

VICTORIA

86-526-15155



Province of British Columbia

Ministry of Energy, Mines and Petroleum Resources

ASSESSMENT REPORT  
TITLE PAGE AND SUMMARY

|  |                                |
|--|--------------------------------|
| TYPE OF REPORT/SURVEY(S)<br><b>Geophysical</b> | # TOTAL COST<br><b>6984.91</b> |
|--|--------------------------------|

AUTHOR(S) **J.J. Lajoie** SIGNATURE(S) *J.J. Lajoie*

DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED **Sept. 11, 1986** YEAR OF WORK **1986**

PROPERTY NAME(S) **TOFINO NICKEL**

COMMODITIES PRESENT **Ag, Cu, Ni**

B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN **92F-29**

MINING DIVISION **Alberni** NTS **92 F | 4 E**

LATITUDE **49°13.1'** LONGITUDE **125°37.7'**

NAMES and NUMBERS of all mineral tenures in good standing (when work was done) that form the property [Examples: TAX 1-4, FIRE 2 (12 units), PHOENIX (Lot 1706); Mineral Lease M 123; Mining or Certified Mining Lease ML 12 (claims involved)]:

**SUPER 1 (16 units), NICKEL-1 (8 units),  
NICKEL 2 (4 units), NICKEL 3 (8 units),  
LORNE (18 units), SUPER 2 (16 units),  
SUPER 3 (16 units)**

OWNER(S)  
(1) **Cominco Ltd.** (2) **P.C. BUCKLAND**

MAILING ADDRESS **700-409 Granville St. Vancouver, B.C. V6C 1T2** **GEOLOGICAL BRANCH ASSESSMENT REPORT**

OPERATOR(S) (Company paying for the work)  
(1) **same** (2) **15,155**

MAILING ADDRESS **as above**

SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization, size, and attitude): **The claim is underlain by Numerous amphibolite bands**

**interlayered with quartz feldspathic gneiss. It is likely that a swarm of mafic sills or dikes related to the Upper Triassic Karmutsen Formation was intruded into the <sup>Paleozoic</sup> Sicker Group rocks and were metamorphosed to amphibolite and gneiss respectively**

REFER: PREVIOUS WORK. **One sill contains abundant copper-nickel sulphide. The mineralized showing did not respond to HLEM, VLF-EM or magnetic surveys.**

FILMED

(over)

COMINCO LTD

EXPLORATION

WESTERN DISTRICT

NTS: 92F/4E

- ASSESSMENT REPORT -

HORIZONTAL LOOP ELECTROMAGNETIC, VLF, AND  
MAGNETIC SURVEYS ON THE  
SUPER 1 CLAIM  
ALBERNI MINING DIVISION, B.C.

Latitude:  $49^{\circ}$  ~~61~~ 13.1'Longitude:  $125^{\circ}$  37.7'

Work Performed by: Cominco Ltd

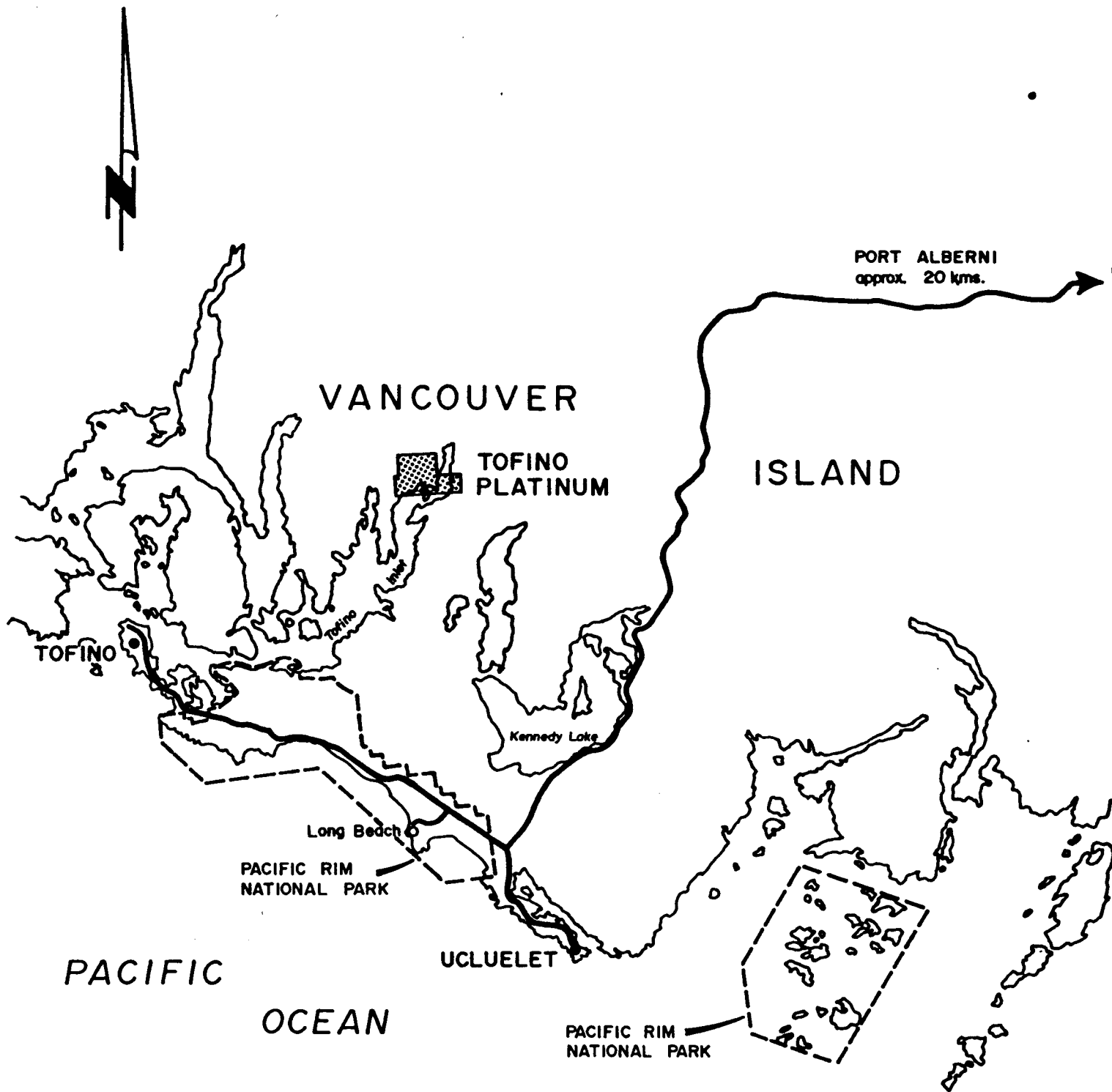
Claim Owner: P. C. BUCKLAND

JUNE, 1986

JULES J. LAJOIE

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# TOFINO PLATINUM

LOCATION MAP

NTS 92 F/4

ALBERNI M.D., B.C.



Scale: 1:380,000 approx.

Date: MAY 1986

Plate: 302-86-1

## INTRODUCTION

The Super 1 claim is part of a claim group consisting of Nickel 1, 2, 3, Lorne 1, and Super 1, 2, and 3 claims. They are located on Deer Bay, Tofino Inlet, Vancouver Island (see Plate 1). The property is about 25 km NE of the town of Tofino, and may be reached by air (helicopter or floatplane) or by boat from Tofino or several other points along Tofino Inlet.

The area of the geophysical grid is steep and heavily forested. Elevation varies from 160m to 420m.

The geology of the claim group is described in a separate assessment report by LeCouter (1985).

The objective of the geophysical survey was to establish if there was a geophysical response to the mineralization on the showing located at grid coordinate 1500W, 1200N.

## FIELD WORK

The field work was carried out in the period May 5 to May 10 including 1.5 days to mobilize and demobilize from Vancouver. One day was spent cutting and preparing line 1300N. Half a day of horizontal loop EM was lost due to equipment getting wet and this was repeated.

The geophysics crew consisted of:

Jules J. Lajoie, geophysicist, Cominco Ltd.

Austin O'Hara, geophysicist.

Steve Noakes, geochem technician, Cominco Ltd.

The crew was based in Ucluelet, B.C., and access to the property was provided by logging road and boat.

The rough terrain resulted in slow survey progress. The seemingly strange arrangement of lines is due to the inability in some places to cross the creek which follows the baseline at 1500W, and cliffs at the ends of some lines.

A total of 1.875 km of horizontal loop EM was completed with a Max Min II system using a coil separation of 100 metres and three frequencies: 444Hz, 1777Hz, and 3555Hz. 2.7 km of VLF were completed using a Crone Radem VLF instrument and the Annapolis, Maryland VLF transmitter at 21.4 kHz. 2.725 km of magnetics were completed using a Scintrex MP-2 magnetometer and the data were drift corrected in the normal manner by first establishing base stations along the baseline.

## DATA PRESENTATION

The results of this survey are presented in two location maps and 4 geophysical profile maps, listed as follows:

|                                 |  |
|---------------------------------|--|
| Plate 302-86-1<br>(in text)     | Location Map<br>Scale 1:380,000 (approx)                     |
| Plate 302-86-2<br>(in envelope) | Grid and Claim Location Map<br>Scale 1:5000                  |
| Plate 302-86-3<br>(in envelope) | Horizontal Loop EM<br>Scale 1:2500                           |
| Plate 302-86-4<br>(in envelope) | Horizontal Loop EM<br>444 IP Subtracted out.<br>Scale 1:2500 |
| Plate 302-86-5<br>(in envelope) | VLF Dip Angle and<br>Field Strength Profiles<br>Scale 1:2500 |
| Plate 302-86-6<br>(in envelope) | Total Field Magnetic Data<br>Scale 1:2500                    |

## INTERPRETATION

Plate 302-86-3 shows the horizontal loop data. Although care was taken to chain the lines carefully and distance corrections were applied, noisy in-phase data results from the very rough terrain. No response of interest occurs in this data. Plate 302-86-4 shows the 1777Hz and 3555Hz data with the 444Hz in-phase subtracted from the higher frequency in-phase data, to delete the distance errors in the in-phase data. Still, no anomaly of interest is observed.

Plate 302-86-5 shows the VLF data. There is no response over the showing at 1200N on the baseline and no significant dip-angle crossover anomaly elsewhere on the grid.

Plate 302-86-6 shows the magnetic data. There is no distinctive response over the showing. Variations of about 300 gammas occur on the grid with some line to line correlation.

CONCLUSION

The mineralized showing at 1200N, 1500W did not respond on Horizontal Loop EM, VLF, or magnetic surveys.

Report by:

*Jules Lajoie*

JULES J. LAJOIE, Ph.D., P.Eng.  
Geophysicist,  
Cominco Ltd.

Approved for release by:

*W. J. Wolfe*

W.J.WOLFE, Ph.D., P.Eng.  
Manager, Western District Exploration,  
Cominco Ltd.

DISTRIBUTION

Mining Recorder (2)  
Western District Exploration  
Exploration Administration  
Geophysics

## REFERENCES

LECOUTER P.C. 1986, Geology, Geochemistry, trenching on the Nickel 1,2,3, the Lorne and the Super 1,2,3, Alberni Mining Division: Assessment Report, Dec. 1985.



APPENDIX I  
-----

IN THE MATTER OF THE B.C. MINERAL ACT  
AND THE MATTER OF A GEOPHYSICAL PROGRAMME  
CARRIED OUT ON THE SUPER CLAIMS  
LOCATED 25 KM ENE OF TOFINO, B.C.  
IN THE ALBERNI MINING DIVISION OF THE  
PROVINCE OF BRITISH COLUMBIA, MORE PARTICULARLY  
N.T.S. 92 F/4

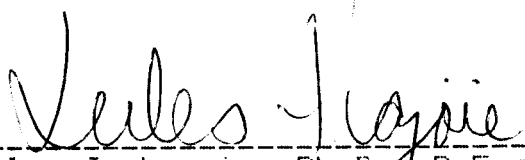
S T A T E M E N T  
-----

I, Jules J. Lajoie, of the City of West Vancouver in the Province of British Columbia, make oath and say:

1. THAT I am employed as a geophysicist by Cominco Ltd. and, as such have a personal knowledge of the facts to which I hereinafter depose;

2. THAT annexed hereto and marked as "Exhibit A", to this statement is a true copy of expenditures incurred on a geophysical survey on the SUPER claims;

3. THAT the said expenditures were incurred between May 5 and May 10, 1986, for the purpose of mineral exploration of the above-noted claims.

  
-----  
Jules J. Lajoie, Ph.D., P.Eng.  
Geophysicist, Cominco Ltd.

## APPENDIX II

## EXHIBIT "A" - STATEMENT OF GEOPHYSICAL EXPENDITURES (1986)

## SUPER CLAIMS

## 1. SALARIES

|                                   |            |
|-----------------------------------|------------|
| J.J. Lajoie: 6.5 days @ \$280/day | \$1,820.00 |
| S.Noakes: 5 days @ \$134.64/day   | \$ 673.20  |
| A.P. O'Hara: 8.5 days @ \$160/day | \$1,360.00 |

---

\$3,853.20

## 2. OPERATING DAY CHARGES

Note: This charge is applied for those days on which useful data are acquired, to cover the costs of data compilation, drafting, interpretation, and report.

|                           |            |
|---------------------------|------------|
| 4 days @ \$250.00 per day | \$1,000.00 |
|---------------------------|------------|

## 3. EQUIPMENT RENTAL

|            |                   |          |
|------------|-------------------|----------|
| Max Min II | 5 days @ \$45/day | \$225.00 |
| VLF        | 5 days @ \$15/day | 75.00    |
| MP-2       | 5 days @ \$15/day | 75.00    |

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\$375.00

## 4. EXPENSE ACCOUNTS

|              |          |
|--------------|----------|
| J. J. Lajoie | \$570.00 |
| A. P. O'Hara | \$156.00 |
| S. Noakes    | \$700.71 |

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\$1,426.71

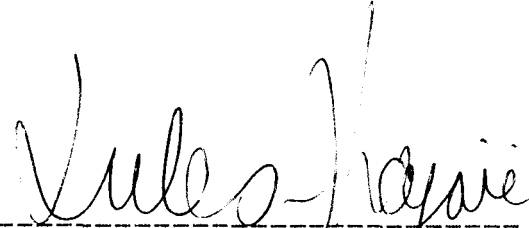
5. MISCELLANEOUS

Shipping charges from Toronto \$330.00

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T O T A L \$6,984.91

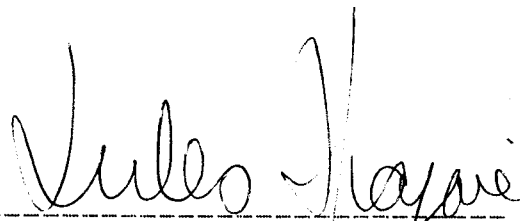
I certify this to be a true statement of expenditures for the geophysical program on the SUPER claims in 1986.

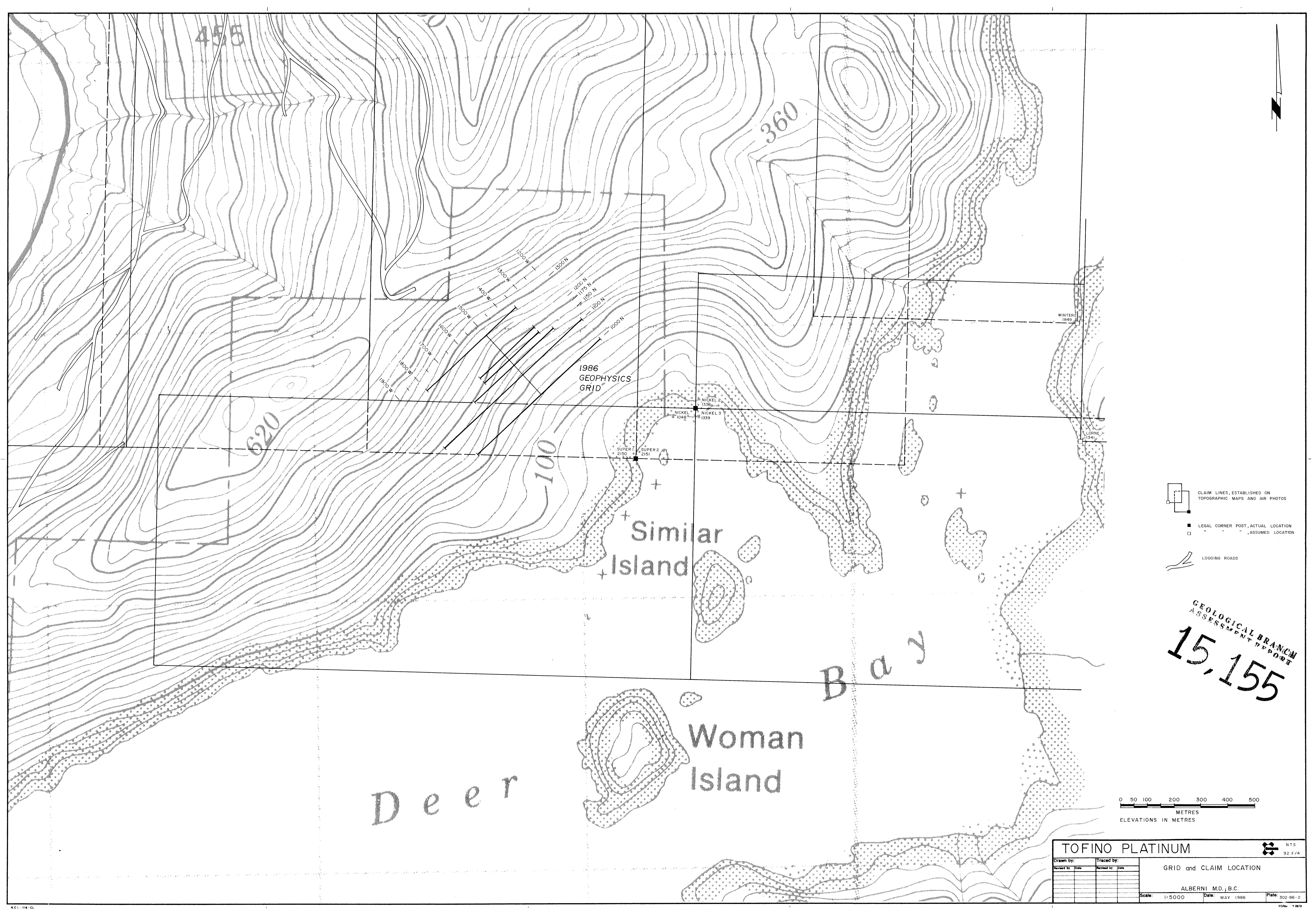
  
-----  
Jules J. Lajoie, Ph.D., P.Eng.  
Geophysicist, Cominco Ltd.

APPENDIX IIICERTIFICATION

I, Jules J. Lajoie, of 5655 Keith Road, in the City of West Vancouver, in the Province of British Columbia, do hereby certify that:

1. I graduated from the University of Ottawa in 1968 with an Honours B.Sc. in Physics, from the University of British Columbia in 1970 with an M.Sc. in Geophysics, and from the University of Toronto in 1973 with a Ph.D. in Geophysics.
2. I am a registered member (#12077) of the Association of Professional Engineers of the Province of British Columbia, the Society of Exploration Geophysicists, and the British Columbia Geophysical Society.
3. I have been practicing my profession for the past thirteen years.

  
-----  
Jules J. Lajoie, Ph.D., F.Eng.  
Geophysicist, Cominco Ltd.



455

360

620

100

1986  
GEOPHYSICS  
GRID

Similar  
Island

B a y

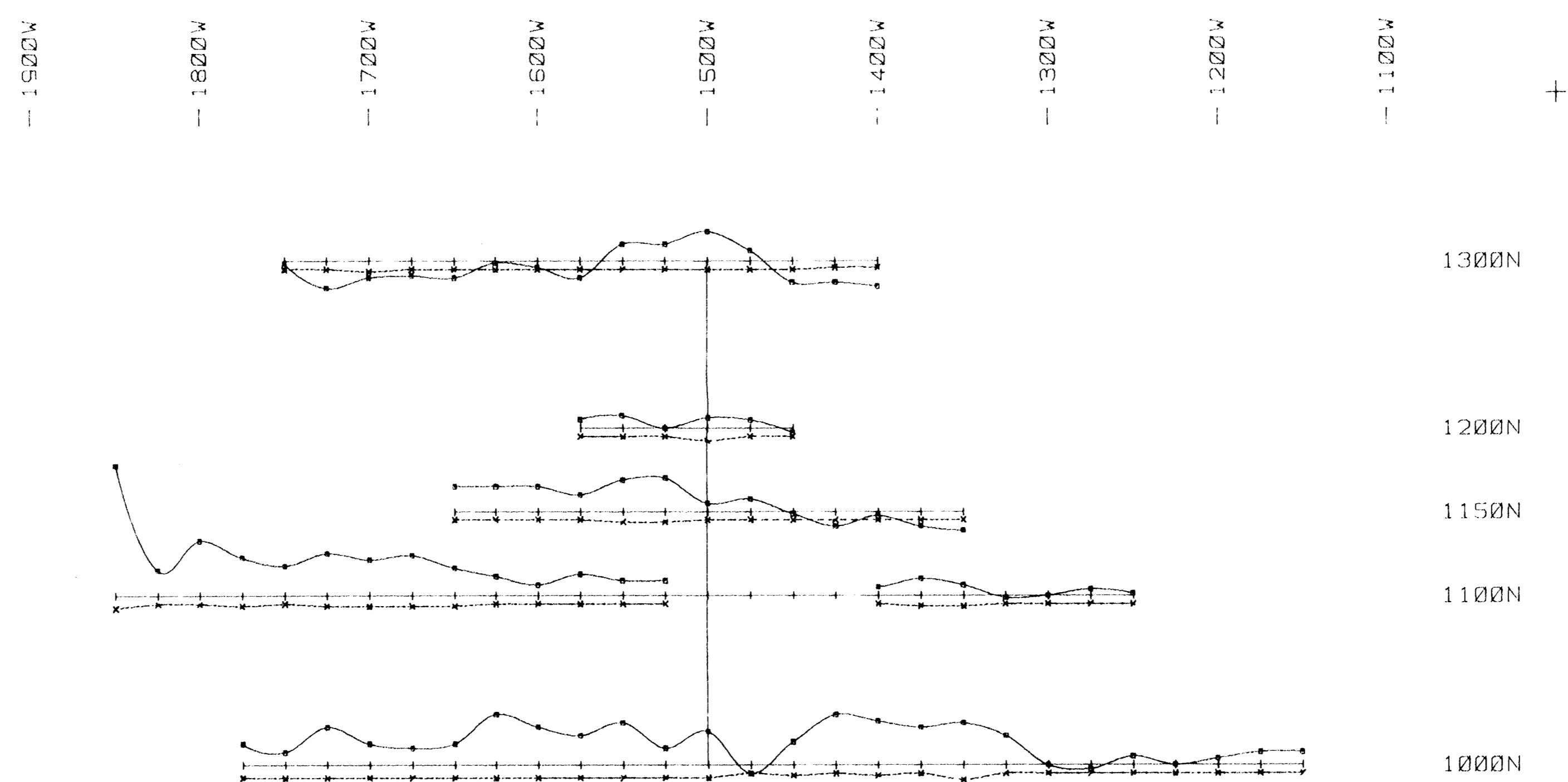
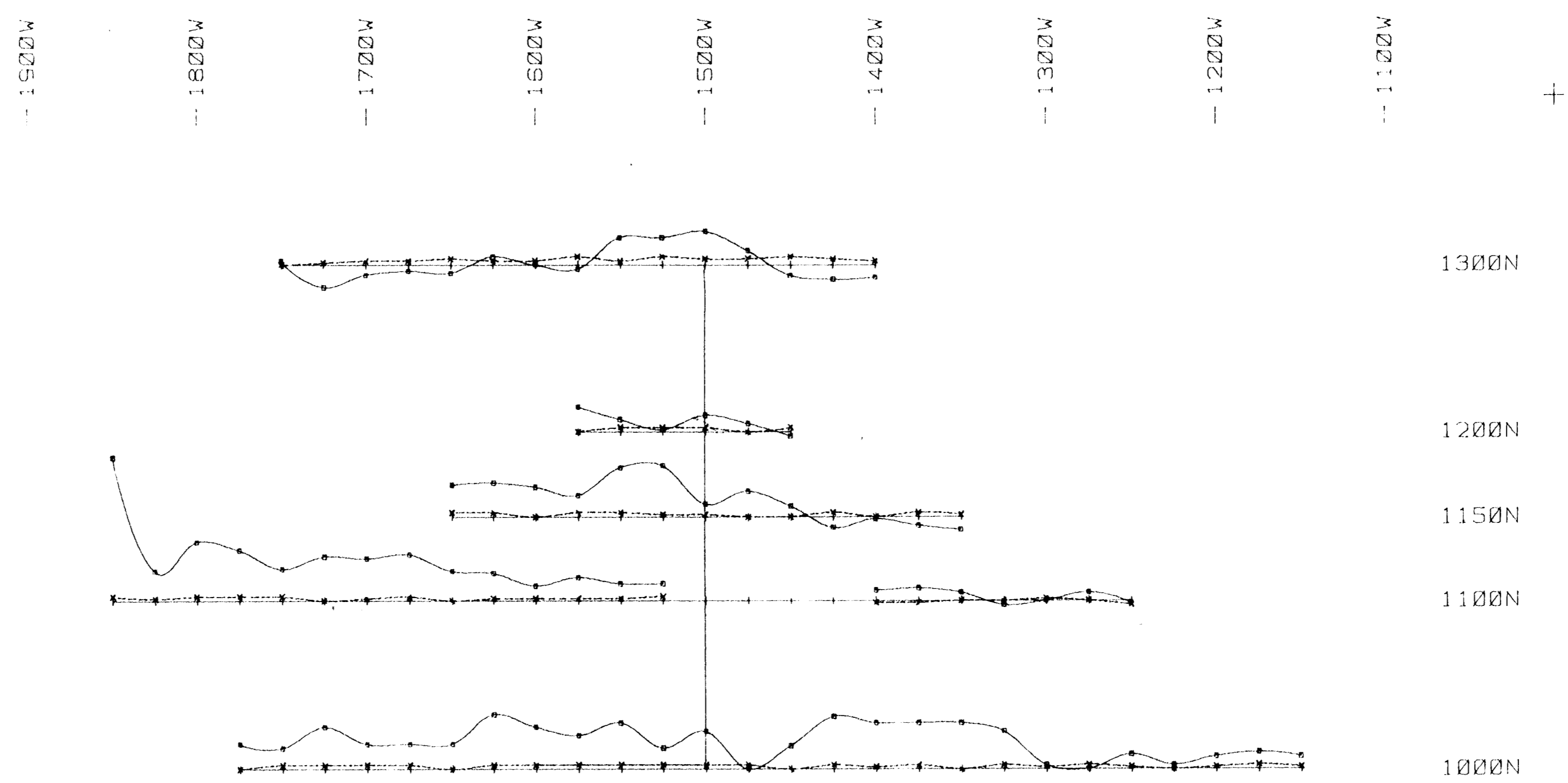
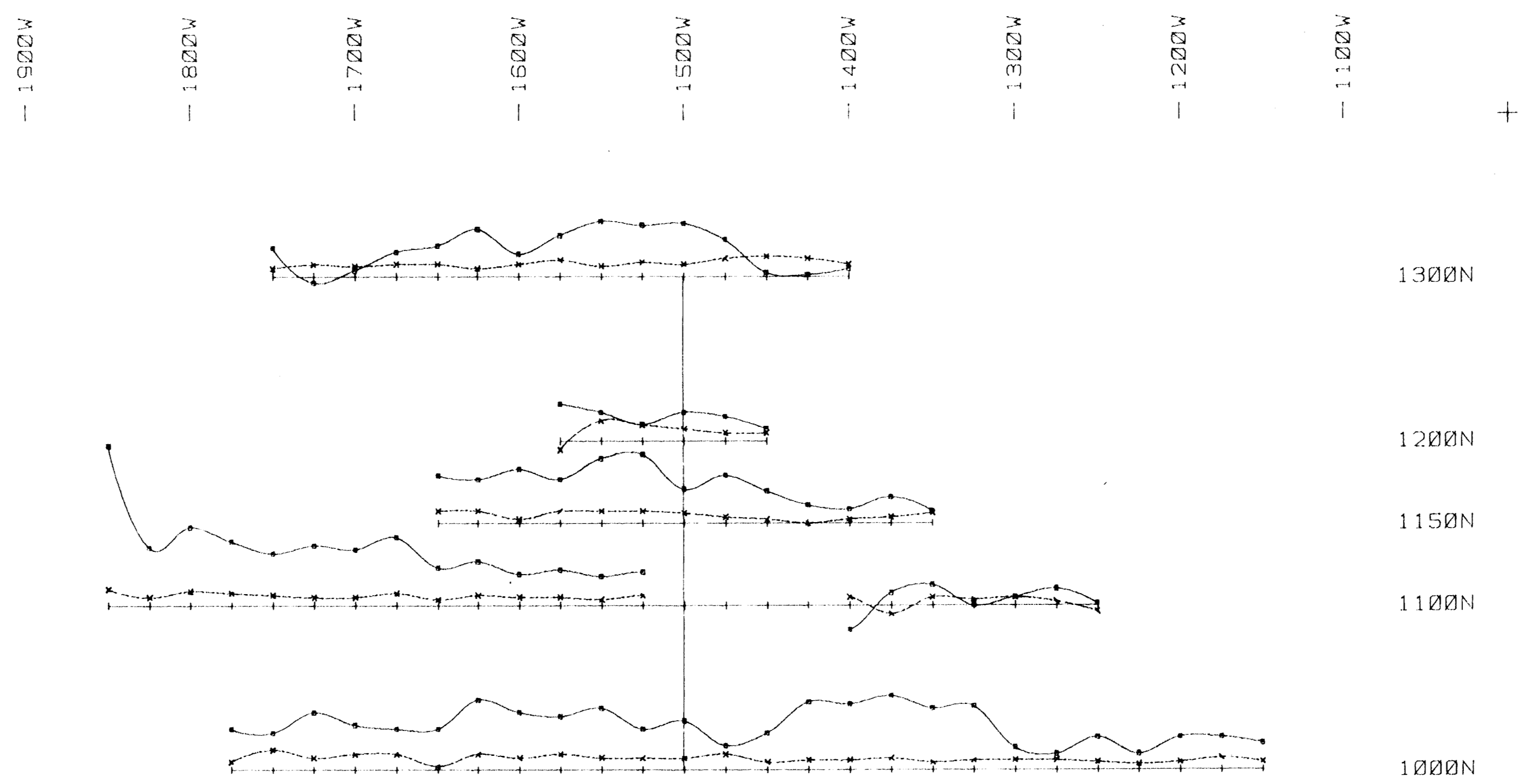
Woman  
Island

D e e r

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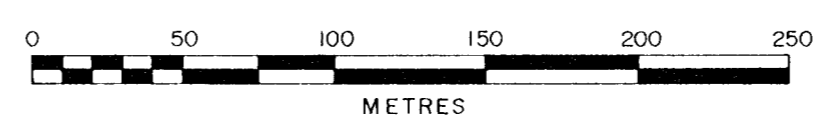
0 50 100 200 300 400 500  
METRES  
ELEVATIONS IN METRES

|                 |             |                         |                 |
|-----------------|-------------|-------------------------|-----------------|
| TOFINO PLATINUM |             | NTS<br>92 F/4           |                 |
| Drawn by:       | Traced by:  | GRID and CLAIM LOCATION |                 |
| Revised by:     | Revised by: | ALBERNI M.D.; B.C.      |                 |
| Date:           | Date:       | Scale: 1:5000           | Date: MAY 1986  |
|                 |             |                         | Plate: 302-86-2 |



COIL SEPARATION  
100 metres

INSTRUMENT: MAX-MIN II



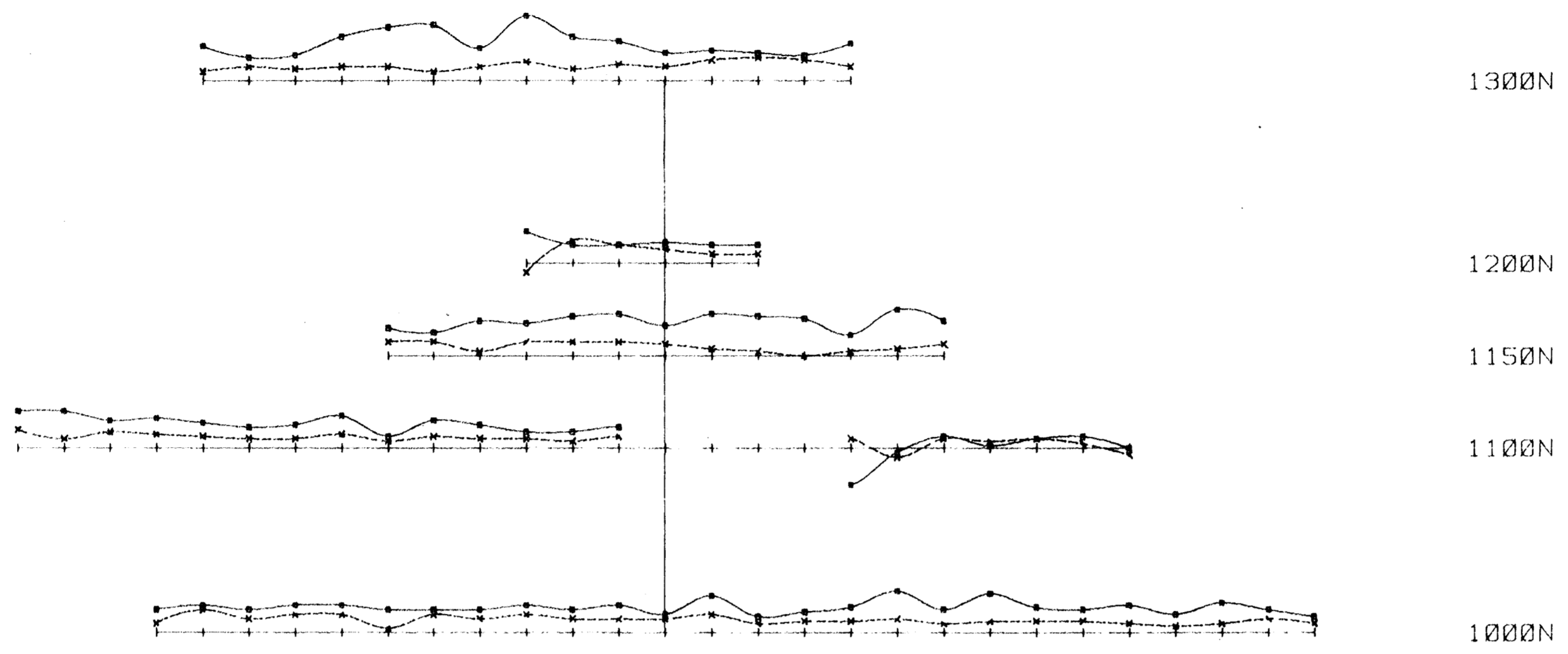
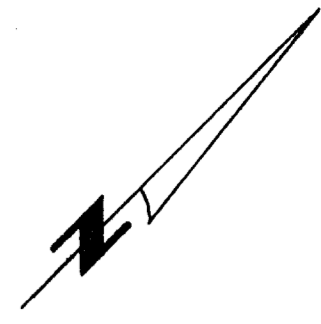
GEOLOGICAL BRANCH  
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TOFINO PLATINUM

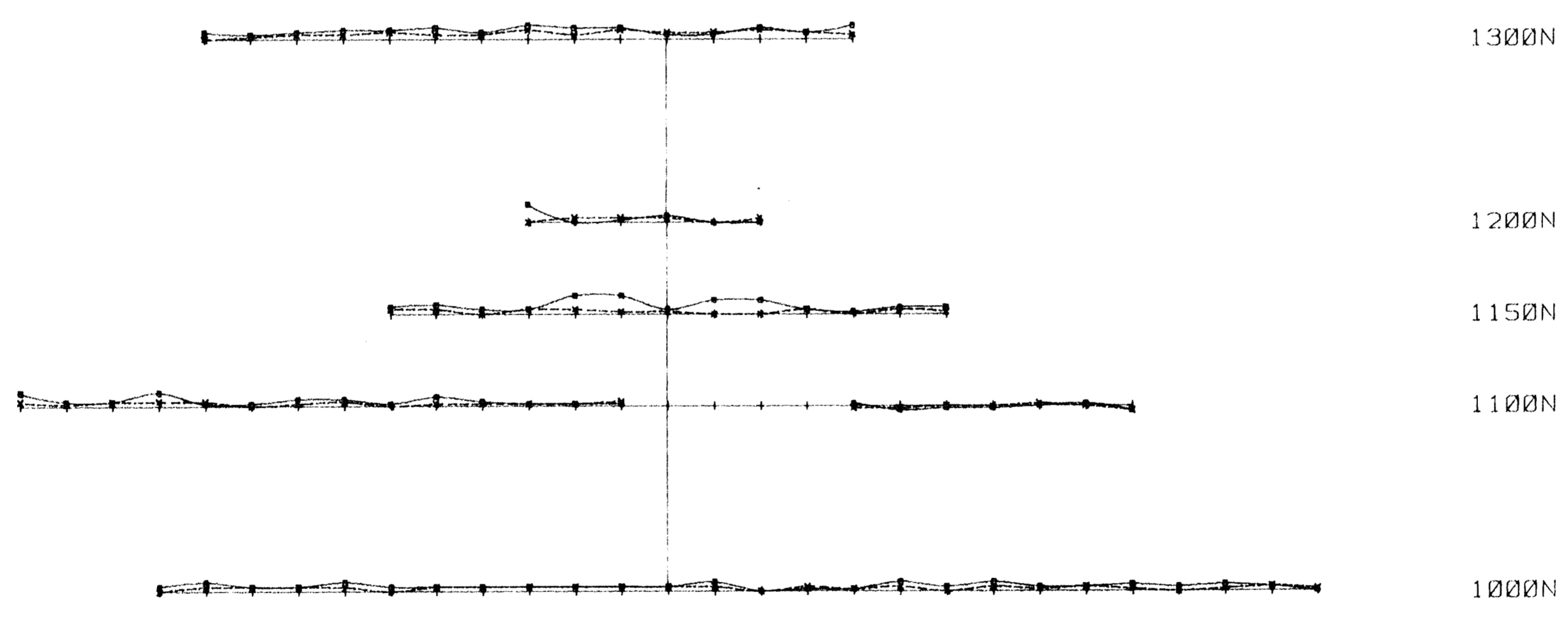
|               |                |   |
|---------------|----------------|---|
| Drawn by:     | Traced by:     | HORIZONTAL LOOP EM<br>3555 Hz, 1777 Hz and 444 Hz IP and OP<br>ALBERNI M.D., B.C. |
| Checked by:   | Checked by:    |   |
| Scale: 1:2500 | Date: MAY 1986 | Plate: 302-86-3   |

NTS  
92 F/4

- 1900W      - 1800W      - 1700W      - 1600W      - 1500W      - 1400W      - 1300W      - 1200W      - 1100W      +



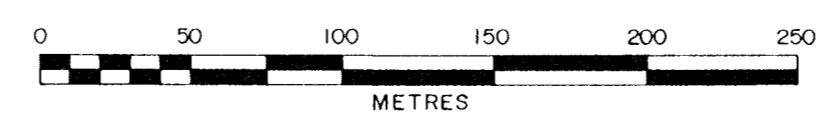
- 1900W      - 1800W      - 1700W      - 1600W      - 1500W      - 1400W      - 1300W      - 1200W      - 1100W      +



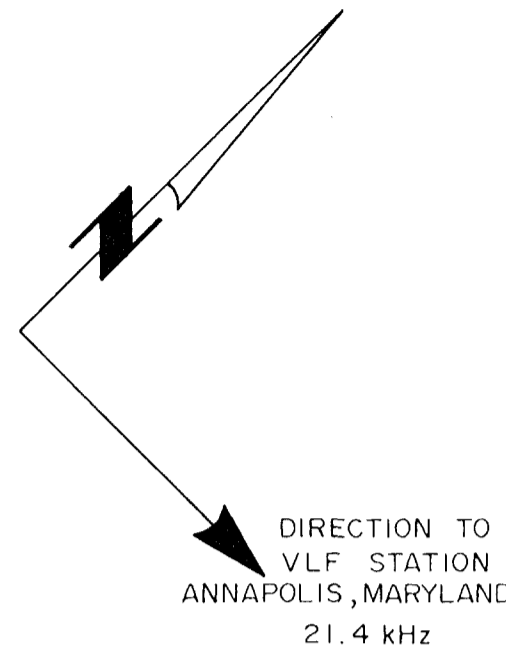
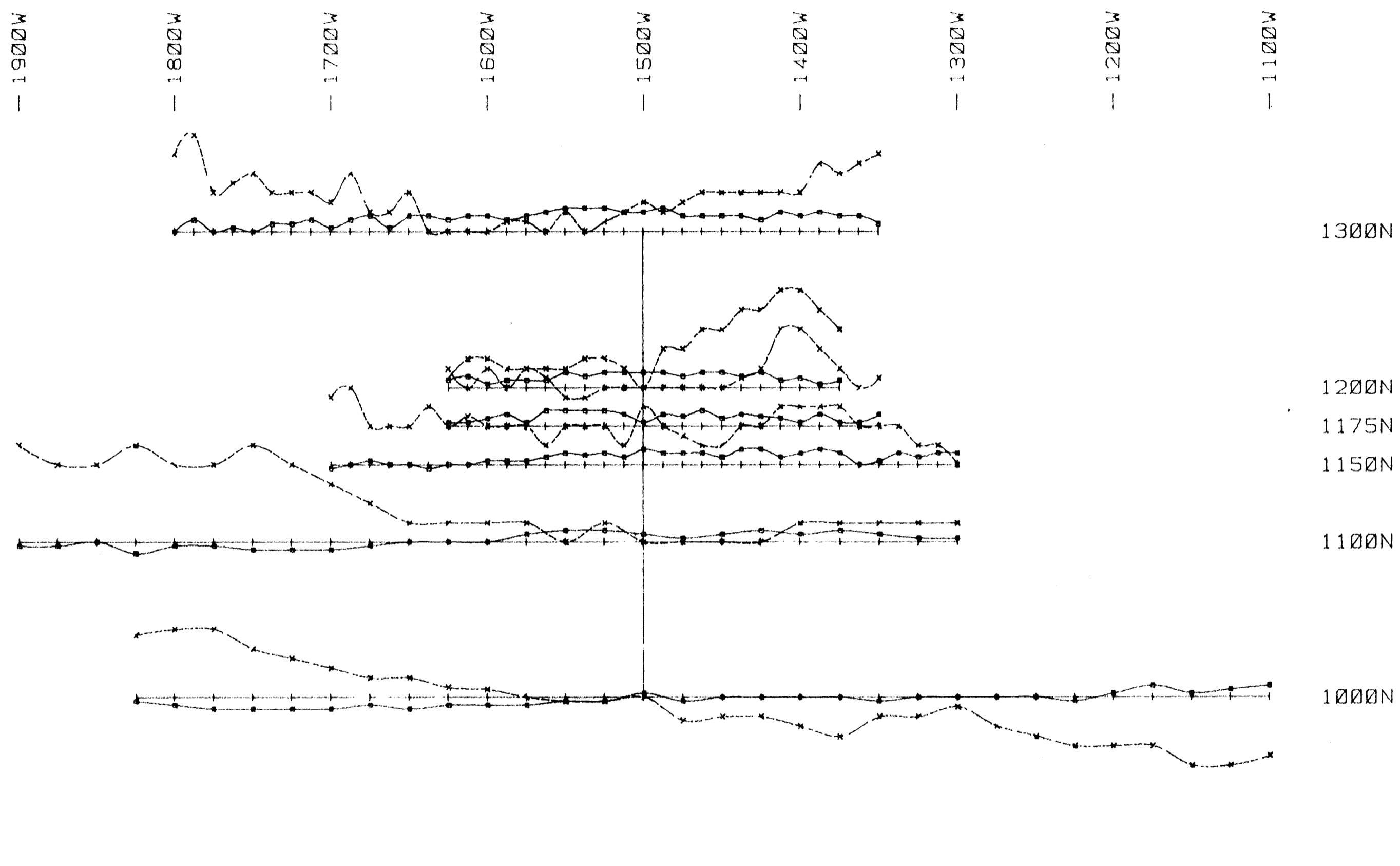
GEOLOGICAL BRANCH  
ASSESSMENT REPORT  
**15,155**

COIL SEPARATION  
100 metres

INSTRUMENT : MAX-MIN II



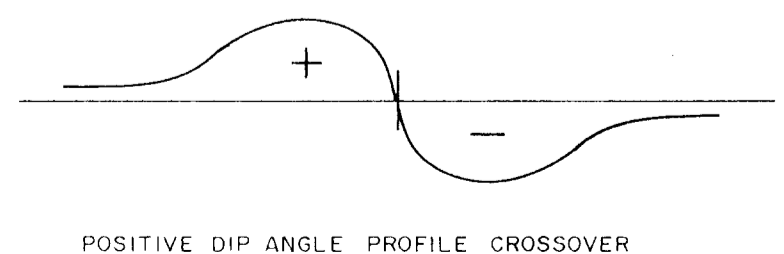
|                        |                |   |
|------------------------|----------------|---|
| <b>TOFINO PLATINUM</b> |                | NTS<br>92 F/4   |
| Drawn by:              | Traced by:     |   |
| Revised by:            | Revised by:    | HORIZONTAL LOOP EM WITH<br>444 Hz IN-PHASE SUBTRACTED OUT<br><br>ALBERNI M.D., B.C. |
|                        |                |   |
| Scale: 1 2500          | Date: MAY 1986 | Plate: 302-86-4   |



20.00  
DIP (DEG)  
(LESS 20°E)

20.00  
FIELD STRENGTH  
(LESS 220)

GEOLOGICAL BRANCH  
ASSESSMENT REPORT  
**15,155**

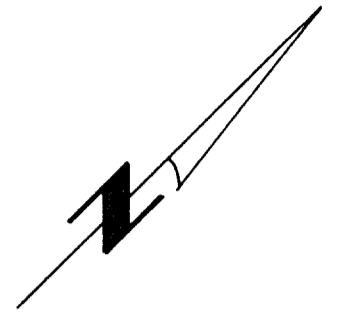
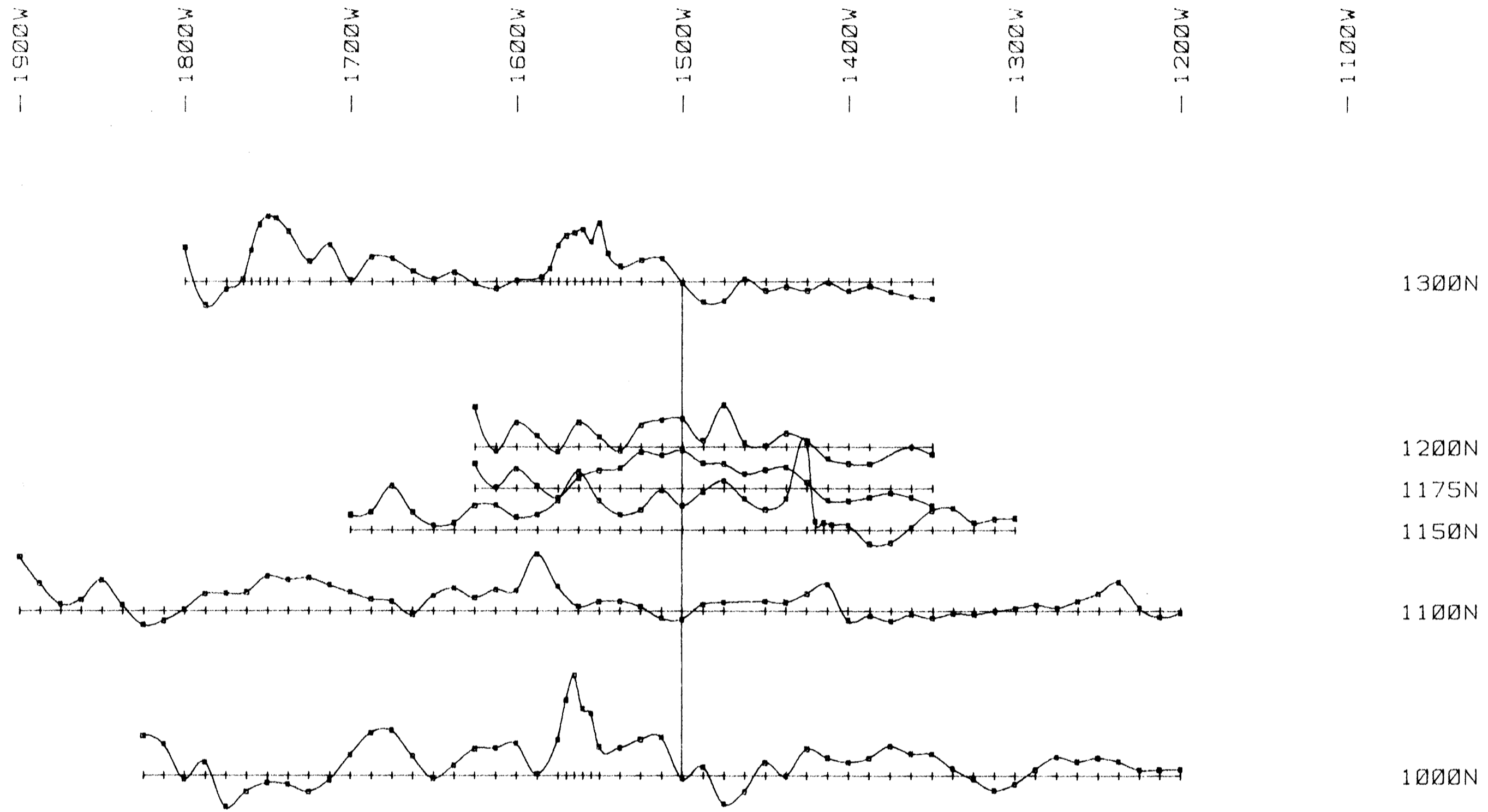


INSTRUMENT: CRONE RADEM



|                        |       |                |       |  |
|------------------------|-------|----------------|-------|--|
| <b>TOFINO PLATINUM</b> |       |                |       | NTS<br>92 F/4                                |
| Drawn by:              |       | Traced by:     |       | VLF DIP ANGLE and<br>FIELD STRENGTH PROFILES |
| Revised by:            | Date: | Revised by:    | Date: |  |
|                        |       |                |       | ALBERNI M.D.; B.C.                           |
| Scale: 1: 2500         |       | Date: MAY 1986 |       | Plate: 302-86-5                              |





**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**15,155**

INSTRUMENT: SCINTREX MP-2 MAGNETOMETER



| TOFINO PLATINUM |      |                |      | N.T.S.<br>92 F/4                                      |  |
|-----------------|------|----------------|------|---|--|
| Drawn by:       |      | Traced by:     |      | TOTAL FIELD MAGNETIC DATA<br>BASE LEVEL 56,000 gammas |  |
| Revised by      | Date | Revised by     | Date |   |  |
|                 |      |                |      | ALBERNI M.D., B.C.                                    |  |
|                 |      |                |      |   |  |
| Scale: 1:2500   |      | Date: MAY 1986 |      | Plate: 302-86-6                                       |  |