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OTWAY BASIN, SOUTH AUSTRALIA

INTERPRETATION OF ROBE TROUGH AEROMAGNETIC DATA

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1. SUMMARY

Preview Resources Pty Ltd has interpreted and computer modelled selected anomalies in the aeromagnetic data in the Robe Trough Area as a guide to structural interpretation of the total magnetic intensity data and Pseudo-depth-slice data. The results are discussed below and illustrated in Plans 100501 to 100507. This is a preliminary analysis of only this one aspect of the magnetic data. Further work is recommended with the magnetic data including a more comprehensive computer modeling, integrated with seismic, to map magnetic basement morphology and its influence on the overlying section, and an analysis to detect possible direct indictors of hydrocarbon leakage.

For the present work, seven individual anomalies or anomaly groups were selected which lie near the seismic lines supplied by OCA and which were considered representative of anomalies available. Anomaly sources were modelled with 21/2-D and 3-D polygons using a package named Potent. Model cross sections were plotted on seismic depth sections provided by OCA (Plans 100505-7), and the plan view of bodies were plotted on a grey-scaled total intensity map produced using Surfer (Plans 100501 & 2). Supporting computer model plots are included in Appendix 1.

There appear to be two main suites of magnetic anomalies in this area and corresponding with these there are two main suites of interpreted magnetic sources. Neither of these suites generally correspond with the depth range of interest indicated by OCA to lie around 1000-1500 metres within the deeper parts of the basin. Rather, sources model shallower and deeper than this, except on the margins of the basin where the basement shallows.

A suite of shallow sources with amplitude 1-5nT, has depth to top in the range 275-500 metres below ground level, and appear to be fault parallel and confined to the Eumeralla Formation. A suite of deep sources with amplitude 20-50nT, has depth to top typically occurring at approximately 3000-5000 metres below ground level (or shallower near Killarney No. 1 and Lucindale No. 1). For example on Seismic Line 95C-05 south of SP1509 a magnetic body is modeled to have minimum and maximum depth estimates (4063-5064 metres) close to the OCA seismic pick for basement (Plan 100506). It is inferred that this pick corresponds with magnetic basement and consequently corresponds with the top of igneous-metamorphic basement. It is further inferred that this and other magnetic anomalies in this vicinity of the basin may be further modelled to outline morphology and structure of the igneous-metamorphic basement surface.

Near Killarney No.1 and Lucindale No. 1 a poorly resolved circular-elliptical magnetic anomaly was modelled with depth to top of source in the range 1181-1386 metres. This compares with shallower igneous-metamorphic basement intersections in these wells at 736 and 962 metres respectively. We speculate that this significant discrepancy may mean that the interpreted magnetic body is a relatively young pluton which lies beneath several hundred metres of essentially nonmagnetic igneous-metamorphic

rock and does not reach the basement unconformity. As such it may provide a locus for structuring in the basement and overlying section.

There is no evidence from the modelling or inspection of the TMI data pixel maps to support the possible existence of strongly magnetic sources within a layer at some intermediate depth below the Eumeralla and within the sedimentary section. It is inferred that if a Eumeralla-like magnetic responsive layer existed at say 1000-1500 metres it would give rise to anomaly amplitudes of less than 0.2-0.6 nT and wavelengths in the range 3000-4500 metres. The lower end of this amplitude range is within the noise level for this survey. It is doubtfull if this dynamic range and wavelength can be discriminated from the 1-5nT Eumeralla sources.

It is concluded that there will be only two reliable Pseudo-depth-slices for this area. One will enhance the shallow Eumeralla sources, and the other will enhance the magnetic and igneous-metamorphic basement.

It is likely that the Eumeralla derived fault texture (NW-SE) is decoupled from the dominant Basement texture (North-south and East-west). The magnetic effects are interpreted to be caused by the deposition of magnetic minerals on or near fault planes within the Eumeralla Formation. It is suggested that study of these anomalies may provide local indications of variations in fluid flow, hydrocarbon leakage and seals.

2. INTRODUCTION AND METHODOLOGY

Preview contracted with Oil Company of Australia to make a first pass interpretation of the new aeromagnetic data, and put particular emphasis in estimating the depth of origin and structure of magnetic bodies within the sedimentary section, depth and structure of the igneous-metamorphic basement, and links between shallow and deep structures.

It is necessary to computer model raw aeromagnetic data in order to reliably control pattern based interpretations made on highly processed grids. Without such control the inherent ambiguities in potential field data can lead to misleading interpretations.

The approach taken was to select specific anomalies which were representative of those present while being on or close to OCA's seismic lines, subset out the located data, model the better profiles with a potential field modelling package, post the models onto OCA's seismic depth sections, and review the associations both in the third dimension and in plan view in pixel maps.

The approach for modeling was to use the aeromagnetic data and susceptibility data to predict the depth and body shape and when satisfied with the prediction, compare the result with the seismic data. Note that the alternative approach of using the seismic basement to give a model top and then make changes to the morphology and lateral changes to the uniformity

of susceptibility to give a fit to the potential field data was deliberately not used for this work. This latter method can be misleading on a first pass, but may be cautiously adopted once confidence is gained with the correlation.

3. SOFTWARE USED

The modelling package 'Potent' licensed to Preview Resources Pty Ltd by PC Potentials of Canberra, was used to model the aeromagnetic data. This software uses 2-D, 21/2-D and 3-D body shapes and adopted susceptibilities which can be readily modified in a forward modelling mode to obtain a visual fit to total magnetic intensity data and in an inversion mode to fit mathematical criteria. This software allows use of the induced magnetic field combined with magnetic susceptibility to calculate responses, or use remanent magnetisation in any chosen direction, or if required both influences acting together.

Theoretical responses were calculated to simulate the 80 metre observation altitude used by the airborne survey.

4. MAGNETIC DATA

4.1 AEROMAGNETIC DATA

The located aeromagnetic data was supplied by Pitt Research Pty Ltd to Preview Resources Pty Ltd on 15th September 1995.

Magnetic data used for the modelling was a preliminary version of the leveled located data for Total Magnetic Intensity. Lines were re-sampled from the original 0.1 seconds to 0.2 seconds giving an along the ground sampling of approximately 14 metres.

Examination of profiles in the modelling process indicates that the point to point noise level in the data ranges from 0.05 to 0.5 nT. Generally this noise is direction dependent so that each full line has a constant noise level and some of the alternate lines have different noise levels. This probably indicates that the survey contractor had problems with the aircraft compensation which is designed to remove the directional effects and aircraft maneuver effects. This noise was not a serious problem for the particular modeling undertaken for this report. It could, however, be a problem for pattern based analysis of high frequency components of the data, for example for surface derived magnetic anomalies of interest as hydrocarbon leakage indicators and to mineral sands explorers.

It is recommended that when OCA undertakes further aeromagnetic surveys for petroleum they should among other things pay very careful attention to the noise levels and direction dependence of noise in the data.

4.2 MAGNETIC SUSCEPTIBILITY OF GEOLOGICAL SECTION

There are no known magnetic susceptibility readings available for rocks or drill core in the Robe Trough area. There is no information on magnetic remanence. Both kinds of information are helpful in providing constraints on computer derived models for magnetic anomaly sources. Note that the lack of susceptibility and remanence measurements does not preclude making reliable depth estimates for suitable anomalies. Rather it reduces the reliability of surface width of models (i.e. the plan view dimensions).

For the Robe Trough we were able to use measurements from the adjacent Penola Trough reported in Tucker and Frears (1995). Sidewall cores and basement cores from six wells and outcrop rocks were studied. We point out this information is very limited in scope because there is so little continuous drill core available or relevant logs. This is a petroleum industry problem not shared by the minerals industry.

This work showed that the magnetic susceptibility of the sediments of interest for petroleum exploration is very low and typically falls in the range 4-30x10^{-5} SI units (see Figure 9 in Tucker and Frears, 1995 included here as Plan 100508 and the table synthesised below). With the exception of the Recent volcanics which range from 5-8000x10^{-5} SI, the Eumeralla has the highest range from 8-90x10^{-5} SI.

TABLE 1. SUMMARY OF SUSCEPTIBILITY MEASUREMENTS

Recent volcanics	5 -8000 x 10^{-5} SI
Wangerip to Heytsbury Groups	1 - >18
Sherbrook Group	4 - 19
Otway Supergroup (Eumeralla)	8 - 90
Crayfish Group	8 - 30
Kanmantoo Group	11 - 26

We note that in the aeromagnetic data for the Robe Trough, patterns attributable to the influence of volcanics do not appear to be present and thus the high values for the volcanics indicated above are considered to not be relevant to the present analysis.

We point out that layered rocks with the susceptibilities tabulated above can produce aeromagnetic anomalies of the order of 0.1 to 0.5 nT across faults with throw or thickness change of a few hundred metres at depths of approximately 1000 metres.

The high value of 90x10^{-5} SI for the top of the range for the Eumeralla Formation is the only clue from the direct measurements that this formation can produce a significantly larger magnetic response. This figure was used as a constraint on the magnetic modeling used in this report. We point out,

however, that the modelling of some of the fault plane anomalies in the Eumeralla typically required susceptibilities of three or four times higher than this value (see below in Table 2) or else the width of the models would have become unreasonably large.

The computer modeling of sources of specific anomalies produced the following results for the susceptibility of models.

TABLE 2. SUMMARY OF MAGNETIC MODEL SUSCEPTIBILITIES

Eumeralla sourced fault plane bodies	60 - 340 x10-5 SI
Interpreted igneous-metamorphic basement	170-3200
Inconclusive ?basement Seismic line 95C-03	240000-520000

5. PIXEL MAP GENERATION BY PREVIEW

Preview Resources Generated its own total magnetic intensity pixel maps of the preliminary TMI data using minimum curvature gridding with Surfer, and posted seismic shot points and wells on all maps for reference. Gridding used minimum curvature. Anomalies were highlighted with sun angles of 45 degrees and 135 degrees.

6. ANOMALY SELECTION

Anomalies were selected for modelling after inspection of the TMI greyscaled images created with Surfer.

Anomalies were selected which appear representative of the patterns and textures present.

Textures present include:

1. Short wavelength bullseye/circular anomalies with typical amplitude 2-10 nT and with sporadic disposition probably attributable to cultural sources including farm buildings. These anomalies have no relevance to petroleum exploration.

2. Short wavelength narrow linears with typical amplitude 1-5nT overprinting the whole area and inferred to be caused by geological sources. These have strike length typically in the range 2-5 kilometres.

   Typical strikes: 307-127 degrees
   322-142
   338-158

Some of these anomalies were selected for modelling (OCA01, OCA02,

OCA03, OCA04)

3. Long wavelength wide curvilinear anomalies with amplitude 20-50nT attributable to igneous/metamorphic basement.

   Typical strikes: 355-175 to 360-180 degrees (between 395000 to 401000 E and north of 5902000 N)

   360-180 degrees (along 414000E north of 5902000N)

   360-180 degrees (along 413000E from 5877000-5882000N, near Lake Eliza No. 1 and Lake Hawdon No. 1)

Some of these anomalies were selected for modelling (OCA05).

4. Long wavelength circular elliptical anomalies with amplitude 20-100nT attributable to igneous/metamorphic basement.

   Typical anomalies: Near Camelback No. 1
   Near Lucindale No. 1 and Killarney No. 1.

Some of these anomalies were selected for modelling (OCA05, OCA06, OCA07).

5 There appears to be a long wavelength feature aproximately 10 kilometers wide through the area extending west from Lucindale No. 1. This feature includes several circular/elliptical anomalies, and pattern breaks in the wide curvilinears mentioned above. This is typical of a deep fault controlled magnetic basement comprising igneous and metamorphic rocks.

7. MODEL RESULTS

7.1 PRESENTATION OF RESULTS

Computer modeling was undertaken using simple geometrical shapes to obtain best fits to the observed profile data. The strike length for the models was selected to suit the aeromagnetic anomaly strike length as portrayed in both pixel maps and on the subset profiles.

Model cross sections were plotted on seismic depth sections provided by OCA (Plans 100505-7), and the plan view of bodies were plotted on a grey-scaled total intensity map produced using Surfer (Plans 100501 & 2) and a plain base map (Plans 100503 & 4).

Model parameters are summarised in Table 3 in the text and repeated in the identical Table at the start of Appendix 1.

Supporting computer model plots are included in Appendix 1. Magnetic profiles of the original located data and calculated responses for the fits are shown in profile form in Appendix 1. The first model in Appendix 1 I OCCA1AH, and is fully annotated in detail as a guide to those that follow.

For example:

Model OCCA1AH comprises:

- Individual model summary report.
- Contour plan showing model location, model reference point which ties to the model summary report, raw data profiles, seismic shot points for reference.
- Profile #6 showing raw and calculated model response, aircraft height above ground level, model cross section in the plane of the data profile, model ends projected to the plane of the data profile (nb on some but not all profiles we also show a residual difference between the raw and calculated).
- Profile #7 showing two seismic shot points and the body cross section normal to strike.

7.2 CONSTRAINTS AND ACCURACY OF RESULTS

Magnetic susceptibilities used for magnetic models within the sedimentary section were constrained by Tucker and Frears' (1995, see discussion above) measurements from the Penola Trough and then adjusted from experience to give geologically reasonable results. Igneous-metamorphic basement type models used adopted susceptibilities considered geologically reasonable.

For suitable anomalies, where practical, minimum and maximum depth estimates have been made. Such work indicates an error range of approximately +/-5% to approximately +/-10% applies to depth estimates for models with simple geometrical shape for the more ideally shaped anomalies. For example see OCA06AG and OCA06AF which have depth estimates of 5034 metres and 4063 metres: a mean is 4550 and the range of 1000 metres represents +/- 11% . Note that the deeper model is smaller in plan view and has higher susceptibility (eg 0.024 SI for the deep and 0.008 SI for the shallow). Thus the model susceptibility has accompanying error bounds about the mean of +/-50%.

Satisfactory fits were obtained for models using induced magnetisation in all cases but one where remanence was invoked.

7.3 SHALLOW MODELS

The models discussed below corespond to the almost ubiquitous short wavelength anomalies which comprise the texture of linear anomalies which

strikes approximately northwest-southeast across the area.

There are four model groups for shallow sources. These are plotted on OCA's seismic depth section and shown in Plan 100505. For location of these refer to Plans 100503-5. Refer to the Appendix 1 for details of the models.

OCA01AH &OCA01AL

OCA02AB

OCA03AA

OCA04AC

All were modelled using induction only but there was a need to invoke variations in susceptibility above the observed susceptibilities of Tucker and Frears (1995).

We find that OCA01AH and OCA01AL show a 400 metre wide source minimum depth estimate and a dual thin source maximum depth solution which can not be distinguished. The corresponding aeromagnetic anomaly has an amplitude of 2.5nT Both models lie within the Eumeralla. The thick source lies between two faults mapped by OCA, and the thin source (<100 metres width) models straddle a mapped fault. In both cases dip corresponds to the seismic dip. By inspection of the TMI pixel maps it is considered likely that the 400 metre wide source is a better representation.

We find that OCA02AB gave a good fit with three thin sources (widths approximately 100 metres). The corresponding aeromagnetic anomalies have an amplitude of 2nT. The models are confined to the Eumeralla. The seismic section quality is very poor here and it is not possible to see definitive corresponding faults in the Eumeralla. A fault beneath the base Eumeralla dips to the west. The models dip to the east.

We find that OCA03AA gave a good fit with a single body dipping westwards. The corresponding anomaly has amplitude of 2nT. The model is confined to the Eumeralla. We note OCA have a corresponding fault dipping eastward. Inspection of the seismic section at approximately SP1045 indicated this fault could quite dip westwards rather than eastwards, and thus correspond with the magnetic model.

We find that OCA04AC gave a good fit with a 400 metre wide body dipping eastwards. The corresponding aeromagnetic anomaly amplitude is 4nT. The model extends from within the Eumeralla through the base of the Eumeralla. The model dip corresponds approximately with a seismically mapped fault at the same location.

Overall the models and lie with depth to top in the range 274-518 metres below ground level.

The model widths range from approximately 100 metres to 200-400 metres across and lie between or coincident with faults identifiable in the seismic. The top of these sources appears to lie close to the top Eumeralla. The anomaly sources appear to be mostly confined to the Eumeralla. This is a similar result obtained near Penola by Tucker and Frears (1995).

It is concluded that the magnetic models are mapping fault related phenomena. It can not be definitively stated that the wide models in fact comprise several thin magnetic sheets parallel to the seismic faults or are indicating a package of magnetic strata confined between two parallel faults. Perhaps both situations can apply at various locations.

It is concluded that by tracing the inflection points on the flanks of the total field aeromagnetic anomalies magnetic faults can be satisfactorily mapped. The zone thus mapped either indicates the maximum width of a magnetic fault zone or the approximate maximum separation of two faults, more likely the former.

7.4 DEEP MODELS

The models discussed below correspond with the longer wavelength anomalies in the Robe Trough

Three magnetic source models are relatively deep and lie with depth to top in the range 1180-4063 metres. These appear to correspond to sources which lie with top close to the seismically mapped basement on the OCA intepreted seismic sections eg model OCA06 on 95C-05 around SP1509-2100. We note that one of these, the western component of model OCA07AC near Killarney No.1, appears to significantly breach the seismically mapped basement on line OHK85-15N around SP 380. Note that, however, the model is projected in from approximately 3km to the north of the seismic line and this may be a spurious conclusion.

One magnetic anomaly in the north of the area (OCA05) was modelled with dual sources, two shallow (229-383 metres) and one deep (2947 metres). The shallow sources have the appearance of steeply dipping igneous/metamorphic basement. When plotted on seismic section 95C-03 however, these sources appear to lie partly in the Eumeralla and partly within the basement. An explanation is not offered. This would need further work to resolve.

8. STRUCTURAL SKELETON

An indicative structural skeleton based on the model results and with lines drawn by use of our own sun angled TMI is included in Plan 100504.

This is not an exhaustive illustration of all features. Note that on the basis of

the computer modelling twin lines were drawn along the shallow sourced anomalies. These can be interpreted as the maximum width of magnetic material associated with faults.

This map also shows interpreted deep faults within the basement, with east-west orientation or north-south orientation. These directions can be refined by computer modelling: this is beyond the budget of the present project.

9. CONCLUSIONS

9.1 SHALLOW AND DEEP STRUCTURING AND IMPLICATIONS FOR HYDROCARBON EXPLORATION

The modelling has revealed an extensive suite of shallow sources, fault related probably within the Eumeralla, and a suite of deep sources inferred to be igneous/metamorphic basement.

Three main strike directions of the shallow magnetic anomalies are evident in these shallow models namely 307-127 degrees, 322-142, and 338-158. In our data presentations there are hints of pattern breaks across these features at right angles.

These shallow magnetic faults were recognised, modelled and discussed for the vicinity of Penola by Tucker and Frears (1995). These authors suggested,

> " It is inferred that there is magnetic material in the fault planes; this may be pyrrhotite, magnetite of hematite, with variable properties. We note that all faults are not magnetised to the same extent. We speculate that the variable properties may indicate different movement and chemical history, locking in the earth's field direction, and introducing magnetic minerals at different times."

We further infer that the confining of the magnetic minerals to some faults in the Eumeralla in the Robe Trough may indicate selective fluid leakage and/or hydrocarbon leakage paths. Perhaps non magnetic faults seen in the seismic were or are sealed and thus areas with minimal Eumeralla responses indicate locally good seals at the base of the Eumeralla. This may give a focus for Tupper et al.'s (1993) concept for a Eumeralla-sourced play. This needs further investigation.

We also note that in the Penola area Tucker and Frears' (1995) results indicated that some of the magnetic faults extended up into the Sherbrook, whereas in the Robe Trough they do not appear to do this. An explanation is not offered: this needs further investigation.

Gross patterns in the deep sourced magnetic anomalies indicate approximately east-west alignments of bodies and north-south alignments of

bodies. Computer models tend to be rotated some 15 degrees east of north near Killarney No. 1 and 20 degrees west of north near Lake Hawdon No. 1. This needs further investigation.

The shallow structuring evident in the magnetic pattern does not appear to be more concentrated close to the basement faults as indicated by the sides of the modelled bodies.

It is seen, however, by reference to the models where posted on the seismic sections, that there is considerable structuring in the seismic at the basement level. Thus it may be inferred that the other deep magnetic bodies will be accompanied by structuring in the igneous-metamorphic basement and in the immediately overlying sediments.

9.2 DEPTH SLICES

It is inferred that the aeromagnetic data can accept one shallow pseudodepth slice with assemblage depths to top at approximately 300 metres and one deep with assemblage depths to top of approximately 3000 metres.

Pitt Research's proposed five Pseudo-depth-slices include shallow, intermediate, intermediate, deep and very deep. Of these the shallow one appears to enhance the Eumeralla sources and the next to deepest appears to enhance the magnetic basement corresponding to the depths indicated above. Structural interpretation can thus fairly reliably use one shallow and one deep.

A final decision was to use three pseudo-depth-slices.

The geological significance of Pseudo-depth-slices which focus on intermediate depths is not clear and inferences drawn from same should be regarded with caution. From experience it can be said that features seen in Pseudo-depth-slices, which are not in any way visible in sun shaded or first vertical derivative TMI maps, are at best difficult to understand, and at worst may be misleading.

10. RECOMMENDATIONS

1. Further depth and structure computer modelling is warranted to outline the margins of the inferred basement magnetic sources along the axis of the Robe Trough. By this approach the likely increased concentration and orientation of basement derived structuring may be located.

2. Further work is required on the anomalies on the northern side of the Robe Trough, in order to resolve the problem of strongly magnetic rocks apparently extending from the Eumeralla down into the

rocks apparently extending from the Eumeralla down into the basement. This does not seem plausible unless the data are mapping igneous fault fillings.

3. Further modelling will refine the understanding of the Eumeralla sourced magnetic fault anomalies throughout the area and may reveal evidence of fluid migration paths, hydrocarbon leakage and seals. Such work may also reveal evidence of intermediate layer responses if any.

4. Structural interpretation may be most reliable if two of the Pitt's depth slices (shallow and second to deepest) are used in combination with sun angled TMI pesentations.

5. Use any intermediate Pseuo-depth-slices with caution.

6. OCA may consider the use of using a competitor to Pitt's to calculate Pseudo-depth-slices and produce an alternative presentation to Pitt's. However, inspection of the spectrum does not provide much promise that a radically different and meaningfull intermediate depth slice will be revealed. OCA might consider use of some alternative treatments of the data for example upward continuation filters.

11. REFERENCES

Morton, J.G.G., and Drexel, J.F., (Eds), 1995. The petroleum geology of South Australia. Volume 1 Otway Basin. Mines and Energy South Australia. Report Book 95/12.

Tucker, D.H. & Frears R.A., 1995. Otway Basin Aeromagnetic/Radiometric Test Survey. Department of Mines and Energy South Australia. Report Book 95/40.

Tupper, N.P., Padley, D., Lovibond, R., Duckett, A.K. and McKirdy, D.M., 1993. A key test of Otway Basin Potential: the Eumeralla-sourced play on the Chama Terrace. APEA Journal, 33(1):77-93.

APPENDIX 1 MAGNETIC MODELS

Profiles, Location maps and summary parameter lists for each

Note that the first model is fully annotated as a guide to readers.

POTENT v3.06 Model Summary Report created at 13:37 12/10/1995 for Preview Resources Pty. Limited

Inducing fie Intensity = 60604
Azimuth = 9
Inclination = -69

Body type abbreviations and the shape parameters have the following significance:

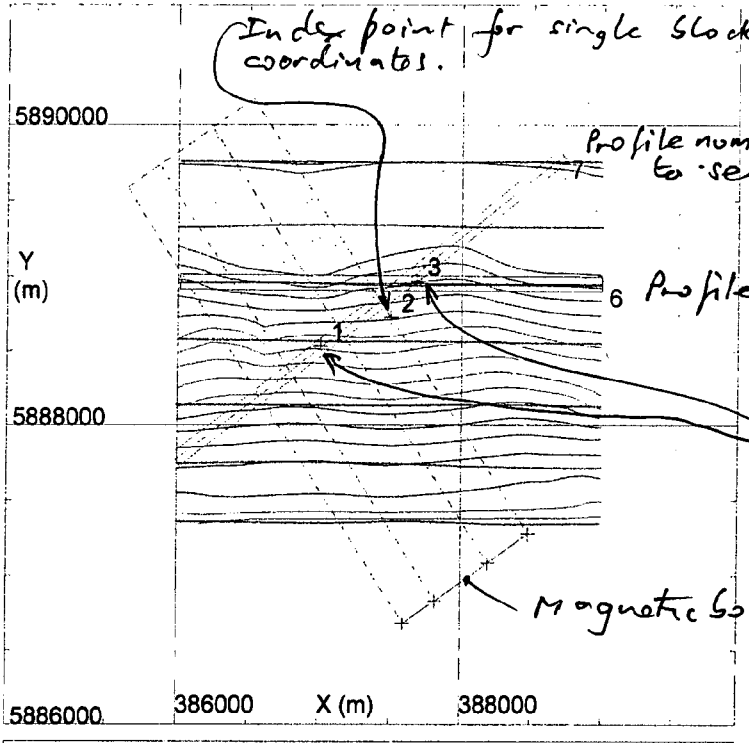
Rect - RECTANG A = width, B = length, C = height

Poly3 - 3-D POLYG (A,C) pairs represent vertex coordinates relative to vertex #1, B = length

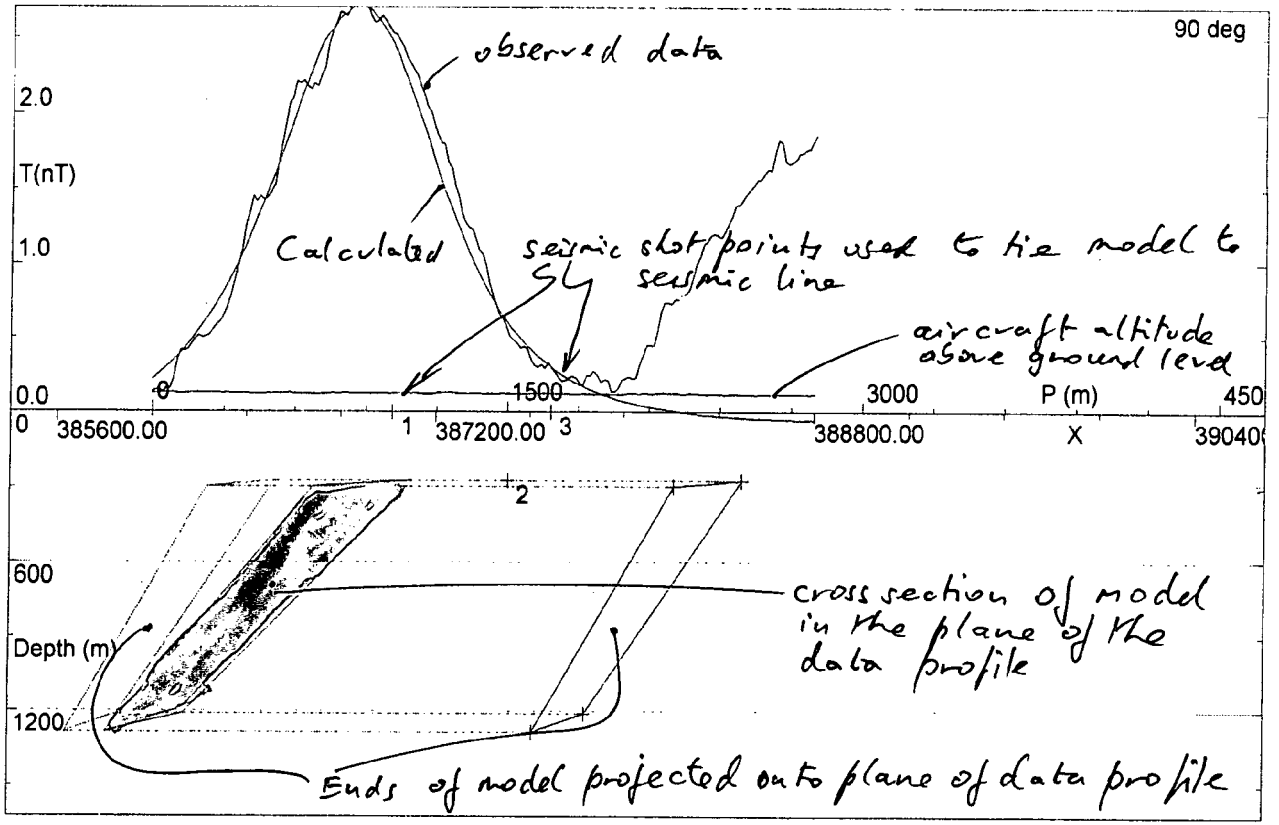
Model title: OCASUM3.MOD SUMMARY OF ROBE TROUGH MODELS

No.	Type	X	Y	Depth	Strike	Dip	Plunge	Susc.	Rem f	Rem az	Rem inc	A	B	C	MODEL NAME
		m	m	m	deg	deg	deg	SI	Amp/m	deg	deg				
3	Rect	397400.7	5906533	229.216	-10	90	0	0	0.0521	90	-69	1150.43	5500	1000	OCA05AJ
4	Rect	394931.9	5899710	2946.981	-14	90	0	0.018616	0	0	0	8128.123	6805.035	2000	OCA05DA
5	Poly3	401447.2	5890785	516.5865	-30	90	0	0.000973	0	0	0	0	2400	0	OCA03AA
6	Poly3	390769	5891585	455.6618	-10	90	0	0.0034	0	0	0	0	1600	0	OCAA02AB
11	Poly3	390991	5889734	464.4338	-38	90	0	0.0025	0	0	0	0	4100	0	
12	Poly3	389704.9	5890127	464.4338	-33	90	0	0.0028	0	0	0	0	1600	0	
13	Poly3	418205.4	5895020	345.7958	-27	90	0	0.001016	0	0	0	0	2000	0	OCA04AC
17	Rect	436641.7	5894248	1388.319	-75	90	0	0.0019	0	0	0	4171.537	3049.156	3000	OCA07AE
18	Rect	444656.3	5891028	3575.244	-75	90	0	0.032	0	0	0	5469.558	4960.171	3000	
23	Poly3	387264.9	5888577	341.6268	-34	90	0	0.0011	0	0	0	0	3500	0	OCCA1AL
25	Poly3	387441.2	5888896	274.6411	-34	90	0	0.0011	0	0	0	0	3500	0	
27	Poly3	387506.5	5888729	272.4	-34	90	0	0.000578	0	0	0	0	3500	0	OCCA1AH
32	Rect	410917.6	5888508	5034.5	-23	90	0	0.024405	0	0	0	3246.245	3127.167	3000	OCA06AG
36	Rect	410745.9	5888277	4063.192	-23	90	0	0.008477	0	0	0	3661.422	5533.591	4000	OCA06AF
37	Rect	436634	5894250	1180.986	-75	90	0	0.001708	0	0	0	4171.537	3049.156	3000	OCA07AC
38	Rect	444614.9	5891039	3279.663	-75	90	0	0.028	0	0	0	5469.558	4960.171	3000	
39	Poly3	399380.2	5906344	383.0033	0	90	0	0	0.2411	90	-69	0	4900	0	OCA05AF

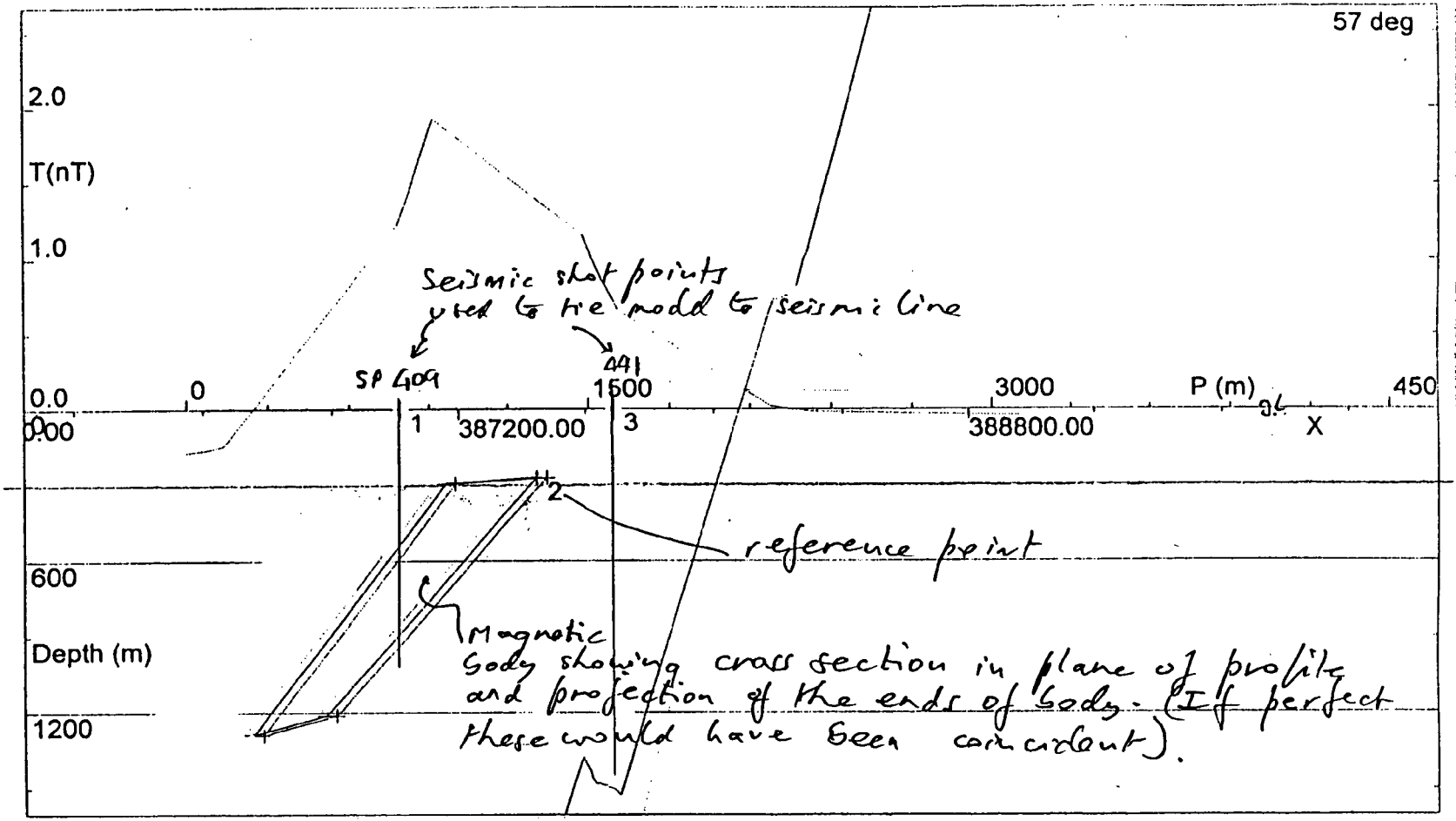
TABLE 3 MODEL SUMMARY REPORT FOR ALL MODELS



Observations:	OCCA01B.OBS
Model:	OCCA1AH.OBS DIPPING FAULT 270 METRES
Contours of:	Observed field; Contour intervals: 0.8000, 4.
POTENT v3.06	Plan drawn at 12:57 13/10/1995 for Preview Re



Observations:	OCCA01B.OBS
Profile #6;	
Model:	OCCA1AH.OBS DIPPING FAULT 270 METRES
Calculation mode:	Total Magnetic Intensity
Observed:	Calculated:
Residual:	Individual body:
POTENT v3.06	Profile drawn at 18:51 23/09/1995 for Preview Resources Pty. Limited

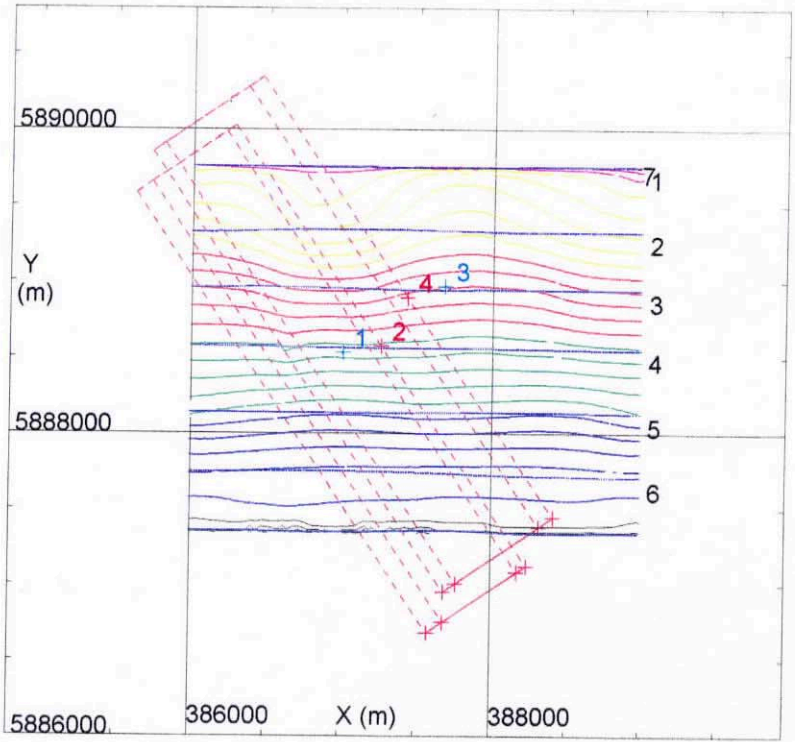


Observations: OCCA01B.OBS
Profile #7;
Model: OCCA1AH
Calculation mode: Total Magnetic Intensity

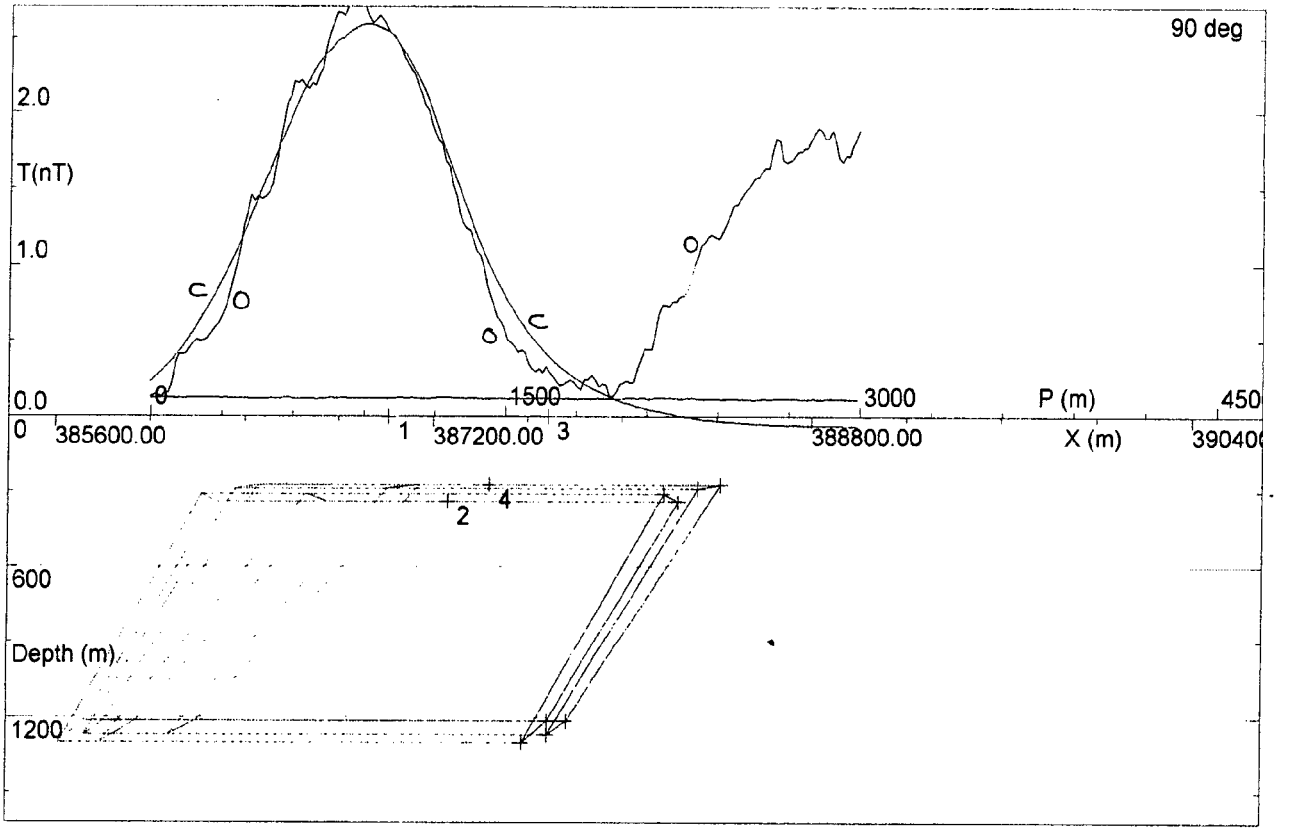
Observed: ———— Calculated: ————
Residual: Individual body:

POTENT v3.06 Profile drawn at 18:04 23/09/1995 for Preview Resources Pty. Limited

POTENT v3.06 Model Summary Report created at 18:55 23/09/1995 for Preview Resources Pty. Limited											
Inducing-	Intensity =	60604									
field	Azimuth =	9									
	Inclination	-69									
Body type abbreviations and the shape parameters have the following significance:											
Poly3 -	3-D POLY(	(A,C) pairs represent vertex coordinates relative to vertex #1, B = length									
Model title: OCCA1AH.OBS DIPPING FAULT 270 METRES											
No.	Type	X	Y	Depth	Strike	Dip	Plunge	Susc.	A	B	C
		m	m	m	deg	deg	deg	SI			
2	Poly3	387506.5	5888729	272.4	-34	90	0	0.000578	0	3500	0
									-793.9		937.9
									-1063.4		1014.8
									-345.2		24.4

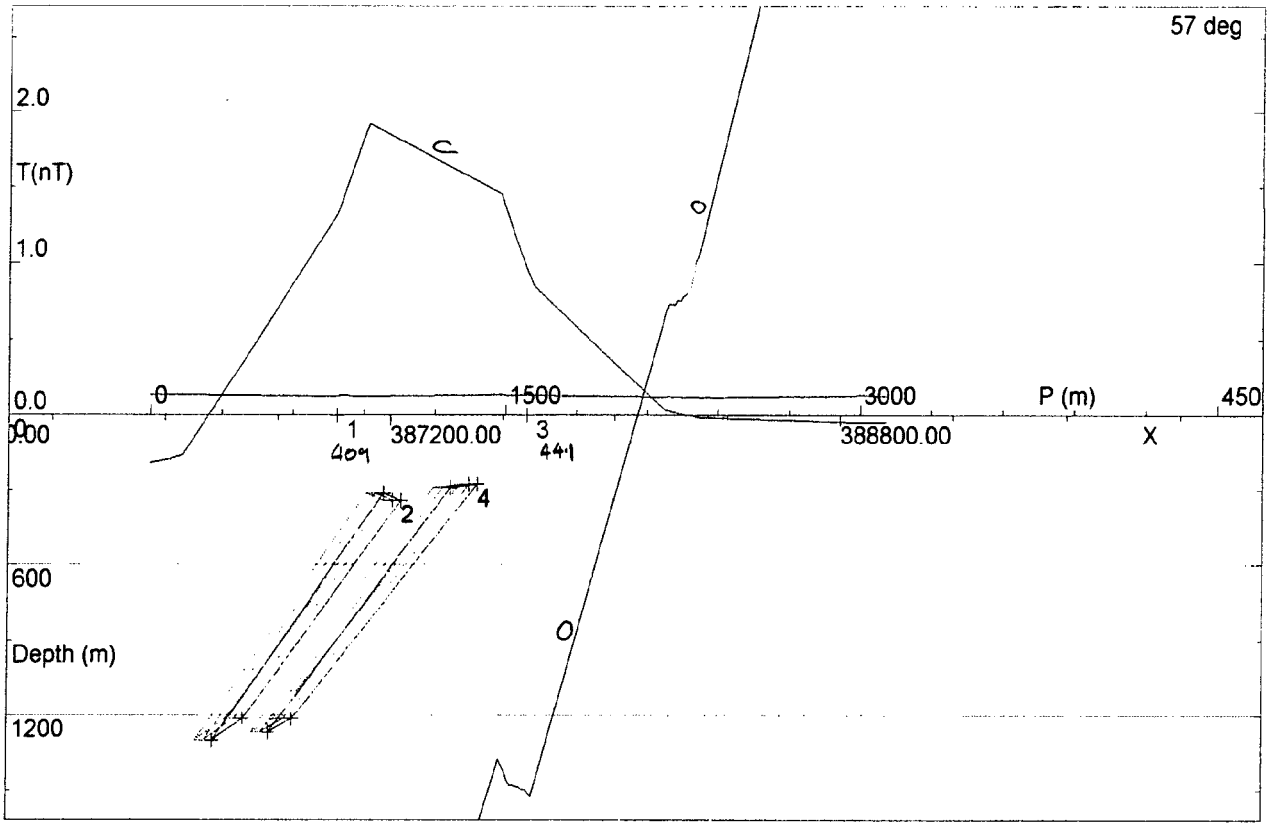


Observations:	OCCA01B.OBS
Model:	OCCA1AL.OBS DIPPING FAULTS 340 METRES
Contours of:	Observed field; Contour intervals: 0.8000, 4.
POTENT v3.06	Plan drawn at 23:24 23/09/1995 for Preview Re



Observations:	OCCA01B.OBS
Profile #2;	
Model:	OCCA1AL.OBS DIPPING FAULTS 340 METRES
Calculation mode:	Total Magnetic Intensity
Observed:	O
Calculated:	C
Residual:	
Individual body:	
POTENT v3.06	Profile drawn at 23:14 23/09/1995 for Preview Resources Pty. Limited

Alternative model to OCCA1AH
Here we use four bodies with higher susceptibility than the single body in OCCA1AH



Observations:	OCCA01B.OBS		
Profile #7;			
Model:	OCCA1AL.OBS DIPPING FAULTS 340 METRES		
Calculation mode:	Total Magnetic Intensity		
Observed:	O	Calculated:	C
Residual:		Individual body:	
POTENT v3.06	Profile drawn at 22:53 23/09/1995 for Preview Resources Pty. Limited		

Alternative model to OCCA1AH.
Here we use twin bodies with higher susceptibility and narrower than the single body in OCCA1AH

POTENT v3.06 Model Summary Report created at 23:20 23/09/1995 for Preview Resources Pty. Limited

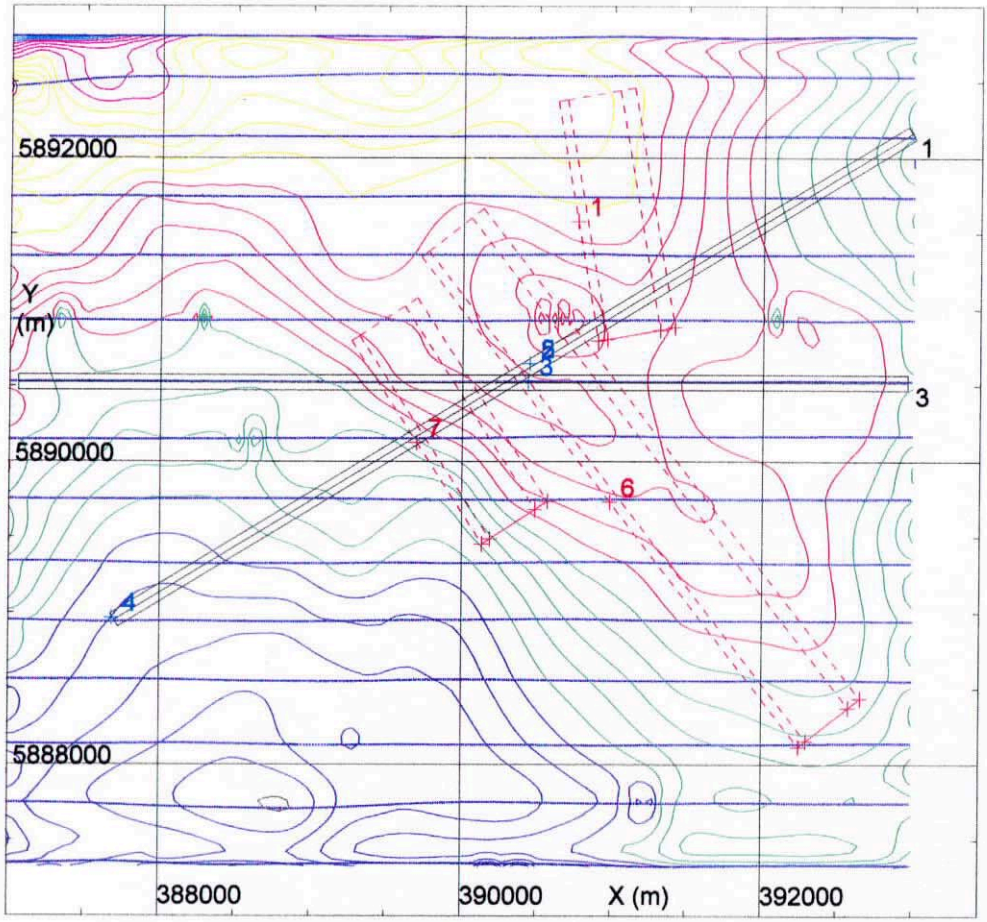
Inducing fi	Intensity =	60604
	Azimuth =	9
	Inclination	-69

Body type abbreviations and the shape parameters have the following significance:

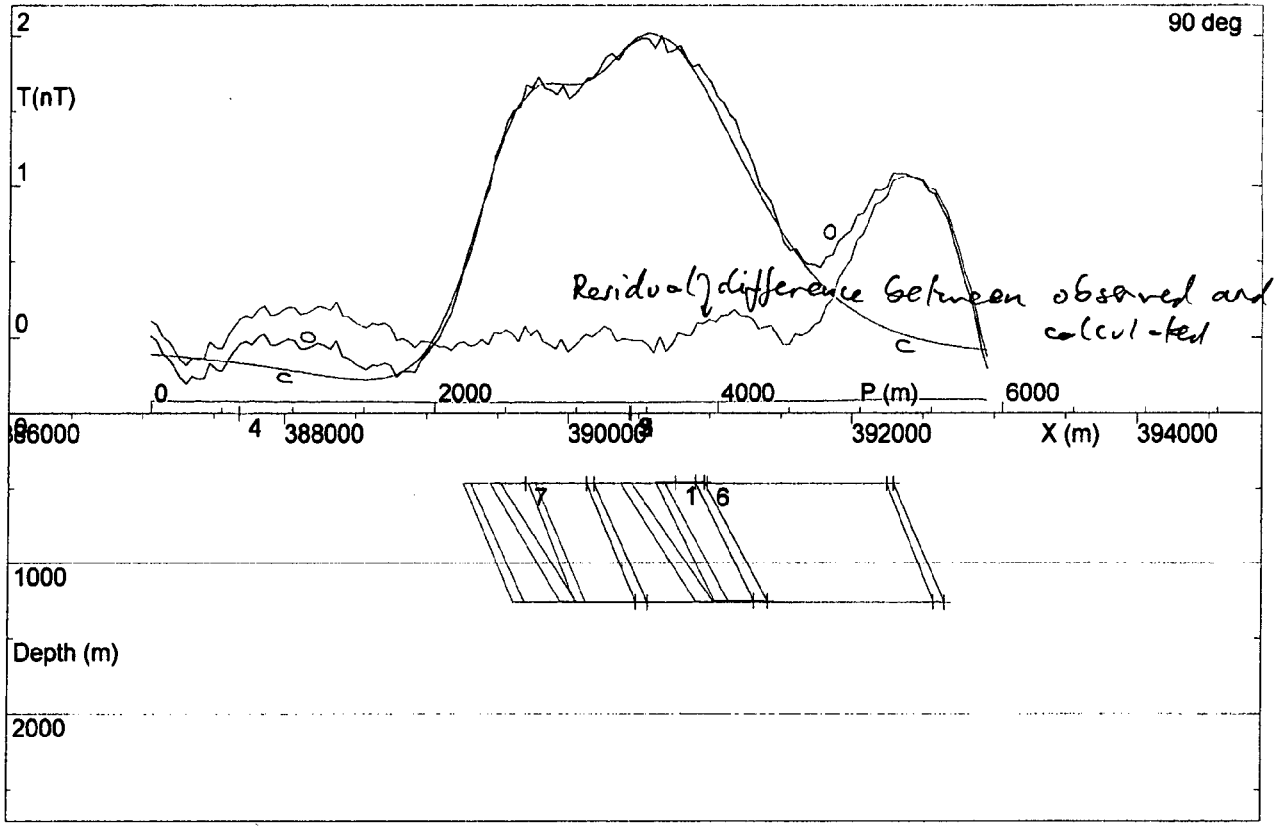
Poly3 - 3-D POLY((A,C) pairs represent vertex coordinates relative to vertex #1, B = length

Model title: OCCA1AL.OBS DIPPING FAULTS 340 METRES

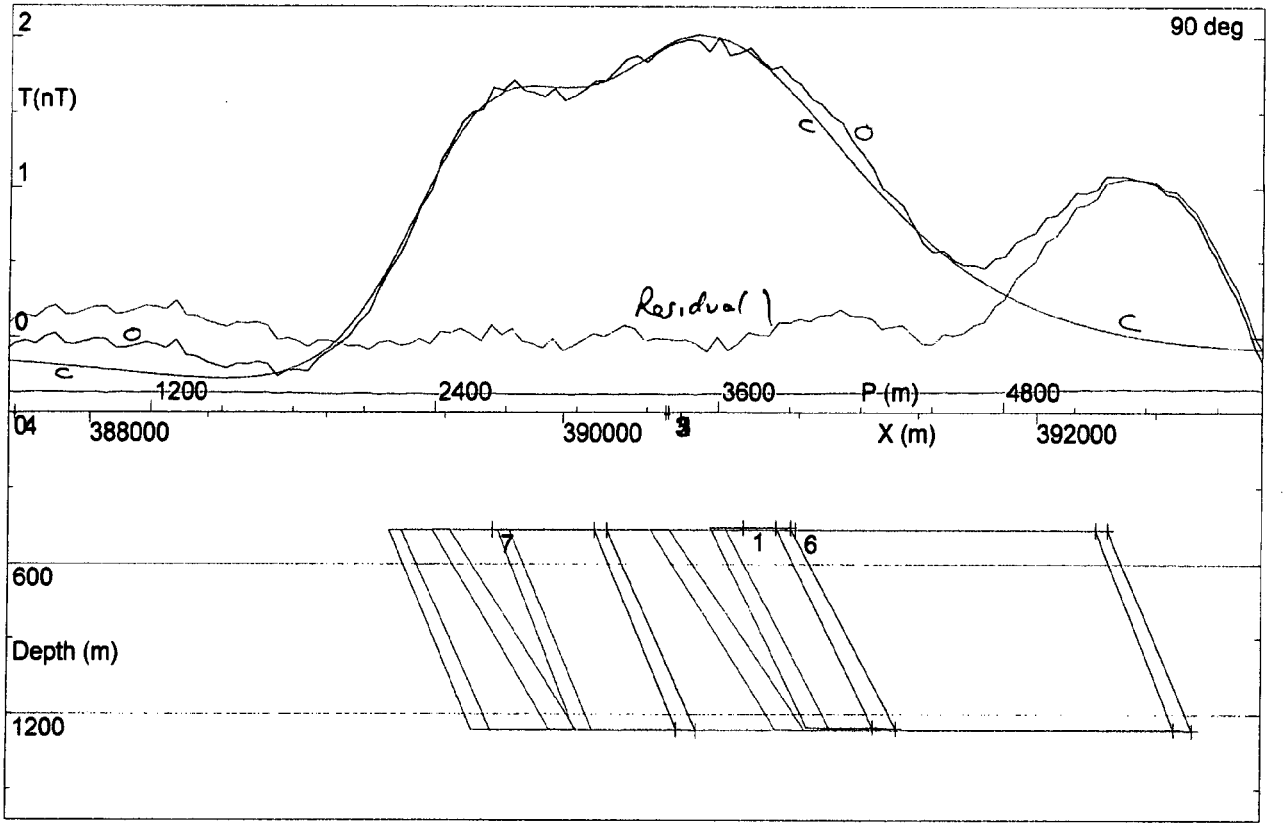
No.	Type	X	Y	Depth	Strike	Dip	Plunge	Susc.	A	B	C
		m	m	m	deg	deg	deg	SI			
2	Poly3	387264.9	5888577	341.6	-34	90	0	0.0011	0	3500	0
									-665.5		870.8
									-792.4		959
									-74.2		-31.4
4	Poly3	387441.2	5888896	274.6	-34	90	0	0.0011	0	3500	0
									-779.1		937.8
									-877.2		993.6
									-114.4		15.6



Observations:	392994.63 5887338.10 76.8 -38.950
Model:	OCAA02AB.MOD DEPTH ESTIMATE 455 METRES
Contours of:	Observed field; Contour intervals: 0.5000, 2.5000 nT
POTENT v3.06	Plan drawn at 16:42 11/10/1995 for Preview Resources Pty. Limi

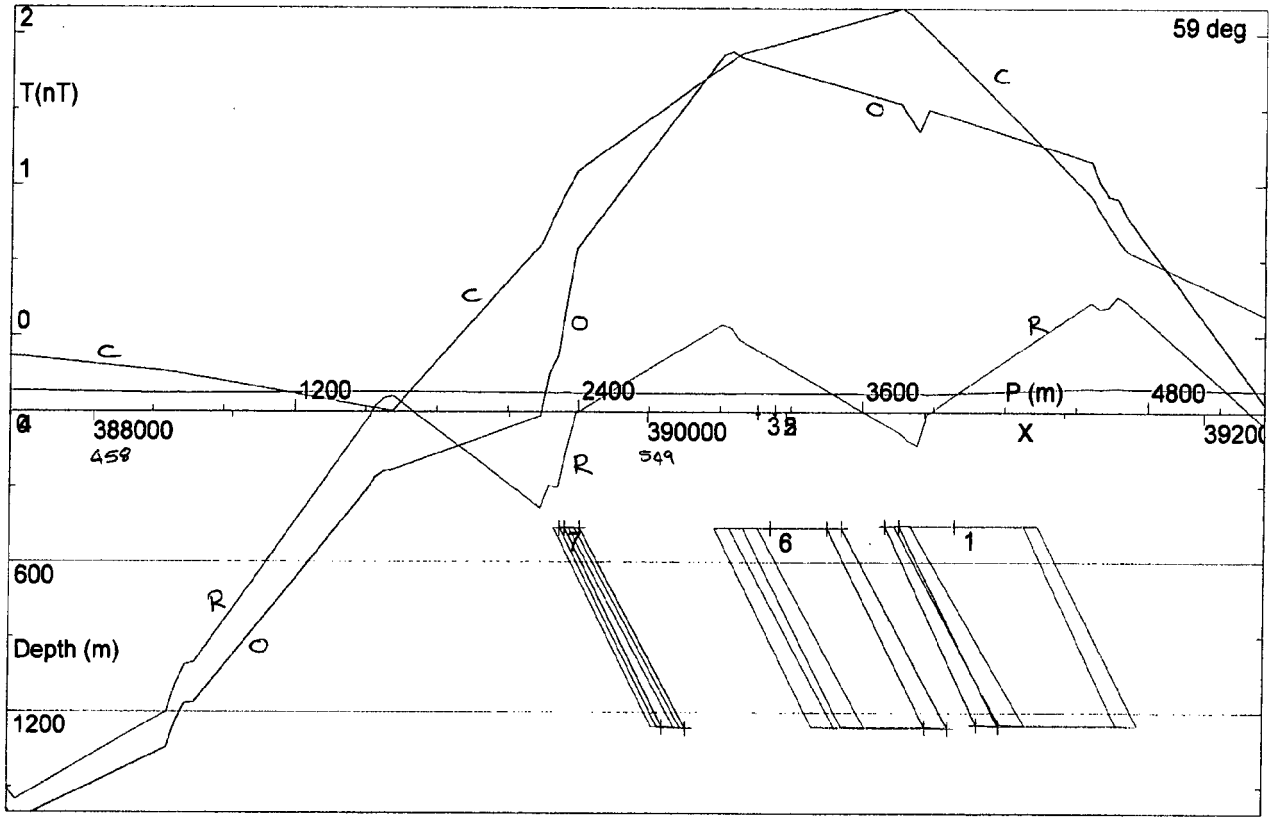


Observations:	392994.63 5887338.10 76.8 -38.950		
Profile #3;			
Model:	OCAA02AB.MOD DEPTH ESTIMATE 455 METRES		
Calculation mode:	Total Magnetic Intensity		
Observed:	O	Calculated:	C
Residual:		Individual body:	
POTENT v3.06	Profile drawn at 16:42 11/10/1995 for Preview Resources Pty. Limited		



Observations:	392994.63 5887338.10 76.8 -38.950
Profile #3;	
Model:	OCAA02AB.MOD DEPTH ESTIMATE 455 METRES
Calculation mode:	Total Magnetic Intensity
Observed:	O
Calculated:	C
Residual:	
Individual body:	

POTENT v3.06 Profile drawn at 16:43 11/10/1995 for Preview Resources Pty. Limited

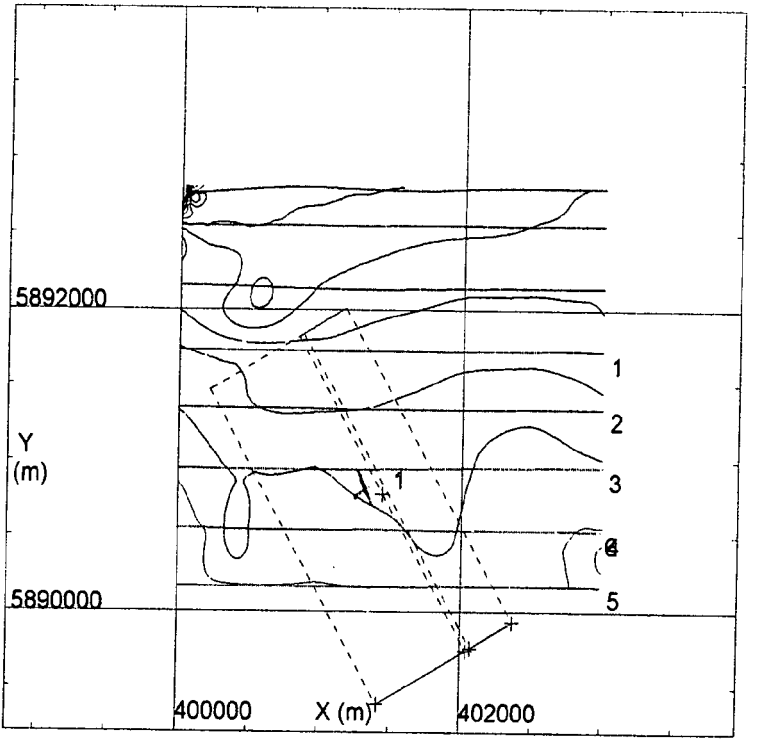


Observations: 392994.63 5887338.10 76.8 -38.950
Profile #1;
Model: OCAA02AB.MOD DEPTH ESTIMATE 455 METRES
Calculation mode: Total Magnetic Intensity

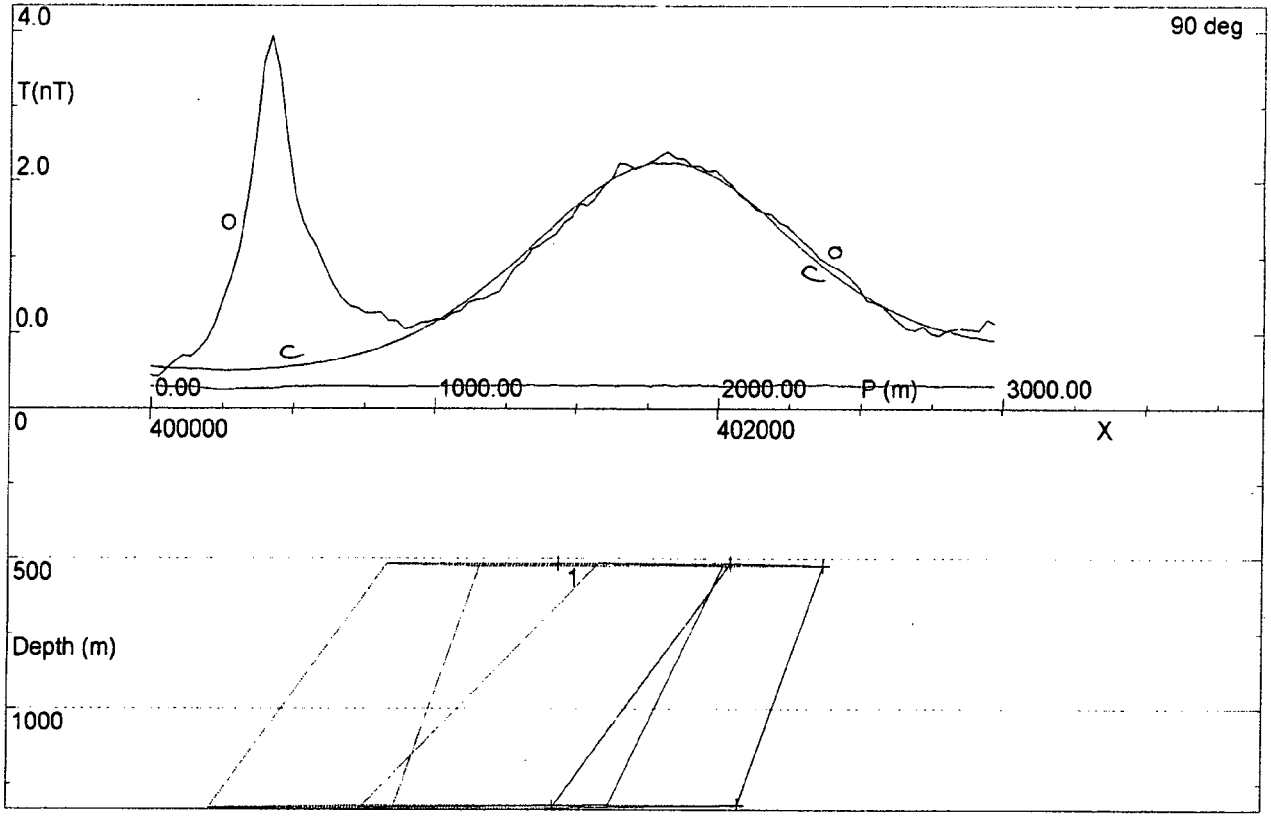
Observed: O Calculated: C
Residual: R Individual body:

POTENT v3.06 Profile drawn at 16:45 11/10/1995 for Preview Resources Pty. Limited

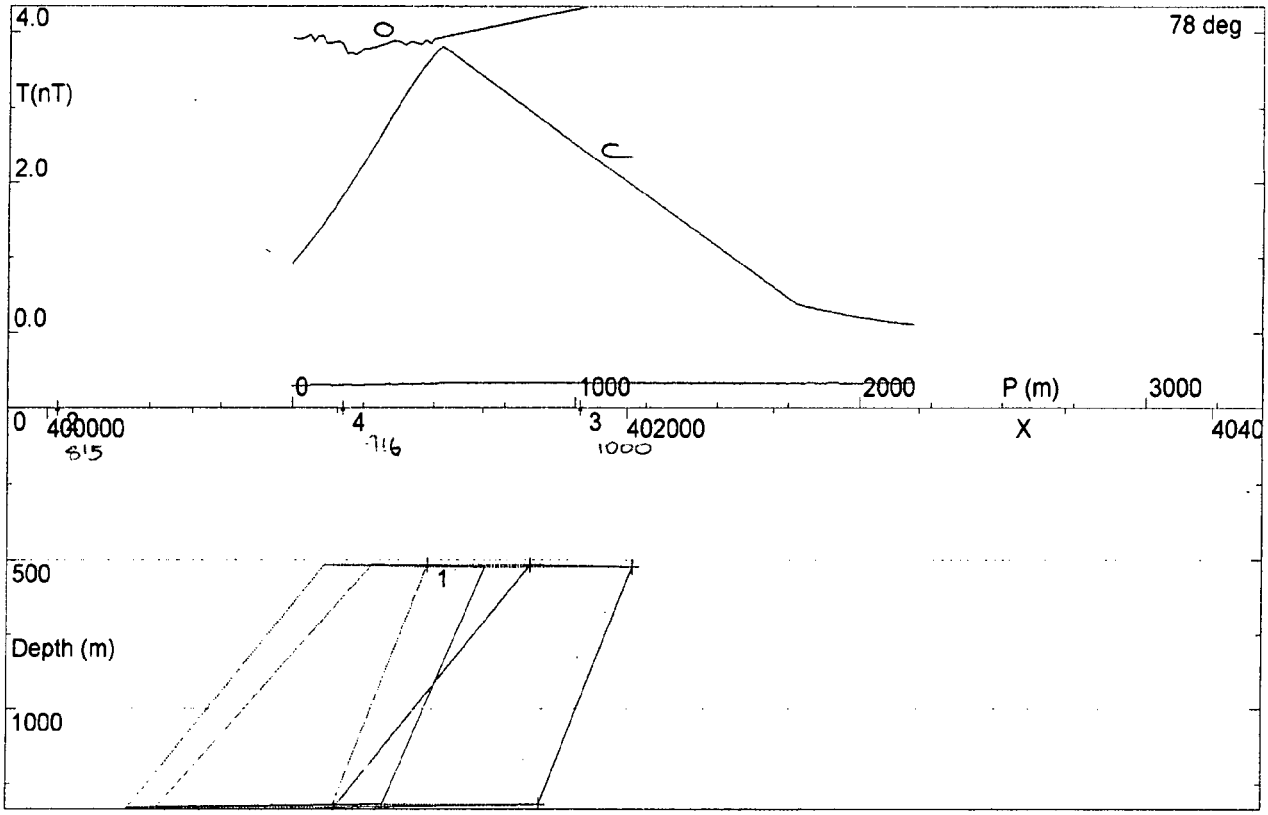
POTENT v3.06 Model Summary Report created at 16:43 11/10/1995 for Preview Resources Pty. Limited												
Inducing fie	Intensity =	60604										
	Azimuth =	9										
	Inclination	-69										
Body type abbreviations and the shape parameters have the following significance:												
Poly3 -	3-D POLYG	(A,C) pairs represent vertex coordinates relative to vertex #1, B = length										
Model title: OCAA02AB.MOD DEPTH ESTIMATE 455 METRES												
No.	Type	X	Y	Depth	Strike	Dip	Plunge	Susc.	A	B	C	D
		m	m	m	deg	deg	deg	SI				
1	Poly3	390769	5891585	455.7	-10	90	0	0.0034	0	1600	0	
									62.2		0	
									518.2		799.2	
									419.5		794.4	
6	Poly3	390991	5889734	464.4	-38	90	0	0.0025	0	4100	0	
									62.2		0	
									518.2		799.2	
									419.5		794.4	
7	Poly3	389704.9	5890127	464.4	-33	90	0	0.0028	0	1600	0	
									62.2		0	
									518.2		799.2	
									419.5		794.4	



Observations:	400002.20 5890168.65 90.7 -34.308
Model:	OCA03AA.MOD DEPTH ESTIMATE 516 METRES
Contours of:	Observed field; Contour intervals: 2.0000, 10
POTENT v3.06	Plan drawn at 20:13 01/10/1995 for Preview Re



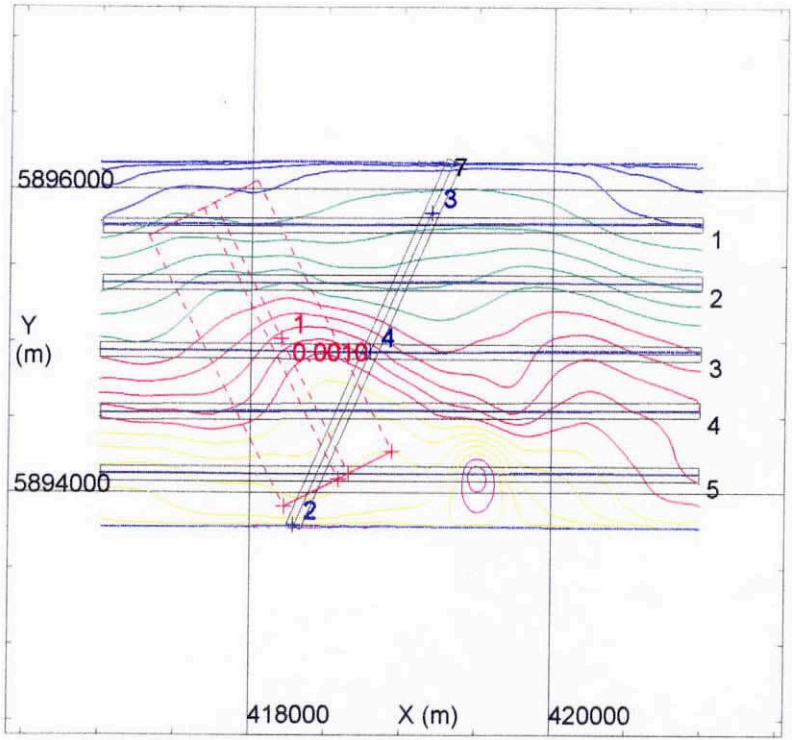
Observations:	400002.20 5890168.65 90.7 -34.308
Profile #6;	
Model:	OCA03AA.MOD DEPTH ESTIMATE 516 METRES
Calculation mode:	Total Magnetic Intensity
Observed:	O
Calculated:	C
Residual:	
Individual body:	
POTENT v3.06	Profile drawn at 20:13 01/10/1995 for Preview Resources Pty. Limited



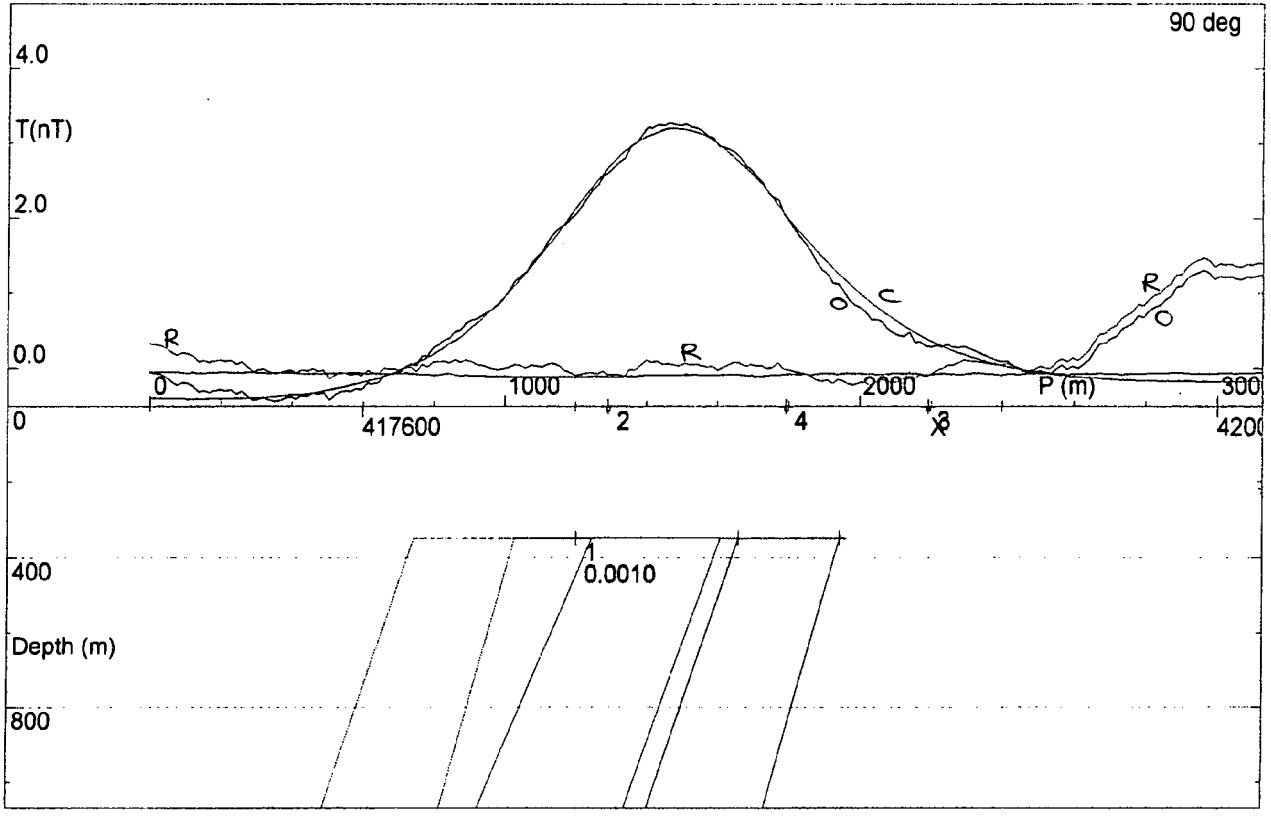
Observations:	400002.20 5890168.65 90.7 -34.308		
Profile #7;			
Model:	OCA03AA.MOD DEPTH ESTIMATE 516 METRES		
Calculation mode:	Total Magnetic Intensity		
Observed:	O	Calculated:	C
Residual:		Individual body:	
POTENT v3.06	Profile drawn at 20:56 01/10/1995 for Preview Resources Pty. Limited		

ns. Cannot move dip the other way without involving remanence

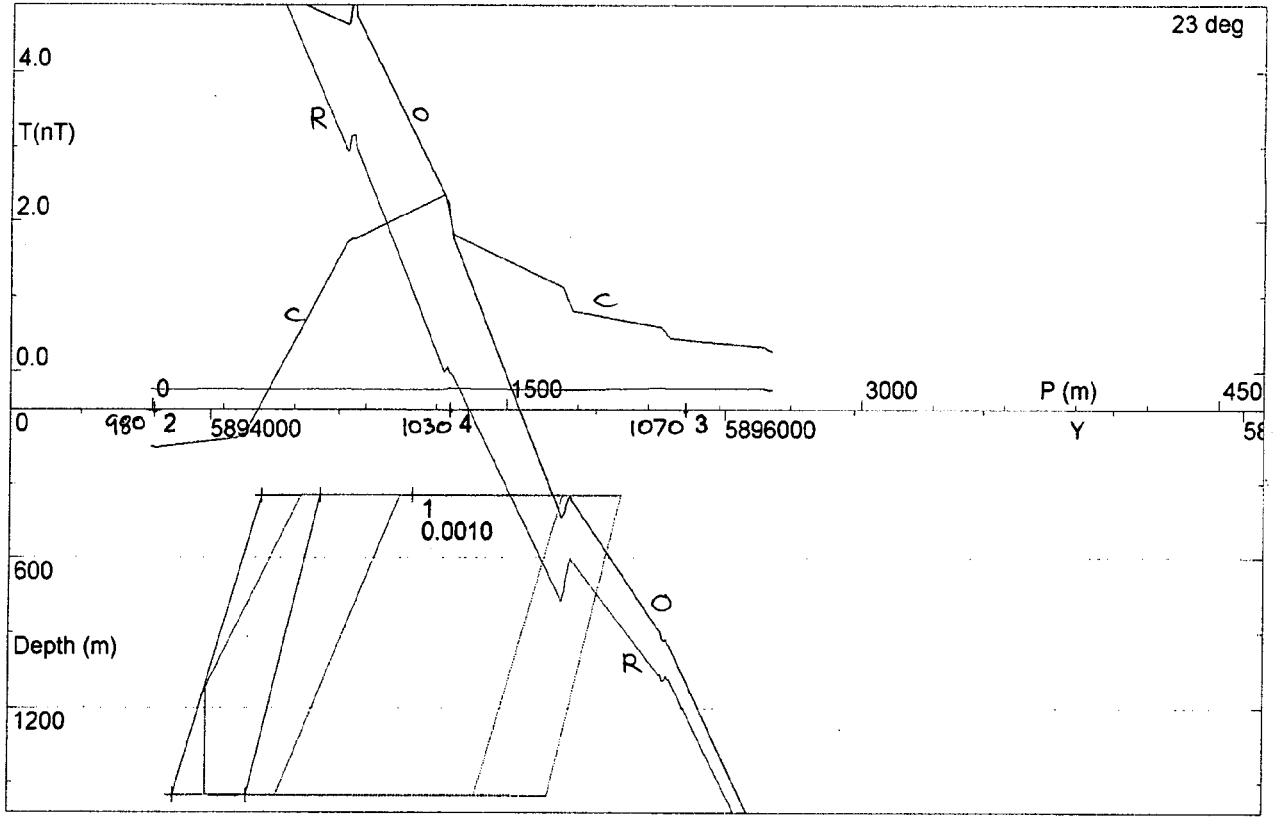
POTENT v3.06 Model Summary Report created at 20:04 01/10/1995 for Preview Resources Pty. Limited												
Inducing fie	Intensity =	60604										
	Azimuth =	9										
	Inclination	-69										
Body type abbreviations and the shape parameters have the following significance:												
Poly3 -	3-D POLYG	(A,C) pairs represent vertex coordinates relative to vertex #1, B = length										
Model title: OCA03AA.MOD DEPTH ESTIMATE 516 METRES												
No.	Type	X	Y	Depth	Strike	Dip	Plunge	Susc.	A	B	C	D
		m	m	m	deg	deg	deg	SI				
1	Poly3	401447.2	5890785	516.6	-30	90	0	0.000973	0	2400	0	
									378		6.4	
									35.6		801.3	
									-720.8		- 810.2	



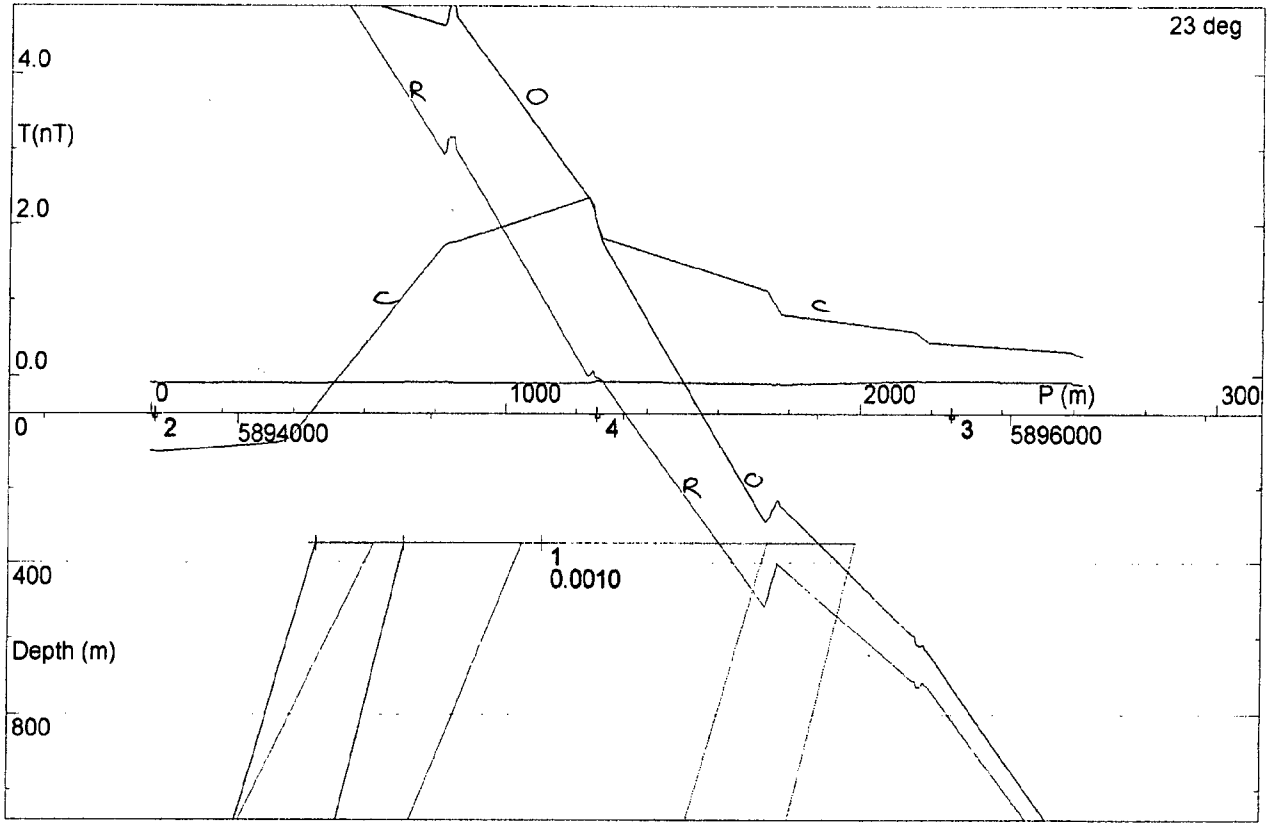
Observations:	417008.64 5893775.10 74.9 80.713
Model:	OCA04AC.MOD DEPTH ESTIMATE 345 METRES
Contours of:	Observed field; Contour intervals: 0.8000, 4.
POTENT v3.06	Plan drawn at 11:35 03/10/1995 for Preview Re



Observations:	417008.64 5893775.10 74.9 80.713
Profile #3;	
Model:	OCA04AC.MOD DEPTH ESTIMATE 345 METRES
Calculation mode:	Total Magnetic Intensity
Observed:	O
Calculated:	C
Residual:	R
Individual body:	
POTENT v3.06	Profile drawn at 11:33 03/10/1995 for Preview Resources Pty. Limited

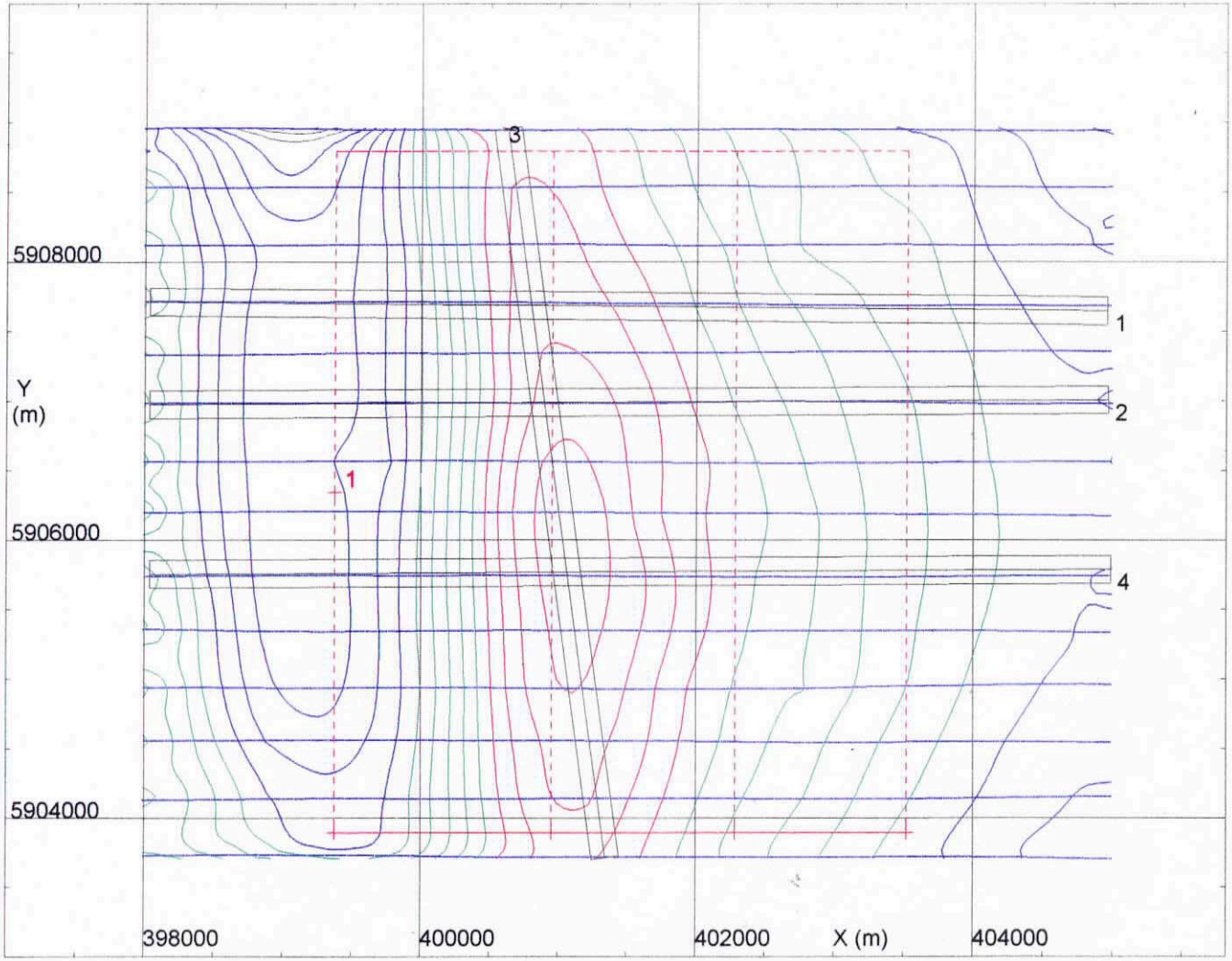


Observations:	417008.64 5893775.10 74.9 80.713		
Profile #7;			
Model:	OCA04AC.MOD DEPTH ESTIMATE 345 METRES		
Calculation mode:	Total Magnetic Intensity		
Observed:	O	Calculated:	C
Residual:	R	Individual body:	
POTENT v3.06	Profile drawn at 11:56 03/10/1995 for Preview Resources Pty. Limited		

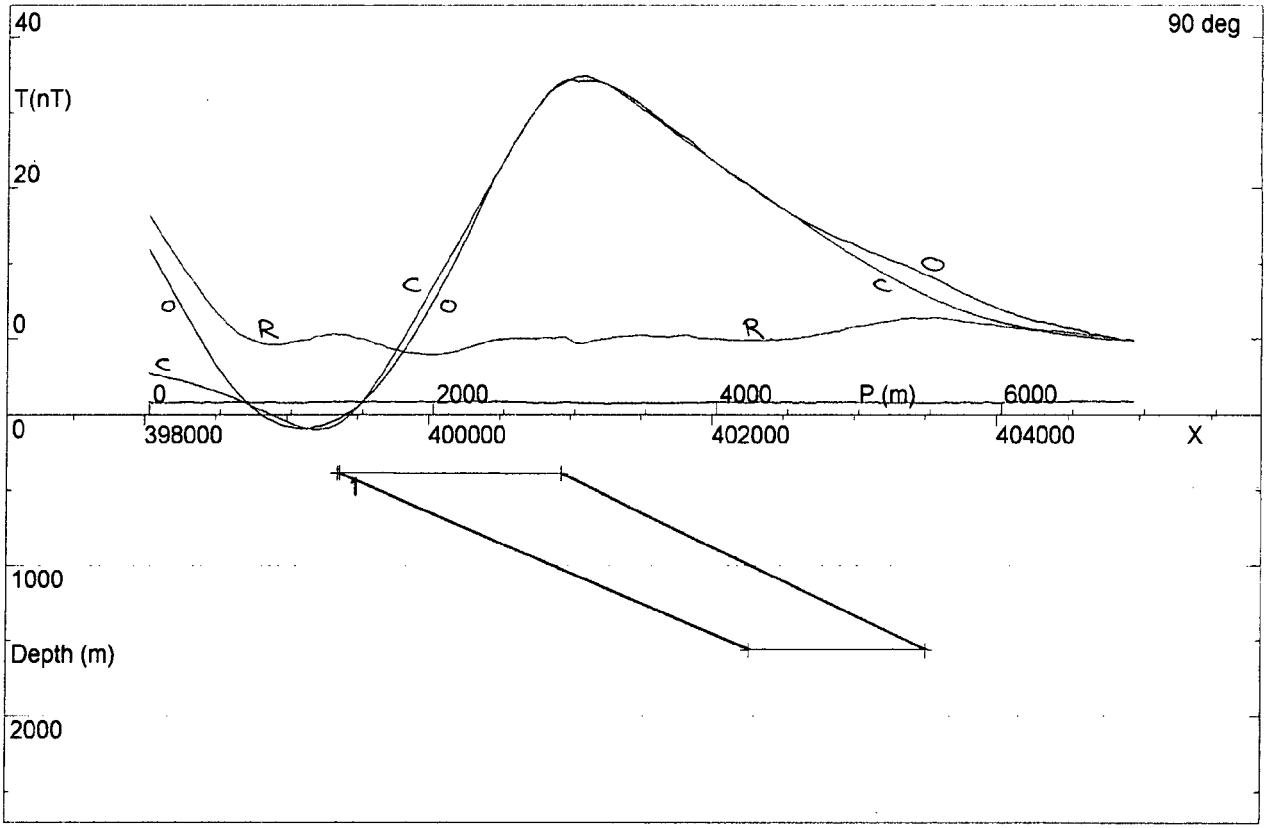


Observations:	417008.64 5893775.10 74.9 80.713
Profile #7;	
Model:	OCA04AC.MOD DEPTH ESTIMATE 345 METRES
Calculation mode:	Total Magnetic Intensity
Observed:	O
Calculated:	C
Residual:	R
Individual body:	
POTENT v3.06	Profile drawn at 11:56 03/10/1995 for Preview Resources Pty. Limited

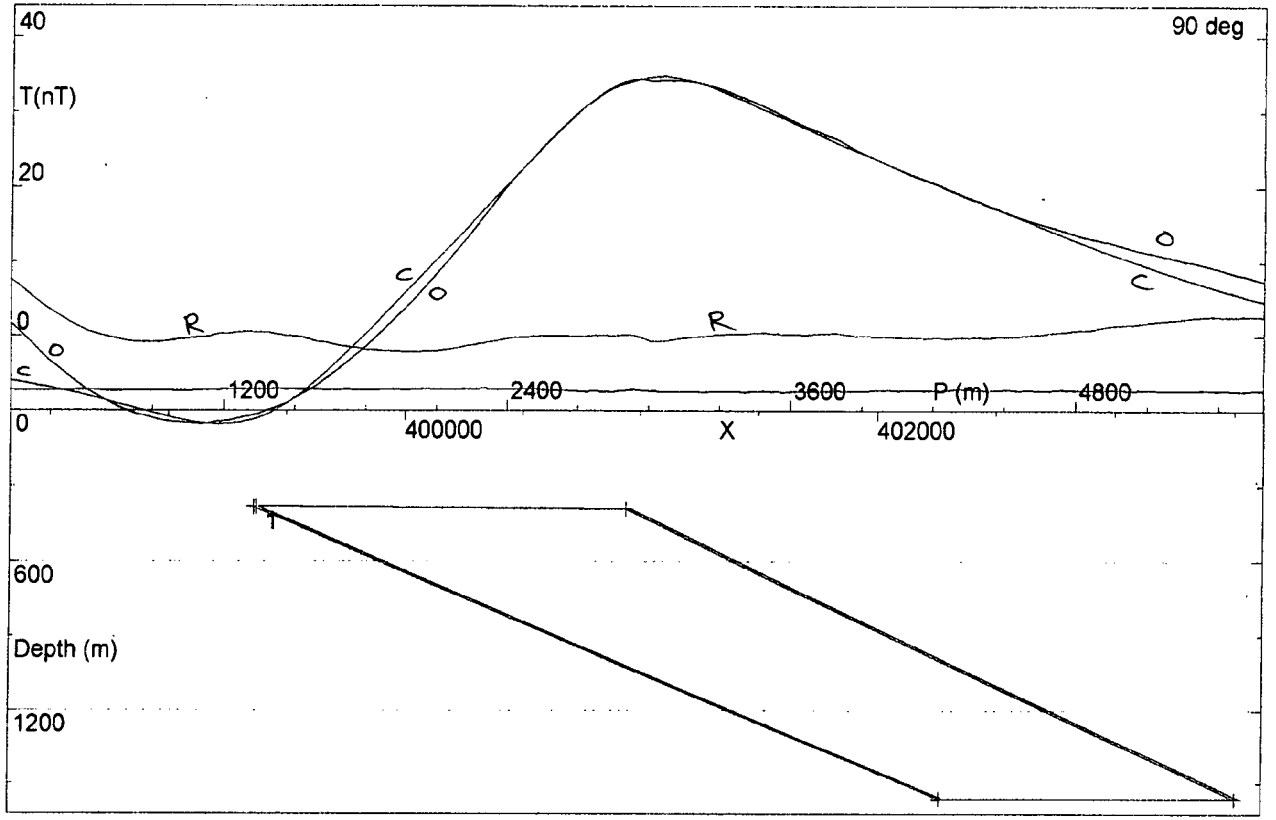
POTENT v3.06 Model Summary Report created at 11:29 03/10/1995 for Preview Resources Pty. Limited												
Inducing fi	Intensity =	60604										
	Azimuth =	9										
	Inclination	-69										
Body type abbreviations and the shape parameters have the following significance:												
Poly3 -	3-D POLY(	(A,C) pairs represent vertex coordinates relative to vertex #1, B = length										
Model title: OCA04AC.MOD DEPTH ESTIMATE 345 METRES												
No.	Type	X	Y	Depth	Strike	Dip	Plunge	Susc.	A	B	C	D
		m	m	m	deg	deg	deg	SI				
1	Poly3	418205.4	5895020	345.8	-27	90	0	0.001016	0	2000	0	
									321.3		0	
									-77.9		1205.8	
									-479.9		1203.2	



Observations:	404988.58 5898139.70 76.2 -27.124
Model:	OCA05AF.MOD DEPTH ESTIMATE 383 METRES
Contours of:	Observed field; Contour intervals: 4.0000, 20.0000 nT
POTENT v3.06	Plan drawn at 17:15 04/10/1995 for Preview Resources Pty. Limited



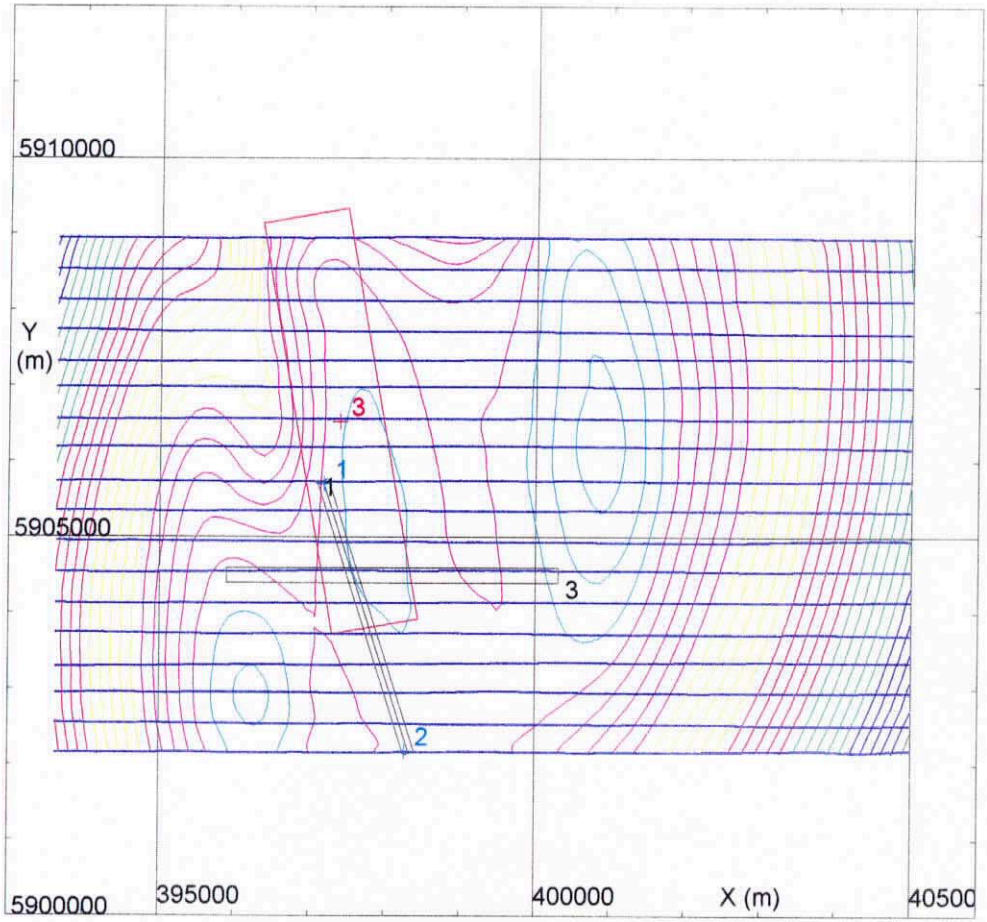
Observations:	404988.58 5898139.70 76.2 -27.124
Profile #2;	
Model:	OCA05AF.MOD DEPTH ESTIMATE 383 METRES
Calculation mode:	Total Magnetic Intensity
Observed:	O
Calculated:	C
Residual:	R
Individual body:	
POTENT v3.06	Profile drawn at 17:15 04/10/1995 for Preview Resources Pty. Limited



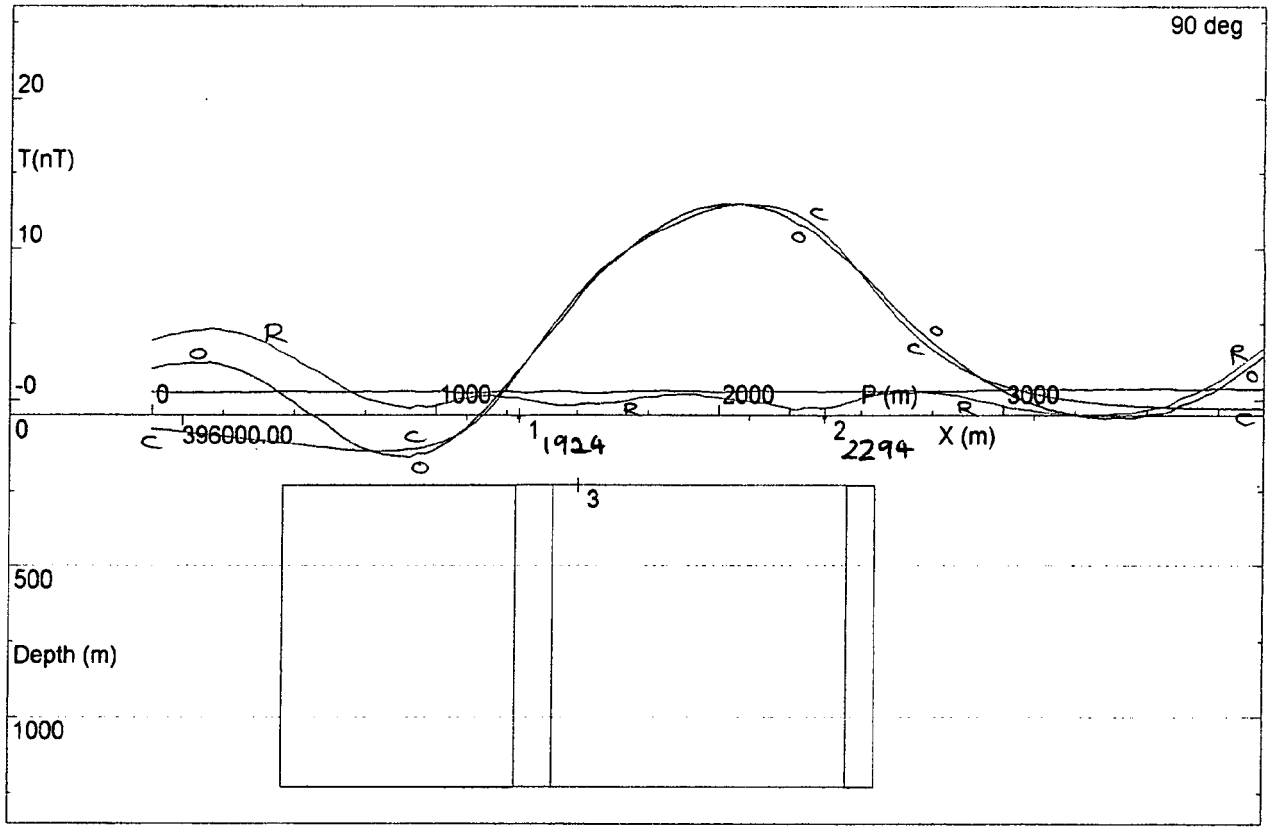
Observations:	404988.58 5898139.70 76.2 -27.124
Profile #2;	
Model:	OCA05AF.MOD DEPTH ESTIMATE 383 METRES
Calculation mode:	Total Magnetic Intensity
Observed:	O
Calculated:	C
Residual:	R
Individual body:	
POTENT v3.06	Profile drawn at 11:21 05/10/1995 for Preview Resources Pty. Limited

POTENT v3.06 Model Summary Report created at 17:22 04/10/1995 for Preview Resources Pty. Limited

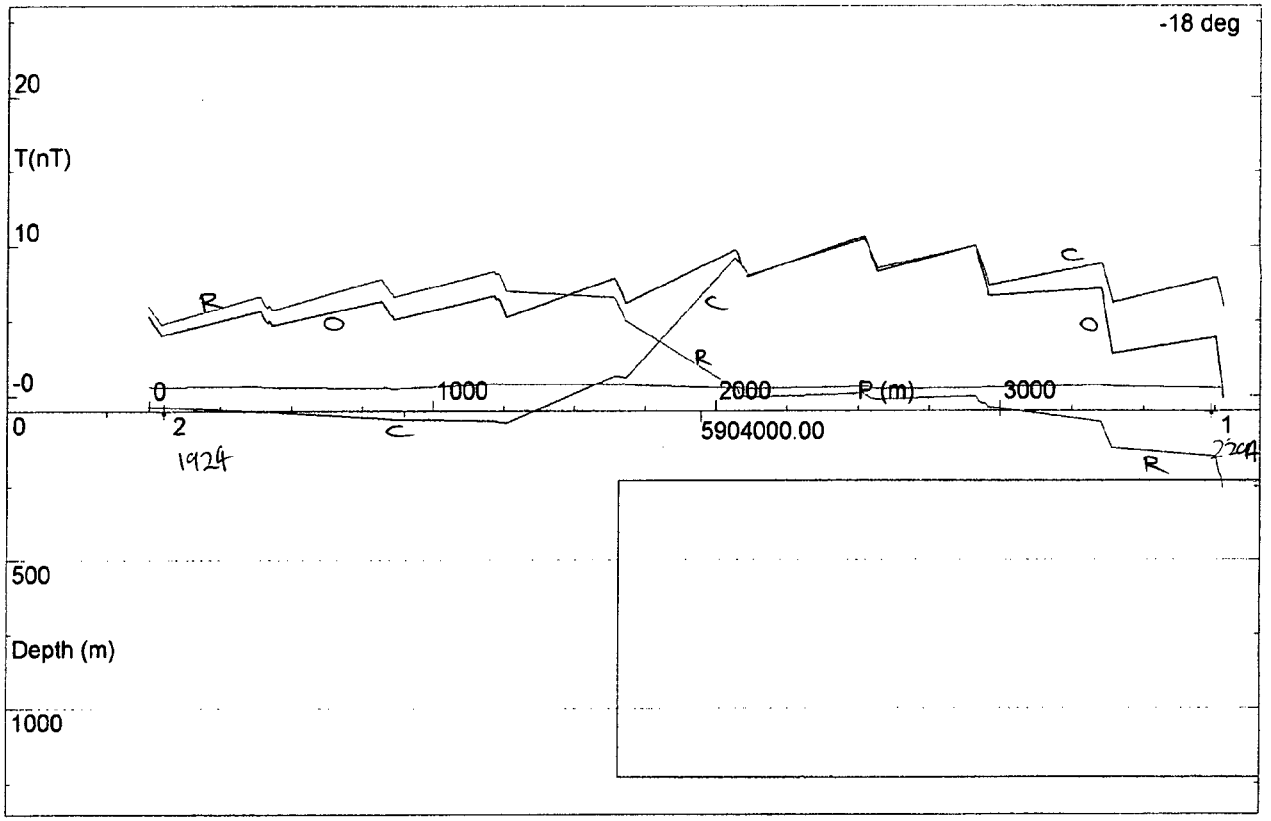
Inducing fi	Intensity =	60604													
	Azimuth =	9													
	Inclination	-69													
Body type abbreviations and the shape parameters have the following significance:															
Poly3 -	3-D POLY(	(A,C) pairs represent vertex coordinates relative to vertex #1, B = length													
Model title: OCA05AF.MOD DEPTH ESTIMATE 383 METRES															
No.	Type	X	Y	Depth	Strike	Dip	Plunge	Susc.	Rem f	Rem az	Rem inc	A	B	C	D
		m	m	m	deg	deg	deg	SI	Amp/m	deg	deg				
1	Poly3	399380.2	5906344	383	0	90	0	0	0.2411	90	-69	0	4900	0	
												1578.4		8	
												4146.4		1178.9	
												2907.3		1178.9	



Observations:	404988.58 5898139.70 76.2 -27.124
Model:	OCA05AJ.MOD DEPTH ESTIMATE 224 METRES
Contours of:	Observed field; Contour intervals: 10.0000, 50.0000 nT
POTENT v3.06	Plan drawn at 13:30 05/10/1995 for Preview Resources Pty. Limit

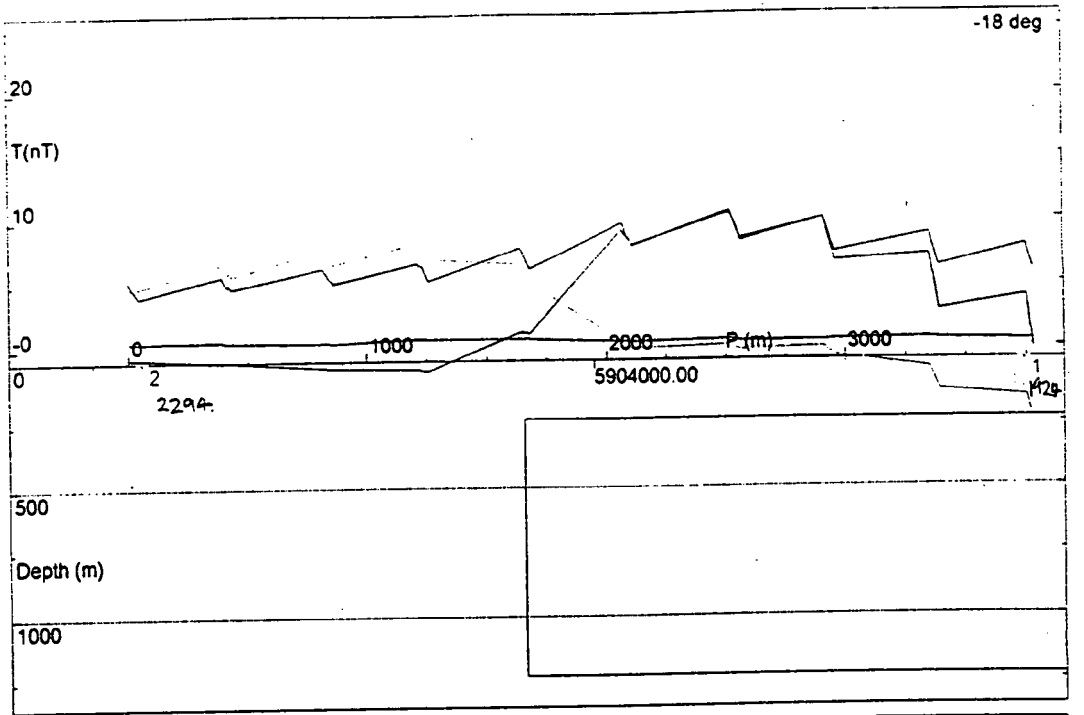


Observations:	404988.58 5898139.70 76.2 -27.124
Profile #3;	
Model:	OCA05AJ.MOD DEPTH ESTIMATE 224 METRES
Calculation mode:	Total Magnetic Intensity
Observed:	O
Calculated:	C
Residual:	R
Individual body:	
POTENT v3.06	Profile drawn at 13:06 05/10/1995 for Preview Resources Pty. Limited



Observations:	404988.58 5898139.70 76.2 -27.124		
Profile #1;			
Model:	OCA05AJ.MOD DEPTH ESTIMATE 224 METRES		
Calculation mode:	Total Magnetic Intensity		
Observed:	O	Calculated:	C
Residual:	R	Individual body:	

POTENT v3.06 Profile drawn at 13:06 05/10/1995 for Preview Resources Pty. Limited

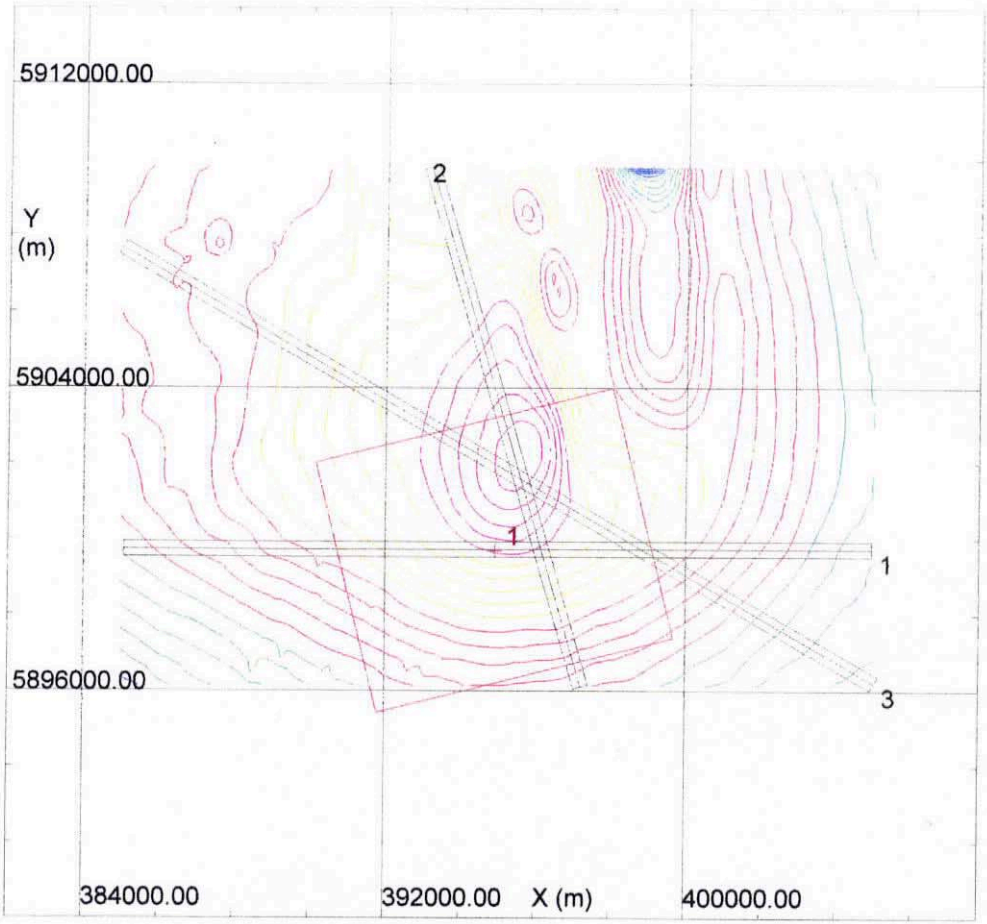


Observations: 404988.58 5898139.70 76.2 -27.124
Profile #1;
Model: OCA05AJ.MOD DEPTH ESTIMATE 224 METRES
Calculation mode: Total Magnetic Intensity

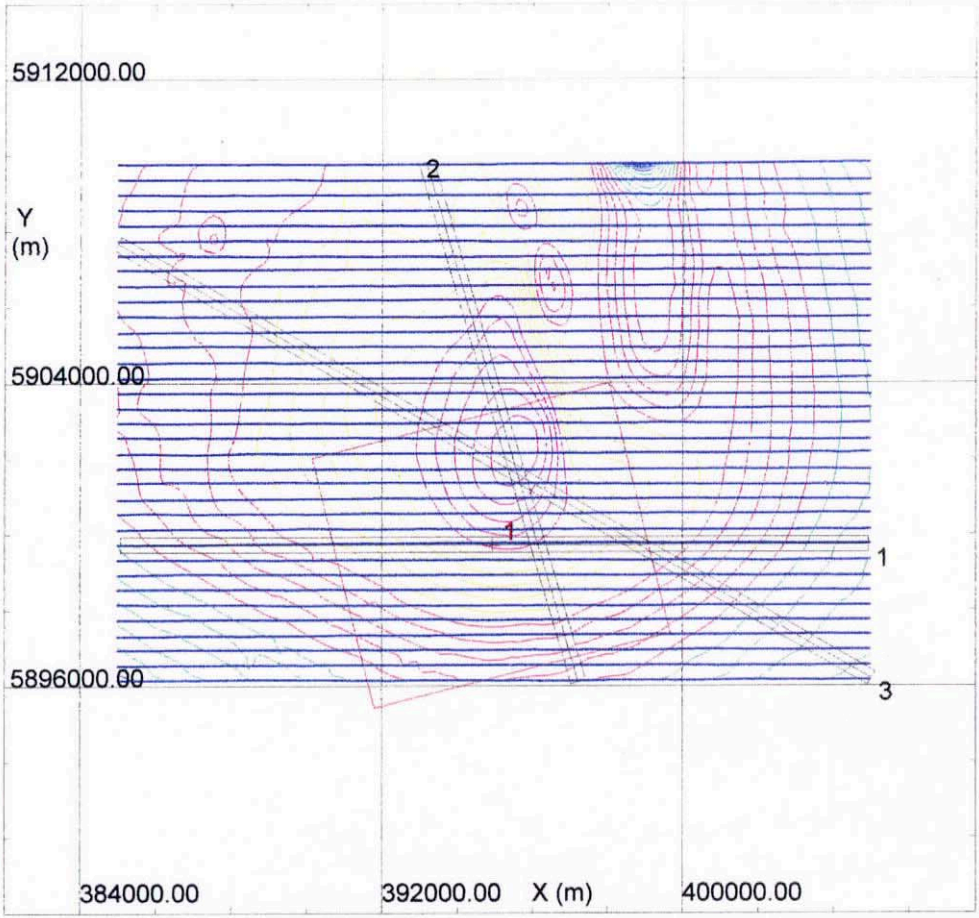
Observed: ———— Calculated: ————
Residual: ———— Individual body:

POTENT v3.06 Profile drawn at 13:06 05/10/1995 for Preview Resources Pty. Limited

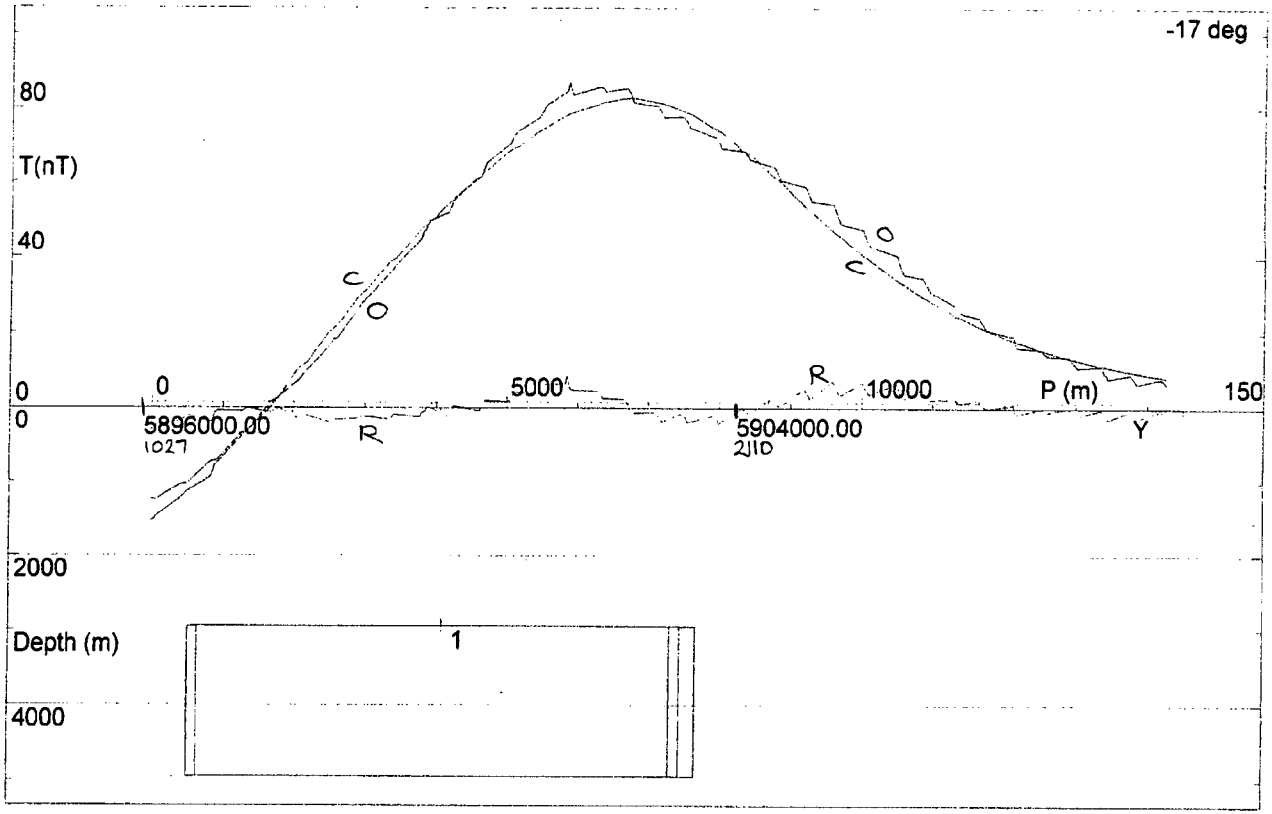
POTENT v3.06 Model Summary Report created at 13:18 05/10/1995 for Preview Resources Pty. Limited															
Inducing fi	Intensity =	60604													
	Azimuth =	9													
	Inclination	-69													
Body type abbreviations and the shape parameters have the following significance:															
Rect -	RECTANG	A = width, B = length, C = height													
Model title: OCA05AJ.MOD DEPTH ESTIMATE 224 METRES															
No.	Type	X	Y	Depth	Strike	Dip	Plunge	Susc.	Rem f	Rem az	Rem inc	A	B	C	D
		m	m	m	deg	deg	deg	SI	Amp/m	deg	deg				
3	Rect	397400.7	5906533	229.2	-10	90	0	0	0.0521	90	-69	1150.4	5500	1000	



Observations:	385007.68 5896160.80 74.5 -1.100
Model:	OCA05DA.MOD DEEP SOURCE DEPTH ESTIMATE 2947 METRI
Contours of:	Observed field; Contour intervals: 8.0000, 40.0000 nT
POTENT v3.06	Plan drawn at 11:33 10/10/1995 for Preview Resources Pty. Limi



Observations:	385007.68 5896160.80 74.5 -1.100
Model:	OCA05DA.MOD DEEP SOURCE DEPTH ESTIMATE 2947 METRI
Contours of:	Observed field; Contour intervals: 8.0000, 40.0000 nT
POTENT v3.06	Plan drawn at 11:27 10/10/1995 for Preview Resources Pty. Limi

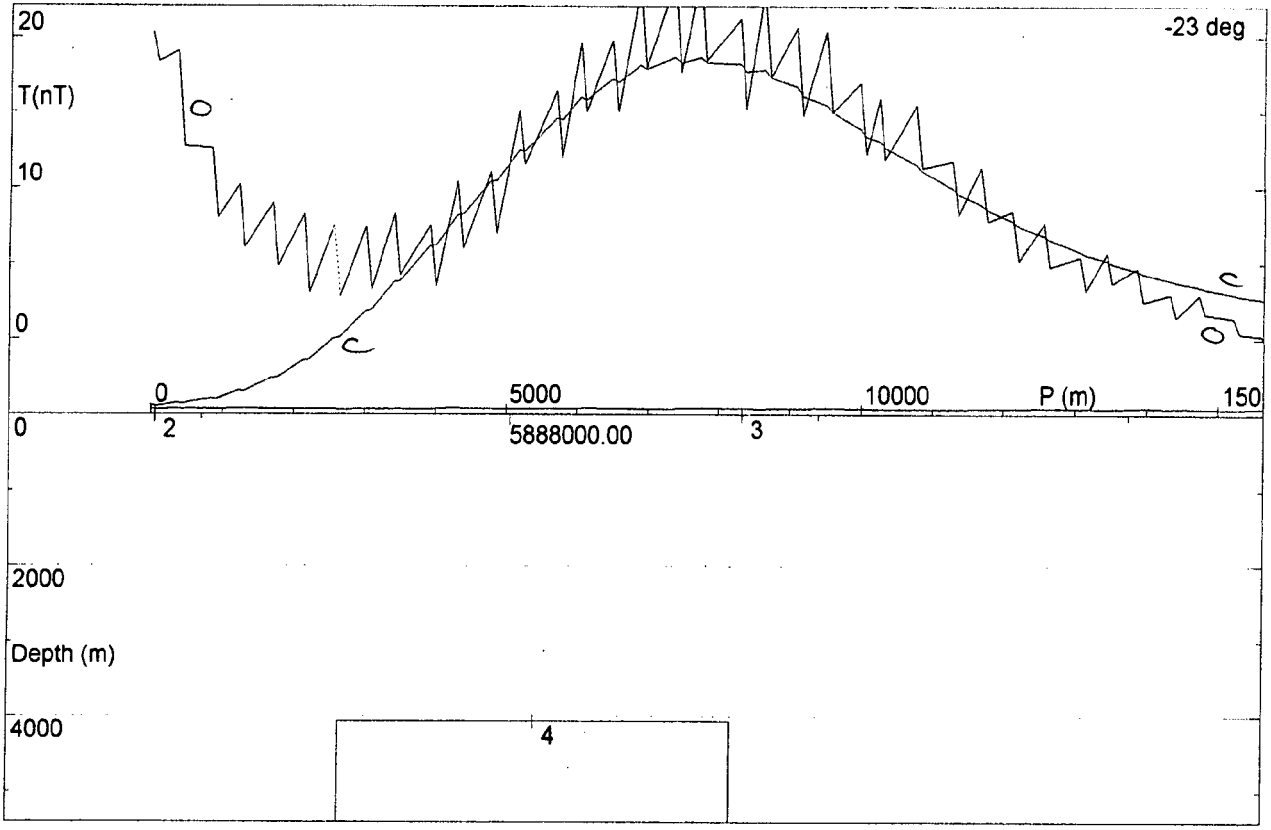


Observations: 385007.68 5896160.80 74.5 -1.100
Profile #2;
Model: OCA05DA.MOD DEEP SOURCE DEPTH ESTIMATE 2947 METRES
Calculation mode: Total Magnetic Intensity

Observed: O Calculated: C
Residual: R Individual body:

POTENT v3.06 Profile drawn at 14:23 10/10/1995 for Preview Resources Pty. Limited

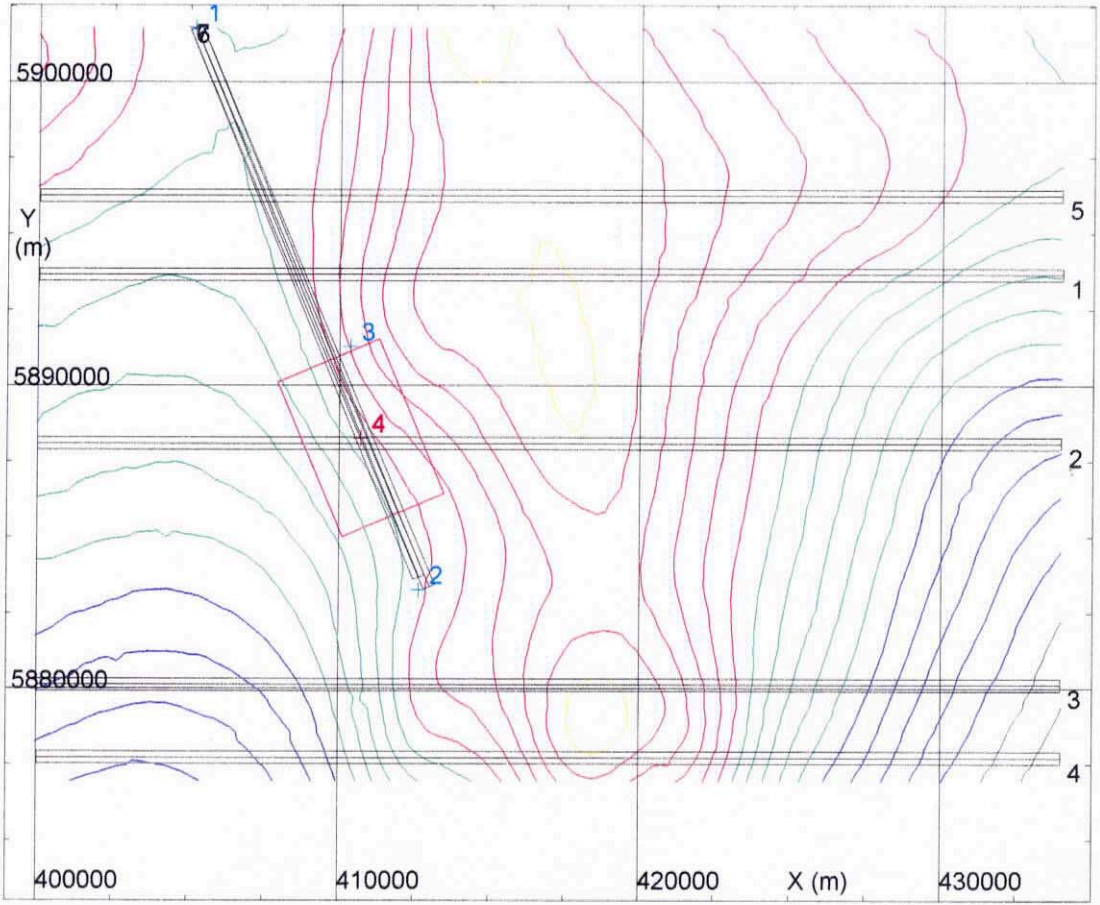
POTENT v3.06 Model Summary Report created at 14:30 10/10/1995 for Preview Resources Pty. Limited												
Inducing fie	Intensity =	60604										
	Azimuth =	9										
	Inclination	-69										
Body type abbreviations and the shape parameters have the following significance:												
Rect -	RECTANG	A = width, B = length, C = height										
Model title: OCA05DA.MOD DEEP SOURCE DEPTH ESTIMATE 2947 METRES												
No.	Type	X	Y	Depth	Strike	Dip	Plunge	Susc.	A	B	C	
		m	m	m	deg	deg	deg	SI				
1	Rect	394931.9	5899710	2947	-14	90	0	0.018616	8128.1	6805	2000	



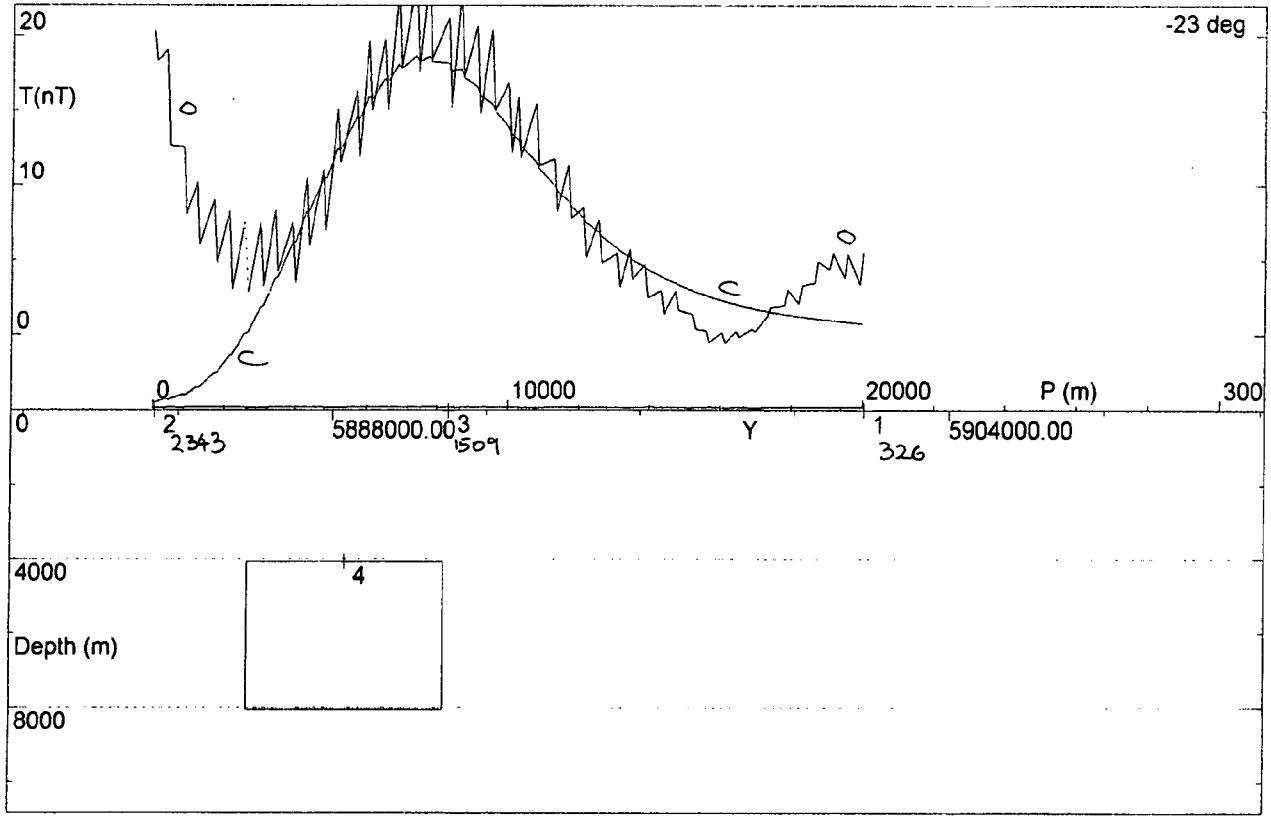
Observations: 433987.16 5876946.10 74.5 -31.164
Profile #6;
Model: OCA06AF.MOD DEPTH ESTIMATE 4063 METRES FOR SOURCE ON SEISMIC LINE 95C-05-CDP
Calculation mode: Total Magnetic Intensity

Observed: O Calculated: C
Residual: Individual body:

POTENT v3.06 Profile drawn at 14:55 02/10/1995 for Preview Resources Pty. Limited



Observations:	433987.16 5876946.10 74.5 -31.164
Model:	OCA06AF.MOD DEPTH ESTIMATE 4063 METRES FOR SOURCE ON SEISM
Contours of:	Observed field; Contour intervals: 20.0000, 100.0000 nT
POTENT v3.06	Plan drawn at 15:36 02/10/1995 for Preview Resources Pty. Limited

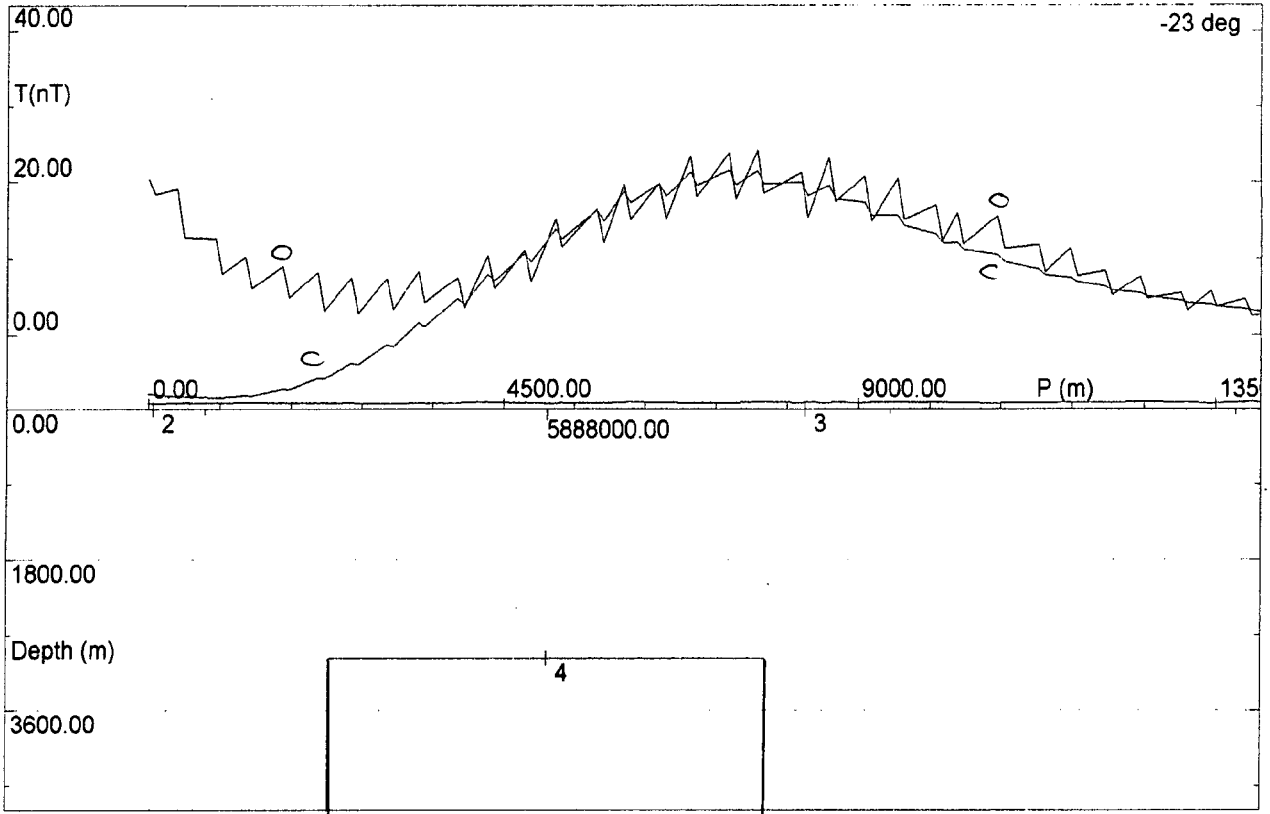


Observations: 433987.16 5876946.10 74.5 -31.164
Profile #6;
Model: OCA06AF.MOD DEPTH ESTIMATE 4063 METRES FOR SOURCE ON SEISMIC LINE 95C-05-CDP
Calculation mode: Total Magnetic Intensity

Observed: O Calculated: C
Residual: Individual body:

POTENT v3.06 Profile drawn at 14:52 02/10/1995 for Preview Resources Pty. Limited

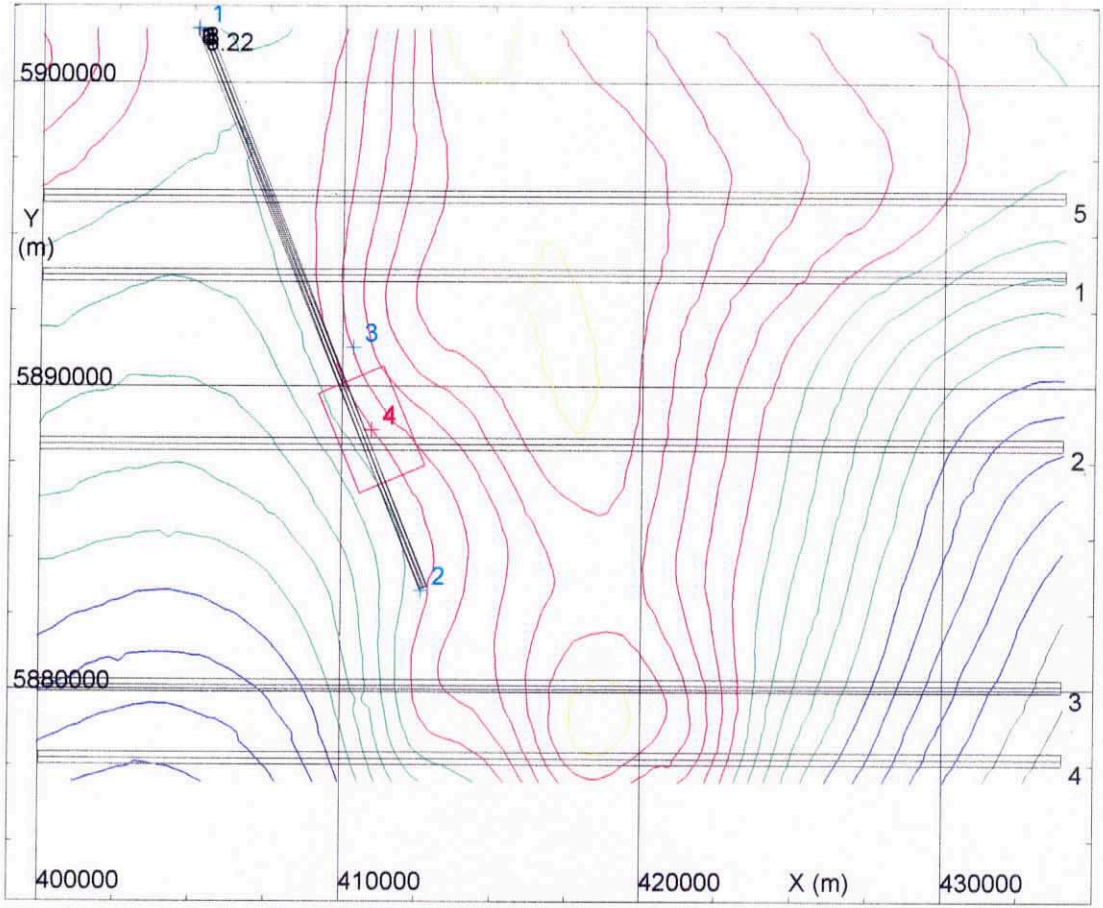
POTENT v3.06 Model Summary Report created at 15:39 02/10/1995 for Preview Resources Pty. Limited												
Inducing fie	Intensity =	60604										
	Azimuth =	9										
	Inclination	-69										
Body type abbreviations and the shape parameters have the following significance:												
Rect -	RECTANG	A = width, B = length, C = height										
Model title: OCA06AF.MOD DEPTH ESTIMATE 4063 METRES FOR SOURCE ON SEISMIC LINE 95C-05-CDP												
No.	Type	X	Y	Depth	Strike	Dip	Plunge	Susc.	A	B	C	D
		m	m	m	deg	deg	deg	SI				
4	Rect	410745.9	5888278	4063.2	-23	90	0	0.008477	3661.4	5533.6	4000	



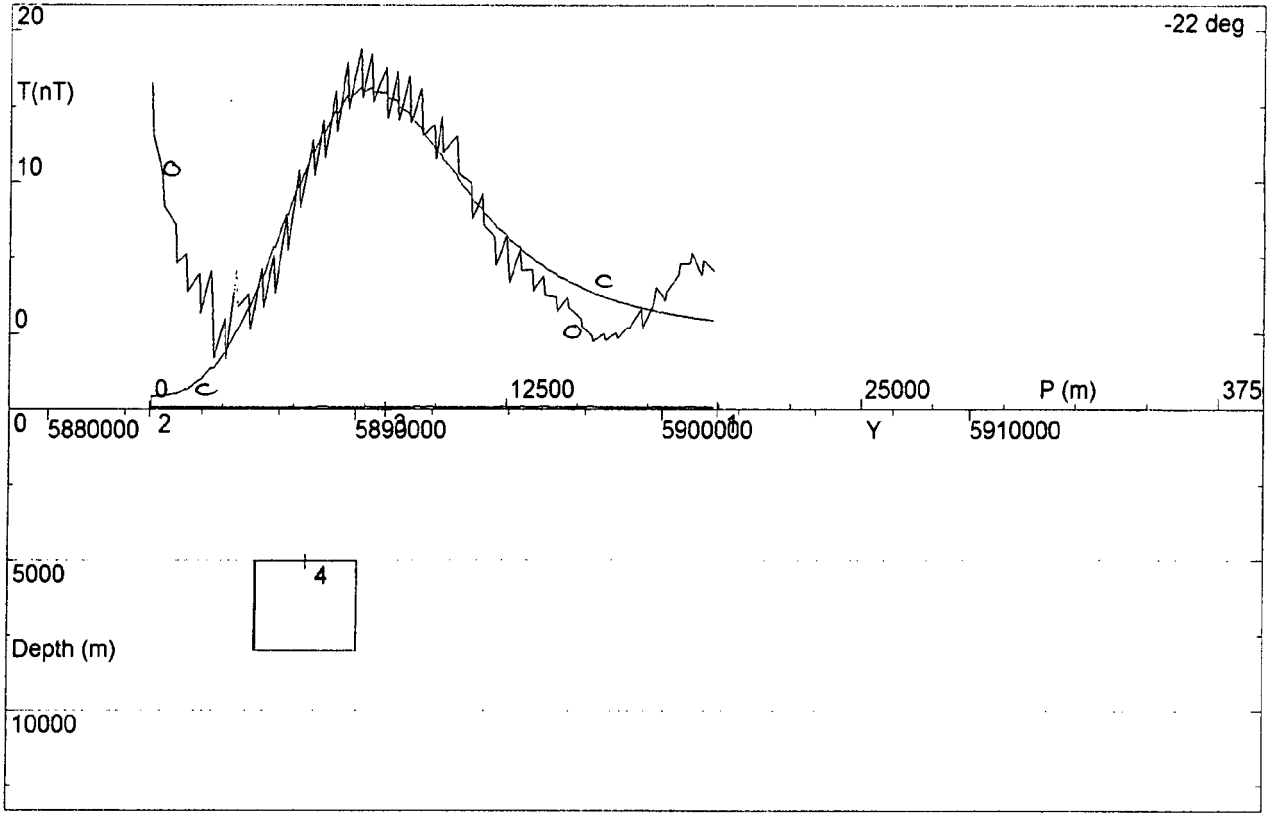
Observations: 433987.16 5876946.10 74.5 -31.164
Profile #6;
Model:
Calculation mode: Total Magnetic Intensity

Observed: Calculated:
Residual: Individual body:

POTENT v3.06 Profile drawn at 12:52 02/10/1995 for Preview Resources Pty. Limited



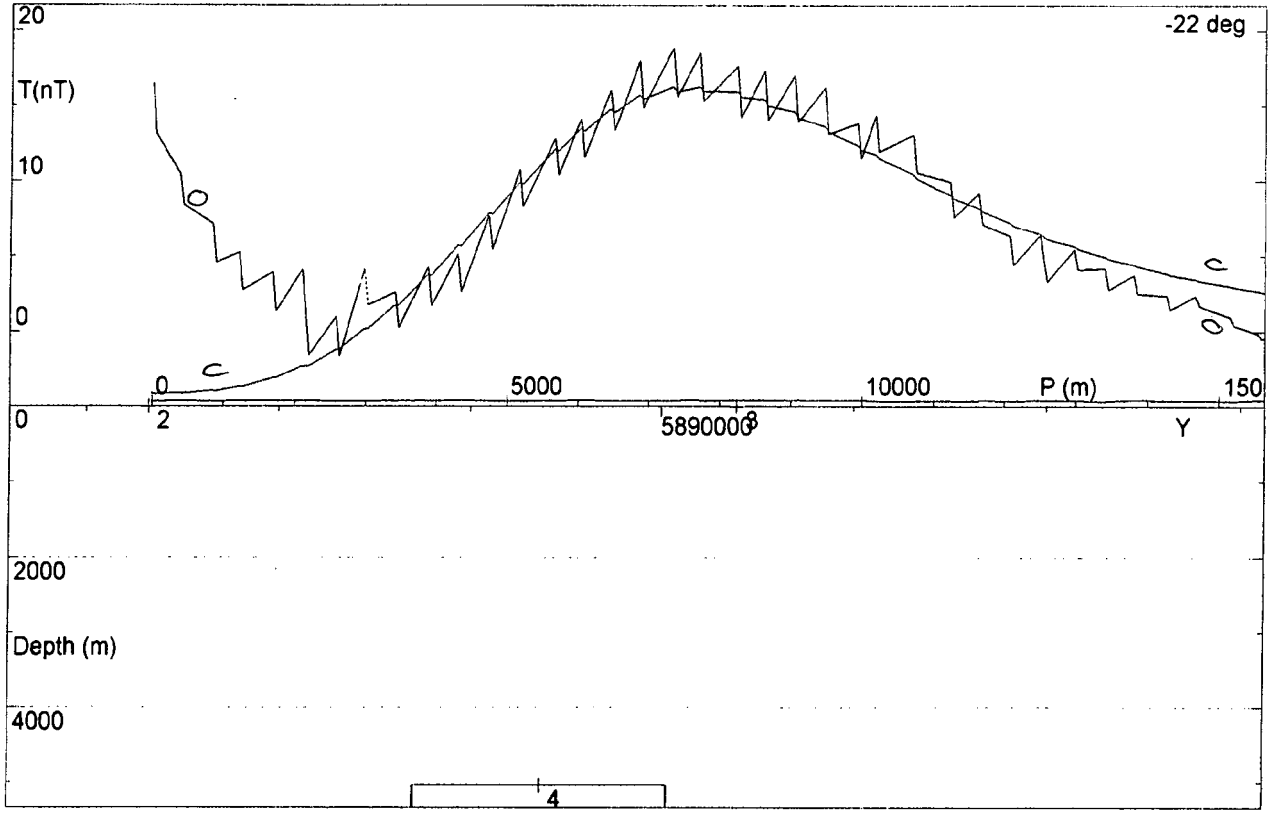
Observations:	433987.16 5876946.10 74.5 -31.164
Model:	OCA06AG.MOD MAXIMUM DEPTH ESTIMATE 5034 METRES
Contours of:	Observed field; Contour intervals: 20.0000, 100.0000 nT
POTENT v3.06	Plan drawn at 17:15 02/10/1995 for Preview Resources Pty. Limited



Observations: 433987.16 5876946.10 74.5 -31.164
Profile #6;
Model: OCA06AG.MOD MAXIMUM DEPTH ESTIMATE 5034 METRES
Calculation mode: Total Magnetic Intensity

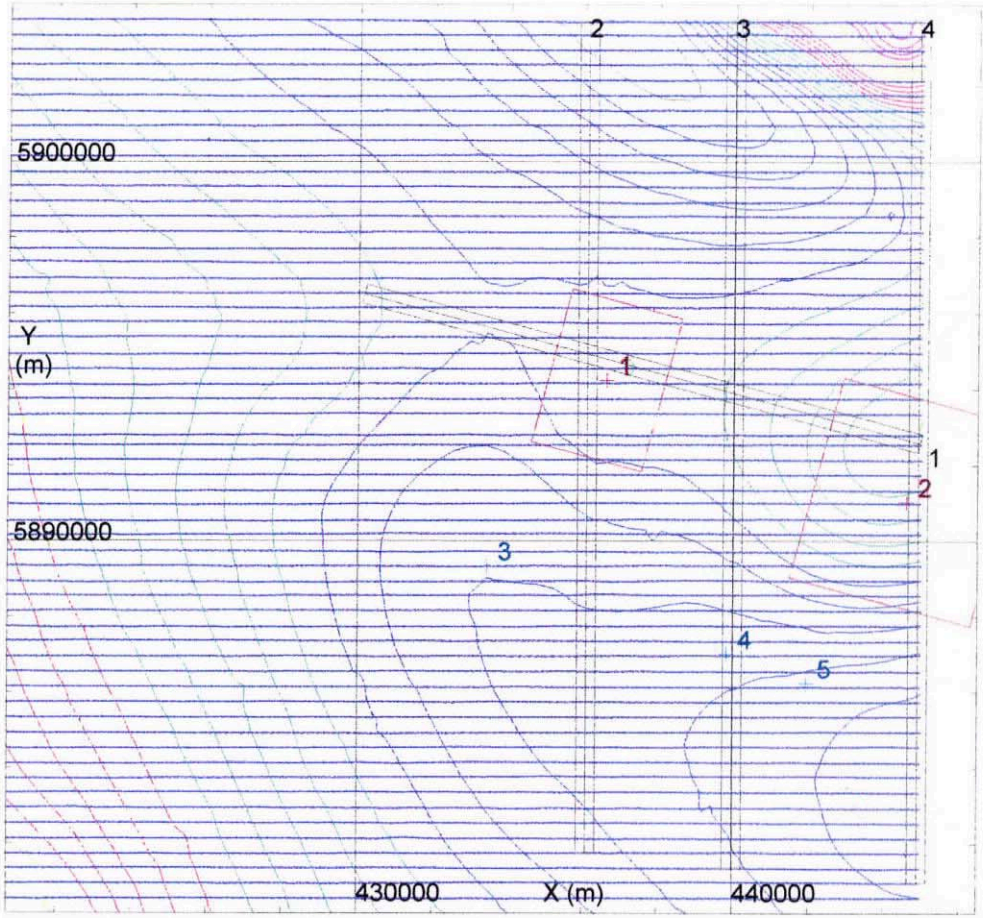
Observed: O Calculated: C
Residual: Individual body:

POTENT v3.06 Profile drawn at 17:11 02/10/1995 for Preview Resources Pty. Limited

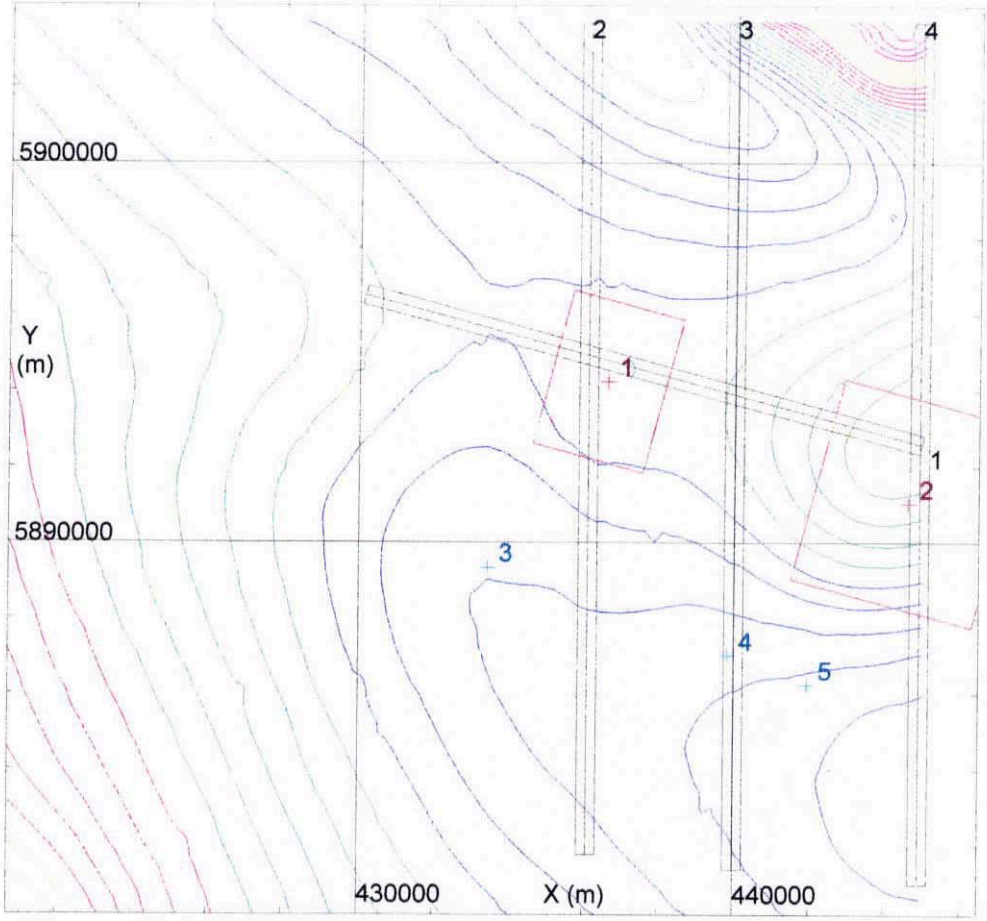


Observations:	433987.16 5876946.10 74.5 -31.164
Profile #6;	
Model:	OCA06AG.MOD MAXIMUM DEPTH ESTIMATE 5034 METRES
Calculation mode:	Total Magnetic Intensity
Observed:	O
Calculated:	C
Residual:	
Individual body:	
POTENT v3.06	Profile drawn at 17:09 02/10/1995 for Preview Resources Pty. Limited

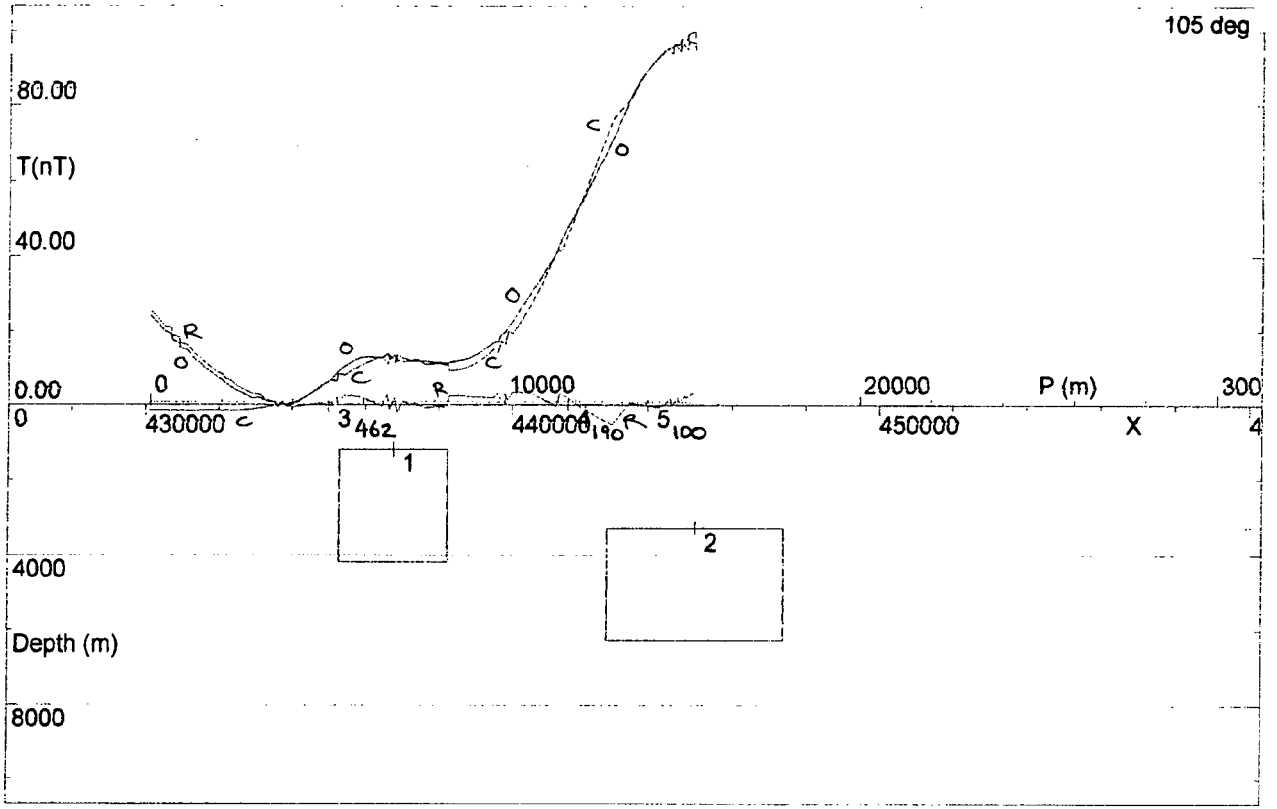
POTENT v3.06 Model Summary Report created at 17:18 02/10/1995 for Preview Resources Pty. Limited												
Inducing fi	Intensity =	60604										
	Azimuth =	9										
	Inclination	-69										
Body type abbreviations and the shape parameters have the following significance:												
Rect -	RECTANG	A = width, B = length, C = height										
Model title: OCA06AG.MOD MAXIMUM DEPTH ESTIMATE 5034 METRES												
No.	Type	X	Y	Depth	Strike	Dip	Plunge	Susc.	A	B	C	D
		m	m	m	deg	deg	deg	SI				
4	Rect	411017.6	5888575	5034.5	-23	90	0	0.029487	2342.7	3572.1	3000	



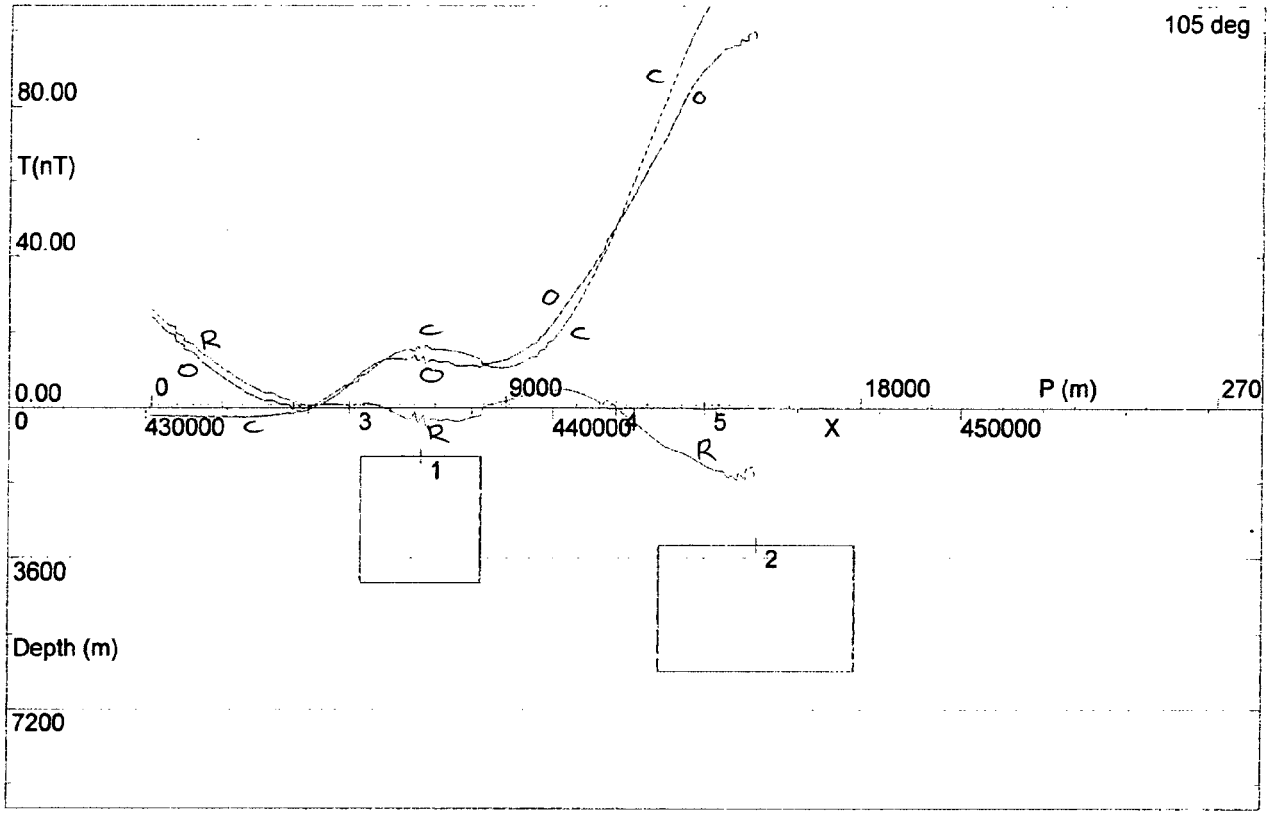
Observations:	444991.90 5880117.65 74.1 -143.677
Model:	OCA07AC.MOD DEPTH ESTIMATES 1180 AND 3280 METRES
Contours of:	Observed field; Contour intervals: 20.0000, 100.0000 nT
POTENT v3.06	Plan drawn at 09:59 11/10/1995 for Preview Resources Pty. Limi



Observations:	444991.90 5880117.65 74.1 -143.677
Model:	OCA07AC.MOD DEPTH ESTIMATES 1180 AND 3280 METRES
Contours of:	Observed field; Contour intervals: 20.0000, 100.0000 nT
POTENT v3.06	Plan drawn at 10:06 11/10/1995 for Preview Resources Pty. Limi



Observations:	444991.90 5880117.65 74.1 -143.677
Profile #1;	
Model:	OCA07AC.MOD DEPTH ESTIMATES 1180 AND 3280 METRES
Calculation mode:	Total Magnetic Intensity
Observed:	O
Calculated:	C
Residual:	R
Individual body:	
POTENT v3.06	Profile drawn at 09:58 11/10/1995 for Preview Resources Pty. Limited

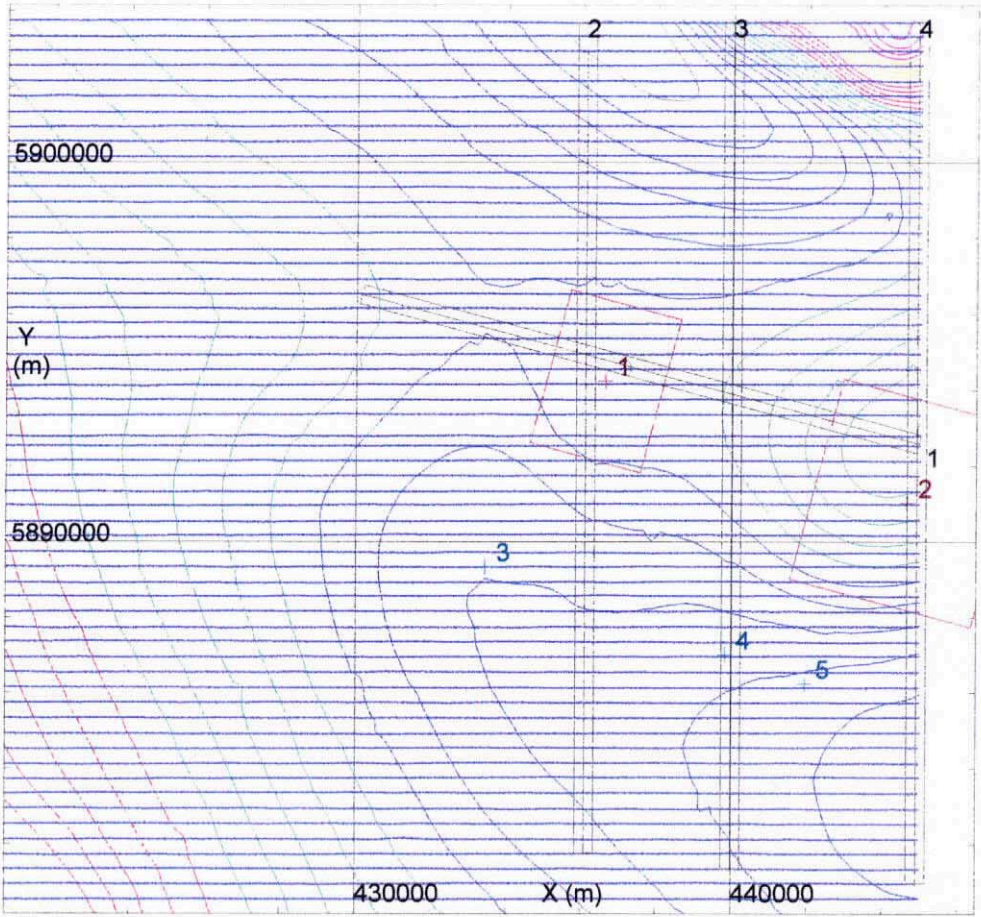


Observations: 444991.90 5880117.65 74.1 -143.677
Profile #1;
Model: OCA07AC.MOD DEPTH ESTIMATES 1180 AND 3280 METRES
Calculation mode: Total Magnetic Intensity

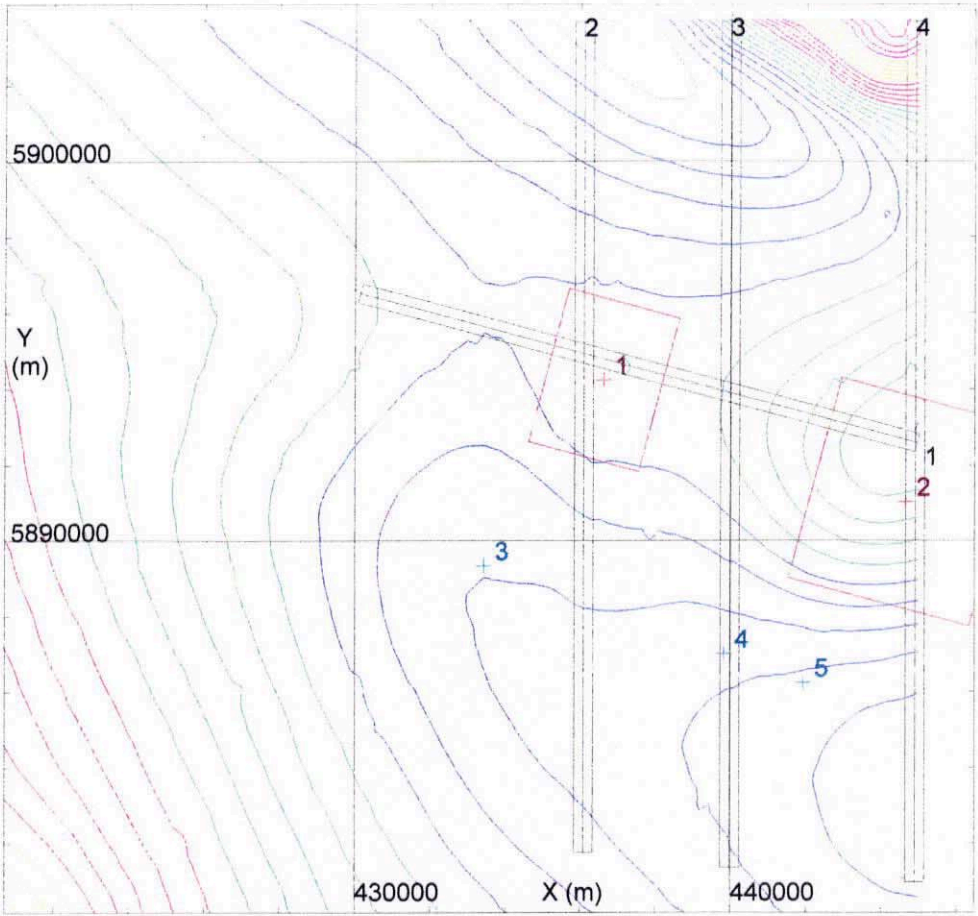
Observed: O Calculated: C
Residual: R Individual body:

POTENT v3.06 Profile drawn at 11:32 11/10/1995 for Preview Resources Pty. Limited

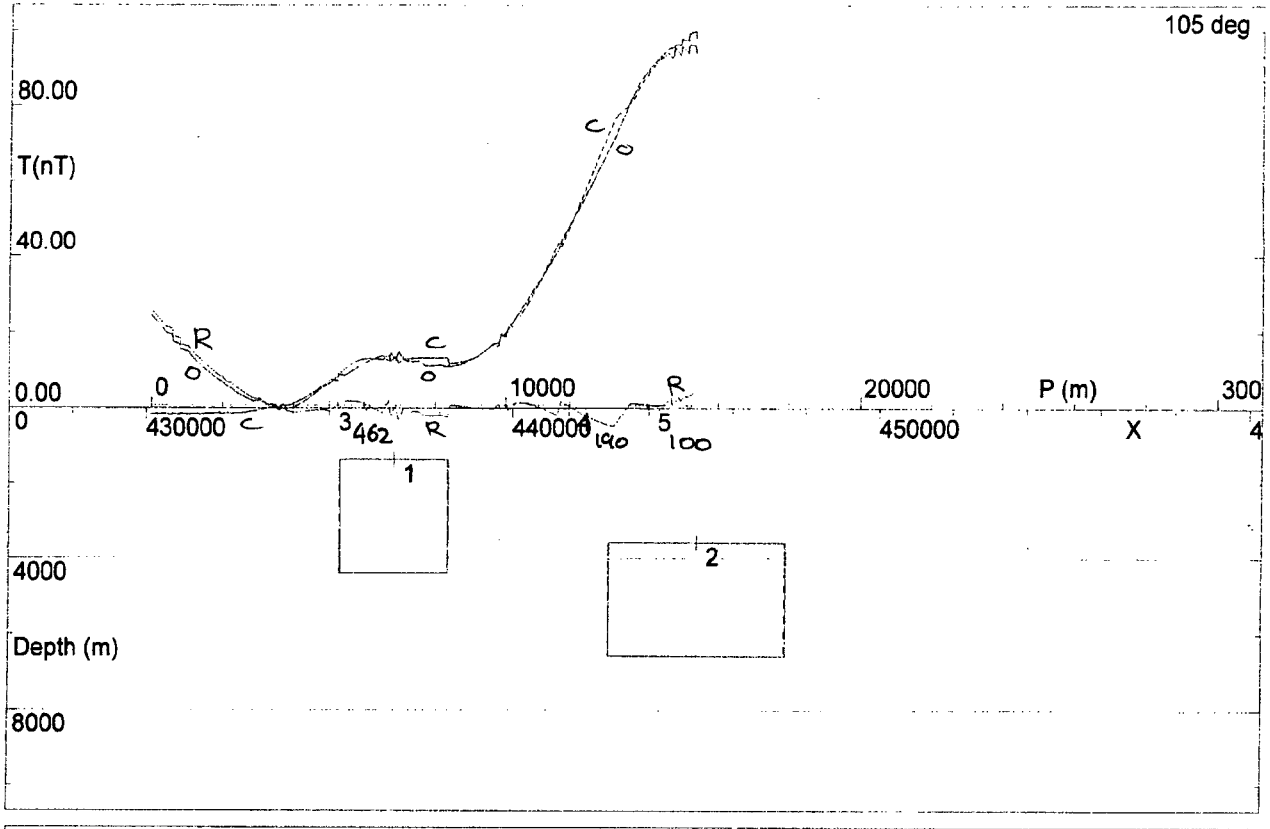
POTENT v3.06 Model Summary Report created at 10:07 11/10/1995 for Preview Resources Pty. Limited												
Inducing fie	Intensity =	60604										
	Azimuth =	9										
	Inclination	-69										
Body type abbreviations and the shape parameters have the following significance:												
Rect -	RECTANG	A = width, B = length, C = height										
Model title: OCA07AC.MOD DEPTH ESTIMATES 1180 AND 3280 METRES												
No.	Type	X	Y	Depth	Strike	Dip	Plunge	Susc.	A	B	C	D
		m	m	m	deg	deg	deg	SI				
1	Rect	436634	5894250	1181	-75	90	0	0.001708	4171.5	3049.2	3000	
2	Rect	444614.9	5891039	3279.7	-75	90	0	0.028	5469.6	4960.2	3000	



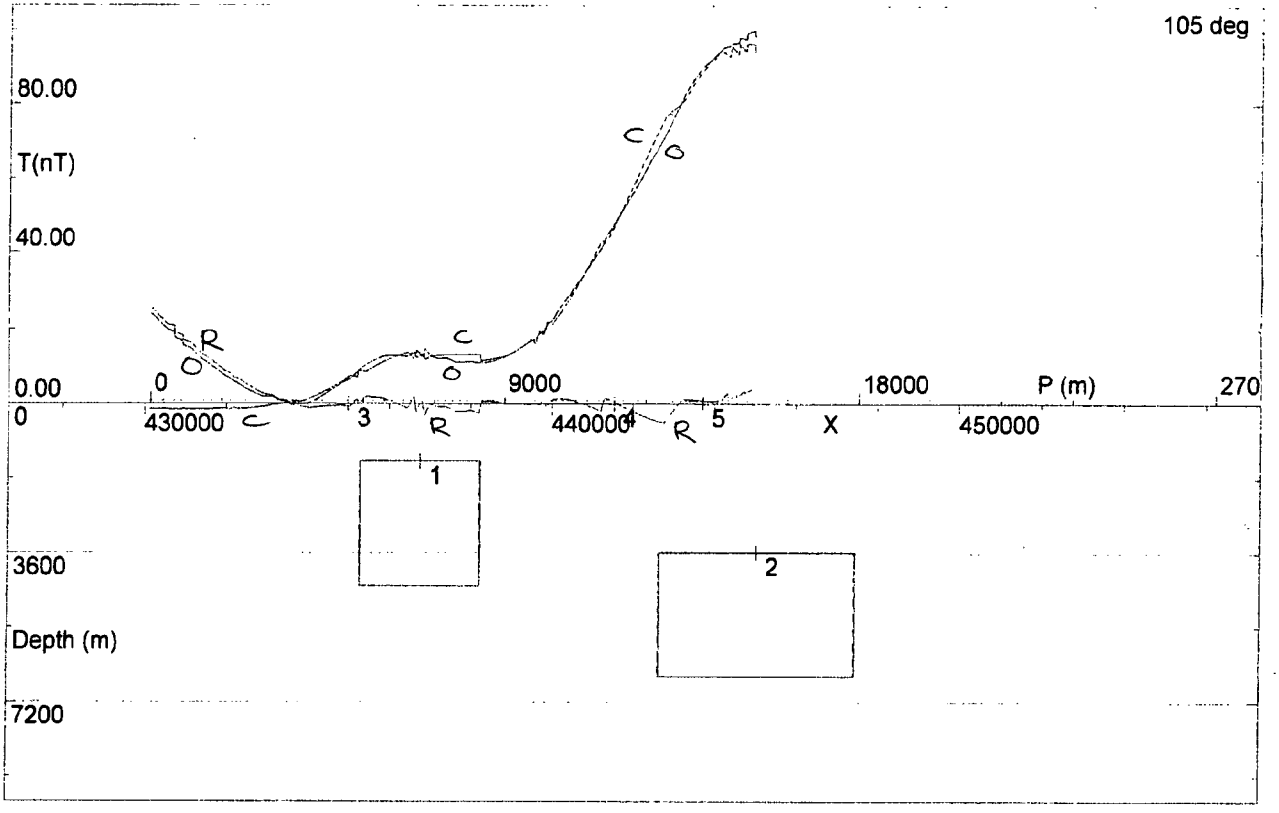
Observations:	444991.90 5880117.65 74.1 -143.677
Model:	OCA07AE.MOD MAXIMUM DEPTH ESTIMATES 1386 AND 3575
Contours of:	Observed field; Contour intervals: 20.0000, 100.0000 nT
POTENT v3.06	Plan drawn at 10:39 11/10/1995 for Preview Resources Pty. Limi



Observations:	444991.90 5880117.65 74.1 -143.677
Model:	OCA07AE.MOD MAXIMUM DEPTH ESTIMATES 1386 AND 3575
Contours of:	Observed field; Contour intervals: 20.0000, 100.0000 nT
POTENT v3.06	Plan drawn at 10:37 11/10/1995 for Preview Resources Pty. Limi



Observations:	444991.90 5880117.65 74.1 -143.677
Profile #1;	
Model:	OCA07AE.MOD MAXIMUM DEPTH ESTIMATES 1386 AND 3575 METRES
Calculation mode:	Total Magnetic Intensity
Observed:	O
Calculated:	C
Residual:	R
Individual body:	
POTENT v3.06	Profile drawn at 10:37 11/10/1995 for Preview Resources Pty. Limited



Observations:	444991.90 5880117.65 74.1 -143.677
Profile #1;	
Model:	OCA07AE.MOD MAXIMUM DEPTH ESTIMATES 1386 AND 3575 METRES
Calculation mode:	Total Magnetic Intensity
Observed:	O
Calculated:	C
Residual:	R
Individual body:	
POTENT v3.06	Profile drawn at 11:31 11/10/1995 for Preview Resources Pty. Limited

POTENT v3.06 Model Summary Report created at 10:39 11/10/1995 for Preview Resources Pty. Limited												
Inducing fie	Intensity =	60604										
	Azimuth =	9										
	Inclination	-69										
Body type abbreviations and the shape parameters have the following significance:												
Rect -	RECTANG	A = width, B = length, C = height										
Model title: OCA07AE.MOD MAXIMUM DEPTH ESTIMATES 1386 AND 3575 METRES												
No.	Type	X	Y	Depth	Strike	Dip	Plunge	Susc.	A	B	C	D
		m	m	m	deg	deg	deg	SI				
1	Rect	436641.7	5894248	1386.3	-75	90	0	0.0019	4171.5	3049.2	3000	
2	Rect	444656.3	5891028	3575.2	-75	90	0	0.032	5469.6	4960.2	3000	

APPENDIX 2 LIST OF SEISMIC DEPTH SECTIONS SUPPLIED BY OCA

95C-03-CDP 1:30 000 scale
COS95-04/OHK85-15N mostly 1:30 000 scale

APPENDIX 3 LIST OF SEISMIC SECTIONS SUPPLIED BY OCA

95C-03-CDP
95C-05-CDP
COS95-04/95C-08-CDP/OHK85OHK85-3S-03S/OHK85-15/OHK85-15N
COS95-04////OHK85-15N (reduced)

APPENDIX 4 LIST OF MAPS SUPPLIED BY OCA

Otway Basin SA. Depth section line location map 1:100 000 scale

APPENDIX 5 LIST OF DIGITAL DATA SUPPLIED BY OCA

Floppy disc with shot point localities, drill holes, etc

ROBE TROUGH TMI 45 DEGREE SUNANGLE WITH MODELLED BODIES

OCA05AF
BODY 3
D=383m
AMP/M=0.2411
AZDEG=90
INC =-69

OCA05AJ
BODY 2
D=229m
AMP/M=0.521
AZDEG=90
INC =-69

OCA05DA
BODY 1
D=2947m
SI=0.0196

95C-05-CDP

95C-03-CDP

OHK85-03S

OCA04AC
D=345m
SI=0.001

OHK85-15

OCA07AC
BODY 1
D=1181m
SI=0.0017

OCA07AE
BODY 1
D=1386m
SI=0.0019

OCA07AC
BODY 2
D=3279m
SI=0.028

LUCINDALE
KILLARNEY1

CAMELBACK1

OCA02AB
BODY 3
D=164m
SI=0.0028

95C-08-CDP

OCA01AL
BODY 2
D=274m
SI=0.0011

OCA02AP
BODY 1
D=455m
SI=0.0034

OCA02AB
BODY 2
D=464m
SI=0.0025

OCA01AH
D=272m
SI=0.0006

OCA01AL
BODY 1
D=341m
SI=0.0011

OCA03AA
D=516m
SI=0.001

OCA06AG
D=5034
SI=0.0295

OCA06AF
D=4063m
SI=0.0085

OCA07AE
BODY 2
D=3575m
SI=0.032

OHK85-15N

COS95-04

ROBE1

LAKE HAWDON1

GREENWAYS1

CRANKSHAFT1

BLUE MINIMUM DEPTH ESTIMATES
RED MAXIMUM DEPTH ESTIMATES

FLANKS OF SHALLOW SOURCES MAGNETIC LINEAR ANOMALIES (FAULTS)

PATTERN BREAKS (FAULTS WITH NO MAGNETIC RESPONSE)

DEEP SOURCED FAULTS

APPROXIMATE EDGES FOR DEEP SOURCES

PREVIEW RESOURCES PTY LTD
OCA ROBE TROUGH PROJECT
TMI 45 DEGREE SUNANGLE
MODELLED BODIES, DRILLHOLES
SEISMIC SHOT POINTS
SCALE 1:100000

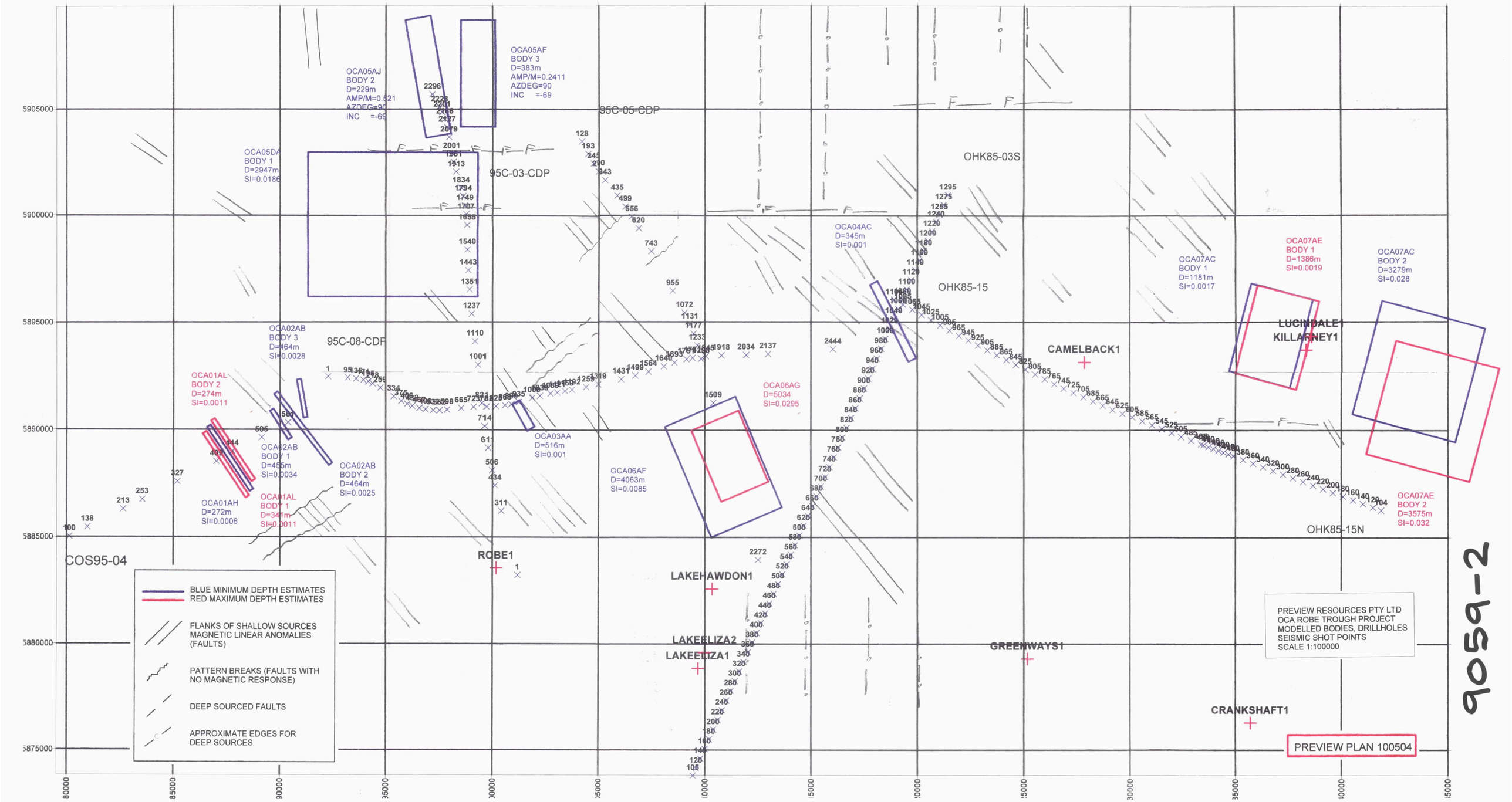
PREVIEW PLAN 100501

9059-1

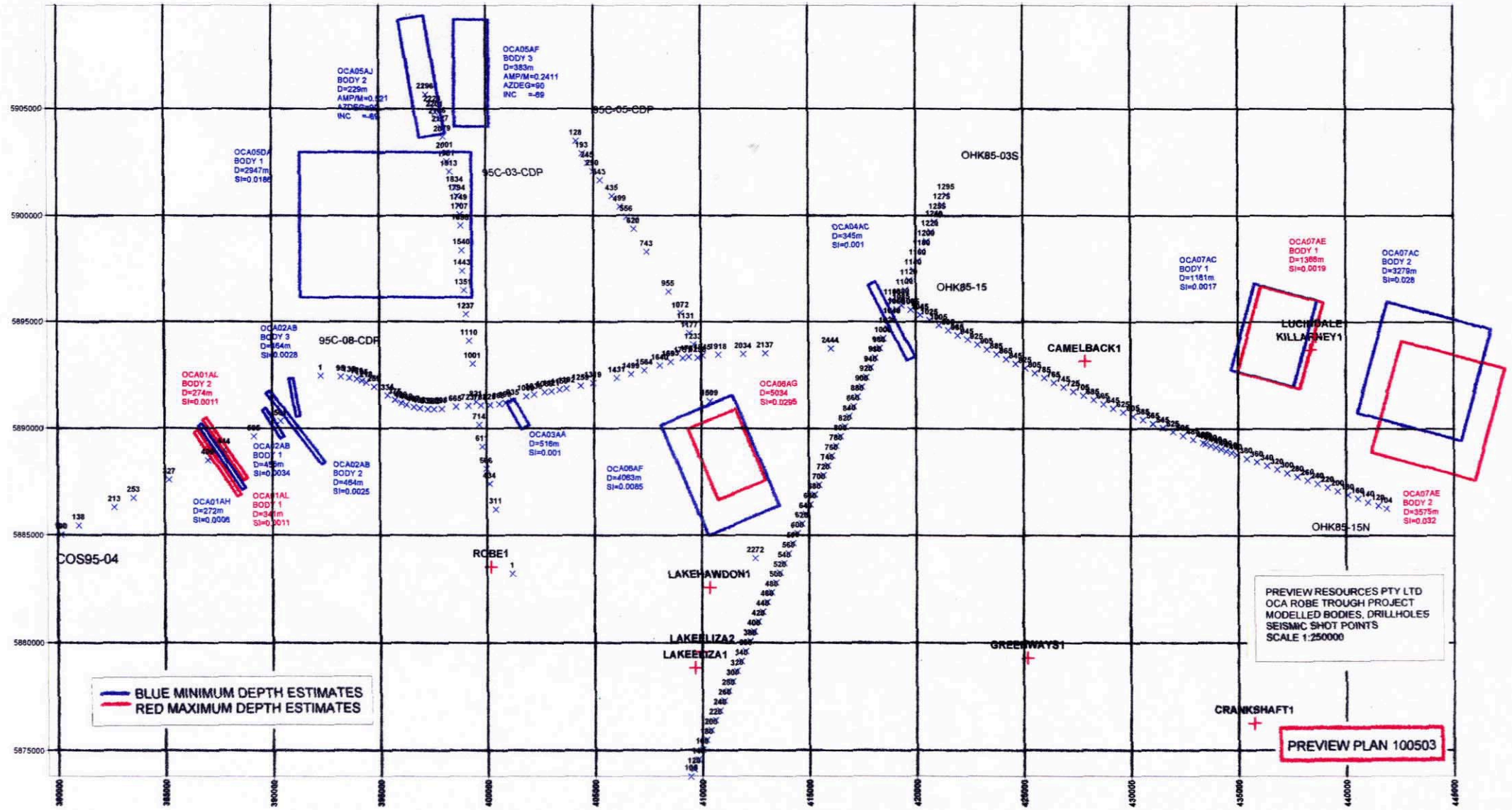
5905000
5900000
5895000
5890000
5885000
5880000
5875000

480000
485000
490000
495000
500000
505000
510000
515000
520000
525000
530000
535000
540000
545000

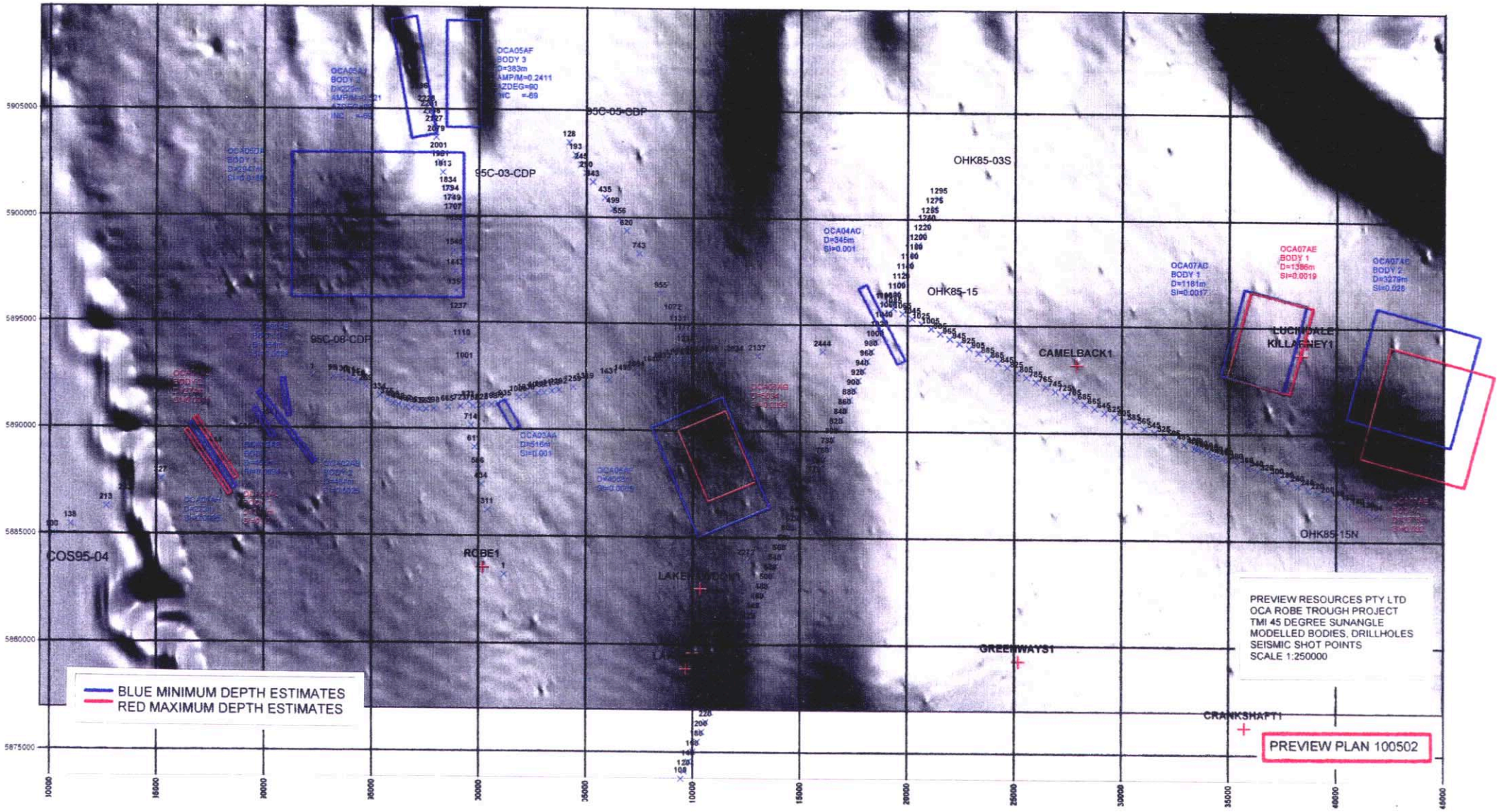
ROBE TROUGH WITH MODELLED BODIES, SEISMIC LINES AND DRILLHOLES



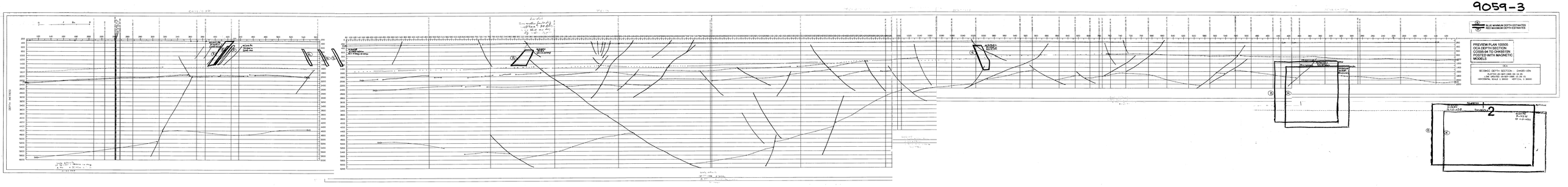
ROBE TROUGH WITH MODELLED BODIES, SEISMIC LINES AND DRILLHOLES



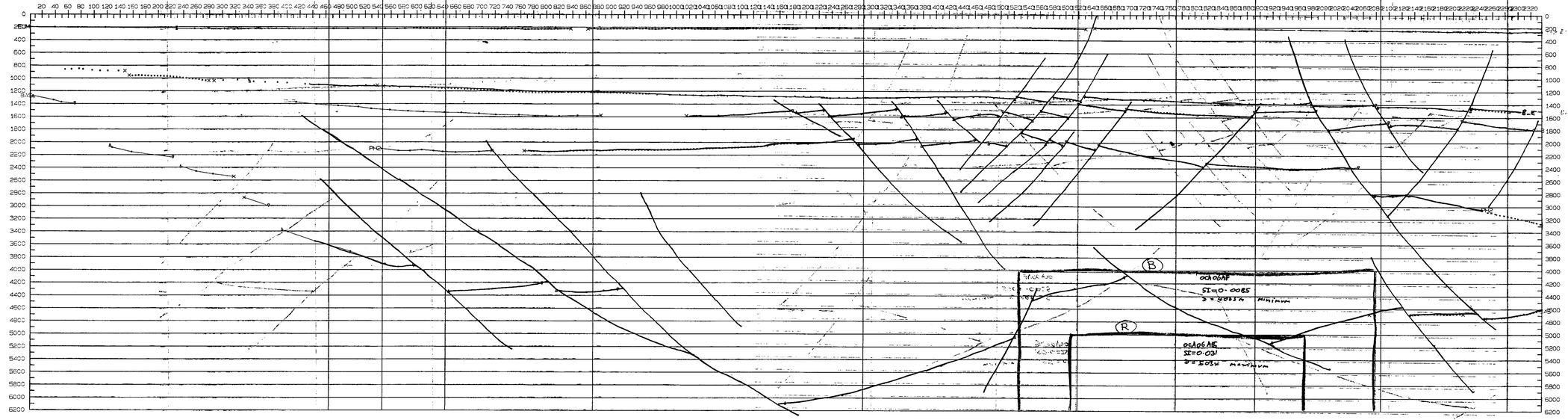
ROBE TROUGH TMI 45 DEGREE SUNANGLE WITH MODELLED BODIES



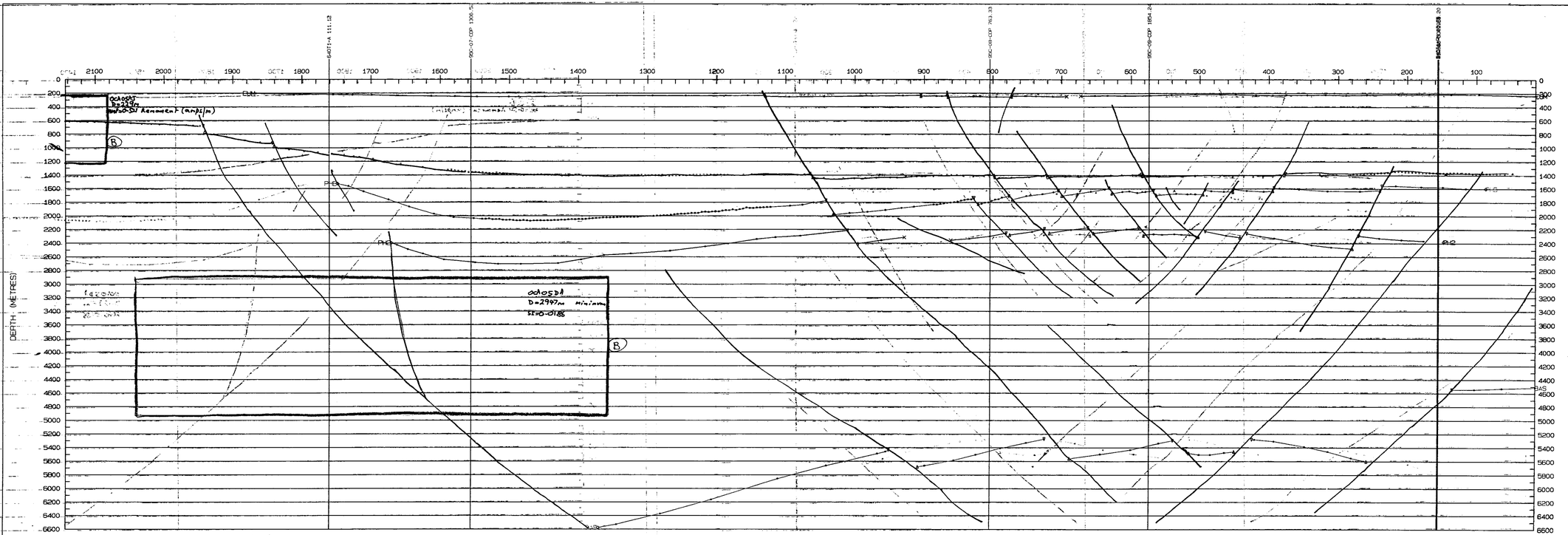
9059-3


BLUE MINIMUM DEPTH ESTIMATES
RED MAXIMUM DEPTH ESTIMATES
PREVIEW PLAN 10000S
DCA DEPTH SECTION
CDS95-94 TO CHK9515TN
MODELLED WITH MAGNETIC MODELS
DCA
SEISMIC DEPTH SECTION CHK95-15TN
VERTICAL SCALE 1: 36000 HORIZONTAL SCALE 1: 36000
DEPTH (METRES)
2
1
A
B

9059-4


DEPTH (METRES)
B
R
B
R
PREVIEW PLAN 100506
DEPTH SECTION 95C-05-CDP
POSTED WITH MAGNETIC
MODELS
OCA
SEISMIC DEPTH SECTION : 95C-05-CDP
PLOTTED 20-SEP-1995 09:18:04
LINE UPDATED 19-SEP-1995 15:22:29
HORIZONTAL SCALE 1: 30000 VERTICAL 1: 20000

9059-5



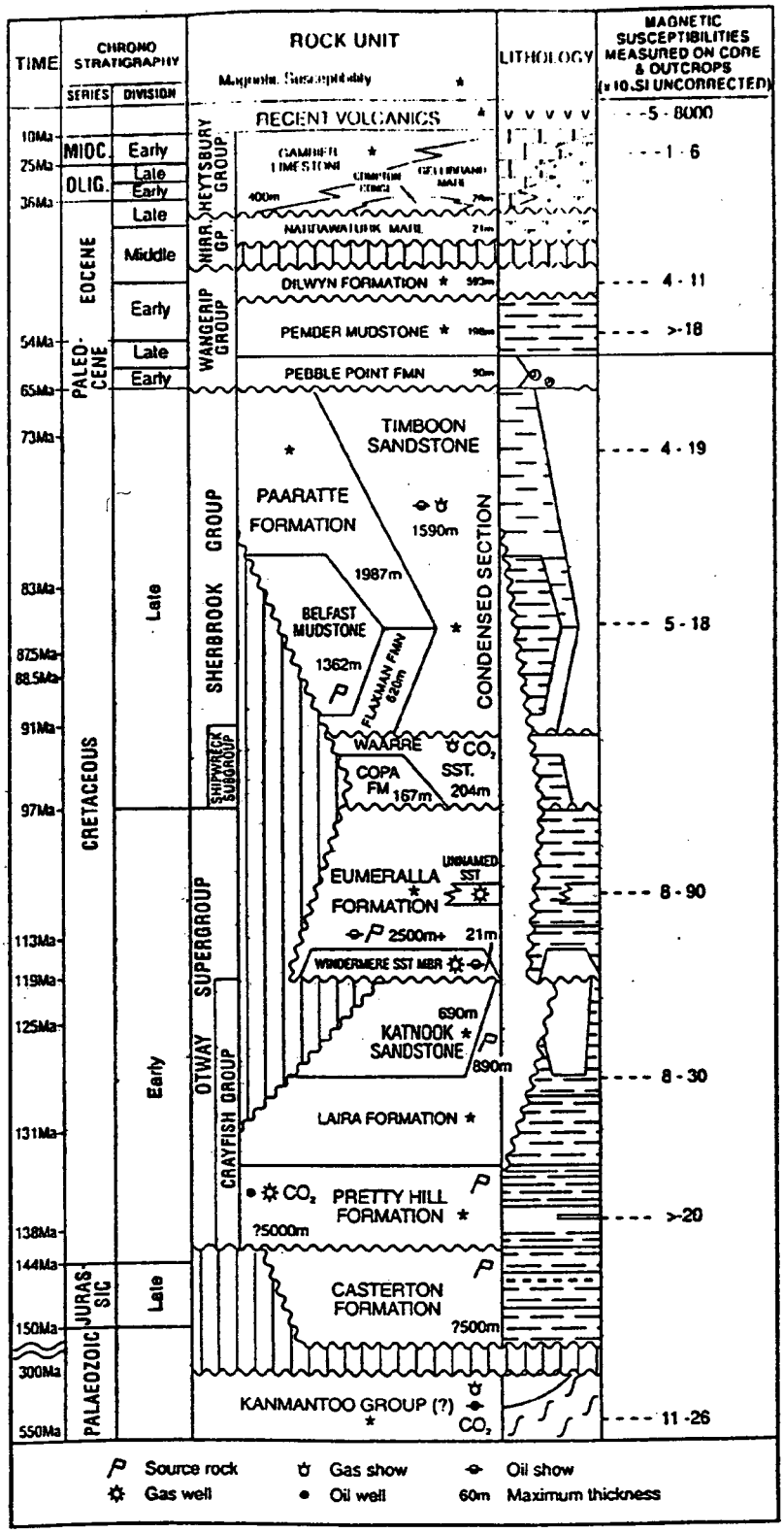
B BLUE MINIMUM DEPTH ESTIMATES
RED MAXIMUM DEPTH ESTIMATES

PREVIEW PLAN 100507
DEPTH SECTION 95-03-CDP
POSTED WITH MAGNETIC
MODELS

OCA

SEISMIC DEPTH SECTION : 95C-03-CDP

PLOTTED 20-SEP-1995 13:21:29
LINE UPDATED 20-SEP-1995 13:20:34
HORIZONTAL SCALE 1:30000 VERTICAL 1:30000



Otway Basin Aeromagnetic and Radiometric Test Survey

SUMMARY OF SUSCEPTIBILITY AND MAGNETIC LITHOSTRATIGRAP

Fig
9

MINES AND ENERGY
SOUTH AUSTRALIA

PLAN 100508