EXPLORATION LICENCE 23629
ARUNTA PROJECT
NORTHERN TERRITORY

ANNUAL REPORT FOR THE YEAR ENDED 6 MARCH 2004

Data presented in
AGD 84 Datum

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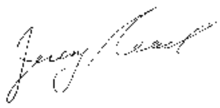

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SUMMARY

This First Annual Report summarises work carried out on Exploration Licence 23629, Arunta Project, Northern Territory for the year ended 6 March 2004.

Through compilation efforts, Falconbridge (Australia) Pty Limited identified the north-central Arunta as being favourable to host Proterozoic, intrusive related, magmatic Ni-Cu-PGE sulphide mineralization. The area has seen little historic work and has not been the focus of dedicated nickel sulphide exploration in recent years. In December 2003, Discovery Nickel Limited acquired 100% interest in EL23629 and other Falconbridge tenements following the successful listing of Discovery Nickel on the Australian Stock Exchange.

After identifying favourable targets through further open file review, compilation and interpretation of regional datasets such as landsat and aeromagnetics, Falconbridge commissioned a 3814 line/kilometre GEOTEM airborne electromagnetic / magnetic survey focused on the highest priority target areas. The results have highlighted several targets that are recommended for further follow-up that should include modelling, ground EM surveys and if warranted, drill testing.

TABLE OF CONTENTS

Page

INTRODUCTION 2

1. TENURE AND EXPLORATION ACCESS 4

2. REGIONAL GEOLOGY 5

3. EXPLORATION RATIONAL 7

4. PREVIOUS WORK 7

5. EXPLORATION WORK COMPLETED DURING THE PERIOD 8

6. LAND ACCESS 11

7. EXPENDITURE 11

8. CONCLUSIONS 11

REFERENCES 12

List of Figures

Figure 1 Project Location Map 2

Figure 2 Regional Gravity 3

Figure 3 Regional Magnetics 4

Figure 4 Regional Geology 6

Figure 5 AEM Results SW Block 10

List of Tables

Table 1 Tenement Details 4

List of Appendices

Appendix 1 Expenditure Statement

Appendix 2 Arunta GEOTEM (Airborne EM) Geophysical Survey For Falconbridge (Australia) Pty Ltd, Acquisition and Processing Report, FAS Job # 1567.

INTRODUCTION

This First Annual Report summarises work carried out on Exploration Licence 23629, Arunta Project, Northern Territory for the year ended 6 March 2004.

The Arunta Project is located in the eastern portion of the Northern Arunta Province, on the Mt Peake and Lander River 1:250 000 map sheets in the Northern Territory (**Figure 1**). The Project is located approximately 250km N-NW of Alice Springs, accessed via Ti-Tree.

Exploration work is aimed at discovering nickel dominated polymetallic massive sulphide systems. The North Arunta Province is dominated by a series of sulphidic Proterozoic sedimentary sequences on an Archean/Proterozoic boundary zone that have been intruded by late mafic sills. Quaternary and Tertiary cover of variable thickness, conceal large areas of bedrock in the area and although the region has seen some exploration for a variety of commodities (including gold, copper, iron ore, and diamonds) the evaluation of the nickel potential of the area has been very limited to date.

EL23629 was originally granted to Falconbridge (Australia) Pty Limited, but 100% interest was transferred to Discovery Nickel Limited pursuant to a Heads of Agreement dated 15 October 2003 and following the successful listing of Discovery Nickel on the Australian Stock Exchange in December 2004.

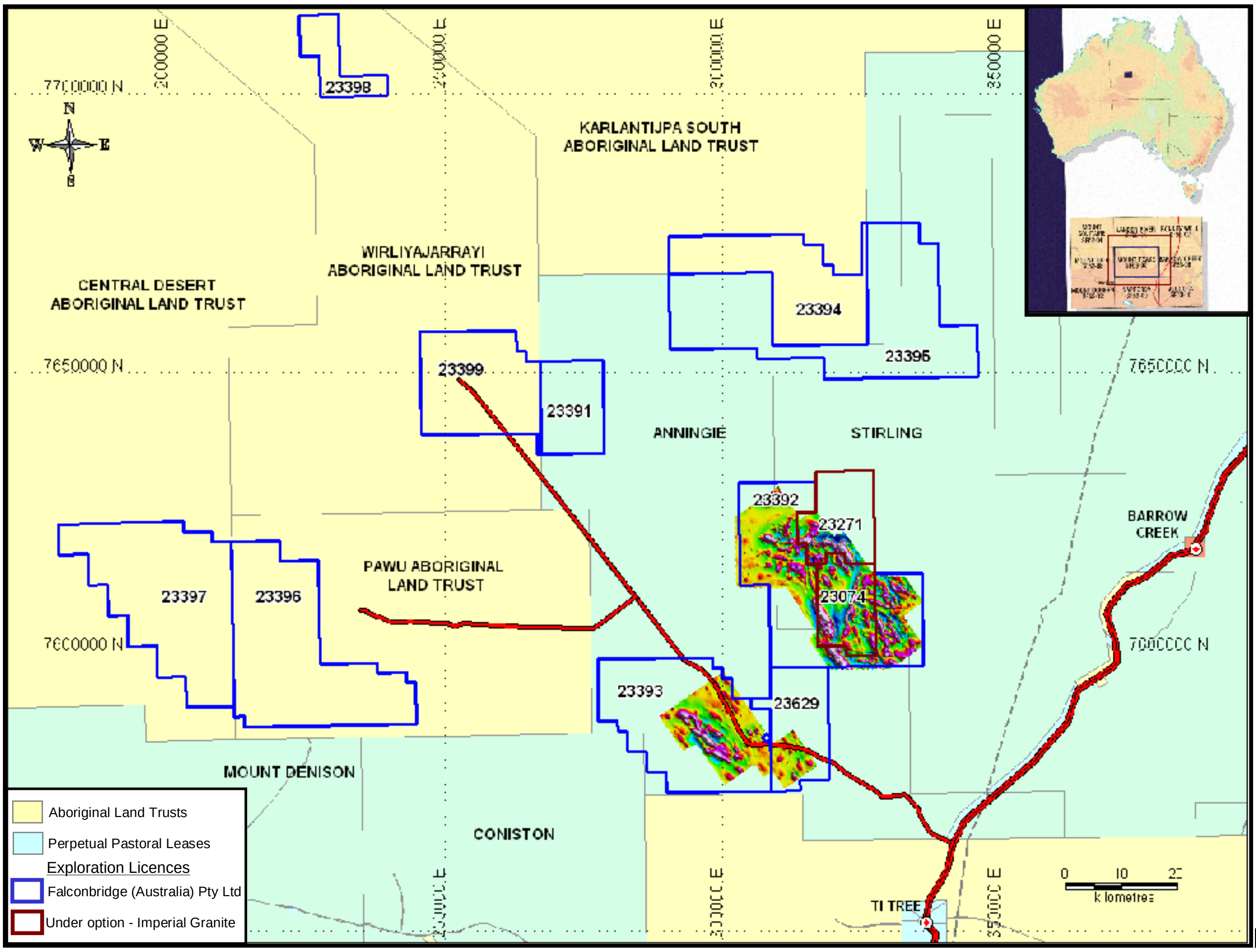

Figure 1: North Arunta Project Location Map

During regional compilations by Falconbridge the area was recognised to have nickel sulphide potential when the Barrow Creek nickel sulphide occurrence 75-100km east of the project area was noted in regional assessment of the NTGS geophysical and geological datasets and historical exploration reports. These compilations flagged major regional structures coincident with interpreted mafic bodies in the project area that had potential for nickel sulphides and hence tenement applications were made (**Figures 2** and **3**).

Work completed in the area to date includes negotiating an access agreement, compilation of historic and regional datasets and the flying of priority areas with Airborne Electromagnetic (AEM) surveys. This report provides a summary of this work for the first 12 months of tenure ended 6 March 2004 and focuses on the results of an Airborne Electromagnetic and magnetic survey. Much of the data used has been extracted from Ascough, 2003.

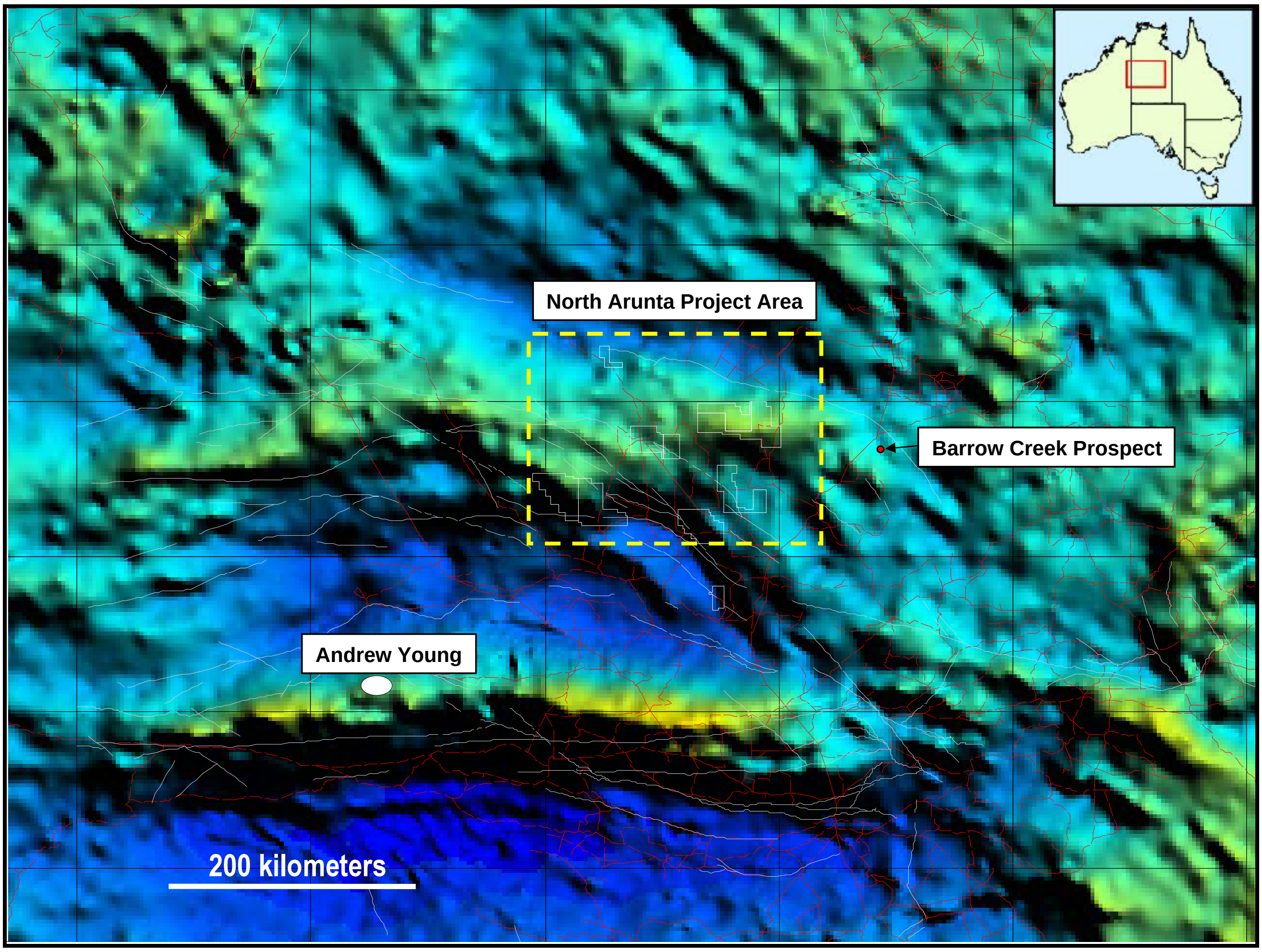

Figure 2: Regional Gravity - North Arunta

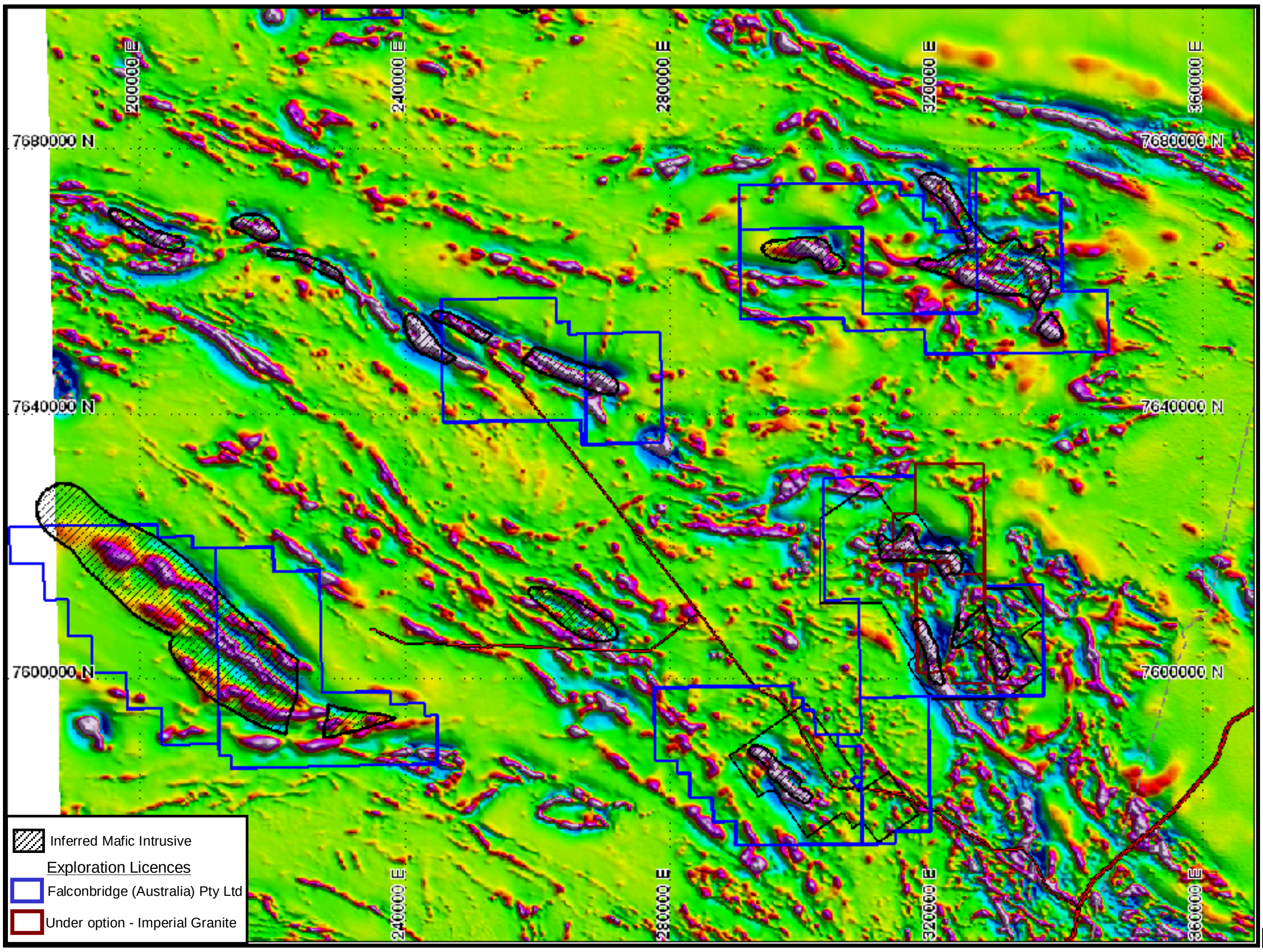

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Figure 3: Regional Magnetics - North Arunta

1. TENURE AND EXPLORATION ACCESS

EL 23629 forms part of Discovery Nickel's Arunta Project, which includes other granted tenements 23392, 23393, 23271, 23074 and 23391. Details for tenement EL23629 are shown in **Table 1**.

EL 23629 of 71 sub-blocks and area 226.7sq km, was originally granted to Falconbridge on 7 March 2003 for a period of six years. However, 100% ownership was transferred to Discovery Nickel Limited following the successful listing of Discovery Nickel Limited on the Australian Stock Exchange in December 2003 and pursuant to a Heads of Agreement dated 15 October 2003.

Table 1 - Tenement Details.

EL	Sub-blocks	Grant Date	Expiry Date	Expenditure Commitment Yr 1
23629	71	07.03.03	07.03.09	$70000

The tenement is located approximately 235km N-NW of Alice Springs in the Northern Territory and covers portions of the Mt Peake (SF53-05), 1:250,000 map sheet (**Figure 1**). It lies within the Stirling and/or Anningie Perpetual Pastoral Leases and is subject to Native Title. Access to the area is facilitated by the Central Land Council (CLC) through an Exploration Deed.

The project area can be accessed via the all weather Alice Springs - Darwin highway. Additional roads extend up to 100km west of the highway through the project area and are accessible by the use of four wheel drive vehicles. A new railway line to Darwin and a major gas pipeline both parallel the Stuart Highway (**Figure 1**).

The region is considered remote, however there area is quite arable with numerous bores supporting livestock on the stations. 50km to the south is the Ti-Tree table grape region producing over $15 million dollars worth of grapes annually.

2. REGIONAL GEOLOGY

The project lies within the north-central portion of the Paleoproterozoic Arunta Province. The stratigraphy of the Arunta province comprises relics of 2500 Ma Archaean basement overlain by >1850 Ma Palaeoproteroozic turbiditic sequences of greywacke, quartz, sandstone, siltstone and shale along with mafic rocks and their high-grade metamorphic equivalents. The Arunta also has minor calc-silicates and meta-felsic volcanic units. During the Barramundi Orogeny the sedimentary units were intruded by mafic rocks which have been deformed and in places metamorphosed to amphibolite facies. During the closing stages of the Barramundi Orogeny (~1830Ma), granite plutons intruded rocks of the Arunta Province.

In the tenement area, rocks of the Palaeo-proterozoic Attnarpa Igneous Complex, Lower Hatches Creek Group, undifferentiated granite/granite gneiss and gabbro-dolerite occur (**Figure 4**). Neoproterozoic to Palaeozoic rocks of the Georgina Basin cover the Palaeoprotoeozoic rocks in the south east. Cainozoic sediments also cover parts of the tenement.

Recent field investigations by Geoscience Australia in conjunction with the NT Geological Survey have focussed on evaluating the geological setting and economic potential of the Proterozoic mafic-ultramafic rocks of the Arunta (Hoatson and Stewart, 2001). Historically the province has been regarded as having low potential to host significant Ni sulphide mineralization however field observations and new geochemical data has altered this view and it is now believed that intrusions of the western and central Arunta province have potential to host significant Ni-Cu-Co sulphide deposits.

Based on recent work, mafic-ultramafic intrusions of the Arunta have been provisionally divided into three broad geographical groups (western central and eastern) on the basis on lithology, metamorphic-structural histories, degree of fractionation and limited geochronology (Hoatson and Stewart, 2001). EL23629 lies within the northern portion of the central group and is underlain by sulphidic Proterozoic sedimentary sequences on an inferred Archaean/Proterozoic boundary zone that has been intruded by late mafic sills.

Locally, Quaternary and Tertiary cover sequences of variable depth (range from a few metres to in excess of 100m) conceal the basement rocks. As outlined below the area has been subject to a number of drilling campaigns (predominately shallow RAB holes) and of specific interest to this project; mafic / ultramafic units were encountered within and adjacent to the tenement

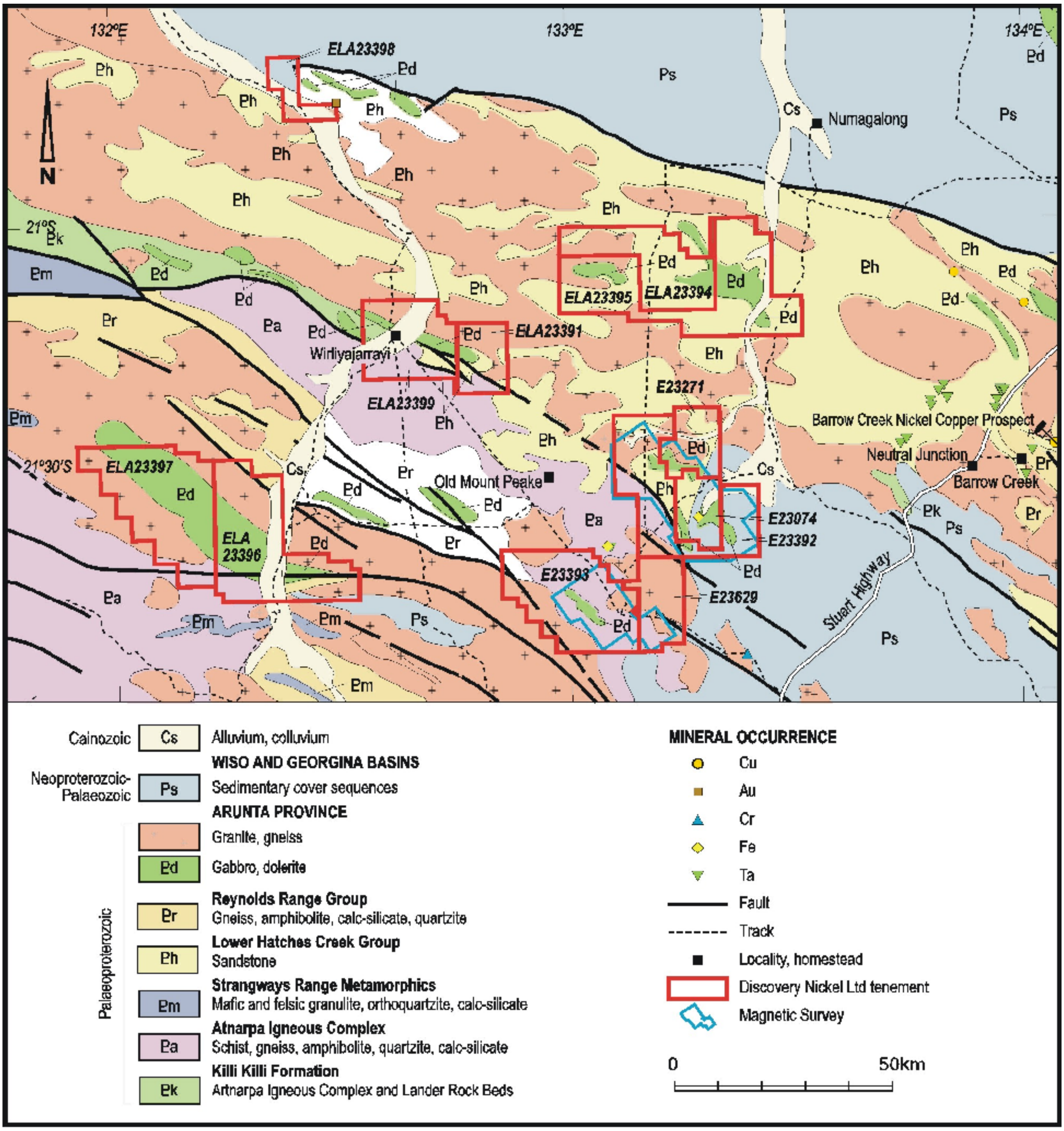


Figure 4: Regional Geology – North Arunta Project

3. EXPLORATION RATIONALE

Falconbridge targeted the North Arunta area for Proterozoic, intrusive hosted, magmatic Ni-Cu-PGE sulphide mineralization after the potential of the area was recognised when the Barrow Creek nickel sulphide occurrence was noted in regional assessment of the area in 1997/1998.

Barrow Creek lies approximately 100km east of EL23629, the “Prospect D” occurrence was discovered by Kewanee Exploration in the early 1970's during a diamond drill hole program (total of 11 holes). The best intersection is 0.9m averaging 4.65% Ni and 1.36% Cu. An inferred resource of 3,163,800 tonnes bearing 0.56% Cu and 0.19% Ni with a cut-off grade of 0.2% Cu was calculated in 1974 (not to JORC specifications).

The zone is described as a small massive nickeliferous sulphide intersection situated on the south-western limit of a thin mafic/ultramafic sill or dyke (1.4km by 20m) which intruded Proterozoic basin sediments (greywackes and pelites). The sill/dyke is a pyroxenite rich unit that bears sulphide nickel up to 0.6% and significant copper levels of up to 2% in the matrix. The ‘massive sulphide’ intersection was observed in the NT core library in Alice Springs by a former Falconbridge Geologist (Neil Provins) and was described as highly oxidized, indicating that the nickel grades might be enhanced due to supergene weathering effects.

A review of the available NTGS geological and geophysical datasets identified major regional structures coincident with interpreted mafic bodies (rarely exposed) visible on aeomagnetics (**Figure 3**). Based on these criteria in conjunction with the favourable re-assessment of the area by the NTGS, it was concluded that the North Arunta region was favourable for magmatic Ni-Cu-PGE deposits. The location of the Barrow Creek sulphide occurrence on the inferred structural trend to the east and the interpreted thickening of mafic bodies from Barrow Creek in the direction of the North Arunta project were other criteria used in area selection.

Also, preliminary reviews of historic exploration work revealed that mafic/ultramafic units were drilled by WMC in the mid 1990’s adjacent to EL23629. Anomalous nickel and copper results were noted in several holes with the best intervals being 5m @ 0.63%Ni and 3m @ 0.42@ Ni & 0.52@ Cu. In addition, regional soil geochemistry programs have identified several high Ni in soil anomalies. Of specific interest is the >200ppm Ni high west of EL23629.

4. PREVIOUS WORK

The region has been partially explored for a variety of commodities including nickel, gold, copper, iron ore, bauxite and diamonds, with some areas experiencing limited or no work. There is no record of a focused Ni exploration program in the tenement area. The following is a brief summary of historic work reviewed to date.

- In the early 1970’s CRA conducted uranium exploration in the area. Work including geological mapping, photo interpretation, air and ground magnetics followed by rotary drilling and borehole logging. CRA resumed exploration in 1979 and over a four year period completed airborne magnetics/radiometrics, drainage geochemistry, soil and rock chip geochemistry and limited diamond drilling.

- Between 1991 and 1997 WMC completed work focussed on gold exploration that included data compilation, surface geochem sampling, XRD analyses, geological/regolith mapping, gravity surveys, airborne magnetics/radiometrics, IP/TEM surveys and ground magnetics. Anomalies were then followed up with an Auger/RC drill program (Lulofs, 1998).

- In 1997 WMC optioned the ground to Aberfoyle who completed further rock chip sampling, soil sampling and vacuum drilling on the properties (Ashby and Schusterbauer, 1998). Aberfoyle withdrew from the JV and WMC surrendered their properties in 1998.

5. EXPLORATION COMPLETED DURING THE PERIOD

Exploration completed included the following:

- review of open file company reports and data compilation
- interpretation of relevant landsat imagery and gravity data
- flying of a GEOTEM survey
- interpretation of GEOTEM and aeromagnetic data

During 2003, broad scale compilation continued including structural, geological and geochemical components and a review of property reports relating to previous work. The latter showed several anomalous nickel and copper drill results in the mafic/ultramafic units adjacent to the tenement. An interpretation of Landsat imagery gave an indication of possible outcropping mafic/ultramafic units in a belt running along the NW edge of EL 23392. The imagery study was also used to assess the validity and accuracy of NTGS geological mapping work. The work confirmed the presence of mafic/ultramafic units on large regional structures with coincident regional magnetic and gravity features.

A contract for a GEOTEM (25Hz, 4ms) survey of selected properties in the Arunta was awarded to Fugro Airborne Surveys of Perth. The focus of the AEM survey was to cover priority targets on EL 23392 and adjacent tenements. Native Title Holders and PPL Land Owners were notified of the survey work and no objections were raised by any party throughout the course of the survey.

Airborne Magnetic and Electromagnetic Surveys

A GEOTEM airborne electromagnetic / magnetic survey was flown by Fugro Airborne Surveys Pty Limited for Falconbridge (Australia) Pty Ltd in early 2003. The survey was based out of Ti Tree, Northern Territory and consisted of 3814 line kilometers, in two blocks flown in 12 flights to cover EL 23629 and several adjacent tenements. The flight lines were spaced on 250m centers and flown at with an azimuth 55^o. Tie lines were flown at a nominal spacing of 2.5km

The survey employed the GEOTEM$_{DEEP}$® electromagnetic system, operating at a base frequency of 25Hz. Ancillary equipment consisted of a magnetometer, radar altimeter, video camera, analogue and digital recorders and an electronic navigation system. The instrumentation was installed in a CASA C212-200 Turbo Prop survey aircraft. The aircraft was flown at an average speed of 235km/h with an EM bird receiver height of 70m.

A report, documenting the survey procedures, logistical details and equipment used by Fugro in the acquisition, verification and processing of the airborne geophysical data is included in **Appendix 2**.

To facilitate interpretation of the results the digital data was loaded into Geosoft, where the magnetic results were further processed employing FFT filtering techniques to produce reduce-to-pole and shallow source residual products. The Geosoft platform was also used to review and image individual EM channels from the B field and dB/dt data. Profile Analyst software was used to image the EM profiles and corresponding Conductivity Depth Images (CDI's) with magnetics and provided the platform for anomaly picking. When picking EM targets from the profile data emphasis was placed on the late time B-field Z component response as experience (and theory) has demonstrated that highly conductive isolated target responses typical of massive nickel-sulphide mineralization will give a late time B-Field response. A compilation of the EM picks, interpreted surficial response and Reduced-to-Pole magnetics is presented in **Figure 5**.

Magnetic Results

The magnetic data exhibits considerable relief across the property and appears to provide detailed mapping information in delineating structures and lithology. It is difficult to provide a direct comparison between geology and the magnetic results as outcrop in the area is limited and mapping, for the most part reflects Quaternary and Tertiary cover sequences while the magnetics is mapping features in the underlying basement. Previous work however has correlated magnetic highs with amphibolite units within the Lander Rock Formation. It has also been noted that both the Lander Rock Formation and intrusive granites in the area have both magnetic and non-magnetic variants. On a broader scale the major NW-SE fabric in the data appears to be part of a larger, regional structural corridor. There is also evidence of numerous NE structures in the data the most conspicuous of which is the major NE-SW trending lineament and corresponding magnetic high evident on the NE block. Broadly speaking the magnetic map can be separated into areas of high magnetic activity and low magnetic activity resulting in discrete magnetic domains. Further compilation work and comparison of the magnetic results with the historic RAB drill programs is required to better reconcile the different magnetic units.

In addition to the major NW-SE structural trend several other breaks and linears are evident in the magnetic results that are thought to represent faults in the area. The other dominate trends are N-S, and NE-SW. There is also evidence of several curvi-linear structures that may be mapping out the edges of intrusions. The purpose of highlighting various magnetic linears was to aid in the identification of different magnetic domains and possible intrusive bodies and it should be noted that not all magnetic linears/breaks have been highlighted on the current map products.

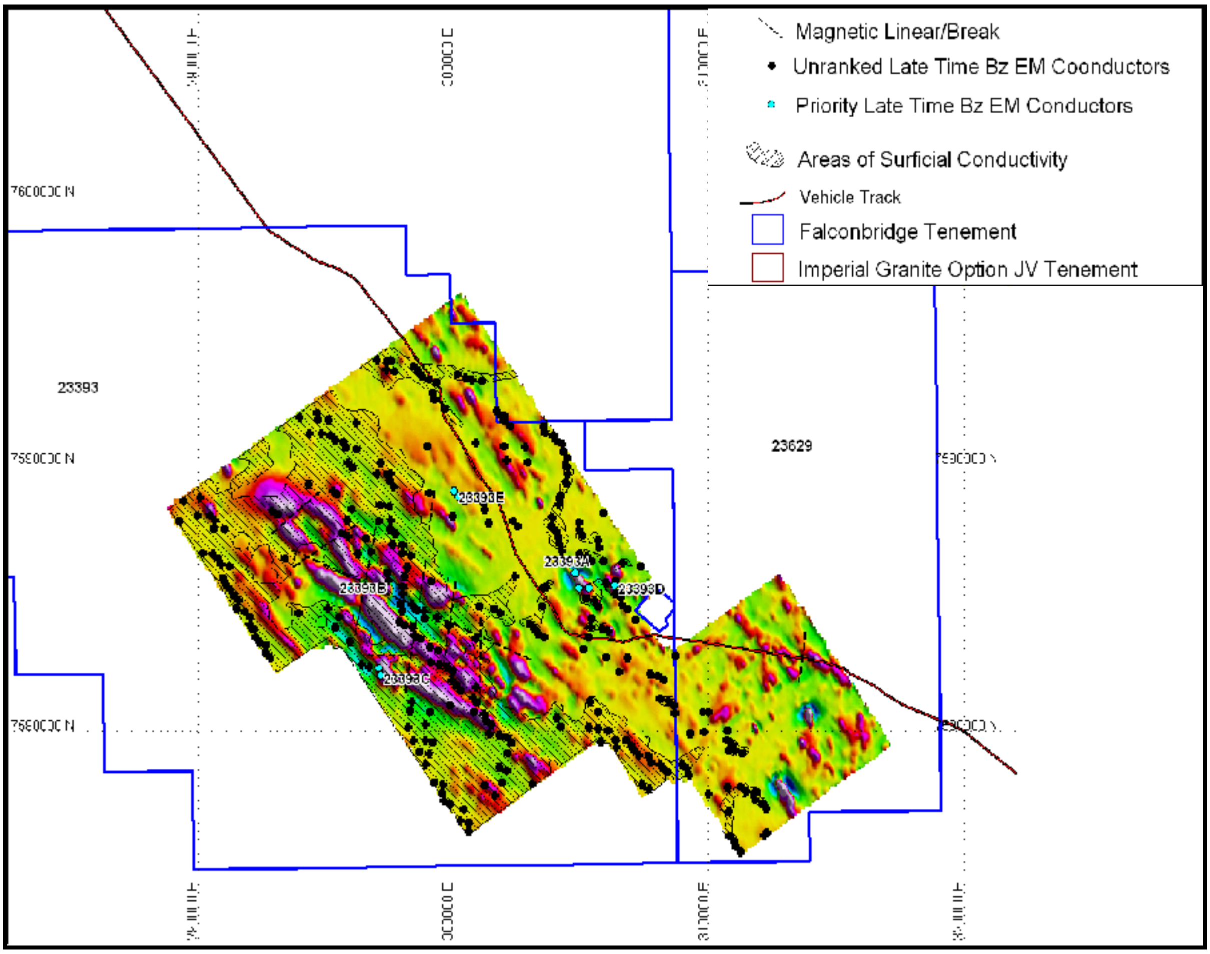


Figure 5: AEM Results SW Block - 1VD magnetics with EM picks

EM Results

Approximately 30% of the areas surveyed are underlain by conductive surface material thought to represent paleo-drainage features. Inversions (Conductivity Depth Images) of Geotem data suggest that these features are generally flat lying and of variable thickness and conductivity. Conductivities in the cover often exceed 500mS/m and in areas where it is thickest and/or most conductive the AEM data did not penetrate to basement. Outside of the inferred paleo-channels, the underlying bedrock is relatively resistive.

As the conductive surface material is wide spread and variable in its characteristics, anomaly selection is difficult. Also, the presence of the conductive material over a large portion of the survey area implies that the effectiveness of the EM surveys in identifying bedrock conductors will be limited. The approach taken involved reviewing the X and Z component profiles of the dataset on a line by line basis focusing on the B field Z component data as response in late time Z is thought to be a critical (but not indicative) criteria in the anticipated response for a significant nickel sulphide body. The late time B-Field anomaly picks were then further prioritised based on their decay characteristics, CDI inversions and associated magnetic response. As a result no priority targets have been identified and recommended for ground follow-up. However, directly along strike from EL23629 on EL23393 several priority anomalies have been selected for further work. Positive results at these sites would upgrade the anomalies selected on EL23629 and support further work.

6. LAND ACCESS

Extensive correspondence and meetings with the Central Land Council to facilitate access and the grant of several tenements was undertaken by Falconbridge. Currently a land access agreement is in place with the Traditional Owners that facilitates access to EL23629.

7. EXPENDITURE

Expenditure for the year ended 6 March 2004 was $25, 440. A detailed expenditure statement is included in **Appendix 1**.

8. CONCLUSIONS

The 2003 work program on the North Arunta properties successfully advanced the project on several fronts. The regional compilation efforts helped to further prioritize targets and establish survey parameters for the AEM program. The results from the AEM survey have identified 5 targets on EL 23393 that are recommended for further follow-up. Results from follow up in this area will dictate how to follow up EM anomalies along strike on EL 23629.

Considerable progress was also made on Land Access issues include the execution of an agreement with the CLC facilitating access to the tenement.

Further prioritization of the selected AEM targets is required and further processing/modelling of the results once work is completed on priority anomalies may highlight additional targets.

REFERENCES

Ascough, G., 2003: Northern Arunta Project Northern Territory. Exploration Licences 23391, 13392, 23393, 23394, 23395, 23396, 23397, 23398, 23399, 23629, 23074 and 23271, Project Progress Report for the Period ending June 1st 2003. Unpublished Falconbridge Ltd Internal Report.

Ashby, J. and Schusterbauer, J., 1998 Annual Report for Exploration Licences 7557, 7558, 7559, 8869, 8870 and 8874, for the Period 12/12/96-11/12/97. Mt Peake District NT TI Tree Project, Aberfoyle Resources Limited Open File CR19980060

Hoatson, D.M. & Stewart, A.J., 2001. Field investigations of Proterozoic mafic-ultramafic intrusions in the Arunta Province, central Australia. Canberra: Geoscience Australia, Record 2001/39.

Lulofs, D. 1998, Surrender Report for Exploration Licences 7557, 7558, 7559, 8869 and 8874 Ti Tree Project NT 12/12/91-24/02/98, Western Mining Corporation, Open File CR990028

Northern Territory Geological Survey, 2002. The Arunta Province: open file exploration licence drillhole and geochemical data. Northern Territory Geological Survey, Record 2002-009.

APPENDIX 1

Expenditure Statement

Expenditure Type	EL 23629
Salaries	$1402
Consultants - Legal	$154
Consultants - project	$119
AEM Geophysics	$20,441
Property Maintenance	$6
Administration & Overheads	$3318
TOTAL	**$25, 440**

APPENDIX 2

ARUNTA GEOTEM (Airborne EM) Geophysical Survey For
Falconbridge (Australia) Pty Ltd
Acquisition and Processing Report
April 2003
FAS Job # 1567

Arunta, Northern Territory
Airborne Geotem / Magnetic
Geophysical Survey

for

Falconbridge (Australia) Pty. Limited

Acquisition and Processing Report

Prepared by : M.Owers …………………………..

L.Stenning …………………………..

Authorised for release by : …………………………..

…………………………..

Survey flown: January 2003

by

Fugro Airborne Surveys
65 Brockway Road, Floreat. WA 6014, Australia
Tel: (61-8) 9273 6400 Fax: (61-8) 9273 6466

FAS JOB# 1567

TABLE OF CONTENTS

1. SURVEY OPERATIONS AND LOGISTICS 18

1.1 INTRODUCTION 18
1.2 SURVEY BASE 18
1.3 SURVEY PERSONNEL 18
1.4 AREA MAPS 19

2. SURVEY SPECIFICATIONS AND PARAMETERS 21

2.1 AREA CO-ORDINATES 21
2.2 SURVEY AREA PARAMETERS 21
2.3 DATA SAMPLE INTERVALS 22
2.4 SURVEY TOLERANCES 22

3. GEOTEM SYSTEM AND SURVEY EQUIPMENT 23

3.1 THE GEOTEM$_{DEEP}$® MULTI-COIL SYSTEM 23
3.2 ELECTROMAGNETIC ACQUISITION SYSTEM 25
3.3 GEOTEM$_{DEEP}$® DAILY CALIBRATION 26
3.3.1 Compensation *26*
3.3.2 Normalisation *26*
3.4 MAGNETOMETERS 26
3.4.1 Survey Magnetometer *26*
3.4.2 Base Station Magnetometer *26*
3.5 TRACKING CAMERA 27
3.6 ALTIMETERS 27
3.6.1 Barometric Altimeter *27*
3.6.2 Radar Altimeter *27*
3.7 ELECTRONIC NAVIGATION 27
3.8 ANALOGUE RECORDER 28
3.9 EQUIPMENT TESTS AND CALIBRATIONS 28
3.9.1 Electromagnetic Lag Test *28*
3.9.2 Magnetometer Lag Test *28*

4. PRODUCTS AND PROCESSING 30

4.1 ELECTROMAGNETICS 30
4.1.1 Levelling *30*
4.1.2 Synchronisation Lag *30*
4.1.3 Noise Reduction *30*
4.2 MAGNETICS 31
4.2.1 Diurnal Levelling *31*
4.2.2 Synchronisation Lag *31*
4.2.3 IGRF Removal *31*
4.2.4 Levelling *31*
4.3 DIGITAL ELEVATION MODEL 32
4.4 FLIGHT PATH RECOVERY 32
4.5 SURVEY PRODUCTS 32
4.5.1 Multi-Parameter Profile Plots *32*
4.5.2 Hardcopy Products *32*
4.5.3 Digital Products *32*

APPENDIX I – WEEKLY ACQUISITION REPORTS 33

APPENDIX II – FINAL LOCATED DATA FORMATS 1

APPENDIX III – FLIGHT SUMMARY 21

9. SURVEY OPERATIONS AND LOGISTICS

Introduction

A **GEOTEM*DEEP***® airborne electromagnetic / magnetic survey was flown by Fugro Airborne Surveys Pty Limited for Falconbridge (Australia) Pty Ltd from the 7th January 2003 until the 23rd January 2003. The survey was based out of Tea Tree, Northern Territory and consisted of two areas called Arunta NE and Arunta SW. Survey coverage consisted of 3814 line kilometres, flown in 12 flights. Tie lines were flown. This report summarises the procedures, details and equipment used by Fugro in the acquisition, verification and processing of the airborne geophysical data.

The survey employed the **GEOTEM*DEEP***® electromagnetic system, operating at a base frequency of 25Hz. Ancillary equipment consisted of a magnetometer, radar altimeter, video camera, analogue and digital recorders and an electronic navigation system. The instrumentation was installed in a CASA C212-200 Turbo Prop survey aircraft. The aircraft was flown at an average speed of 235km/h with an EM bird receiver height of 65m.

Survey Base

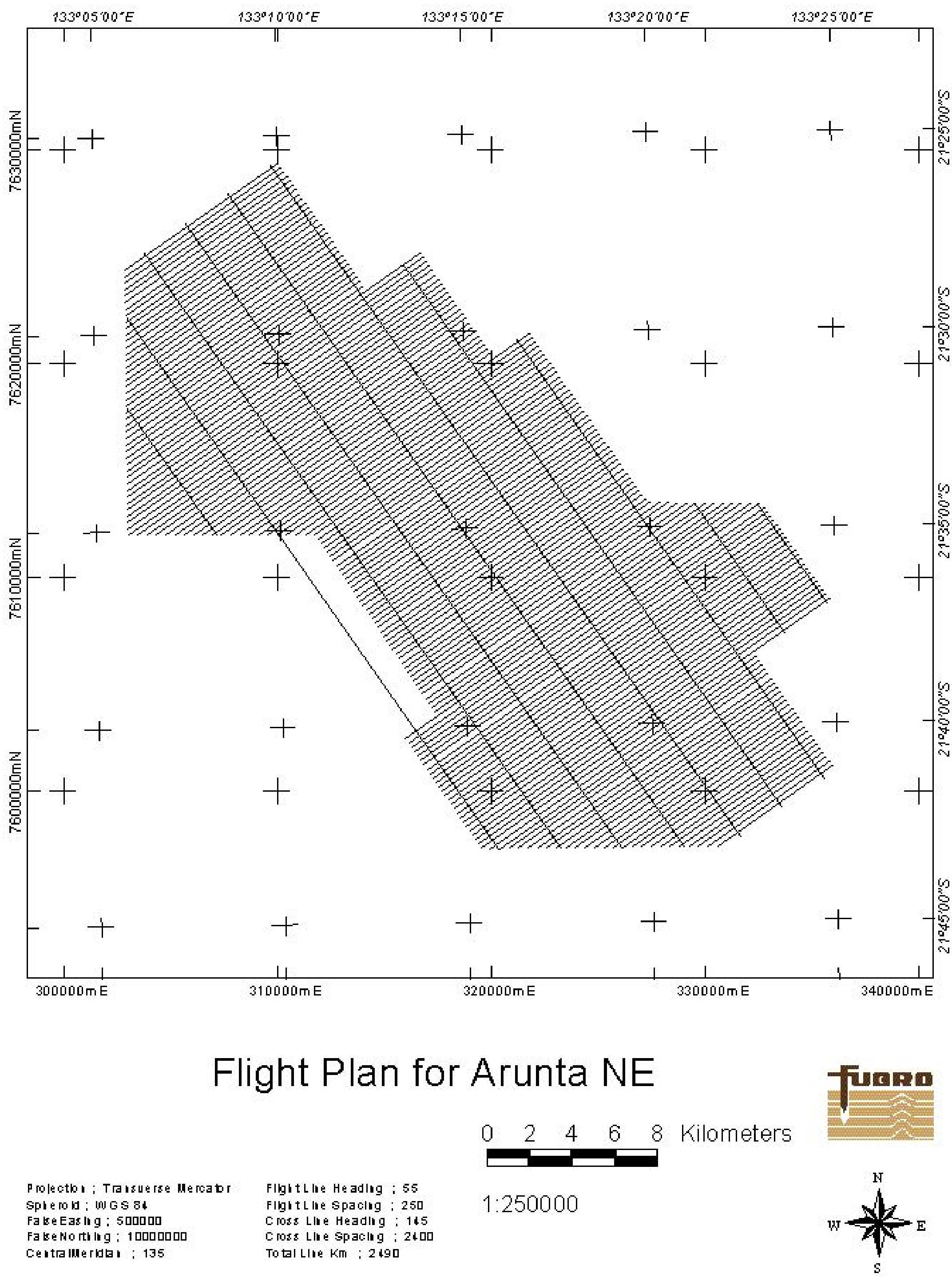
The survey was based out of Tea Tree, Northern Territory. The survey aircraft was operated from the Tea Tree airport with the aircraft fuel available on site. A temporary office was set up in a room at the Tea Tree Roadhouse where all survey operations were run from and the post-flight data verification was performed.

Survey Personnel

The following personnel were involved in this project:

Project Supervision - Acquisition	Davin Allen
- Processing	Andrea Tovey
On-site Crew Leader	Steve Carter
Pilots	Tim Haldane / Mark Lester
System Operators	Ross Rackham / John Stewart
Technician	Ross Rackham / John Stewart
Data Processing (Perth)	Matthew Owers
Data Processing (Field)	Steve Carter

Area Maps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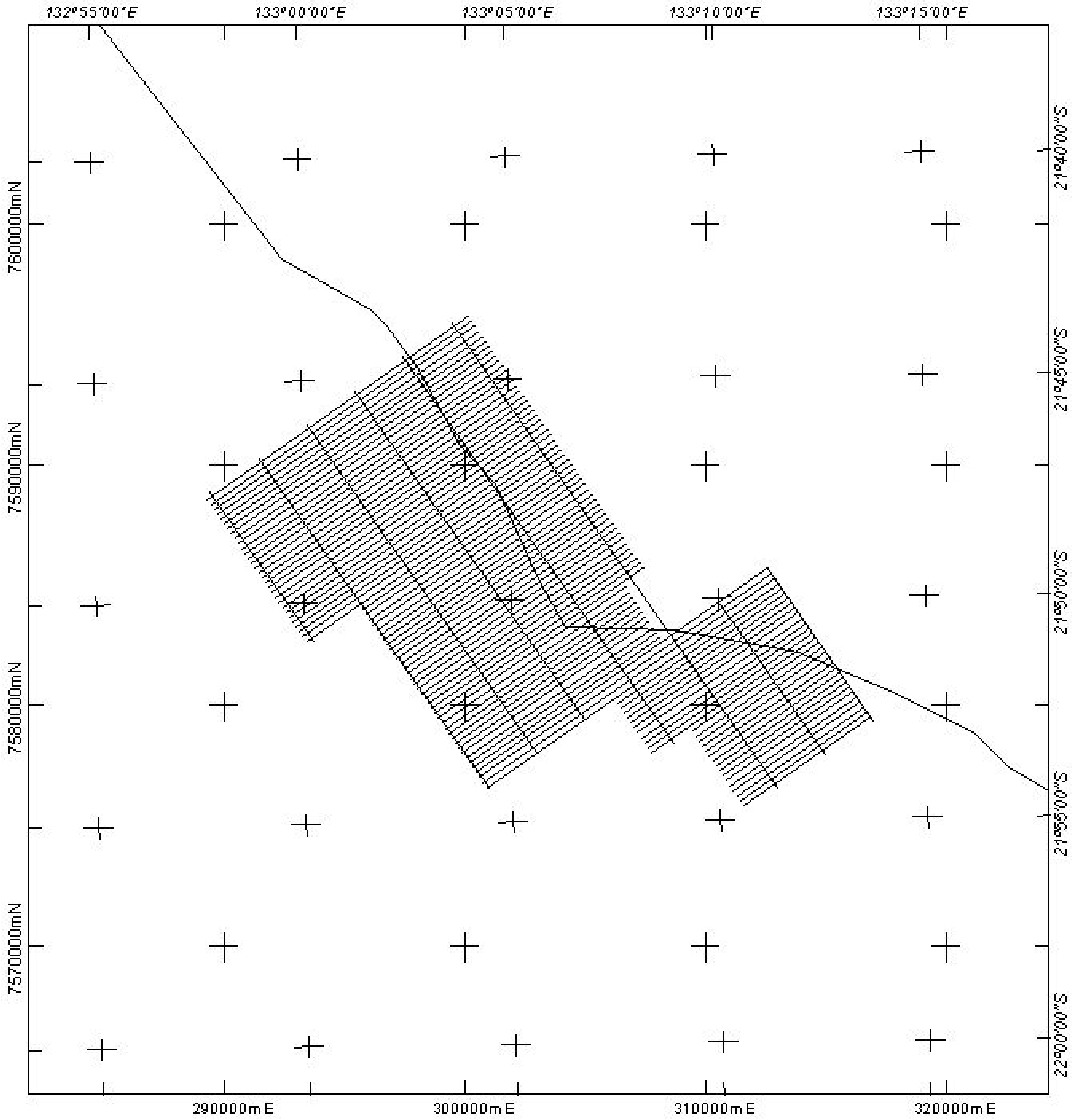
133°10'00"E
133°15'00"E
133°20'00"E
133°25'00"E
7630000mN
7620000mN
7610000mN
7600000mN
21°25'00"S
21°30'00"S
21°35'00"S
21°40'00"S
21°45'00"S
300000mE
310000mE
320000mE
330000mE
340000mE
Flight Plan for Arunta NE
0 2 4 6 8 Kilometers
1:250000
FUGRO
N
W
E
S
Projection ; Transverse Mercator
Spheroid ; WGS 84
False Easting ; 500000
False Northing ; 10000000
Central Meridian ; 135
Flight Line Heading ; 55
Flight Line Spacing ; 250
Cross Line Heading ; 145
Cross Line Spacing ; 2400
Total Line Km ; 2490



Flight Plan for Arunta SW

0 2 4 6 8 Kilometers

1:250000

Projection ; Transverse Mercator
Spheroid ; WGS 84
False Easting ; 500000
False Northing ; 10000000
Central Meridian ; 135

Flight Line Heading ; 55
Flight Line Spacing ; 250
Cross Line Heading ; 145
Cross Line Spacing ; 2450
Total Line Km ; 1113

N W E S

10. SURVEY SPECIFICATIONS AND PARAMETERS

Area Co-ordinates

The survey areas were located within UTM Zone 53, Central Meridian = 135
(Note - Co-ordinates in GDA94 Zone 53)

Arunta NE

312414E	7626103N
314157E	7623550N
316730E	7625240N
320094E	7620417N
321767E	7621577N
327390E	7613520N
332780E	7613443N
335972E	7608932N
332391E	7606433N
336194E	7600983N
331055E	7597377N
319597E	7597245N
315915E	7602554N
317405E	7603602N
311823E	7611936N
302990E	7611935N
302875E	7624619N
309938E	7629584N

Arunta SW

306216E	7580252N
300922E	7576523N
297666E	7581203N
295666E	7584054N
293481E	7582493N
289137E	7588782N
300054E	7596428N
307609E	7585580N
306743E	7584940N
308207E	7582739N
312621E	7585814N
317020E	7579374N
311697E	7575650N
309420E	7578964N
307846E	7577864N

Survey Area Parameters

Job Number	1567
Survey Company	Fugro Airborne Surveys Pty Ltd
Date Flown	7th January 2003 – 23rd January 2003
Client	Falconbridge (Australia) Pty Limited
Project Name	Arunta, NT
Total Line kilometres	3814 km

Area Name	Number of Traverse Lines	Number of Tie Lines	Line Kilometers
Arunta NE	153	10	2595
Arunta SW	94	8	1219

The Project Area was flown using the following parameters:

Flight Line Spacing	-	250 metres
Tie Line Spacing	-	2500 metres
Flying Height	-	105 metres
Flight Line Direction	-	055-235 degrees
Tie Line Direction	-	145-325 degrees

Data Sample Intervals

Nominal data sample intervals.

Magnetometer	-	65 m (@1 Hz)
Electromagnetics	-	16 m (@ 4Hz)
Radar altimeter	-	65 m (@1 Hz)
Barometric altimeter	-	65 m (@1 Hz)
GPS	-	65 m (@1 Hz)

Survey Tolerances

As specified in the contract the following tolerances were used:

Flight line spacing	-	125 % of the nominal line spacing for 5kms
Terrain clearance deviation	-	+/-30 m of nominal terrain clearance over a distance of 5 kms
Horizontal positional error	-	less than 5 m.
Magnetometer noise envelope	-	+/-0.5nT continuously over 5kms or intermittently over 10% of any flight line
GEOTEM system noise level	-	Will not exceed +/-8nT/s (or 15 pT for B) for any coil set for a cumulative distance of 3 kms (raw dB/dt channel 20). For B-field the average noise over 3kms of the field processed data in the last off-time channel at 25Hz will not exceed 10 pT.
Diurnal variation	-	Not exceeding 10 nT in 10 minute.

11. GEOTEM SYSTEM AND SURVEY EQUIPMENT

The GEOTEM$_{DEEP}$® Multi-Coil System

GEOTEM$_{DEEP}$® is a time domain towed bird electromagnetic system incorporating a high speed EM receiver. The primary electromagnetic pulses are created by a series of discontinuous half-sine current pulses fed into a multi turn transmitting loop surrounding the aircraft and fixed to the nose, tail and wing tips. The pulse repetition rate is 25 Hz (50 bipolar pulses per second).

The EM sensor is an orthogonal set of coils mounted in a "bird", towed behind the aircraft on a cable. The cable is demagnetised to reduce noise levels. Three coil orientations are available. The X component has a horizontal axis in the direction of flight, and the Y component with a lateral horizontal component. The Z component has a vertical axis, which is coplanar with the transmitter coil.

Time-domain airborne electromagnetic systems have historically measured the in-line horizontal (X) component using a coaxial receiver coil. New versions of the electromagnetic systems are designed to collect two additional components (the vertical component (Z) and the lateral horizontal component (Y)) to provide greater diagnostic information. The three components, X, Y and Z can be combined to give the "energy envelope" of the response. Due to asymmetry in the transmitter and receiver coil geometry, the shapes of the component profiles depend on flight direction, the most sensitive component being X component.

In areas where lithological strike is near horizontal, the Z component response provides greater signal-to-noise due to greater coupling. In comparison, the X coils couple best with vertical structures striking perpendicular to the flight direction. In a laterally symmetric environments, the symmetry implies that the Y component will be zero; hence a non-zero y-component indicates lateral inhomogeneity.

In the interpretation of discrete conductors, the Z component data may be used to ascertain the dip and depth to the conductor using simple rules of thumb. The response of the Y component can be used to ascertain the strike direction and lateral offset of the target respectively.

Having the Y and Z component data increases the total response when the profile line has not traversed the target. This increases the possibility of detecting a target located between adjacent flight lines or beyond a survey area.

Each primary current pulse may induce eddy currents in subsurface conductors which decay following cessation of each pulse. Any decaying earth currents can induce voltages in the receiver coils which are proportional to the electromagnetic field. These voltages are sampled over 20 time gates. The centres and widths of these gates are variable and may be placed anywhere within or outside the transmitter pulse.

The time varying EM signals received at the sensor pass through anti-aliasing filters and are then digitised with an A/D converter. The digital data stream from the A/D converter passes into an array processor where all the numerically intensive processing tasks are carried out. The array processor is under control of a multi-tasking minicomputer. The on-board processing sequence is as follows:

<u>Transient Analysis</u>:	Transient analysis enables the separation of noise from signal in real time.
<u>Digital Stacking</u>:	The stacking of transients to produce 1 recorded reading, of which 4 are recorded every second.
<u>Windowing of Data</u>:	The transient is initially sampled into 384 time windows which are then binned to form 20 channels.

Table 1: Airborne Equipment Specifications

System Parameters		GEOTEM$_{DEEP}$® Specifications
Navigation		Real time Differential GPS
Nominal aircraft speed (m/s)		65
Geometry	Transmitter height Above ground level (m agl) (Nominal terrain clearance)	105
	Receiver Bird Height (agl, m)	65
	Tx-Rx horizontal separation (m)	119
	Tx-Rx vertical separation (m)	40
Transmitter	Coil Axis	Vertical
	Signal	Half sine wave current pulse
	Base frequency (Hz)	25
	Repetition rate (pulses per second)	50
	Pulse width (microseconds)	4108
	Loop area (square metres)	231
	Number of turns	6
	Peak Current (amps)	443
	Tx loop dipole moment (Am^2)	6.128×10^5
Receiver	Coil Axes	X, Y and Z
	Sample Interval (seconds)	0.25
	Channel times	see Table 2

Table 2: Receiver Channel Positions

Gate No.	Sample Number Start	Sample Number End	Width	Microseconds after Trigger Start	Microseconds after Trigger End	Microseconds after Trigger Centre
1	4	12	9	156	625	391
2	13	33	21	625	1719	1172
3	34	57	24	1719	2969	2344
4	58	87	30	2969	4531	3750
5	88	90	3	4531	4688	4609
6	91	93	3	4688	4844	4766
7	94	96	3	4844	5000	4922
8	97	102	6	5000	5313	5156
9	103	108	6	5313	5625	5469
10	109	117	9	5625	6094	5859
11	118	126	9	6094	6563	6328
12	127	138	12	6563	7188	6875
13	139	153	15	7188	7969	7578
14	154	171	18	7969	8906	8438
15	172	192	21	8906	10000	9453
16	193	216	24	10000	11250	10625
17	217	246	30	11250	12813	12031
18	247	282	36	12813	14688	13750
19	283	330	48	14688	17188	15938
20	331	384	54	17188	20000	18594

Electromagnetic Acquisition System

The Digital Acquisition System (GEODAS) is a computer-based software system using a Pentium field PC. It runs multiple DOS programs in a multi-tasking environment. The modular design of the GEODAS allows for re-configuring of the system to record different types of surveys by adding, removing or changing task modules.

The GEODAS is currently installed on a rugged, totally enclosed, moisture and dust-proof system, originally designed for military use. The GEODAS currently uses a Pentium CPU on a plug-in module card that can be upgraded.

The following are recorded digitally using the GEODAS:

Each second:
- Flight number
- Navigation data
- Total magnetic field
- Fiducial number (time in seconds)
- Altitude (radar and barometer)

Each 0.25 secs:	20 X, Y, & Z component dB/dt **GEOTEM$_{DEEP}$®** channels 20 X, Y, & Z component B-field **GEOTEM$_{DEEP}$®** channels X, Y, & Z component transmitter primary field Power line (50Hz) monitor (X, Y, & Z component) Earth field monitor (X, Y, & Z component)

GEOTEM$_{DEEP}$® Daily Calibration

All checks and adjustments are performed at high altitude at the start of each flight to allow for automatic compensation and calibration at survey altitude. The calibrations and compensations are as follows:

Compensation

During the flight, the transmitter creates eddy currents within the structure of the aircraft that have measurable effects at the receiver coil. Compensation for this signal is effected numerically within the receiver by a statistical analysis of the signal at the bird in the absence of ground response (by flying at an altitude in excess of 600 m above ground level). The observed signal is used to define a compensation signal that is removed from the observed signal to produce a null and thus effectively buck out any response due to changing geometry between receiver and transmitter (ie between the bird and the aircraft);

Normalisation

All EM response channels are automatically calibrated and reduced to parts per million of the primary field in the receiver.

Magnetometers

Survey Magnetometer

Model:	Cesium vapour optical absorption magnetometer sensor
Mounting:	Tail stinger
Sample period:	50 milliseconds
Sample interval:	1.0 seconds *
Sensitivity:	0.01 nanoTeslas (nT)

* To operate both the **GEOTEM$_{DEEP}$®** system and the magnetometer system simultaneously, the transmitter is switched off for a period of 200 milliseconds every second to allow for a noise free magnetometer reading.

Base Station Magnetometer

Model:	Scintrex CS2 cesium vapour magnetometer
Sample interval:	1 second
Sensitivity:	0.01 nanoTeslas (nT)
Recording:	Labretto computer hard-drive

The base station magnetometer operates during flying hours to monitor the diurnal variations in the magnetic field. The sensor is placed in a suitable position that minimises the effects of high magnetic gradients and cultural interference. A second base station is operated as a back-up. In the case of the present survey the magnetic base stations were setup off to the side of the runway at the Tea Tree airstrip.

Tracking Camera

Model:	Sony DXP 101P Camera with wide angle lens Panasonic AG6400 Video Cassette Recorder Sony PVM 6030ME Monitor

The video tape is synchronised with the geophysical record by a digital fiducial display that is recorded on the video tape and displayed on the bottom left hand of the video screen. Times are recorded from the digital information provided by the data acquisition system. Video is recorded in PAL format.

Altimeters

Barometric Altimeter

Model:	SENSYM 142SC15A
Sample interval:	1.0 second
Sensitivity:	0.24 mV/foot (6.5 mV/mb)

Radar Altimeter

Model:	Sperry Stars AA200 radio altimeter system
Sample interval:	1.0 second
Accuracy:	+/- 1.5% of indicated altitude.

The Sperry radio altimeter is a high quality instrument whose output is factory calibrated. It is fitted with a test function which checks the calibration of a terrain clearance of 100 feet, and altitudes which are multiples of 100 feet. The aircraft radio altitude is recorded onto digital tape as well as displayed on the aircraft chart recorder. The recorded value is the average of the altimeters output during the previous second.

Electronic Navigation

GPS equipment:	Sercel NR103 GPS receiver and antennae mounted in aircraft and equipped with steering indicators.
Base station:	Sercel NR103 GPS receivers with lap-top.
Sample rate:	0.6 seconds
Differential corrections:	Omnistar 300L

The Global Positioning System (GPS) is a line of sight, satellite navigation system that utilises time-coded signals from at least four of the twenty-four NAVSTAR satellites. Two base station GPS receivers were set up on the roof of the Tea Tree Roadhouse, Tea Tree. The second base station was used as a backup in case of the possibility of one base station failing during a flight. The two base stations would collect GPS information throughout the flights, which was inturn used to post-process the aircraft GPS navigation. The post differential processing of the GPS data accuracy of approximately +/- 5 metres.

The GPS records data relative to the WGS84 ellipsoid, which is negligibly different from the Australian Geodetic Datum (GDA94) for airborne survey purposes. Conversion software is used to transform the

WGS84 coordinates to Australian Map Grid (AMG) coordinates using the AGD84 datum. Data were delivered in AGD84 (lat/long) and AGD84, zone 53 (easting/northing) coordinates.

The GPS base station position was calibrated by logging data continuously at the base position over a period of at least 24 hours. These data were then statistically averaged to obtain the position of the base station.

The calculated GPS base position was (in WGS84):

Tea Tree Roadhouse 22° 07' 50.2165" S, 133° 25' 01.3319" E, 552.357 m.

Analogue Recorder

Model:	RMS GR33 Thermal Dot Matrix Printer
Chart speed:	11 cm/minute; time increases from left to right
Event marks:	20 second marks are recorded on the bottom of the chart with the associated fiducial numbers being printed at the base of the chart.
GEOTEM$_{DEEP}$® Traces:	The scales for the **GEOTEM$_{DEEP}$**® traces are displayed on the analogue charts. The zero line for each channel is separated by 0.5 cm with the latest channel always being plotted closest to the bottom of the page.
Synchronisation:	A lag of approximately 5.0 seconds occurs between the **GEOTEM$_{DEEP}$**® channels and the magnetometer and altimeter traces.
Channels Displayed:	Channel 16 noise monitors (X, Y and Z) Primary field monitor (X and Z) Earth field monitors (X, Y and Z) Total magnetic field - fine and coarse scale Terrain clearance - radar Barometer Selected **GEOTEM$_{DEEP}$**® X and Z channels Powerline monitor

Equipment Tests and Calibrations

Electromagnetic Lag Test

An electromagnetic lag check is routinely carried out to determine the lag of the **GEOTEM$_{DEEP}$**® system. The check is conducted by flying in two different directions over a known target with a particular electromagnetic signature. The value calculated by the electromagnetic test is used in the processing of the **GEOTEM$_{DEEP}$**® electromagnetic data.
A lag check was completed over a known conductive feature near Mandurah, Western Australia, in September 2002. The results showed that the lag for the electromagnetic data was 16 samples.

Magnetometer Lag Test

The lag of the magnetics can be calculated by flying the aircraft in opposite directions over a sharp magnetic anomaly with the navigation system and magnetometer operating. The position of the magnetic high is determined from the navigation system for each line direction. The numerical difference in position is the 2-way or total lag. The lag to be applied to each direction is this value divided by two. Varying lag due to varying ground speed will be compensated for in the processing. However, for this survey the lag was calculated using grids of the magnetics data from the survey. The results showed that there was a lag of 2.25 seconds.

12. PRODUCTS AND PROCESSING

Raw **GEOTEM$_{DEEP}$®** data collected in the field is read directly onto a Pentium PC where advanced Windows NT GMAPS processing software is applied to the data.

Processed data is displayed as profiles and plans in the field. Displays are produced of flight path plots, magnetic and EM channel amplitudes. Fugro Airborne Surveys Pty Limited uses these displays to analyse the quality of the data collected.

Field Processing System

Hardware: Lap-top Pentium PC's operating on a Windows NT platform
Ricoh DVD+R/RW external drive
Iomega Jazz external drive

Software: Fugro Airborne Surveys Pty Limited developed GMAPS **GEOTEM$_{DEEP}$®** processing software
OASIS Montaj geophysical processing software

Office Processing System

Hardware: Pentium PC network and peripherals operating on a Windows NT platform

Ricoh DVD+R/RW drive
High speed HP Printers
HP 1055 Design-jet Plotters

Software: Fugro Airborne Surveys Pty Limited developed GMAPS **GEOTEM$_{DEEP}$®** processing software
OASIS Montaj geophysical processing software

Electromagnetics

Levelling

Since the **GEOTEM$_{DEEP}$®** receiver constantly normalises and calibrates during data acquisition there is normally minimal levelling of data required at the post-survey processing stage.

Synchronisation Lag

All **GEOTEM$_{DEEP}$®** and auxiliary geophysical data have been synchronised with navigation data so that there is no "peak position" offset between the responses obtained from lines flown in opposite directions over a narrow vertical conductor (see also section 3.9.1)

Noise Reduction

Noise reduction in the digital data is accomplished by identification of the noise type (atmospheric, system or cultural), analysis of the spectral content of the entire signal (geological + noise) and selective filtering.

Atmospheric Noise

The first stage of processing is atmospheric (spheric) noise removal which is achieved by using a method based loosely on cross correlation and non linear filtering, since most spheric events are single reading (impulse response) features which cannot be properly removed by linear filtering.

Cultural noise

Cultural noise (which includes sources such as 50 Hz powerlines, electric fences, cathodic protected metal structures) is measured by the 50 Hz monitor. Normally cultural noise is not removed during processing.

System noise

System noise is removed by filtering using strict amplitude and wavelength thresholds to correctly isolate noise from geological signal. The filter shape and amplitude thresholds are determined on a flight by flight basis from raw data plots of at least 2 flight lines flown in opposite directions at the beginning and end of the flight. This allows customised filtering for directional, diurnal and flight noise, ensuring that the minimal amount of filtering is performed so that real signal is not degraded by using a "lowest common denominator" philosophy of applying one filter (usually the maximum) for all noise conditions.

Magnetics

Diurnal Levelling

Base station data is edited so that all significant spikes, level shifts and null data are eliminated. The data is re-sampled and synchronised to the airborne fiducial system prior to subtraction from airborne magnetic readings. A diurnal base value of 55200 nT was then added.

Synchronisation Lag

A lag was applied to synchronise the magnetic data with the navigation data (see section 3.9.2).

IGRF Removal

The International Geomagnetic Reference Field (IGRF) 2000 model (updated for secular variation) was removed from the levelled total field magnetics. A base level of 2000 nT was then added to the data.

Levelling

A Fugro proprietary micro-levelling process was applied in order to more subtly level the data. This process removes sub-gamma pulls evident only under image enhancement algorithms.

Digital Elevation Model

Where necessary, spike corrections to the raw radar altimeter data are carried out and undefined values interpolated. The data is then co-ordinated with post-processed GPS data. The aircraft's height above ground is subtracted from the aircraft's height above the WGS84 ellipsoid.
Following this, a Fugro proprietary micro-levelling process was applied in order to more subtly level the data.

Flight Path Recovery

A GPS receiver mounted in the survey aircraft uses 3D triangulation of satellite signals to calculate both the position of the aircraft in real time and to provide pilots with steering information. GPS data are read into the field computer and plotted on a daily basis to ensure data quality control and determine any re-flights. Positioning data are stored digitally as Latitudes and Longitudes and later converted to Universal Transverse Mercator coordinates using the appropriate datum (see section 3.7). Raw GPS data are corrected with post differential corrections improving the accuracy of the recorded position.

The integrated aircraft track is plotted on a daily basis using the differential GPS data. Plots are analysed to ensure data quality and to determine any re-flights.

Survey Products

Multi-Parameter Profile Plots

Final **GEOTEM$_{DEEP}$®** data is presented as multi-parameter profiles after final processing in the Fugro Airborne Surveys office in Perth. The processed geophysical data are plotted at suitable scales from top to bottom. The x-axes of alternate sections of each plot are annotated with fiducial numbers or grid coordinates. The scales for the **GEOTEM$_{DEEP}$®** traces vary according to the channel, to allow resolution in late channels whilst keeping early channels on scale. The base level for each channel is separated by 0.5 cm with the latest channel always being plotted closest to the bottom of the page. Each plot has a title containing line number, job number, area name, transmitter frequency and average northing or easting.

Hardcopy Products

2 sets for each area:

- CDI-multiplots displaying B-field X, Y and Z (EM) components and dB/dt Z CDI sections at 1:50,000 on paper.
- Stacked CDI sections at 1:50,000.

Digital Products

1 CD-ROM for each area:

- Located data (Geosoft GDB and Flat Ascii database (see Appendix II)).
- Copies of all hardcopy CDI-multiplots in hpgl format, containing B-field X, Y and Z (EM) components.
- ER-mapper grids (Mag, DTM, dB/dt X component channels 5-20, dB/dt Z component channels 5-20, B-field X component channels 5-20 and B-field Z component channels 5-20).

APPENDIX I – Weekly Acquisition Reports

Week Commencing:	**Monday 06-Jan-03**	Aircraft:	VH-TEM	Operators:	Rackham	Pilots:	Haldane, Lester
Job Number:	1567	Base:	Tea Tree	Data Proc:	Carter	Techs:	Rackham
Total km:	3,604	Country:	Australia - NT	Crew Leader:	Carter	Client:	Falconbridge (Australia) Pty Ltd
		Area Name:	Areas 1,2	Accom:	Tea Tree Roadhouse	Contact #:	08 8956 9741

Date		Flight	Crew		Time		M/R	Oil		Fuel	This Flight		To Date		Standby	Comments
		Number	Plt(s)	Op	T/O	Land	Hrs	L	R	Added	Prod	Refly	Prod	Refly	(0, 0.5, 1)	
Monday	6-Jan-03															
Julian	6															
Day					Hours Today		0.0				0.0	0.0	0.0	0.0		
Tuesday	7-Jan-03															SC/RR: Perth - Alice Springs
Julian	7															TH: Melbourne - Alice Springs
Day					Hours Today		0.0				0.0	0.0	0.0	0.0		BH/ML: Yulara - Alice Springs (Road)
Wednesday	8-Jan-03															SC/RR: Alice Springs - Ti Tree (Road)
																RR: Ti Tree - Alice Springs (Road)
Julian	8															60 fuel drums arrive Ti Tree - stored at roadhouse
Day					Hours Today		0.0				0.0	0.0	0.0	0.0		
Thursday	9-Jan-03	Test Flt	TH,ML													SC: Ti Tree - Alice Springs (Road)
																SC/BH: Alice Springs - Ti Tree (Road)
Julian	9															Trailer & personal gear for crew in Ti Tree.
Day	1				Hours Today		0.0				0.0	0.0	0.0	0.0		
Friday	10-Jan-03	1	TH,ML	RR			1.2			7 drums	215.0	0.0				Area 1 tie lines - some spherics - quality good.
																Flight-planning problems - tie line numbering rev.
Julian	10															Aircraft departed Alice Springs and landed at
Day	2				Hours Today		1.2				215.0	0.0	215.0	0.0		Ti Tree - cattle on airstrip - will be monitored.
Saturday	11-Jan-03	2	TH,ML	RR			2.2			7 drums	287.7	0.0				Area 1 & 2 tie lines completed. Area 2 traverse
Julian	11															commenced.
Day	3				Hours Today		2.2				287.7	0.0	502.7	0.0		
Sunday	12-Jan-03	3	TH,ML	RR			3.1			7 drums	309.6	0.0				Area 2 traverse continued - data quality good.
																Slight increase in early time noise levels - may be
Julian	12															a combination of line direction and increase in
Day	4				Hours Today		3.1				309.6	0.0	812.3	0.0		wind turb.
Total Job Hours		6.5	Weekly Totals				6.5	0	0	0						
			Total Aircraft Hours					Ltrs/Hr		0	This week;		Total Standby		0.0	
			Hours to Next Periodic				74.8	Running Avg			116.0 km/day		% Complete		22.5	%
			Anticipated Hours Next week								125.0 km/hr		km Remaining		2791.3	km

Week Commencing: **Monday 13-Jan-03**
Job Number: 1567
Total km: 3,604

Aircraft: VH-TEM
Base: Tea Tree
Country: Australia - NT
Area Name: Areas 1,2

Operators: Rackham, Stewart
Data Proc: Carter
Crew Leader: Carter
Accom: Tea Tree Roadhouse

Pilots: Haldane, Lester
Techs: Rackham, Stewart
Client: Falconbridge (Australia) Pty Ltd
Contact #: 08 8956 9741

Date		Flight	Crew		Time		M/R	Oil		Fuel	This Flight		To Date		Standby	Comments
		Number	Plt(s)	Op	T/O	Land	Hrs	L	R	Added	Prod	Refly	Prod	Refly	(0, 0.5, 1)	
Monday	13-Jan-03	4	TH,ML	RR			3.2			7 drums	342.5	0.0				Area 2 traverse continued - data quality good.
																Slight increase in early time noise levels - may be
Julian	13															a combination of line direction and increase in
Day					Hours Today		3.2				342.5	0.0	1154.8	0.0		wind turb.
Tuesday	14-Jan-03	5	TH,ML	RR			3.2			7 drums	232.3	0.0				**Area 2 completed**, Area 1 continued - data
																quality good.
Julian	14															Flightplanning problems - to be addressed.
Day					Hours Today		3.2				232.3	0.0	1387.1	0.0		
Wednesday	15-Jan-03	PDO														Pilots rest day.
Julian	15															JS: Perth - Alice Springs - Ti Tree
Day					Hours Today		0.0				0.0	0.0	1387.1	0.0		
Thursday	16-Jan-03	6	TH/ML	JS			3.1			7 drums	246.1	0.0				Data quality good.
																35 drums fuel arrived pm.
Julian	16															RR/BH: Ti Tree - Alice Springs - Perth
Day	1				Hours Today		3.1				246.1	0.0	1633.2	0.0		Data for Area 2 sent to Perth - Express Post.
Friday	17-Jan-03	7	TH/ML	JS			3.2			7 drums	347.9	0.0				Data quality good. Slight increase in spherics.
Julian	17															
Day	2				Hours Today		3.2				347.9	0.0	1981.1	0.0		
Saturday	18-Jan-03	8	TH/ML	JS			3.1			7 drums	338.3	0.0				Data quality good. Slight increase in turbulence
																towards end of flight.
Julian	18															Morning temp (5.00am) slightly cooler.
Day	3				Hours Today		3.1				338.3	0.0	2319.4	0.0		
Sunday	19-Jan-03	na										0.0			1.0	Poor weather conditions - 100% low cloud
Julian	19															cover and strong winds (gt 20knt).
Day	4				Hours Today		0.0				0.0	0.0	2319.4	0.0		

Total Job Hours	22.3	Weekly Totals	22.3	0	0	0
		Total Aircraft Hours		Ltrs/Hr	0
		Hours to Next Periodic	59.0	Running Avg	
		Anticipated Hours Next week			

This week; 215.3 km/day, 67.6 km/hr

Total Standby	1.0
% Complete	64.4 %
km Remaining	1284.2 km

Week Commencing: **Monday 20-Jan-03**
Job Number: 1567
Total km: 3,604

Aircraft: VH-TEM
Base: Tea Tree
Country: Australia - NT
Area Name: Areas 1,2

Operators: Stewart
Data Proc: Carter
Crew Leader: Carter
Accom: Tea Tree Roadhouse

Pilots: Haldane, Lester
Techs: Stewart
Client: Falconbridge (Australia) Pty Ltd
Contact #: 08 8956 9741

Date		Flight Number	Crew Plt(s)	Crew Op	Time T/O	Time Land	M/R Hrs	Oil L	Oil R	Fuel Added	This Flight Prod	This Flight Refly	To Date Prod	To Date Refly	Standby (0, 0.5, 1)	Comments
Monday	20-Jan-03	na													1.0	Poor weather conditions - 100% low cloud
Julian	20															cover and moderate winds (gt 15knt).
Day					Hours Today		0.0				0.0	0.0	2319.4	0.0		
Tuesday	21-Jan-03	9	TH/ML	JS			3.0			7 drums	220.0	54.8				Early sortie aborted due to low cloud base.
																Later sortie successful although data affected
Julian	21															by slightly stronger wind conditions and higher
Day					Hours Today		3.0				220.0	54.8	2539.4	54.8		spherics levels - some reflys.
Wednesday	22-Jan-03	10	TH/ML	JS			3.3			7 drums	397.2					Data quality good.
																CV diurnal adjusted by 9.5 hrs.
Julian	22															
Day					Hours Today		3.3				397.2	0.0	2936.6	54.8		
Thursday	23-Jan-03	11	TH/ML	JS			3.3			7 drums	416.9					Data quality good - some small coil knocks
		12	TH/ML	JS			2.7			7 drums	250.1					towards end of flt12.
Julian	23															CV mag stopped during flt12 - low batt - 856 ok.
Day	1				Hours Today		6.0				667.0	0.0	3603.6	54.8		**Area 1 completed.**
Friday	24-Jan-03	Ferry	TH/ML							6 drums						TH/ML: Tea Tree - Yulara (CASA).
Julian	24															SC/JS: Tea Tree - Yulara (Landcruiser).
Day	2				Hours Today		0.0				0.0	0.0	3603.6	54.8		
Saturday	25-Jan-03															**REFER TO JOB 1566 WEEKLY REPORT**
Julian	25															
Day	3				Hours Today		0.0				0.0	0.0	3603.6	54.8		
Sunday	26-Jan-03															
Julian	26															
Day	4				Hours Today		0.0				0.0	0.0	3603.6	54.8		

Total Job Hours: 34.6
Weekly Totals: 34.6 | 0 | 0 | 0
Total Aircraft Hours:
Ltrs/Hr: 0
Hours to Next Periodic: 46.7
Running Avg
Anticipated Hours Next week:

This week; 183.5 km/day, 37.1 km/hr

Total Standby: 2.0
% Complete: 100.0 %
km Remaining: 0.0 km

APPENDIX II – Final Located Data Formats

FINAL DATA HEADER – AREA 1

```
COMM CLIENT:                                 Falconbridge (Australia) Pty Ltd
COMM SURVEY TYPE:                                      25Hz GEOTEMdeep Survey
COMM AREA NAME:                                                     Arunta NE
COMM STATE:                                                Northern Territory
COMM COUNTRY:                                                       Australia
COMM JOB NUMBER:                                                       1567.1
COMM DATE FLOWN:                                                 January 2003
COMM SURVEY COMPANY:                                   Fugro Airborne Surveys
COMM LOCATED DATA CREATED:                                         March 2003
COMM
COMM DATUM:                                                             AGD84
COMM PROJECTION:                                                          AMG
COMM ZONE:                                                                 53
COMM
COMM
COMM AIRBORNE EQUIPMENT
COMM ------------------
COMM
COMM AIRCRAFT:                                  CASA C212 Turbo Prop, VH-TEM
COMM MAGNETOMETER:                         Cesium Vapour optical absorption
COMM INSTALLATION:                                                  Stinger
COMM SENSITIVITY:                                                   0.01 nT
COMM RECORDING INTERVAL:                        1 sec (approx 65 m sampling)
COMM                                      at mean ground speed of 235km/h
COMM
COMM ELECTROMAGNETICS:                                          GEOTEMdeep
COMM INSTALLATION:                  Transmitter loop mounted on the aircraft
COMM                                        receiver coils in a towed bird
COMM COIL ORIENTATION:                                           X,Y and Z
COMM FREQUENCY:                                                      25 Hz
COMM GEOMETRY:                        Tx-Rx horizontal separation of 119 m
COMM                                    Tx-Rx vertical separation of 40 m
COMM SAMPLING:             0.25 sec (approx 16 m sampling) at mean ground
COMM                                                   speed of 240km/h
COMM ALTIMETER:                                        Sperry Stars AA200
COMM RECORDING INTERVAL:                                            1 sec
COMM NAVIGATION:                                            SERCEL NR103
COMM                                       Differentially post-processed
COMM RECORDING INTERVAL:                                            1 sec
COMM BASE MAGNETOMETER:                   Cesium vapour optical absorption
COMM RECORDING INTERVAL:                                            1 sec
COMM VIDEO:                                                      Acquired
COMM
COMM ACQUISITION SYSTEM:                           GEODAS acquisition system
COMM
COMM
COMM AIRBORNE SPECIFICATIONS
COMM -----------------------
COMM
COMM TRAVERSE LINE SPACING:                                         250 m
COMM TRAVERSE LINE DIRECTION:                                     055-235
COMM TIE LINE SPACING:                                              2500m
COMM TIE LINE DIRECTION:                                          145-325
COMM NOMINAL TERRAIN CLEARANCE:                         105 m (Aircraft)
COMM LINE KILOMETREAGE:                                           2595 km
COMM
COMM
COMM SURVEY BOUNDARY (GDA94, MGA53)
```

```
COMM ------------------------------
COMM
COMM   312414  7626103
COMM   314157  7623550
COMM   316730  7625240
COMM   320094  7620417
COMM   321767  7621577
COMM   327390  7613520
COMM   332780  7613443
COMM   335972  7608932
COMM   332391  7606433
COMM   336194  7600983
COMM   331055  7597377
COMM   319597  7597245
COMM   315915  7602554
COMM   317405  7603602
COMM   311823  7611936
COMM   302990  7611935
COMM   302875  7624619
COMM   309938  7629584
COMM
COMM
COMM LINE NUMBERING
COMM ----------------
COMM
COMM FLIGHT LINE NUMBERS:                                   10010 - 11532
COMM TIE LINE NUMBERS:                                      17011 - 17101
COMM
COMM
COMM PROCESSING DETAILS
COMM ====================
COMM
COMM DATA PROCESSING:
COMM ----------------
COMM MAGNETIC DATA:
COMM SYSTEM PARALLAX REMOVED                                          2.25 s
COMM DIURNAL CORRECTIONS APPLIED                      Base value: 55200 nT
COMM IGRF REMOVED                                     Base value:  2000 nT
COMM MICROLEVELLING APPLIED
COMM
COMM DIGITAL TERRAIN MODEL:
COMM SPIKES REMOVED FROM RADAR ALTIMETER
COMM DTM CALCULATED [DTM = gps_height - radar]
COMM MICROLEVELLING APPLIED
COMM
COMM EM DATA:
COMM SYSTEM PARALLAX REMOVED                            Lag of 16 samples
COMM DATA CORRECTED FOR COIL MOVEMENT
COMM LEVEL SHIFTS APPLIED
COMM CONDUCTIVITY DEPTH INVERSIONS CALCULATED                  EMFlow V5
COMM
COMM SYSTEM GEOMETRY:
COMM ----------------
COMM
COMM THE TRANSMITTER-RECEIVER GEOMETRY IS:
COMM
COMM TRANSMITTER TERRAIN CLEARANCE:                           105 metres
COMM DISTANCE BEHIND THE AIRCRAFT:                            119 metres
COMM DISTANCE BELOW THE AIRCRAFT:                              40 metres
COMM
COMM PARALLAX CORRECTIONS:
COMM ---------------------
COMM
COMM FOR THIS DATA SET, THE FOLLOWING PARALLAX VALUES WERE APPLIED:
COMM
COMM X-COMPONENT EM DATA:                                     16 samples
```

```
COMM Z-COMPONENT EM DATA:                                              16 samples
COMM MAGNETOMETER:                                                      9 samples
COMM
COMM ELECTROMAGNETIC SYSTEM:
COMM ------------------------
COMM
COMM GEOTEMdeep IS A TIME-DOMAIN HALF SINE-WAVE SYSTEM,
COMM TRANSMITTING AT A BASE FREQUENCY OF 25Hz,
COMM WITH 3 ORTHOGONAL-AXIS RECEIVER COILS IN A TOWED BIRD.
COMM FINAL EM OUTPUT IS RECORDED 4 TIMES PER SECOND (~16 METRES).
COMM THE TIMES (IN MILLISECONDS) FOR THE 20 WINDOWS ARE:
COMM
COMM WINDOW      START        END        CENTRE
COMM 1            0.156        0.625      0.391
COMM 2            0.625        1.719      1.172
COMM 3            1.719        2.969      2.344
COMM 4            2.969        4.531      3.750
COMM 5            4.531        4.688      4.609
COMM 6            4.688        4.844      4.766
COMM 7            4.844        5.000      4.922
COMM 8            5.000        5.313      5.156
COMM 9            5.313        5.625      5.469
COMM 10           5.625        6.094      5.859
COMM 11           6.094        6.563      6.328
COMM 12           6.563        7.188      6.875
COMM 13           7.188        7.969      7.578
COMM 14           7.969        8.906      8.438
COMM 15           8.906       10.000      9.453
COMM 16          10.000       11.250     10.625
COMM 17          11.250       12.813     12.031
COMM 18          12.813       14.688     13.750
COMM 19          14.688       17.188     15.938
COMM 20          17.188       20.000     18.594
COMM
COMM PULSE WIDTH IS 4.108 MILLISECONDS.
```

```
 Output field format : DOS  - Flat ascii
 Number of fields    : 355

 Field  Columns   Type Format  Channel       Description

  1      1 -   6  int  (i 6)   LINE          [Line                                     ]
  2      7 -  10  int  (i 4)   FLIGHT        [Flight                                   ]
  3     11 -  20  real (f10.2) FID           [Fiducial                          (s)    ]
  4     21 -  33  real (f13.6) LATITUDE      [Latitude  AGD84                   (deg)  ]
  5     34 -  46  real (f13.6) LONGITUDE     [Longitude AGD84                   (deg)  ]
  6     47 -  58  int  (i12)   EASTING       [Easting   AGD84                   (m)    ]
  7     59 -  70  int  (i12)   NORTHING      [Northing  AGD84                   (m)    ]
  8     71 -  80  real (f10.1) Radar         [Radar Altimeter                   (m)    ]
  9     81 -  90  real (f10.1) GPS_ht        [GPS height                        (m)    ]
 10     91 - 100  real (f10.1) DTM           [DTM                               (m)    ]
 11    101 - 110  real (f10.2) MAG           [Final TMI (diur & IGRF removed)   (nT)   ]
 12    111 - 120  real (f10.2) MAG_1VD       [Final TMI 1VD                     (nT/m) ]
 13    121 - 130  real (f10.2) DIURNAL       [Mag Diurnal                       (nT)   ]
 14    131 - 140  real (f10.3) XCHraw[1]     [X_01 raw                          (nT/s) ]
 15    141 - 150  real (f10.3) XCHraw[2]     [X_02 raw                          (nT/s) ]
 16    151 - 160  real (f10.3) XCHraw[3]     [X_03 raw                          (nT/s) ]
 17    161 - 170  real (f10.3) XCHraw[4]     [X_04 raw                          (nT/s) ]
 18    171 - 180  real (f10.3) XCHraw[5]     [X_05 raw                          (nT/s) ]
 19    181 - 190  real (f10.3) XCHraw[6]     [X_06 raw                          (nT/s) ]
 20    191 - 200  real (f10.3) XCHraw[7]     [X_07 raw                          (nT/s) ]
 21    201 - 210  real (f10.3) XCHraw[8]     [X_08 raw                          (nT/s) ]
 22    211 - 220  real (f10.3) XCHraw[9]     [X_09 raw                          (nT/s) ]
 23    221 - 230  real (f10.3) XCHraw[10]    [X_10 raw                          (nT/s) ]
 24    231 - 240  real (f10.3) XCHraw[11]    [X_11 raw                          (nT/s) ]
 25    241 - 250  real (f10.3) XCHraw[12]    [X_12 raw                          (nT/s) ]
 26    251 - 260  real (f10.3) XCHraw[13]    [X_13 raw                          (nT/s) ]
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 27   261 - 270  real (f10.3) XCHraw[14]    [X_14 raw                          (nT/s)]
 28   271 - 280  real (f10.3) XCHraw[15]    [X_15 raw                          (nT/s)]
 29   281 - 290  real (f10.3) XCHraw[16]    [X_16 raw                          (nT/s)]
 30   291 - 300  real (f10.3) XCHraw[17]    [X_17 raw                          (nT/s)]
 31   301 - 310  real (f10.3) XCHraw[18]    [X_18 raw                          (nT/s)]
 32   311 - 320  real (f10.3) XCHraw[19]    [X_19 raw                          (nT/s)]
 33   321 - 330  real (f10.3) XCHraw[20]    [X_20 raw                          (nT/s)]
 34   331 - 340  real (f10.3) YCHraw[1]     [Y_01 raw                          (nT/s)]
 35   341 - 350  real (f10.3) YCHraw[2]     [Y_02 raw                          (nT/s)]
 36   351 - 360  real (f10.3) YCHraw[3]     [Y_03 raw                          (nT/s)]
 37   361 - 370  real (f10.3) YCHraw[4]     [Y_04 raw                          (nT/s)]
 38   371 - 380  real (f10.3) YCHraw[5]     [Y_05 raw                          (nT/s)]
 39   381 - 390  real (f10.3) YCHraw[6]     [Y_06 raw                          (nT/s)]
 40   391 - 400  real (f10.3) YCHraw[7]     [Y_07 raw                          (nT/s)]
 41   401 - 410  real (f10.3) YCHraw[8]     [Y_08 raw                          (nT/s)]
 42   411 - 420  real (f10.3) YCHraw[9]     [Y_09 raw                          (nT/s)]
 43   421 - 430  real (f10.3) YCHraw[10]    [Y_10 raw                          (nT/s)]
 44   431 - 440  real (f10.3) YCHraw[11]    [Y_11 raw                          (nT/s)]
 45   441 - 450  real (f10.3) YCHraw[12]    [Y_12 raw                          (nT/s)]
 46   451 - 460  real (f10.3) YCHraw[13]    [Y_13 raw                          (nT/s)]
 47   461 - 470  real (f10.3) YCHraw[14]    [Y_14 raw                          (nT/s)]
 48   471 - 480  real (f10.3) YCHraw[15]    [Y_15 raw                          (nT/s)]
 49   481 - 490  real (f10.3) YCHraw[16]    [Y_16 raw                          (nT/s)]
 50   491 - 500  real (f10.3) YCHraw[17]    [Y_17 raw                          (nT/s)]
 51   501 - 510  real (f10.3) YCHraw[18]    [Y_18 raw                          (nT/s)]
 52   511 - 520  real (f10.3) YCHraw[19]    [Y_19 raw                          (nT/s)]
 53   521 - 530  real (f10.3) YCHraw[20]    [Y_20 raw                          (nT/s)]
 54   531 - 540  real (f10.3) ZCHraw[1]     [Z_01 raw                          (nT/s)]
 55   541 - 550  real (f10.3) ZCHraw[2]     [Z_02 raw                          (nT/s)]
 56   551 - 560  real (f10.3) ZCHraw[3]     [Z_03 raw                          (nT/s)]
 57   561 - 570  real (f10.3) ZCHraw[4]     [Z_04 raw                          (nT/s)]
 58   571 - 580  real (f10.3) ZCHraw[5]     [Z_05 raw                          (nT/s)]
 59   581 - 590  real (f10.3) ZCHraw[6]     [Z_06 raw                          (nT/s)]
 60   591 - 600  real (f10.3) ZCHraw[7]     [Z_07 raw                          (nT/s)]
 61   601 - 610  real (f10.3) ZCHraw[8]     [Z_08 raw                          (nT/s)]
 62   611 - 620  real (f10.3) ZCHraw[9]     [Z_09 raw                          (nT/s)]
 63   621 - 630  real (f10.3) ZCHraw[10]    [Z_10 raw                          (nT/s)]
 64   631 - 640  real (f10.3) ZCHraw[11]    [Z_11 raw                          (nT/s)]
 65   641 - 650  real (f10.3) ZCHraw[12]    [Z_12 raw                          (nT/s)]
 66   651 - 660  real (f10.3) ZCHraw[13]    [Z_13 raw                          (nT/s)]
 67   661 - 670  real (f10.3) ZCHraw[14]    [Z_14 raw                          (nT/s)]
 68   671 - 680  real (f10.3) ZCHraw[15]    [Z_15 raw                          (nT/s)]
 69   681 - 690  real (f10.3) ZCHraw[16]    [Z_16 raw                          (nT/s)]
 70   691 - 700  real (f10.3) ZCHraw[17]    [Z_17 raw                          (nT/s)]
 71   701 - 710  real (f10.3) ZCHraw[18]    [Z_18 raw                          (nT/s)]
 72   711 - 720  real (f10.3) ZCHraw[19]    [Z_19 raw                          (nT/s)]
 73   721 - 730  real (f10.3) ZCHraw[20]    [Z_20 raw                          (nT/s)]
 74   731 - 740  real (f10.3) XCHproc[1]    [X_01 proc                         (nT/s)]
 75   741 - 750  real (f10.3) XCHproc[2]    [X_02 proc                         (nT/s)]
 76   751 - 760  real (f10.3) XCHproc[3]    [X_03 proc                         (nT/s)]
 77   761 - 770  real (f10.3) XCHproc[4]    [X_04 proc                         (nT/s)]
 78   771 - 780  real (f10.3) XCHproc[5]    [X_05 proc                         (nT/s)]
 79   781 - 790  real (f10.3) XCHproc[6]    [X_06 proc                         (nT/s)]
 80   791 - 800  real (f10.3) XCHproc[7]    [X_07 proc                         (nT/s)]
 81   801 - 810  real (f10.3) XCHproc[8]    [X_08 proc                         (nT/s)]
 82   811 - 820  real (f10.3) XCHproc[9]    [X_09 proc                         (nT/s)]
 83   821 - 830  real (f10.3) XCHproc[10]   [X_10 proc                         (nT/s)]
 84   831 - 840  real (f10.3) XCHproc[11]   [X_11 proc                         (nT/s)]
 85   841 - 850  real (f10.3) XCHproc[12]   [X_12 proc                         (nT/s)]
 86   851 - 860  real (f10.3) XCHproc[13]   [X_13 proc                         (nT/s)]
 87   861 - 870  real (f10.3) XCHproc[14]   [X_14 proc                         (nT/s)]
 88   871 - 880  real (f10.3) XCHproc[15]   [X_15 proc                         (nT/s)]
 89   881 - 890  real (f10.3) XCHproc[16]   [X_16 proc                         (nT/s)]
 90   891 - 900  real (f10.3) XCHproc[17]   [X_17 proc                         (nT/s)]
 91   901 - 910  real (f10.3) XCHproc[18]   [X_18 proc                         (nT/s)]
 92   911 - 920  real (f10.3) XCHproc[19]   [X_19 proc                         (nT/s)]
 93   921 - 930  real (f10.3) XCHproc[20]   [X_20 proc                         (nT/s)]
 94   931 - 940  real (f10.3) YCHproc[1]    [Y_01 proc                         (nT/s)]
 95   941 - 950  real (f10.3) YCHproc[2]    [Y_02 proc                         (nT/s)]
 96   951 - 960  real (f10.3) YCHproc[3]    [Y_03 proc                         (nT/s)]
 97   961 - 970  real (f10.3) YCHproc[4]    [Y_04 proc                         (nT/s)]
 98   971 - 980  real (f10.3) YCHproc[5]    [Y_05 proc                         (nT/s)]
 99   981 - 990  real (f10.3) YCHproc[6]    [Y_06 proc                         (nT/s)]
100   991 -1000  real (f10.3) YCHproc[7]    [Y_07 proc                         (nT/s)]
```

```
101  1001 -1010  real (f10.3) YCHproc[8]   [Y_08 proc              (nT/s)]
102  1011 -1020  real (f10.3) YCHproc[9]   [Y_09 proc              (nT/s)]
103  1021 -1030  real (f10.3) YCHproc[10]  [Y_10 proc              (nT/s)]
104  1031 -1040  real (f10.3) YCHproc[11]  [Y_11 proc              (nT/s)]
105  1041 -1050  real (f10.3) YCHproc[12]  [Y_12 proc              (nT/s)]
106  1051 -1060  real (f10.3) YCHproc[13]  [Y_13 proc              (nT/s)]
107  1061 -1070  real (f10.3) YCHproc[14]  [Y_14 proc              (nT/s)]
108  1071 -1080  real (f10.3) YCHproc[15]  [Y_15 proc              (nT/s)]
109  1081 -1090  real (f10.3) YCHproc[16]  [Y_16 proc              (nT/s)]
110  1091 -1100  real (f10.3) YCHproc[17]  [Y_17 proc              (nT/s)]
111  1101 -1110  real (f10.3) YCHproc[18]  [Y_18 proc              (nT/s)]
112  1111 -1120  real (f10.3) YCHproc[19]  [Y_19 proc              (nT/s)]
113  1121 -1130  real (f10.3) YCHproc[20]  [Y_20 proc              (nT/s)]
114  1131 -1140  real (f10.3) ZCHproc[1]   [Z_01 proc              (nT/s)]
115  1141 -1150  real (f10.3) ZCHproc[2]   [Z_02 proc              (nT/s)]
116  1151 -1160  real (f10.3) ZCHproc[3]   [Z_03 proc              (nT/s)]
117  1161 -1170  real (f10.3) ZCHproc[4]   [Z_04 proc              (nT/s)]
118  1171 -1180  real (f10.3) ZCHproc[5]   [Z_05 proc              (nT/s)]
119  1181 -1190  real (f10.3) ZCHproc[6]   [Z_06 proc              (nT/s)]
120  1191 -1200  real (f10.3) ZCHproc[7]   [Z_07 proc              (nT/s)]
121  1201 -1210  real (f10.3) ZCHproc[8]   [Z_08 proc              (nT/s)]
122  1211 -1220  real (f10.3) ZCHproc[9]   [Z_09 proc              (nT/s)]
123  1221 -1230  real (f10.3) ZCHproc[10]  [Z_10 proc              (nT/s)]
124  1231 -1240  real (f10.3) ZCHproc[11]  [Z_11 proc              (nT/s)]
125  1241 -1250  real (f10.3) ZCHproc[12]  [Z_12 proc              (nT/s)]
126  1251 -1260  real (f10.3) ZCHproc[13]  [Z_13 proc              (nT/s)]
127  1261 -1270  real (f10.3) ZCHproc[14]  [Z_14 proc              (nT/s)]
128  1271 -1280  real (f10.3) ZCHproc[15]  [Z_15 proc              (nT/s)]
129  1281 -1290  real (f10.3) ZCHproc[16]  [Z_16 proc              (nT/s)]
130  1291 -1300  real (f10.3) ZCHproc[17]  [Z_17 proc              (nT/s)]
131  1301 -1310  real (f10.3) ZCHproc[18]  [Z_18 proc              (nT/s)]
132  1311 -1320  real (f10.3) ZCHproc[19]  [Z_19 proc              (nT/s)]
133  1321 -1330  real (f10.3) ZCHproc[20]  [Z_20 proc              (nT/s)]
134  1331 -1340  real (f10.3) bXCHraw[1]   [bX_01 raw              (pT)  ]
135  1341 -1350  real (f10.3) bXCHraw[2]   [bX_02 raw              (pT)  ]
136  1351 -1360  real (f10.3) bXCHraw[3]   [bX_03 raw              (pT)  ]
137  1361 -1370  real (f10.3) bXCHraw[4]   [bX_04 raw              (pT)  ]
138  1371 -1380  real (f10.3) bXCHraw[5]   [bX_05 raw              (pT)  ]
139  1381 -1390  real (f10.3) bXCHraw[6]   [bX_06 raw              (pT)  ]
140  1391 -1400  real (f10.3) bXCHraw[7]   [bX_07 raw              (pT)  ]
141  1401 -1410  real (f10.3) bXCHraw[8]   [bX_08 raw              (pT)  ]
142  1411 -1420  real (f10.3) bXCHraw[9]   [bX_09 raw              (pT)  ]
143  1421 -1430  real (f10.3) bXCHraw[10]  [bX_10 raw              (pT)  ]
144  1431 -1440  real (f10.3) bXCHraw[11]  [bX_11 raw              (pT)  ]
145  1441 -1450  real (f10.3) bXCHraw[12]  [bX_12 raw              (pT)  ]
146  1451 -1460  real (f10.3) bXCHraw[13]  [bX_13 raw              (pT)  ]
147  1461 -1470  real (f10.3) bXCHraw[14]  [bX_14 raw              (pT)  ]
148  1471 -1480  real (f10.3) bXCHraw[15]  [bX_15 raw              (pT)  ]
149  1481 -1490  real (f10.3) bXCHraw[16]  [bX_16 raw              (pT)  ]
150  1491 -1500  real (f10.3) bXCHraw[17]  [bX_17 raw              (pT)  ]
151  1501 -1510  real (f10.3) bXCHraw[18]  [bX_18 raw              (pT)  ]
152  1511 -1520  real (f10.3) bXCHraw[19]  [bX_19 raw              (pT)  ]
153  1521 -1530  real (f10.3) bXCHraw[20]  [bX_20 raw              (pT)  ]
154  1531 -1540  real (f10.3) bYCHraw[1]   [bY_01 raw              (pT)  ]
155  1541 -1550  real (f10.3) bYCHraw[2]   [bY_02 raw              (pT)  ]
156  1551 -1560  real (f10.3) bYCHraw[3]   [bY_03 raw              (pT)  ]
157  1561 -1570  real (f10.3) bYCHraw[4]   [bY_04 raw              (pT)  ]
158  1571 -1580  real (f10.3) bYCHraw[5]   [bY_05 raw              (pT)  ]
159  1581 -1590  real (f10.3) bYCHraw[6]   [bY_06 raw              (pT)  ]
160  1591 -1600  real (f10.3) bYCHraw[7]   [bY_07 raw              (pT)  ]
161  1601 -1610  real (f10.3) bYCHraw[8]   [bY_08 raw              (pT)  ]
162  1611 -1620  real (f10.3) bYCHraw[9]   [bY_09 raw              (pT)  ]
163  1621 -1630  real (f10.3) bYCHraw[10]  [bY_10 raw              (pT)  ]
164  1631 -1640  real (f10.3) bYCHraw[11]  [bY_11 raw              (pT)  ]
165  1641 -1650  real (f10.3) bYCHraw[12]  [bY_12 raw              (pT)  ]
166  1651 -1660  real (f10.3) bYCHraw[13]  [bY_13 raw              (pT)  ]
167  1661 -1670  real (f10.3) bYCHraw[14]  [bY_14 raw              (pT)  ]
168  1671 -1680  real (f10.3) bYCHraw[15]  [bY_15 raw              (pT)  ]
169  1681 -1690  real (f10.3) bYCHraw[16]  [bY_16 raw              (pT)  ]
170  1691 -1700  real (f10.3) bYCHraw[17]  [bY_17 raw              (pT)  ]
171  1701 -1710  real (f10.3) bYCHraw[18]  [bY_18 raw              (pT)  ]
172  1711 -1720  real (f10.3) bYCHraw[19]  [bY_19 raw              (pT)  ]
173  1721 -1730  real (f10.3) bYCHraw[20]  [bY_20 raw              (pT)  ]
174  1731 -1740  real (f10.3) bZCHraw[1]   [bZ_01 raw              (pT)  ]
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175  1741 -1750  real (f10.3) bZCHraw[2]   [bZ_02 raw                      (pT)  ]
176  1751 -1760  real (f10.3) bZCHraw[3]   [bZ_03 raw                      (pT)  ]
177  1761 -1770  real (f10.3) bZCHraw[4]   [bZ_04 raw                      (pT)  ]
178  1771 -1780  real (f10.3) bZCHraw[5]   [bZ_05 raw                      (pT)  ]
179  1781 -1790  real (f10.3) bZCHraw[6]   [bZ_06 raw                      (pT)  ]
180  1791 -1800  real (f10.3) bZCHraw[7]   [bZ_07 raw                      (pT)  ]
181  1801 -1810  real (f10.3) bZCHraw[8]   [bZ_08 raw                      (pT)  ]
182  1811 -1820  real (f10.3) bZCHraw[9]   [bZ_09 raw                      (pT)  ]
183  1821 -1830  real (f10.3) bZCHraw[10]  [bZ_10 raw                      (pT)  ]
184  1831 -1840  real (f10.3) bZCHraw[11]  [bZ_11 raw                      (pT)  ]
185  1841 -1850  real (f10.3) bZCHraw[12]  [bZ_12 raw                      (pT)  ]
186  1851 -1860  real (f10.3) bZCHraw[13]  [bZ_13 raw                      (pT)  ]
187  1861 -1870  real (f10.3) bZCHraw[14]  [bZ_14 raw                      (pT)  ]
188  1871 -1880  real (f10.3) bZCHraw[15]  [bZ_15 raw                      (pT)  ]
189  1881 -1890  real (f10.3) bZCHraw[16]  [bZ_16 raw                      (pT)  ]
190  1891 -1900  real (f10.3) bZCHraw[17]  [bZ_17 raw                      (pT)  ]
191  1901 -1910  real (f10.3) bZCHraw[18]  [bZ_18 raw                      (pT)  ]
192  1911 -1920  real (f10.3) bZCHraw[19]  [bZ_19 raw                      (pT)  ]
193  1921 -1930  real (f10.3) bZCHraw[20]  [bZ_20 raw                      (pT)  ]
194  1931 -1940  real (f10.3) bXCHproc[1]  [bX_01 proc                     (pT)  ]
195  1941 -1950  real (f10.3) bXCHproc[2]  [bX_02 proc                     (pT)  ]
196  1951 -1960  real (f10.3) bXCHproc[3]  [bX_03 proc                     (pT)  ]
197  1961 -1970  real (f10.3) bXCHproc[4]  [bX_04 proc                     (pT)  ]
198  1971 -1980  real (f10.3) bXCHproc[5]  [bX_05 proc                     (pT)  ]
199  1981 -1990  real (f10.3) bXCHproc[6]  [bX_06 proc                     (pT)  ]
200  1991 -2000  real (f10.3) bXCHproc[7]  [bX_07 proc                     (pT)  ]
201  2001 -2010  real (f10.3) bXCHproc[8]  [bX_08 proc                     (pT)  ]
202  2011 -2020  real (f10.3) bXCHproc[9]  [bX_09 proc                     (pT)  ]
203  2021 -2030  real (f10.3) bXCHproc[10] [bX_10 proc                     (pT)  ]
204  2031 -2040  real (f10.3) bXCHproc[11] [bX_11 proc                     (pT)  ]
205  2041 -2050  real (f10.3) bXCHproc[12] [bX_12 proc                     (pT)  ]
206  2051 -2060  real (f10.3) bXCHproc[13] [bX_13 proc                     (pT)  ]
207  2061 -2070  real (f10.3) bXCHproc[14] [bX_14 proc                     (pT)  ]
208  2071 -2080  real (f10.3) bXCHproc[15] [bX_15 proc                     (pT)  ]
209  2081 -2090  real (f10.3) bXCHproc[16] [bX_16 proc                     (pT)  ]
210  2091 -2100  real (f10.3) bXCHproc[17] [bX_17 proc                     (pT)  ]
211  2101 -2110  real (f10.3) bXCHproc[18] [bX_18 proc                     (pT)  ]
212  2111 -2120  real (f10.3) bXCHproc[19] [bX_19 proc                     (pT)  ]
213  2121 -2130  real (f10.3) bXCHproc[20] [bX_20 proc                     (pT)  ]
214  2131 -2140  real (f10.3) bYCHproc[1]  [bY_01 proc                     (pT)  ]
215  2141 -2150  real (f10.3) bYCHproc[2]  [bY_02 proc                     (pT)  ]
216  2151 -2160  real (f10.3) bYCHproc[3]  [bY_03 proc                     (pT)  ]
217  2161 -2170  real (f10.3) bYCHproc[4]  [bY_04 proc                     (pT)  ]
218  2171 -2180  real (f10.3) bYCHproc[5]  [bY_05 proc                     (pT)  ]
219  2181 -2190  real (f10.3) bYCHproc[6]  [bY_06 proc                     (pT)  ]
220  2191 -2200  real (f10.3) bYCHproc[7]  [bY_07 proc                     (pT)  ]
221  2201 -2210  real (f10.3) bYCHproc[8]  [bY_08 proc                     (pT)  ]
222  2211 -2220  real (f10.3) bYCHproc[9]  [bY_09 proc                     (pT)  ]
223  2221 -2230  real (f10.3) bYCHproc[10] [bY_10 proc                     (pT)  ]
224  2231 -2240  real (f10.3) bYCHproc[11] [bY_11 proc                     (pT)  ]
225  2241 -2250  real (f10.3) bYCHproc[12] [bY_12 proc                     (pT)  ]
226  2251 -2260  real (f10.3) bYCHproc[13] [bY_13 proc                     (pT)  ]
227  2261 -2270  real (f10.3) bYCHproc[14] [bY_14 proc                     (pT)  ]
228  2271 -2280  real (f10.3) bYCHproc[15] [bY_15 proc                     (pT)  ]
229  2281 -2290  real (f10.3) bYCHproc[16] [bY_16 proc                     (pT)  ]
230  2291 -2300  real (f10.3) bYCHproc[17] [bY_17 proc                     (pT)  ]
231  2301 -2310  real (f10.3) bYCHproc[18] [bY_18 proc                     (pT)  ]
232  2311 -2320  real (f10.3) bYCHproc[19] [bY_19 proc                     (pT)  ]
233  2321 -2330  real (f10.3) bYCHproc[20] [bY_20 proc                     (pT)  ]
234  2331 -2340  real (f10.3) bZCHproc[1]  [bZ_01 proc                     (pT)  ]
235  2341 -2350  real (f10.3) bZCHproc[2]  [bZ_02 proc                     (pT)  ]
236  2351 -2360  real (f10.3) bZCHproc[3]  [bZ_03 proc                     (pT)  ]
237  2361 -2370  real (f10.3) bZCHproc[4]  [bZ_04 proc                     (pT)  ]
238  2371 -2380  real (f10.3) bZCHproc[5]  [bZ_05 proc                     (pT)  ]
239  2381 -2390  real (f10.3) bZCHproc[6]  [bZ_06 proc                     (pT)  ]
240  2391 -2400  real (f10.3) bZCHproc[7]  [bZ_07 proc                     (pT)  ]
241  2401 -2410  real (f10.3) bZCHproc[8]  [bZ_08 proc                     (pT)  ]
242  2411 -2420  real (f10.3) bZCHproc[9]  [bZ_09 proc                     (pT)  ]
243  2421 -2430  real (f10.3) bZCHproc[10] [bZ_10 proc                     (pT)  ]
244  2431 -2440  real (f10.3) bZCHproc[11] [bZ_11 proc                     (pT)  ]
245  2441 -2450  real (f10.3) bZCHproc[12] [bZ_12 proc                     (pT)  ]
246  2451 -2460  real (f10.3) bZCHproc[13] [bZ_13 proc                     (pT)  ]
247  2461 -2470  real (f10.3) bZCHproc[14] [bZ_14 proc                     (pT)  ]
248  2471 -2480  real (f10.3) bZCHproc[15] [bZ_15 proc                     (pT)  ]
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249	2481 -2490	real	(f10.3)	bZCHproc[16]	[bZ_16 proc	(pT)]
250	2491 -2500	real	(f10.3)	bZCHproc[17]	[bZ_17 proc	(pT)]
251	2501 -2510	real	(f10.3)	bZCHproc[18]	[bZ_18 proc	(pT)]
252	2511 -2520	real	(f10.3)	bZCHproc[19]	[bZ_19 proc	(pT)]
253	2521 -2530	real	(f10.3)	bZCHproc[20]	[bZ_20 proc	(pT)]
254	2531 -2540	real	(f10.3)	X_50Hz	[X_Power line monitor	(mV)]
255	2541 -2550	real	(f10.3)	Z_50Hz	[Z_Power line monitor	(mV)]
256	2551 -2560	real	(f10.3)	CNDZ[1]	[Conductivity_Z01 0- 5 m	(mS/m)]
257	2561 -2570	real	(f10.3)	CNDZ[2]	[Conductivity_Z02 5- 10 m	(mS/m)]
258	2571 -2580	real	(f10.3)	CNDZ[3]	[Conductivity_Z03 10- 15 m	(mS/m)]
259	2581 -2590	real	(f10.3)	CNDZ[4]	[Conductivity_Z04 15- 20 m	(mS/m)]
260	2591 -2600	real	(f10.3)	CNDZ[5]	[Conductivity_Z05 20- 25 m	(mS/m)]
261	2601 -2610	real	(f10.3)	CNDZ[6]	[Conductivity_Z06 25- 30 m	(mS/m)]
262	2611 -2620	real	(f10.3)	CNDZ[7]	[Conductivity_Z07 30- 35 m	(mS/m)]
263	2621 -2630	real	(f10.3)	CNDZ[8]	[Conductivity_Z08 35- 40 m	(mS/m)]
264	2631 -2640	real	(f10.3)	CNDZ[9]	[Conductivity_Z09 40- 45 m	(mS/m)]
265	2641 -2650	real	(f10.3)	CNDZ[10]	[Conductivity_Z10 45- 50 m	(mS/m)]
266	2651 -2660	real	(f10.3)	CNDZ[11]	[Conductivity_Z11 50- 55 m	(mS/m)]
267	2661 -2670	real	(f10.3)	CNDZ[12]	[Conductivity_Z12 55- 60 m	(mS/m)]
268	2671 -2680	real	(f10.3)	CNDZ[13]	[Conductivity_Z13 60- 65 m	(mS/m)]
269	2681 -2690	real	(f10.3)	CNDZ[14]	[Conductivity_Z14 65- 70 m	(mS/m)]
270	2691 -2700	real	(f10.3)	CNDZ[15]	[Conductivity_Z15 70- 75 m	(mS/m)]
271	2701 -2710	real	(f10.3)	CNDZ[16]	[Conductivity_Z16 75- 80 m	(mS/m)]
272	2711 -2720	real	(f10.3)	CNDZ[17]	[Conductivity_Z17 80- 85 m	(mS/m)]
273	2721 -2730	real	(f10.3)	CNDZ[18]	[Conductivity_Z18 85- 90 m	(mS/m)]
274	2731 -2740	real	(f10.3)	CNDZ[19]	[Conductivity_Z19 90- 95 m	(mS/m)]
275	2741 -2750	real	(f10.3)	CNDZ[20]	[Conductivity_Z20 95-100 m	(mS/m)]
276	2751 -2760	real	(f10.3)	CNDZ[21]	[Conductivity_Z21 100-105 m	(mS/m)]
277	2761 -2770	real	(f10.3)	CNDZ[22]	[Conductivity_Z22 105-110 m	(mS/m)]
278	2771 -2780	real	(f10.3)	CNDZ[23]	[Conductivity_Z23 110-115 m	(mS/m)]
279	2781 -2790	real	(f10.3)	CNDZ[24]	[Conductivity_Z24 115-120 m	(mS/m)]
280	2791 -2800	real	(f10.3)	CNDZ[25]	[Conductivity_Z25 120-125 m	(mS/m)]
281	2801 -2810	real	(f10.3)	CNDZ[26]	[Conductivity_Z26 125-130 m	(mS/m)]
282	2811 -2820	real	(f10.3)	CNDZ[27]	[Conductivity_Z27 130-135 m	(mS/m)]
283	2821 -2830	real	(f10.3)	CNDZ[28]	[Conductivity_Z28 135-140 m	(mS/m)]
284	2831 -2840	real	(f10.3)	CNDZ[29]	[Conductivity_Z29 140-145 m	(mS/m)]
285	2841 -2850	real	(f10.3)	CNDZ[30]	[Conductivity_Z30 145-150 m	(mS/m)]
286	2851 -2860	real	(f10.3)	CNDZ[31]	[Conductivity_Z31 150-155 m	(mS/m)]
287	2861 -2870	real	(f10.3)	CNDZ[32]	[Conductivity_Z32 155-160 m	(mS/m)]
288	2871 -2880	real	(f10.3)	CNDZ[33]	[Conductivity_Z33 160-165 m	(mS/m)]
289	2881 -2890	real	(f10.3)	CNDZ[34]	[Conductivity_Z34 165-170 m	(mS/m)]
290	2891 -2900	real	(f10.3)	CNDZ[35]	[Conductivity_Z35 170-175 m	(mS/m)]
291	2901 -2910	real	(f10.3)	CNDZ[36]	[Conductivity_Z36 175-180 m	(mS/m)]
292	2911 -2920	real	(f10.3)	CNDZ[37]	[Conductivity_Z37 180-185 m	(mS/m)]
293	2921 -2930	real	(f10.3)	CNDZ[38]	[Conductivity_Z38 185-190 m	(mS/m)]
294	2931 -2940	real	(f10.3)	CNDZ[39]	[Conductivity_Z39 190-195 m	(mS/m)]
295	2941 -2950	real	(f10.3)	CNDZ[40]	[Conductivity_Z40 195-200 m	(mS/m)]
296	2951 -2960	real	(f10.3)	CNDZ[41]	[Conductivity_Z41 200-205 m	(mS/m)]
297	2961 -2970	real	(f10.3)	CNDZ[42]	[Conductivity_Z42 205-210 m	(mS/m)]
298	2971 -2980	real	(f10.3)	CNDZ[43]	[Conductivity_Z43 210-215 m	(mS/m)]
299	2981 -2990	real	(f10.3)	CNDZ[44]	[Conductivity_Z44 215-220 m	(mS/m)]
300	2991 -3000	real	(f10.3)	CNDZ[45]	[Conductivity_Z45 220-225 m	(mS/m)]
301	3001 -3010	real	(f10.3)	CNDZ[46]	[Conductivity_Z46 225-230 m	(mS/m)]
302	3011 -3020	real	(f10.3)	CNDZ[47]	[Conductivity_Z47 230-235 m	(mS/m)]
303	3021 -3030	real	(f10.3)	CNDZ[48]	[Conductivity_Z48 235-240 m	(mS/m)]
304	3031 -3040	real	(f10.3)	CNDZ[49]	[Conductivity_Z49 240-245 m	(mS/m)]
305	3041 -3050	real	(f10.3)	CNDZ[50]	[Conductivity_Z50 245-250 m	(mS/m)]
306	3051 -3060	real	(f10.3)	CNDZ[51]	[Conductivity_Z51 250-255 m	(mS/m)]
307	3061 -3070	real	(f10.3)	CNDZ[52]	[Conductivity_Z52 255-260 m	(mS/m)]
308	3071 -3080	real	(f10.3)	CNDZ[53]	[Conductivity_Z53 260-265 m	(mS/m)]
309	3081 -3090	real	(f10.3)	CNDZ[54]	[Conductivity_Z54 265-270 m	(mS/m)]
310	3091 -3100	real	(f10.3)	CNDZ[55]	[Conductivity_Z55 270-275 m	(mS/m)]
311	3101 -3110	real	(f10.3)	CNDZ[56]	[Conductivity_Z56 275-280 m	(mS/m)]
312	3111 -3120	real	(f10.3)	CNDZ[57]	[Conductivity_Z57 280-285 m	(mS/m)]
313	3121 -3130	real	(f10.3)	CNDZ[58]	[Conductivity_Z58 285-290 m	(mS/m)]
314	3131 -3140	real	(f10.3)	CNDZ[59]	[Conductivity_Z59 290-295 m	(mS/m)]
315	3141 -3150	real	(f10.3)	CNDZ[60]	[Conductivity_Z60 295-300 m	(mS/m)]
316	3151 -3160	real	(f10.3)	CNDZ[61]	[Conductivity_Z61 300-305 m	(mS/m)]
317	3161 -3170	real	(f10.3)	CNDZ[62]	[Conductivity_Z62 305-310 m	(mS/m)]
318	3171 -3180	real	(f10.3)	CNDZ[63]	[Conductivity_Z63 310-315 m	(mS/m)]
319	3181 -3190	real	(f10.3)	CNDZ[64]	[Conductivity_Z64 315-320 m	(mS/m)]
320	3191 -3200	real	(f10.3)	CNDZ[65]	[Conductivity_Z65 320-325 m	(mS/m)]
321	3201 -3210	real	(f10.3)	CNDZ[66]	[Conductivity_Z66 325-330 m	(mS/m)]
322	3211 -3220	real	(f10.3)	CNDZ[67]	[Conductivity_Z67 330-335 m	(mS/m)]

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323  3221 -3230  real (f10.3) CNDZ[68]     [Conductivity_Z68 335-340 m      (mS/m)]
324  3231 -3240  real (f10.3) CNDZ[69]     [Conductivity_Z69 340-345 m      (mS/m)]
325  3241 -3250  real (f10.3) CNDZ[70]     [Conductivity_Z70 345-350 m      (mS/m)]
326  3251 -3260  real (f10.3) CNDZ[71]     [Conductivity_Z71 350-355 m      (mS/m)]
327  3261 -3270  real (f10.3) CNDZ[72]     [Conductivity_Z72 355-360 m      (mS/m)]
328  3271 -3280  real (f10.3) CNDZ[73]     [Conductivity_Z73 360-365 m      (mS/m)]
329  3281 -3290  real (f10.3) CNDZ[74]     [Conductivity_Z74 365-370 m      (mS/m)]
330  3291 -3300  real (f10.3) CNDZ[75]     [Conductivity_Z75 370-375 m      (mS/m)]
331  3301 -3310  real (f10.3) CNDZ[76]     [Conductivity_Z76 375-380 m      (mS/m)]
332  3311 -3320  real (f10.3) CNDZ[77]     [Conductivity_Z77 380-385 m      (mS/m)]
333  3321 -3330  real (f10.3) CNDZ[78]     [Conductivity_Z78 385-390 m      (mS/m)]
334  3331 -3340  real (f10.3) CNDZ[79]     [Conductivity_Z79 390-395 m      (mS/m)]
335  3341 -3350  real (f10.3) CNDZ[80]     [Conductivity_Z80 395-400 m      (mS/m)]
336  3351 -3360  real (f10.3) CNDZ[81]     [Conductivity_Z81 400-405 m      (mS/m)]
337  3361 -3370  real (f10.3) CNDZ[82]     [Conductivity_Z82 405-410 m      (mS/m)]
338  3371 -3380  real (f10.3) CNDZ[83]     [Conductivity_Z83 410-415 m      (mS/m)]
339  3381 -3390  real (f10.3) CNDZ[84]     [Conductivity_Z84 415-420 m      (mS/m)]
340  3391 -3400  real (f10.3) CNDZ[85]     [Conductivity_Z85 420-425 m      (mS/m)]
341  3401 -3410  real (f10.3) CNDZ[86]     [Conductivity_Z86 425-430 m      (mS/m)]
342  3411 -3420  real (f10.3) CNDZ[87]     [Conductivity_Z87 430-435 m      (mS/m)]
343  3421 -3430  real (f10.3) CNDZ[88]     [Conductivity_Z88 435-440 m      (mS/m)]
344  3431 -3440  real (f10.3) CNDZ[89]     [Conductivity_Z89 440-445 m      (mS/m)]
345  3441 -3450  real (f10.3) CNDZ[90]     [Conductivity_Z90 445-450 m      (mS/m)]
346  3451 -3460  real (f10.3) CNDZ[91]     [Conductivity_Z91 450-455 m      (mS/m)]
347  3461 -3470  real (f10.3) CNDZ[92]     [Conductivity_Z92 455-460 m      (mS/m)]
348  3471 -3480  real (f10.3) CNDZ[93]     [Conductivity_Z93 460-465 m      (mS/m)]
349  3481 -3490  real (f10.3) CNDZ[94]     [Conductivity_Z94 465-470 m      (mS/m)]
350  3491 -3500  real (f10.3) CNDZ[95]     [Conductivity_Z95 470-475 m      (mS/m)]
351  3501 -3510  real (f10.3) CNDZ[96]     [Conductivity_Z96 475-480 m      (mS/m)]
352  3511 -3520  real (f10.3) CNDZ[97]     [Conductivity_Z97 480-485 m      (mS/m)]
353  3521 -3530  real (f10.3) CNDZ[98]     [Conductivity_Z98 485-490 m      (mS/m)]
354  3531 -3540  real (f10.3) CNDZ[99]     [Conductivity_Z99 490-495 m      (mS/m)]
355  3541 -3550  real (f10.3) CNDZ[100]    [Conductivity_Z100 495-500 m     (mS/m)]
     3551 -3552 <newline>
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Total number of lines : 162

Flt	Line	Start X	Start Y	End X	End Y	Kms
1	17101	335785	7608305	332146	7613563	6.39
1	17091	329132	7613631	333772	7606992	8.10
1	17081	335683	7600195	320907	7621206	25.69
1	17071	315498	7624719	333654	7598802	31.64
1	17061	331710	7597415	309309	7629391	39.04
1	17051	307331	7628034	329114	7596900	38.00
1	17041	326262	7596828	305385	7626630	36.39
1	17031	303415	7625274	323293	7596849	34.69
2	17021	320454	7596754	302465	7622428	31.35
5	11532	336198	7601181	330056	7596909	7.48
5	11522	329629	7596887	336022	7601381	7.81
5	11511	335880	7601592	329207	7596916	8.15
6	10010	310222	7629392	302461	7623955	9.48
6	10020	302455	7623659	310332	7629173	9.62
6	10030	310490	7628975	302472	7623348	9.80
6	10040	302458	7623048	310617	7628760	9.96
6	10050	310800	7628591	302512	7622779	10.12
6	10060	302467	7622465	310922	7628351	10.30
6	10070	311119	7628170	302476	7622158	10.53
6	10080	302432	7621797	311178	7627948	10.69
6	10090	311374	7627757	302481	7621526	10.86
6	10100	302485	7621243	311464	7627526	10.96
6	10110	311666	7627355	302495	7620914	11.21
6	10120	302464	7620625	311749	7627122	11.33
6	10130	311946	7626946	302495	7620323	11.54
6	10140	302487	7620059	312054	7626712	11.65
6	10150	312241	7626522	302492	7619702	11.90
6	10160	302473	7619396	312369	7626314	12.07
6	10170	312558	7626138	302515	7619109	12.26

6	10180	302471	7618788	312648	7625898	12.41
6	10190	312793	7625707	302554	7618526	12.51
6	10200	302481	7618182	312914	7625479	12.73
6	10210	313071	7625286	302549	7617914	12.85
6	10220	302503	7617607	313178	7625066	13.02
6	10230	313390	7624915	302541	7617304	13.25
7	10240	302490	7616967	313497	7624681	13.44
7	10250	313665	7624480	302543	7616691	13.58
7	10260	302493	7616340	313758	7624235	13.76
7	10270	313928	7624052	302529	7616071	13.92
7	10280	302527	7615797	314042	7623809	14.03
7	10290	315029	7624196	302540	7615462	15.24
7	10300	302504	7615180	316839	7625184	17.48
7	10310	317019	7625003	302546	7614865	17.67
7	10320	302534	7614514	317130	7624756	17.83
7	10330	317335	7624635	302554	7614261	18.06
7	10340	302514	7613899	317399	7624371	18.20
7	10350	317639	7624192	302544	7613644	18.42
7	10360	302558	7613383	317735	7623967	18.50
7	10370	317914	7623776	302554	7613036	18.74
7	10380	302538	7612726	317982	7623529	18.85
7	10390	318202	7623383	302603	7612457	19.04
7	10400	302543	7612115	318270	7623122	19.20
7	10410	318437	7622954	302572	7611834	19.37
7	10420	302562	7611505	318580	7622734	19.56
7	10430	318737	7622534	303009	7611507	19.21
7	10440	303334	7611451	318874	7622323	18.97
8	10450	319034	7622130	303828	7611494	18.56
8	10460	304200	7611448	319138	7621896	18.23
8	10470	319328	7621711	304672	7611471	17.88
8	10480	305065	7611447	319401	7621474	17.49
8	10490	319635	7621320	305563	7611477	17.17
8	10500	305943	7611440	319720	7621081	16.82
8	10510	319923	7620920	306470	7611504	16.42
8	10520	306805	7611446	319971	7620666	16.07
8	10530	320929	7621051	307279	7611473	16.68
8	10540	307739	7611470	321936	7621437	17.35
8	10550	322139	7621272	308198	7611501	17.02
8	10560	308643	7611469	322232	7621033	16.62
8	10570	322423	7620857	309039	7611469	16.35
8	10580	309486	7611469	322540	7620616	15.94
8	10590	322679	7620415	309910	7611479	15.59
8	10600	310326	7611459	322796	7620180	15.22
8	10610	322974	7620009	310768	7611486	14.89
8	10620	311198	7611464	323111	7619805	14.54
8	10630	323263	7619610	311585	7611422	14.26
8	10640	311712	7611200	323362	7619369	14.23
8	10650	323589	7619222	311906	7611028	14.27
8	10660	311993	7610786	323689	7618987	14.28
9	10670	323820	7618787	312129	7610583	14.28
9	10760	313367	7608745	325087	7616908	14.28
9	10690	324131	7618389	312452	7610187	14.27
9	10780	313649	7608282	325402	7616519	14.35
9	10710	324406	7617981	312692	7609747	14.32
9	10800	313931	7607886	325655	7616081	14.30
9	10730	324656	7617610	312980	7609355	14.30
9	10820	314205	7607476	325955	7615677	14.33
9	10750	325010	7617188	313276	7608950	14.34
9	10790	325573	7616338	313853	7608125	14.31
9	10810	325826	7615921	314117	7607701	14.31
9	10740	313090	7609135	324827	7617340	14.32
9	10830	326133	7615502	314416	7607284	14.31
9	10840	314472	7607034	326226	7615267	14.35
9	10850	326433	7615113	314661	7606859	14.38
9	10860	314740	7606619	326538	7614864	14.39
10	10870	326725	7614700	314950	7606459	14.37

10	10880	315041	7606220	326829	7614470	14.39
10	10890	327017	7614277	315230	7606069	14.36
10	10900	315325	7605810	327112	7614061	14.39
10	10910	327280	7613860	315490	7605615	14.39
10	10920	315599	7605398	327398	7613641	14.39
10	10930	327804	7613649	315781	7605197	14.70
10	10940	315858	7604967	328243	7613620	15.11
10	10950	328713	7613642	316059	7604785	15.45
10	10960	316145	7604548	329062	7613597	15.77
10	10970	329516	7613647	316303	7604352	16.15
10	10980	316437	7604144	329911	7613577	16.45
10	10990	330338	7613565	316598	7603964	16.76
10	11000	316717	7603728	330781	7613573	17.17
10	11010	330762	7613268	316899	7603549	16.93
10	11020	316172	7602735	331669	7613583	18.92
10	11030	331751	7613317	315661	7602070	19.63
10	11040	315745	7601832	332504	7613564	20.46
10	11050	332878	7613523	315939	7601667	20.68
10	11060	316070	7601453	332953	7613286	20.62
10	11070	333170	7613116	316243	7601255	20.67
10	11080	316339	7601016	333281	7612870	20.68
10	11090	333438	7612708	316532	7600846	20.65
10	11100	316625	7600624	333553	7612458	20.65
11	11110	333706	7612311	316821	7600438	20.64
11	11200	318054	7598581	334997	7610421	20.67
11	11130	334048	7611876	317079	7600008	20.71
11	11220	318302	7598150	335270	7610007	20.70
11	11150	334337	7611464	317360	7599602	20.71
11	11240	318649	7597727	335580	7609620	20.69
11	11170	334594	7611041	317650	7599178	20.68
11	11260	318898	7597338	335881	7609219	20.73
11	11190	334914	7610671	317949	7598789	20.71
11	11120	316898	7600193	333851	7612070	20.70
11	11210	334978	7610103	318226	7598367	20.45
11	11140	317207	7599787	334120	7611634	20.65
11	11230	335428	7609865	318531	7597975	20.66
11	11160	317466	7599369	334420	7611256	20.71
11	11250	335782	7609438	318790	7597540	20.74
11	11180	317786	7598966	334722	7610838	20.68
11	11270	335874	7608959	319098	7597159	20.51
11	11280	319191	7596931	332817	7606456	16.63
11	11290	332741	7606130	319462	7596800	16.23
11	11300	319838	7596769	332860	7605855	15.88
11	11310	333044	7605688	320321	7596791	15.53
11	11320	320737	7596767	333147	7605491	15.17
11	10681	312247	7610371	323938	7618575	14.28
12	10701	312546	7609974	324238	7618154	14.27
12	10771	325284	7616756	313544	7608519	14.34
12	10721	312804	7609570	324543	7617750	14.31
12	11330	333303	7605287	321227	7596813	14.75
12	11340	321635	7596786	333456	7605044	14.42
12	11350	333361	7605090	322110	7596837	13.95
12	11360	322488	7596787	333718	7604642	13.70
12	11370	333905	7604485	323024	7596847	13.29
12	11380	323324	7596794	334028	7604245	13.04
12	11400	324271	7596810	334284	7603815	12.22
12	11410	334476	7603657	324762	7596848	11.86
12	11420	325177	7596820	334596	7603426	11.50
12	11430	334744	7603241	325642	7596877	11.11
12	11440	326064	7596846	334865	7602983	10.73
12	11450	335070	7602838	326580	7596885	10.37
12	11460	326903	7596868	335147	7602601	10.04
12	11470	335328	7602419	327437	7596890	9.64
12	11480	327788	7596849	335427	7602159	9.30
12	11490	335614	7602017	328323	7596908	8.90
12	11500	328753	7596882	335715	7601776	8.51

12	11391	334169	7604042	323892	7596844	12.55

Total Kilometres : 2595.46

FINAL DATA HEADER – AREA 2

```
COMM CLIENT:                              Falconbridge (Australia) Pty Ltd
COMM SURVEY TYPE:                               25Hz GEOTEMdeep Survey
COMM AREA NAME:                                              Arunta SW
COMM STATE:                                         Northern Territory
COMM COUNTRY:                                                Australia
COMM JOB NUMBER:                                                1567.2
COMM DATE FLOWN:                                          January 2003
COMM SURVEY COMPANY:                           Fugro Airborne Surveys
COMM LOCATED DATA CREATED:                                  March 2003
COMM
COMM DATUM:                                                      AGD84
COMM PROJECTION:                                                   AMG
COMM ZONE:                                                          53
COMM
COMM
COMM AIRBORNE EQUIPMENT
COMM ------------------
COMM
COMM AIRCRAFT:                             CASA C212 Turbo Prop, VH-TEM
COMM MAGNETOMETER:                     Cesium Vapour optical absorption
COMM INSTALLATION:                                             Stinger
COMM SENSITIVITY:                                              0.01 nT
COMM RECORDING INTERVAL:                 1 sec (approx 65 m sampling)
COMM                                   at mean ground speed of 235km/h
COMM
COMM ELECTROMAGNETICS:                                        GEOTEMdeep
COMM INSTALLATION:              Transmitter loop mounted on the aircraft
COMM                                      receiver coils in a towed bird
COMM COIL ORIENTATION:                                         X,Y and Z
COMM FREQUENCY:                                                    25 Hz
COMM GEOMETRY:                       Tx-Rx horizontal separation of 119 m
COMM                                    Tx-Rx vertical separation of 40 m
COMM SAMPLING:           0.25 sec (approx 16 m sampling) at mean ground
COMM                                                  speed of 240km/h
COMM ALTIMETER:                                       Sperry Stars AA200
COMM RECORDING INTERVAL:                                           1 sec
COMM NAVIGATION:                                            SERCEL NR103
COMM                                       Differentially post-processed
COMM RECORDING INTERVAL:                                           1 sec
COMM BASE MAGNETOMETER:                 Cesium vapour optical absorption
COMM RECORDING INTERVAL:                                           1 sec
COMM VIDEO:                                                     Acquired
COMM
COMM ACQUISITION SYSTEM:                        GEODAS acquisition system
COMM
COMM
COMM AIRBORNE SPECIFICATIONS
COMM -----------------------
COMM
COMM TRAVERSE LINE SPACING:                                        250 m
COMM TRAVERSE LINE DIRECTION:                                    055-235
COMM TIE LINE SPACING:                                             2500m
COMM TIE LINE DIRECTION:                                         145-325
COMM NOMINAL TERRAIN CLEARANCE:                           105 m (Aircraft)
COMM LINE KILOMETREAGE:                                          1219 km
COMM
COMM
```

```
COMM SURVEY BOUNDARY (GDA94, MGA53)
COMM ------------------------------
COMM
COMM   306216  7580252
COMM   300922  7576523
COMM   297666  7581203
COMM   295666  7584054
COMM   293481  7582493
COMM   289137  7588782
COMM   300054  7596428
COMM   307609  7585580
COMM   306743  7584940
COMM   308207  7582739
COMM   312621  7585814
COMM   317020  7579374
COMM   311697  7575650
COMM   309420  7578964
COMM   307846  7577864
COMM
COMM
COMM LINE NUMBERING
COMM ----------------
COMM
COMM FLIGHT LINE NUMBERS:                                  20010 - 20940
COMM TIE LINE NUMBERS:                                     27011 - 27081
COMM
COMM
COMM PROCESSING DETAILS
COMM ====================
COMM
COMM DATA PROCESSING:
COMM ----------------
COMM MAGNETIC DATA:
COMM SYSTEM PARALLAX REMOVED                                      2.25 s
COMM DIURNAL CORRECTIONS APPLIED                   Base value: 55200 nT
COMM IGRF REMOVED                                  Base value:  2000 nT
COMM MICROLEVELLING APPLIED
COMM
COMM DIGITAL TERRAIN MODEL:
COMM SPIKES REMOVED FROM RADAR ALTIMETER
COMM DTM CALCULATED [DTM = gps_height - radar]
COMM MICROLEVELLING APPLIED
COMM
COMM EM DATA:
COMM SYSTEM PARALLAX REMOVED                          Lag of 16 samples
COMM DATA CORRECTED FOR COIL MOVEMENT
COMM LEVEL SHIFTS APPLIED
COMM CONDUCTIVITY DEPTH INVERSIONS CALCULATED                 EMFlow V5
COMM
COMM SYSTEM GEOMETRY:
COMM ----------------
COMM
COMM THE TRANSMITTER-RECEIVER GEOMETRY IS:
COMM
COMM TRANSMITTER TERRAIN CLEARANCE:                          105 metres
COMM DISTANCE BEHIND THE AIRCRAFT:                           119 metres
COMM DISTANCE BELOW THE AIRCRAFT:                             40 metres
COMM
COMM PARALLAX CORRECTIONS:
COMM ----------------------
COMM
COMM FOR THIS DATA SET, THE FOLLOWING PARALLAX VALUES WERE APPLIED:
COMM
COMM X-COMPONENT EM DATA:                                    16 samples
COMM Z-COMPONENT EM DATA:                                    16 samples
COMM MAGNETOMETER:                                            9 samples
```

```
COMM
COMM ELECTROMAGNETIC SYSTEM:
COMM ------------------------
COMM
COMM GEOTEMdeep IS A TIME-DOMAIN HALF SINE-WAVE SYSTEM,
COMM TRANSMITTING AT A BASE FREQUENCY OF 25Hz,
COMM WITH 3 ORTHOGONAL-AXIS RECEIVER COILS IN A TOWED BIRD.
COMM FINAL EM OUTPUT IS RECORDED 4 TIMES PER SECOND (~16 METRES).
COMM THE TIMES (IN MILLISECONDS) FOR THE 20 WINDOWS ARE:
COMM
COMM WINDOW      START        END        CENTRE
COMM 1           0.156        0.625      0.391
COMM 2           0.625        1.719      1.172
COMM 3           1.719        2.969      2.344
COMM 4           2.969        4.531      3.750
COMM 5           4.531        4.688      4.609
COMM 6           4.688        4.844      4.766
COMM 7           4.844        5.000      4.922
COMM 8           5.000        5.313      5.156
COMM 9           5.313        5.625      5.469
COMM 10          5.625        6.094      5.859
COMM 11          6.094        6.563      6.328
COMM 12          6.563        7.188      6.875
COMM 13          7.188        7.969      7.578
COMM 14          7.969        8.906      8.438
COMM 15          8.906       10.000      9.453
COMM 16         10.000       11.250     10.625
COMM 17         11.250       12.813     12.031
COMM 18         12.813       14.688     13.750
COMM 19         14.688       17.188     15.938
COMM 20         17.188       20.000     18.594
COMM
COMM PULSE WIDTH IS 4.108 MILLISECONDS.
```

```
Output field format : DOS  - Flat ascii
Number of fields    : 355

Field  Columns   Type Format  Channel       Description

 1     1 -   6  int  (i 6)   LINE         [Line                                  ]
 2     7 -  10  int  (i 4)   FLIGHT       [Flight                                ]
 3    11 -  20  real (f10.2) FID          [Fiducial                         (s)  ]
 4    21 -  33  real (f13.6) LATITUDE     [Latitude  AGD84                  (deg) ]
 5    34 -  46  real (f13.6) LONGITUDE    [Longitude AGD84                  (deg) ]
 6    47 -  58  int  (i12)   EASTING      [Easting   AGD84                  (m)  ]
 7    59 -  70  int  (i12)   NORTHING     [Northing  AGD84                  (m)  ]
 8    71 -  80  real (f10.1) Radar        [Radar Altimeter                  (m)  ]
 9    81 -  90  real (f10.1) GPS_ht       [GPS height                       (m)  ]
10    91 - 100  real (f10.1) DTM          [DTM                              (m)  ]
11   101 - 110  real (f10.2) MAG          [Final TMI (diur & IGRF removed) (nT)  ]
12   111 - 120  real (f10.2) MAG_1VD      [Final TMI 1VD                    (nT/m)]
13   121 - 130  real (f10.2) DIURNAL      [Mag Diurnal                      (nT)  ]
14   131 - 140  real (f10.3) XCHraw[1]    [X_01 raw                         (nT/s)]
15   141 - 150  real (f10.3) XCHraw[2]    [X_02 raw                         (nT/s)]
16   151 - 160  real (f10.3) XCHraw[3]    [X_03 raw                         (nT/s)]
17   161 - 170  real (f10.3) XCHraw[4]    [X_04 raw                         (nT/s)]
18   171 - 180  real (f10.3) XCHraw[5]    [X_05 raw                         (nT/s)]
19   181 - 190  real (f10.3) XCHraw[6]    [X_06 raw                         (nT/s)]
20   191 - 200  real (f10.3) XCHraw[7]    [X_07 raw                         (nT/s)]
21   201 - 210  real (f10.3) XCHraw[8]    [X_08 raw                         (nT/s)]
22   211 - 220  real (f10.3) XCHraw[9]    [X_09 raw                         (nT/s)]
23   221 - 230  real (f10.3) XCHraw[10]   [X_10 raw                         (nT/s)]
24   231 - 240  real (f10.3) XCHraw[11]   [X_11 raw                         (nT/s)]
25   241 - 250  real (f10.3) XCHraw[12]   [X_12 raw                         (nT/s)]
26   251 - 260  real (f10.3) XCHraw[13]   [X_13 raw                         (nT/s)]
27   261 - 270  real (f10.3) XCHraw[14]   [X_14 raw                         (nT/s)]
28   271 - 280  real (f10.3) XCHraw[15]   [X_15 raw                         (nT/s)]
29   281 - 290  real (f10.3) XCHraw[16]   [X_16 raw                         (nT/s)]
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 30   291 - 300  real (f10.3) XCHraw[17]   [X_17 raw                        (nT/s)]
 31   301 - 310  real (f10.3) XCHraw[18]   [X_18 raw                        (nT/s)]
 32   311 - 320  real (f10.3) XCHraw[19]   [X_19 raw                        (nT/s)]
 33   321 - 330  real (f10.3) XCHraw[20]   [X_20 raw                        (nT/s)]
 34   331 - 340  real (f10.3) YCHraw[1]    [Y_01 raw                        (nT/s)]
 35   341 - 350  real (f10.3) YCHraw[2]    [Y_02 raw                        (nT/s)]
 36   351 - 360  real (f10.3) YCHraw[3]    [Y_03 raw                        (nT/s)]
 37   361 - 370  real (f10.3) YCHraw[4]    [Y_04 raw                        (nT/s)]
 38   371 - 380  real (f10.3) YCHraw[5]    [Y_05 raw                        (nT/s)]
 39   381 - 390  real (f10.3) YCHraw[6]    [Y_06 raw                        (nT/s)]
 40   391 - 400  real (f10.3) YCHraw[7]    [Y_07 raw                        (nT/s)]
 41   401 - 410  real (f10.3) YCHraw[8]    [Y_08 raw                        (nT/s)]
 42   411 - 420  real (f10.3) YCHraw[9]    [Y_09 raw                        (nT/s)]
 43   421 - 430  real (f10.3) YCHraw[10]   [Y_10 raw                        (nT/s)]
 44   431 - 440  real (f10.3) YCHraw[11]   [Y_11 raw                        (nT/s)]
 45   441 - 450  real (f10.3) YCHraw[12]   [Y_12 raw                        (nT/s)]
 46   451 - 460  real (f10.3) YCHraw[13]   [Y_13 raw                        (nT/s)]
 47   461 - 470  real (f10.3) YCHraw[14]   [Y_14 raw                        (nT/s)]
 48   471 - 480  real (f10.3) YCHraw[15]   [Y_15 raw                        (nT/s)]
 49   481 - 490  real (f10.3) YCHraw[16]   [Y_16 raw                        (nT/s)]
 50   491 - 500  real (f10.3) YCHraw[17]   [Y_17 raw                        (nT/s)]
 51   501 - 510  real (f10.3) YCHraw[18]   [Y_18 raw                        (nT/s)]
 52   511 - 520  real (f10.3) YCHraw[19]   [Y_19 raw                        (nT/s)]
 53   521 - 530  real (f10.3) YCHraw[20]   [Y_20 raw                        (nT/s)]
 54   531 - 540  real (f10.3) ZCHraw[1]    [Z_01 raw                        (nT/s)]
 55   541 - 550  real (f10.3) ZCHraw[2]    [Z_02 raw                        (nT/s)]
 56   551 - 560  real (f10.3) ZCHraw[3]    [Z_03 raw                        (nT/s)]
 57   561 - 570  real (f10.3) ZCHraw[4]    [Z_04 raw                        (nT/s)]
 58   571 - 580  real (f10.3) ZCHraw[5]    [Z_05 raw                        (nT/s)]
 59   581 - 590  real (f10.3) ZCHraw[6]    [Z_06 raw                        (nT/s)]
 60   591 - 600  real (f10.3) ZCHraw[7]    [Z_07 raw                        (nT/s)]
 61   601 - 610  real (f10.3) ZCHraw[8]    [Z_08 raw                        (nT/s)]
 62   611 - 620  real (f10.3) ZCHraw[9]    [Z_09 raw                        (nT/s)]
 63   621 - 630  real (f10.3) ZCHraw[10]   [Z_10 raw                        (nT/s)]
 64   631 - 640  real (f10.3) ZCHraw[11]   [Z_11 raw                        (nT/s)]
 65   641 - 650  real (f10.3) ZCHraw[12]   [Z_12 raw                        (nT/s)]
 66   651 - 660  real (f10.3) ZCHraw[13]   [Z_13 raw                        (nT/s)]
 67   661 - 670  real (f10.3) ZCHraw[14]   [Z_14 raw                        (nT/s)]
 68   671 - 680  real (f10.3) ZCHraw[15]   [Z_15 raw                        (nT/s)]
 69   681 - 690  real (f10.3) ZCHraw[16]   [Z_16 raw                        (nT/s)]
 70   691 - 700  real (f10.3) ZCHraw[17]   [Z_17 raw                        (nT/s)]
 71   701 - 710  real (f10.3) ZCHraw[18]   [Z_18 raw                        (nT/s)]
 72   711 - 720  real (f10.3) ZCHraw[19]   [Z_19 raw                        (nT/s)]
 73   721 - 730  real (f10.3) ZCHraw[20]   [Z_20 raw                        (nT/s)]
 74   731 - 740  real (f10.3) XCHproc[1]   [X_01 proc                       (nT/s)]
 75   741 - 750  real (f10.3) XCHproc[2]   [X_02 proc                       (nT/s)]
 76   751 - 760  real (f10.3) XCHproc[3]   [X_03 proc                       (nT/s)]
 77   761 - 770  real (f10.3) XCHproc[4]   [X_04 proc                       (nT/s)]
 78   771 - 780  real (f10.3) XCHproc[5]   [X_05 proc                       (nT/s)]
 79   781 - 790  real (f10.3) XCHproc[6]   [X_06 proc                       (nT/s)]
 80   791 - 800  real (f10.3) XCHproc[7]   [X_07 proc                       (nT/s)]
 81   801 - 810  real (f10.3) XCHproc[8]   [X_08 proc                       (nT/s)]
 82   811 - 820  real (f10.3) XCHproc[9]   [X_09 proc                       (nT/s)]
 83   821 - 830  real (f10.3) XCHproc[10]  [X_10 proc                       (nT/s)]
 84   831 - 840  real (f10.3) XCHproc[11]  [X_11 proc                       (nT/s)]
 85   841 - 850  real (f10.3) XCHproc[12]  [X_12 proc                       (nT/s)]
 86   851 - 860  real (f10.3) XCHproc[13]  [X_13 proc                       (nT/s)]
 87   861 - 870  real (f10.3) XCHproc[14]  [X_14 proc                       (nT/s)]
 88   871 - 880  real (f10.3) XCHproc[15]  [X_15 proc                       (nT/s)]
 89   881 - 890  real (f10.3) XCHproc[16]  [X_16 proc                       (nT/s)]
 90   891 - 900  real (f10.3) XCHproc[17]  [X_17 proc                       (nT/s)]
 91   901 - 910  real (f10.3) XCHproc[18]  [X_18 proc                       (nT/s)]
 92   911 - 920  real (f10.3) XCHproc[19]  [X_19 proc                       (nT/s)]
 93   921 - 930  real (f10.3) XCHproc[20]  [X_20 proc                       (nT/s)]
 94   931 - 940  real (f10.3) YCHproc[1]   [Y_01 proc                       (nT/s)]
 95   941 - 950  real (f10.3) YCHproc[2]   [Y_02 proc                       (nT/s)]
 96   951 - 960  real (f10.3) YCHproc[3]   [Y_03 proc                       (nT/s)]
 97   961 - 970  real (f10.3) YCHproc[4]   [Y_04 proc                       (nT/s)]
 98   971 - 980  real (f10.3) YCHproc[5]   [Y_05 proc                       (nT/s)]
 99   981 - 990  real (f10.3) YCHproc[6]   [Y_06 proc                       (nT/s)]
100   991 -1000  real (f10.3) YCHproc[7]   [Y_07 proc                       (nT/s)]
101  1001 -1010  real (f10.3) YCHproc[8]   [Y_08 proc                       (nT/s)]
102  1011 -1020  real (f10.3) YCHproc[9]   [Y_09 proc                       (nT/s)]
103  1021 -1030  real (f10.3) YCHproc[10]  [Y_10 proc                       (nT/s)]
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104  1031 -1040  real (f10.3) YCHproc[11]  [Y_11 proc                           (nT/s)]
105  1041 -1050  real (f10.3) YCHproc[12]  [Y_12 proc                           (nT/s)]
106  1051 -1060  real (f10.3) YCHproc[13]  [Y_13 proc                           (nT/s)]
107  1061 -1070  real (f10.3) YCHproc[14]  [Y_14 proc                           (nT/s)]
108  1071 -1080  real (f10.3) YCHproc[15]  [Y_15 proc                           (nT/s)]
109  1081 -1090  real (f10.3) YCHproc[16]  [Y_16 proc                           (nT/s)]
110  1091 -1100  real (f10.3) YCHproc[17]  [Y_17 proc                           (nT/s)]
111  1101 -1110  real (f10.3) YCHproc[18]  [Y_18 proc                           (nT/s)]
112  1111 -1120  real (f10.3) YCHproc[19]  [Y_19 proc                           (nT/s)]
113  1121 -1130  real (f10.3) YCHproc[20]  [Y_20 proc                           (nT/s)]
114  1131 -1140  real (f10.3) ZCHproc[1]   [Z_01 proc                           (nT/s)]
115  1141 -1150  real (f10.3) ZCHproc[2]   [Z_02 proc                           (nT/s)]
116  1151 -1160  real (f10.3) ZCHproc[3]   [Z_03 proc                           (nT/s)]
117  1161 -1170  real (f10.3) ZCHproc[4]   [Z_04 proc                           (nT/s)]
118  1171 -1180  real (f10.3) ZCHproc[5]   [Z_05 proc                           (nT/s)]
119  1181 -1190  real (f10.3) ZCHproc[6]   [Z_06 proc                           (nT/s)]
120  1191 -1200  real (f10.3) ZCHproc[7]   [Z_07 proc                           (nT/s)]
121  1201 -1210  real (f10.3) ZCHproc[8]   [Z_08 proc                           (nT/s)]
122  1211 -1220  real (f10.3) ZCHproc[9]   [Z_09 proc                           (nT/s)]
123  1221 -1230  real (f10.3) ZCHproc[10]  [Z_10 proc                           (nT/s)]
124  1231 -1240  real (f10.3) ZCHproc[11]  [Z_11 proc                           (nT/s)]
125  1241 -1250  real (f10.3) ZCHproc[12]  [Z_12 proc                           (nT/s)]
126  1251 -1260  real (f10.3) ZCHproc[13]  [Z_13 proc                           (nT/s)]
127  1261 -1270  real (f10.3) ZCHproc[14]  [Z_14 proc                           (nT/s)]
128  1271 -1280  real (f10.3) ZCHproc[15]  [Z_15 proc                           (nT/s)]
129  1281 -1290  real (f10.3) ZCHproc[16]  [Z_16 proc                           (nT/s)]
130  1291 -1300  real (f10.3) ZCHproc[17]  [Z_17 proc                           (nT/s)]
131  1301 -1310  real (f10.3) ZCHproc[18]  [Z_18 proc                           (nT/s)]
132  1311 -1320  real (f10.3) ZCHproc[19]  [Z_19 proc                           (nT/s)]
133  1321 -1330  real (f10.3) ZCHproc[20]  [Z_20 proc                           (nT/s)]
134  1331 -1340  real (f10.3) bXCHraw[1]   [bX_01 raw                           (pT)   ]
135  1341 -1350  real (f10.3) bXCHraw[2]   [bX_02 raw                           (pT)   ]
136  1351 -1360  real (f10.3) bXCHraw[3]   [bX_03 raw                           (pT)   ]
137  1361 -1370  real (f10.3) bXCHraw[4]   [bX_04 raw                           (pT)   ]
138  1371 -1380  real (f10.3) bXCHraw[5]   [bX_05 raw                           (pT)   ]
139  1381 -1390  real (f10.3) bXCHraw[6]   [bX_06 raw                           (pT)   ]
140  1391 -1400  real (f10.3) bXCHraw[7]   [bX_07 raw                           (pT)   ]
141  1401 -1410  real (f10.3) bXCHraw[8]   [bX_08 raw                           (pT)   ]
142  1411 -1420  real (f10.3) bXCHraw[9]   [bX_09 raw                           (pT)   ]
143  1421 -1430  real (f10.3) bXCHraw[10]  [bX_10 raw                           (pT)   ]
144  1431 -1440  real (f10.3) bXCHraw[11]  [bX_11 raw                           (pT)   ]
145  1441 -1450  real (f10.3) bXCHraw[12]  [bX_12 raw                           (pT)   ]
146  1451 -1460  real (f10.3) bXCHraw[13]  [bX_13 raw                           (pT)   ]
147  1461 -1470  real (f10.3) bXCHraw[14]  [bX_14 raw                           (pT)   ]
148  1471 -1480  real (f10.3) bXCHraw[15]  [bX_15 raw                           (pT)   ]
149  1481 -1490  real (f10.3) bXCHraw[16]  [bX_16 raw                           (pT)   ]
150  1491 -1500  real (f10.3) bXCHraw[17]  [bX_17 raw                           (pT)   ]
151  1501 -1510  real (f10.3) bXCHraw[18]  [bX_18 raw                           (pT)   ]
152  1511 -1520  real (f10.3) bXCHraw[19]  [bX_19 raw                           (pT)   ]
153  1521 -1530  real (f10.3) bXCHraw[20]  [bX_20 raw                           (pT)   ]
154  1531 -1540  real (f10.3) bYCHraw[1]   [bY_01 raw                           (pT)   ]
155  1541 -1550  real (f10.3) bYCHraw[2]   [bY_02 raw                           (pT)   ]
156  1551 -1560  real (f10.3) bYCHraw[3]   [bY_03 raw                           (pT)   ]
157  1561 -1570  real (f10.3) bYCHraw[4]   [bY_04 raw                           (pT)   ]
158  1571 -1580  real (f10.3) bYCHraw[5]   [bY_05 raw                           (pT)   ]
159  1581 -1590  real (f10.3) bYCHraw[6]   [bY_06 raw                           (pT)   ]
160  1591 -1600  real (f10.3) bYCHraw[7]   [bY_07 raw                           (pT)   ]
161  1601 -1610  real (f10.3) bYCHraw[8]   [bY_08 raw                           (pT)   ]
162  1611 -1620  real (f10.3) bYCHraw[9]   [bY_09 raw                           (pT)   ]
163  1621 -1630  real (f10.3) bYCHraw[10]  [bY_10 raw                           (pT)   ]
164  1631 -1640  real (f10.3) bYCHraw[11]  [bY_11 raw                           (pT)   ]
165  1641 -1650  real (f10.3) bYCHraw[12]  [bY_12 raw                           (pT)   ]
166  1651 -1660  real (f10.3) bYCHraw[13]  [bY_13 raw                           (pT)   ]
167  1661 -1670  real (f10.3) bYCHraw[14]  [bY_14 raw                           (pT)   ]
168  1671 -1680  real (f10.3) bYCHraw[15]  [bY_15 raw                           (pT)   ]
169  1681 -1690  real (f10.3) bYCHraw[16]  [bY_16 raw                           (pT)   ]
170  1691 -1700  real (f10.3) bYCHraw[17]  [bY_17 raw                           (pT)   ]
171  1701 -1710  real (f10.3) bYCHraw[18]  [bY_18 raw                           (pT)   ]
172  1711 -1720  real (f10.3) bYCHraw[19]  [bY_19 raw                           (pT)   ]
173  1721 -1730  real (f10.3) bYCHraw[20]  [bY_20 raw                           (pT)   ]
174  1731 -1740  real (f10.3) bZCHraw[1]   [bZ_01 raw                           (pT)   ]
175  1741 -1750  real (f10.3) bZCHraw[2]   [bZ_02 raw                           (pT)   ]
176  1751 -1760  real (f10.3) bZCHraw[3]   [bZ_03 raw                           (pT)   ]
177  1761 -1770  real (f10.3) bZCHraw[4]   [bZ_04 raw                           (pT)   ]
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178	1771 -1780	real	(f10.3)	bZCHraw[5]	[bZ_05 raw	(pT)	]
179	1781 -1790	real	(f10.3)	bZCHraw[6]	[bZ_06 raw	(pT)	]
180	1791 -1800	real	(f10.3)	bZCHraw[7]	[bZ_07 raw	(pT)	]
181	1801 -1810	real	(f10.3)	bZCHraw[8]	[bZ_08 raw	(pT)	]
182	1811 -1820	real	(f10.3)	bZCHraw[9]	[bZ_09 raw	(pT)	]
183	1821 -1830	real	(f10.3)	bZCHraw[10]	[bZ_10 raw	(pT)	]
184	1831 -1840	real	(f10.3)	bZCHraw[11]	[bZ_11 raw	(pT)	]
185	1841 -1850	real	(f10.3)	bZCHraw[12]	[bZ_12 raw	(pT)	]
186	1851 -1860	real	(f10.3)	bZCHraw[13]	[bZ_13 raw	(pT)	]
187	1861 -1870	real	(f10.3)	bZCHraw[14]	[bZ_14 raw	(pT)	]
188	1871 -1880	real	(f10.3)	bZCHraw[15]	[bZ_15 raw	(pT)	]
189	1881 -1890	real	(f10.3)	bZCHraw[16]	[bZ_16 raw	(pT)	]
190	1891 -1900	real	(f10.3)	bZCHraw[17]	[bZ_17 raw	(pT)	]
191	1901 -1910	real	(f10.3)	bZCHraw[18]	[bZ_18 raw	(pT)	]
192	1911 -1920	real	(f10.3)	bZCHraw[19]	[bZ_19 raw	(pT)	]
193	1921 -1930	real	(f10.3)	bZCHraw[20]	[bZ_20 raw	(pT)	]
194	1931 -1940	real	(f10.3)	bXCHproc[1]	[bX_01 proc	(pT)	]
195	1941 -1950	real	(f10.3)	bXCHproc[2]	[bX_02 proc	(pT)	]
196	1951 -1960	real	(f10.3)	bXCHproc[3]	[bX_03 proc	(pT)	]
197	1961 -1970	real	(f10.3)	bXCHproc[4]	[bX_04 proc	(pT)	]
198	1971 -1980	real	(f10.3)	bXCHproc[5]	[bX_05 proc	(pT)	]
199	1981 -1990	real	(f10.3)	bXCHproc[6]	[bX_06 proc	(pT)	]
200	1991 -2000	real	(f10.3)	bXCHproc[7]	[bX_07 proc	(pT)	]
201	2001 -2010	real	(f10.3)	bXCHproc[8]	[bX_08 proc	(pT)	]
202	2011 -2020	real	(f10.3)	bXCHproc[9]	[bX_09 proc	(pT)	]
203	2021 -2030	real	(f10.3)	bXCHproc[10]	[bX_10 proc	(pT)	]
204	2031 -2040	real	(f10.3)	bXCHproc[11]	[bX_11 proc	(pT)	]
205	2041 -2050	real	(f10.3)	bXCHproc[12]	[bX_12 proc	(pT)	]
206	2051 -2060	real	(f10.3)	bXCHproc[13]	[bX_13 proc	(pT)	]
207	2061 -2070	real	(f10.3)	bXCHproc[14]	[bX_14 proc	(pT)	]
208	2071 -2080	real	(f10.3)	bXCHproc[15]	[bX_15 proc	(pT)	]
209	2081 -2090	real	(f10.3)	bXCHproc[16]	[bX_16 proc	(pT)	]
210	2091 -2100	real	(f10.3)	bXCHproc[17]	[bX_17 proc	(pT)	]
211	2101 -2110	real	(f10.3)	bXCHproc[18]	[bX_18 proc	(pT)	]
212	2111 -2120	real	(f10.3)	bXCHproc[19]	[bX_19 proc	(pT)	]
213	2121 -2130	real	(f10.3)	bXCHproc[20]	[bX_20 proc	(pT)	]
214	2131 -2140	real	(f10.3)	bYCHproc[1]	[bY_01 proc	(pT)	]
215	2141 -2150	real	(f10.3)	bYCHproc[2]	[bY_02 proc	(pT)	]
216	2151 -2160	real	(f10.3)	bYCHproc[3]	[bY_03 proc	(pT)	]
217	2161 -2170	real	(f10.3)	bYCHproc[4]	[bY_04 proc	(pT)	]
218	2171 -2180	real	(f10.3)	bYCHproc[5]	[bY_05 proc	(pT)	]
219	2181 -2190	real	(f10.3)	bYCHproc[6]	[bY_06 proc	(pT)	]
220	2191 -2200	real	(f10.3)	bYCHproc[7]	[bY_07 proc	(pT)	]
221	2201 -2210	real	(f10.3)	bYCHproc[8]	[bY_08 proc	(pT)	]
222	2211 -2220	real	(f10.3)	bYCHproc[9]	[bY_09 proc	(pT)	]
223	2221 -2230	real	(f10.3)	bYCHproc[10]	[bY_10 proc	(pT)	]
224	2231 -2240	real	(f10.3)	bYCHproc[11]	[bY_11 proc	(pT)	]
225	2241 -2250	real	(f10.3)	bYCHproc[12]	[bY_12 proc	(pT)	]
226	2251 -2260	real	(f10.3)	bYCHproc[13]	[bY_13 proc	(pT)	]
227	2261 -2270	real	(f10.3)	bYCHproc[14]	[bY_14 proc	(pT)	]
228	2271 -2280	real	(f10.3)	bYCHproc[15]	[bY_15 proc	(pT)	]
229	2281 -2290	real	(f10.3)	bYCHproc[16]	[bY_16 proc	(pT)	]
230	2291 -2300	real	(f10.3)	bYCHproc[17]	[bY_17 proc	(pT)	]
231	2301 -2310	real	(f10.3)	bYCHproc[18]	[bY_18 proc	(pT)	]
232	2311 -2320	real	(f10.3)	bYCHproc[19]	[bY_19 proc	(pT)	]
233	2321 -2330	real	(f10.3)	bYCHproc[20]	[bY_20 proc	(pT)	]
234	2331 -2340	real	(f10.3)	bZCHproc[1]	[bZ_01 proc	(pT)	]
235	2341 -2350	real	(f10.3)	bZCHproc[2]	[bZ_02 proc	(pT)	]
236	2351 -2360	real	(f10.3)	bZCHproc[3]	[bZ_03 proc	(pT)	]
237	2361 -2370	real	(f10.3)	bZCHproc[4]	[bZ_04 proc	(pT)	]
238	2371 -2380	real	(f10.3)	bZCHproc[5]	[bZ_05 proc	(pT)	]
239	2381 -2390	real	(f10.3)	bZCHproc[6]	[bZ_06 proc	(pT)	]
240	2391 -2400	real	(f10.3)	bZCHproc[7]	[bZ_07 proc	(pT)	]
241	2401 -2410	real	(f10.3)	bZCHproc[8]	[bZ_08 proc	(pT)	]
242	2411 -2420	real	(f10.3)	bZCHproc[9]	[bZ_09 proc	(pT)	]
243	2421 -2430	real	(f10.3)	bZCHproc[10]	[bZ_10 proc	(pT)	]
244	2431 -2440	real	(f10.3)	bZCHproc[11]	[bZ_11 proc	(pT)	]
245	2441 -2450	real	(f10.3)	bZCHproc[12]	[bZ_12 proc	(pT)	]
246	2451 -2460	real	(f10.3)	bZCHproc[13]	[bZ_13 proc	(pT)	]
247	2461 -2470	real	(f10.3)	bZCHproc[14]	[bZ_14 proc	(pT)	]
248	2471 -2480	real	(f10.3)	bZCHproc[15]	[bZ_15 proc	(pT)	]
249	2481 -2490	real	(f10.3)	bZCHproc[16]	[bZ_16 proc	(pT)	]
250	2491 -2500	real	(f10.3)	bZCHproc[17]	[bZ_17 proc	(pT)	]
251	2501 -2510	real	(f10.3)	bZCHproc[18]	[bZ_18 proc	(pT)	]

252	2511 -2520	real	(f10.3)	bZCHproc[19]	[bZ_19 proc	(pT)]
253	2521 -2530	real	(f10.3)	bZCHproc[20]	[bZ_20 proc	(pT)]
254	2531 -2540	real	(f10.3)	X_50Hz	[X_Power line monitor	(mV)]
255	2541 -2550	real	(f10.3)	Z_50Hz	[Z_Power line monitor	(mV)]
256	2551 -2560	real	(f10.3)	CNDZ[1]	[Conductivity_Z01 0- 5 m	(mS/m)]
257	2561 -2570	real	(f10.3)	CNDZ[2]	[Conductivity_Z02 5- 10 m	(mS/m)]
258	2571 -2580	real	(f10.3)	CNDZ[3]	[Conductivity_Z03 10- 15 m	(mS/m)]
259	2581 -2590	real	(f10.3)	CNDZ[4]	[Conductivity_Z04 15- 20 m	(mS/m)]
260	2591 -2600	real	(f10.3)	CNDZ[5]	[Conductivity_Z05 20- 25 m	(mS/m)]
261	2601 -2610	real	(f10.3)	CNDZ[6]	[Conductivity_Z06 25- 30 m	(mS/m)]
262	2611 -2620	real	(f10.3)	CNDZ[7]	[Conductivity_Z07 30- 35 m	(mS/m)]
263	2621 -2630	real	(f10.3)	CNDZ[8]	[Conductivity_Z08 35- 40 m	(mS/m)]
264	2631 -2640	real	(f10.3)	CNDZ[9]	[Conductivity_Z09 40- 45 m	(mS/m)]
265	2641 -2650	real	(f10.3)	CNDZ[10]	[Conductivity_Z10 45- 50 m	(mS/m)]
266	2651 -2660	real	(f10.3)	CNDZ[11]	[Conductivity_Z11 50- 55 m	(mS/m)]
267	2661 -2670	real	(f10.3)	CNDZ[12]	[Conductivity_Z12 55- 60 m	(mS/m)]
268	2671 -2680	real	(f10.3)	CNDZ[13]	[Conductivity_Z13 60- 65 m	(mS/m)]
269	2681 -2690	real	(f10.3)	CNDZ[14]	[Conductivity_Z14 65- 70 m	(mS/m)]
270	2691 -2700	real	(f10.3)	CNDZ[15]	[Conductivity_Z15 70- 75 m	(mS/m)]
271	2701 -2710	real	(f10.3)	CNDZ[16]	[Conductivity_Z16 75- 80 m	(mS/m)]
272	2711 -2720	real	(f10.3)	CNDZ[17]	[Conductivity_Z17 80- 85 m	(mS/m)]
273	2721 -2730	real	(f10.3)	CNDZ[18]	[Conductivity_Z18 85- 90 m	(mS/m)]
274	2731 -2740	real	(f10.3)	CNDZ[19]	[Conductivity_Z19 90- 95 m	(mS/m)]
275	2741 -2750	real	(f10.3)	CNDZ[20]	[Conductivity_Z20 95-100 m	(mS/m)]
276	2751 -2760	real	(f10.3)	CNDZ[21]	[Conductivity_Z21 100-105 m	(mS/m)]
277	2761 -2770	real	(f10.3)	CNDZ[22]	[Conductivity_Z22 105-110 m	(mS/m)]
278	2771 -2780	real	(f10.3)	CNDZ[23]	[Conductivity_Z23 110-115 m	(mS/m)]
279	2781 -2790	real	(f10.3)	CNDZ[24]	[Conductivity_Z24 115-120 m	(mS/m)]
280	2791 -2800	real	(f10.3)	CNDZ[25]	[Conductivity_Z25 120-125 m	(mS/m)]
281	2801 -2810	real	(f10.3)	CNDZ[26]	[Conductivity_Z26 125-130 m	(mS/m)]
282	2811 -2820	real	(f10.3)	CNDZ[27]	[Conductivity_Z27 130-135 m	(mS/m)]
283	2821 -2830	real	(f10.3)	CNDZ[28]	[Conductivity_Z28 135-140 m	(mS/m)]
284	2831 -2840	real	(f10.3)	CNDZ[29]	[Conductivity_Z29 140-145 m	(mS/m)]
285	2841 -2850	real	(f10.3)	CNDZ[30]	[Conductivity_Z30 145-150 m	(mS/m)]
286	2851 -2860	real	(f10.3)	CNDZ[31]	[Conductivity_Z31 150-155 m	(mS/m)]
287	2861 -2870	real	(f10.3)	CNDZ[32]	[Conductivity_Z32 155-160 m	(mS/m)]
288	2871 -2880	real	(f10.3)	CNDZ[33]	[Conductivity_Z33 160-165 m	(mS/m)]
289	2881 -2890	real	(f10.3)	CNDZ[34]	[Conductivity_Z34 165-170 m	(mS/m)]
290	2891 -2900	real	(f10.3)	CNDZ[35]	[Conductivity_Z35 170-175 m	(mS/m)]
291	2901 -2910	real	(f10.3)	CNDZ[36]	[Conductivity_Z36 175-180 m	(mS/m)]
292	2911 -2920	real	(f10.3)	CNDZ[37]	[Conductivity_Z37 180-185 m	(mS/m)]
293	2921 -2930	real	(f10.3)	CNDZ[38]	[Conductivity_Z38 185-190 m	(mS/m)]
294	2931 -2940	real	(f10.3)	CNDZ[39]	[Conductivity_Z39 190-195 m	(mS/m)]
295	2941 -2950	real	(f10.3)	CNDZ[40]	[Conductivity_Z40 195-200 m	(mS/m)]
296	2951 -2960	real	(f10.3)	CNDZ[41]	[Conductivity_Z41 200-205 m	(mS/m)]
297	2961 -2970	real	(f10.3)	CNDZ[42]	[Conductivity_Z42 205-210 m	(mS/m)]
298	2971 -2980	real	(f10.3)	CNDZ[43]	[Conductivity_Z43 210-215 m	(mS/m)]
299	2981 -2990	real	(f10.3)	CNDZ[44]	[Conductivity_Z44 215-220 m	(mS/m)]
300	2991 -3000	real	(f10.3)	CNDZ[45]	[Conductivity_Z45 220-225 m	(mS/m)]
301	3001 -3010	real	(f10.3)	CNDZ[46]	[Conductivity_Z46 225-230 m	(mS/m)]
302	3011 -3020	real	(f10.3)	CNDZ[47]	[Conductivity_Z47 230-235 m	(mS/m)]
303	3021 -3030	real	(f10.3)	CNDZ[48]	[Conductivity_Z48 235-240 m	(mS/m)]
304	3031 -3040	real	(f10.3)	CNDZ[49]	[Conductivity_Z49 240-245 m	(mS/m)]
305	3041 -3050	real	(f10.3)	CNDZ[50]	[Conductivity_Z50 245-250 m	(mS/m)]
306	3051 -3060	real	(f10.3)	CNDZ[51]	[Conductivity_Z51 250-255 m	(mS/m)]
307	3061 -3070	real	(f10.3)	CNDZ[52]	[Conductivity_Z52 255-260 m	(mS/m)]
308	3071 -3080	real	(f10.3)	CNDZ[53]	[Conductivity_Z53 260-265 m	(mS/m)]
309	3081 -3090	real	(f10.3)	CNDZ[54]	[Conductivity_Z54 265-270 m	(mS/m)]
310	3091 -3100	real	(f10.3)	CNDZ[55]	[Conductivity_Z55 270-275 m	(mS/m)]
311	3101 -3110	real	(f10.3)	CNDZ[56]	[Conductivity_Z56 275-280 m	(mS/m)]
312	3111 -3120	real	(f10.3)	CNDZ[57]	[Conductivity_Z57 280-285 m	(mS/m)]
313	3121 -3130	real	(f10.3)	CNDZ[58]	[Conductivity_Z58 285-290 m	(mS/m)]
314	3131 -3140	real	(f10.3)	CNDZ[59]	[Conductivity_Z59 290-295 m	(mS/m)]
315	3141 -3150	real	(f10.3)	CNDZ[60]	[Conductivity_Z60 295-300 m	(mS/m)]
316	3151 -3160	real	(f10.3)	CNDZ[61]	[Conductivity_Z61 300-305 m	(mS/m)]
317	3161 -3170	real	(f10.3)	CNDZ[62]	[Conductivity_Z62 305-310 m	(mS/m)]
318	3171 -3180	real	(f10.3)	CNDZ[63]	[Conductivity_Z63 310-315 m	(mS/m)]
319	3181 -3190	real	(f10.3)	CNDZ[64]	[Conductivity_Z64 315-320 m	(mS/m)]
320	3191 -3200	real	(f10.3)	CNDZ[65]	[Conductivity_Z65 320-325 m	(mS/m)]
321	3201 -3210	real	(f10.3)	CNDZ[66]	[Conductivity_Z66 325-330 m	(mS/m)]
322	3211 -3220	real	(f10.3)	CNDZ[67]	[Conductivity_Z67 330-335 m	(mS/m)]
323	3221 -3230	real	(f10.3)	CNDZ[68]	[Conductivity_Z68 335-340 m	(mS/m)]
324	3231 -3240	real	(f10.3)	CNDZ[69]	[Conductivity_Z69 340-345 m	(mS/m)]
325	3241 -3250	real	(f10.3)	CNDZ[70]	[Conductivity_Z70 345-350 m	(mS/m)]

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326  3251 -3260  real (f10.3) CNDZ[71]     [Conductivity_Z71 350-355 m      (mS/m)]
327  3261 -3270  real (f10.3) CNDZ[72]     [Conductivity_Z72 355-360 m      (mS/m)]
328  3271 -3280  real (f10.3) CNDZ[73]     [Conductivity_Z73 360-365 m      (mS/m)]
329  3281 -3290  real (f10.3) CNDZ[74]     [Conductivity_Z74 365-370 m      (mS/m)]
330  3291 -3300  real (f10.3) CNDZ[75]     [Conductivity_Z75 370-375 m      (mS/m)]
331  3301 -3310  real (f10.3) CNDZ[76]     [Conductivity_Z76 375-380 m      (mS/m)]
332  3311 -3320  real (f10.3) CNDZ[77]     [Conductivity_Z77 380-385 m      (mS/m)]
333  3321 -3330  real (f10.3) CNDZ[78]     [Conductivity_Z78 385-390 m      (mS/m)]
334  3331 -3340  real (f10.3) CNDZ[79]     [Conductivity_Z79 390-395 m      (mS/m)]
335  3341 -3350  real (f10.3) CNDZ[80]     [Conductivity_Z80 395-400 m      (mS/m)]
336  3351 -3360  real (f10.3) CNDZ[81]     [Conductivity_Z81 400-405 m      (mS/m)]
337  3361 -3370  real (f10.3) CNDZ[82]     [Conductivity_Z82 405-410 m      (mS/m)]
338  3371 -3380  real (f10.3) CNDZ[83]     [Conductivity_Z83 410-415 m      (mS/m)]
339  3381 -3390  real (f10.3) CNDZ[84]     [Conductivity_Z84 415-420 m      (mS/m)]
340  3391 -3400  real (f10.3) CNDZ[85]     [Conductivity_Z85 420-425 m      (mS/m)]
341  3401 -3410  real (f10.3) CNDZ[86]     [Conductivity_Z86 425-430 m      (mS/m)]
342  3411 -3420  real (f10.3) CNDZ[87]     [Conductivity_Z87 430-435 m      (mS/m)]
343  3421 -3430  real (f10.3) CNDZ[88]     [Conductivity_Z88 435-440 m      (mS/m)]
344  3431 -3440  real (f10.3) CNDZ[89]     [Conductivity_Z89 440-445 m      (mS/m)]
345  3441 -3450  real (f10.3) CNDZ[90]     [Conductivity_Z90 445-450 m      (mS/m)]
346  3451 -3460  real (f10.3) CNDZ[91]     [Conductivity_Z91 450-455 m      (mS/m)]
347  3461 -3470  real (f10.3) CNDZ[92]     [Conductivity_Z92 455-460 m      (mS/m)]
348  3471 -3480  real (f10.3) CNDZ[93]     [Conductivity_Z93 460-465 m      (mS/m)]
349  3481 -3490  real (f10.3) CNDZ[94]     [Conductivity_Z94 465-470 m      (mS/m)]
350  3491 -3500  real (f10.3) CNDZ[95]     [Conductivity_Z95 470-475 m      (mS/m)]
351  3501 -3510  real (f10.3) CNDZ[96]     [Conductivity_Z96 475-480 m      (mS/m)]
352  3511 -3520  real (f10.3) CNDZ[97]     [Conductivity_Z97 480-485 m      (mS/m)]
353  3521 -3530  real (f10.3) CNDZ[98]     [Conductivity_Z98 485-490 m      (mS/m)]
354  3531 -3540  real (f10.3) CNDZ[99]     [Conductivity_Z99 490-495 m      (mS/m)]
355  3541 -3550  real (f10.3) CNDZ[100]    [Conductivity_Z100 495-500 m     (mS/m)]
     3551 -3552 <newline>
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Total number of lines : 105

Flt	Line	Start X	Start Y	End X	End Y	Kms
2	27081	312119	7585915	317067	7578869	8.61
2	27071	315096	7577415	310146	7584494	8.64
2	27061	299008	7596110	313033	7576085	24.45
2	27051	308756	7577950	297026	7594676	20.43
2	27041	294979	7593334	305085	7578888	17.63
2	27031	303097	7577470	293015	7591878	17.59
2	27021	290973	7590519	301071	7576076	17.62
2	27011	293795	7582160	288992	7589021	8.38
2	20011	288813	7588183	300380	7596271	14.11
2	20021	300552	7596099	288976	7587971	14.14
2	20031	289065	7587754	300648	7595857	14.14
2	20041	300852	7595682	289256	7587551	14.16
2	20051	289380	7587339	300944	7595427	14.11
2	20061	301135	7595275	289565	7587171	14.13
2	20071	289671	7586929	301249	7595012	14.12
2	20081	301393	7594839	289830	7586737	14.12
2	20091	289930	7586505	301503	7594595	14.12
2	20101	301695	7594434	290114	7586324	14.14
3	80341	317106	7579598	311149	7575426	7.27
3	20941	317093	7579594	311178	7575462	7.22
3	20111	290219	7586081	301805	7594232	14.17
3	20201	303128	7592424	291577	7584313	14.11
3	20131	290540	7585700	302070	7593788	14.08
3	20221	303402	7592000	291837	7583875	14.13
3	20151	290806	7585316	302394	7593402	14.13
3	20241	303744	7591543	292120	7583461	14.16
3	20171	291096	7584883	302654	7592959	14.10
3	20261	303979	7591146	292417	7583074	14.10
3	20191	291336	7584513	302920	7592549	14.10
3	20121	301966	7594022	290423	7585932	14.10
3	20211	291672	7584070	303203	7592149	14.08
3	20141	302287	7593639	290670	7585520	14.17

3	20231	291953	7583671	303504	7591747	14.09
3	20161	302536	7593224	291000	7585120	14.10
3	20251	292224	7583233	303804	7591334	14.13
3	20181	302826	7592809	291260	7584692	14.13
3	20271	292516	7582856	304107	7590946	14.14
3	20281	304286	7590778	292695	7582647	14.16
3	20291	292793	7582421	304346	7590499	14.10
3	20301	304585	7590353	292992	7582244	14.15
3	20311	294597	7583050	304686	7590114	12.32
3	20321	304835	7589916	295153	7583147	11.81
3	20331	295543	7583108	304953	7589696	11.49
3	20341	305150	7589510	295745	7582953	11.47
4	80441	317099	7579615	311183	7575449	7.24
4	20351	295829	7582716	305210	7589271	11.44
4	20441	306551	7587452	297161	7580887	11.46
4	20371	296143	7582326	305507	7588877	11.43
4	20461	306869	7587037	297460	7580502	11.46
4	20391	296424	7581923	305781	7588453	11.41
4	20481	307126	7586673	297741	7580056	11.48
4	20411	296681	7581526	306069	7588037	11.42
4	20501	307437	7586247	298054	7579685	11.45
4	20431	297025	7581082	306355	7587632	11.40
4	20521	307717	7585854	298342	7579273	11.45
4	20451	297296	7580645	306643	7587240	11.44
4	20361	305412	7589104	296041	7582545	11.44
4	20471	297589	7580283	306936	7586817	11.40
4	20381	305693	7588680	296307	7582131	11.44
4	20491	297805	7579878	307210	7586397	11.44
4	20401	305976	7588272	296602	7581722	11.44
4	20511	298101	7579444	307511	7586007	11.47
4	20421	306235	7587872	296916	7581335	11.38
4	20531	298423	7579054	307368	7585308	10.91
4	20581	307658	7583965	299191	7578043	10.33
4	20551	298710	7578609	307194	7584591	10.38
4	20601	307917	7583544	299444	7577602	10.35
4	20571	298971	7578199	307506	7584143	10.40
4	20621	308196	7583150	299768	7577220	10.31
4	20591	299272	7577794	307731	7583723	10.33
4	20541	307939	7585317	298581	7578837	11.38
4	20611	299553	7577376	308047	7583331	10.37
4	20561	307370	7584369	298861	7578430	10.38
4	20631	299849	7576968	308562	7583070	10.64
4	20641	312877	7585784	300048	7576803	15.66
4	20651	300122	7576559	312962	7585566	15.68
4	20661	313179	7585395	300324	7576398	15.69
5	80541	317127	7579642	311171	7575457	7.28
5	20851	309812	7577250	315814	7581457	7.33
5	20921	316846	7580054	310891	7575847	7.29
5	20831	309546	7577648	315552	7581858	7.33
5	20901	316564	7580460	310561	7576238	7.34
5	20811	309301	7578048	315268	7582273	7.31
5	20881	316257	7580844	310313	7576682	7.26
5	20791	308452	7578057	314970	7582675	7.99
5	20861	315969	7581247	309999	7577068	7.29
5	20931	310982	7575626	316936	7579775	7.26
5	20841	315724	7581690	309738	7577493	7.31
5	20911	310714	7576010	316678	7580212	7.30
5	20821	315402	7582088	309461	7577905	7.27
5	20891	310416	7576451	316398	7580627	7.30
5	20801	315164	7582471	308948	7578148	7.57
5	20871	310126	7576848	316103	7581030	7.29
5	20781	314836	7582907	307318	7577626	9.19
5	20731	306589	7578643	314120	7583915	9.19
5	20761	314590	7583345	307049	7578049	9.21
5	20711	306321	7579019	313844	7584333	9.21
5	20741	314305	7583746	306741	7578446	9.24

5	20691	306036	7579466	313527	7584718	9.15
5	20721	314004	7584160	306493	7578882	9.18
5	20771	307141	7577837	314662	7583077	9.17
5	20701	313755	7584566	306180	7579273	9.24
5	20751	306824	7578200	314394	7583500	9.24
5	20681	313469	7584960	305659	7579514	9.52
5	20671	300447	7576175	313283	7585150	15.66

Total Kilometres : 1219.46

APPENDIX III – Flight Summary

AREA 1

Total number of lines : 162

Flt	Line	Start X	Start Y	End X	End Y	Kms
1	17101	335785	7608305	332146	7613563	6.39
1	17091	329132	7613631	333772	7606992	8.10
1	17081	335683	7600195	320907	7621206	25.69
1	17071	315498	7624719	333654	7598802	31.64
1	17061	331710	7597415	309309	7629391	39.04
1	17051	307331	7628034	329114	7596900	38.00
1	17041	326262	7596828	305385	7626630	36.39
1	17031	303415	7625274	323293	7596849	34.69
2	17021	320454	7596754	302465	7622428	31.35
5	11532	336198	7601181	330056	7596909	7.48
5	11522	329629	7596887	336022	7601381	7.81
5	11511	335880	7601592	329207	7596916	8.15
6	10010	310222	7629392	302461	7623955	9.48
6	10020	302455	7623659	310332	7629173	9.62
6	10030	310490	7628975	302472	7623348	9.80
6	10040	302458	7623048	310617	7628760	9.96
6	10050	310800	7628591	302512	7622779	10.12
6	10060	302467	7622465	310922	7628351	10.30
6	10070	311119	7628170	302476	7622158	10.53
6	10080	302432	7621797	311178	7627948	10.69
6	10090	311374	7627757	302481	7621526	10.86
6	10100	302485	7621243	311464	7627526	10.96
6	10110	311666	7627355	302495	7620914	11.21
6	10120	302464	7620625	311749	7627122	11.33
6	10130	311946	7626946	302495	7620323	11.54
6	10140	302487	7620059	312054	7626712	11.65
6	10150	312241	7626522	302492	7619702	11.90
6	10160	302473	7619396	312369	7626314	12.07
6	10170	312558	7626138	302515	7619109	12.26
6	10180	302471	7618788	312648	7625898	12.41
6	10190	312793	7625707	302554	7618526	12.51
6	10200	302481	7618182	312914	7625479	12.73
6	10210	313071	7625286	302549	7617914	12.85
6	10220	302503	7617607	313178	7625066	13.02
6	10230	313390	7624915	302541	7617304	13.25
7	10240	302490	7616967	313497	7624681	13.44
7	10250	313665	7624480	302543	7616691	13.58
7	10260	302493	7616340	313758	7624235	13.76
7	10270	313928	7624052	302529	7616071	13.92
7	10280	302527	7615797	314042	7623809	14.03
7	10290	315029	7624196	302540	7615462	15.24
7	10300	302504	7615180	316839	7625184	17.48
7	10310	317019	7625003	302546	7614865	17.67
7	10320	302534	7614514	317130	7624756	17.83
7	10330	317335	7624635	302554	7614261	18.06
7	10340	302514	7613899	317399	7624371	18.20
7	10350	317639	7624192	302544	7613644	18.42
7	10360	302558	7613383	317735	7623967	18.50
7	10370	317914	7623776	302554	7613036	18.74
7	10380	302538	7612726	317982	7623529	18.85
7	10390	318202	7623383	302603	7612457	19.04
7	10400	302543	7612115	318270	7623122	19.20
7	10410	318437	7622954	302572	7611834	19.37

7	10420	302562	7611505	318580	7622734	19.56
7	10430	318737	7622534	303009	7611507	19.21
7	10440	303334	7611451	318874	7622323	18.97
8	10450	319034	7622130	303828	7611494	18.56
8	10460	304200	7611448	319138	7621896	18.23
8	10470	319328	7621711	304672	7611471	17.88
8	10480	305065	7611447	319401	7621474	17.49
8	10490	319635	7621320	305563	7611477	17.17
8	10500	305943	7611440	319720	7621081	16.82
8	10510	319923	7620920	306470	7611504	16.42
8	10520	306805	7611446	319971	7620666	16.07
8	10530	320929	7621051	307279	7611473	16.68
8	10540	307739	7611470	321936	7621437	17.35
8	10550	322139	7621272	308198	7611501	17.02
8	10560	308643	7611469	322232	7621033	16.62
8	10570	322423	7620857	309039	7611469	16.35
8	10580	309486	7611469	322540	7620616	15.94
8	10590	322679	7620415	309910	7611479	15.59
8	10600	310326	7611459	322796	7620180	15.22
8	10610	322974	7620009	310768	7611486	14.89
8	10620	311198	7611464	323111	7619805	14.54
8	10630	323263	7619610	311585	7611422	14.26
8	10640	311712	7611200	323362	7619369	14.23
8	10650	323589	7619222	311906	7611028	14.27
8	10660	311993	7610786	323689	7618987	14.28
9	10670	323820	7618787	312129	7610583	14.28
9	10760	313367	7608745	325087	7616908	14.28
9	10690	324131	7618389	312452	7610187	14.27
9	10780	313649	7608282	325402	7616519	14.35
9	10710	324406	7617981	312692	7609747	14.32
9	10800	313931	7607886	325655	7616081	14.30
9	10730	324656	7617610	312980	7609355	14.30
9	10820	314205	7607476	325955	7615677	14.33
9	10750	325010	7617188	313276	7608950	14.34
9	10790	325573	7616338	313853	7608125	14.31
9	10810	325826	7615921	314117	7607701	14.31
9	10740	313090	7609135	324827	7617340	14.32
9	10830	326133	7615502	314416	7607284	14.31
9	10840	314472	7607034	326226	7615267	14.35
9	10850	326433	7615113	314661	7606859	14.38
9	10860	314740	7606619	326538	7614864	14.39
10	10870	326725	7614700	314950	7606459	14.37
10	10880	315041	7606220	326829	7614470	14.39
10	10890	327017	7614277	315230	7606069	14.36
10	10900	315325	7605810	327112	7614061	14.39
10	10910	327280	7613860	315490	7605615	14.39
10	10920	315599	7605398	327398	7613641	14.39
10	10930	327804	7613649	315781	7605197	14.70
10	10940	315858	7604967	328243	7613620	15.11
10	10950	328713	7613642	316059	7604785	15.45
10	10960	316145	7604548	329062	7613597	15.77
10	10970	329516	7613647	316303	7604352	16.15
10	10980	316437	7604144	329911	7613577	16.45
10	10990	330338	7613565	316598	7603964	16.76
10	11000	316717	7603728	330781	7613573	17.17
10	11010	330762	7613268	316899	7603549	16.93
10	11020	316172	7602735	331669	7613583	18.92
10	11030	331751	7613317	315661	7602070	19.63
10	11040	315745	7601832	332504	7613564	20.46
10	11050	332878	7613523	315939	7601667	20.68
10	11060	316070	7601453	332953	7613286	20.62
10	11070	333170	7613116	316243	7601255	20.67
10	11080	316339	7601016	333281	7612870	20.68
10	11090	333438	7612708	316532	7600846	20.65
10	11100	316625	7600624	333553	7612458	20.65
11	11110	333706	7612311	316821	7600438	20.64

11	11200	318054	7598581	334997	7610421	20.67
11	11130	334048	7611876	317079	7600008	20.71
11	11220	318302	7598150	335270	7610007	20.70
11	11150	334337	7611464	317360	7599602	20.71
11	11240	318649	7597727	335580	7609620	20.69
11	11170	334594	7611041	317650	7599178	20.68
11	11260	318898	7597338	335881	7609219	20.73
11	11190	334914	7610671	317949	7598789	20.71
11	11120	316898	7600193	333851	7612070	20.70
11	11210	334978	7610103	318226	7598367	20.45
11	11140	317207	7599787	334120	7611634	20.65
11	11230	335428	7609865	318531	7597975	20.66
11	11160	317466	7599369	334420	7611256	20.71
11	11250	335782	7609438	318790	7597540	20.74
11	11180	317786	7598966	334722	7610838	20.68
11	11270	335874	7608959	319098	7597159	20.51
11	11280	319191	7596931	332817	7606456	16.63
11	11290	332741	7606130	319462	7596800	16.23
11	11300	319838	7596769	332860	7605855	15.88
11	11310	333044	7605688	320321	7596791	15.53
11	11320	320737	7596767	333147	7605491	15.17
11	10681	312247	7610371	323938	7618575	14.28
12	10701	312546	7609974	324238	7618154	14.27
12	10771	325284	7616756	313544	7608519	14.34
12	10721	312804	7609570	324543	7617750	14.31
12	11330	333303	7605287	321227	7596813	14.75
12	11340	321635	7596786	333456	7605044	14.42
12	11350	333361	7605090	322110	7596837	13.95
12	11360	322488	7596787	333718	7604642	13.70
12	11370	333905	7604485	323024	7596847	13.29
12	11380	323324	7596794	334028	7604245	13.04
12	11400	324271	7596810	334284	7603815	12.22
12	11410	334476	7603657	324762	7596848	11.86
12	11420	325177	7596820	334596	7603426	11.50
12	11430	334744	7603241	325642	7596877	11.11
12	11440	326064	7596846	334865	7602983	10.73
12	11450	335070	7602838	326580	7596885	10.37
12	11460	326903	7596868	335147	7602601	10.04
12	11470	335328	7602419	327437	7596890	9.64
12	11480	327788	7596849	335427	7602159	9.30
12	11490	335614	7602017	328323	7596908	8.90
12	11500	328753	7596882	335715	7601776	8.51
12	11391	334169	7604042	323892	7596844	12.55

Total Kilometres : 2595.46

AREA 2

Total number of lines : 105

Flt	Line	Start X	Start Y	End X	End Y	Kms
2	27081	312119	7585915	317067	7578869	8.61
2	27071	315096	7577415	310146	7584494	8.64
2	27061	299008	7596110	313033	7576085	24.45
2	27051	308756	7577950	297026	7594676	20.43
2	27041	294979	7593334	305085	7578888	17.63
2	27031	303097	7577470	293015	7591878	17.59
2	27021	290973	7590519	301071	7576076	17.62
2	27011	293795	7582160	288992	7589021	8.38
2	20011	288813	7588183	300380	7596271	14.11
2	20021	300552	7596099	288976	7587971	14.14
2	20031	289065	7587754	300648	7595857	14.14
2	20041	300852	7595682	289256	7587551	14.16
2	20051	289380	7587339	300944	7595427	14.11
2	20061	301135	7595275	289565	7587171	14.13
2	20071	289671	7586929	301249	7595012	14.12
2	20081	301393	7594839	289830	7586737	14.12
2	20091	289930	7586505	301503	7594595	14.12
2	20101	301695	7594434	290114	7586324	14.14
3	80341	317106	7579598	311149	7575426	7.27
3	20941	317093	7579594	311178	7575462	7.22
3	20111	290219	7586081	301805	7594232	14.17
3	20201	303128	7592424	291577	7584313	14.11
3	20131	290540	7585700	302070	7593788	14.08
3	20221	303402	7592000	291837	7583875	14.13
3	20151	290806	7585316	302394	7593402	14.13
3	20241	303744	7591543	292120	7583461	14.16
3	20171	291096	7584883	302654	7592959	14.10
3	20261	303979	7591146	292417	7583074	14.10
3	20191	291336	7584513	302920	7592549	14.10
3	20121	301966	7594022	290423	7585932	14.10
3	20211	291672	7584070	303203	7592149	14.08
3	20141	302287	7593639	290670	7585520	14.17
3	20231	291953	7583671	303504	7591747	14.09
3	20161	302536	7593224	291000	7585120	14.10
3	20251	292224	7583233	303804	7591334	14.13
3	20181	302826	7592809	291260	7584692	14.13
3	20271	292516	7582856	304107	7590946	14.14
3	20281	304286	7590778	292695	7582647	14.16
3	20291	292793	7582421	304346	7590499	14.10
3	20301	304585	7590353	292992	7582244	14.15
3	20311	294597	7583050	304686	7590114	12.32
3	20321	304835	7589916	295153	7583147	11.81
3	20331	295543	7583108	304953	7589696	11.49
3	20341	305150	7589510	295745	7582953	11.47
4	80441	317099	7579615	311183	7575449	7.24
4	20351	295829	7582716	305210	7589271	11.44
4	20441	306551	7587452	297161	7580887	11.46
4	20371	296143	7582326	305507	7588877	11.43
4	20461	306869	7587037	297460	7580502	11.46
4	20391	296424	7581923	305781	7588453	11.41
4	20481	307126	7586673	297741	7580056	11.48
4	20411	296681	7581526	306069	7588037	11.42
4	20501	307437	7586247	298054	7579685	11.45
4	20431	297025	7581082	306355	7587632	11.40
4	20521	307717	7585854	298342	7579273	11.45
4	20451	297296	7580645	306643	7587240	11.44
4	20361	305412	7589104	296041	7582545	11.44
4	20471	297589	7580283	306936	7586817	11.40

4	20381	305693	7588680	296307	7582131	11.44
4	20491	297805	7579878	307210	7586397	11.44
4	20401	305976	7588272	296602	7581722	11.44
4	20511	298101	7579444	307511	7586007	11.47
4	20421	306235	7587872	296916	7581335	11.38
4	20531	298423	7579054	307368	7585308	10.91
4	20581	307658	7583965	299191	7578043	10.33
4	20551	298710	7578609	307194	7584591	10.38
4	20601	307917	7583544	299444	7577602	10.35
4	20571	298971	7578199	307506	7584143	10.40
4	20621	308196	7583150	299768	7577220	10.31
4	20591	299272	7577794	307731	7583723	10.33
4	20541	307939	7585317	298581	7578837	11.38
4	20611	299553	7577376	308047	7583331	10.37
4	20561	307370	7584369	298861	7578430	10.38
4	20631	299849	7576968	308562	7583070	10.64
4	20641	312877	7585784	300048	7576803	15.66
4	20651	300122	7576559	312962	7585566	15.68
4	20661	313179	7585395	300324	7576398	15.69
5	80541	317127	7579642	311171	7575457	7.28
5	20851	309812	7577250	315814	7581457	7.33
5	20921	316846	7580054	310891	7575847	7.29
5	20831	309546	7577648	315552	7581858	7.33
5	20901	316564	7580460	310561	7576238	7.34
5	20811	309301	7578048	315268	7582273	7.31
5	20881	316257	7580844	310313	7576682	7.26
5	20791	308452	7578057	314970	7582675	7.99
5	20861	315969	7581247	309999	7577068	7.29
5	20931	310982	7575626	316936	7579775	7.26
5	20841	315724	7581690	309738	7577493	7.31
5	20911	310714	7576010	316678	7580212	7.30
5	20821	315402	7582088	309461	7577905	7.27
5	20891	310416	7576451	316398	7580627	7.30
5	20801	315164	7582471	308948	7578148	7.57
5	20871	310126	7576848	316103	7581030	7.29
5	20781	314836	7582907	307318	7577626	9.19
5	20731	306589	7578643	314120	7583915	9.19
5	20761	314590	7583345	307049	7578049	9.21
5	20711	306321	7579019	313844	7584333	9.21
5	20741	314305	7583746	306741	7578446	9.24
5	20691	306036	7579466	313527	7584718	9.15
5	20721	314004	7584160	306493	7578882	9.18
5	20771	307141	7577837	314662	7583077	9.17
5	20701	313755	7584566	306180	7579273	9.24
5	20751	306824	7578200	314394	7583500	9.24
5	20681	313469	7584960	305659	7579514	9.52
5	20671	300447	7576175	313283	7585150	15.66

Total Kilometres : 1219.46