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Aberfoyle Resources Limited

EXPLORATION DIVISION

90-3126

EXPLORATION LICENCE 43/85

BEULAH

TASMANIA

PROGRESS REPORT FOR THE YEAR ENDED APRIL 29, 1990.

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Issued By: David Wallace

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REGIONAL MANAGER

May, 1990

Distribution

Department of Resources and Energy (1 of 3)
Aberfoyle - Burnie (2 of 3)
Aberfoyle - Hawthorn (3 of 3)

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1.0 SUMMARY AND CONCLUSIONS

Exploration on the Beulah licence during the reporting period focussed mainly on the Lower Beulah gridded area.

New mapping has not significantly altered the previous geological interpretation. Ground magnetics on the grid correlated well with surface geology and indicated a number of minor faults and possible lithological contacts within the massive mafic lavas.

A three loop UTEM survey on the grid did not detect any conductors due to massive sulphide mineralisation.

Elsewhere on the licence, sampling of the previously mapped Devonian granites in the Beulah and Paradise areas indicates that they are Cambrian in age. Limited mapping northwest of the Promised Land located unaltered felsic volcaniclastic sediments.

2.0 INTRODUCTION

Exploration licence 43/85 Beulah covers an area of 80 square kilometres to the south of Sheffield and west of Deloraine (refer to figure BEUL 36). The licence has been held by Aberfoyle Resources Limited since 29 May, 1986.

Aberfoyle's primary exploration target on the licence is volcanogenic massive sulphide mineralisation. Exploration has subsequently centred on the Cambrian volcanic rocks which form part of the northeastern extension of the Mount Read volcanic arc and which cover nearly half of the licence (refer to plate BEUL 8).

The Cambrian rocks on the licence have previously been subdivided into three general groupings (after Jennings,1959). These are; the Beulah Formation, covering intermediate to mafic basaltic and andesitic rocks in the west and east of the licence; the Minnow Keratophyre, covering predominantly felsic quartz porphyries and minor volcaniclastics in the centre of the licence; and the Gog Range Greywacke which comprises a scattered mixture of greywackes and other sediments, with only a minor volcanic component (refer to figure BEUL 24).

Previous exploration within the licence has been undertaken by Asarco in 1973-76, Austamax in 1983-85 and Aberfoyle since 1986. No economic mineralisation has yet been discovered on the licence. Previous exploration programmes are summarised on plate BEUL 24.

Aberfoyle's exploration programmes on the licence have involved the establishment of grids, mapping, petrography, geochemical sampling and geophysical surveys (refer to plate BEUL 24). 1989/90 exploration involved programmes in conjunction with Aberfoyle's adjoining Gowrie Park licence. The work undertaken has been geological mapping, ground magnetic and UTEM surveys predominantly in the Lower Beulah gridded area.

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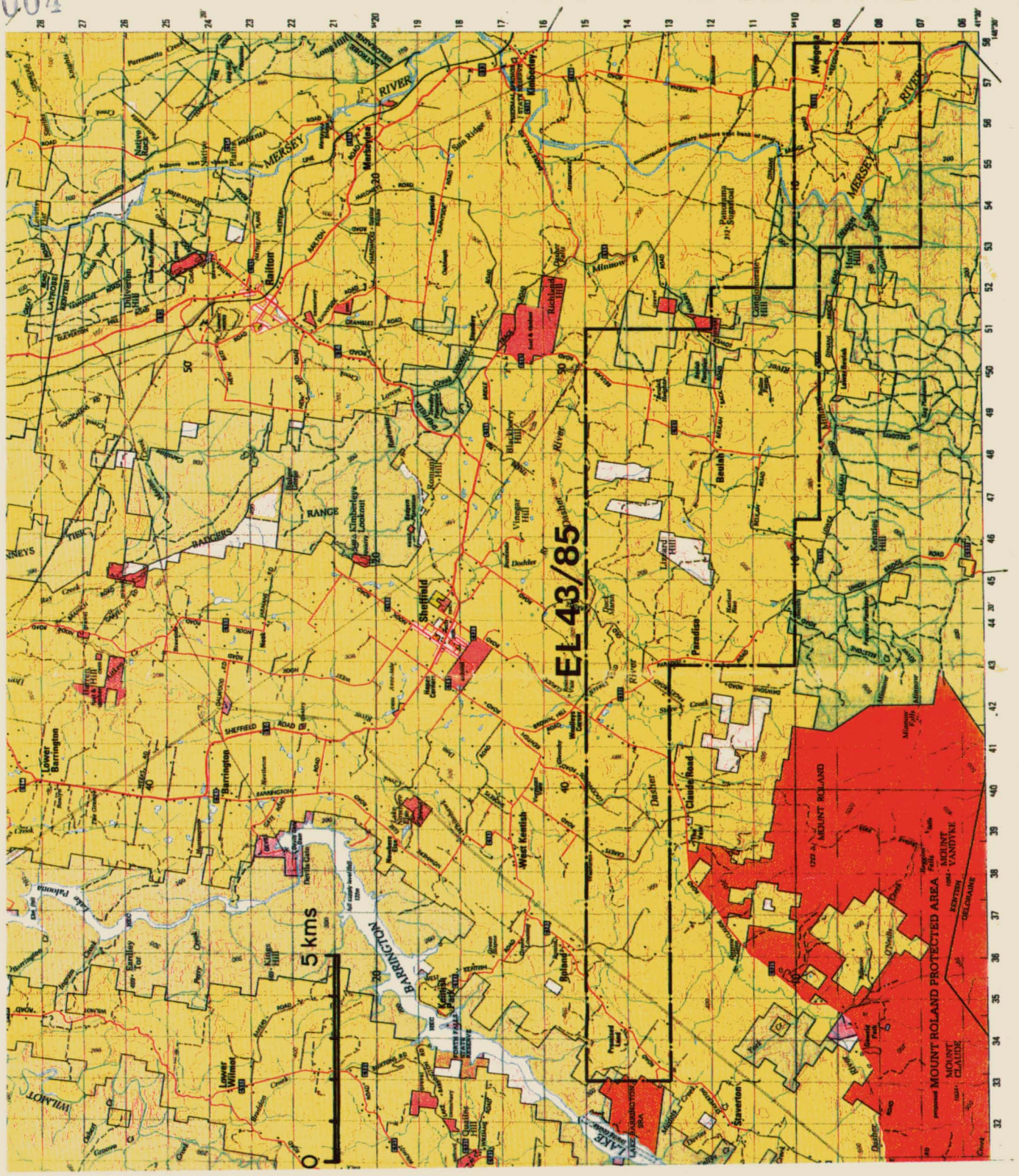

Aberfoyle Resources Limited

EXPLORATION DIVISION

REVISIONS			
Init.	Date	Init.	Date

NORTH WEST TASMANIA

BEULAH E.L. 43/85

LOCALITY MAP

Compiled : Lands Dept.

Drawn :

Traced : RJE

Checked :

Location Code :

Scale : As shown

Date : May, 1990

Plate No. : BEUL. 36

151
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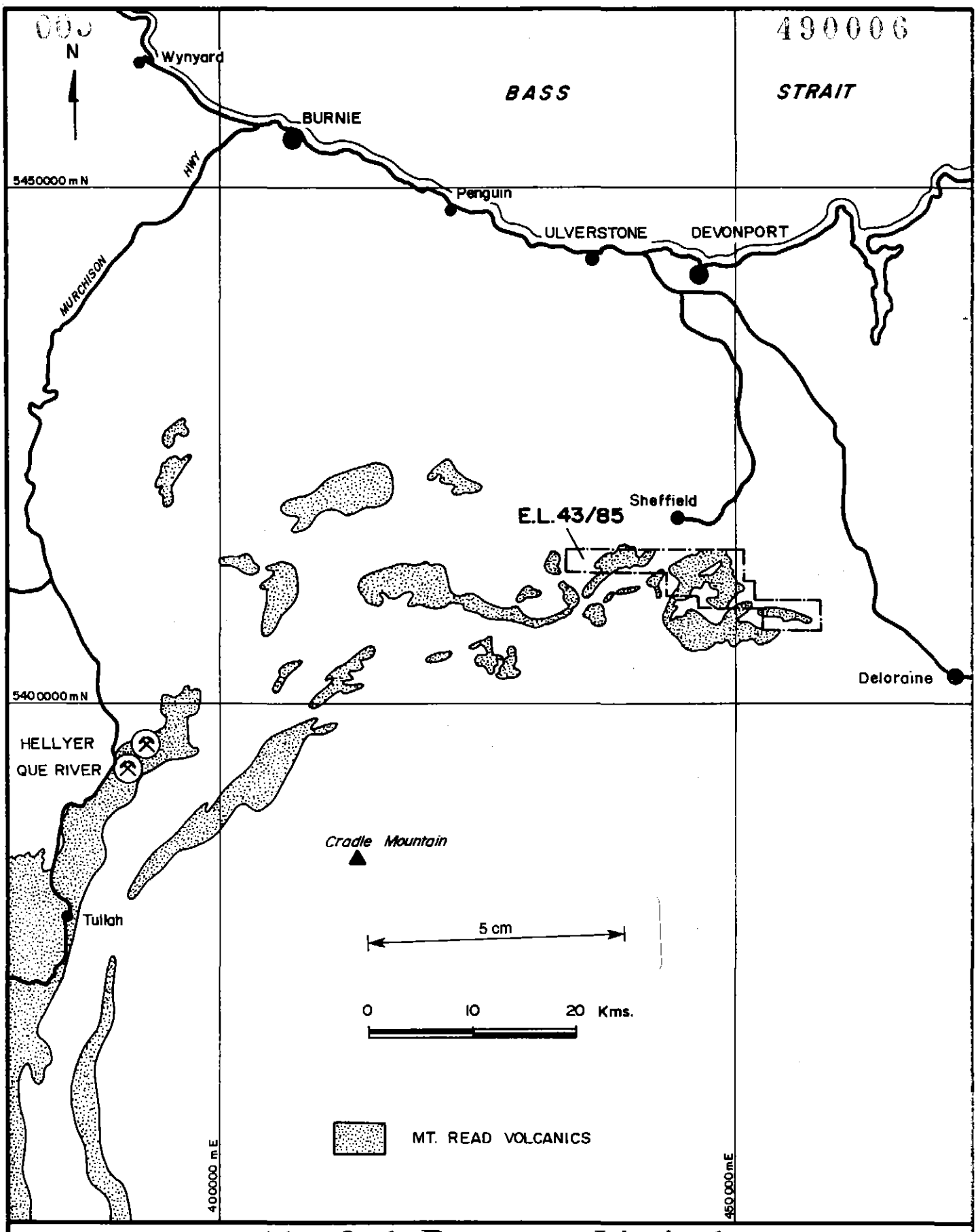

Aberfoyle Resources Limited

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REVISIONS			
Init.	Date	Init.	Date

NORTH WEST TASMANIA

BEULAH E.L. 43/85

LOCATION PLAN

Compiled : RJE, DJJ

Drawn : RJE

Traced :

Checked :

Location Code :

Scale : 1:500,000

Date : April, 1988

Plate No. : BEUL. 8

Aberfoyle Resources Limited

EXPLORATION DIVISION

NORTHERN TASMANIA

E.L.43/85 BEULAH

SUMMARY OF EXPLORATION

Location Code : K55/3

Scale : As shown

Date : May 1990

Plate No. : BEUL.24

Compiled : SWR

Drawn : SWR

Traced : JLR

Checked :

REVISIONS

Init.	Date	Init.	Date

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REGIONAL

1973 Asarco Stream Sediment Sampling 2 Samples Km²

1983 Austamax Follow-up Stream Sediment Programme

1984 Austamax Airborne Dighem

1987/88 Aberfoyle – Rock Chip Sampling
– Lead Isotope Analysis

SHEFFIELD

DEVONPORT

HOBART

RIVER

DASHER

Promised Land

Staverton

Claude Road

Paradise

Beulah

Weegena

MERSEY

RIVER

STONE BRIDGE 1988/89

– Gridding Extended from Gowrie Park E.L.11/88
– 1:2500 Mapping

ANOMALY I. AREA

1984 Austamax 'Anomaly I.' 1st Order Stream Sediment Anomaly Followed up by Rock Chip Sampling

1986 Aberfoyle Rock Chip Sampling

1987/88 Aberfoyle UTEM Survey

LOWER BEULAH AREA

1988/89 Aberfoyle – Gridding
– Soil Geochemistry
– 1:2500 Mapping

1989/90 Aberfoyle – 1:2500 Mapping
– Ground Magnetics
– UTEM

5410 000 N

Mt. Roland

Gowrie Park

Mt. Claude

0 4 Km

5 cm

440 000E

450 000E

CAMBRIAN ROCKS

€mk	Acid volcanics
€gg	Greywacke & other sediments
€bf	Basalts, andesites & minor dacites

3.0 PREVIOUS EXPLORATION

Previous exploration within the licence is summarised on plate BEUL 24 and is discussed briefly below.

Initial systematic exploration within the licence was undertaken by Asarco during the period 1973 to 1976. They conducted a regional stream sediment sampling programme with around 1 to 2 samples collected per square kilometre (refer to plate BEUL 3 in Sise, 1987 for sample locations). This programme failed to produce any encouraging anomalies and the licence was subsequently relinquished.

Exploration by Austamax (Amax) initially involved a reassessment of the Asarco stream sediment data combined with additional sampling. This produced only one anomaly on the current licence which was considered worthwhile following-up. Limited rock chip sampling in the area, however, failed to provide any further encouragement.

A 1984 airborne EM survey, flown for Austamax by DIGHEM, produced 82 anomalies (Vivian,1984). Follow-up of these also failed to produce any significant encouragement and the licence was relinquished in 1986.

Exploration by Aberfoyle since attaining the licence in 1986 has involved both regional exploration and detailed prospect scale evaluation in the Lower Beulah area (refer to plate BEUL 24).

Detailed work in the Lower Beulah area initially involved rock chip sampling, which produced only limited encouragement (Sise,1987). UTEM surveying in the area failed to detect any massive sulphide conductors (Jack,1988).

Petrographic and geochemical study of selected Beulah Formation lavas, in 1988, indicated that they were calc-alkaline Mt. Read volcanic rocks similar in many respects to the Que-Hellyer volcanic package (Jack,1988). Lead isotope analysis indicated that lead isotope signatures from weakly mineralised rocks in the area were probably of a Cambrian hydrothermal origin and were distinctly different to that attributable to Devonian mineralising systems.

In 1989 a large grid was established over the Beulah Formation lavas in the Lower Beulah area to allow for accurate mapping and geochemical sampling (Rand,1989). "C" horizon soil sampling and geological mapping located a large zone of massive basalts, with variable intensity hydrothermal alteration, that were strongly geochemically anomalous. The strong base metal soil anomalies occurred in a trend away from an area just south of the licence which contains outcropping barite mineralisation.

The most recent phase of exploration on the licence has involved further mapping within the Lower Beulah soil anomaly, combined with ground magnetic and UTEM surveys.

4.0 1989/1990 EXPLORATION

Exploration undertaken on the licence during the reporting period comprised:-

1. Further mapping at 1:2500 scale over the Lower Beulah grid.

2. Ground magnetic surveying over the entire gridded area.

3. A three loop UTEM survey over parts of the grid not previously covered.

4. Limited regional reconnaissance mapping.

4.1 Geology

Field work undertaken during the reporting period was predominantly within the Lower Beulah gridded area. This was aimed at further defining the stratigraphy in the area and locating any favourable indicators for massive sulphide mineralisation.

Outcrop geology for the Lower Beulah gridded area is shown on plates BEUL 16A and GP 25A with interpretation shown at 1:10,000 scale on plate BEUL 25. The mapping has produced no significant differences from the previous interpretation (Rand,1989).

No stratigraphy could be determined within the area of massive basalts on the grid due to their massive nature and the lack of outcrop within the predominantly pastured ground. Units of lava breccias have been located (refer to plates BEUL 16A and GP25A), but the limited nature of these and their scattered occurrence mean that correlations between them are not considered useful. The mapping has, however, confirmed the presence of the coarse grained epiclastic unit striking north-south along the western edge of the Beulah formation basalts.

Alteration located within the Lower Beulah grid comprises further haematite, calcite and trace pyrite, plus intense epidote/quartz alteration (refer to plate BEUL 25).

The main change in previous interpretations derived from the recent mapping is the recognition that the intrusive granites and microgranites in the Beulah and Paradise areas are in fact of Cambrian age rather that the previously considered Devonian.

Samples 562182 and 562183 are samples of the Beulah and Paradise granites respectively (refer to plate BEUL 25 and appendix 1 for petrology descriptions). 562182 is described as an aphyric granodiorite considered to be a deep intrusive rock clearly unrelated to the Devonian granites. 562183 is considered to be a shallow intrusive mafic andesite texturally and mineralogically similar to the Crown Hill intrusive andesites.

This shallow intrusive rock is flanked by (intruded into) Cambrian felsic volcanics classified as part of the Minnow Keratophyre suite (refer to plate BEUL 25).

Additional reconnaissance mapping was undertaken in the northwest corner of the licence along Smiths Road in the Promised Land area (refer to plate BEUL 12a). This was aimed at determining the geology and detecting any possible alteration in an area close to a reported outcrop of barite (Temby,1985). Rocks located comprise interbedded fine ash volcaniclastics and coarse volcaniclastic sandstones containing common quartz and feldspar phenocrysts plus moderately common felsic lava fragments. This area has previously been included in rocks classified as Lorinna Greywacke of Bamford and Green (1986) and Gog Range Greywacke of Jennings (1959). No alteration was observed.

4.2 Geophysics

Ground magnetic and UTEM surveys were undertaken on the Lower Beulah grid as part of routine exploration practice.

4.2.1 Ground magnetics

This was undertaken in order to assist mapping on the grid. The survey results are plotted as contours on plate BEUL 28, with a complete interpretation shown on plate BEUL 33 and described in Walker,1990 (appendix 2).

The main features of the data are a generally good correlation of the data with surface geology, with a number of faults and possible lithological contacts interpreted.

4.2.2 UTEM

A three loop UTEM survey was conducted on the Lower Beulah grid on the Beulah licence. Loop locations and reading lines are shown on plate BEUL 32, with raw data and an interpretation map (BEUL 33) included in appendix 2. When combined with the previous survey over the 'anomaly 1' area (Jack,1988), this completes coverage of the grid on the Beulah licence.

The survey failed to detect the presence of any conductors attributable to massive sulphide mineralisation.

5.0 DISCUSSION AND RECOMMENDATIONS

The mapping on the Lower Beulah grid has been completed. Large volumes of mafic volcanic (Beulah Formation) lavas have been located but with limited favourable indicators of massive sulphide mineralisation. Alteration observed comprises variable haematite, calcite and occasionally pyrite alteration. Strong epidote/quartz alteration observed is not considered to be typical of volcanogenic hydrothermal alteration systems and provides some problems as to potential origin. The limited lithological variation of the rock package is considered to be a negative factor.

Mapping in the Beulah area should continue over the remaining outcropping Beulah Formation rocks to correctly determine their distribution and locate any lithological variations. Some attention should be paid to the area immediately north of the grid where anomalous soil geochemical trends continue.

Mapping should be carried out in the area north of Paradise where the now recognised Cambrian shallow intrusive andesite (sample 562183, section 4.1) intrudes Cambrian felsic rocks. The mapping should be aimed at locating any possibly extrusive lavas which might provide potential host horizons for mineralisation.

A 50% reduction of the licence is required on the 1991 anniversary date of the licence so regional reconnaissance mapping should be conducted to determine the prospectivity of the remaining Cambrian volcanic rocks on the licence. This should include a continuation of the mapping programmes over Beulah Formation lavas in the northwest of the licence and should also include an assessment of the Minnow Keratophyre felsic suite of volcanics.

It is recommended that Asarco and Amax's stream sediment surveys be reassessed in light of their failure to indicate the large zone of anomalous soil geochemistry in the Lower Beulah area. This reassessment should include re-collection of some stream sediments in the area to compare with Aberfoyles technique.

If the previous sampling proved to faulty then regional stream sediment sampling should be reattempted over areas considered to be most prospective.

6.0 REFERENCES

Jack, D.J., 1988. Exploration Licence 43/85 Beulah, Tasmania. Progress Report for the year ended April 29, 1988. Unpub. rep. for Aberfoyle Resources Limited.

Jennings, I.B., 1959. Sheffield Sheet, Geological Survey of Tasmania. Published by Department of Mines, Hobart.

Jennings, I.B., 1979. Sheffield Sheet 37 Geological Survey of Tasmania Explanatory Report. Report published by Tasmanian Department of Mines.

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Temby, P.A., 1985. EL 7/73 Sheffield Area, Northern Tasmania. Report on Exploration for 12 months to 15 February 1985. Unpub. Rep. to Tas. Dep. Mines (1822/85)

Vivian, R.M., 1984. Annual Report on Exploration Activities within EL 49/82 Beulah, North Tasmania, for the period 30/3/83 to 29/8/84. Unpub. Rep. to Tas. Dep. Mines.

Walker, G.B., 1990. Technical Report on Ground magnetic and UTEM surveys on the Lower Beulah grid. Unpub. rep. for Aberfoyle Resources Limited.

APPENDIX 1

SAMPLE LOCATIONS

AND

PETROLOGY DESCRIPTIONS

(Descriptions provided by Dr. A.J. Crawford, University of Tasmania)

SAMPLE	LOCATION (refer to sheet BEUL 25)
562182	AMG 5410950N,447500E Float sample from paddock off Beulah Road.
562183	AMG 5414500N,443700E Float sample from paddock off Old Paradise Road.

015

SAMPLE NUMBER: 562182

SUMMARY:

This is a holocrystalline, aphyric granodiorite to high-K diorite intrusive rock, composed of interlocking albite, altered Kspar, quartz, hornblende, minor biotite, and late magmatic to metamorphic chlorite, epidote and possibly pumpellyite. It is clearly Cambrian, and unrelated to the Devonian granites.

HAND SPECIMEN:

This is a texturally well-preserved, but strongly weathered and Fe-stained massive holocrystalline andesite (diorite).

THIN SECTION:

In thin section this sample is seen to be an essentially aphyric holocrystalline granodiorite or syenite, with an average grainsize around 1-2mm. There are two feldspars present, both occurring as subhedral prisms growing into anhedral, coarse-grained interstitial quartz. Albite is twinned and fresh, inclusion free and clear. In contrast, former Kspar is cloudy to totally replaced by sericite. and is modally more abundant than the plagioclase. Quartz probably forms only 8-10 modal% of this sample. The main mafic mineral in this granodiorite is ragged, elongate very pale green hornblende. This appears to be primary, rather than secondary actinolite. It is often marginally altered to brownish pleochroic biotite, probably representing a late-magmatic reaction, and small plates of tan biotite are not uncommon.

Interstitial areas between plagioclase, quartz and Kspar are generally filled with radiating fibrous green chlorite that is strongly pleochroic, and resembles pumpellyite in places. Small leucoxenized FeTi oxide grains also occur mainly interstitially with apatite and lens-shaped sphene crystals. Other alteration minerals include epidote and secondary quartz.

This sample is a granodiorite, verging toward a high-K diorite. It is quite clearly of much deeper intrusive origin than any other sample described from this set. It is quite possible that this sample is a deep intrusive analogue of the same andesite lavas and dykes described above. I already have a few better preserved samples of the same body (from the Geopeko end of the intrusion) prepared for analysis.

SAMPLE NUMBER: 562183

SUMMARY:

This is a plagioclase+biotite+augite+hornblende+FeTI oxide + apatite-phyric shallow intrusive mafic andesite almost certainly comagmatic with the andesite lavas described in this report.

HAND SPECIMEN:

This is a very well-preserved dark brown porphyritic mafic andesite.

THIN SECTION:

This is a beautifully preserved mafic andesite with an exceptional phenocryst assemblage, in order of abundance plagioclase (~20 modal%), biotite (10-12 %), augite (~10%), hornblende (3%), FeTi oxide and apatite (each 0.5-1%), set in a holocrystalline groundmass. The plagioclase is albitized and slightly sericite-flecked, and commonly contains small epidote granules. Biotite phenocrysts are up to at least 3mm long, but are completely replaced by chlorite and epidote with minor secondary quartz. Augite is perfectly fresh, and occurs as small, euhedral elongate prisms mainly less than 1mm long. Hornblede phenocrysts are also mainly fresh, show strong olive- to pale green pleochroism and are also mainly less than 1mm long. Apaite occurs as quite large elongate prisms often more than 1mm long. The FeTi oxide microphenocrysts appear to be only slightly altered to leucoxene.

The groundmass of this sample was almost holocrystalline. It was composed of interlocking small plagioclase laths and interstitial anhedral quartz. Alteration of the groundmass includes patches of secondary quartz, chlorite and epidote, with minor sericite speckling.

This sample is almost certainly a shallow intrusive mafic andesite comagmatic with the andesite lavas described in this report. Again, the analogy both texturally and mineralogically with the Crown Hill intrusive andesites is strongly emphasized by this excellent sample. I have kept a bit of this winner to analyze.

APPENDIX 2

ABERFOYLE RESOURCES LIMITED

EXPLORATION LICENCE 43/85

BEULAH

UTEM SURVEY - LOWER BEULAH

December 1989

GROUND MAGNETICS SURVEYS - 1989

TECHNICAL REPORT

DISTRIBUTION

HAWTHORN (1)
BURNIE (1)

PREPARED BY:

G B WALKER
Geophysicist

ENDORSED BY:

JOVAN SILIC
Chief Geophysicist

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FIGURES

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SUMMARY

A three loop , 32.5 line-km UTEM survey was carried out in the Lower Beulah area. The survey defined a number of formational sources but failed to detect a response from sulphide mineralisation.

Ground magnetics over the Beulah/Gowrie Park licences was found to correlate with geological features and may be used to trace the geology beneath cover.

1. INTRODUCTION

1.1 General

Exploration Licence 43/85 "Beulah" (Figure 1, 2) has been held by Aberfoyle Resources since 29 May 1986 and covers 80 square kilometres to the southeast and southwest of the town of Sheffield, 25 kilometres south of Devonport.

Exploration title was sought on the basis of general similarities between the stratigraphic sequence in the Beulah district and those on Aberfoyle's Mackintosh property, which encloses the Que River and Hellyer massive base metal orebodies.

Aberfoyle's exploration program has included establishment of grids, mapping, geochemical sampling, petrography, ground magnetics and UTEM surveys.

1.2 Geophysics

Exploration has included the use of geophysical methods as an aid to mapping and to define possible targets. Early in 1989 a ground magnetics survey was completed across the Garden of Eden grid on the Beulah licence. This was extended in July 1989 to provide a comprehensive ground magnetics coverage of prospective horizons. This report includes an interpretation of the magnetics.

Electromagnetic methods have made significant contributions to the discovery and delineation of the Que River and Hellyer massive sulfide ore deposits (Webster and Skey, 1979; Silic et al, 1985; Eadie et al, 1985). Following the discovery of the Hellyer orebody, Aberfoyle Resources has rigorously employed the UTEM (University of Toronto Electromagnetic System) method (West, et al, 1984) in the search for new targets.

A three-loop UTEM survey was carried out in the Lower Beulah area in December 1989. The data and an interpretation of results of this survey are presented in this report.

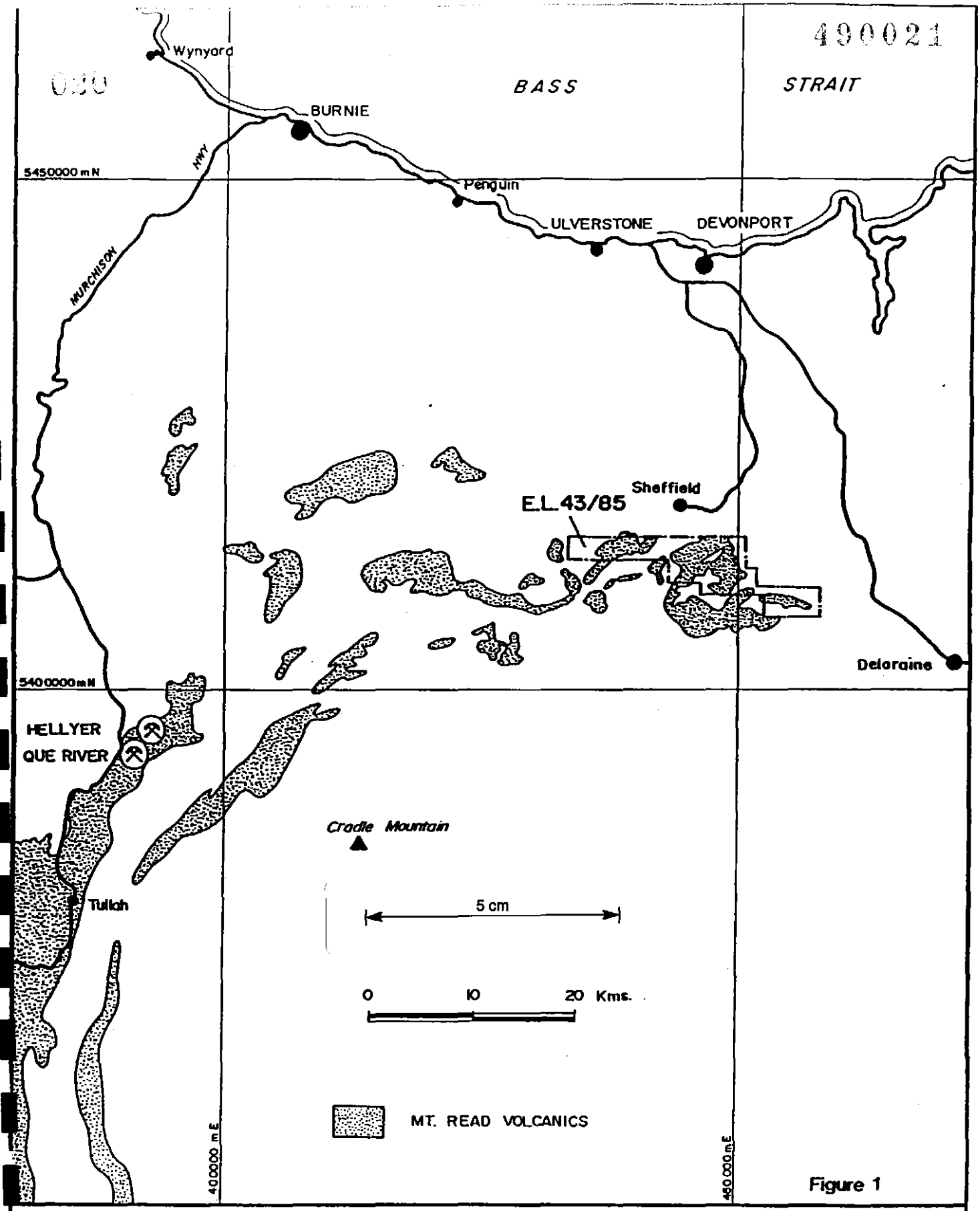

Figure 1

Aberfoyle Resources Limited

EXPLORATION DIVISION

REVISIONS			
Init.	Date	Init.	Date

Location Code :

NORTH WEST TASMANIA

BEULAH E.L. 43/85

LOCATION PLAN

Scale : 1:500,000

Date : April, 1988

Compiled : RJE

Drawn : RJE

Traced :

Checked :

Plate No. : BEUL. 8

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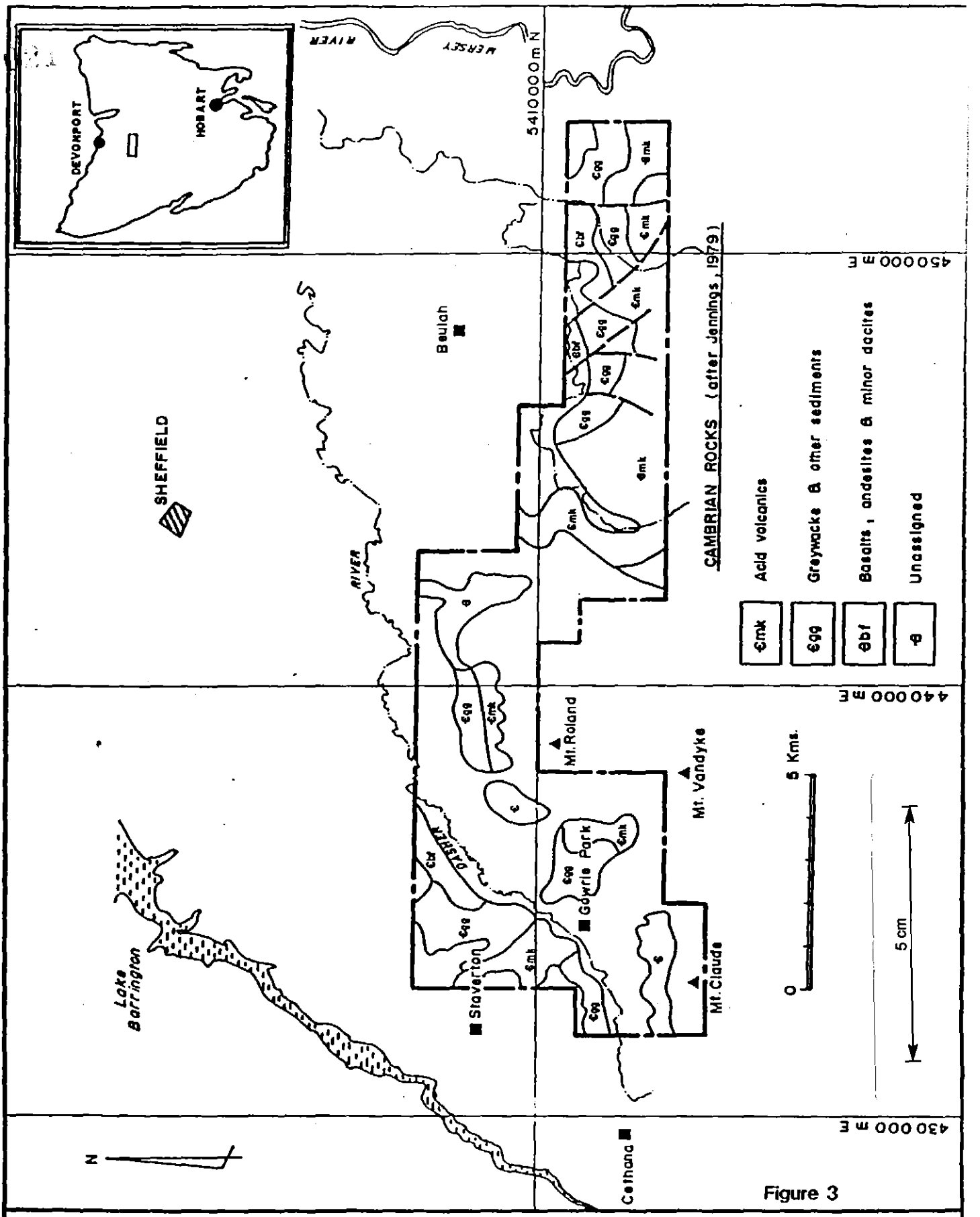


Figure 3

Aberfoyle Resources Limited

EXPLORATION DIVISION

REVISIONS			
Init.	Date	Init.	Date

Location Code :

NORTHERN TASMANIA

E.L. 11/88 GOWRIE PARK
LOCATION PLAN & CAMBRIAN GEOLOGY

Scale : As shown

Date : July, 1989

Compiled	SWR
Drawn	SWR, RJE
Traced	RJE
Checked	SWR
Plate No	GP 28

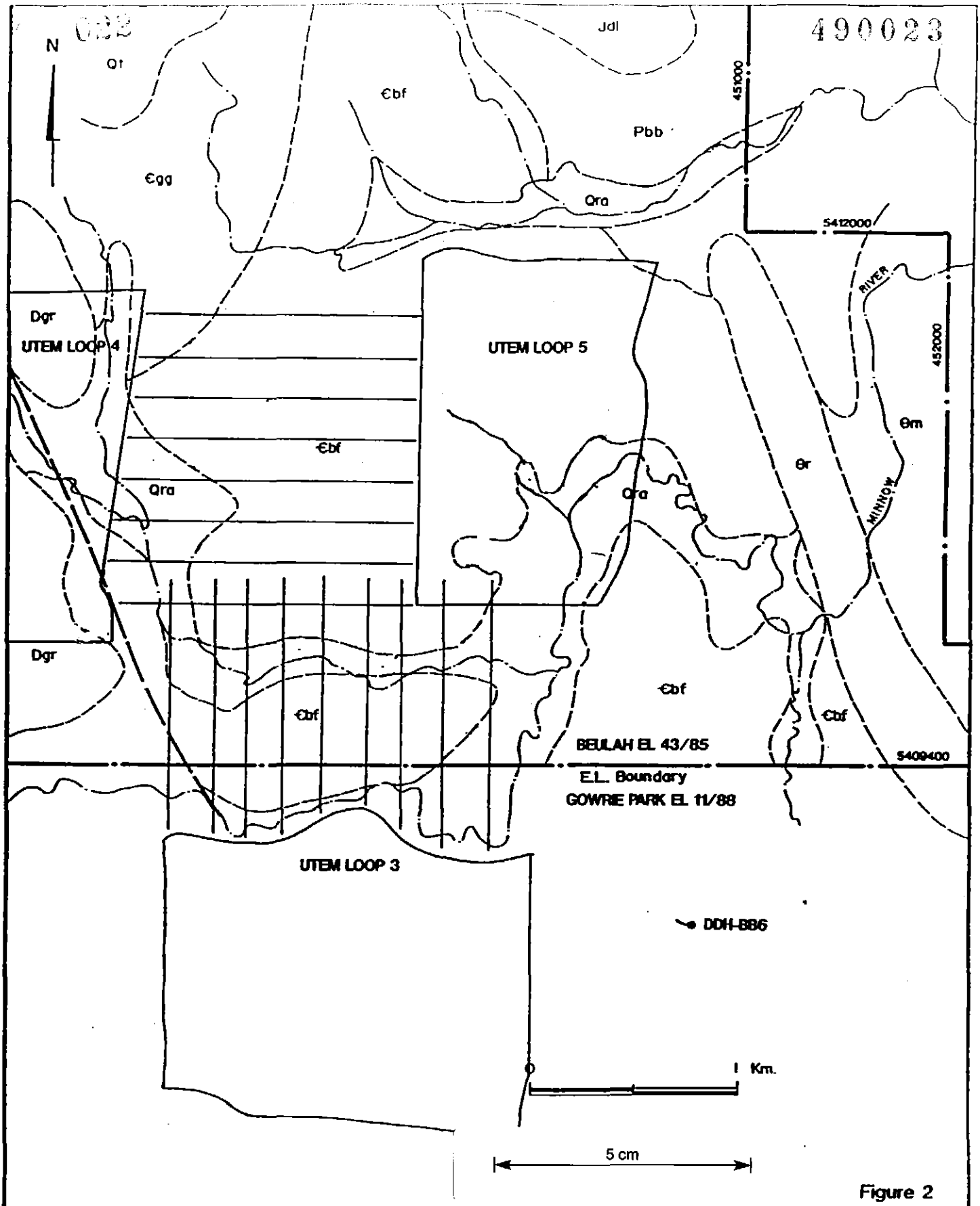


Figure 2

Aberfoyle Resources Limited

EXPLORATION DIVISION

REVISIONS			
Init.	Date	Init.	Date

NORTH WEST TASMANIA

BEULAH EL 43/85, GOWRIE PARK EL 11/88

LOCATION OF UTEM LOOPS, DDH-BB6

Compiled :	DJJ,GBW
Drawn :	RJE
Traced :	
Checked :	DJJ GBW
Plate No	BEUL. 9/A

Location Code :

Scale : 1: 25, 000

Date : MARCH 1990

2. GROUND MAGNETICS SURVEY

2.1 Survey Specifications

The initial ground magnetics survey was completed with Aberfoyle's EDA Omni-IV magnetometers at a line spacing of 100m with a sampling interval of 10m.

The second phase magnetics survey was carried out by Highland Exploration at a line spacing of 200m with a sampling interval of 10m. The two survey data sets were combined to produce a composite data set. A median filter was applied to the data to produce contours of total magnetic intensity at a contour interval of 50nT.

2.2 Discussion of Results

An interpretation of the ground magnetics data is shown on Plate 1. The main features in the data are as follows:

1. A well-defined contact between the relatively magnetite-depleted sediments of the Gog Range Greywacke and volcanics of the Beulah Formation, eg: 10150N/48280E.

2. A 500 metre wide trough of magnetite-depleted material in the west of the survey area interpreted to consist of Gog Range sediments bounded by Devonian granite to the west and epiclastic sandstone of the Beulah Formation to the east. eg. 10200N/48150E.

3. Dominant NE-SW and SE-NW primary fracture sets and secondary east-west fracture systems eg. 9950N/49900E - 10500N/50800E (NE-SW).

4. Magnetic high zones coinciding with mapped areas of intense epidote/quartz alteration and pervasive haematite alteration. eg. 10300N/48800E.

5. Boundaries and discrete bodies within the area of the Beulah Formation possibly representing contacts between or occurrences of andesitic, basaltic and rhyolitic lavas. Relationships of magnetic signatures with lithology are unknown due to lack of surface control eg: 10600N-49500E.

6. Magnetic Devonian Granite bodies in the west of the survey area. These are apparently fault-bounded with Gog Range sediments.

3. UTEM SURVEY

3.1 Survey Specifications

The UTEM survey was conducted by Lamontagne Geophysics (Australia) Pty Ltd in mid-December 1989 using UTEM-III instrumentation. Single, vertical component magnetic field data were recorded at a base frequency of 26.23Hz. The survey comprised three transmitter loops and resulted in the collection of 32.5 line-km of data spaced at 50m.

3.2 Discussion of Results

The UTEM data sections are provided in Appendix II. Appendix I details plotting specifications for the data. Interpretation of conductors is shown on Plate 1. The main features in the data set are:

1. All conductors are related to "formational" sources, interpreted to be either:-

i) conductive masses contained within stratigraphic units

ii) variations in the conductivity of alluvial overburden weathering troughs

iii) faults and shears. These conductors dominate the early time channels and thus represent shallow features.

2. A general relationship exists between conductor boundaries and features defined from the magnetic interpretation (faults, geological contacts).

4. CONCLUSIONS AND RECOMMENDATIONS

1. The results of the UTEM survey at Lower Beulah downgrades the possibility of sulphide mineralisation occurring within the penetration limits of the UTEM system. All conductive features identified from the survey represents formational sources and none warrant further investigation.

2. The ground magnetics correlates well with the geology and the interpretation may be used to extend known geological structures and boundaries beneath cover.

5. References

Eadie, E T., Silic, J. And Jack, D.J. (1985), 'The application of geophysics to the discovery of the Hellyer ore deposit Tasmania', Explor. Geophys. 16, 207-209.

Silic, J., Eadie E T., And Jack D J. (1985),' Application of time domain electromagnetic methods in the discovery of the Hellyer Ore deposit, Tasmania, Australia', in volume of Extended Abstracts of the 55th SEG meeting, Washington, DC.

Webster, S.S. And Skey, E.H. (1979), 'Geophysical and geochemical case history of the Que River deposit, Tasmania', in Geophysics and Geochemistry in the Search for Metallic Ores; Peter J Hood, editor, Geological Survey of Canada, Economic Geology report 31. 697-720.

West, G F., Macnae J C. And Lamontagne Y. (1984), ' A time domain EM system measuring the step response of the ground', Geophys., 49, 1010-1026.

APPENDIX I

UTEM DATA PLOTTING SPECIFICATIONS

UTEM DATA PLOTTING SPECIFICATIONS

NOMINAL TIME WINDOWS
(for a base frequency of 26.23 Hz)

Channel No.	Start (ms)	Centre (ms)	End (ms)
10	0.019	0.028	0.037
9	0.037	0.056	0.074
8	0.074	0.112	0.149
7	0.149	0.223	0.298
6	0.298	0.447	0.596
5	0.596	0.894	1.191
4	1.191	1.79	2.383
3	2.383	3.57	4.766
2	4.766	7.15	9.531
1	9.531	14.30	19.06

All channels plotted as:

$$\frac{\text{channel} - \text{reference}}{\text{base}} \times 100\%$$

For continuously normalised plots:

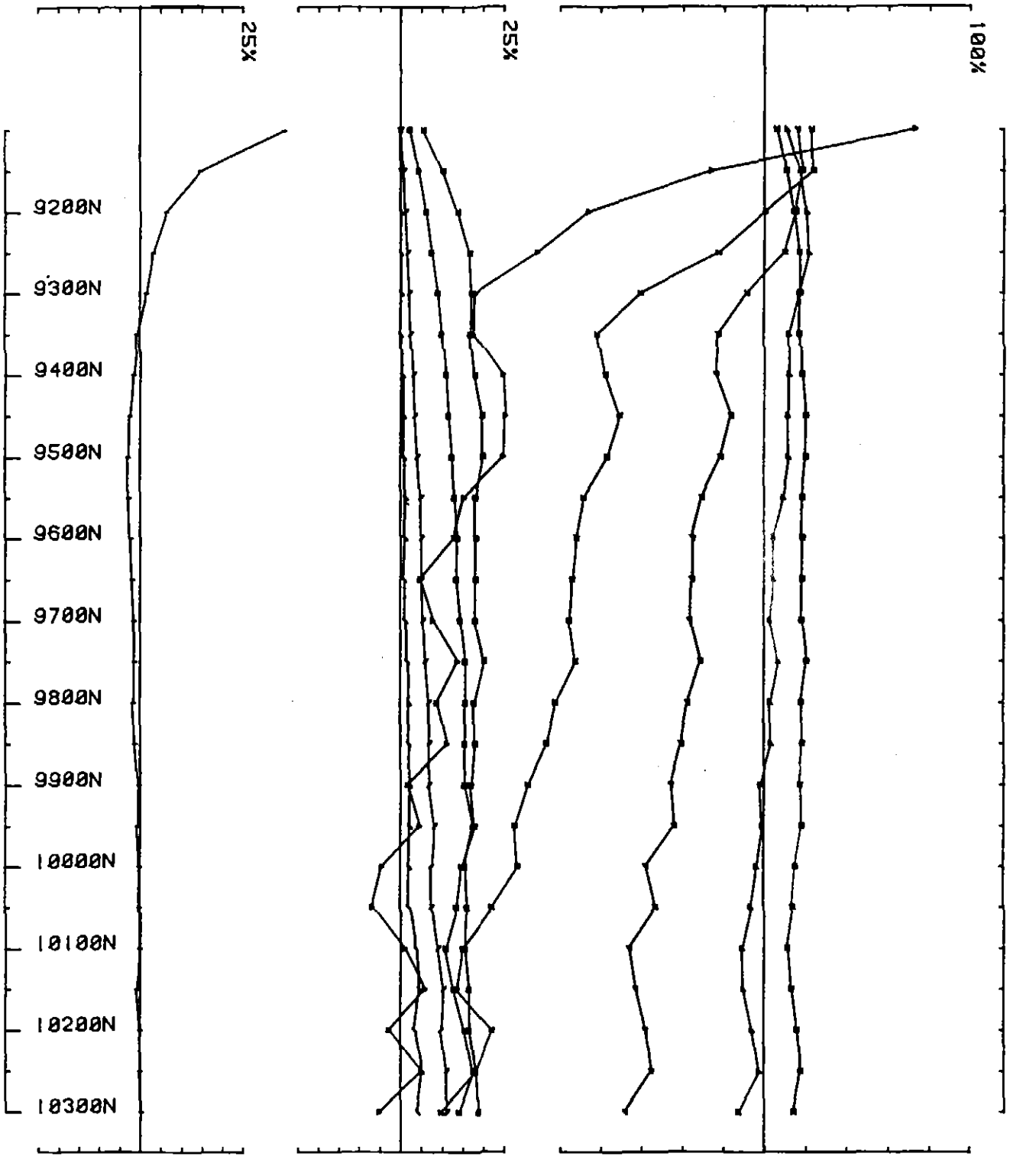
reference = channel 1
base = primary field (total) at reading station

For point normalised plots:

reference = channel 1
base = primary field (total) at reference station

APPENDIX 2

UTEM DATA SECTIONS

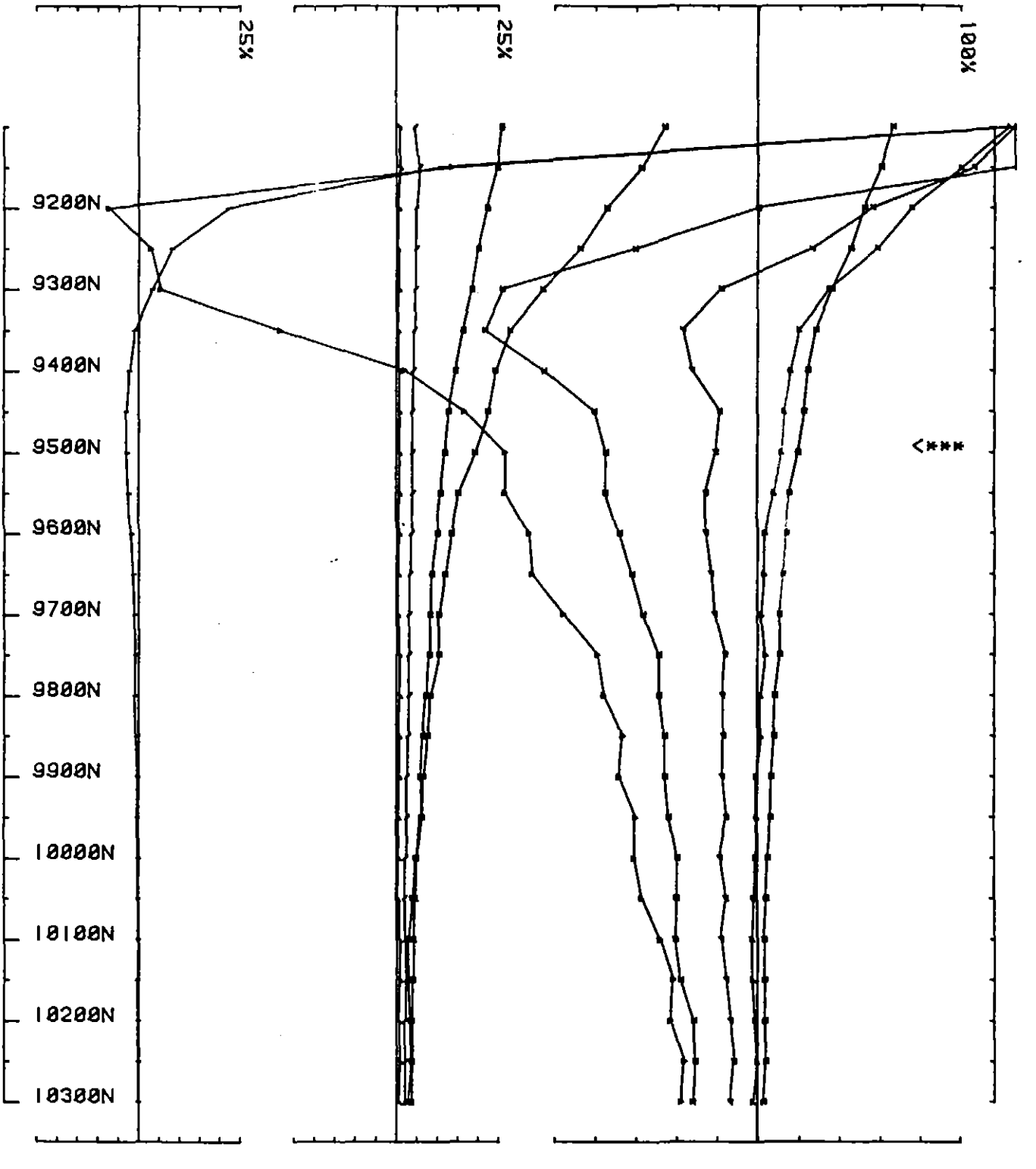


UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

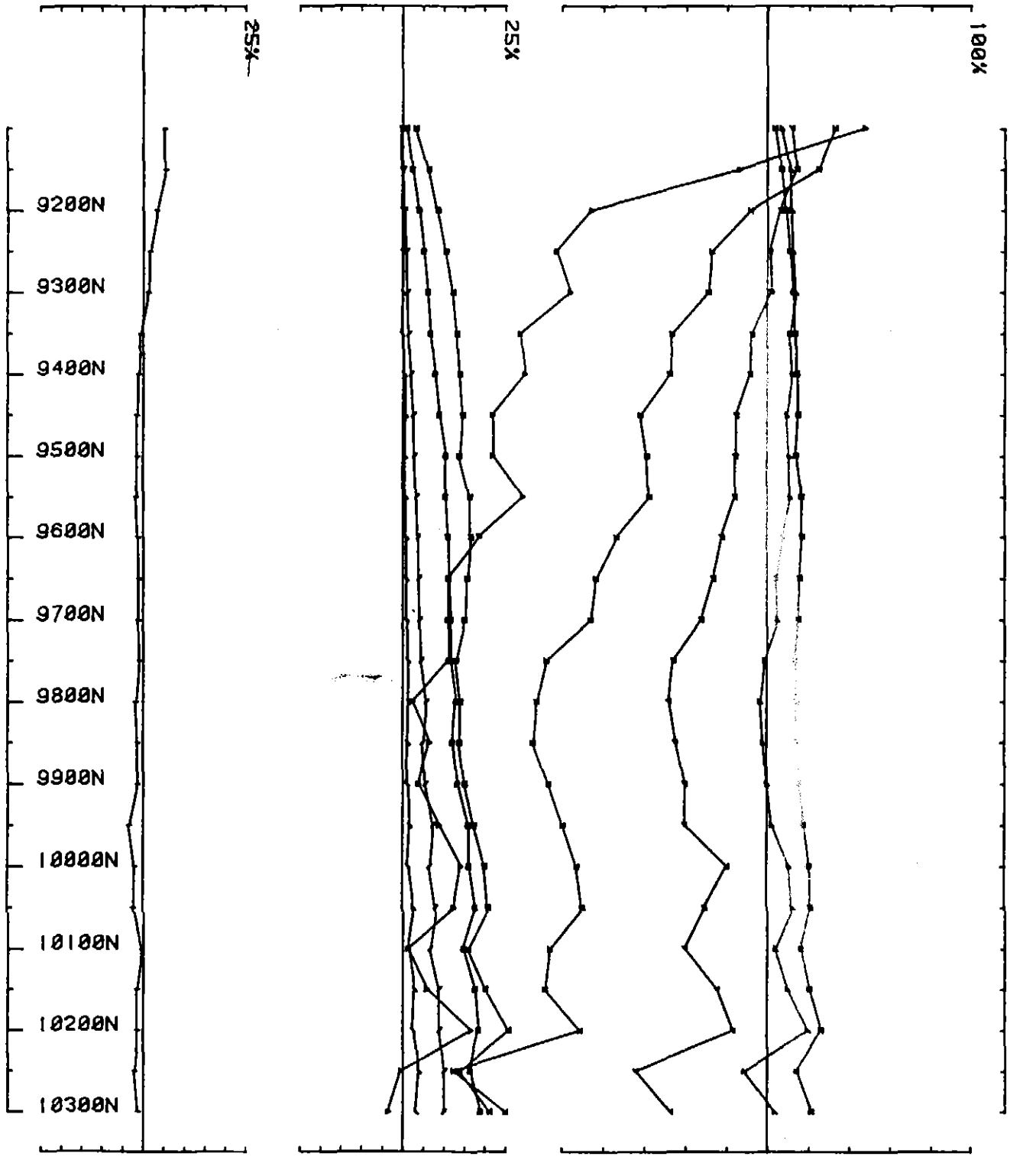
conducted by LAMONTAGNE GEOPHYSICS job 8975 base freq (hz) 26.230 DEC 89

loop no 7503 line 48200E component Hz secondary field Ch 1 contin. norm.

C39



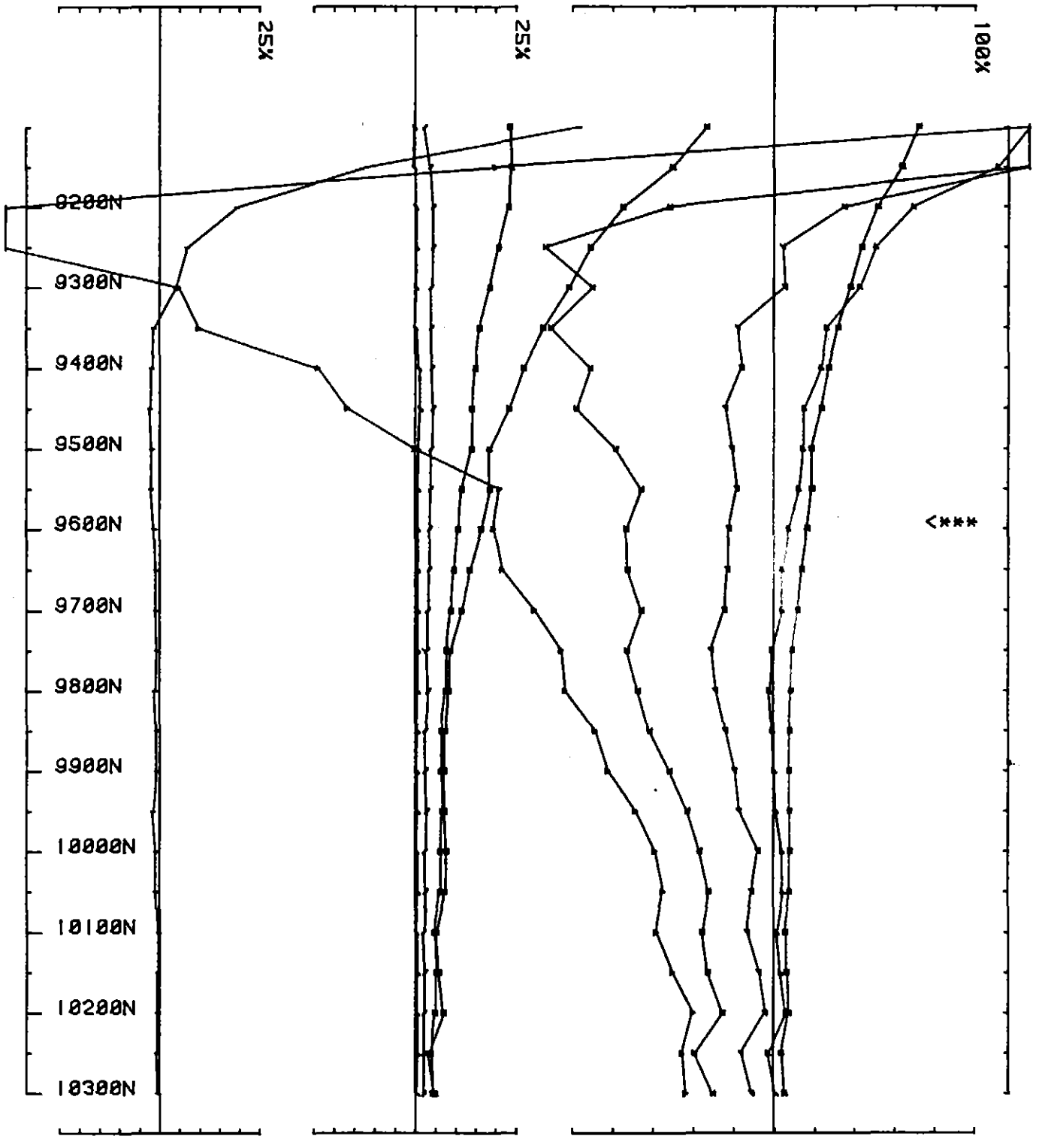
UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD
conducted by LAMONTAGNE GEOPHYSICS job 8975 base freq (hz) 26.230 DEC 89
loop no 7503 line 48200E component Hz secondary field Ch 1 point norm.



UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by LAMONTAGNE GEOPHYSICS Job 8975 base freq (hz) 26.230 DEC 89

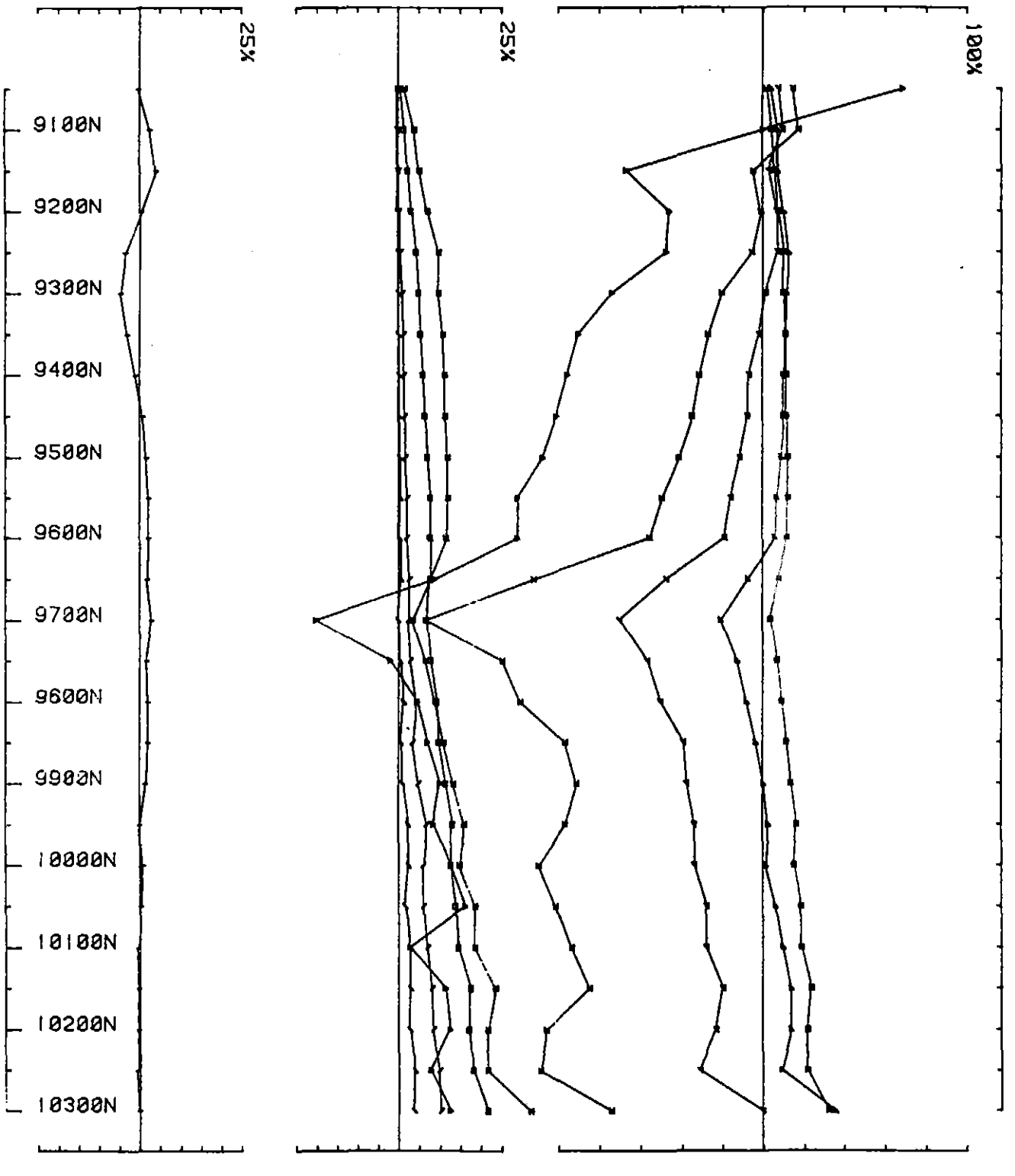
loop no 7503 line 48400E component Hz secondary field Ch 1 contin. norm.



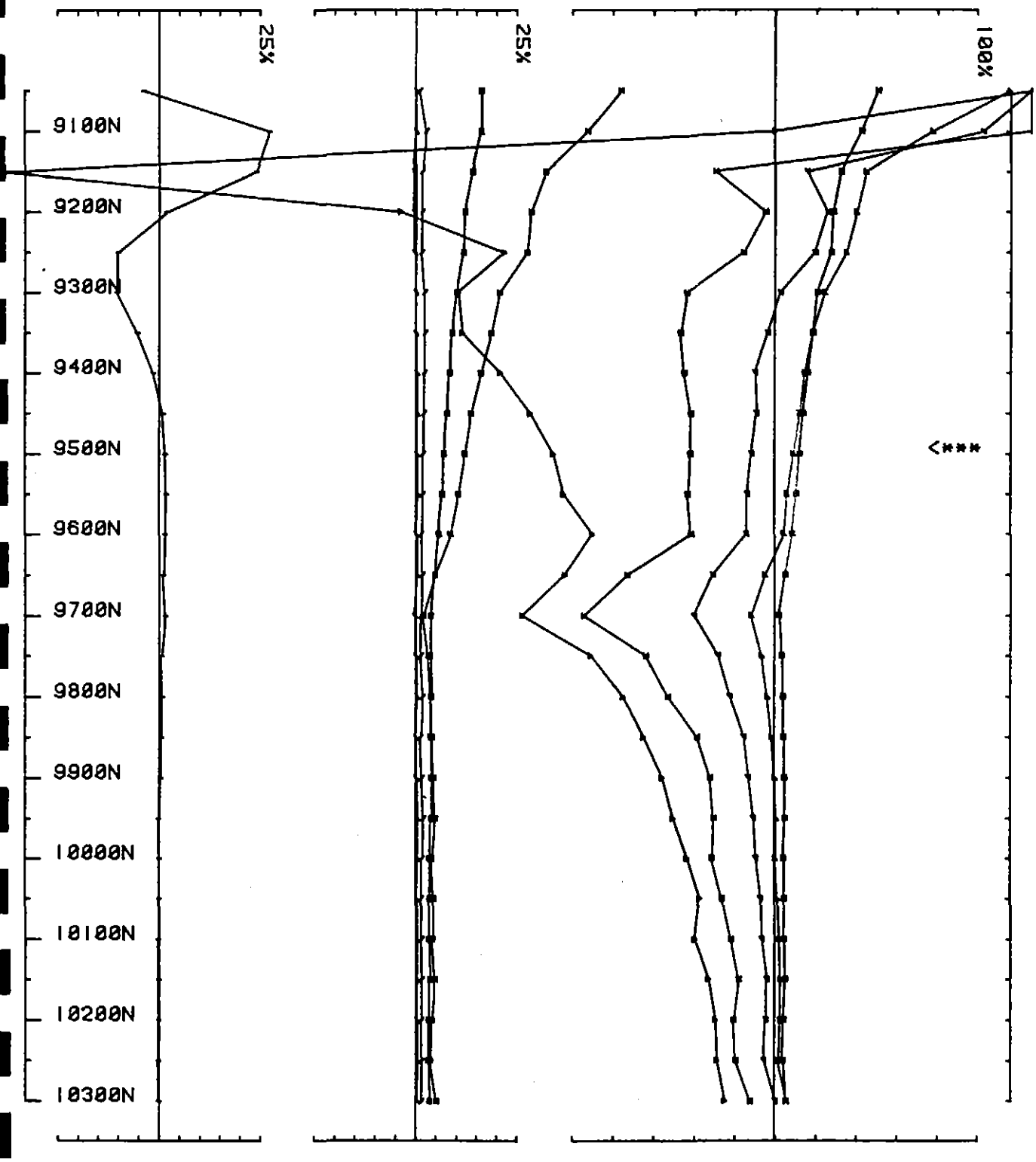
UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by LAMONTAGNE GEOPHYSICS job 8975 base freq (hz) 26.230 DEC 89

loop no 7503 line 48400E component Hz secondary field Ch 1 point norm.



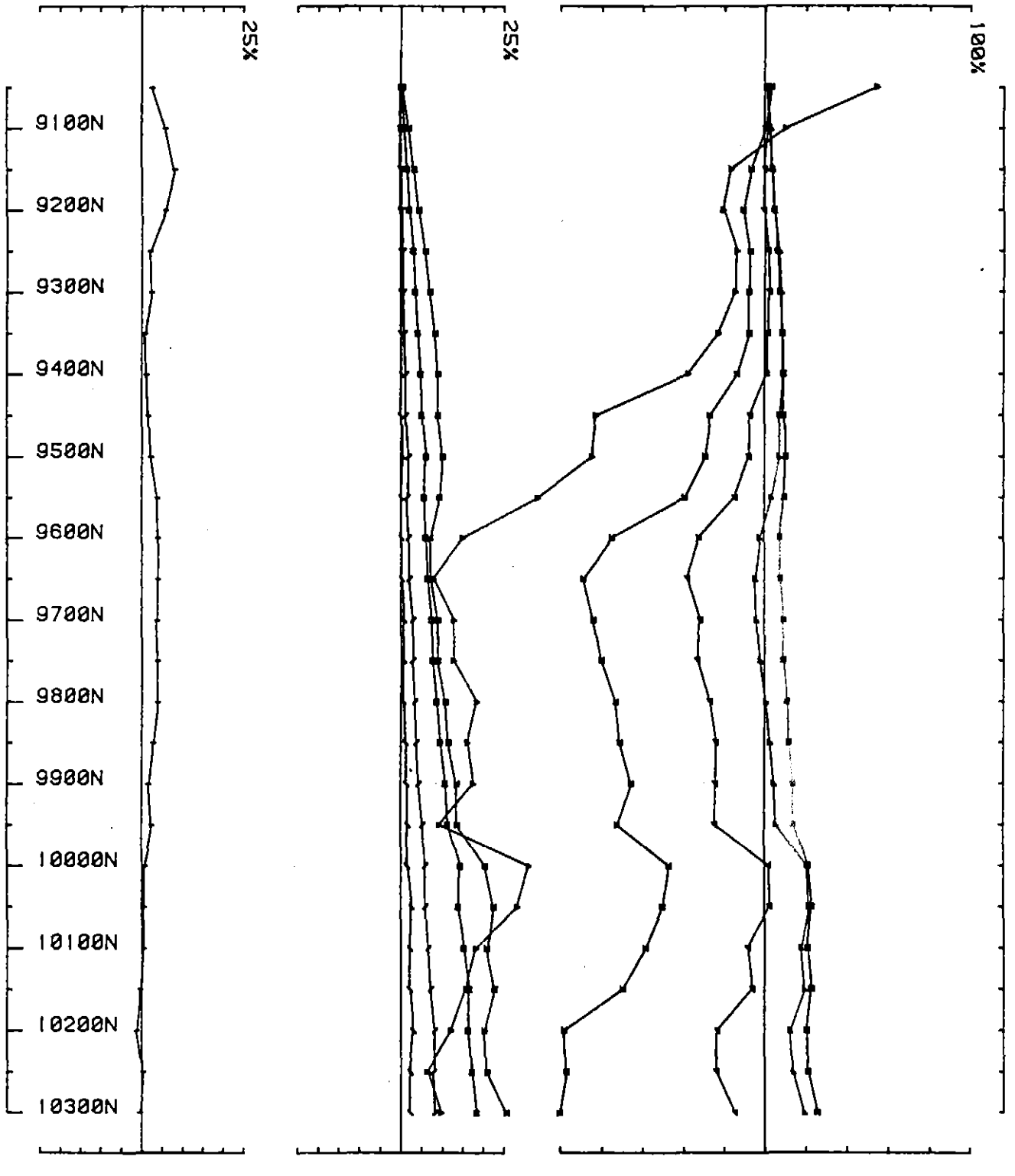
UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD
conducted by LAMONTAGNE GEOPHYSICS Job 8975 base freq (hz) 26.230 DEC 89
loop no 7503 line 48600E component Hz secondary field Ch 1 contin. norm.



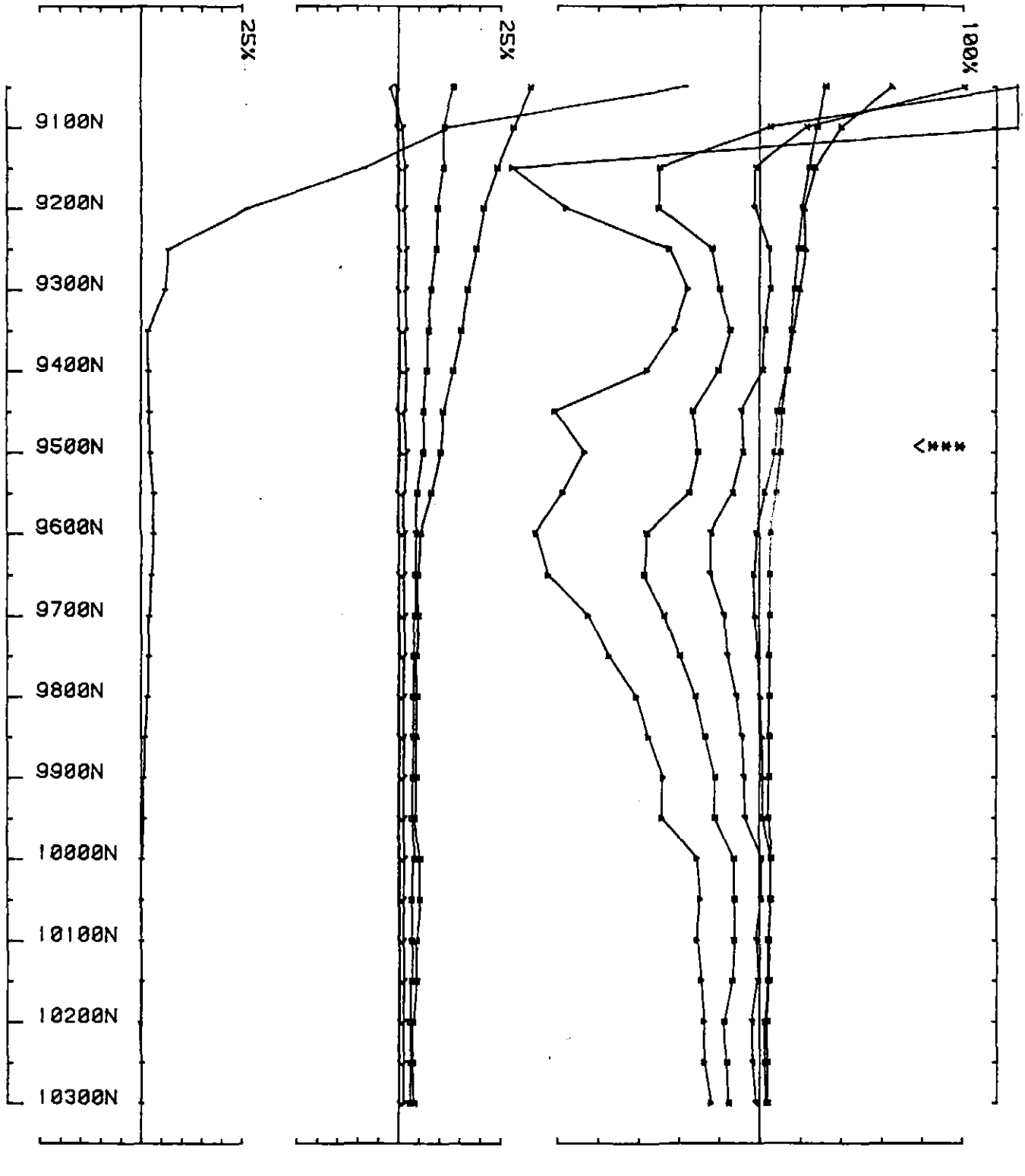
UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by LAMONTAGNE GEOPHYSICS job 8975 base freq (hz) 26.230 DEC 89

loop no 7503 line 48600E component Hz secondary field Ch 1 point norm.



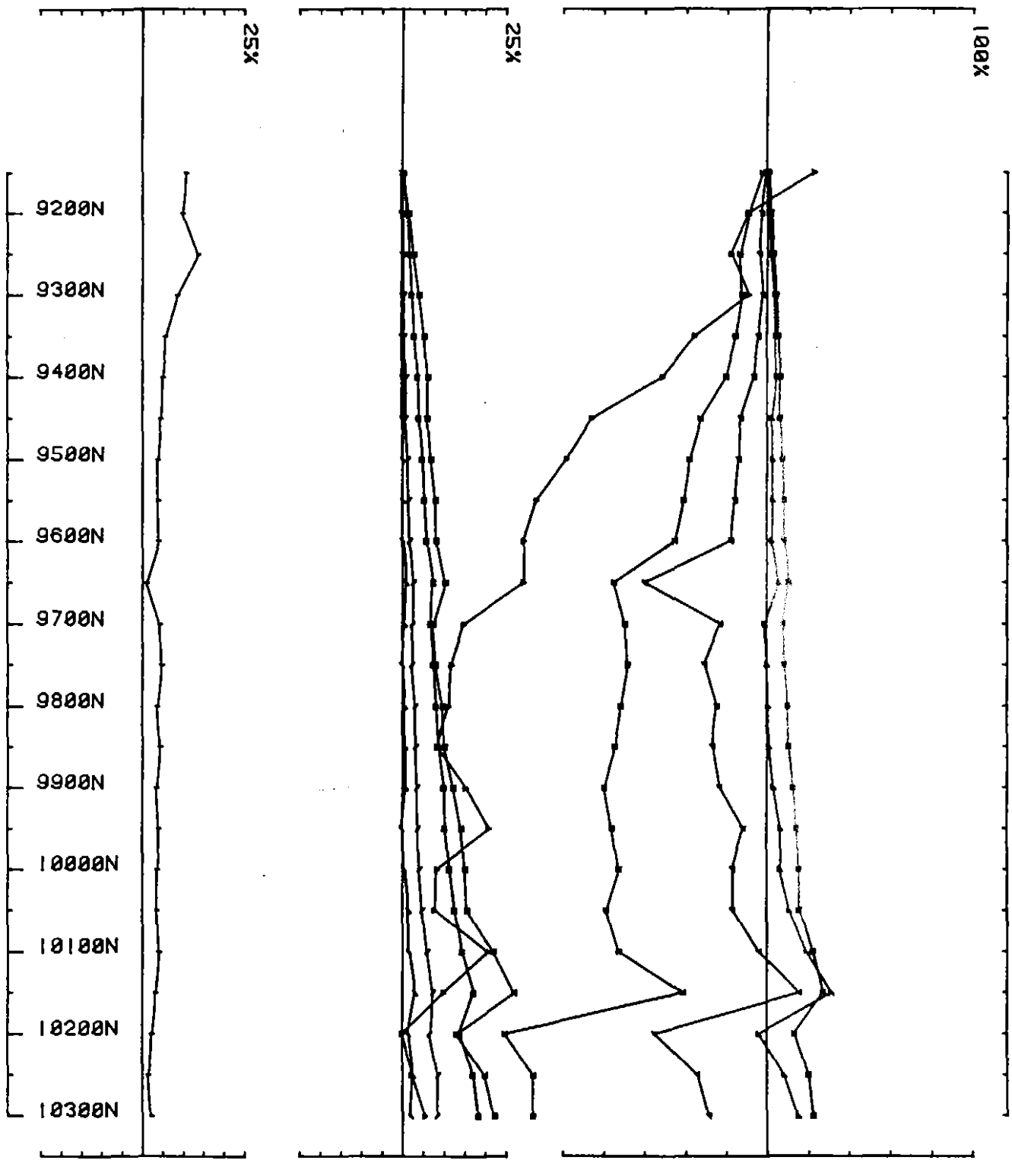
UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD
conducted by LAMONTAGNE GEOPHYSICS job 8975 base freq (hz) 26.230 DEC 89
loop no 7503 line 48800E component Hz secondary field Ch 1 contin. norm.



UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by LAMONTAGNE GEOPHYSICS job 8975 base freq (hz) 26.230 DEC 89

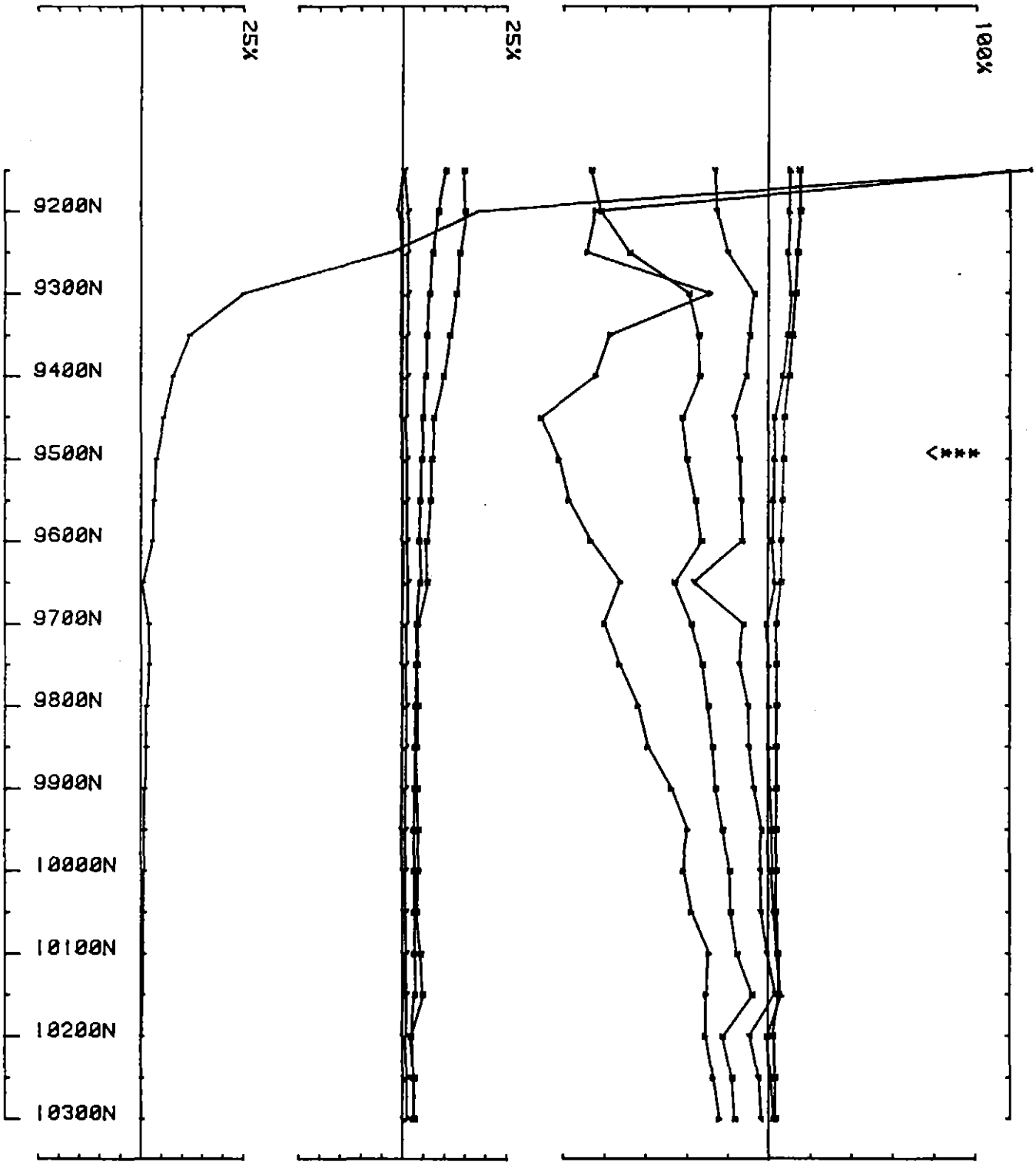
loop no 7503 line 48800E component Hz secondary field Ch 1 point norm.



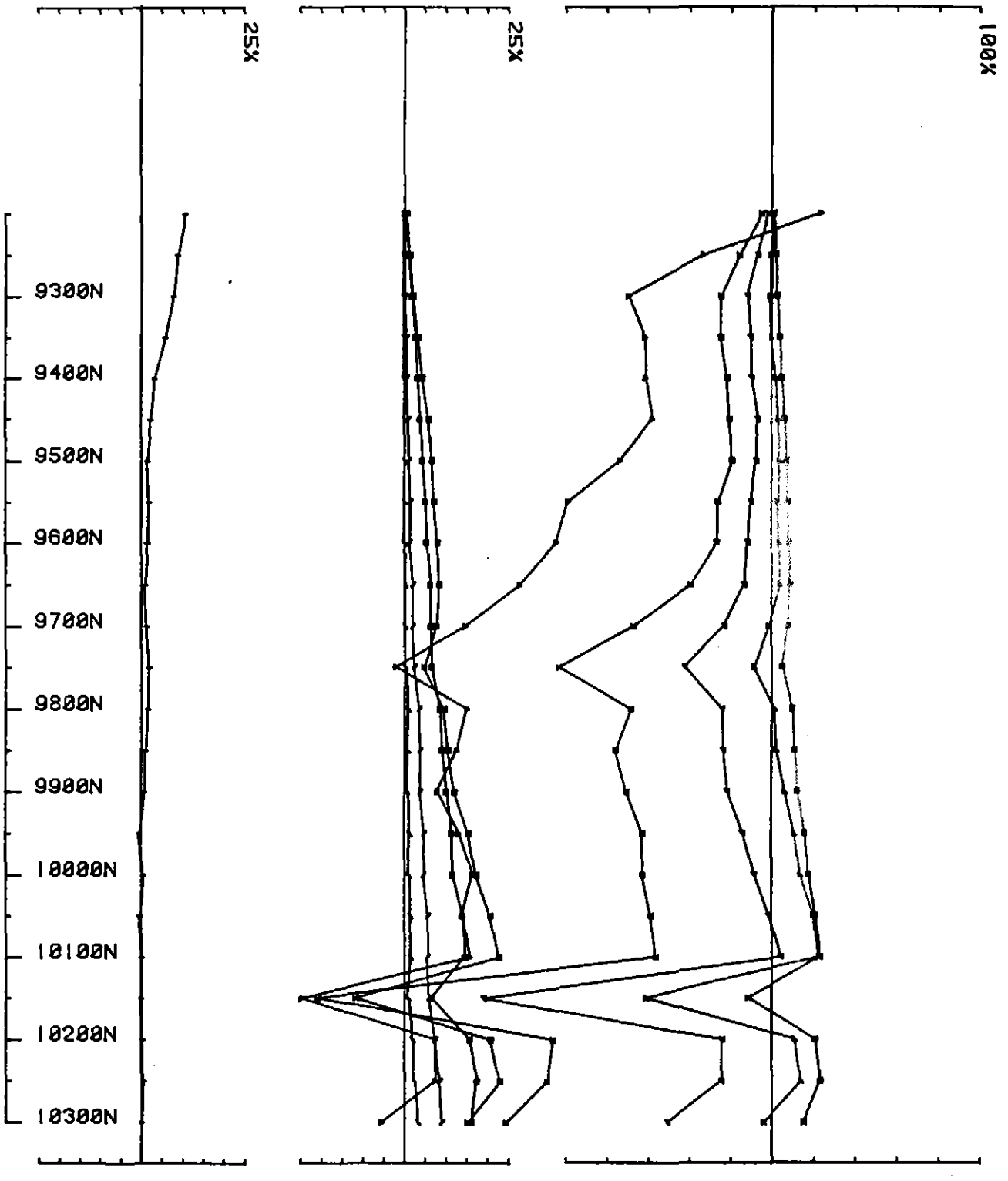
UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by LAMONTAGNE GEOPHYSICS Job 8975 base freq (hz) 26.230 DEC 89

loop no 7503 line 49000E component Hz secondary field Ch 1 contin. norm.



UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD
conducted by LAMONTAGNE GEOPHYSICS job 8975 base freq (hz) 26.230 DEC 89
loop no 7503 line 49000E component Hz secondary field Ch 1 point nore.

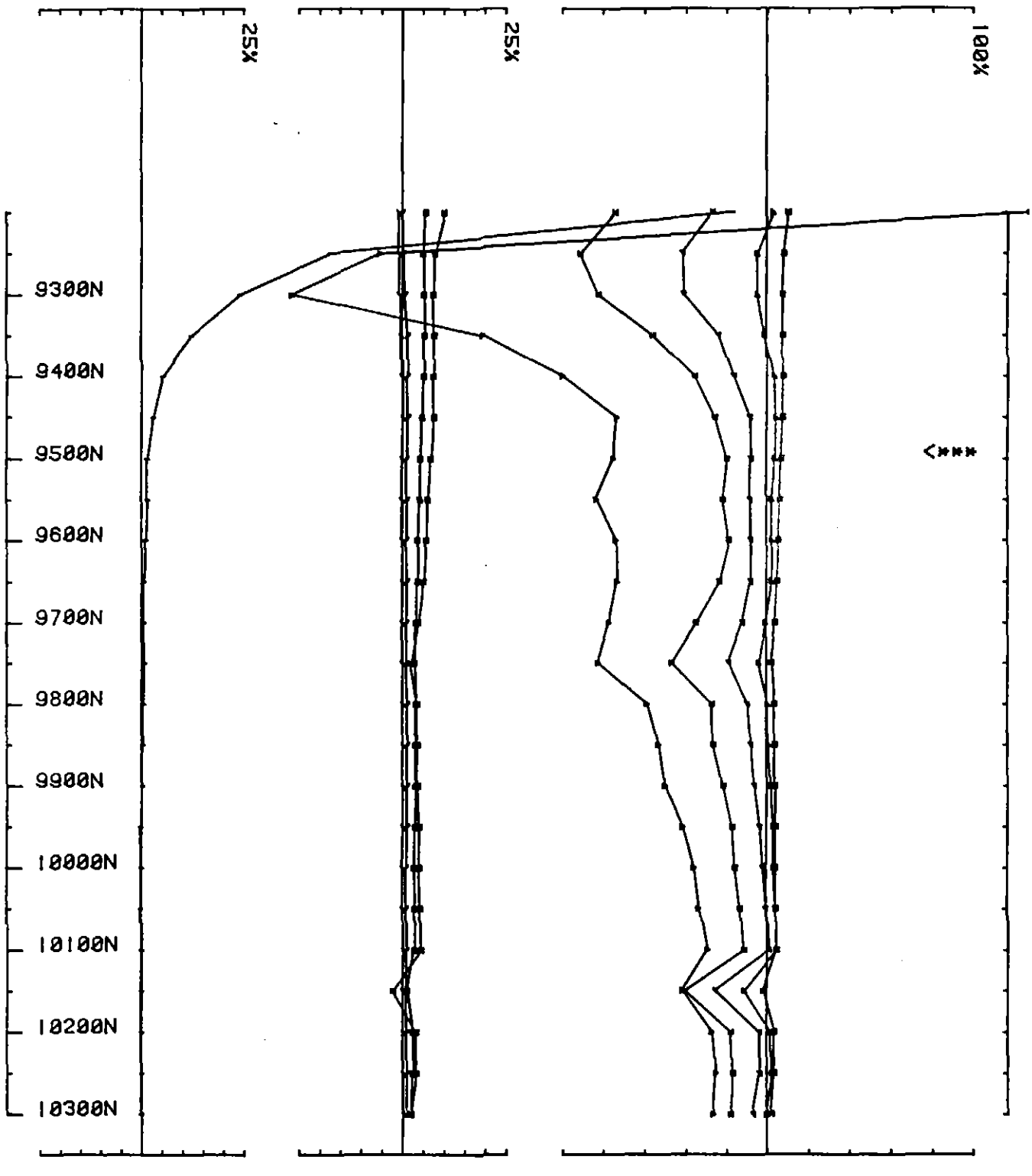


UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by LAMONTAGNE GEOPHYSICS job 8975 base freq (hz) 26.230 DEC 89

loop no 7503 line 49200E component Hz secondary field Ch 1 contin. norm.

490041

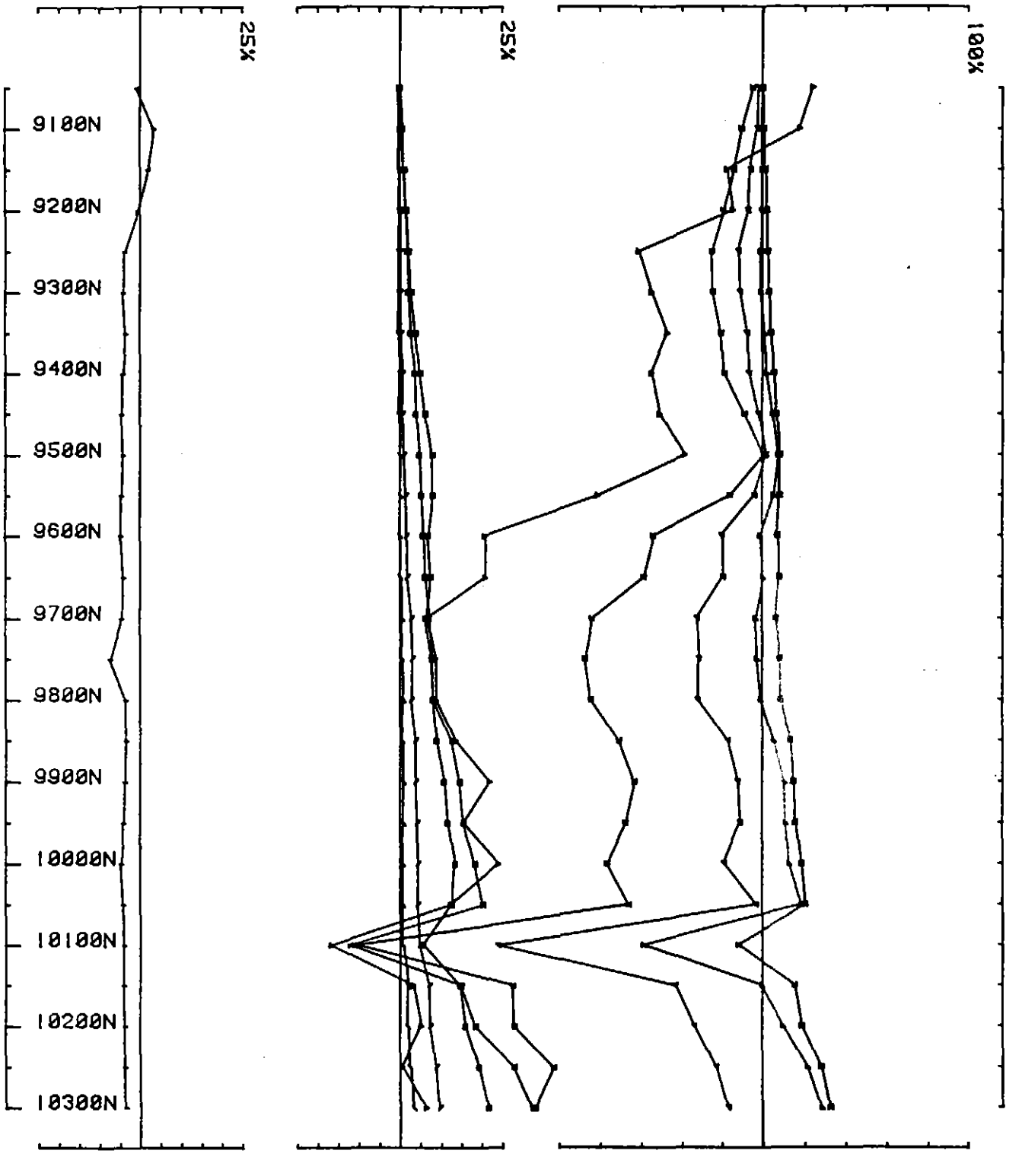


UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by LAMONTAGNE GEOPHYSICS job 8975 base freq (hz) 26.230 DEC 89

loop no 7503 line 49200E component Hz secondary field Ch 1 point norm.

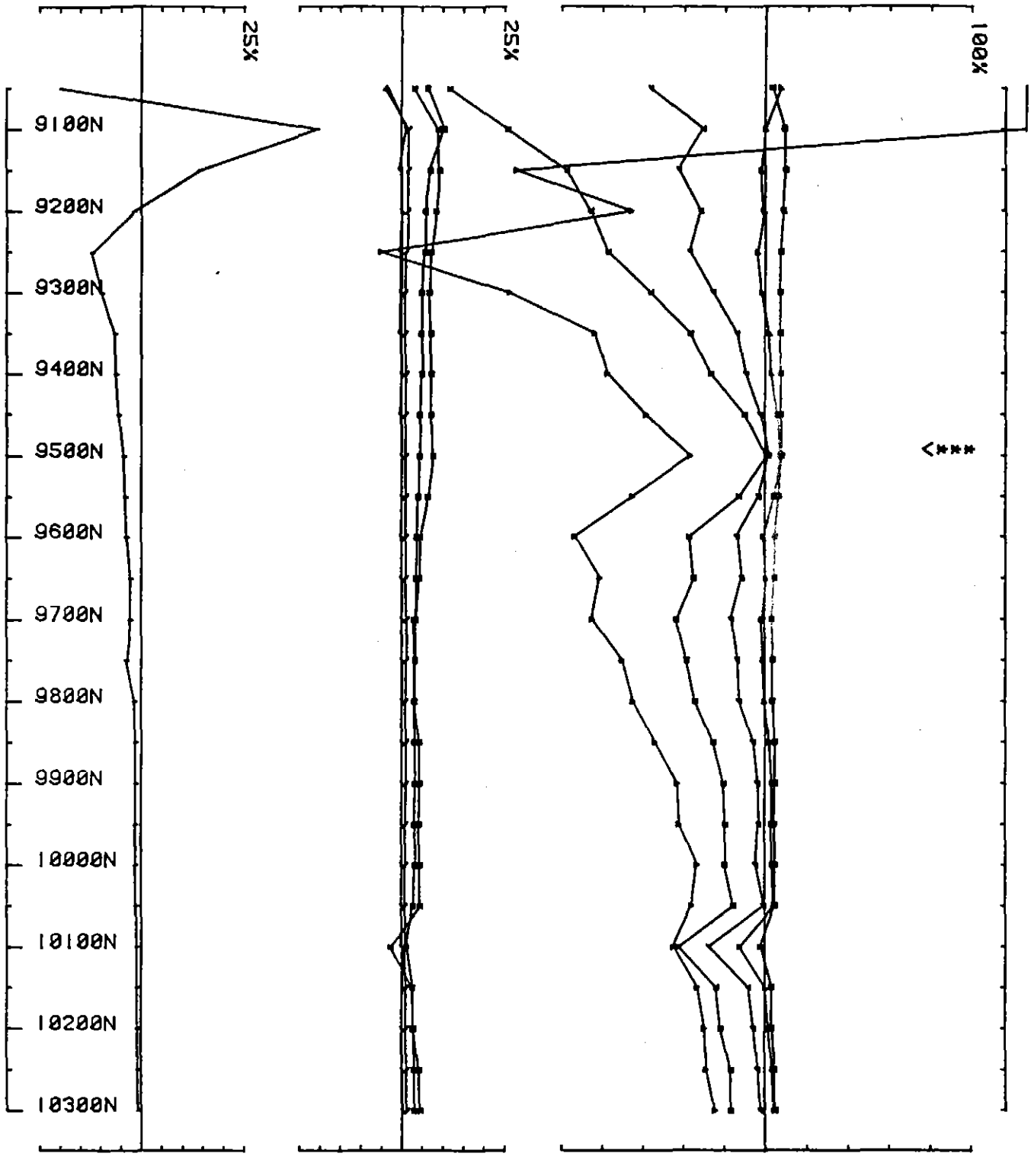
490042



UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by LAMONTAGNE GEOPHYSICS job 8975 base freq (hz) 26.230 DEC89

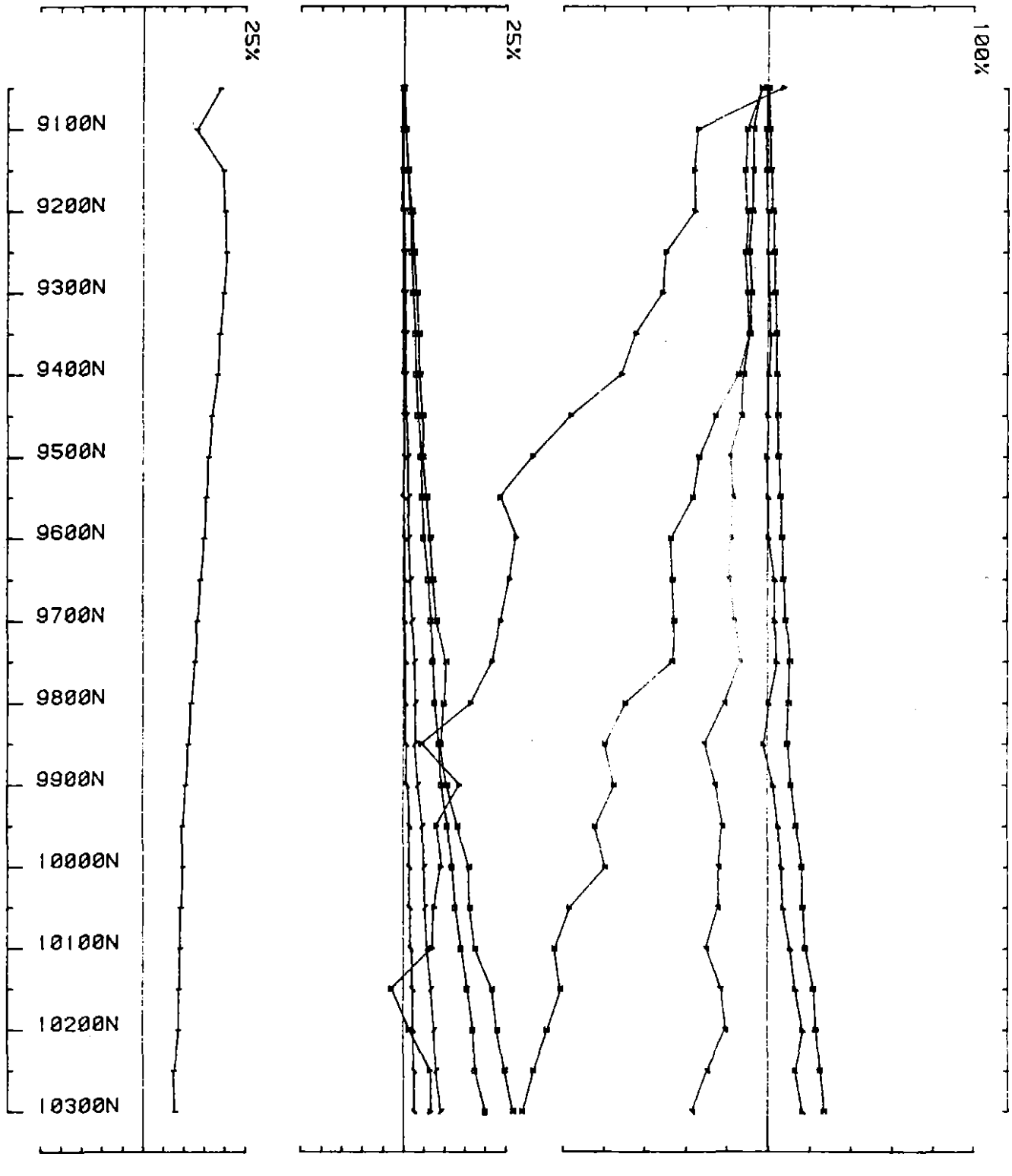
loop no 7503 line 49400E component Hz secondary field Ch 1 contin. nors.



UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by LAMONTAGNE GEOPHYSICS Job 8975 base freq (hz) 26.230 DEC 89

loop no 7503 line 49400E component Hz secondary field Ch 1 point norm.



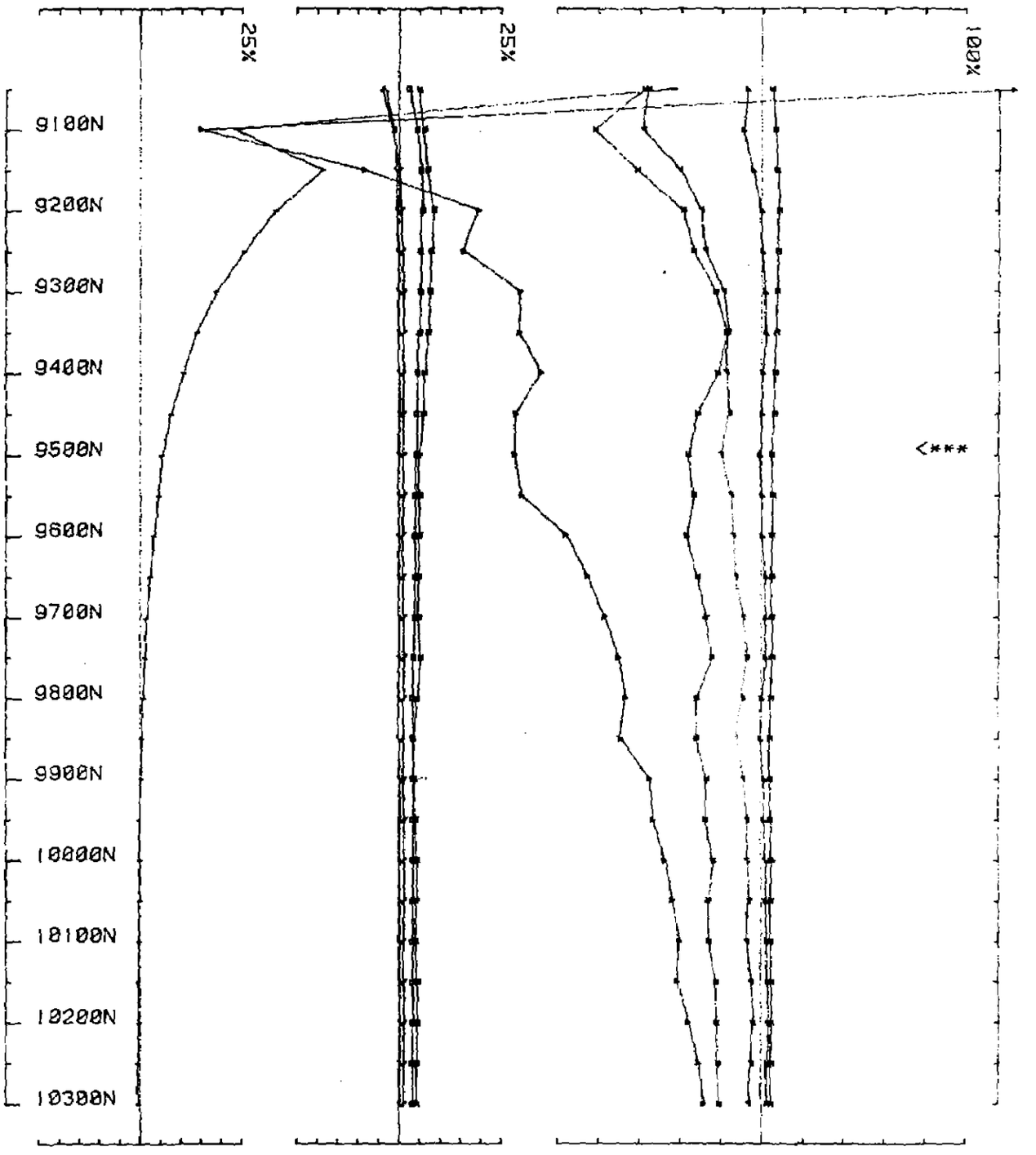
UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by LAMONTAGNE GEOPHYSICS job 8975 base freq (hz) 26.230 DEC 89

loop no 7503 line 49600E component Hz secondary field Ch 1 contin. norm.

490045

C24

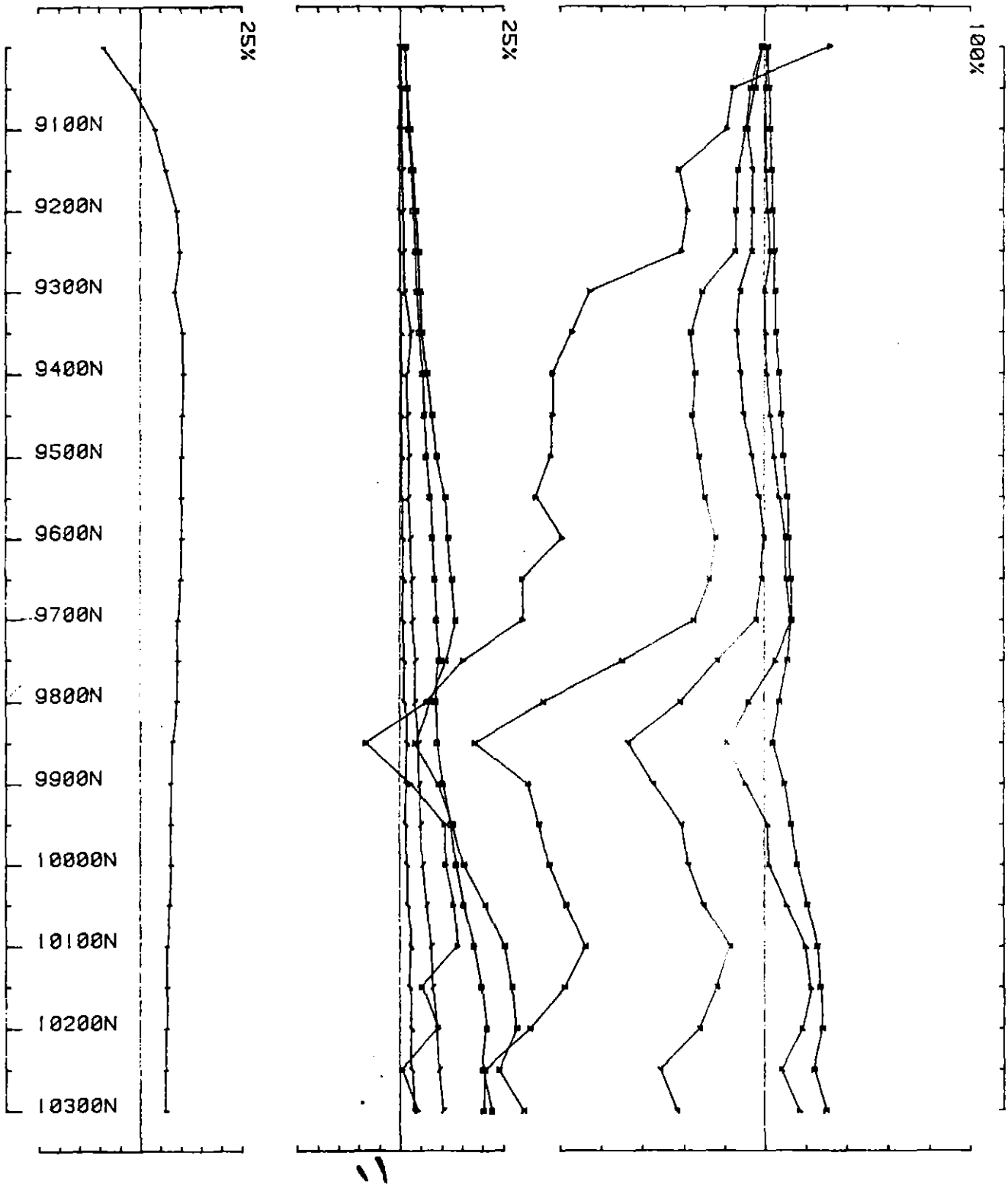


UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by LAMONTAGNE GEOPHYSICS Job 8975 base freq (Hz) 26.230 DEC 89

loop no 7503 line 49600E component Hz secondary field Ch 1 point norm.

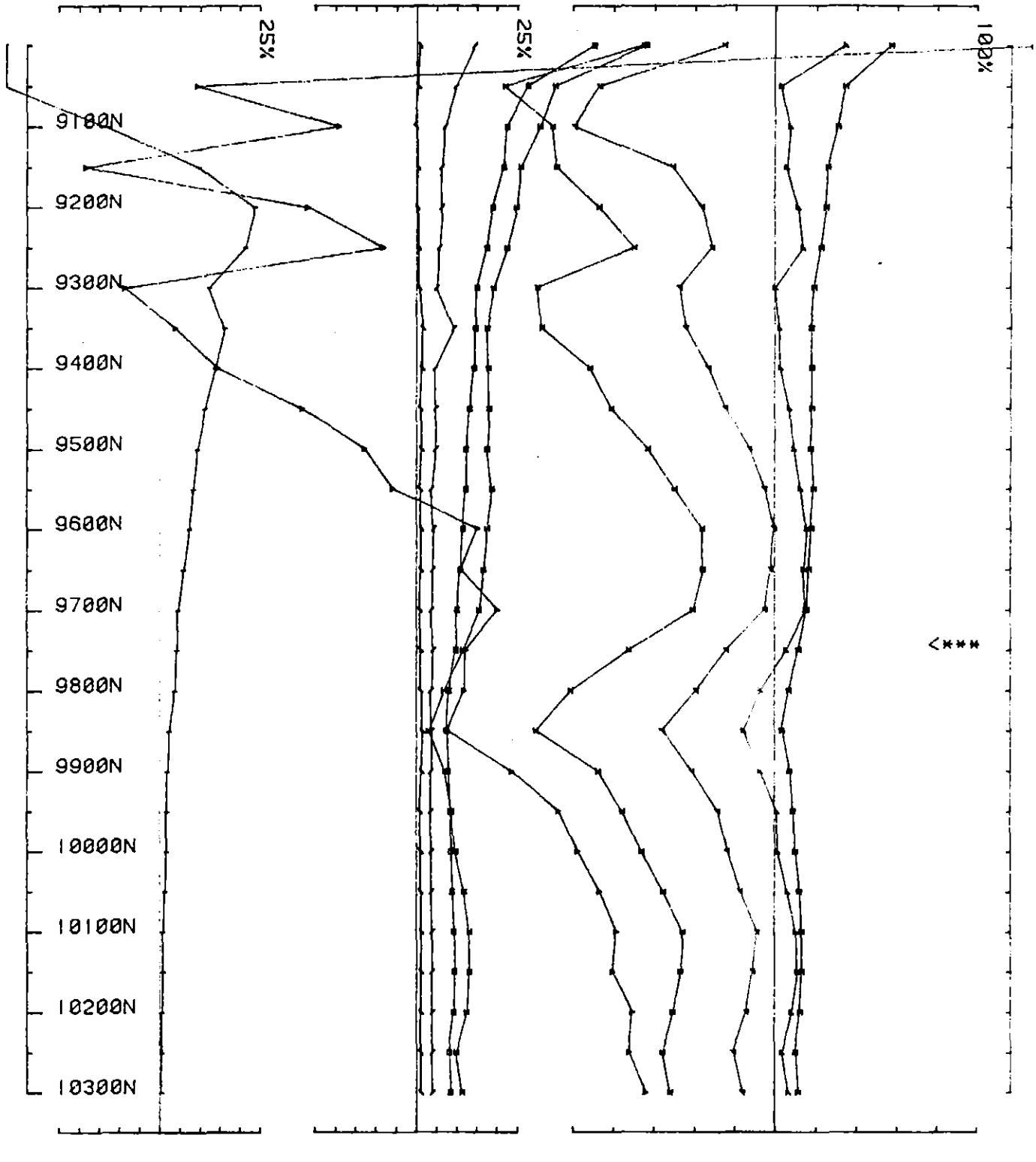
490046



UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

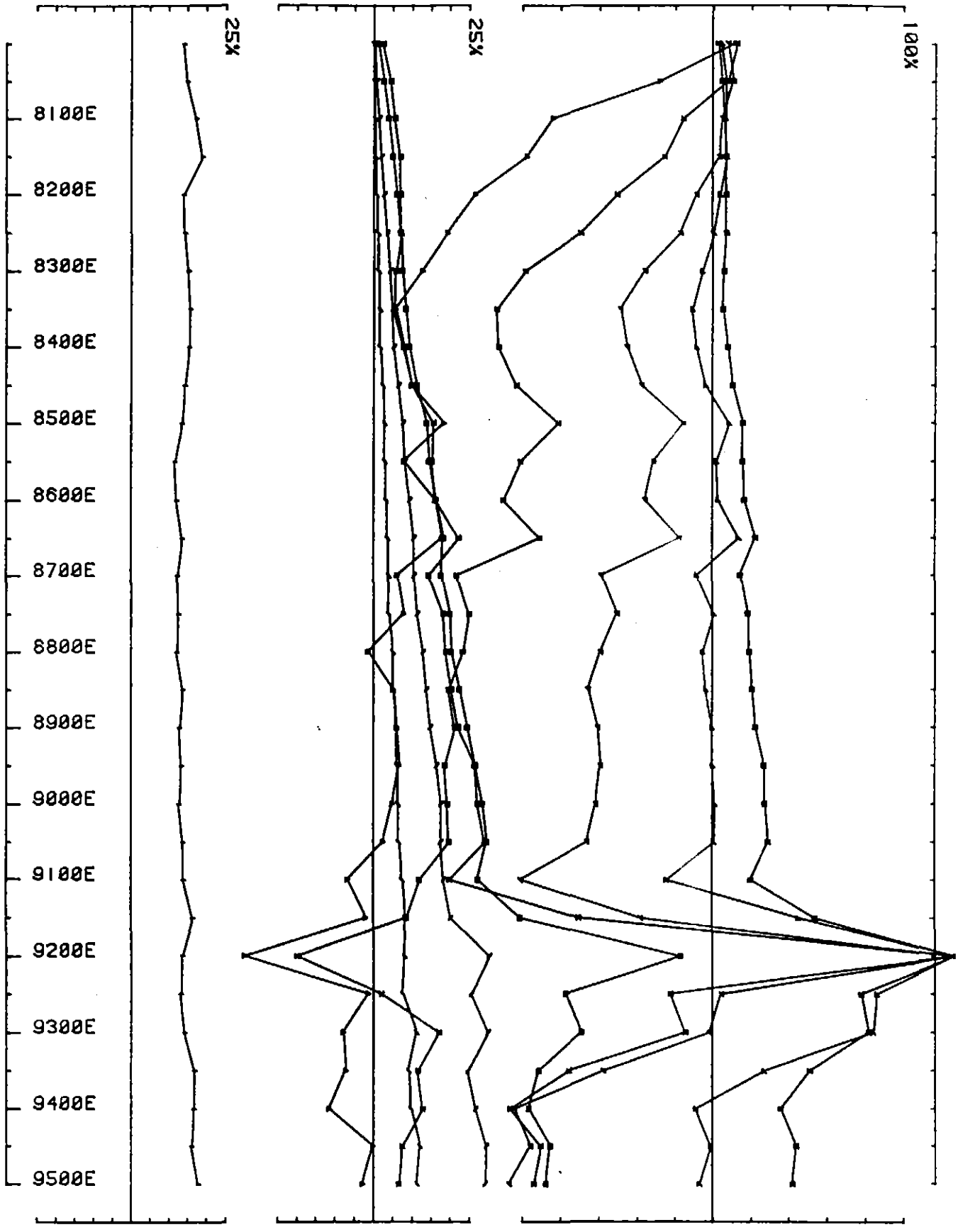
conducted by LAMONTAGNE GEOPHYSICS job 8975 base freq (hz) 26.230 DEC 89

loop no 7503 line 49800E component Hz secondary field Ch 1 contin. norm.



UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD
conducted by LAMONTAGNE GEOPHYSICS job 8975 base freq (hz) 26.230 dec 89
loop no 7503 line 49800E component Hz secondary field Ch 1 point norm.

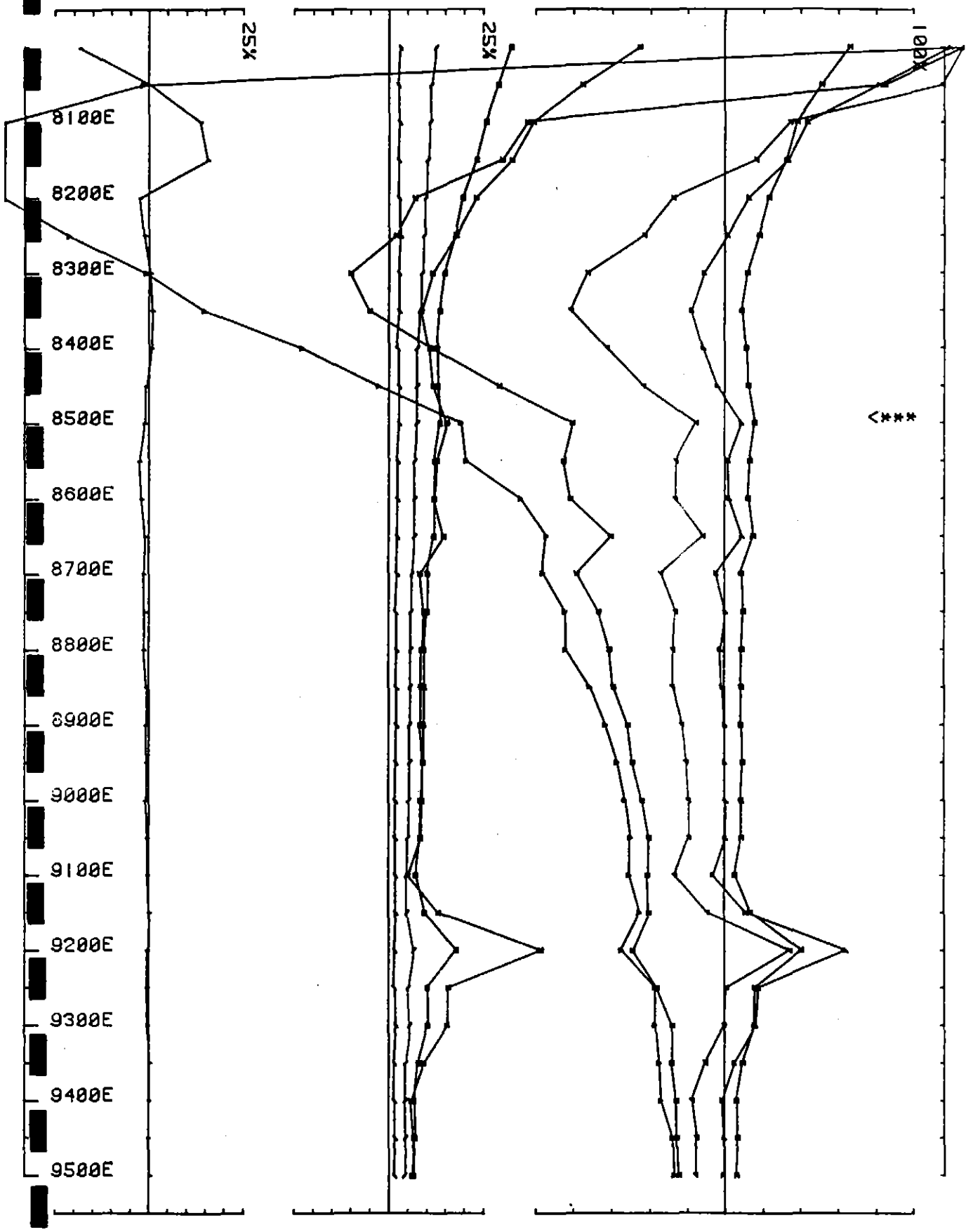
490048



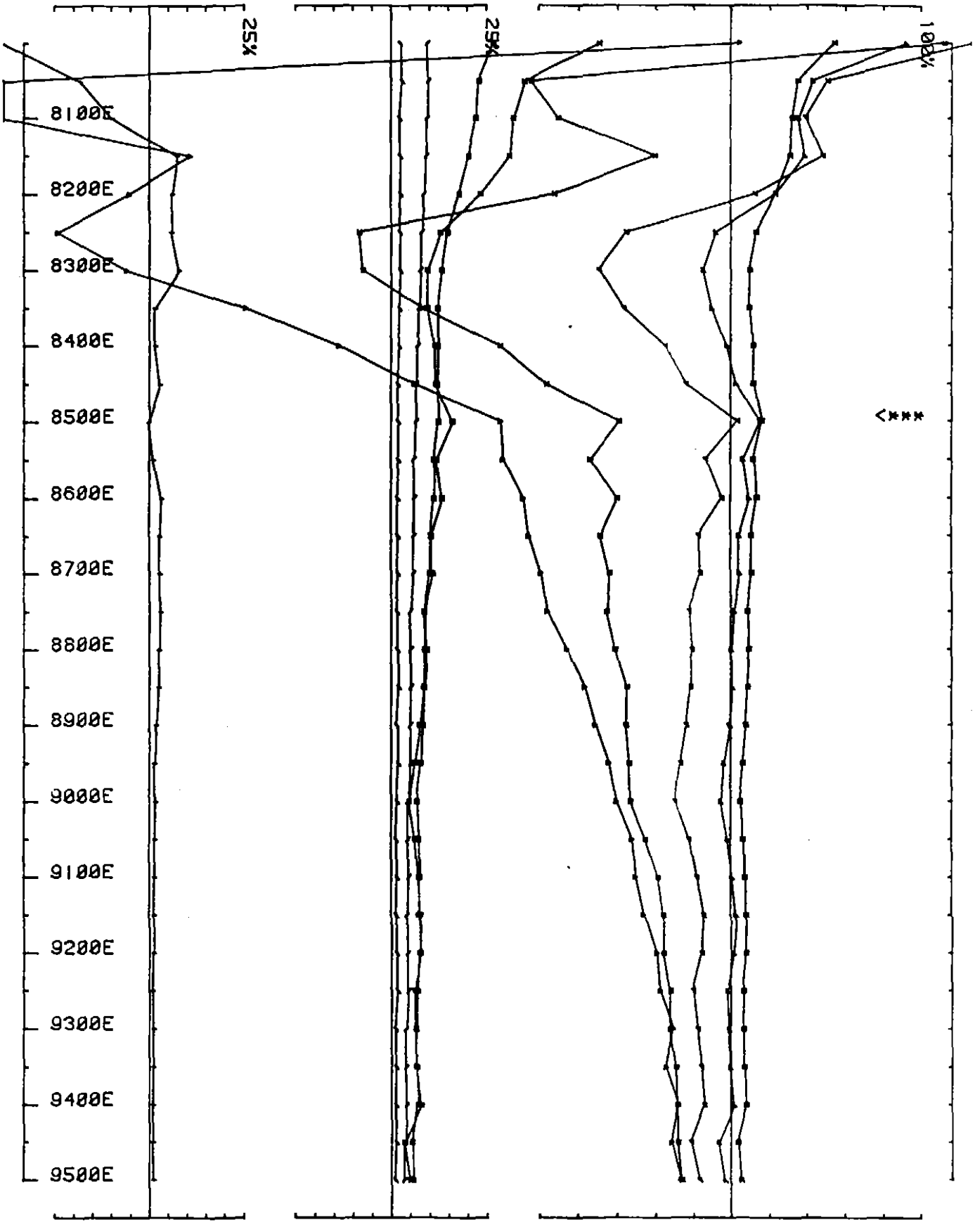
UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by ST RL Job 8975 base freq (hz) 26.230 DEC 89

loop no 7504 line 10200N component Hz secondary field Ch 1 contin. norm.



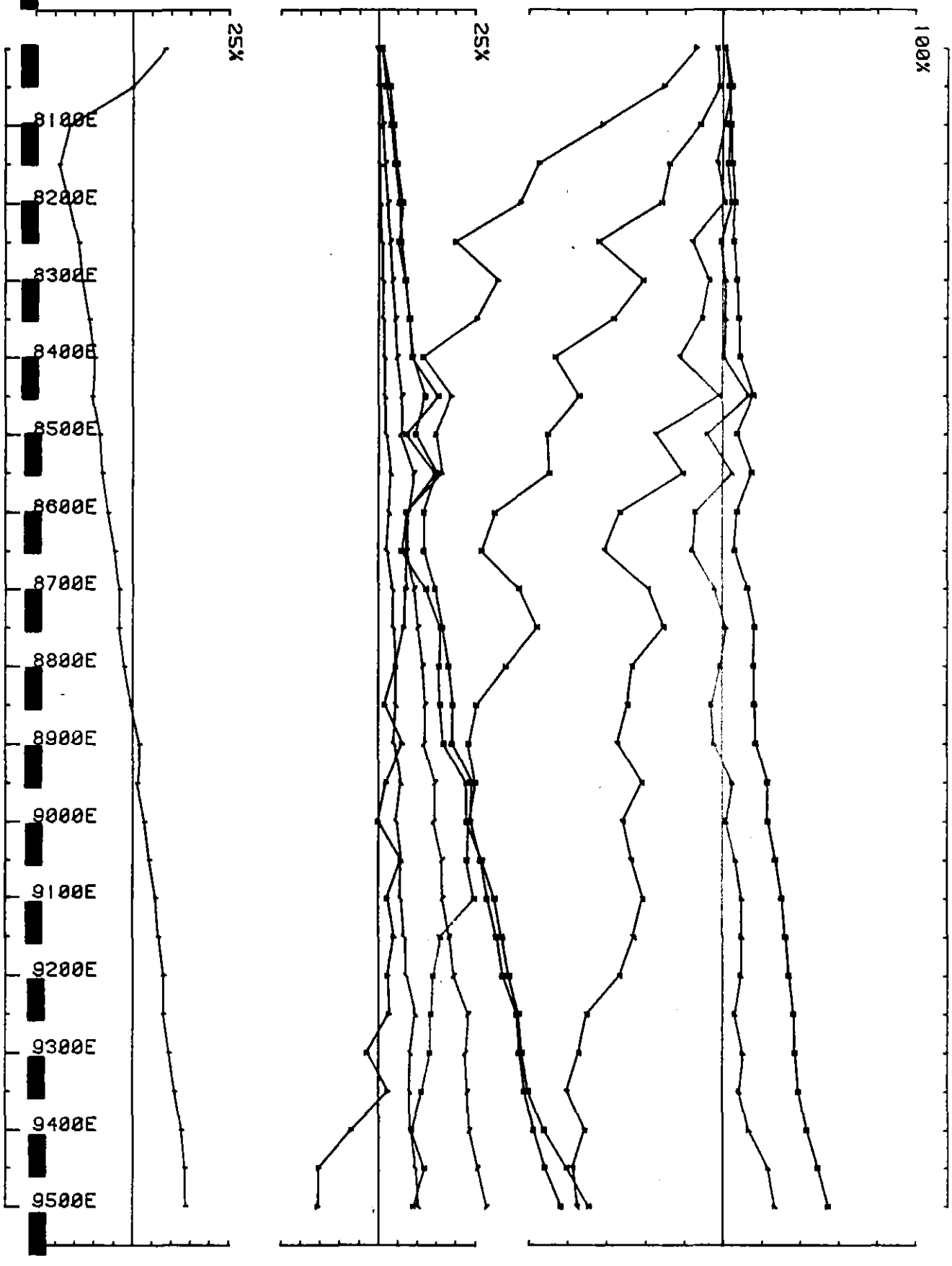
TEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD
conducted by ST RL job 8975 base freq (hz) 26.230 DEC 89
loop no 7504 line 10200N component Hz secondary field Ch 1 point norm.



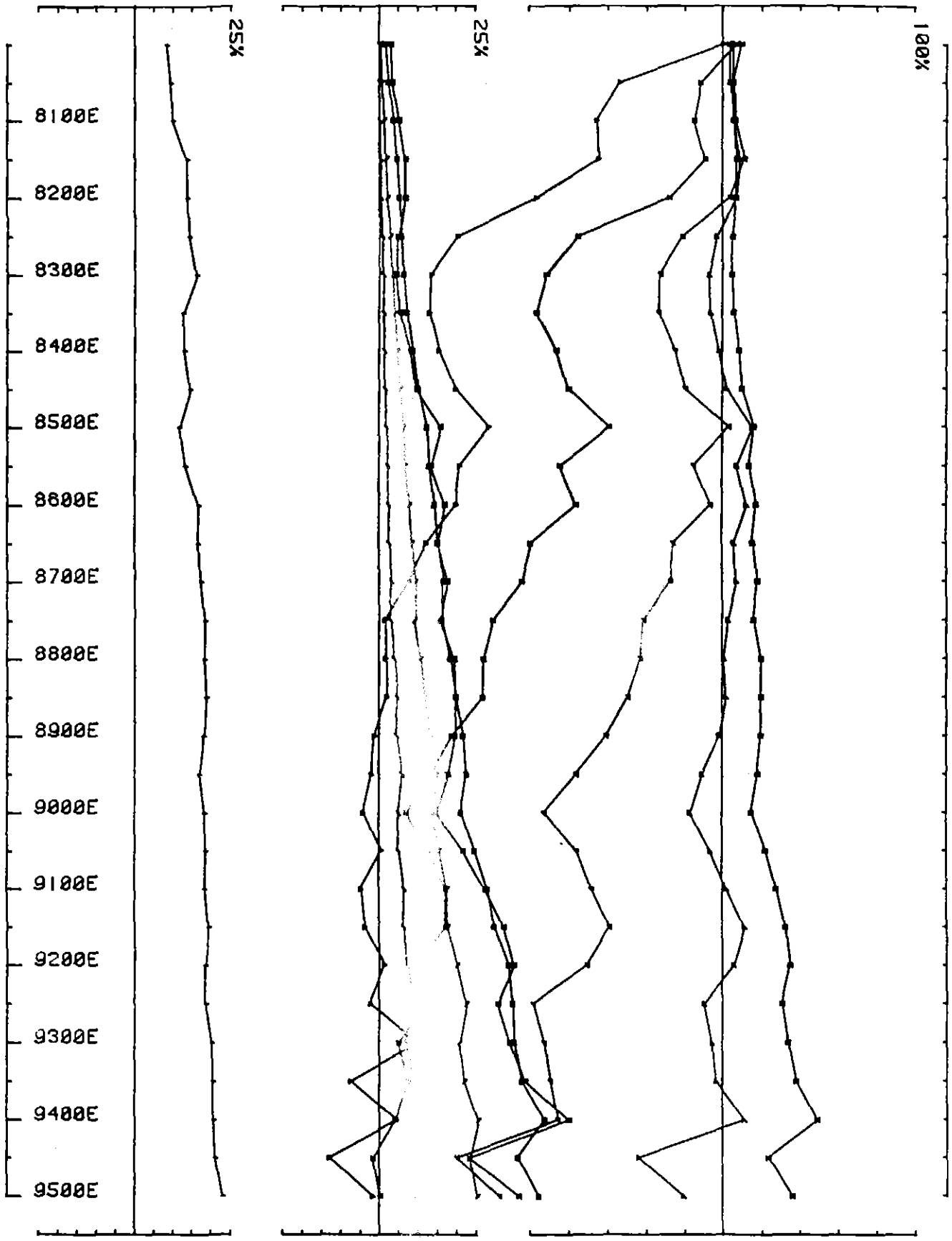
UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by ST RL Job 8975 base freq (hz) 26.230 DEC 89

loop no 7504 line 10400N component Hz secondary field Ch 1 point norm.



UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD
conducted by ST RL job 8975 base freq (hz) 26.230 DEC 99
loop no 7504 line 10600N component Hz secondary field Ch 1 contin. norm.

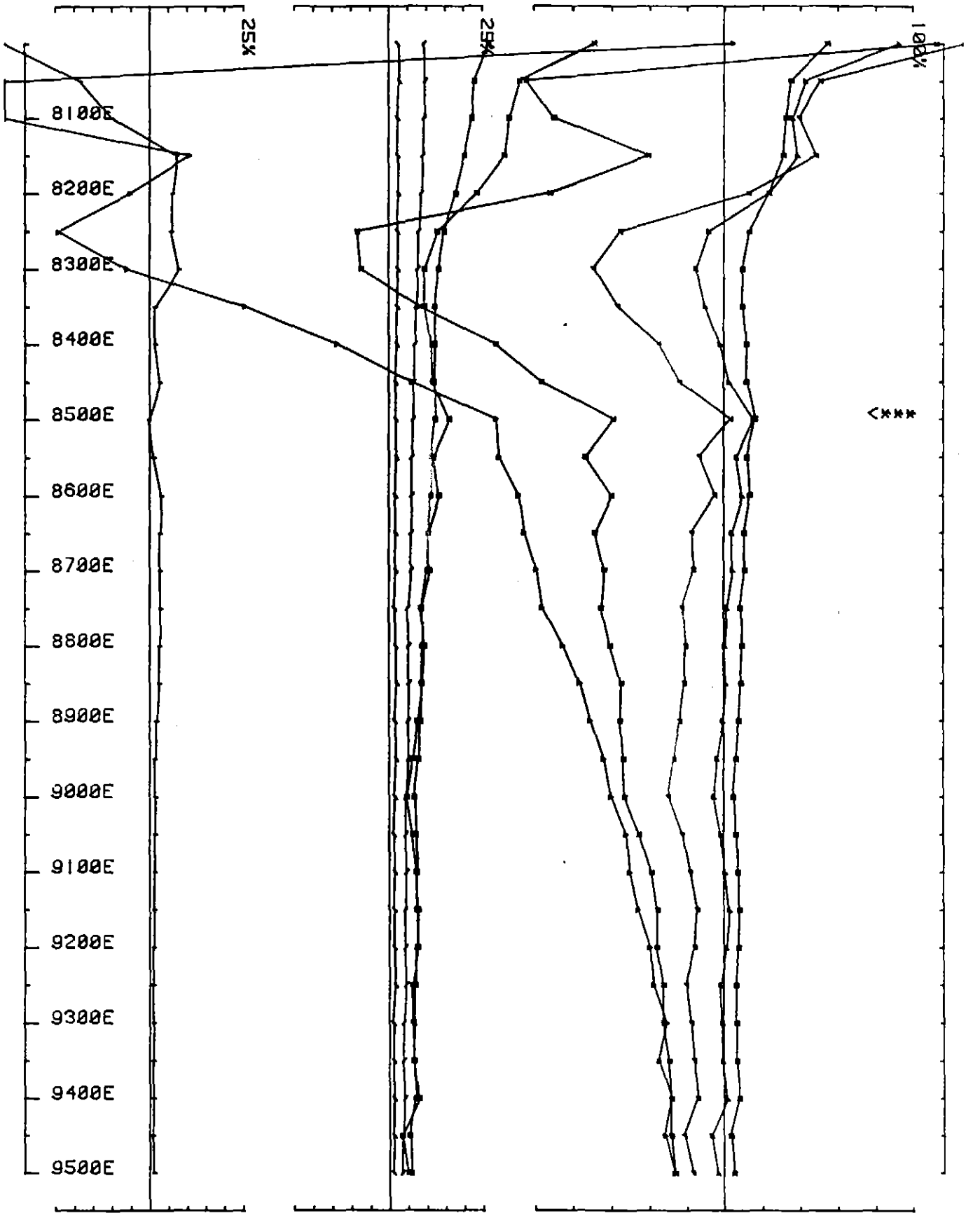


UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by ST RL job 8975 base freq (hz) 26.230 DEC 89

loop no 7504 line 10400N component Hz secondary field Ch 1 contin. norm.

052

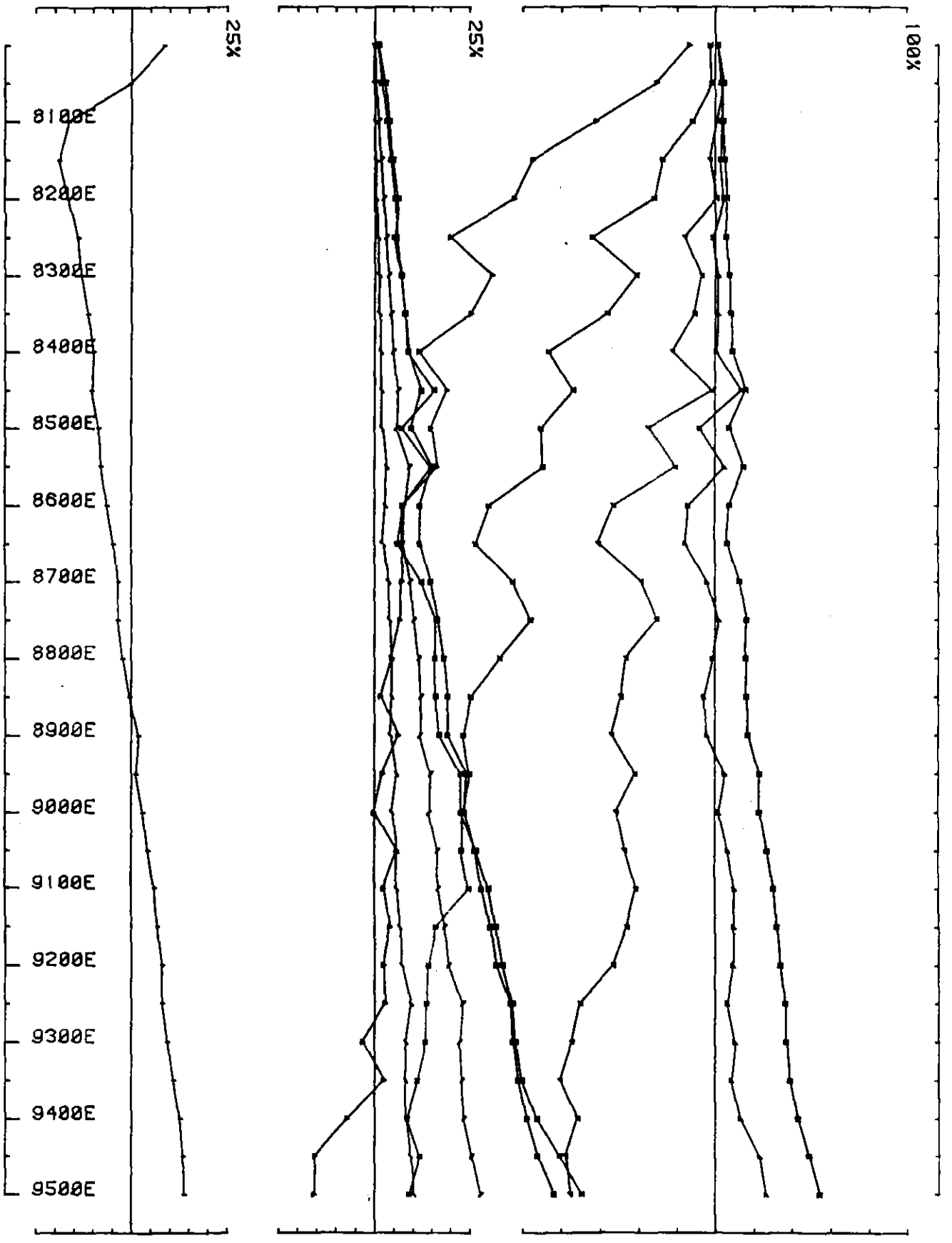


UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by ST RL job 8975 base freq (hz) 26.230 DEC 89

loop no 7504 line 10400N component Hz secondary field Ch 1 point norm.

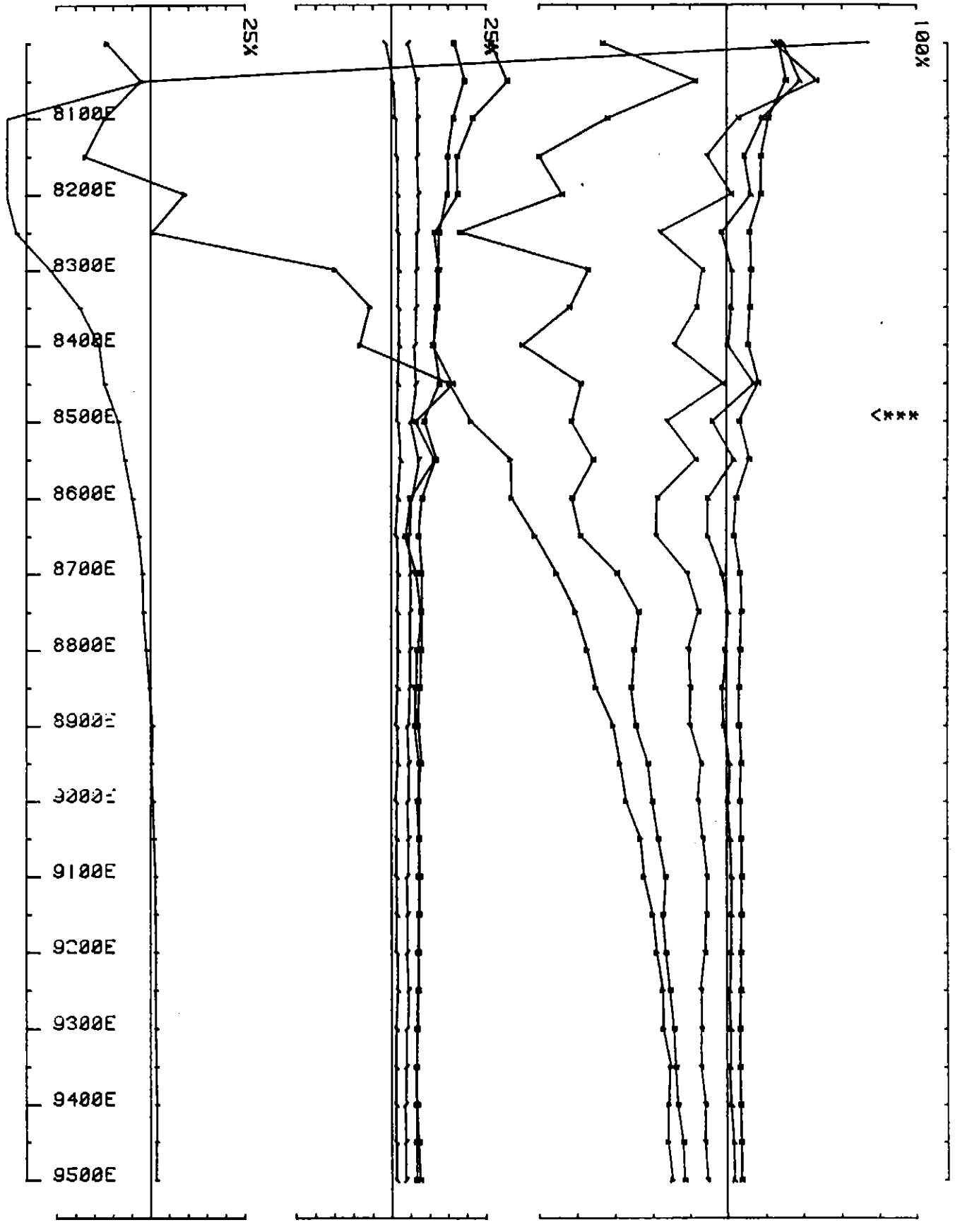
490054



UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by ST RL Job 8975 base freq (hz) 26.230 DEC 99

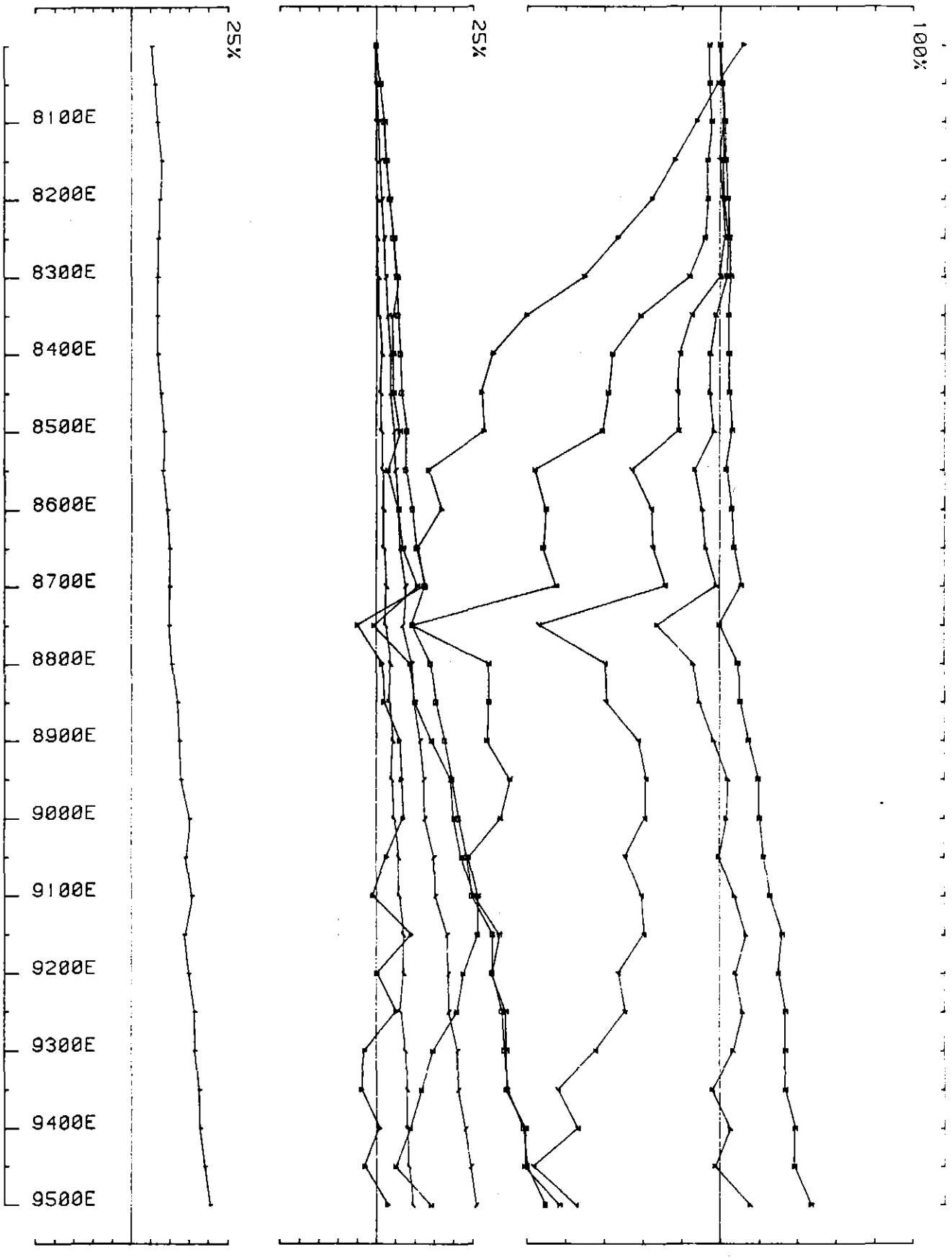
loop no 7504 line 10600N component Hz secondary field Ch 1 contin. norm.



UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by ST RL Job 8975 base freq (hz) 26.230 DEC 89

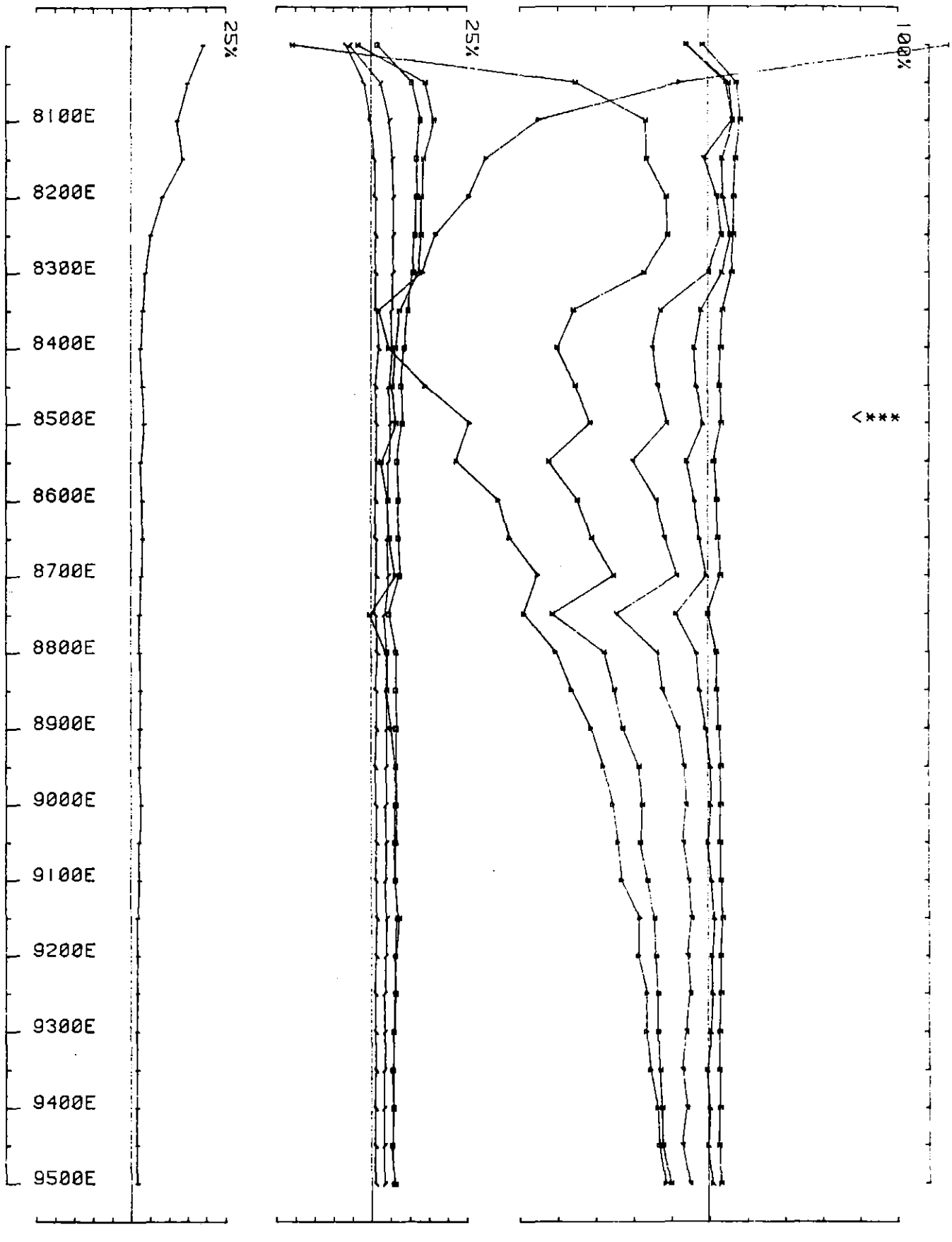
loop no 7504 line 10600N component Hz secondary field Ch 1 point norm.



UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by ST RL Job 8975 base freq (hz) 26.230 DEC 89

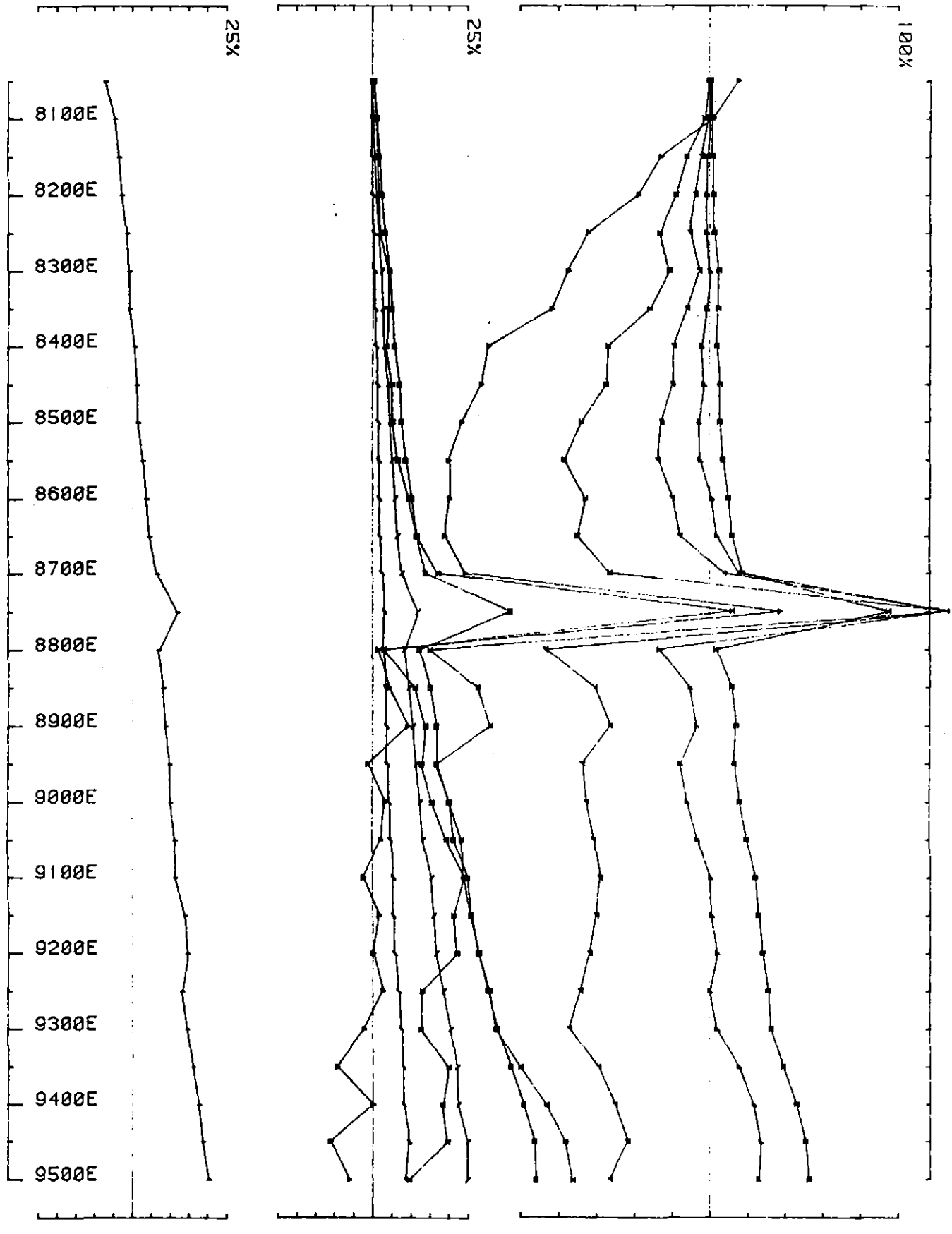
loop no 7504 line 10800N component Hz secondary field Ch 1 contin. norm.



UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by ST RL job 8975 base freq (hz) 26.230 DEC 89

loop no 7504 line 10800N component Hz secondary field Ch 1 point norm.

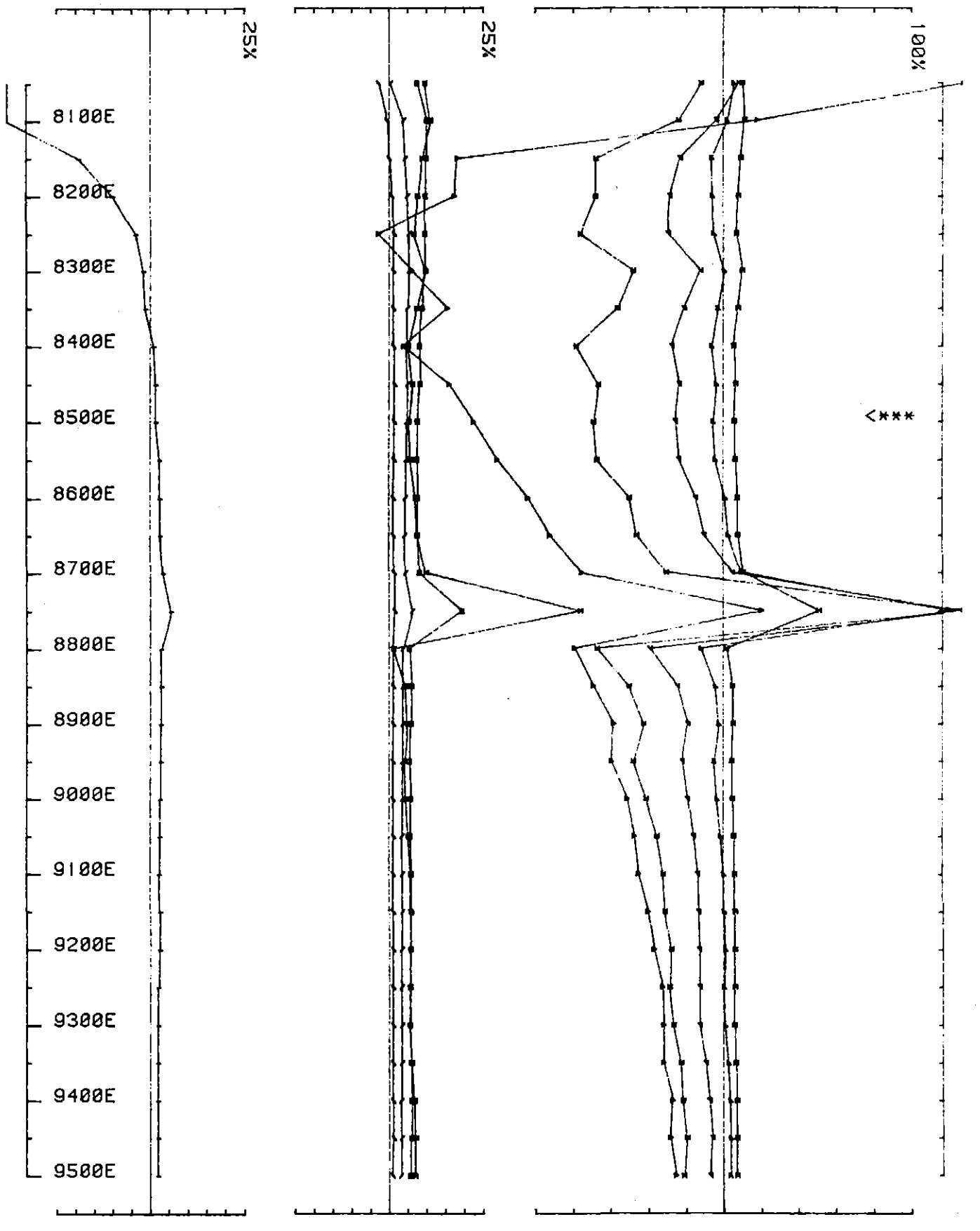


UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by ST RL Job 8975 base freq (hz) 26.230 DEC 89

loop no 7504 line 11000N component Hz secondary field Ch 1 contin. norm.

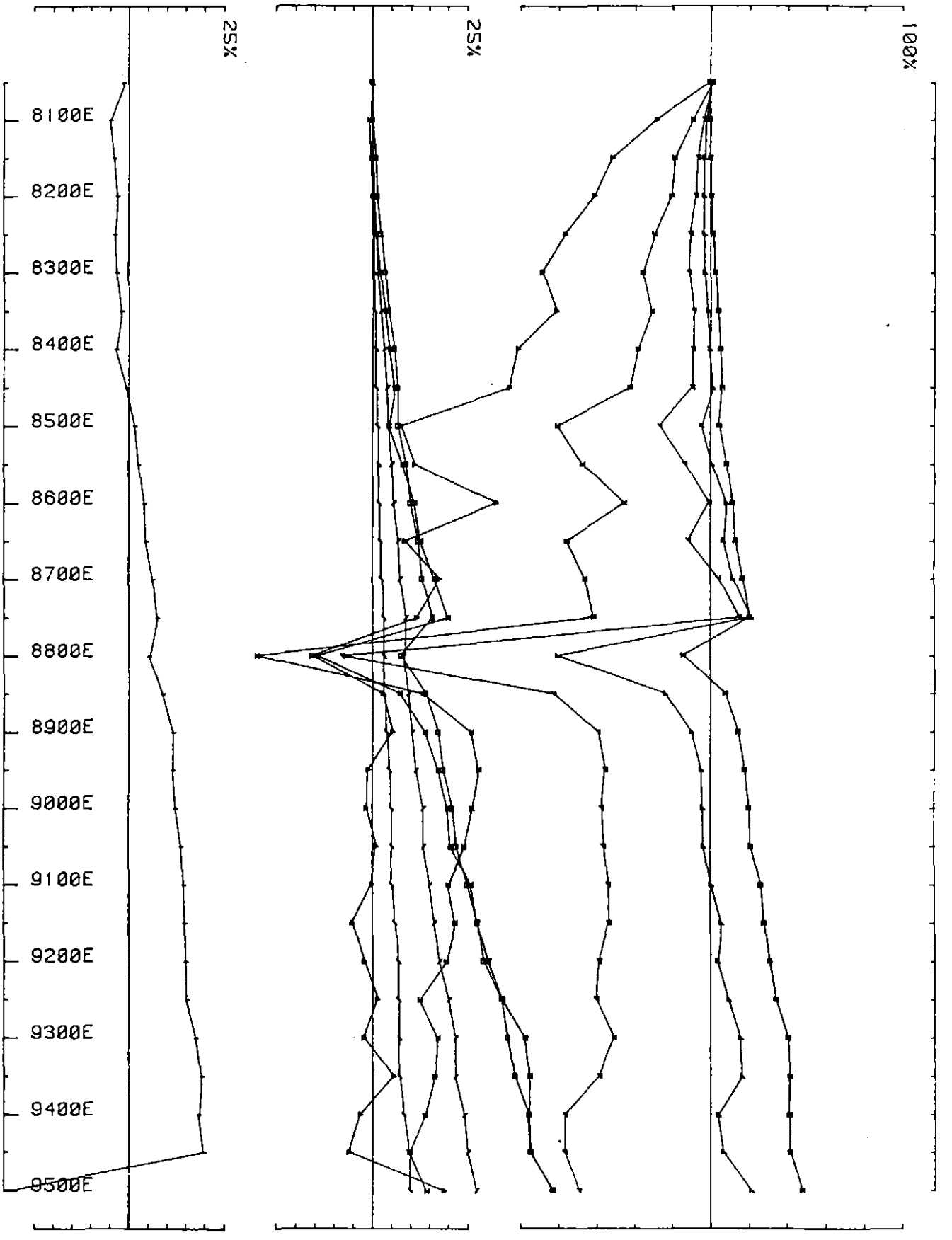
490059



UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by ST RL job 8975 base freq (hz) 26.230 DEC 89

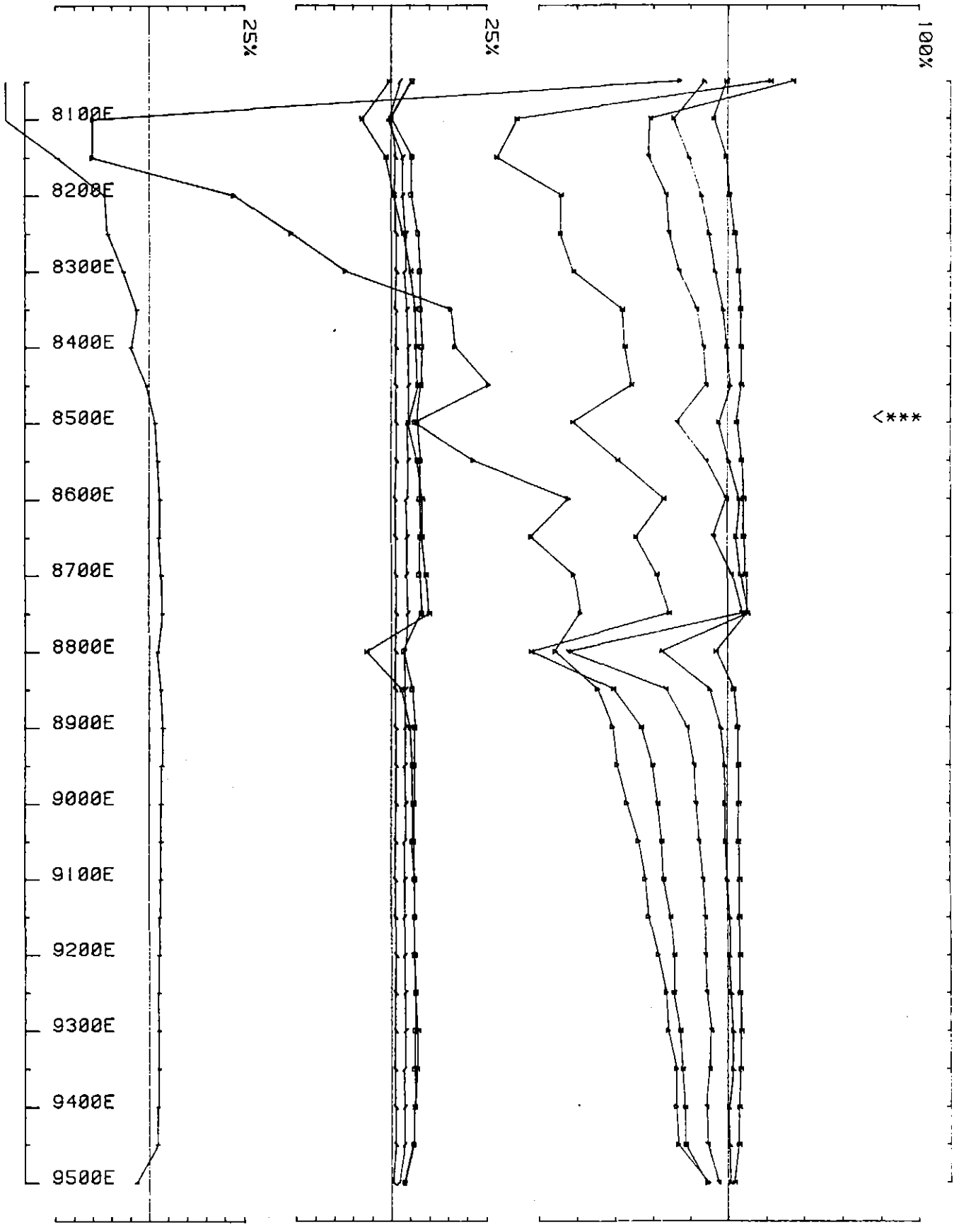
loop no 7504 line 11000N component Hz secondary field Ch 1 point norm.



UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by ST RL Job 8975 base freq (hz) 26.230 DEC 89

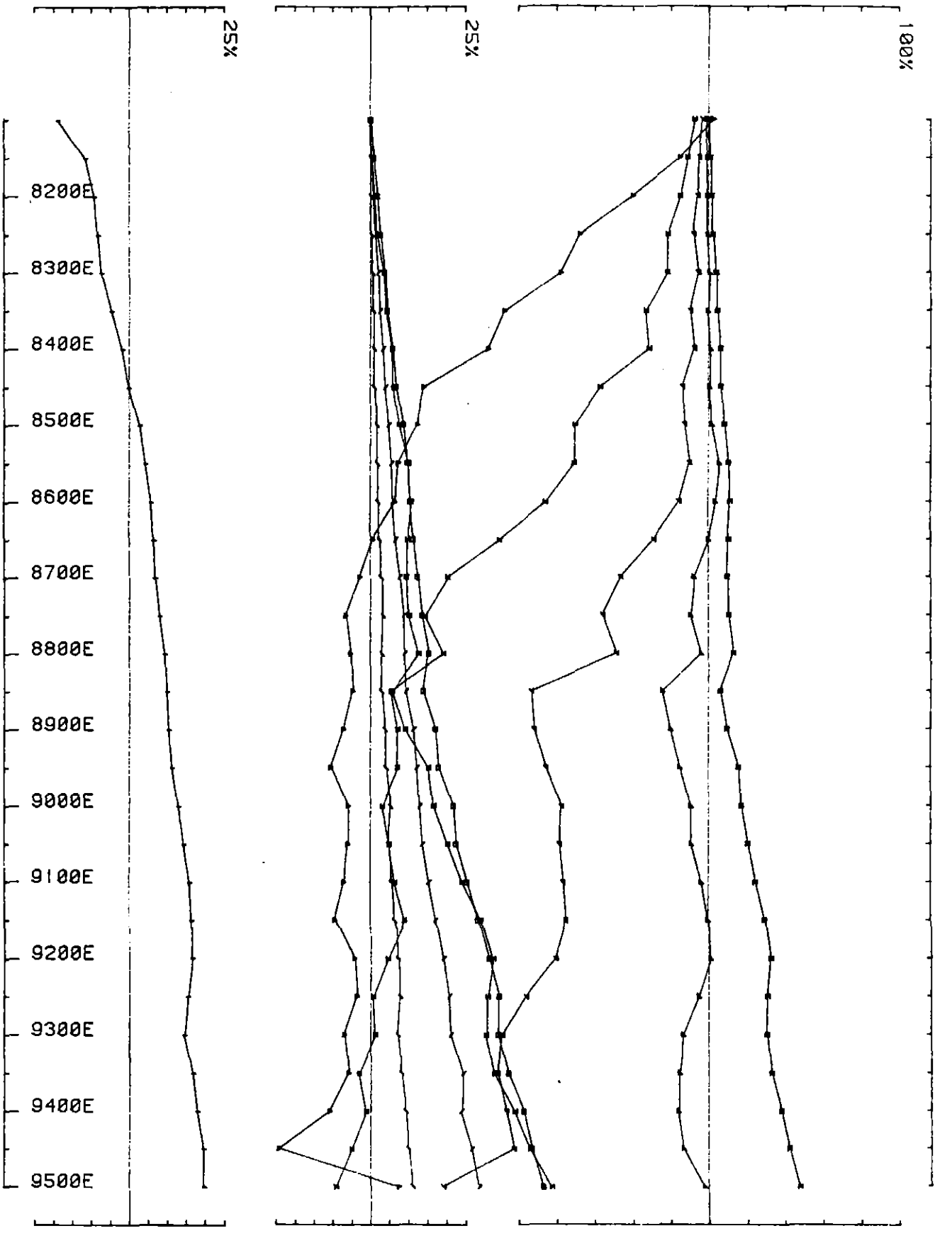
loop no 7504 line 11200N component Hz secondary field Ch 1 contin. norm.



UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by ST RL Job 8975 base freq (hz) 26.230 DEC 89

loop no 7504 line 11200N component Hz secondary field Ch 1 point norm.



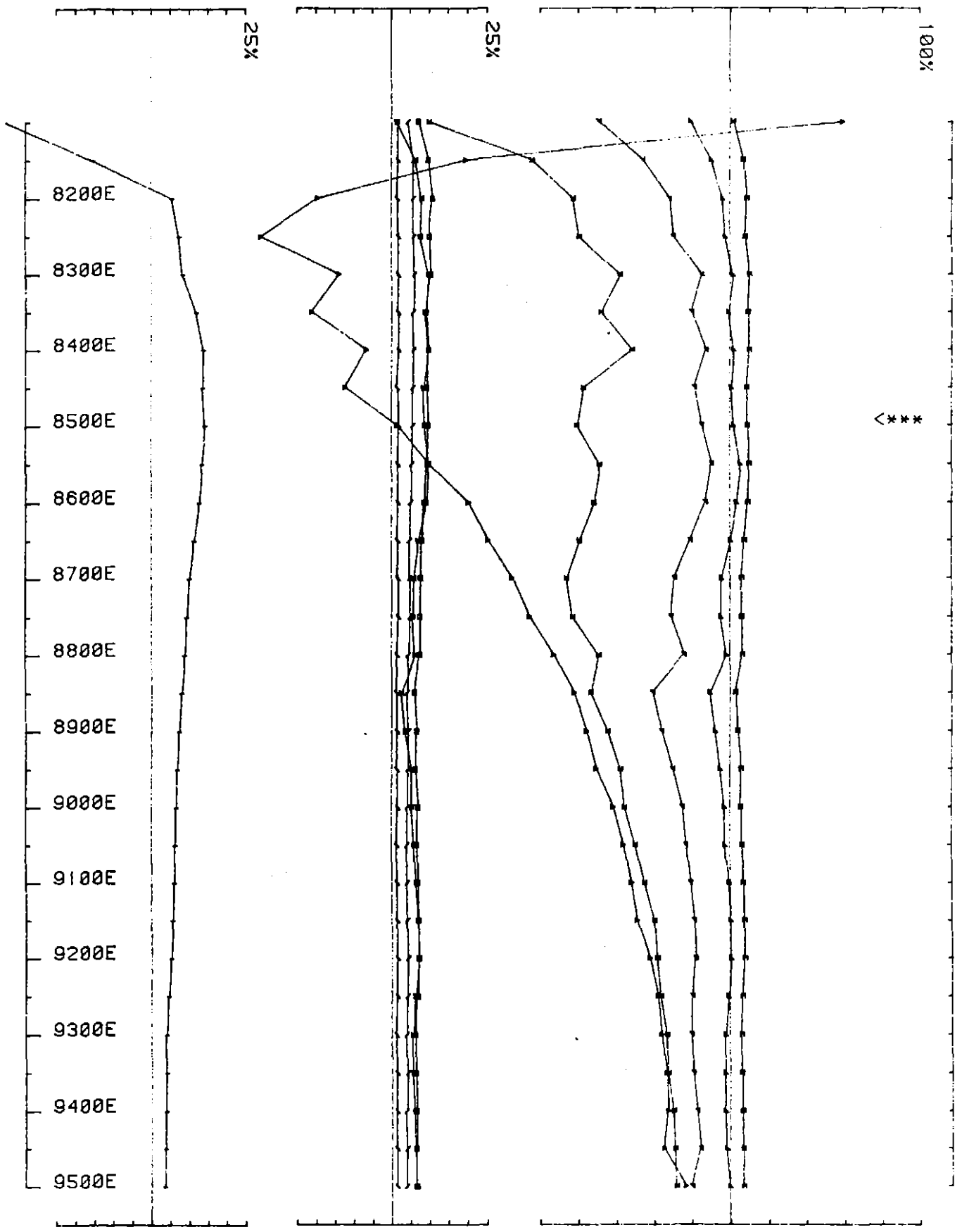
UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by ST RL job 8975 base freq (hz) 26.230 DEC 89

loop no 7504 line 11400N component Hz secondary field Ch 1 contin. norm.

062

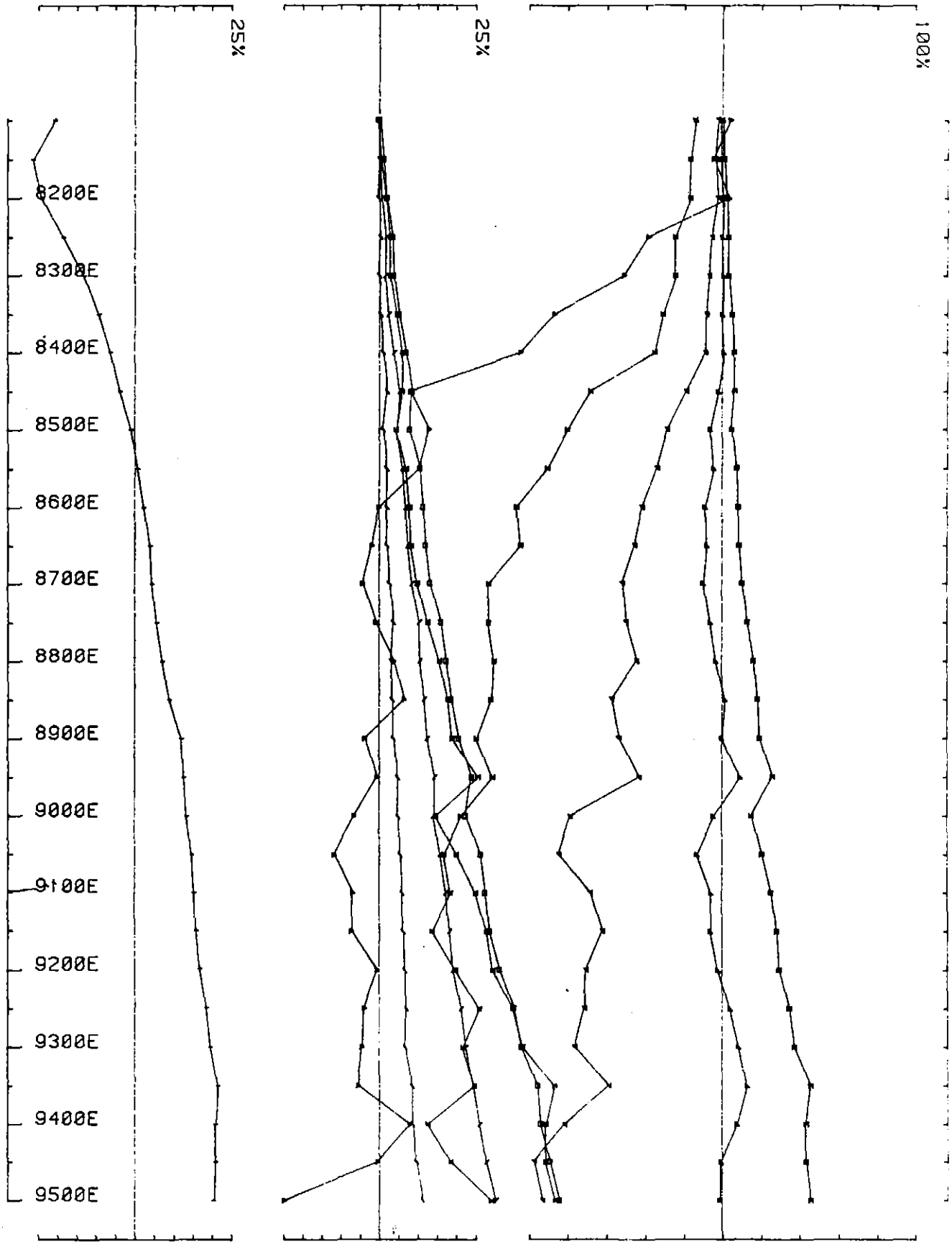
490063



UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by ST RL job 8975 base freq (hz) 26.230 DEC 89

loop no 7504 line 11400N component Hz secondary field Ch 1 point norm.

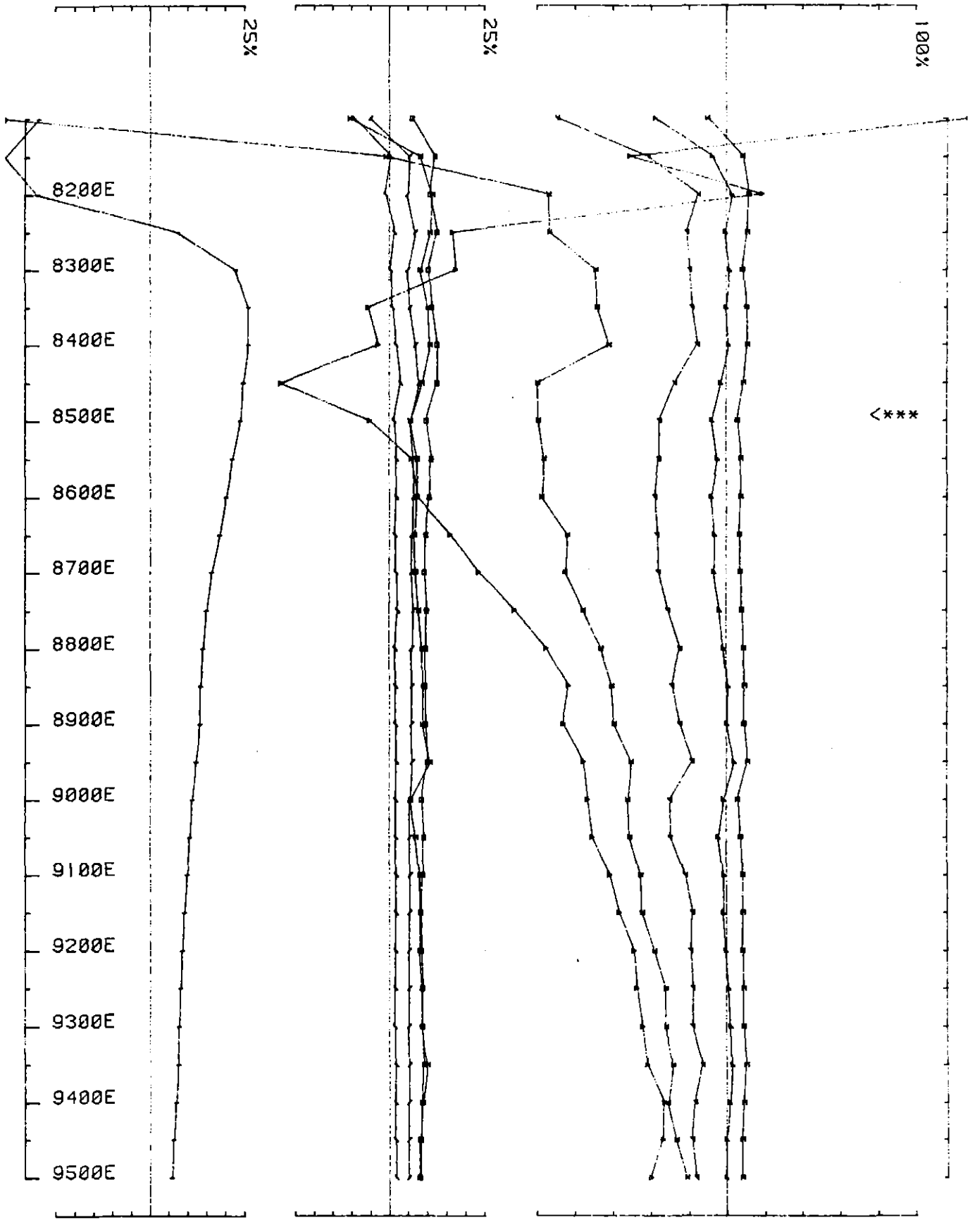


UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by ST RL Job 8975 base freq (hz) 26.230 DEC 89

loop no 7504 line 11600N component Hz secondary field Ch 1 contin. norm.

490065

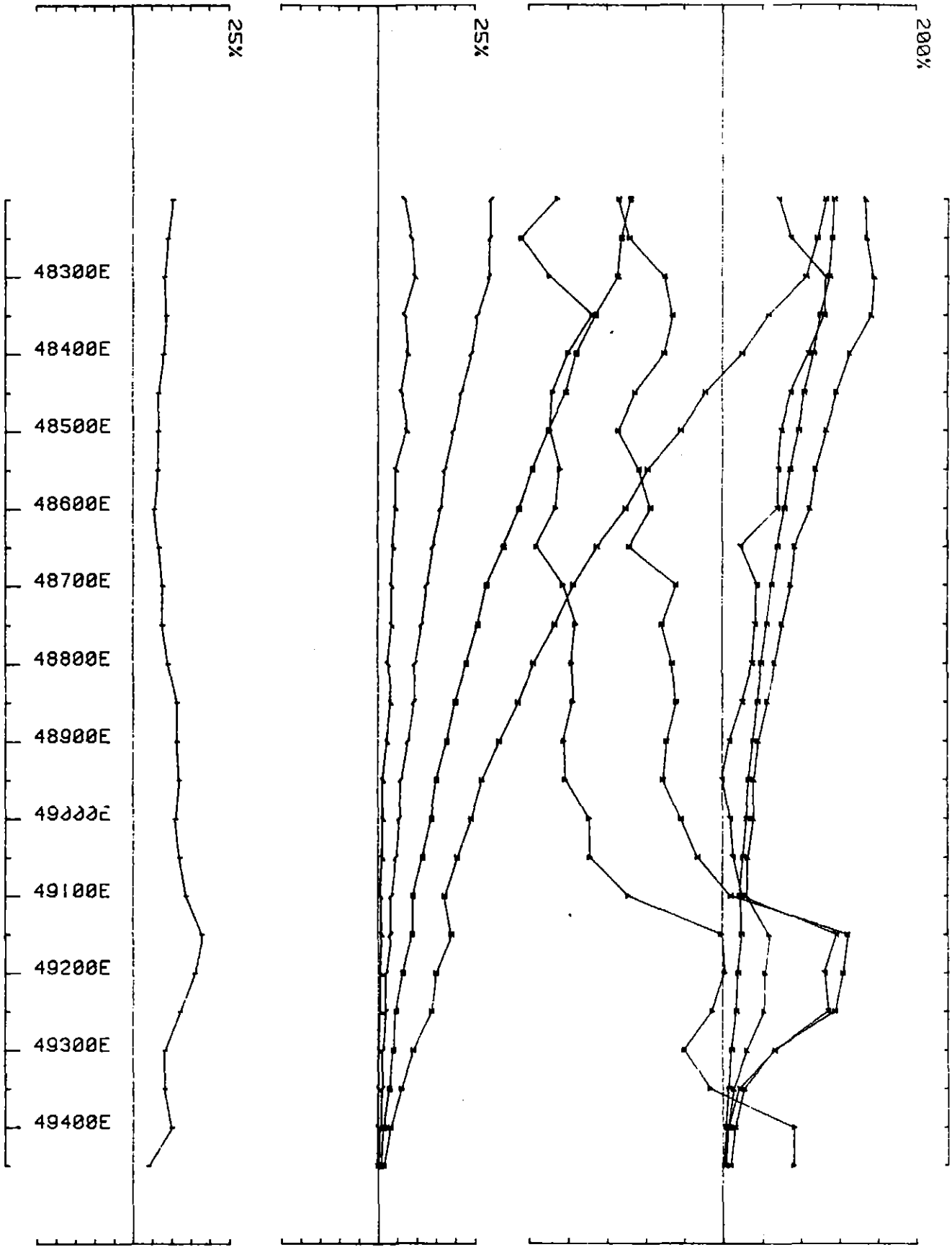


UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by ST RL job 8975 base freq (hz) 26.230 DEC 89

loop no 7504 line 11600N component Hz secondary field Ch 1 point norm.

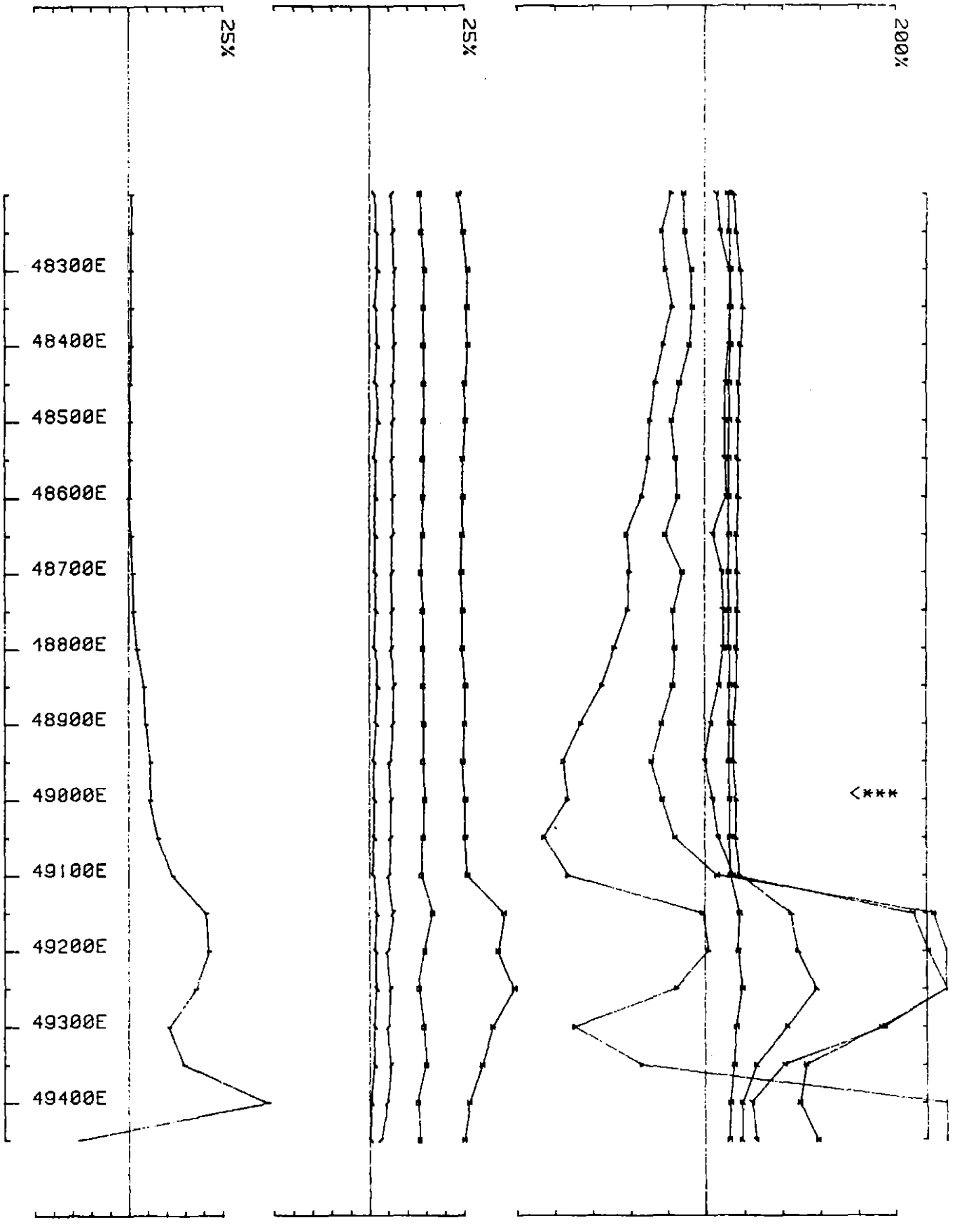
490066



UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by LAMONTAGNE GEOPHYSICS Job 8975 base freq (hz) 26.230 DEC 89

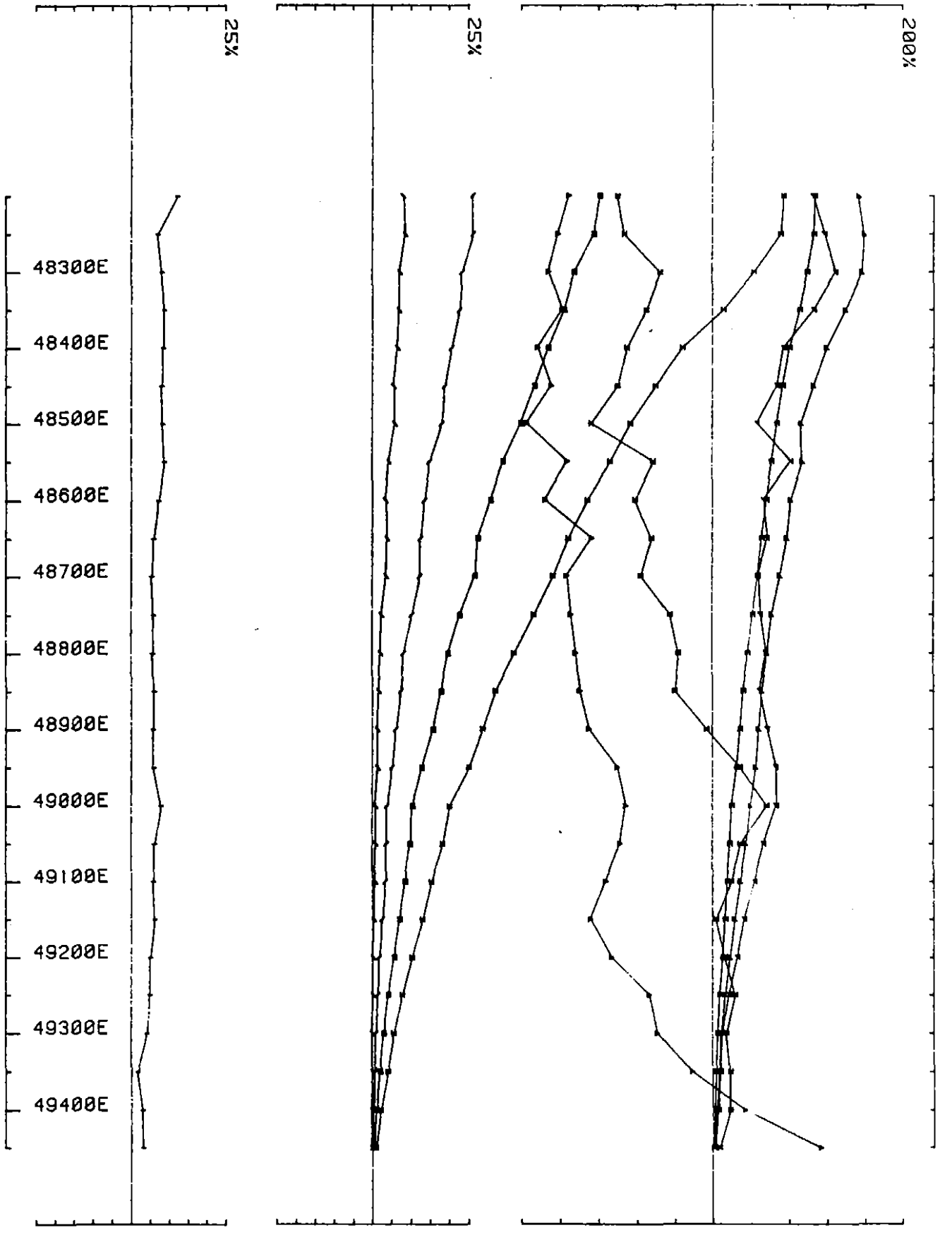
loop no 7505 line 10200N component Hz secondary field Ch 1 contin. norm.



UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by LAMONTAGNE GEOPHYSICS job 8975 base freq (hz) 26.230 DEC 89

loop no 7505 line 10200N component Hz secondary field Ch 1 point norm.

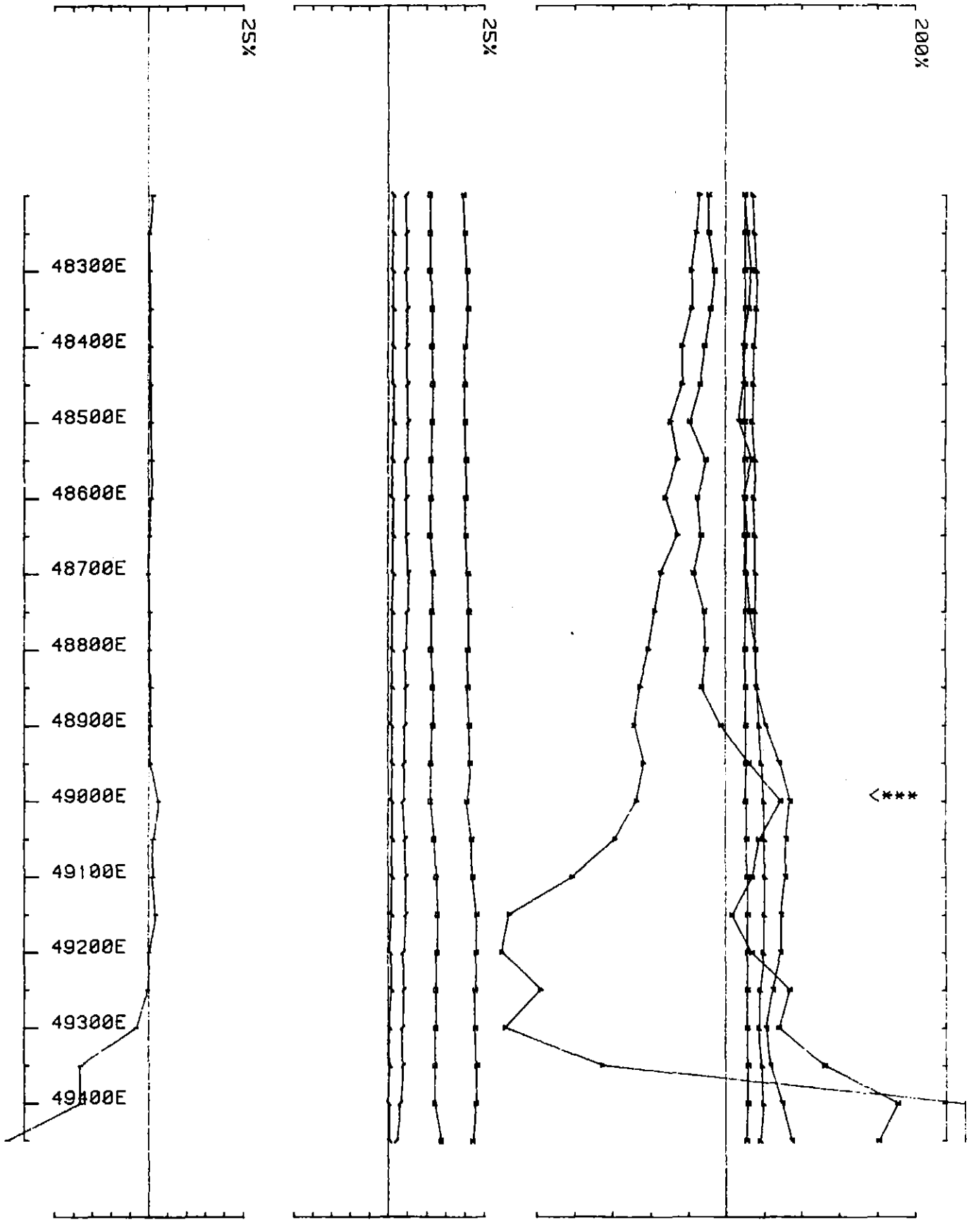


UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by LAMONTAGNE GEOPHYSICS job 8975 base freq (hz) 26.230 DEC 89

loop no 7505 line 10400N component Hz secondary field Ch 1 contin. norm.

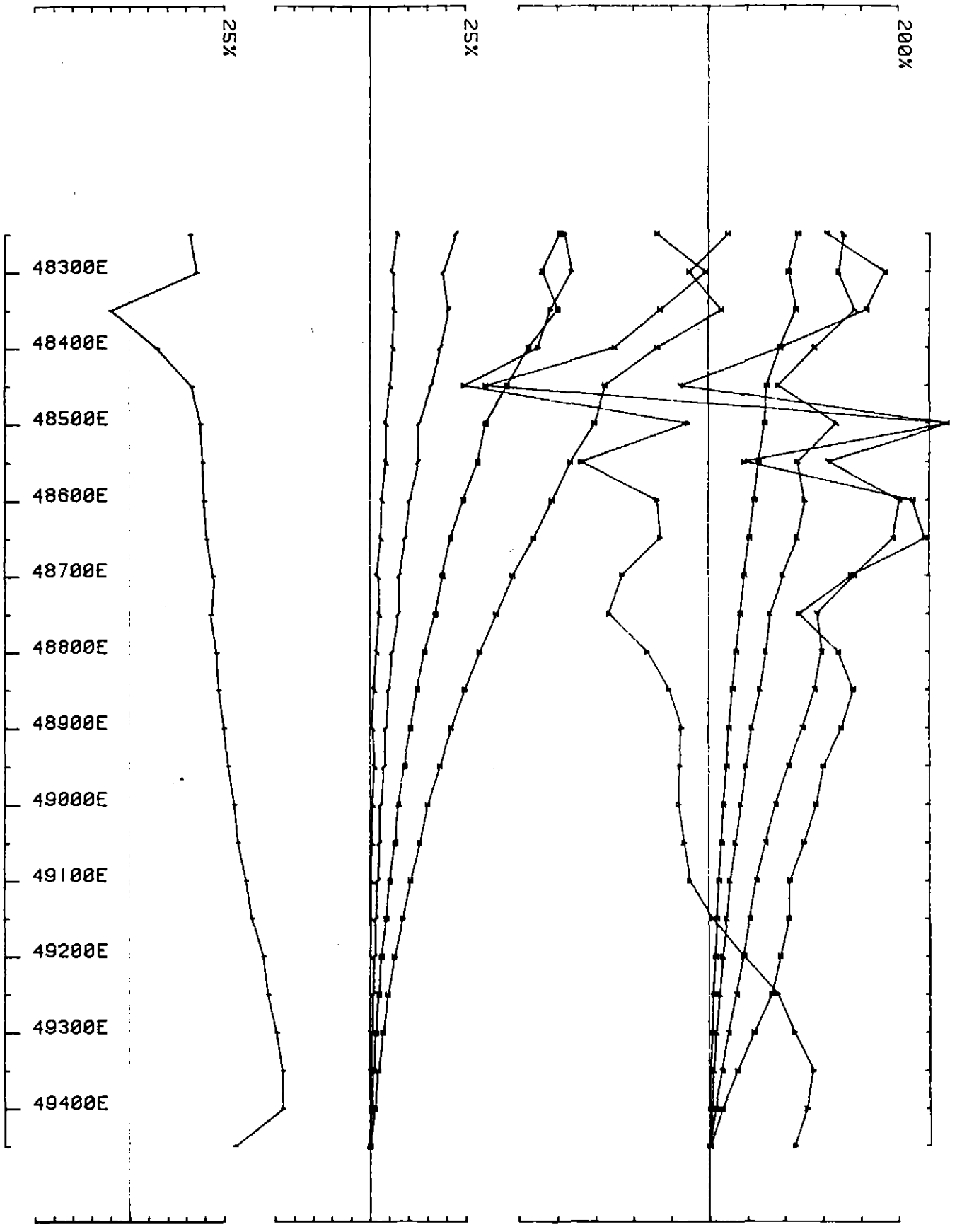
490069



UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by LAMONTAGNE GEOPHYSICS Job 8975 base freq (hz) 26.230 DEC 89

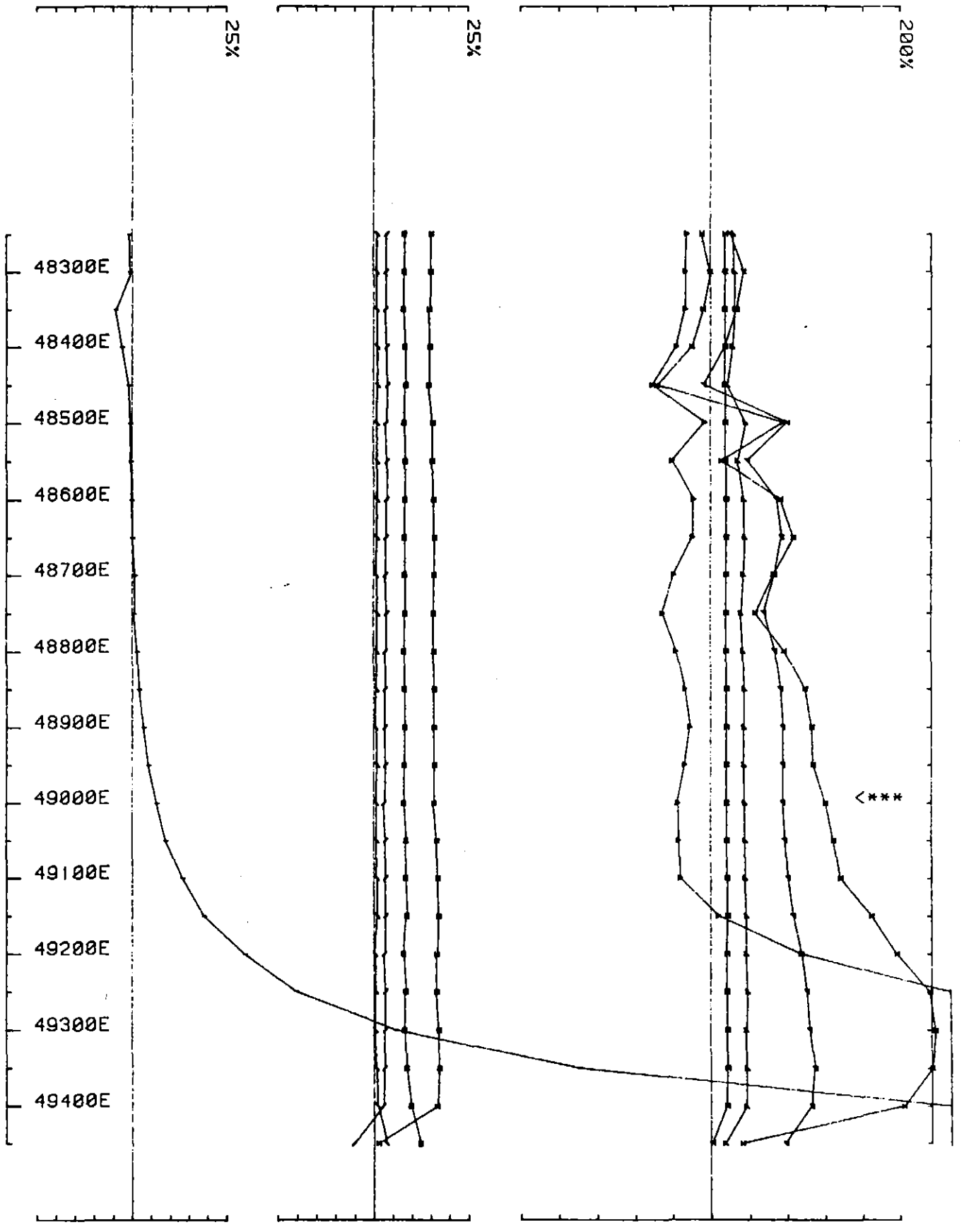
loop no 7505 line 10400N component Hz secondary field Ch 1 point norm.



UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by LAMONTAGNE GEOPHYSICS job 8975 base freq (hz) 26.230 DEC 89

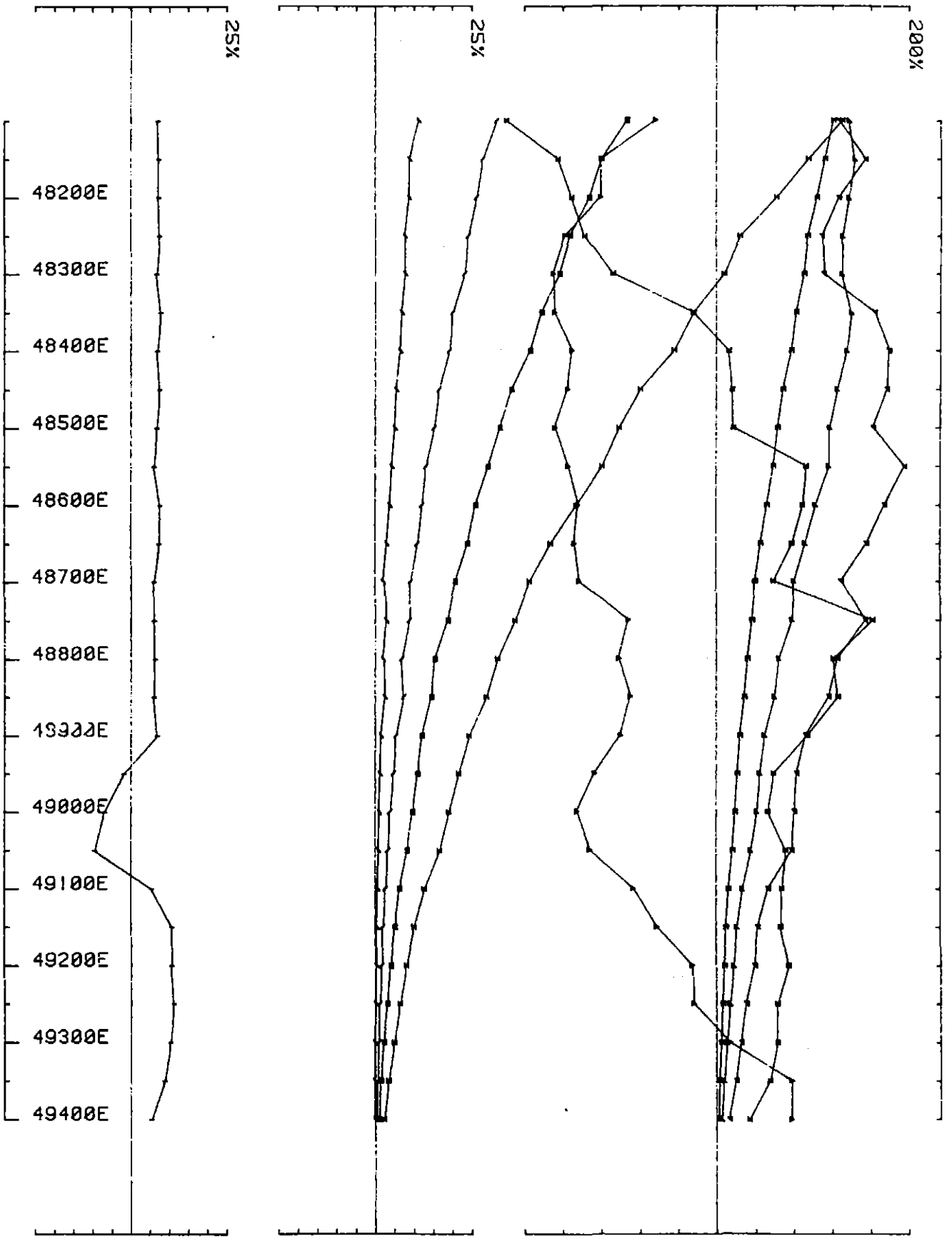
loop no 7505 line 10600N component Hz secondary field Ch 1 contin. norm.



UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by LAMONTAGNE GEOPHYSICS job 8975 base freq (hz) 26.230 DEC 89

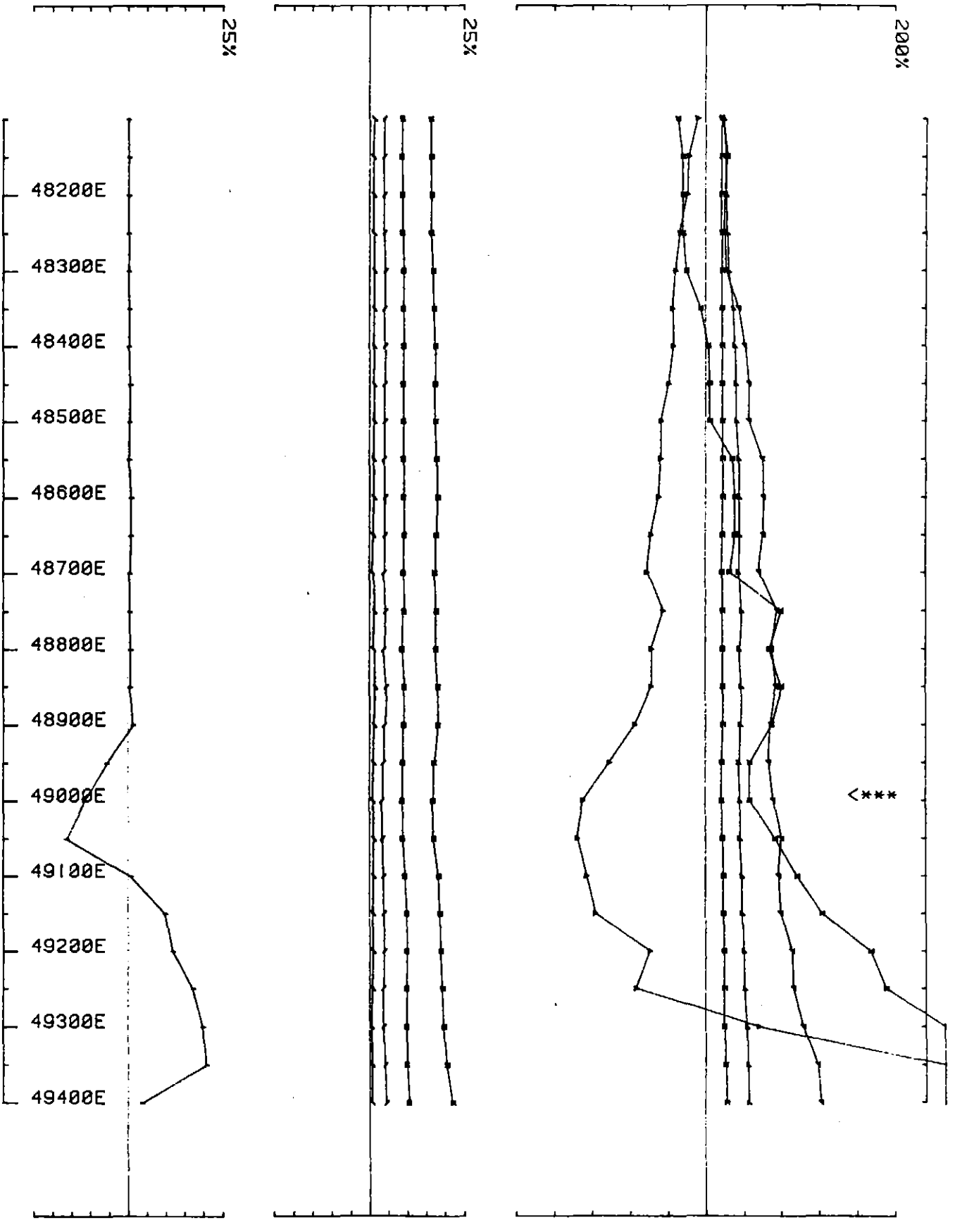
loop no 7505 line 10600N component Hz secondary field Ch 1 point norm.



UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by LAMONTAGNE GEOPHYSICS job 8975 base freq (hz) 26.230 DEC 89

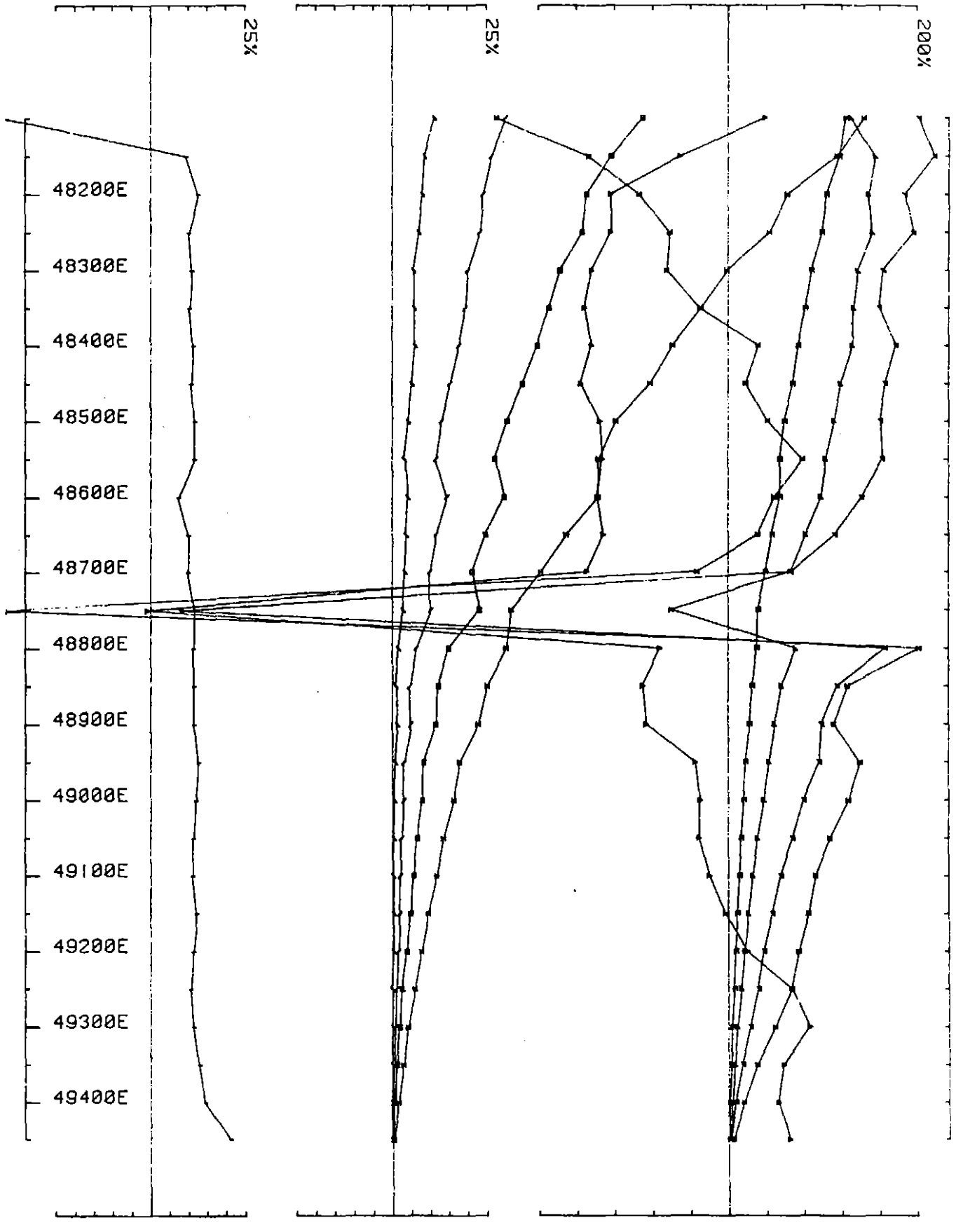
loop no 7505 line 10800N component Hz secondary field Ch 1 contin. norm.



UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by LAMONTAGNE GEOPHYSICS Job 8975 base freq (hz) 26.230 DEC 89

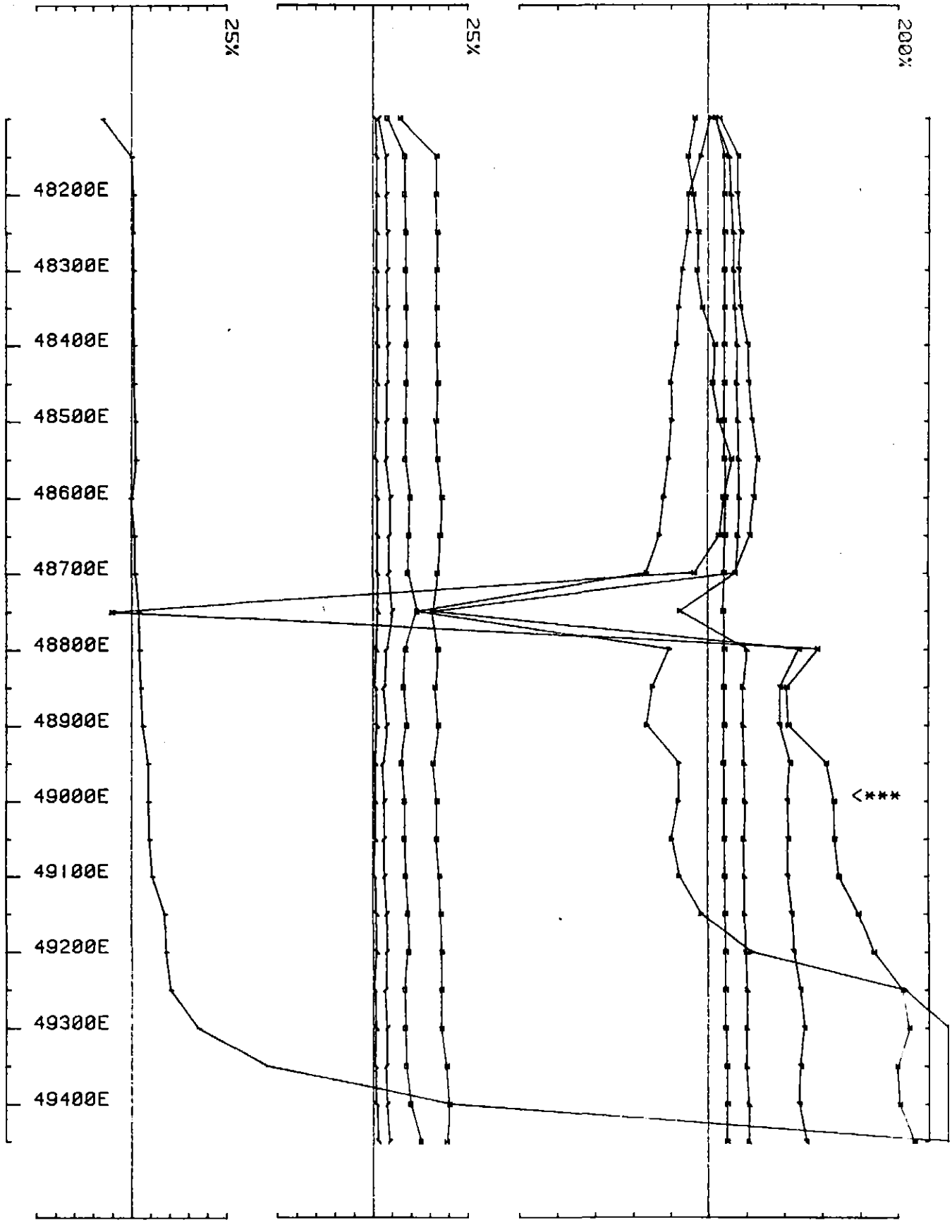
loop no 7505 line 10800N component Hz secondary field Ch 1 point norm.



UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by LAMONTAGNE GEOPHYSICS job 8975 base freq (hz) 26.230 DEC 89

loop no 7505 line 11000N component Hz secondary field Ch 1 contin. norm.

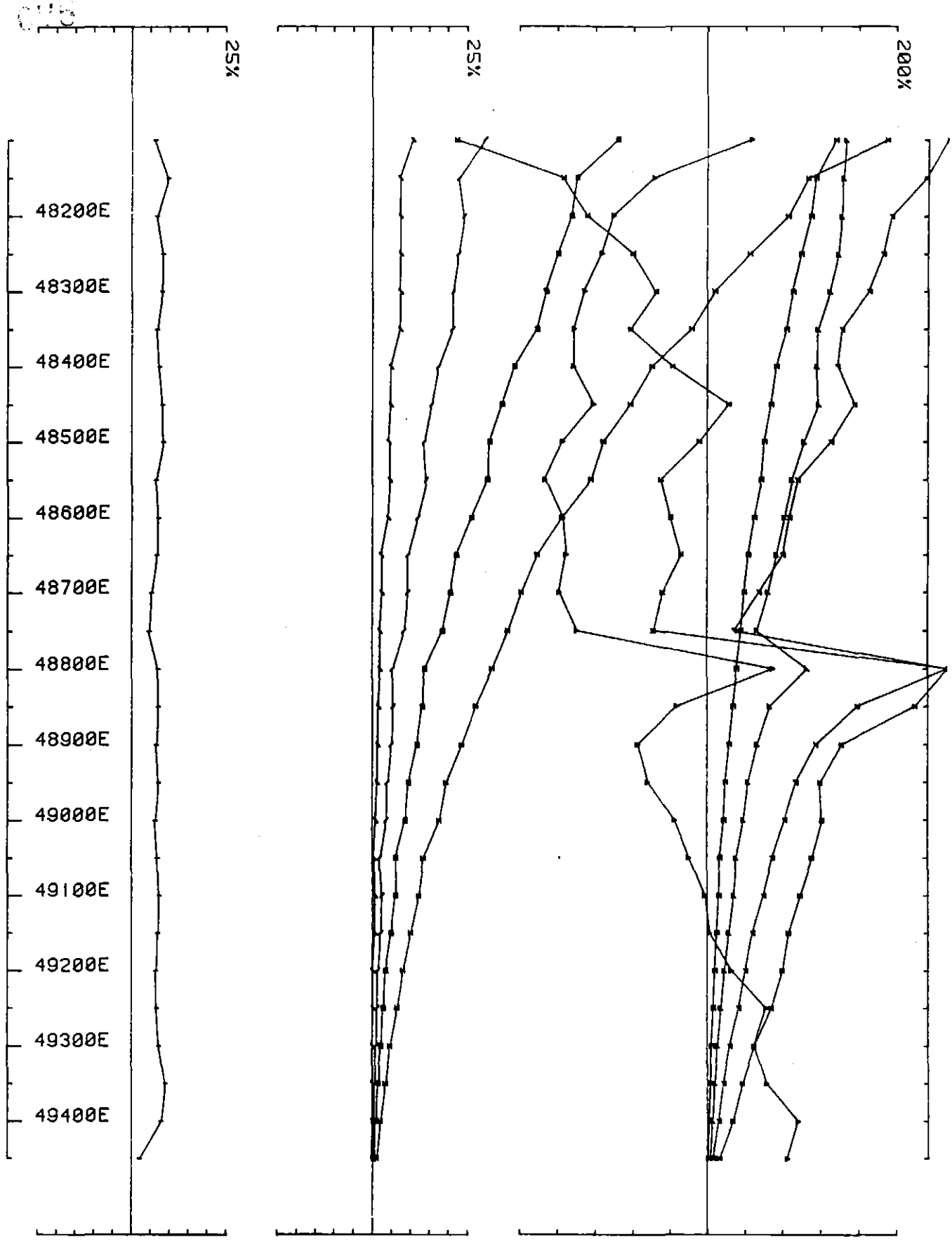


UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by LAMONTAGNE GEOPHYSICS job 8975 base freq (hz) 26.230 DEC 89

loop no 7505 line 11000N component Hz secondary field Ch 1 point norm.

490076

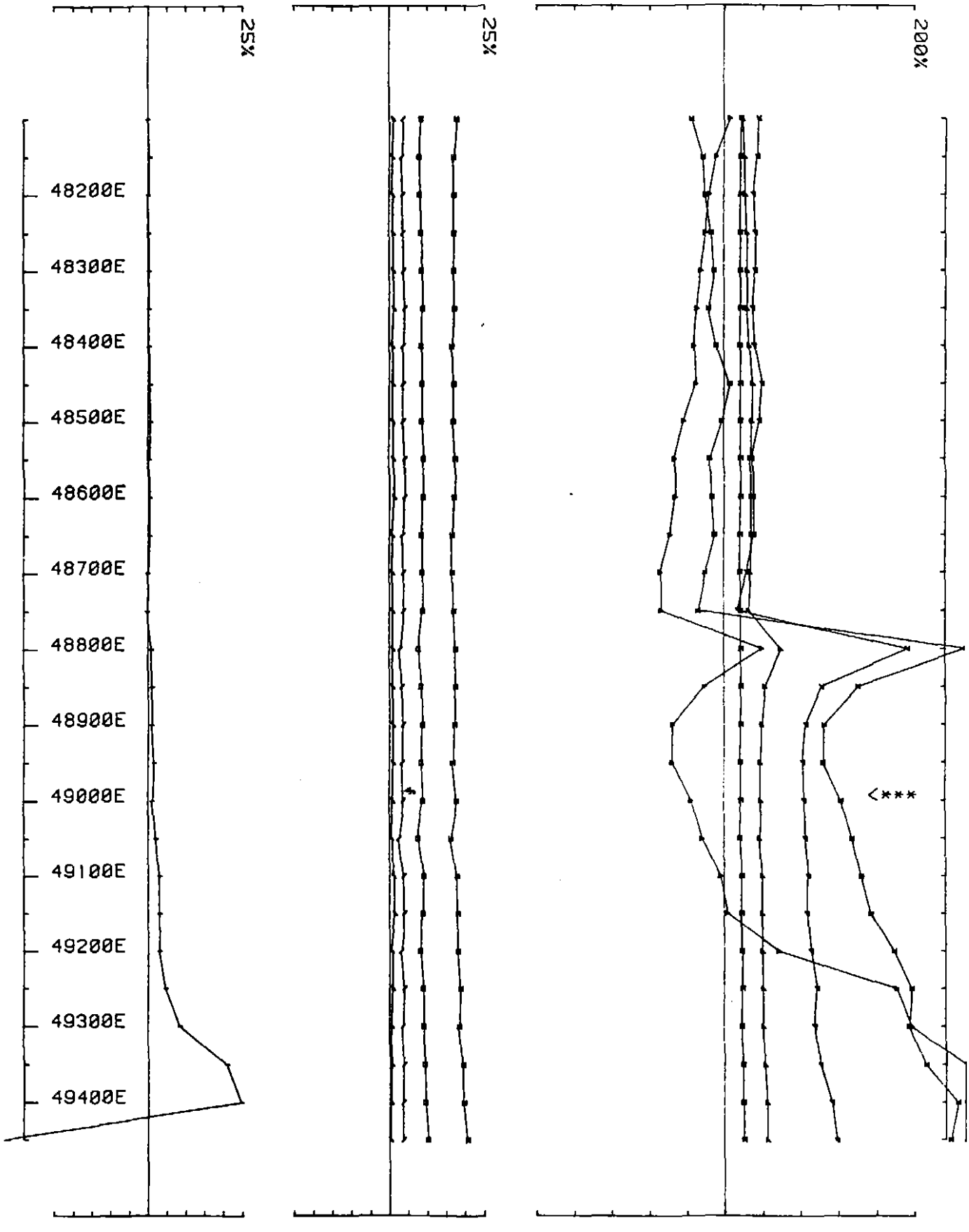


UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by LAMONTAGNE GEOPHYSICS job 8975 base freq (hz) 26.230 DEC 89

loop no 7505 line 11200N component Hz secondary field Ch 1 contin. norm.

490077

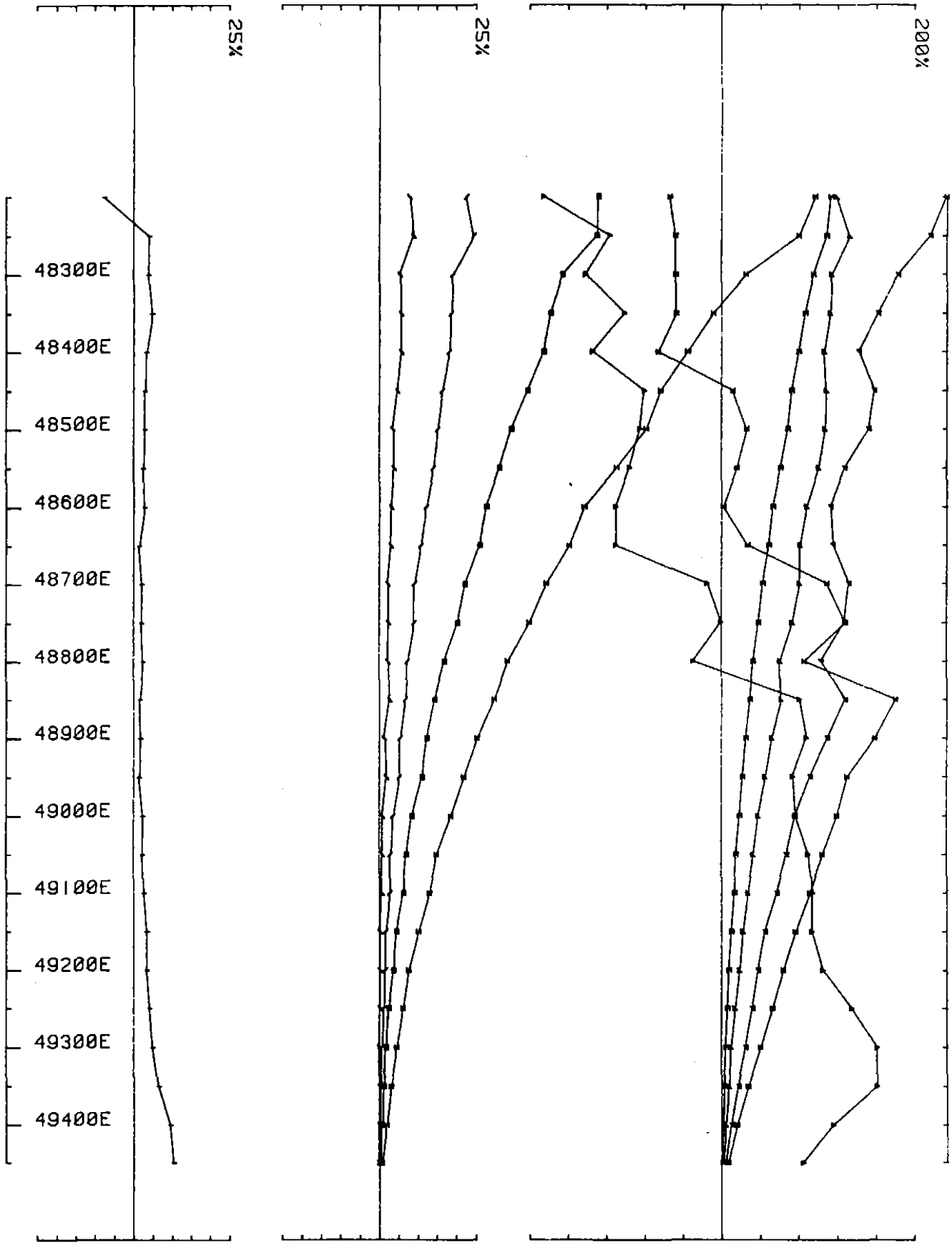


UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by LAMONTAGNE GEOPHYSICS job 8975 base freq (hz) 26.230 DEC 89

loop no 7505 line 11200N component Hz secondary field Ch 1 point norm.

490078

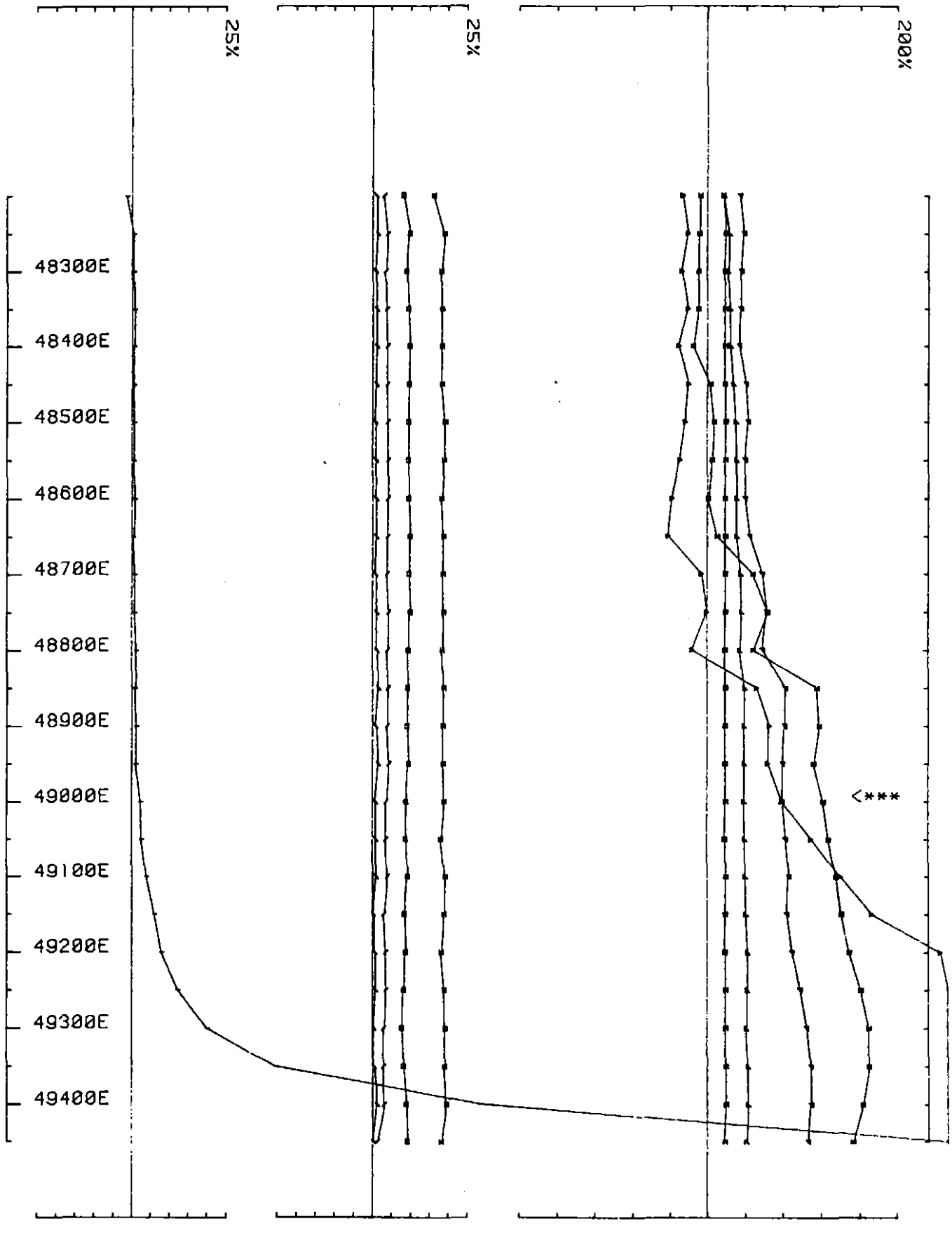


UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by LAMONTAGNE GEOPHYSICS job 8975 base freq (hz) 26.230 DEC 89

loop no 7505 line 11400N component Hz secondary field Ch 1 contin. norm.

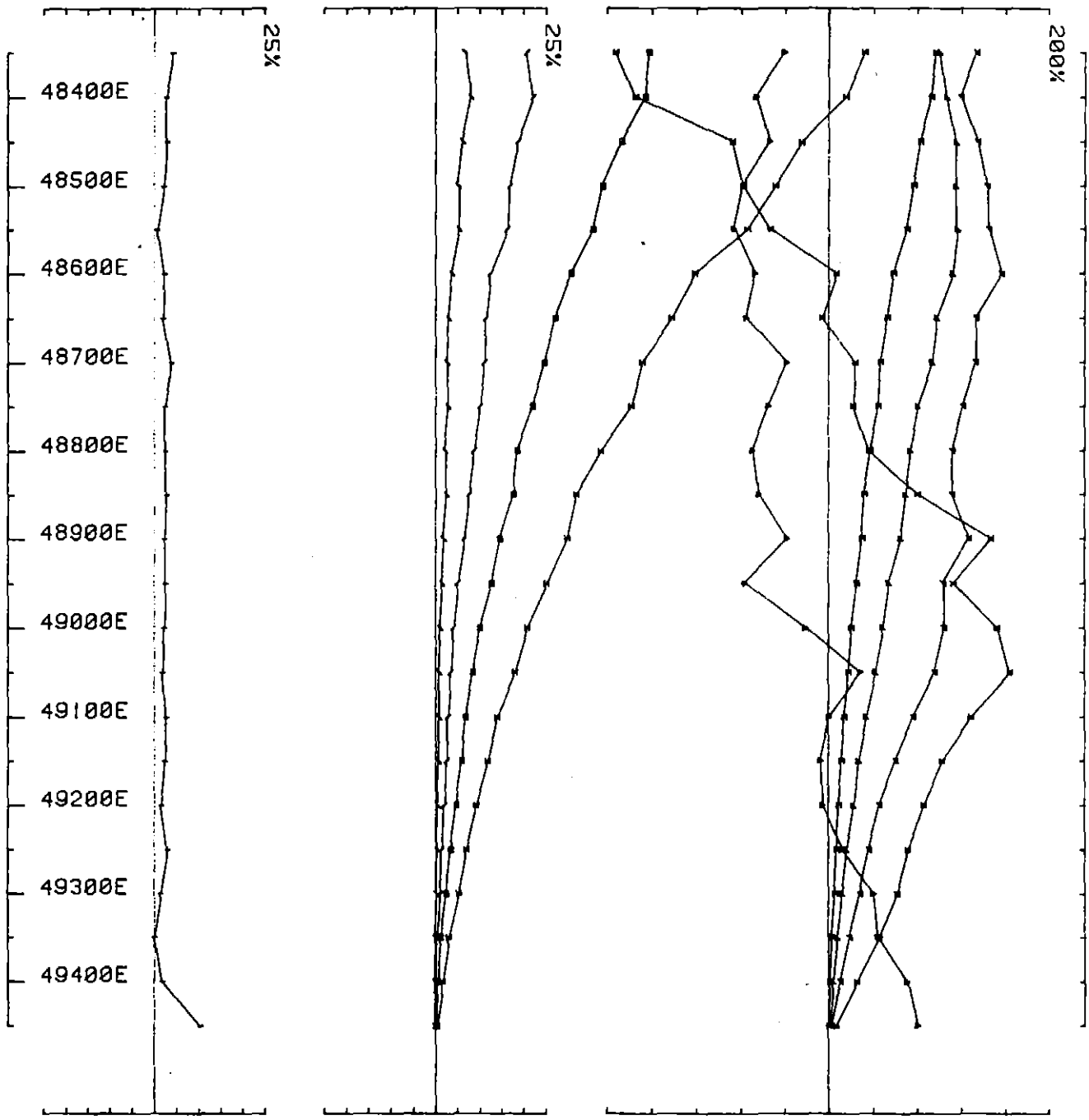
490079



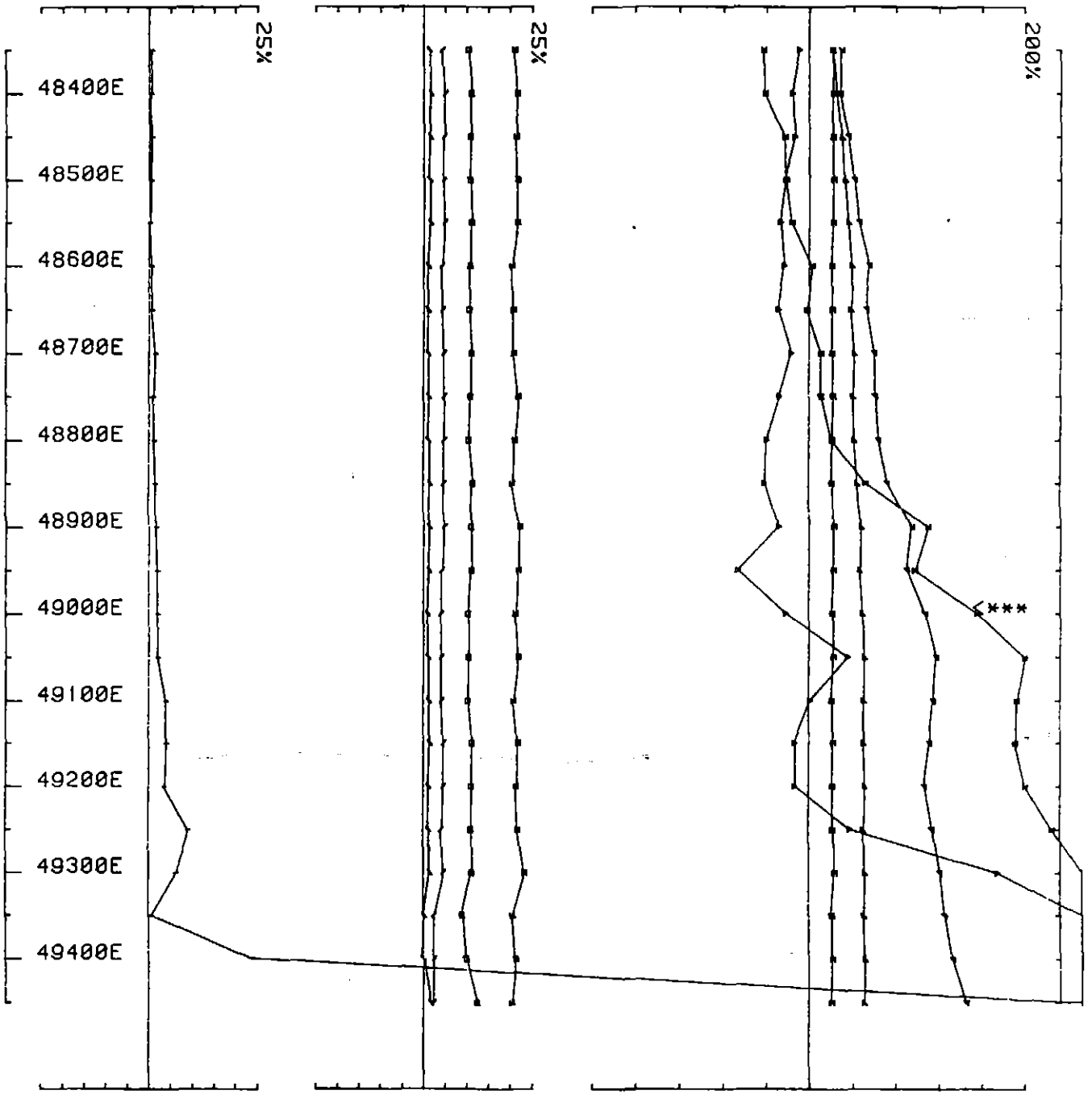
UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by LAMONTAGNE GEOPHYSICS job 8975 base freq (hz) 26.230

loop no 7505 line 11400N component Hz secondary field Ch 1 point norm.



UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD
conducted by LAMONTAGNE GEOPHYSICS job 8975 base freq (hz) 26.230 DEC 89
loop no 7505 line 11600N component Hz secondary field Ch 1 contin. norm.



UTEM SURVEY at LOWER BEULAH for ABERFOYLE RESOURCES LTD

conducted by LAMONTAGNE GEOPHYSICS job 8975 base freq (hz) 26.230 DEC 89

loop no 7505 line 11600N component Hz secondary field Ch 1 point norm.

081

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Beulah 16

Gowrie Park 25

SAMPLES A6401-6414 Reported in Austamax Resources Limited
A6558-6585 83/84 Annual Report

333312G – 333329G Geochem. samples collected by JRS reported on BEUL. 7 in Aberfoyle Annual Report 29-4-87

271709-271711 Petrology & geochemistry samples collected by DJJ, 334714-334730 reported on BEUL 5 in Aberfoyle Annual Report 29-4-88

449000mE

450000mE

BEULAH PLANTATION

Lower Beulah Road

513431S heam. alt B

513430 P.S. mtl. dk.gy holorstalline Ep + Q alt. B or A.I. & dk Ep rich + lt. Q rich pat. Epidote

aphyric B.I.

bd. Silt

513425P mas. dk. gy. cg. bd? vicl (minor Mt, Py) D.R. eSs

B. fb. highly fp blocks in aphyric mtx.

5411000mN

513423 P dk. gy. cg. vicl (mnr. Mt, Py) D.R. eSs

513429 dk.gy gn. cgt. Y.lv. B.b (eSs?) tr. Py

R. DeSs & lithic fr.

513427 mas. Mt / spec. heam. Q

513423 P spec. / heam. / Mt. D.R. eSs

27°/ 335°m ?

bd. Silt

100

fg. gn. B.I.

mas. ves. gn. B

fg. mas. B. fb & mnr. fr. to 10cm occ. rded.

c fp. Df. pu fr. in complex B mtx.

o/c mas. B. fb.

mas. boulders of B. fb & mnr. D?I. frags. in var. fp mtx. B.I. fr. to 15cm.

mas. fg. gn. B. fb & homog. I. fr. to 3cm. in fg. I mtx. rare ang. Hmt. alt. fr. and occ. pat. alt. wk. Hmt. alt.

Ep/Q alt. B.I

wk. Hmt. alt. B.I

no outcrop

Epidosites + fg. wk. Hmt. alt. B.I + wk. shd. mod. Hmt alt. vlcl. (sim. to Beulah Barite adit)

no outcrop

200

or-br. mg. ep + Q alt. BI Epidosite

yw gn. ep. alt. B?I Epidosite

float or fresh bl-gn. wk. fp. B.I.

float comprises fresh gn. fg. mnr. fd + matic phn. B.I. + mnr. float of Ess.

pale yw-br. fg. Epidosite ?

ves. B.I & Cc infilling

mas. fr. bl-gn fg. B.I.

513424 P.G. mas. y-br. fg. ep. +Q alt. B? or A? Epidosite

513453 G alt. B

fg. yw Q + Ep. rich alt. B.I. (Epidosite)

513421, 22 P.S. mas. mtl. y-br. fg. ep. +Q alt. A or B.I. Epidosite

513345 P mas. bl-gn. str. fp. wk. ves. B. I. & mnr. dissem. Py + Cc

449000mE

333314G

333315G

334718 P.G. rd-br. phen. rich A.lb (identical to 334717)

x A6562 fg. dk. bl-gy. por.l. & bk. Aug. phn. in Hmt/Cl alt. fd. mtx.

333316G

333317G

334724G B

334723G B

334722G B

334717 P.G. dk. phen. rich A.lb & mnr. ves. fr. Ep.

334725G B

x A6563 gn. Cl. alt. Aug./fd. phn. A.l. & fd. mtx.

334726G B

334728G B

334729G B

334727G B

333318G B

x A6407

x A6406 Py basic volcanic

333313G

333312G

271748G Hm. Mang. alt. B & wk. Si

333319G

x A6414

333320G

334730G

333322G

333321G

x A6458-A6460 Qtz. med. Andesite

333323G

x A6408-6411 workings, bn. Andesite & Q/Tlm. vn.

271711 P. wk. Ep. Se. alt. mnr. Mt.

271710 o/c P.G. wk. Ep. Se. alt. A. int.? mnr. Mt.

x A6461 clvd. Fe Andesite

333325G

334715 P.G. dk. str. por. ves. A or B.I.

x A6462-13

334715 G.P. dk. v. wk. alt. wk. ves. A

334716 G.P. as above but with mnr. Ep.

333326G

x A6401 B

Sharman's Road

x A 6402

x A6565 gn-bn fg. Ep. rock & mnr. Ep. veinlets.

A6566 highly alt. yw-bn. fg. rock & Q/Ep. veinlets.

A6567 Alt. rock & abn. ep. aggregates (Epidosites ?)

A6570-A6585 rock chip samples accross Rhyolite

333328G

333329G

333327G

x A 6405 Rhyolite o/c Py basic vic ?

271709 P.G. Ep. Se. Hm. alt. B.I. to lb mnr. Cc

A6403 dk. gn. Andesite

A6404 Basic vic & dissem. Py

RIVER

MINNOW

5cm

334714 P.G. rd. str. Se wk. Cl. Ep. alt. str. fp. A.I.

490082

90-3126.

Aberfoyle Resources Limited
EXPLORATION DIVISION

REVISIONS			
Init.	Date	Init.	Date
SWR/RJE	15-9-89		
Location Code :			

NORTHERN TASMANIA
BEULAH E.L. 43/85
GARDEN OF EDEN GRID
OUTCROP GEOLOGY & SAMPLE LOCATIONS

Scale : 1: 2500 Date : June, 1989

Compiled : SWR
Drawn :
Traced : RJE
Checked : SWR
Plate No : BEUL. 16 A

082

5410 000mN

E.L. 43/85

E.L. 11/88

5409000mN

449000mE

450000mE

Ess. ξ large gng. Q fr. & mnr. fd. phn.

mas. gn. br. clay after 'B'?

5153446 mas. gn. fp. A. Bl.

Ess float.

TRACK

or. Gw

or. sed

com. or. Gw ξ v.mnr. str. Hmt./ fp. vlc.

fp. vlcl ξ com. pk. rded. fd. and mnr. rded. Q

Gw + Sh

FLAGGING 9600N

or. bd. Sh & Gw

cg. vlcl.

5153591 PG mg. vlcl. ξ Q + fd. phn. frags ξ mnr. D.I. frags in gn. fg. mtx. + Gw frag ξ vlc + met. input

Q mic Sst mod. com. wh. reef Q float

mg vlcl. Ess

str. wth. vlcl ? rded Q

FLAGGING 9500N

fg. vlcl. ξ mnr. fd + Q phn. (sil. rded.) ξ in g. gn. mtx.

fr. vlcl. f-mg. vlcl ? ξ. com. fd. phn. mnr. D.I. frags ? in gn. mtx. ξ occ. str. Hmt. alt.

FLAGGING 9450N

fg mic. BSst

fg. fp. B?! wk. Cc

fg. wk. Hmt/Cc alt. Bl.

com. wth. Bl. float

str. fp. B. A.I. wk. Hmt. alt.

fg. bl. Bl.

5153436 mas. fg. gn. wk. fp. Bl. wk. fd./Sil alt ?

com. az. rubble in paddock

Hmt. alt. Bl.

or-br-gn. wth. Bl.

5153426 mg. str. fp. br. vlc. B ? ξ mod. pot. Hmt. alt. mtx.

5153586 mnr. float of f-mg. vlcl ? ξ. com. fd. phn. mnr. D.I. frags ? + or f-mg. D ?) ξ occ. Q f fd. phn. ξ mnr. Q + Hmt. vn. + fr. Py ? (v. similar to 5153521)

5153576 PG gn. f-mg. A-Bl. ξ bk. mafic (phn. ?are fp. wk. Cc. alt. + fr. dissem. Py com. Cl + Ep / Q

Hmt. alt. wk. fp. Bl.

5153426 mg. str. fp. A ?! ξ mod. perv. Hmt. rare f.g. yw. Epidosite

com. float of wh. reef Q + Hmt./Chl. alt. Bl.

ves. Bl.

5153426 str. fp. A-Bl. (vis. on wthd. surface) mod. perv. Hmt + wk. Cc (5153496)

v. fg. wk. mafic phn. str. fp. (wth. surface) B?! ξ mod. perv. Hmt. alt. wk.-mod. Cc (similar to 5153411)

vfg. bl. gn. mas. B? ξ mnr. Hmt. alt. mtx.

fg. mafic phn.? Bl. + fp. A-Bl.

str. fp. mg. dk. gn. A, B. l. v. wk. Hmt. mtx.

vfg. alt. Bl. Fe rich Py? + mnr. y-or. alt. B?! ξ Q + com. bk. spt. Cl? ves.? Epid ?

vfg. alt. Bl. ξ wk.-mod. pot. Hmt. alt. mtx.

5153566 PG dk. gn. Bl. ξ com. fd. phn. com. Cl. alt. mafic. phn. com. dissem. Py & mnr. dis.? Hmt. mnr. Cc. alt.

mas. Bl. ξ abn. mafic. phn.? no obv. fd. mnr. Q + Cc in ves.

5153546 mas. vfg. pp-rd - dk br. vlc. l. ξ Int. Cl. com. str. Hmt. alt. and occ. abn. sp4c. Hmt./mag.

float pred. Bl.

int. Fe (Hmt ?) str. ves. Bl.

5153466 PG dk. br. Hb. + fd. phn. rich A. (int. plug ?) ξ str. ser./chl. alt.

mas. dk. br. fg. alt. B?!

some sections strongly cleaved vertical /010°m (Hem. alt.)

5153396 PG fg. pale gn. ser. alt. fp. vtr. Tf. occ. fg. sph. mnr. or. wth. ves.?

5153406 PG mas. fg. gn. A?! + v. wk. Cc. alt. x. mnr. rd. + Hm. vns ?

5153556 PG mas. wk. Hmt. alt (v. fg. dk. gn. rock ξ com. Cc ves.? B?!?

200

Dawkins Road

RIVER

Ocean

MINNOW

Gregory's Road

Lower Dynans Bridge Road

"LOWER BEULAH"

ST13 48200E

ST12 48400E

ST12A 48600E

48800E

ST11

ST10

ST28 49000E

ST29 49200E

ST12D

49400E

ST12E

49600E STAR

ST12F

49800E

ST1 50000E

50200E

ST2

50400E

5410000mN

5409000mN

449000mE

450000mE

5cm

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C	D

Beaulah 16

Gowrie Park 25

490083 90-3126.

Aberfoyle Resources Limited
EXPLORATION DIVISION
NORTHERN TASMANIA

GOWRIE PARK E.L. 11/88 - BEULAH E.L. 43/85
GARDEN OF EDEN GRID
OUTCROP GEOLOGY & SAMPLE LOCATIONS

REVISIONS			
Init	Date	Init.	Date
SWR	19-9-89		

Location Code :

Scale : 1 : 2500

Date : June, 1989

Compiled : DJJ / SWR
Drawn :
Traced : RJE
Checked : SWR
Plate No : GP 25 A

9278

443000mE 44 45 46 47 48 49 50 451000mE

5415000mN

5412850m N

5412000m N

5410000mN

5409400m N

446500mE 47 48 49 50 51 452000mE

11 12 13 14

— GEOLOGICAL LEGEND —

QUARTERNARY

- Qra — Recent alluvium
- Qt — Talus & landslide man
- Qg — Marsh deposits & gravels

TERTIARY

- Ts — Sands, clay & conglomerate

PERMIAN

- Pbb — Basal beds including Tasmanite oil shale member

ORDOVICIAN

- Om — Moina Sandstone
- Or — Roland Conglomerate

CAMBRIAN

- €mk — Minnon Keratophyre : quartz-feldspar porphyry, rhyolite, keratophyre, tuff & subordinate greywacke
- €gg — Gog Range Greywacke : dominantly greywacke sequence & mudstone
- €sf — Sprent Formation : lenticular polymict breccia & minr. shale interpolations. Abundant chert frags. & some mafic volcanics
- €bf — Beulah Formation : basic to intermediate lavas, pyroclastics & breccia
- € — Unassigned

- TB — Tertiary Basalt
- Jdl — Jurassic Dolerite
- €gr — Cambrian Granite : fine grained granodiorite + microgranodiorite

LOWER BEULAH AREA – BEULAH FORMATION ROCKS

- €bf — Variably vesicular aphyric to strongly porphyritic andesitic & basaltic lavas & lava breccias
- €b — Hornblende + plagioclase porphyritic andesite (Sub-volcanic intrusive)
- €br — Rhyolite lava
- €be — Epiclastic sandstone derived from felsic volcanics & pelitic metamorphics (including greywacke)

ALTERATION

- E — Intense epidote/quartz alteration (epidosites)
- H — Pervasive haematite alteration throughout matrix of rock
- PyCc — Weak pyrite calcite & haematite development

DASHER RIVER

Clydebanks

PARADISE

Horland Rise

BEULAH

BEULAH HEIGHTS

BEULAH PLANTATION

STATE FOREST

562183 P — shallow intrusive mafic andesite

562182 P — aphyric granodiorite

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0 500 1000 metres

TASMANIA

BURNIE DEVONPORT LAUNCESTON QUEENSTOWN HOBART

Beulah EL43/85

0 100 Km

5 cm

490084

90-3126.

Aberfoyle Resources Limited
EXPLORATION DIVISION

NORTHERN TASMANIA

BEULAH E.L.43/85

INTERPRETED GEOLOGY

(modified after Jennings 1979)

REVISIONS			
Init.	Date	Init.	Date

Location Code :

Scale : 1:10 000 | Date : July, 1989

Compiled : SWR
Drawn : RJE
Traced : JLR
Checked :
Plate No : BEUL.25

433000mE 34 35 36 37 38 39 40 41 442000mE

5415000 m N

14

13

5412850 m N

fg. sv

cg. vlct S Ss cg. vlct Ss. c com. 0 - fp mod. com. felsic l fr.

fg. sv

PROMISED LAND

Smith Road

Road

Holmans Road

Road

Eldridge Rd

Wontapp

271749 P.G

271750 P.W

271751 P.G

271752 G

271707 aP.bG

Claude Road

Claude Road

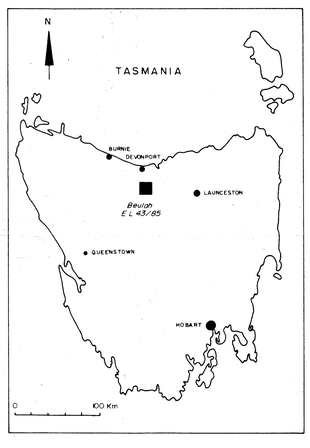
Tasmania Road

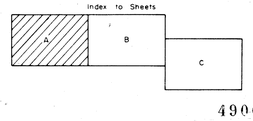
RIVER

DASHER

landing ground disused

Claude Road





490085

5 cm

0 500 1000 metres

90-3126.

Aberfoyle Resources Limited
EXPLORATION DIVISION

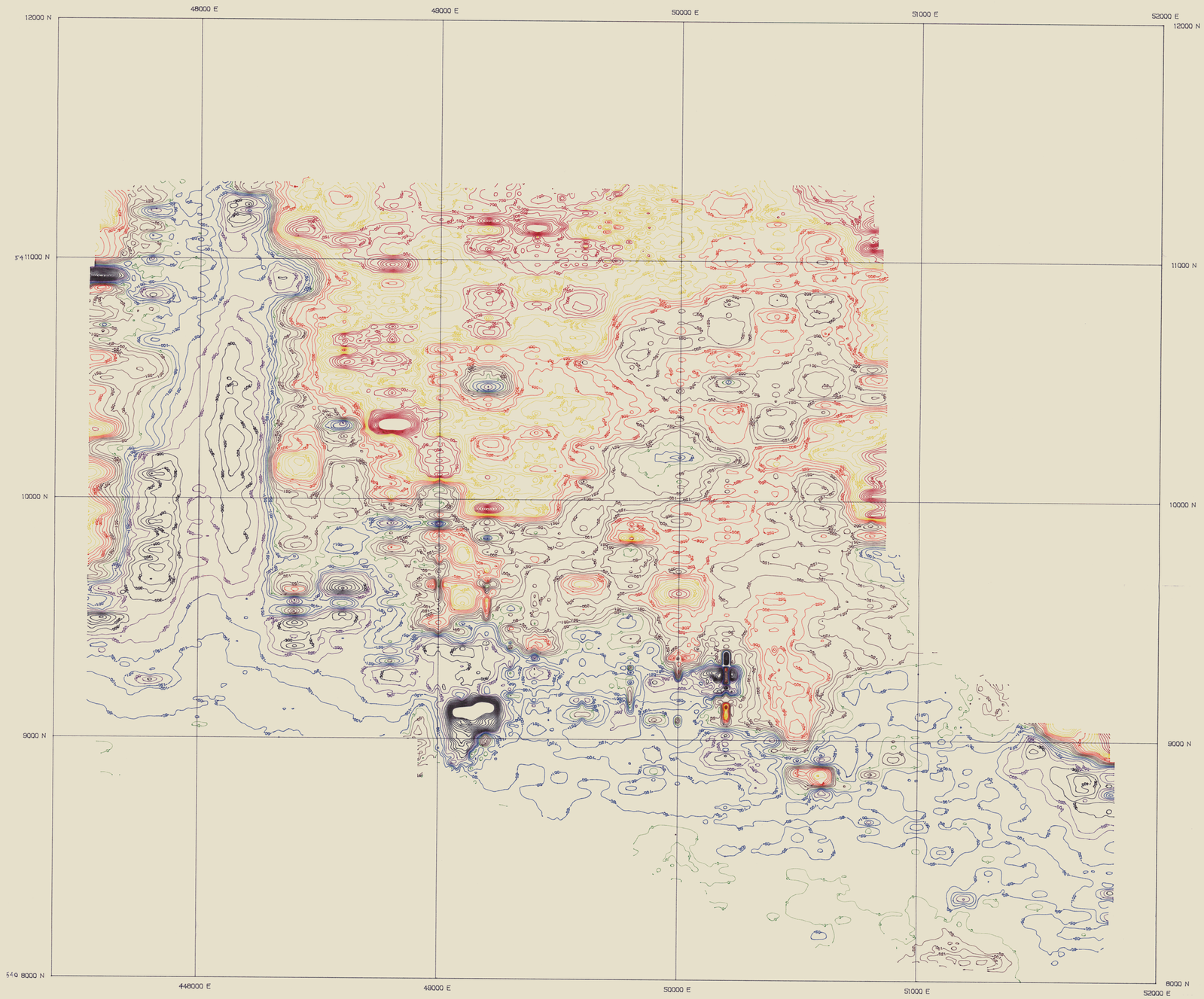
REVISIONS			
Init	Date	Init	Date
Location Code :			

NORTHERN TASMANIA
BEULAH E.L.43/85
OUTCROP GEOLOGY

Scale : 1:10000 | Date : May 1989

Compiled :
Drawn : RJE
Traced :
Checked :
Plate No : Beul 12a

9279



COLOUR RANGES (nT)
-1000 - -270 Black
-270 - -160 Purple
-160 - -50 Blue
-50 - +30 Green
+30 - +240 Brown
+240 - +400 Orange
+400 - +660 Yellow
+660 - +1200 Red

Base Level: 0 nT
Contour Interval: 50 nT
Filtering: median

200 0 200 400 600 metres

AUSTRALIAN MAP GRID

490086

5 cm

90-3126.

ABERFOYLE RESOURCES LIMITED
EXPLORATION DIVISION

REVISIONS				
Init.	Date	Init.	Date	
Location Code:				

NORTH WEST
TASMANIA
BEULAH - GOWRIE PARK AREA
Ground Magnetics

Scale: 1:10000

Compiled:
Drawn:
Traced:
Checked:
Date:
Plate No: BEUL 28

9280

446000mE 447000mE 448000mE 449000mE 450000mE 451000mE 452000mE 453000mE

5412000 m N

5411000 m N

5410000 m N

5409000 m N

5408000 m N

N

Loop 4
1700m x 1000m loop
Reading 11·55 line Km

Loop 5
1500m x 1000m loop
Reading 11·5 line Km

Loop 3
1800m x 1400m loop
Reading 9·65 line Km

Sharmans Road Survey
ABERFOYLE 1987

E.L.43/85 BEULAH

E.L.11/88 GOWRIE PARK

2200E 2400E 2600E 2800E 3000E 3200E

6800N 6600N 6400N 6200N 6000N 5800N 5600N 5400N

11600N 1350m
11400N 1400m
11200N 1400m
11000N 1450m
10800N 1450m
10600N 1500m
10400N 1500m
10200N 1500m

5410300N

1000m 1050m 1100m 1100m 1050m 1000m 950m 1200m 1200m

4820OE 4840OE 4860OE 4880OE 5000OE 5020OE 5040OE 5060OE 5080OE

0 500 1000 metres

490087-

90-3126.

Aberfoyle Resources Limited
EXPLORATION DIVISION

NORTH WEST TASMANIA

BEULAH E.L.43/85 - GOWRIE PARK E.L.11/88
LOWER BEULAH AREA
UTEM COVERAGE

REVISIONS			
Init.	Date	Init.	Date

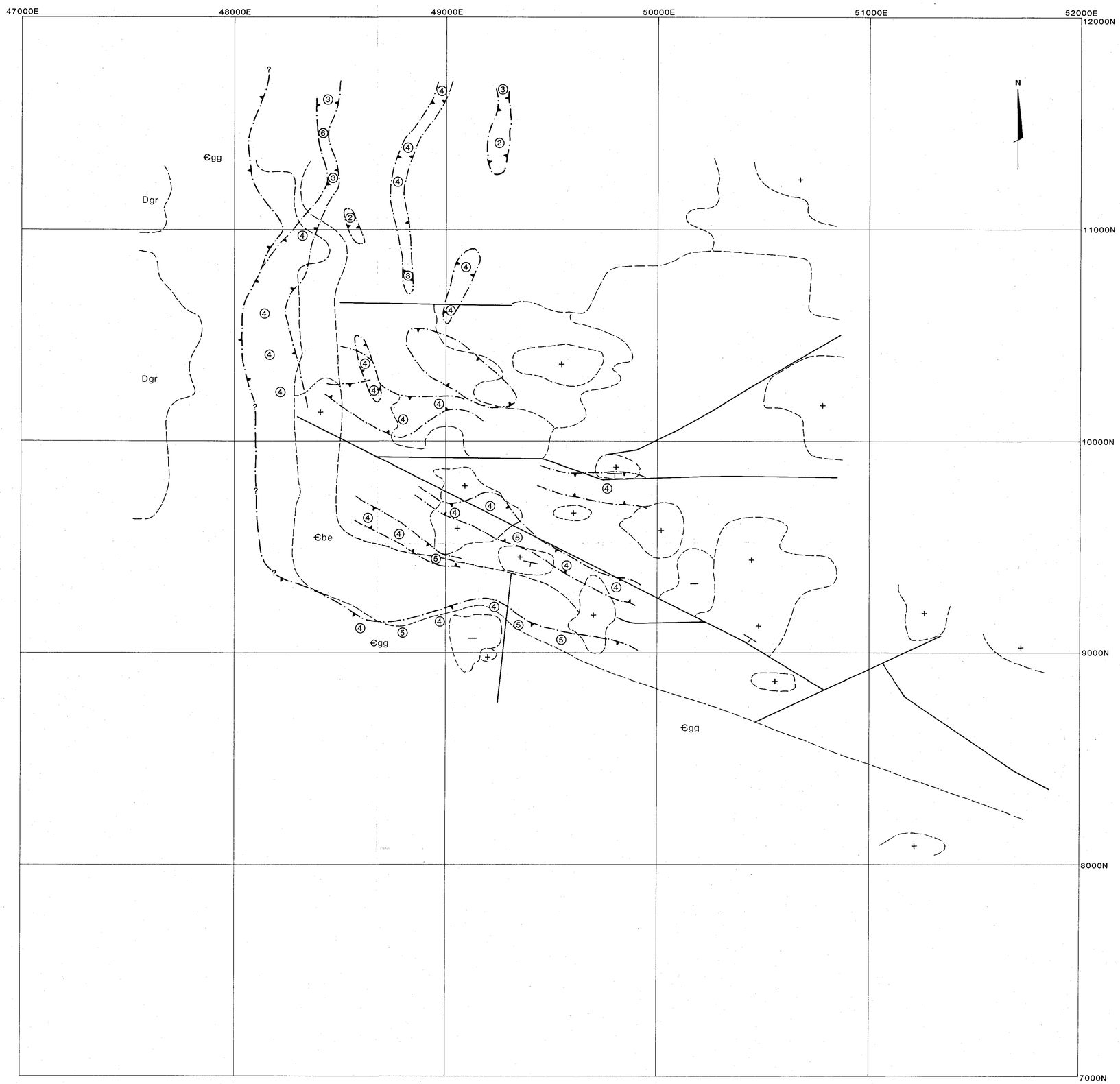
Location Code :

Scale : 1:10,000

Date : April, 1990

Compiled : SWR
Drawn : SWR
Traced : RJE
Checked :
Plate No : BEUL 32

9281



LEGEND

UTEM INTERPRETATION

③ Conductively anomalous unit with latest anomalous channel (lower number = stronger conductor)

GROUND MAGNETICS INTERPRETATION

Dgr Interpreted lithology

Fault

\+ Anomalous body with polarity

? Lithological boundary

GEOLOGICAL LEGEND

Dgr — Devonian Granite
fine grained granite and microgranite

Egg — Gog Range Greywacke
dominantly greywacke sequence and mudstone

Ebe — Beulah Formation Rocks
epiclastic sandstone derived from felsic volcanics and pelitic metasediments (including greywacke)

5 cm

0 1000
METRES

490088
90-3126.

Aberfoyle Resources Limited
EXPLORATION DIVISION

REVISIONS			
Init.	Date	Init.	Date

Location Code :

NORTHERN TASMANIA
BEULAH EL43/85, GOWRIE PARK EL11/88
INTERPRETED GEOPHYSICS
UTEM AND GROUND MAGNETICS

Scale : 1:10000 | Date : APRIL 1990

Compiled : GBN
Drawn : GBW
Traced : Geo Drafting
Checked : GBW
Plate No : BEUL 33