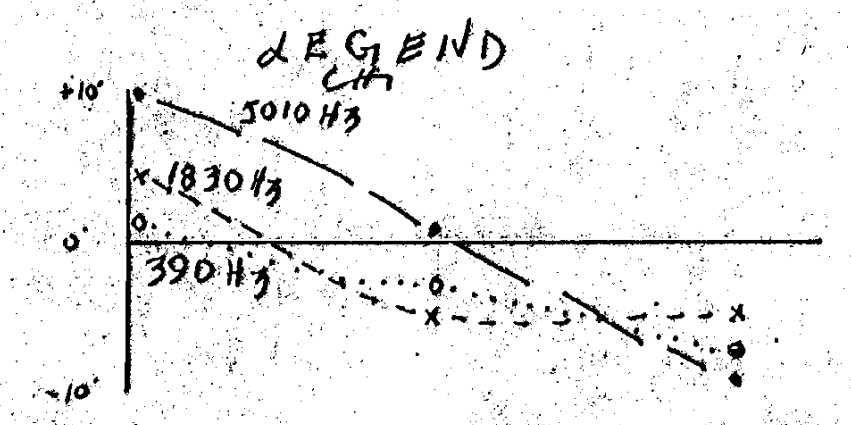
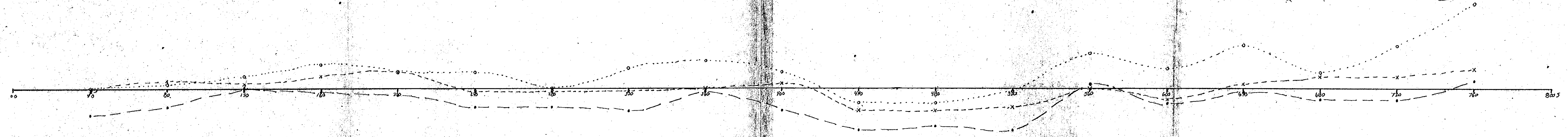
ORELL RESOURCES LTD.
BOX 3188
SILVER LICHEN, N.C. V0E 210

Silver Lichen
Line 12,100E
Scale 1:1000

GEOLOGICAL BRANCH
ASSESSMENT REPORT

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Horizontal Shootback
CEM SURVEY



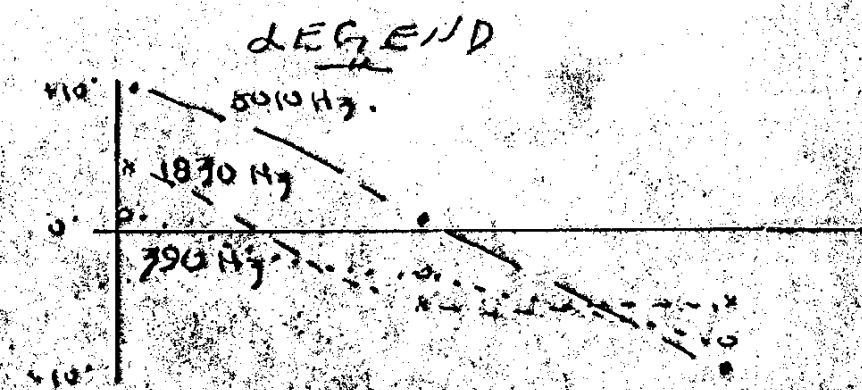
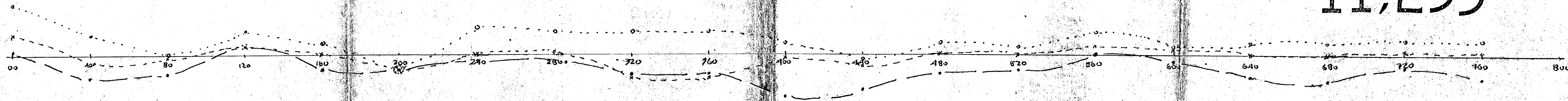
ORELL RESOURCES LTD.
BOX 3188
SALMON ARM, B.C. V0E 2T0

Silver Lichen
line 11+00 E
scale 1:1000

Horizontal Shootback
CEM SURVEY

GEOLOGICAL BRANCH
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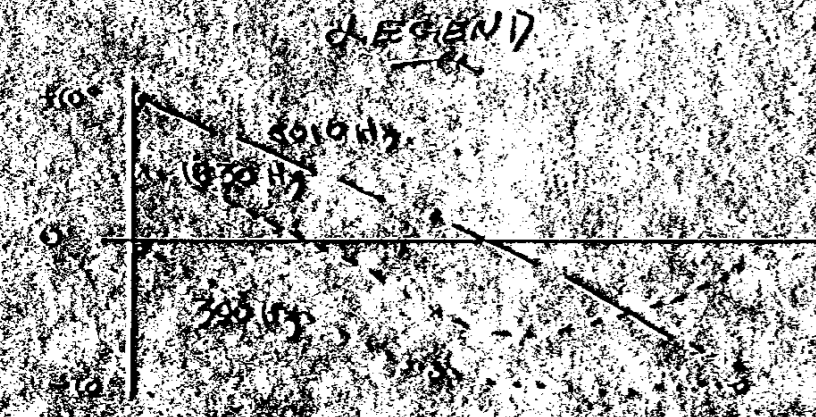
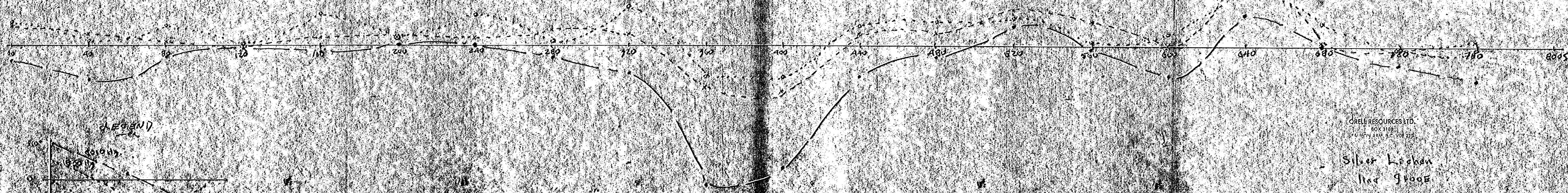
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BOX 3188
SALMON ARM, B.C. V0E 2T0

Silver Kitchen
line 10+00E
scale 1:1000

Horizontal profile
GEM SURVEY

GEOLOGICAL BRANCH
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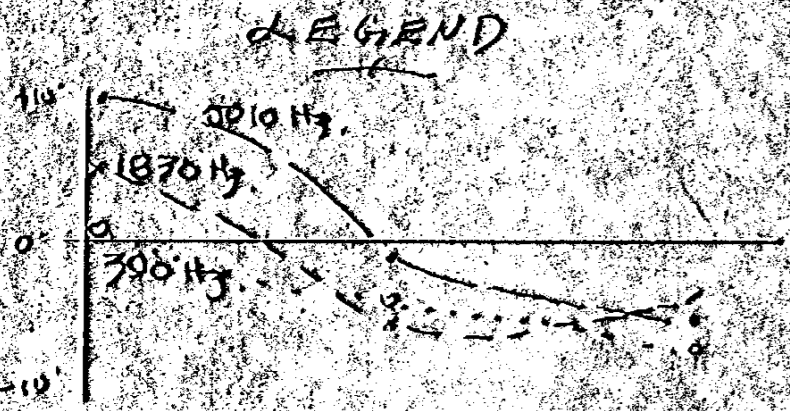
OREL RESOURCES LTD.
BOX 3189
CALGARY, ALTA. T2C 2T5

Silver Lichen
1:5000
scale 1:1000

Horizontal Swootback
2cm SURVEY

GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,253

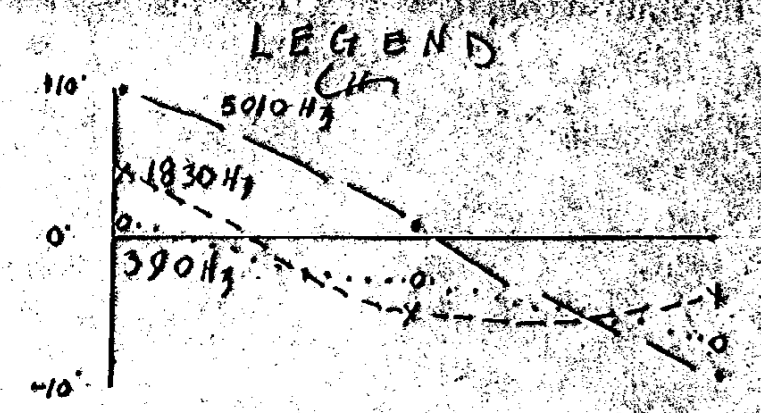
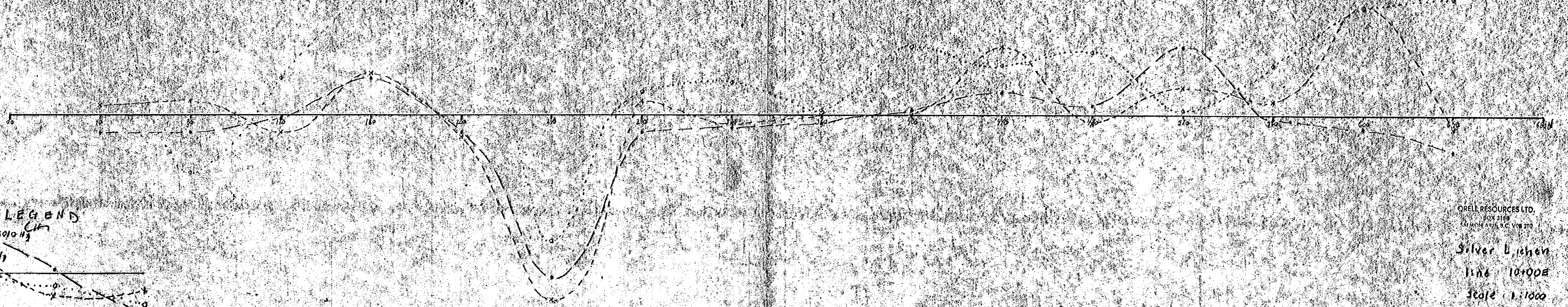


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BOX 3188
SALMON ARM, B.C. V0E 2T0

Silver Lichen
line 81008
scale 1:1000

11,253

Horizontal Shothack
C.M. SURVEY

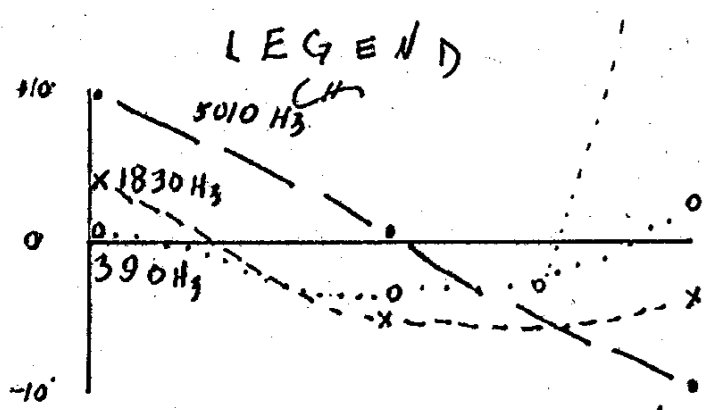
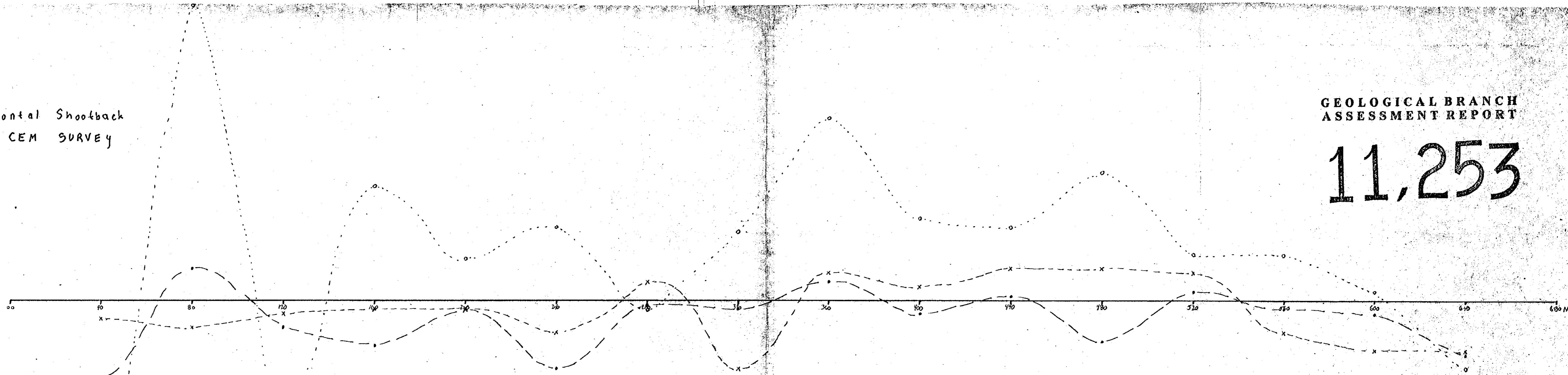


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BOX 3189
SALMON ARS B.C. V0B 2T0
Silver Bichen
Line 10+00E
Scale 1:1000

Horizontal Shootback
CEM SURVEY

GEOLOGICAL BRANCH
ASSESSMENT REPORT

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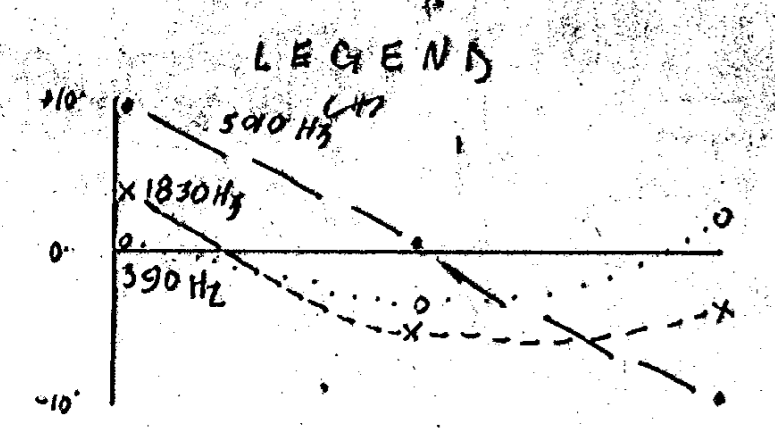
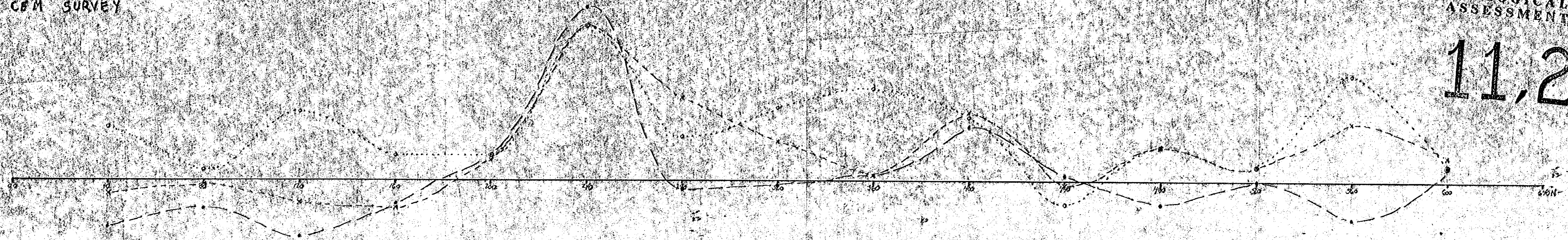
ORELL RESOURCES LTD.
BOX 3188
SALMON ARM, B.C. V0E 2T0

Silver Lichen
line 9100E
scale 1:1000

Horizontal Shoalback
CEM SURVEY

GEOLOGICAL BRANCH
ASSESSMENT REPORT

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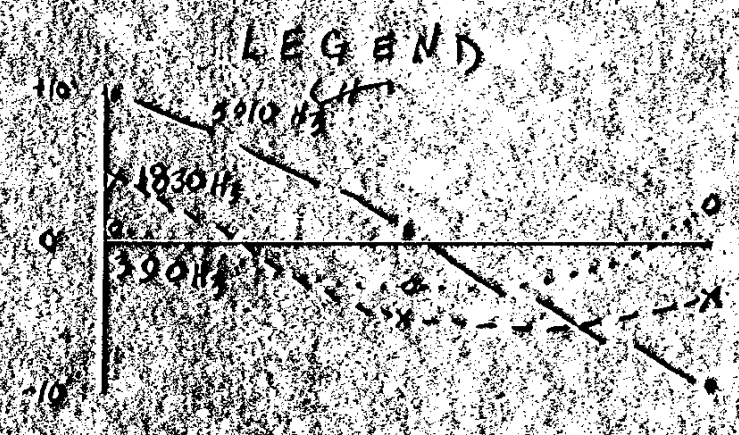
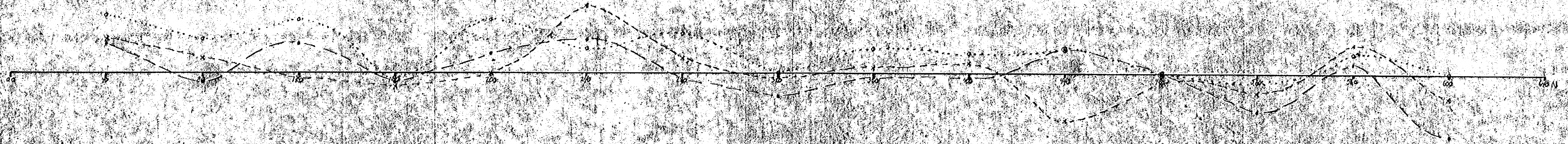
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BOX 3188
SALMON SPRING, B.C. V0E 2T0

Silver Lichen
line 81005
scale 1:1000

Horizontal Shootback
CEM SURVEY

GEOLOGICAL BRANCH
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11,253

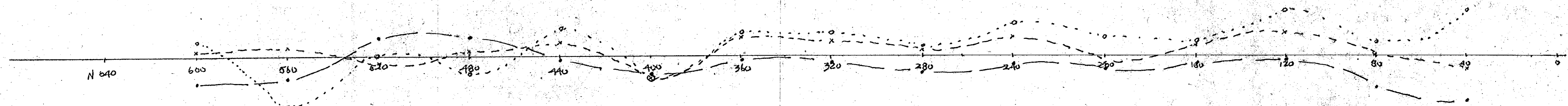


ORELL RESOURCES LTD.
BOX 3138
ATMANTIA B.C. V0E 2T0
Silver Kichen
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scale 1:1000

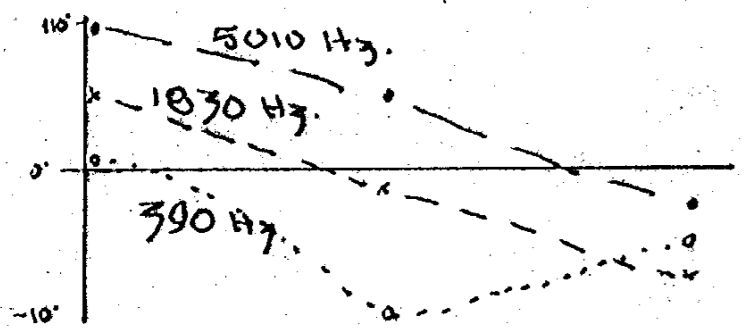
Horizontal shootback
CEM SURVEY

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LEGEND



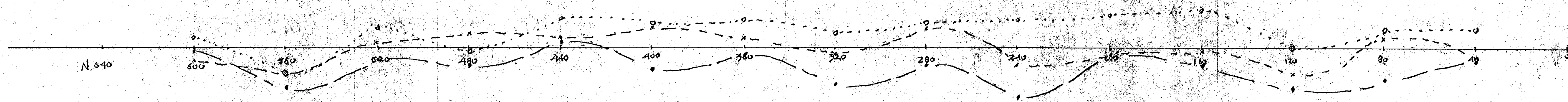
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BOX 3188
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Silver Lichen.
line 6+00
scale 1:1000

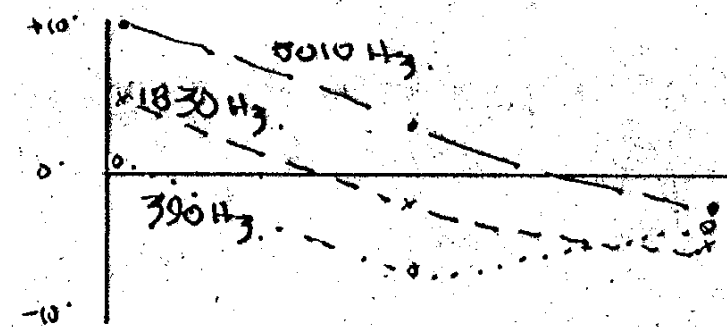
Horizontal Shootback
CENT SURVEY

GEOLOGICAL BRANCH
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11,253



LEGEND



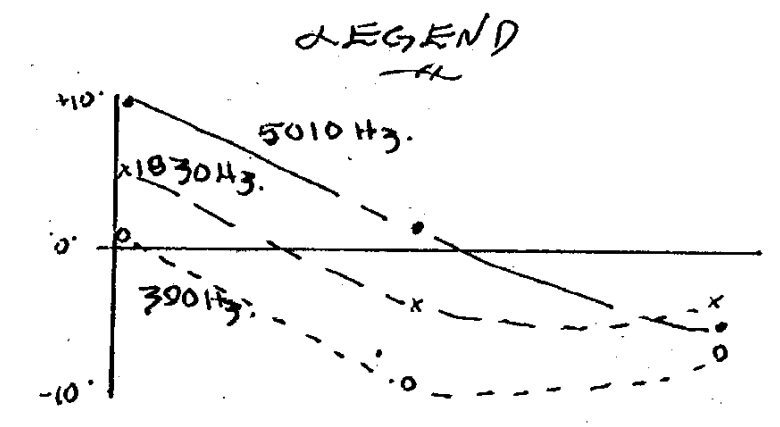
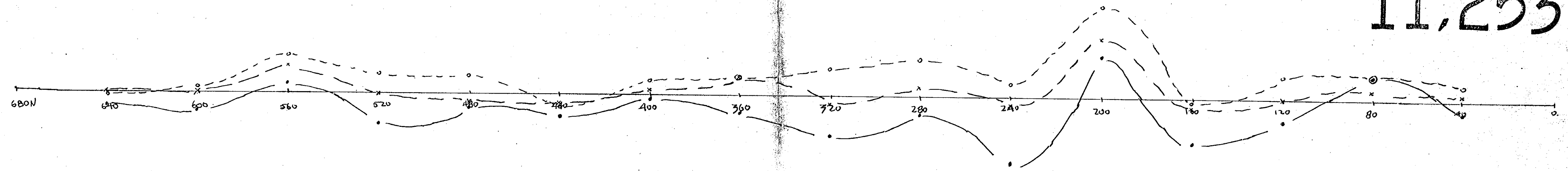
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BOX 3188
SALMON ARM B.C. V0E 2T0

Silver Lichen
line 5400E
scale 1:1000

Horizontal Shootback
 CEM SURVEY

GEOLOGICAL BRANCH
 ASSESSMENT REPORT

11,253



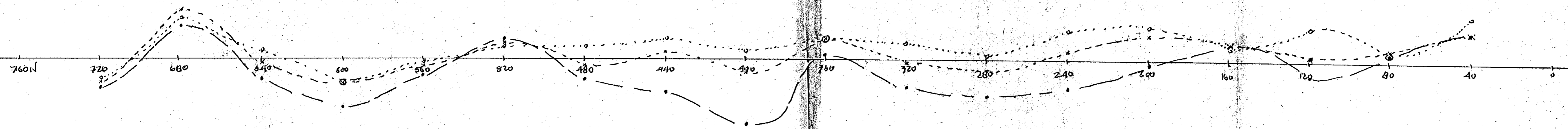
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Silver Lichen
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 Scale 1:1000

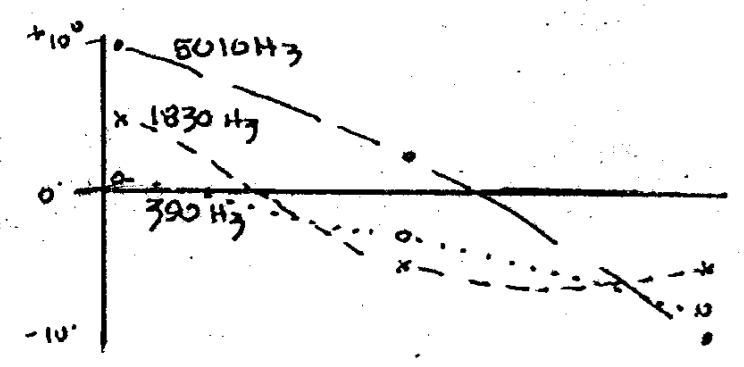
Horizontal shootback
LEIN SURVEY

GEOLOGICAL BRANCH
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11,253



LEGEND



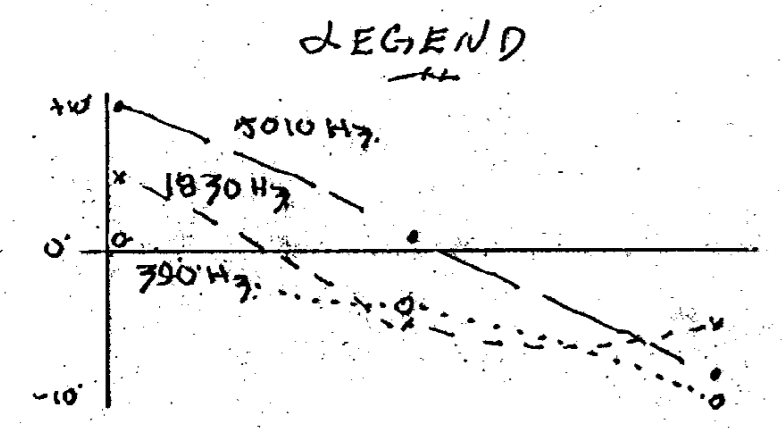
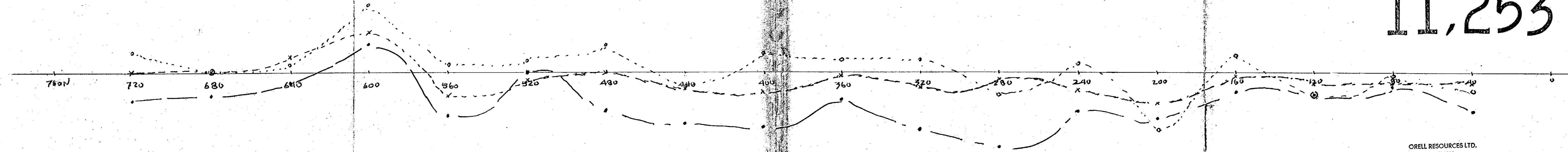
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BOX 3188
CHARMON SPA S.C. V0E 270

Silver Lichen
Line 7+00E
scale 1:1000

Horizontal shoot back
LEM SURVEY

GEOLOGICAL BRANCH
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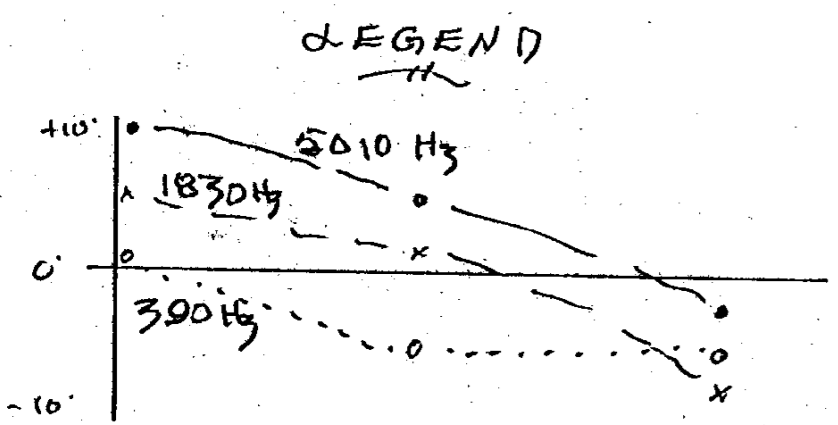
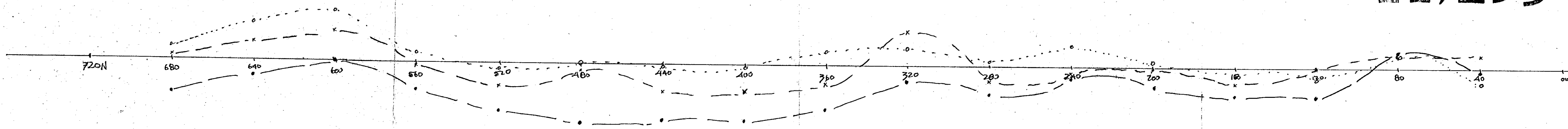
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BOX 3188
SALMON ARM B.C. V0E 2T0

Silver Lichen
line 2400E
scale 1:1000

Horizontal Shootback
CEM SURVEY

GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,253



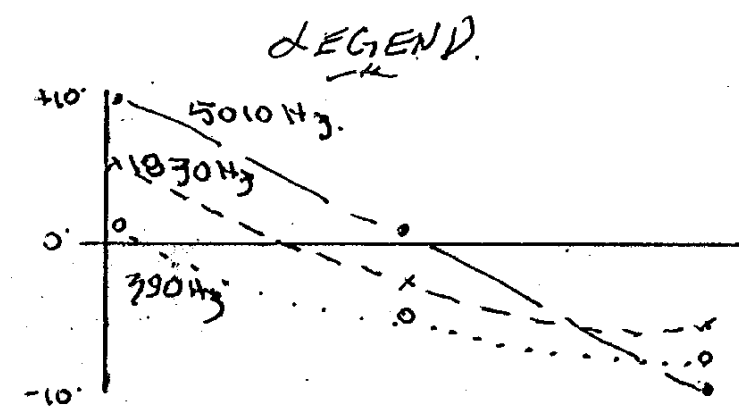
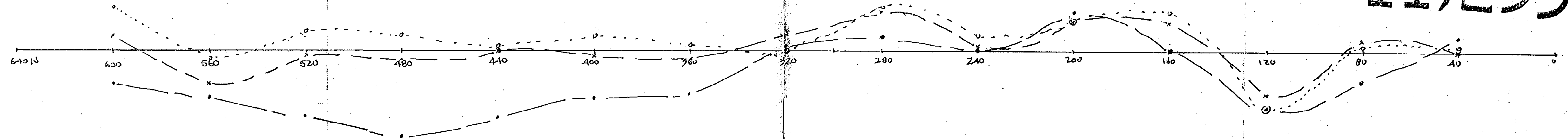
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BOX 3188
SALMON ARM, B.C. V9E 2T0

Silver Lichen
line 1400 E
scale 1:100

Horizontal shootback
LEM SURVEY

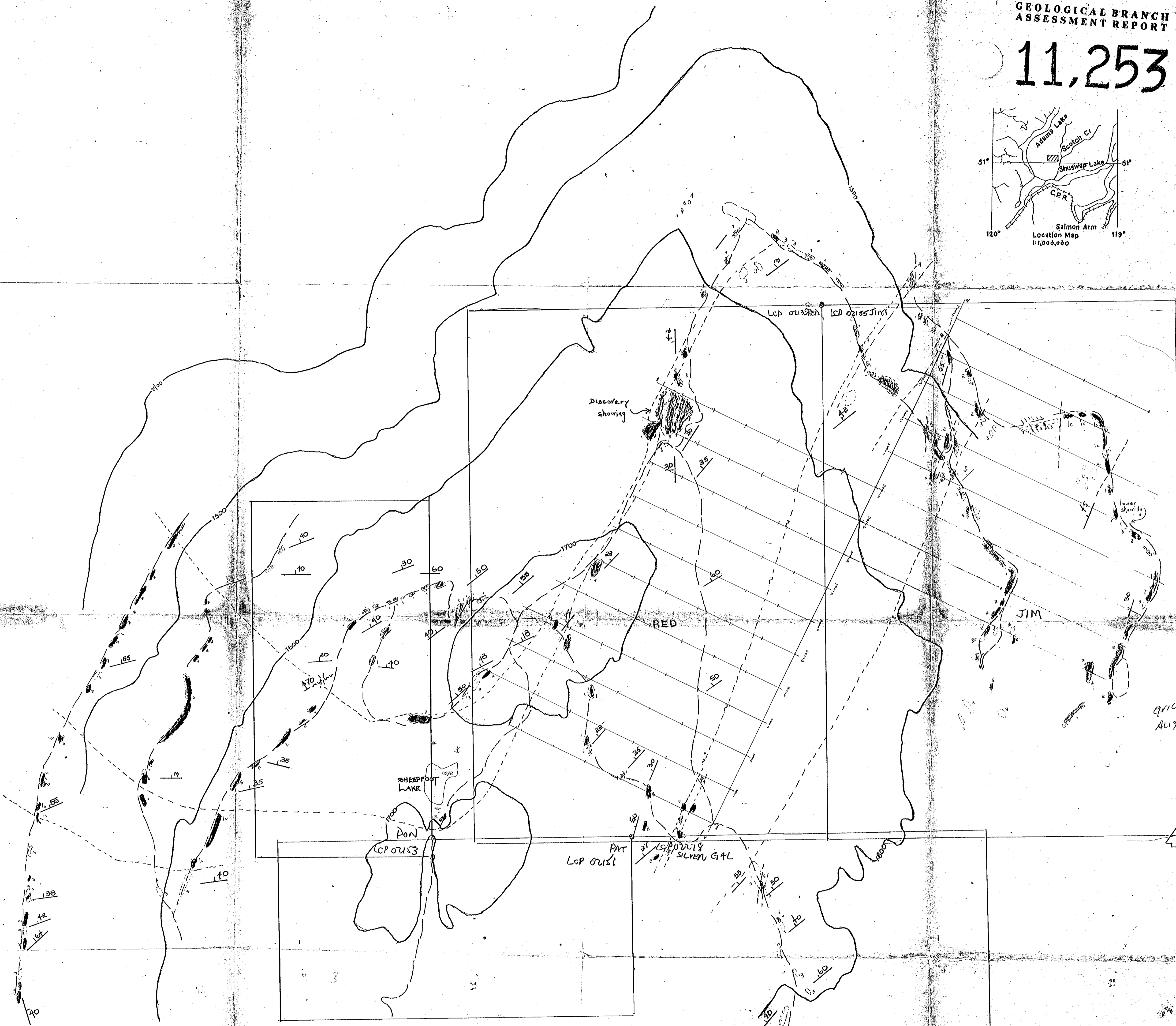
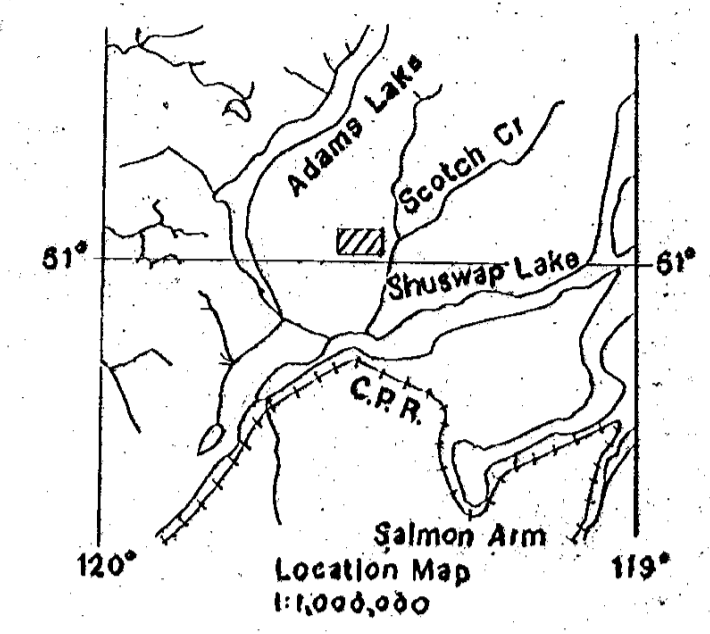
GEOLOGICAL BRANCH
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BOX 3188
SALMON ARM, B.C. V0E 2T0

Silver lichen
line 0100E/VI
scale 1:1000



grid
Aug 1983
MLM

- LEGEND:
- PHYLITE (ARGILLACEOUS)
 - GREENSTONE (IN PART GREEN SCHIST, MINOR LIMESTONE)
 - LIMESTONE (MINOR GREENSTONE)
 - GRANITIC DYKE
 - BASIC DYKE
 - SILICEOUS TUFF, CHERT, IN PART CALCAREOUS (THINLY BEDDED)
 - STRIKE, DIP
 - FRACTURE

ORILL RESOURCES LTD.
ADAMS PLATEAU, B.C.
GEOLOGY OF SILVER LICHEN

