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PEGASUS GOLD AUSTRALIA LTD.

E.L. 55/83 (MANGANA)

ANNUAL REPORT - YEAR 6

24/11/1988 - 23/11/1989

OPEN FILE

89-3052

K.C. MORRISON
NOVEMBER 1989

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TENEMENT INFORMATION

E.L. 55/83 is located in the Mathinna - Mangana area of N.E. Tasmania (Fig 1.). The E.L. was granted on 24/11/1983 to Mr K.A. White and transferred to Alcaston Mining N.L. in 1987. At the end of licence year 5 (23/11/1988) 50% of the E.L. was relinquished, leaving 88km², excluding several current mineral leases (Plan 1, Appendix 1.)

During 1989 an option agreement was reached between Alcaston Mining N.L. and Pegasus Gold Australia Ltd. for the exploration of the property. Consequently, Pegasus Gold have conducted all exploration during year 6 and are currently operating the licence.

SUMMARY OF PREVIOUS EXPLORATION

In March 1984 an assessment of the hard rock gold potential of E.L. 55/83 was completed by Summons Geoservices Pty. Ltd.. Known mineralisation occurrences were classified according to quartz vein, stringer system and disseminated styles. The report recognised that major, blind, mineralised quartz vein deposits probably remain to be discovered, but that the difficulty of locating such bodies combined with their small-to-moderate likely tonnages render such targets only moderately attractive. In contrast, the potential for discovering larger, lower grade ore bodies of the stringer system and/or disseminated in country rock styles, suitable for open cut mining, was higher and such deposits are more attractive targets.

Gully-fill placer deposits at Mangana and Mathinna were trenched and bulk sampled in 1985. Average recovered grades of approximately 0.3 g Au per bank m³ were obtained at Majors Gully, Mangana and at Black Horse Gully, Mathinna, the average recovered grade was approximately 0.2 g/bank m³. The Majors Gully deposit is now held under Mineral Lease and a treatment plant has been built on site.

Preliminary bulk sampling of an extensive potential dredging target at Midsons Flat, on the South Esk River flats, has been carried out. These sediments are gold mineralised at lower grade than the gully alluvial deposits. Insufficient work has been done on the South Esk prospect to estimate an average grade and tonnage.

In September 1988 the Argyle prospect, a N.W. trending, steeply dipping quartz reef located 1.5 Km S.E. of Mangana was drilled.

Eight down hole hammer percussion drill holes, totalling 245 metres, were drilled through the target and 38 composite rock chip samples were taken from the target rocks exposed in old exploration drives and small underground stopes. Occasional erratic gold ore grades were encountered by the rock chip sampling but overall the results were disappointing. The best drill intersection was an 8 metre zone in hole AA7 (see year 5 annual report) grading 0.125-0.132 g/t. Au. No evidence of a halo of low grade mineralisation around the reef was encountered.

035

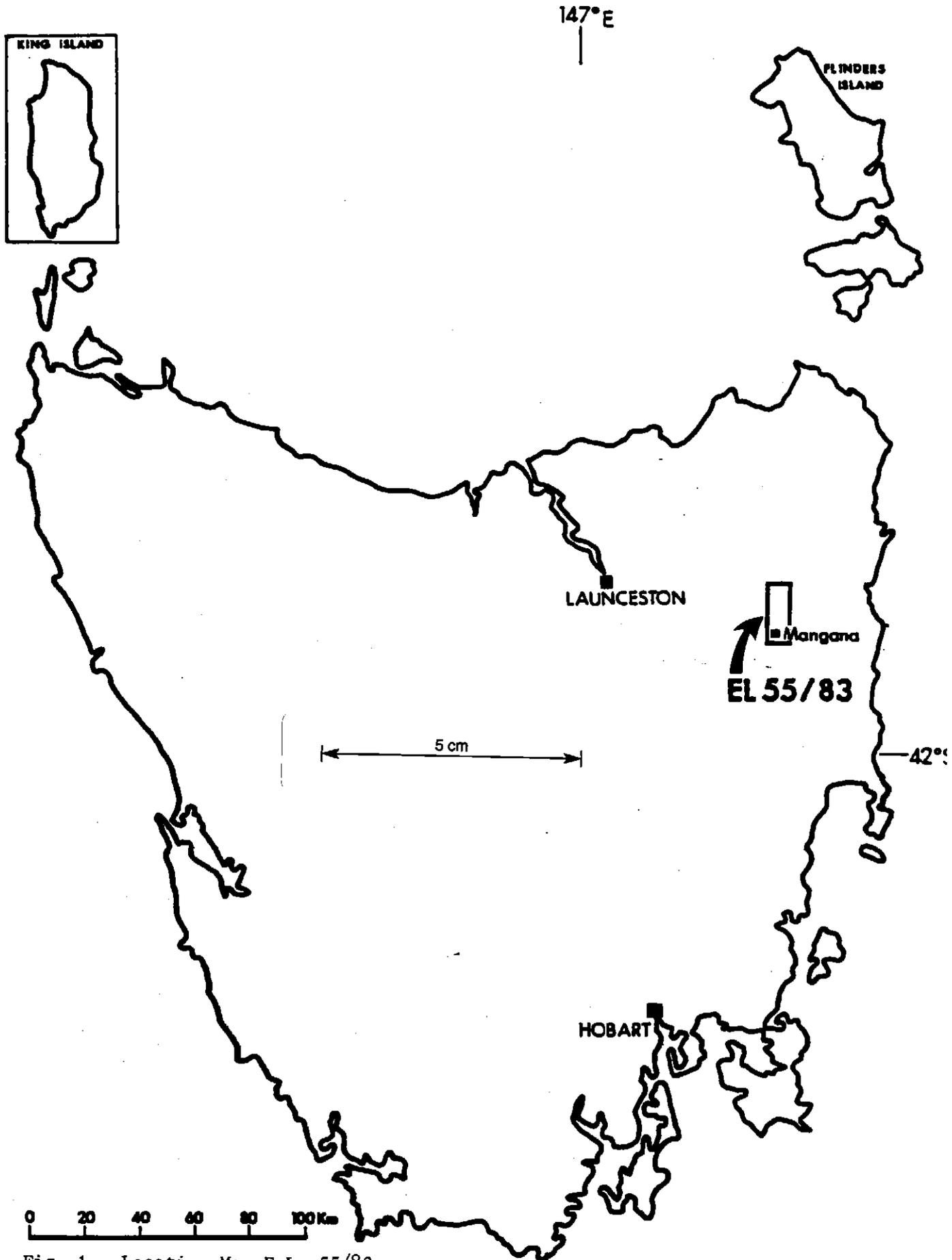


Fig. 1. Location Map E.L. 55/83

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SUMMARY AND CONCLUSIONS OF WORK COMPLETED IN YEAR 6 (STAGE ONE PROGRAMME)

The major project undertaken during year 6 was the exploration of the Tower Hill quartz vein stockwork target. Due to delays arising from analytical laboratory problems, the stage 2 programme of work (designed to drill test the Tower Hill, Cardinal-Buckland-Alpine, and Tower Hill Freehold prospects) was not completed by the end of year 6.

Since April 1989 the Tower Hill prospect has been gridded, mapped, chip sampled, soil sampled and a ground magnetic survey has been conducted. The main findings from this work are as follows.

1) The prospect comprises two sub parallel, N.W. - striking, near vertically dipping, sandstone units separated by, and partly enclosed in, argillaceous slate. A quartz vein stockwork showing multiple vein directions is developed in the sandstones. Minor quartz veining occurs within the slate.

2) Several small old mines and exploration shafts exist, sunk in both sandstone and slate. The major workings were the Tower Hill and Sunbeam mines. Gold production from these workings is unknown but the size of the mullock heaps suggests they were minor workings.

In addition numerous explorations trenches and pits were dug by the early workers, mainly within the sandstones and normal to their strike.

3) Rock chip sampling produced several ore grade gold values, mainly from dumps at the Sunbeam and Tower Hill workings.

4) Gold and arsenic soil geochemistry suggests that gold plus sulphide mineralisation is partly fracture controlled and partly controlled by sandstone/high frequency quartz veining.

5) Ground magnetics showed that the rocks give a very spikey response with no lithological resolution achieved. Locally, magnetic lows correspond to the major old workings and at least one untested location.

6) Ten reverse circulation drill holes have been sited to test the shallow subsurface for gold mineralisation, utilising various combinations of the findings described above.

7) A programme of check assays on residual samples from the 1988 Argyle prospect drilling correlated closely with the original analytical data, and confirmed the downgrading of this target.

8) Preliminary regional work concentrated on the aeromagnetic data available from the NETGOLD project. A general correlation between magnetic lows and known gold provinces was observed, and further magnetics work is proposed by Pegasus during licence year 7.

REGIONAL EXPLORATION

No systematic regional exploration of the E.L. was undertaken. Thematic Mapper satellite imagery and NETGOLD aeromagnetics maps have been acquired and work is continuing to determine an effective method for targeting prospects on the basis of their structural geology and magnetic response.

The Department of Mines residual magnetic contour map, constructed from a 1500 metre barometric altitude datum, shows encouraging correlation between known mineralised areas and magnetic lows. These data are being compared with the results of the prospect scale magnetics survey at Tower Hill where small local magnetic lows correlate with the Tower Hill and Sunbeam workings.

PROSPECT EXPLORATION

ARGYLE

During year 5 the Argyle reef was drilled by Alcaston Mining N.L., with surprisingly poor results. The residual bulk samples covering the reef intersections were re sampled during year 6 and the samples were submitted to Classic Comlabs Ltd., South Australia for check assays, using the Fire Assay Fusion / AAS (50 gram charge) method. The results are enclosed in Appendix 2. The check analyses correlated well with the original 1988 work and confirmed the downgrading of this prospect. The most significant intersection according to both the original and the check sampling occurred in hole AA7, from 13-21 metres (c.f. year 5 Annual Report). A comparison of the results over this interval is shown below.

	1988 ASSAY	1989 RESAMPLED ASSAY (ppm Au.)
AA7 13-14 metres	0.125	0.04
14-15	0.274	0.28
15-16	0.225	0.17
16-17	0.242	0.27
17-18	0.180	0.18
18-19	0.122	0.11
19-20	0.121	0.13
20-21	0.132	0.12

AA7 was the only hole in the 1988 programme which drilled rocks below the water table, and the cuttings returned abundant authigenic pyrite and were consistently coloured grey-black. The observation that a zone of approximately 5 metres true thickness, preserved in a reducing ground water environment, carried gold values approximately 10 x background, whereas that part of the reef in the oxidised zone carries generally background but occasionally high grade gold, suggests that REDOX groundwater enrichment may have been an important factor in ore body development in the oxidised zone, in that area.

TOWER HILL

The main effort during year 6 was directed towards assessing the Tower Hill stockwork target in the area of the Tower Hill Road - Coxs Road intersection (see Appendix 1).

In this area two outcropping sub parallel sandstone units carry a quartz vein stockwork system which has been prospected, and to a small degree mined, between the 1890's and 1930's.

Since April 1989 the target was gridded, mapped, rock chip and soil sampled and a ground magnetics survey was conducted. A programme of shallow reverse circulation drilling will commence on November 27 to test for extensions of known gold mineralisation and to test various magnetic, structural and geochemical targets. A description of the methods used and the results obtained to date follows

a) GRIDDING

Two grids were cut and pegged over the prospective sandstones, by Tas. Gridding Services of Wynyard. A total of 11.5 line Km was cut. The grids comprise, a 700 metre base line on the eastern grid and a 1200 metre base line on the western grid, with cross lines every 50 metre metres on both grids. Cross lines range from 50 to 250 metres long. All lines are pegged with labelled co-ordinates every 25 metres. Base line orientations are 331 magnetic for the western grid and 341 magnetic for the eastern grid.

b) MAPPING

The geology, old workings and main cultural features around the Tower Hill prospect were mapped at 1:1000 scale using the two grids as bases. The results are enclosed in Appendix 3 (Plans 2-3).

Geologically the main aim was to map boundaries of the sandstone units which were known from old reports and from current reconnaissance work to host most of the quartz veining and most of the old workings. The eastern and western sandstone units were mapped using a combination of outcrop and subcrop observations, together with the lithological log recorded during the auger soil sampling. (Plans 4-5, Appendix 4).

The geology of the prospect is dominated by two sub parallel sandstone bodies which strike N.W.-S.E. and, where bedding can be determined, dip near vertically (Fig. 2). The sandstone units are separated and partly enclosed by a uniform slate unit which extends east of the eastern sandstone. West of the western sandstone a unit comprising interbedded slate, fine grained flaggy sandstone and thin beds of medium grained massive sandstone, extends westwards to a ? fault contact against Permian pebbly sandstones at the foot of Tower Hill, some 500 metres west of the prospect.

Minor subcrop of the Permian sandstone was recorded in the northeastern corner of the western grid (see Plan 3 Appendix 3). Within the prospect area the eastern sandstone unit pinches out towards the north, becoming thinner and finer grained. The Sunbeam workings are situated on the facies change contact; approximately half the mullock is slate and half is sandstone. Reconnaissance to the south, along strike on the eastern sandstone indicates that the "eastern sandstone" may be two units separated by slate, as suggested by the mapping within the prospect area. A prominent slate cleavage strikes near parallel to bedding (typically 320 magnetic) and dips from vertically to steeply to the south west. An incipient cleavage is developed in the sandstones and a diamond shaped cleavage pattern is apparent in transverse sections through the sandstone. No evidence of systematic change in cleavage orientation was observed along strike suggesting that large scale folding produced the primary cleavage.

Lithologically the sandstone is a grey to blue grey, medium grained, well sorted, well rounded, partly silicified sandstone, in places grading to orthoquartzite. The rock is uniform except where facies change is apparent at the northern end of the eastern sandstone. Here the rock becomes thinly bedded, fine grained, more micaceous and shows prominent flaggy partings parallel to the primary cleavage.

The slate is green-grey to olive-brown, argillaceous, with common fine white mica. Locally, where the slate is tightly folded or kinked, the slate is denser, more lustrous and phyllitic.

Stockwork quartz veining is abundant within the main sandstone units and minor quartz veining exists in the slate and fine sandstone. In general the vein quartz is massive, milky white and shows no mesoscopic evidence of gold sulphide mineralisation at the surface. (Figs. 3-6).

In some cases, particularly in the dumps around old workings, the quartz veining and wall rocks show chloritic, kaolinitic, white mica alteration, in addition to ferruginous boxwork textures. In these rocks both fresh and oxidised arsenopyrite, with rare base metal sulphide, is visible.

The mineralised quartz tends to be darker coloured and in places shows a weak banding.

In addition to the most frequent quartz type, another more translucent, semi opaline, quartz occurs occasionally, in narrow (usually <2cm), straight sided veins.

Vein orientations were recorded from veins hosted in the sandstone units. Figure 7 shows the orientations in 20 degree groupings. A strong preference for N.E.-S.W. trending veins is apparent, with maxima trending 50 degrees and 10 degrees magnetic. A prominent subsidiary east-west orientation and veins parallel to primary cleavage (approximately 320 magnetic) are also shown on the rose diagram.

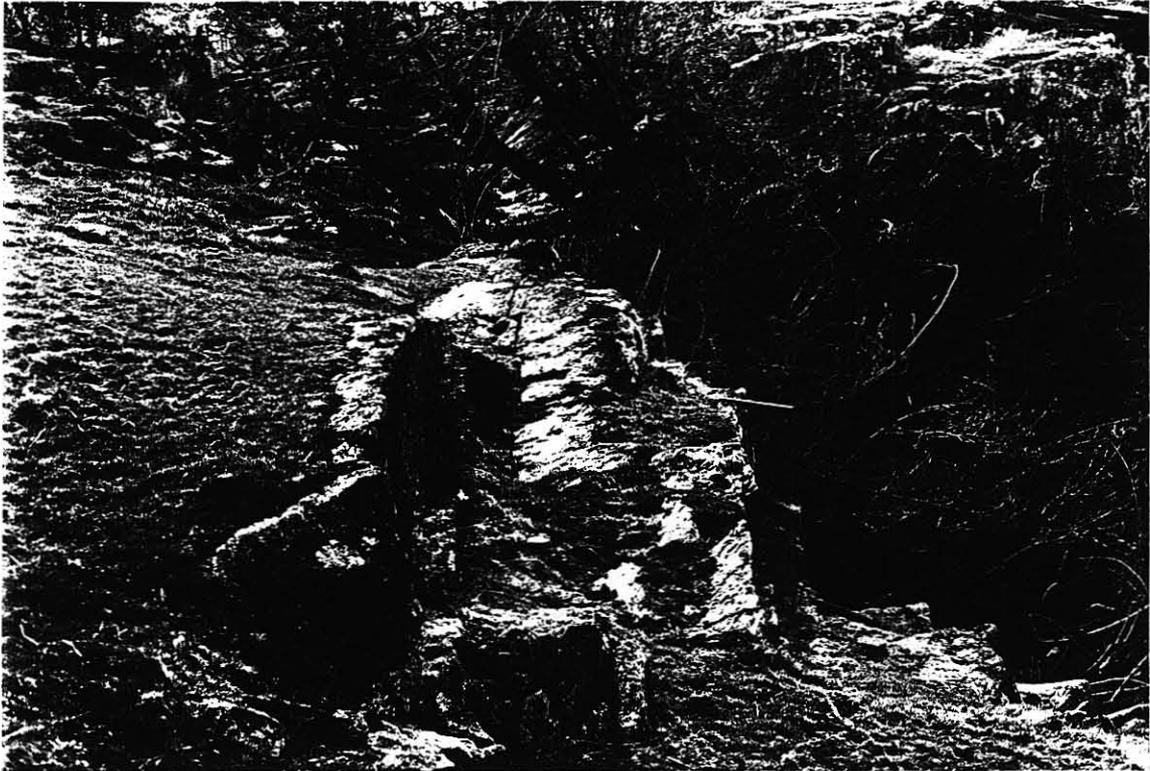


Fig. 2 Vertically dipping bedding planes in sandstone on the eastern margin of the western sandstone, looking north (75N, 1030E, West Grid)



Fig. 3. Intense vein quartz stockwork, including lenses, pods and contorted clots plus veins showing preferred orientation. Hammer handle shows primary cleavage orientation (110N 995E West Grid).



Fig. 4. Four main vein directions with large discordant mass of quartz. Hammer handle parallel to primary cleavage (110N 997E, West Grid).

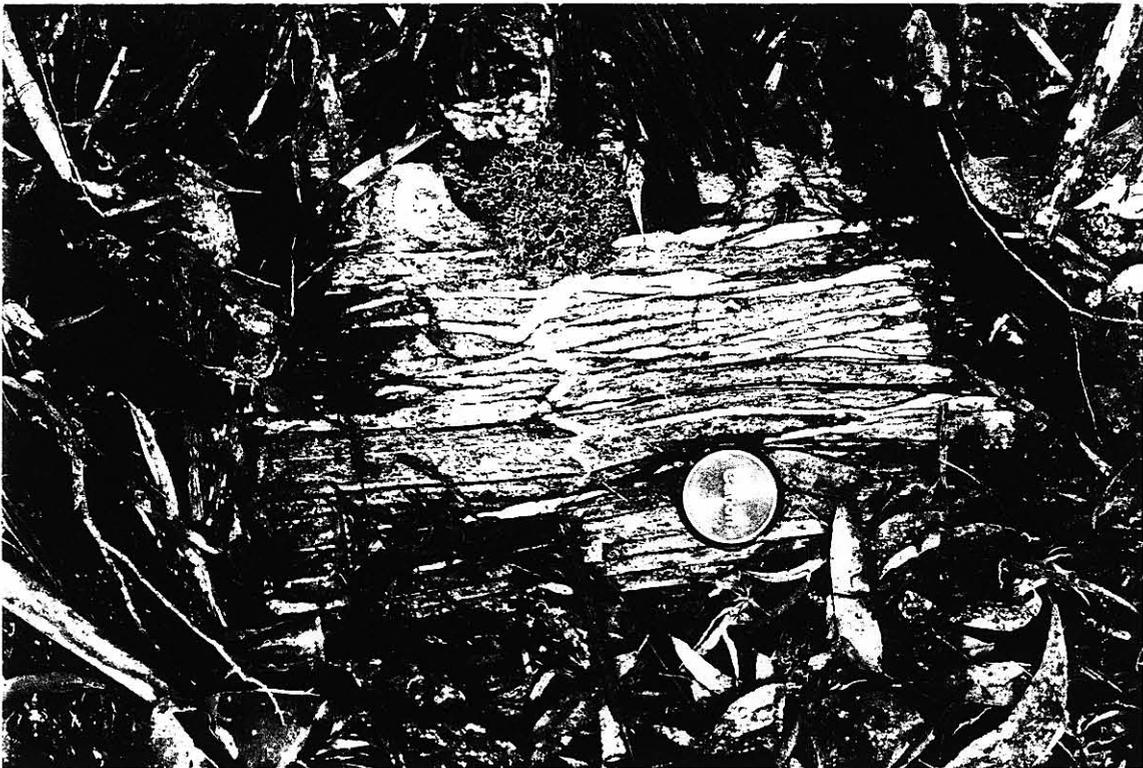


Fig. 5. Quartz veining parallel and normal to primary cleavage. Vein relationship suggest synchronous quartz deposition (200M, 120E, East Grid).



Fig 6. Quartz veining parallel and normal to primary cleavage. Vein relationship suggest synchronous quartz deposition (220N, 120 E, East Grid)

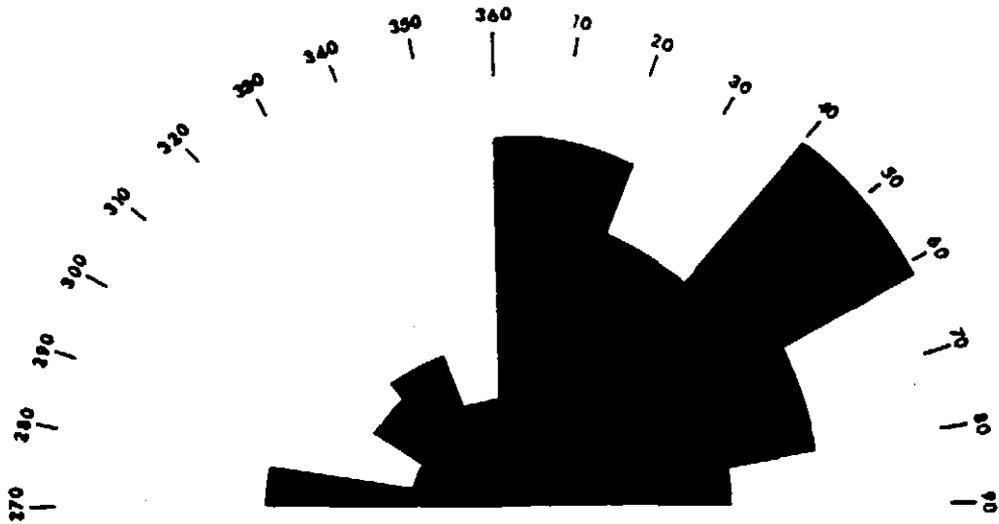


Fig. 7. Rose diagram of quartz vein orientation (degrees magnetic) from sandstone units. n = 112

c) ROCK CHIP SAMPLING

68 composite rock chip samples were taken from locations of high quartz vein frequency and from locations where evidence of alteration and/or sulphide mineralisation was observed. The rocks were analysed for gold, arsenic and lead by Analabs at Burnie. The assay data are enclosed in Appendix 2. Seventeen of the 68 samples produced gold grades $>0.1\text{g/t}$. Sixteen of these came from dumps around the mineshafts and old exploration trenches. The only mineralised sample taken from outcrop (TRC14) was taken from west grid 1000 E, 105 N. This is the most intensively stockworked location on the prospect (see Figs. 3-4) but the quartz at the surface shows very little evidence of alteration or character normally associated with mineralisation. Although TRC14 carried elevated gold, the other 19 samples from that area scored below the detection level of 5 ppb.

Eight samples scored $>1\text{ ppm Au}$. (TRC34, 39, 40, 43, 53, 58, 60, 63). All these samples were taken from quartz dumps adjacent to the Sunbeam, Coxs Road and Tower Hill shafts, plus trenches north of the Tower Hill mine (in the case of TRC 60, 63). The rock chip sampling is inadequate on its own to be diagnostic but the results discussed above can be interpreted to indicate that either:

- 1) Only individual veins or parts of veins are gold mineralised and that the early workers located those mineralised rocks. or
- 2) The surface rocks are leached and only those rocks excavated from below the surface are carrying elevated gold values.

d) SOIL SURVEY

A shallow (usually $<50\text{cm}$) podzolic soil exists under the natural euclypt forest at Tower Hill. This soil type covers most of the prospect including all the significant workings. In the paddocks, which roughly corresponds to the southern half of the western grid, a heavy, poorly drained black, clayey soil is developed, and in the N.E. corner of the eastern grid the natural soil profile has been disrupted by ground preparation for the planting of pine trees.

An orientation soil survey, comprising 73 samples taken from lines 200 metres apart and on both grids, was carried out in April 1989. Samples were taken by hand auger and except for the disturbed areas of paddock and pine forest, samples represented A₀ to B₂ inclusive sections. Where bedrock was encountered at extra shallow depths a new sample was taken, as close by as possible. Soil samples were analysed by Analabs using Fire Assay Fusion/AAS for gold, Vapour Generation/AAS for arsenic and Acid Digestion/AAS for lead. The arsenic and gold data showed encouraging character, except in the paddocks at the southern end of the western grid. Lead values were consistently flat and did not show much potential for differentiating anomalous values. Results from the orientation survey, along with the infill data which followed, are enclosed in Appendix 4.

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It was decided to infill the grid except for the paddock area, and to try whole sample bottle roll cyanide solution leaching as the analytical technique for gold in the soils. After a long and costly series of problems with the laboratories involved, including lost samples, non reproducible results and poor correlation by different laboratories on identical samples, the grids were finally resampled and samples fire assayed in October 1989.

A log-probability plot of arsenic data shows a prominent anomaly threshold at 15 ppm and when contoured at 10 ppm (see Plan 4, Appendix 4) arsenic shows a strong tendency to concentrate in en-echelon sets of anomalous values, overlying the sandstone units. The sets or zones of anomalous values are separated by corridors which trend approximately magnetic east-west and coincide with a prominent airphoto linear. This suggests that that the sulphide mineralisation may be partly controlled by the sandstones and/or their contained quartz veins, and partly controlled by the east-west structural grain.]

As only 118 of the 340 gold analyses scored above detection level these data were unsuitable for graphing. The gold values were mapped and contoured at 20 ppb/see Plan 5, Appendix 4). In the north western part of the western grid gold correlated reasonably well with arsenic over both the main sandstone unit and the interlayered unit to the west. The main group of anomalous gold values trends approximately magnetic east-west across the south western part of the eastern grid, and essentially defines the southern margin of one of the groups of arsenic soil anomalies.

e) MAGNETICS SURVEY

A ground based survey using a proton precession magnetometer hired from the Department of Mines, was completed over both grids. The survey was designed and conducted under the advice of consultant geophysicist, Dr D. Leaman, whose report is enclosed as Appendix 5.

The main conclusions derived from the survey are as follows:

- 1) The magnetic field is generally spiky with a relatively narrow envelope, of about 25 nT or at least five times the data precision.
- 2) The spikes in the field are of at least two types, short and very short wavelength. Very short wavelength variation have a wavelength rarely more than 4 or 5 observations (6-8 m).
- 3) Observed quartz concentrations can be correlated with short wavelength magnetic features (not very short) which have amplitudes about double the very short wavelength envelope.

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- 4) There are few unambiguously identifiable long wavelength features consistent with either large structures or significant lithological changes. Line 950 (west grid) is exceptional in this respect; the effect is centred on the Tower Hill Mine.
- 5) Most subtle effects are structurally controlled or induced and suggest that the local Mathinna Beds possess relatively uniform magnetic properties. This was also suggested by the Mines Department aeromagnetic survey (Richardson, 1989).
- 6) The contoured field does suggest some gross trends (NE and NW) which can be identified in the regional aeromagnetic data. There are also gross suggestions of limited lithological variation. Possible near E-W trends may be unreliable in these data but suggestions of about 45 and 315 degrees are present. The contoured field also shows that the Tower Hill and Sunbeam workings sit within magnetic lows. Several similar small lows exists elsewhere on the prospect (<61820nT). (See report Appendix 5).

It is likely that magnetics will be used on other targets within the E.L. particularly if the Tower Hill data can be tied into existing or new regional magnetics surveys.

f) SYNTHESIS

When soil geochemistry, major magnetic lows, photolines, geology and the main workings are mapped together (see Plan 6, Appendix 6) the prospectivity of various targets can be ranked and various concepts of mineralisation control based on combinations of the data acquired to date, can be evaluated.

This process is currently underway and will lead to the siting of drilling targets for the 10 hole programme to commence in late November, and will lead on to drilling other prospects, as discussed in the following section.

PROPOSED FUTURE WORK

During year 7 prospect scale and regional exploration will proceed concurrently. The initial work will be the continuation and completion of the stage 1 (year 6) programme.

- Reverse circulation drilling (500 metres) of the Tower Hill prospect.
- Mapping, sampling and reverse circulation drilling (250 metres) of the Cardinal-Buckland-Alpine prospect.
- Mapping, sampling and reverse circulation drilling (250 metres) of the Tower Hill Freehold prospect.

Following this, the Stage 2 programme will commence, and will include the following.

- 500 metres of reverse circulation drilling at Tower Hill, with possible follow up drilling and trenching if required.
- Mapping, channel sampling and scout drilling of the Tower Hill Freehold and Cardinal-Buckland-Alpine prospects.
- Magnetics, mapping and geochemistry around the Mangana and/or Mathinna gold provinces.
- Reconstruction of the geology of the Golden Gate orebody.
- Regional magnetics, geochemistry and structural geology, with drill testing of resultant anomalies outside the areas mentioned above.

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Analytical Laboratories (INC. IN WA.)



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558020

Mr Ken Morrison
K.C. Morrison Pty Ltd
Palfreyman Arcade
340 Elizabeth Street
HOBART TAS 7000

Job Number: 9AD2879

Your Reference:
Number of Samples: 97
Extra Samples : 0

Date Received: 06-NOV-1989
Date Reported: 09-NOV-1989

This report comprises a cover sheet and pages 1 to 2

This report relates specifically to the samples tested in so far as that the samples as supplied are truly representative of the sample source. Please address any enquiries to Mr. Trevor Francis.

Approved Signature:

for

Dr. John Kikkert
General Manager - Adelaide.

CC

Mr Tim Summons

Melbourne

Report Analyte Codes:

N.A. - Not Analysed.
L.N.R. - Listed But Not Received.
I.S. - Insufficient Sample for Analysis.

Distribution Codes:

CC - Carbon Copy
EM - Electronic Media
MM - Magnetic Media



Job: 9AD2879

O/N:

558021

ANALYTICAL REPORT

Sample	Au
AA1 04-05	0.02
AA1 05-06	<0.01
AA1 06-07	0.01
AA1 07-08	<0.01
AA1 08-09	<0.01
AA1 09-10	0.05
AA1 10-11	0.03
AA1 11-12	0.02
AA1 12-13	0.03
AA1 13-14	0.05
AA1 14-15	0.02
AA1 15-16	<0.01
AA1 16-17	0.05
AA1 17-18	0.05
AA1 18-19	<0.01
AA1 19-20	0.04
AA1 30-31	<0.01
AA2 09-10	<0.01
AA2 10-11	0.01
AA2 11-12	<0.01
AA2 12-13	<0.01
AA2 14-15	<0.01
AA2 15-16	<0.01
AA2 16-17	0.01
AA2 17-18	0.01
AA2 18-19	0.05
AA2 19-20	0.02
AA3 03-04	<0.01
AA3 04-05	0.02
AA3 05-06	<0.01
AA3 06-07	0.02
AA3 07-08	<0.01
AA3 08-09	0.01
AA3 09-10	<0.01
AA3 10-11	0.01
AA3 11-12	<0.01
AA3 12-13	<0.01
AA3 13-14	<0.01
AA3 14-15	<0.01
AA3 27-28	<0.01
AA3 28-29	<0.01
AA3 29-30	<0.01
AA3 30-31	0.06
AA4 05-06	<0.01
AA4 06-07	0.03
AA4 07-08	0.11
AA4 08-09	0.03
AA4 09-10	0.05
AA4 10-11	<0.01
AA4 11-12	<0.01

Units	ppm
Detn Limit	0.01
Scheme	FA1



Job: 9AD2879

O/N:

ANALYTICAL REPORT

558022

Sample	Au
AA4 12-13	<0.01
AA4 13-14	<0.01
AA4 14-15	<0.01
AA5 03-04	<0.01
AA5 04-05	<0.01
AA5 05-06	0.02
AA5 06-07	0.10
AA5 07-08	0.01
AA5 08-09	0.02
AA5 09-10	<0.01
AA5 10-11	<0.01
AA5 11-12	<0.01
AA5 12-13	<0.01
AA6 03-04	0.01
AA6 04-05	0.01
AA6 05-06	0.04
AA6 06-07	0.11
AA6 07-08	0.08
AA6 08-09	0.14
AA6 09-10	0.07
AA6 10-11	0.06
AA6 11-12	0.07
AA6 12-13	0.02
AA7 00-01	<0.01
AA7 01-02	<0.01
AA7 02-03	<0.01
AA7 04-05	0.01
AA7 05-06	<0.01
AA7 06-07	0.01
AA7 07-08	<0.01
AA7 08-09	<0.01
AA7 09-10	0.03
AA7 10-11	0.05
AA7 11-12	0.03
AA7 12-13	0.04
AA7 13-14	0.04
AA7 14-15	0.28
AA7 15-16	0.17
AA7 16-17	0.27
AA7 17-18	0.18
AA7 18-19	0.11
AA7 19-20	0.13
AA7 20-21	0.12
AA7 22-23	0.04
AA7 23-24	0.05
AA7 24-25	0.04
AA7 27-28	0.02
Units	ppm
Detn Limit	0.01
Scheme	FA1

019

ANALABS

558023

Phone (09) 458 7999

A Division of MacDonalld Morrison & Co. Pty. Ltd.
52 Murray Road, Welshpool, W.A. 6106
FAX: 004 31 9890

Telex AA92560

ANALYTICAL REPORT No. 999.24.08.06477

THIS REPORT MUST BE READ IN CONJUNCTION WITH THE ACCOMPANYING ANALYTICAL DATA

K.C. Morrison Pty. Ltd.
190 Macquarie Street
Hobart
Tasmania 7000

ORDER No. PROJECT

DATE RECEIVED 04/09/89 RESULTS REQUIRED ASAP

No. OF PAGES OF RESULTS 2 DATE REPORTED 05/10/89 No. OF COPIES 1

TOTAL No. OF SAMPLES 41

STATE OF SAMPLES	SAMPLE NUMBER	PRE-TREATMENT							ANALYSIS		
		DRY	CRUSH	SPLIT	PULVERISE	SEIVE	OTHER SEE REMARKS	NONE	REFER TO ANALYSIS SECTION	PREPARATION	METHOD
	TRC29/68, NCF1	Ro	Prep:	005,010,011,018					As/114		
	TRC29/68, NCF1	Pu							Au, AuChk/313		

REMARKS

RESULTS TO

K.C. Morrison Pty. Ltd.
190 Macquarie Street
Hobart
Tasmania 7000

RESULTS TO

STATE OF SAMPLES	ANALYSIS - PREPARATION	ANALYSIS - METHOD
whole ore WC	perchloric acid A1	atomic absorption AAS
split core SC	hydrochloric acid A2	x-ray fluorescence XRF
clinging CU	nitric acid A3	spectrophotometry SPEC
rock Ro	aqua regia A4	colorimetry COL
soil SO	nitric-perchloric A5	chromatography CHR
pulp PU	HF mixture A6	titration TEN
water WA	HF under pressure A7	other chemical methods CHEM
slurry SL	fusion A8	miscellaneous MISC
stream sediment SS		fluorescence FLUOR
heavy mineral HM		inductively coupled plasma ICP

AUTHORISED OFFICER

020

ANALABS

A Division of Inhecape Inspection and Testing Services, Australia Pty Ltd

558024

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No

PAGE

999.24.08.06477

05/10/89

1 OF 2

TUBE No	SAMPLE No	As	Au	AuChk					
1	MCF1	3	1.250	-					
2	TRC29	850	<0.005	<0.005					
3	TRC30	150	<0.005	-					
4	TRC31	600	<0.005	-					
5	TRC32	1600	<0.005	0.024					
6	TRC33	200	<0.005	-					
7	TRC34	950	42.200	-					
8	TRC35	400	<0.005	-					
9	TRC36	10	0.243	-					
10	TRC37	1	<0.005	-					
11	TRC38	1	<0.005	-					
12	TRC39	16	13.500	-					
13	TRC40	600	1.120	-					
14	TRC41	1	0.016	-					
15	TRC42	53	0.009	-					
16	TRC43	18	0.306	0.241					
17	TRC44	850	0.030	-					
18	TRC45	10000	2.540	-					
19	TRC46	10	<0.005	-					
20	TRC47	56	0.013	-					
21	TRC48	150	<0.005	-					
22	TRC49	1050	0.184	-					
23	TRC50	18	<0.005	-					
24	TRC51	150	<0.005	-					
25	TRC52	1350	0.016	-					

Results in ppm unless otherwise specified
 T = element present, but concentration too low to measure
 X = element concentration is below detection limit
 - = element not determined

AUTHORISED
OFFICER



021

ANALABS

558025

A Division of In-house Inspection and Testing Services Australia Pty Ltd.

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

999.24.08.06477

05/10/89

2 OF 2

TUBE No	SAMPLE No	As	Au	AuChk					
1	TRC53	2450	3.950	-					
2	TRC54	150	0.153	-					
3	TRC55	40	0.050	-					
4	TRC56	1	0.014	-					
5	TRC57	25	0.025	-					
6	TRC58	3400	4.690	-					
7	TRC59	93	0.129	-					
8	TRC60	450	2.600	-					
9	TRC61	3	0.010	-					
10	TRC62	47	0.514	-					
11	TRC63	150	1.340	-					
12	TRC64	32	0.039	-					
13	TRC65	49	0.221	0.088					
14	TRC66	150	0.093	-					
15	TRC67	150	0.574	-					
16	TRC68	2	0.012	0.010					
17									
18									
19									
20									
21	N.B. Au checks were carried out on the following samples:-								
22	TRC65 = 0.171PPM; TRC68 = <0.005PPM								
23	DETECTION	1	0.005	0.005					
24	UNITS	PPM	PPM	PPM					
25	METHOD	114	313	313					

Results in ppm unless otherwise specified
 T = element present but concentration too low to measure
 X = element concentration is below detection limit
 - = element not determined

AUTHORISED
OFFICER

022

ANALABS

558026

Phone (09) 458 7999

A division of Macdonald Hamilton & Co. Pty. Ltd.
52 Murray Road, Welshpool, W.A. 6106

Telex AA92560

ANALYTICAL REPORT No. 999.24.08.06386

THIS REPORT MUST BE READ IN CONJUNCTION WITH THE ACCOMPANYING ANALYTICAL DATA

K.D. Morrison Pty. Ltd.
190 Macquarie St.,
Hobart
Tasmania 7000

ORDER No. PROJECT

DATE RECEIVED 31/07/89 RESULTS REQUIRED ASAP

No. OF PAGES OF RESULTS: 2 DATE REPORTED: 23/08/89 No. OF COPIES: 1 TOTAL No. OF SAMPLES: 28

STATE OF SAMPLES	SAMPLE NUMBER	PRE-TREATMENT							ANALYSIS			
		DRY	CRUSH	SPLIT	PULV. VERSE	SIEVE	OTHER SEE REMARKS	NONE	REFER TO ANALYSIS SECTION	PREPARATION	METHOD	
	FRC01/28	RC	Prep:	005,009,011,012,018						As/114		
	FRC01/28	Pu								Au/313		
	FRC01/28	RC	Prep:	005,009,011,012,018						Pb/101		
	FRC01/28	RC	Prep:	005,009,011,012,018						Pb/101		

RESULTS TO K.D. Morrison Pty. Ltd.
190 Macquarie St.,
Hobart
Tasmania 7000

RESULTS TO

REMARKS

STATE OF SAMPLES	ANALYSIS — PREPARATION	ANALYSIS — METHOD
whole core WC	perchloric acid A1	atomic absorption AAS
split core SC	hydrochloric acid A2	x-ray fluorescence XRF
cutting CU	nitric acid A3	spectrophotometry SPEC
rock Ro	aqueo regia A4	colorimetry COL
spill SO	nitric-perchloric A5	gravimetry GRA
pulp PU	oil mixture A6	chromatography CHR
water WA	oil under pressure A7	fusion ITN
residue TI	fusion A8	other chemical means CHEM
effluent treatment SS		miscellaneous MISC
heavy mineral HM		fluorimetry FLUCR
		radiochemically prepared samples ICE

AUTHORISED OFFICER

023

ANALABS

558027

A Division of Macdonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

999.24.08.06386

23/08/89

1 OF 2

TUBE No	SAMPLE No	As	Pb	AU						
1	TRC01	13	25	<0.005						
2	TRC02	1800	40	0.080						
3	TRC03	160	<5	<0.005						
4	TRC04	5	10	<0.005						
5	TRC05	15	20	<0.005						
6	TRC06	22	25	0.038						
7	TRC07	23	60	0.053						
8	TRC08	1	5	<0.005						
9	TRC09	5	<5	<0.005						
10	TRC10	2	5	<0.005						
11	TRC11	3	<5	<0.005						
12	TRC12	12	<5	<0.005						
13	TRC13	2	<5	<0.005						
14	TRC14	510	<5	0.212						
15	TRC15	15	<5	<0.005						
16	TRC16	6	5	<0.005						
17	TRC17	2	<5	<0.005						
18	TRC18	2	<5	<0.005						
19	TRC19	3	<5	<0.005						
20	TRC20	2	<5	<0.005						
21	TRC21	4	<5	<0.005						
22	TRC22	3	<5	<0.005						
23	TRC23	3	<5	<0.005						
24	TRC24	6	<5	<0.005						
25	TRC25	5	<5	<0.005						

Results in ppm unless otherwise specified.
 T = element present but concentration too low to measure.
 X = element present within a given detection limit.
 - = element not determined.

 AUTHORIZED
 CHECKER
 

ANALABS

A Division of Macdonald, Hamilton & Co. Pty. Ltd.

558028

024

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

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23/08/89

2 OF 2

TUBE No.	SAMPLE No.	As	Pb	Cu					
1	TRC26	3	<5	<0.005					
2	TRC27	5	<5	<0.005					
3	TRC28	11	5	<0.005					
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23	DETECTION	1	5	0.005					
24	UNITS	PPM	PPM	PPM					
25	METHOD	114	101	313					

Results in ppm unless otherwise specified.
 - element present but concentration too low to measure
 X - element concentration is below detection limit
 - element not determined

AUTHORIZED OFFICER



028

ANALABS

A Division of Macdonald Hamilton & Co. Pty. Ltd.

558030

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

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999.24.08.06180

22/05/89

1 OF 4

TUBE No.	SAMPLE No.	Pb	As	Au	Wght					
1	TS 01	25	5	0.065	86.40	✓				
2	TS 02	20	6	0.042	67.40					
3	TS 03	30	8	0.040	70.23					
4	TS 04	20	7	0.052	73.00	✓				
5	TS 05	5	4	0.044	81.80					
6	TS 06	15	5	0.067	53.50	✓				
7	TS 07	5	4	0.046	82.65					
8	TS 08	5	4	0.055	80.33	✓				
9	TS 09	15	7	0.034	89.20					
10	TS 10	5	5	0.029	96.90					
11	TS 11	<5	4	<0.025	70.30					
12	TS 12	<5	5	0.035	109.90					
13	TS 13	5	5	0.033	97.70					
14	TS 14	15	6	0.040	85.00					
15	TS 15	15	7	0.026	98.30					
16	TS 16	15	7	0.041	68.20					
17	TS 17	10	9	0.036	89.50					
18	TS 18	5	9	0.035	92.60					
19	TS 19	10	6	0.053	72.00	✓				
20	TS 20	20	37	0.044	77.30					
21	TS 21	15	10	0.042	94.50					
22	TS 22	10	24	0.061	75.50	✓				
23	TS 23	5	5	0.055	69.70	✓				
24	TS 24	20	10	0.057	70.30	✓				
25	TS 25	20	8	0.052	66.00	✓				

Results in ppm unless otherwise specified

✓ = element present, but concentration too low to measure

x = element concentration is below detection limit

- = element not determined

ANALYST
OFFICER

029

ANALABS

A Division of Macdonald Hamilton & Co. Pty Ltd.

558031

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

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PAGE

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22/05/89

2 OF 4

TUBE No.	SAMPLE No.	Pb	As	Au	Wt%					
1	TS 26	10	4	0.044	82.30					
2	TS 27	10	5	0.041	88.00					
3	TS 28	10	9	0.035	79.00					
4	TS 29	25	14	0.060	53.70	✓				
5	TS 30	20	240	0.057	63.00	✓				
6	TS 31	15	83	0.072	55.40	✓				
7	TS 32	<5	9	0.048	75.40					
8	TS 33	5	4	0.058	62.30	✓				
9	TS 34	10	58	0.070	71.00	✓				
10	TS 35	<5	6	0.034	101.00					
11	TS 36	<5	6	0.043	74.00					
12	TS 37	10	4	0.029	70.00					
13	TS 38	10	12	0.056	57.00	✓				
14	TS 39	5	9	0.032	92.50					
15	TS 40	10	4	0.035	85.00					
16	TS 41	15	7	0.035	92.50					
17	TS 42	15	3	0.046	87.80	4				
18	TS 43	5	3	0.030	85.80					
19	TS 44	15	6	0.044	82.70					
20	TS 45	10	5	0.036	100.50					
21	TS 46	10	4	0.040	95.90					
22	TS 47	20	9	0.034	89.00					
23	TS 48	<5	3	0.060	73.00	✓				
24	TS 49	5	4	0.042	90.50					
25	TS 50	20	8	0.039	86.30					

Results in ppm unless otherwise specified.
 * element present but concentration too low to measure
 * element concentration is below detection limit
 * element not determined

ANALABS
 05/89

030

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A Division of Macdonald Hamilton & Co. Pty Ltd

558032

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

		999.24.08.06180				22/05/89				3 OF 4	
TUBE No.	SAMPLE No.	Pb	As	Au	Hg						
1	TS 51	10	7	0.038	95.00						
2	TS 52	20	7	0.038	84.00						
3	TS 53	15	5	0.046	69.00						
4	TS 54	10	4	0.052	76.50	✓					
5	TS 55	10	3	0.036	71.30						
6	TS 56	10	31	0.037	69.50	✓					
7	TS 57	<5	3	0.035	90.20						
8	TS 58	<5	4	0.047	81.50						
9	TS 59	5	3	0.029	89.50						
10	TS 60	60	5	0.043	70.00						
11	TS 61	20	6	0.050	80.00						
12	TS 62	15	7	0.036	72.00						
13	TS 63	25	9	0.046	69.00						
14	TS 64	15	7	0.051	78.00						
15	TS 65	60	7	0.065	89.60						
16	TS 66	15	12	0.049	73.40						
17	TS 67	15	9	0.040	85.00						
18	TS 68	10	8	0.062	54.50						
19	TS 69	15	13	0.055	66.00	✓					
20	TS 70	15	-11	0.041	82.00						
21	TS 71	10	4	0.044	86.58						
22	TS 72	20	4	0.046	83.30						
23	TS 73	20	5	0.088	50.00	✓					
24											
25											

Results in bold italic, otherwise specified
 I = element present, but concentration too low to measure
 X = element concentration is below detection limit
 - = element not determined

 AUTHORIZED
 OFFICE
 

031

ANALABS

A Division of Macdonald Hamilton & Co. Pty Ltd

558033

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER NO

PAGE

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22/05/89

4 OF 4

TUBE No.	SAMPLE No.	Pb	As	Cu	Wght					
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22	DETECTION	5	1	0.025	0.01					
23	UNITS	PPM	PPM	PPM	gms					
24	METHOD	101	114	308	199					
25										

Results in ppm unless otherwise specified
 * element present, but concentration too low to measure
 * element concentration is below detection limit
 * element not determined

AUTHORIZED OFFICER



033

ANALABS

A Division of Macmillan Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

558035

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No

PAGE

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22/08/89

1 OF 4

TUBE No.	SAMPLE No.	As								
1	TS263	12								
2	TS264	9								
3	TS265	13								
4	TS266	<1								
5	TS267	1								
6	TS268	3								
7	TS269	102								
8	TS270	13								
9	TS271	12								
10	TS272	4								
11	TS273	2								
12	TS274	1								
13	TS275	<1								
14	TS276	<1								
15	TS277	12								
16	TS278	10								
17	TS279	25								
18	TS280	4								
19	TS281	<1								
20	TS282	<1								
21	TS283	1								
22	TS284	<1								
23	TS285	<1								
24	TS286	6								
25	TS287	<1								

Results in this report are based on the following assumptions:
 * element present, but concentration too low to measure
 * element concentration is below detection limit
 * element not determined

AUTHORIZED
OFFICER



034

ANALABS

A Division of Metropolitan Edison Co. Inc. Ltd.

558036

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

999.24.08.06405

22/08/89

2 OF 4

TUBE No.	SAMPLE No.	As							
1	TS288	<1							
2	TS289	<1							
3	TS290	<1							
4	TS291	<1							
5	TS292	<1							
6	TS293	<1							
7	TS294	8							
8	TS295	6							
9	TS296	15							
10	TS297	4							
11	TS298	12							
12	TS299	10							
13	TS300	15							
14	TS301	8							
15	TS302	5							
16	TS303	4							
17	TS304	8							
18	TS305	3							
19	TS306	14							
20	TS307	4							
21	TS308	3							
22	TS309	7							
23	TS310	6							
24	TS311	6							
25	TS312	<1							

Results in this report are based on the following:
 * element present at concentration too low to measure
 * element detected but is below detection limit
 * element not determined

ANALYST
 CHECKED



035

ANALABS

A Division of Macdonald Hamilton & Co. Pty. Ltd.

558037

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

999.24.08.06405

22/08/89

3 OF 4

TUBE No.	SAMPLE No.	As								
1	TS313	5								
2	TS314	2								
3	TS315	9								
4	TS316	7								
5	TS317	12								
6	TS318	16								
7	TS319	7								
8	TS320	12								
9	TS321	5								
10	TS322	5								
11	TS323	16								
12	TS324	14								
13	TS325	17								
14	TS326	6								
15	TS327	5								
16	TS328	5								
17	TS329	9								
18	TS330	8								
19	TS331	8								
20	TS332	16								
21	TS333	11								
22	TS334	6								
23	TS335	7								
24	TS336	11								
25	TS337	8								

Results in ppm unless otherwise specified.
 T = element present, the concentration too low to measure.
 X = element concentration is below detection limit.
 --- = element not determined.

036

ANALABS

A Division of Macdonald, Hamilton & Co. Pty Ltd.

558038

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

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22/08/89

4 OF 4

TUBE No.	SAMPLE No.	As								
1	TS338	2								
2	TS339	<1								
3	TS340	4								
4	TS341	<1								
5	TS342	<1								
6	TS343	<1								
7	TS344	<1								
8	TS345	<1								
9	TS346	1								
10	TS347	2								
11	TS348	15								
12	TS349	2								
13	TS350	2								
14	TS351	3								
15	TS352	2								
16	TS353	3								
17										
18										
19										
20										
21										
22										
23	DETECTION	1								
24	UNITS	PPM								
25	METHOD	114								

Results in this report are based on the following:
 T = element present but concentration too low to measure
 X = element concentration is below detection limit
 - = element not determined

057

ANALABS

558039

A division of Macdonald Hamilton & Co. Pty. Ltd.

Phone (09) 458 7999

52 Murray Road, Welshpool, W.A. 6106

Telex AA92560

ANALYTICAL REPORT No.

FAY 004 31 0290
699 24 08 04275

THIS REPORT MUST BE READ IN CONJUNCTION WITH THE ACCOMPANYING ANALYTICAL DATA

ORDER No.

PROJECT

C/- K.C. Morrison
Pegasus Gold Australia Ltd.,
190 Macquarie St,
Hobart
Tasmania 7000

DATE RECEIVED

RESULTS REQUIRED

14/06/89

ASAF

No. OF PAGES OF RESULTS

DATE REPORTED

No. OF COPIES

TOTAL No. OF SAMPLES

5

25/07/89

1

145

STATE OF SAMPLES	TAMPER NUMBER	PRE-TREATMENT							ANALYSIS			
		GRIND	SPLIT	FOR VORNE	SEIVE	OTHER USE REMAINS	NONE	ANALYSIS REGION	PREPARATION	METHOD		
Various										As/114		
Various										Au, AuChk/308		
Various										Au, AuChk/309		

RESULTS TO

C/- K.C. Morrison
Pegasus Gold Australia Ltd.,
190 Macquarie St,
Hobart
Tasmania 7000

RESULTS TO

REMARKS

STATE OF SAMPLES	ANALYSIS - PREPARATION	ANALYSIS - METHOD
whole core	WC	perchloric acid A1 cold acid CA
split core	SC	hydrochloric acid A2 specific sulphide SS
cutting	CU	nitric acid A3 other mixed acids MA
rock	RO	acid table A4 alkaline attack AA
soil	SD	nitric peroxide A5 volatilization VO
pulp	PU	HF/Acetic A6 ignition IG
ore	WA	HF/Acetic A7 crushed powder (XRF) PP
flashes	FL	fusion A8 glass fusion (XRF) GF
heavy mineral	SS	
heavy mineral	HM	

AUTHORISED OFFICER

ANALABS

A Division of Macdonald Hamilton & Co. Pty. Ltd.

558040

038

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

TUBE No.	SAMPLE No.	AS	AU	Au	Au Cal								
			999.24.08.06275	25/07/89							1	OF	6
1	TS 074	1	<0.025	<0.008	<0.008								
2	TS 075	<1	<0.025	<0.008	-								
3	TS 076	<1	<0.025	<0.008	-								
4	TS 077	3	<0.025	0.018	-								
5	TS 078	<1	<0.025	<0.008	-								
6	TS 079	4	<0.025	<0.008	-								
7	TS 080	6	<0.025	<0.008	-								
8	TS 081	1	<0.025	<0.008	-								
9	TS 082	5	<0.025	<0.008	-								
10	TS 083	5	<0.025	0.019	-								
11	TS 084	<1	<0.025	<0.008	-								
12	TS 085	5	<0.025	<0.008	-								
13	TS 086	<1	<0.025	<0.008	-								
14	TS 087	1	<0.025	<0.008	-								
15	TS 088	2	<0.025	<0.008	-								
16	TS 089	<1	<0.025	<0.008	-								
17	TS 090	<1	<0.025	<0.008	-								
18	TS 091	4	<0.025	<0.008	-								
19	TS 092	2	<0.025	<0.008	-								
20	TS 093	10	<0.025	0.012	-								
21	TS 094	2	<0.025	<0.008	-								
22	TS 095	43	<0.025	<0.008	-								
23	TS 096	7	<0.025	<0.008	-								
24	TS 097	1	<0.025	<0.008	-								
25	TS 098	46	<0.025	0.008	-								

Results in ppm unless otherwise specified
 - = element present but concentration too low to measure
 X = element concentration is below detection limit
 --- = element not determined

AUTHORIZED OFFICER



039

ANALABS

A Division of Macdonald Refrigeration & Co., Pty. Ltd.

558041

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

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25/07/89

2 OF 6

TUBE No.	SAMPLE No.	AS	BU	BU	BUCHK				
1	TS 099	34	<0.025	<0.008	-				
2	TS 100	16	<0.025	0.029	-				
3	TS 101	51	<0.025	<0.008	-				
4	TS 102	1	<0.025	<0.008	-				
5	TS 103	15	<0.025	<0.008	-				
6	TS 104	47	<0.025	<0.008	-				
7	TS 105	38	<0.025	<0.008	-				
8	TS 106	7	<0.025	<0.008	-				
9	TS 107	<1	<0.025	<0.008	-				
10	TS 108	3	<0.025	<0.008	-				
11	TS 109	4	<0.025	<0.008	-				
12	TS 110	<1	<0.025	<0.008	-				
13	TS 111	2	<0.025	<0.008	-				
14	TS 112	45	<0.025	<0.008	-				
15	TS 113	<1	<0.025	<0.008	-				
16	TS 114	<1	<0.025	<0.008	-				
17	TS 115	<1	<0.025	<0.008	-				
18	TS 116	26	<0.025	<0.008	-				
19	TS 117	21	<0.025	<0.008	-				
20	TS 118	3	<0.025	<0.008	-				
21	TS 119	<1	<0.025	<0.008	-				
22	TS 120	2	<0.025	<0.008	-				
23	TS 121	3	<0.025	<0.008	-				
24	TS 122	106	<0.025	<0.008	-				
25	TS 123	7	<0.025	<0.008	-				

Results in ppm unless otherwise specified

T = element present, but concentration too low to measure

X = element concentration is below detection limit

- = element not determined

ANALYSIS OFFICES

040

ANALABS

A Division of Macdonald Hamilton & Co. Pty. Ltd.

558042

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

		999.24.08.06275		25/07/89				3 OF 4	
TUBE No.	SAMPLE No.	Ag	As	Ca	Co	Cu	Cr	Fe	Mn
1	TS 124	3	<0.025	0.110	-	-	-	-	-
2	TS 125	1	<0.025	<0.008	-	-	-	-	-
3	TS 126	1	<0.025	<0.008	-	-	-	-	-
4	TS 127	3	<0.025	<0.008	-	-	-	-	-
5	TS 128	5	<0.025	<0.008	-	-	-	-	-
6	TS 129	7	<0.025	<0.008	-	-	-	-	-
7	TS 130	5	<0.025	<0.008	-	-	-	-	-
8	TS 131	1	<0.025	<0.008	-	-	-	-	-
9	TS 132	15	<0.025	0.021 ⁷	-	-	-	-	-
10	TS 133	4	<0.025	<0.008	-	-	-	-	-
11	TS 134	5	<0.025	<0.008	-	-	-	-	-
12	TS 135	8	<0.025	<0.008	-	-	-	-	-
13	TS 136	13	<0.025	<0.008	-	-	-	-	-
14	TS 137	10	<0.025	<0.008	-	-	-	-	-
15	TS 138	14	<0.025	0.010	-	-	-	-	-
16	TS 139	4	<0.025	<0.008	-	-	-	-	-
17	TS 140	5	<0.025	<0.008	-	-	-	-	-
18	TS 141	4	<0.025	<0.008	-	-	-	-	-
19	TS 142	3	<0.025	<0.008	-	-	-	-	-
20	TS 143	3	<0.025	<0.008	-	-	-	-	-
21	TS 144	1	<0.025	<0.008	-	-	-	-	-
22	TS 145	7	<0.025	<0.008	-	-	-	-	-
23	TS 146	8	<0.025	0.016	-	-	-	-	-
24	TS 147	7	<0.025	0.017	-	-	-	-	-
25	TS 148	10	<0.025	<0.008	-	-	-	-	-

Results in ppm unless otherwise specified
 7 = element present but concentration too low to measure
 < = element concentration is below detection limit
 - = element not determined

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558043

ANALYTICAL DATA

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REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

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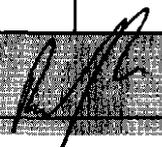
25/07/89

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TUBE No.	SAMPLE No.	As	AU	AU	AU Chk					
1	TS 149	3	<0.025	0.008	-					
2	TS 150	110	<0.025	0.011	-					
3	TS 151	3	<0.025	<0.008	-					
4	TS 152	5	<0.025	<0.008	-					
5	TS 153	3	<0.025	<0.008	-					
6	TS 154	33	<0.025	0.010	-					
7	TS 155	23	<0.025	0.869	0.823					
8	TS 156	5	<0.025	0.011	-					
9	TS 157	6	<0.025	<0.008	-					
10	TS 158	8	<0.025	<0.008	-					
11	TS 159	4	<0.025	0.014	-					
12	TS 160	4	<0.025	<0.008	-					
13	TS 161	4	<0.025	<0.008	-					
14	TS 162	4	<0.025	0.014	-					
15	TS 163	2	<0.025	<0.008	-					
16	TS 164	2	<0.025	<0.008	-					
17	TS 165	2	<0.025	<0.008	-					
18	TS 166	5	<0.025	<0.008	-					
19	TS 167	30	<0.025	<0.008	-					
20	TS 168	8	<0.025	<0.008	-					
21	TS 169	5	<0.025	0.011	-					
22	TS 170	3	<0.025	<0.008	-					
23	TS 171	6	<0.025	<0.008	-					
24	TS 172	11	<0.025	<0.008	-					
25	TS 173	4	<0.025	<0.008	-					

Results in ppm unless otherwise specified.
 * element present but concentration too low to report
 X element concentration is below detection limit
 - element not determined

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TUBE No.	SAMPLE No.	As	Au	Ag	Au/CHL				
1	TS 198	3	<0.025	<0.008	-				
2	TS 199	6	<0.025	<0.008	-				
3	TS 200	12	<0.025	<0.008	-				
4	TS 201	5	<0.025	<0.008	-				
5	TS 202	3	<0.025	<0.008	-				
6	TS 203	1	<0.025	0.008	-				
7	TS 204	6	<0.025	<0.008	-				
8	TS 205	29	<0.025	<0.008	-				
9	TS 206	20	<0.025	<0.008	-				
10	TS 207	8	<0.025	<0.008	-				
11	TS 208	11	<0.025	<0.008	-				
12	TS 209	8	<0.025	<0.008	-				
13	TS 210	3	<0.025	<0.008	-				
14	TS 211	1	<0.025	<0.008	-				
15	TS 212	17	<0.025	<0.008	-				
16	TS 213	16	<0.025	<0.008	-				
17	TS 214	1	<0.025	<0.008	-				
18	TS 215	3	<0.025	<0.008	-				
19	TS 216	7	<0.025	0.011	-				
20	TS 217	<1	<0.025	<0.008	-				
21									
22									
23	DETECTION	1	0.025	0.008	0.008				
24	UNITS	PPM	PPM	PPM	PPM				
25	METHOD	114	308	309	309				

Results in ppm unless otherwise specified
 T = element present but concentration too low to report
 X = element concentration is below detection limit
 - = element not determined

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558046

Phone (09) 458 7999

A division of Macdonald Hamilton & Co. Pty. Ltd.
52 Murray Road, Welshpool, W.A. 6106
FAX: 004 31 8890

Telex AA92560

ANALYTICAL REPORT No. 999.24.08.06572

THIS REPORT MUST BE READ IN CONJUNCTION WITH THE ACCOMPANYING ANALYTICAL DATA

ORDER No.

PROJECT

K.C. Morrison Pty. Ltd.
190 Macquarie Street
Hobart
Tasmania 7000

DATE RECEIVED

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TOTAL No. OF SAMPLES

11

23/10/89

1

249

STATE OF SAMPLES	SAMPLE NUMBERS	PRE-TREATMENT							ANALYSIS					
		DRY	CRUSH	SPLIT	PICK UP	SEIVE	OTHER SEE REMARKS	NONE	SCREEN TO ANALYSIS SECTION	PREPARATION	METHOD			
	TS354/602											Au, AuChk/309		

REMARKS

RESULTS

TO

K.C. Morrison Pty. Ltd.
190 Macquarie Street
Hobart
Tasmania 7000

RESULTS

TO

STATE OF SAMPLES		ANALYSIS — PREPARATION		ANALYSIS — METHOD
whole core	WC	perchloric acid	A1	atomic absorption
split core	SC	hydrochloric acid	A2	X-ray fluorescence
cutting	CU	nitric acid	A3	spectrophotometry
rock	RO	aqua regia	A4	colorimetry
soil	SO	nitric-perchloric	A5	photometry
pipe	PI	HF mixture	A6	gravimetry
slag	WA	HF under pressure	A7	fusion
flue	FL	fusion	A8	pressed powder (XRF)
oil pipe sediment	SS			glass fusion (XRF)
heavy oil (sludge)	HM			

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ANALYTICAL DATA

SAMPLE PREFIX

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TUBE No.	SAMPLE No.	Au	AlChk						
1	TS354	0.014	-						
2	TS355	0.017	-						
3	TS356	0.015	-						
4	TS357	<0.008	-						
5	TS358	0.046	-						
6	TS359	0.009	-						
7	TS360	<0.008	-						
8	TS361	<0.008	-						
9	TS362	0.009	-						
10	TS363	0.013	-						
11	TS364	0.010	-						
12	TS365	0.044	-						
13	TS366	0.029	-						
14	TS367	0.011	-						
15	TS368	0.009	-						
16	TS369	0.009	<0.008						
17	TS370	0.012	-						
18	TS371	0.014	-						
19	TS372	0.012	-						
20	TS373	0.017	-						
21	TS374	0.017	-						
22	TS375	0.011	-						
23	TS376	0.019	-						
24	TS377	0.024	-						
25	TS378	0.015	-						

Results in ppm unless otherwise specified
 T = element present but concentration too low to measure
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ANALYTICAL DATA

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TUBE No.	SAMPLE No.	Au	AuChk						
1	TS379	0.018	--						
2	TS380	<0.008	--						
3	TS381	<0.008	--						
4	TS382	0.009	--						
5	TS383	0.017	--						
6	TS384	0.014	--						
7	TS385	<0.008	<0.008						
8	TS386	<0.008	--						
9	TS387	<0.008	--						
10	TS388	0.033	--						
11	TS389	<0.008	--						
12	TS390	<0.008	--						
13	TS391	0.016	--						
14	TS392	<0.008	--						
15	TS393	0.019	--						
16	TS394	0.007	--						
17	TS395	<0.008	--						
18	TS396	0.010	--						
19	TS397	<0.008	--						
20	TS398	<0.008	--						
21	TS399	<0.008	--						
22	TS400	<0.008	--						
23	TS401	0.009	--						
24	TS402	<0.008	<0.008						
25	TS403	<0.008	--						

Results in ppm unless otherwise specified
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ANALYTICAL DATA

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TUBE No.	SAMPLE No.	AU	AUChk						
1	TS404	0.010	-						
2	TS405	<0.008	-						
3	TS406	<0.008	-						
4	TS407	0.050	-						
5	TS408	0.014	-						
6	TS409	<0.008	-						
7	TS410	<0.008	<0.008						
8	TS411	<0.008	-						
9	TS412	<0.008	-						
10	TS413	<0.008	-						
11	TS414	<0.008	-						
12	TS415	<0.008	-						
13	TS416	<0.008	-						
14	TS417	<0.008	-						
15	TS418	<0.008	-						
16	TS419	<0.008	-						
17	TS420	<0.008	-						
18	TS421	<0.008	-						
19	TS422	<0.008	-						
20	TS423	<0.008	-						
21	TS424	<0.008	-						
22	TS425	<0.008	<0.008						
23	TS426	<0.008	-						
24	TS427	<0.008	-						
25	TS428	<0.008	-						

Results in ppm unless otherwise specified
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TUBE No.	SAMPLE No.	Au	AuChk						
1	TS429	<0.008	-						
2	TS430	<0.008	-						
3	TS431	<0.008	-						
4	TS432	<0.008	-						
5	TS433	<0.008	-						
6	TS434	0.008	-						
7	TS435	<0.008	-						
8	TS436	<0.008	-						
9	TS437	<0.008	-						
10	TS438	<0.008	-						
11	TS439	<0.008	-						
12	TS440	<0.008	-						
13	TS441	<0.008	-						
14	TS442	<0.008	<0.008						
15	TS443	<0.008	-						
16	TS444	<0.008	-						
17	TS445	<0.008	-						
18	TS446	0.008	-						
19	TS447	<0.008	-						
20	TS448	<0.008	-						
21	TS449	0.076	-						
22	TS450	<0.008	-						
23	TS451	<0.008	-						
24	TS452	<0.008	-						
25	TS453	<0.008	-						

Results in ppm unless otherwise specified
 T = element present, but concentration too low to measure
 X = element concentration is below detection limit
 - = element not determined

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558051

049

ANALYTICAL DATA

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TUBE No.	SAMPLE No.	Au	AuChk						
1	TS454	<0.008	--						
2	TS455	<0.008	--						
3	TS456	<0.008	--						
4	TS457	<0.008	0.020						
5	TS458	<0.008	--						
6	TS459	<0.008	--						
7	TS460	0.012	--						
8	TS461	<0.008	--						
9	TS462	<0.008	--						
10	TS463	<0.008	--						
11	TS464	<0.008	--						
12	TS465	<0.008	--						
13	TS466	<0.008	--						
14	TS467	0.025	--						
15	TS468	<0.008	--						
16	TS469	<0.008	--						
17	TS470	<0.008	--						
18	TS471	0.013	--						
19	TS472	<0.008	--						
20	TS473	<0.008	--						
21	TS474	<0.008	0.013						
22	TS475	0.053	--						
23	TS476	<0.008	--						
24	TS477	<0.008	--						
25	TS478	0.011	--						

Results in ppm unless otherwise specified
 T = element present, but concentration too low to measure
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 - = element not determined

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ANALYTICAL DATA

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TUBE No.	SAMPLE No.	AU	AUChk						
1	TS479	<0.008	-						
2	TS480	<0.008	-						
3	TS481	0.014	-						
4	TS482	<0.008	-						
5	TS483	<0.008	-						
6	TS484	<0.008	-						
7	TS485	<0.008	-						
8	TS486	<0.008	-						
9	TS487	<0.008	-						
10	TS488	0.010	-						
11	TS489	<0.008	<0.008						
12	TS490	0.011	-						
13	TS491	<0.008	-						
14	TS492	<0.008	-						
15	TS493	<0.008	-						
16	TS494	<0.008	-						
17	TS495	0.009	-						
18	TS496	<0.008	-						
19	TS497	0.015	-						
20	TS498	0.015	-						
21	TS499	<0.008	-						
22	TS500	<0.008	-						
23	TS501	<0.008	-						
24	TS502	0.010	-						
25	TS503	<0.008	-						

Results in ppm unless otherwise specified

T = element present, but concentration too low to measure

X = element concentration is below detection limit

- = element not determined

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ANALYTICAL DATA

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TUBE No	SAMPLE No	Au	AuChk							
1	TS504	<0.008	-							
2	TS505	<0.008	-							
3	TS506	0.019	-							
4	TS507	0.052	-							
5	TS508	<0.008	-							
6	TS509	<0.008	-							
7	TS510	<0.008	-							
8	TS511	<0.008	-							
9	TS512	<0.008	-							
10	TS513	<0.008	-							
11	TS514	<0.008	-							
12	TS515	<0.008	-							
13	TS516	<0.008	-							
14	TS517	<0.008	-							
15	TS518	<0.008	0.015							
16	TS519	<0.008	-							
17	TS520	<0.008	-							
18	TS521	<0.008	-							
19	TS522	<0.008	-							
20	TS523	<0.008	-							
21	TS524	<0.008	-							
22	TS525	0.009	-							
23	TS526	<0.008	-							
24	TS527	<0.008	-							
25	TS528	<0.008	-							

Results in ppm unless otherwise specified
I - element present, but concentration too low to measure
X - element concentration is below detection limit
- element not determined

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ANALYTICAL DATA

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TUBE No.	SAMPLE No.	Au	AuChk						
1	TS529	<0.008	--						
2	TS530	<0.008	--						
3	TS531	<0.008	--						
4	TS532	<0.008	--						
5	TS533	<0.008	--						
6	TS534	<0.008	--						
7	TS535	<0.008	--						
8	TS536	<0.008	--						
9	TS537	<0.008	<0.008						
10	TS538	<0.008	--						
11	TS539	0.052	--						
12	TS540	0.013	--						
13	TS541	0.011	--						
14	TS542	<0.008	--						
15	TS543	0.009	--						
16	TS544	0.080	--						
17	TS545	0.273	0.313						
18	TS546	0.010	--						
19	TS547	0.068	--						
20	TS548	0.010	--						
21	TS549	<0.008	--						
22	TS550	0.023	--						
23	TS551	0.010	--						
24	TS552	<0.008	<0.008						
25	TS553	<0.008	--						

Results in ppm unless otherwise specified
 T = element present, but concentration too low to measure
 X = element concentration is below detection limit
 -- = element not determined

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ANALYTICAL DATA

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TUBE No.	SAMPLE No.	AU	AUCHk						
1	TS554	<0.008	-						
2	TS555	<0.008	-						
3	TS556	0.097	-						
4	TS557	<0.008	-						
5	TS558	<0.008	-						
6	TS559	<0.008	-						
7	TS560	<0.008	-						
8	TS561	<0.008	-						
9	TS562	<0.008	-						
10	TS563	0.052	-						
11	TS564	<0.008	-						
12	TS565	0.051	-						
13	TS566	<0.008	-						
14	TS567	<0.008	-						
15	TS568	<0.008	-						
16	TS569	<0.008	<0.008						
17	TS570	<0.008	-						
18	TS571	<0.008	-						
19	TS572	0.015	-						
20	TS573	<0.008	-						
21	TS574	<0.008	<0.008						
22	TS575	<0.008	-						
23	TS576	<0.008	<0.008						
24	TS577	<0.008	-						
25	TS578	<0.008	-						

Results in ppm unless otherwise specified
 T = element present, but concentration too low to measure
 X = element concentration is below detection limit
 - = element not determined

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ANALYTICAL DATA

SAMPLE PREFIX

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TUBE No	SAMPLE No	Au	AuChk							
1	TS579	<0.008	-							
2	TS580	0.019	-							
3	TS581	<0.008	-							
4	TS582	0.013	-							
5	TS583	0.025	-							
6	TS584	0.024	-							
7	TS585	<0.008	-							
8	TS586	0.014	-							
9	TS587	<0.008	-							
10	TS588	0.018	-							
11	TS589	<0.008	-							
12	TS590	0.032	-							
13	TS591	<0.008	<0.008							
14	TS592	<0.008	-							
15	TS593	<0.008	-							
16	TS594	0.050	-							
17	TS595	<0.008	-							
18	TS596	<0.008	-							
19	TS597	0.042	-							
20	TS598	0.011	-							
21	TS599	0.013	-							
22	TS600	<0.008	-							
23	TS601	<0.008	-							
24	TS602	<0.008	-							
25										

Results in ppm unless otherwise specified
 T = element present, but concentration too low to measure
 X = element concentration is below detection limit
 - = element not determined

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A Division of Inchoape Inspection and Testing Services Australia Pty Ltd.

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055

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

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TUBE No	SAMPLE No	Alt	AuChk						
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22	DETECTION	0.008	0.008						
23	UNITS	PPM	PPM						
24	METHOD	309	309						
25									

Results in ppm unless otherwise specified
T = element present, but concentration too low to measure
X = element concentration is below detection limit
- = element not determined

AUTHORISED OFFICER



056

Phone (09) 458 7999

ANALABS

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FAX: 004 31 8890

558058

Telex AA92560

ANALYTICAL REPORT No. 999.24.08:06405

THIS REPORT MUST BE READ IN CONJUNCTION WITH THE ACCOMPANYING ANALYTICAL DATA

ORDER No.

PROJECT

K.C. Morrison Pty. Ltd.
190 Macquarie Street
Hobart
Tasmania 7000

DATE RECEIVED

RESULTS REQUIRED

08/08/89

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TOTAL No. OF SAMPLES

4

19/09/89

1

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STATE OF SAMPLES	REFER BELOW	SAMPLE NUMBERS	PRE-TREATMENT						ANALYSIS			
			DRY	CRUSH	SPLIT	PULVERISE	SIEVE	OTHER SEE REMARKS	NONE	REFER TO ANALYSIS SECTION	PREPARATION	METHOD
	TS263/353		SD	Prep: 006,007,013						As/114		
	TS263/353		SD	Prep: 006,007,013						Au, AuChk/313		

REMARKS

RESULTS

TO

K.C. Morrison Pty. Ltd.
190 Macquarie Street
Hobart
Tasmania 7000

RESULTS

TO

STATE OF SAMPLES		ANALYSIS	PREPARATION		ANALYSIS	METHOD	
whole core	WC	perchloric acid	A1	cold acid	CA	atomic absorption	AAS
split core	SC	hydrochloric acid	A2	specific sulphide	SS	x-ray fluorescence	XRF
cutting	CU	nitric acid	A3	other mixed acids	MA	spectrophotometry	SPEC
rock	Ro	aqua regia	A4	alkaline attack	AA	colorimetry	COL
soil	SO	nitric-perchloric	A5	volatilization	VO	chromatography	CHR
pulp	PU	HF mixture	A6	ignition	IG	titration	TIN
water	WA	HF under pressure	A7	crushed powder (XRF)	PP	other chemical means	CHEM
slime	SI	fusion	A8	glass fusion (XRF)	GF	miscellaneous	MISC
stream sediment	SS					fluorescence	FLOR
heavy mineral	HM					inductively coupled plasma	ICP

AUTHORIZED OFFICER

057

ANALABS

A Division of Macdonald Hamilton & Co. Pty. Ltd.

558059

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER NO.

PAGE

999.24.08.06405

19/09/89

1 OF 4

TUBE No.	SAMPLE No.	As	Au	Au(Cl) %						
1	TS263	12	0.230	-						
2	TS264	9	0.230	-						
3	TS265	13	<0.005	-						
4	TS266	<1	<0.005	-						
5	TS267	1	<0.005	-						
6	TS268	3	<0.005	<0.005						
7	TS269	102	0.020	<0.005						
8	TS270	13	<0.005	-						
9	TS271	12	<0.005	-						
10	TS272	4	<0.005	-						
11	TS273	2	<0.005	-						
12	TS274	1	<0.005	-						
13	TS275	<1	<0.005	-						
14	TS276	<1	<0.005	-						
15	TS277	12	<0.005	-						
16	TS278	10	<0.005	<0.005						
17	TS279	25	<0.005	-						
18	TS280	4	<0.005	-						
19	TS281	<1	<0.005	-						
20	TS282	<1	<0.005	-						
21	TS283	1	<0.005	-						
22	TS284	<1	<0.005	-						
23	TS285	<1	<0.005	-						
24	TS286	6	<0.005	-						
25	TS287	<1	<0.005	-						

Results in ppm unless otherwise specified.

- = element present, but concentration too low to measure

X = element concentration is below detection limit

- = element not determined

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ANALABS

558060

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ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

999.24.08.06405

19/09/89

2 OF 4

TUBE No.	SAMPLE No.	As	Au	AuCh					
1	TS288	<1	<0.005	-					
2	TS289	<1	<0.005	-					
3	TS290	<1	0.006	-					
4	TS291	<1	<0.005	-					
5	TS292	<1	<0.005	-					
6	TS293	<1	<0.005	-					
7	TS294	8	<0.005	<0.005					
8	TS295	6	<0.005	-					
9	TS296	15	<0.005	-					
10	TS297	4	<0.005	-					
11	TS298	12	<0.005	<0.005					
12	TS299	10	<0.005	-					
13	TS300	15	<0.005	<0.005					
14	TS301	8	<0.005	-					
15	TS302	5	<0.005	-					
16	TS303	4	<0.005	-					
17	TS304	8	<0.005	-					
18	TS305	3	<0.005	-					
19	TS306	14	0.008	<0.005					
20	TS307	4	<0.005	<0.005					
21	TS308	3	<0.005	<0.005					
22	TS309	7	<0.005	<0.005					
23	TS310	6	<0.005	-					
24	TS311	6	<0.005	-					
25	TS312	<1	<0.005	<0.005					

Results in this report are based on the
 assumption that the concentration of lead in
 the sample is below the detection limit.
 If the concentration is above the detection limit,
 the result will be determined.

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 OFFICE

059

ANALABS

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558061

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

999.24.08.06405

19/09/89

3 OF 4

TUBE No.	SAMPLE No.	AS	AU	AUCAL						
1	TS313	5	<0.005	<0.005						
2	TS314	2	<0.005	-						
3	TS315	9	<0.005	-						
4	TS316	7	0.040	-						
5	TS317	12	<0.005	-						
6	TS318	16	0.012	-						
7	TS319	7	0.012	0.014						
8	TS320	12	0.012	-						
9	TS321	5	0.012	-						
10	TS322	5	0.010	-						
11	TS323	16	0.037	-						
12	TS324	14	0.020	-						
13	TS325	17	0.012	0.012						
14	TS326	6	0.014	-						
15	TS327	5	0.030	-						
16	TS328	5	0.010	-						
17	TS329	9	0.015	-						
18	TS330	8	0.014	-						
19	TS331	8	0.015	-						
20	TS332	16	0.017	-						
21	TS333	11	0.025	-						
22	TS334	6	0.012	-						
23	TS335	7	0.035	-						
24	TS336	11	0.019	-						
25	TS337	8	0.012	-						

Trace in this analysis indicates possible
 element present, but concentration too low to measure
 X - element concentration is below detection limit
 - element not determined

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060

ANALABS

A Division of Macdonald, Hamilton & Co., Pty. Ltd.

558062

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

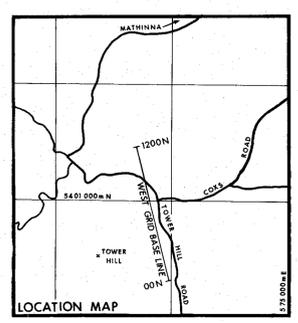
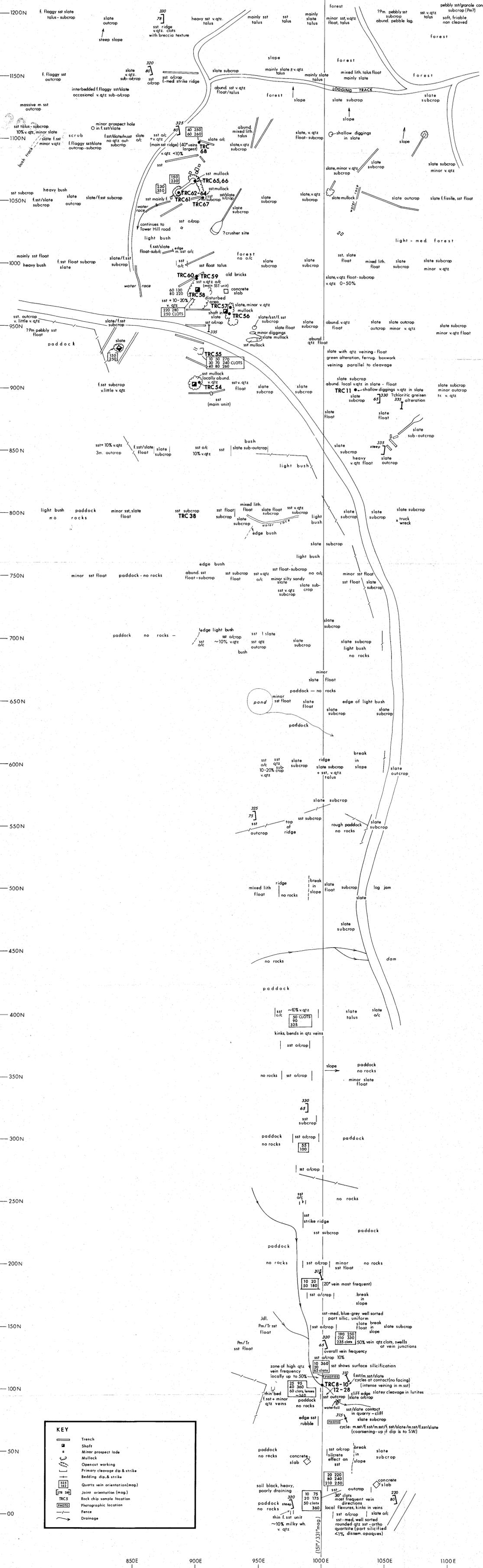
CLIENT ORDER No.

PAGE

TUBE No.	SAMPLE No.	Ag	Au	AuCH ₃					
			999.24.08.06405	19/09/89				4	OF 4
1	TS338	2	0.023	-					
2	TS339	<1	0.012	-					
3	TS340	4	0.020	-					
4	TS341	<1	0.014	<0.005					
5	TS342	<1	0.014	-					
6	TS343	<1	0.014	-					
7	TS344	<1	0.016	-					
8	TS345	<1	0.014	-					
9	TS346	1	0.016	-					
10	TS347	2	0.012	0.012					
11	TS348	15	0.026	-					
12	TS349	2	0.022	-					
13	TS350	2	0.016	-					
14	TS351	3	0.018	-					
15	TS352	2	0.014	<0.005					
16	TS353	3	0.012	0.014					
17									
18									
19									
20									
21									
22									
23	DETECTION	1	0.005	0.005					
24	UNITS	PPM	PPM	PPM					
25	METHOD	114	313	313					

Results in this analysis are based on the following assumptions:
 1. Elements present, but concentration too low to measure.
 2. Element concentration is below detection limit.
 3. Element not determined.

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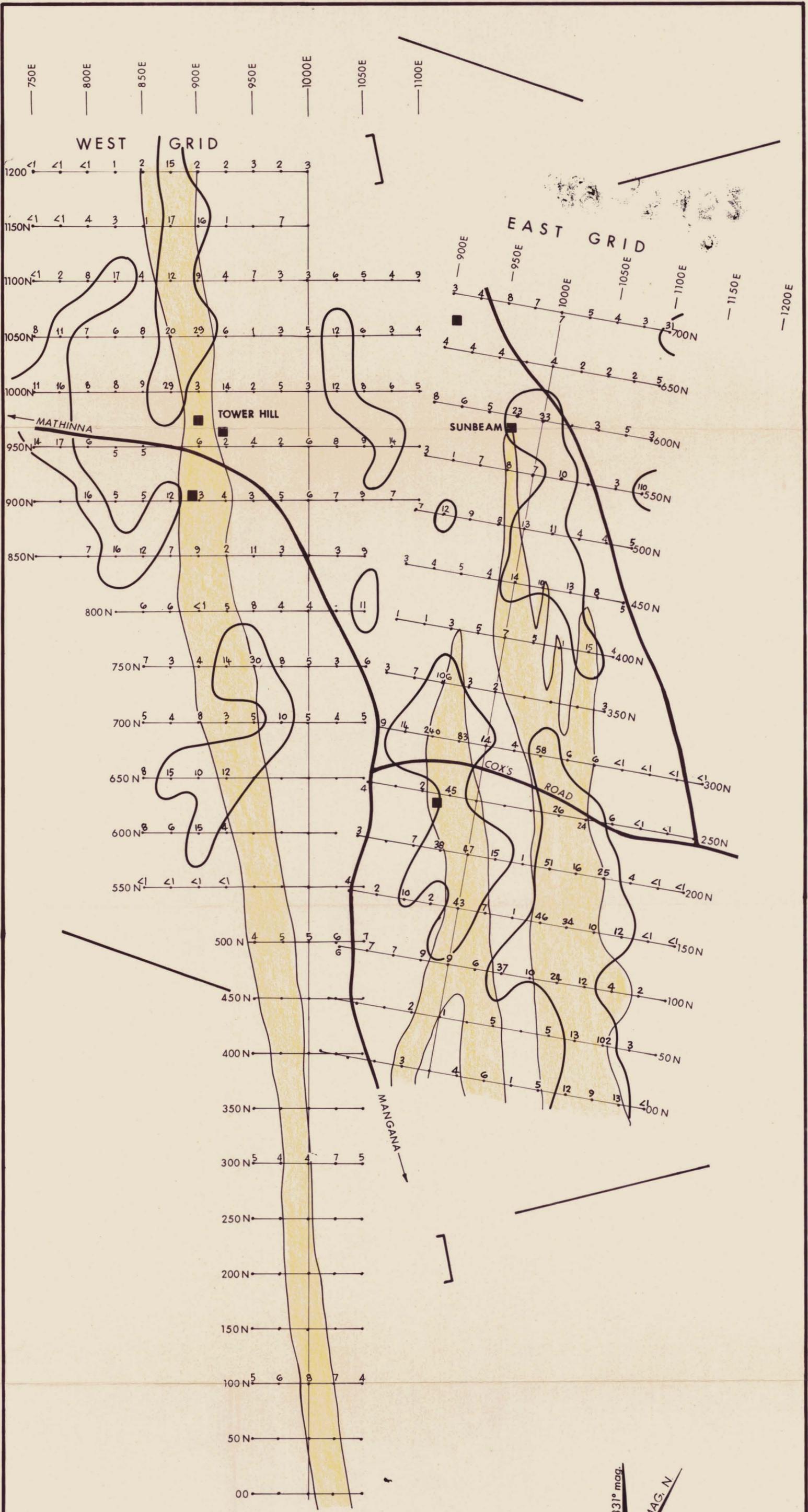


9053

89-30521

PEGASUS GOLD AUSTRALIA LTD
 EL 55/83 - MANGANA, TASMANIA
 TOWER HILL PROSPECT - WEST GRID
**FACT MAP - Geology, Old Workings
 Sample Sites**

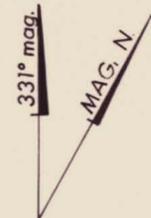
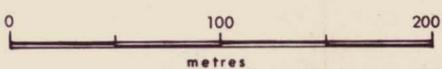
SEPT, 1989 1:1000 KM/TKD



KEY

- Sandstone body
- Photo linear
- Primary cleavage dip & strike
- Main workings
- 10ppm As

5 cm



558018

89-3052

PEGASUS GOLD AUSTRALIA LTD

EL 55/83 - TOWER HILL PROSPECT,
TASMANIA

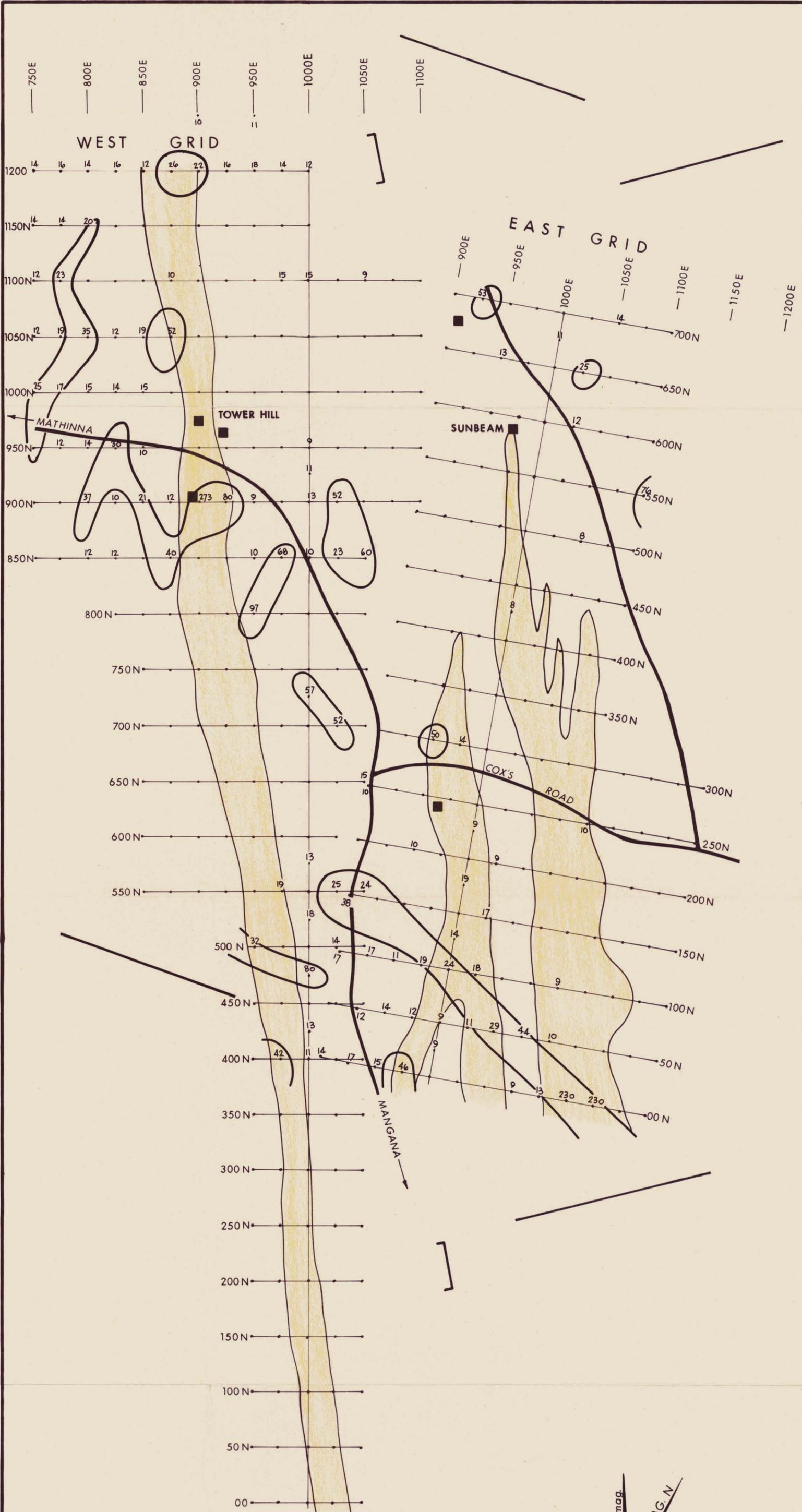
SOIL SURVEY - ARSENIC (ppm)

(N = 309)

NOV. 1989

PLAN 4.

KM /TKD

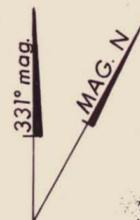


KEY

- Sandstone body
- Photo linear
- Primary cleavage dip & strike
- Main workings
- 20ppb Au

5 cm

0 100 200
metres



558019

89-3052

PEGASUS GOLD AUSTRALIA LTD

EL 55/83 - TOWER HILL PROSPECT,
TASMANIA

SOIL SURVEY - GOLD (ppb)
(N = 340)

NOV. 1989

PLAN 5.

KM /TKD

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Specialties: Gravity, Magnetics, Seismic Methods

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TELEPHONE: (002) 240319

558065

GROUND MAGNETIC SURVEY
EL 55/83 MANGANA

for
PEGASUS GOLD AUSTRALIA LTD

by
Dr. D.E. Leaman

October 1989

MANGANA

SUMMARY

An experimental ground magnetic survey across two grids in the Tower Hill portion of the licence has shown that magnetic methods may be able to define concentrations of quartz veins within the Mathinna Beds and possibly distinguish between mineralised and unmineralised ground.

The survey was undertaken using generous specifications in order to assess viability of the technique generally. This has meant that diurnal corrections and other adjustments are far from ideal and that observations may only be reproduced within 10 or 15 nT. This limitation has restricted use of the data for unit mapping since any lithologically sourced variations are of very low amplitude but it has not affected its use in profile form. Repeated survey of the link line reveals that all profile character is reproducible but at slightly differing absolute values.

Variations in the magnetic field related to cultural disturbance or other recent artifacts can be recognised and most have been removed. The remaining variations do not appear to correlate with mapped lithologies but high amplitude spike effects of moderate frequency do correspond with zones known to contain many quartz veins. The magnetic field has been sampled at intervals of 1.5 to 2 m.

The survey would suggest that attempts at reproducible contour compilation require complete diurnal correction and a continuous base station during survey. The looser specification used for this experiment is, however, able to provide adequate profile detail and may be sufficient for all practical exploration purposes.

While lithological mapping is shown to be uncertain, either for this area or due to the specifications of the survey, significant reduction in the intensity of the magnetic field can be associated with the Tower Hill workings and, to a lesser extent, the Sunbeam workings. If it is presumed that these sites were significant producers locally then the method has economic value; it can locate quartz concentrations and then suggest which of them is anomalous. Clearly this is a result requiring verification at other sites in the licence since the magnetic method is cheap, provides large and rapid coverage easily, and the potential for application is great.

INTRODUCTION

EL 55/83 covers a previously productive portion of the gold-bearing Mathinna Beds sequence in north eastern Tasmania and extends from Mathinna in the north to Mangana in the south. Tower Hill is centrally located (see Figure 1).

Virtually no modern exploration has been undertaken anywhere in north eastern Tasmania and no definitive exploration guidelines or practices have been established. While Pegasus Gold has sought to examine the licence by conventional methods, inspection and sampling of previous workings or limited geochemical survey, these cannot be expected to reveal any deep or previously unknown mineralisation or cover substantial areas cost efficiently.

Some consideration has been given, therefore, to alternate methods of exploration; methods which offer large ground coverage, low cost and moderate definition either of lithology, structure or veining. Clearly, any method which can suggest the distribution and form of any veining is likely to prove an invaluable prospect filter.

In view of the current lack of knowledge concerning the nature and control of gold mineralisation, and consequently the physical property variations which are of significance, all geophysical methods could be considered applicable, at least in research terms. In terms of economic exploration only the simplest and most basic techniques are viable until the cloud of ignorance is lifted. The magnetic method is the only method known to respond to lithological or alteration properties in the Mathinna Beds or vein contacts which can be applied easily and cheaply over large areas. For these reasons it was decided to try an experimental survey of the Tower Hill portion of the licence. This area is not known as a giant producer but it does present all the characteristics of the region and would offer a fair test. If the method could define features of interest here, it could clearly do so elsewhere.

This report describes the experimental survey undertaken in the Tower Hill area using non restrictive specifications. The object of the survey was as defined above and the specification was intended to test applicability using the simplest and most rapid field techniques.

SURVEY AND RESULTS

The survey was undertaken across two adjoining grids during September 1989 by G. Clota and S. Cross using a proton magnetometer hired from the Department of Mines. The grids are known as Tower Hill east and west. Survey lines within the grids are 50 m apart and oriented approximately east-west.

The magnetic survey was specified as follows. At least two base stations were to be established and linked. These were to be occupied at approximately two hourly intervals and provide a gross indication of diurnal variation. Every possible opportunity for a repeat reading was to be taken, regardless of the station or its position in the survey. Grid lines were to be sampled at one to two pace intervals with all pegged points noted in the field book; the actual sample interval to be calculated from these flagged references. The instrument and observers were to be consistently oriented and observers were to check for and remove all ferrous objects in clothing and equipment carried. These specifications were considered sufficient to allow rapid survey and reasonable recovery of the character of the magnetic field. It was recognised that any significant disturbance in the magnetic field might be concealed and limit the application of the results. This risk was offset against the high sampling and tight grids used in the belief that patterns would emerge which would allow some redundancy or recognition of false responses.

In practice, the tie points were generally observed only three times each day and very few other stations were repeated. Thus the diurnal corrections applied are limited and few checks of their veracity are possible. Figure 21 suggests the general reliability of the survey. The profiles linking the base points were completely observed once for each grid and while the end points have been adjusted within 5 nT it will be observed that the absolute values for observations along the profile differ by up to 30 nT. The character recorded along each profile is, however, precisely and reliably reproduced indicating that the only deficiency in the data set is incomplete diurnal correction:

Base values of 61800 and 61827 nT were assigned to the base points after consideration of the differences recorded during the survey. The difference of 27 nT represents 27 ± 5 nT. The base stations were located at Intersections of Cox's Road with Tower Hill and Speers Roads (W = W260N/900E; E = E250N/1200E).

Recovered station spacings varied between 1.67 and 1.83 m. Most grid lines were covered with a sample interval of about 1.73 m. Profiles plotted after the basic correction for daily drift and assigned base values are presented in Figures 2 to 25. All corrected observations have been tabulated in the Appendix.

The generally spiky nature of the results limits direct conversion of the data sets into contour forms. The uncertainty in any diurnal correction compounds this problem. In order to assess gross effects, or any lithological character, the profile data sets were smoothed by upward continuation to 5 and 10 m. The effect of this is shown in Figures 22, 24 and 25. Data smoothed by the 10 m operator were contoured after rechecking for consistency at all intersections with the base lines. This was necessary since the smoothed function varies according to profile character and is not necessarily compatible with observed intersection values. It should be noted that many of these were inconsistent due to the spiky nature of the observations. The contoured presentation of the magnetic field is shown in Figure 27.

COMMENTS

No comprehensive interpretation is yet possible of this data. Nor can the method and the present application be properly appraised. Until the experiment reported here has been repeated at several other localities, with or without known mineralisation, sampling other parts of the Mathinna Beds can the implications be confirmed or employed for exploration benefit.

The results are, however, very suggestive and certainly encourage completion of the experimental exploration using similar, crude, specifications of survey.

Review of Figures 2 to 25 and comparison with traverse or site observations reveals that:-

- a) there is no consistent relationship between large cultural features such as roads, tracks, sawmills, houses and fences and magnetic field. Obvious metal objects are separable.
- b) the magnetic field is generally spiky with a relatively narrow envelope, of about 25 nT or at least five times the data precision.
- c) the spikes in the field are of at least two types, short and very short wavelength. Very short wavelength variations have a wavelength rarely more than 4 or 5 observations (6-8 m).
- d) observed quartz concentrations can be correlated with short wavelength magnetic features (not very short) which have amplitudes about double the very short wavelength envelope.
- e) the inferred quartz correspondence also correlates closely with most workings, large and small, indicating that prospectors have simply excavated wherever quartz is evident. Workings are indicated in the Figures with either a prospect or shovel symbol to indicate the nature of the

site.

- f) there are few unambiguously identifiable long wavelength features consistent with either large structures or significant lithological changes. Line 950 (west grid) is exceptional in this respect; the effect is centred on the Tower Hill Mine and perhaps is no accident!

Even after continuation smoothing this comment remains true and the result is reflected in the subtle character of the contoured field (Figures 25, 26). A similar but reduced effect occurs near the Sunbeam Mine (Figures 9, 22).

- g) most subtle effects are structurally controlled or induced and that the local Mathinna Beds possess relatively uniform magnetic properties. This was also suggested by the Mines Department aeromagnetic survey (Richardson, 1989).

Figure 27 of the contoured field, though necessarily rather crude due to the low relief field and the nature of the survey, does suggest some gross trends (NE and NW) which can be identified in the regional aeromagnetic data. There are also gross suggestions of limited lithological variation. Possible near E-W trends may be unreliable in this data but suggestions of about 45 and 315 degrees are present. All three systems have been noted in photo interpretation and mapping (K. Morrison, pers. comm).

The method would clearly have exploration value, even in the simple application mode used here, if it could be confirmed that the spike differential character was indeed related to local structure or veins in some way. It would be especially useful if the anomalous character about the Tower Hill Mine could be shown to exist near other mineralised sites. Note that the Tower Hill Mine character is only reproduced near the Sunbeam Mine, in subtler form, within the present survey.

Some of these comments and presumptions have been tested quantitatively in order to obtain some indication of contrasts and the realism of any implications.

Line 950W was selected since it presents all types of character observed in the survey and transects the Tower Hill Mine site. It must be stated that there is no evidence to suggest that any local cultural disturbance accounts for the long wavelength effect.

Modelling (Figure 26) shows that the base level of the field lies at about 61825 nT but that this implies a moderate base level of magnetic contrast in the Mathinna Beds or underlying basement (0.00015 cgs) which is virtually lost near the mine to depths in excess of 200 m. Depth resolution is uncertain with extant data but the property loss may extend to depths of 600 m or more. This conclusion is partly dependent on contrast assumptions or implications. There is no doubt, however, that the effect extends to within 5 to 10 m of the surface.

The spikiness in the profile can be explained by thin tabular sources or skins with contrasts of up to 0.0005 cgs against the background formation. These sources or skin effects occur as couplets, one positively, one negatively magnetised and thus suggestive of alteration or weathering materials on fractures or vein walls. Most very short wavelength spikes imply such alteration occurs to within 1 to 2 m of the surface and only the larger, short to moderate wavelength spikes imply greater depth, source enlargement or significant integration of sources.

Figure 22 presents two north-south profiles observed additional to the original survey. These were tests of character and reproducibility. The Tower Hill line (W grid 900E) was observed along a ridge of quartzite. This carries strongly contrasting effects of high amplitude consistent with quartz character. The data envelope is very wide. The observed field reproduces the field loss noted in Figure 25 or 26 but the continuation has been affected by the large spikes. The response is present but this lithology requires a greater elevation of calculation. The transverse profiles sampling a range of lithologies are not so affected.

Illustration of wavelength characteristics observed is provided in Figures 5, 9, 18 and 26. The amplitude of the various types of data envelopes recognised is suggested in Figures 5, 23 and 26.

The survey was undertaken as a test of method applicability in an area of some interest. Such tests are essential if gold exploration in NE Tasmania is to be advanced from the prospective approach of a century ago. Too little is known of materials, controls and responses to dismiss any approach. A single magnetic survey cannot be expected to yield definitive results but the results obtained are suggestive and interesting. They are important if verified since the magnetic method is perhaps the least expensive means of assessing large areas.

The present work suggests that

- a) while a rigorous survey might be useful it is not essential. This means greater coverage at reduced exploration cost.
- b) vein systems can be identified and detailed infill survey might well allow mapping of orientations.
- c) in this area lithologies are either not reliably mappable, or are not mappable with loose specifications.
- d) negative contrast alteration may be associated with mineralisation and thus allow differentiation of barren quartz concentrations from mineralised zones. Each anomaly of this type may lie near trend intersections but is a localised or point feature.
- e) some gross trends are indicated which can also be recognised in aerial data. This suggests that useful ground follow up and resolution may be practical where airborne data is of high quality.

Further comparative survey is recommended. If these conclusions could be reproduced at other sites with known mineralisation then a viable exploration approach will have been born.

REFERENCE

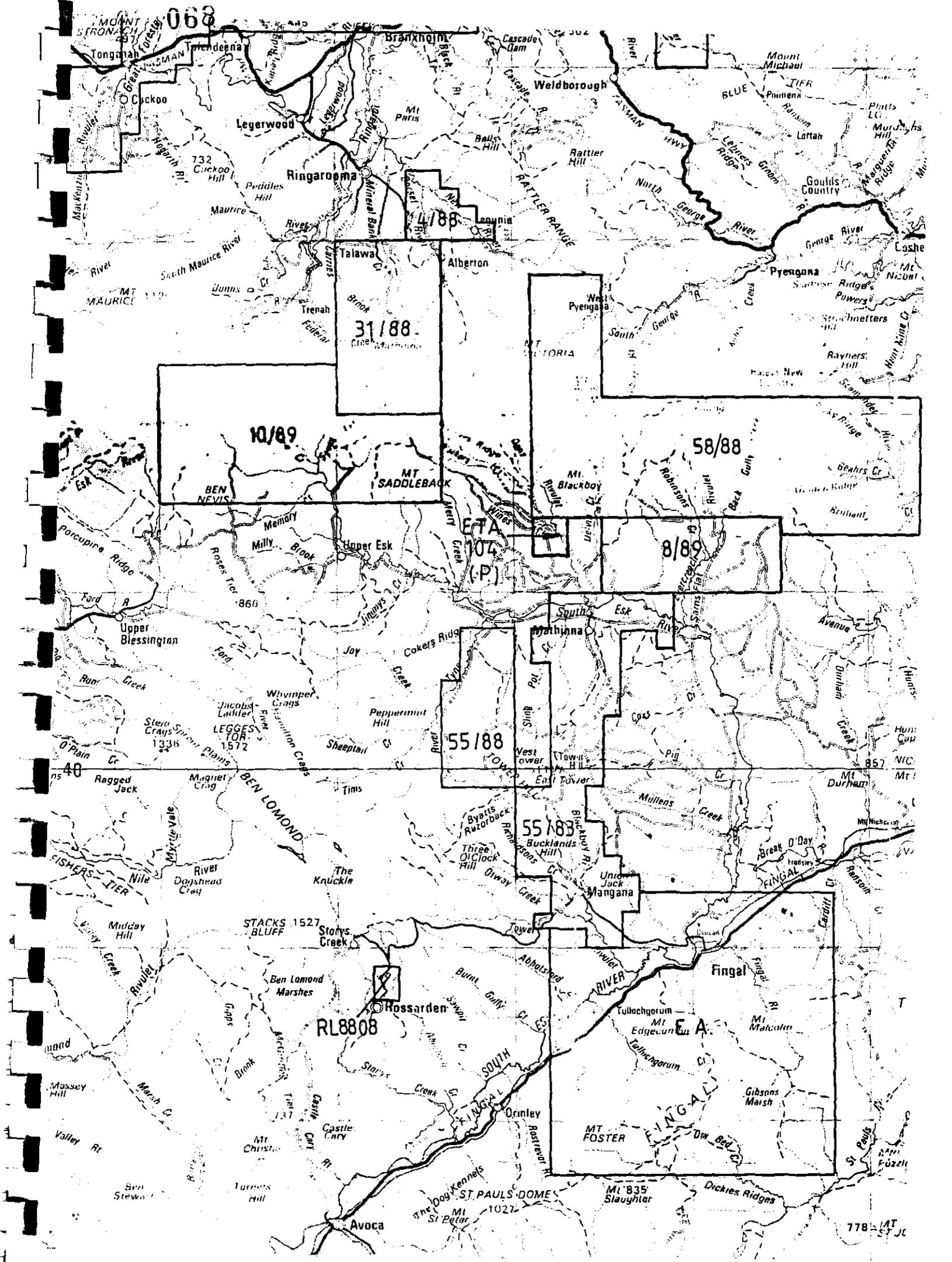
Richardson, R.G., 1989. The Mangana-Alberton aeromagnetic survey - a preliminary interpretation. Unpub. Rep. Dep. Mines Tasm., 1989/19.

Report submitted on behalf of
Leaman Geophysics
by

D. Leaman

Dr. D.E. Leaman, B.Sc., Ph.D
M.Aus.I.M.M., M.M.I.C.A

Oct 23, 1989



LOCATION OF EL 55/83 MANGANA

558073

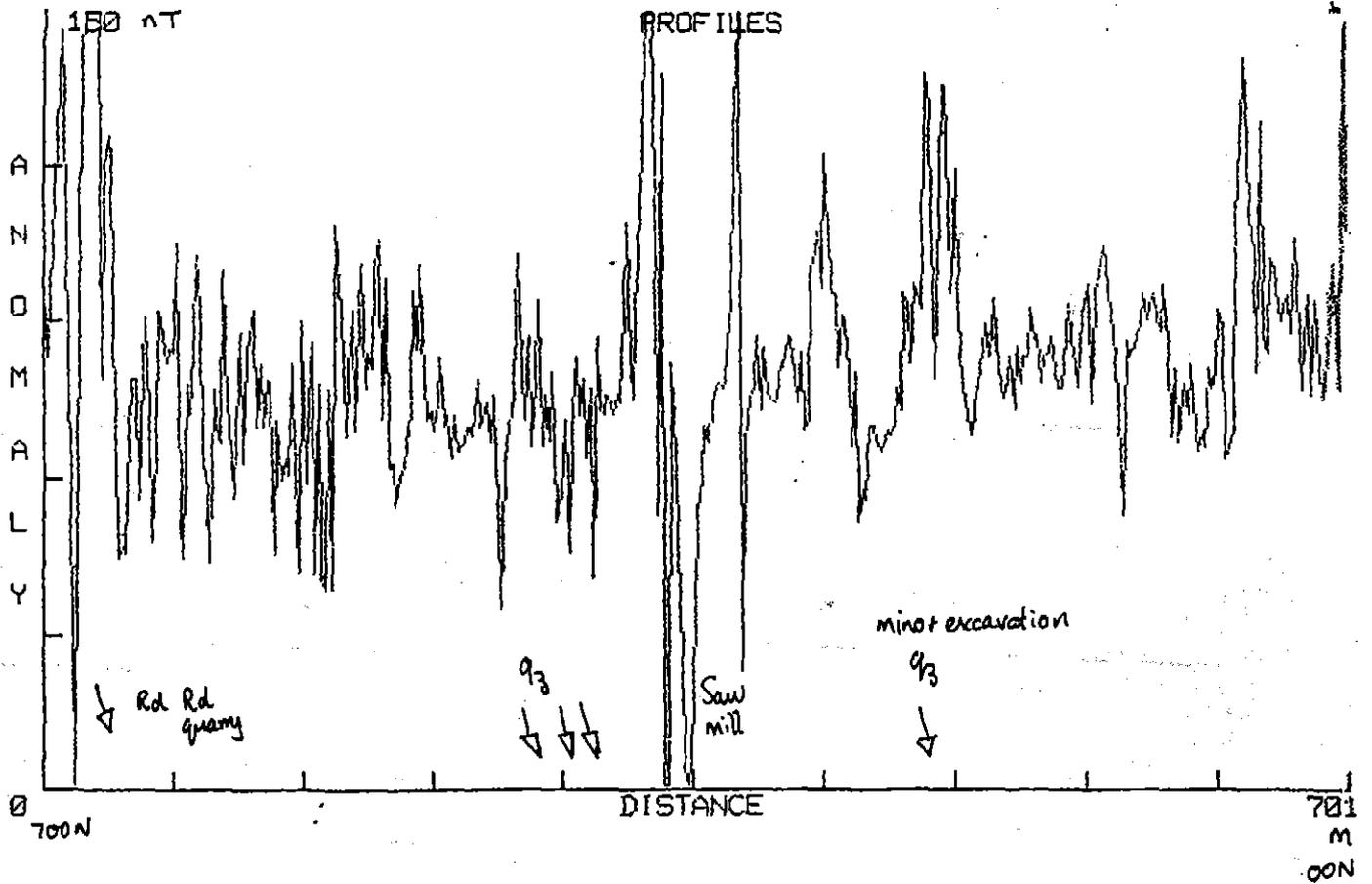
FIGURE 1

071 1

B:THLEBASE

558074

TOWER HILL MAGNETIC SURVEY E GRID BASELINE 1000E 700-00N
ZERO SHIFT :-750



1

B:THLELINK

TOWER HILL MAGNETIC SURVEY E GRID LINK 1-2

ZERO SHIFT :-750

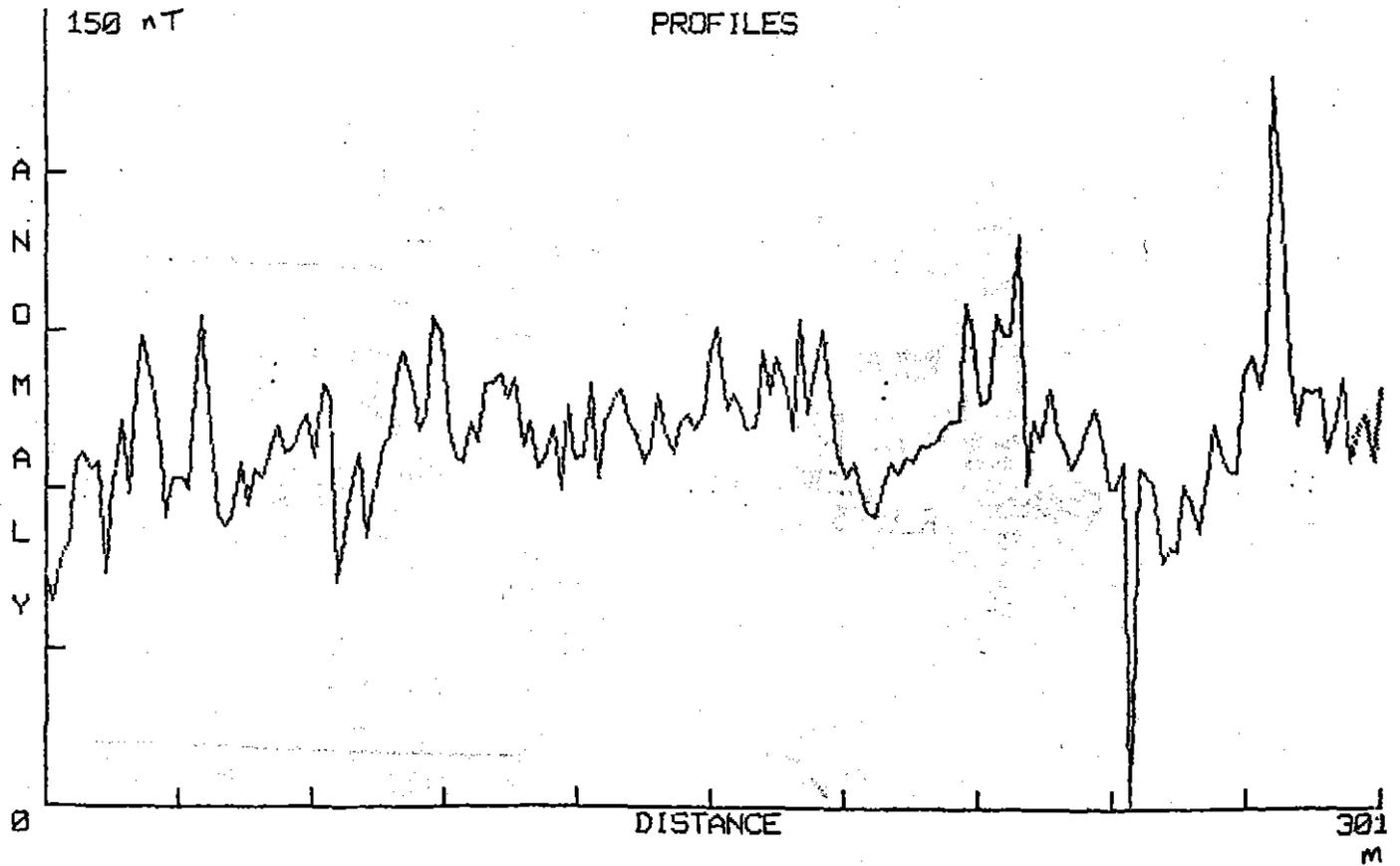


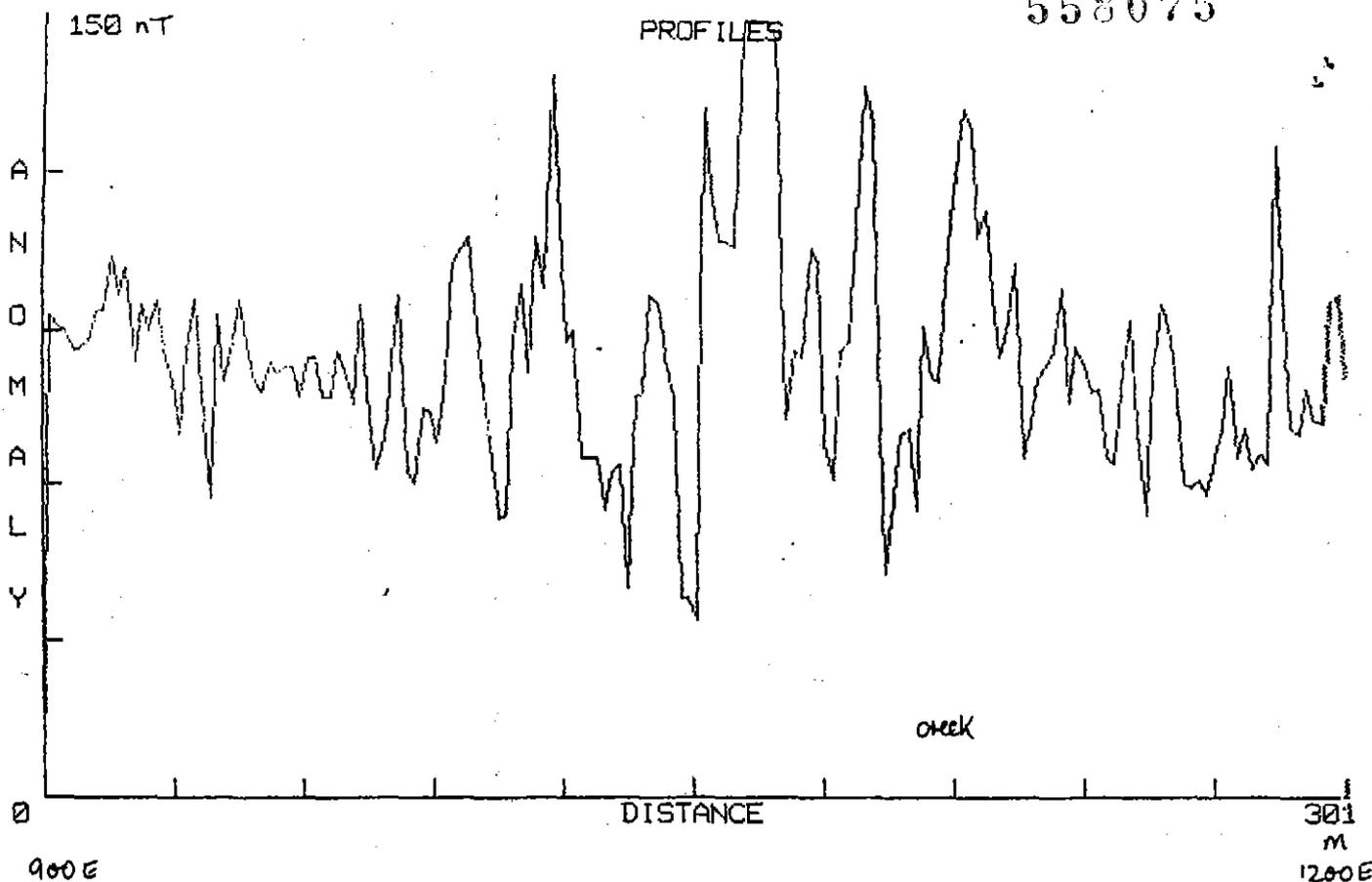
FIGURE 2

070

B: THLE0000
ZERO SHIFT :-750

TOWER HILL MAGNETIC SURVEY E GRID 00N 900-1200E

558075



B: THLE0050
ZERO SHIFT :-750

TOWER HILL MAGNETIC SURVEY E GRID 50N 900-1200E

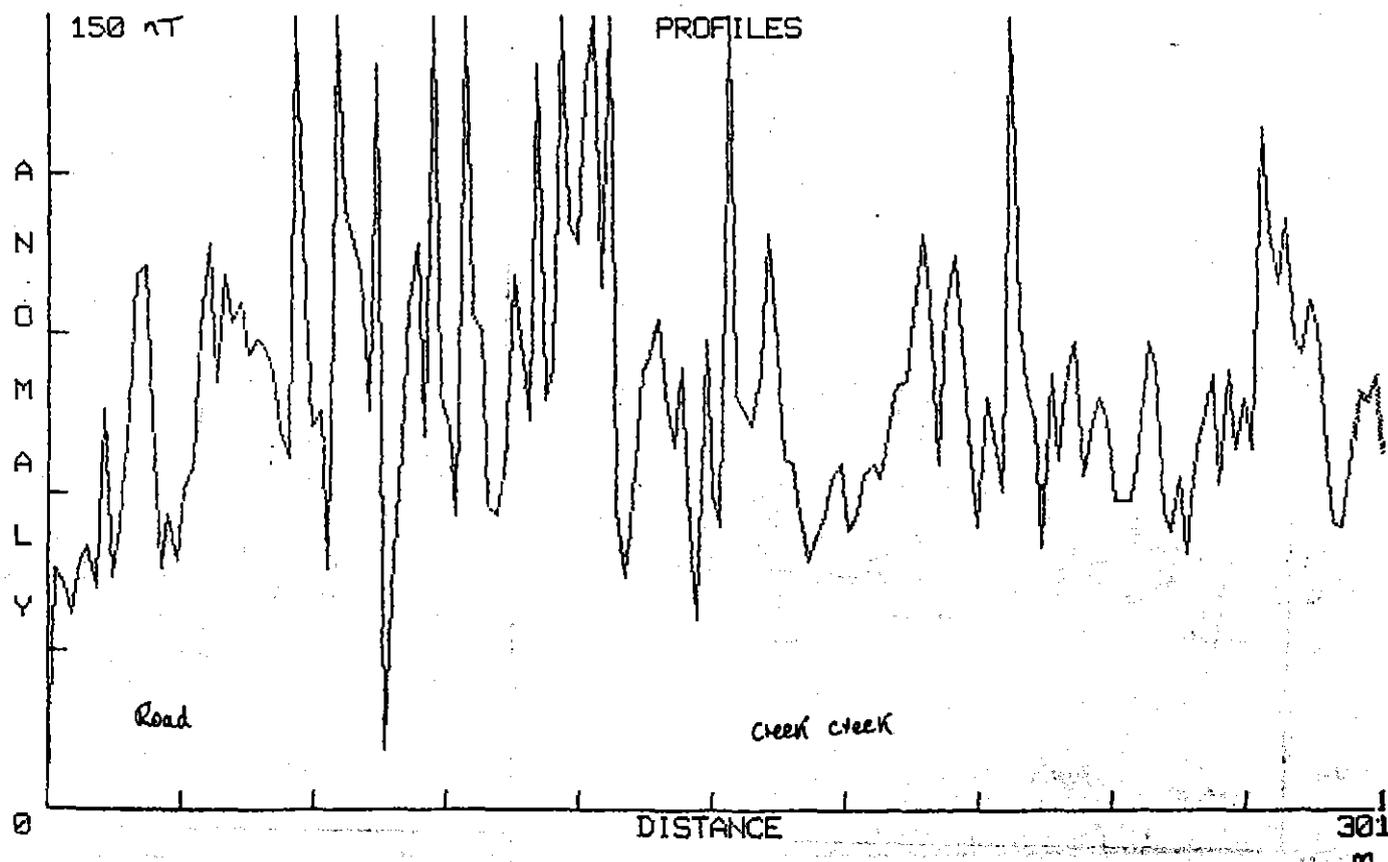
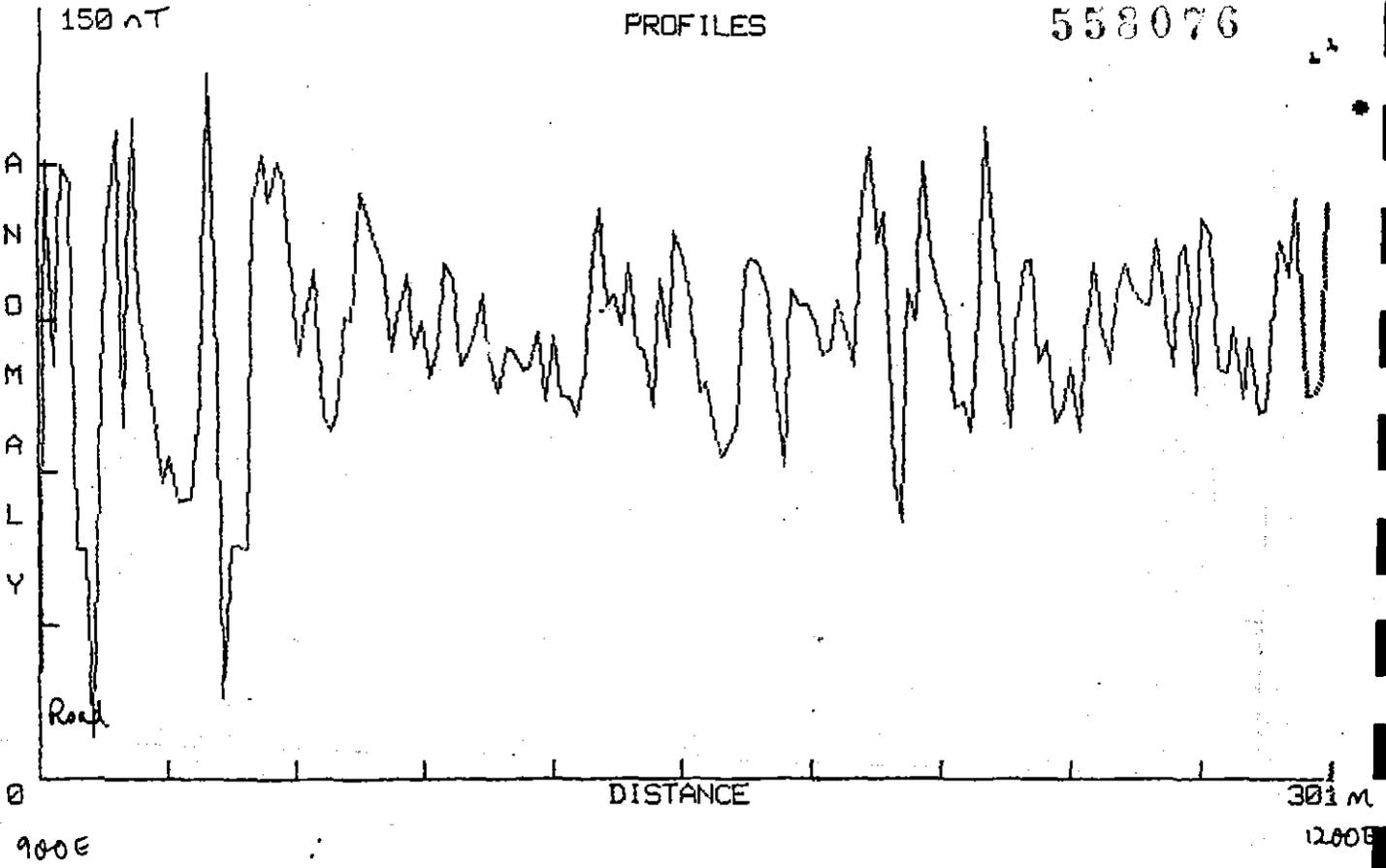


FIGURE 3

073

B:THLE0100
ZERO SHIFT :-750

TOWER HILL MAGNETIC SURVEY E GRID 100N 900-1200E



1
ZERO SHIFT :-750

B:THLE0150 TOWER HILL MAGNETIC SURVEY E GRID 150N 900-1200E

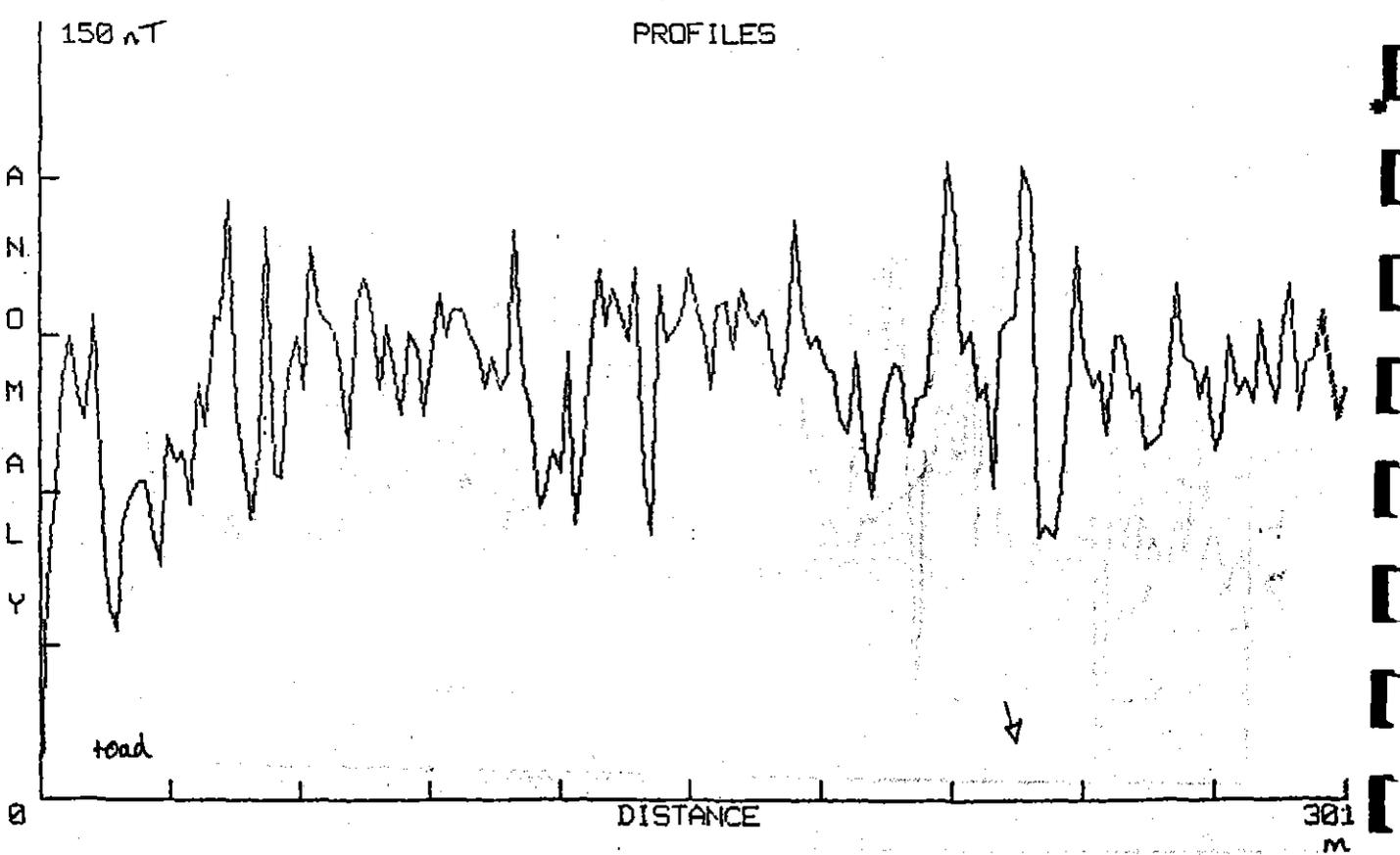
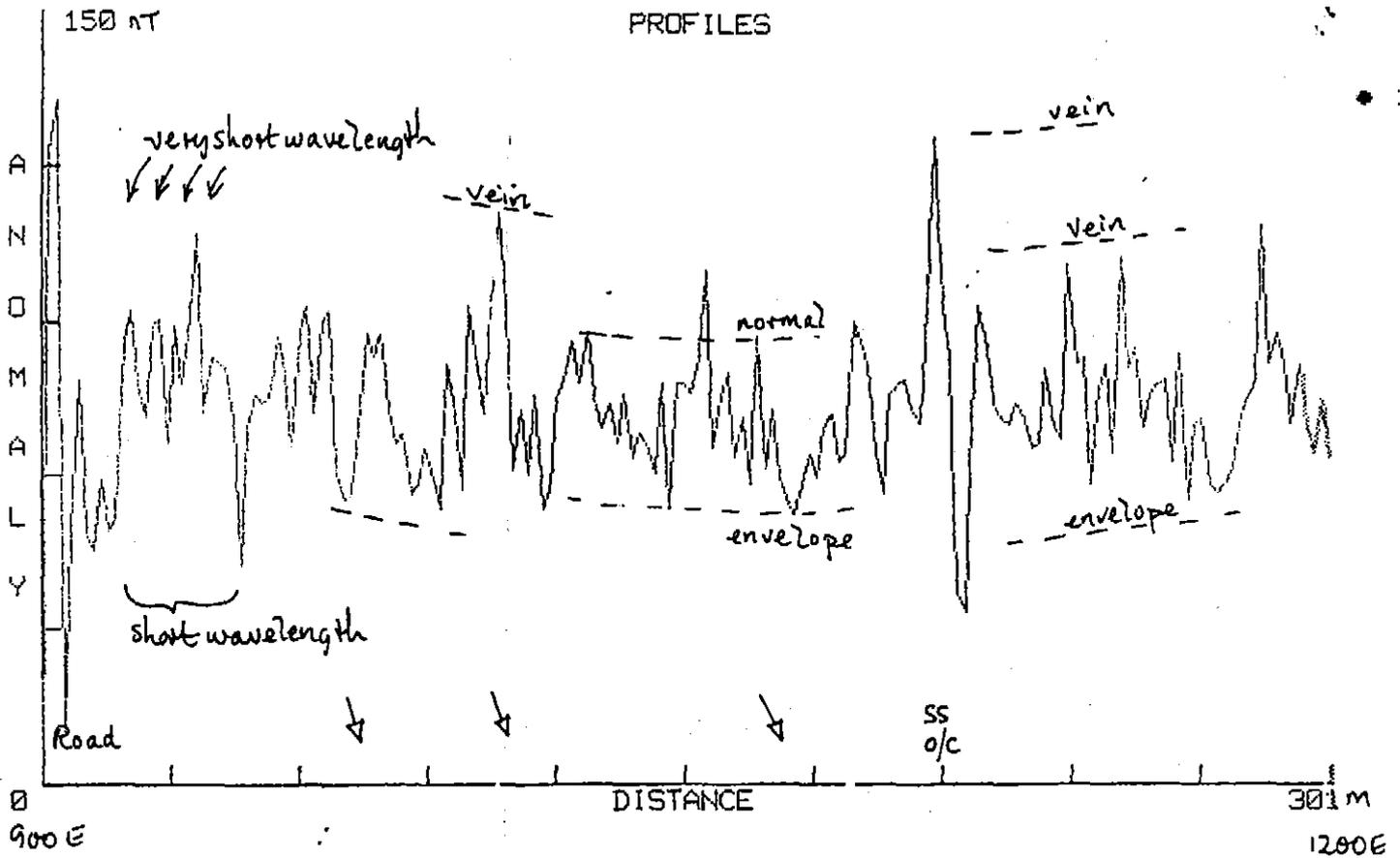


FIGURE 4

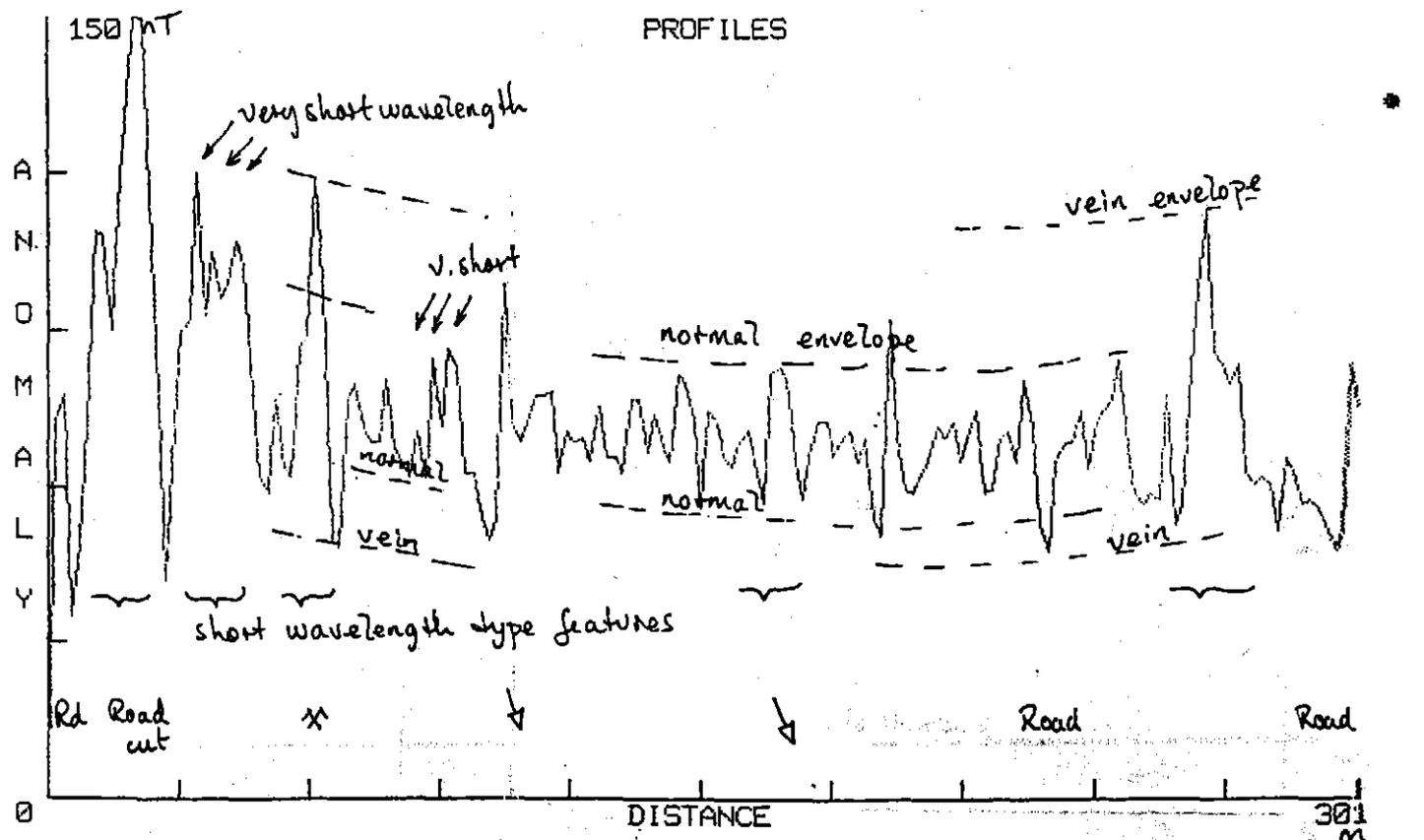
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ZERO SHIFT :-750

TOWER HILL MAGNETIC SURVEY E GRID 200N 900-1200E



1 B:THLE0250
ZERO SHIFT :-750

TOWER HILL MAGNETIC SURVEY E GRID 250N 900-1200E



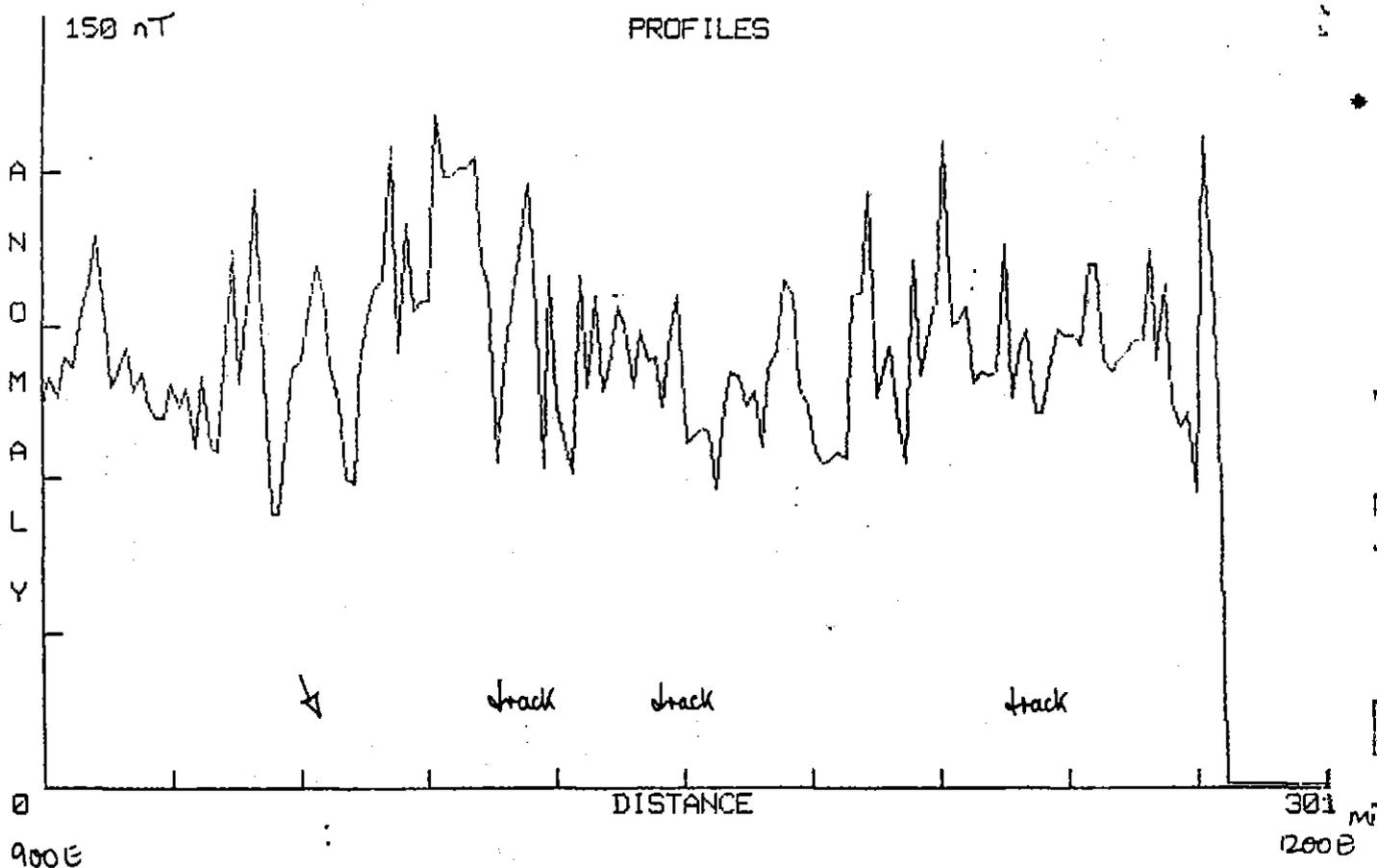
075

558078

B: THLE0300

TOWER HILL MAGNETIC SURVEY E GRID 300N 900-1200E

ZERO SHIFT :-750



1.

B: THLE0350

TOWER HILL MAGNETIC SURVEY E GRID 350N 900-1200E

ZERO SHIFT :-750

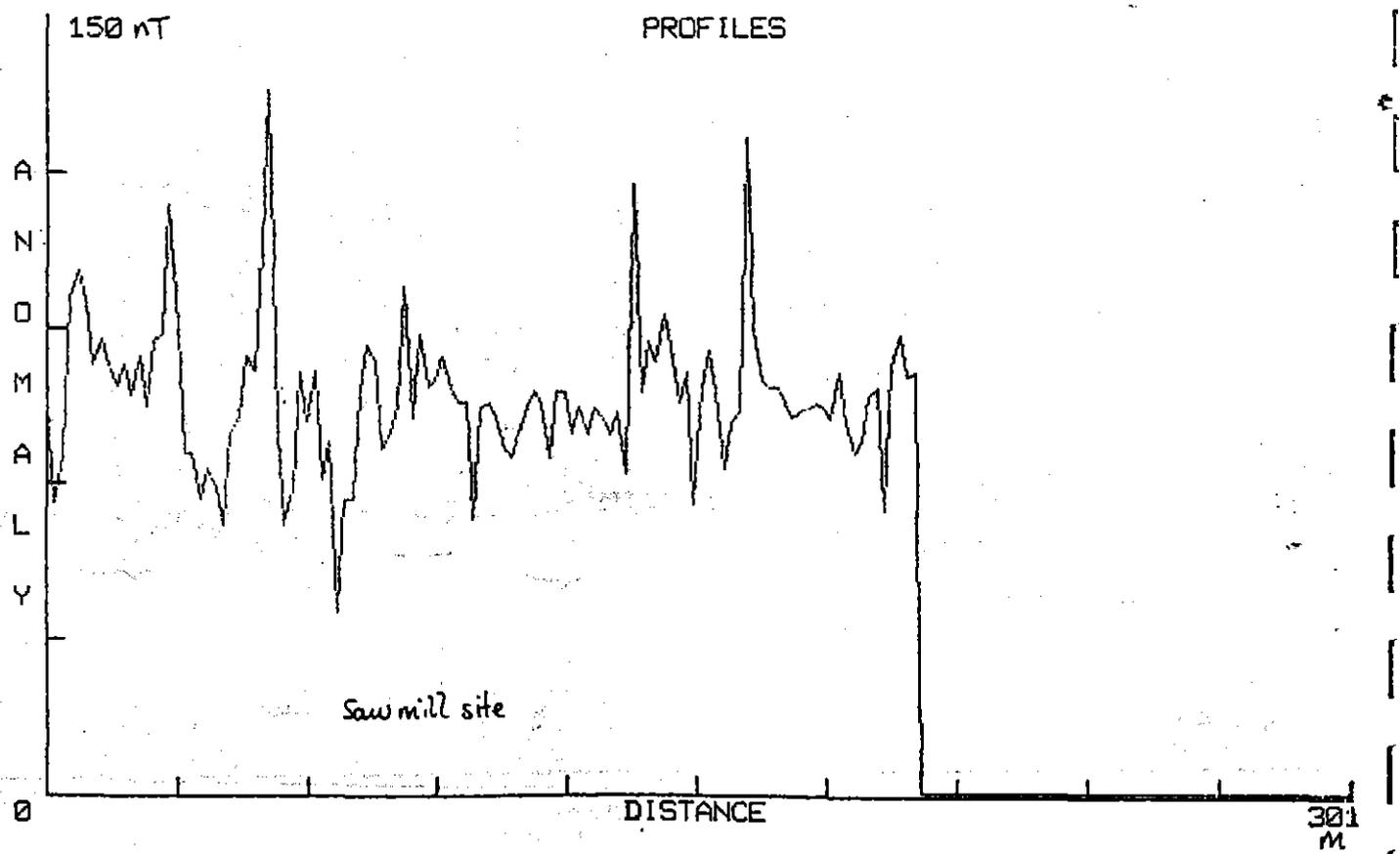


FIGURE 6

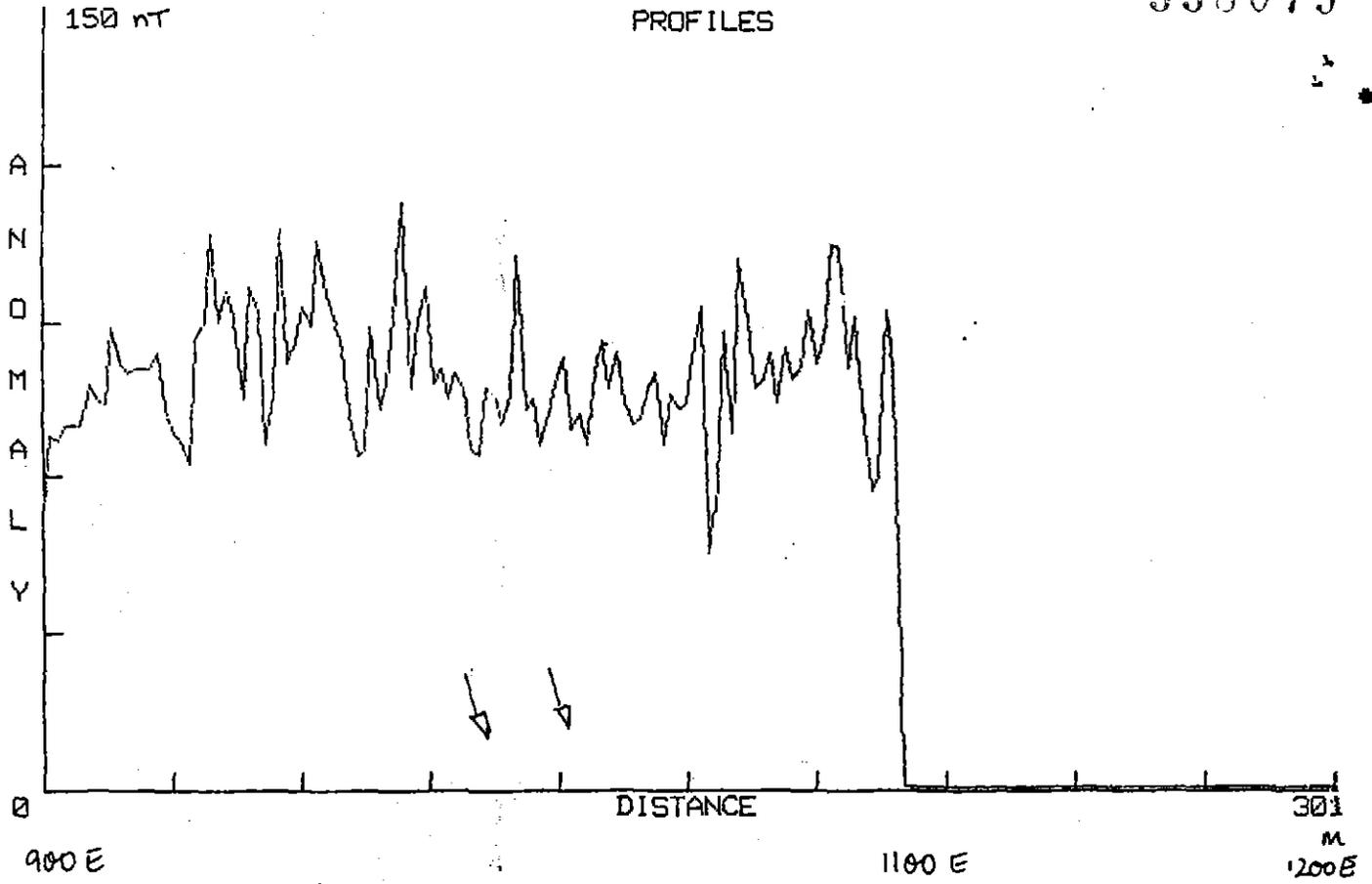
074

B:THLE0400

TOWER HILL MAGNETIC SURVEY E GRID 400N 900-1200E

ZERO SHIFT :-750

558079



1
ZERO SHIFT :-750

B:THLE0450

TOWER HILL MAGNETIC SURVEY E GRID 450N 900-1200E

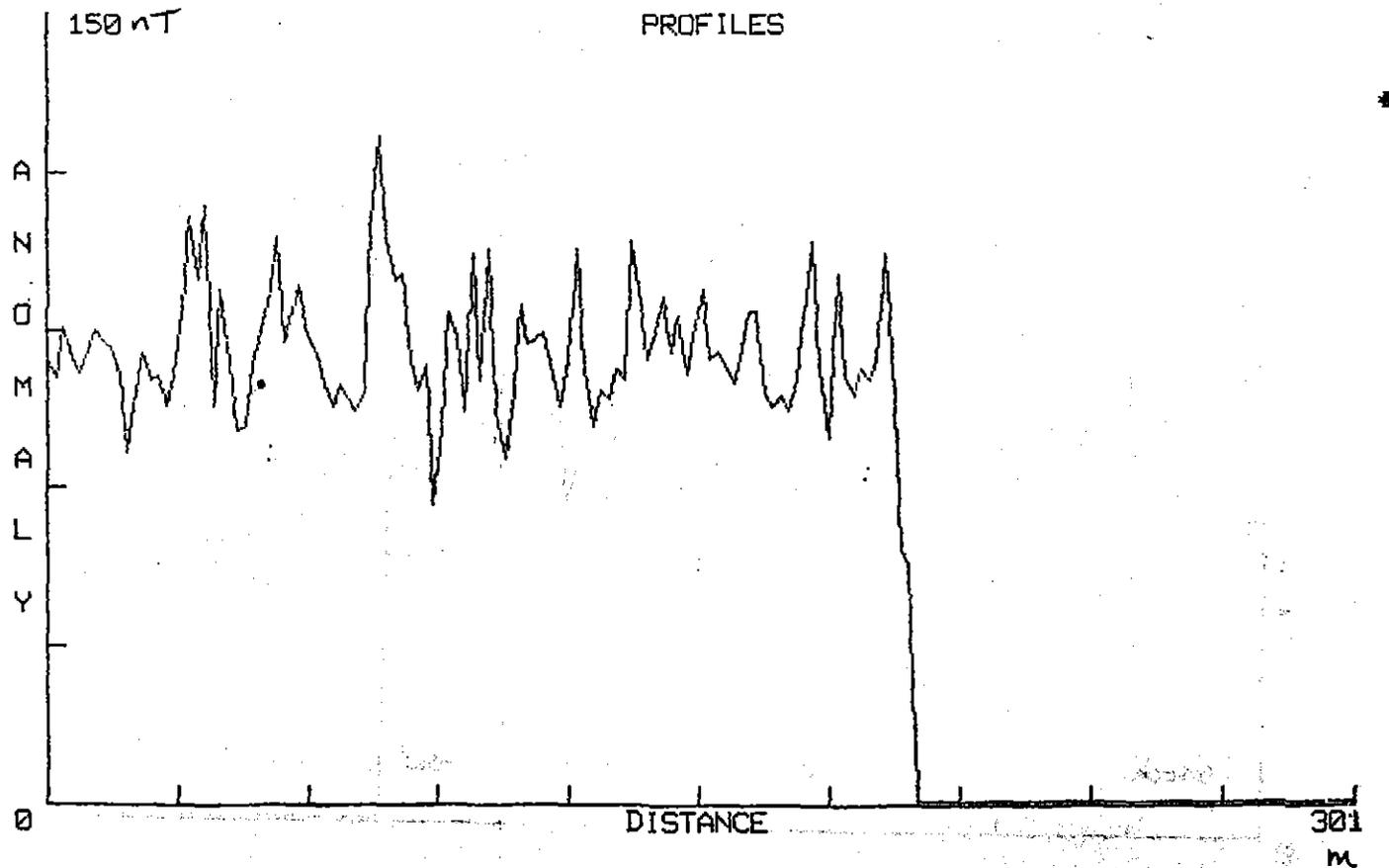


FIGURE 7

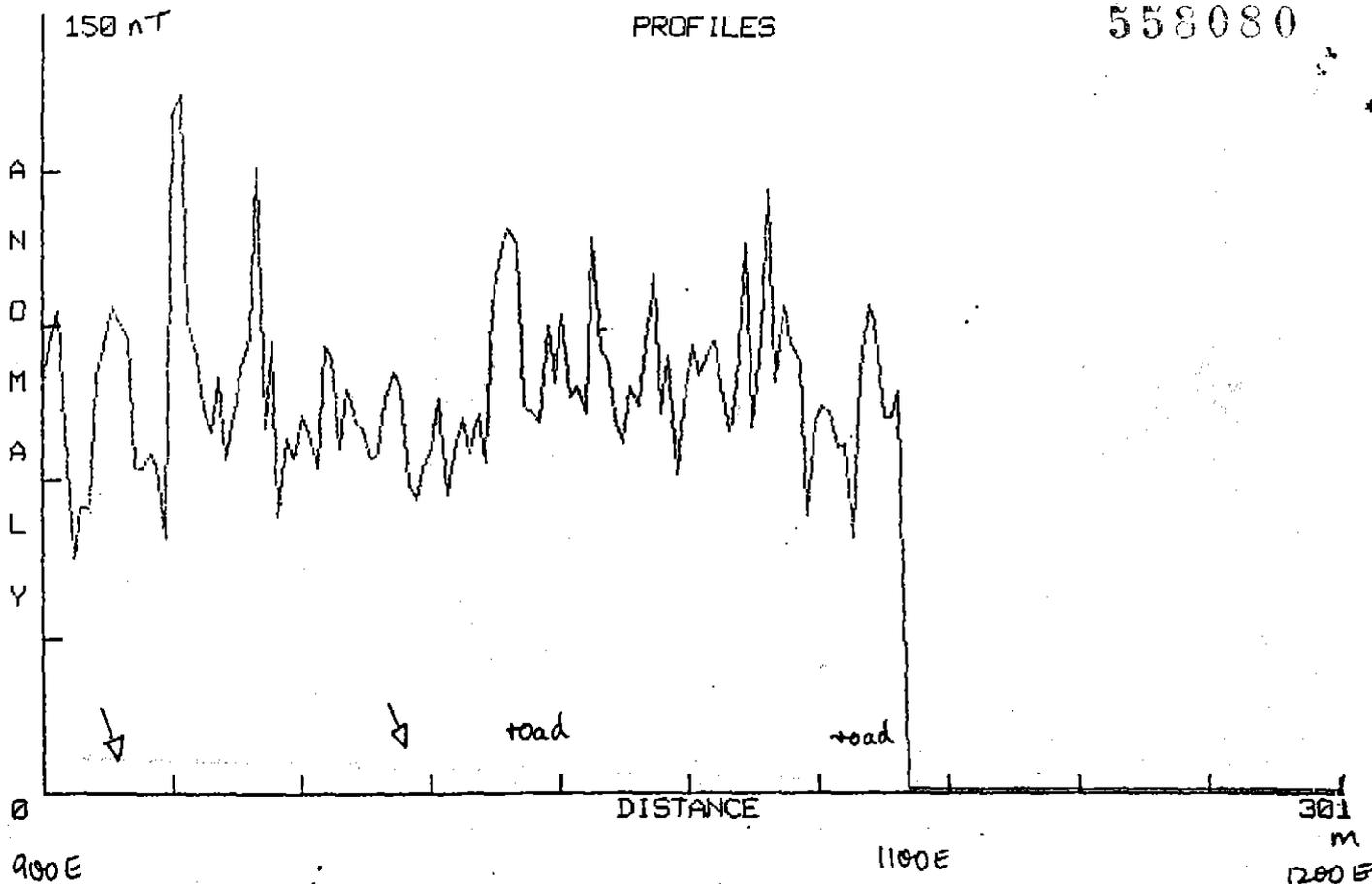
077

B:THLE0500

TOWER HILL MAGNETIC SURVEY E GRID 500N 900-1200E

ZERO SHIFT :-750

558080



1 B:THLE0550 TOWER HILL MAGNETIC SURVEY E GRID 550N 900-1200E
 ZERO SHIFT :-750

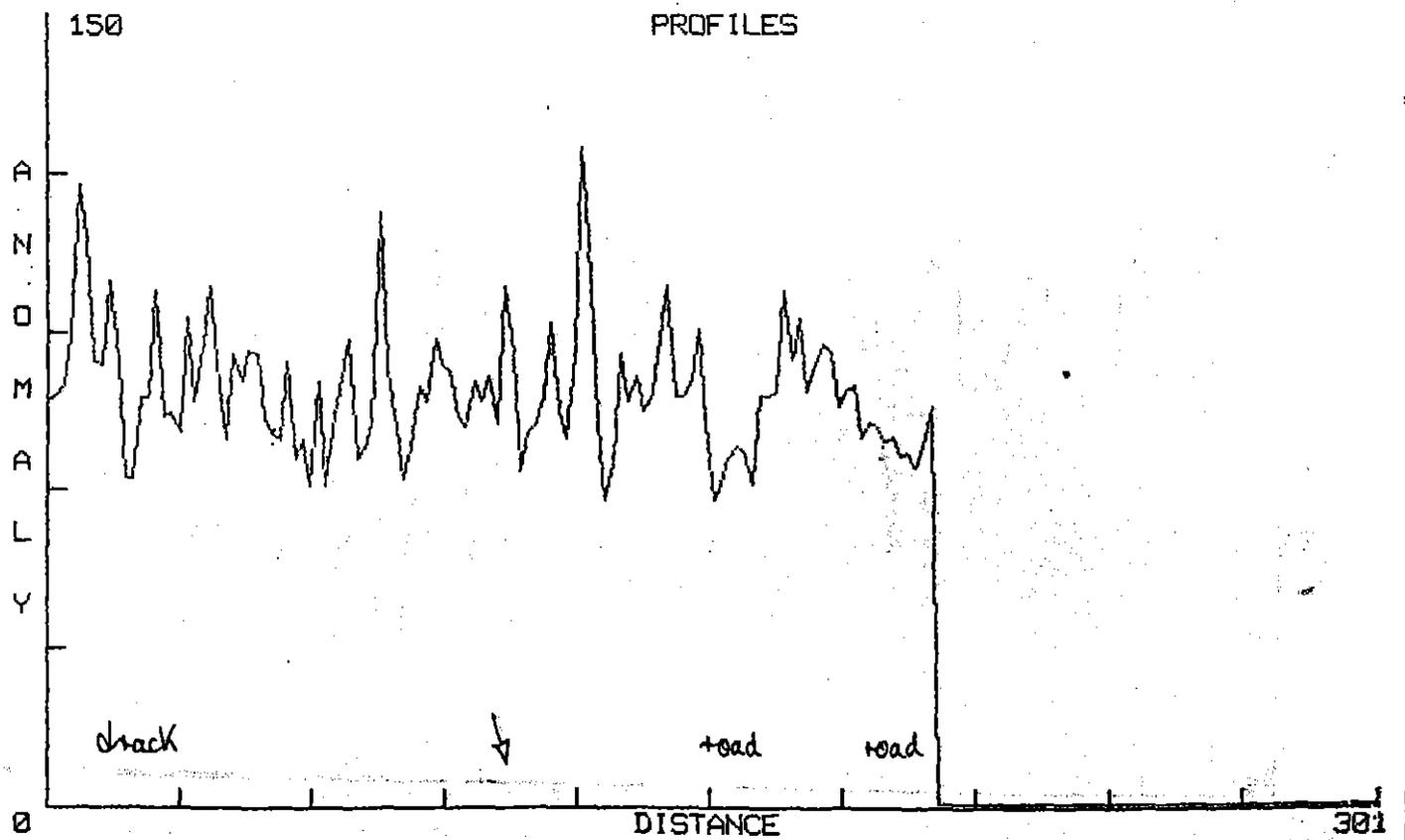


FIGURE 8

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B:THLE0600 TOWER HILL MAGNETIC SURVEY E GRID 600N 900-1200E
ZERO SHIFT :-750

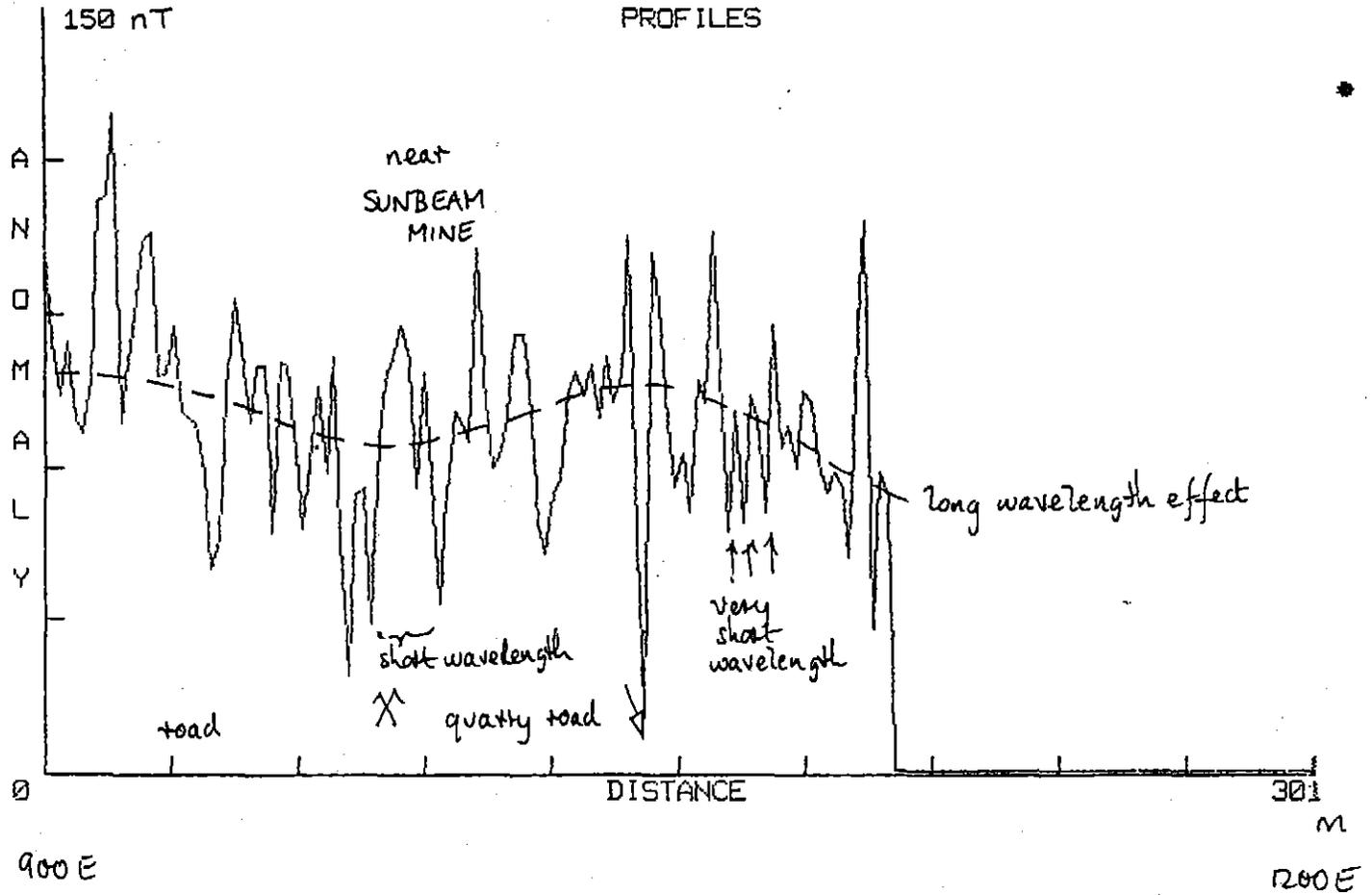


FIGURE 9

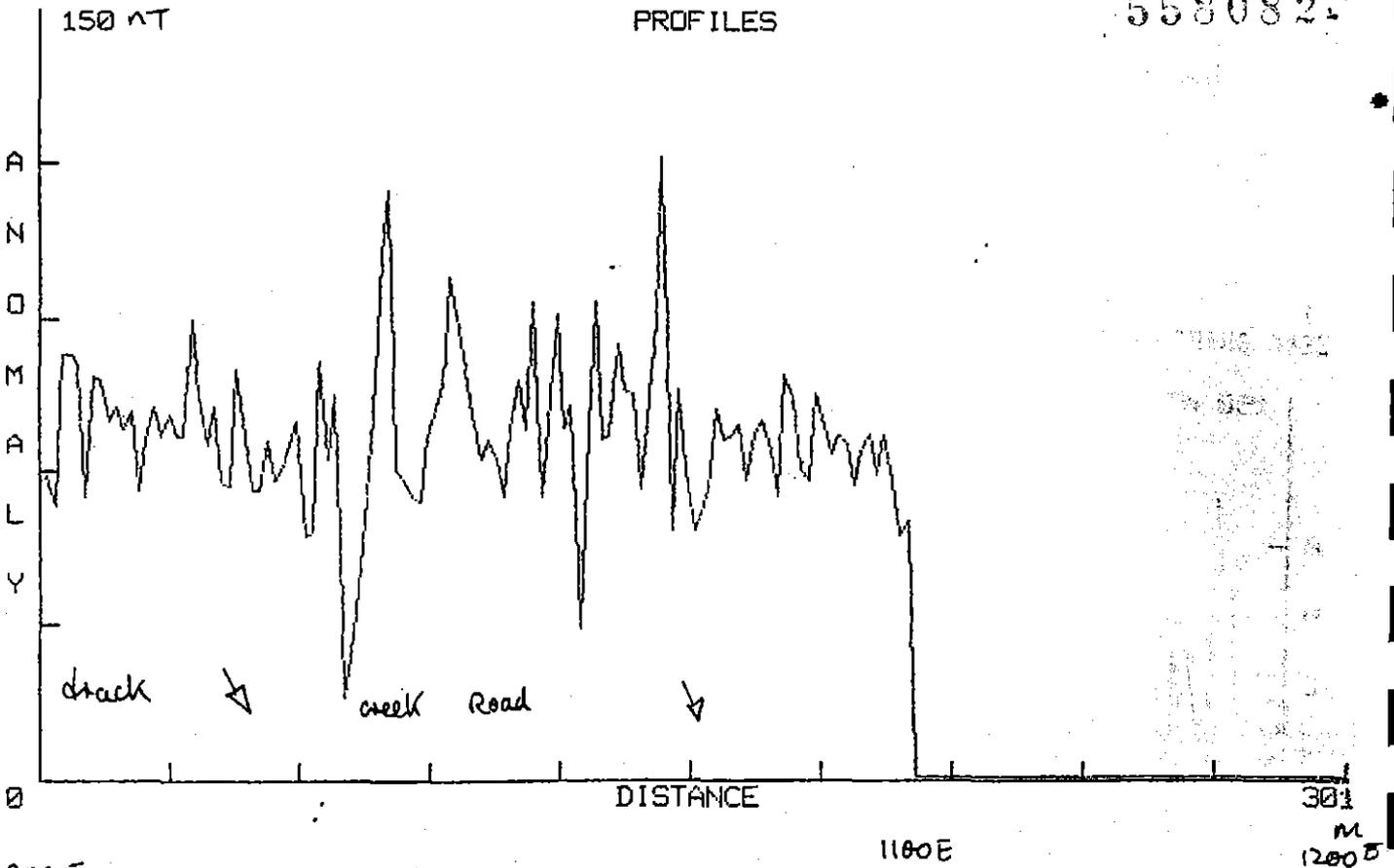
079

1
ZERO SHIFT -750

B:THLE0650

TOWER HILL MAGNETIC SURVEY E GRID 650N 900-1200E

558082



900E

1
ZERO SHIFT -750

B:THLE0700

TOWER HILL MAGNETIC SURVEY E GRID 700N 900-1200E

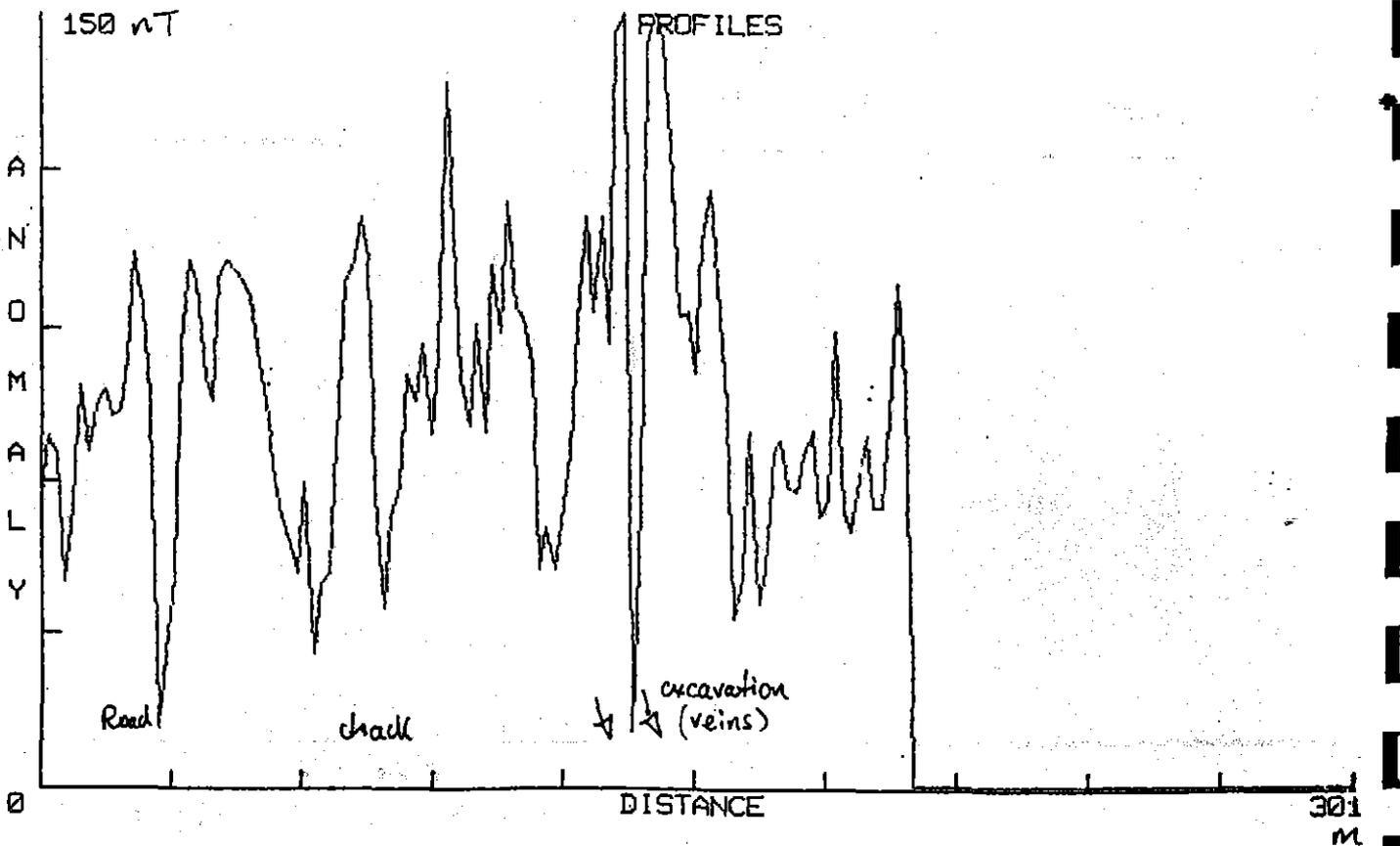
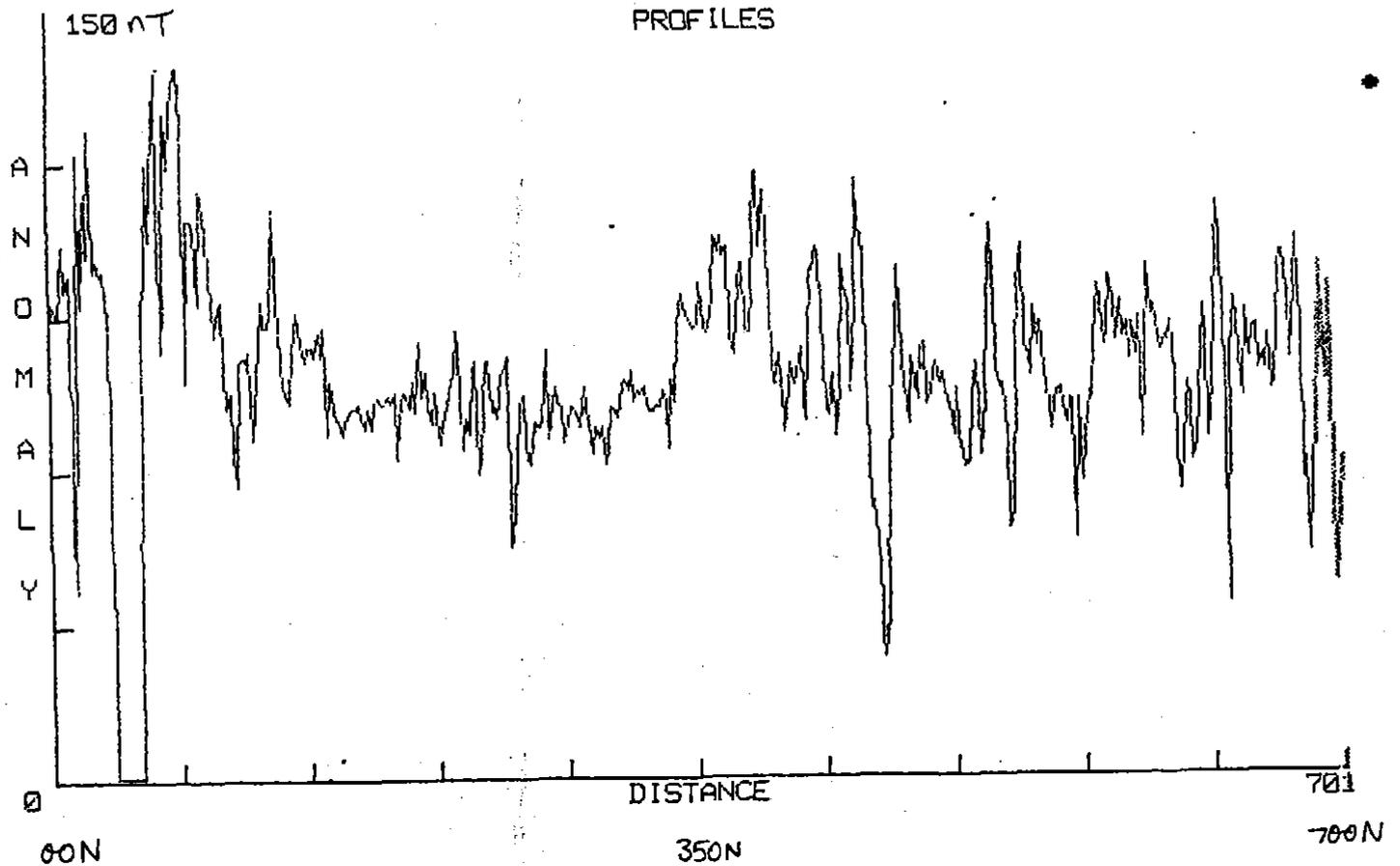


FIGURE 10

1078 B:THWBASE1
TOWER HILL MAGNETIC SURVEY W GRID BASELINE 1000E 00-700N
1 B:THWBASE1
TOWER HILL MAGNETIC SURVEY W GRID BASELINE 1000E 00-700N
ZERO SHIFT :-750

558083



1 B:THWBASE2
TOWER HILL MAGNETIC SURVEY W GRID BASELINE 1000E 700-1200N
ZERO SHIFT :-750

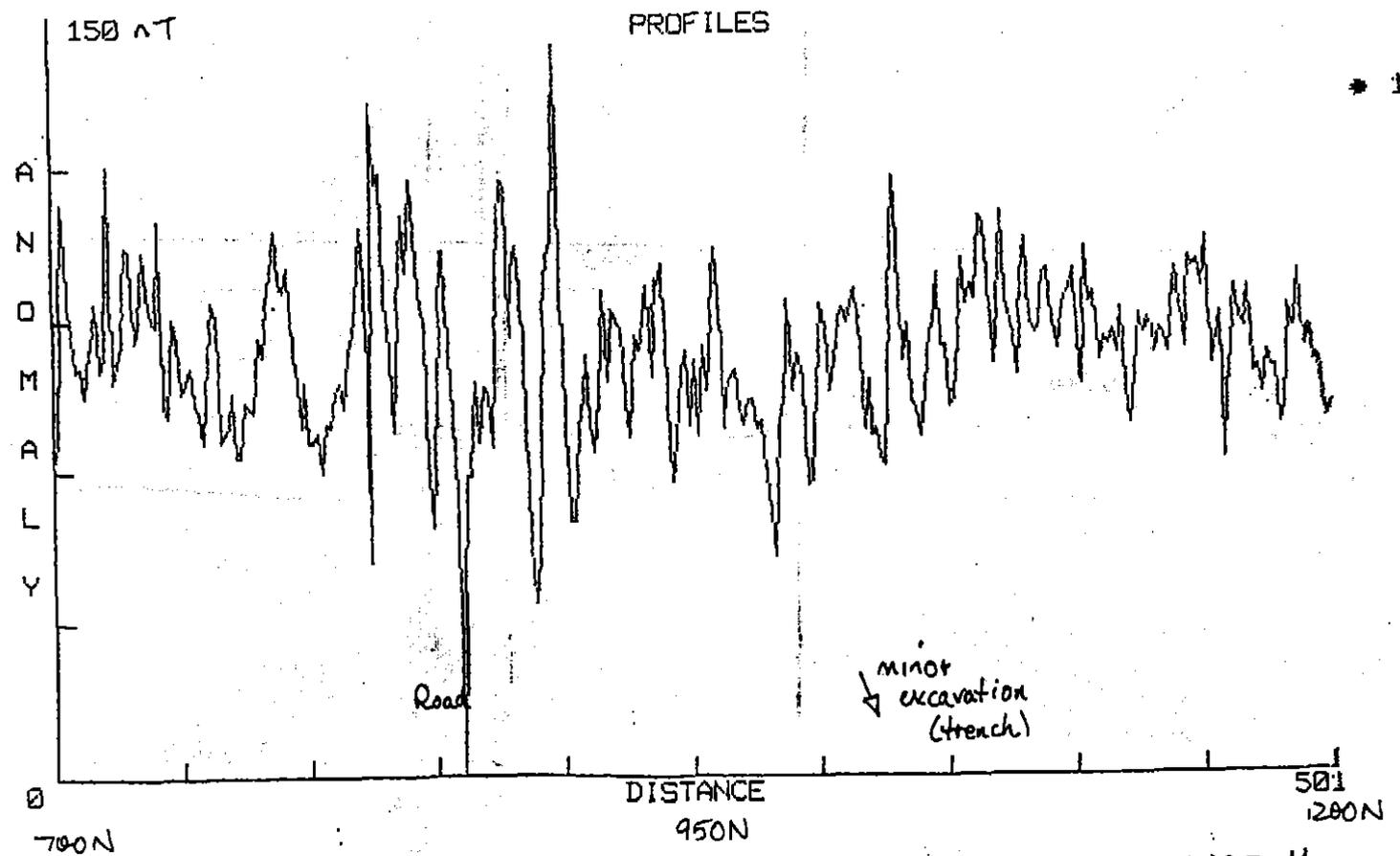


FIGURE 11

081

1 8:THLW3525
TOWER HILL MAGNETIC SURVEY W GRID 350/300/250N 950-1050E
ZERO SHIFT :-750

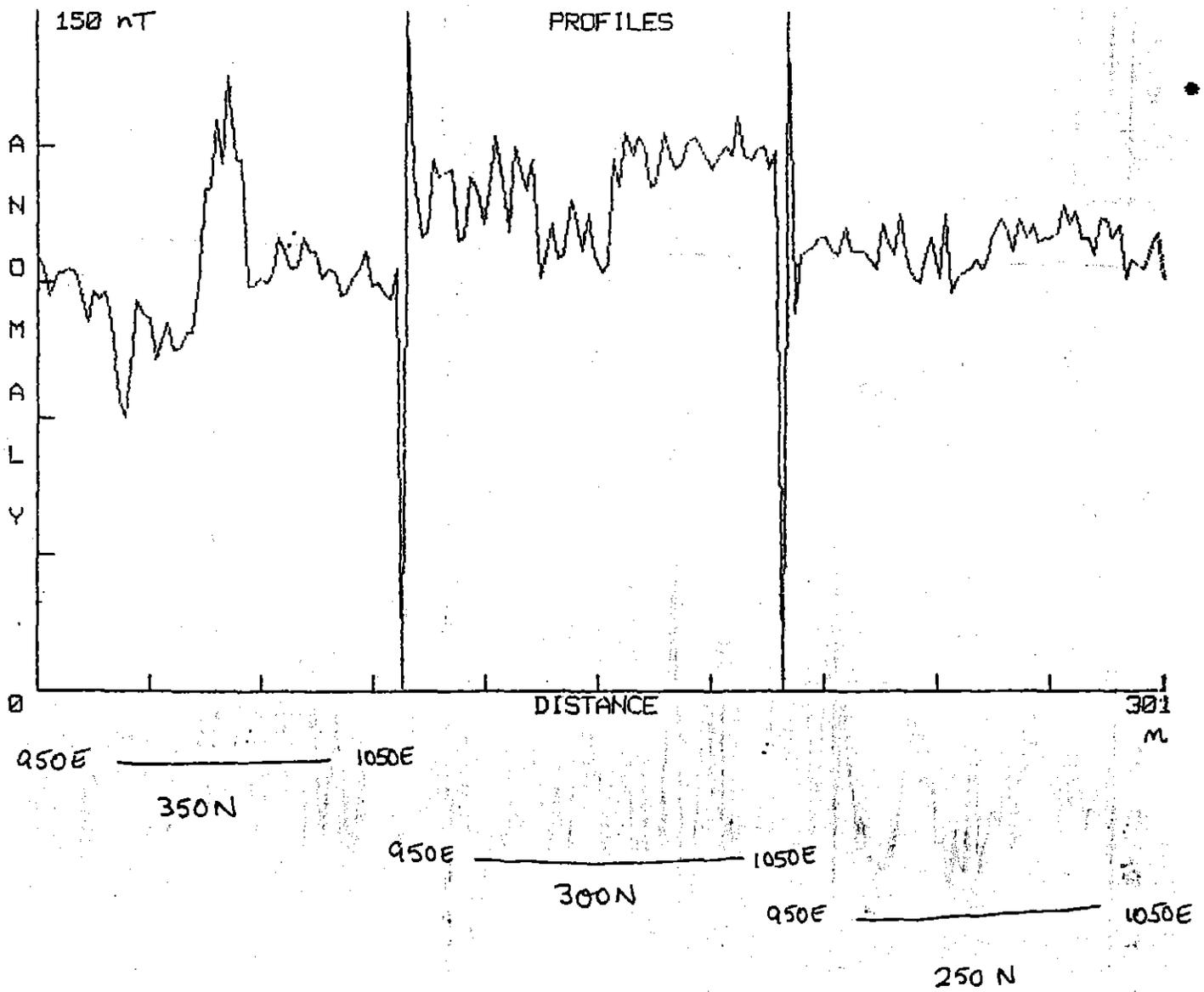


FIGURE 12

080

1 B:THLW4T05
TOWER HILL MAGNETIC SURVEY W GRID 500/450/400N 950-1050E
ZERO SHIFT :-750

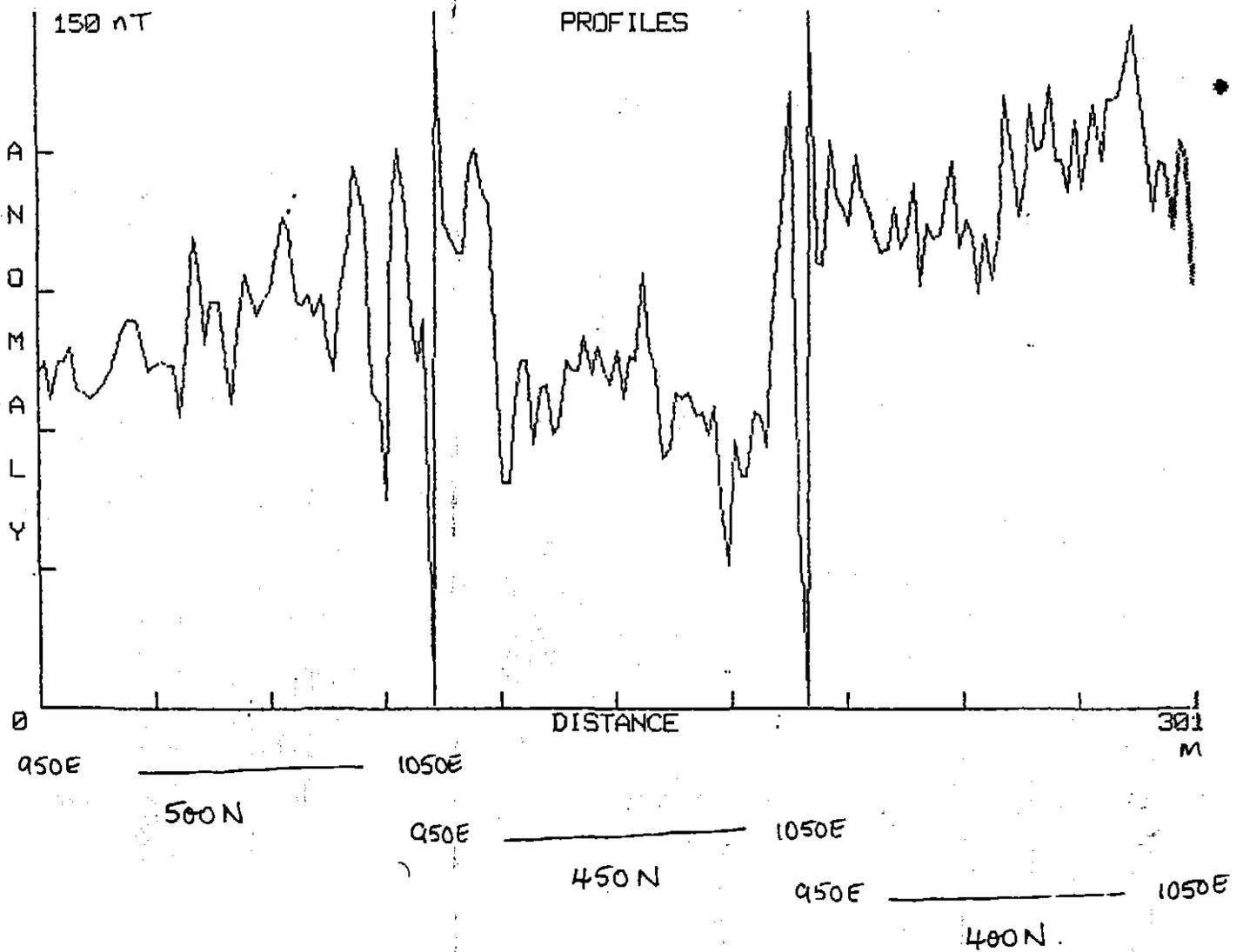
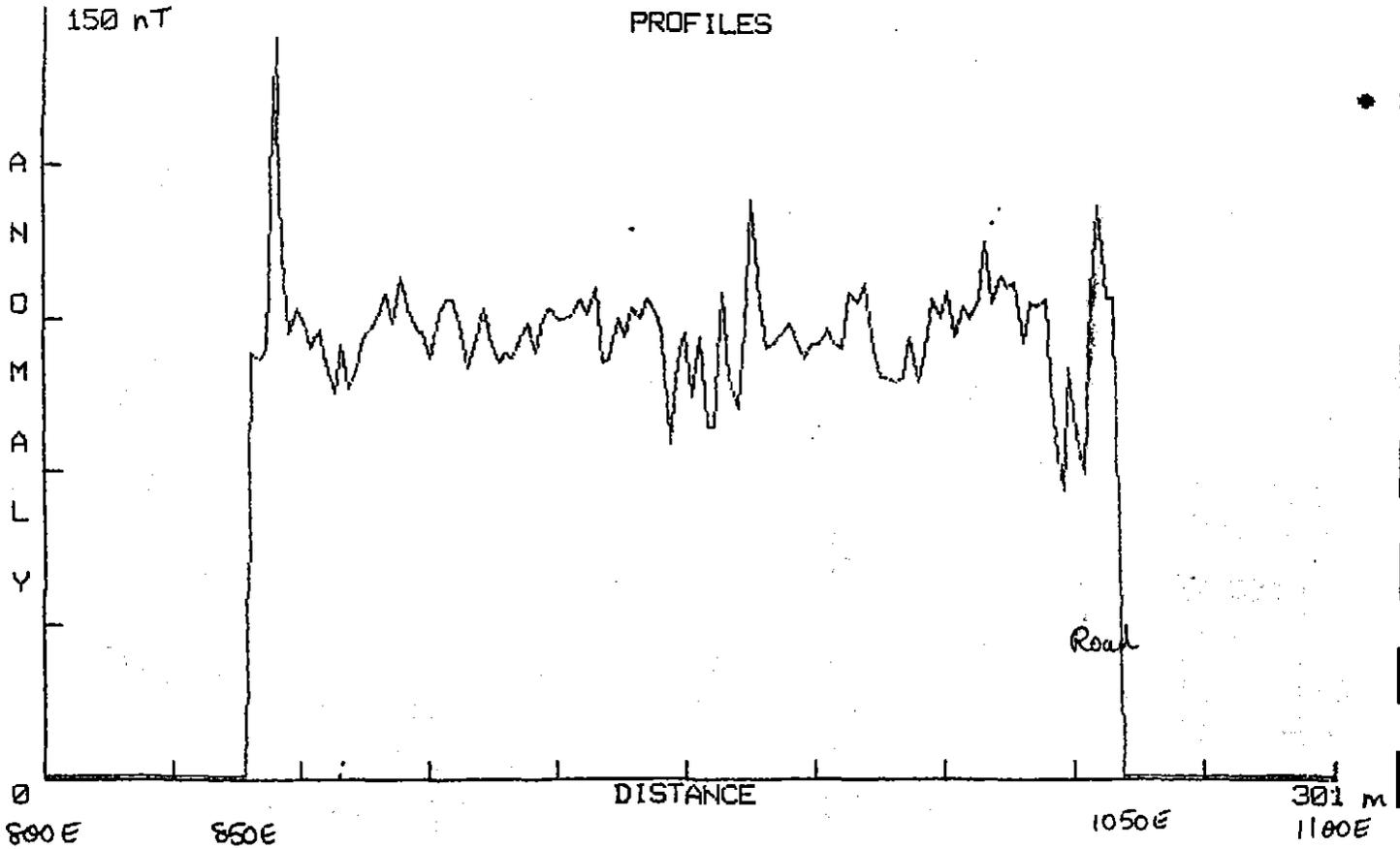


FIGURE 13

083

558086

1 B:THLW0550 TOWER HILL MAGNETIC SURVEY W GRID 550N 800-1100E
ZERO SHIFT :-750



1 B:THLW0600 TOWER HILL MAGNETIC SURVEY W GRID 600N 800-1100E
ZERO SHIFT :-750

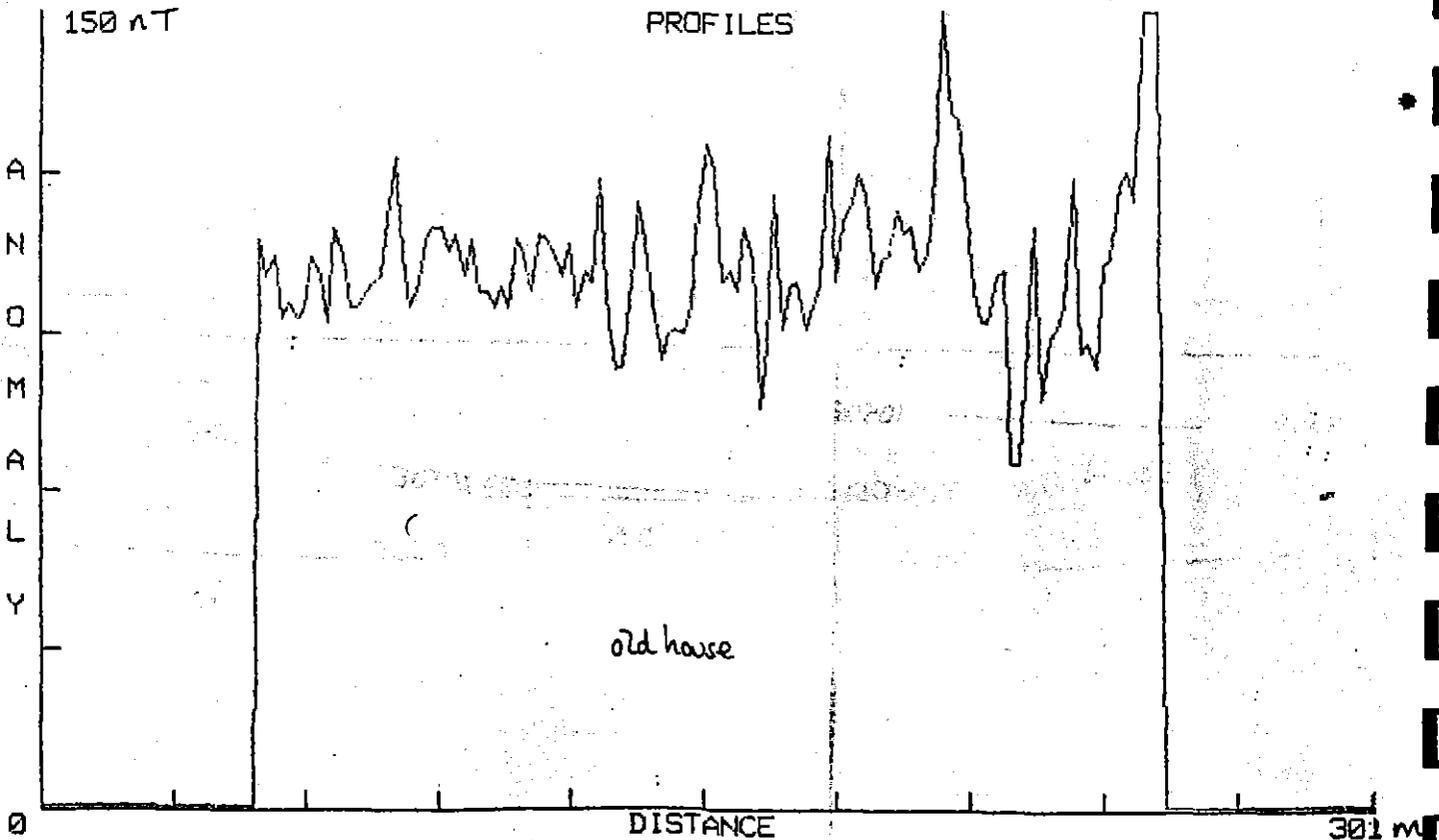
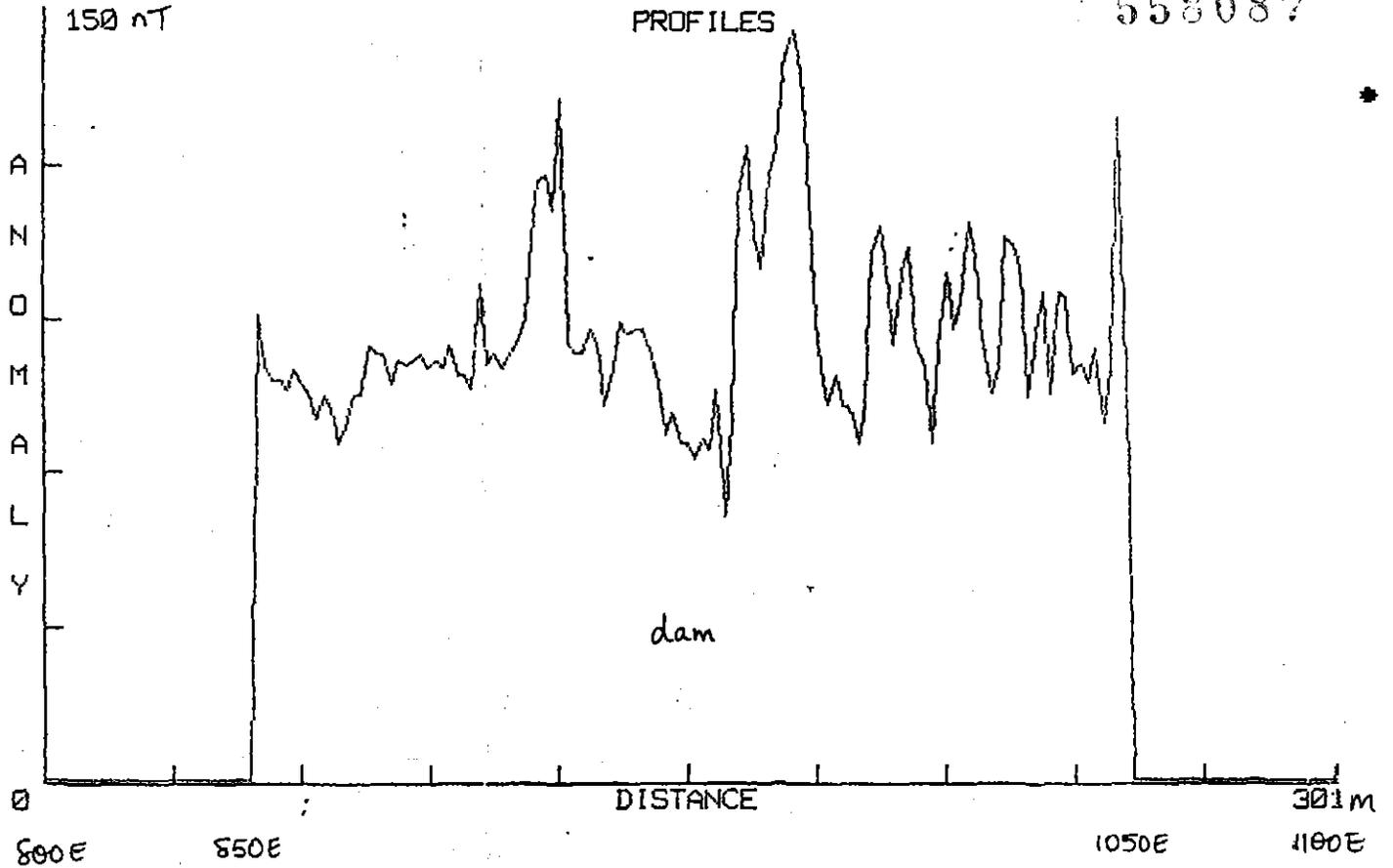


FIGURE 14

1 B:THLW0650
ZERO SHIFT :-750

TOWER HILL MAGNETIC SURVEY W GRID 650N 800-1100E

558087



1 B:THLW0700
ZERO SHIFT :-750

TOWER HILL MAGNETIC SURVEY W GRID 700N 800-1100E

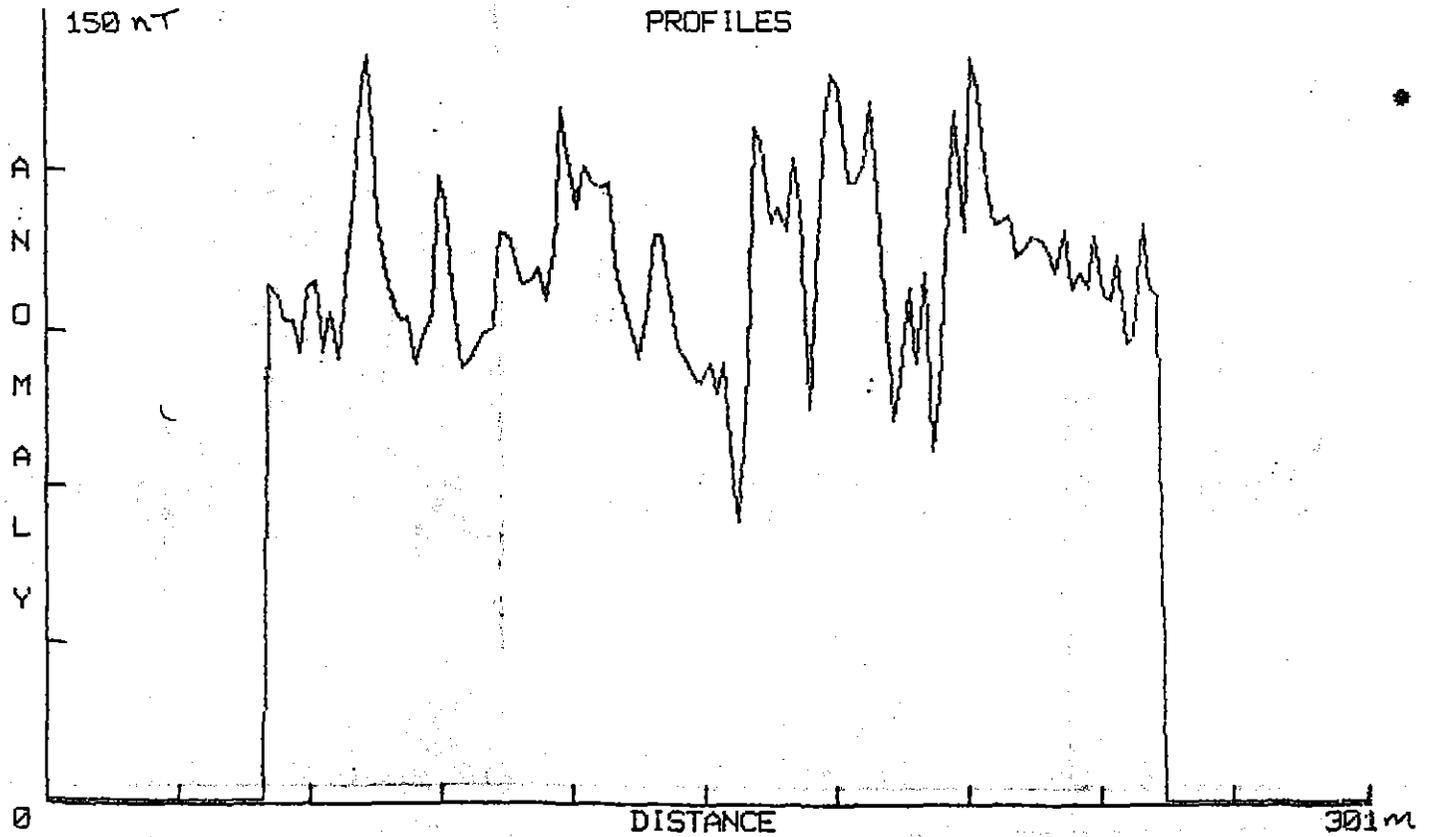


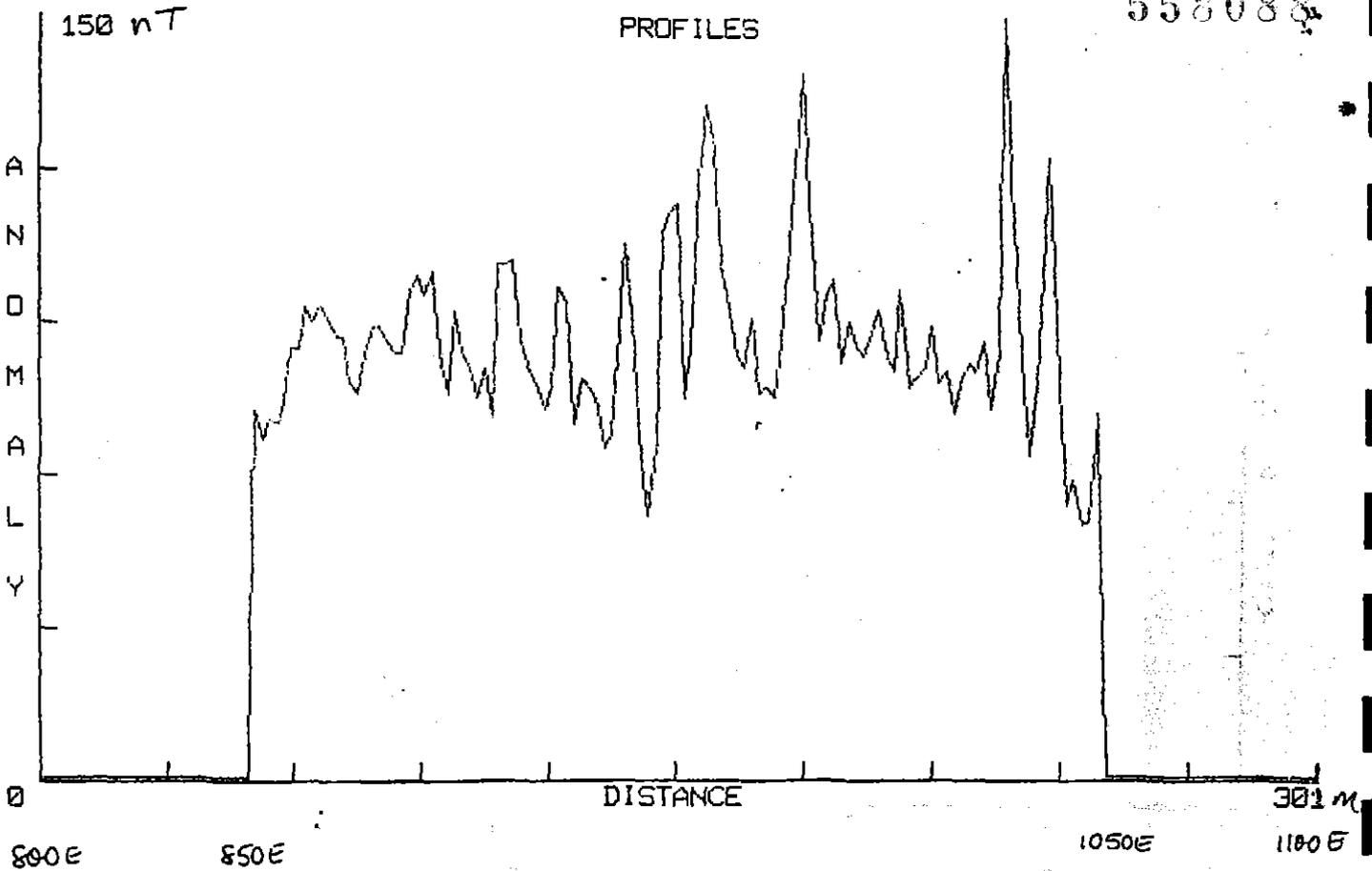
FIGURE 15

085

B:THLW0750
ZERO SHIFT :-750

TOWER HILL MAGNETIC SURVEY W GRID 750M 800-1100E

558088



1
ZERO SHIFT :-750

B:THLW0800

TOWER HILL MAGNETIC SURVEY W GRID 800N 800-1100E

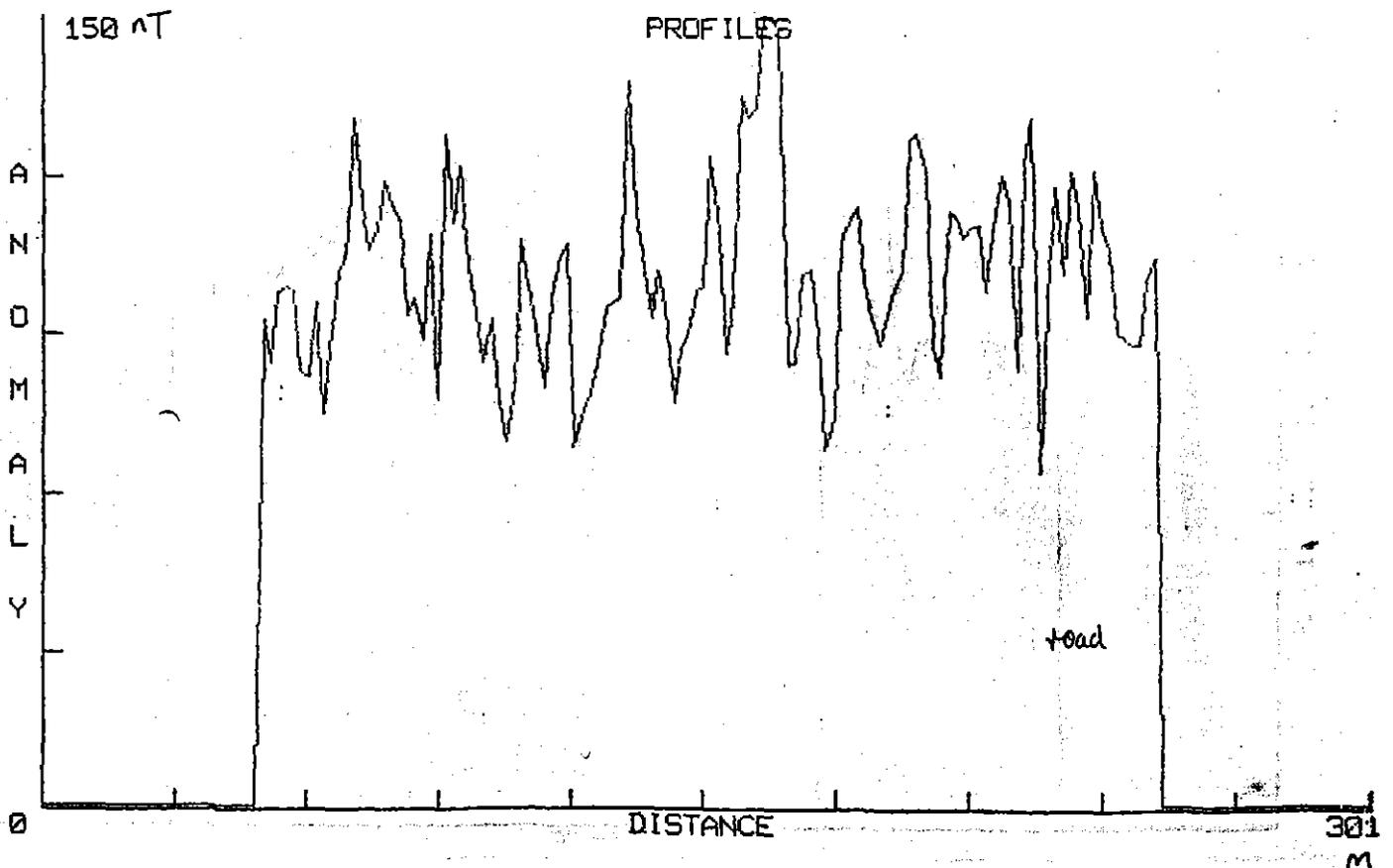


FIGURE 16

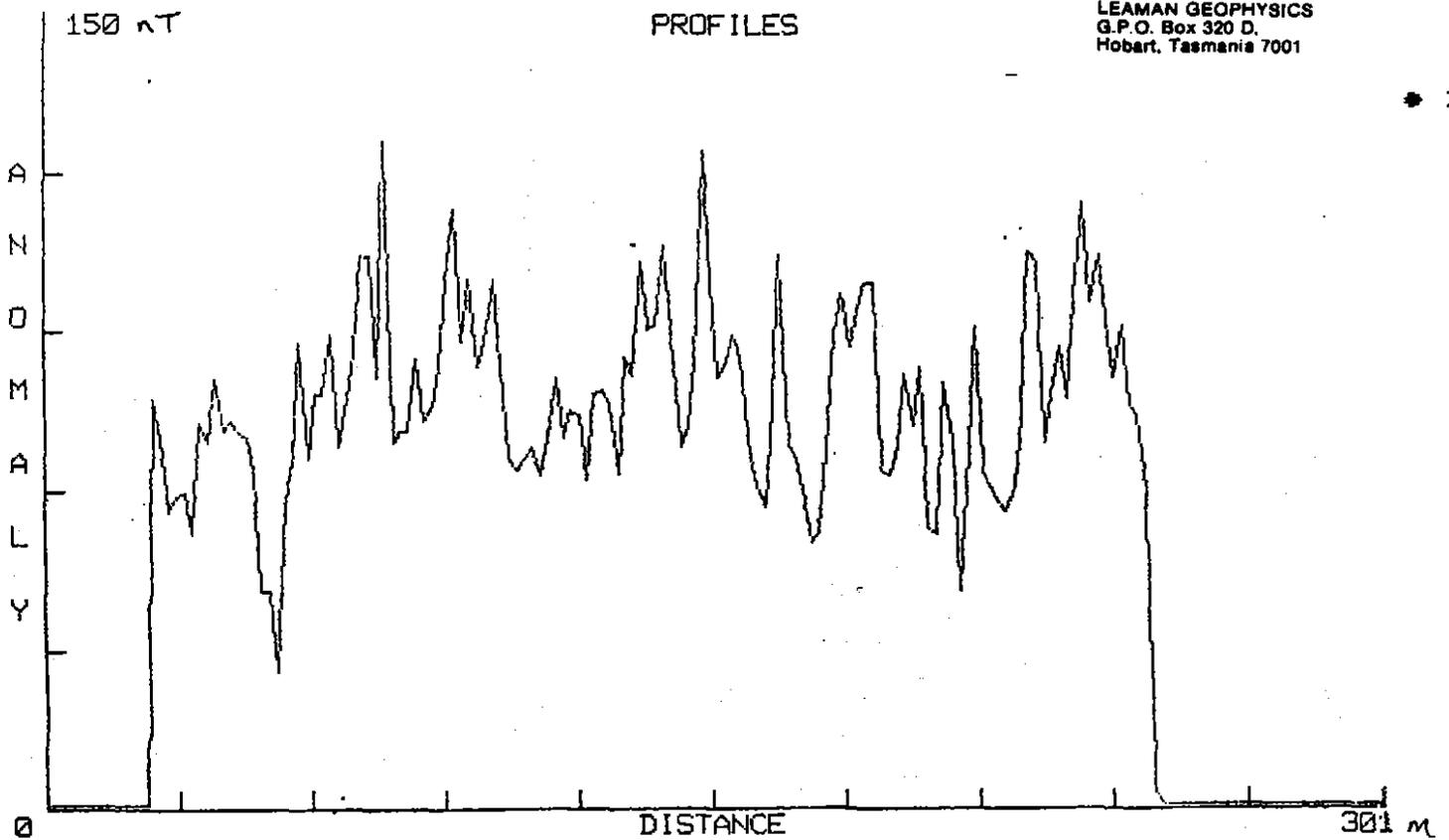
084

558089

1 B:THLW0850
ZERO SHIFT :-750

TOWER HILL MAGNETIC SURVEY W GRID 850N 800-1100E

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800E

1100E

1 B:THLW0900
ZERO SHIFT :-750

TOWER HILL MAGNETIC SURVEY W GRID 900N 800-1100E

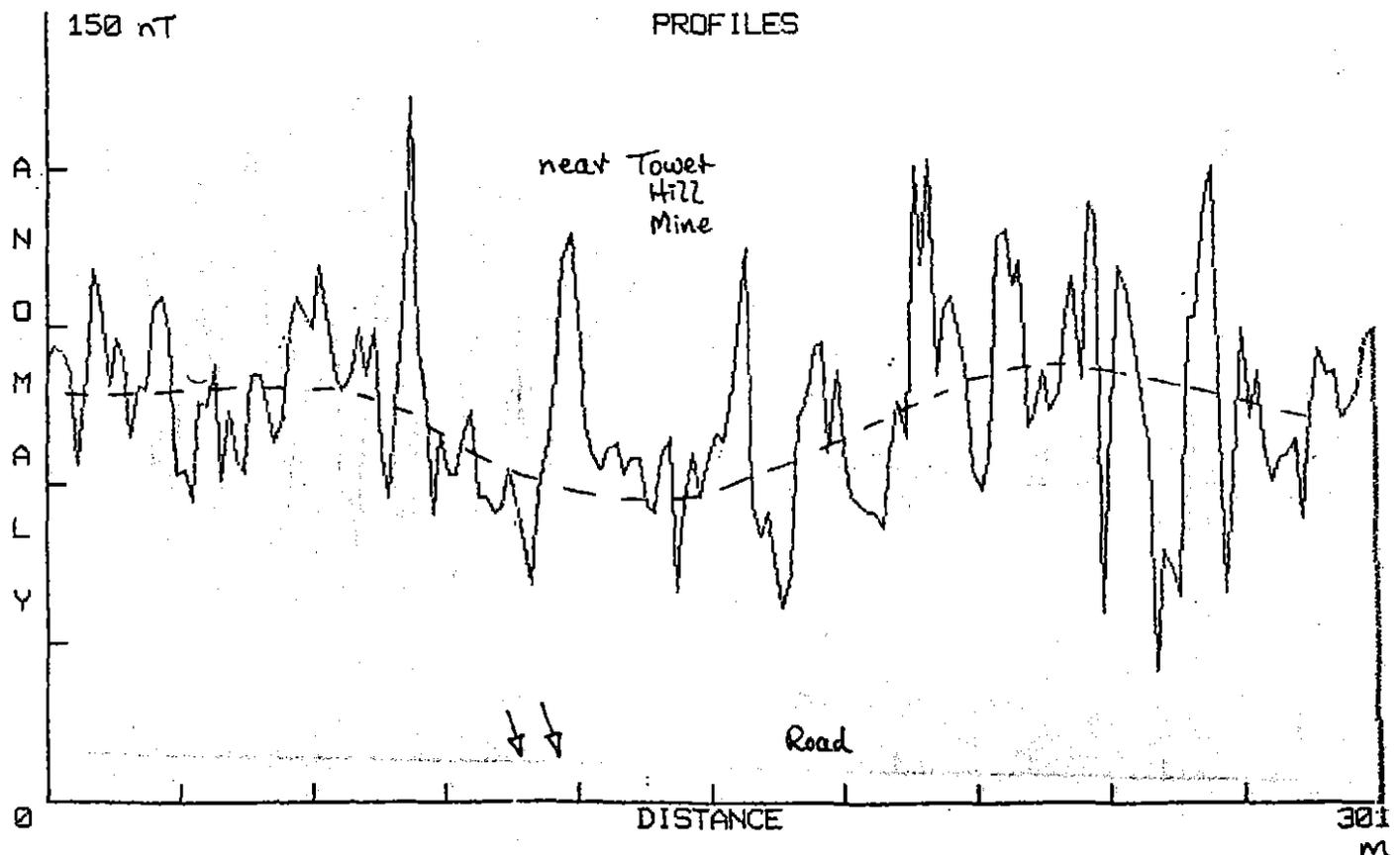


FIGURE 17

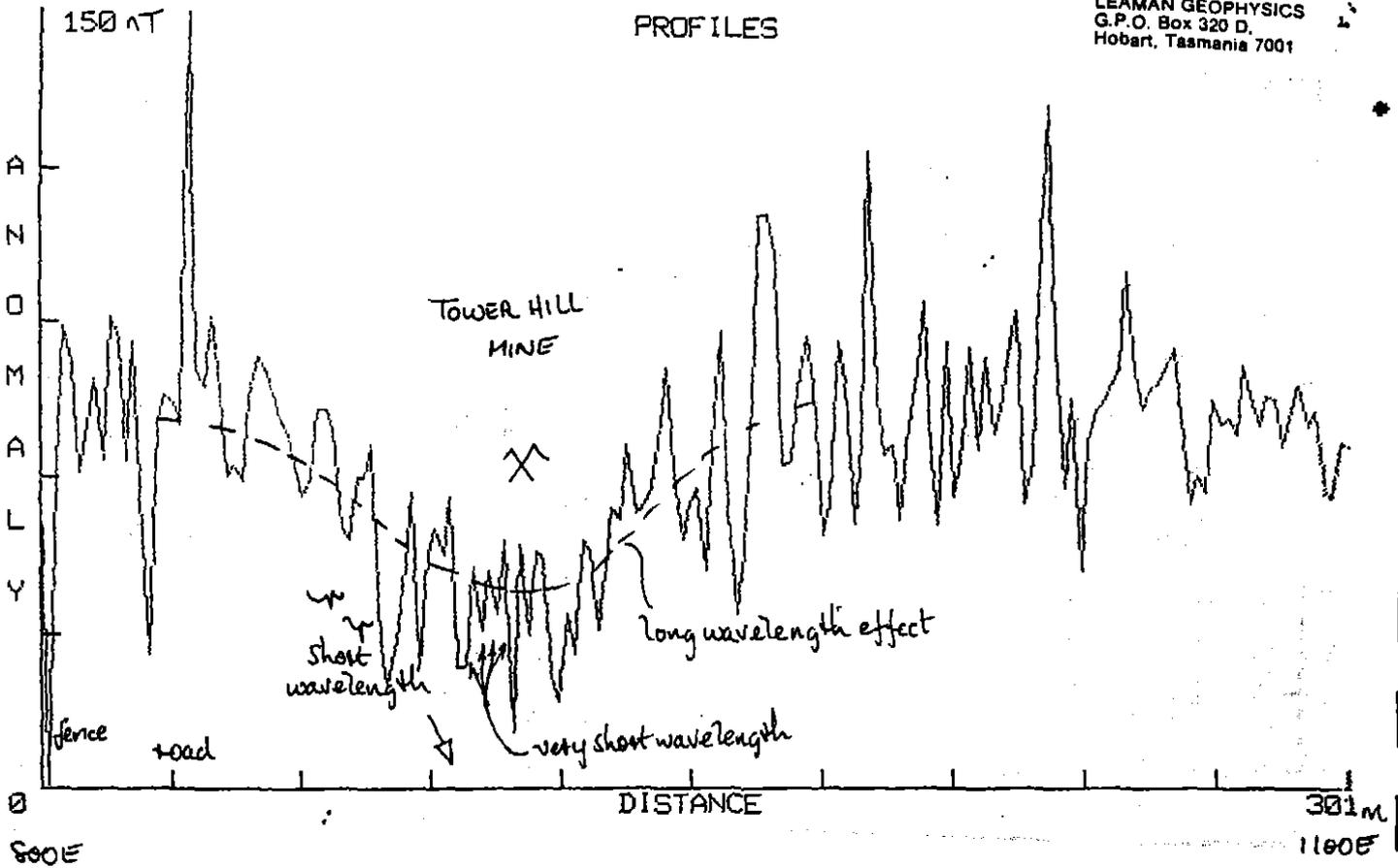
087

558090

1 B:THLM0950
ZERO SHIFT :-750

TOWER HILL MAGNETIC SURVEY W GRID 950N 800-1100E

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1 B:THLM1000
ZERO SHIFT :-750

TOWER HILL MAGNETIC SURVEY W GRID 1000N 800-1100E

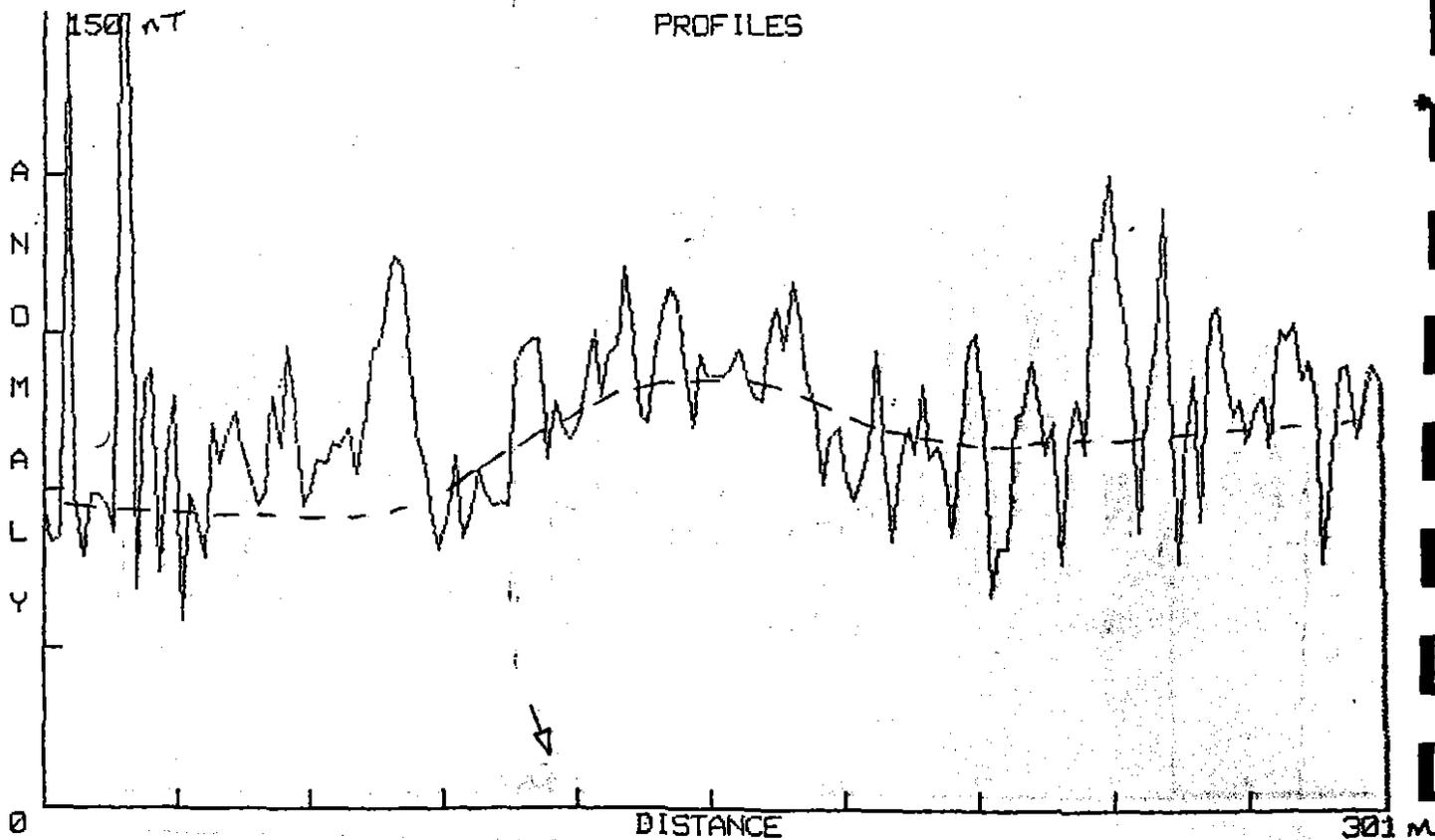


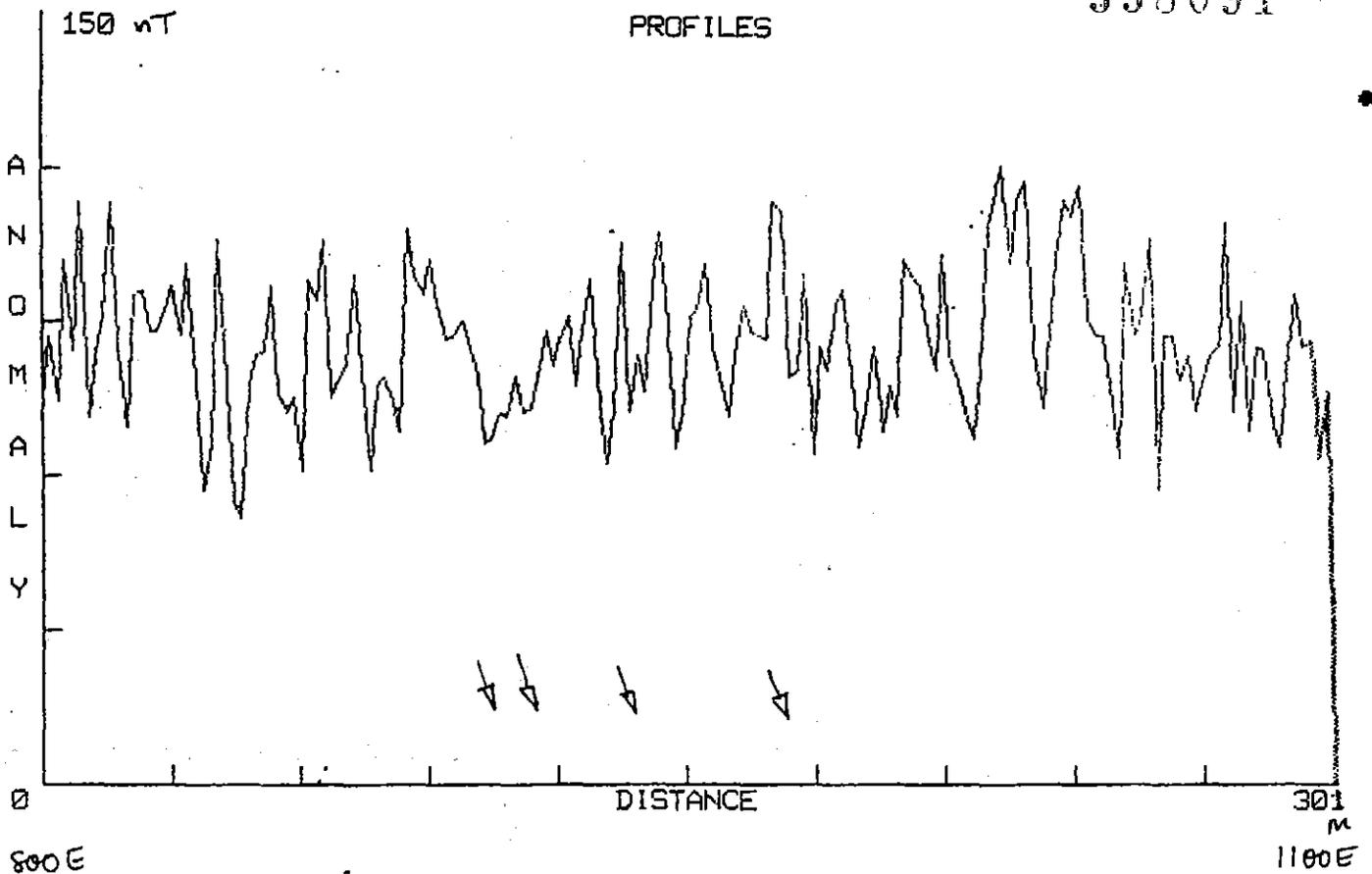
FIGURE 18

086

1 B:THLM1050
ZERO SHIFT :-750

TOWER HILL MAGNETIC SURVEY W GRID 1050N 800-1100E

558091



1 B:THLM1100
ZERO SHIFT :-750

TOWER HILL MAGNETIC SURVEY W GRID 1100N 800-1100E

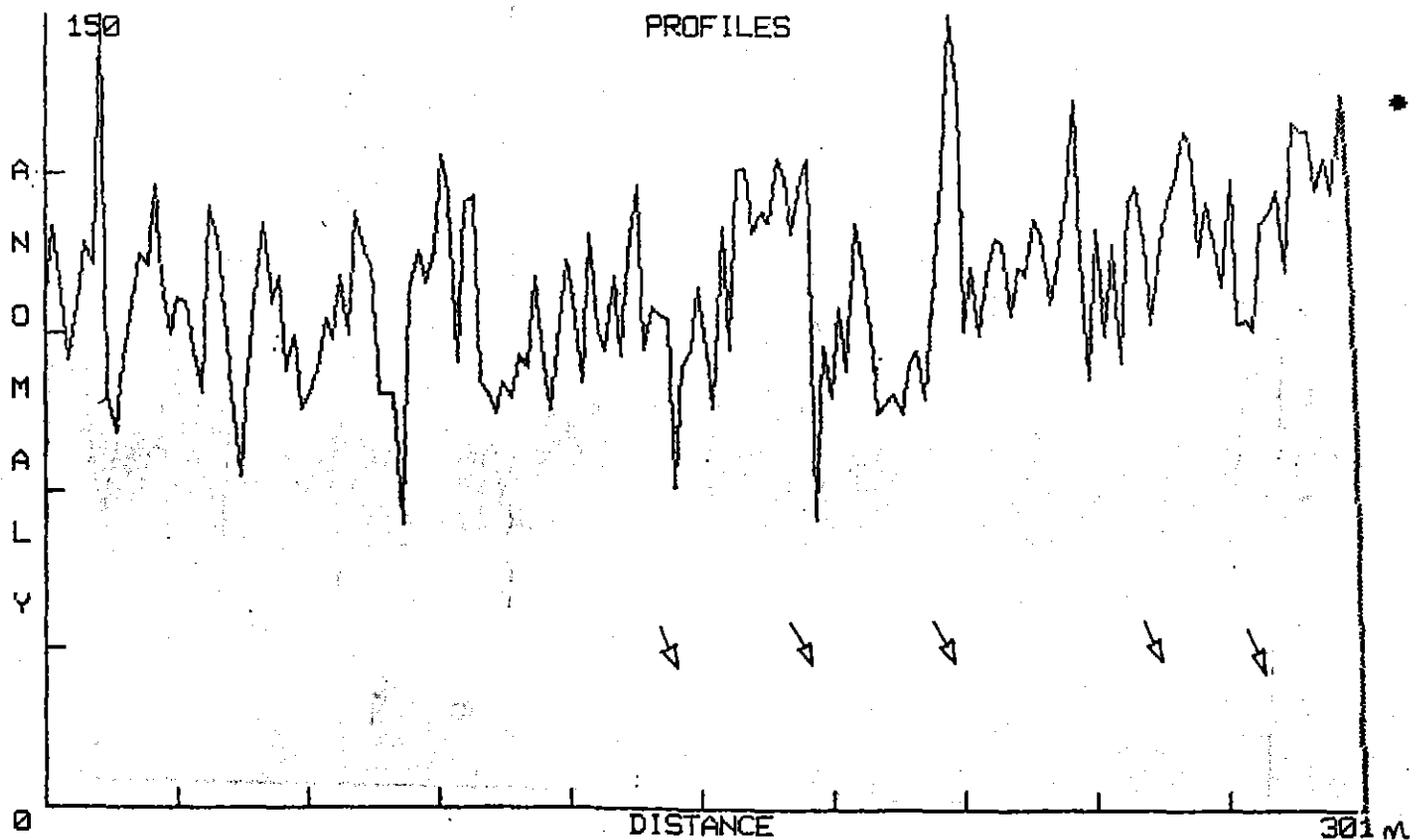
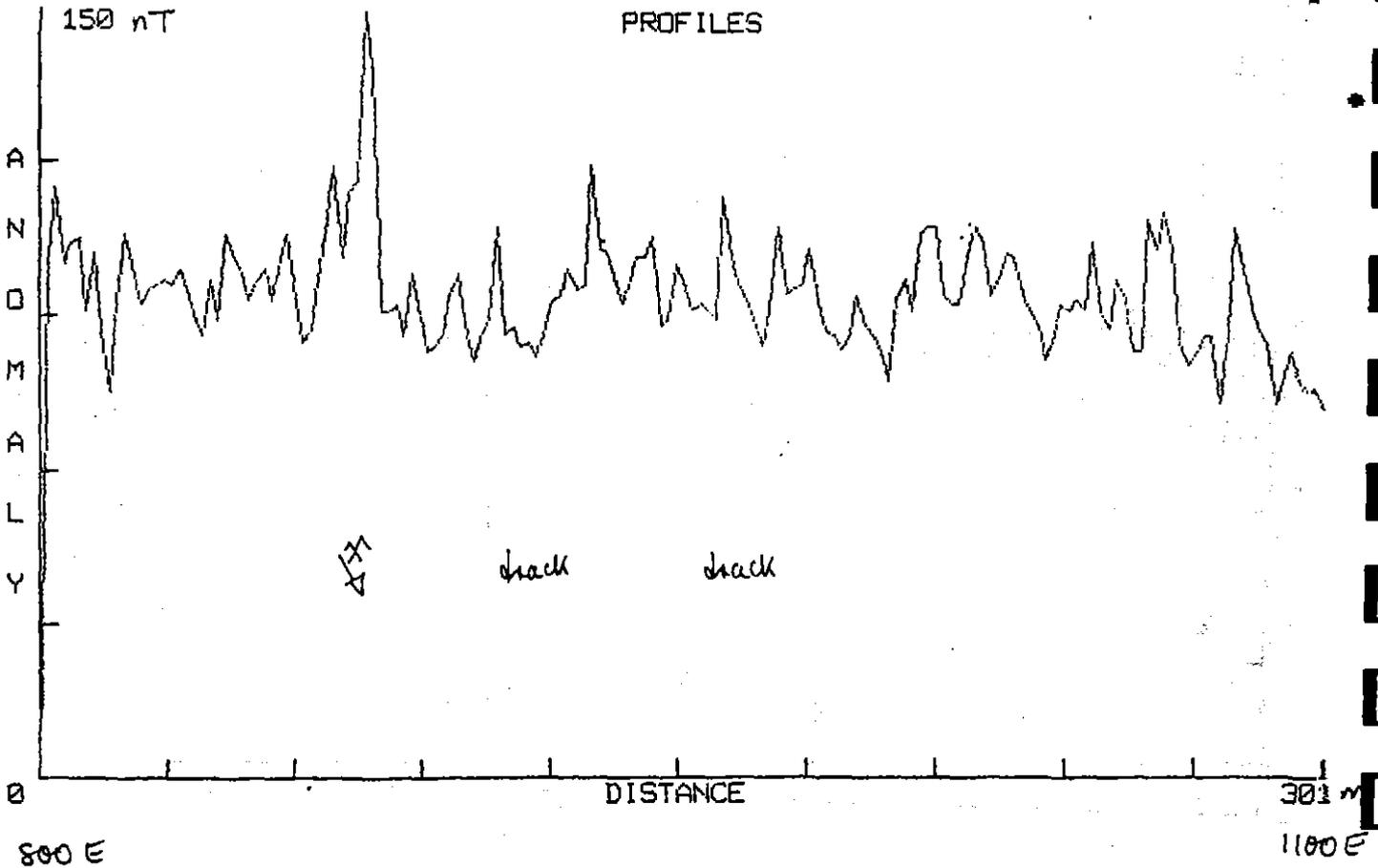


FIGURE 19

089

1 B:THLW1150
ZERO SHIFT :-750

TOWER HILL MAGNETIC SURVEY W GRID 1150N 800-1100E



1 B:THLW1200
ZERO SHIFT :-750

TOWER HILL MAGNETIC SURVEY W GRID 1200N 800-1100E

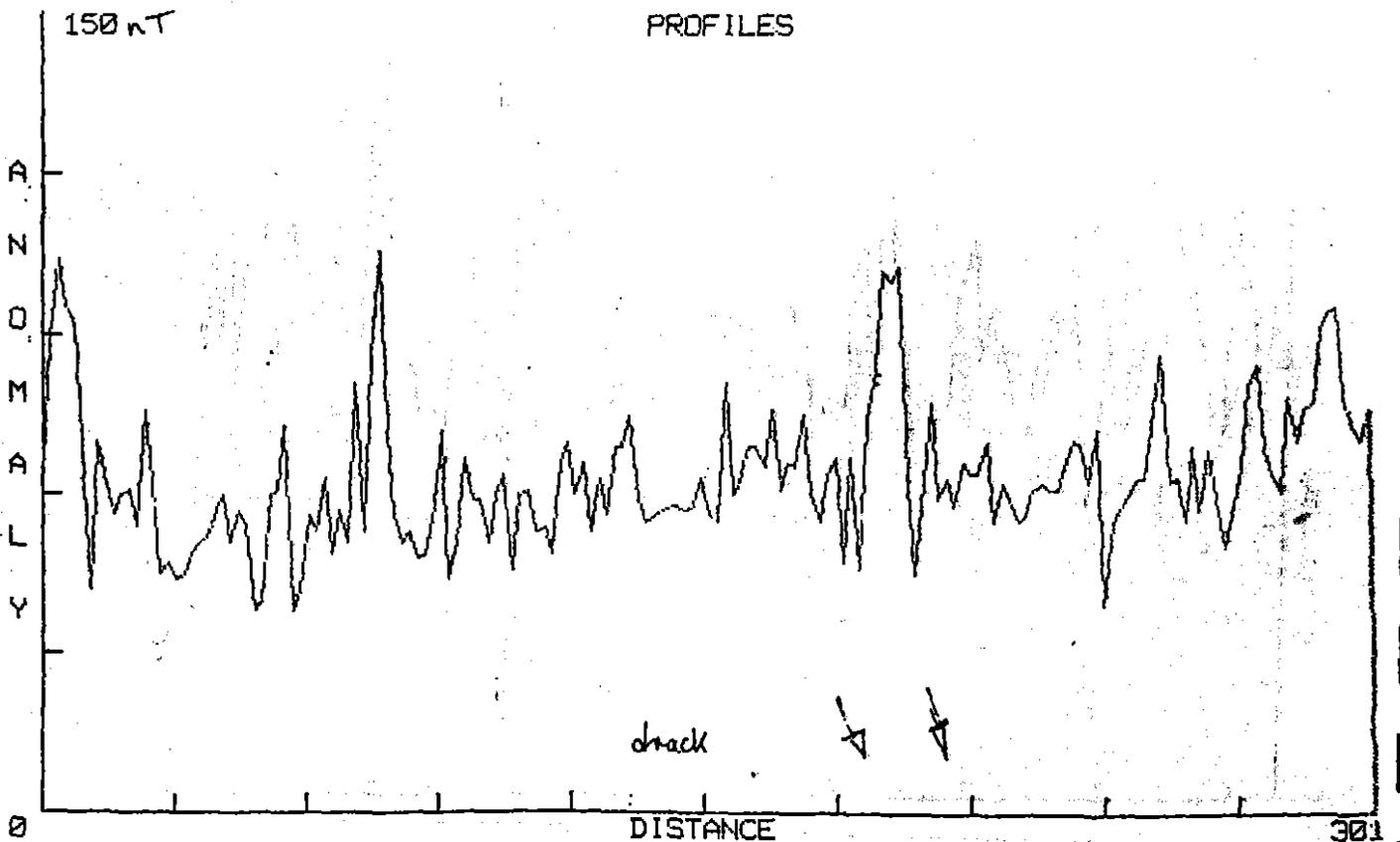
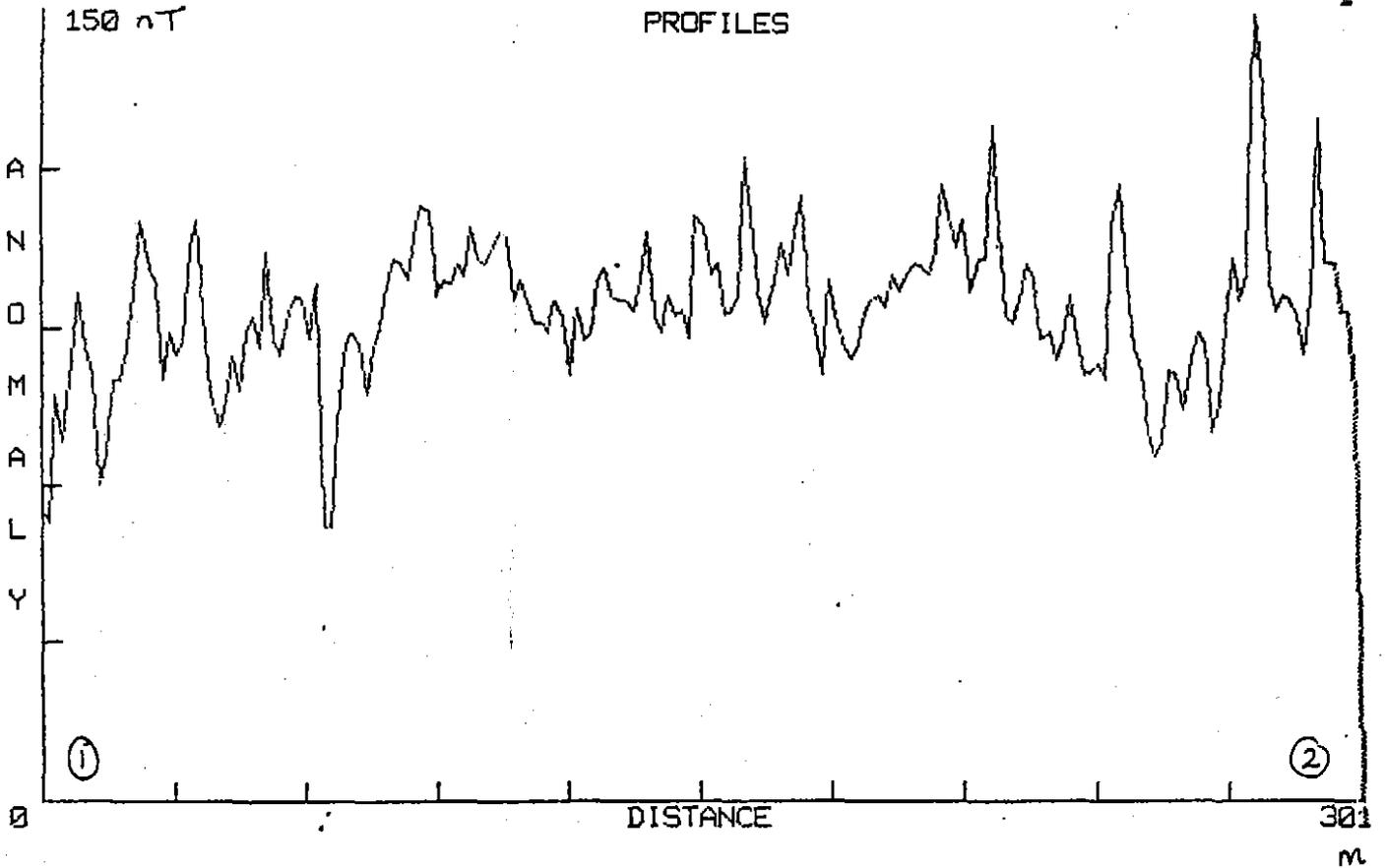


FIGURE 20

1 B:THLWLINK TOWER HILL MAGNETIC SURVEY W GRID LINK 1-2
ZERO SHIFT :-750



1 B:THLELINK TOWER HILL MAGNETIC SURVEY E GRID LINK 1-2
2 B:THLWLINK TOWER HILL MAGNETIC SURVEY W GRID LINK 1-2
ZERO SHIFT :-750

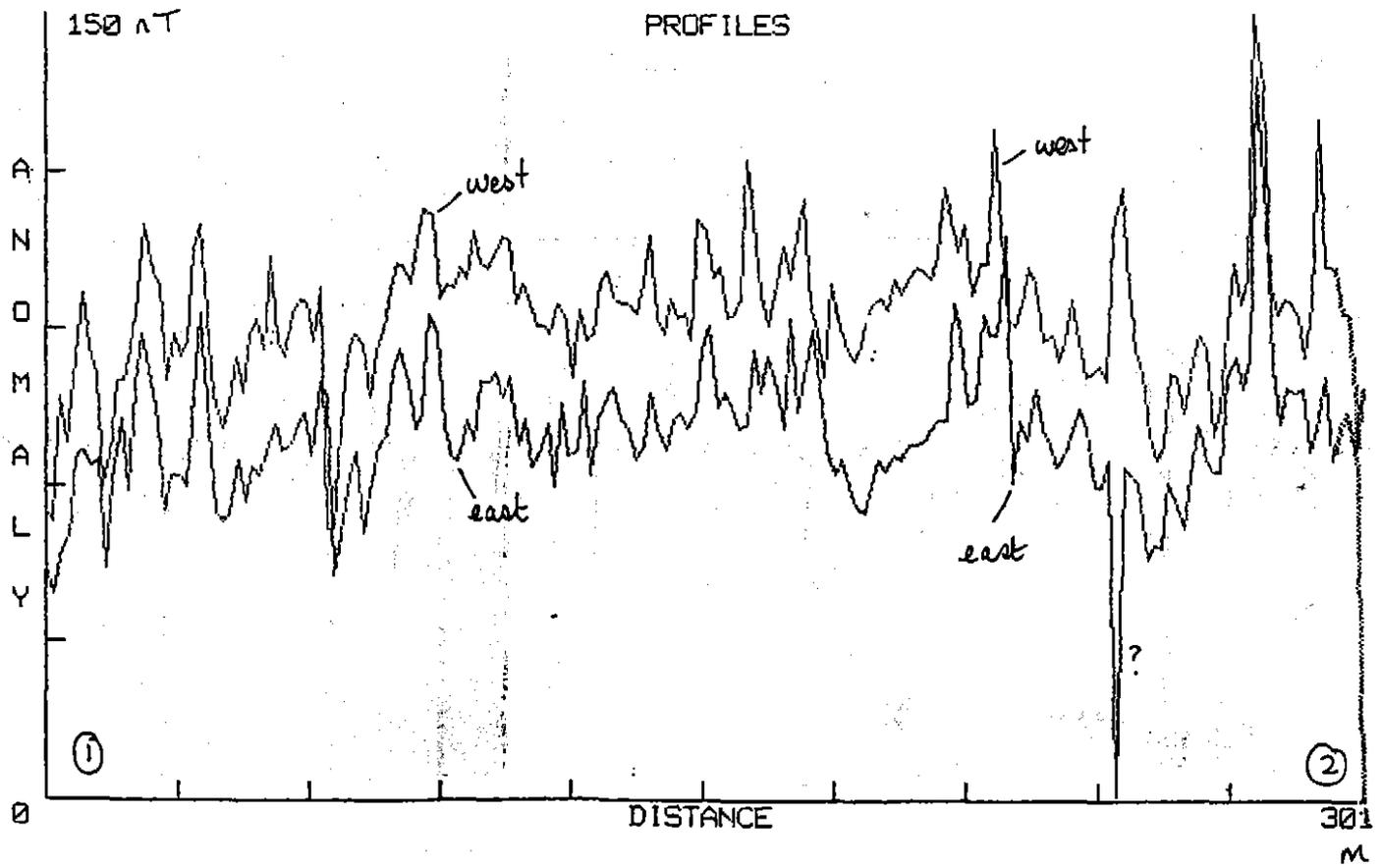
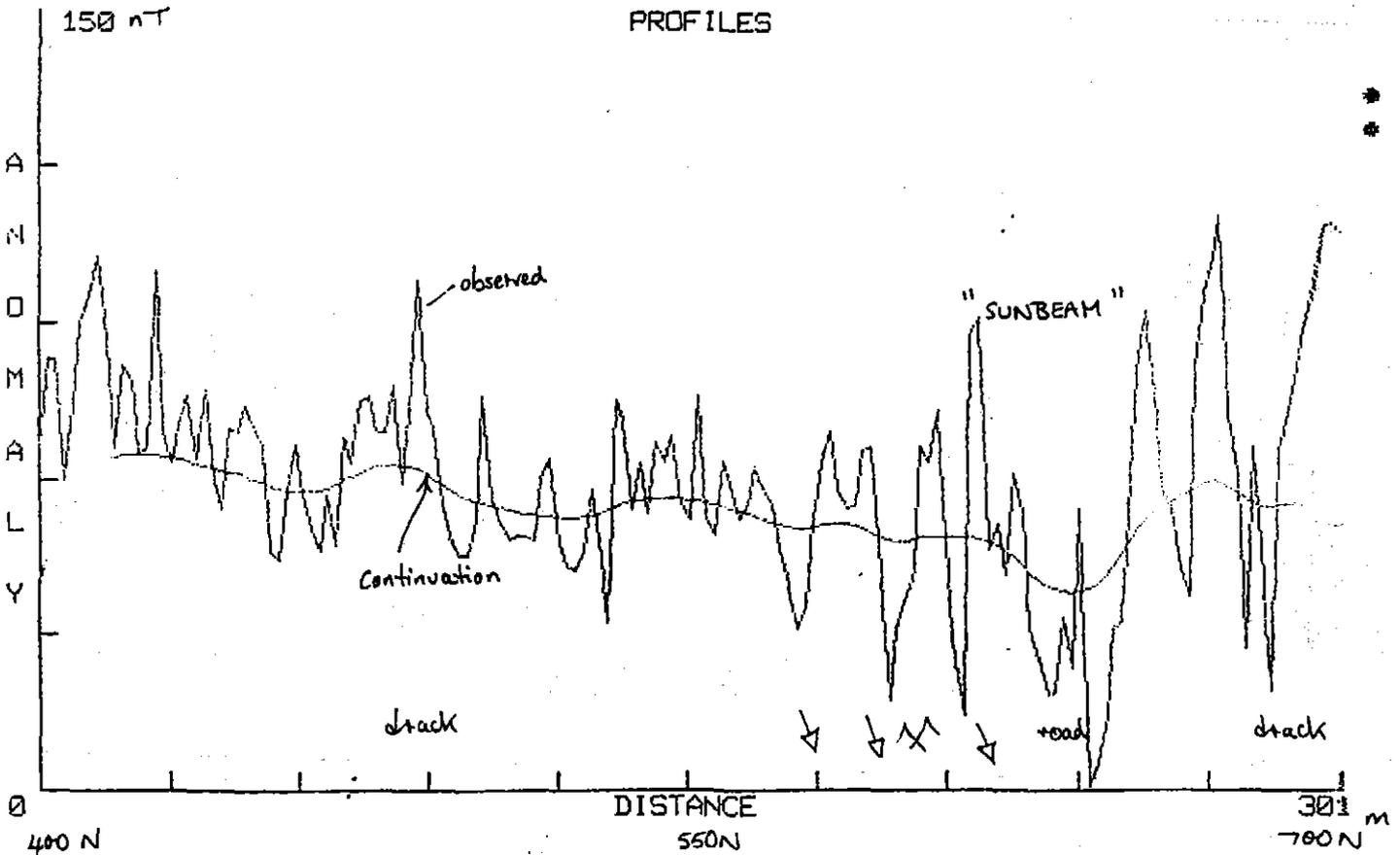


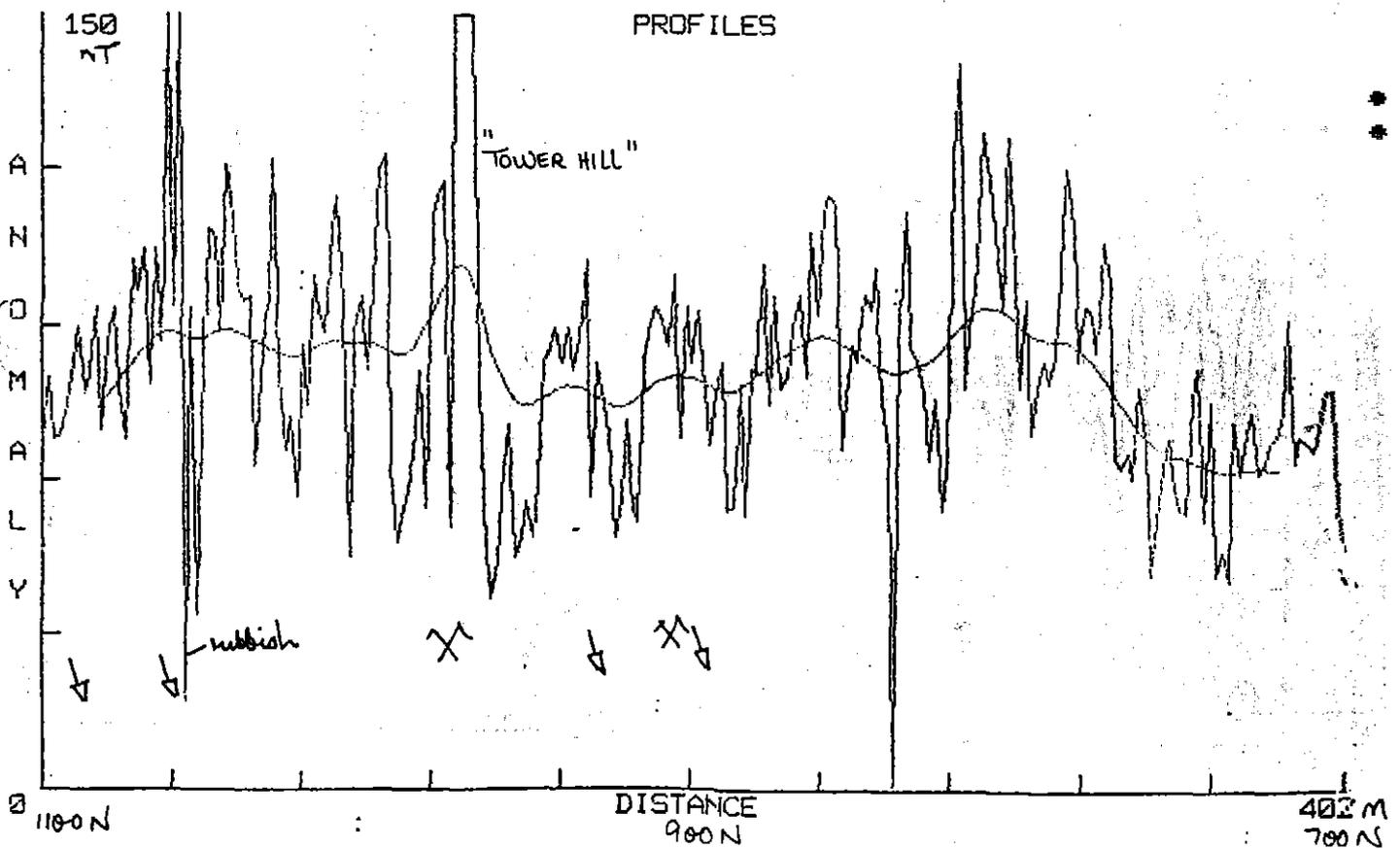
FIGURE 21

1 B:THLEE975 TOWER HILL MAGNETIC SURVEY E GRID 975E 400-700N
2 B:C10EE975
TOWER HILL MAGNETICS E GRID 975E 400-700N 10M CONTINUATION
ZERO SHIFT :-750

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1 B:THLW900 TOWER HILL MAGNETIC SURVEY W GRID 900E 1100-700N
2 B:C10W900
TOWER HILL MAGNETICS W GRID 900E 1100-700N 10M CONTINUATION (SANDSTONE RIDGE)
ZERO SHIFT :-750



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1 B:THLEBSEX
TOWER HILL MAGNETIC SURVEY E GRID BASELINE EXTENSION 900-700N 1000E
ZERO SHIFT :-811

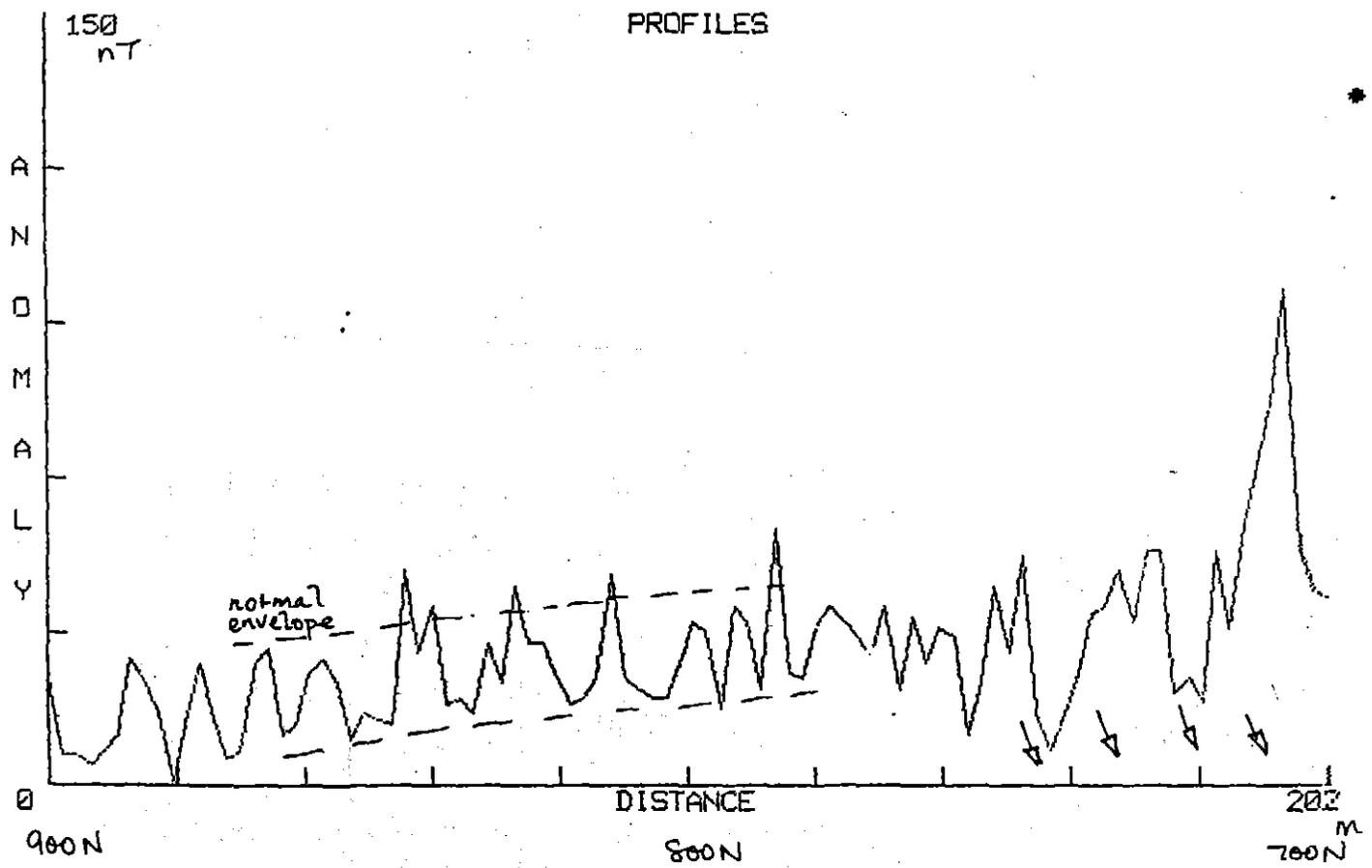


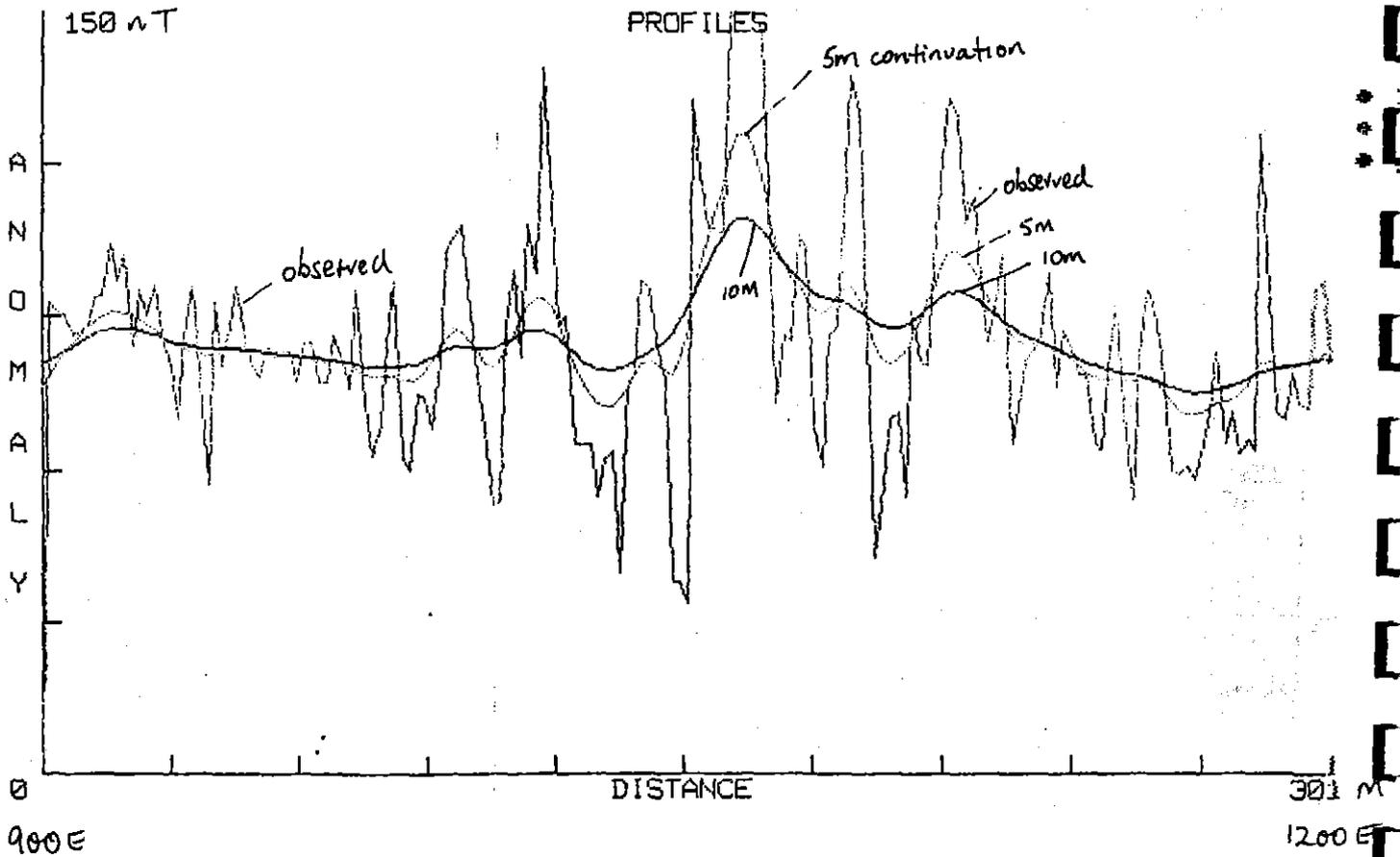
FIGURE 23

093

1 B:THLE0000 TOWER HILL MAGNETIC SURVEY E GRID 00N 900-1200E
 2 B:C05E0000
 TOWER HILL MAGNETICS E GRID 00N 900-1200E 5M CONTINUATION
 3 B:C10E0000
 TOWER HILL MAGNETICS E GRID 00N 900-1200E 10M CONTINUATION
 ZERO SHIFT :-750

558096

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1 B:THLE0050 TOWER HILL MAGNETIC SURVEY E GRID 50N 900-1200E
 2 B:C05E0050
 TOWER HILL MAGNETICS E GRID 50N 900-1200E 5M CONTINUATION
 3 B:C10E0050
 TOWER HILL MAGNETICS E GRID 50N 900-1200E 10M CONTINUATION
 ZERO SHIFT :-750

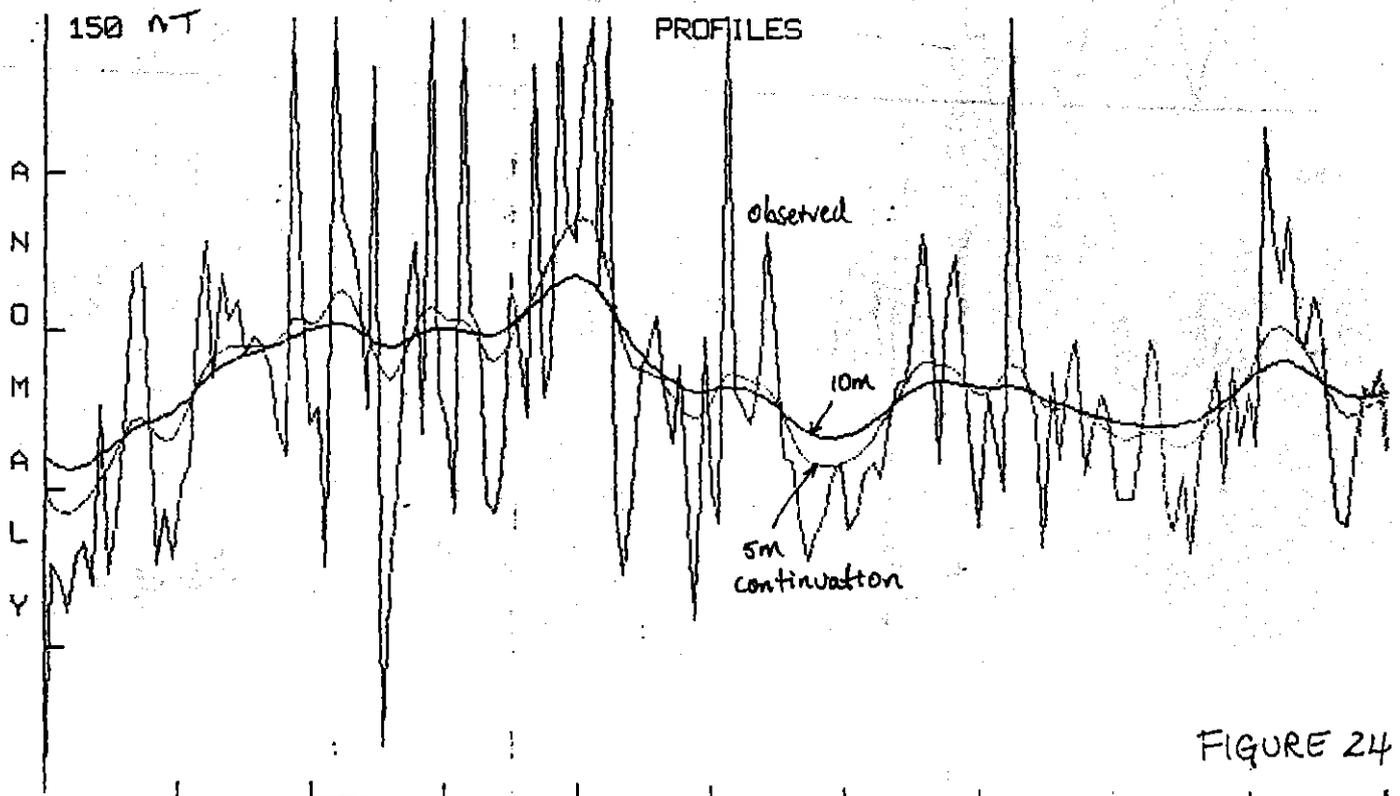
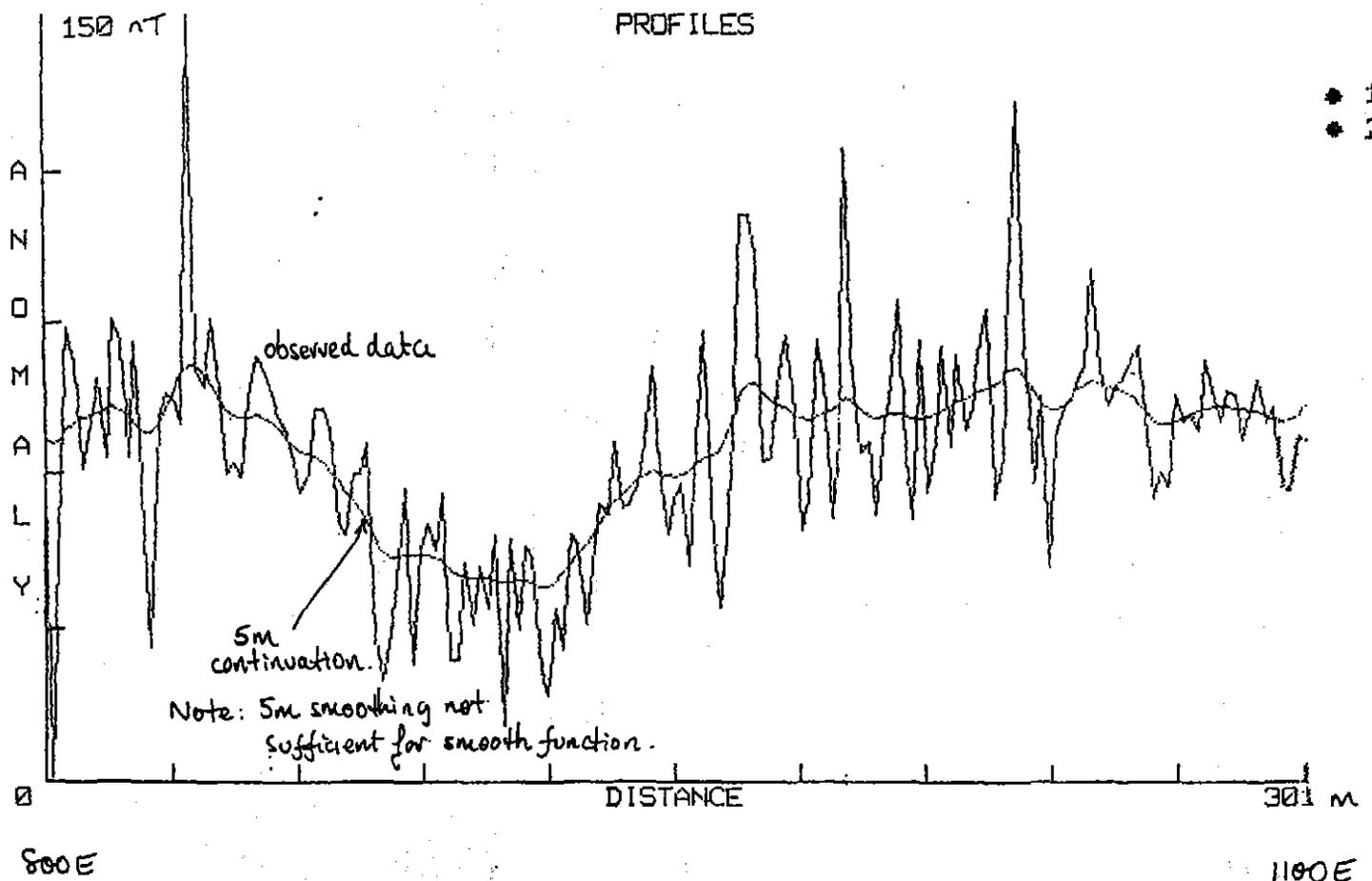


FIGURE 24

092

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1 B:THLW0950 TOWER HILL MAGNETIC SURVEY W GRID 950N 800-1100E
2 B:C05W0950
TOWER HILL MAGNETICS W GRID 950N 800-1100E 5M CONTINUATION
ZERO SHIFT :-750



TOWER HILL MINE PROFILE W GRID 950N. Diagram shows the effect of continuation by 5 m. The residual character of this correction shows that more continuation is desirable if a smooth function is required.

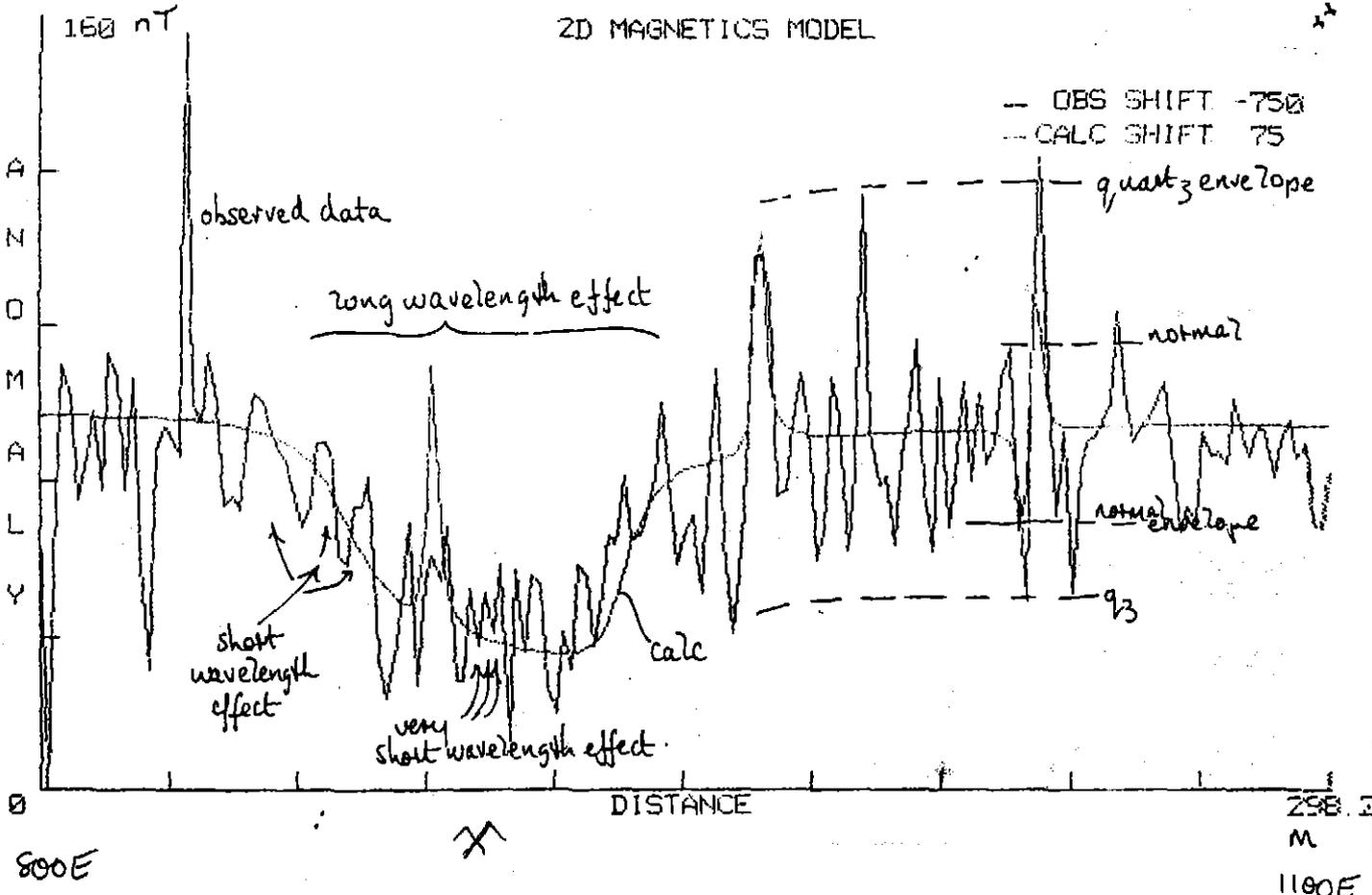
094

LINE PARAMETERS - ORIGIN, LIMIT, INCR : 0 300.048

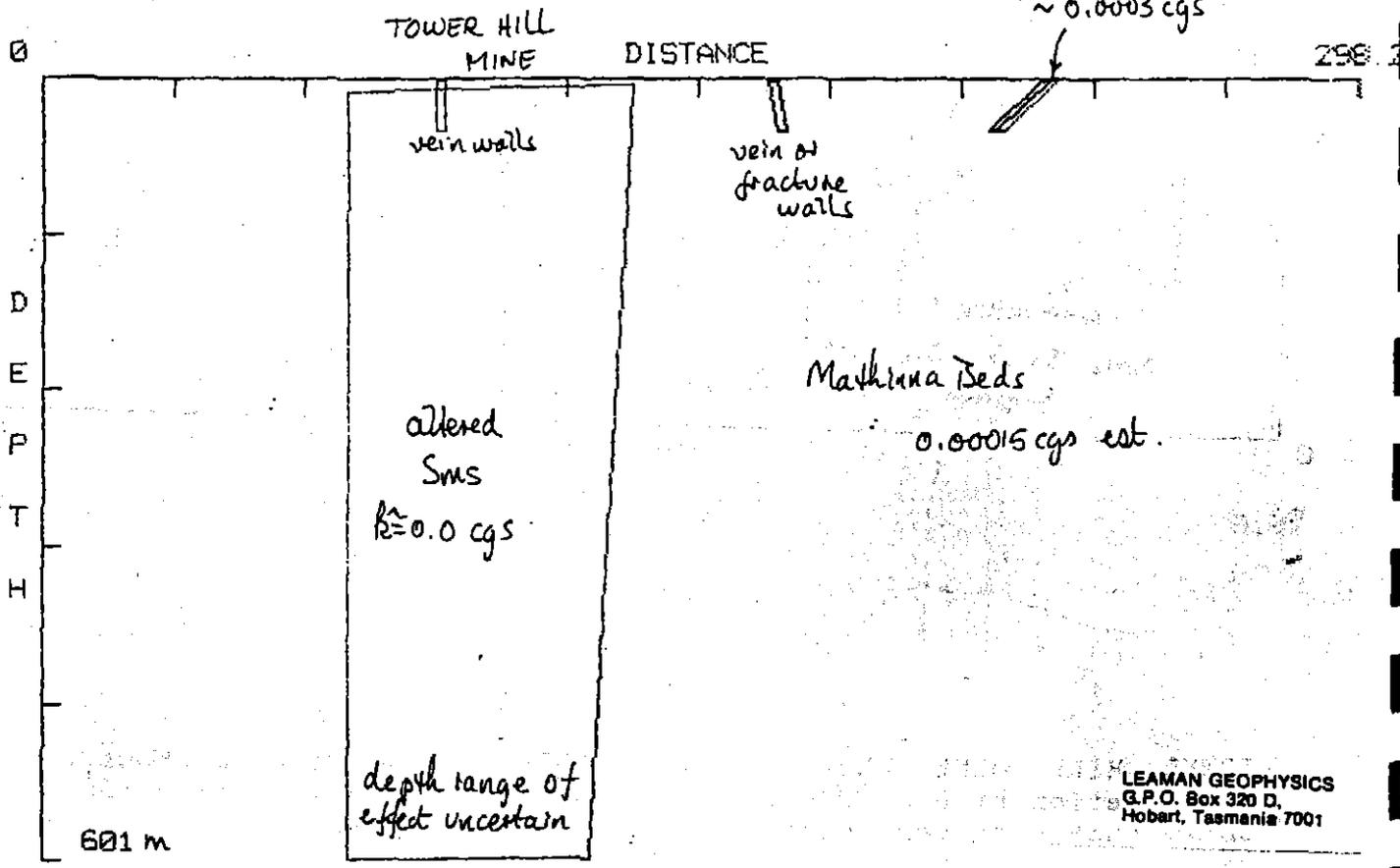
1.786

558098

558098



TOWER HILL MAGNETICS TEST SOURCES 950N 800-1100E W GRID
 K5=-00015 5/1=70/10 (DEEPER L TOP)



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2D MAGNETIC MODEL W950N. TOWER HILL MINE AREA

FIGURE 26

APPENDIX

Tabulation of observations corrected for base/diurnal factors as recorded and referred to the assigned values for the base stations (61800 and 61827 nT).

The precision of this data is considered to be ± 5 nT.

097

558101

B:THLEBASE

TOWER HILL MAGNETIC SURVEY E GRID BASELINE 1000E 700-00N

1.828

384

845.0	832.0	844.0	864.0	875.0	895.0	882.0
832.0	807.0	750.0	802.0	890.0	930.0	920.0
907.0	901.0	913.0	828.0	869.0	875.0	870.0
817.0	794.0	796.0	795.0	818.0	828.0	828.0
805.0	830.0	840.0	821.0	797.0	814.0	841.0
836.0	831.0	834.0	833.0	854.0	801.0	794.0
827.0	821.0	833.0	852.0	841.0	812.0	807.0
793.0	826.0	819.0	816.0	849.0	822.0	820.0
805.0	818.0	837.0	812.0	833.0	836.0	841.0
819.0	831.0	819.0	828.0	827.0	795.0	820.0
809.0	813.0	810.0	831.0	810.0	791.0	839.0
808.0	823.0	835.0	791.0	827.0	790.0	788.0
826.0	788.0	858.0	845.0	842.0	817.0	829.0
841.0	818.0	840.0	850.0	826.0	833.0	830.0
850.0	855.0	820.0	847.0	811.0	812.0	804.0
810.0	811.0	816.0	822.0	845.0	834.0	850.0
827.0	820.0	822.0	818.0	823.0	832.0	819.0
821.0	813.0	821.0	814.0	815.0	816.0	819.0
817.0	821.0	828.0	819.0	822.0	823.0	816.0
825.0	802.0	784.0	812.0	816.0	822.0	825.0
852.0	830.0	820.0	836.0	815.0	827.0	843.0
815.0	825.0	816.0	829.0	801.0	803.0	811.0
820.0	795.0	822.0	832.0	821.0	828.0	813.0
826.0	790.0	836.0	822.0	821.0	825.0	823.0
821.0	825.0	823.0	841.0	858.0	830.0	824.0
851.0	873.0	932.0	929.0	938.0	863.0	802.0
887.0	750.0	750.0	831.0	812.0	796.0	774.0
753.0	750.0	754.0	784.0	803.0	809.0	819.0
816.0	823.0	826.0	827.0	826.0	827.0	840.0
841.0	930.0	899.0	772.0	816.0	824.0	826.0
836.0	822.0	834.0	825.0	824.0	823.0	824.0
831.0	830.0	836.0	835.0	829.0	823.0	833.0
818.0	820.0	849.0	852.0	856.0	845.0	871.0
856.0	844.0	844.0	830.0	840.0	838.0	829.0
815.0	829.0	801.0	807.0	805.0	819.0	819.0
816.0	814.0	815.0	818.0	817.0	819.0	826.0
822.0	844.0	842.0	831.0	846.0	844.0	841.0
887.0	880.0	856.0	828.0	844.0	885.0	885.0
860.0	844.0	868.0	840.0	827.0	823.0	818.0
817.0	826.0	826.0	833.0	838.0	832.0	843.0
835.0	826.0	824.0	828.0	832.0	822.0	834.0
827.0	832.0	832.0	841.0	835.0	836.0	827.0
832.0	833.0	836.0	829.0	826.0	826.0	831.0
842.0	835.0	831.0	826.0	840.0	842.0	846.0
823.0	842.0	848.0	852.0	853.0	845.0	836.0
832.0	812.0	802.0	835.0	832.0	834.0	836.0
838.0	844.0	839.0	842.0	844.0	839.0	837.0
846.0	834.0	817.0	830.0	816.0	825.0	827.0
821.0	831.0	818.0	814.0	818.0	815.0	830.0
826.0	829.0	841.0	838.0	813.0	815.0	818.0
858.0	874.0	891.0	872.0	859.0	852.0	829.0
878.0	836.0	833.0	851.0	849.0	845.0	839.0
842.0	844.0	837.0	855.0	846.0	826.0	836.0
844.0	825.0	843.0	836.0	824.0	827.0	839.0
850.0	837.0	826.0	898.0	857.0	856.0	

B:THLE0000
TOWER HILL MAGNETIC SURVEY E GRID 00N 900-1200E

1.754

172

750.0	842.0	840.0	839.0	835.0	836.0	837.0
843.0	843.0	853.0	846.0	851.0	833.0	844.0
839.0	845.0	835.0	829.0	819.0	835.0	845.0
827.0	806.0	842.0	829.0	837.0	845.0	834.0
829.0	827.0	833.0	831.0	832.0	832.0	826.0
834.0	834.0	826.0	826.0	835.0	830.0	825.0
844.0	822.0	812.0	818.0	834.0	846.0	811.0
809.0	824.0	823.0	817.0	830.0	852.0	855.0
857.0	844.0	827.0	817.0	802.0	803.0	837.0
848.0	831.0	857.0	847.0	888.0	860.0	837.0
839.0	814.0	814.0	814.0	804.0	811.0	813.0
789.0	826.0	827.0	846.0	844.0	834.0	826.0
787.0	787.0	783.0	882.0	867.0	856.0	856.0
855.0	921.0	922.0	924.0	907.0	895.0	864.0
822.0	835.0	834.0	855.0	852.0	817.0	810.0
835.0	837.0	858.0	886.0	879.0	837.0	792.0
806.0	819.0	820.0	804.0	840.0	830.0	829.0
855.0	870.0	882.0	878.0	857.0	862.0	846.0
834.0	841.0	852.0	814.0	821.0	830.0	832.0
835.0	847.0	825.0	836.0	832.0	827.0	828.0
814.0	813.0	832.0	841.0	820.0	803.0	831.0
844.0	840.0	831.0	809.0	808.0	810.0	807.0
812.0	820.0	832.0	814.0	820.0	812.0	815.0
813.0	875.0	843.0	820.0	819.0	828.0	822.0
821.0	844.0	846.0	830.0			

B:THLE0100

TOWER HILL MAGNETIC SURVEY E GRID 100N 900-1200E

1.796

168

750.0	870.0	830.0	869.0	865.0	794.0	794.0
757.0	827.0	859.0	876.0	818.0	878.0	843.0
831.0	820.0	807.0	812.0	803.0	804.0	804.0
824.0	887.0	850.0	765.0	795.0	795.0	794.0
862.0	871.0	862.0	870.0	866.0	847.0	832.0
842.0	849.0	820.0	817.0	821.0	840.0	839.0
864.0	860.0	854.0	850.0	833.0	840.0	848.0
834.0	839.0	828.0	834.0	850.0	847.0	830.0
832.0	837.0	844.0	829.0	825.0	834.0	833.0
829.0	830.0	837.0	823.0	836.0	824.0	824.0
820.0	829.0	847.0	861.0	842.0	844.0	838.0
850.0	834.0	833.0	822.0	847.0	834.0	856.0
851.0	842.0	825.0	827.0	816.0	812.0	815.0
819.0	849.0	851.0	850.0	844.0	827.0	810.0
845.0	842.0	842.0	839.0	832.0	834.0	843.0
836.0	830.0	863.0	873.0	854.0	860.0	807.0
799.0	845.0	839.0	870.0	852.0	845.0	840.0
822.0	823.0	817.0	840.0	877.0	856.0	837.0
818.0	838.0	850.0	851.0	831.0	835.0	819.0
822.0	830.0	817.0	837.0	850.0	839.0	831.0
845.0	850.0	845.0	843.0	842.0	855.0	842.0
830.0	852.0	854.0	825.0	859.0	856.0	830.0
829.0	838.0	824.0	836.0	821.0	822.0	842.0
855.0	848.0	864.0	825.0	825.0	828.0	863.0
855.0						

:THLE0050

OWER HILL MAGNETIC SURVEY E GRID 50N 900-1200E

1.807	167						
750.0	795.0	792.0	786.0	796.0	799.0	791.0	
825.0	793.0	803.0	825.0	850.0	852.0	824.0	
795.0	805.0	796.0	810.0	814.0	840.0	856.0	
830.0	850.0	841.0	845.0	835.0	838.0	837.0	
832.0	821.0	816.0	910.0	846.0	822.0	825.0	
795.0	930.0	862.0	856.0	850.0	825.0	890.0	
760.0	790.0	818.0	845.0	856.0	820.0	930.0	
828.0	822.0	805.0	910.0	843.0	840.0	807.0	
805.0	813.0	850.0	838.0	823.0	890.0	827.0	
833.0	919.0	860.0	856.0	885.0	925.0	848.0	
925.0	806.0	793.0	808.0	832.0	835.0	842.0	
828.0	818.0	833.0	803.0	785.0	838.0	809.0	
803.0	903.0	828.0	825.0	822.0	832.0	858.0	
837.0	816.0	815.0	805.0	796.0	801.0	805.0	
812.0	815.0	802.0	805.0	813.0	815.0	812.0	
823.0	830.0	831.0	843.0	858.0	846.0	815.0	
845.0	854.0	838.0	816.0	803.0	828.0	820.0	
810.0	903.0	842.0	830.0	823.0	799.0	832.0	
816.0	833.0	838.0	813.0	821.0	828.0	824.0	
808.0	808.0	808.0	819.0	838.0	834.0	806.0	
802.0	813.0	798.0	818.0	823.0	832.0	811.0	
833.0	818.0	828.0	818.0	878.0	859.0	849.0	
861.0	839.0	836.0	846.0	841.0	818.0	804.0	
803.0	814.0	829.0	827.0	832.0	817.0		

B:THLE0200

TOWER HILL MAGNETIC SURVEY E GRID 200N 900-1200E

1.724

175

750.0	872.0	882.0	759.0	798.0	828.0	797.0
794.0	808.0	798.0	800.0	835.0	841.0	827.0
820.0	838.0	840.0	815.0	838.0	826.0	840.0
856.0	821.0	832.0	831.0	830.0	820.0	791.0
818.0	825.0	823.0	824.0	836.0	829.0	814.0
837.0	842.0	821.0	839.0	841.0	809.0	804.0
805.0	818.0	837.0	832.0	837.0	822.0	815.0
817.0	805.0	807.0	814.0	808.0	802.0	831.0
821.0	806.0	842.0	830.0	821.0	842.0	860.0
841.0	810.0	822.0	809.0	825.0	802.0	806.0
824.0	829.0	835.0	827.0	837.0	824.0	818.0
823.0	815.0	825.0	812.0	817.0	815.0	809.0
827.0	802.0	827.0	827.0	825.0	832.0	849.0
814.0	824.0	829.0	812.0	820.0	807.0	836.0
810.0	822.0	808.0	803.0	801.0	807.0	813.0
808.0	818.0	821.0	811.0	813.0	839.0	835.0
831.0	813.0	805.0	825.0	827.0	828.0	822.0
819.0	843.0	875.0	842.0	832.0	786.0	782.0
820.0	842.0	834.0	823.0	820.0	819.0	823.0
821.0	814.0	815.0	830.0	818.0	816.0	850.0
831.0	832.0	807.0	826.0	831.0	813.0	852.0
830.0	834.0	818.0	825.0	827.0	828.0	811.0
833.0	804.0	819.0	820.0	807.0	805.0	807.0
810.0	819.0	823.0	828.0	858.0	831.0	837.0
831.0	819.0	831.0	818.0	813.0	824.0	812.0
831.0						

B:THLE0150
TOWER HILL MAGNETIC SURVEY E GRID 150N 900-1200E

1.744

173

750.0	791.0	810.0	831.0	839.0	828.0	823.0
843.0	814.0	788.0	782.0	803.0	808.0	811.0
811.0	800.0	795.0	820.0	815.0	817.0	807.0
830.0	822.0	843.0	842.0	865.0	824.0	815.0
804.0	817.0	860.0	813.0	812.0	832.0	839.0
829.0	856.0	844.0	842.0	840.0	831.0	818.0
846.0	850.0	846.0	829.0	841.0	833.0	824.0
840.0	837.0	824.0	835.0	847.0	839.0	844.0
844.0	840.0	836.0	829.0	835.0	829.0	832.0
859.0	830.0	826.0	806.0	810.0	817.0	813.0
836.0	803.0	818.0	837.0	852.0	841.0	848.0
843.0	838.0	852.0	812.0	801.0	849.0	838.0
840.0	843.0	852.0	846.0	839.0	829.0	845.0
846.0	837.0	848.0	843.0	841.0	844.0	835.0
828.0	837.0	861.0	841.0	837.0	839.0	833.0
832.0	823.0	820.0	836.0	818.0	808.0	818.0
830.0	834.0	832.0	818.0	827.0	828.0	843.0
845.0	872.0	861.0	836.0	840.0	827.0	830.0
810.0	840.0	842.0	843.0	871.0	866.0	800.0
802.0	800.0	810.0	832.0	856.0	835.0	829.0
832.0	820.0	839.0	839.0	827.0	830.0	817.0
819.0	820.0	831.0	849.0	835.0	834.0	827.0
833.0	817.0	821.0	839.0	828.0	831.0	826.0
842.0	832.0	826.0	842.0	849.0	825.0	834.0
835.0	844.0	834.0	823.0	829.0		

B:THLE0300

TOWER HILL MAGNETIC SURVEY E GRID 300N 900-1200E

1.775

170

823.0	829.0	825.0	833.0	831.0	840.0	848.0
857.0	844.0	827.0	830.0	835.0	826.0	830.0
823.0	821.0	821.0	828.0	823.0	827.0	815.0
829.0	815.0	814.0	831.0	854.0	828.0	846.0
866.0	831.0	802.0	802.0	818.0	831.0	832.0
842.0	851.0	845.0	831.0	824.0	809.0	808.0
834.0	843.0	847.0	848.0	874.0	834.0	859.0
842.0	844.0	844.0	880.0	868.0	868.0	870.0
870.0	872.0	851.0	847.0	812.0	830.0	845.0
853.0	867.0	849.0	811.0	849.0	823.0	815.0
810.0	849.0	827.0	845.0	826.0	831.0	843.0
839.0	827.0	838.0	832.0	833.0	823.0	838.0
845.0	816.0	817.0	819.0	818.0	807.0	823.0
830.0	829.0	823.0	826.0	815.0	831.0	834.0
848.0	845.0	827.0	823.0	814.0	812.0	813.0
814.0	813.0	845.0	846.0	865.0	825.0	830.0
835.0	819.0	812.0	852.0	829.0	838.0	844.0
875.0	839.0	840.0	843.0	828.0	830.0	829.0
830.0	855.0	825.0	835.0	838.0	822.0	822.0
830.0	838.0	837.0	837.0	835.0	851.0	851.0
832.0	830.0	832.0	834.0	836.0	836.0	854.0
832.0	847.0	824.0	819.0	822.0	806.0	876.0
850.0	824.0	750.0	750.0	750.0	750.0	750.0
750.0	750.0	750.0	750.0	750.0	750.0	750.0
750.0	750.0					

114

B:THLELINK
TOWER HILL MAGNETIC SURVEY E GRID LINK 1-2

1.686

179

793.0	788.0	797.0	799.0	814.0	816.0	813.0
814.0	793.0	810.0	822.0	808.0	828.0	838.0
829.0	821.0	804.0	811.0	811.0	809.0	827.0
842.0	820.0	804.0	802.0	804.0	814.0	806.0
813.0	811.0	817.0	821.0	816.0	817.0	821.0
823.0	815.0	829.0	826.0	792.0	800.0	811.0
816.0	800.0	808.0	817.0	819.0	831.0	835.0
829.0	820.0	823.0	842.0	838.0	820.0	815.0
814.0	822.0	818.0	829.0	829.0	831.0	826.0
830.0	817.0	822.0	813.0	815.0	821.0	809.0
825.0	815.0	816.0	829.0	811.0	822.0	826.0
828.0	822.0	820.0	814.0	817.0	827.0	820.0
816.0	822.0	823.0	820.0	823.0	835.0	840.0
824.0	827.0	824.0	820.0	821.0	835.0	827.0
834.0	828.0	820.0	841.0	823.0	832.0	839.0
828.0	816.0	811.0	814.0	809.0	805.0	804.0
809.0	814.0	812.0	815.0	814.0	817.0	817.0
818.0	820.0	822.0	822.0	844.0	838.0	825.0
826.0	842.0	838.0	838.0	857.0	810.0	822.0
818.0	828.0	820.0	817.0	813.0	816.0	820.0
824.0	820.0	809.0	809.0	814.0	750.0	813.0
811.0	810.0	795.0	798.0	797.0	810.0	805.0
801.0	811.0	821.0	814.0	812.0	812.0	830.0
834.0	828.0	834.0	887.0	860.0	832.0	821.0
828.0	827.0	828.0	816.0	820.0	830.0	814.0
820.0	823.0	814.0	828.0			

B:THWBASE1
 TOWER HILL MAGNETIC SURVEY W GRID BASELINE 1000E 00-700N
 1.7115 410

837.0	842.0	840.0	839.0	853.0	844.0	847.0
800.0	786.0	871.0	841.0	862.0	851.0	876.0
848.0	850.0	847.0	848.0	838.0	816.0	750.0
750.0	750.0	750.0	750.0	750.0	750.0	750.0
750.0	842.0	846.0	869.0	854.0	877.0	887.0
832.0	842.0	879.0	868.0	880.0	888.0	888.0
876.0	826.0	858.0	858.0	857.0	841.0	864.0
862.0	855.0	847.0	835.0	839.0	842.0	829.0
821.0	824.0	812.0	806.0	830.0	831.0	830.0
832.0	815.0	821.0	833.0	842.0	837.0	837.0
840.0	860.0	842.0	830.0	825.0	824.0	822.0
832.0	840.0	837.0	834.0	830.0	833.0	833.0
831.0	836.0	831.0	837.0	816.0	826.0	821.0
819.0	819.0	816.0	819.0	820.0	821.0	821.0
822.0	819.0	817.0	821.0	817.0	822.0	823.0
822.0	822.0	823.0	822.0	824.0	811.0	819.0
824.0	823.0	821.0	826.0	820.0	834.0	823.0
828.0	821.0	818.0	824.0	819.0	814.0	818.0
821.0	824.0	828.0	836.0	832.0	813.0	819.0
816.0	828.0	830.0	808.0	811.0	830.0	830.0
820.0	821.0	819.0	827.0	828.0	831.0	794.0
795.0	810.0	822.0	823.0	813.0	810.0	814.0
818.0	817.0	818.0	832.0	815.0	818.0	825.0
822.0	821.0	814.0	818.0	821.0	821.0	819.0
817.0	825.0	821.0	818.0	812.0	817.0	815.0
817.0	810.0	813.0	821.0	820.0	819.0	825.0
826.0	824.0	828.0	822.0	824.0	823.0	825.0
821.0	820.0	820.0	821.0	821.0	824.0	822.0
813.0	826.0	822.0	837.0	843.0	840.0	839.0
837.0	836.0	837.0	845.0	836.0	835.0	836.0
842.0	854.0	851.0	854.0	850.0	852.0	834.0
831.0	839.0	849.0	849.0	835.0	835.0	844.0
866.0	867.0	852.0	863.0	853.0	829.0	825.0
831.0	825.0	816.0	824.0	829.0	825.0	827.0
832.0	822.0	818.0	847.0	847.0	852.0	850.0
839.0	820.0	819.0	827.0	815.0	824.0	850.0
844.0	841.0	823.0	841.0	865.0	856.0	850.0
822.0	801.0	802.0	795.0	776.0	772.0	780.0
809.0	829.0	834.0	848.0	830.0	824.0	817.0
830.0	825.0	822.0	832.0	833.0	821.0	823.0
827.0	829.0	825.0	827.0	821.0	821.0	815.0
824.0	815.0	811.0	809.0	810.0	822.0	829.0
820.0	811.0	822.0	840.0	856.0	844.0	828.0
824.0	825.0	814.0	797.0	800.0	830.0	844.0
852.0	832.0	830.0	826.0	840.0	832.0	837.0
827.0	824.0	816.0	821.0	823.0	824.0	820.0
817.0	822.0	821.0	795.0	822.0	806.0	814.0
823.0	822.0	833.0	844.0	840.0	832.0	835.0
846.0	841.0	833.0	841.0	834.0	837.0	829.0
837.0	830.0	838.0	814.0	829.0	848.0	838.0
840.0	833.0	831.0	834.0	833.0	837.0	825.0
811.0	804.0	813.0	825.0	821.0	810.0	813.0
822.0	840.0	834.0	814.0	824.0	840.0	860.0
852.0	824.0	782.0	830.0	841.0	836.0	825.0
822.0	839.0	829.0	835.0	836.0	827.0	830.0
827.0	834.0	823.0	824.0	847.0	850.0	850.0
842.0	829.0	843.0	853.0	834.0	806.0	810.0
792.0	805.0	831.0	848.0	832.0	825.0	844.0
807.0	786.0	799.0	810.0			

117

B:THLW4TO5

TOWER HILL MAGNETIC SURVEY W GRID 500/450/400N 950-1050E

1.676

180

821.0	824.0	816.0	824.0	824.0	827.0	818.0
817.0	816.0	817.0	819.0	822.0	826.0	831.0
833.0	833.0	828.0	822.0	823.0	824.0	823.0
823.0	812.0	830.0	851.0	844.0	828.0	837.0
837.0	824.0	815.0	830.0	843.0	838.0	834.0
837.0	839.0	847.0	855.0	852.0	837.0	836.0
838.0	834.0	838.0	827.0	822.0	838.0	848.0
866.0	861.0	854.0	817.0	815.0	794.0	856.0
870.0	857.0	833.0	824.0	833.0	750.0	900.0
854.0	851.0	847.0	847.0	866.0	870.0	860.0
858.0	829.0	798.0	798.0	815.0	824.0	824.0
806.0	818.0	819.0	808.0	810.0	824.0	822.0
822.0	829.0	821.0	827.0	822.0	819.0	826.0
816.0	825.0	824.0	843.0	826.0	822.0	803.0
805.0	817.0	816.0	817.0	812.0	813.0	808.0
814.0	794.0	780.0	807.0	799.0	799.0	813.0
812.0	805.0	830.0	850.0	867.0	882.0	792.0
750.0	900.0	845.0	844.0	871.0	859.0	857.0
853.0	868.0	859.0	857.0	851.0	847.0	848.0
857.0	848.0	851.0	862.0	840.0	853.0	850.0
851.0	860.0	867.0	848.0	854.0	850.0	838.0
851.0	841.0	851.0	881.0	871.0	855.0	862.0
879.0	869.0	870.0	883.0	867.0	867.0	860.0
876.0	861.0	870.0	879.0	867.0	880.0	880.0
881.0	889.0	896.0	883.0	872.0	856.0	867.0
866.0	852.0	871.0	867.0	840.0		

B:THWBASE2

TOWER HILL MAGNETIC SURVEY W GRID BASELINE 1000E 700-1200N

1 6723

300

810.0	815.0	862.0	852.0	836.0	829.0	830.0
824.0	834.0	834.0	843.0	829.0	832.0	870.0
827.0	831.0	835.0	854.0	853.0	835.0	839.0
853.0	845.0	839.0	838.0	859.0	822.0	820.0
840.0	835.0	825.0	827.0	830.0	823.0	821.0
815.0	832.0	843.0	840.0	815.0	817.0	818.0
825.0	812.0	812.0	823.0	822.0	821.0	836.0
832.0	843.0	849.0	857.0	847.0	845.0	850.0
832.0	827.0	818.0	827.0	815.0	815.0	817.0
809.0	819.0	818.0	825.0	827.0	822.0	833.0
837.0	843.0	858.0	847.0	791.0	882.0	866.0
868.0	844.0	832.0	817.0	841.0	860.0	849.0
867.0	856.0	845.0	838.0	808.0	798.0	825.0
853.0	853.0	833.0	820.0	803.0	750.0	808.0
808.0	827.0	815.0	826.0	825.0	814.0	849.0
867.0	865.0	836.0	849.0	854.0	845.0	819.0
795.0	783.0	792.0	840.0	852.0	855.0	893.0
845.0	819.0	799.0	799.0	817.0	824.0	832.0
819.0	813.0	824.0	845.0	827.0	841.0	839.0
837.0	823.0	816.0	836.0	833.0	839.0	846.0
828.0	847.0	846.0	850.0	823.0	807.0	815.0
829.0	833.0	818.0	831.0	816.0	834.0	825.0
840.0	853.0	843.0	817.0	825.0	828.0	829.0
821.0	818.0	823.0	823.0	817.0	819.0	808.0
801.0	792.0	818.0	823.0	843.0	825.0	832.0
831.0	827.0	806.0	807.0	825.0	842.0	837.0
825.0	831.0	839.0	841.0	838.0	842.0	845.0
832.0	817.0	827.0	816.0	817.0	811.0	810.0
842.0	867.0	853.0	831.0	838.0	823.0	821.0
816.0	825.0	837.0	838.0	848.0	834.0	834.0
822.0	823.0	835.0	851.0	842.0	846.0	843.0
859.0	858.0	847.0	830.0	841.0	860.0	843.0
838.0	835.0	828.0	847.0	855.0	838.0	836.0
838.0	848.0	849.0	838.0	833.0	840.0	843.0
845.0	849.0	827.0	826.0	853.0	842.0	844.0
831.0	835.0	834.0	837.0	832.0	841.0	825.0
818.0	828.0	840.0	836.0	839.0	837.0	832.0
837.0	835.0	832.0	841.0	849.0	841.0	833.0
851.0	849.0	850.0	845.0	855.0	830.0	835.0
840.0	811.0	824.0	833.0	845.0	839.0	837.0
845.0	828.0	829.0	824.0	832.0	829.0	829.0
818.0	821.0	841.0	837.0	838.0	848.0	833.0
837.0	830.0	831.0	823.0	819.0	822.0	

B:THLW0900

TOWER HILL MAGNETIC SURVEY W GRID 900N 800-1100E

1.714

176

833.0	835.0	834.0	830.0	813.0	830.0	850.0
844.0	828.0	837.0	833.0	818.0	828.0	827.0
843.0	845.0	838.0	811.0	812.0	806.0	825.0
824.0	832.0	810.0	823.0	814.0	811.0	830.0
830.0	824.0	817.0	822.0	839.0	845.0	841.0
839.0	851.0	839.0	829.0	827.0	831.0	839.0
830.0	839.0	815.0	807.0	823.0	847.0	883.0
835.0	824.0	804.0	819.0	811.0	811.0	819.0
823.0	807.0	807.0	804.0	805.0	812.0	806.0
798.0	790.0	808.0	817.0	830.0	852.0	857.0
842.0	820.0	814.0	812.0	816.0	817.0	811.0
814.0	814.0	805.0	804.0	814.0	818.0	789.0
806.0	815.0	807.0	813.0	819.0	817.0	824.0
842.0	854.0	805.0	799.0	804.0	795.0	786.0
792.0	822.0	824.0	835.0	836.0	815.0	831.0
816.0	807.0	805.0	804.0	804.0	801.0	816.0
825.0	818.0	870.0	851.0	871.0	830.0	843.0
845.0	837.0	828.0	812.0	808.0	814.0	856.0
858.0	847.0	852.0	820.0	823.0	831.0	823.0
826.0	841.0	849.0	829.0	863.0	860.0	785.0
823.0	851.0	846.0	835.0	826.0	817.0	774.0
797.0	793.0	788.0	841.0	841.0	864.0	870.0
831.0	789.0	811.0	839.0	822.0	831.0	817.0
810.0	814.0	815.0	818.0	803.0	823.0	835.0
830.0	831.0	822.0	824.0	828.0	837.0	839.0
750.0						

B:THLW1000

TOWER HILL MAGNETIC SURVEY W GRID 1000N 800-1100E

1.714

176

805.0	799.0	800.0	910.0	808.0	796.0	808.0
808.0	806.0	801.0	905.0	902.0	790.0	829.0
832.0	793.0	815.0	827.0	784.0	808.0	804.0
796.0	822.0	814.0	820.0	824.0	817.0	812.0
806.0	808.0	827.0	817.0	837.0	825.0	806.0
809.0	815.0	814.0	818.0	817.0	821.0	812.0
820.0	836.0	837.0	846.0	854.0	852.0	833.0
820.0	813.0	803.0	798.0	805.0	816.0	800.0
805.0	813.0	808.0	806.0	807.0	806.0	834.0
837.0	838.0	838.0	815.0	826.0	821.0	819.0
822.0	829.0	840.0	827.0	835.0	837.0	852.0
842.0	823.0	822.0	833.0	843.0	848.0	845.0
834.0	821.0	835.0	831.0	831.0	831.0	832.0
836.0	831.0	827.0	826.0	840.0	844.0	836.0
849.0	841.0	830.0	823.0	810.0	819.0	821.0
811.0	807.0	812.0	817.0	836.0	813.0	799.0
813.0	821.0	816.0	829.0	815.0	817.0	812.0
800.0	820.0	837.0	839.0	820.0	789.0	798.0
798.0	823.0	824.0	834.0	825.0	816.0	822.0
795.0	820.0	826.0	816.0	857.0	857.0	869.0
851.0	843.0	827.0	801.0	825.0	837.0	863.0
830.0	795.0	820.0	831.0	803.0	842.0	844.0
834.0	823.0	826.0	818.0	825.0	827.0	817.0
840.0	838.0	841.0	830.0	834.0	826.0	795.0
817.0	832.0	833.0	819.0	827.0	833.0	830.0
750.0						

B:THLW1100

TOWER HILL MAGNETIC SURVEY W GRID 1100N 800-1100E

1.775

170

846.0	859.0	846.0	834.0	844.0	856.0	852.0
916.0	827.0	820.0	834.0	845.0	854.0	852.0
867.0	849.0	839.0	846.0	845.0	836.0	828.0
863.0	857.0	843.0	828.0	812.0	832.0	850.0
860.0	845.0	850.0	832.0	839.0	825.0	828.0
832.0	842.0	838.0	850.0	839.0	862.0	855.0
852.0	828.0	828.0	828.0	803.0	848.0	855.0
849.0	855.0	873.0	865.0	834.0	864.0	865.0
830.0	828.0	824.0	830.0	827.0	835.0	833.0
850.0	834.0	825.0	841.0	853.0	846.0	830.0
858.0	840.0	836.0	850.0	835.0	854.0	867.0
836.0	844.0	843.0	842.0	810.0	833.0	836.0
848.0	836.0	825.0	859.0	836.0	870.0	870.0
858.0	862.0	860.0	872.0	868.0	858.0	868.0
872.0	804.0	837.0	827.0	844.0	832.0	860.0
853.0	840.0	824.0	826.0	828.0	824.0	834.0
836.0	827.0	845.0	869.0	941.0	885.0	840.0
852.0	839.0	850.0	857.0	856.0	843.0	852.0
850.0	861.0	858.0	845.0	852.0	866.0	883.0
854.0	831.0	859.0	839.0	856.0	834.0	864.0
867.0	857.0	841.0	856.0	864.0	869.0	877.0
875.0	854.0	864.0	856.0	848.0	868.0	841.0
842.0	840.0	860.0	862.0	866.0	851.0	879.0
877.0	877.0	866.0	872.0	865.0	884.0	866.0
819.0	750.0					

B:THLW1050

TOWER HILL MAGNETIC SURVEY W GRID 1050N 800-1100E

1.775

170

823.0	836.0	823.0	851.0	833.0	862.0	820.0
832.0	840.0	862.0	833.0	818.0	844.0	845.0
837.0	837.0	841.0	846.0	836.0	850.0	827.0
806.0	815.0	855.0	834.0	804.0	801.0	826.0
832.0	833.0	846.0	825.0	821.0	824.0	810.0
847.0	843.0	855.0	824.0	828.0	830.0	848.0
829.0	810.0	826.0	828.0	823.0	817.0	857.0
848.0	844.0	851.0	842.0	835.0	836.0	839.0
835.0	828.0	815.0	816.0	821.0	820.0	828.0
821.0	822.0	828.0	837.0	830.0	835.0	840.0
826.0	840.0	847.0	822.0	811.0	821.0	854.0
821.0	832.0	825.0	845.0	856.0	844.0	814.0
820.0	840.0	841.0	850.0	834.0	828.0	820.0
832.0	842.0	837.0	836.0	835.0	862.0	860.0
828.0	829.0	848.0	813.0	834.0	829.0	842.0
845.0	828.0	814.0	824.0	834.0	817.0	826.0
820.0	851.0	848.0	846.0	837.0	829.0	852.0
832.0	827.0	821.0	816.0	829.0	857.0	862.0
869.0	850.0	862.0	866.0	833.0	822.0	836.0
851.0	862.0	859.0	865.0	839.0	836.0	836.0
826.0	812.0	850.0	836.0	840.0	855.0	806.0
836.0	836.0	827.0	832.0	821.0	828.0	832.0
834.0	858.0	821.0	843.0	817.0	834.0	833.0
818.0	814.0	829.0	844.0	834.0	835.0	812.0
825.0	750.0					

B:THLW1200

TOWER HILL MAGNETIC SURVEY W GRID 1200N 800-1100E

1.775

170

814.0	838.0	853.0	844.0	841.0	818.0	791.0
819.0	813.0	805.0	809.0	810.0	803.0	825.0
811.0	794.0	796.0	793.0	794.0	798.0	800.0
801.0	806.0	809.0	800.0	806.0	803.0	787.0
789.0	809.0	810.0	822.0	787.0	791.0	805.0
802.0	812.0	798.0	806.0	800.0	830.0	802.0
835.0	855.0	821.0	805.0	800.0	802.0	797.0
798.0	807.0	821.0	793.0	800.0	816.0	808.0
808.0	800.0	809.0	813.0	795.0	809.0	810.0
802.0	803.0	798.0	815.0	819.0	809.0	815.0
802.0	812.0	805.0	818.0	818.0	824.0	808.0
804.0	805.0	806.0	807.0	807.0	806.0	807.0
812.0	805.0	804.0	830.0	809.0	811.0	818.0
818.0	814.0	825.0	810.0	815.0	814.0	824.0
809.0	804.0	813.0	816.0	796.0	816.0	795.0
823.0	832.0	851.0	849.0	852.0	811.0	794.0
807.0	826.0	808.0	812.0	807.0	815.0	813.0
813.0	819.0	804.0	811.0	808.0	804.0	805.0
810.0	811.0	810.0	810.0	814.0	819.0	818.0
811.0	821.0	788.0	804.0	806.0	810.0	812.0
812.0	825.0	835.0	811.0	812.0	804.0	818.0
806.0	817.0	808.0	799.0	805.0	814.0	829.0
833.0	817.0	813.0	809.0	827.0	819.0	825.0
826.0	840.0	843.0	844.0	827.0	821.0	819.0
825.0	750.0					

B.THLW1150

TOWER HILL MAGNETIC SURVEY W GRID 1150N 800-1100E

1.8293

165

750.0	850.0	864.0	849.0	853.0	854.0	840.0
851.0	836.0	824.0	842.0	855.0	849.0	841.0
844.0	845.0	846.0	845.0	848.0	844.0	838.0
835.0	846.0	838.0	855.0	851.0	847.0	842.0
846.0	848.0	842.0	850.0	855.0	842.0	834.0
836.0	846.0	858.0	868.0	850.0	863.0	865.0
902.0	888.0	840.0	840.0	841.0	835.0	847.0
841.0	832.0	833.0	835.0	843.0	847.0	835.0
830.0	836.0	838.0	856.0	835.0	837.0	833.0
834.0	831.0	837.0	842.0	843.0	848.0	844.0
845.0	868.0	852.0	851.0	845.0	841.0	846.0
850.0	850.0	854.0	837.0	838.0	849.0	844.0
840.0	841.0	840.0	838.0	862.0	850.0	845.0
842.0	838.0	833.0	840.0	856.0	843.0	844.0
845.0	852.0	841.0	836.0	835.0	832.0	835.0
843.0	837.0	835.0	832.0	826.0	842.0	846.0
840.0	855.0	856.0	856.0	843.0	841.0	841.0
850.0	856.0	853.0	843.0	846.0	851.0	850.0
843.0	840.0	837.0	830.0	835.0	841.0	840.0
842.0	840.0	853.0	840.0	836.0	846.0	842.0
832.0	832.0	858.0	852.0	859.0	852.0	834.0
829.0	831.0	835.0	835.0	822.0	835.0	856.0
848.0	842.0	836.0	834.0	822.0	826.0	832.0
826.0	824.0	825.0	821.0			

B:THLWLINK

TOWER HILL MAGNETIC SURVEY W GRID LINK 1-2

1.6045

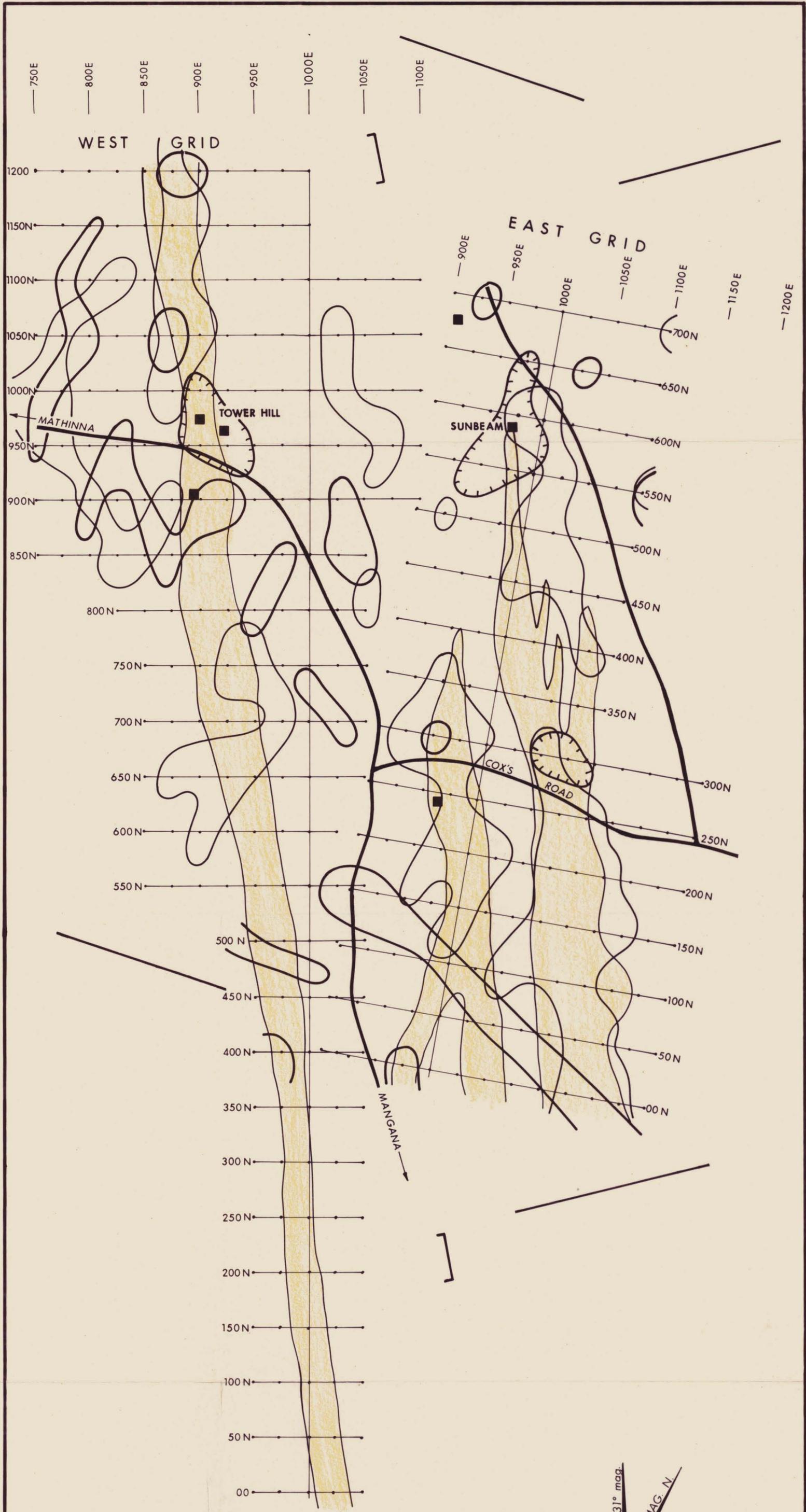
188

804.0	802.0	826.0	817.0	829.0	846.0	835.0
830.0	809.0	815.0	829.0	829.0	835.0	846.0
859.0	850.0	847.0	829.0	838.0	834.0	837.0
854.0	859.0	842.0	826.0	820.0	825.0	834.0
827.0	838.0	841.0	835.0	853.0	837.0	834.0
842.0	845.0	844.0	837.0	847.0	801.0	801.0
820.0	834.0	838.0	836.0	826.0	835.0	839.0
847.0	852.0	851.0	848.0	856.0	862.0	861.0
845.0	848.0	847.0	851.0	849.0	858.0	852.0
851.0	854.0	857.0	856.0	844.0	848.0	844.0
840.0	840.0	838.0	844.0	841.0	830.0	843.0
837.0	838.0	848.0	850.0	845.0	844.0	844.0
842.0	848.0	857.0	841.0	838.0	845.0	841.0
842.0	837.0	860.0	858.0	849.0	851.0	841.0
842.0	845.0	871.0	860.0	846.0	840.0	848.0
855.0	849.0	857.0	864.0	843.0	839.0	830.0
848.0	841.0	835.0	833.0	836.0	842.0	844.0
845.0	843.0	849.0	846.0	849.0	851.0	850.0
849.0	853.0	866.0	860.0	854.0	859.0	846.0
852.0	852.0	877.0	858.0	841.0	840.0	844.0
851.0	848.0	837.0	838.0	833.0	837.0	845.0
837.0	830.0	831.0	832.0	829.0	858.0	866.0
847.0	835.0	831.0	819.0	814.0	817.0	831.0
830.0	823.0	833.0	838.0	836.0	819.0	824.0
840.0	852.0	844.0	849.0	946.0	885.0	847.0
842.0	845.0	844.0	841.0	834.0	844.0	879.0
851.0	851.0	842.0	842.0	826.0	750.0	

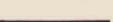
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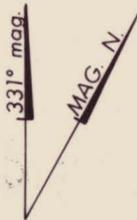
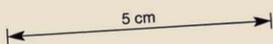
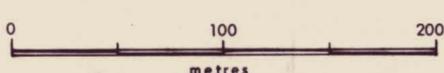
TOWER HILL MAGNETIC SURVEY W GRID 900E 1100-700N

1.83	220					
817.0	829.0	817.0	818.0	824.0	829.0	839.0
826.0	830.0	843.0	819.0	836.0	843.0	827.0
817.0	852.0	846.0	854.0	828.0	854.0	836.0
899.0	843.0	932.0	766.0	843.0	783.0	835.0
858.0	856.0	838.0	870.0	860.0	847.0	844.0
845.0	812.0	829.0	845.0	871.0	830.0	815.0
822.0	806.0	836.0	824.0	849.0	842.0	838.0
858.0	864.0	843.0	794.0	838.0	845.0	831.0
847.0	869.0	872.0	812.0	797.0	804.0	807.0
819.0	831.0	804.0	860.0	864.0	867.0	800.0
902.0	967.0	998.0	931.0	828.0	795.0	786.0
793.0	812.0	820.0	794.0	798.0	805.0	798.0
809.0	832.0	835.0	839.0	832.0	839.0	831.0
837.0	852.0	806.0	832.0	824.0	818.0	798.0
805.0	821.0	803.0	801.0	832.0	840.0	843.0
840.0	835.0	849.0	817.0	843.0	832.0	842.0
827.0	816.0	826.0	832.0	803.0	804.0	828.0
802.0	831.0	830.0	851.0	824.0	845.0	827.0
829.0	839.0	845.0	829.0	857.0	841.0	861.0
864.0	862.0	815.0	825.0	835.0	832.0	845.0
842.0	850.0	825.0	815.0	750.0	841.0	861.0
835.0	832.0	826.0	813.0	825.0	803.0	811.0
871.0	889.0	827.0	843.0	851.0	876.0	867.0
857.0	842.0	875.0	858.0	827.0	844.0	818.0
827.0	832.0	828.0	833.0	858.0	869.0	858.0
832.0	843.0	841.0	834.0	855.0	847.0	813.0
811.0	814.0	809.0	827.0	817.0	790.0	801.0
811.0	817.0	807.0	803.0	802.0	825.0	831.0
801.0	824.0	790.0	795.0	789.0	820.0	810.0
818.0	822.0	810.0	812.0	816.0	817.0	822.0
840.0	812.0	817.0	816.0	814.0	819.0	826.0
826.0	803.0	795.0				



KEY

-  Sandstone body
-  Photo linear
-  Primary cleavage dip & strike
-  Main workings
-  10 ppm As
-  20 ppb Au
-  61820nT magnetics



89-3052

PEGASUS GOLD AUSTRALIA LTD

EL 55/83 - TOWER HILL PROSPECT,
TASMANIA

PROSPECTIVITY MAP

NOV. 1989

PLAN 6.

KM/TKD