C R A EXPLORATION PTY. LIMITED

EL 3537 GOSSE RIVER

ANNUAL REPORT

PERIOD ENDING 13 JUNE 1984

Submitted by: B.E. HARVEY

Accepted by : W.H. JOHNSTON

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CRAE - Canberra
CRAE - Darwin

Map reference:
Tennant Creek SE53-14

Report No:12652

CONTENTS

1. SUMMARY

CRA Exploration Pty Ltd (CRAE) are exploring for Tennant Creek type ironstone - hosted gold deposits within EL 3537, Gosse River. A low-level (80m) aeromagnetic survey was flown to identify magnetic responses similar to those occurring over known gold-bearing ironstone bodies on the Tennant Creek Goldfield. Two responses were identified as targets for ground follow-up. These were located on the ground, in areas of total sand cover and detailed ground magnetic surveys were carried out. The two responses have been modelled as due to shallow bodies, 20-200m deep. Drill targets have been selected accordingly.

2. INTRODUCTION

Following recommendations by G.P. Jenke the Gosse River area was selected as prospective for Tennant Creek ironstone gold deposits. The centre of the Tennant Creek Goldfield lies 70km along regional geological trend to the NW. Detailed low-level aeromagnetic survey was selected as the most cost effective exploration technique in this area of near complete sand cover. The aeromagnetic survey was flown in December, 1983.

The area was reduced to 74 blocks on 2 May 1984.

3. CONCLUSIONS

Two magnetic responses occurring in areas of extensive sand cover are similar to responses developed over gold-bearing ironstones on the Tennant Creek Goldfield. The features causing the responses are likely to be shallow, of the order 20m to 200m to the top of the centre of the bodies.

4. GEOLOGY

The potential for gold-bearing ironstones within the Gosse River area is, in part, based on the proximity to known gold deposits within the Tennant Creek Goldfield. Known gold deposits at Tennant Creek are hosted in unique quartz hematite/magnetite bodies of a generally discordant nature within a volcanogenic turbidite sequence of Lower Proterozoic age; the Warramunga Group. Auriferous Warramunga exposure is restricted to an area elongate by 100km parallel to NW-SE structural trends. Some of these regional structural trends, notably prominent quartz reefs marking major faults, pass SE through the Gosse River area. Exposure within the Gosse River area is restricted to these rare quartz reefs trending NW-SE and also NE-SW. The remaining area within the EL, over 99%, is under shallow sand cover. Warramunga sediments have been mapped by the BMR as isolated outcrops on the western margin of the EL.

Interpretation of regional magnetics suggests granite may be prominent beneath cover within part of the EL. Several NW and NE trending regional magnetic dislocations suggest Warramunga basin sediments and granites persist beneath cover.

5. AEROMAGNETIC SURVEY

Aeromagnetics was selected as the most cost effective way of selecting exploration targets beneath cover within the Gosse River Area. On the Tennant Creek Goldfield itself magnetic techniques have been directly, or indirectly, responsible for the discovery of seven moderately sized gold-copper orebodies.

A contract to fly aeromagnetics over Gosse River was let to EG & G Geometrics in November, 1983, and the survey was flown in December, 1983.

The aircraft used was a Britten Norman Islander. Flight lines were flown at 300 metre intervals in 000-180° true directions; tie lines were flown at 3000m intervals in 090-270° true directions. Mean terrain clearence was maintained at 80m. Navigation was by visual means with assistance from a Doppler navigation system (Singer GPK-1000 Radar Doppler); a Sperry Gyro stabilised compass and TNC-50 Navigation Computer. Flight lines were recorded on a Geocam 35mm Tracking Camera and later transferred to 1:25 000 aerial photography. Terrain clearence was continously recorded using a Sperry AA-210 Radar Altimeter.

The magnetometer system comprised a Geometrics Airborne Proton Magnetometer G-813 interfaced to a Geometrics Model G-714 geophysical data formatting/recording unit. Data were stored on a 9 track magnetic tape for subsequent computor processing. A Geometrics Recording Base Station Model G-866 with an analog recorder was used as a diurnal monitor and run continously during the survey periods.

Two lines, lines 22 and 53, were re-flown because of exceeding line spacing specifications and exceeding diurnal specifications respectively.

Data are presented as flight lines, line profile and contoured plots on Plans NTd 3439 through to NTd 3450, NTd 3496 through to NTd 3501. Interpretation of contoured data suggests structural dislocations and two discrete dipolar magnetic anomalies reminiscent of Tennant Creek type ironstone features. These interpretations are presented on Plan NTd 3519.

6. GROUND MAGNETIC FOLLOW-UP

Two dipolar aeromagnetic features were selected for first pass detailed investigation. (see Plan NTd 3519). The features were located on the ground with the assistance of flight line photography. Once located, grids were established over the features and a detailed ground magnetic survey was carried out. The grids were established on magnetic bearings and by back-sighting using Toyota odometer to measure distances. The base lines were marked by star pickets at 100m intervals; traverses were marked by 1m wooden pegs.

The ground magnetic surveys were carried out over four days and run in loops to allow diurnal corrections to be made. The instruments used were Scintrex MP-2 magnetometers. Data were hand recorded and transferred to computer tape at a later data. All profiling, contouring and modelling of data was carried out on a Tektronix 4052 computer.

Ground magnetic profiles are presented in Appendix 1. Contoured data are presented in Plans NTd 3520 and NTd 3521. Description of anomalies and modelled magnetic bodies are presented below.

6.1. Anomaly GR1

The anomaly as surveyed on the ground occurs as a complex of four dipoles clustered on an E-W trend. As a group the dipoles appear to be due to sources shallowing to the west and plunging to the SE. A single complex magnetic body could be the source, or a cluster of magnetic bodies.

Preliminary modelling of the western dipole (GR1a) indicates it is due to a shallow body at 20-40m to top of centre. (see Figure 1). Dipoles further east appear to be due to the magnetic body, or bodies, at greater depths but not exceeding 200m to the top.

Detailed appraisal of ground magnetic data will be carried out prior to drill target selection.

6.2. Anomaly GR2

Anomaly GR2 is a single dipole apparently due to a relatively simple magnetic body at 50-100m depth to top and plunging to the SE.

Modelling of the response at its shallowest (western) end, suggests a depth to top of centre of 100m.

Detailed appraisal of ground magnetic data will be carried out prior to drill target selection.

B.E. HARVEY

7. REFERENCES

Jenke, G.P.	1982	Memo W.H. Johnston 18.1.82 Gosse River Magnetics
Mendum, J.R. & Tonkin, P.C.	1972	Tennant Creek 1:250 000 sheet. Geology Sheet SE53-14. 1971 Bur. Min. Resources.

8. KEYWORDS

Airborne, geophys-mag.

Locality Tennant Creek SE53-14

9. LIST OF PLANS

Plan No.	Title	scale
NTa 420	Gosse River EL 3537 Locality Plan	1:250 000
NTd 3439	Gosse River Stacked Magnetic Profiles sheet 1	1: 50 000
NTd 3440	" " " " " sheet 2	"
NTd 3441	" " " " " sheet 3	"
NTd 3442	" " " " " sheet 4	"
NTd 3443	" " " " " sheet 5	"
NTd 3444	" " " " " sheet 6	"
NTd 3445	Gosse River - flight Path Recovery sheet 1	"
NTd 3446	" " " " " sheet 2	"
NTd 3447	" " " " " sheet 3	"
NTd 3448	" " " " " sheet 4	"
NTd 3449	" " " " " sheet 5	"
NTd 3450	" " " " " sheet 6	"
NTd 3496	Gosse River - Total Magnetic Contours sheet 1	"
NTd 3497	" " " " " sheet 2	"
NTd 3498	" " " " " sheet 3	"
NTd 3499	" " " " " sheet 4	"
NTd 3500	" " " " " sheet 5	"
NTd 3501	" " " " " sheet 6	"
NTd 3519	Gosse River Aeromagnetic Contours Interpretations	1:00 000

FIGURES

Fig. One: Gosse River GR1 Line 800mE Ground Mag. Model

Fig. Two: Gosse River Anomaly GR1 Ground Mag. Contours

Fig. Three: Gosse River Anomaly GR2 Ground Mag. Contours

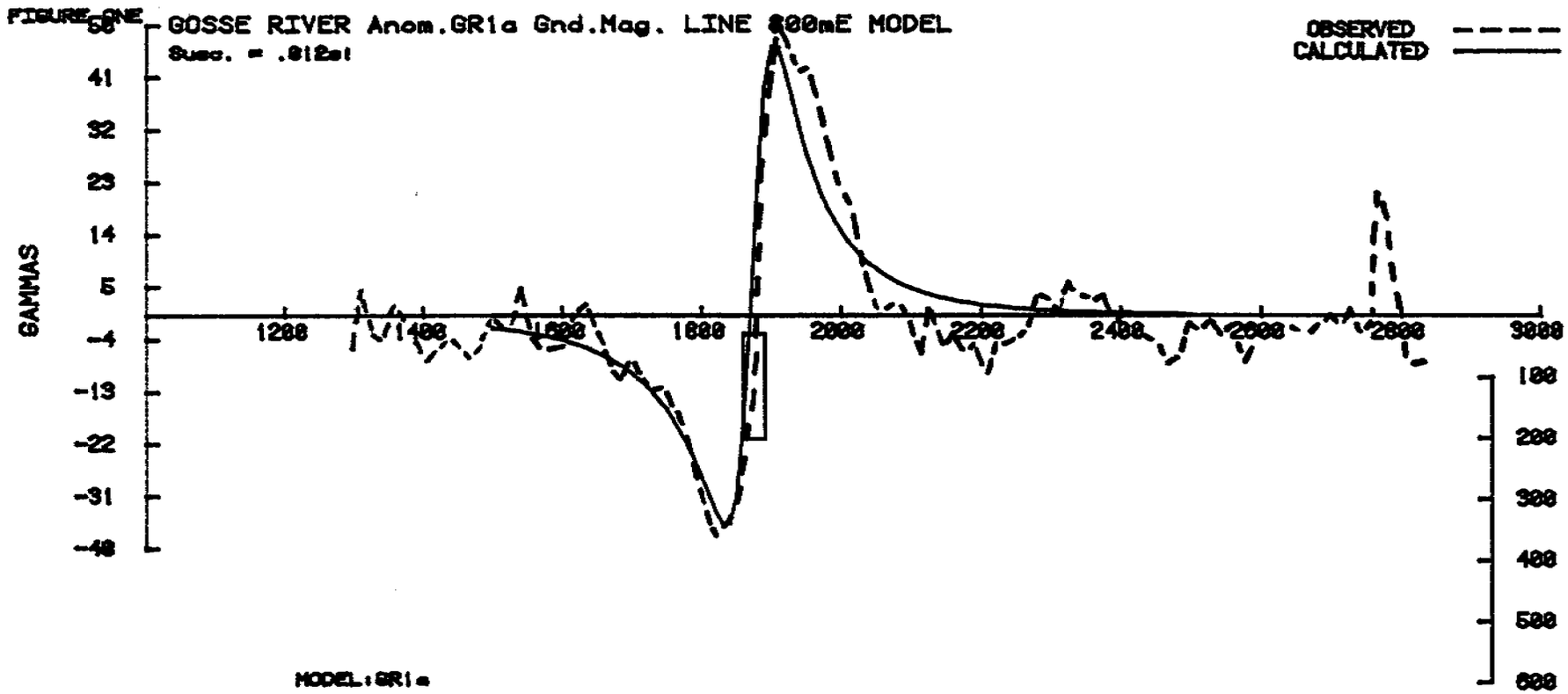


FIGURE ONE
GOSSE RIVER Anom.GR1a Gnd.Mag. LINE 800mE MODEL
Susc. = .012si
OBSERVED
CALCULATED
GAMMAS
50
41
32
23
14
5
-4
-13
-22
-31
-40
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
100
200
300
400
500
600
MODEL:GR1a
Centered at 1675mN
Depth to top of centre = 30m
Dip: vert.
Width: 30m

FIGURE ONE

Mag.N

Scale 1:6000

Contour Interval 10nT

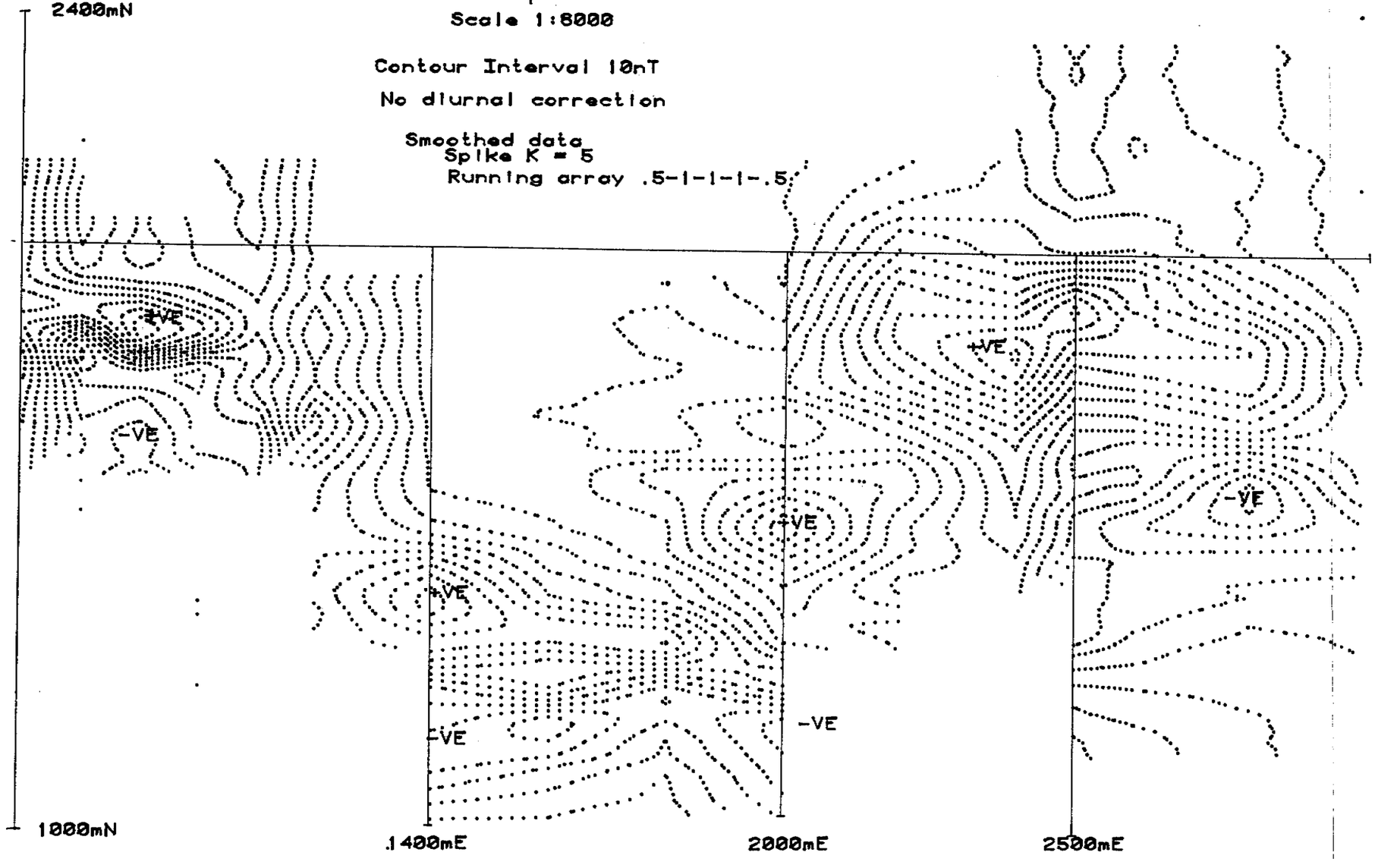
No diurnal correction

Smoothed data
Spike K = 5
Running array .5-1-1-1-.5

FIGURE TWO

GOSSE RIVER ANOMALY GR1

CONTOURED
GROUND MAGNETICS



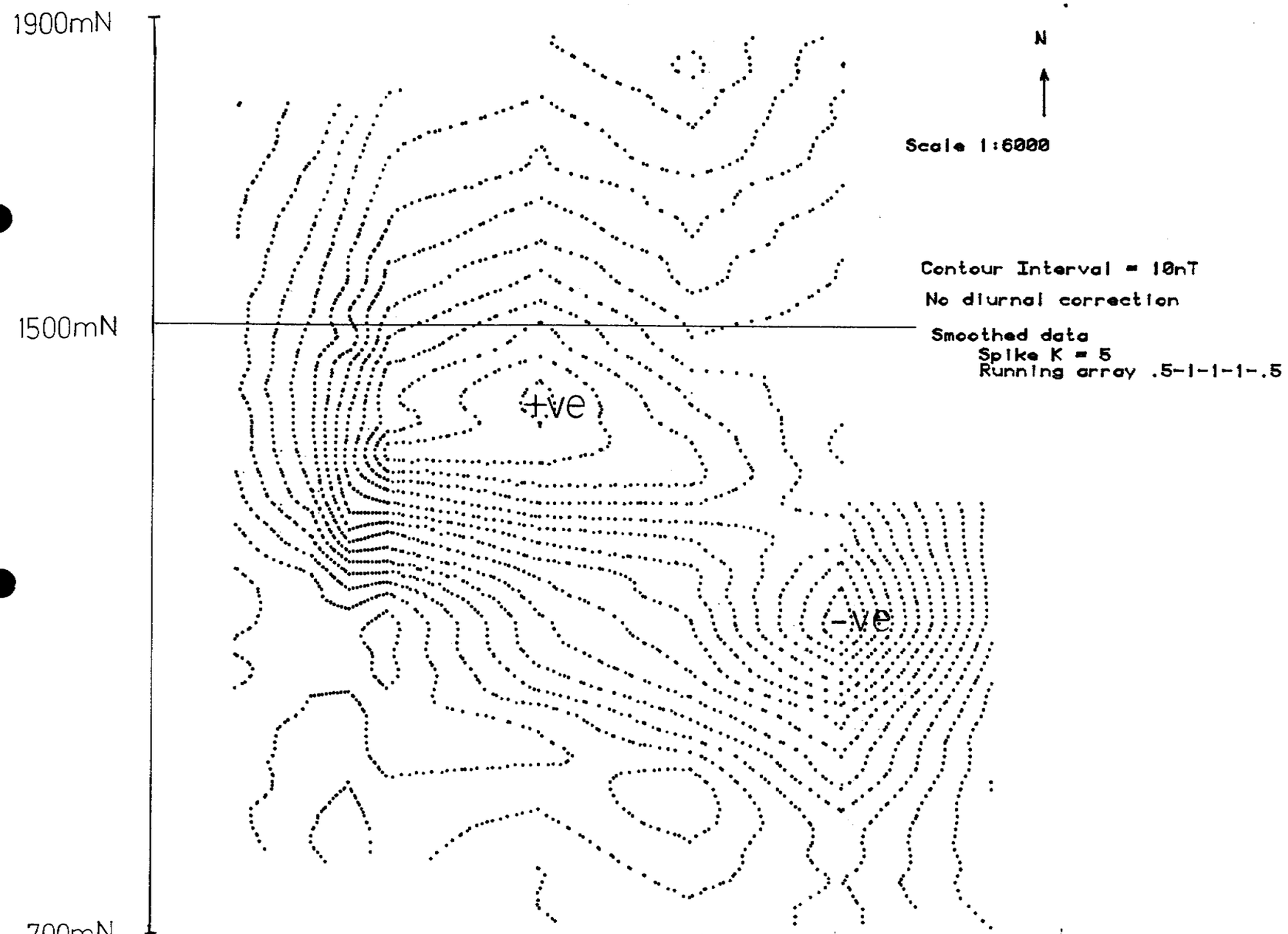


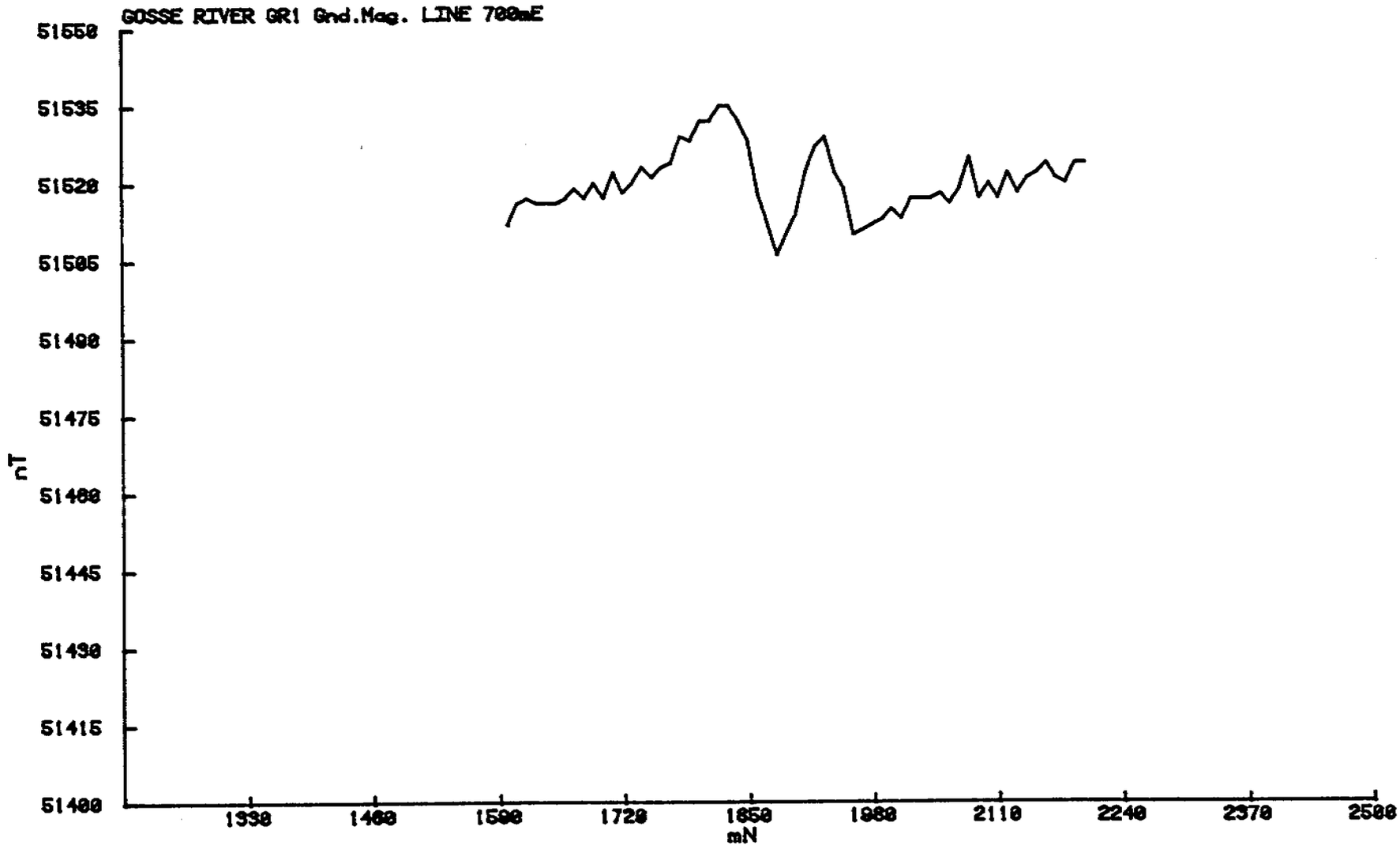
FIGURE THREE

GOSSE RIVER ANOMALY GR2

CONTOURED GROUND MAGNETICS

APPENDIX 1

GROUND MAGNETIC PROFILES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51535
51520
51505
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51475
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nT
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1980
2110
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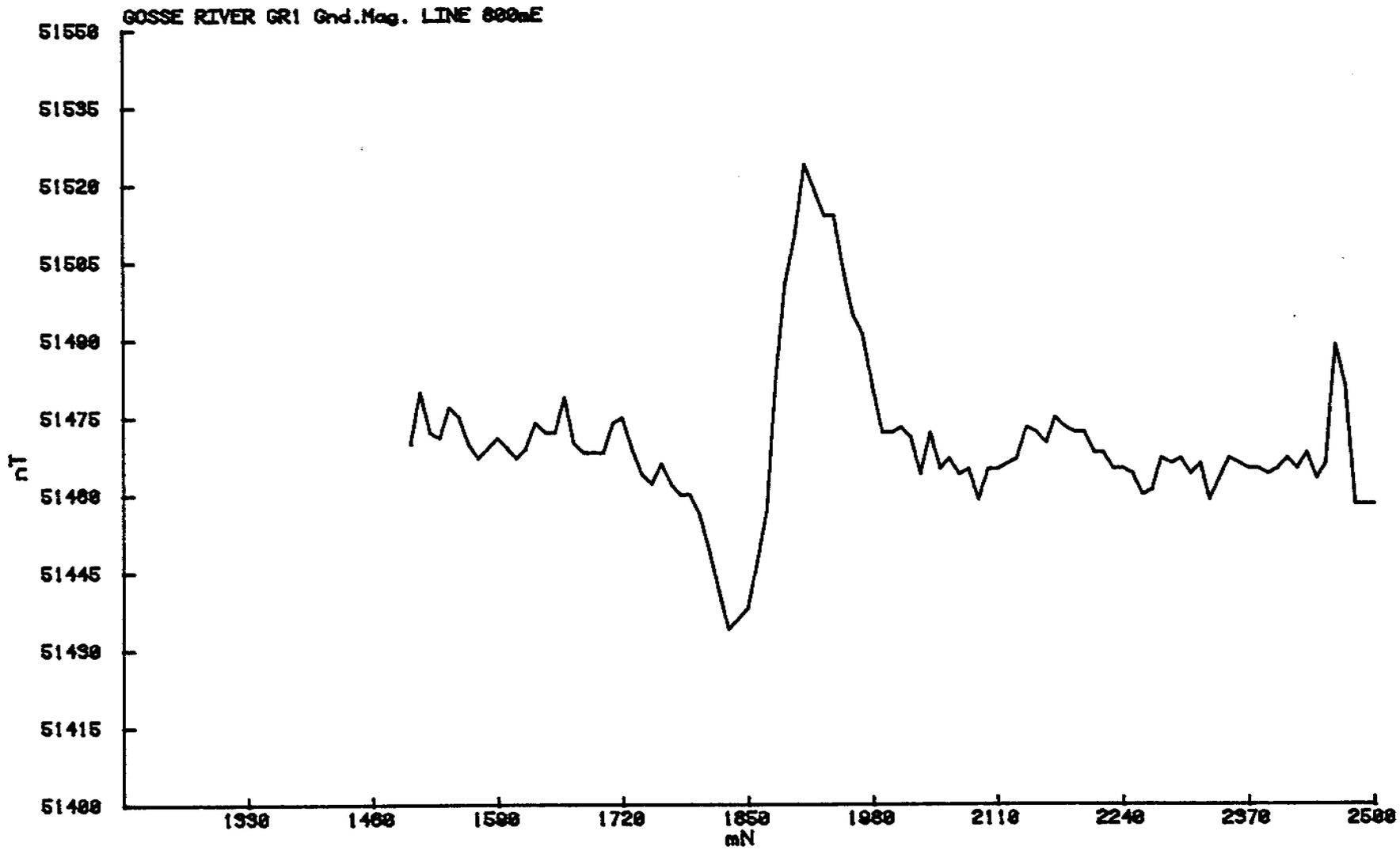
2370
2500
mN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1330
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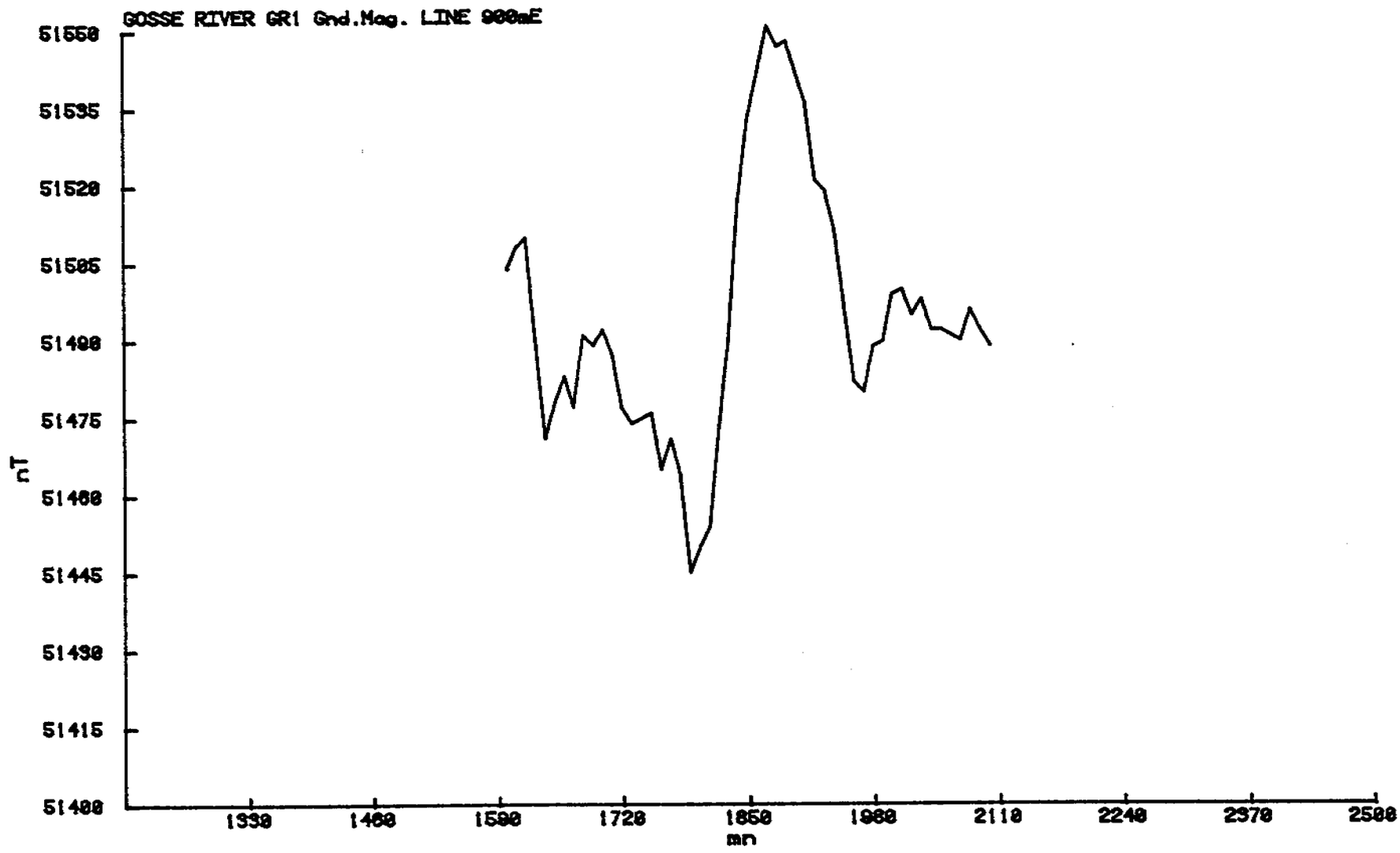
1590
1720
1850
1980
2110
2240
2370
2500
mN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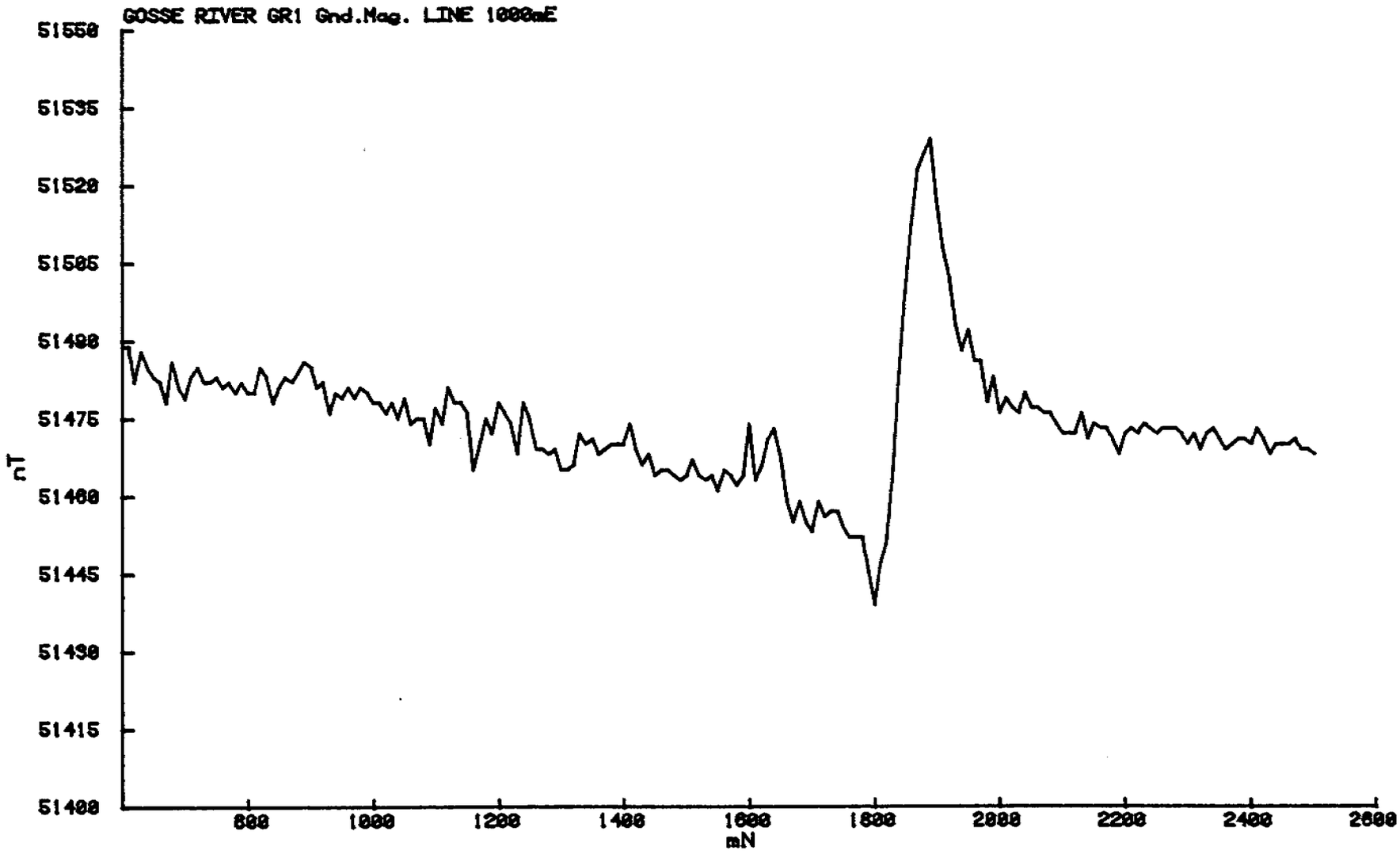
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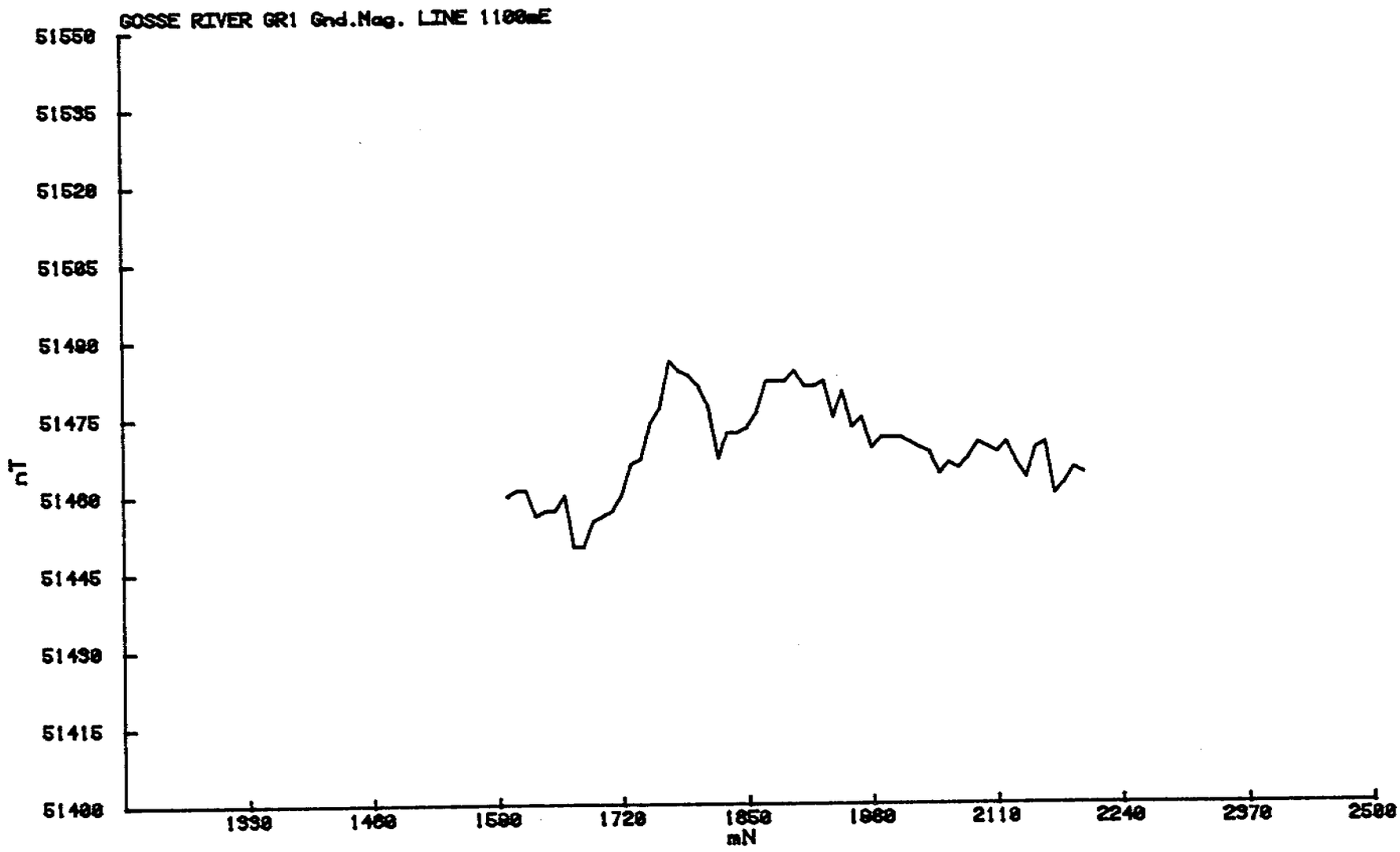
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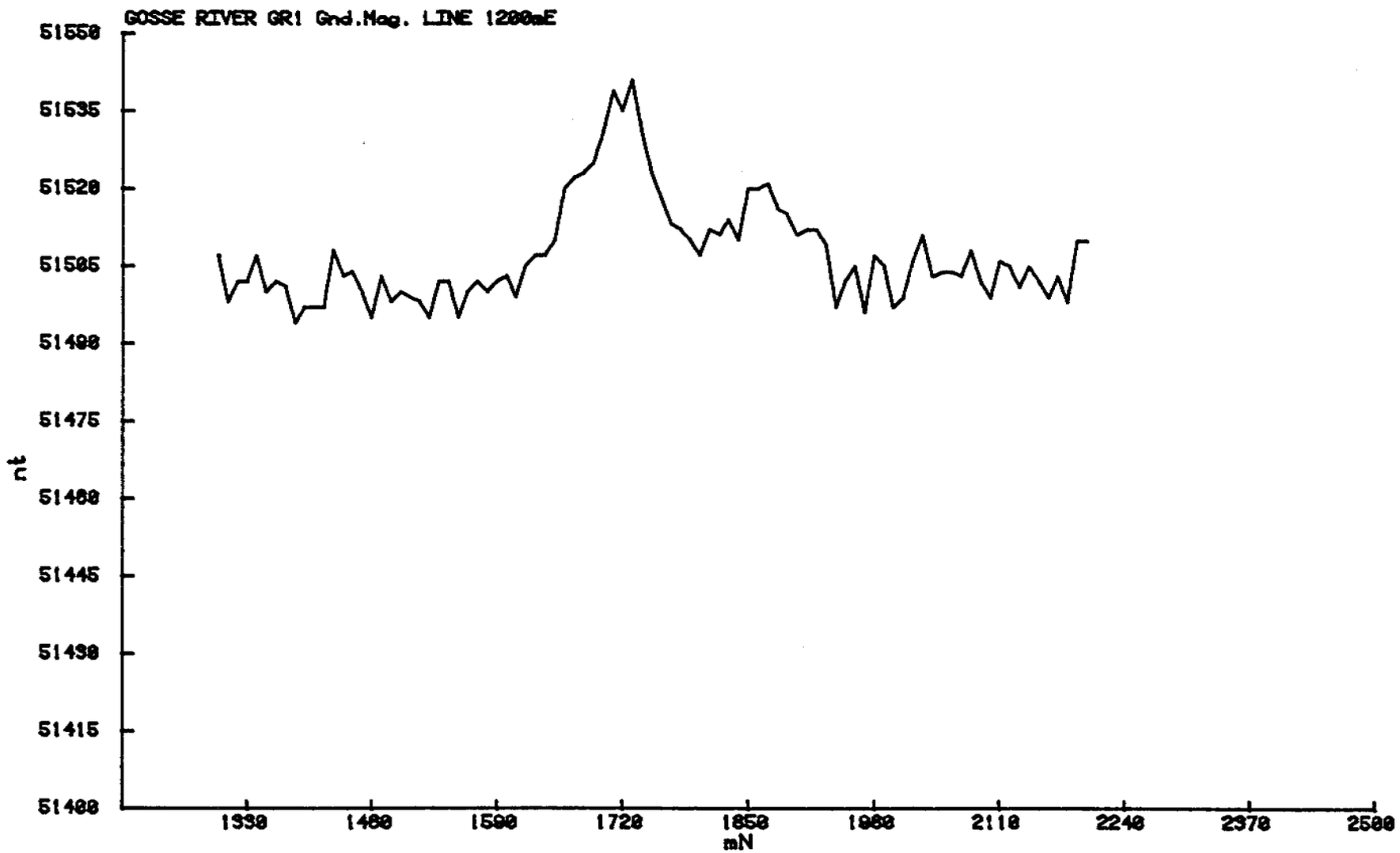
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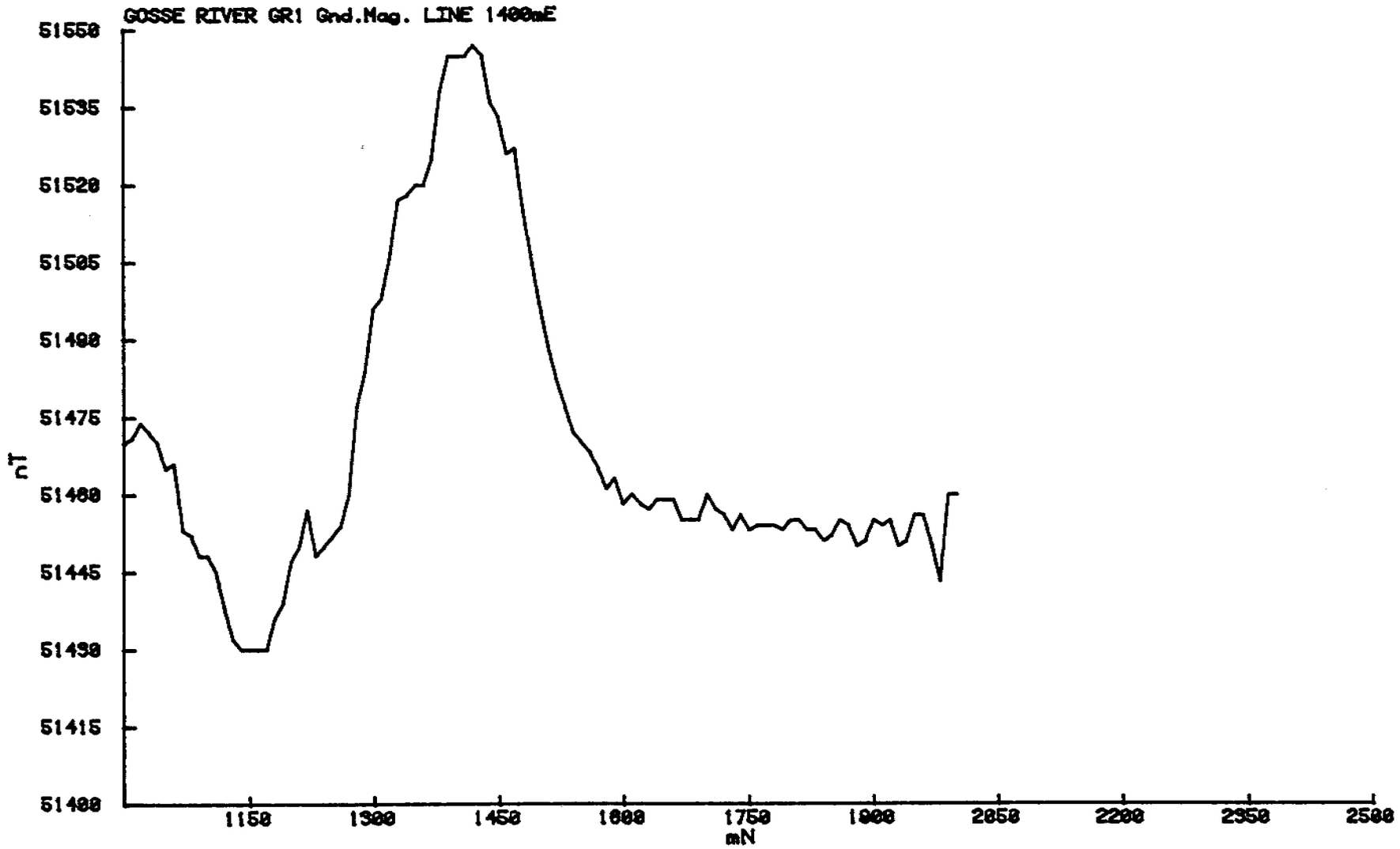
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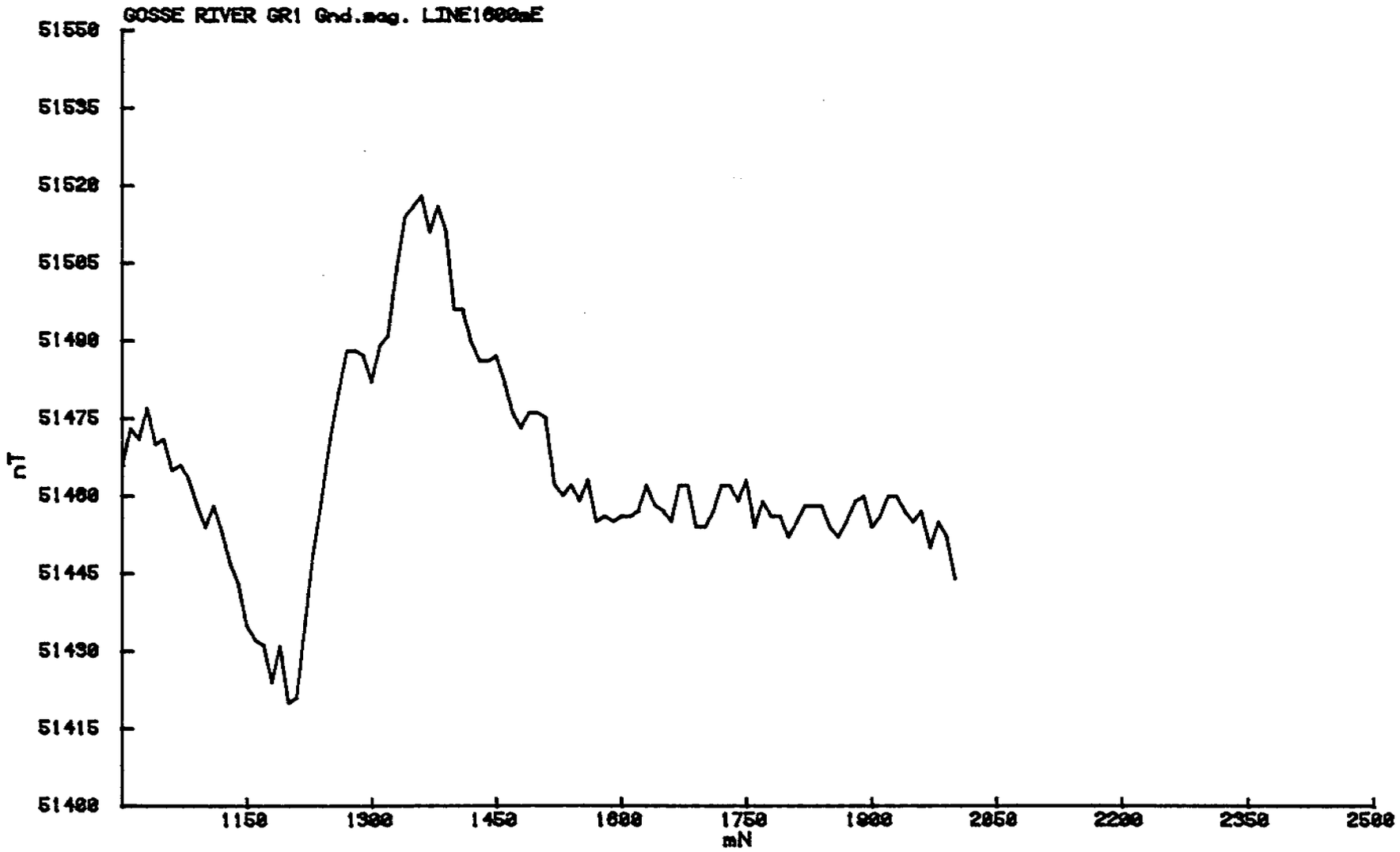
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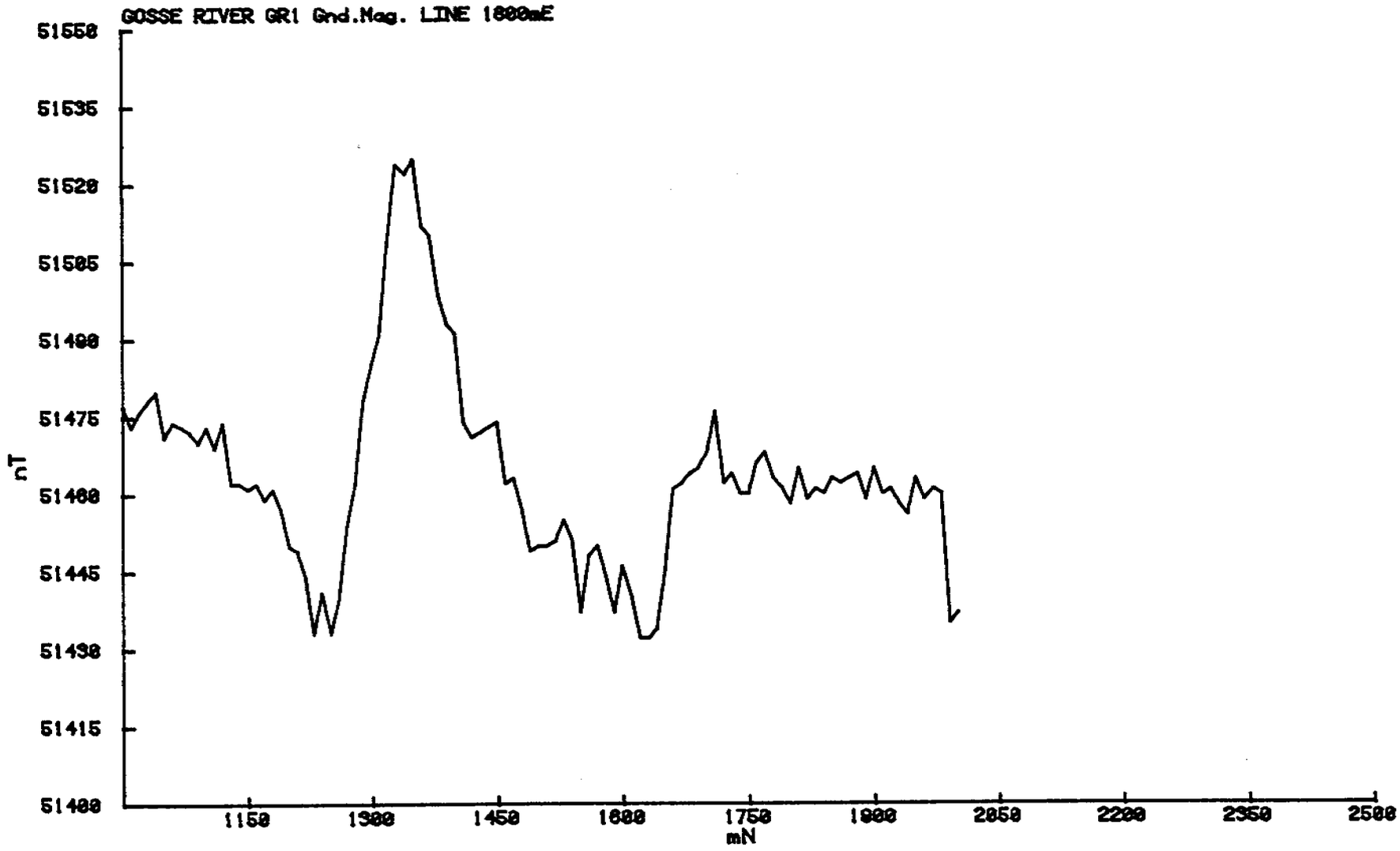
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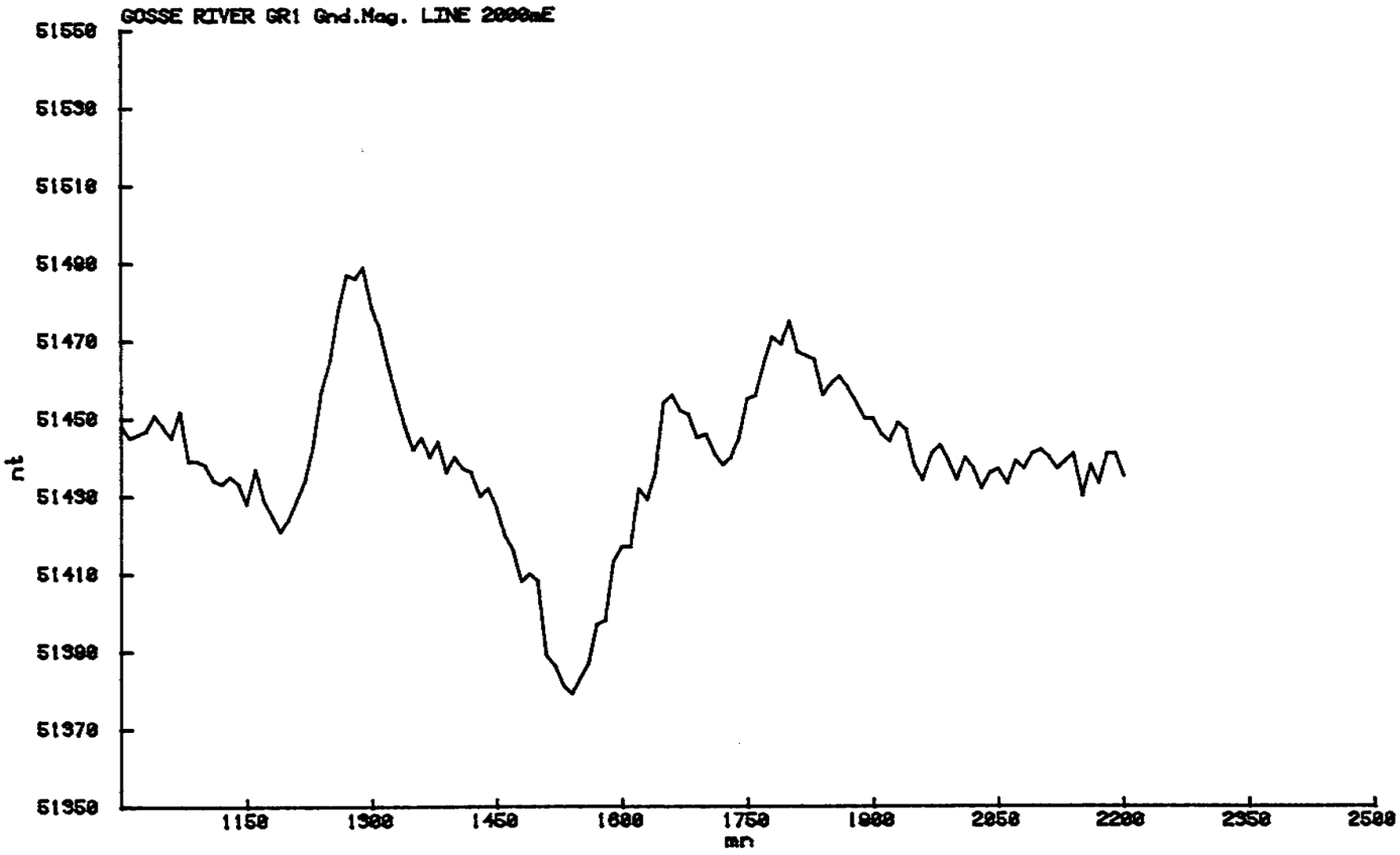
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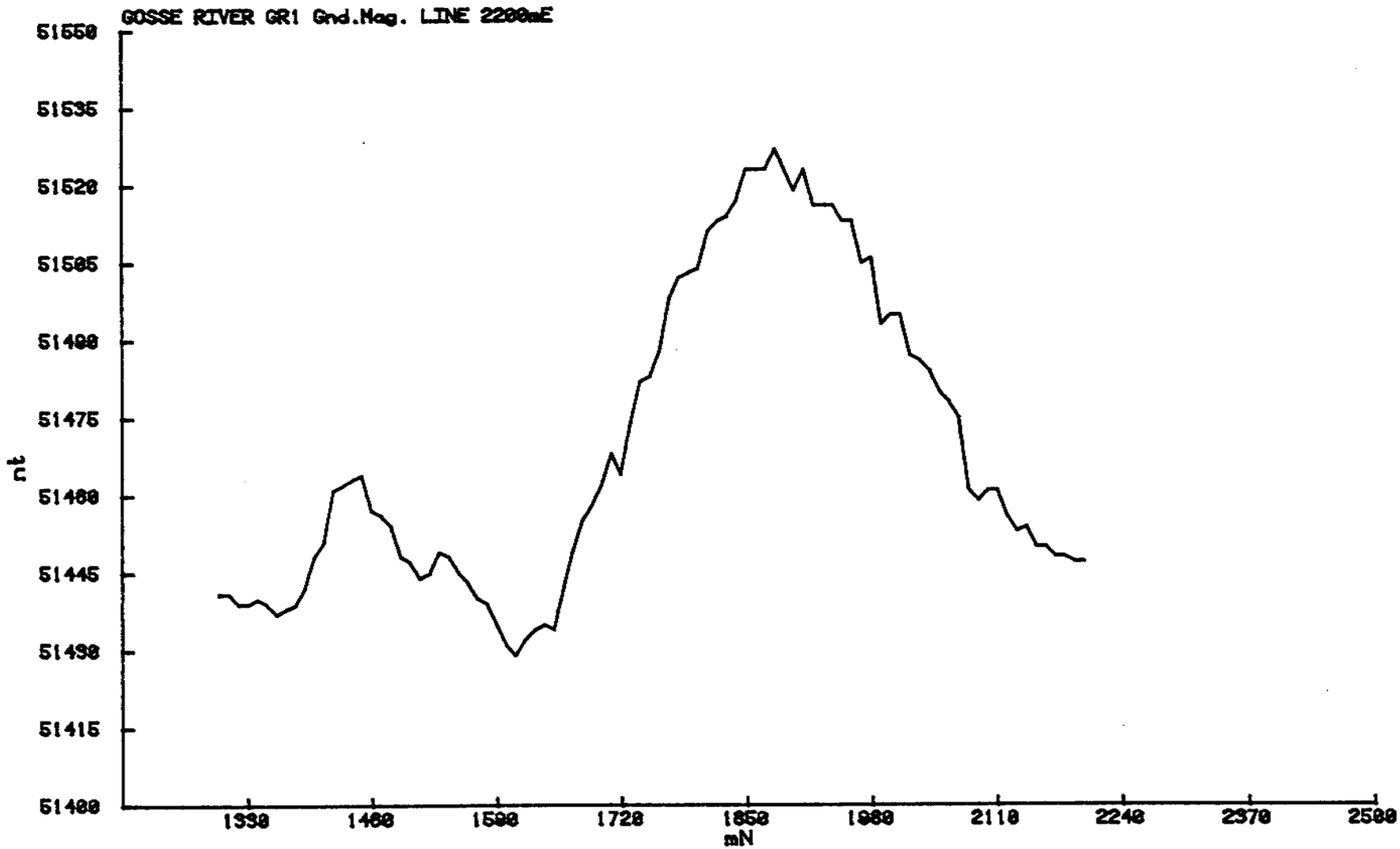
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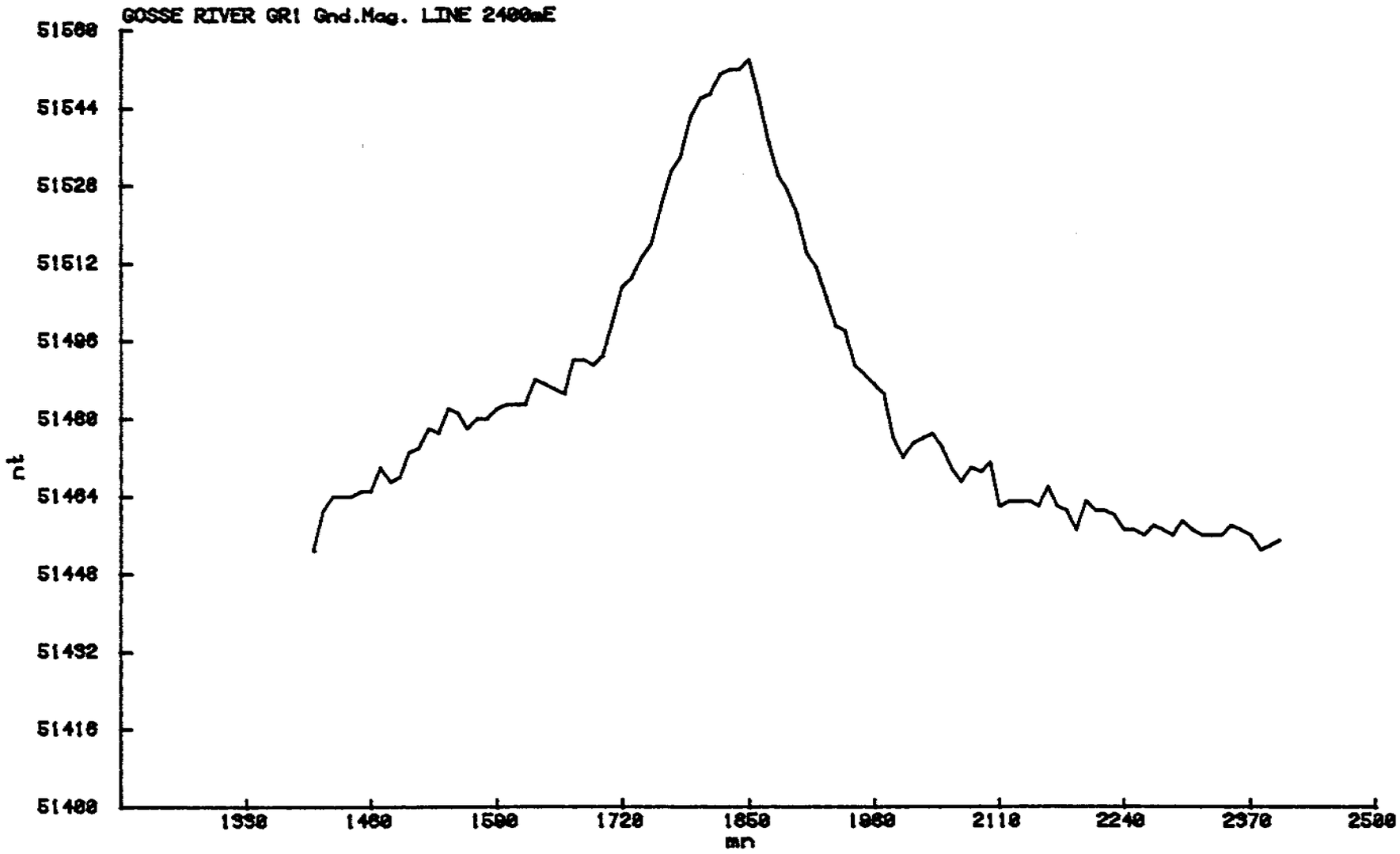
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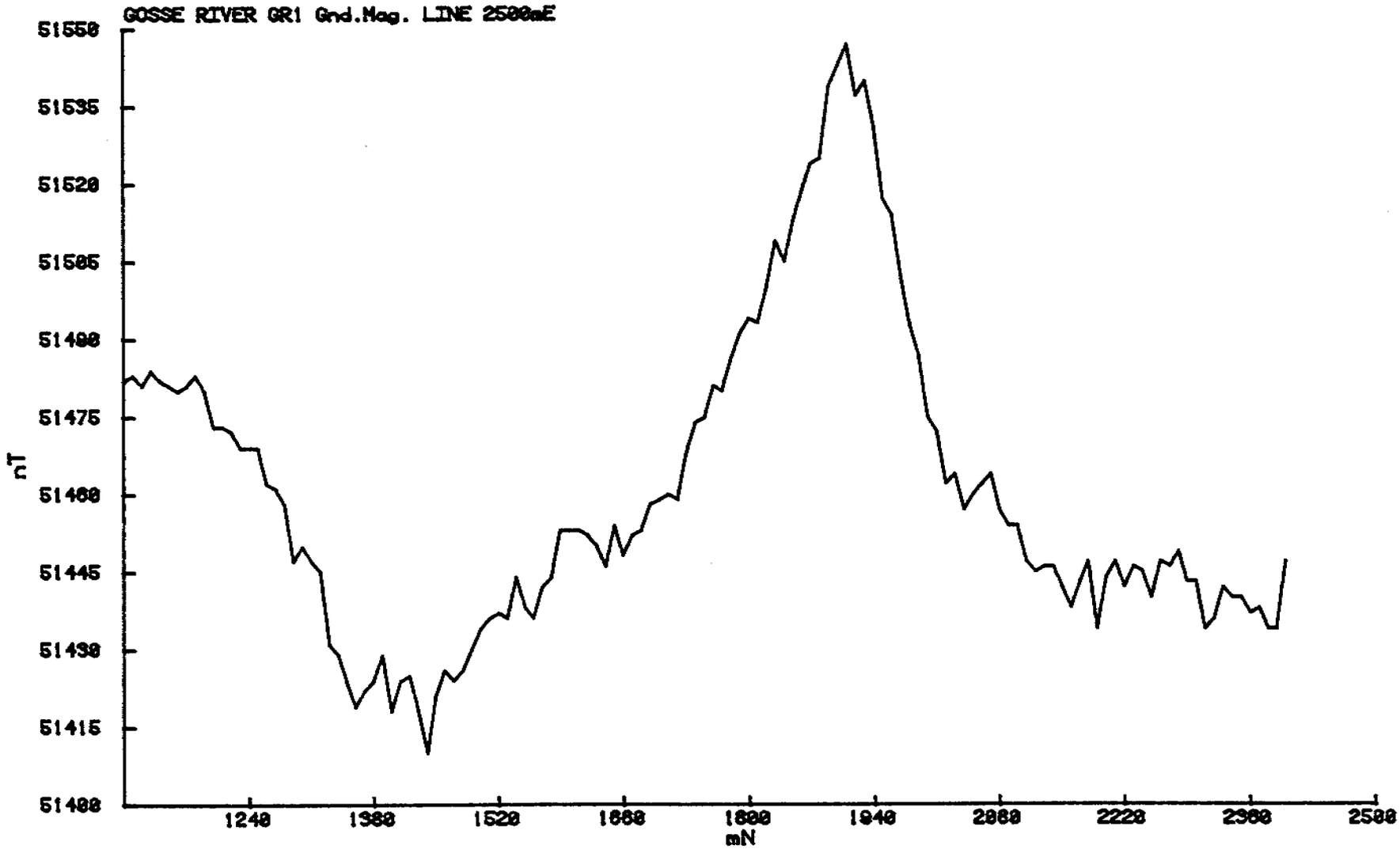
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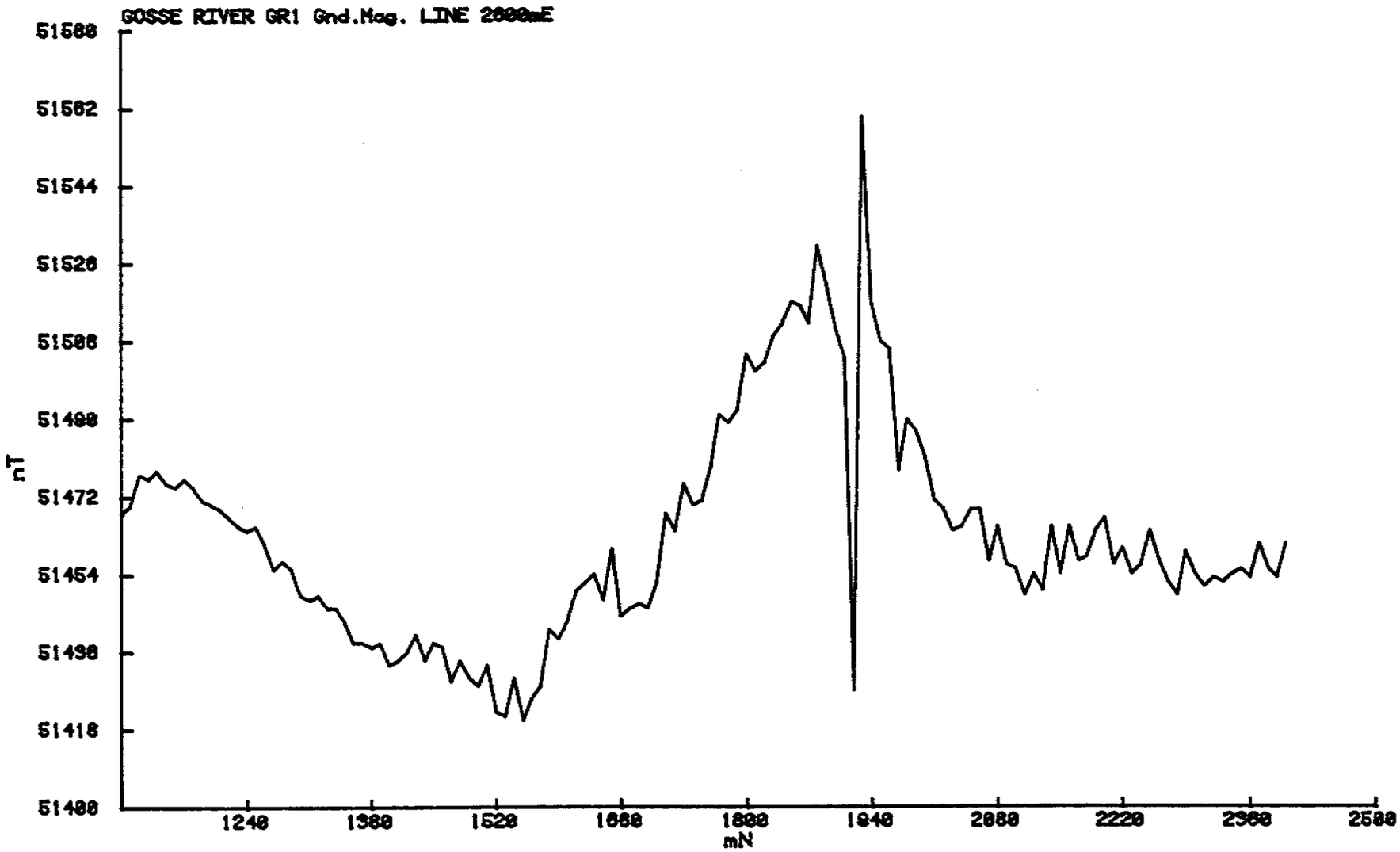
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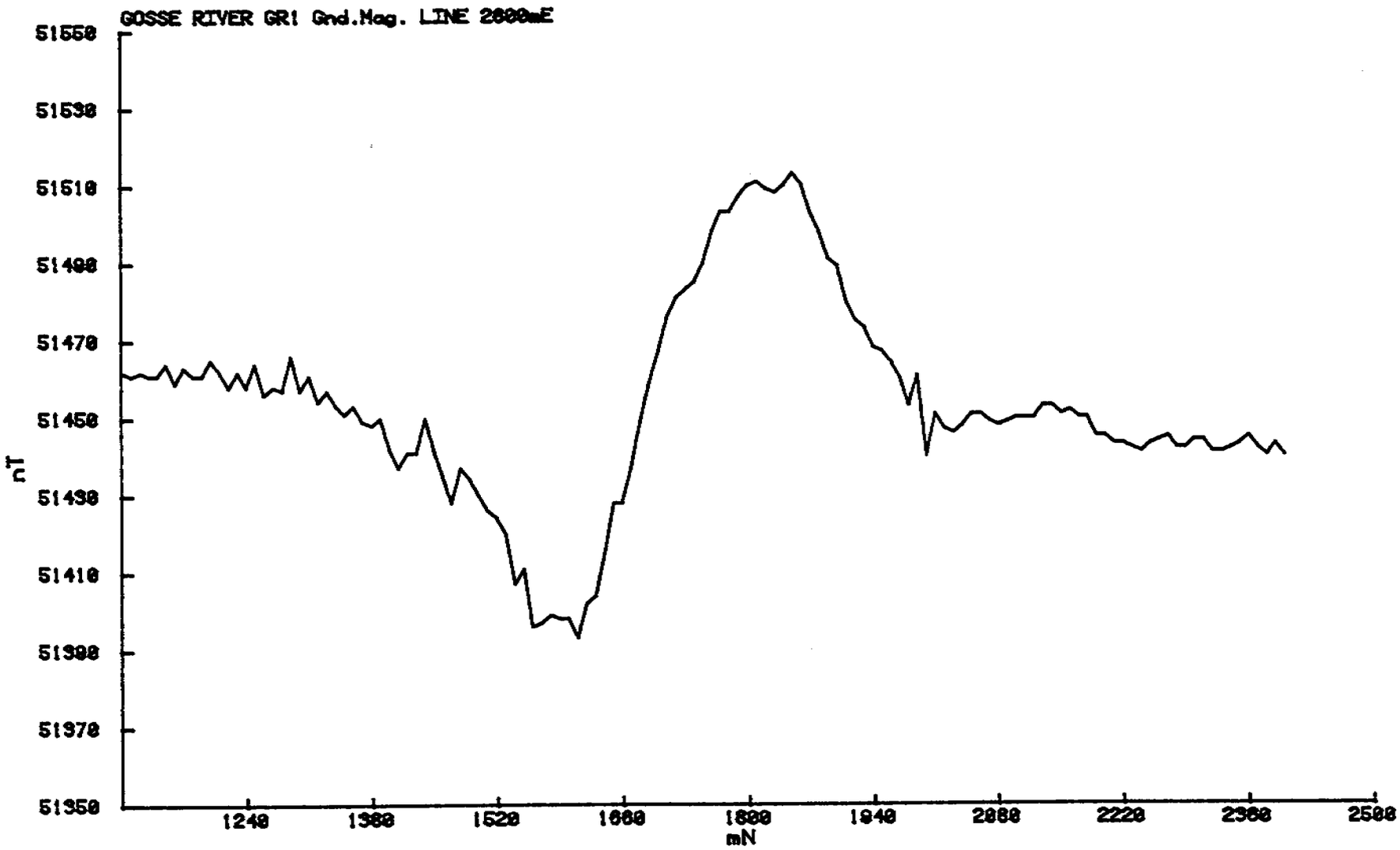
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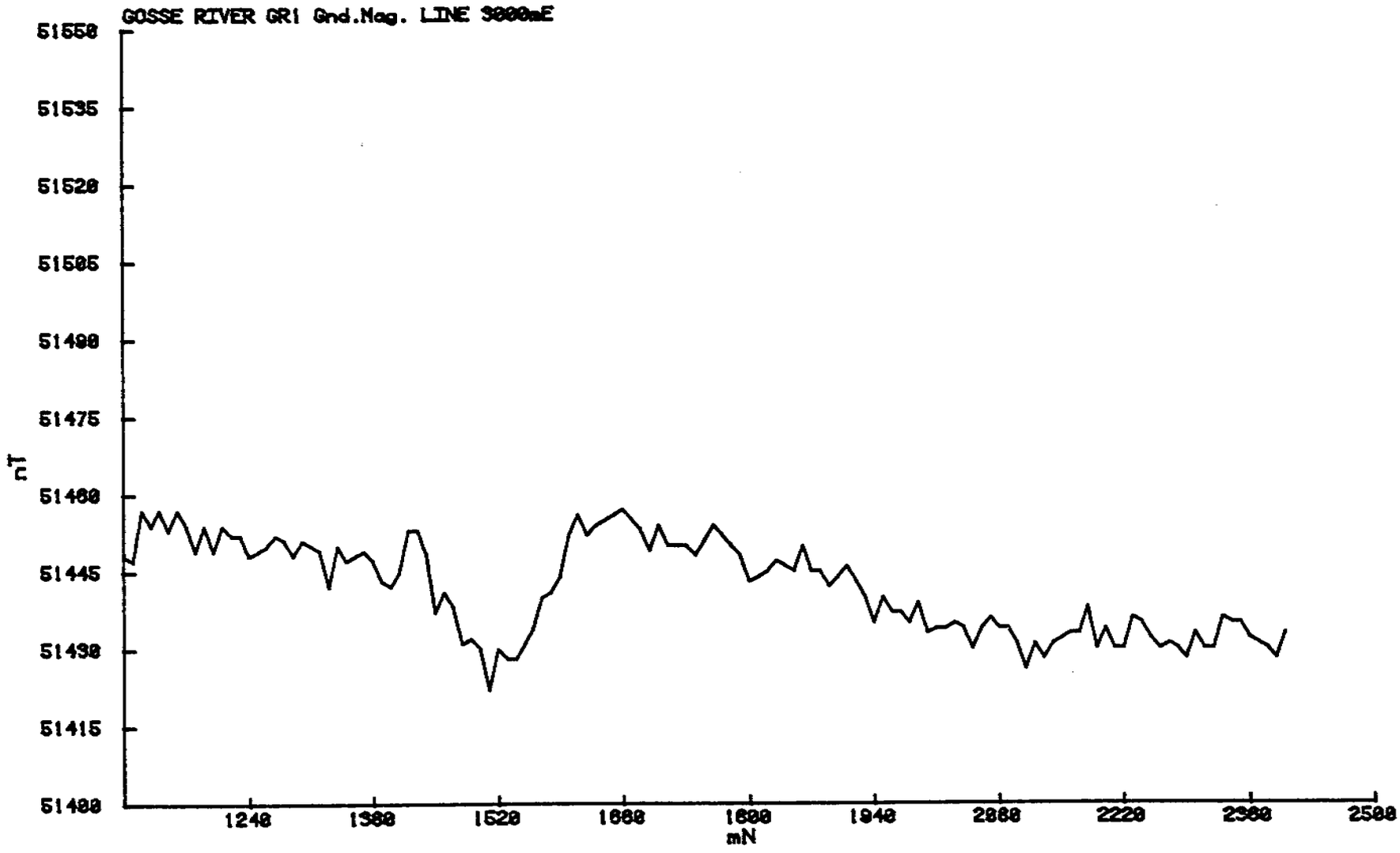
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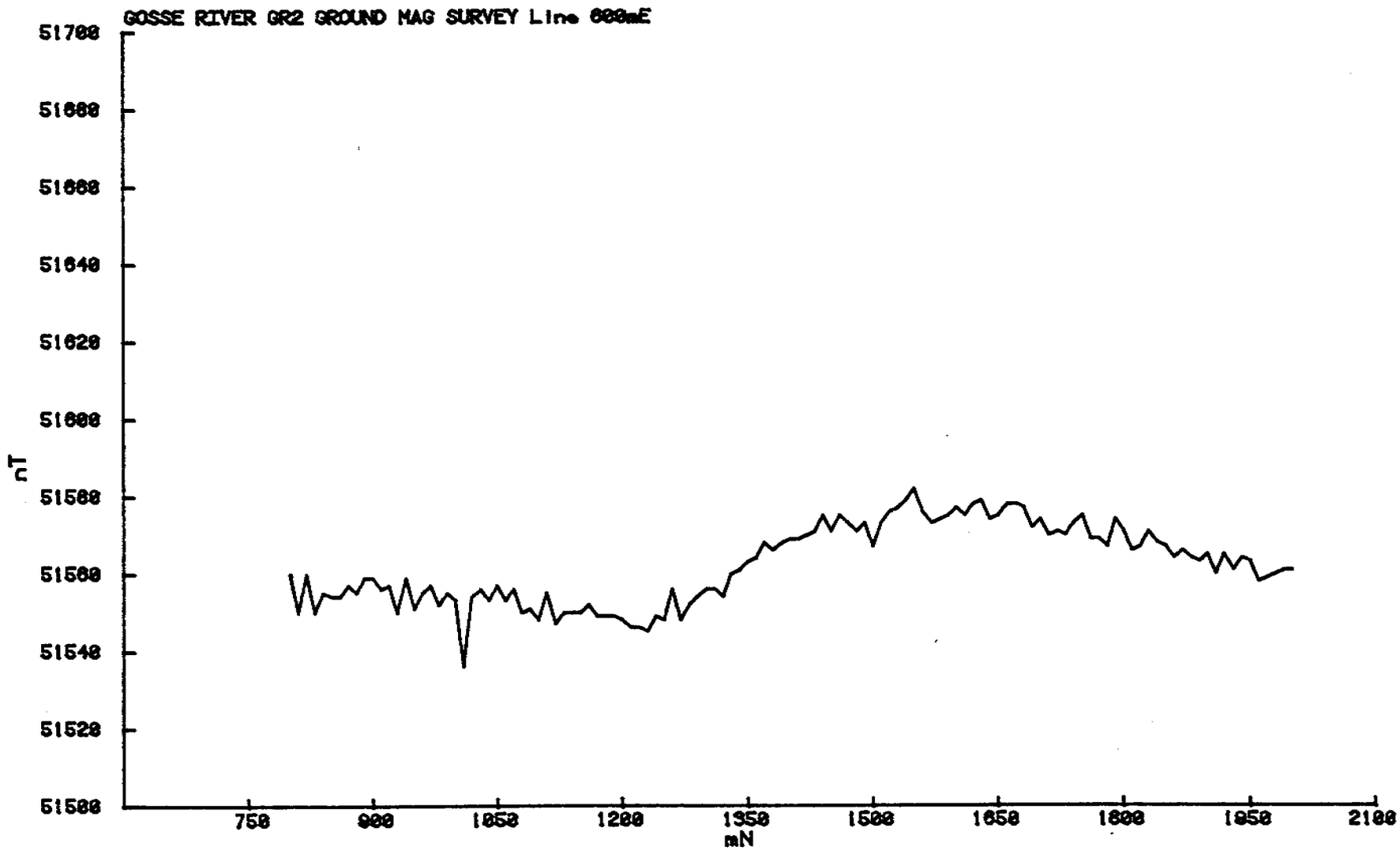
GOSSE RIVER GR2 GROUND MAG SURVEY Line 600mE
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1800
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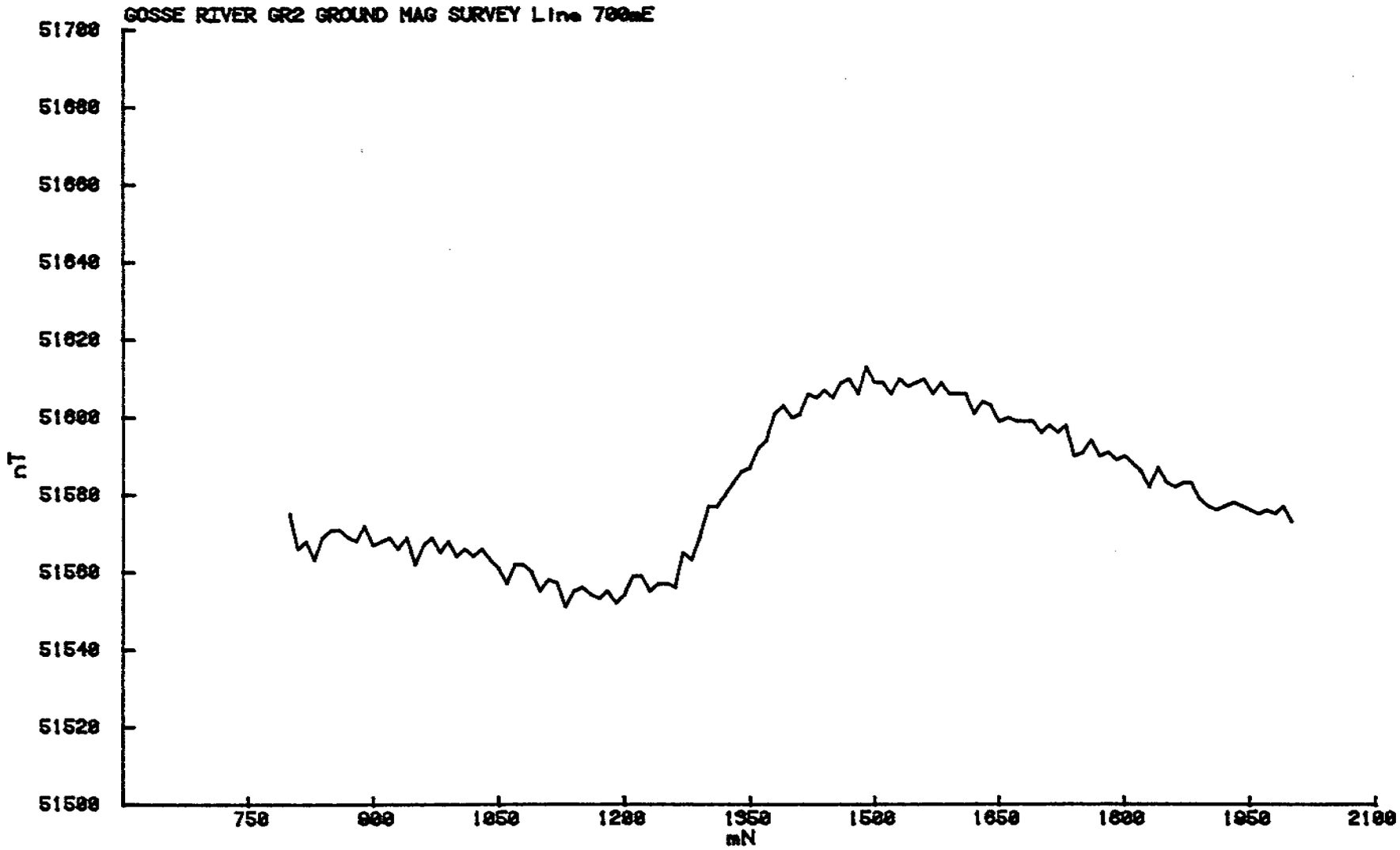
2100
mN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51600
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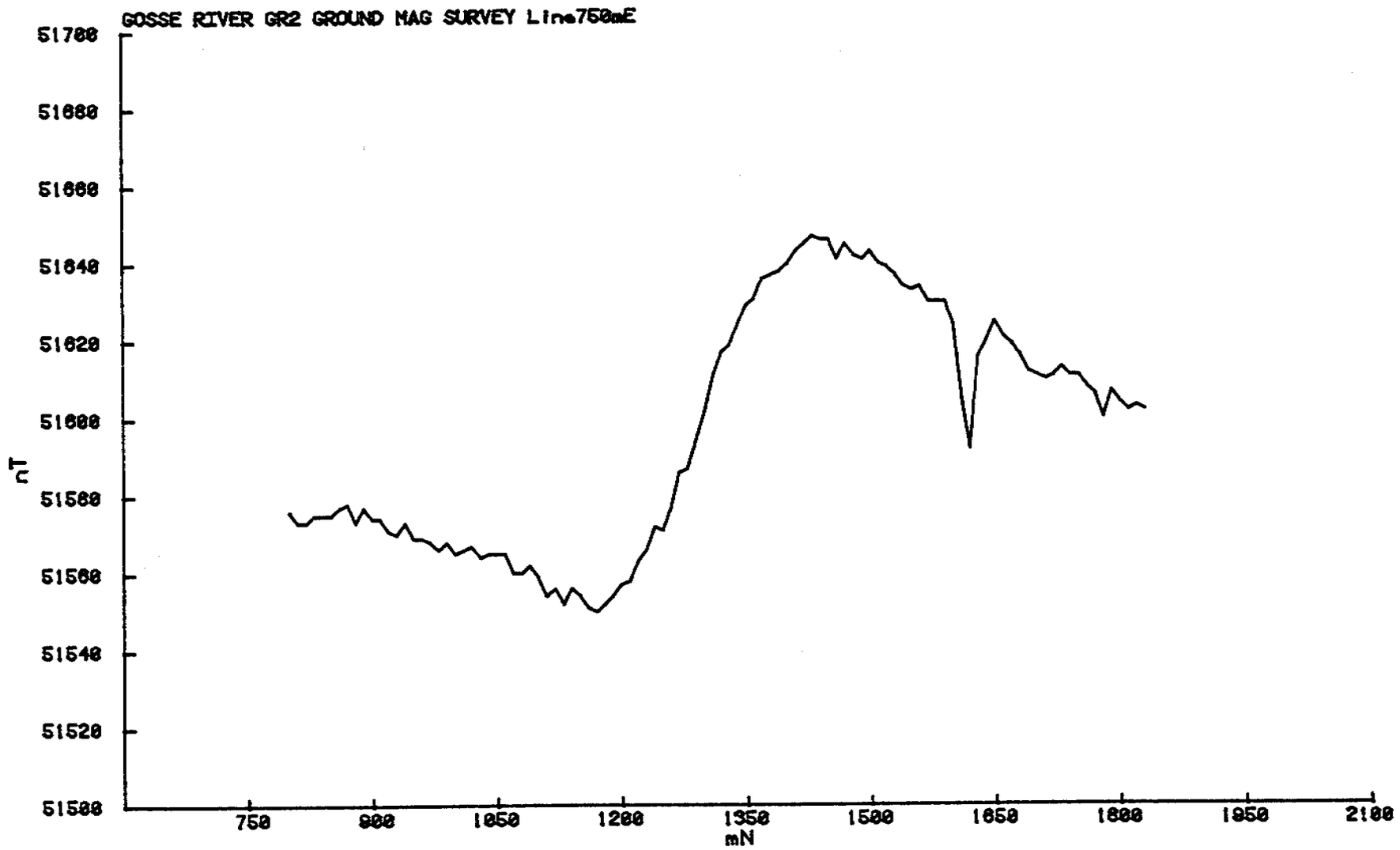
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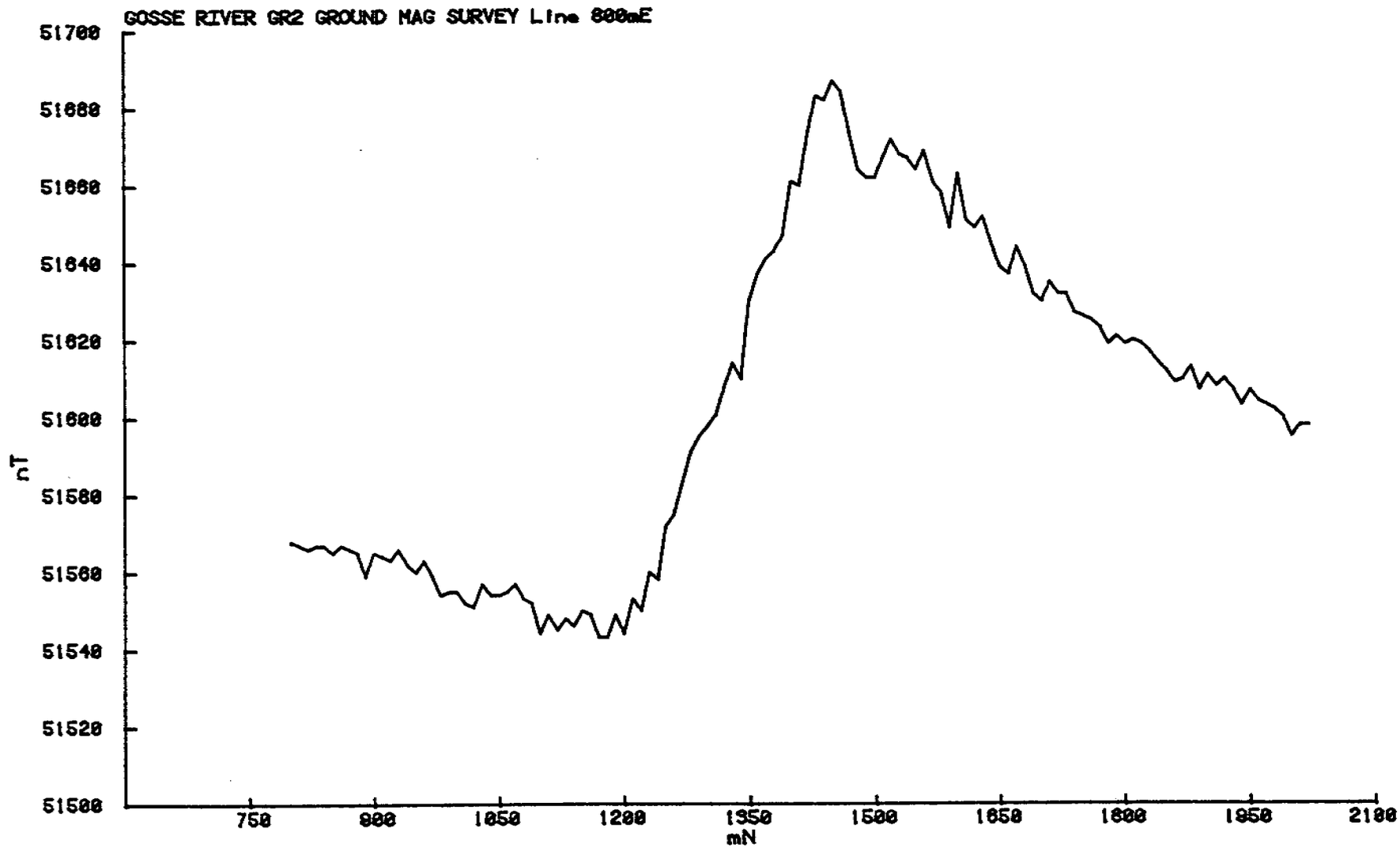
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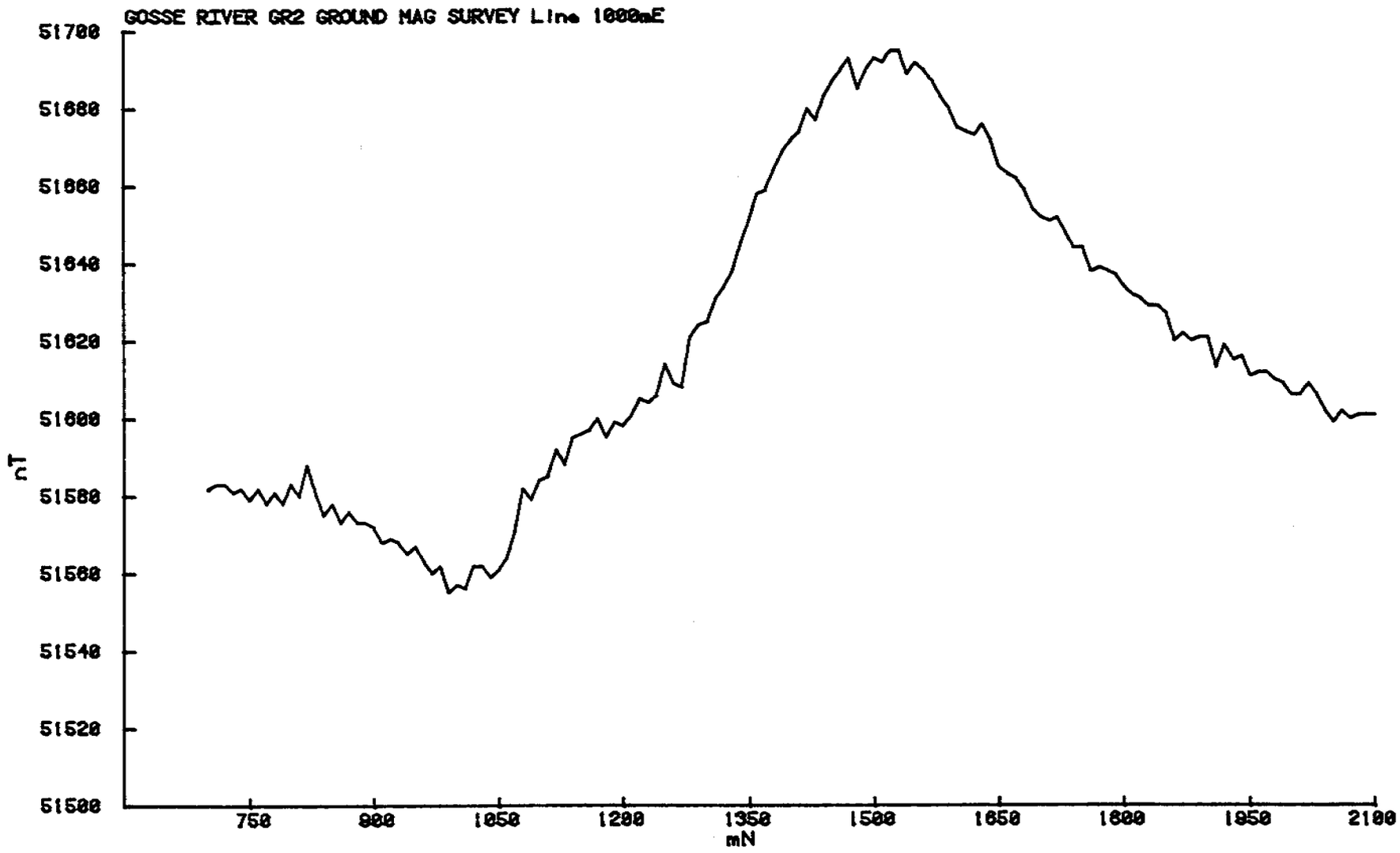
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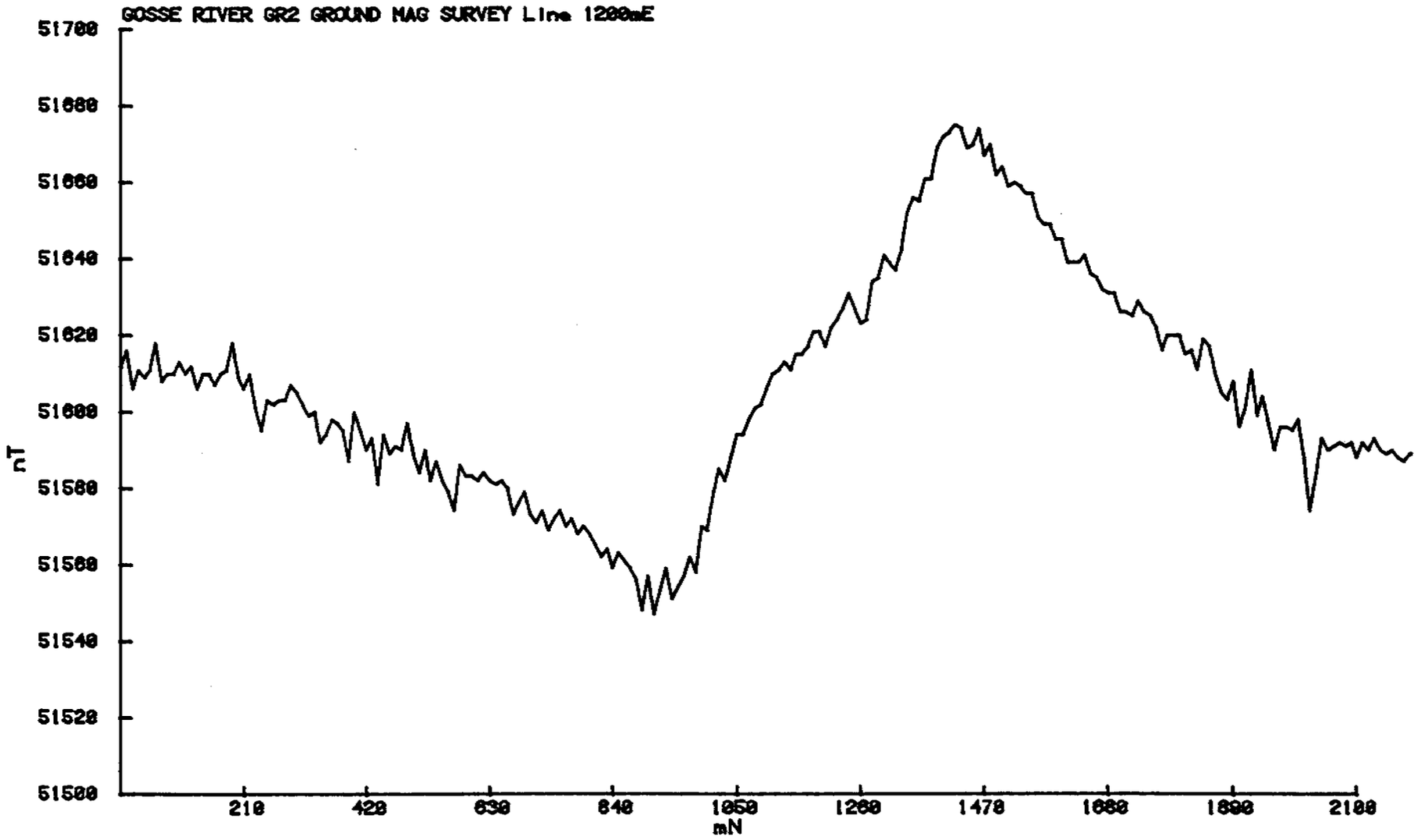
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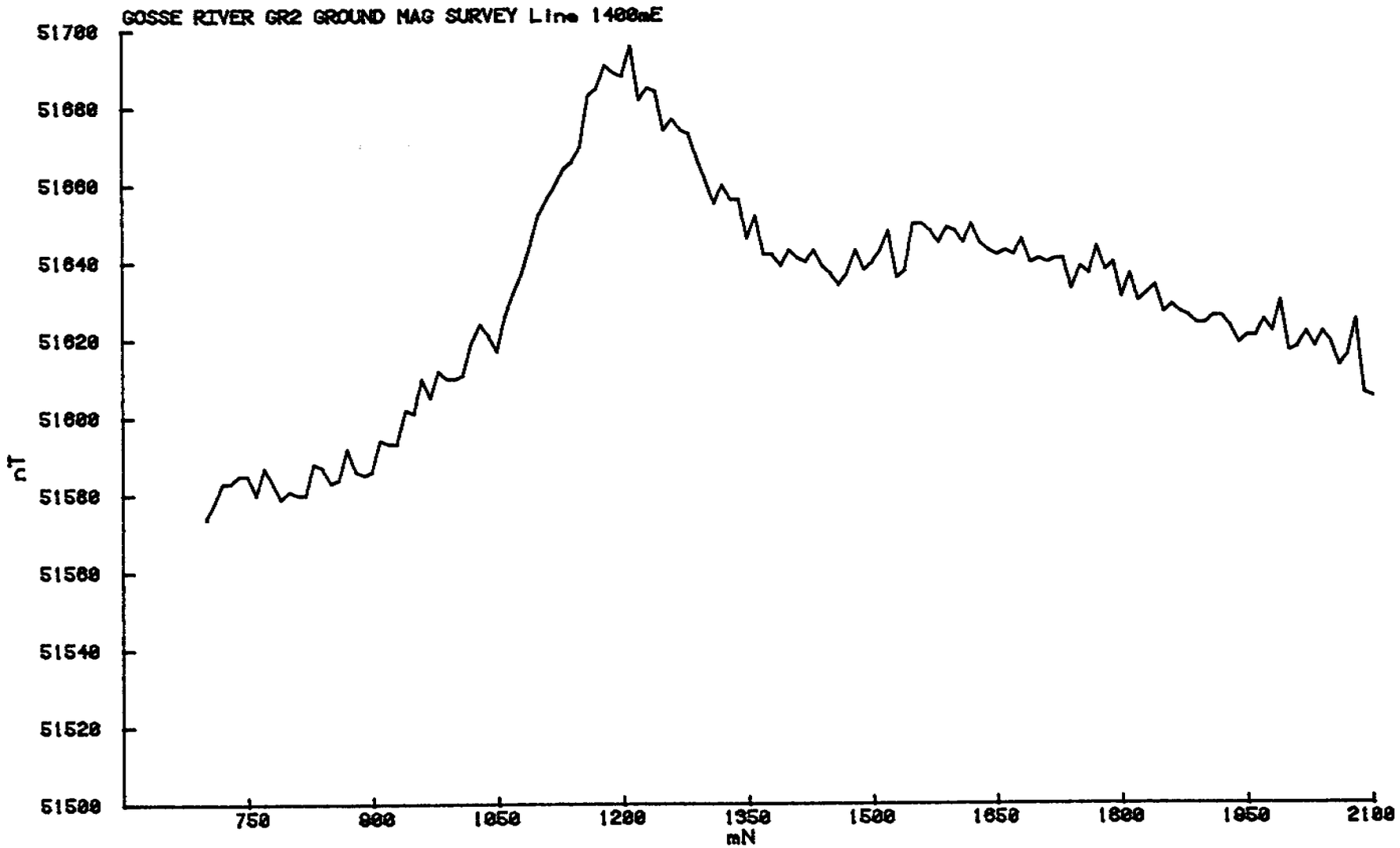
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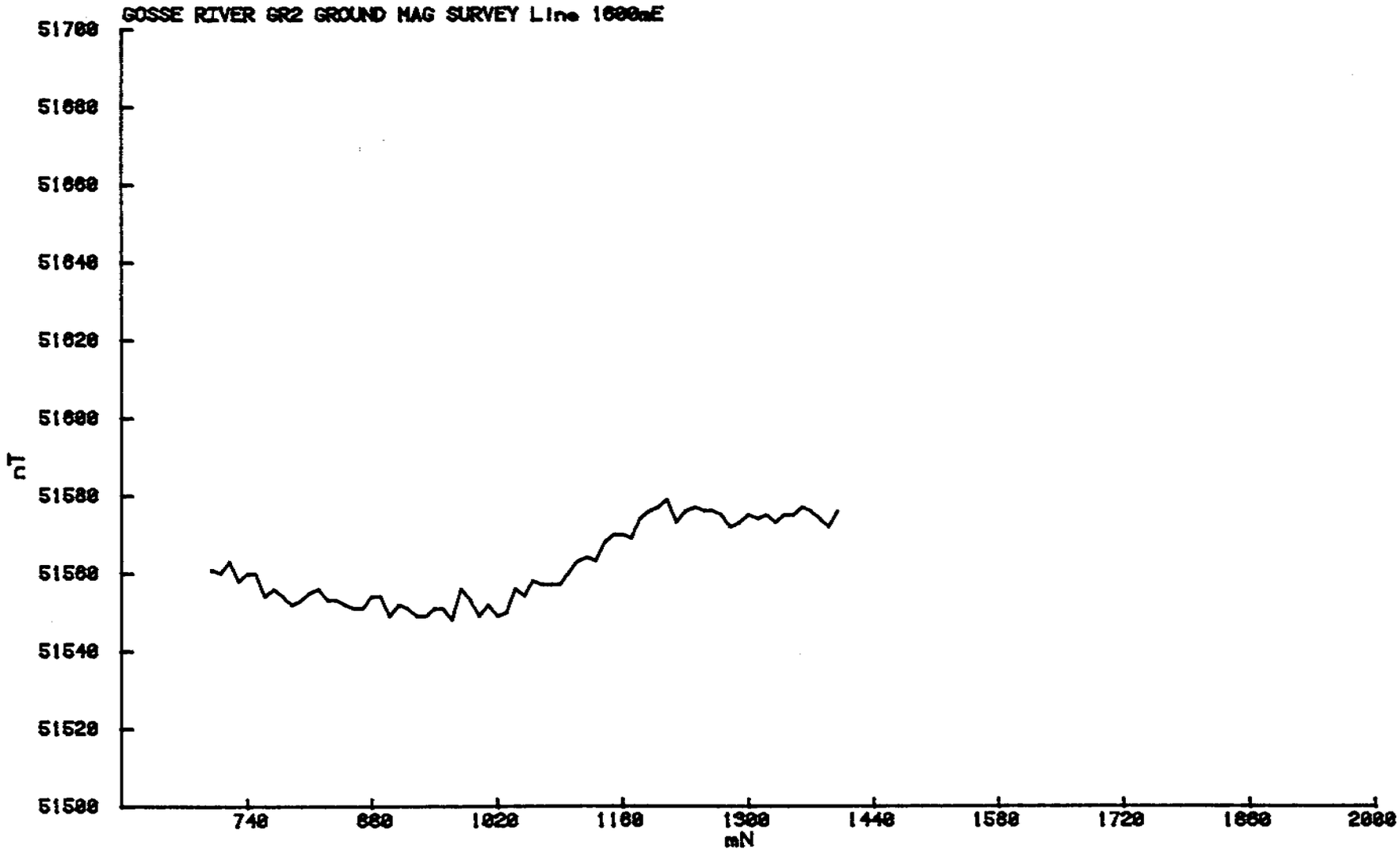
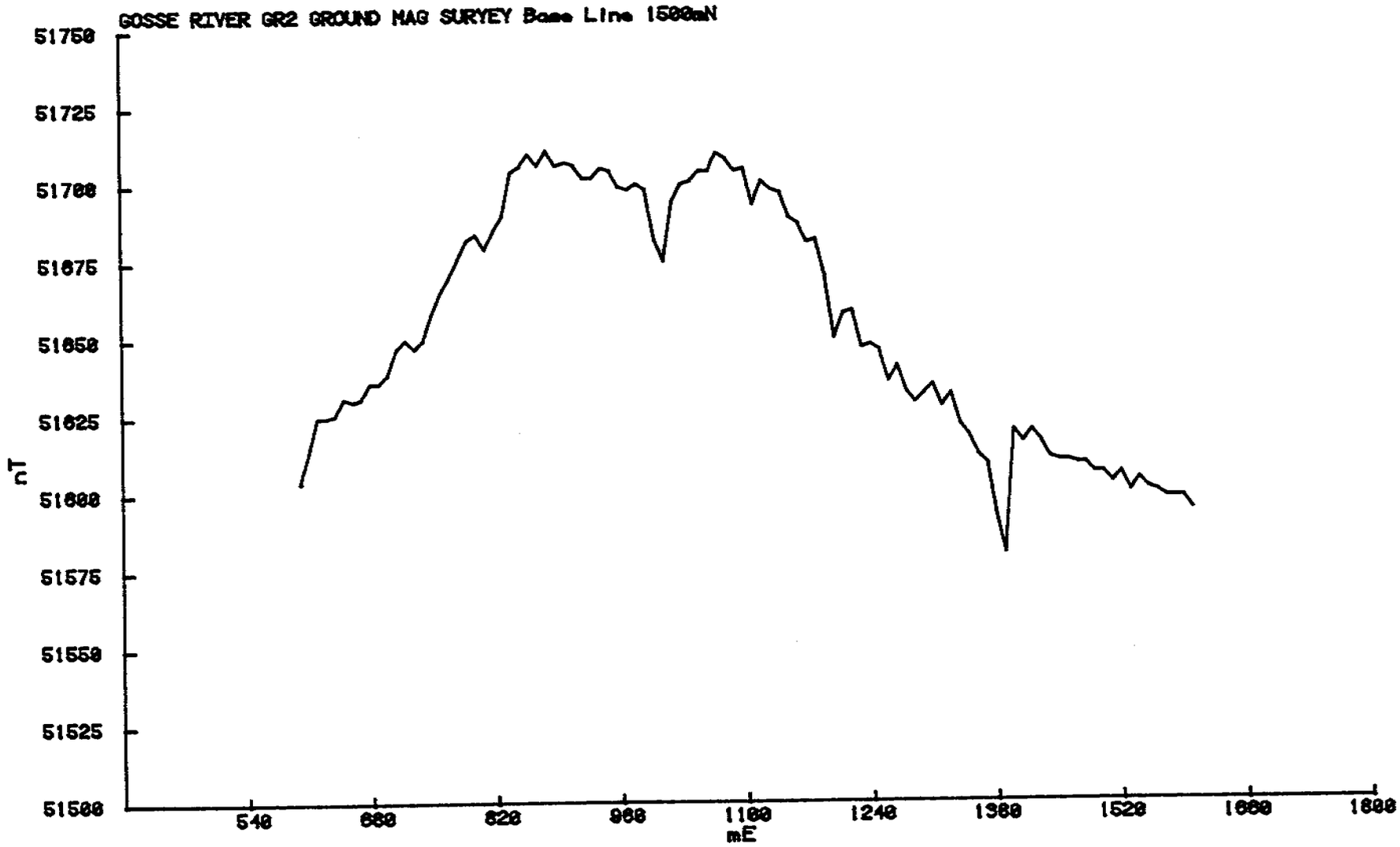
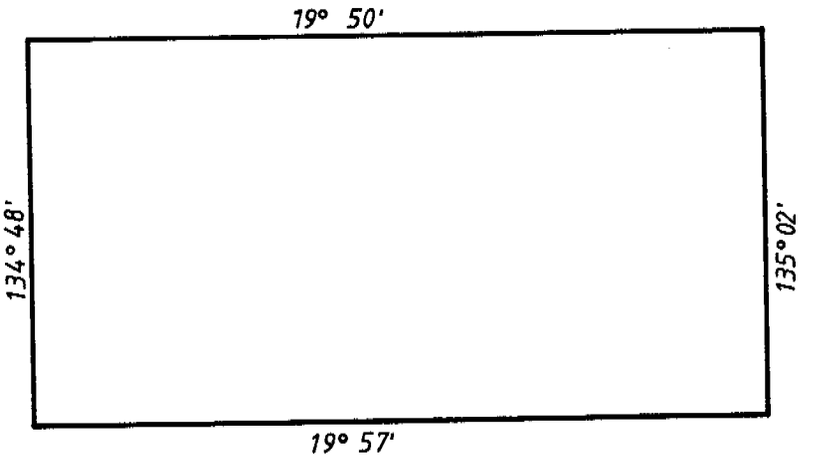
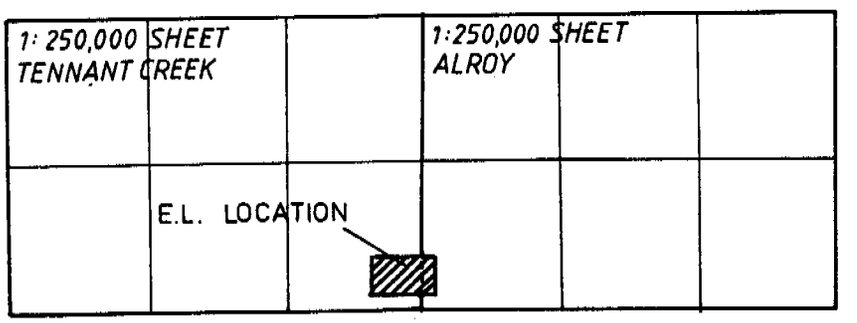
51700
51680
51660
51640
51620
51600
51580
51560
51540
51520
51500
nT
750
900
1050
1200
1350
1500
1650
1800
1950
2100
mN

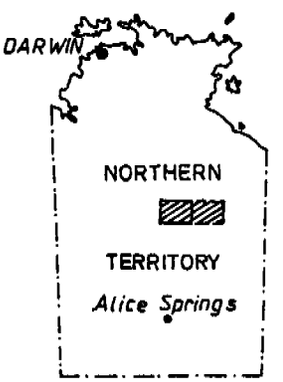

GOSSE RIVER GR2 GROUND MAG SURVEY Line 1600mE
51700
51680
51660
51640
51620
51600
51580
51560
51540
51520
51500
nT
740
880
1020
1160
1300
1440
1580
1720
1860
2000
mN


GOSSE RIVER GR2 GROUND MAG SURYEY Base Line 1500mN
51750
51725
51700
51675
51650
51625
51600
51575
51550
51525
51500
nT
540
660
820
960
1100
1240
1380
1520
1660
1800
mE



AREA: 98 BLOCKS
121·834 sq. miles
315·56 sq kilometres





1: 250,000 SHEET LOCATION

0 5 10 15 20 KM.

C. R. A. EXPLORATION PTY LIMITED

EL 3537

GOSSE RIVER

LOCATION PLAN

Reference Tennant Ck SE53-14 Alroy SE 53-15		
Geologist BEH	Scale 1:250 000	Report No 12652
Drawn SRJ/JFC	Date JAN 1982	Plan No. NTA 420

AIRBORNE SURVEY SPECIFICATIONS

MAGNETOMETER :	Geometrics G813 recording to 0.1 nT
SPECTROMETER :	Geometrics GR800 , detector volume 16.8 Litres Differential recording Th.U.K.TOTAL COUNT
DATA RECORDING :	Geometrics G714
RECORDING INTERVAL :	0.8 seconds , airspeed 50 m/sec.
FLIGHT PATH RECORD :	Geocam 35mm continuous tracking camera
NOMINAL TERRAIN CLEARANCE :	Both detectors in aircraft at 80m
NOMINAL LINE SPACING :	Traverse lines 300m , Tie lines 3.0Km
FLIGHT LINE RECOVERY :	Visually to 1:25000 photo enlargements

STACKED MAGNETIC PROFILE PLOT

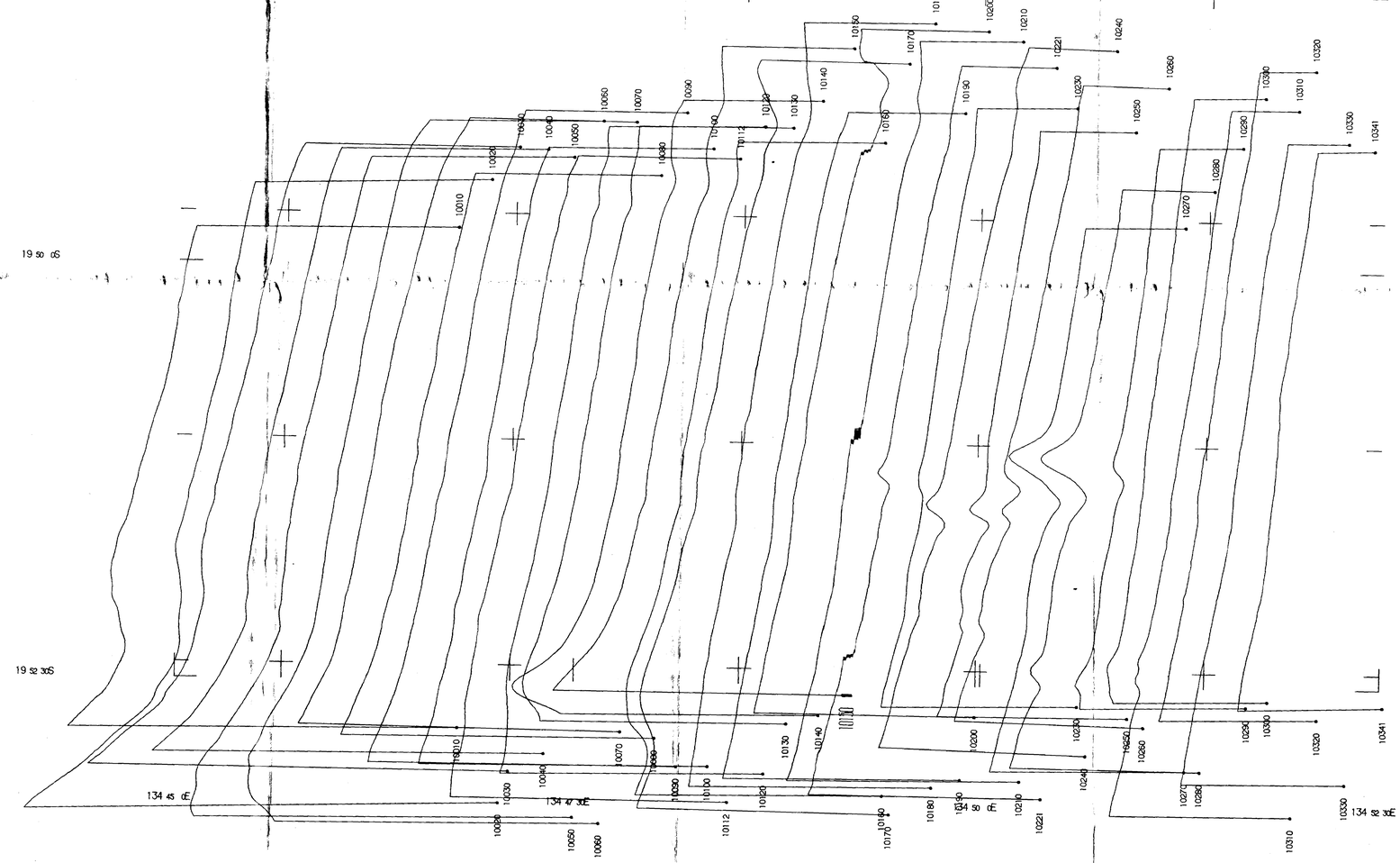
Grid notation refers to Australian Map Grid Zone 53
Magnetics : Levelled and diurnally corrected
IGRF(1980) : Removed , datum 2000 nT added
Base value : 2100 nT
Vertical scale : 25 nT/cm

475000E 477500E 480000E 482500E 485000E

19 45 00S
19 47 30S
19 50 00S
19 52 30S

7815000N
7812500N
7810000N
7807500N
7805000N
7802500N

134 45 00E 134 47 30E 134 50 00E 134 52 30E



019 45S
020 00S
134 45E
135 07 30E

1 2 3
4 5 6

N

0 1 2 Km
SCALE 1:25000

JOB NO : 0842
Flown by GEOMETRICS INT. CORP : DEC 1983
Compiled by EXPLORATION COMPUTER SERVICES

CRA EXPLORATION PTY. LIMITED

EL 3537
GOSSE RIVER N.T.
Sheet 1 of 6
STACKED MAGNETIC PROFILES
NTD 3439

REF:- TENNANT CREEK - ALROY SE 53 14 SE 53 15
DATE: 29-MAR-84

487500E

490000E

492500E

495000E

497500E

19 45 00S

19 47 30S

19 50 00S

19 52 30S

7815000N

7812500N

7810000N

7807500N

7805000N

7802500N

134 52 30E

134 55 00E

134 57 30E

135 0 0E

AIRBORNE SURVEY SPECIFICATIONS

MAGNETOMETER :	Geometrics G813 recording to 0.1 nT
SPECTROMETER :	Geometrics GR800 , detector volume 16.8 Litres Differential recording Th.U.K.TOTAL COUNT
DATA RECORDING :	Geometrics G714
RECORDING INTERVAL :	0.8 seconds , airspeed 50 m/sec.
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NOMINAL LINE SPACING :	Traverse lines 300m , Tie lines 3.0Km
FLIGHT LINE RECOVERY :	Visually to 1:25000 photo enlargements

STACKED MAGNETIC PROFILE PLOT

Grid notation refers to Australian Map Grid Zone 53

Magnetics	: Levelled and diurnally corrected
IGRF(1980)	: Removed , datum 2000 nT added
Base value	: 2100 nT
Vertical scale	: 25 nT/cm

019 45S

020 00S

134 45E

135 07 30E

1	2	3
4	5	6

N

0 1 2 Km

SCALE 1:25000

JOB NO : 0842
Flown by GEOMETRICS INT. CORP : DEC 1983
Compiled by EXPLORATION COMPUTER SERVICES

CRA EXPLORATION PTY. LIMITED

EL 3537
GOSSE RIVER N.T.
Sheet 2 of 6
STACKED MAGNETIC PROFILES
NTD 3440

REF: ALROY SE53 - 14
TENNANT CREEK SE53-15

DATE: 29-MAR-84

500ccoE
502soE
505coE
507soE
510ccoE
512soE
19 45 oS
7815ccoN
7812soN
19 47 30S
7810ccoN
7807soN
19 50 oS
7805ccoN
19 52 30S
7802soN
135 o 6E
135 2 30E
135 5 oE
135 7 30E
10790
10800
10810
10820
10830
10840
10851
10861
10870
10880
10890
10900

AIRBORNE SURVEY SPECIFICATIONS

MAGNETOMETER :	Geometrics G813 recording to 0.1 nT
SPECTROMETER :	Geometrics GR800 , detector volume 16.8 Litres
	Differential recording Th.U.K.TOTAL COUNT
DATA RECORDING :	Geometrics G714
RECORDING INTERVAL :	0.8 seconds ,
	airspeed 50 m/sec.
FLIGHT PATH RECORD :	Geocom 35mm continuous tracking camera
NOMINAL TERRAIN CLEARANCE :	Both detectors in aircraft at 80m
NOMINAL LINE SPACING :	Traverse lines 300m , Tie lines 3.0Km
FLIGHT LINE RECOVERY :	Visually to 1:25000 photo enlargements

STACKED MAGNETIC PROFILE PLOT

Grid notation	refers to Australian Map Grid Zone 53
Magnetics	: Levelled and diurnally corrected
IGRF (1980)	: Removed , datum 2000 nT added
Base value	: 2100 nT
Vertical scale	: 25 nT/cm

019 45S
020 00S
134 45E
135 07 30E

1	2	3
4	5	6

N

0 1 2 Km
SCALE 1:25000

JOB NO : 0842
Flown by GEOMETRICS INT. CORP : DEC 1983
Compiled by EXPLORATION COMPUTER SERVICES

CRA EXPLORATION PTY. LIMITED

EL 3537
GOSSE RIVER N.T.
Sheet 3 of 6
STACKED MAGNETIC PROFILES

NTD 3441

ALROY SE 53-14
TENNANT CREEK SE 53-15

DATE: 29-MAR-84

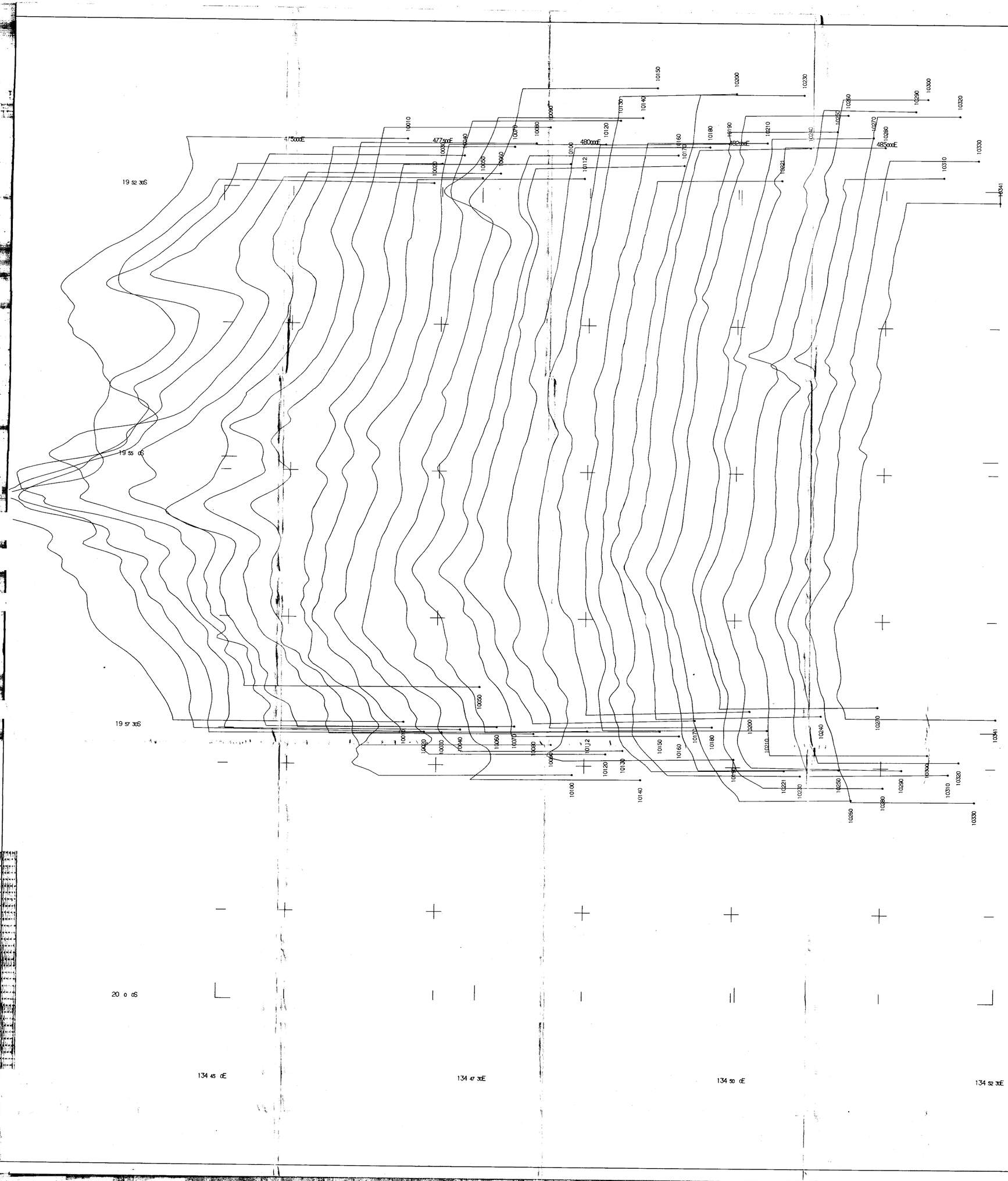
AIRBORNE SURVEY SPECIFICATIONS

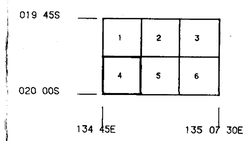
MAGNETOMETER :	Geometrics G813 recording to 0.1 nT
SPECTROMETER :	Geometrics GR800 , detector volume 16.8 Litres Differential recording Th.U.K.TOTAL COUNT
DATA RECORDING :	Geometrics G714
RECORDING INTERVAL :	0.8 seconds , airspeed 50 m/sec.
FLIGHT PATH RECORD :	Geocam 35mm continuous tracking camera
NOMINAL TERRAIN CLEARANCE :	Both detectors in aircraft at 80m
NOMINAL LINE SPACING :	Traverse lines 300m . Tie lines 3.0Km
FLIGHT LINE RECOVERY :	Visually to 1:25000 photo enlargements

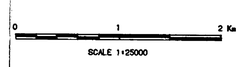
STACKED MAGNETIC PROFILE PLOT

Grid notation refers to Australian Map Grid Zone 53

Magnetics	: Levelled and diurnally corrected
IGRF(1980)	: Removed , datum 2000 nT added
Base value	: 2100 nT
Vertical scale	: 25 nT/cm







JOB NO : 0842
Flown by GEOMETRICS INT. CORP : DEC 1983
Compiled by EXPLORATION COMPUTER SERVICES

CRA EXPLORATION PTY. LIMITED

EL 3537
GOSSE RIVER N.T.
Sheet 4 of 6
STACKED MAGNETIC PROFILES

ALROY TENNANT CREEK | SE 53 14 SE 53 15 | NTD 3442

DATE: 29-MAR-84

AIRBORNE SURVEY SPECIFICATIONS

MAGNETOMETER :	Geometrics G813 recording to 0.1 nT
SPECTROMETER :	Geometrics GR800 , detector volume 16.8 Litres Differential recording Th,U,K,TOTAL COUNT
DATA RECORDING :	Geometrics G714
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NOMINAL LINE SPACING :	Traverse lines 300m . Tie lines 3.0Km
FLIGHT LINE RECOVERY :	Visually to 1:25000 photo enlargements

STACKED MAGNETIC PROFILE PLOT

Grid notation refers to Australian Map Grid Zone 53
Magnetics : Levelled and diurnally corrected
IGRF(1980) : Removed , datum 2000 nT added
Base value : 2100 nT
Vertical scale : 25 nT/cm

19 52 30S
19 55 0S
19 57 30S
20 0 0S

487500E
490000E
492500E
495000E
497500E

7800000N
7797500N
7795000N
7792500N
7790000N

134 52 30E
134 55 0E
134 57 30E
135 0 0E

019 45S
020 00S
134 45E
135 07 30E

1 2 3
4 5 6

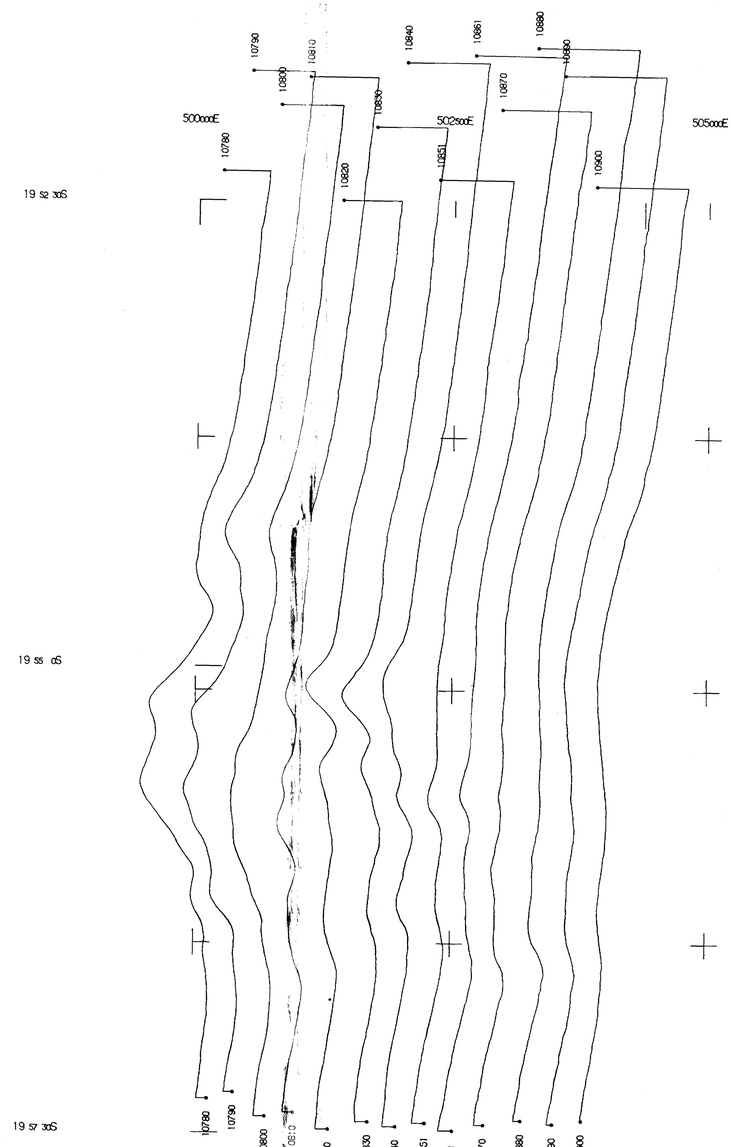
0 1 2 Km
SCALE 1:25000

JOB NO : 0842
Flown by GEOMETRICS INT. CORP : DEC 1983
Compiled by EXPLORATION COMPUTER SERVICES

CRA EXPLORATION PTY. LIMITED

EL 3537
GOSSE RIVER N.T.
Sheet 5 of 6
STACKED MAGNETIC PROFILES
NTD 3443

ALROY SE 53 - 14
TENNANT CREEK SE 53 - 15
DATE: 29-MAR-84



AIRBORNE SURVEY SPECIFICATIONS

MAGNETOMETER :	Geometrics G813 recording to 0.1 nT
SPECTROMETER :	Geometrics GR800 , detector volume 16.8 Litres Differential recording Th.U.K.TOTAL COUNT
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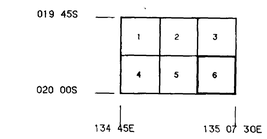
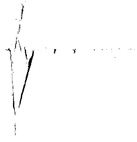
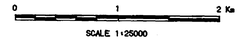
RECORDING INTERVAL :	0.8 seconds , airspeed 50 m/sec.
FLIGHT PATH RECORD :	Geocam 35mm continuous tracking camera
NOMINAL TERRAIN CLEARANCE :	Both detectors in aircraft at 80m
NOMINAL LINE SPACING :	Traverse lines 300m , Tie lines 3.0Km
FLIGHT LINE RECOVERY :	Visually to 1:25000 photo enlargements

STACKED MAGNETIC PROFILE PLOT

Grid notation	: refers to Australian Map Grid Zone 53
Magnetics	: Levelled and diurnally corrected
IGRF(1980)	: Removed , datum 2000 nT added
Base value	: 2100 nT
Vertical scale	: 25 nT/cm







JOB NO : 0842
Flown by GEOMETRICS INT. CORP : DEC 1983
Compiled by EXPLORATION COMPUTER SERVICES

CRA EXPLORATION PTY. LIMITED

EL 3537
GOSSE RIVER N.T.
Sheet 6 of 6
STACKED MAGNETIC PROFILES

NTD 3444

ALROY	SE 53 - 12	DATE:	29-MAR-84
TENNANT CREEK	SE 53 - 15		

475ccoE 477ccoE 480ccoE 482ccoE 485ccoE

19 45 00S

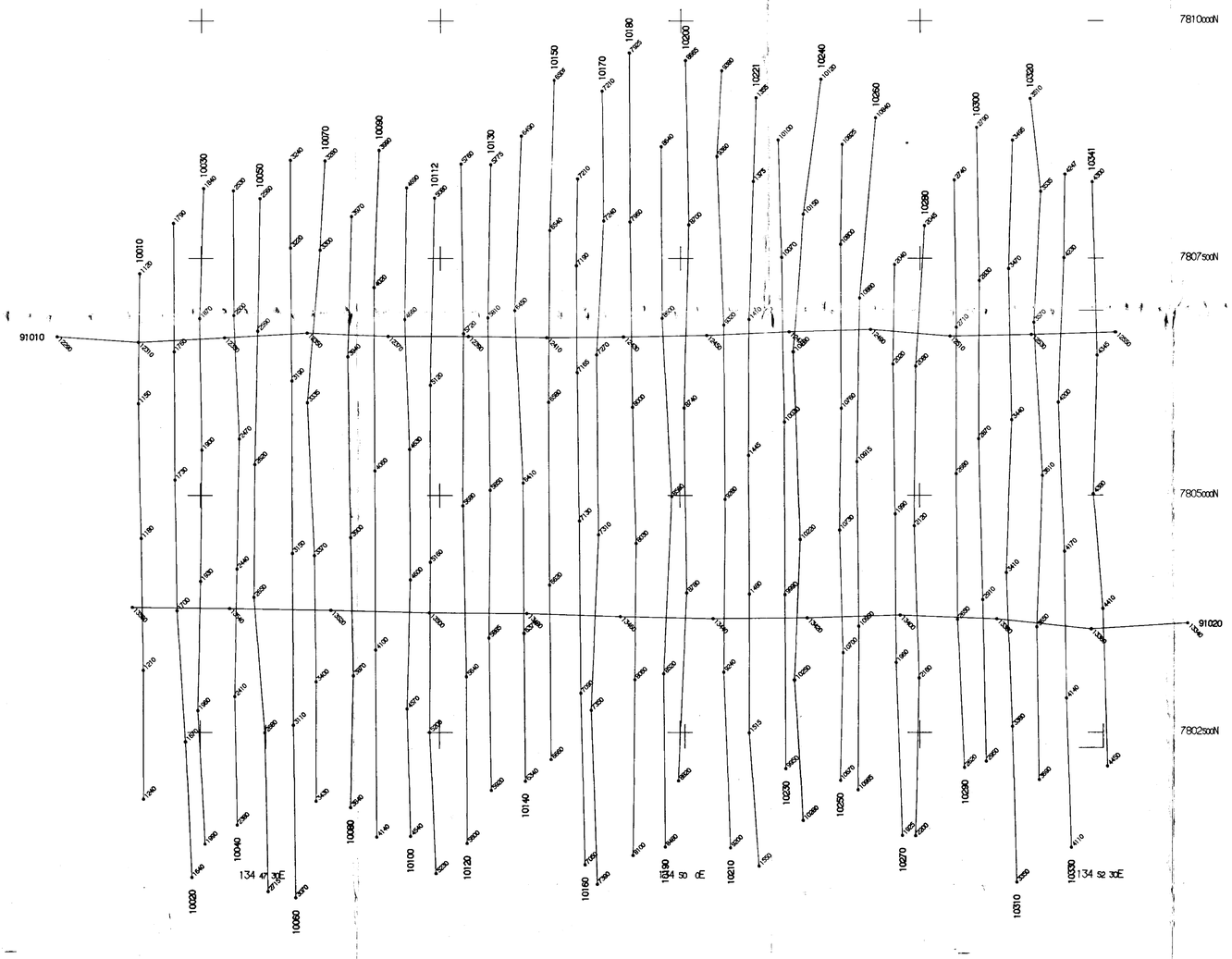
19 47 30S

19 50 00S

19 52 30S

7815ccoN 7812ccoN 7810ccoN 7807ccoN 7805ccoN 7802ccoN

134 45 00E 134 47 30E 134 50 00E 134 52 30E



AIRBORNE SURVEY SPECIFICATIONS

MAGNETOMETER :	Geometrics G813 recording to 0.1 nT
SPECTROMETER :	Geometrics GR800 . detector volume 16.8 Litres Differential recording Th.U.K.TOTAL COUNT
DATA RECORDING :	Geometrics G714
RECORDING INTERVAL :	0.8 seconds . airspeed 50 m/sec.
FLIGHT PATH RECORD :	Geocam 35mm continuous tracking camera
NOMINAL TERRAIN CLEARANCE:	Both detectors in aircraft at 80m
NOMINAL LINE SPACING :	Traverse lines 300m . Tie lines 3.0Km
FLIGHT LINE RECOVERY :	Visually to 1:25000 photo enlargements

FLIGHT PATH RECOVERY PLOT

Grid notation refers to Australian Map Grid Zone 53
Magnetics : Levelled and diurnally corrected
IGRF(1980) : Removed . datum 2000 nT added

019 45S
020 00S
134 45E
135 07 30E

1	2	3
4	5	6

N

0 1 2 Km
SCALE 1:25000

JOB NO : 0842
Flown by GEOMETRICS INT. CORP : DEC 1983
Compiled by EXPLORATION COMPUTER SERVICES

CRA EXPLORATION PTY. LIMITED

EL 3537
GOSSE RIVER N.T.
Sheet 1 of 6
FLIGHT PATH RECOVERY
NTD 3445

ALROY TENNANT CREEK	SE 53 - 12 SE 53 - 15	DATE: 28-MAR-84

487500E
490000E
492500E
495000E
497500E

19 45 00S
19 47 30S
19 50 00S
19 52 30S

7815000N
7812500N
7810000N
7807500N
7805000N
7802500N

134 52 30E
134 55 00E
134 57 30E
135 0 00E

91010
91020

AIRBORNE SURVEY SPECIFICATIONS

MAGNETOMETER :	Geometrics G813 recording to 0.1 nT
SPECTROMETER :	Geometrics GR800 , detector volume 16.8 Litres Differential recording Th.U.K.TOTAL COUNT
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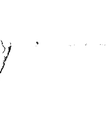
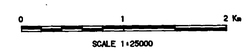
FLIGHT LINE RECOVERY :	Visually to 1:25000 photo enlargements

FLIGHT PATH RECOVERY PLOT

Grid notation refers to Australian Map Grid Zone 53
Magnetics : Levelled and diurnally corrected
IGRF(1980) : Removed , datum 2000 nT added





JOB NO : 0842
Flown by GEOMETRICS INT. CORP : DEC 1983
Compiled by EXPLORATION COMPUTER SERVICES

CRA EXPLORATION PTY. LIMITED

EL 3537
GOSSE RIVER N.T.
Sheet 2 of 6
FLIGHT PATH RECOVERY
NTD 3446

ALROY SE 53 - 11
TENNANT CREEK SE 53 - 15

DATE: 28-MAR-84

500000E
502500E
505000E
507500E
510000E
512500E
19 45 00S
7815000N
7812500N
19 47 30S
7810000N
019 45S
020 00S
134 45E
135 07 30E
7807500N
19 50 00S
91010
7805000N
91020
19 52 30S
7802500N
135 0 0E
135 2 30E
135 5 0E
135 7 30E

10790 10800 10810 10830 10850 10870 10890
10780 10800 10820 10840 10851 10860 10880

AIRBORNE SURVEY SPECIFICATIONS

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NOMINAL LINE SPACING :	Traverse lines 300m , Tie lines 3.0Km
FLIGHT LINE RECOVERY :	Visually to 1:25000 photo enlargements

FLIGHT PATH RECOVERY PLOT

Grid notation refers to Australian Map Grid Zone 53

Magnetics	: Levelled and diurnally corrected
IGRF(1980)	: Removed , datum 2000 nT added

1	2	3
4	5	6

0 1 2 Km
SCALE 1:25000

JOB NO : 0842
Flown by GEOMETRICS INT. CORP : DEC 1983
Compiled by EXPLORATION COMPUTER SERVICES

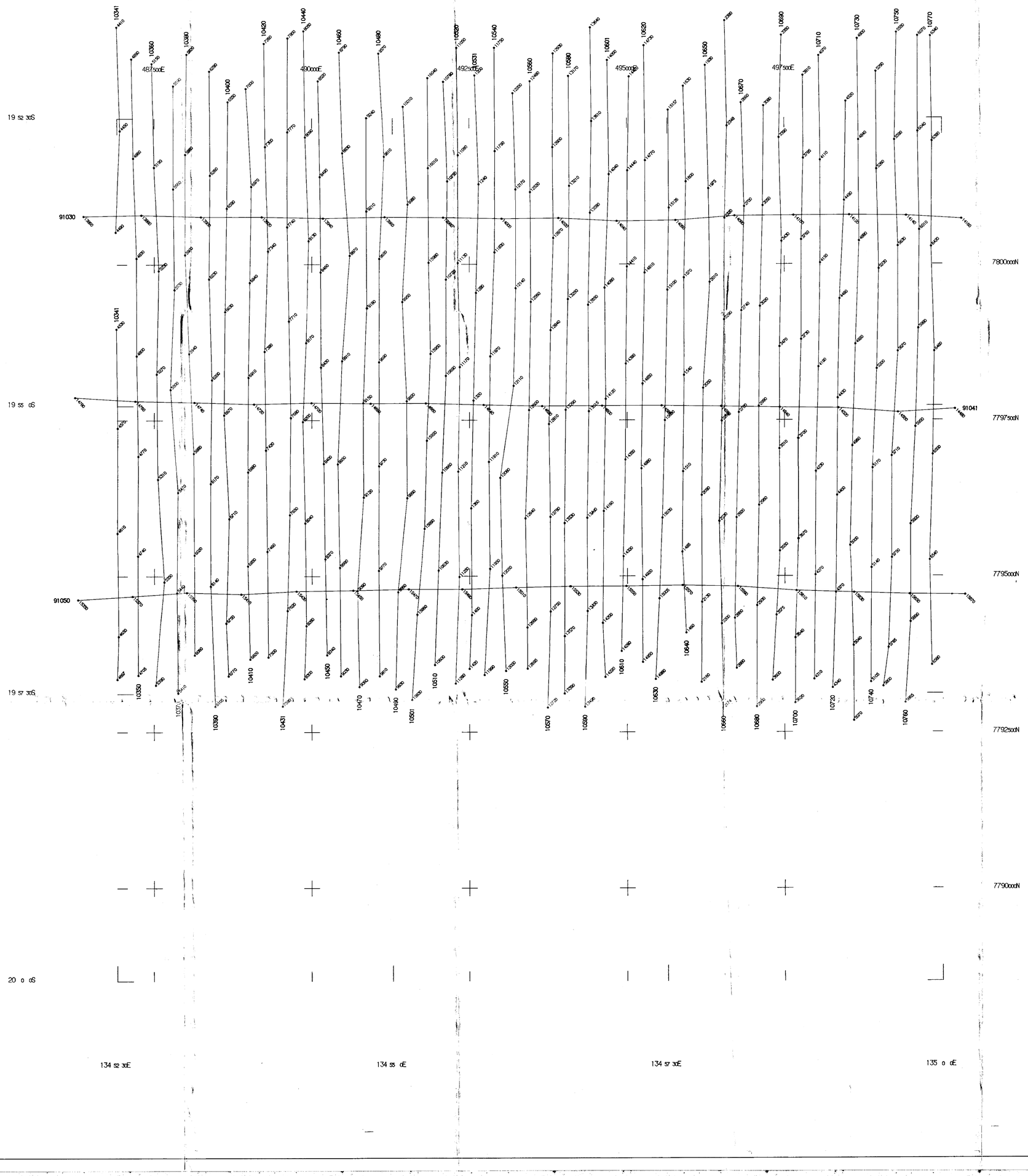
CRA EXPLORATION PTY. LIMITED

EL 3537
GOSSE RIVER N.T.
Sheet 3 of 6
FLIGHT PATH RECOVERY

NTD 3447

ALROY SE 53 - 14
TENNANT CREEK SE 53 - 15

DATE: 28-MAR-84



AIRBORNE SURVEY SPECIFICATIONS

MAGNETOMETER :	Geometrics G813 recording to 0.1 nT
SPECTROMETER :	Geometrics GR800 . detector volume 16.8 Litres
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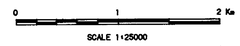
NOMINAL LINE SPACING :	Traverse lines 300m . Tie lines 3.0Km
FLIGHT LINE RECOVERY :	Visually to 1:25000 photo enlargements

FLIGHT PATH RECOVERY PLOT

Grid notation refers to Australian Map Grid Zone 53

Magnetics	: Levelled and diurnally corrected
IGRF(1980)	: Removed . datum 2000 nT added



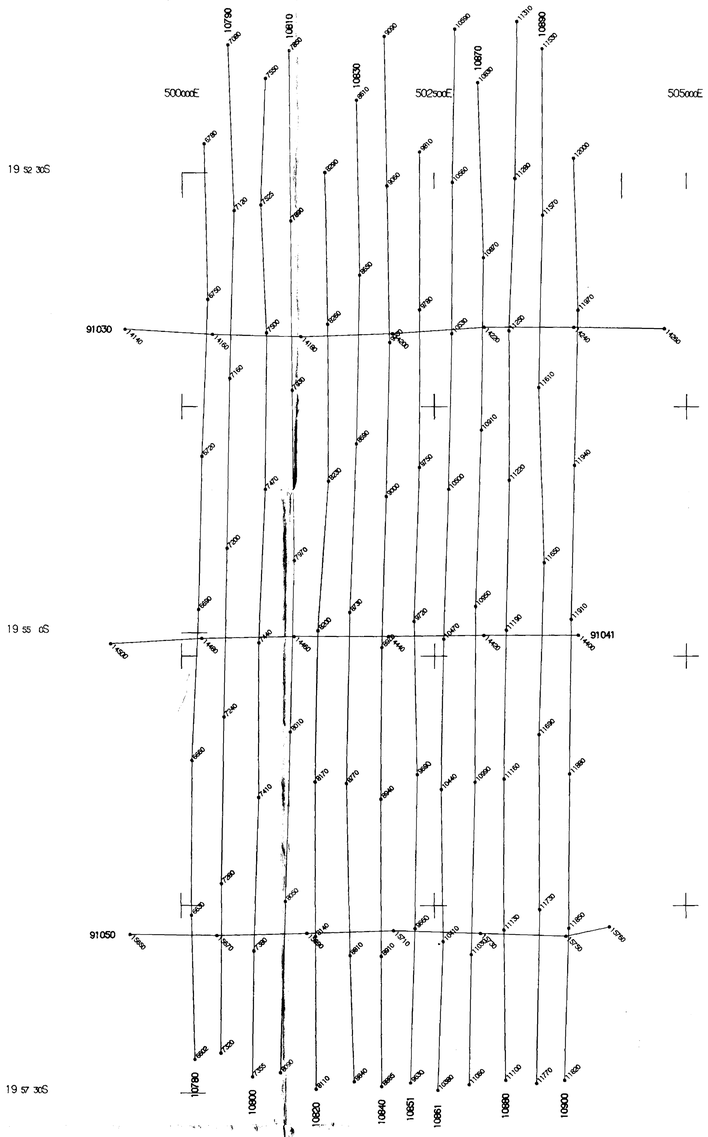
JOB NO : 0842
Flown by GEOMETRICS INT. CORP : DEC 1983
Compiled by EXPLORATION COMPUTER SERVICES

CRA EXPLORATION PTY. LIMITED

EL 3537
GOSSE RIVER N.T.
Sheet 5 of 6
FLIGHT PATH RECOVERY

NTD 3449

ALROY TENNANT CREEK	SE 53-14 SE 53-15	DATE: 28-MAR-84



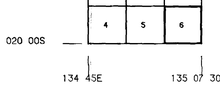
AIRBORNE SURVEY SPECIFICATIONS

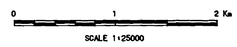
MAGNETOMETER :	Geometrics G813 recording to 0.1 nT
SPECTROMETER :	Geometrics GR800 , detector volume 16.8 Litres Differential recording Th,U,K,TOTAL COUNT
DATA RECORDING :	Geometrics G714
RECORDING INTERVAL :	0.8 seconds , airspeed 50 m/sec.
FLIGHT PATH RECORD :	Geocam 35mm continuous tracking camera
NOMINAL TERRAIN CLEARANCE :	Both detectors in aircraft at 80m
NOMINAL LINE SPACING :	Traverse lines 300m , Tie lines 3.0Km
FLIGHT LINE RECOVERY :	Visually to 1:25000 photo enlargements

FLIGHT PATH RECOVERY PLOT

Grid notation refers to Australian Map Grid Zone 53

Magnetics	: Levelled and diurnally corrected
IGRF(1980)	: Removed , datum 2000 nT added





JOB NO : 0842
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CRA EXPLORATION PTY. LIMITED

EL 3537
GOSSE RIVER N.T.
Sheet 6 of 6
FLIGHT PATH RECOVERY NTD 3450

CR84/144

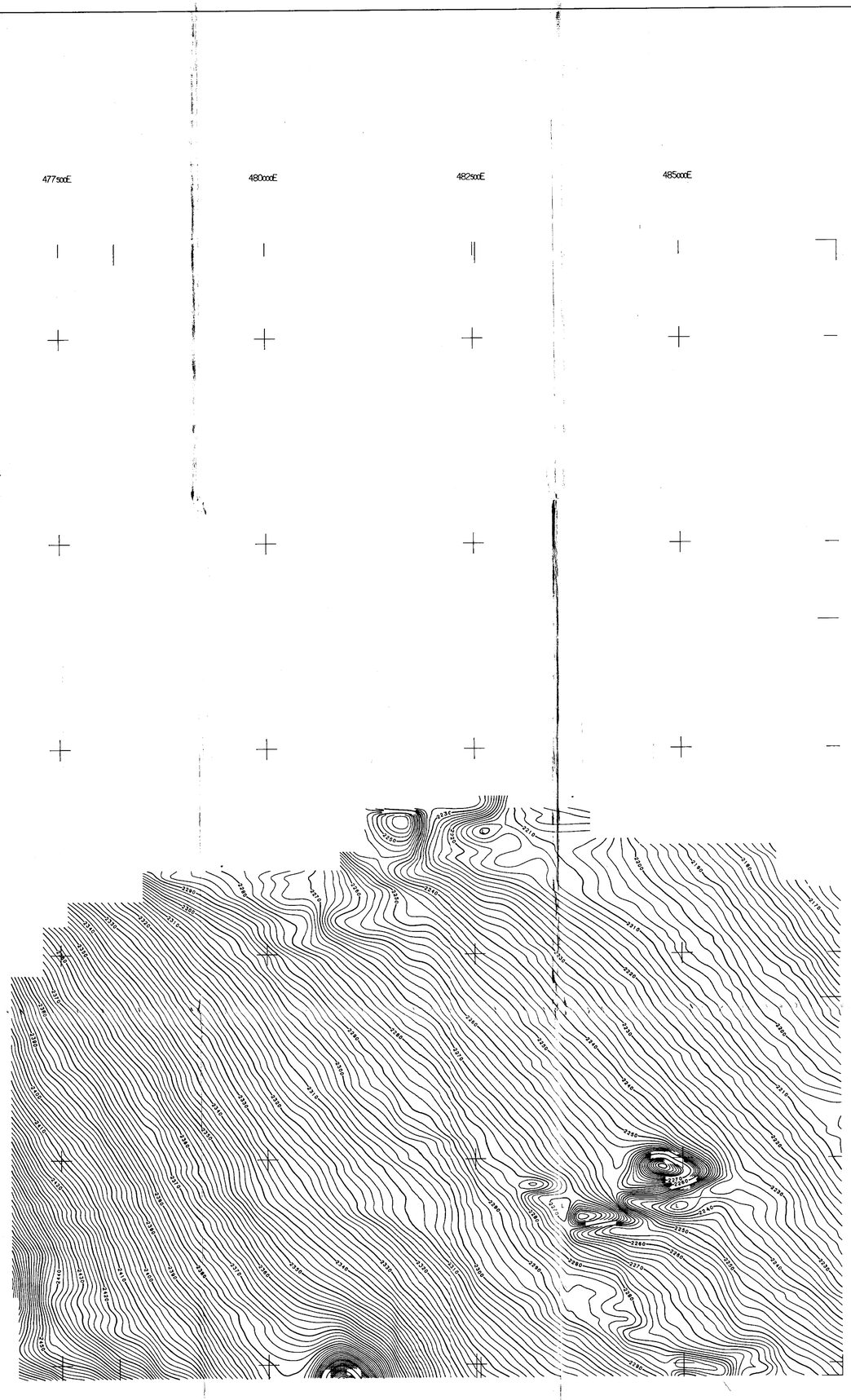
TENNANT CREEK ALROY	SE 53-14 SE 53-15	DATE : 28-MAR-84

475000E
477500E
480000E
482500E
485000E

19 45 00S
19 47 30S
19 50 00S
19 52 30S

7815000N
7812500N
7810000N
7807500N
7805000N
7802500N

134 45 00E
134 47 30E
134 50 00E
134 52 30E

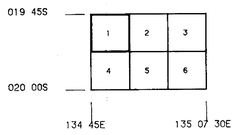


AIRBORNE SURVEY SPECIFICATIONS

MAGNETOMETER :	Geometrics G813 recording to 0.1 nT
SPECTROMETER :	Geometrics GR800 , detector volume 16.8 Litres Differential recording Th,U,K,TOTAL COUNT
DATA RECORDING :	Geometrics G714
RECORDING INTERVAL :	0.8 seconds , airspeed 50 m/sec.
FLIGHT PATH RECORD :	Geocam 35mm continuous tracking camera
NOMINAL TERRAIN CLEARANCE:	Both detectors in aircraft at 80m
NOMINAL LINE SPACING :	Traverse lines 300m , Tie lines 1.0Km
FLIGHT LINE RECOVERY :	Visually to 1:25000 photo enlargements

TOTAL MAGNETIC CONTOUR PLOT

Grid notation refers to Australian Map Grid Zone 53
Magnetics : Levelled and diurnally corrected
IGRF(1980) : Removed , datum 2000 nT added
Contour intervals : 2.10.50.100.500.1000 nT
Gridding parameters : 75 by 75 metre mesh with
: 100 metre polynomial filter



N

0 1 2 Km
SCALE 1:25000

JOB NO : 0842
Flown by GEOMETRICS INT. CORP : DEC 1983
Compiled by EXPLORATION COMPUTER SERVICES

CRA EXPLORATION PTY. LIMITED

EL 3537
GOSSE RIVER N.T.
Sheet 1 of 6
TOTAL MAGNETIC CONTOURS

NTD 3496

ALROY SE 53 - 14
TENNANT CREEK SE 53 - 15

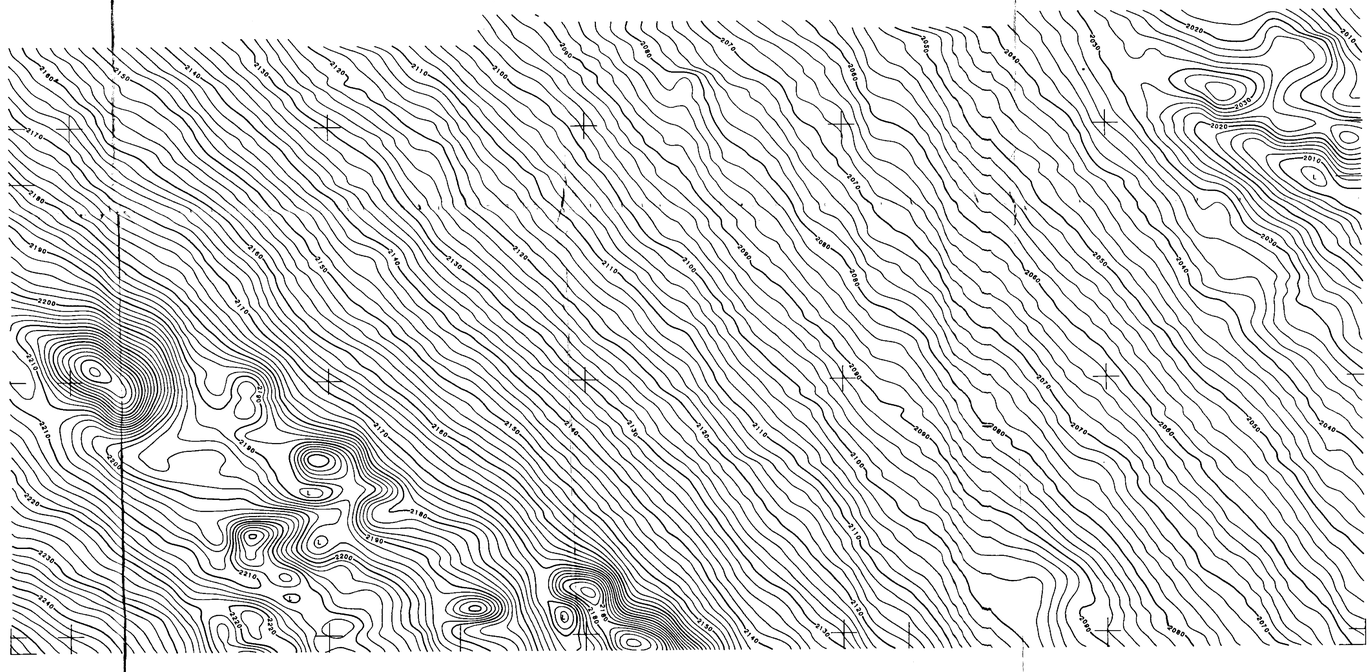
DATE: 29-MAR-84

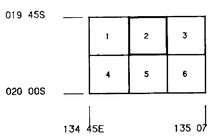
AIRBORNE SURVEY SPECIFICATIONS

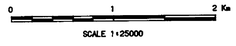
MAGNETOMETER :	Geometrics G813 recording to 0.1 nT
SPECTROMETER :	Geometrics GR800 . detector volume 16.8 Litres Differential recording Th.U.K.TOTAL COUNT
DATA RECORDING :	Geometrics G714
RECORDING INTERVAL :	0.8 seconds . airspeed 50 m/sec.
FLIGHT PATH RECORD :	Geocam 35mm continuous tracking camera
NOMINAL TERRAIN CLEARANCE :	Both detectors in aircraft at 80m
NOMINAL LINE SPACING :	Traverse lines 300m . Tie lines 1.0Km
FLIGHT LINE RECOVERY :	Visually to 1:25000 photo enlargements

TOTAL MAGNETIC CONTOUR PLOT

Grid notation refers to Australian Map Grid Zone 53
Magnetics : Levelled and diurnally corrected
IGRF(1980) : Removed . datum 2000 nT added
Contour intervals : 2,10,50,100,500,1000 nT
Gridding parameters : 75 by 75 metre mesh with
: 100 metre polynomial filter







JOB NO : 0842
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CRA EXPLORATION PTY. LIMITED

EL 3537
GOSSE RIVER N.T.
Sheet 2 of 6
TOTAL MAGNETIC CONTOURS

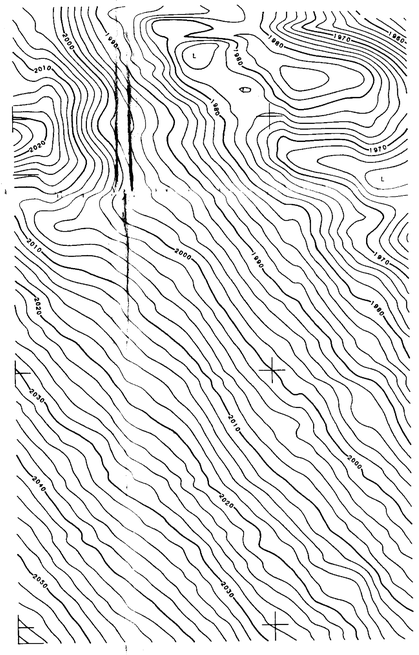
NTD 3497

ALROY TENNANT CREEK	SE 53-14 SE 53-15	DATE:	29-MAR-84

500000E
502500E
505000E
507500E
510000E
512500E

19 45 00S
19 47 30S
19 50 00S
19 52 30S

7815000N
7812500N
7810000N
7807500N
7805000N
7802500N



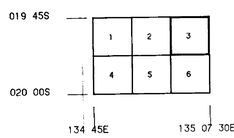
135 00 00E
135 02 30E
135 05 00E
135 07 30E

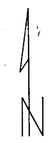
AIRBORNE SURVEY SPECIFICATIONS

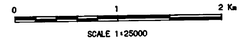
MAGNETOMETER :	Geometrics G813 recording to 0.1 nT
SPECTROMETER :	Geometrics GR800 , detector volume 16.8 Litres Differential recording Th.U.K.TOTAL COUNT
DATA RECORDING :	Geometrics G714
RECORDING INTERVAL :	0.8 seconds , airspeed 50 m/sec.
FLIGHT PATH RECORD :	Geocam 35mm continuous tracking camera
NOMINAL TERRAIN CLEARANCE :	Both detectors in aircraft at 80m
NOMINAL LINE SPACING :	Traverse lines 300m , Tie lines 1.0Km
FLIGHT LINE RECOVERY :	Visually to 1:25000 photo enlargements

TOTAL MAGNETIC CONTOUR PLOT

Grid notation refers to Australian Map Grid Zone 53	
Magnetics	: Levelled and diurnally corrected
IGRF(1980)	: Removed , datum 2000 nT added
Contour intervals	: 2,10,50,100,500,1000 nT
Gridding parameters	: 75 by 75 metre mesh with : 100 metre polynomial filter







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EL 3537
GOSSE RIVER N.T.
Sheet 3 of 6
TOTAL MAGNETIC CONTOURS

NTD 3498

ALROY TENNANT CREEK	SE53 - 14 SE53-15	DATE: 29-MAR-84

475000E

477500E

480000E

482500E

485000E

19 52 30S

19 55 00S

19 57 30S

20 00 00S

7800000N

7797500N

7795000N

7792500N

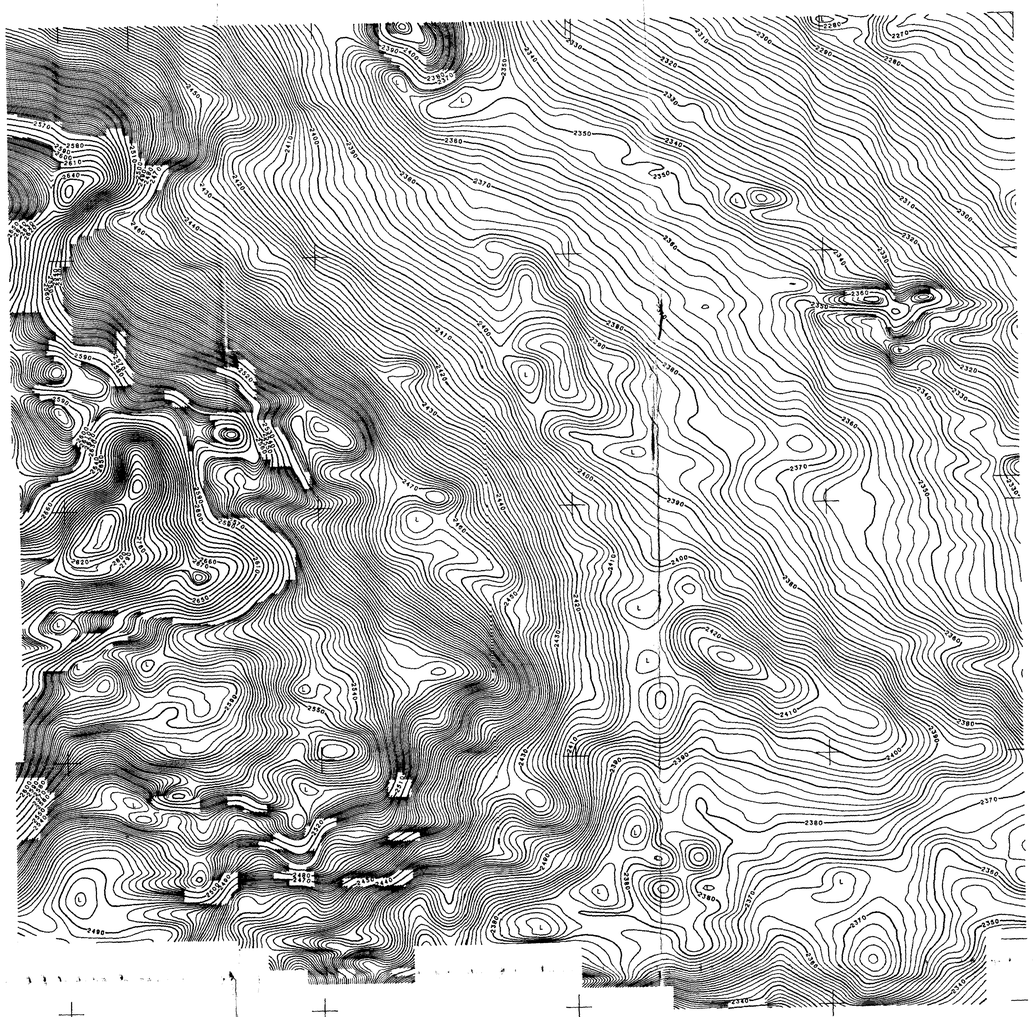
7790000N

134 45 00E

134 47 30E

134 50 00E

134 52 30E



AIRBORNE SURVEY SPECIFICATIONS

MAGNETOMETER :	Geometrics G813 recording to 0.1 nT
SPECTROMETER :	Geometrics GR800 , detector volume 16.8 Litres Differential recording Th.U.K.TOTAL COUNT
DATA RECORDING :	Geometrics G714
RECORDING INTERVAL :	0.8 seconds , airspeed 50 m/sec.
FLIGHT PATH RECORD :	Geocam 35mm continuous tracking camera
NOMINAL TERRAIN CLEARANCE :	Both detectors in aircraft at 80m
NOMINAL LINE SPACING :	Traverse lines 300m , Tie lines 1.0Km
FLIGHT LINE RECOVERY :	Visually to 1:25000 photo enlargements

TOTAL MAGNETIC CONTOUR PLOT

Grid notation refers to Australian Map Grid Zone 53
Magnetics : Levelled and diurnally corrected
IGRF(1980) : Removed , datum 2000 nT added
Contour intervals : 2.10.50.100.500.1000 nT
Gridding parameters : 75 by 75 metre mesh with
: 100 metre polynomial filter

019 45S
020 00S
134 45E
135 07 30E

1	2	3
4	5	6

N

0 1 2 Km
SCALE 1:25000

JOB NO : 0842
Flown by GEOMETRICS INT. CORP : DEC 1983
Compiled by EXPLORATION COMPUTER SERVICES

CRA EXPLORATION PTY. LIMITED

EL 3537
GOSSE RIVER N.T.
Sheet 4 of 6
TOTAL MAGNETIC CONTOURS

NTD 3499

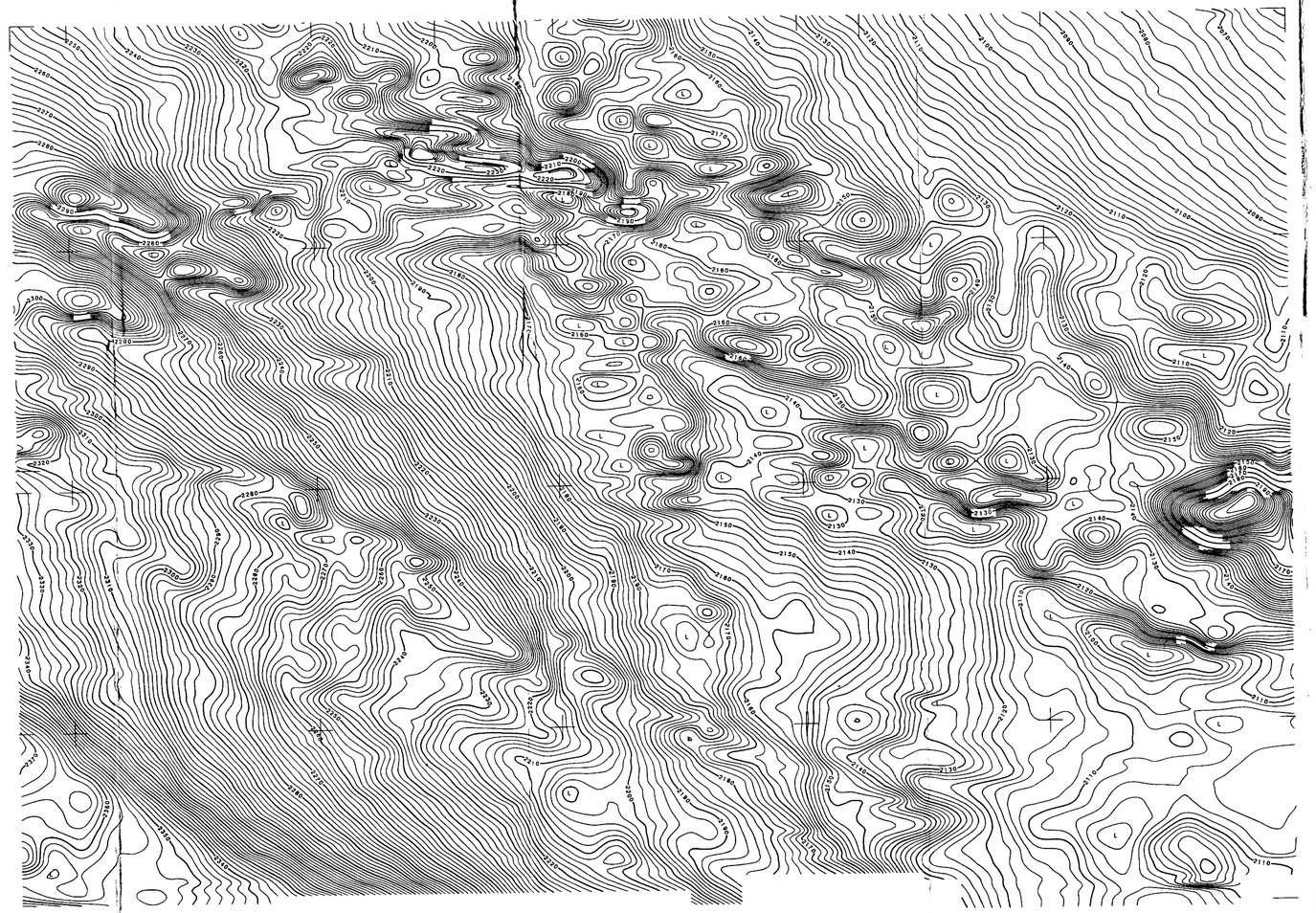
ALROY
TENNANT CREEK SE 53 - 14 SE 53 - 15

DATE: 29-MAR-84

TOTAL MAGNETIC CONTOURS

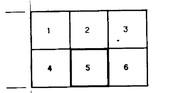
AIRBORNE SURVEY SPECIFICATIONS

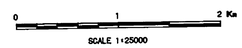
MAGNETOMETER :	Geometrics G813 recording to 0.1 nT
SPECTROMETER :	Geometrics GR800 , detector volume 16.8 Litres Differential recording Th,U,K,TOTAL COUNT
DATA RECORDING :	Geometrics G714
RECORDING INTERVAL :	0.8 seconds , airspeed 50 m/sec.
FLIGHT PATH RECORD :	Geocam 35mm continuous tracking camera
NOMINAL TERRAIN CLEARANCE :	Both detectors in aircraft at 80m
NOMINAL LINE SPACING :	Traverse lines 300m , Tie lines 1.0Km
FLIGHT LINE RECOVERY :	Visually to 1:25000 photo enlargements



TOTAL MAGNETIC CONTOUR PLOT

Grid notation refers to Australian Map Grid Zone 53
Magnetics : Levelled and diurnally corrected
IGRF(1980) : Removed , datum 2000 nT added
Contour intervals : 2,10,50,100,500,1000 nT
Gridding parameters : 75 by 75 metre mesh with
: 100 metre polynomial filter





JOB NO : 0842
Flown by GEOMETRICS INT. CORP : DEC 1983
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CRA EXPLORATION PTY. LIMITED

EL 3537
GOSSE RIVER N.T.
Sheet 5 of 6
TOTAL MAGNETIC CONTOURS

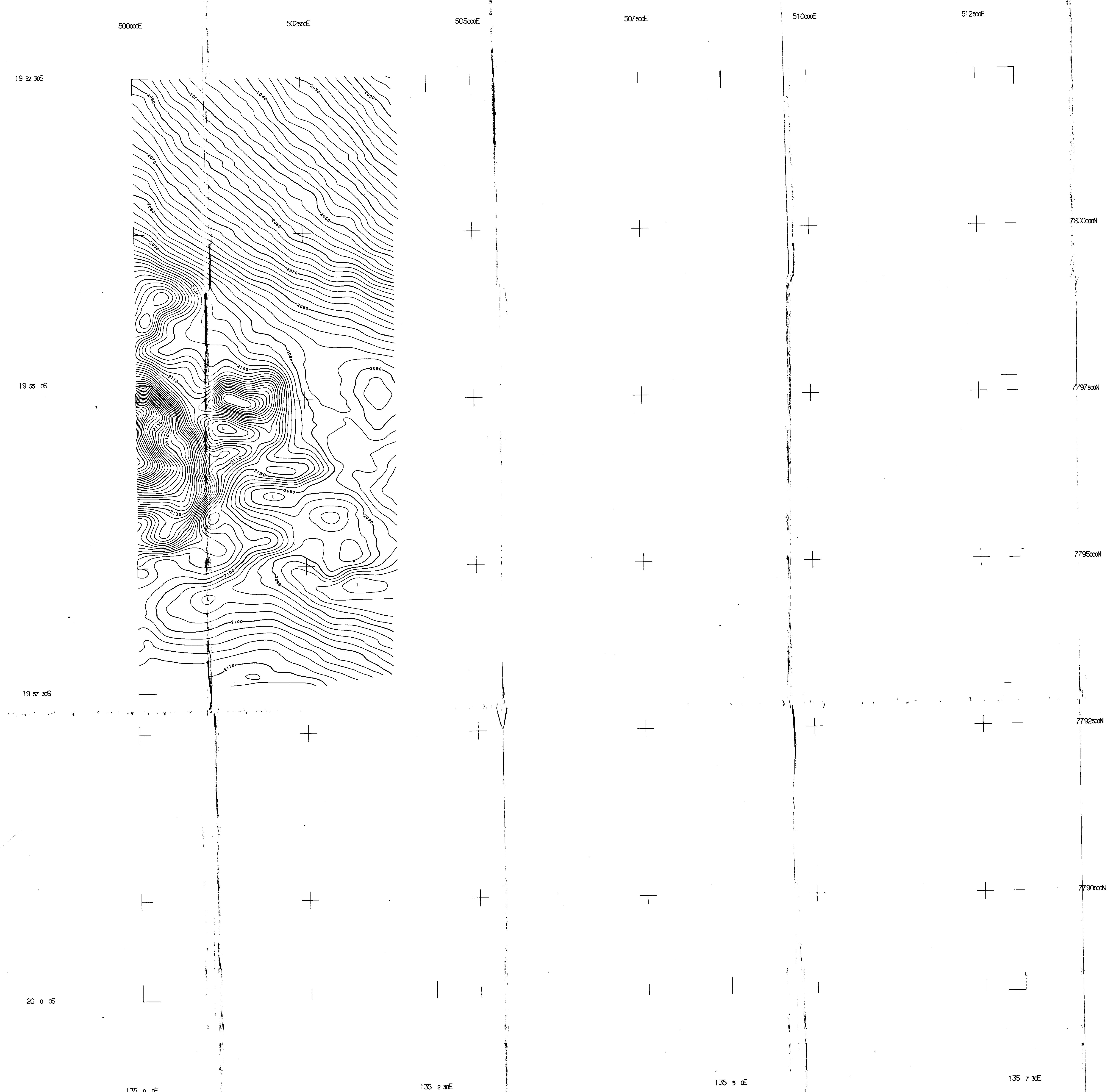
NTD 3500

ALROY
TENNANT CREEK SE 53 - 14 SE 53 - 15

DATE: 29-MAR-84

AIRBORNE SURVEY SPECIFICATIONS

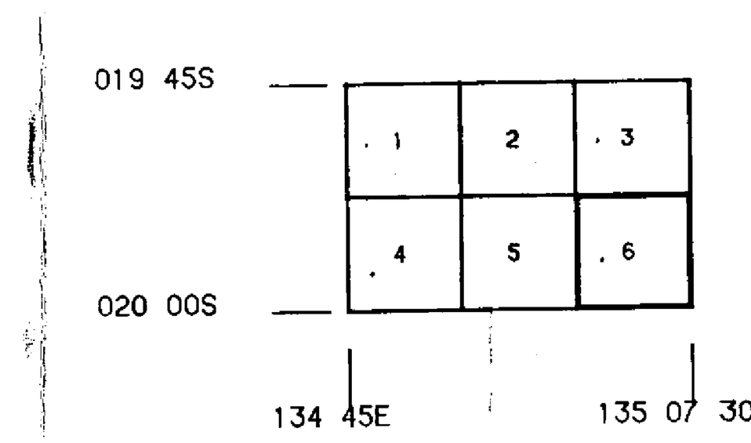
MAGNETOMETER :	Geometrics G813 recording to 0.1 nT
SPECTROMETER :	Geometrics GR800 , detector volume 16.8 Litres
	Differential recording Th.U.K.TOTAL COUNT
DATA RECORDING :	Geometrics G714
RECORDING INTERVAL :	0.8 seconds .
	airspeed 50 m/sec.
FLIGHT PATH RECORD :	Geocam 35mm continuous tracking camera
NOMINAL TERRAIN CLEARANCE:	Both detectors in aircraft at 80m
NOMINAL LINE SPACING :	Traverse lines 300m , Tie lines 1.0Km
FLIGHT LINE RECOVERY :	Visually to 1:25000 photo enlargements



TOTAL MAGNETIC CONTOUR PLOT

Grid notation refers to Ausrtralian Map Grid Zone 53

Magnetics	: Levelled and diurnally corrected
IGRF (1980)	: Removed , datum 2000 nT added
Contour intervals	: 2.10.50.100.500.1000 nT
Gridding parameters	: 75 by 75 metre mesh with
	: 100 metre polynomial filter



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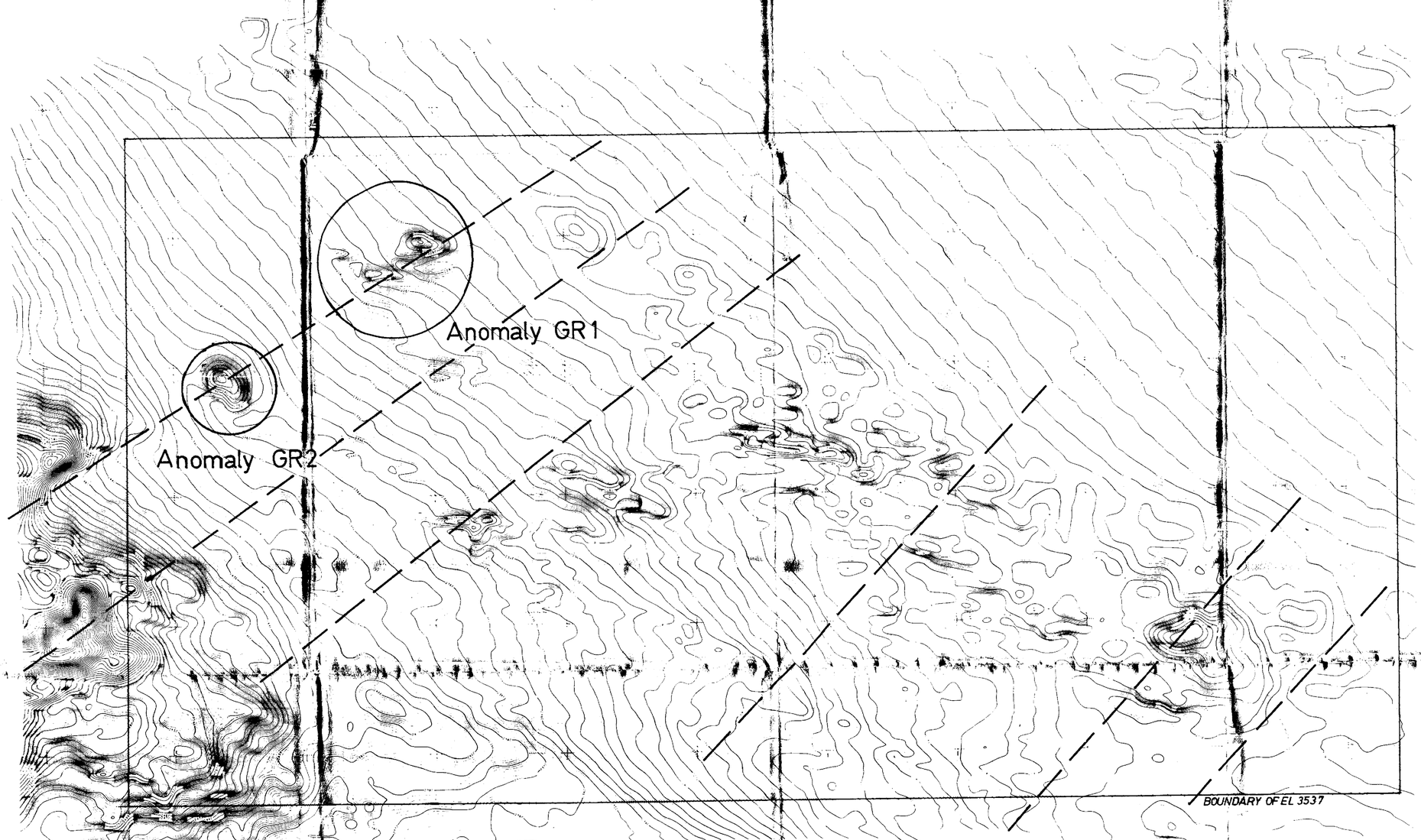
CRA EXPLORATION PTY. LIMITED

EL 3537
GOSSE RIVER N.T.
Sheet 6 of 6
TOTAL MAGNETIC CONTOURS

CR84/144 NTD 3501

ALROY SE 53 - 14 TENNANT CREEK SE 53 - 15	DATE: 29-MAR-84



Key

GR1 — Magnetc anomaly selected for ground follow up

Magnetc dislocation

AIRBORNE SURVEY SPECIFICATIONS

MAGNETOMETER :	Geometrics G813 recording to 0.1 nT
SPECTROMETER :	Geometrics GR800 , detector volume 16.8 Litres
	Differential recording Th.U.K.TOTAL COUNT
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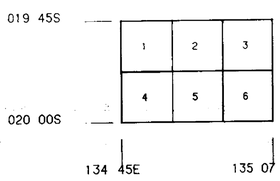
FLIGHT LINE RECOVERY :	Visually to 1:25000 photo enlargements

TOTAL MAGNETIC CONTOUR PLOT

Grid notation refers to Australian Map Grid Zone 53

Magnetics	: Levelled and diurnally corrected
IGRF (1980)	: Removed , datum 2000 nT added
Contour intervals	: 2.10,50,100,200,1000 nT
Gridding parameters	: 75 by 75 metre mesh with
	: 100 metre polynomial filter



0 1 2 3 4 5 6 7 8 9 10 KM

CR84/144

CRA EXPLORATION PTY LIMITED

GOSSE RIVER EL3537

AEROMAGNETIC CONTOURS Interpretation

REFERENCE SE 53-15 TENNANT CREEK	
SCALE 1:100,000	DATE JUNE 1984
AUTHOR GJB	REPORT 12652
DRAWN SRJ+BEH	PLAN No NTd 3519