

ARTHUR



GEO INSTRUMENTS

A.C.N. 000 978 174 Pty. Limited

348 ROCKY POINT ROAD, RAMSGATE NSW 2219

PHONE 61 2 529 2355.

AUSTRALIA

FAX 61 2 529 9726

LOGISTICS REPORT

HELICOPTER GEOPHYSICAL SURVEY ARTHUR LINEAMENT NORTH EAST TASMANIA

**DEPARTMENT OF STATE DEVELOPMENT AND RESOURCES
MINERAL RESOURCES TASMANIA DIVISION**

**30 Gordons Hill Road,
ROSNY PARK TASMANIA 7018**

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1. LOGISTICS

1.1 OPERATING BASE AND DATES OF SURVEY

1.1.1 Operating Base

The crew were based at Savage River situated in North Eastern Tasmania. The helicopter was operated from the Savage River airstrip.

1.1.2 Dates of Flying

| | |
|----------------------------|---------------|
| Start of survey production | 15th Nov 1993 |
| Completion of production | 21st Nov 1993 |

1.2 AIRCRAFT DETAILS AND NAMES OF FIELD CREW

1.2.1 Aircraft

Bell Helicopter B206 B3 "Jet Ranger" Registration VH-FHB

1.2.2 Field Crew

| | |
|----------------------|-----------------|
| Pilots (Heli-Aust) | Peter Franks |
| | Tony Feller |
| Operator/Engineer | Shaun Adams |
| Operator | Thomas Atkinson |
| Survey Manager | Zoltan Beldi |

2. SURVEY DETAILS

2.1 DESCRIPTION OF AREAS FLOWN

This survey area is marked on the area map in Appendix 1.

2.1.1 Flying Specifications

| | |
|--|-------------------|
| Flight line direction | 090-0270 deg true |
| Flight line spacing | 200 metres |
| Tie line direction | 000-180 deg true |
| Tie line spacing | 400 metres |
| Magnetic sensor mean terrain clearance | 60 metres |
| Spectrometer sensor mean terrain clearance | 80 metres |
| Sampling interval (Magnetics) | 0.10 seconds |
| | = < 7m / sample |
| (Radiometrics) | 1.00 seconds |
| Total distance processed | 2968 km |

2.2 MAPPING

Flight Planning was conducted by reference to Australian Map Grid Coordinates and area diagrams both supplied by the Department of Mineral Resources, Tasmania.

A copy of the appropriate map and the co-ordinates of the boundaries are included in Appendix 1 of this report.

2.3 FLIGHT PATH RECOVERY

Navigation was conducted primarily by reference to the positions provided by the Global Positioning System, hereafter referred to as (G.P.S.).

Flight path recovery was obtained by differentially correcting the flight data with static data that were obtained from a fixed base station GPS receiver.

The position of the reference base station antenna was derived from a differential solution of observations referenced to several bench marks.

The GPS base station was located

| | |
|----------------|-------------------|
| South Latitude | 41° 30' 49" .008 |
| East Longitude | 145° 13' 05" .718 |

The above Co-ordinates are referenced to the AGD84 Spheroid.

Varying degrees of "Selective availability" were observed during the course of the survey.

In addition to GPS recording, the flight path was recorded visually by a continuous running VHS PAL Colour video camera/recorder fitted with a wide angle lens viewing the ground directly beneath the helicopter for verification purposes.

A synchronising fiducial number generated by the Data Acquisition System was recorded within the video frame and the analogue data monitor charts.

2.4 MAGNETOMETER.

The survey was flown using a Geometrics G-833 Ultra-high sensitivity Meta-Stable Helium Magnetometer sensor system. This sensor provides a Larmor signal within the range of 1.1 to 1.9Mhz that is processed by high precision counters embedded within the Geo Instruments G2000 Acquisition system.

The sensor and pre-amp were mounted in a "bird" and flown approximately 20 metres below the helicopter.

Survey Specifications were:

| | |
|------------------------------|---------------------------------|
| Sensitivity | 0.01 nT |
| Signal/Noise Ratio | >100:1 |
| Still Air RMS Noise | 0.05 nT |
| Digital Recording Resolution | 0.01 nT |
| Magnetic Gradient Tolerance | >20,000 nT / metre |
| Sample Time | 0.10 sec. (Recorded at 0.20sec) |
| Sample Distance (Mean) | 7 metres |

2.5 SPECTROMETER

An Exploranium GR820 Differential Gamma Ray Spectrometer was used to measure the standard energy windows for the gamma radiation from TI-208, Bi-214, K-40, Total Count and Cosmic.

The gamma ray spectrometer was interfaced to a NaI (TI) crystal detector with a volume of 16.4 litres (1024 cubic inches). The detector pack was mounted inside the helicopter in the baggage compartment clear of the helicopter fuel tanks.

The GR820 measures the pulses generated by the crystal detector and controls the gain of each individual detector element by reference to the natural radiation emanating from the ground. The isotope selected for the gain control is determined during the survey and depends on the concentration observed during flights covering tie lines.

The Arther Lineament Area had a prevalence of Thorium, therefore it was primarily used as the stabilising element.

The five differential channel windows were defined as follows:

| | |
|-------------|-----------------|
| Total Count | 0.30 - 3.01 MeV |
| K - 40 | 1.37 - 1.57 MeV |
| Bi - 214 | 1.66 - 1.87 MeV |
| TI - 208 | 2.41 - 2.81 MeV |
| Cosmic | 3.00 - 9.00 MeV |

The digital recording contains uncorrected values for the channel windows.

2.6 ANALOG RECORDING.

A printer/plotter RMS Instruments Model GR-33 was used to record the following.

| Channel | Parameter | Full Scale |
|---------|----------------------|------------|
| 00 | Total Magnetic Field | 200 nT |
| 01 | Total Magnetic Field | 2000 nT |
| 02 | Total Count | 1,500 cps |
| 03 | Potassium (K-40) | 150 cps |
| 04 | Uranium (Bi-214) | 150 cps |
| 05 | Thorium (TI-208) | 150 cps |
| 06 | Radar Altitude | 500 ft. |
| 07 | Barometric Altitude | 500 m |

Note that the radiometrics have been normalised to counts per second and Compton scatter (from Thorium) was removed from the Uranium and Potassium channels. Additionally, the fiducial mark correlates to those on the digital data.

2.7 *ALTIMETER.*

A Sperry AA-210 Radar Altimeter system was used. The pilot's analogue indicator provides an absolute altitude display from 0 to 750 metres (0 to 2,500 ft.). Though the altimeter is self calibrating, a check was carried out at 70ft referenced to the "bird" cable at the beginning and end of each flight.

The reference height above mean sea level was derived from the height value provided by the GPS receiver.

2.8 *BASE STATION MAGNETOMETER*

A Geometrics Model G-856 with digital recording was used as the base station magnetometer for recording the diurnal variations and was run continuously throughout the survey flying period. The base station was sampled at 5.0 second period.

Magnetic disturbance activity was classed as moderate throughout much of the survey. Those periods where the magnetic field excursions exceeded the specifications were reflight.

2.9 *DATA ACQUISITION SYSTEM*

The Geo Instruments G2000 is a Digital Acquisition System based on the IBM PC AT architecture.

The system is fitted with several modules tailored to condition the input data from the various sensing instruments.

A custom written software package facilitates the following;

- (a) Correct synchronisation of the data streams,
- (b) Formatting of all data received,
- (c) Extended error checking of all parameters,
- (d) Visual data presentation for monitoring purposes,
- (e) Generate and distribute synchronising Fiducial numbers,
- (f) Recording of data to magnetic media,
- (g) Calculation of position and provide steering display for pilot

2.10 GPS NAVIGATION SYSTEM.

This comprised two NovAtel 951R Receivers and associated antennas. The receiver is a ten channel CA code and carrier phase unit capable of tracking up to ten satellites simultaneously and deriving positions from all satellites in view.

Positions may be generated at 0.2 second intervals and internal recording capacities allow ten hours of positional data storage.

Two units were used in conjunction with each other to allow a real time differential solution to be obtained with the aid of a dedicated telemetry link operating in the UHF Band. Corrections were transmitted at three second intervals.

The Arthur Lineament telemetry link base transmitter was located with the base GPS at Savage River. Two repeater transmitters were used to increase the range of the telemetry link and were located at Mt Clereland and Mt Bertha.

2.11 WEATHER DETAILS.

Weather information where relevant was recorded on the daily flight logs.

3. CALIBRATIONS

3.1 MAGNETICS

3.1.1 Magnetic Noise Envelope.

Post flight analysis indicated that the mean fourth difference noise level achieved was less than 0.025nTs over the whole of the survey. Only occasional bursts of noise exceeded these parameters. They were generally attributed to the effect of severe mechanical turbulence imposed on the bird whilst flying during strong winds in the proximity of sharp topographical relief.

3.1.2 Heading and Parallax Errors

A test flight prior to the survey confirmed no detectable heading error. This is normal and due to the 20m separation of the magnetometer sensor and pre-amp from the helicopter.

A flight was performed before the survey, to test for parallax errors in the system by flying over a metal shed in two opposing directions. It was determined that the digital readings lagged the camera recorded positions by 0.2 of a sample. This averages about two metres and is corrected in the field during merging of the positions with the acquired data.

3.2 **RADIOMETRICS**

3.2.1 **Stripping Coefficients.**

These coefficients were obtained at the beginning of the survey. They were derived using point source Thorium and Uranium samples placed to give a uniform irradiation of the detector pack while the spectrometer subtraction values were adjusted to give minimum observable contribution into the other channels.

The following stripping co-efficients were used for subsequent correction of the digital data:

| | |
|----|------|
| KU | 0.81 |
| KT | 0.40 |
| UT | 0.25 |
| TU | 0.06 |

The following corrections were used:-

| | TC | K | U | Th |
|-------------------------|--------|--------|--------|--------|
| Altitude per metre | 0.0037 | 0.0032 | 0.0042 | 0.0038 |
| Aircraft background cps | 60 | 3 | 2 | 0.75 |
| Cosmic background cps | 0.520 | 0.025 | 0.021 | 0.026 |

3.2.2 **Pre and Post Flight Checks**

All crystals were aligned prior to each day's flight using Cs137 sources and checked for drift at the conclusion of the day. Drift values were kept to a minimum by the correction mechanisms built into the GR820 spectrometer. An alarm is generated whenever the gain drift exceeds nominal tolerances and the GR820 is unable to correct the drift. An unresolved alarm will preclude further flying, however none were generated for this survey.

Pre and post flight checks were undertaken using the following samples:

Thorium sample
Uranium sample

Both pre and post flight sample checks were recorded in analogue and digital forms.

3.2.3 **Flight Calibrations**

A test line was flown before and following each days survey to assess the repeatability of the system pre and post data collection. A test line that exhibited some radiometric expression was selected.

4. DATA PROCESSING

4.1 RECOVERY INFORMATION

The post processed position information was merged with the geophysical data and then subjected to a number of checks. These include;

- (a) Speed correlation checks.
- (b) Spikes, dropouts and noise bursts in all data streams
- (c) Flight path coverage within specified parameters.

4.2 DIGITAL DATA

4.2.1 Magnetic Processing

All data were checked for abnormalities by an in-field data verification system that checks conformity of all parameters within a band of acceptable values.

Having verified all data in the field, the final processing sequence is reduced to the following steps;

- (a) Convert all variables to common base levels.
- (b) Normalise Base station Magnetometer levels.
- (c) Subtract normalised Base Station Magnetometer from Magnetometer values acquired along each line.
- (d) Subtract the IGRF Model from the magnetic datum.
- (e) Grid the data using a 50 metre square grid mesh.
Gridding method is as per Briggs 1974 utilising a four times line spacing search/scan radius.

No filters were applied to the data prior to gridding.

4.2.2 Radiometrics

The spectrometer data was composed of the spectrometer timer, radar and barometric altimeters and the windowed data (i.e. Total count, Potassium, Uranium, Thorium). The windowed data was normalised to counts per second and checked for steps, spikes and noise.

The dataset was then corrected for the following:

- 1 Aircraft Background
- 2 Compton Scatter due to Cosmic
- 3. Energy Stripping of K-40 and Bi-214

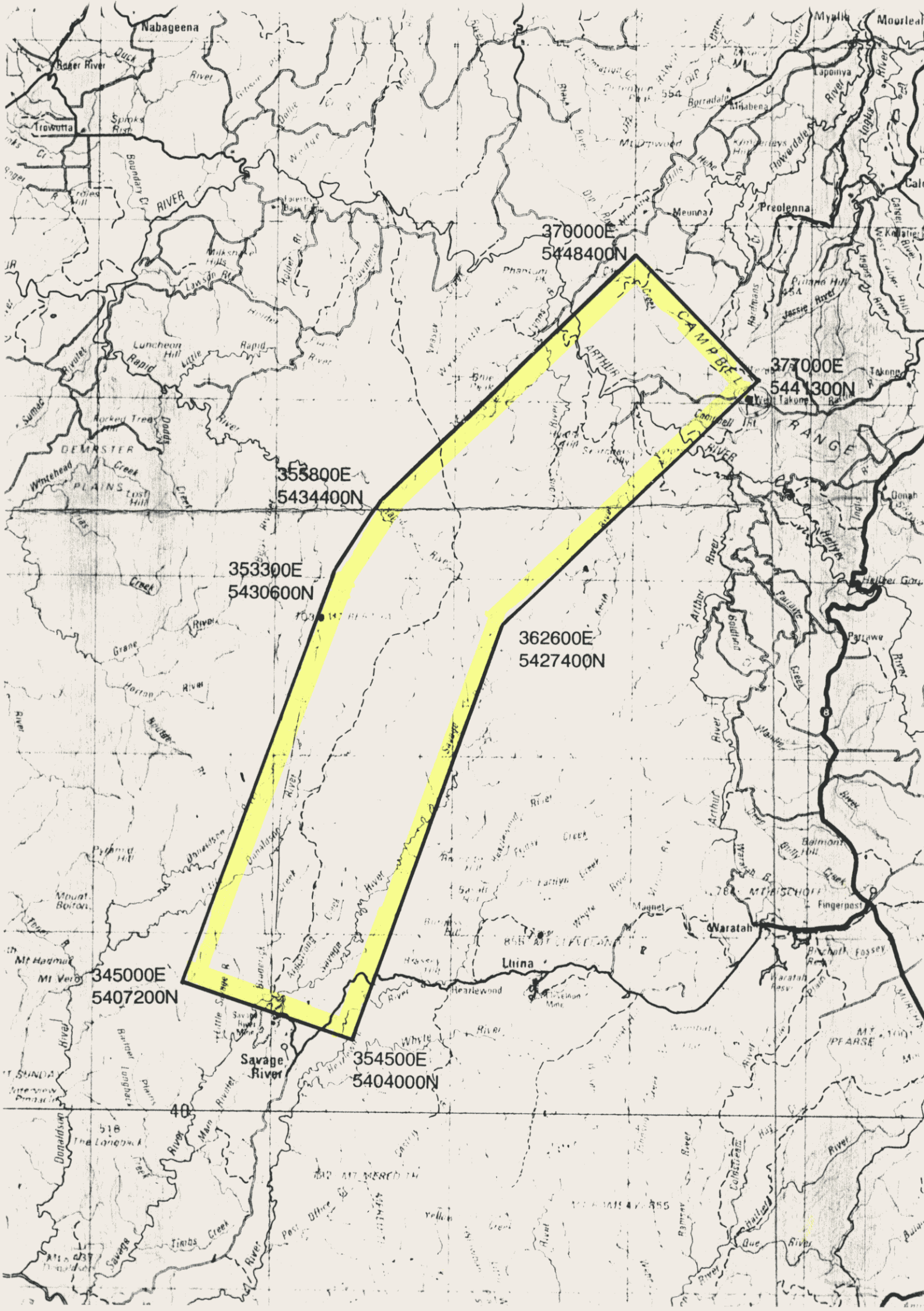
The altitude attenuation correction was performed as an exponential function to the nominal (80 metres) survey height.

4.3 DELIVERED ITEMS

- (a) 1:50,000 Scale Final Mylar base Maps of the following;
 - Flight Path Plots.
 - Total Magnetic Intensity contours.
 - Total Magnetic Intensity stacked profiles.
 - Total Radiometric Intensity contours.
- (b) Gridded Data Tapes of Magnetic and Radiometric data
Located data tapes of all acquired parameters.
- (c) Raw data disks from helicopter system and Base station magnetometer.
Video flight path records
- (d) Analog chart records. (Annotated and folded)
Flight logs (original un-edited)

APPENDIX 1

MAP OF AREA FLOWN



CAMP BELL

370000E
5448400N

370000E
544300N

355800E
5434400N

353300E
5430600N

362600E
5427400N

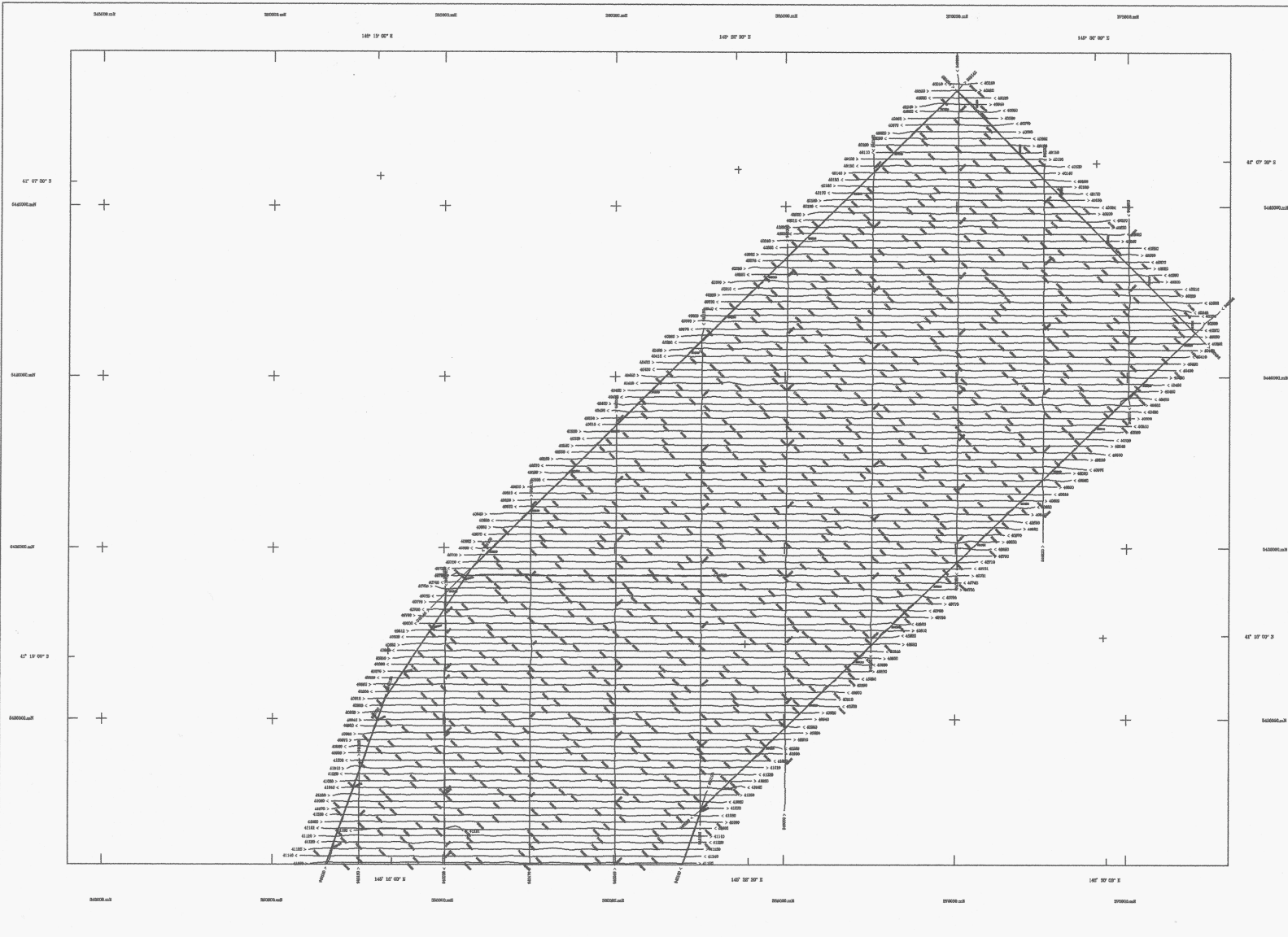
345000E
5407200N

354500E
5404000N

APPENDIX 2

SET OF REDUCED SCALE MAPS

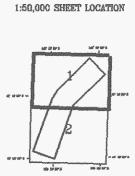
| Qty. | Description |
|------|--|
| 2 | Final Flight Path map at 1:50,000 scale |
| 2 | Final TMI Profile maps at 1:50,000 scale |
| 2 | Final TMI Contour maps at 1:50,000 scale |
| 2 | Final Total Count Contour maps at 1:50,000 scale |

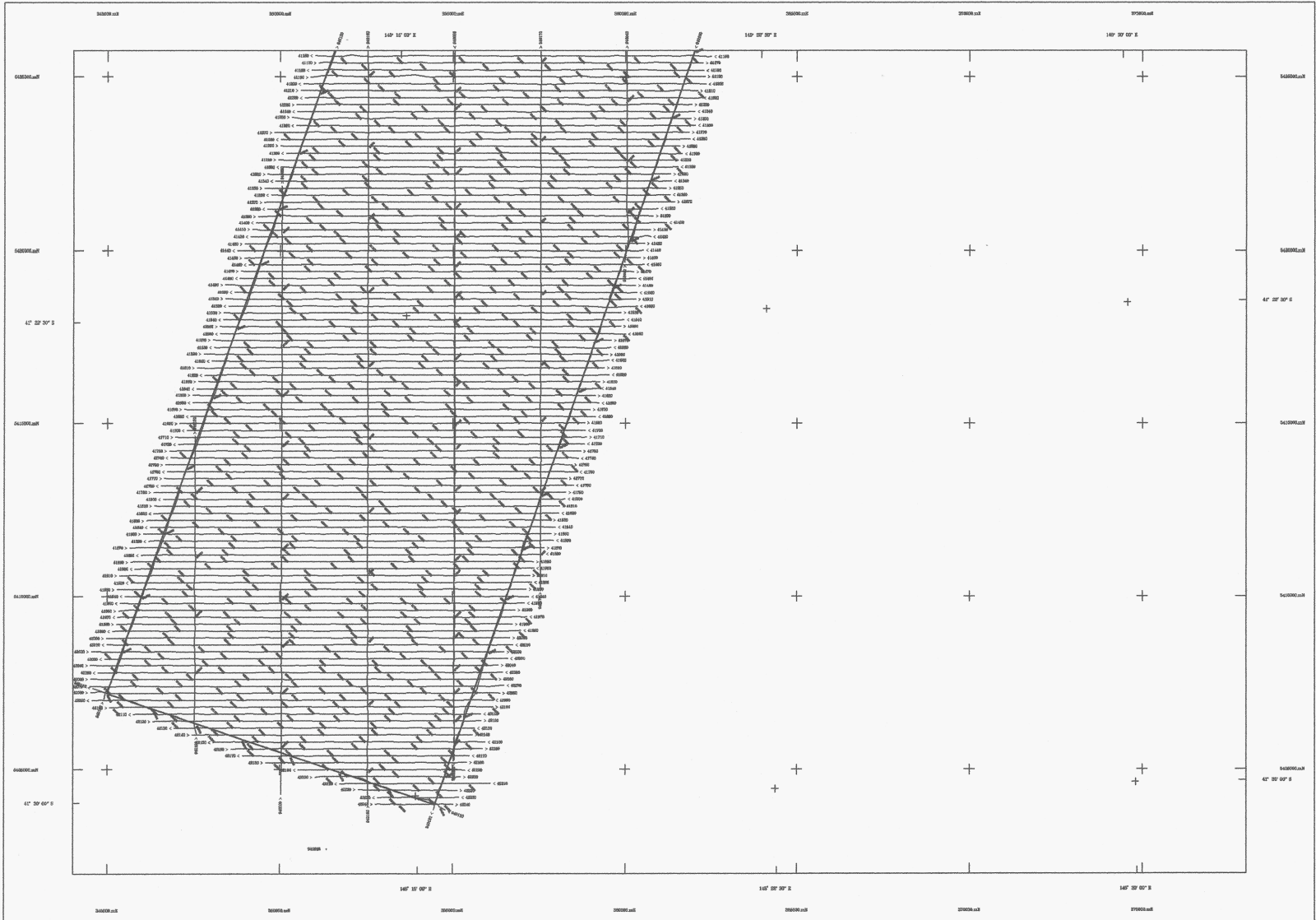


AIRBORNE SURVEY EQUIPMENT
 Aircraft: DHC-6
 Magnetometer: GOMAC
 GPS: GARMIN
 Flight Recorder: GOMAC
 Data Recorder: GOMAC
 Flight Path: GOMAC
 Data Transfer: GOMAC
 Data Processing: GOMAC

FLIGHT PATH PROCESSING
 Flight path adjusted from GOMAC
 corrected with data using an accurate GPS receiver
 GPS navigation data differentially corrected in real time
 Survey 500 m interval used
 0000 contains refers to Australian Map Grid Zone 56

Arthur Lineament Airborne Geophysical Survey
 Tasmania Development and Resources
 Minerals Resources Tasmania
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 Processed by Keran Geophysics Pty. Ltd.
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 SCALE 1:50,000
 METERS
 MAP GRID ZONE 56
 SPHEROID : Australian National
 PROJECTION : Universal Transverse Mercator





AIRBORNE SURVEY EQUIPMENT

- Operator: [Name]
- Instrumentation: [Details]
- Survey Area: [Details]
- Survey Date: [Details]
- Survey Time: [Details]
- Survey Location: [Details]
- Survey Method: [Details]
- Survey Results: [Details]
- Survey Status: [Details]

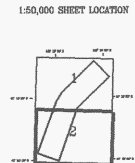
AIRBORNE SURVEY SPECIFICATIONS

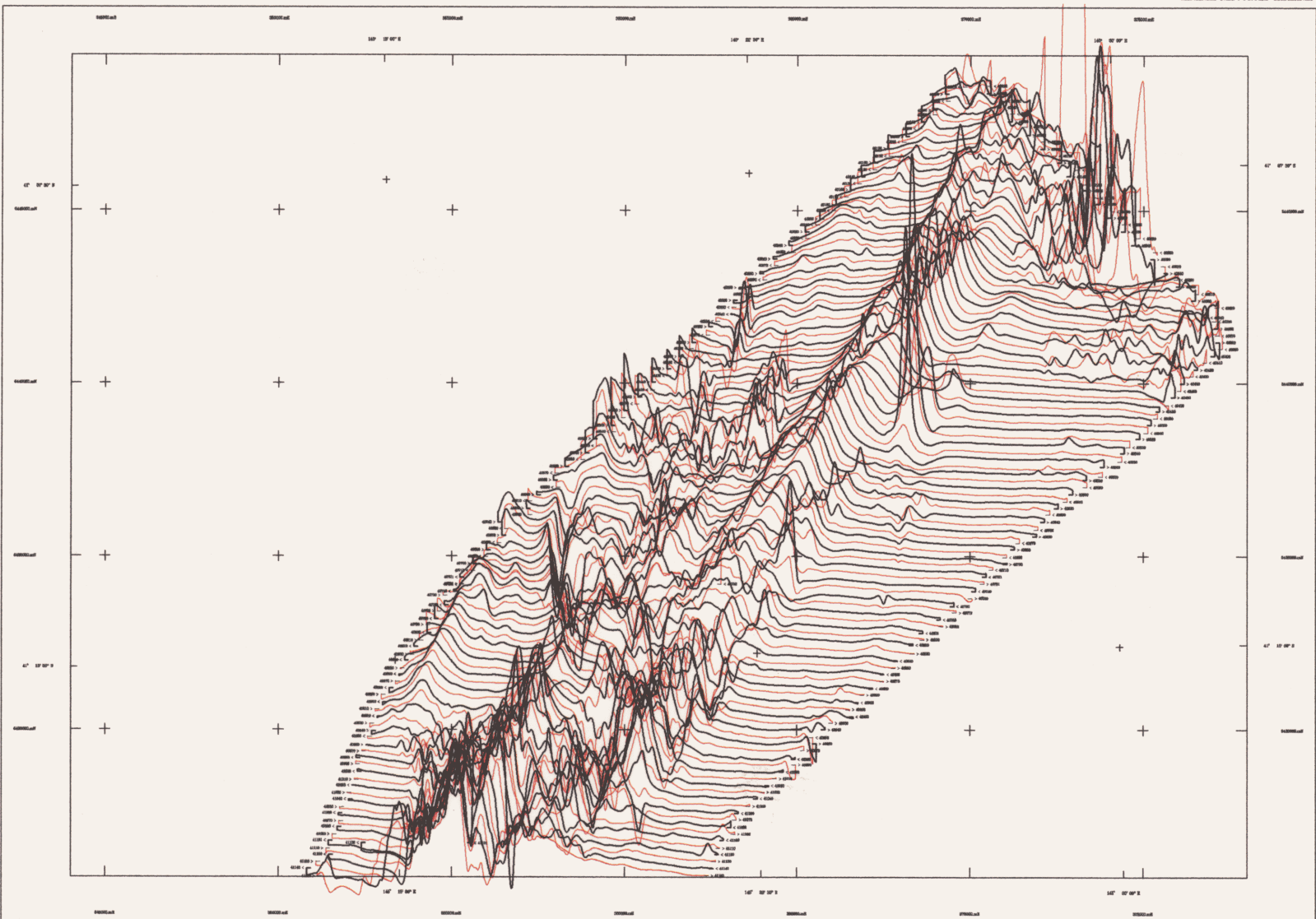
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- Projection: [Details]
- Zone: [Details]
- Units: [Details]
- Accuracy: [Details]
- Resolution: [Details]
- Bandwidth: [Details]
- Sampling Rate: [Details]
- Integration Time: [Details]
- Gain: [Details]
- Offset: [Details]
- Reference: [Details]

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 Tasmanian Development and Resources
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SCALE 1:50,000
 METERS
 0 1 2 3 4
 1:50,000
 METERS
 0 1 2 3 4





AIRBORNE SURVEY EQUIPMENT
 Magnetometer: GOM 4000, 1000 Gauss
 Gyro Compass: GOM 4000, 1000 Gauss
 Inertial Navigation System: GOM 4000, 1000 Gauss
 Data Recorder: GOM 4000, 1000 Gauss
 1:4 Scale Plotter: GOM 4000, 1000 Gauss
 1:4 Scale Plotter: GOM 4000, 1000 Gauss

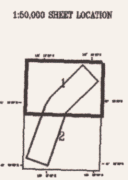
AIRBORNE SURVEY SPECIFICATIONS
 Flight Line Direction: 000 - 375 degrees
 Flight Line Spacing: 000 - 1000 feet
 Inertial System Accuracy: 000 - 1000 feet
 Data Collection Rate: 000 - 1000 feet
 Data Collection Rate: 000 - 1000 feet

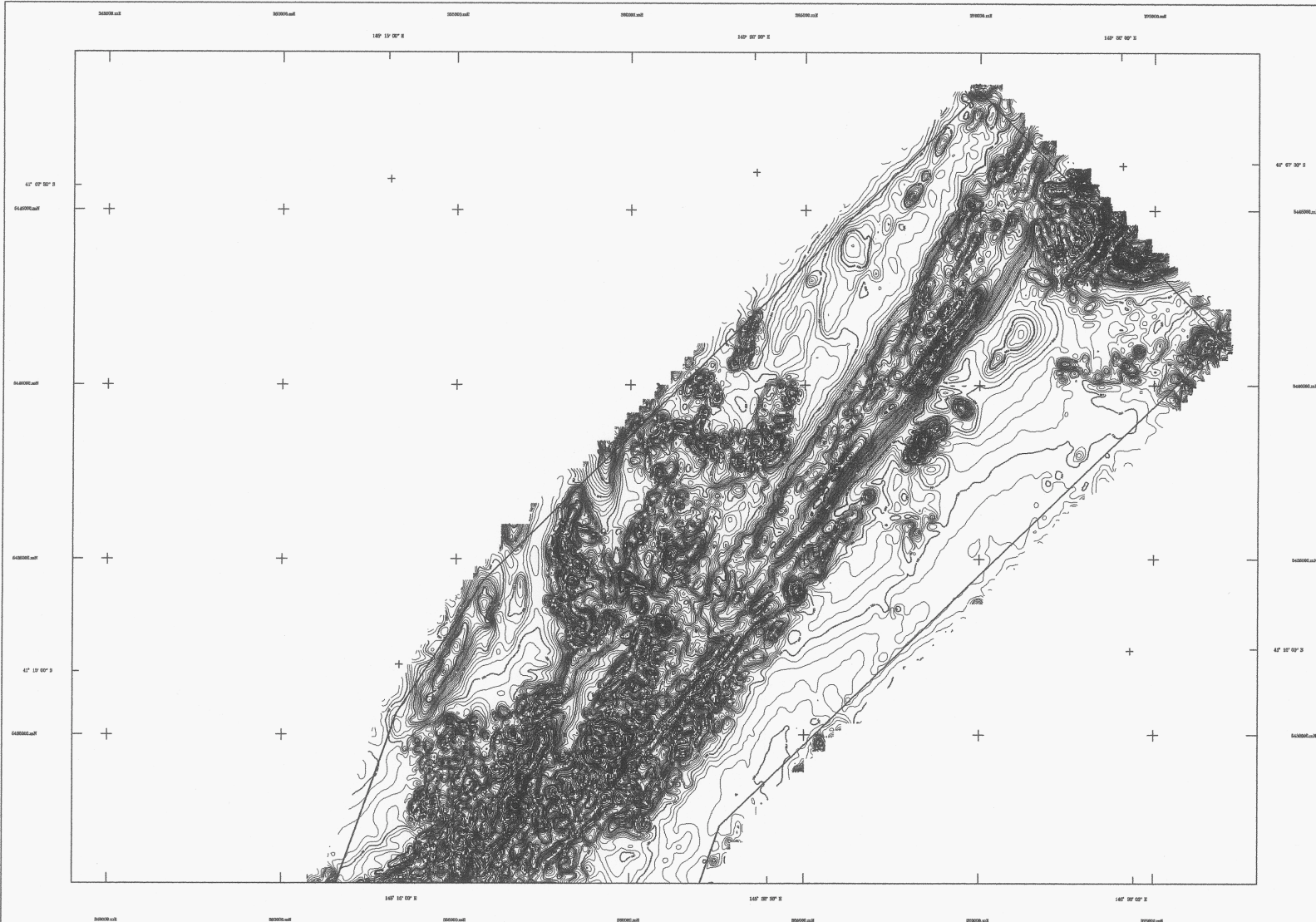
TOTAL MAGNETIC INTENSITY STACKED PROFILES
 Detailed magnetic intensity profiles are plotted at 1000 Gauss intervals. The profiles are stacked vertically, with the top profile being the most recent and the bottom profile being the oldest. The profiles show significant variations, particularly a large, complex peak in the upper right quadrant.

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SCALE 1:50,000
 METRES
 MAP GRID BOX IS
 1000 METRES
 1:50,000 Australian Edition
 PROJECTOR: Universal Transverse Mercator





AIRBORNE SURVEY EQUIPMENT

Magnetometer: GDS 224 - 2 VU-728
 Geomagnetic Field Station: GDS 224
 Inertial Reference System: GDS 224
 Data Recorder: GDS 224
 Data Processor: GDS 224
 Data Storage: GDS 224
 Data Transfer: GDS 224
 Data Analysis: GDS 224
 Data Presentation: GDS 224

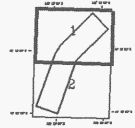
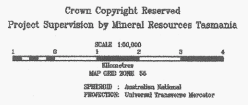
AIRBORNE SURVEY SPECIFICATIONS

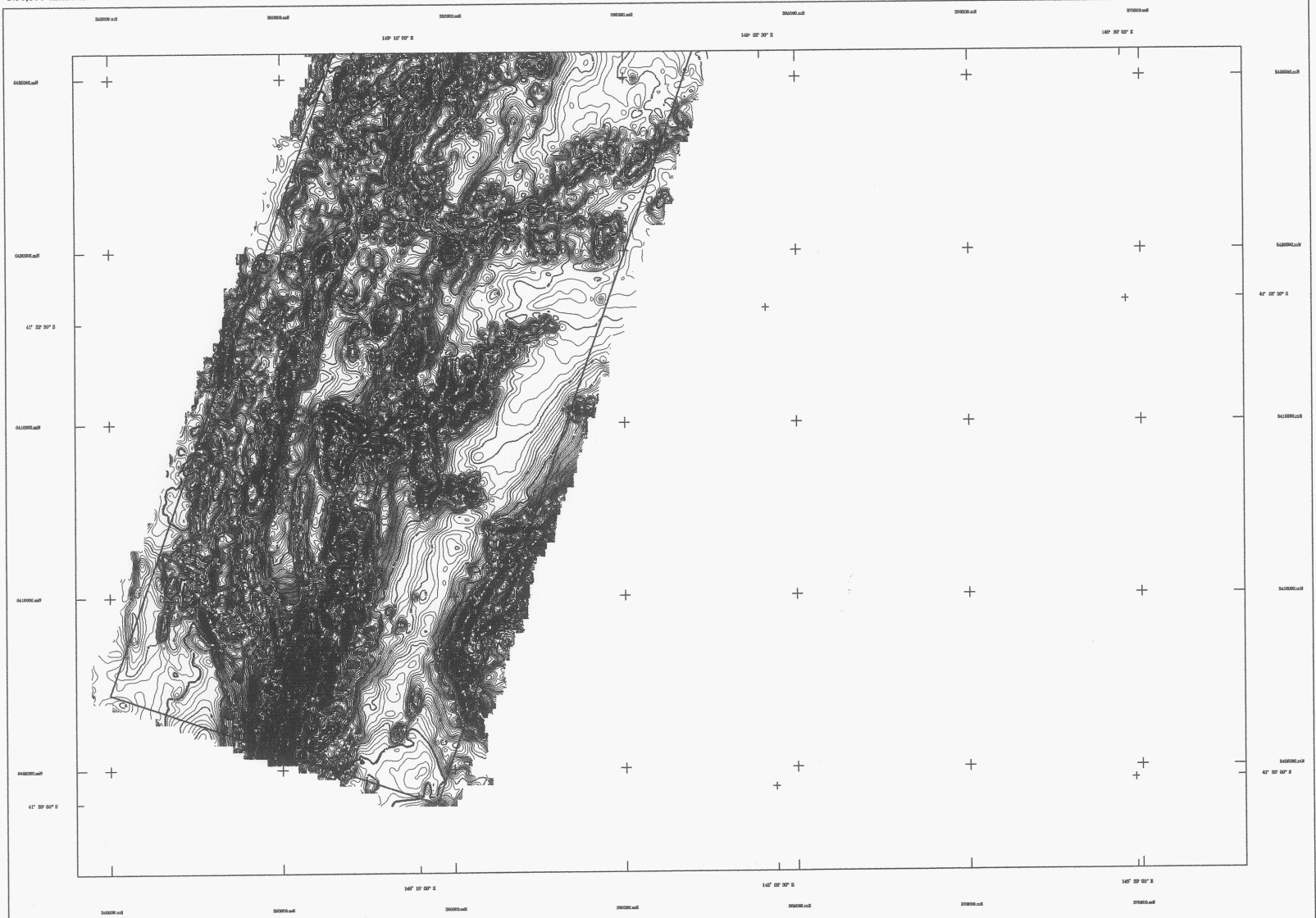
Flight Line Spacing: 100 - 200 metres
 Flight Line Orientation: 090 - 180 degrees
 Data Collection Rate: 100 - 200 samples/sec
 Data Storage Capacity: 100 - 200 samples

TOTAL MAGNETIC INTENSITY CONTOURS

Contour interval: 50 x 50 centives
 Contour interval: 50 x 50 centives
 Contour interval: 50 x 50 centives

Arthur Lineament Airborne Geophysical Survey
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AIRBORNE SURVEY EQUIPMENT
 Aircraft: Cessna 441 QX
 Magnetometer: Geometrics G802
 GPS: Trimble R2
 Data Logger: Kipp & Zohn
 Software: GeoSurveyor
 Operator: [Name]
 Date: [Date]

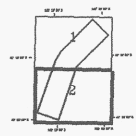
AIRBORNE SURVEY SPECIFICATIONS
 Flight Line Spacing: 100m
 Line Orientation: 135 degrees
 Line Spacing: 100m
 Terrain Clearance: 50m

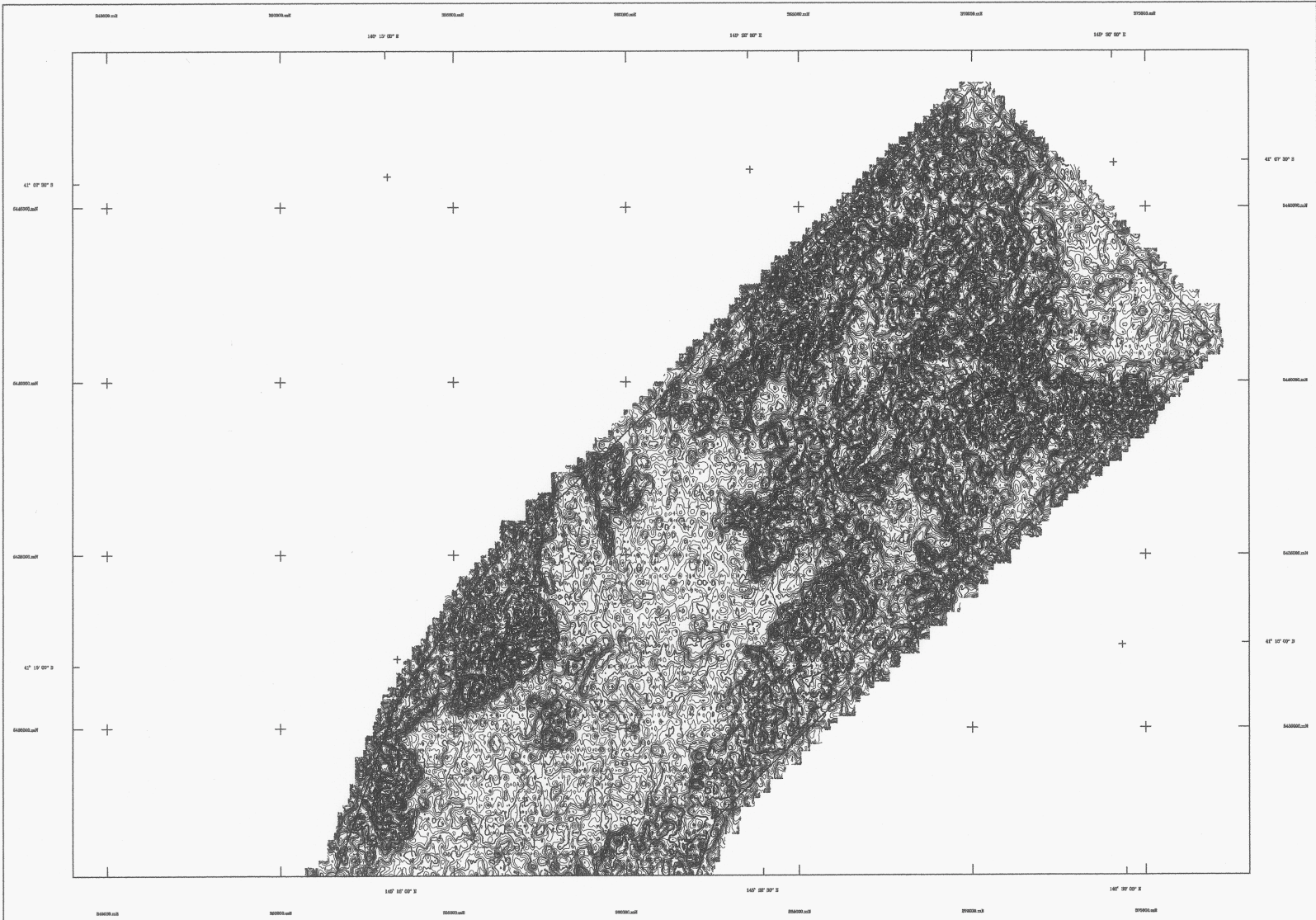
TOTAL MAGNETIC INTENSITY CONTOURS
 Contour Interval: 10 nT
 Contour Label: 50, 60, 70, 80, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 370, 380, 390, 400, 410, 420, 430, 440, 450, 460, 470, 480, 490, 500, 510, 520, 530, 540, 550, 560, 570, 580, 590, 600, 610, 620, 630, 640, 650, 660, 670, 680, 690, 700, 710, 720, 730, 740, 750, 760, 770, 780, 790, 800, 810, 820, 830, 840, 850, 860, 870, 880, 890, 900, 910, 920, 930, 940, 950, 960, 970, 980, 990, 1000, 1010, 1020, 1030, 1040, 1050, 1060, 1070, 1080, 1090, 1100, 1110, 1120, 1130, 1140, 1150, 1160, 1170, 1180, 1190, 1200, 1210, 1220, 1230, 1240, 1250, 1260, 1270, 1280, 1290, 1300, 1310, 1320, 1330, 1340, 1350, 1360, 1370, 1380, 1390, 1400, 1410, 1420, 1430, 1440, 1450, 1460, 1470, 1480, 1490, 1500, 1510, 1520, 1530, 1540, 1550, 1560, 1570, 1580, 1590, 1600, 1610, 1620, 1630, 1640, 1650, 1660, 1670, 1680, 1690, 1700, 1710, 1720, 1730, 1740, 1750, 1760, 1770, 1780, 1790, 1800, 1810, 1820, 1830, 1840, 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8490, 8500, 8510, 8520, 8530, 8540, 8550, 8560, 8570, 8580, 8590, 8600, 8610, 8620, 8630, 8640, 8650, 8660, 8670, 8680, 8690, 8700, 8710, 8720, 8730, 8740, 8750, 8760, 8770, 8780, 8790, 8800, 8810, 8820, 8830, 8840, 8850, 8860, 8870, 8880, 8890, 8900, 8910, 8920, 8930, 8940, 8950, 8960, 8970, 8980, 8990, 9000, 9010, 9020, 9030, 9040, 9050, 9060, 9070, 9080, 9090, 9100, 9110, 9120, 9130, 9140, 9150, 9160, 9170, 9180, 9190, 9200, 9210, 9220, 9230, 9240, 9250, 9260, 9270, 9280, 9290, 9300, 9310, 9320, 9330, 9340, 9350, 9360, 9370, 9380, 9390, 9400, 9410, 9420, 9430, 9440, 9450, 9460, 9470, 9480, 9490, 9500, 9510, 9520, 9530, 9540, 9550, 9560, 9570, 9580, 9590, 9600, 9610, 9620, 9630, 9640, 9650, 9660, 9670, 9680, 9690, 9700, 9710, 9720, 9730, 9740, 9750, 9760, 9770, 9780, 9790, 9800, 9810, 9820, 9830, 9840, 9850, 9860, 9870, 9880, 9890, 9900, 9910, 9920, 9930, 9940, 9950, 9960, 9970, 9980, 9990, 10000

Arthur Lineament Airborne Geophysical Survey
 Tasmania Development and Resources
 Minerals Resources Tasmania
 Surveyed and compiled Geo Instruments Pty. Ltd
 Processed by Kevron Geophysics Pty. Ltd.
 October - November 1993

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 Project Supervision by Mineral Resources Tasmania

Scale 1:50,000
 1 2 3 4
 Kilometres
 MET COORD SYSTEM 55
 SPHEROID : Australian National
 PROJECTION : Universal Transverse Mercator





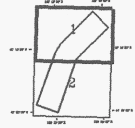
AIRBORNE SURVEY EQUIPMENT

Altitude 10000 ft
 Magnetometer Scintillation Counter
 Magnetometer Sample Interval 1/10 sec
 Data Acquisition 14 bit
 Data Storage 1600000 words
 Data Transfer 1000 words/sec
 Data Processing 100000 words/sec

AIRBORNE SURVEY SPECIFICATIONS

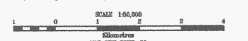
100 - 1000 Hz
 100 - 1000 Hz
 100 - 1000 Hz
 100 - 1000 Hz

Arthur Lineament Airborne Geophysical Survey
 Tasmania Development and Resources
 Minerals Resources Tasmania
 Surveyed and compiled Geo Instruments Pty. Ltd
 Processed by Kevron Geophysics Pty. Ltd.
 October - November 1993



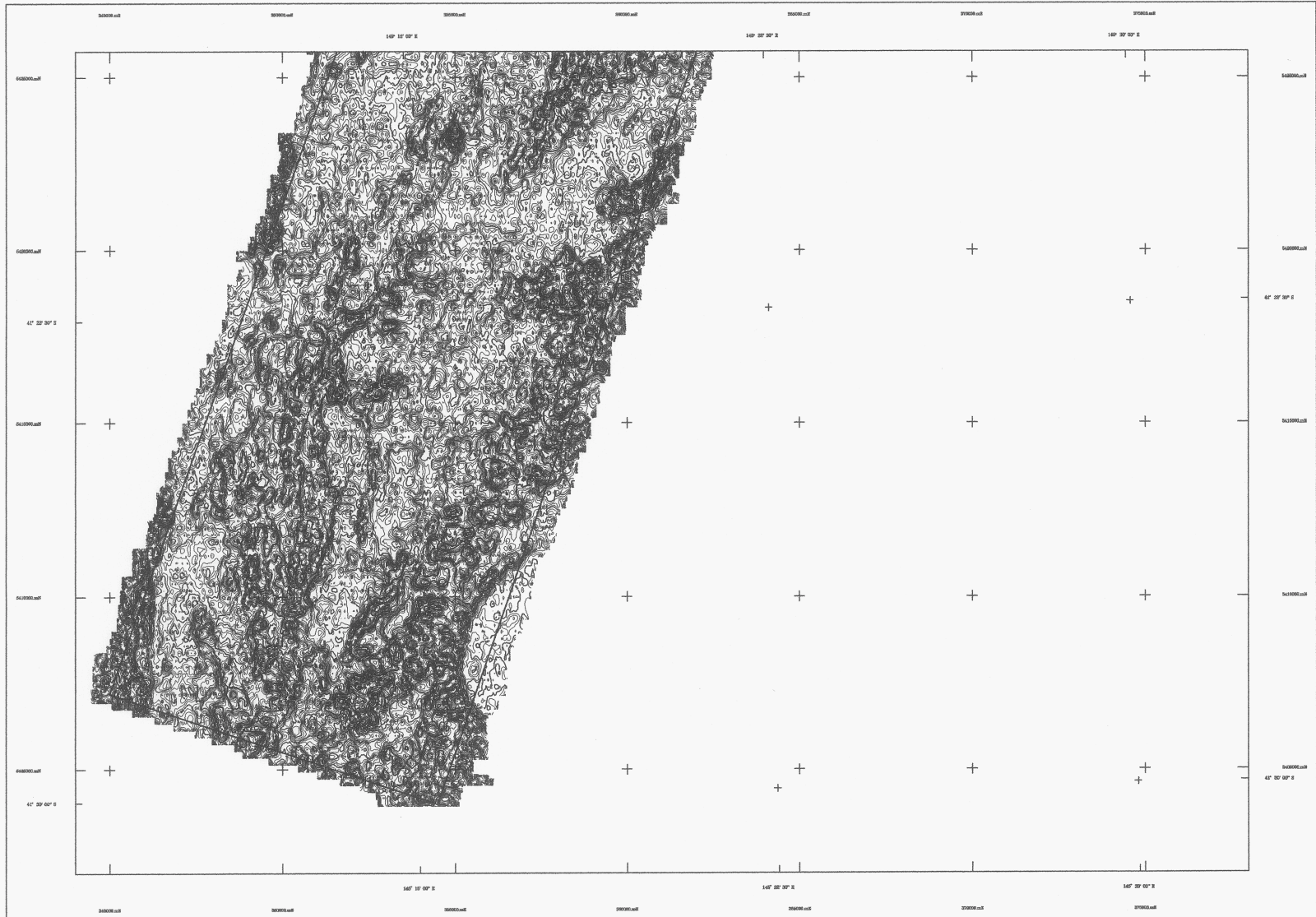
TOTAL COUNT CONTOURS

Contours are drawn at 1000 counts intervals
 Contour interval 1000 counts
 Contour thickness 0.5 mm
 Contour spacing 1000 counts
 Contour labels 1000 counts



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 Project Supervision by Mineral Resources Tasmania

SPRINGER - Australian National
 PUBLISHERS - Victoria Tasmania Incorporated



AIRBORNE SURVEY EQUIPMENT

Surveyor: **Bob Dore - R 10-258**
 Consultant: **Geo Instruments Pty Ltd**
 Instrumentation: **Geometrics GDS 3000**
 Data Acquisition: **Geo Instruments GDS 3000**
 Data Processing: **Geo Instruments GDS 3000**
 Flight Plan: **1:50,000 scale survey**
 Flight Height: **1000 metres**
 Flight Speed: **100 knots**
 Flight Altitude: **1000 metres**

AIRBORNE SURVEY SPECIFICATIONS

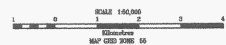
Flight Line Spacing: **600 metres**
 Flight Line Orientation: **100 metres**
 Data Acquisition: **600 metres**
 Data Processing: **600 metres**
 Data Storage: **60 metres (MTC)**

TOTAL COUNT CONTOURS

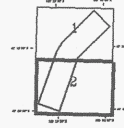
Contour interval: **20, 50, 100, 200 cps**

Arthur Lineament Airborne Geophysical Survey
 Tasmania Development and Resources
 Minerals Resources Tasmania
 Surveyed and compiled Geo Instruments Pty. Ltd
 Processed by Kevron Geophysics Pty. Ltd.
 October - November 1993

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APPENDIX 3

RAW FLIGHT REPORTS



GEO INSTRUMENTS

Pty. Limited (Inc. in N.S.W.)

OPERATORS FLIGHT REPORT

Page 1 of 2

Job No. 9304
 Area 4 Airport SAVAGE RIVER
 Flight 69 DY319 Take off 1540 Land 1930
 Date 15 / 11 / 93 Flight time 3:50
 Day Mo. Yr. Mag. Sens. F/S 1
 Airplane VH-FHB Fid. & Scan Interval
 Pilot T. FELLER Svy. Alt.
 Co-Pilot Baro. Pres.
 Operator T. ATKINSON Baro. Alt. Correct
 Dataman Z. BELDI Rdr. Alt. Chart F/S

Spectrometer Multiplier Settings

| Analog F/S cts. | Digital Mult. No. |
|-----------------|-------------------|
| K40 | CTS Mit. |
| Bi214 | CTS Mit. |
| TL208 | CTS Mit. |
| TC | CTS Mit. |
| Sample Rate | Sec. |

Rdr. Alt. F/S = Ft. at MV/Ft.

| Line No. & Direct. | Fiducials and Scans | | Local Time | | Line Extent | | Header | Remarks | Fids. |
|--------------------|---------------------|-------|------------|------|-------------|----|--------|---------|-------|
| | Start | End | Start | End | From | To | | | |
| GND | 32437 | 32565 | 0950 | 0952 | | | | | |
| Th | 32566 | 32695 | 0953 | 0955 | | | | | |
| U | 32696 | 32820 | 0956 | 0958 | | | | | |
| GND | 32821 | 32936 | 0959 | 1001 | | | | | |
| TESTLINE | 32937 | 33080 | 1552 | 1555 | | | | | |
| BK6RND | 33081 | 33170 | 1556 | 1558 | | | | | |
| L224E | 33171 | 33260 | 1618 | 1620 | | | | | |
| L223W | 33261 | 33360 | 1621 | 1622 | | | | | |
| L222E | 33361 | 33475 | 1624 | 1626 | | | | | |
| L221W | 33476 | 33635 | 1627 | 1629 | | | | | |
| L220E | 33636 | 33780 | 1630 | 1632 | | | | RO. | |
| L219W | 33781 | 33940 | 1634 | 1637 | | | | | |
| L218E | 33941 | 34120 | 1638 | 1641 | | | | | |
| L217W | 34121 | 34330 | 1643 | 1646 | | | | | |
| L216E | 34331 | 34580 | 1647 | 1651 | | | | | |
| L215W | 34581 | 34835 | 1652 | 1656 | | | | | |
| L214E | 34836 | 35095 | 1658 | 1702 | | | | | |
| L213W | 35096 | 35380 | 1703 | 1708 | | | | | |
| L212E | 35381 | 35700 | 1709 | 1714 | | | | | |
| L211W | 35701 | 36045 | 1715 | 1721 | | | | | |
| L210E | 36046 | 36450 | 1722 | 1728 | | | | | |
| L209W | 36451 | 36820 | 1729 | 1735 | | | | | |
| L208E | 36821 | 37210 | 1736 | 1742 | | | | | |
| L207W | 37211 | 37610 | 1743 | 1750 | | | | | |
| L206E | 37611 | 37985 | 1750 | 1757 | | | | | |
| L205W | 37986 | 38380 | 1757 | 1804 | | | | | |



GEO INSTRUMENTS
Pty. Limited (Inc. in N.S.W.)

OPERATORS FLIGHT REPORT

Page 1 of 2

Job No. 9304
 Area 4 Airport SAVAGE RIVER
 Flight 70 DY 320 Take off 0830 Land 1141
 Date 16 / 11 / 93 Flight time 3:11
 Day Mo. Yr. Mag. Sens. F/S 1
 Airplane VH-FHB Fid. & Scan Interval
 Pilot T. FELLER Svy. Alt.
 Co-Pilot Baro. Pres.
 Operator T. ATKINSON Baro. Alt. Correct.
 Dataman Z. BELDI Rdr. Alt. Chart F/S

Spectrometer Multiplier Settings

| Analog F/S cts. | Digital Mult. No. |
|--------------------|-------------------|
| K40.....CTS..... | Mit. |
| Bi214.....CTS..... | Mit. |
| TL208.....CTS..... | Mit. |
| TC.....CTS..... | Mit. |
| Sample Rate..... | Sec. |

Rdr. Alt. F/S = Ft. at MV/Ft.

| Line No. & Direct. | Fiducials and Scans | | Local Time | | Line Extent | | Header | Remarks | Fids. |
|--------------------|---------------------|-------|------------|------|-------------|----|--------|---------------------|-------|
| | Start | End | Start | End | From | To | | | |
| GND | 42832 | 43005 | 0810 | 0813 | | | | | |
| Th | 43006 | 43115 | 0817 | 0819 | | | | | |
| U | 43116 | 43215 | 0820 | 0822 | | | | | |
| GND | 43216 | 43355 | 0823 | 0825 | | | | | |
| BKLAND | 43356 | 43450 | 0840 | 0842 | | | | HIGH ALT. 3500' AGL | |
| TESTLINE | 43451 | 43570 | 0845 | 0847 | | | | | |
| L194W | 43571 | 43930 | 0855 | 0901 | | | | | |
| L193E | 43931 | 44295 | 0902 | 0908 | | | | | |
| L192W | 44296 | 44640 | 0909 | 0915 | | | | | |
| L191E | 44641 | 44995 | 0915 | 0921 | | | | | |
| L190W | 44996 | 45330 | 0922 | 0928 | | | | | |
| L189E | 45331 | 45670 | 0928 | 0934 | | | | | |
| L188W | 45671 | 46010 | 0935 | 0940 | | | | | |
| L187E | 46011 | 46375 | 0941 | 0947 | | | | | |
| L186W | 46376 | 46710 | 0948 | 0953 | | | | | |
| L185E | 46711 | 47070 | 0954 | 1000 | | | | | |
| L184W | 47071 | 47405 | 1001 | 1007 | | | | | |
| L183E | 47406 | 47735 | 1007 | 1013 | | | | | |
| L182W | 47736 | 48055 | 1014 | 1019 | | | | | |
| L181E | 48056 | 48390 | 1019 | 1025 | | | | | |
| L180W | 48391 | 48715 | 1026 | 1031 | | | | | |
| L179E | 48716 | 49065 | 1032 | 1037 | | | | | |
| L178W | 49066 | 49410 | 1038 | 1044 | | | | | |
| L177E | 49411 | 49755 | 1045 | 1050 | | | | | |
| L176W | 49756 | 50100 | 1051 | 1057 | | | | | |
| L175E | 50101 | 50450 | 1058 | 1103 | | | | | |

OPERATORS FLIGHT REPORT

Job No. 9304
 Area 4 Airport SAVAGE RIVER
 Flight 71 DY320 Take off 1240 Land 1827
 Date 16 / 11 / 93 Flight time 5:47
 Day Mo. Yr. Mag. Sens. F/S 1
 Airplane VH-FHB Fid. & Scan Interval
 Pilot T. FELLER Svy. Alt.
 Co-Pilot Baro. Pres.
 Operator T. ATKINSON Baro. Alt. Correct
 Dataman Z. BELDI Rdr. Alt. Chart F/S

Spectrometer Multiplier Settings

| Analog F/S cts. | Digital Mult. No. | |
|-----------------|-------------------|------|
| K40 | CTS | Mlt. |
| Bi214 | CTS | Mlt. |
| TL208 | CTS | Mlt. |
| TC | CTS | Mlt. |
| Sample Rate | | Sec. |

Rdr. Alt. F/S = _____ Ft. at _____ MV/Ft.

| Line No. & Direct. | Fiducials and Scans | | Local Time | | Line Extent | | Header | Remarks | Fids. |
|--------------------|---------------------|-------|------------|------|-------------|----|--------|---------|-------|
| | Start | End | Start | End | From | To | | | |
| L170W | 51777 | 52140 | 1253 | 1259 | | | | | |
| L169E | 52141 | 52470 | 1315 | 1321 | | | | | |
| L168W | 52471 | 52825 | 1322 | 1327 | | | | | |
| L167E | 52826 | 53160 | 1328 | 1334 | | | | | |
| L166W | 53161 | 53510 | 1334 | 1340 | | | | | |
| L165E | 53511 | 53860 | 1341 | 1346 | | | | | |
| L164W | 53861 | 54220 | 1347 | 1353 | | | | | |
| L163E | 54221 | 54555 | 1353 | 1359 | | | | | |
| L162W | 54556 | 54905 | 1400 | 1405 | | | | | |
| L161E | 54906 | 55230 | 1406 | 1411 | | | | | |
| L160W | 55231 | 55570 | 1412 | 1418 | | | | | |
| L159E | 55571 | 55885 | 1418 | 1424 | | | | | |
| L158W | 55886 | 56225 | 1424 | 1430 | | | | | |
| L157E | 56226 | 56545 | 1430 | 1436 | | | | | |
| L156W | 56546 | 56900 | 1436 | 1442 | | | | | |
| L155E | 56901 | 57230 | 1443 | 1448 | | | | | |
| L154W | 57231 | 57590 | 1449 | 1455 | | | | | |
| L153E | 57591 | 57895 | 1456 | 1501 | | | | | |
| L152W | 57896 | 58250 | 1501 | 1507 | | | | Ro. | |
| L151E | 58251 | 58570 | 1508 | 1513 | | | | | |
| L150W | 58571 | 58935 | 1513 | 1520 | | | | | |
| L149E | 58936 | 59265 | 1520 | 1526 | | | | | |
| L148W | 59266 | 59625 | 1526 | 1532 | | | | Ro. | |
| L147E | 59626 | 59940 | 1533 | 1538 | | | | | |
| L146W | 59941 | 60295 | 1538 | 1544 | | | | | |
| L145E | 60296 | 60615 | 1545 | 1550 | | | | Ro. | |
| L144W | 60616 | 60995 | 1551 | 1557 | | | | | |
| L143E | 60996 | 61325 | 1558 | 1603 | | | | | 311 |



GEO INSTRUMENTS

Pty. Limited (Inc. in N.S.W.)

OPERATORS FLIGHT REPORT

Page 1 of 2

Job No. 9704
 Area f Airport SAVAGE RIVER
 Flight 73 DY322 Take off 1420 Land 1719
 Date 18 / 11 / 73 Flight time
 Day Mo. Yr. Mag. Sens. F/S 1
 Airplane VH-FHB Fid. & Scan Interval
 Pilot P. FRANKS Svy. Alt.
 Co-Pilot Baro. Pres.
 Operator T. ATKINSON Baro. Alt. Correct
 Dataman Z. BELDI Rdr. Alt. Chart F/S

Spectrometer Multiplier Settings

| Analog F/S cts. | Digital Mult. No. |
|--------------------|-------------------|
| K40.....CTS..... | Mlt. |
| Bi214.....CTS..... | Mlt. |
| TL208.....CTS..... | Mlt. |
| TC.....CTS..... | Mlt. |
| Sample Rate..... | Sec. |

Rdr. Alt. F/S = Ft. at MV/Ft.

| Line No. & Direct. | Fiducials and Scans | | Local Time | | Line Extent | | Header | Remarks | Fids. |
|--------------------|---------------------|-------|------------|------|-------------|----|--------|-------------|-------|
| | Start | End | Start | End | From | To | | | |
| GND | 67982 | 68105 | 1357 | 1359 | | | | | |
| Th | 68106 | 68260 | 1400 | 1402 | | | | | |
| U | 68261 | 68380 | 1403 | 1405 | | | | | |
| GND | 68381 | 68495 | 1406 | 1408 | | | | | |
| BKGRND | 68496 | 68570 | 1428 | 1430 | | | | LAKE | |
| TESTLINE | 68571 | 68700 | 1432 | 1434 | | | | | |
| T2N | 68701 | | 1436 | | | | | | |
| L127E | | 69630 | 1447 | 1453 | | | | | |
| L126W | 69631 | 69980 | 1453 | 1459 | | | | | |
| L125E | 69981 | 70305 | 1500 | 1505 | | | | | |
| L124W | 70306 | 70650 | 1505 | 1511 | | | | | |
| L123E | 70651 | 70970 | 1512 | 1517 | | | | | |
| L122W | 70971 | 71325 | 1518 | 1523 | | | | | |
| L121E | 71326 | 71650 | 1524 | 1529 | | | | | |
| L120W | 71651 | 72010 | 1530 | 1536 | | | | | |
| L119E | 72011 | 72315 | 1536 | 1541 | | | | | |
| L118W | 72316 | 72665 | 1542 | 1548 | | | | | |
| L117E | 72666 | 72975 | 1548 | 1553 | | | | | |
| L116W | 72976 | 73320 | 1554 | 1600 | | | | | |
| L115E | 73321 | 73650 | 1600 | 1605 | | | | | |
| L114W | 73651 | 73995 | 1606 | 1612 | | | | | |
| L113E | 73996 | 74295 | 1612 | 1617 | | | | | |
| L112W | 74296 | 74630 | 1617 | 1623 | | | | | |
| L111E | 74631 | 74940 | 1623 | 1629 | | | | | |
| L110W | 74941 | 75245 | 1629 | 1634 | | | | INCOMPLETE. | |
| L96E | 75246 | 75600 | 1637 | 1643 | | | | | 226 |



INSTRUMENTS

Pty. Limited (Inc. in N.S.W.)

OPERATORS FLIGHT REPORT

Page 1 of 2

Job No. 9304
 Area A Airport SAVAGE RIVER
 Flight 74 DY323 Take off 0940 Land 1302
 Date 19 / 11 / 93 Flight time 3:22
 Day Mo. Yr. Mag. Sens. F/S 1
 Airplane VH-FHB Fid. & Scan Interval
 Pilot A. FRANKS Svy. Alt.
 Co-Pilot Baro. Pres.
 Operator T. ATKINSON Baro. Alt. Correct.
 Dataman Z. BELDI Rdr. Alt. Chart F/S

Spectrometer Multiplier Settings

| Analog F/S cts. | Digital Mult. No. |
|--------------------|-------------------|
| K40.....CTS..... | Mlt. |
| Bi214.....CTS..... | Mlt. |
| TL208.....CTS..... | Mlt. |
| TC.....CTS..... | Mlt. |
| Sample Rate..... | Sec. |

Rdr. Alt. F/S = Ft. at MV/Ft.

| Line No. & Direct. | Fiducials and Scans | | Local Time | | Line Extent | | Header | Remarks | Fids. |
|--------------------|---------------------|-------|------------|------|-------------|----|--------|---------|-------|
| | Start | End | Start | End | From | To | | | |
| GND | 77587 | 77695 | 0920 | 0922 | | | | | |
| Th | 77696 | 77820 | 0923 | 0925 | | | | | |
| U | 77821 | 77945 | 0926 | 0928 | | | | | |
| GND | 77946 | 78040 | 0929 | 0931 | | | | | |
| BKGRND | 78041 | 78115 | 0945 | 0946 | | | | | |
| TESTLINE | 78116 | 78240 | 0949 | 0951 | | | | | |
| L93E | 78241 | 78595 | 1003 | 1009 | | | | | |
| L92W | 78596 | 78990 | 1009 | 1016 | | | | | |
| L91E | 78991 | 79385 | 1016 | 1023 | | | | | |
| L90W | 79386 | 79790 | 1023 | 1030 | | | | | |
| L89E | 79791 | 80185 | 1031 | 1037 | | | | | |
| L88W | 80186 | 80585 | 1038 | 1044 | | | | | |
| L87E | 80586 | 80965 | 1045 | 1051 | | | | | |
| L86W | 80966 | 81365 | 1051 | 1058 | | | | | |
| L85E | 81366 | 81760 | 1059 | 1105 | | | | | |
| L84W | 81761 | 82165 | 1106 | 1112 | | | | | |
| L83E | 82166 | 82560 | 1113 | 1119 | | | | | |
| L82W | 82561 | 82985 | 1120 | 1127 | | | | | |
| L81E | 82986 | 83385 | 1127 | 1134 | | | | | |
| L80W | 83386 | 83805 | 1134 | 1141 | | | | | |
| L79E | 83806 | 84225 | 1142 | 1149 | | | | | |
| L78W | 84226 | 84670 | 1149 | 1156 | | | | Ro. | |
| L77E | 84671 | 85085 | 1157 | 1204 | | | | | |
| L76W | 85086 | 85500 | 1204 | 1211 | | | | | |
| L75E | 85501 | 85895 | 1212 | 1218 | | | | | |
| L74W | 85896 | 86335 | 1218 | 1226 | | | | | |

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OPERATORS FLIGHT REPORT

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355050

Job No. 9304
Area 4 Airport SAVAGE RIVER
Flight 75 DY323 Take off 1403 Land 1737
Date 19/11/93 Flight time 3:34
Day Mo. Yr. Mag. Sens. F/S 1
Airplane VH-148 Fid. & Scan Interval
Pilot P. FRANKS Svy. Alt.
Co-Pilot Baro. Pres.
Operator T. ATKINSON Baro. Alt. Correct
Dataman Z. BELDI Rdr. Alt. Chart F/S

Spectrometer Multiplier Settings

| Analog F/S cts. | Digital Mult. No. |
|--------------------|-------------------|
| K40.....CTS..... | Mlt. |
| Bi214.....CTS..... | Mlt. |
| TL208.....CTS..... | Mlt. |
| TC.....CTS..... | Mlt. |
| Sample Rate..... | Sec. |

Rdr. Alt. F/S = Ft. at MV/Ft.

| Line No. & Direct. | Fiducials and Scans | | Local Time | | Line Extent | | Header | Remarks | Fids. |
|--------------------|---------------------|-------|------------|------|-------------|----|--------|----------------------|-------|
| | Start | End | Start | End | From | To | | | |
| T11W | 87992 | 88360 | 1413 | 1419 | | | | | |
| T12N | 88361 | 89020 | 1420 | 1431 | | | | | |
| L110W | 89022 | 89160 | 1433 | 1436 | | | | COMPLETION SECTION | |
| L109E | 89161 | 89505 | 1436 | 1442 | | | | | |
| L108W | 89506 | 89845 | 1442 | 1448 | | | | | |
| L107E | 89846 | 90150 | 1448 | 1453 | | | | | |
| L106W | 90151 | 90500 | 1454 | 1459 | | | | Ro. | |
| L105E | 90501 | 90835 | 1500 | 1505 | | | | | |
| L104W | 90836 | 91190 | 1506 | 1512 | | | | | |
| L103E | 91191 | 91515 | 1512 | 1518 | | | | | |
| L102W | 91516 | 91865 | 1518 | 1524 | | | | | |
| L101E | 91866 | 92200 | 1524 | 1530 | | | | | |
| L100W | 92201 | 92555 | 1530 | 1536 | | | | | |
| L99E | 92556 | 92915 | 1537 | 1543 | | | | | |
| L98W | 92916 | 93270 | 1543 | 1549 | | | | | |
| L97E | 93271 | 93625 | 1549 | 1555 | | | | | |
| L71W | 93627 | 94075 | 1600 | 1608 | | | | | |
| L70E | 94076 | 94495 | 1608 | 1615 | | | | | |
| L69W | 94496 | 94945 | 1615 | 1623 | | | | Ro. | |
| L68E | 94946 | 95385 | 1623 | 1631 | | | | 6.059 MAD | |
| L67W | 95386 | 95840 | 1631 | 1639 | | | | | |
| L66E | 95841 | 96275 | 1639 | 1646 | | | | 58.647 MAD | |
| L65W | 96276 | 96745 | 1647 | 1655 | | | | 4100 MAD, 268 MAD | |
| L64E | 96746 | 97165 | 1655 | 1702 | | | | MAD SCRUB | |
| L63W | 97166 | 97645 | 1703 | 1711 | | | | MAD SCRUB | |
| TAS | 97646 | 97805 | 1714 | 1717 | | | SCRUB | MAD | |

OPERATORS FLIGHT REPORT

Job No. 9304
 Area 4 Airport SAVAGE RIVER
 Flight 76 BY 324 Take off 0855 Land 1502
 Date 20 / 11 / 93 Flight time 7:07
 Day Mo. Yr. Mag. Sens. F/S /
 Airplane VH-FHB Fid. & Scan Interval
 Pilot P. FRANKS Svy. Alt.
 Co-Pilot Baro. Pres.
 Operator T. ATKINSON Baro. Alt. Correct
 Dataman S. ADAMS Rdr. Alt. Chart F/S

Spectrometer Multiplier Settings

| Analog F/S cts. | Digital Mult. No. |
|------------------|-------------------|
| K40..... | CTS..... Mlt. |
| Bi214..... | CTS..... Mlt. |
| TL208..... | CTS..... Mlt. |
| TC..... | CTS..... Mlt. |
| Sample Rate..... | Sec. |

Rdr. Alt. F/S = Ft. at MV/Ft.

| Line No. & Direct. | Fiducials and Scans | | Local Time | | Line Extent | | Header | Remarks | Fids. |
|--|---------------------|-------|------------|------|-------------|----|-----------|--|--------|
| | Start | End | Start | End | From | To | | | |
| GND | 98447 | 98555 | 0808 | 0810 | | | | | |
| Th | 98556 | 98690 | 0811 | 0814 | | | | | |
| U | 98691 | 98800 | 0815 | 0816 | | | | | |
| GND | 98801 | 98890 | 0817 | 0819 | | | | | |
| BKGRND | 1 | 65 | 0900 | 0901 | | | | LAKE | NO GPS |
| TESTLINE | 66 | 175 | 0906 | 0908 | | | | | |
| NOTE: BKGRND RECORDED AS "TESTLINE" AND VICE VERSA | | | | | | | | | |
| T17N | 176 | 805 | 0912 | 0923 | | | | | |
| T35 | 807 | 1665 | 0926 | 0941 | | | | REFLIGHT | |
| T16N | 1677 | 2290 | 0957 | 1007 | | | | | |
| L73E | 2292 | 2720 | 1009 | 1016 | | | REFLIGHT. | MAG. OUT OF LOCK @ START OF LINE. ∴ LATE START | |
| L72W | 2721 | 3150 | 1016 | 1023 | | | REFLIGHT. | R.O. | |
| L64E | 3151 | 3585 | 1025 | 1032 | | | REFLIGHT | | |
| L63W | 3586 | 4020 | 1032 | 1040 | | | REFLIGHT | | |
| L62E | 4021 | 4455 | 1040 | 1047 | | | | | |
| L61W | 4456 | 4900 | 1048 | 1055 | | | | | |
| L60E | 4901 | 5330 | 1055 | 1103 | | | | | |
| L59W | 5331 | 5775 | 1103 | 1111 | | | | R.O. | |
| L58E | 5776 | 6250 | 1111 | 1119 | | | | | |
| L57W | 6251 | 6735 | 1121 | 1129 | | | | R.O. | |
| L56E | 6736 | 7175 | 1129 | 1137 | | | | | |
| L55W | 7176 | 7630 | 1154 | 1202 | | | | R.O. | |
| L54E | 7631 | 8070 | 1203 | 1210 | | | | MAD 0.6 R.O. | |
| L53W | 8071 | 8515 | 1211 | 1218 | | | | R.O. | |
| L52E | 8516 | 8990 | 1219 | 1226 | | | | | |
| L51W | 8991 | 9450 | 1227 | 1235 | | | | R.O. | 293 |



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Pty. Limited (Inc. in N.S.W.)

OPERATORS FLIGHT REPORT

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Job No. 9304
 Area 4 Airport SAVAGE RIVER
 Flight 77 DY324 Take off 1533 Land 1909
 Date 20 / 11 / 93 Flight time 3:36
 Day Mo. Yr. Mag. Sens. F/S 1
 Airplane VH-FHB Fid. & Scan Interval
 Pilot P. FRANKS Svy. Alt.
 Co-Pilot Baro. Pres.
 Operator T. ATKINSON Baro. Alt. Correct
 Dataman S. ADAMS Rdr. Alt. Chart F/S

Spectrometer Multiplier Settings

| Analog F/S cts. | Digital Mult. No. |
|--------------------|-------------------|
| K40.....CTS..... | Mit.Mit. |
| Bi214.....CTS..... | Mit.Mit. |
| TL208.....CTS..... | Mit.Mit. |
| TC.....CTS..... | Mit.Mit. |
| Sample Rate..... | Sec.Sec. |

Rdr. Alt. F/S = Ft. at MV/Ft.

| Line No. & Direct. | Fiducials and Scans | | Local Time | | Line Extent | | Header | Remarks | Fids. |
|--------------------|---------------------|-------|------------|------|-------------|----|--------|---------|-------|
| | Start | End | Start | End | From | To | | | |
| L33W | 17087 | 17505 | 1548 | 1554 | | | | Ro | |
| L32E | 17506 | 17890 | 1555 | 1601 | | | | Ro | |
| L31W | 17891 | 18275 | 1602 | 1608 | | | | | |
| L30E | 18276 | 18640 | 1609 | 1615 | | | | Ro | |
| L29W | 18641 | 19010 | 1615 | 1621 | | | | | |
| L28E | 19011 | 19340 | 1622 | 1627 | | | | Ro | |
| L27W | 19341 | 19655 | 1627 | 1633 | | | | | |
| L26E | 19656 | 19970 | 1633 | 1638 | | | | | |
| L25W | 19971 | 20285 | 1638 | 1644 | | | | | |
| L24E | 20286 | 20560 | 1644 | 1649 | | | | | |
| L23W | 20561 | 20845 | 1649 | 1654 | | | | | |
| L22E | 20846 | 21095 | 1654 | 1658 | | | | | |
| L21W | 21096 | 21355 | 1659 | 1703 | | | | MAD 0.8 | |
| L20E | 21356 | 21580 | 1703 | 1707 | | | | | |
| L19W | 21581 | 21825 | 1707 | 1711 | | | | | |
| L18E | 21826 | 22025 | 1712 | 1715 | | | | Ro | |
| L17W | 22026 | 22225 | 1715 | 1719 | | | | | |
| L16E | 22226 | 22410 | 1719 | 1722 | | | | | |
| L15W | 22411 | 22595 | 1722 | 1725 | | | | | |
| L14E | 22596 | 22750 | 1726 | 1728 | | | | | |
| L13W | 22751 | 22915 | 1728 | 1731 | | | | | |
| L12E | 22916 | 23055 | 1731 | 1734 | | | | | |
| L11W | 23056 | 23190 | 1734 | 1736 | | | | | |
| L10E | 23191 | 23305 | 1737 | 1739 | | | | | |
| L9W | 23306 | 23425 | 1739 | 1741 | | | | | |
| L8E | 23426 | 23525 | 1741 | 1743 | | | | | |
| L7W | 23526 | 23615 | 1743 | 1745 | | | | | |
| L6E | 23616 | 23680 | 1745 | 1746 | | | | | |



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355335

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Pty. Limited (Inc. in N.S.W.)

OPERATORS FLIGHT REPORT

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Job No. 9304
 Area 4 Airport.....
 Flight 77 DY324 Take off..... Land.....
 Date 20 / 11 / 93 Flight time.....
 Day Mo. Yr. Mag. Sens. F/S...../.....
 Airplane..... Fid. & Scan Interval.....
 Pilot..... Svy. Alt.....
 Co-Pilot..... Baro. Pres.....
 Operator..... Baro. Alt. Correct.....
 Dataman..... Rdr. Alt. Chart F/S.....

Spectrometer Multiplier Settings

| Analog F/S cts. | | Digital Mult. No. | |
|------------------|----------|-------------------|-------|
| K40..... | CTS..... | Mlt. | |
| Bi214..... | CTS..... | Mlt. | |
| TL208..... | CTS..... | Mlt. | |
| TC..... | CTS..... | Mlt. | |
| Sample Rate..... | | Sec. | |

Rdr. Alt. F/S = Ft. at MV/Ft.

| Line No. & Direct. | Fiducials and Scans | | Local Time | | Line Extent | | Header | Remarks | Fids. |
|--------------------|---------------------|-------|------------|------|-------------|----|--------|---------------------|-------|
| | Start | End | Start | End | From | To | | | |
| L5W | 23681 | 23750 | 1746 | 1747 | | | | | |
| L4E | 23751 | 23805 | 1748 | 1749 | | | | | |
| L3W | 23806 | 23855 | 1749 | 1750 | | | | | |
| L2E | 23856 | 23890 | 1750 | 1751 | | | | | |
| L1W | 23891 | 23915 | 1751 | 1751 | | | | | |
| T6S | 23917 | 24380 | 1753 | 1801 | | | | | |
| T20N | 24381 | 24680 | 1803 | 1807 | | | | R.O. | |
| T7S | 24682 | 24855 | 1809 | 1812 | | | | | |
| T9S | 24856 | 25485 | 1841 | 1851 | | | | R0 (GND) | |
| TESTLINE | 25487 | 25590 | 1901 | 1902 | | | | | |
| BK6RND | 25591 | 25650 | 1903 | 1904 | | | | | |
| GND | 25652 | 25775 | 1906 | 1908 | | | | | |
| Th | 25776 | 25890 | 1912 | 1914 | | | | | |
| U | 25891 | 26010 | 1915 | 1917 | | | | | |
| GND | 26011 | 26125 | 1917 | 1919 | | | | | |
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OPERATORS FLIGHT REPORT

Job No. 9304
 Area 4 Airport SAVAGE RIVER
 Flight 78 DY325 Take off 0843 Land 1032
 Date 21 11 93 Flight time 1:49
 Day Mo. Yr. Mag. Sens. F/S 1
 Airplane VH-FHB Fid. & Scan Interval
 Pilot P. FRANKS Svy. Alt.
 Co-Pilot Baro. Pres.
 Operator T. ATKINSON Baro. Alt. Correct
 Dataman S. ADAMS Rdr. Alt. Chart F/S

Spectrometer Multiplier Settings

| Analog F/S cts. | Digital Mult. No. |
|------------------|-------------------|
| K40..... | CTS..... Mlt. |
| Bi214..... | CTS..... Mlt. |
| TL208..... | CTS..... Mlt. |
| TC..... | CTS..... Mlt. |
| Sample Rate..... | Sec. |

Rdr. Alt. F/S = Ft. at MV/Ft.

| Line No. & Direct. | Fiducials and Scans | | Local Time | | Line Extent | | Header | Remarks | Fids. |
|--------------------|---------------------|-------|------------|------|-------------|----|--------|-------------------------|-------|
| | Start | End | Start | End | From | To | | | |
| GND | 26127 | 26250 | 0812 | 0814 | | | | | |
| Th | 26251 | 26410 | 0815 | 0817 | | | | | |
| U | 26411 | 26510 | 0818 | 0820 | | | | | |
| GND | 26511 | 26630 | 0821 | 0823 | | | | | |
| BKGRND | 26631 | 26685 | 0848 | 0849 | | | | | |
| TESTLINE | 26686 | 26800 | 0852 | 0854 | | | | | |
| T15N | 26801 | 27050 | 0856 | 0901 | | | | | |
| T4N | 27052 | 27605 | 0906 | 0916 | | | | 2ND ATTEMPT. | 11 |
| L42E | 27607 | 28040 | 0917 | 0924 | | | | REFLIGHT | 15 |
| L34W | 28041 | 28430 | 0925 | 0931 | | | | REFLIGHT | 13 |
| T18S | 28432 | 28860 | 0933 | 0940 | | | | | 12 |
| T5N | 28862 | 29335 | 0941 | 0949 | | | | | 14 |
| T19S | 29336 | 29760 | 0951 | 0958 | | | | | 13 |
| L73W | 29762 | 29975 | 1001 | 1005 | | | | REFLIGHT OF WESTERN END | |
| T13S | 29977 | 30130 | 1007 | 1009 | | | | | 10 |
| T14N | 30131 | 30775 | 1011 | 1022 | | | | | 10 |
| T8S | 30776 | 31065 | 1023 | 1028 | | | | | 6 |