GEOPHYSICAL SURVEYS

SCOTIA PROJECT

SCOTIA 1 & 2 CLAIMS
(RECORD # 1418, 1419)

ALBERE 1 - 4 CLAIMS
(RECORD # 19318, 19319, 19320, 19321)

SKEENA MINING DISTRICT

BRITISH COLUMBIA

NTS 103I4E

LAT 54 05'N, LONG 129 40'W

Owner: KIDD CREEK MINES LTD.

Operator: KIDD CREEK MINES LTD.

DECEMBER 11, 1987.

G.A. HENDRICKSON, P.GEOPH.

ARIS SUMMARY SHEET

District Geologist, Smithers   Off Confidential: 88.12.31

ASSESSMENT REPORT 16795   MINING DIVISION: Skeena

PROPERTY: Scotia
LOCATION: LAT 54 04 48   LONG 129 40 12
UTM 09 5992413 456164
NTS 103I04E
CLAIM(S): Scotia 1
OPERATOR(S): Kidd Creek Mines
AUTHOR(S): Hendrickson, G.A.;Hassard, F.
REPORT YEAR: 1987, 31 Pages
COMMODITIES
SEARCHED FOR: Zinc
GEOLOGICAL
SUMMARY: The claims are underlain by metamorphic rocks of the Central Gneiss Complex of possible early Paleozoic to early Mesozoic age. Metamorphic grade is amphibolite. The property hosts the incompletely explored Scotia deposit, which presently has reserves in the order of 200,000 tonnes grading approximately 12-14 per cent zinc.
WORK
DONE: Geophysical,Physical
EMGR 9.0 km;VLF
Map(s) - 1; Scale(s) - 1:5000
LINE 10.7 km
Map(s) - 1; Scale(s) - 1:5000
MAGG 9.0 km
Map(s) - 3; Scale(s) - 1:5000
RELATED
REPORTS: 09302,10332,13794
MINFILE: 103I 007

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Fraser & Hjelt Filtered V.L.F. Sections.

INTRODUCTION

This report reviews the geophysical work carried out by Delta Geoscience Ltd. on the Scotia Project during the period August 27 - 31, 1987. Kidd Creek Mines Ltd., a wholly owned subsidiary of Falconbridge Limited, owns and operates the mineral claims involved in the Scotia project. These claims are the Scotia 1 and 2, and the Albere 1 - 4. The claims are in the Skeena Mining District, approximately 50 kms. southeast of Prince Rupert, B.C.

The project was initiated to explore mineral showings within an assemblage of Permian(?) metasedimentary and volcanic rocks that exist as a pendant within the Coast Range intrusives. The exploration target is volcanogenic massive sulphide deposits.

Falconbridge Limited contracted the geophysical program to Delta Geoscience Ltd. G. Hendrickson, the author of this report and Senior Geophysicist for Delta Geoscience Ltd., planned the geophysical work in consultation with Frank Hassard, the Senior Project Geologist for Falconbridge Limited.

Approximately 10.7 kilometres of grid, located above the treeline, was chained and marked by Falconbridge personnel. This grid was utilized for approximately 9 kms. of VLF/MAG/GRAD surveys, which are the first surface geophysical surveys performed on this property. Surveys were designed to study the magnetic susceptibility and conductivity variations of the bedrock and mineralized zones.

Access to the survey area is by helicopter from Prince Rupert or Terrace. During the 1987 program, Okanagon Helicopters of Terrace were utilized for mobilization and demobilization of camp and crew and for camp service. Accommodation for the Delta Geoscience Ltd. geophysicist was provided by Falconbridge in their camp at the Scotia project.


FIGURE 1
LOCATION MAP
WEST SCOTIA PROPERTY
SCALE 1cm = 90 kilometres
(approx.)
ALASKA
YUKON
TERRITORY
DISTRICT OF
MACKENZIE
WHITEHORSE
SKAGWAY
WATSON LAKE
YELLOWKNIFE
BRITISH
COLUMBIA
FORT
NELSON
ALBERTA
STEWART
B.C.R.
FORT
ST. JOHN
PRINCE
RUPERT
TERRACE
B.C.R.
C.N.R.
WEST
SCOTIA
PROPERTY
PRINCE
GEORGE
EDMONTON
C.N.R.
C.N.R.
C.P.R.
KAMLOOPS
CALGARY
B.C.R.
VANCOUVER
VICTORIA
U. S. A.

PERSONNEL - Delta Geoscience Ltd.

Grant Hendrickson	- Senior Geophysicist/Supervisor
Tim Tokarsky	- Junior Geophysicist - completed field work August 27 - 31, 1987.

PERSONNEL - Falconbridge Limited.

Peter Manojlovic	- Geologist/Party Leader	) Camp set-up &
J.D. Fournier	- Geologist	) demob; grid
Bruce Anderson	- Geological Assistant	) lay-out;
Guido Presch	- Geological Assistant	) August 24-31,
Mike Vande Guchte	- Geological Assistant	) 1987.

EQUIPMENT

1 - Scintrex I.G.S.II System, configured as a VLF/MAG/ GRADIOMETER.
1 - Scintrex MP-3 Base Station Magnetometer.
1 - Hewlett Packard Quietjet Printer.

DATA PRESENTATION

Stacked profile plans of the filtered V.L.F., Magnetics and Gradiometer data have been prepared at a scale of 1:5000.

The Magnetics data is also presented in a contoured plan format, at a scale of 1:5000.

Profiles aid in interpretation, whereas contoured plans give a good spatial view of the data. Profile data is always presented increasing to the right from a base level (value at the line position).

Fig. #1 - Location Map.
Fig. #2 - Grid, Conductors.
Fig. #3 - Filtered V.L.F. Profiles.
Fig. #4 - Magnetic Profiles.
Fig. #5 - Gradiometer Profiles.
Fig. #6 - Magnetic Contour Plan.

Separate profile sections of the V.L.F. data are also given with the Fraser (Fraser, 1969) and Hjelt (Karous and Hjelt, 1983) filtered values posted below the profiles. The scale of these sections is 1:2500. This data is appended to the back of this report.

SURVEY PROCEDURE

Falconbridge Limited ensured that the lines were cut and accurately chained prior to the arrival of the Delta Geoscience Ltd, geophysicist. Station interval was set at 20 metres horizontal, thus the chaining crews had to correct for the slope. Lines were spaced 100 metres apart.

Surveys as mentioned earlier were designed to evaluate the magnetic susceptibility and conductivity of mineralized zones and their host rocks.

The combined VLF/MAG/GRAD survey is a very cost effective method to achieve the above goals, particularly in the rough terrain of the survey area.

The V.L.F. survey was expected to respond equally well to both sulphides and/or structures. The Magnetics were expected to respond primarily to the lithology and any near surface pyrrhotite/magnetite mineralization.

V.L.F:

The magnetic and V.L.F. surveys were performed simultaneously. V.L.F. measurements were taken every 20 metres along grid lines. The Seattle V.L.F. station, NLK, transmitting at 24.8 khz was chosen as the transmitter. This station is only approximately 20 off strike with the expected strike of the geology, thus still provided good electromagnetic coupling for any conformable conductors and excellent primary field strength.

Three components of the V.L.F. electromagnetic field were measured: the horizontal field strength, vertical in-phase and vertical quadrature. All of the vertical in-phase V.L.F. data was subsequently filtered using the Fraser and Hjelt filters. This filtering helps to understand the spatial position of conductors, both along strike and downdip. These filtering techniques are referenced at the back of this report.

An important parameter of V.L.F. surveying should be noted - the skin depth. Skin depth is a useful parameter for describing the depth of penetration of V.L.F. signals. A good conductor buried at one skin depth will produce a signal at the surface with an amplitude equal to approximately 10% of the incident field. Detection of this weak signal would be difficult in the presence of any noise. Skin depth decreases with an increase in frequency and decrease of the resistivity of the bedrock and/or overburden.

Magnetics:

As mentioned earlier, measurements of the total magnetic field strength were taken every 20 metres along grid lines, simultaneously with the V.L.F. survey. Accuracy of the portable magnetometer readings is 1 nanotesla. An aluminium staff was used to keep the sensors approximately 2.5 and 3.0 metres above the ground.

Magnetic field measurements were corrected for any diurnal variations, through the use of the MP-3 base station magnetometer located in the Falconbridge Camp at the Scotia property. A base station standard of 57,500 nanotesla was assumed for this project.

Gradiometer Survey:

The magnetic gradiometer survey is a useful adjunct to magnetic surveying. The gradiometer acts like a filter, in that it enhances local near surface anomalies at the expense of long wavelength regional anomalies. The rate of fall-off of the magnetic field with height is much higher for local sources than for regional sources and therefore a higher gradient (rate of change) can be recorded over local sources using sensors 0.5 metres vertically apart.

Erratic concentrations of near surface magnetite (both within the bedrock and overburden) can create noise for the gradiometer and thus lessen its effectiveness.

A useful feature of the gradiometer data is that it allows a simple calculation to be made for the depth of an anomaly (assuming a dipole field):

$$d = \frac{-3\ \text{(total field anomaly)(in nanotesla)}}{\text{Gradient Anomaly (in nanotesla/metre)}}$$

The gradiometer can also help to accurately distinguish the contact area between rocks of different magnetic susceptibility.

DISCUSSION OF THE DATA

This report has been written with only limited knowledge of the grid geology. A perusal of the geophysical data does however suggest some possibilities about the geology. This discussion is quite general, in order to give an overall view of the data. Individual anomalies in areas of interest could be interpreted further, if necessary.

The data generally indicates the overburden thickness is minimal (less than 5 metres). Topography problems limited the size of the grid and prevented some sections of the lines from being surveyed.

A spectacular outcropping of massive sulphide (predominantly sphalerite) exists at approximately 14+00W, 13+50N. This well known showing has received at least three drilling programs over the past forty years. Drilling results have indicated a small tonnage (approx. 200,000 tons) of ore grade zinc mineralization.

To the writer's knowledge, this geophysical survey is the first surface geophysical survey performed on the property. The strong north trending V.L.F. responses are encouraging and may represent the trace of the known mineralization and/or new mineralized horizons. The geophysical data must be tied into the drilling and detailed geological results to test this hypothesis. The apparent weakening of the V.L.F. response (centered around 13+50N, 18+00W) is likely due to the conductor having a flat plunge, thus the depth to the top of the conductor becomes progressively deeper as one moves to the ridge top (line 19+00W). Some of the V.L.F. conductors will undoubtedly be due to north trending unmineralized structures - others may be due to pyrite and pyrrhotite mineralization that is often associated with zinc mineralization. V.L.F. conductors that appear conformable with the geology may be more significant than those that appear to crosscut the magnetic horizons. Dip of the conductors appears steep, but a general north direction to the dip is indicated. A study of the Hjelt V.L.F. filtered sections provided at the back of this report will provide further insight into the dip of the conductors.

The magnetic data (magnetic highs) show that a fair amount of erratically disseminated magnetite is present in certain horizons. The higher magnetic susceptibility of these horizons generally indicates that the bedrock is more mafic. The areas of magnetic lows (low magnetic susceptibility) may be due to felsic volcanic horizons or metasediments. The large area of low magnetic susceptibility centered around 18+00W, 15+00N may represent a large felsic horizon. Intercalated magnetic lows within the higher magnetic background may also be due to felsic volcanic horizons. It is interesting to note that the stronger V.L.F. conductors tend to run along the magnetically inferred contact between mafic and felsic rock.

CONCLUSION AND RECOMMENDATIONS

The ground geophysical surveys have revealed considerable new and important information about this property, in a very cost effective manner. An expansion of the grid is clearly warranted at some future date.

The previous years drilling results should be plotted on the V.L.F. conductor plan and on the Hjelt filtered V.L.F. sections to see which conductors have been intersected by drill holes and, more importantly, the cause of the conductivity.

The contoured magnetic plan should be related to the detailed grid geology to test the hypothesis of differentiating mafic and felsic horizons with magnetics.

G. Hendrickson

Grant A. Hendrickson, P.Geoph.

REFERENCES

Fraser, D.C., 1969: Contouring of VLF-EM data: Geophysics 34. 958-967.

Karous, M., and Hjelt, S.E., 1983: Linear Filtering of V.L.F. Dip-Angle Measurements: Geophysical Prospecting.

STATEMENT OF QUALIFICATION

Grant A. Hendrickson

- B.Science, U.B.C. 1971, Geophysics option.
- For the past 17 years, I have been actively involved in mineral exploration projects throughout Canada and the United States.
- I am a registered Professional Geophysicist with the Association of Professional Engineers, Geologists and Geophysicists of Alberta.
- I am an active member of the S.E.G., E.A.E.G., and B.C.G.S.

G. Hendrickson

Grant A. Hendrickson, P.Geoph.

COST STATEMENT

BAY PROJECT - EXPENDITURES JULY 4 - SEPT. 4, 1987

GRID

Grid Location: Six mandays plus 1 manday supervision Pickets and materials	$ 670.00. 50.00.
Mob. and Demob: 2 men pro rata Vancouver/Terrace return	$ 700.00.
Camp Costs: 7 mandays @ $50.00. (Camp costs include pro rata portion of: labour to set up and demob camp, food, equipment and supplies)	$ 350.00.
Helicopter: 3.2 hrs. @ $508.63 (includes pro rata portion of helicopter time to mob, service and demob camp and crew)	$ 1,630.00.
Total Grid Location:	**$ 3,400.00.**

GEOPHYSICS

Geophysical Surveys: 3 survey days (VLF/MAG/GRAD) @ $400.00 1 travel day @ $280.00 1 day planning and supervision @ $250.00	$ 1,730.00.
Interpretation and Report: 3.5 days @ $300.00	$ 1,050.00.
Drafting and Maps:	$ 150.00.
Mobilization and Demobilization:	$ 594.00.
Camp Costs: 3 mandays @ $50.00	$ 150.00.
Helicopter: 2.0 hrs @ $508.63 pro rata for mob. and demob. geophysicist and equipment	$ 1,017.00.
Total Geophysics:	**$ 4,690.00.**

CERTIFICATION

I, Franklin R. Hassard, of Burnaby, British Columbia, do hereby certify that:

1. I am a Senior Exploration Geologist with Falconbridge Limited at #701, 1281 West Georgia Street, Vancouver, B.C., V6E 3J7.

2. I am a graduate of the University of British Columbia with a B.A.Sc. degree in Geological Engineering (1970).

3. I have practiced my profession for over 17 years.

4. I am a member of the Association of Professional Engineers of Ontario and a Fellow of the Geological Association of Canada.

5. Exploration during 1987, including grid layout by Falconbridge personnel and geophysical surveys by Delta Geoscience Ltd., was performed under my direction.

6. The costs itemized in the Statement of Expenditures are correct and were incurred on behalf of Kidd Creek Mines Ltd., a division of Falconbridge Limited.

Dated this 17th day of December, 1987, at Vancouver, B.C.

F. R. Hassard

Franklin R. Hassard, P.Eng.

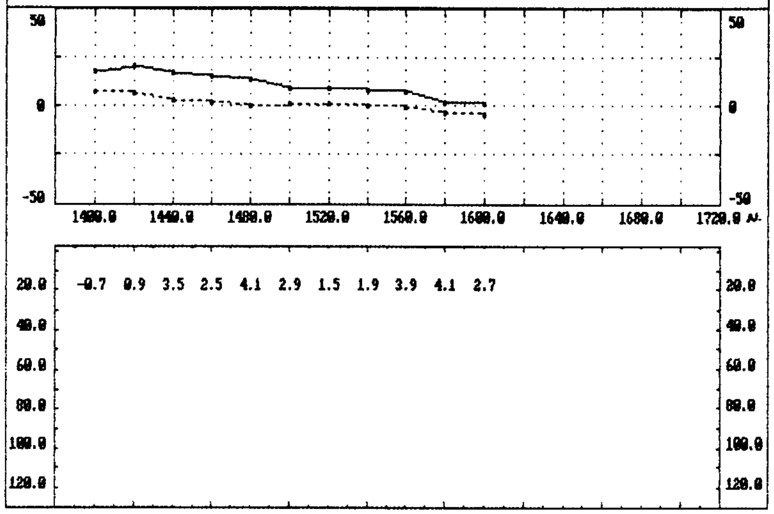
REGISTERED PROFESSIONAL ENGINEER
F.R. Hassard
PROVINCE OF ONTARIO

SCOTIA PROJECT, ULF DATA (24.0 KHZ)

LINE 2700W.

Q%	7.0	6.0	3.0	2.0	0.0	1.0	1.0	0.0	-1.0	-3.0	-4.0
I%	18.0	20.0	17.0	15.0	13.0	9.0	9.0	8.0	7.0	2.0	1.0

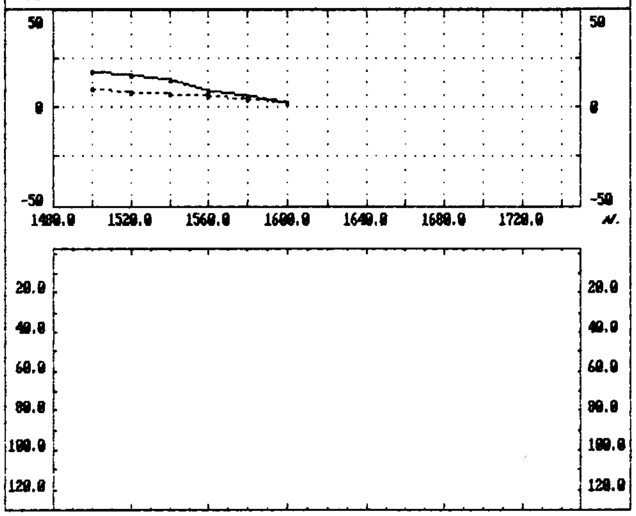
FRFLT 6.0 9.0 10.0 10.0 5.0 3.0 8.0 12.0



SCOTIA PROJECT, ULF DATA (24.8

LINE 2600W.

Q%	9.0	7.0	6.0	5.0	4.0	2.0
I%	18.0	16.0	13.0	8.0	5.0	2.0
FRFLT			13.0	16.0	14.0	



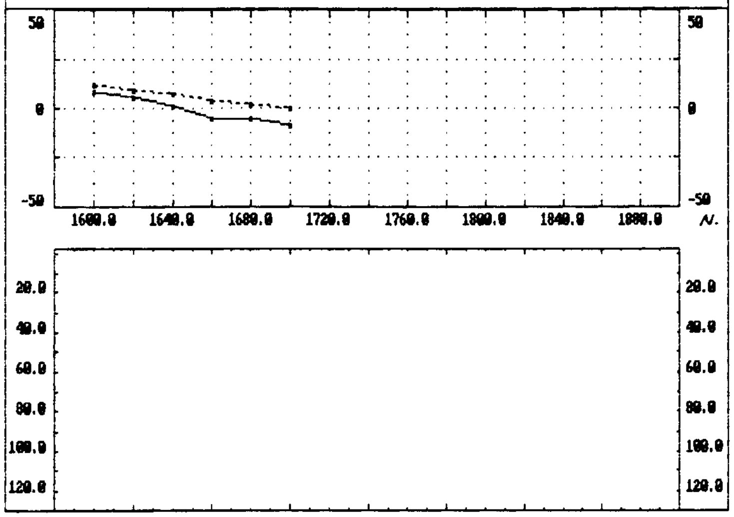
SCOTIA PROJECT, VLF DATA (24.8 KHZ)

LINE 2500W.

Q% 12.0 9.0 7.0 4.0 2.0 0.0

I% 8.0 5.0 1.0 -5.0 -5.0 -9.0

FRFLT 17.0 16.0 10.0

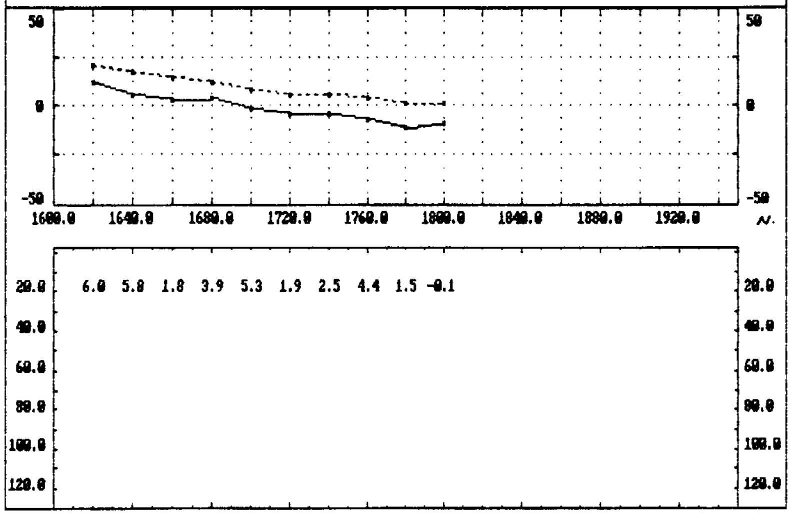


SCOTIA PROJECT, ULF DATA (24.8 KHZ)

LINE 2400W.

Q%	20.0	17.0	14.0	12.0	8.0	5.0	5.0	4.0	1.0	1.0
I%	12.0	5.0	3.0	4.0	-2.0	-4.0	-4.0	-7.0	-11.0	-9.0

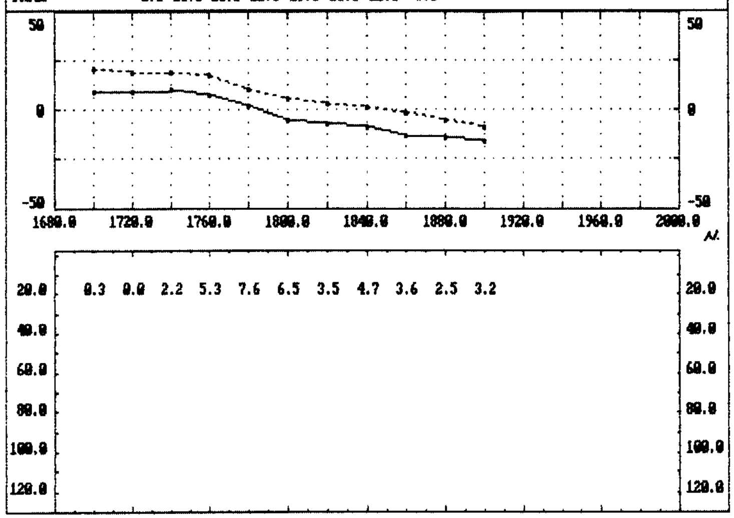
FRFLT 10.0 6.0 13.0 10.0 5.0 10.0 9.0



SCOTIA PROJECT, VLF DATA (24.8 KHZ)

LINE 2300W.

Q%	20.0	19.0	19.0	17.0	10.0	5.0	3.0	1.0	-2.0	-5.0	-9.0
I%	9.0	9.0	10.0	7.0	2.0	-5.0	-7.0	-9.0	-13.0	-14.0	-16.0
FRFLT		1.0	10.0	20.0	21.0	13.0	10.0	11.0	8.0		



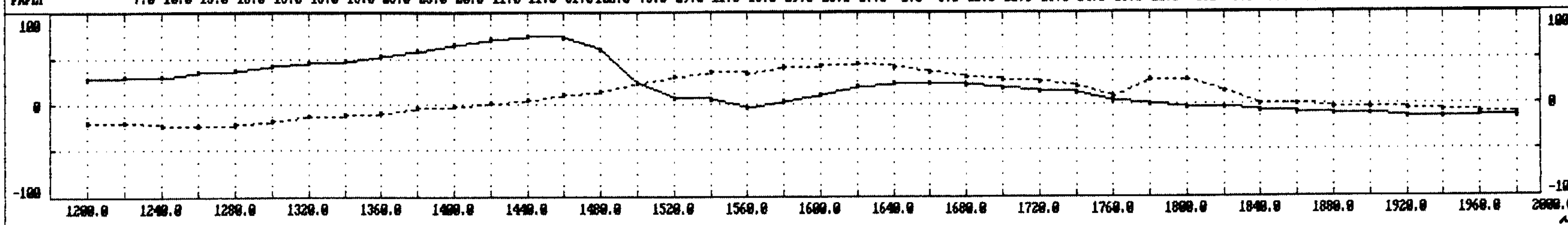
SCOTIA PROJECT, VLF DATA (24.8 KHZ)

LINE 2200W.

Q% -20.0 -20.0 -22.0 -22.0 -21.0 -18.0 -12.0 -10.0 -8.0 -4.0 -1.0 2.0 6.0 10.0 15.0 24.0 31.0 35.0 34.0 41.0 43.0 44.0 41.0 36.0 31.0 27.0 25.0 19.0 9.0 27.0 27.0 15.0 1.0 0.0 -3.0 -3.0 -5.0 -6.0 -8.0 -10.0

I% 28.0 31.0 31.0 35.0 37.0 42.0 46.0 48.0 53.0 59.0 65.0 70.0 74.0 72.0 61.0 24.0 7.0 5.0 -3.0 4.0 11.0 19.0 24.0 23.0 21.0 18.0 15.0 12.0 3.0 0.0 -3.0 -4.0 -7.0 -9.0 -11.0 -11.0 -14.0 -13.0 -12.0 -14.0

FRFLT -7.0 -10.0 -13.0 -16.0 -15.0 -13.0 -18.0 -23.0 -23.0 -20.0 -11.0 11.0 61.0 102.0 73.0 29.0 11.0 -13.0 -29.0 -28.0 -17.0 -1.0 8.0 11.0 12.0 18.0 24.0 18.0 10.0 8.0 9.0 9.0 6.0 5.0 5.0 0.0 -1.0

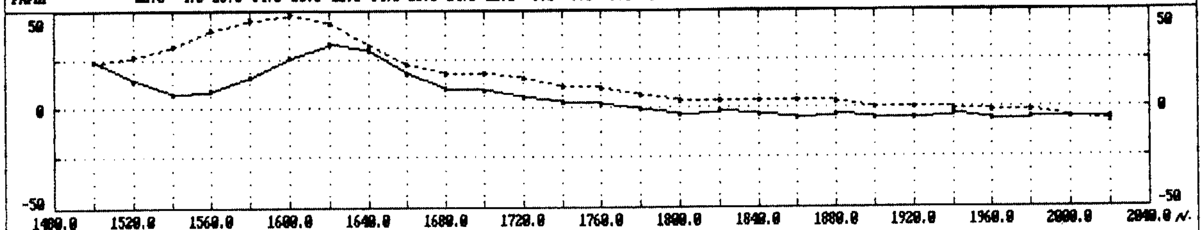


20.0	-3.2	-2.1	-3.4	-4.6	-4.8	-6.5	-4.9	-5.8	-7.9	-8.3	-7.4	-5.1	2.2	10.5	29.6	34.2	13.8	9.5	1.3	-8.8	-8.7	-8.6	-3.1	1.2	3.0	4.9	4.7	8.1	7.9	4.7	3.8	3.1	3.5	3.0	1.6	2.0	1.6	-0.9	0.9	1.4	20.0
40.0	-2.4	-5.8	-6.1	-7.8	-10.7	-10.1	-11.7	-11.7	-11.5	-9.5	-7.8	-4.9	4.5	27.1	37.9	37.8	36.4	12.9	1.0	-2.4	-9.6	-8.7	-4.1	1.5	4.6	5.9	10.3	11.4	12.0	10.9	7.6	6.9	6.2	5.8	5.2	3.2	1.4	2.6	1.0	1.6	40.0
60.0	-3.8	-6.7	-11.0	-12.2	-11.2	-12.7	-10.1	-11.1	-11.8	-13.2	-12.5	-4.6	10.4	31.3	35.9	43.4	38.8	29.2	4.5	-6.4	-5.7	-6.3	-0.3	4.4	7.3	13.1	13.5	12.9	12.0	12.7	13.1	10.0	8.5	8.4	7.5	5.1	5.0	3.3	3.5	2.0	60.0
80.0	-4.4	-7.9	-10.0	-8.4	-8.1	-9.8	-13.1	-16.6	-19.8	-17.2	-10.0	11.9	25.0	30.3	38.5	37.9	36.9	31.5	22.8	2.4	-5.9	-4.6	-6.1	2.1	12.6	18.5	22.1	18.1	16.4	15.3	13.7	12.8	10.2	9.0	7.5	8.1	7.1	6.1	5.2	5.2	80.0
100.0	0.2	-1.3	-3.3	-6.7	-12.7	-17.9	-20.9	-23.9	-21.0	-13.2	10.8	22.9	25.6	33.3	32.5	32.0	30.4	29.8	29.0	23.[illegible]	4.8	-2.7	-2.5	-1.5	5.4	13.9	20.3	25.5	26.4	24.8	18.9	16.8	14.0	7.7	8.0	7.5	8.2	7.5	7.1	6.3	100.0
120.0	2.9	-0.4	-5.8	-13.5	-19.7	-23.8	-25.2	-21.8	-15.0	8.7	20.5	24.6	31.1	27.8	26.6	25.1	25.0	27.6	31.1	31.7	26.7	7.7	3.0	3.8	1.1	6.0	12.9	21.2	26.8	26.9	28.3	25.5	21.7	16.9	10.2	8.6	6.6	7.2	6.7	6.9	120.0

SCOTIA PROJECT, ULF DATA (24.8 KHZ)

LINE 2100W.

Q%	24.0	27.0	32.0	40.0	45.0	48.0	43.0	32.0	22.0	18.0	18.0	15.0	11.0	10.0	6.0	4.0	4.0	4.0	4.0	3.0	0.0	0.0	-1.0	-2.0	-2.0	-5.0	-7.0
I%	24.0	14.0	7.0	9.0	16.0	26.0	33.0	29.0	18.0	10.0	9.0	5.0	3.0	2.0	-1.0	-3.0	-2.0	-3.0	-5.0	-3.0	-5.0	-5.0	-3.0	-6.0	-5.0	-5.0	-5.0
FRFLT		22.0	-4.0	-26.0	-34.0	-20.0	12.0	34.0	28.0	14.0	11.0	9.0	7.0	9.0	6.0	1.0	3.0	3.0	0.0	2.0	0.0	-1.0	3.0	1.0	-1.0		



20.0	9.3	9.1	2.8	-5.3	-9.5	-9.5	-1.7	8.2	11.4	6.7	4.7	4.8	2.4	2.9	3.3	1.1	0.3	2.1	0.0	0.0	1.5	-1.3	0.8	1.1	-0.7	0.2	-0.2	20.0
40.0	6.1	10.2	4.2	-6.1	-13.4	-8.8	1.1	10.0	13.5	13.3	8.2	5.6	8.3	7.0	4.3	3.9	3.0	0.7	2.4	1.7	-0.9	1.8	0.3	0.0	1.1	-0.5	-0.4	40.0
60.0	3.1	3.3	1.6	-6.2	-9.2	-6.6	0.2	5.9	14.8	19.1	15.8	10.2	6.5	6.2	6.4	7.5	5.6	3.9	2.2	1.5	2.4	0.6	1.6	0.2	0.0	1.0	-0.7	60.0
80.0	-6.2	-8.0	-7.4	-1.0	1.3	0.5	-2.5	0.9	7.3	14.7	21.1	21.0	12.9	7.4	7.0	3.8	5.2	6.2	4.1	4.5	3.5	2.1	1.1	1.8	0.3	0.2	1.0	80.0
100.0																												100.0
120.0																												120.0

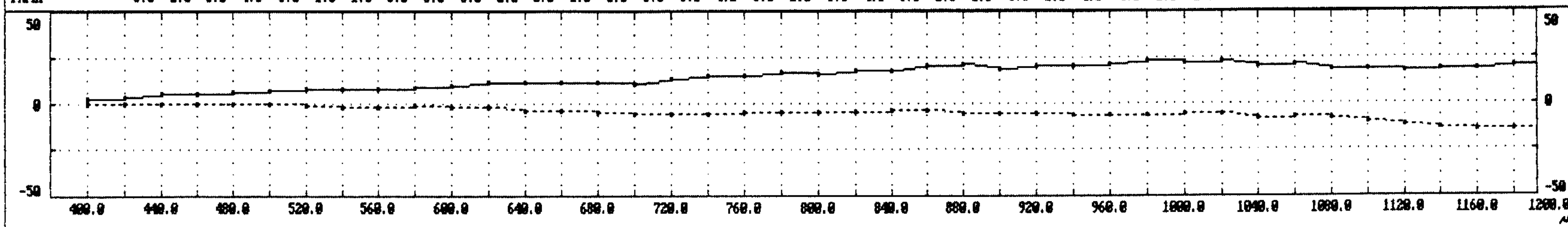
SCOTIA PROJECT, VLF DATA (24.8 KHZ)

LINE 2000N.

Q% 0.0 0.0 0.0 0.0 0.0 0.0 -1.0 -2.0 -2.0 -1.0 -2.0 -2.0 -3.0 -3.0 -4.0 -5.0 -5.0 -5.0 -4.0 -4.0 -4.0 -4.0 -3.0 -3.0 -5.0 -5.0 -5.0 -6.0 -6.0 -6.0 -5.0 -5.0 -8.0 -7.0 -8.0 -10.0 -11.0 -13.0 -14.0 -14.0 -15.0 -14

I% 3.0 4.0 5.0 5.0 6.0 7.0 8.0 8.0 8.0 9.0 10.0 12.0 12.0 12.0 12.0 11.0 13.0 15.0 15.0 17.0 16.0 18.0 18.0 20.0 21.0 19.0 20.0 20.0 21.0 23.0 22.0 23.0 20.0 21.0 19.0 19.0 18.0 19.0 19.0 20.0 21.0 2

FRFLT -3.0 -2.0 -3.0 -4.0 -3.0 -1.0 -1.0 -3.0 -5.0 -5.0 -2.0 0.0 1.0 0.0 -5.0 -6.0 -4.0 -3.0 -2.0 -3.0 -4.0 -5.0 -2.0 2.0 0.0 -2.0 -4.0 -4.0 -1.0 2.0 4.0 3.0 3.0 3.0 1.0 -1.0 -2.0 -3.0 -5.0 -7.0

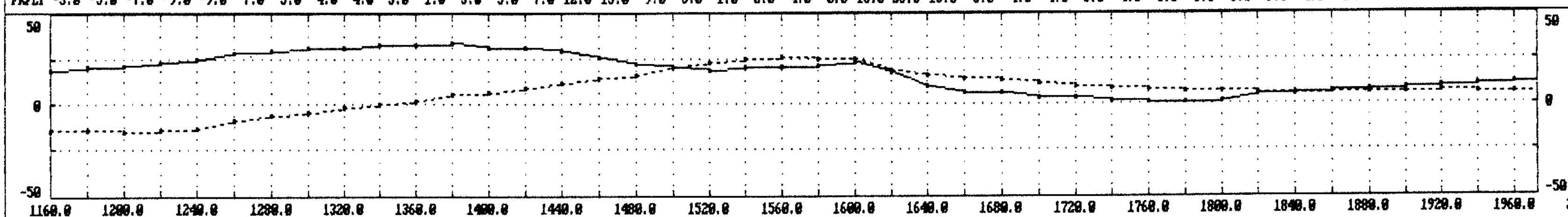


20.0	-1.0	-1.3	-0.9	-0.9	-1.4	-1.3	-0.9	-0.3	-1.0	-1.3	-1.9	-1.4	-0.1	-0.4	0.3	-0.7	-2.6	-1.2	-1.7	-0.9	-0.9	-1.6	-1.0	-2.0	0.5	0.3	-0.9	-0.4	-2.0	-0.4	-0.2	1.2	1.4	0.7	1.4	0.5	0.1	-0.7	-0.8	-1.6	20.0
40.0	-1.2	-1.7	-1.7	-1.9	-2.1	-2.4	-1.7	-1.5	-1.5	-2.6	-2.7	-2.3	-1.5	0.0	-1.1	-2.3	-2.3	-3.8	-2.2	-1.9	-2.0	-2.4	-3.3	-1.2	-1.5	-0.3	-0.2	-2.4	-1.3	-1.5	0.8	1.1	1.6	2.0	0.9	0.9	-0.2	-1.0	-2.2	-2.7	40.0
60.0	-0.6	-1.7	-3.0	-3.1	-2.5	-1.9	-2.4	-2.8	-3.7	-3.1	-3.2	-2.9	-2.0	-2.4	-2.5	-2.5	-3.5	-3.0	-4.5	-3.5	-3.5	-3.9	-1.8	-2.6	-1.7	-1.9	-1.9	-0.7	-2.4	-0.4	-0.9	0.8	1.9	1.8	1.3	-0.4	-0.4	-1.8	-2.7	-4.5	60.0
80.0	-0.8	-1.8	-2.8	-3.1	-2.9	-3.1	-3.2	-4.6	-3.9	-3.6	-3.2	-2.8	-4.1	-4.2	-3.7	-3.6	-3.0	-4.4	-4.2	-6.1	-5.2	-2.8	-3.1	-1.7	-3.0	-3.2	-2.7	-2.5	-0.1	-1.9	-0.4	-0.6	0.4	1.2	0.7	0.8	-1.3	-2.2	-4.0	-5.6	80.0
100.0	-0.5	-1.7	-2.4	-2.9	-4.2	-4.2	-4.9	-4.3	-4.5	-4.0	-2.9	-3.5	-4.8	-4.9	-5.7	-4.6	-4.6	-4.2	-5.4	-5.5	-5.0	-4.3	-3.5	-4.0	-4.1	-4.0	-3.6	-2.2	-2.0	-0.4	-1.7	-0.4	-0.9	-0.2	0.4	-0.3	-0.7	-3.2	-3.8	-5.1	100.0
120.0	-0.8	-1.5	-1.9	-3.2	-4.1	-5.9	-5.5	-4.7	-4.3	-3.7	-4.4	-5.1	-4.5	-5.9	-5.2	-5.9	-5.2	-5.3	-5.8	-4.6	-5.2	-5.9	-5.5	-5.7	-5.3	-5.0	-4.0	-3.4	-2.2	-1.1	0.1	-1.6	-0.6	-1.3	-0.9	-0.4	-1.7	-2.2	-4.7	-5.2	120.0

SCOTIA PROJECT, VLF DATA (24.8 KHZ)

LINE 2000W.

Q%	-14.0	-14.0	-15.0	-14.0	-13.0	-9.0	-6.0	-4.0	-2.0	0.0	2.0	5.0	6.0	9.0	12.0	14.0	16.0	20.0	23.0	25.0	26.0	25.0	25.0	19.0	16.0	14.0	13.0	12.0	10.0	9.0	8.0	7.0	7.0	6.0	5.0	6.0	6.0	6.0	7.0	6.0	6.0	6.0
I%	19.0	20.0	21.0	23.0	25.0	28.0	29.0	31.0	31.0	33.0	33.0	34.0	31.0	31.0	29.0	26.0	22.0	20.0	19.0	20.0	20.0	21.0	23.0	18.0	10.0	6.0	6.0	4.0	4.0	2.0	1.0	1.0	2.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	11.0
FRFLT	-3.0	-5.0	-7.0	-9.0	-9.0	-7.0	-5.0	-4.0	-4.0	-3.0	1.0	5.0	5.0	7.0	12.0	13.0	9.0	3.0	-1.0	-2.0	-4.0	0.0	16.0	25.0	16.0	6.0	4.0	4.0	5.0	4.0	0.0	-5.0	-8.0	-6.0	-4.0	-4.0	-4.0	-4.0	-4.0	-2.0	2.0	5.0



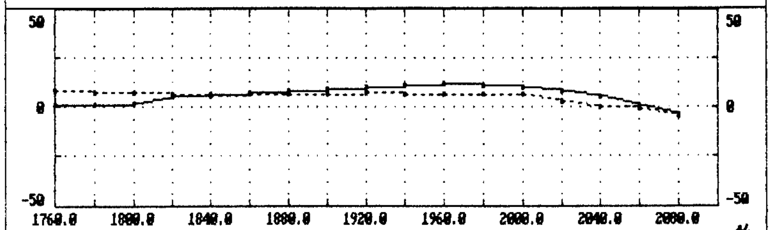
N.

20.0	.8	-1.6	-2.2	-2.8	-3.5	-2.8	-2.3	-1.6	-1.5	-1.1	-0.6	1.2	2.2	1.8	3.7	4.5	3.9	2.2	0.4	-0.6	-0.1	-0.9	2.5	7.8	7.5	3.4	2.4	1.8	1.3	1.9	0.3	-0.6	-2.5	-2.6	-1.6	-1.7	-1.5	-1.5	-1.3	-1.2	0.1	20.0
40.0	.2	-2.7	-3.9	-5.2	-5.3	-5.3	-3.9	-3.3	-2.7	-1.8	0.3	1.6	2.7	4.8	5.3	6.6	6.0	4.4	2.9	1.5	-0.6	2.5	6.7	9.3	10.4	8.7	3.9	2.9	4.1	2.7	1.3	-1.8	-3.0	-3.7	-3.7	-2.6	-2.6	-2.6	-2.3	-0.7	0.7	40.0
60.0	.7	-4.5	-5.5	-5.9	-6.3	-5.7	-5.6	-4.2	-3.0	-0.9	-0.2	0.8	3.5	5.7	8.2	8.0	8.1	6.7	4.5	0.9	3.0	6.8	9.9	9.5	10.6	11.2	9.2	5.2	2.9	2.6	0.3	0.2	-1.9	-3.5	-4.2	-3.9	-2.5	-2.2	-1.2	-0.2	1.6	60.0
80.0	.0	-5.6	-6.2	-6.3	-6.0	-6.3	-6.0	-5.7	-3.3	-1.9	-0.6	2.7	5.7	8.3	9.0	9.0	7.1	6.7	4.6	5.8	8.1	9.0	8.4	10.3	10.1	12.0	13.5	10.3	4.8	0.8	0.2	-0.9	-0.6	-1.6	-2.2	-2.8	-3.4	-1.3	0.0	1.6	4.0	80.0
100.0	.8	-5.1	-6.3	-6.7	-7.3	-7.5	-7.5	-5.7	-3.9	-1.2	2.7	5.3	7.8	7.9	8.1	7.8	7.9	4.8	7.5	10.8	11.5	9.2	9.5	9.0	11.0	11.7	12.7	13.3	9.1	4.2	1.5	0.8	-0.8	-0.9	-1.8	-2.6	-1.7	-0.1	2.3	4.0	6.7	100.0
120.0	.7	-5.2	-6.5	-7.8	-8.6	-8.5	-5.8	-4.8	-2.9	0.4	3.8	6.6	7.0	7.4	7.0	7.0	5.6	8.7	11.3	13.4	12.3	11.[illegible]	9.8	10.2	10.7	11.7	11.6	11.4	12.[illegible]	9.8	4.8	2.3	1.7	-0.2	-1.1	-1.4	-0.9	0.7	3.1	7.4	10.6	120.0

SCOTIA PROJECT, VLF DATA (24.0 KHZ)

LINE 2000N.

QX 8.0 7.0 7.0 6.0 5.0 6.0 6.0 6.0 7.0 6.0 6.0 6.0 6.0 3.0 0.0 -1.0 -4.0
IX 1.0 1.0 2.0 5.0 6.0 7.0 8.0 9.0 10.0 11.0 12.0 11.0 10.0 8.0 5.0 1.0 -3.0
FRFLT 0.0 -5.0 -8.0 -6.0 -4.0 -4.0 -4.0 -4.0 -4.0 -2.0 2.0 5.0 8.0 12.0 15.0



20.0	3	-0.6	-2.5	-2.6	-1.6	-1.7	-1.5	-1.5	-1.3	-1.2	0.1	1.5	2.3	3.7	5.0	5.7	5.8	20.0
40.0	3	-1.8	-3.0	-3.7	-3.7	-2.6	-2.6	-2.6	-2.3	-0.7	0.7	2.6	5.1	7.0	8.8	10.2	11.0	40.0
60.0	3	0.2	-1.9	-3.5	-4.2	-3.9	-2.5	-2.2	-1.2	-0.2	1.6	4.1	7.3	10.3	12.1	13.9	15.1	60.0
80.0	2	-0.9	-0.6	-1.6	-2.2	-2.8	-3.4	-1.3	0.0	1.6	4.0	6.6	9.4	12.2	15.1	17.1	18.9	80.0
100.0	5	0.8	-0.8	-0.9	-1.8	-2.6	-1.7	-0.1	2.3	4.0	6.7	9.6	12.2	14.9	17.6	20.3	22.0	100.0
120.0	8	2.3	1.7	-0.2	-1.1	-1.4	-0.9	0.7	3.1	7.4	10.6	13.1	15.2	17.7	20.5	23.0	25.8	120.0

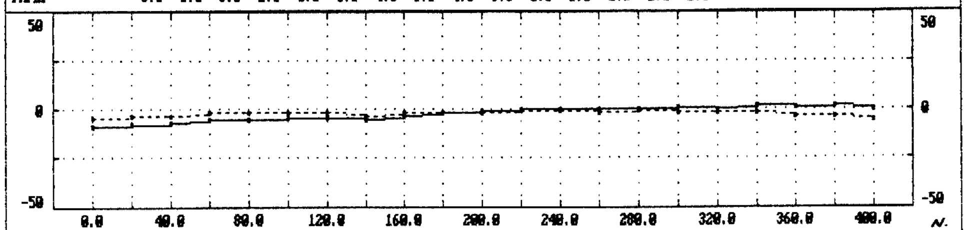
SCOTIA PROJECT, ULF DATA (24.8 KHZ)

LINE 1900W.

Q% -4.0 -3.0 -3.0 -2.0 -2.0 -2.0 -2.0 -3.0 -2.0 -2.0 -2.0 -1.0 -1.0 -2.0 -1.0 -2.0 -2.0 -2.0 -3.0 -3.0 -5.0

I% -9.0 -8.0 -7.0 -5.0 -5.0 -4.0 -4.0 -5.0 -3.0 -2.0 -1.0 0.0 0.0 0.0 0.0 1.0 0.0 2.0 1.0 2.0 0.0

FRFLT -5.0 -5.0 -3.0 -2.0 0.0 0.0 -4.0 -5.0 -4.0 -3.0 -1.0 0.0 -1.0 -1.0 -1.0 -2.0 -1.0 1.0



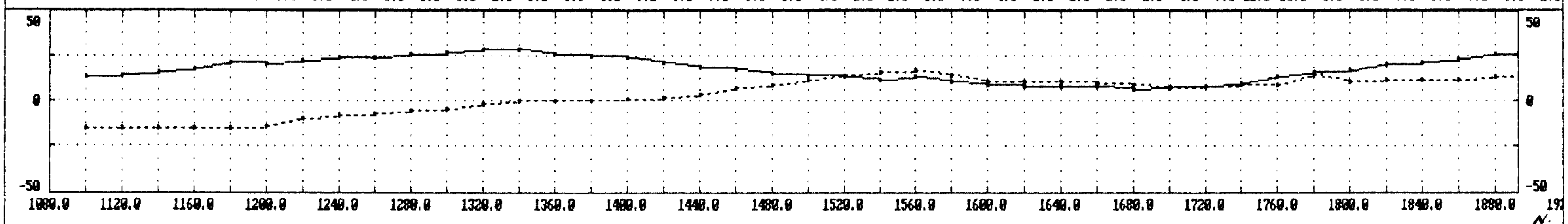
20.0	-1.4	-1.2	-2.1	-1.4	-0.7	-1.0	0.4	-0.9	-1.9	-1.2	-1.5	-0.7	-0.2	0.0	-0.8	0.0	-0.7	-0.5	0.2	0.6	1.9	20.0
40.0	-1.1	-2.7	-2.3	-2.5	-2.1	-0.7	-1.7	-1.6	-2.1	-3.2	-2.0	-1.4	-0.9	-1.0	-0.2	-1.1	-0.5	-0.4	0.2	1.8	1.8	40.0
60.0	-1.5	-2.3	-3.6	-2.9	-1.8	-2.3	-2.1	-2.7	-3.1	-2.9	-3.5	-2.0	-1.8	-0.5	-1.1	-0.6	-1.2	0.1	1.2	1.3	3.0	60.0
80.0																						80.0
100.0																						100.0
120.0																						120.0

SCOTIA PROJECT, VLF DATA (24.8 KHZ)

LINE 1900W.

Q%	-15.0	-15.0	-15.0	-15.0	-15.0	-14.0	-10.0	-8.0	-7.0	-5.0	-4.0	-2.0	0.0	0.0	0.0	1.0	2.0	4.0	7.0	9.0	12.0
I%	13.0	14.0	16.0	18.0	21.0	20.0	22.0	24.0	24.0	26.0	27.0	28.0	28.0	26.0	25.0	24.0	21.0	19.0	18.0	15.0	14.0
FRFLT		-7.0	-9.0	-7.0	-3.0	-5.0	-6.0	-4.0	-5.0	-5.0	-3.0	1.0	5.0	5.0	6.0	9.0	8.0	7.0	8.0	6.0	4.0

Q%	14.0	16.0	17.0	14.0	11.0	11.0	11.0	10.0	9.0	7.0	8.0	9.0	9.0	14.0	11.0	12.0	12.0	12.0	13.0	13.0	14
I%	13.0	12.0	13.0	11.0	9.0	8.0	8.0	8.0	6.0	8.0	8.0	10.0	13.0	16.0	17.0	20.0	21.0	23.0	26.0	25.0	27
FRFLT	2.0	1.0	5.0	7.0	4.0	1.0	2.0	2.0	-2.0	-4.0	-7.0	-11.0	-10.0	-8.0	-8.0	-7.0	-8.0	-7.0	-3.0	-1.0	



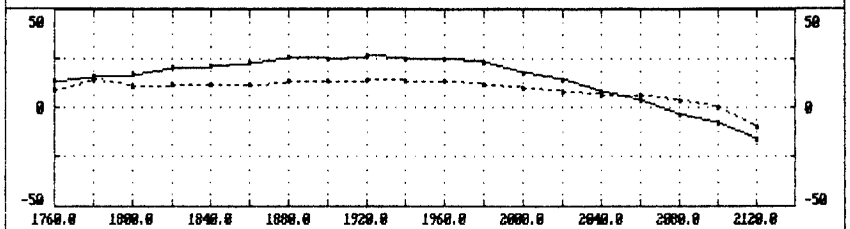
20.0	-1.6	-2.1	-2.6	-3.4	-1.8	-1.0	-2.9	-1.4	-1.6	-2.1	-1.1	-0.7	1.2	2.1	1.6	2.9	3.5	2.3	3.0	2.8
40.0	-1.7	-4.0	-4.8	-3.8	-4.1	-4.3	-2.6	-4.0	-3.3	-2.5	-2.1	0.1	1.4	2.7	4.4	4.5	4.6	5.8	4.9	4.5
60.0	-2.0	-4.6	-5.1	-5.3	-5.7	-4.4	-4.6	-3.5	-4.7	-3.5	-1.2	-0.4	1.4	3.8	5.2	6.0	6.8	6.9	7.0	6.0
80.0	-2.7	-2.7	-4.6	-6.4	-5.4	-5.9	-5.4	-4.6	-3.3	-2.9	-1.5	-0.3	1.5	4.0	5.3	7.7	8.4	7.7	7.6	6.6
100.0	-0.4	-2.1	-3.9	-4.8	-6.6	-6.3	-6.5	-5.4	-3.4	-1.2	-1.3	1.3	3.2	3.6	6.1	7.2	8.2	8.6	6.9	7.2
120.0	0.3	-1.6	-2.4	-4.4	-6.0	-7.7	-6.7	-5.1	-3.4	-1.9	1.4	2.1	3.2	4.7	5.8	6.9	7.3	7.0	8.0	7.9

1.4	1.7	0.4	0.9	2.5	1.8	1.1	0.1	1.2	-0.2	-1.5	-1.5	-3.5	-4.1	-3.0	-3.1	-3.2	-2.1	-3.5	-1.3	20.0
4.5	2.2	2.4	3.2	2.9	3.1	1.9	1.4	-0.5	-0.2	-1.6	-4.6	-5.3	-6.0	-6.5	-5.6	-4.8	-6.0	-3.6	-3.4	40.0
4.6	5.0	4.4	4.1	3.3	2.3	3.9	1.5	0.2	-1.8	-3.6	-5.1	-6.7	-7.1	-7.9	-7.6	-7.3	-4.7	-5.0	-2.1	60.0
5.9	5.8	5.7	4.1	3.5	4.1	2.3	2.7	0.5	-2.6	-4.6	-5.3	-6.8	-7.9	-7.6	-8.6	-6.8	-5.9	-3.1	-2.0	80.0
7.6	6.3	5.4	4.9	4.5	3.2	2.8	1.5	0.4	-2.0	-3.2	-5.2	-5.4	-6.3	-8.7	-6.8	-7.3	-4.9	-2.6	0.4	100.0
8.0	7.4	6.2	5.9	4.8	3.5	2.2	0.9	-0.7	0.3	-2.2	-3.2	-4.5	-5.7	-4.9	-7.1	-4.4	-4.3	-1.7	2.9	120.0

SCOTIA PROJECT, ULF DATA (24.8 KHZ)

LINE 1900W.

Q% 9.0 14.0 11.0 12.0 12.0 12.0 13.0 13.0 14.0 13.0 13.0 12.0 10.0 8.0 6.0 6.0 4.0 0.0-10.0
I% 13.0 16.0 17.0 20.0 21.0 23.0 26.0 25.0 27.0 25.0 25.0 23.0 18.0 14.0 8.0 4.0 -3.0 -8.0-16.0
FRFLT-10.0 -8.0 -8.0 -7.0 -8.0 -7.0 -3.0 -1.0 2.0 4.0 9.0 16.0 19.0 20.0 21.0 23.0 25.0

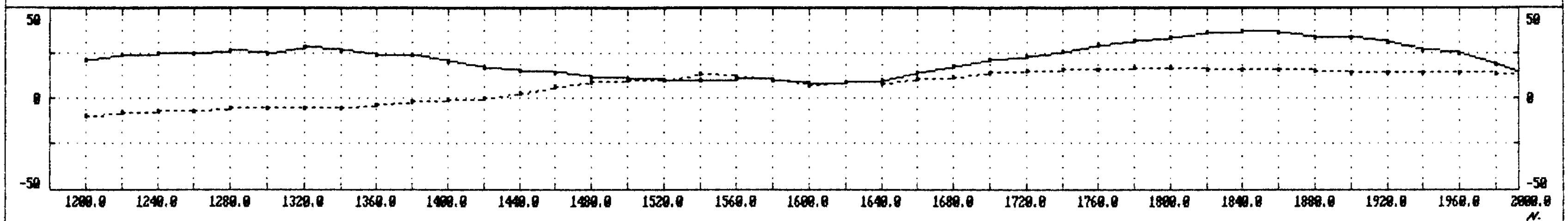


20.0	.1	-3.0	-3.1	-3.2	-2.1	-3.5	-1.3	-0.9	-0.1	1.8	1.7	5.2	6.2	7.3	7.5	8.3	9.1	9.6	10.9	20.0
40.0	.0	-6.5	-5.6	-4.8	-6.0	-3.6	-3.4	-0.7	1.3	2.2	6.4	8.1	12.1	13.6	15.1	15.9	17.6	19.5	19.6	40.0
60.0	.1	-7.9	-7.6	-7.3	-4.7	-5.0	-2.1	-1.2	1.3	6.5	8.7	13.6	15.1	19.4	21.5	23.9	25.7	26.8	28.8	60.0
80.0	.9	-7.6	-8.6	-6.8	-5.9	-3.1	-2.0	1.1	4.4	8.2	13.4	15.4	21.0	23.1	27.9	31.2	32.5	34.7	35.8	80.0
100.0	.3	-8.7	-6.8	-7.3	-4.9	-2.6	0.4	3.8	7.9	12.0	15.5	21.0	23.7	29.4	32.6	36.9	40.0	41.5	43.6	100.0
120.0	.7	-4.9	-7.1	-4.4	-4.3	-1.7	2.9	7.0	11.5	15.4	20.0	24.0	30.2	33.6	38.6	41.7	45.7	48.8	50.3	120.0

SCOTIA PROJECT, VLF DATA (24.8 KHZ)

LINE 1800W.

Q%	-10.0	-6.0	-7.0	-7.0	-5.0	-5.0	-5.0	-5.0	-3.0	-2.0	-1.0	0.0	3.0	6.0	9.0	10.0	10.0	13.0	12.0	10.0	7.0	9.0	8.0	11.0	12.0	14.0	15.0	16.0	16.0	17.0	17.0	16.0	16.0	16.0	15.0	14.0	14.0	14.0	14.0	13.0	12.0	1
I%	21.0	24.0	25.0	25.0	27.0	25.0	28.0	27.0	24.0	24.0	20.0	17.0	15.0	14.0	12.0	11.0	10.0	10.0	11.0	10.0	8.0	9.0	10.0	14.0	18.0	21.0	23.0	26.0	29.0	32.0	34.0	36.0	37.0	36.0	34.0	34.0	31.0	27.0	25.0	19.0	11.0	3
FRFLT			-5.0	-3.0	-2.0	-1.0	-3.0	2.0	7.0	7.0	11.0	12.0	8.0	6.0	6.0	5.0	3.0	0.0	-1.0	3.0	4.0	-1.0	-7.0	-13.0	-15.0	-12.0	-10.0	-11.0	-12.0	-11.0	-9.0	-7.0	-3.0	3.0	5.0	5.0	10.0	13.0	14.0	22.0	30.0	27.0



20.0	-2.7	-2.5	-0.8	-1.8	-0.1	-0.3	-1.2	2.9	2.0	3.0	4.7	3.4	2.5	2.3	2.1	1.3	0.9	-0.2	0.1	1.6
40.0	-2.1	-3.2	-2.9	-0.2	-1.4	-0.9	2.0	1.1	5.1	6.4	5.8	6.2	5.4	4.3	3.9	3.4	1.2	0.6	0.7	0.0
60.0	-0.2	-2.1	-2.0	-2.5	-0.5	1.7	1.4	4.5	4.7	7.5	7.7	7.6	7.9	6.3	4.1	2.4	2.3	2.2	1.1	-0.5
80.0	0.7	0.8	-2.0	-2.6	0.0	1.5	4.0	5.7	7.8	6.8	9.3	8.6	7.0	7.2	4.2	3.1	3.4	1.9	0.7	-2.1
100.0	3.4	0.5	-0.2	0.3	-0.9	2.5	5.6	7.1	7.2	8.9	7.6	9.4	8.3	5.8	6.0	5.2	3.0	1.5	-0.8	-3.6
120.0	2.8	2.3	2.9	1.7	2.6	2.8	4.5	6.3	7.6	7.8	9.2	7.9	8.8	8.4	7.6	7.1	4.4	0.6	-2.3	-3.7

20.0	0.1	-1.6	-3.3	-5.3	-4.9	-4.0	-4.0	-4.3	-4.2	-3.6	-2.8	-2.0	-0.2	1.9	1.7	2.4	5.1	4.8	6.5	9.6	20.0
40.0	-0.1	-3.1	-6.8	-8.0	-8.4	-8.0	-7.7	-7.6	-7.5	-6.8	-5.2	-2.4	-0.1	1.5	4.7	7.0	7.0	10.7	13.7	15.5	40.0
60.0	-3.1	-5.0	-7.3	-9.7	-10.7	-11.6	-10.8	-9.4	-8.7	-8.4	-5.9	-2.6	0.1	3.1	6.6	8.1	10.9	14.7	19.3	20.1	60.0
80.0	-5.0	-6.3	-6.9	-9.2	-11.8	-12.7	-13.4	-11.7	-9.4	-6.6	-4.2	-2.7	0.0	3.4	5.9	10.4	16.0	20.4	21.1	24.5	80.0
100.0	-5.7	-6.5	-7.7	-8.9	-10.5	-12.3	-12.5	-12.6	-9.6	-6.5	-5.3	-2.6	1.1	4.0	8.9	14.5	20.1	22.6	25.1	25.5	100.0
120.0	-5.4	-7.1	-8.2	-9.1	-9.1	-10.6	-12.3	-11.5	-10.1	-8.7	-4.7	-0.7	1.6	6.9	12.9	19.2	21.9	25.7	27.2	26.7	120.0

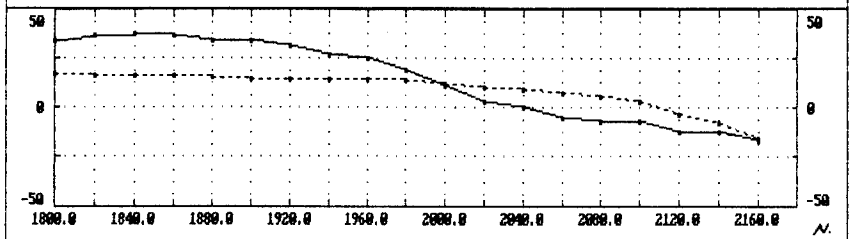
SCOTIA PROJECT, VLF DATA (24.8 KHZ)

LINE 1800W.

Q% 17.0 16.0 16.0 16.0 15.0 14.0 14.0 14.0 14.0 13.0 12.0 10.0 9.0 7.0 5.0 3.0 -3.0 -8.0 -16.0

I% 34.0 36.0 37.0 36.0 34.0 34.0 31.0 27.0 25.0 19.0 11.0 3.0 0.0 -5.0 -7.0 -7.0 -12.0 -12.0 -17.0

FRFLT -7.0 -3.0 3.0 5.0 5.0 10.0 13.0 14.0 22.0 30.0 27.0 19.0 15.0 9.0 7.0 10.0 10.0

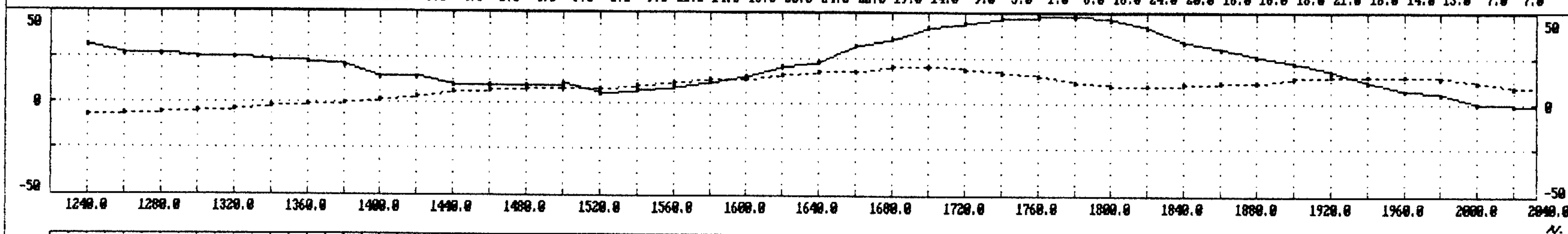


20.0	.8	-2.0	-0.2	1.9	1.7	2.4	5.1	4.8	6.5	9.6	10.8	8.0	6.1	5.7	1.9	4.1	3.8	3.7	6.0	20.0
40.0	.2	-2.4	-0.1	1.5	4.7	7.0	7.0	10.7	13.7	15.5	16.5	16.1	12.8	8.6	10.0	7.2	8.4	9.9	8.9	40.0
60.0	.9	-2.6	0.1	3.1	6.6	8.1	10.9	14.7	19.3	20.1	21.0	21.4	18.2	16.7	12.4	13.8	13.0	14.2	15.8	60.0
80.0	.2	-2.7	0.0	3.4	5.9	10.4	16.0	20.4	21.1	24.5	24.2	22.4	24.6	21.6	20.3	18.0	18.2	17.8	18.8	80.0
100.0	.3	-2.6	1.1	4.0	8.9	14.5	20.1	22.6	25.1	25.5	25.9	27.2	25.4	27.5	26.6	24.3	22.3	22.9	22.1	100.0
120.0	.7	-0.7	1.6	6.9	12.9	19.2	21.9	25.7	27.2	26.7	28.5	28.8	30.4	30.3	31.4	30.4	28.3	26.2	26.9	120.0

SCOTIA PROJECT, VLF DATA (24.8 KHZ)

LINE 1700W.

Q%	-7.0	-6.0	-5.0	-4.0	-3.0	-2.0	-1.0	0.0	2.0	4.0	6.0	7.0	8.0	8.0	8.0	10.0	12.0	13.0	13.0	16.0	18.0	18.0	20.0	20.0	19.0	17.0	15.0	12.0	10.0	10.0	11.0	12.0	12.0	14.0	15.0	15.0	15.0	14.0	12.0	9.0	8.0	-3
I%	31.0	27.0	27.0	25.0	25.0	23.0	22.0	20.0	14.0	14.0	10.0	10.0	10.0	11.0	5.0	7.0	9.0	12.0	15.0	20.0	23.0	32.0	35.0	42.0	44.0	47.0	48.0	48.0	46.0	42.0	34.0	30.0	26.0	22.0	18.0	12.0	7.0	5.0	0.0	-1.0	-1.0	-7
FRFLT			6.0	4.0	4.0	5.0	6.0	11.0	14.0	10.0	8.0	4.0	-1.0	4.0	9.0	0.0	-9.0	-11.0	-14.0	-16.0	-20.0	-24.0	-22.0	-19.0	-14.0	-9.0	-5.0	1.0	8.0	18.0	24.0	20.0	16.0	16.0	18.0	21.0	18.0	14.0	13.0	7.0	7.0	

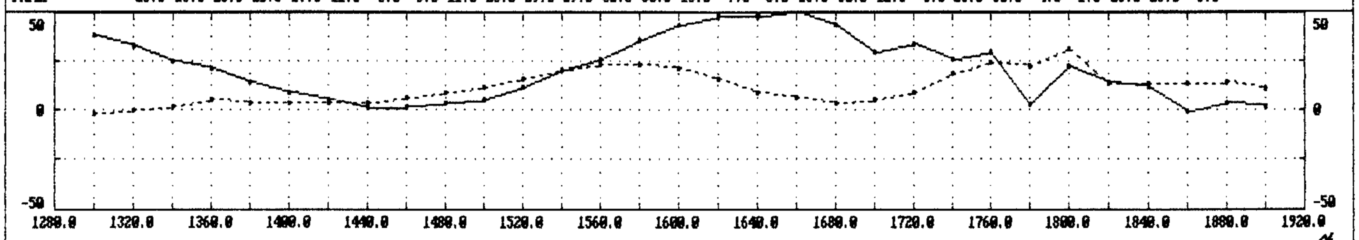


20.0	3.7	2.4	1.8	1.8	1.5	2.7	2.2	5.5	4.0	2.9	2.9	0.7	-0.1	2.7	2.0	-2.7	-3.1	-4.4	-6.2	-6.0	-8.6	-8.4	-7.1	-6.7	-3.7	-3.0	-0.4	1.8	4.3	7.9	8.2	6.2	6.6	6.2	7.0	7.8	5.2	5.1	4.8	1.6	20.0
40.0	2.1	4.7	4.1	3.0	3.9	4.4	7.3	5.8	8.1	6.7	2.9	2.0	3.2	1.6	-0.1	-1.8	-7.4	-9.3	-9.6	-12.8	-13.5	-14.5	-13.6	-9.8	-7.9	-3.8	-1.5	3.1	8.5	11.7	13.2	13.4	11.6	12.9	13.4	12.7	13.0	10.0	7.2	9.5	40.0
60.0	2.1	3.8	6.0	5.4	4.0	8.1	7.1	9.7	8.2	7.3	4.8	4.8	2.8	-0.5	-2.5	-4.0	-6.3	-11.7	-15.5	-16.1	-17.6	-16.3	-14.9	-14.4	-9.4	-6.5	0.2	5.8	10.1	12.9	15.8	16.9	19.0	17.8	17.4	18.3	17.2	15.1	15.1	13.6	60.0
80.0	0.3	2.8	5.1	7.4	9.4	7.0	8.7	7.3	7.5	5.5	8.0	6.1	1.4	-0.4	-4.2	-6.7	-7.7	-11.8	-15.8	-18.4	-18.7	-18.6	-17.6	-14.6	-11.6	-4.4	1.2	7.1	10.2	14.4	17.3	21.1	23.3	22.8	21.5	20.7	18.9	20.7	21.0	19.7	80.0
100.0	-0.2	1.5	3.8	8.3	8.8	9.7	6.7	6.7	4.6	8.2	6.2	5.4	3.0	-1.1	-3.1	-6.2	-11.1	-12.3	-15.2	-19.5	-19.9	-19.2	-17.7	-15.3	-10.0	-4.8	2.7	6.7	12.8	15.5	20.9	23.9	25.3	27.0	25.9	21.7	23.8	23.8	24.3	24.4	100.0
120.0	-2.2	-0.1	4.0	4.6	8.0	8.9	7.7	5.0	8.5	6.9	6.3	4.4	3.4	0.6	-3.8	-8.1	-11.5	-14.7	-15.9	-17.4	-20.7	-19.9	-17.6	-13.7	-7.6	-2.6	1.1	8.6	12.3	19.4	23.3	26.0	28.7	29.1	28.1	29.3	26.9	26.9	26.8	27.4	120.0

SCOTIA PROJECT, VLF DATA (24.8 KHZ)

LINE 1600W.

Q%	-2.0	0.0	2.0	5.0	4.0	4.0	4.0	4.0	6.0	9.0	12.0	16.0	20.0	23.0	23.0	21.0	16.0	9.0	6.0	4.0	5.0	9.0	19.0	24.0	22.0	31.0	13.0	13.0	13.0	14.0	11.0
I%	38.0	33.0	25.0	21.0	14.0	9.0	5.0	1.0	2.0	4.0	5.0	12.0	20.0	26.0	35.0	43.0	48.0	48.0	50.0	43.0	29.0	34.0	26.0	29.0	3.0	22.0	14.0	12.0	-1.0	4.0	2.0
FRFLT		25.0	23.0	23.0	21.0	17.0	11.0	0.0	-6.0	-11.0	-23.0	-29.0	-29.0	-32.0	-30.0	-18.0	-7.0	3.0	26.0	30.0	12.0	8.0	28.0	30.0	-4.0	-1.0	25.0	23.0	5.0		



20.0	6.4	8.4	8.9	8.1	8.8	6.2	5.5	2.3	-2.0	-2.6	-6.0	-10.5	-10.1	-11.0	-11.6	-9.1	-3.7	-0.5	2.6	13.2	5.6	5.7	3.4	13.7	5.5	-4.4	7.9	7.5	6.0	-0.8	3.4	20.0
40.0	7.6	13.4	14.0	13.8	12.5	12.[illegible]	7.4	3.0	-0.7	-7.4	-11.8	-13.8	-18.7	-19.1	-15.8	-13.6	-10.0	-1.3	11.9	7.4	13.[illegible]	9.5	17.5	9.4	9.9	12.1	3.9	12.[illegible]	9.6	8.5	0.0	40.0
60.0	5.0	12.1	17.8	16.3	15.4	10.[illegible]	7.4	3.6	-1.5	-8.3	-13.0	-16.6	-20.5	-22.9	-20.6	-14.9	-10.4	3.1	3.2	12.7	10.2	26.4	11.5	9.5	14.2	17.9	17.7	4.2	15.5	10.4	12.2	60.0
80.0	2.7	8.6	13.5	18.9	15.2	11.[illegible]	7.4	2.7	-3.0	-8.8	-14.1	-20.8	-21.4	-22.1	-22.9	-14.8	-3.5	-2.9	5.9	7.[illegible]	24.3	14.0	19.2	16.7	16.7	17.4	14.9	18.7	6.3	17.6	14.7	80.0
100.0	-1.0	4.7	10.9	14.[illegible]	17.7	16.0	9.3	1.4	-4.2	-10.6	-19.8	-22.8	-24.3	-22.5	-18.5	-9.0	-8.5	-0.1	0.5	19.8	13.1	19.6	19.9	28.2	21.2	14.1	18.3	15.5	18.[illegible]	6.2	19.4	100.0
120.0																																120.0

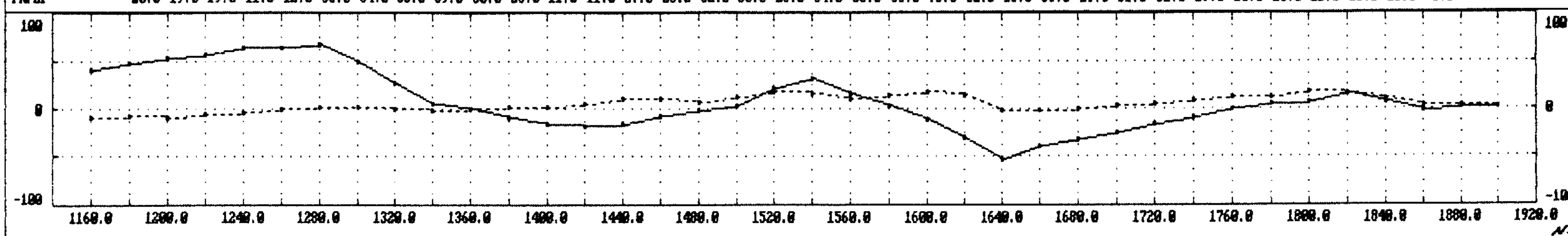
SCOTIA PROJECT, VLF DATA (24.8 KHZ)

LINE 1500W.

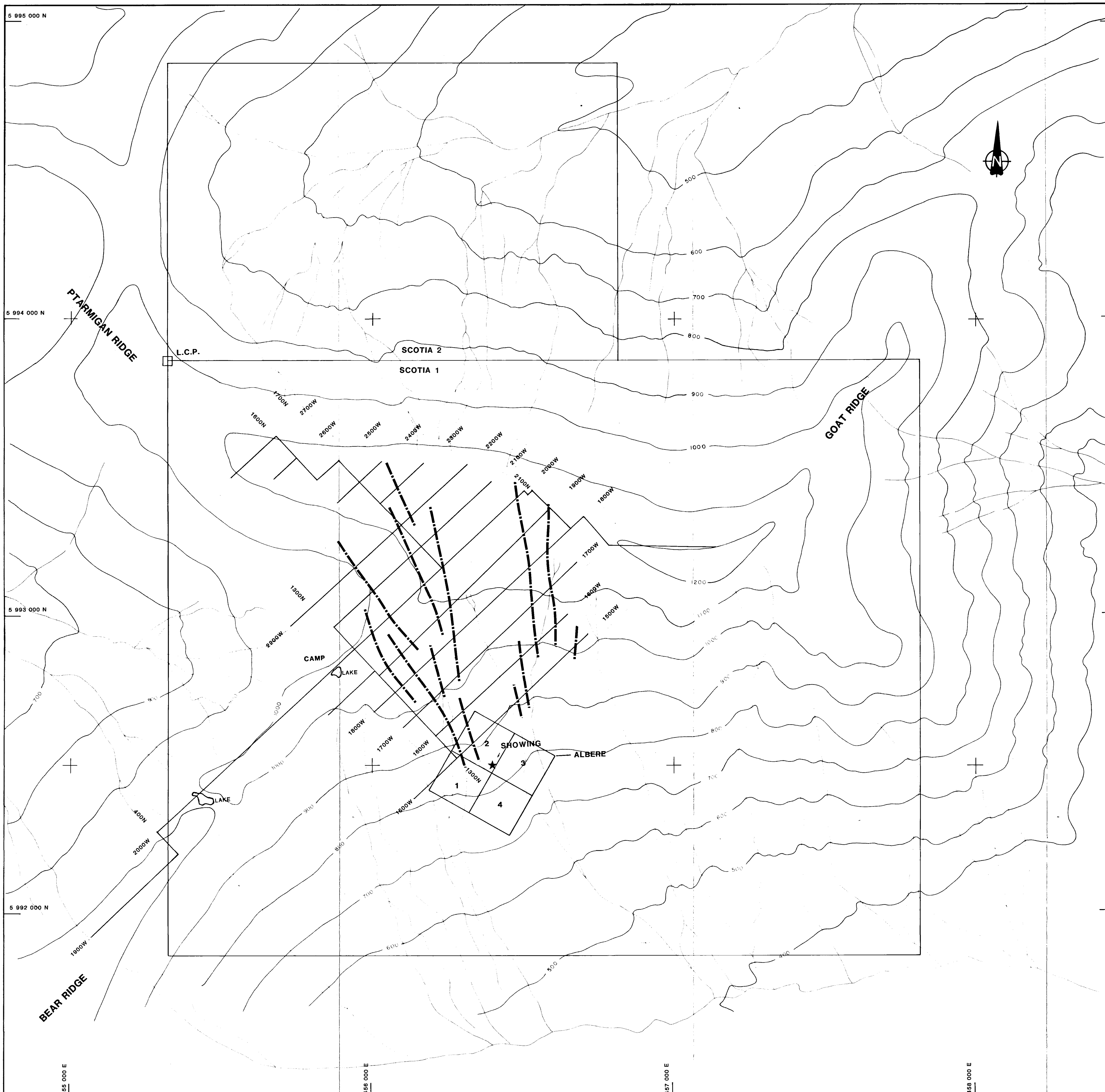
Q% -8.0 -7.0 -8.0 -5.0 -3.0 0.0 2.0 2.0 0.0 -1.0 1.0 2.0 2.0 6.0 10.0 11.0 8.0 12.0 17.0 16.0 11.0 14.0 18.0 15.0 -2.0 -1.0 0.0 3.0 5.0 9.0 12.0 13.0 17.0 16.0 10.0 4.0 3.0 2.0

I% 41.0 40.0 53.0 56.0 64.0 64.0 67.0 49.0 26.0 6.0 1.0 -8.0-15.0-18.0-16.0 -6.0 -1.0 4.0 21.0 32.0 16.0 3.0-10.0-29.0-53.0-38.0-31.0-24.0-16.0 -8.0 0.0 5.0 7.0 16.0 8.0 -1.0 2.0 2.0

FRFLT -20.0-19.0-19.0-11.0 12.0 56.0 84.0 68.0 39.0 30.0 26.0 11.0-11.0-27.0-25.0-32.0-50.0-23.0 34.0 55.0 58.0 75.0 52.0-13.0-36.0-29.0-31.0-32.0-29.0-20.0-18.0-12.0 16.0 23.0 3.0



20.0	-7.4	-7.9	-6.1	-7.9	-3.8	0.7	11.3	26.0	27.6	19.0	12.3	11.8	5.8	0.9	-7.1	-10.8	-8.5	-13.4	-15.6	3.7	17.8	18.5	21.0	26.5	6.6	-11.4	-7.8	-12.1	-11.5	-11.1	-10.0	-5.0	-6.4	-1.1	0.5	3.1	-0.5	1.2	20.0
40.0	-6.4	-9.7	-8.7	-4.0	-4.7	5.9	24.0	35.5	39.4	33.5	24.7	16.3	12.0	0.5	-5.7	-9.7	-17.8	-17.9	-5.3	1.2	15.9	33.6	37.2	20.9	12.9	-0.7	-19.2	-16.1	-15.7	-15.9	-16.2	-16.2	-6.7	1.4	1.2	6.8	3.3	-1.5	40.0
60.0	2.6	-5.9	-9.7	-9.0	4.8	19.6	30.1	35.7	39.5	44.4	35.4	23.8	9.4	7.7	2.2	-8.1	-19.8	-13.4	-4.2	5.6	17.6	30.9	36.0	23.1	11.7	0.9	-11.8	-27.0	-20.0	-18.2	-19.0	-12.2	-5.0	-5.0	-1.1	0.5	6.1	2.5	60.0
80.0	2.1	-2.2	-7.8	-2.7	12.2	26.4	30.2	36.1	45.5	47.9	49.9	36.0	21.9	6.3	-7.2	-18.9	-13.9	-7.0	1.6	16.4	31.1	23.1	29.4	31.4	16.7	4.8	-8.2	-21.7	-34.6	-29.9	-19.0	-7.8	-5.2	-2.9	0.2	0.9	-0.5	5.9	80.0
100.0	3.9	-2.2	3.5	11.1	17.9	25.0	36.2	44.3	50.4	56.6	47.6	44.0	28.7	3.6	-17.1	-10.3	-7.6	-2.4	7.8	25.6	24.5	24.2	21.8	25.3	24.4	9.3	-1.8	-11.1	-28.1	-37.5	-22.1	-18.5	-13.3	-5.7	1.7	3.9	5.3	5.0	100.0
120.0	2.8	8.1	19.0	29.1	30.1	34.0	44.3	40.8	40.5	42.9	42.7	37.8	26.8	9.9	5.3	0.1	4.8	11.2	21.3	13.3	12.5	16.3	15.3	13.7	19.7	21.4	8.9	-6.1	-9.7	-16.5	-33.3	-25.8	-20.4	-14.4	-8.4	-1.9	6.0	9.4	120.0



LEGEND

V.L.F. CONDUCTOR

1987 GRID

1900W

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,795

FALCONBRIDGE LIMITED

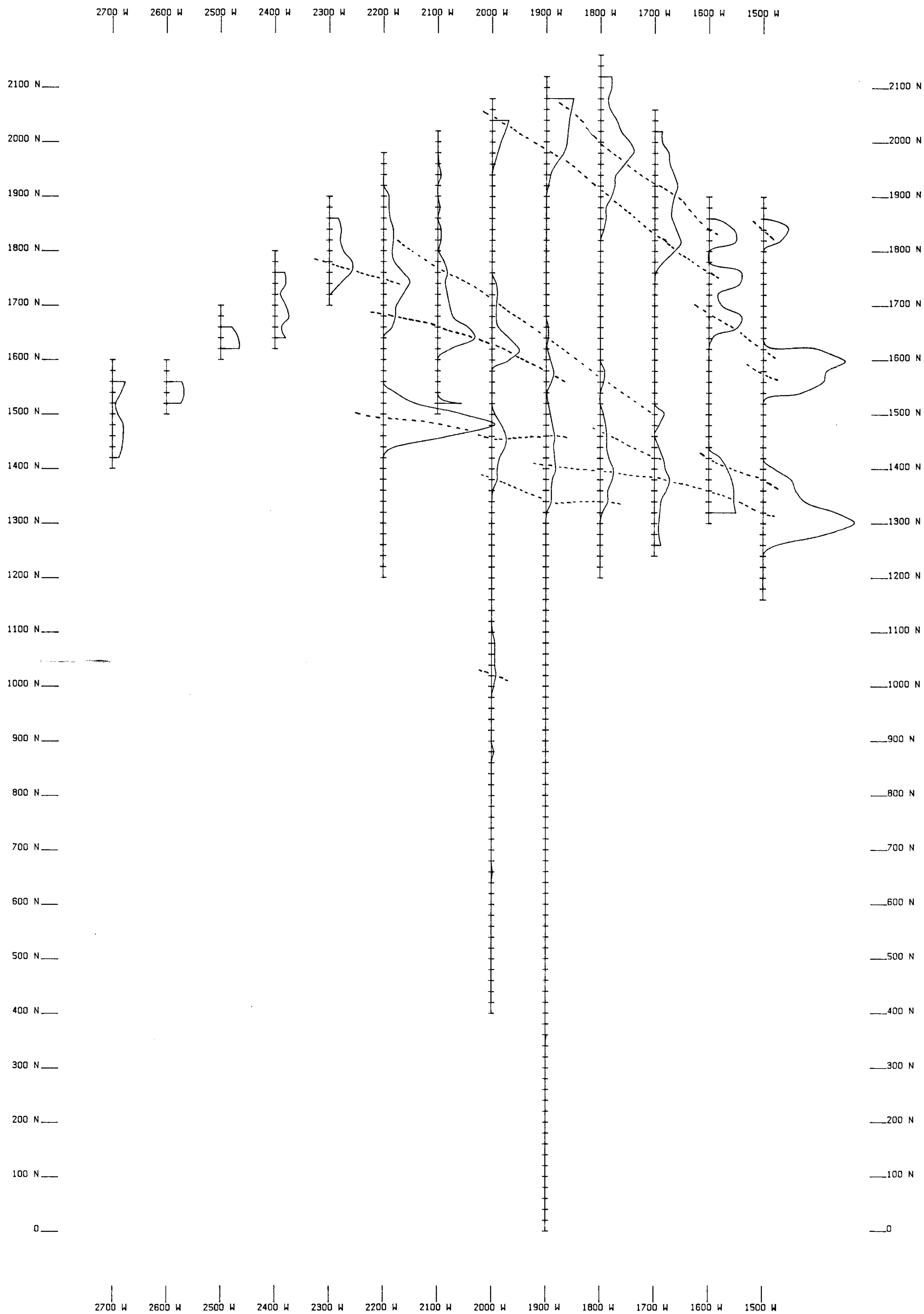
SCOTIA PROPERTY

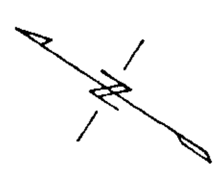
GRID, CONDUCTORS

WORK BY	DRAWN BY	DATE: DEC 1987

SCALE IN METRES 0 100 200 300 400 500 — 1 : 5000

Figure: 2 — PROJ. # 133 — CONTOUR INTERVAL : 100M





Inclination: 74 Deg
Declination: 25 Deg E

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,795

KIDD CREEK MINES LTD

SCOTIA PROJECT, PRINCE RUPERT, B.C.

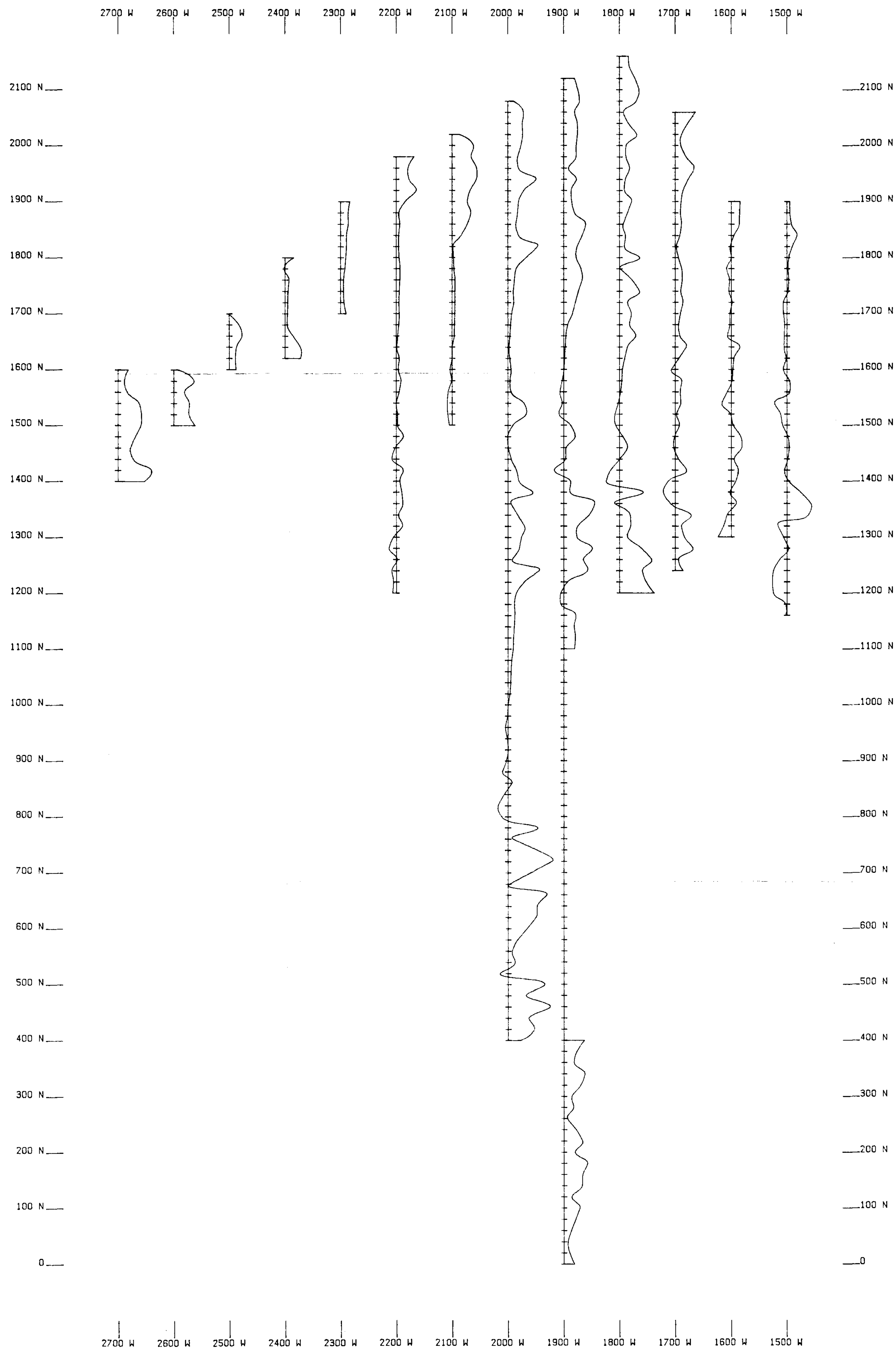
FILTERED VLF PROFILES, (Fraser)

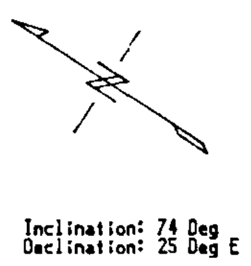
1 cm = 25%, base 0

SCALE 1:5000

FIG. 3

DELTA GEOSCIENCE LTD





KIDD CREEK MINES LTD

SCOTIA PROJECT, PRINCE RUPERT, B.C.

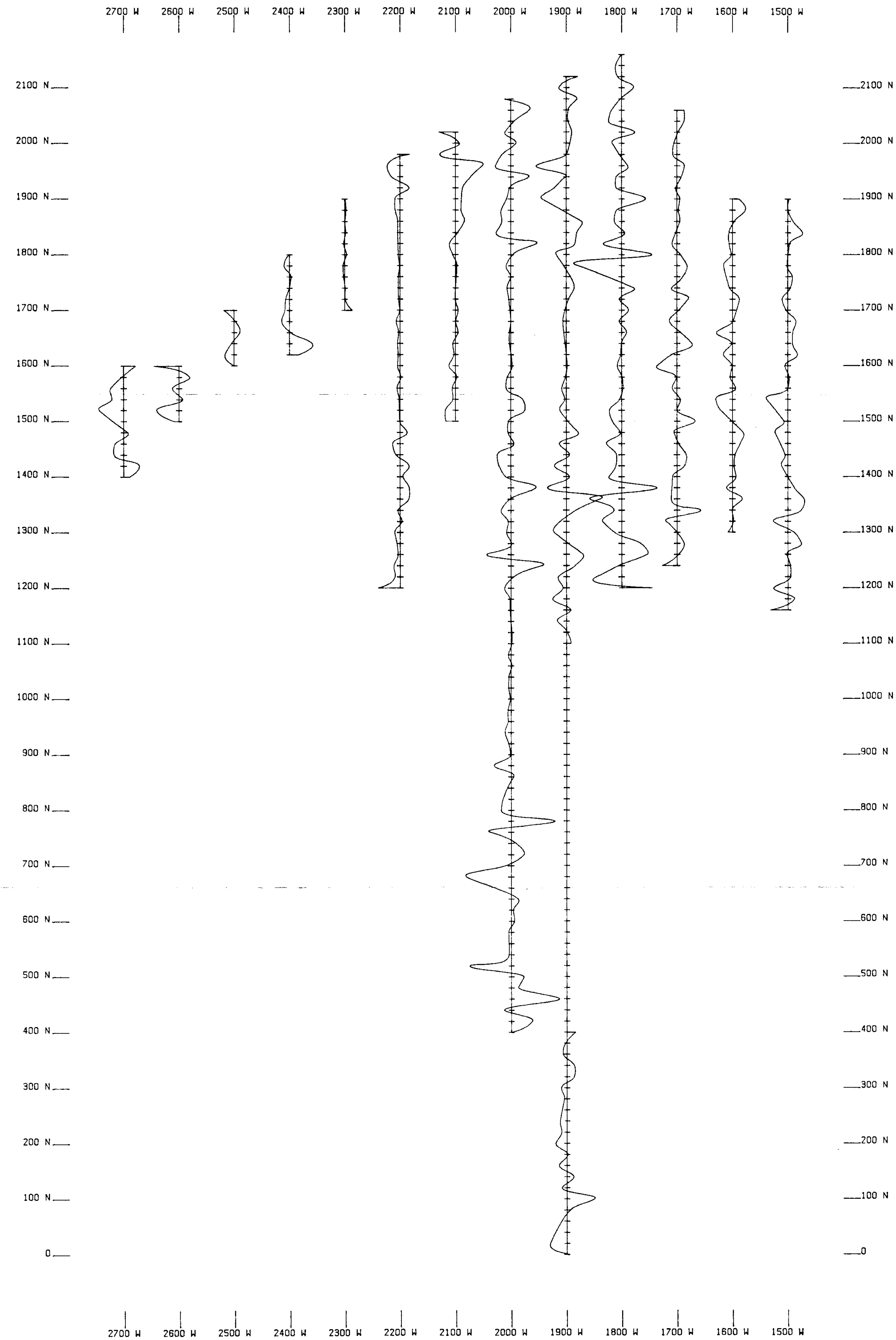
TOTAL FIELD MAGNETIC PROFILES

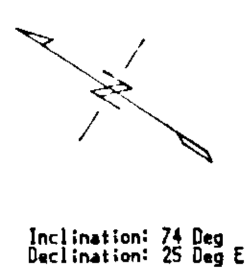
1 cm = 1000 nt, base 57000 nt

SCALE 1:5000

FIG. 4

DELTA GEOSCIENCE LTD





GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,795

KIDD CREEK MINES LTD

SCOTIA PROJECT, PRINCE RUPERT, B.C.

MAGNETIC GRADIOMETER PROFILES

1 cm = 100 nt/.5m, base 0

SCALE 1:5000

FIG. 5

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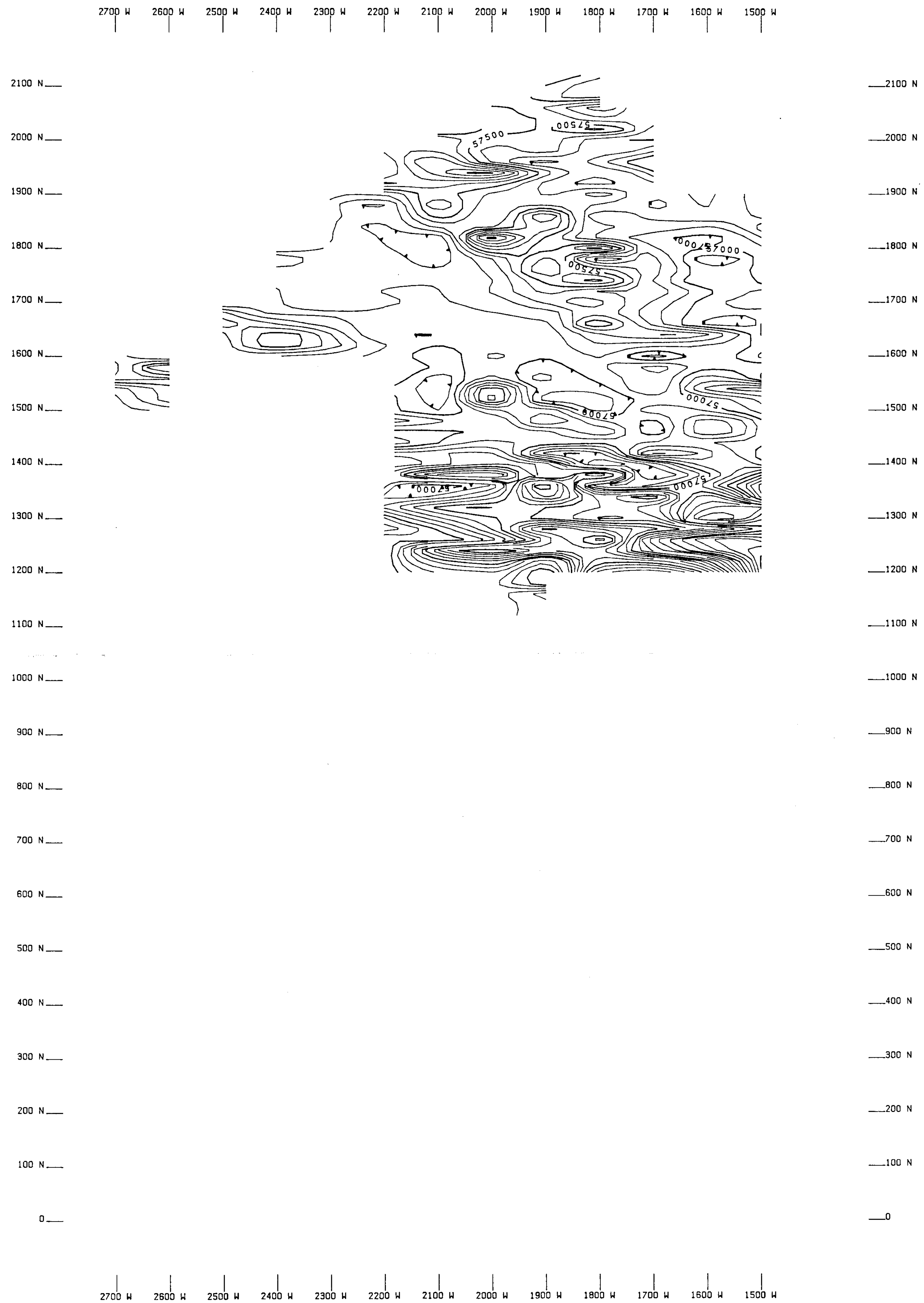

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TOTAL FIELD MAGNETIC PLAN

contour interval 100 nt

SCALE 1:5000 FIG. 6

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