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REPORT ON A HELICOPTER BORNE MULTIFREQUENCY ELECTROMAGNETIC, AND MAGNETOMETER SURVEY IN THE DOME MOUNTAIN AREA, BRITISH COLUMBIA.

OMINECA MINING DIVISION

CLAIMS: MAG 1
APRIL 1-3
CHRIS
FORT
OPHIR
ORO
WEST DOME
SALLY
BEN

LATITUDE 54° 43' LONGITUDE 126° 33'

FOR

FREEMONT GOLD CORPORATION
344 - EAST 6TH STREET
NORTH VANCOUVER, BRITISH COLUMBIA

SURVEY DATES: DECEMBER 27 AND 28, 1984

February 20, 1985
Vancouver, B.C.

Apex Airborne Surveys
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1. SUMMARY

The helicopter survey gave rise to an anomalous magnetic response on the CHRIS CLAIM where a volcanogenic sulphide rich boulder was discovered in August 1984. The magnetic anomaly has been examined on the ground with magnetometer and VLF E.M. surveys and indicate an anomalous zone about 400 meters long and 175 meters wide. Part or all of this zone could contain metallic sulphides and/or magnetite which may be associated with precious metal mineralization. This is a first priority prospect.

Further, an electromagnetic response in the area of anomalous geochemistry results was recorded in the FORT CLAIM that may indicate conductive metallic sulphides. This airborne E.M. response indicates the source of the conductor is below 20-30 meters of overburden.

Both of the above-mentioned geophysical responses are within the GUESS CREEK FAULT SYSTEM which is a major structural feature that extends for tens of kilometers.

Recommendations have been made regarding the examination of both these anomalous zones and suggestions for exploration of a number of other anomalous areas, of lower priority, are discussed.

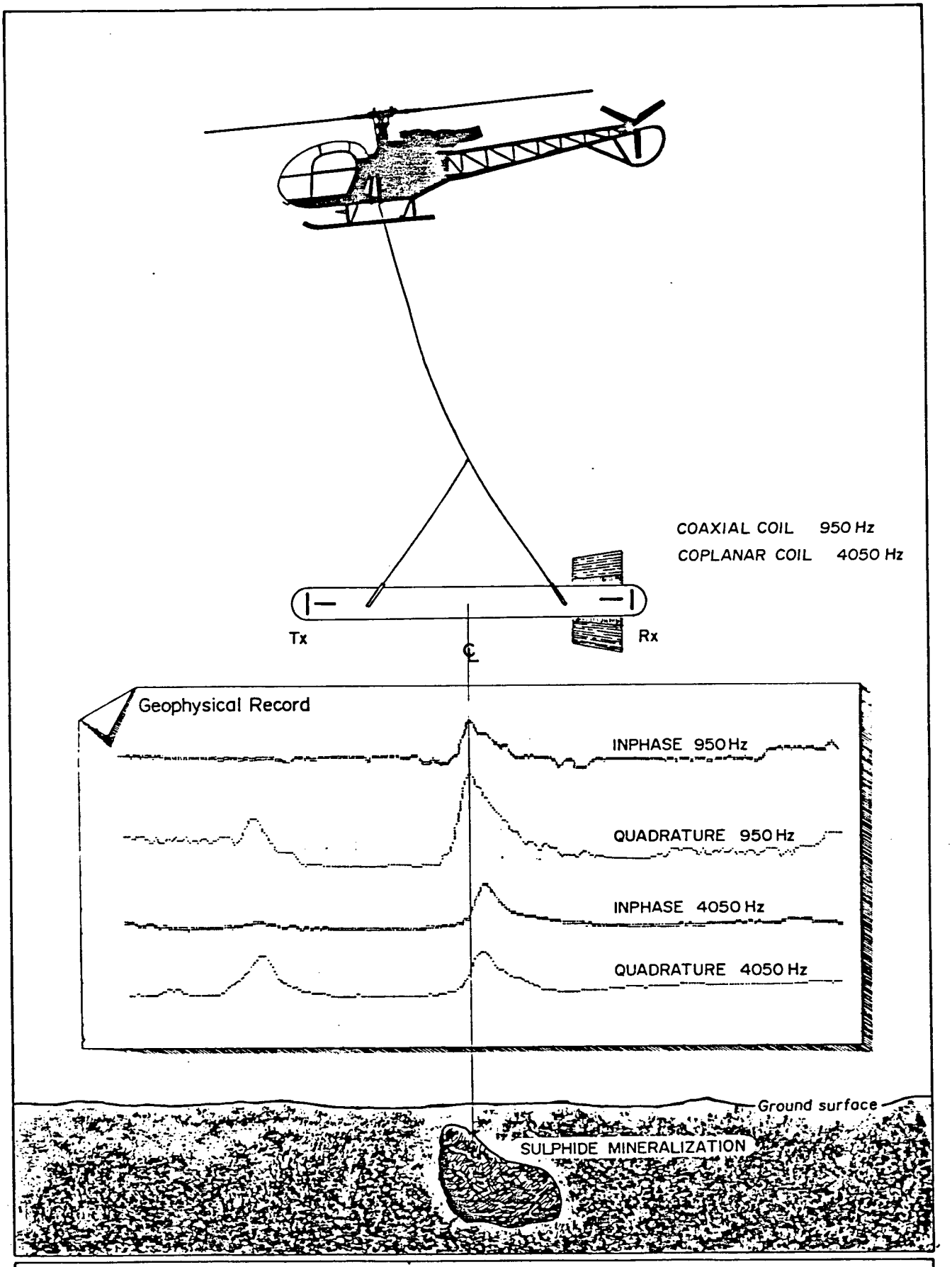


FIGURE 1

SCHEMATIC OF TWO FREQUENCY-CONFIGURATION H.E.M. SYSTEM

APEX AIRBORNE SURVEYS LTD.

2. INTRODUCTION

This report discusses the results of a High-Sensitivity Helicopter Electromagnetic and Magnetic Survey and ground detail surveys over the holdings of FREEMONT GOLD CORPORATION, in the Dome Mountain Area near Smithers, B.C.

The surveys comprised 296 linear kilometers of airborne traverse and 6.6 km of ground measurements.

The geophysical survey was prompted by the large number of mineral occurrences in the area and the discovery of a volcanogenic sulphide rich boulder, (that had modest Cu, Ag, and Au values) which had the appearance of Kuroko type mineralization. The Kuroko type deposit, and several examples are described by Barry J. Price in a report "GEOLOGICAL REPORT ON THE DOME MOUNTAIN PROPERTY", dated September 25, 1984.

The survey area was a relatively flat rolling plain covered with overburden estimated to be 0 to 30 meters in thickness, with an average thickness of 10-15 meters.

The geophysical system that was used on this survey included a Modified Geonics 33-2 Electromagnetometer (HEM), a Total Field Nuclear Precession Magnetometer, 35 mm flight path camera, digital acquisition system, and a radar altimeter. VLF E.M. measurements were also acquired using a Herz Totem I-A Electromagnetometer but because of technical difficulties the VLF data is unsatisfactory and has not been compiled.

The Electromagnetic (HEM) equipment consists of two sets of transmitters and receivers operating at different frequencies and coil configurations.

See FIGURE 1 -SCHEMATIC OF TWO FREQUENCY/CONFIGURATION H.E.M. SYSTEM.

The HEM and altimeter analogue outputs are digitized by the on-board computer using a sampling rate of 0.1 seconds.

REMARK: The survey flight speed is about 50-100 kilometers/hour which means that a 0.1 second scan interval is equivalent to a measurement about every 2-3 meters on the ground. The magnetometer data are recorded at 1.0 second intervals with a sensitivity of 1 gamma.

The proton magnetometer used for this survey can be understood by making an analogy to a tiny bar magnet spinning rapidly about its longitudinal axis, which has the properties of both a magnetized needle and a gyroscope. Because the former tries to point along the lines of magnetic force, but is perturbed by its centrifugal property, the needle gyrates. The essential characteristic of the system is that the rate of gyration is proportional to the ambient magnetic field. The rate of gyration is counted, multiplied by a suitable factor and is displayed on the recorder as the earth's total magnetic field.

APPENDIX I gives the details of the geophysical equipment used for this survey. APPENDIX II describes the flight record and flight path recovery process.

CLAIMS:

The claims covered by the survey include the following:

CLAIM NAME	RECORD NO.	NO. OF UNITS
MAG 1	6129	16
APRIL 1-3	6161-6163	30
CHRIS	6135	20
FORT	6167	20
OPHIR	6174	15
ORO	6188	20
WEST DOME	6139	12
SALLY	6599	15
BEN	6600	20

The location of the claims has not been verified by the writer although their location is believed to be accurately represented by the existing claim maps.

LOCATION AND ACCESS:

The property is located about 38 km East of Smithers, B.C., and about 4 km south of Dome Mountain. Easy access to the claims is by all-weather roads from Babine Highway.

GEOLOGY:

The area is underlain by rocks of the Hazelton Group which are known to host many mineral occurrences. A description of the regional geology and Kuroko type deposits is available in a report by Price (1984) titled "GEOLOGICAL REPORT ON THE DOME MOUNTAIN GOLD PROPERTY"(1).

(1) Price, B.J. "GEOLOGICAL REPORT ON THE DOME MOUNTAIN GOLD PROPERTY" produced for Freemont Gold Corporation, September 25, 1984.

3. DATA PRESENTATION

MAGNETIC DATA

A contour map(PLATE 1) of the total field magnetic values has been provided at a scale of 1:10,000. The magnetic contour maps were compiled from diurnally corrected digital data, gridded using standard numerical techniques, and then contoured. The magnetic data are uncorrected for regional gradient. The contour interval is 10 gammmas.

ELECTROMAGNETIC PROFILE DATA

Profiles of the in-phase and quadrature responses have been plotted along the flight lines. This presentation of the data provides ready recognition of trends and areas of broad conductivity. PLATE 4 displays the low frequency/coaxial data and PLATE 4A displays the high frequency/coplanar data.

ELECTROMAGNETIC CONDUCTOR DATA

Electromagnetic conductors are displayed in coded form on PLATE 5, THE ELECTROMAGNETIC CONDUCTOR MAP. Geophysical responses were selected that were interpreted to be suitable for modelling as half-plane conductors. Conductivity-thickness products and depths have been calculated for each selected response and displayed on the map in coded form. APPENDIX V displays the phasor diagram from which the calculations for conductance and depth have been made. APPENDIX VI lists the amplitude, depth, and conductivity-thickness product for each response. Any data not readable on the map due to overprinting can be verified in this listing.

4. DISCUSSION OF RESULTS

GENERAL DISCUSSION- MAGNETIC DATA

Magnetic data can be interpreted to reveal areas underlain by different rock types and lineaments which could indicate fault or fracture zones. Magnetic maps can reveal the location of ore bodies which contain higher percentages of magnetite or pyrrhotite than the surrounding rocks.

GENERAL DISCUSSION- ELECTROMAGNETIC DATA

The geological responses encountered by an electromagnetic survey are of three main types. Bedrock conductors, which include formational graphitic and massive sulphide targets are normally limited in dimension and very often "maximum couple" with the vertical coaxial coil. They can be interpreted for conductance, depth, strike.

Secondly, surficial conductors such as overburden, glacial till and lake sedimentation responses, "maximum couple" with the horizontal coplanar coil configuration and are often "broad" responses.

REMARK: Broad surface conductors cannot easily be distinguished from deep seated basement targets. As the depth of a bedrock conductor increases the geophysical response becomes broader.

Thirdly, "Negative" permeability effects occur when rocks are magnetic. The electromagnetic response can become distorted by decreasing the in-phase response, often reversing the sign of the E.M. anomaly. Both coil configurations are affected by this phenomenon. Resistivity, conductance, and depth calculations in this case are not generally representative.

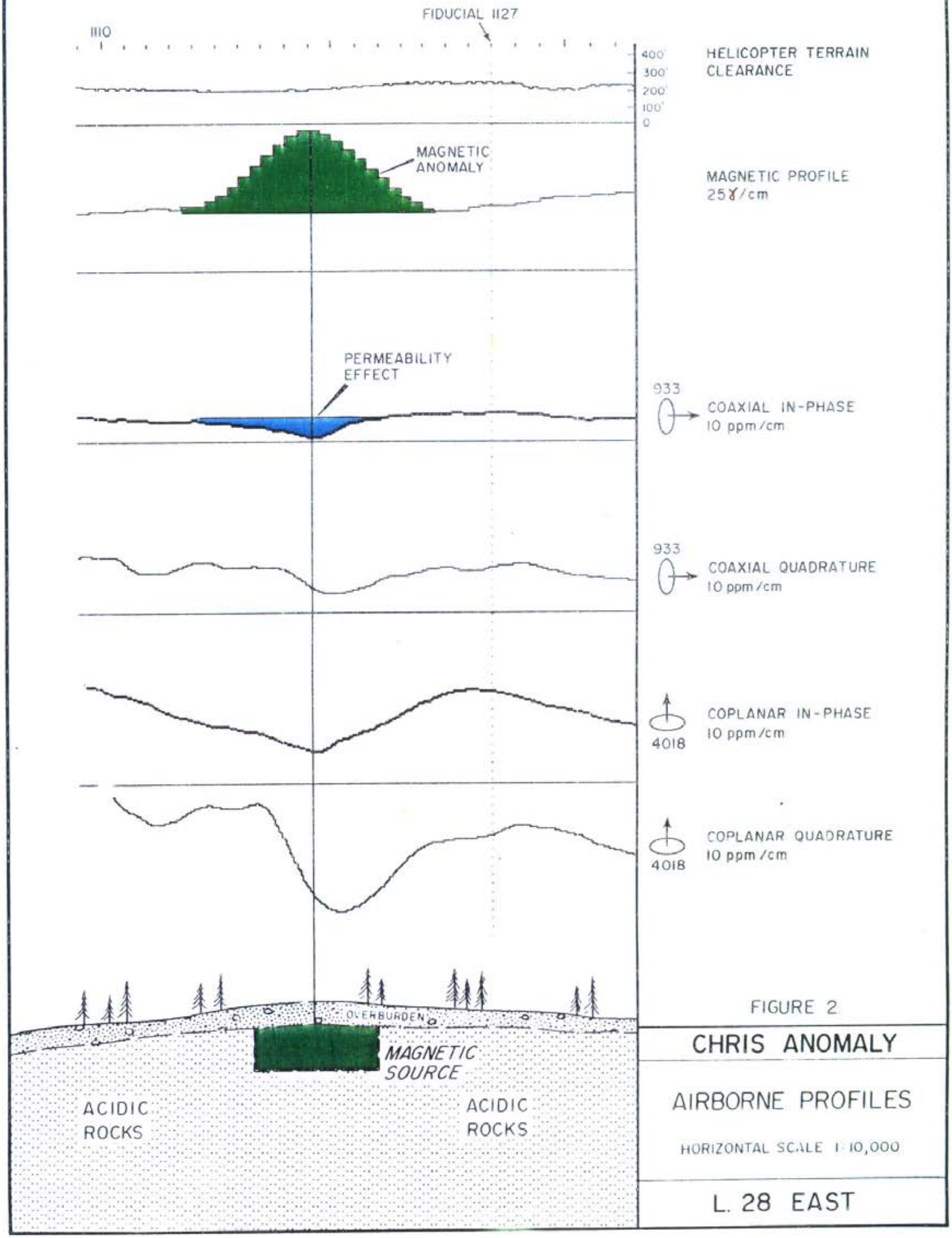


FIGURE 2

CHRIS ANOMALY

AIRBORNE PROFILES

HORIZONTAL SCALE 1:10,000

L. 28 EAST

Non-geological responses such as lightning interference and "cultural responses" including those due to pipelines, powerlines, buildings, metal culverts, and fence lines etc. are normally indicated by the monitors or otherwise evident from the character of the trace, or their location.

DISCUSSION OF RESULTS -Freemont Property

TEST LINES

Six test traverses were flown outside the holdings of Freemont Gold Corporation.

LN 112 AND 114 - Dome Mountain Area

These lines were flown to test the response of the geophysical system to the Dome Mountain mineralization. The system did not convincingly respond to the mineralization at the "Forks". However, the mineral occurrence is located in a narrow creek valley and there was some difficulty in maintaining proper terrain clearance, particularly on Ln 114.

REMARK: Ln 112 crossed the "Forks" at fiducial 2179 and Ln 114 crossed the forks at 2302. The records for these traverses and the data from the other "test lines" that have been discussed in this section are included in APPENDIX IV.

LN 1000 and LN 2000 - South Dome Area

The data on both of these traverses indicated E.M. conductors. The response on Ln 2000 at fiducial 2114, although of low amplitude, may be a good prospect for metallic sulphides.

LN 3000 and LN 4000 - South of Survey Area(Brenda Claim)

Although magnetically active, the records of these traverses indicate no changes in conductivity that might suggest concentrations of metallic minerals.

FIG. 3

FIG. 4

MAGNETOMETER DATA - Freemont Area

The magnetic map provides a very informative data set and outlines a number of significant features. A predominant feature is the area of active magnetic contour patterns in the south-eastern portion of the map sheet. The area, for the most part, correlates to the lower Telkwa volcanic sequence that has been mapped by Richards and Tipper.(2)

Anomalous responses which might suggest the presence of mineralization are not immediately discernible in the data of this area, although a mineral occurrence(Au, Cu, Ag, Ba,Pb, Zn, in fracture fillings(3)) has been noted in the area of Ln 23 Fiducial 1990.

Another outstanding feature of the map sheet is the area of high magnetic values in the north. This has been interpreted to be due to intrusive rocks which are bounded on the south by the GUESS CREEK FAULT SYSTEM.

REMARK: At least one outcrop of diorite has been noticed in this area.(personal communication, Lorne B. Warren, geologist)
The Guess Creek Fault System is a regional feature that extends for tens of kilometers and is evident from satellite photography and to some extent regional magnetics and topography.
The system appears to be about a kilometer wide and lies in the magnetically quiescent area between the previously mentioned volcanic rocks and the intrusive to the north. It runs subparallel to the direction of the flight lines.

The remainder of the mapsheet is characterized by a relatively quiet contour pattern interspersed with localized magnetic features. The most important of these is the magnetic response that is centered between fiducials 1104 and 1127 on Ln 28 and will be referred to as the "CHRIS ANOMALY".

(2) O.F. 351, Geological Map of the Smithers Area, 93 L.
(3) geological data provided by Tony L'Orsa.

CHRIS ANOMALY LN 28 FIDUCIAL 1117

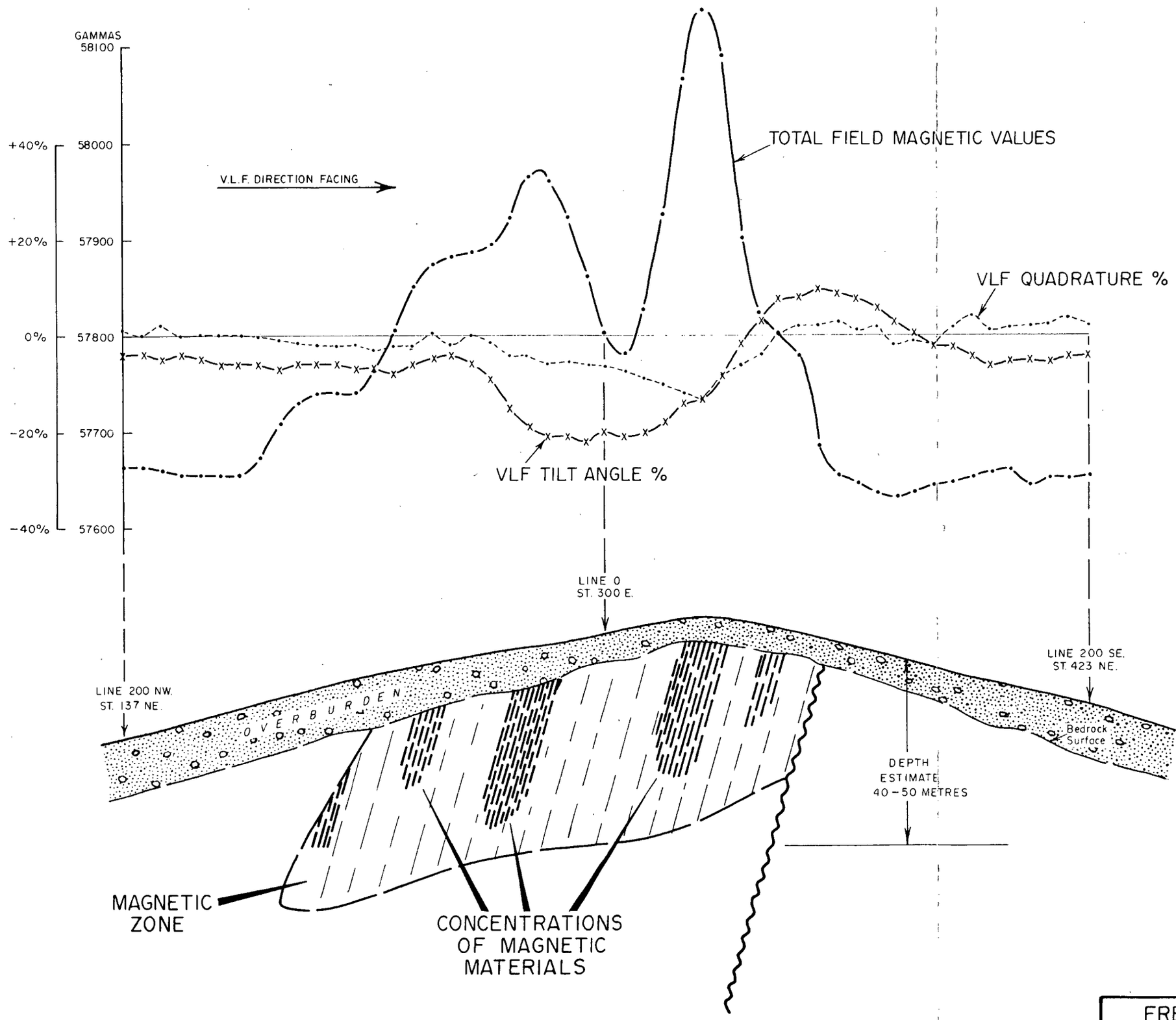
This airborne magnetic response on Ln 28 E is coincident with the mineralized boulder discovered in a trenching operation in August 1984.

REMARK: A slab portion of the boulder was brought to my office. The slab had been cut with a stonemason's saw, was dry, quite rectangular, and measured 23 cm by 40 cm and was 2.75 cm in thickness.(See the photographs, FIGURES 3 and 4) The edges of the slab (uncut surfaces) were not smooth and displayed a breccia surface, suggesting that the rock had not been transported long distances. Massive pyrite was easily visible throughout the rock and comprised (an estimate) 10-25% of the rock. The rock was tested with a voltmeter and showed considerable conductivity. The sample was further tested with a Geometrics 806 magnetometer by placing the sensor on the slab. Variations of around 200 gammas were observed.

The data from this traverse have been corrected for flight speed and are displayed in FIGURE 2 at a scale of 1:10,000. The HEM response was negative over the magnetic anomaly which was caused by the magnetic component rather than the conductive component of the underlying rocks. This type of response is not anomalous to the data of this mapsheet. The magnetic response on the other hand, is a well defined single traverse magnetic high on a relatively flat background, and is immediately suggestive of a very localized concentration of magnetic materials.

GROUND DATA - CHRIS ANOMALY

On February 23, 24, and February 25, 1985 the writer revisited the property to undertake ground magnetic and VLF E.M. measurements to confirm and detail the airborne anomaly. The results of these surveys are displayed in PLATE 2, MAGNETIC CONTOUR MAP AND GEOPHYSICAL PROFILE LN 0 and PLATE 3, FRASER FILTERED VLF E.M. CONTOUR MAP. An interpretation of data that was collected on a detailed profile Ln 97^{o}E is displayed in



HORIZONTAL SCALE 1 cm = 25 m
VERTICAL DISTANCES NOT TO SCALE

FREEMONT GOLD CORPORATION

CHRIS ANOMALY

GEOPHYSICAL PROFILE

LINE N 97° E.

DETAIL TRAVERSE ACROSS
STRIKE AT 1.0 m INTERVALS

Date. February 22, 1985	Scale. 1 cm = 25 m.	FIG. 5

FIGURE 5. The data point interval on this traverse was 10 meters. The ground magnetic data have been interpreted using model studies and indicate an area of increased magnetic content that is 400 meters long and 175 meters wide. Further, the data suggest that the zone may extend southwards from the present grid. The depth of the zone is estimated to be about 40-50 meters.

The magnetic peaks within the anomalous zone indicate localized concentrations of magnetite or pyrrhotite in a matrix of less magnetic material.

The Fraser Filtered VLF E.M. contour data indicate a substantial electromagnetic disturbance. The results themselves however, have been distorted due to the magnetic effects of the underlying rocks and standard interpretative techniques are not applicable. The data serve to confirm the anomalous character of the area.

Although the evidence remains circumstantial at this point, it is believed that the boulder that was discovered in this area originated from the magnetic rocks mapped by the detail survey. (The approximate location of the pit in which the boulder was found is 25 S.E., 325 N.E.) Regardless of the verity of this hypothesis the area remains an excellent target for metallic/precious metal mineralization.

OTHER AREAS OF INTEREST - Airborne Magnetic Data

There are a number of magnetic features on the magnetic mapsheet that provide prospects for the exploration of mineral deposits and each of these warrants detailed examination by geological and geophysical means.

Ln 33 Fiducial 71

This is a magnetic low feature that strikes 310° true and is about 800 meters in length. This has the appearance of a formational feature (possibly acidic volcanic rocks) but is anomalous and may be a marker to an altered zone.

Ln 30 Fiducial 752 and Ln 29 Fiducial 926

This is a magnetic high of 40 gammas that lies within the GUESS CREEK FAULT SYSTEM. The strike of the anomaly is parallel to the CHRIS ANOMALY and may be related to a common fracture set.

Ln 27 Fiducial 1211

This is a broad magnetic high of about 30 gammas that lies within the GUESS CREEK FAULT SYSTEM and may indicate structure or an altered zone at depth. The strike of this anomaly is parallel to the CHRIS anomaly and may be related to a common fracture set.

Ln 26 Fiducial 1448 and Ln 25 Fiducial 1626

This is a broad magnetic high of 30-40 gammas that strikes perpendicular to the GUESS CREEK FAULT SYSTEM.

Ln 23 Fiducial 2109

This response indicates a localized concentration of magnetic minerals, probably very near surface. The response is outside the present claim area.

Ln 23 Fiducial 2047 and Ln 22 Fiducial 102

This response is well defined and a significant concentration of magnetic minerals is indicated here. Some

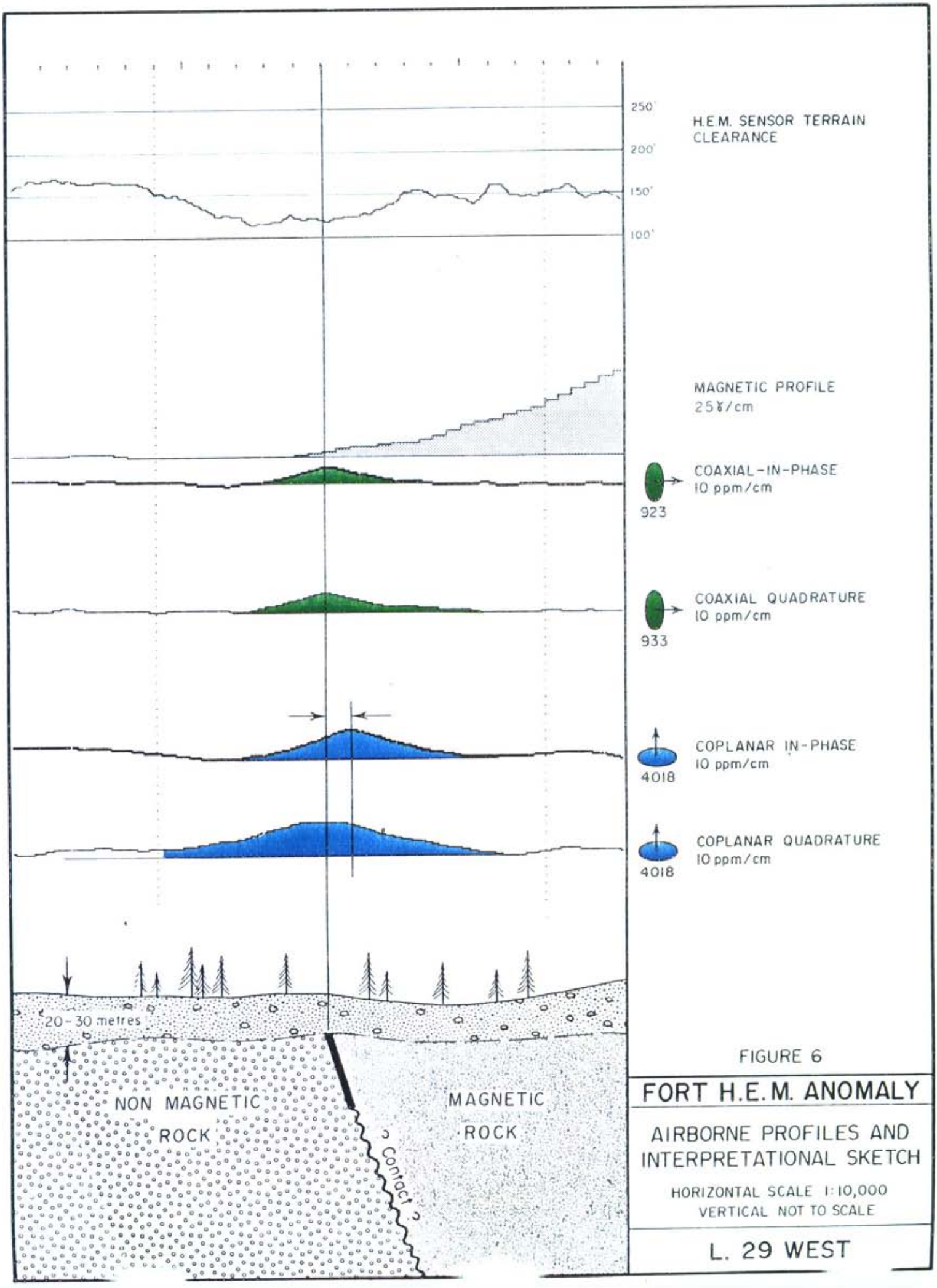


FIGURE 6

FORT H.E.M. ANOMALY

AIRBORNE PROFILES AND INTERPRETATIONAL SKETCH

HORIZONTAL SCALE 1:10,000
VERTICAL NOT TO SCALE

L. 29 WEST

outcrop of diabase rock has been reported by Tony L'Orsa in this area[4], which could account for the magnetic response but insufficient testing has been done.

Ln 13 Fiducial 1546,Ln 14 Fiducial 1317, Ln 12 Fiducial 1585, Ln 8 Fiducial 1987

All of these responses indicate localized concentrations of magnetic materials within an acidic sequence of rocks. They could be caused by small intrusions or meta-basic volcanic rocks but they also may be markers to mineralized zones. Each of these magnetic responses warrants ground examination.

ELECTROMAGNETIC SURVEY

The majority of the recorded electromagnetic responses were due to variations in overburden thickness and/or conductivity, magnetic permeability, terrain clearance variations, or conductive sedimentation in the bottom of lakes and sloughs. The distribution of these responses can be seen on PLATE 4 and PLATE 4-A, THE ELECTROMAGNETIC PROFILES MAPS and PLATE 5, ELECTROMAGNETIC CONDUCTOR MAP.

An HEM response was identified near the boundary of the Fort and Ophir Claims that indicates a bedrock conductor. This response is identified on the Electromagnetic Conductor Map as Conductor "C" on Ln 29, and Conductor "A" on Ln 292 and Conductor "B" on Ln 30. This response is discussed below and will be referred to as the "FORT ANOMALY".

(4) Personal communication February 1985.

REMARK: The apparent misalignment of the conductor on Ln 29 and Ln 292 is due to variations in helicopter attitude. The flight path camera is fixed to the helicopter, not gimbled.

The conductive zone lies in a magnetically quiet area, but is adjacent to a magnetic rock unit to the north-east (see the previous discussion on magnetics Ln 30 Fiducial 752 and Ln 29 Fiducial 956), and contiguous to an area of anomalous stream sampling.(see PLATE 1-MAGNETIC CONTOUR AND INTERPRETATION MAP)

REMARK: The stream sampling was done by Tony L'Orsa, a vendor of the property. He advises that samples were run for Au, Ag, Pb, Cu, Zn, and As. Arsenic(176 ppm on a threshold of 50 ppm) and zinc(274 ppm on a threshold of 160 ppm) were anomalous.

FIGURE 6 displays the HEM airborne data from Ln 29 W. and provides a schematic interpretation of the results. Note that the sketch is not to scale in the vertical direction.

Although the half-plane modelling program calculates a depth in the order of 50 to 60 meters for this conductor, a more realistic estimate(based on experience) would be 20-30 meters. The response is not a high amplitude one and in part is due to terrain clearance variations. However, considering the possibly large depth of overburden in the area it is anomalous and warrants detailed examination.

REMARK: The presence of the HEM response on Ln 29 has been verified. Ln 292 E was flown over the anomaly in the reverse flight direction from Ln 29 W and gave confirming results. The data from this confirmation traverse, which have been corrected for flight speed variations and presented at a scale of 1:10,000 are included as APPENDIX VII.

Also it should be noted that the series of conductors in the logged area to the west of the Fort Anomaly may have bedrock sources. The conductors are parallel to the strike of the Fort Anomaly and although of low amplitude, are consistant over 4 traverses(800 Meters). However the possibility of a cultural source such as compacted road materials, logging cables etc, should not be overlooked.

The Fort Anomaly is in a forested area away from possible cultural features.

5. CONCLUSIONS AND RECOMMENDATIONS

The geophysical survey was successful in identifying two targets that may be directly related to the presence of metallic mineralization.

I. CHRIS ANOMALY

This is a well defined response indicating an anomalous area about 175 meters wide and 200 meters long. Sufficient ground measurements have been taken to select drill hole locations.

HOLE 1 collar at Ln 0, Station 275 NE, drill north-easterly at 45^{o} to a depth of 125 meters.

HOLE 2 collar at Ln 50 NW, Station 325 NE, drill north-easterly at 45^{o} to a depth of 125 meters.

HOLE 3 collar at Ln 0, Station 200 NE, drill vertically to a depth of 100 meters

Subject to the results of the above drilling a further test may be warranted:

HOLE 4 collar at Ln 50 SE, Station 0+00, drill vertically to a depth of 100 meters.

II. FORT ANOMALY

The E.M. data indicates a conductor of weak conductivity buried under considerable(15-20 meters) overburden. Because of the overburden depth the recommended "detail" geophysical surveys will have to be undertaken with special care. It is recommended that 15 traverses 500 meters in length be run with Horizontal Loop E.M. and VLF E.M. The line interval should be 50 meters and the station interval 25 meters.

COST OF EXPLORATION PROGRAM

CHRIS ANOMALY:

450 meters of drilling at $ 75.00 per meter	$ 33,750
Assaying of core, geological helper etc. at $ 75.00 per meter	$ 33,750
Reporting and supervision	$ 5,000

FORT ANOMALY

7.5 km of linecutting, magnetics and VLF E.M. survey	$ 7,000
Reporting and supervision	$ 5,000
300 meters of drilling at $ 75.00 per meter	$ 22,500
Assaying of core, geological helper etc. at $ 75.00 per meter	$ 22,500
Subtotal	$129,500
Contingency 15%	$ 19,425
TOTAL COST OF PROGRAM	$148,925

Respectfully submitted,

Ronald F. Sheldrake

Ronald F. Sheldrake

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DATE SIGNED March 15, 1985

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APPENDIX I

INSTRUMENTATION

ELECTROMAGNETOMETER

The electromagnetic instrumentation that was used on this survey utilized both coplanar and coaxial coil configurations, as well as two frequencies.

The system consists of two sets of receivers and transmitters as follows:

(1) COAXIAL PAIR - The coaxial transmitter-receiver pair are separated by 6 meters and utilize a low frequency signal of 933 Hz. This configuration couples best with vertical dike-like targets.

(2) COPLANAR PAIR - The coplanar transmitter-receiver pair are separated by 5.5 meters and utilize a "high frequency" signal of 4018 Hz. This configuration couples best with horizontal tabular targets. The transmitter and receiver coils for the two frequencies are located at the ends of the six meter sensor that is commonly called a "bird". The bird is towed 30 meters below the helicopter by means of a suitable cable which also carries the electric signals to and from the bird.

Changes in the alternating electromagnetic field at the receiver coil, caused by eddy currents in the subsurface rock are recorded. These changes are expressed in ratios of the normal undistorted primary field. They are so small as to be expressed in parts per million (ppm). The electromagnetic instrument was manufactured by GEONICS LTD of Mississauga, Ontario with modification done by Geotech Ltd. of Ontario.

MAGNETOMETER

The magnetometer that was used on this survey was a Geometrics Corp Model 803. It is a total field nuclear precession instrument that measures the magnetic field strength with a resolution of 1 gamma. The sensor is a toroidal coil and is positioned 20 meters below the helicopter.

The measuring technique of the proton magnetometer can be understood by making the proton analogous to a tiny bar magnet spinning about its longitudinal axis, which has the properties of both a magnetized needle and a gyroscope. The spinning magnet tries to align itself along the lines of force but the gyroscopic properties oppose this and the spinning magnet gyrates. The essential characteristic of the system is that the rate of gyration is proportional to the ambient magnetic intensity. This rate is measured electronically, multiplied by a suitable factor and then displayed on the chart and recorded on magnetic tape.

VLF ELECTROMAGNETOMETER.

The VLF Totem I-A electromagnetometer is manufactured by Herz Industries of Toronto, Ontario and measures the magnetic field component that is radiated from VLF Military radio transmitters. The instrument can be used to measure total field strength, and vertical quadrature.

Frequency Range: 15kHZ to 25 kHZ

Sensitivity Range: 130 uV to 100 mV at 20 kHZ, down 3 dB at 14kHZ and 24kHZ.

ANCILLARY EQUIPMENT

UDAS data acquisition system with digital printer.

Geocam 35 mm flight path camera

King Radio Altimeter

Geometrics G 826 magnetic base station and recorder

HELICOPTER

The Bell Jet Ranger Helicopter was supplied by Glacier Helicopters of Smithers, B.C.

APPENDIX II

THE ANALOGUE CHART AND FLIGHT PATH RECOVERY

The in-flight chart is a roll of heat sensitive paper which moves through the digital printer at a speed of 5.48 cm per minute.

The digital printer chart facilitates the use of a full alpha-numeric system. All "header", sensitivity and fiducial information is printed on the chart automatically.

The helicopter flight path is recovered from 35 mm film, which is exposed at 2 second intervals while the helicopter is on survey traverse. After processing and anotating, recognizable fiducials(pictures) are pin-pointed on the photomosaic map, which provides the basic positioning control for the flight lines. The geophysical data are extrapolated between the control points.

APPENDIX III

SURVEY PERSONNEL

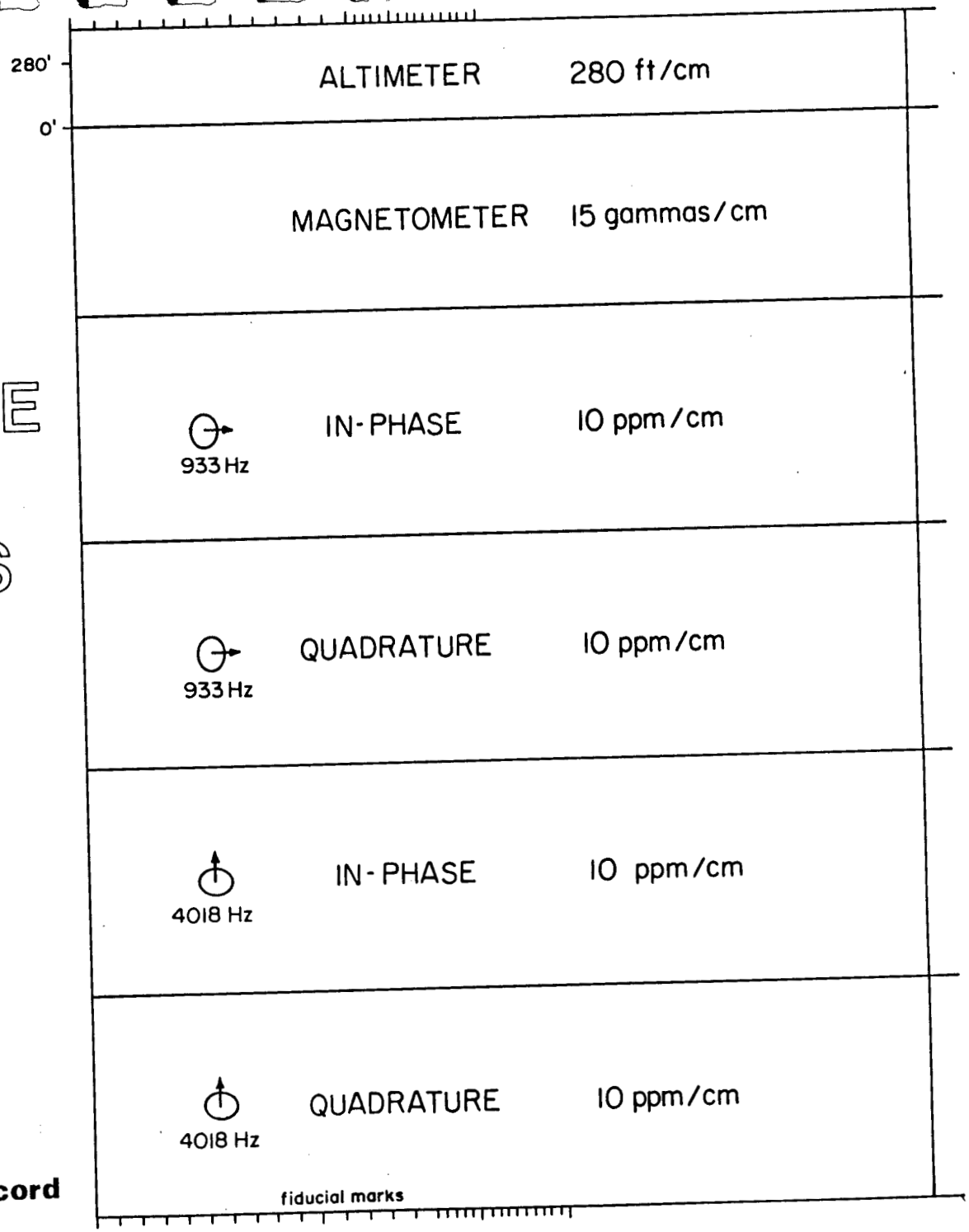
Field Geophysicist	Ronald F. Sheldrake 1271 W. 22nd Street North Vancouver, B.C.
Field Technician	Mr. Andrew Rybaltowski C/O Apex Airborne Surveys Vancouver
Helicopter Pilot	Mr. Doug Mclean C/O Glacier Helicopters Smithers, B.C.

APEX

AIRBORNE

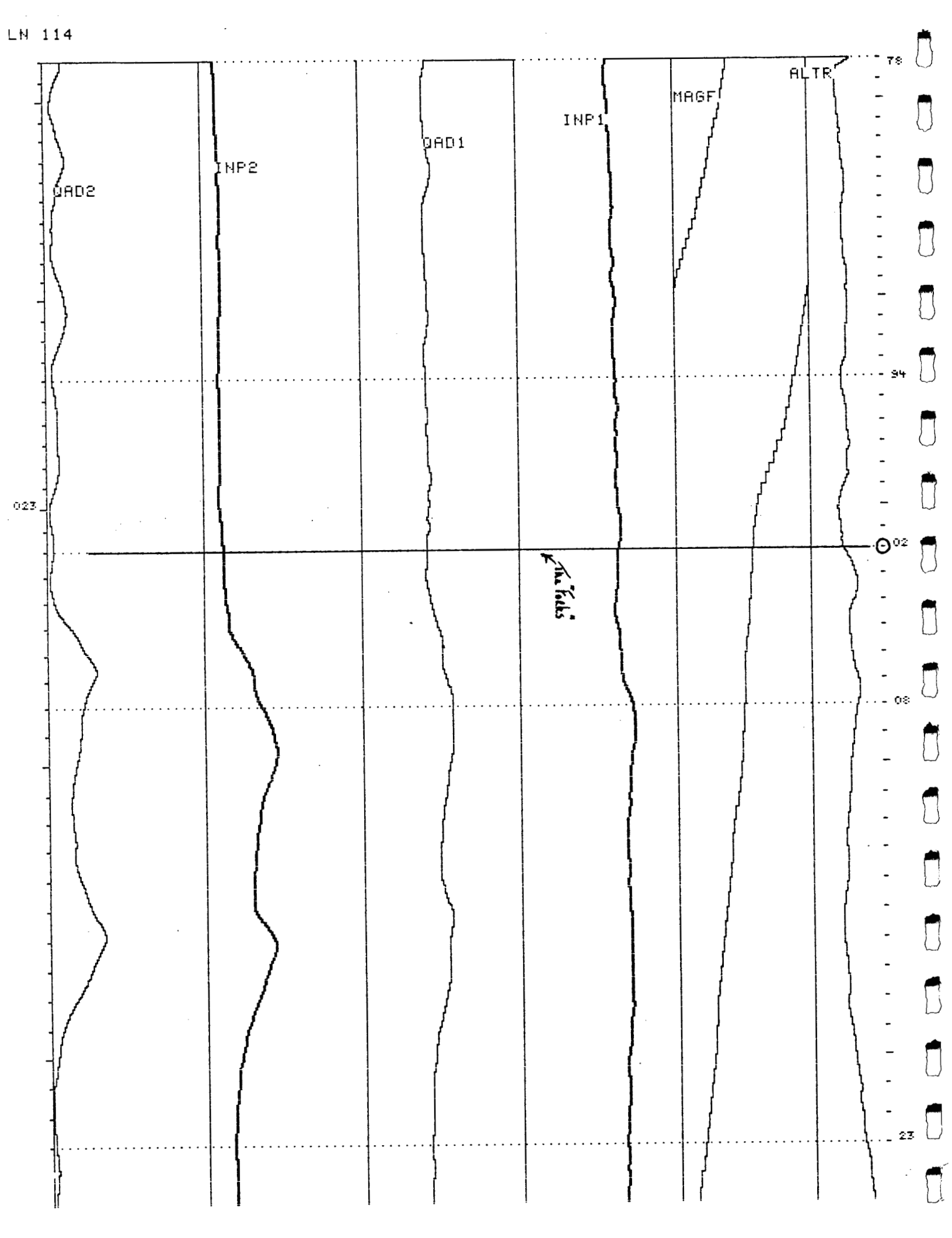
SURVEYS

LTD.

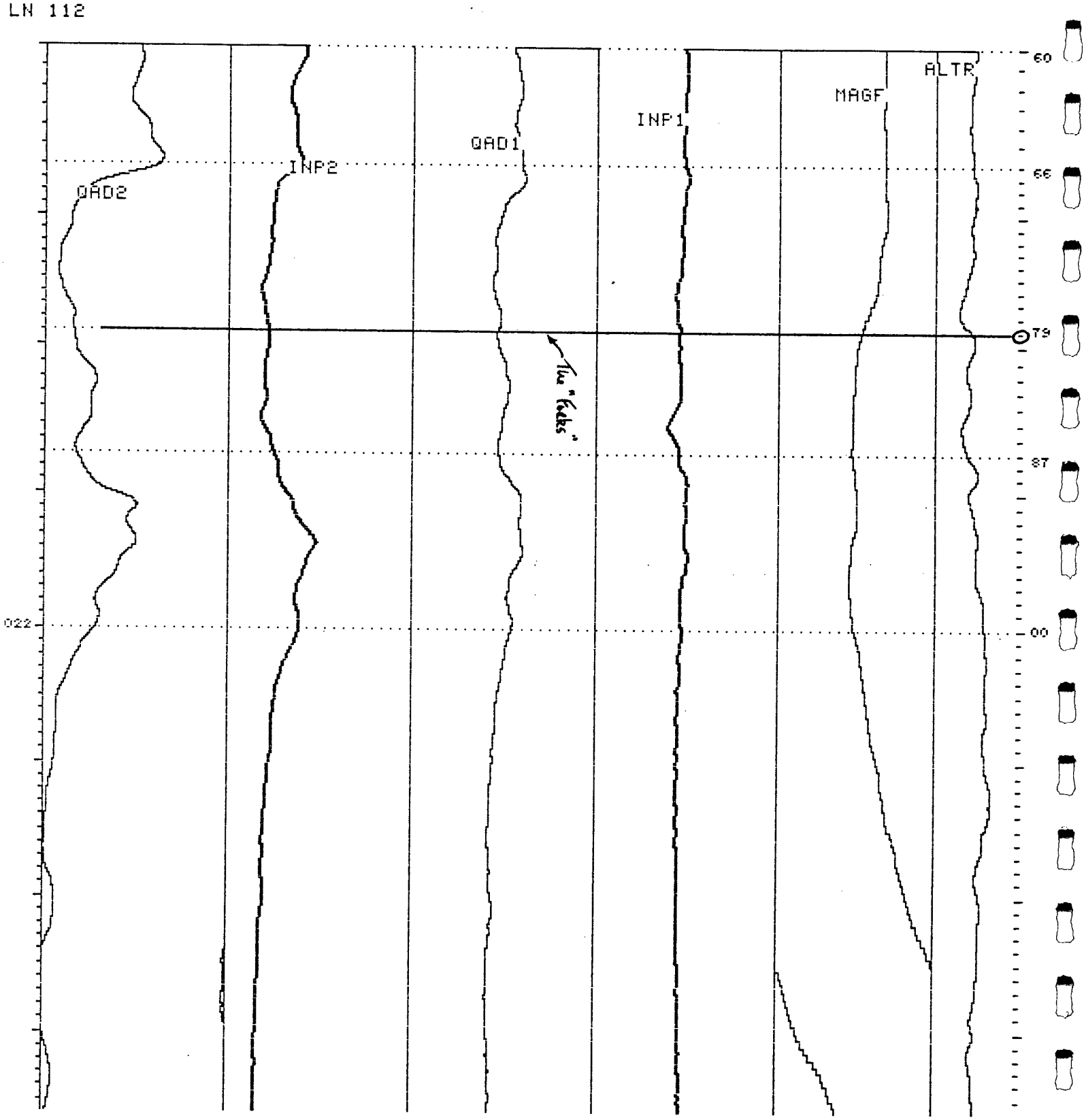


APPENDIX IV

Playback record


LN 114
QAD2
INP2
QAD1
INP1
MAGF
ALTR
023
02
08
23
94
78

LN 112



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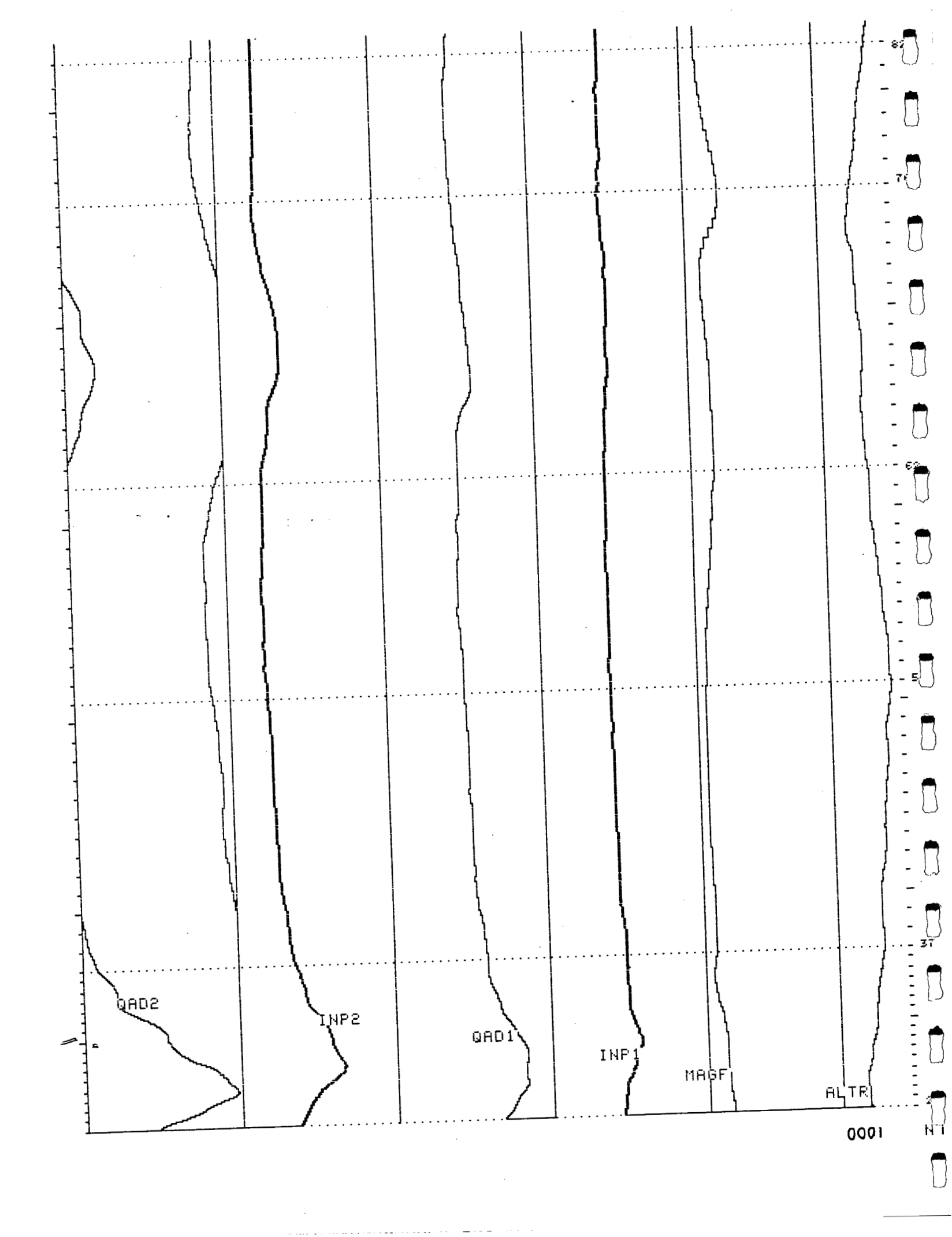
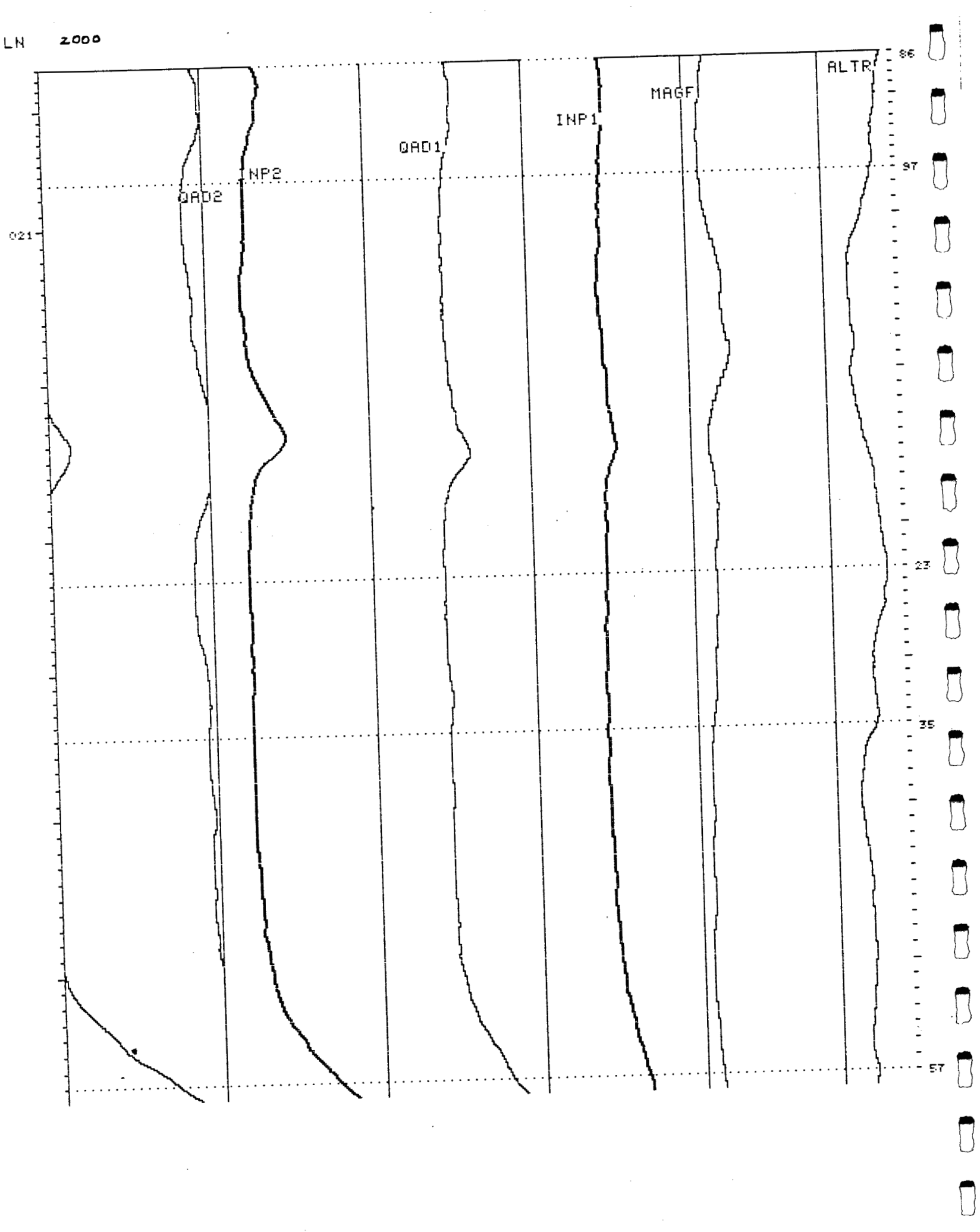
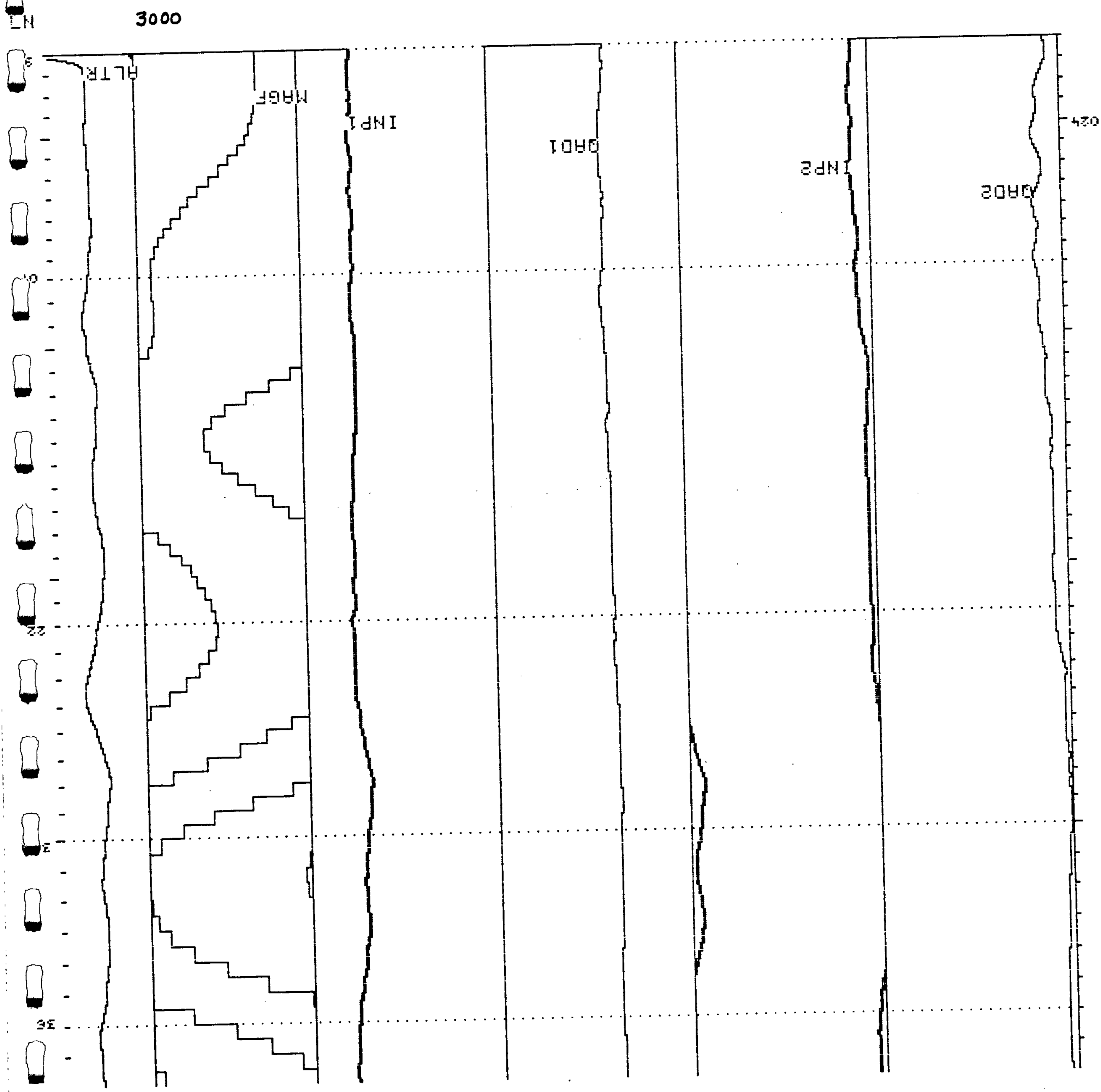
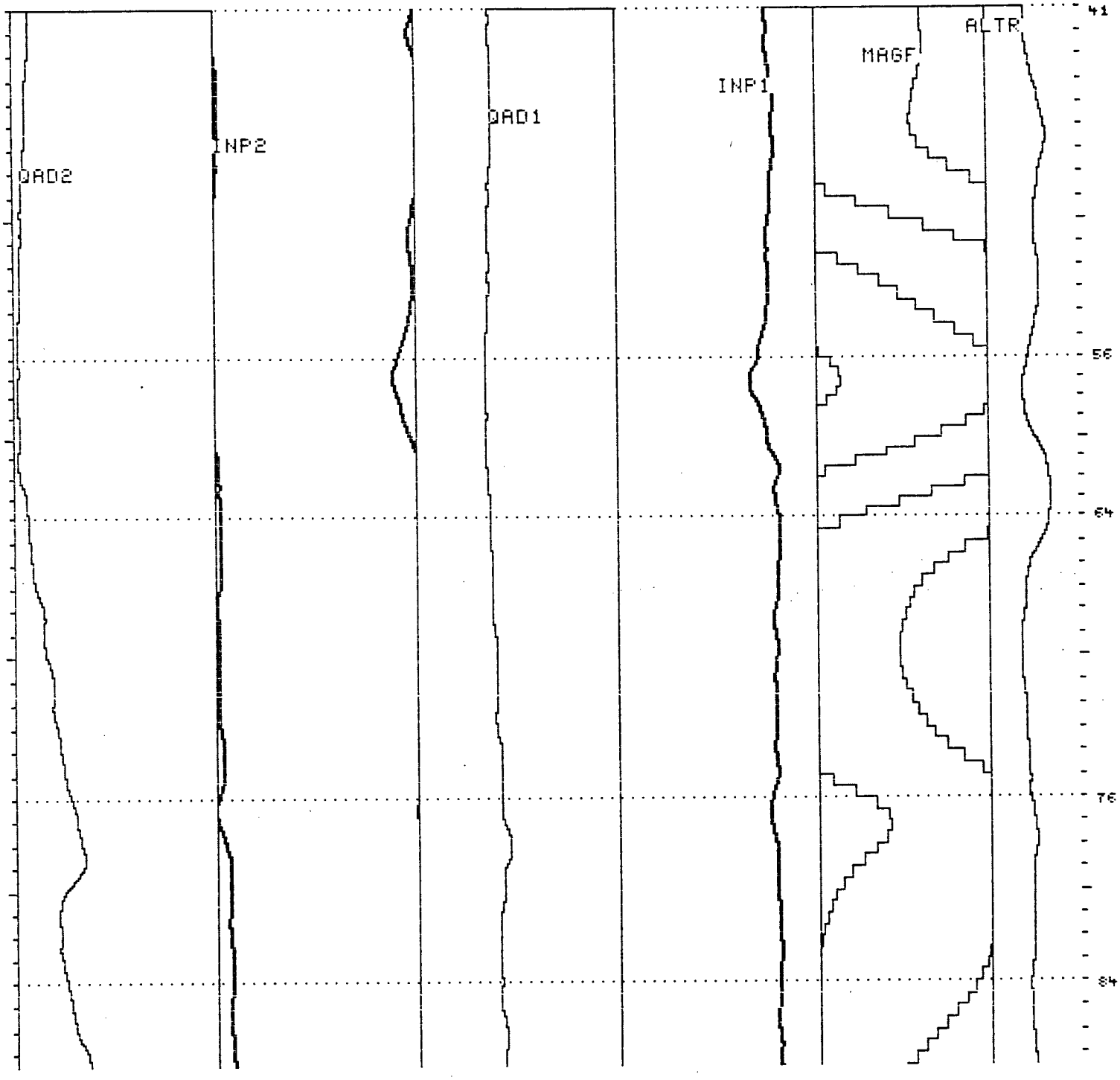

QAD2
INP2
QAD1
INP1
MAGF
ALTR
0001


LN
2000
QAD2
NP2
QAD1
INP1
MAGF
ALTR
021
86
97
23
35
57

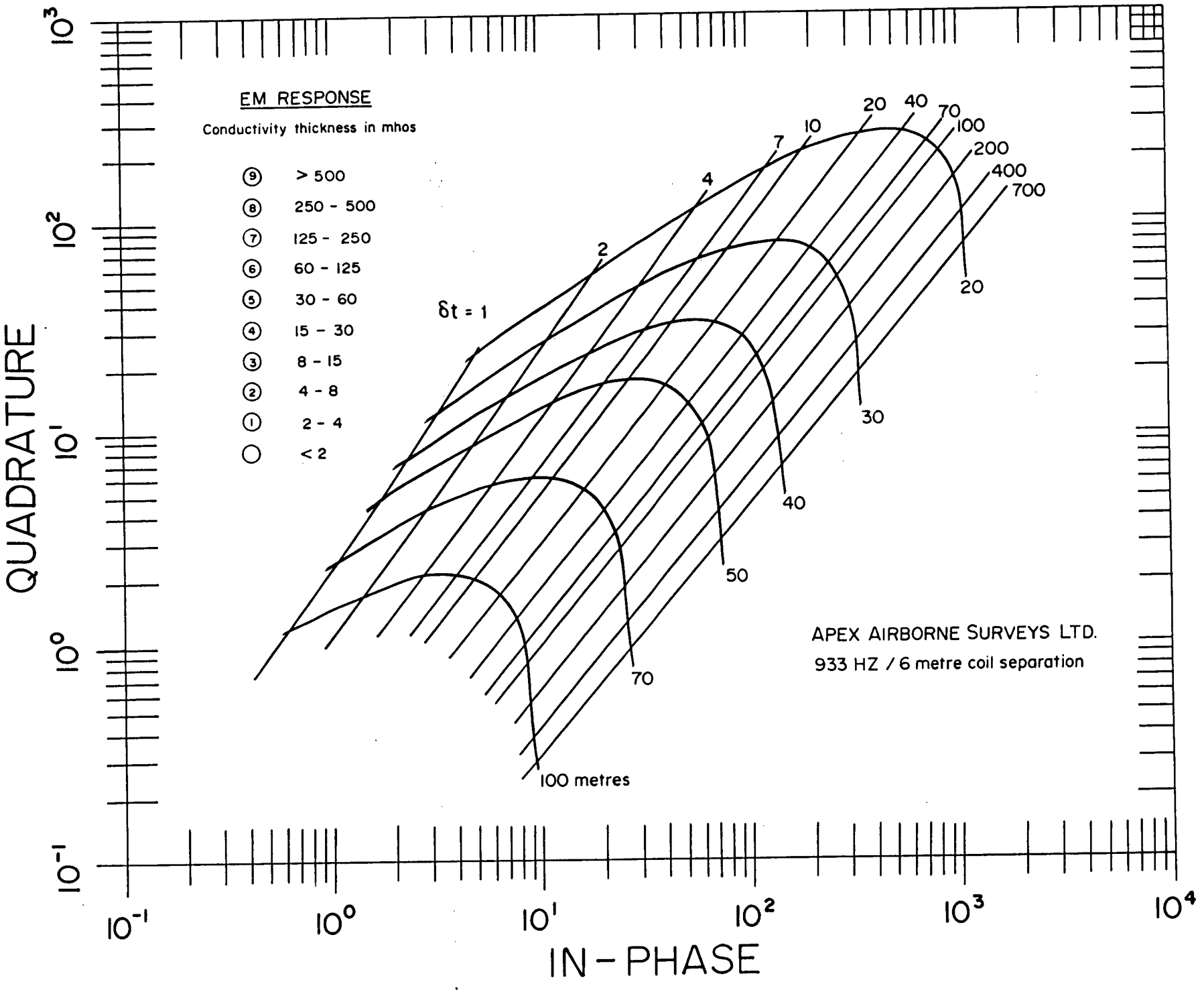


3000
ALTR
MAGF
INP1
QAD1
INP2
QAD2
420

LN 4000



APPENDIX V


EM RESPONSE
Conductivity thickness in mhos
⑨ > 500
⑧ 250 - 500
⑦ 125 - 250
⑥ 60 - 125
⑤ 30 - 60
④ 15 - 30
③ 8 - 15
② 4 - 8
① 2 - 4
○ < 2
δt = 1
2
4
7
10
20
40
70
100
200
400
700
20
30
40
50
70
100 metres
APEX AIRBORNE SURVEYS LTD.
933 HZ / 6 metre coil separation
QUADRATURE
IN-PHASE
10^{-1}
10^{0}
10^{1}
10^{2}
10^{3}
10^{4}

APPENDIX VI - CONDUCTOR LIST

ANOMALY REPORT

LINE No. FID ANOMALY	COAXIAL COIL Low Freq. Inphase (ppm)	Quad (ppm)	VERTICAL DYKE Conductance (mhos)	DEPTH (metres	COMMENTS
8 A 1980.00	4.5	7.4	1.75	47.56	
8 B 2025.45	-1.4	-0.2	0.00	0.00	
9 A 1955.05	4.8	6.2	2.53	35.61	
10 A 1806.90	6.3	13.3	1.43	33.56	
10 B 1847.30	-3.4	0.8	0.00	1.52	
11 A 1690.10	6.1	7.4	3.10	38.92	
11 B 1709.15	-2.4	-0.5	0.00	0.00	
11 C 1735.50	-1.8	-0.1	0.00	2.44	
12 A 1633.05	-2.8	0.2	0.00	0.00	
13 A 1440.10	8.1	12.2	2.61	33.51	
14 A 1367.05	-1.8	0.3	0.00	0.00	
14 B 1377.60	-3.6	0.7	0.00	10.97	
14 C 1429.45	13.3	17.8	3.77	33.64	
15 A 1168.00	5.3	7.7	2.23	35.43	
16 A 1118.15	-1.8	0.1	0.00	1.22	
16 B 1159.10	5.2	8.8	1.79	40.22	
17 A 878.05	3.1	6.6	0.98	31.17	
18 A 561.25	2.0	4.1	0.82	27.73	
19 A 807.80	-3.6	0.0	0.00	1.22	
19 B 857.00	0.8	5.5	0.05	16.84	
20 A 508.30	-1.8	0.3	0.00	0.00	
20 B 553.15	2.3	7.6	0.44	31.35	
21 A 238.65	2.0	6.9	0.37	31.05	
22 A 168.50	-3.4	1.1	0.00	0.00	
22 B 204.85	-1.2	2.7	0.00	0.00	
22 C 210.05	1.4	9.6	0.09	27.73	
23 A 1952.25	2.2	4.9	0.75	37.82	
23 B 1993.60	-4.7	0.9	0.00	0.00	
23 C 2109.60	-0.6	0.0	0.00	0.00	
24 A 1928.20	2.5	4.5	1.18	42.36	
26 A 1501.55	1.1	4.2	0.22	43.80	
28 A 1119.00	-0.8	1.4	0.00	0.00	

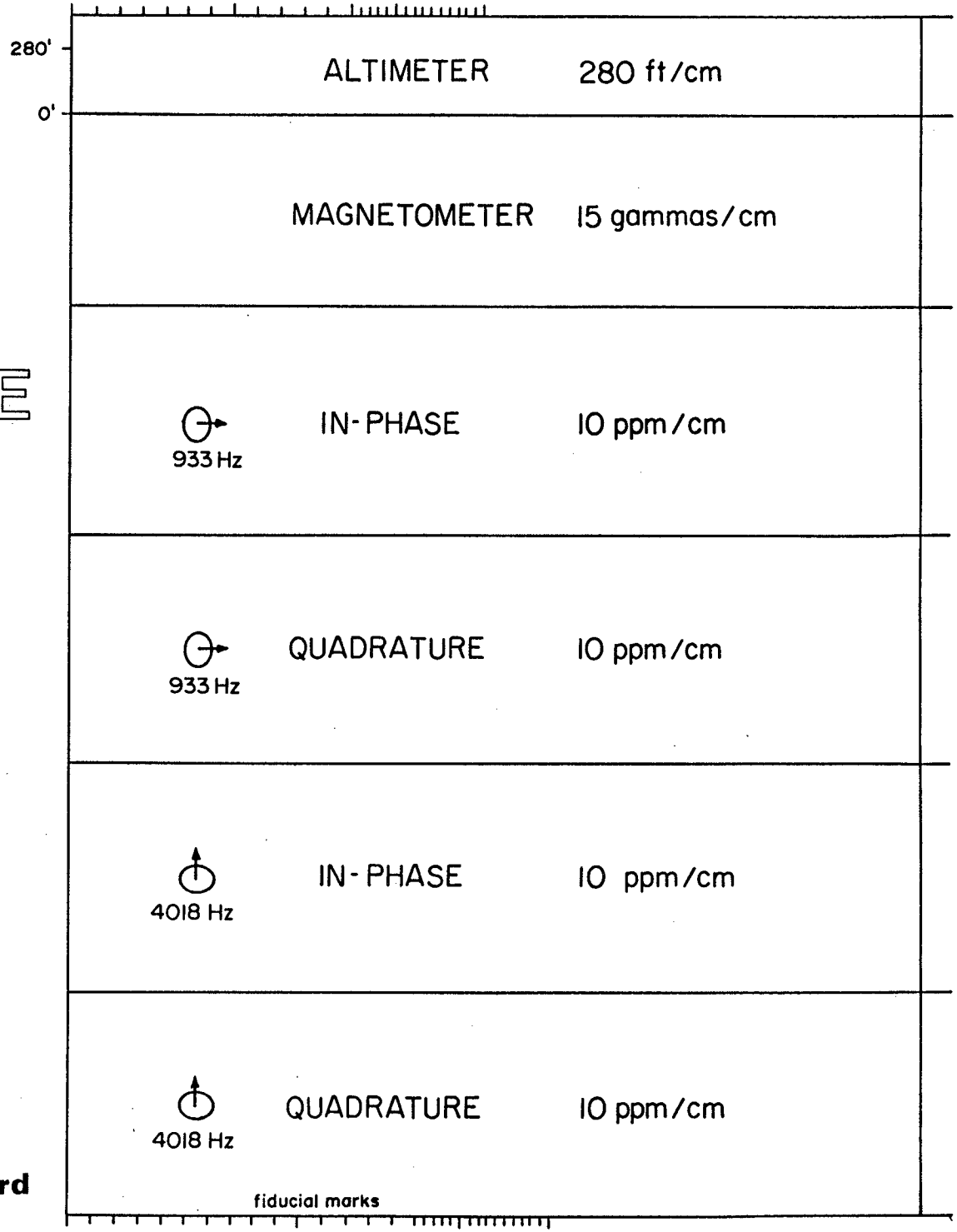
ANOMALY REPORT

LINE No. FID ANOMALY	COAXIAL COIL Low Freq. Inphase (ppm)	Quad (ppm)	VERTICAL DYKE Conductance (mhos)	DEPTH (metres	COMMENTS
28 B 1175.00	3.6	3.1	4.00	53.62	
28 C 1179.80	3.8	3.8	3.38	54.11	
29 A 844.90	7.4	8.2	3.83	36.25	
29 B 848.25	6.1	7.9	2.84	45.73	
29 C 944.60	2.3	3.3	1.52	59.48	
29 D 959.30	1.8	3.1	0.98	50.33	
30 A 708.60	1.8	3.9	0.71	45.49	
30 B 727.95	1.6	2.6	1.09	56.15	
31 A 510.55	7.0	6.3	5.06	36.73	
31 B 617.55	1.9	8.4	0.24	36.80	
32 A 375.35	2.2	3.3	1.38	51.01	
32 B 389.00	2.4	2.9	1.94	52.33	
32 C 493.50	5.4	2.7	10.20	43.43	
32 D 501.15	14.7	9.3	10.73	35.99	
34 A 116.65	7.8	5.6	7.31	34.77	
34 B 120.45	7.7	5.1	8.09	32.45	
34 C 127.35	5.1	5.4	3.44	34.66	
34 D 205.30	2.7	6.8	0.68	30.67	
34 E 222.20	2.3	4.9	0.85	41.95	
35 A 1513.00	8.7	5.0	10.07	49.03	
36 A 1293.10	1.1	1.2	1.55	72.18	
37 A 891.00	0.9	3.3	0.17	49.65	
37 B 895.95	0.4	2.3	0.02	48.95	
39 A 601.10	3.7	4.8	2.23	39.26	
40 A 502.55	4.0	5.6	2.06	46.50	
40 B 523.00	1.1	3.0	0.39	48.84	
40 C 534.05	0.5	2.9	0.03	41.96	
41 A 240.10	5.6	6.2	3.40	46.74	
41 B 246.80	8.1	11.7	2.74	31.16	
41 C 262.85	1.7	3.0	0.98	46.49	
41 D 278.70	2.8	4.9	1.24	38.85	
114 A 2308.20	1.8	2.5	1.44	46.39	
114 B 2315.45	1.3	2.2	0.84	72.63	
292 A 174.65	2.2	4.2	0.98	54.18	
331 A 96.85	6.6	2.9	13.09	39.64	
331 B 104.00	9.0	3.0	21.75	37.84	

ANOMALY REPORT

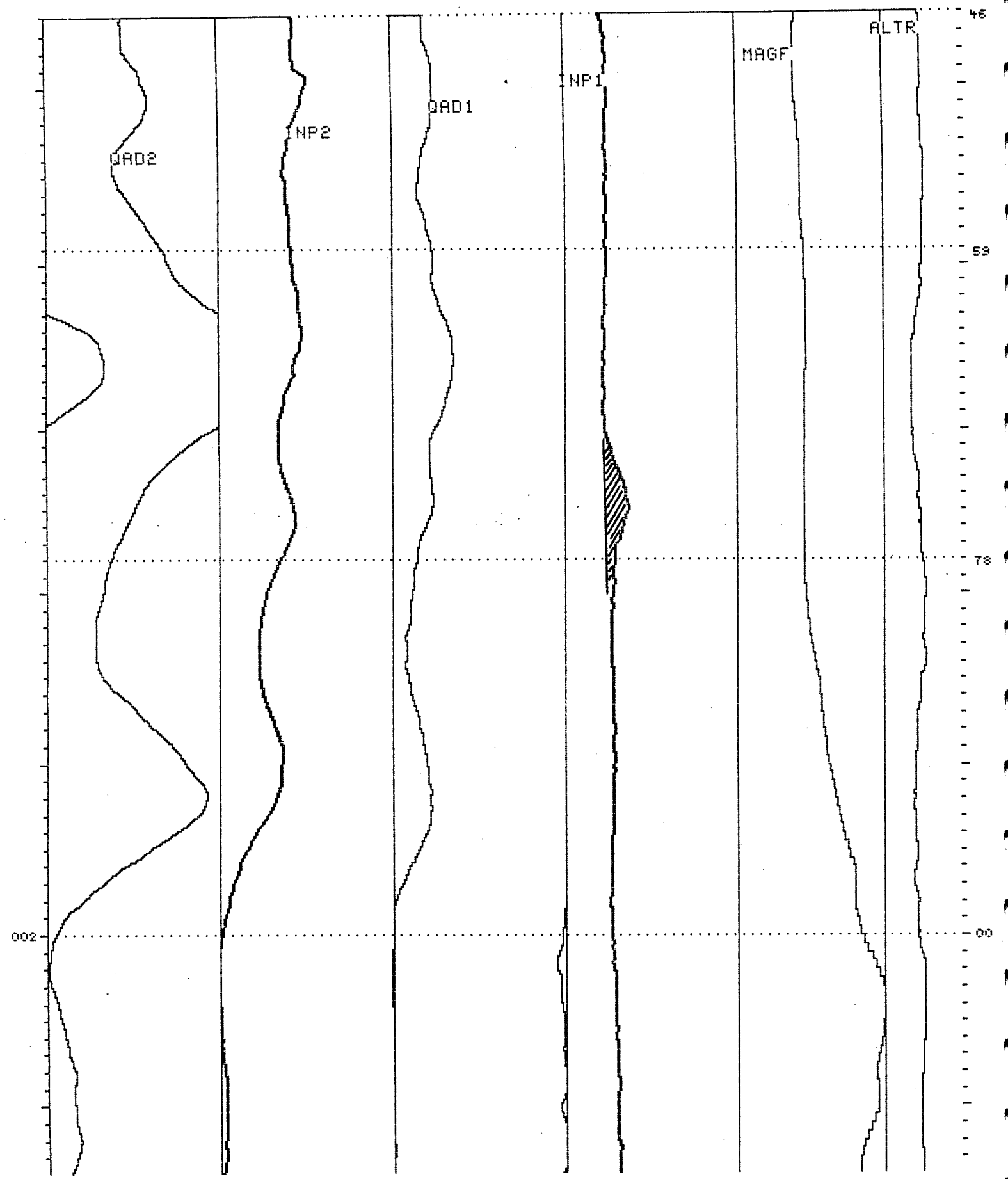
LINE No. FID ANOMALY	COAXIAL COIL Low Freq. Inphase (ppm)	Quad (ppm)	VERTICAL DYKE Conductance (mhos)	DEPTH (metres	COMMENTS
1000 A 2028.05	2.0	5.1	0.58	43.16	
1000 B 2067.05	0.6	1.7	0.19	48.66	
1001 A 1633.25	-2.3	0.1	0.00	2.44	
1002 A 1820.05	2.4	6.3	.63	31.26	
1002 B 1929.25	2.3	5.2	0.77	44.93	
1002 C 1964.95	0.6	4.0	0.05	28.38	
1002 D 2012.95	1.0	1.9	0.64	64.69	
2000 A 2114.45	1.5	2.5	0.94	61.56	
2000 B 2157.00	3.2	5.4	1.40	48.58	

APEX AIRBORNE SURVEYS LTD.



APPENDIX VII **Playback record**

LN : 292



PROG.VER.111082.

CERTIFICATION

I, RONALD F. SHELDRAKE, of the City of Vancouver, Province of British Columbia, hereby certify as follows:

1. I am President of Apex Airborne Surveys Ltd., a company incorporated under the laws of the Province of British Columbia.
2. The Vancouver office of Apex Airborne Surveys Ltd. is located at Suite 514 - 625 Howe Street, Vancouver British Columbia.
3. I received my degree in Geophysics (B.Sc.) from the University of British Columbia in May 1974.
4. I have practised my profession since that date.
5. I have no interest, direct or indirect, other than payment for this work, in the properties or claims of FREEMONT GOLD CORPORATION, or their associated companies nor do I expect to receive any.
6. I consent to the use of this report in, or in connection with, a prospectus, engineering reports or in a Statement of Material Facts.

February 20,1985

Ronald F. Sheldrake

Apex Airborne Surveys Ltd.

February 20, 1985

STATEMENT OF COSTS

Type of surveys:	Helicopter Electromagnetic-Magnetic Ground Magnetic and VLF E.M.
Dates of fieldwork:	December 27, 28 1984(HEM) and February 23-25, 1985(ground work).
Survey Kilometers:	296 kilometers airborne traverse. 6.6 kilometers ground traverse.
Cost per Linear Kilometer	$ 149.34 ($ 45,190 / 302.6)
Additional Charges:	None
Total cost of both surveys:	$ 45,190.00

FREEMONT GOLD CORPORATION

PLATE 4

HELICOPTER ELECTROMAGNETIC AND MAGNETIC SURVEY

ELECTROMAGNETIC PROFILES MAP

COAXIAL LOW FREQUENCY

GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,707

LEGEND

CONTROL FIDUCIAL

LINE NUMBER

P.P.M.
20
15
10
5
0
QUADRATURE
IN-PHASE

SCALE 1:10,000

metres 0 100 200 400 600 800 1000 metres

MAGNETIC DECLINATION 26 E. APPROX.
MAGNETIC INCLINATION 74 APPROX.

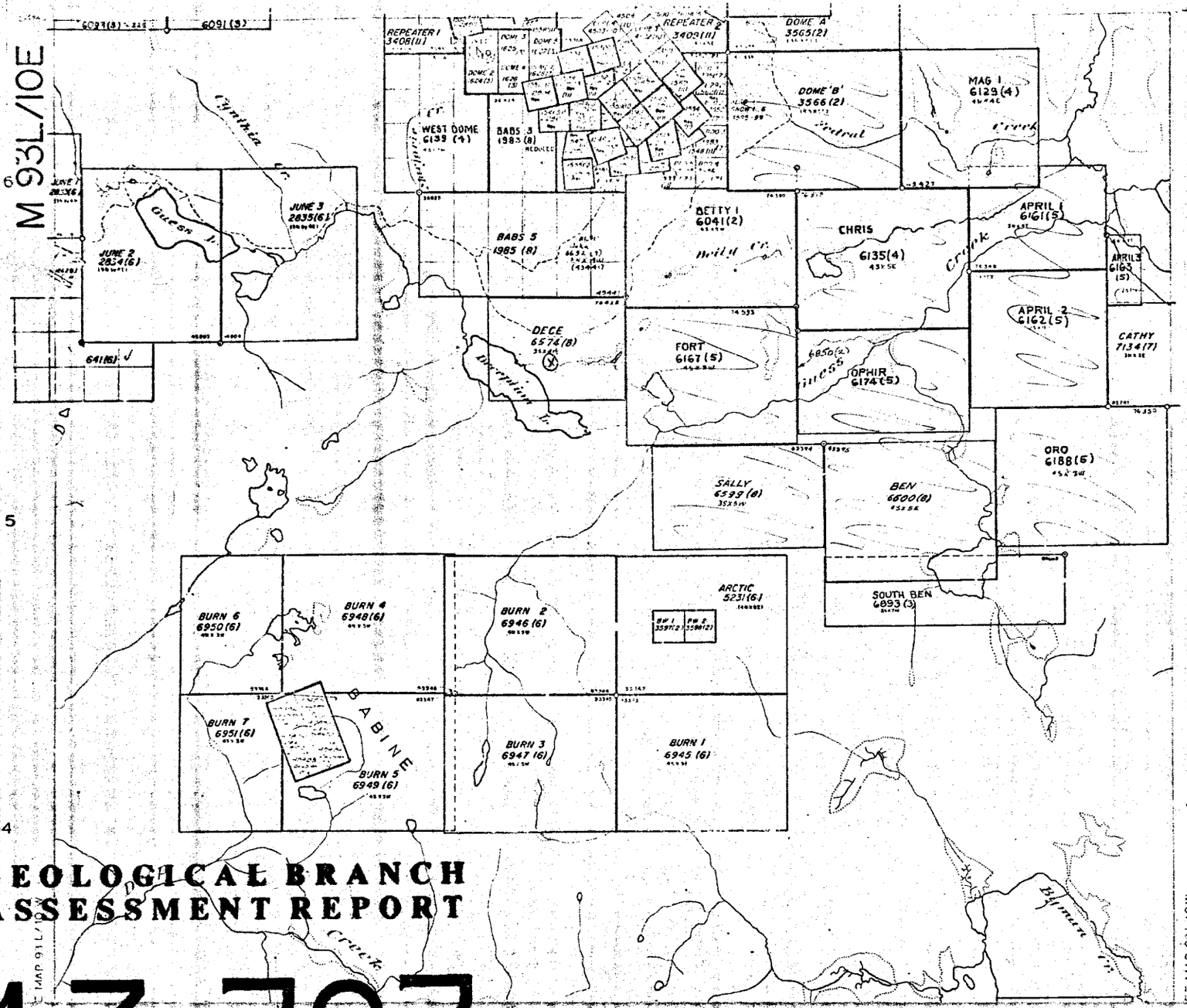
SYSTEM CONFIGURATION

60 metres
MAGNETOMETER
45 metres
H.E.M.
30 metres
Ground surface — 0 Metres

TO ACCOMPANY A REPORT BY R.F. SHELDRAKE
DATED FEBRUARY 20, 1985

APEX AIRBORNE SURVEYS LTD.

N.T.S. 93 L 10
QUICK MAP SHEET



GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,707

claim map

MAP 93L/9W

LEGEND
CROWN-GRANTED
REVERTED C.G.
FORFEITED MINI
VERIFIED LEGAL
LEGAL SURVEY
LEGAL CORNER

FREEMONT GOLD CORPORATION

PLATE I.

HELICOPTER ELECTROMAGNETIC AND MAGNETIC SURVEY

MAGNETIC CONTOUR & INTERPRETATION MAP

MAG

INTRUSIVE ROCKS ?

APRIL

CHRIS

FORT

PROPOSED GEOPHYSICAL GRID FORT ANOMALY

FORT ANOMALY

PROPOSED GEOPHYSICAL GRID CHRIS ANOMALY

SEDIMENTOLOGIC STREAM SAMPLER (ZN-AG)

SALLY

OPHIR

BEN

ORO

APEX FREE

LEGEND

CONTROL FIDUCIAL

LINE NUMBER

MAGNETIC LOW

PHOTO-LINEAMENT

GEOPHYSICALLY INFERRED LINEAMENT

GEOPHYSICALLY INFERRED CONTACT

SCALE 1: 10,000

metres 0 100 200 400 600 800 1000 metres

MAGNETIC DECLINATION 26 E. APPROX.
MAGNETIC INCLINATION 74 APPROX.

SYSTEM CONFIGURATION

60 metres

MAGNETOMETER 45 metres

H.E.M. 30 metres

Ground surface 0 Metres

GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,707

TO ACCOMPANY A REPORT BY R.F SHELDRAKE
DATED FEBRUARY 20, 1985

APEX AIRBORNE SURVEYS LTD.

N.T.S. 93 L 10
QUICK MAP SHEET