



**EL2905 (Tod River) Annual Report on Exploration for
Period 13th March 2002 to 12th March 2003**

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Summary

EL2905 was taken out to cover prospective magnetite rich Banded Iron Formations (BIF) close to the eastern coast of the Eyre Peninsula.

Potential was seen for a magnetite concentrate export operation taking advantage of simple metallurgy and good infrastructure.

Target magnetite deposits form part of an extensive early Proterozoic BIF sequence belonging to the Middleback subgroup of the Hutchison Group. These rocks have been strongly deformed and subjected to high grade metamorphism. This has produced moderate to coarse grained magnetite deposits with high iron and low impurities and often reconcentrated into fold hinge positions.

There has been little if any previous iron ore exploration over the licence area.

Exploration during the current period has included:

- 519 line kilometres of low level high resolution aeromagnetics over 3 survey areas covering the Bald Hill prospect.
- A total of 2 diamond holes for a total of 323 metres of drilling at Bald Hill.
- A total of 38 Davis Tube determinations and XRF concentrate analyses.
- A total of 40 ICP Fusion OES iron ore suite assays.
- A total of 63 ARM2 Base Metal / Gold suite assays

Results confirmed potential for a modest resource of magnetite BIF although given the very large strike extent, high proportion of interbanded waste rocks (schist, amphibolite) and high likely waste to ore ratio, this prospect is unlikely to sustain a stand alone export operation. It is more likely that small resources within the overall extent of the prospect could provide incremental feed to a large scale project nearby.

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List of Digital Files

Name	Size	Exploration Work	Format
EL2905_200302_01_text_figs_appendices.pdf	1,922,725	Report Prep	pdf
EL2905_200302_02_dhlocations.txt	1,485	All drilling	SL1 template
EL2905_200302_03_downholesurveys.txt	1,953	All drilling	DS1 template
EL2905_200302_04_dhlithology.txt	17,589	All drilling	DL1 template
EL2905_200302_05_dhstructure.txt	11,439	All drilling	DL1 template
EL2905_200302_06_dhdavistube.txt	5,322	Drill sample	DG1 template
EL2905_200302_07_dhassaysheadwr.txt	7,041	Drill sample	DG1 template
EL2905_200302_08_dhassaysheadme.txt	10,188	Drill sample	DG1 template
EL2905_200302_09_dhassaysmagwr.txt	7,889	Drill sample	DG1 template
EL2905_200302_10_dhassaysmagsus.txt	13,214	Drill sample	DG1 template
EL2905_200302_11_BH_DTM_Header	9,484	Airborne Survey Bald Hill	Fixed Width ASCII
EL2905_200302_12_BH_DTM_DATA	6,347,700	Airborne Survey Bald Hill	Fixed Width ASCII
EL2905_200302_13_BH_MAG_Header	98	Airborne Survey Bald Hill	Fixed Width ASCII
EL2905_200302_14_BH_MAG_DATA	10,879,232	Airborne Survey Bald Hill	Fixed Width ASCII
EL2905_200302_15_BH_RAD_Header	13,181	Airborne Survey Bald Hill	Fixed Width ASCII
EL2905_200302_16_BH_RAD_DATA	1,404,480	Airborne Survey Bald Hill	Fixed Width ASCII
EL2905_200302_17_BHN_DTM_Header	9,484	Airborne Survey Bald Hill North	Fixed Width ASCII
EL2905_200302_18_BHN_DTM_DATA	2,308,932	Airborne Survey Bald Hill North	Fixed Width ASCII
EL2905_200302_19_BHN_MAG_Header	11,425	Airborne Survey Bald Hill North	Fixed Width ASCII
EL2905_200302_20_BHN_MAG_DATA	3,976,336	Airborne Survey Bald Hill North	Fixed Width ASCII
EL2905_200302_21_BHN_RAD_Header	13,181	Airborne Survey Bald Hill North	Fixed Width ASCII
EL2905_200302_22_BHN_RAD_DATA	510,480	Airborne Survey Bald Hill North	Fixed Width ASCII

Name	Size	Exploration Work	Format
EL2905_200302_23_BHI_DTM_Header	9,446	Airborne Survey Bald Hill Infill	Fixed Width ASCII
EL2905_200302_24_BHI_DTM_DATA	1,227,852	Airborne Survey Bald Hill Infill	Fixed Width ASCII
EL2905_200302_25_BHI_MAG_Header	11,387	Airborne Survey Bald Hill Infill	Fixed Width ASCII
EL2905_200302_26_BHI_MAG_Data	2,111,746	Airborne Survey Bald Hill Infill	Fixed Width ASCII
EL2905_200302_27_BHI_RAD_Header	13,143	Airborne Survey Bald Hill Infill	Fixed Width ASCII
EL2905_200302_28_BHI_RAD_DATA	271,920	Airborne Survey Bald Hill Infill	Fixed Width ASCII
EL2905_200302_30_Verification_File.txt		Verification File	Tab delimited ASCII

1. Introduction

The Gawler Craton is a world ranked iron ore province with large areas of poorly outcropping or covered banded iron formations which are highly prospective for magnetite and hematite deposits.

The key advantages of location and simple metallurgy of coastal Eyre Peninsula magnetite ores presented Portman with an opportunity to enter a new iron ore province and develop a new export business. This took into account excellent infrastructure with existing railways or spur lines, possibilities for road train haulage and potential for virgin deep water ports. These advantages coupled with the coarse grained nature of known magnetite deposits were likely to enhance early project viability and it was envisaged that exploration could rapidly progress to a small starter operation to be scaled up over time.

High quality magnetic data over the peninsula acquired under the TEISA programme simplified initial selection of high amplitude magnetic targets. Past exploration including geophysical surveys and drilling for iron ore by the SADM (now PIRSA) in the late 1950's provided valuable hard data on a number of magnetite deposits on the Eyre Peninsula. Potential for major undiscovered hematite deposits was recognised, given that initial targets are interpreted to be extensions of the same BIFs which host the Middleback Ranges hematite ores. Hematite prospectivity was considered as part of the analysis of each prospect.

In 2000, a data review identified the key known iron ore prospects (Parker 2001). "Sighter" metallurgical testing of existing PIRSA diamond cores from prospects outside EL2905 (Carrow, Greenpatch and Koppio), achieved good magnetite recoveries with high iron and low impurities particularly phosphorous. This encouraged the company to apply for title where ground was available or to pursue joint ventures over targets already under title.

An exploration programme for magnetite iron ores was developed whereby simple targeting using low level aeromagnetism could be rapidly advanced to drilling. This optimised the exploration programme and eliminated the need for lengthy preparatory surveys and analyses.

EL2905 was granted to the South Australian Iron Ore Group a wholly owned subsidiary of Portman Limited, on the 13th March 2002 for a period of 1 year and field work commenced immediately.

2. Geology and Physiography

EL 2905 comprises 2 blocks along the eastern coast of the Eyre Peninsula. Topographic relief varies from very subdued in the northern (Mount Hill) block to moderately dissected hilly country in the southern Tod River block. (Figure 1)

The regional geology of the eastern Eyre Peninsula is described by Parker et al. (1988). The area is located on the southern margin of the Gawler Craton which comprises a variety of late Archaean to early Mesoproterozoic gneisses and granites. Banded Iron Formations (BIF) targeted by the current exploration programme form part of the Palaeoproterozoic Hutchison Group. This group has been subdivided into a basal quartzite unit (Warrow Quartzite) and an upper psammopelitic unit (Yadnarie Schist) separated by a mixed clastic / chemical sedimentary unit (Middleback Subgroup). Target BIF's are assigned to the Middleback Subgroup.

The Hutchison Group was affected by the Kimban Orogeny, a major period of deformation, metamorphism and granite intrusion which extended between 1850 Ma and 1700 Ma. The Kimban Orogeny comprised three main tectonic events:

- An early high grade amphibolite to granulite facies event ca. 1850-1840 Ma (M1)
- A high grade isoclinal folding event with some possible thrusting ca. 1780-1720 Ma (D2)
- A lower grade open folding event ca. 1710 Ma (D3) with associated shearing along discrete mylonite zones.

Hutchison Group rocks have been extensively intruded by middle to late Palaeoproterozoic (ca. 1845-1710 Ma) granites which make up the Lincoln Complex.

Eyre Peninsula BIF's occur as sinuous belts of magnetite and hematite bearing rocks generally strongly deformed and recrystallised. They are dominated by quartz, magnetite/hematite/limonite, iron rich silicate minerals (hornblende, anthophyllite, grunerite, gedrite, hedenbergite, diopside and actinolite/tremolite), dolomitic and iron-rich carbonate and local accessories including apatite, garnet and pyrite. These rocks give rise to corridors of distinctive high amplitude magnetic anomalies.

BIF units appear to occur in two distinctive stratigraphic settings:

- The Greenpatch, Bungalow, Iron Mount and Carrow deposits occur in a dolomitic marble sequence probably equivalent to the Katunga Dolomite at the base of the Middleback Subgroup.
- The Koppio, Brennand, Kapperna, Oolanta deposits are interbanded with sillimanite – biotite schist suggesting a higher stratigraphic location at the top of the Middleback Subgroup.

High grade metamorphism and tectonism has resulted in coarsely crystalline magnetite with very low levels of deleterious elements eg P_2O_5 .

Rocks are moderately to strongly banded with magnetite rich layers alternating with iron silicate rich and quartz rich layers. This banding is considered to have been primary sedimentary bedding but it has been metamorphosed and strongly deformed leading to the development of a layer parallel foliation (termed S_1). The banding can be seen to be strongly deformed by F_2 isoclinal folds and overprinted by a second foliation (termed S_2). Intrafolial F_2 folds can be seen in drill core to be refolded by more open F_3 folds and crenulations. There is clear evidence on a mesoscopic scale of thickening of individual magnetite layers in fold noses. This suggests strongly that the same process is happening on a macroscopic scale and, combined with multiple repetition of individual bands during folding, that the cumulative thickness of BIF units can be considerably enhanced.

On southern Eyre Peninsula, the Hutchison Group has been intruded by granites ranging in age from 1845 Ma to 1710 Ma. The older granites (Donington Granitoid Suite) have been intensely deformed and exposed along the eastern coastline from Port Lincoln to Port Neill. They are separated from the main BIF exposures by the Kalinjala Mylonite Zone which is a broad (>1km wide) dextral vergence shear zone extending from Sleaford Bay to the Middleback Ranges region. Dating of pegmatites in the shear zone suggest that it formed during D_3 at about 1710 Ma. West of the shear zone the Hutchison Group is intruded by slightly younger granitoids (Moody Suite) ca. 1750 – 1710 Ma. These range from ovoid shaped plutons several kilometres across to narrow pegmatite dykes.

No Mesoproterozoic granites or volcanics are known on southern Eyre Peninsula but immediately north of Bungalow and south of Iron Duke, the BIFs are intruded by the ca. 1590 Ma Charleston Granite (Hiltaba Suite).

The Proterozoic rocks of eastern Eyre Peninsula have been subjected to deep lateritic weathering and partly covered by Cainozoic fluvial and aeolian sands. This profile which coincides with low relief, is preserved in the northern (Carrow) block of EL2887 and at Bungalow and Kooralla while it has been partly stripped off in the more dissected southern blocks (Greenpatch, Bald Hill, Iron Mount and Koppio).

BIF units have generally been more resistant to weathering and erosion and frequently form strike ridges even when concealed beneath younger cover.

3. Previous Exploration

No specific iron ore exploration has previously been conducted within EL2905. The following has been compiled from a number of published and unpublished records of SADM now PIRSA.

The Bald Hill prospect is located in Section 42 of Wanilla, approximately 25km NNW of Port Lincoln, the Bald Hill prospect represents the northern extension of the Charleton Gully synform.

Bald Hill itself is located on the southern end of an 8-9km long moderately intense aeromagnetic anomaly that, on ground magnetics undertaken by Dominion Mining Ltd, comprises 2-4 discrete anomalies that coalesce to form the aeromagnetic anomaly. The Charleton Gully synform is interpreted to run along the length of the Bald Hill anomaly suggesting that this potential prospect is in the core of the fold.

Numerous rock chip samples collected by Dominion Mining Ltd (for gold exploration) from scattered jaspilite outcrops in the Bald Hill area give assays ranging up to 59% Fe. Dominion drilled several aircore holes across parts of the aeromagnetic anomaly but didn't assay for Fe.

However, they record bottom-hole lithologies including ferruginous quartzite and jaspilitic chert. One hole assayed 92ppb Au.

Afmeco Pty Ltd drilled several RAB holes across the northern end of the Bald Hill anomaly, on the western limb of the synform, and also intersected BIF.

4. Exploration during current period

4.1 Exploration Methodologies

4.1.1 Low level airborne magnetic surveys

A total of 3 low level airborne magnetics / radiometrics surveys were carried out as summarised in Table 1. Two earlier surveys flown in January 2002 were linked by the third survey flown during August 2002. All areas were flown on 40m spaced lines. Survey details and summary images are contained in the appended logistics reports. (Appendix 6 and 7)

Table 1: Low Level Aeromagnetic Surveys Bald Hill

Survey	Line spacing	Line Direction	Tie Line spacing	Tie Line Direction	Sensor Ht	Line Km
Bald Hill (BH)	40m	E-W		N-S	20	331
Bald Hill North (BHN)	40m	E-W		N-S	20	118
Bald Hill Infill (BHI)	40m	E-W		N-S	20	70
TOTAL						519

4.1.2 Drilling

A total of 2 diamond drill holes were completed in EL2905 for a total of 3448 metres of drilling. All drilling was carried out by Budd Drilling of Mildura using a UDR1000 multipurpose rig.

Drillholes were positioned to an accuracy of +/-5 metres using a hand held GPS unit. (Garmin1200 XL)

Typically drill holes were collared to competent basement using open hole blade or RC drilling techniques. Actual drill methods varied to suit ground conditions and have been summarised in Table 2.

Table 2: Summary of Drill Hole Types

Prospect	Mix of Drilling Techniques							
	No of Holes	Aircore (m)	HQ Core (m)	NQ2 Core (m)	Blade (m)	RC (m)	Mud (m)	Total
Bald Hill	2	9	110.8	123.05	4	76.1		322.95

Drill logging procedures included:

- Lithological Log. Typical lithologies from drilling are briefly described in Table 3. Full lithological logs are given in Appendix 2.
- Core recovery log of diamond core (hard copy only) and markup of core at 1m intervals.
- Magnetic susceptibility log with average of 10 readings per metre in SI units $\times 10^{-3}$. (Averaged data included in Appendix 2)
- Orientation and markup of diamond core based on downhole spear marks.
- Structural logging of diamond core relative to orientation line where orientation available. Average angle to core axis included in Appendix 2.
- Assay samples: Only magnetite bearing or visually interesting sections of diamond core were submitted for assay. Sampling nominally based on 2m intervals of $\frac{1}{4}$ core but sampled to geological boundaries. RC holes were sampled over the whole basement section on 3m intervals.
- Eastman single shot camera surveys were collected at approximately 30m intervals in diamond core and at end of hole only for RC holes.
- Field duplicate samples representing approximately 1 sample
- Field duplicate samples representing approximately 1 sample in 20 for both diamond and RC holes, were submitted for QC purposes.

Table 3: EL2887 Lithologies

Lithology	Code	Brief Description
Soil	SOIL	Skeletal soil profile developed over aeolian sand
Sand	SND / GVL	Poorly to moderately sorted quartz sand and minor gravel
Clay	CLY ?	Bedded generally dark coloured illite clays
Laterite	LATT / IRST	Dark red brown compacted to clay rich goethitic and hematitic ironstone
Saprolite	SPLT	White to cream to yellow and red brown kaolinitic clay / weathered basement.
Oxidised/Weathered Iron Formation	BIFOX	Banded quartz goethite hematite variably clay rich rock. Clay derived from oxidised iron silicate minerals.
Banded Iron Formation	BIF	Strongly banded quartz magnetite rock with variable proportion of iron silicates and carbonate. Magnetite in monomineralic bands and as disseminations in siliceous and iron silicate and carbonate bands / zones. Magnetite generally > 100 microns in size. BIFMBL is unit with well developed marble bands. Magnetite content from 15%– 40%.

Jaspilite / Silicate Facies Banded Iron Fm	JSPL / BIFSILI	Strongly banded siliceous, chert / iron calc silicate dominated jaspilite or iron formation. Generally minor carbonate and trace magnetite.
Carbonate Iron Formation	CBIF	Dolomitic marble with high (>10%) magnetite mostly as coarse disseminations.
Calc-Silicate Rock	CSRK	Coarse euhedral calc silicate rich rock. Generally forms discordant aggregates / segregations
Marble	MBL	Dolomitic marble with coarse olivine (locally serpentinised) and or orthopyroxene and diopside phenocrysts. Trace magnetite (<10%) as coarse disseminations.
Quartzite	QZT	Quartz rich lithology, weakly to moderately banded with variable diopside and carbonate component.
Schist	SCHT	Highly cleaved biotite chlorite rocks generally developed within and adjacent to minor shear and fault zones.
Granite / Pegmatite	GRT	Coarse leucocratic quartz feldspar biotite granites forming dykes, veins and sills intruding the carbonates and banded iron formations
Biotite Silimanite Schist	SCHT	Strongly cleaved biotite schist commonly with Sillimanite and garnet porphyroblasts

4.1.4 Assays / Metallurgy

Assays and metallurgical determinations were carried out as summarised in Table 4. Included are assays carried out on early SADM holes stored at PIRSA's Glenside core farm.

Table 4: EL2887 Assay and Metallurgical Determinations

Prospect	Lab Scheme				
	ARM2	DT1	IC4	XRF4	Total
Bald Hill	63	38	40	39	180

A brief description of the assay protocols employed on the project is given below:

- ARM2; Base metal gold suite. Visually interesting core and RC basement sections assayed for the following elements at the specified detection limit; Au(0.001 ppm), Ag(0.01 ppm), As(0.5 ppm), Bi(0.1 ppm), Cd(0.1 ppm), Co(0.2 ppm), Cu(0.2 ppm), Mo(0.1 ppm), Ni(1 ppm), Pb(0.2 ppm), Sb(0.1 ppm), Se(0.5 ppm), Te(0.1 ppm) and U(0.02 ppm)
- IC4: Magnetite rich zones in core and RC basement sections were assayed by ICP fusion method and read for iron ore suite of major elements by OES. The assay suite comprised: Al₂O₃(0.01%), CaO(0.01%), K₂O(0.01%), Total Fe as

Fe₂O₃(0.01%), MgO(0.01%), MnO(0.01%), Na₂O(0.01%), P₂O₅(0.01%), SiO₂(0.01%), TiO₂(0.01%), Zn(0.050%).

- Davis Tube Recovery (DTR) was carried out on magnetite mineralisation only. Davis Tube Recovery is an industry standard metallurgical technique whereby a 20 gram pulverised split of the total sample is separated into magnetic and non magnetic fractions. Magnetite plus attached gangue makes up the bulk of the magnetic fraction. This is collected and weighed as a proportion of the starting material and reported as the percent Davis Tube Recovery (DTR). In most cases DTR determinations were conducted on composites of original samples. Composite intervals were nominally 6 metres in drilled length but were varied according to magnetic susceptibility, to ensure that original samples making up the composite were of approximately the same density.
- XRF4 fusion analysis based on a standard suite of major elements was carried out on the magnetic concentrate from the DTR test. (DTR Concentrate) The following elements / detection limits were assayed for: Al₂O₃(0.01%), CaO(0.01%), K₂O(0.01%), Total Fe as Fe₂O₃(0.01%), MgO(0.01%), MnO(0.01%), Na₂O(0.01%), P₂O₅(0.01%), SiO₂(0.01%), TiO₂(0.01%), Zn(0.050%) and LOI. This suite of assays is a measure of the purity of the magnetic concentrate which is function of the grainsize of magnetite and the gangue phases and the particle size achieved by grinding. Magnetite concentrate for use as iron ore should typically achieve a grade of 70% total Fe with <4% SiO₂ and with very low levels of other elements.

Assay results are presented in Appendices 1 - 5. Assay procedures are described in more detail in Appendix 8.

Average whole rock iron values for BIF intersections to date are summarised in Table 5. Results do not suggest significant enrichment in the weathered (hematite goethite) zone. Consequently the oxidised part of the BIF profile has been regarded as being of little economic importance.

Table 5: Comparison of average whole rock Fe values in fresh and weathered BIF

Prospect	Fresh	Weathered
	Fe %	Fe %
Bald Hill	27.87	25.10

ARM2 base metal gold suite assays did not return any significantly elevated results.

4.1.5 Assay QC procedures

To monitor data quality a number of procedures were adopted. These have been reviewed by an external consultant (Terrill 2003, in prep)

- Standards; Standard sample 291022 (termed SAG001) was prepared from a composite of high grade magnetite BIF (CADD003 161 – 178m). Standards were submitted in all subsequent IC4 whole rock and DTR / XRF4 batches. A small reduction in DTR recoveries over time, can be seen.
- Grind establishment test: The objective of this testwork was to establish the minimum grind size beyond which critical Fe and SiO₂ assays of Davis Tube concentrates do not significantly improve. Grind tests were carried out on sample 291021 (CADD003 149m – 151m) which established the optimum grind size to be 90% passing 100 microns. This was subsequently revised to the current standard of 100% passing 75 micron in order to standardise the procedure between different prospects and lithotypes.
- Field duplicate samples. Approximately 1 sample in 20 was re-submitted as a “blind” duplicate. A comparison of original and duplicate sample results is generally a measure of the integrity of field sampling and laboratory sample preparation procedures. Comparisons for ICP whole - rock data were generally excellent indicating that field procedures and ICP sample preparation were adequate. However XRF and DTR results for early batches were much less consistent, which indicated a problem with DTR sample preparation. This was investigated and attributed to two main factors: variable hardness between samples caused by natural variation in siliceous gangue and the poor precision achieved by the grind process. As a consequence the DTR grind target was revised to 100% passing 75 microns by screening and regrinding oversize until the entire sample reports to the undersize fraction. The revised procedure has produced much more comparable results.

4.2 Bald Hill Prospect

The Bald Hill prospect is part of a reasonably continuous “tram - track” pair of linear magnetic anomalies which traverse a strike length of more than 15 kilometres. Three contiguous high resolution aeromagnetic surveys were located over the highest amplitude parts of these anomalies which reflect shallow subcropping magnetite BIF units in moderately to steeply dissected terrain. They appear to be the southern extension of the Koppio BIF sequence.

The higher amplitude eastern anomaly at the southern end of the Bald Hill North survey, was modelled as a 60 metre thick west-

dipping BIF. In nearby outcrop, BIF banding dips as shallowly as 50° west.

The western aeromagnetic anomaly is not as intense and has been modelled as 100m thick east-dipping BIF. Primary BIF banding in poor outcrop nearby is subvertical to steeply east dipping.

Drillholes BADD001 and BADD002 were completed to test each of the two interpreted limbs of the synform (Figure 2). Drillhole BADD001 on the eastern limb, intersected interbanded BIF, amphibolite and schist dipping towards the west at about 40 degrees. A similar sequence was intersected on the western limb in drillhole BADD002, although the estimated dip on the BIF units is much steeper and probably closer to 70 degrees towards the east.

DTR assays on the drillholes are presented in Appendix 1 and intercepts meeting the arbitrary cut off grade of 20% DTR are aggregated in Table 6.

Table 6: Bald Hill DTR / XRF Aggregate Intercepts

Hole	From	To	Intercept	DTR%	Fe%	SiO ₂
BADD001	53.5	55.35	1.85	24.93	66.1	6.76
BADD001	104.1	114.9	10.8	25.4	65.1	7.6
BADD001	130.3	145	16.7	29.1	64.5	8.4
BADD001	157.95	159.56	1.61	22.34	67.7	4.91
Bald Hill East	53.5	159.56	30.96	27.2	65.0	7.8
BADD002	48	49.2	1.2	25.66	66.2	6.46
BADD002	94.83	96.9	2.07	26.26	68.4	4.32
BADD002	103.92	107.8	3.88	27.6	66.4	6.3
BADD002	111	113.32	2.32	34.54	66.6	5.84
BADD002	121.25	130.56	9.31	33.9	68.4	4.4
BADD002	153.7	155.5	1.8	17.15	65.4	7.13
BADD002	167.5	178	10.5	22.7	68.2	4.2
BADD002	179.45	181.92	2.47	28.11	67.5	4.81
BADD002	184.1	187.08	2.98	14.0	65.8	6.1
Bald Hill West	48	187.08	38.53	26.8	67.6	5.0

DTR results suggest poor magnetite liberation due to fine grainsize. High silica / low iron concentrate assays may be partly attributable to problems with grind precision in early laboratory batches. It can also be seen that concentrate assays are significantly different between the two drillholes.

4.3 Bald Hill Exploration Target

From the limited drilling, it appears that magnetite mineralisation at Bald Hill (in common with Koppio and Iron Mount) is characterised by significant interbands of unmineralised waste.

The exploration target developed for Bald Hill is based on individual limbs of the synform. It should be borne in mind that synformal closure positions would tend to be thicker with better geometry for open pit mining.

The exploration target at Bald Hill is not focused but rather teased out over a significant potential strike length because of the linear nature of the magnetic anomalies. For this reason the target is presented in Table 7 on a per kilometre basis.

Table 7: Bald Hill Exploration Target

	Bald Hill East	Bald Hill West
Diamond Hole Inclination (degrees)	60	60
Average Dip of BIF (degrees)	40	70
Cut Off Grade (%DTR)	20	20
Average Grade (%DTR)	27.2	26.8
Average Drilled Thickness (metres)	31	39
Average True Thickness (metres)	30	30
Dip Extent of Oxide (metres)	39	27
Dip Extent of Magnetite (metres)	272	186
Strike Extent (metres)	1000	1000
Volume of Magnetite BIF (million cubic metres)	8	5
Volume Oxide Waste (million cubic metres)	1	1
Pit Slope	55	55
Volume H/W and F/W Waste (million cubic metres)	38	28
Ore (million tonnes)	28	19
Oxide (million tonnes)	4	2
HW Waste (million tonnes)	102	76
Waste:Ore ratio	3.7	4.2

5. Conclusions and Recommendations

Only the Bald Hill prospect was explored during this reporting period. Magnetite mineralisation at Bald Hill is associated with a North south trending, strike extensive “tram track” pair of moderate to high amplitude magnetic anomalies. These are taken to reflect opposing limbs of a synform.

One drillhole was completed on each limb with BADD001 completed on the eastern limb and BADD002 in the west. Both drillholes returned several BIF intersections interbanded with biotite schist and amphibolite. The eastern limb is relatively shallow dipping towards the west while the western limb dips steeply east.

Assays of magnetic concentrate from both drillholes returned relatively low Fe and high SiO₂ values. This partly reflects finer grain size in the magnetite BIF units but is also partly due to inadequate grinding procedure used in early batches and since modified.

An exploration target based on results to date for each limb may be summarised as follows:

East Limb (BADD001) 28Mtonnes @ 27.2% DTR (65% Fe, 7.8% SiO₂)
at waste: ore ratio of 3.7:1.

West Limb (BADD002) 19M tonnes @ 26.8% DTR (67.6% Fe, 5% SiO₂)
at waste:ore ratio of 4.2:1.

Because of the extensive strike length of the prospect rather than points of obvious focus these targets are expressed on a per kilometre basis.

It is concluded that the Bald Hill prospect is unlikely to sustain a stand alone magnetite project. Potential exists within the very large strike extent of BIF for smaller higher grade deposits with a more favourable geometry for open pit extraction.

Whole rock assays through weathered BIF returned Fe values to 27% and downgraded potential for direct shipping grade hematite.

No significant base metal gold assays were returned.

6. Expenditure

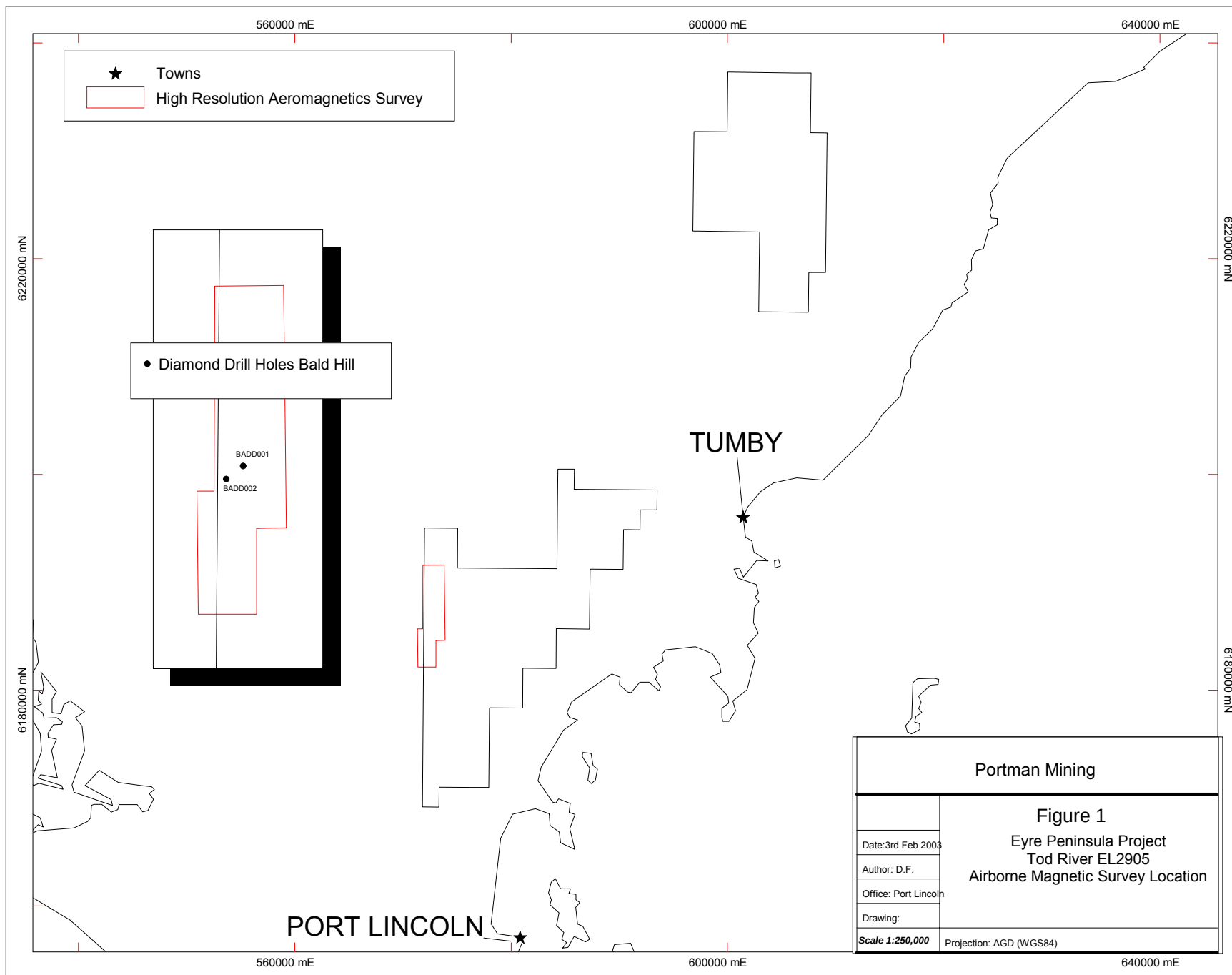
Expenditure over the captioned period is summarised in Table 8.

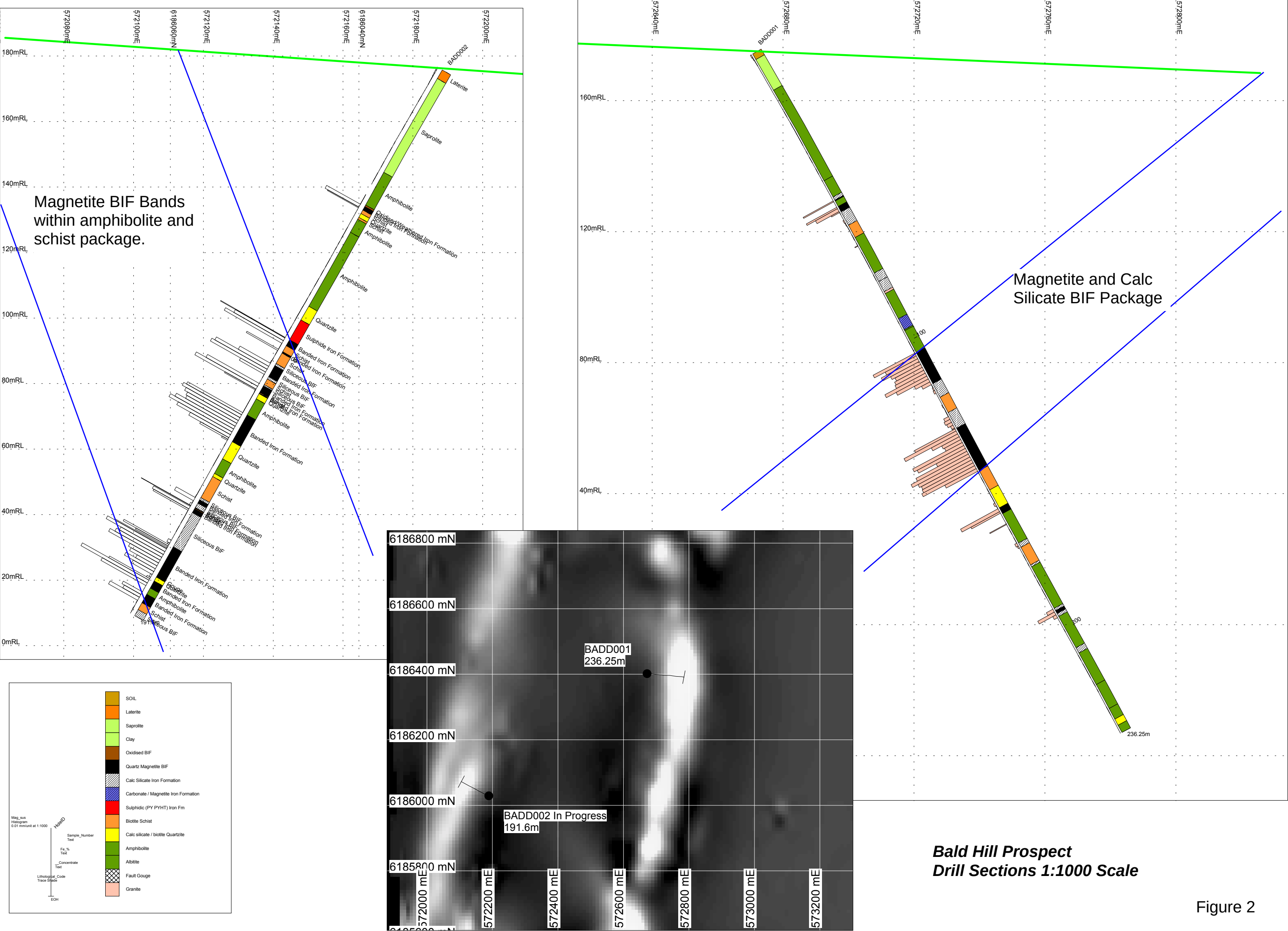
Table 8: EL2905 Expenditure during first year of exploration

Cost Centre	Amount \$
Assay External Lab	\$1,586.00
Assets Exploration	
Computers	
Consumables - Drilling	\$155.00
Consumables - General	
Consultant - geological	\$25,724.00
Consultant - legal	
Contractor - earthmoving	\$550.00
Contractor – field assistant	\$9,557.00
Contractor - other	\$158.50
Core and Sample Storage	\$1,986.00
Drilling - Diamond	\$30,502.96
Drilling - RC	
Environmental	\$360.00
Equipment Hire	\$302.00
Fuel - Vehicle	
Geophysics Survey Air	\$10,517.00
Geophysics Survey Ground	
Landholder Compensation	\$573.00
Metallurgical Testwork	\$838.50
Native Title Negotiations	\$1,824.00
Rehabilitation	
Rent Accomodation	\$3,350.00
Surveying	\$524.57
Telephone and Communications	
Tenement Acquisition	
Tenement Rent	
Travel and Accomodation	
Travel Airfares	\$617.99
Travel Vehicle Hire	\$3,297.20
Vehicle Maintenance	
Overhead general	\$65.07
Overhead Salaries and Wages	\$25,390.00
TOTAL	\$117,878.79

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**Bald Hill Prospect
Drill Sections 1:1000 Scale**

Figure 2

Appendix 1

South Australian Iron Ore Group Pty. Limited

Drill Hole Header Sheet

Hole: BADD001

Owner: SAIOG
 Operator: SAIOG
 250k Sheet: Lincoln SI5311
 100k Sheet: Cummins 6029

Prospect: Bald Hills
 Licence No:
 Licence Name: Port Neill
 Geologist: J.Terrill

Map Map: AMG66
 Map East: 572672
 Map North: 6186402
 Map RL: 175
 Zone: 53

Local Grid Name:
 Grid East:
 Grid North:
 Grid RL:

Longitude:
 Latitude:
 Locn. Error (+/-m): 5
 RL Error (+/-m):

Azimuth: 95

Inclination: -60

Total Depth: 236.25

Drill Co.: Budd Drilling
 Drill Type: Warman 1000
 Driller: Craig Burgess

Commenced: 4/17/02
 Completed: 4/26/02
 SDA Nos:

References:

Reason for Drilling:

Test intense magnetic anomaly associated with BIF on Eastern trend at Bald Hills.

Reason for Terminating:

90 metres past last significant magnetite band.

Geology:

Amphibolite, Magnetite BIF, Silicate Facies BIF

Mineralisation:

51.26 - 51.6m BIF -10% magnetite est. 53.5 - 55.35m BIF -10% magnetite est. 104 -114m BIF, magnetite estimate 25%, 130 - 140 BIF, magnetite estimate 25%

Hole Type

Down Hole Surveys

From	To	Hole Size	Hole Type	Depth	Mag Azi	Dip	Depth	Mag Azi	Dip
0	4	8"	OH Blade	0	88	-60			
4	13	5"	Aircore	53.2	88.5	-61.2			
13	44.5	4 3/4"	RC	89.2	89	-62			
44.5	98.2		HQ	128	85	-61.9			
				167.2	92	-61.1			
				206.25	86	-61.1			
				236.25	94	-61.4			

South Australian Iron Ore Group Pty. Limited

Drill Hole Header Sheet

Hole: BADD002

Owner: SAIOG
 Operator: SAIOG
 250k Sheet: Lincoln SI5311
 100k Sheet: Cummins 6029

Prospect: Bald Hills
 Licence No:
 Licence Name: Port Neill
 Geologist: D. Fielding

Map Map: AMG66
 Map East: 572189
 Map North: 6186029
 Map RL: 175
 Zone: 53

Local Grid Name:
 Grid East:
 Grid North:
 Grid RL:

Longitude:
 Latitude:
 Locn. Error (+/-m):
 RL Error (+/-m):

Azimuth: 292

Inclination: -60

Total Depth: 224.65

Drill Co.: Budd Drilling
 Drill Type: UDR 1000
 Driller: Craig Burgess

Commenced: 4/27/02
 Completed: 4/15/02
 SDA Nos:

References:

Reason for Drilling:

Test the western magnetic anomaly at Bald Hill Prospect

Reason for Terminating:

Mag anomaly tested, hole extended 37m past last BIF intersection

Geology:

Amphibolite, Magnetite BIF, Silicate Facies BIF, Mica Schist, Carbonate bands

Mineralisation:

A total of 13 bands of magnetite BIF intersected down hole. Rough waste:ore ratio of around 9:1 in a pit to-240m.

Hole Type

Down Hole Surveys

From	To	Hole Size	Hole Type	Depth	Mag Azi	Dip	Depth	Mag Azi	Dip
0	44.6	4 3/4"	RC	53.6	291	-60.7			
44.5	101.6		HQ	86.3	291	-60			
101.6	224.65		NQ2	119.6	259	-60.5			
				155.65	302	-60.5			
				191.6	283	-59.2			
				224.65	284	-58			

Appendix 2

EL2905 (Tod River) Geological Drill Log

HOLE	Depth from	Depth to	Lith code	Weath.	Lithological Description	Angle to CA	Est. % Magnetite	Wt Avg Mag Susc	Estimated DTR %
BADD001	0.00	2.00	SOIL	VHW	Soil, dark red brown, some yellow, with abundant hematite laterite and pisolite chips.			26	0.52
BADD001	2.00	12.80	CLY	VHW	Clay, brown yellow to cream, silky kaolinitic clay, minor hematite pisolites at top, common quartz and goethite fragments - probably regolith.			0.94	0.02
BADD001	12.80	44.50	AMP	FRS-MW	Amphibolite, dark grey green to black, yellow brown on oxidised fractures, some light green. Very fine grained and very hard, variably weathered with strong weathering on fractures in part, unweathered chips in all intervals. Trace pyrite in part.			1.08	0.02
BADD001	44.50	50.20	AMP	SW	Amphibole schist. Moderate - dark olive green. Fine to medium grained amphibole (actinolite-hornblende?), quartz, feldspar schist. Weakly schistose to massive. Minor quartz veins with coarse grained actinolic margins and cal silicate. Fractures oxidised with goethite.		-0.1	0.74	0.01
BADD001	50.20	51.26	BIFSILI	SW-MW	Cal silicate. White, yellow brown, green, pink brown. Quartz rich to actinolite rich, garnet, diopside, minor biotite (phlogopite) cal silicate. Moderately banded.	81	-0.1	2.01	0.04
BADD001	51.26	51.60	BIF	SW-MW	Quartz magnetite actinolite diopside BIF. White, black, dark olive green, pale yellow green. Strong very thin banding, broken and weathered in part.	75	10	1048	21.1
BADD001	51.60	53.50	AMP		As per 44.4 to 51.2. Coarse grained actinolite in part.	78	-0.1	0.56	0.01
BADD001	53.50	55.35	BIF	MW	Quartz magnetite actinolite ?diopside BIF. Grey, black, olive green, light yellow-brownish green. Medium weathered with goethite on fractures. Strong thin banding. Massive fractured quartz from 55.0 to 55.25m.		10	754	15.2
BADD001	55.35	60.00	CSRK	MW-HW	Quartz rich cal silicate. Light brown, light yellow, green, bronze brown, deep red brown - varicoloured. Variable clay weathered and oxidised, gossanous in part (after massive garnet?). Mixed weak to moderate banded cal silicate, with quartz, garnet, actinolite?, epidote?, diopside (all variably weathered) and biotite (phlogopite).		-0.1	10.2	0.21
BADD001	60.00	64.30	SCHT	SW-MW	Mixed biotite (phlogopite) schist and cal silicate. Bronze brown, light pale green, yellow and green. Inter banded phlogopite rich schist and quartzose cal silicate bands. Carbonate leached and broken in part.		-0.1	1.29	0.03

EL2905 (Tod River) Geological Drill Log

HOLE	Depth from	Depth to	Lith code	Weath.	Lithological Description	Angle to CA	Est. % Magnetite	Wt Avg Mag Suse	Estimated DTR %
BADD001	64.30	76.65	AMP	SW	Amphibolite schist. Moderate olive green, white, dark olive green, bronze brown. Weakly schistose to massive fine grained actinolite or hornblende quartz feldspar schist. Common quartz veins or bands. Minor coarse grained actinolite zones (near quartz veins/bands). Minor phlogopite rich bands. Common vughs and cavities associated with quartz and bleached zones after leached carbonate, core very broken in part.	64	-0.1	2.78	0.06
BADD001	76.65	79.55	BIFSILI	SW	Mixed cal silicate with carbonate leaching. Light green, white, mod olive green, bronze brown. Mixed coarse grained diopside, phlogopite, actinolite, quartz, garnet cal silicate. Vughs and cavities after leached carbonate.		-0.1	1.37	0.03
BADD001	79.55	83.11	BIFSILI	FRS	As above, without carbonate leaching, ~5% carbonate. Minor (1%) py, po and cpy on fractures and veins.	73	-0.1	0.79	0.02
BADD001	83.11	83.75	GRT	FRS	Granodiorite? veined zone. White and moderate olive green spotted. 25cm zone at top of interval and several small bands/veins of granodiorite at base of interval. Weakly deformed and schistose in part.		-0.1	0.8	0.02
BADD001	83.75	92.47	AMP	FRS	Amphibolite. Moderate olive green and white. Very fine to very coarse grained ?actinolite rich with quartz feldspar, weakly banded to massive. Common carbonate in lighter bands associated with quartz. Trace py and cpy on fractures.	71	-0.1	1.06	0.02
BADD001	92.47	96.24	BIFMBL	FRS	Carbonate cal silicate. White, mod green, light green, black, pinkish brown. Weakly banded carbonate, diopside, ?wollastonite, actinolite, biotite cal silicate.	74	-0.1	1.11	0.02
BADD001	96.24	96.58	ALB	FRS	Albite? Pinkish brown and white. Quartz albite rock or Kspar altered. Very hard and siliceous, fine grained, quartz veined - may be alteration margin around quartz.	57	-0.1	0.75	0.02
BADD001	96.58	104.10	AMP	FRS	Transition amphibolite to calcsilicate. Mod dark green to light green, white, pinkish brown. Transitional from dominantly amphibolite to dominantly calcsilicate at basal contact. Carbonate in lighter coloured bands throughout. ?Actinolitic amphibolite from fine grained to very coarse grained. Minor garnet at lower contact. Minor pyrrhotite.	83	-0.1	1.21	0.02
BADD001	104.10	114.90	BIF	FRS	Quartz diopside actinolite magnetite BIF. Light - mod grey, brown/black, mod/dark olive green and light yellow green. Thinly banded to laminated, banding at 70-80 deg to CA - irregular, ?pseudo-cross bedding. Isoclinal asymmetric folded in part.	86	15	989	19.9

EL2905 (Tod River) Geological Drill Log

HOLE	Depth from	Depth to	Lith code	Weath.	Lithological Description	Angle to CA	Est. % Magnetite	Wt Avg Mag Susc	Estimated DTR %
BADD001	114.90	119.60	BIFSILI	FRS	Weakly banded semi massive generally coarse grained calc silicate quartz rock (Diopside /actinolite +/- coarse garnet) . Rare quartz bands. Pyrrhotite developed as semi massive segregations / bladed disseminations at cm scale. Flesh coloured zone ?after weathered calc silicate or garnet.		2	26	0.52
BADD001	119.60	124.88	SCHT	FRS	Moderately banded calc silicate with biotite (stilpnomelane) rich schist bands. Similar to unit above but more biotite rich and schistose. Minor folds developed.		2	5.68	0.11
BADD001	124.88	130.30	BIFSILI	FRS	As for 114 - 119, ie coarse calc silicate quartz rock, moderately to weakly banded. Characterised by coarse garnets diopside and actinolite. Paler coloured quartzose bands present.		2	124	2.49
BADD001	130.30	145.00	BIF		Finely banded to laminated quartz magnetite diopside actinolite banded iron formation. Cross banding a common feature. Common irregular minor folds with shallow plunging axes	71	25	1442	29
BADD001	145.00	151.70	SCHT	FRS	Coarse biotite (stilpnomelane) diopside actinolite calc silicate schist. Minor quartz bands and segregations. Garnet bearing in places particularly close to the BIF contact	82	1	1.44	0.03
BADD001	151.70	157.95	QZT	FRS	Diopside actinolite rock with distinctive quartz bands up to 1m thick, minor biotite schist zones. Finely banded laminated appearance.	67	0.5	11.8	0.24
BADD001	157.95	159.96	BIF	FRS	Laminated to finely banded quartz magnetite diopside actinolite BIF. Quartz veins towards the base, common minor folds		25	923	18.6
BADD001	159.96	170.24	AMP	FRS	Actinolite hornblende albite amphibolite. Weakly schistose with foliation folded about shallow plunging minor folds. Some disseminated chalcopryrite and pyrrhotite. Coars prismatic actinolite hornblende aligned with cleavage. Garnet developed in zones. Lower contact 30cm of dark aphanitic rock coarse grained garnets. ?? Chilled margin.	84	1.5	16.7	0.34
BADD001	170.24	171.70	BIFSILI	FRS	Banded quartz diopside actinolite minor magnetite BIF.	67	10	56.6	1.14
BADD001	171.70	177.85	SCHT	SW	Quartz albite biotite schist. Typical brown biotite with many minor folds. 171.7 - 173.05 Fault zone with graphitic partings.		0.5	0.88	0.02

EL2905 (Tod River) Geological Drill Log

HOLE	Depth from	Depth to	Lith code	Weath.	Lithological Description	Angle to CA	Est. % Magnetite	Wt Avg Mag Susc	Estimated DTR %
BADD001	177.85	178.48	BIFSILI	FRS	Banded quartz actinolite diopside garnet bearing silicate facies BIF. Minimal magnetite			1.62	0.03
BADD001	178.48	193.00	AMP	SW	Actinolite albite amphibolite weakly schistose with alignment of prismatic amphiboles parallel to foliation. Numerous chloritic fractures with black chlorite and graphite along partings. Finely disseminated chalcopyrite	73	0.5	0.82	0.02
BADD001	193.00	193.80	BIFSILI	FRS	Quartz diopside silicate facies, moderately banded. Microfaulting of quartzitic bands.		0.5	227	4.56
BADD001	193.80	194.85	BIF	FRS	Quartz calc silicate magnetite BIF		15	514	10.3
BADD001	194.85	195.80	BIFSILI	FRS	As for 193 - 193,8		0.5	187	3.76
BADD001	195.80	206.75	AMP	FRS	Actinolite albite amphibolite. Weakly schistose as for 178 - 193 above. Lower part of section is a more feldspathic variant. 195.3 - 202.2 Fault very broken core with common chloritic fractures	64	0.5	2.88	0.06
BADD001	206.75	208.58	BIFSILI	FRS	Moderately banded garnet quartz diopside actinolite rock, probably silicate facies iron formation. Carbonate developed in fractures.	40	0.5	0.75	0.02
BADD001	208.58	219.58	AMP	FRS	Actinolite albite amphibolite weakly banded. Weak schistosity rare granitic veins.	70	0.5	0.93	0.02
BADD001	219.58	227.90	AMP	FRS	Feldspathic pale coloured amphibolite dominated by albite and some quartz. Some more amphibole rich bands	71	0.5	0.54	0.01
BADD001	227.90	231.60	AMP	FRS	Amphibolite as for 208 - 219m	72	0.5	0.87	0.02
BADD001	231.60	233.72	QZT	FRS	Quartzite. Quartz albite rock with minor to trace ferro mags.	70	0.5	0.42	0.008
BADD001	233.72	236.25	AMP	FRS	Amphibolite as for 208 - 219	75	0.5	0.86	0.02
BADD002	0.00	3.00	LATT	HW	Orange brown pisolitic clay with haematite and goethite staining.			24.9	0.50

EL2905 (Tod River) Geological Drill Log

HOLE	Depth from	Depth to	Lith code	Weath.	Lithological Description	Angle to CA	Est. % Magnetite	Wt Avg Mag Susc	Estimated DTR %
BADD002	3.00	36.00	SPLT	HW	Buff cream coloured kaolinitic clay minor mottling and goethite staining with goethite proportion increasing with depth			0.73	0.01
BADD002	36.00	47.44	AMP	MW	Yellow brown clay with ferruginous fragments and weathered amphibolite fragments. In cored section amphibolite seen to be banded with mafic bands separated by feldspathic bands. Weathered to a khaki brown colour	28		0.97	0.02
BADD002	47.44	48.00	BIFOX	HW	Quartz haematite clay rock representing weathered porting of quartz magnetite BIF			1.21	0.02
BADD002	48.00	49.20	BIF	FRS	Finely banded to laminated quartz magnetite calc silicate BIF	35	25	1165	23.4
BADD002	49.20	50.40	SCHT	MW	Biotite schist banded / laminated strong schistose fabric, rare diopside quartz bands.	36	0.5	45.6	0.92
BADD002	50.40	51.75	QZT	MW	Medium grained quartzite with variable to moderate biotite content. Rare weathered ? Diopside bands with voids probably representing weathered carbonate. Frequent minor folds.		0.5	0.48	0.01
BADD002	51.75	52.40	SCHT	SW	Biotite schist as for 49-50m. Minor quartz veining.		0.5	0.75	0.02
BADD002	52.40	57.00	AMP	HW	Strongly weathered actinolite amphibolite. Several zones of talc rich material along ? Shears. Moderate quartz veining and goethitic bands possibly representing weathered BIF. Core generally very broken.	37		0.79	0.02
BADD002	57.00	83.00	AMP	MW	Actinolite albite amphibolite weakly schistose. Weakly to moderately banding defined by narrow (5cm) quartz feldspathic bands. Banding increases downwards towards sulphidic iron formation material which underlies this zone. Several narrow partly silicified marble bands up to 10 cm wide. Core very broken from 69.7 to 70.6m. Core generally broken from 69.7 - 70.60.	51	0.5	1.12	0.02
BADD002	83.00	87.80	MBL	FRS-SW	? Silicified Diopside marble with zones of amphibolite. Possible sulphide facies iron formation. Appreciable sulphide with increased pyrrhotite leading to increase in magnetic susceptibility. Carbonate bands often expressed by vuggy voids.	72	0.5	4.51	0.09

EL2905 (Tod River) Geological Drill Log

HOLE	Depth from	Depth to	Lith code	Weath.	Lithological Description	Angle to CA	Est. % Magnetite	Wt Avg Mag Susc	Estimated DTR %
BADD002	87.80	94.83	SUIF	FRS-SW	Diopside actinolite quartz rock with pyrrhotite pyrite segregations. Actual sulphide content around 5% Common marble bands and voids after carbonate	68		1.47	0.03
BADD002	94.83	96.90	BIF	FRS	Quartz magnetite diopside Banded Iron formation.	88	25	1912	38.4
BADD002	96.90	99.00	SCHT	FRS	?Biotite actinolite schist with appreciable content of pyrite and pyrrhotite.	90		0.86	0.02
BADD002	99.00	99.48	BIF	FRS	Quartz magnetite diopside BIF	90	20	1108	22.3
BADD002	99.48	103.17	SCHT	FRS	Dark fine grained reddish brown schist with flattened angular ? Sillimanite porphs, set in bronze biotite albite +-quartz matrix. Sulphidic with around 5% pyrite as fracture fil and disseminations.		0.5	3.05	0.06
BADD002	103.17	103.92	BIFSILI	FRS	Diopside actinolite quartz rock, irregular banding, Calc silicate iron formation		2	19	0.38
BADD002	103.92	107.80	BIF	FRS	Very finely banded quartz magnetite diopside +- actinolite BIF. Typical bands 1-2mm thick. Very fine grained magnetite, <75 micron	72	30	1449	29.1
BADD002	107.80	108.60	BIFSILI	FRS	Calc silicate iron formation as for 103 - 103.92. Minor magnetite		5	2.61	0.05
BADD002	108.60	110.57	SCHT	FRS	Dark reddish brown very fine grained biotite matrix with flattened rhomboids of ? Sillimanite. Pyrite around 5%	65	2	1.18	0.02
BADD002	110.57	111.00	BIFSILI	FRS	Calc silicate iron formation as for 103.17 to 103.92. Minor magnetite, coarse garnet close to upper contact. Strongly Pyritic	50	2	0.81	0.02
BADD002	111.00	113.32	BIF	FRS	Very finely banded BIF as for 103 - 107	58	30	1853	37.2
BADD002	113.32	113.55	SCHT	FRS	Narrow talc biotite schist band, probable shear affecting BIF band.			10.5	0.21
BADD002	113.55	113.75	BIF		BIF as for 111 - 113, less magnetite, more quartzite bands		15	10.5	0.21

EL2905 (Tod River) Geological Drill Log

HOLE	Depth from	Depth to	Lith code	Weath.	Lithological Description	Angle to CA	Est. % Magnetite	Wt Avg Mag Susc	Estimated DTR %
BADD002	113.75	115.56	QZT	FRS	Diopside quartzite. Strongly biotite rich in zones, generally massive to weakly bandes.		2	2.19	0.04
BADD002	115.56	121.25	AMP	FRS	Coarse gneissic actinolite albite amphibolite. Strong preferred alignment of actinolite prisms with fabric	59	0.5	0.88	0.02
BADD002	121.25	130.56	BIF	FRS	Quartz magnetite calc silicate Banded Iron formation. Magnetite very fine grained ie less than 100 micron. With hand microscope it appears that gangue in magnetite bands is mostly diopside. Lower 40cm of this unit mostly quartz with minor magnetite.	61	30	1823	36.6
BADD002	130.56	136.58	QZT	FRS	Biotite schist (characteristic bronze mica) with irregular bands of diopside quartzite up to 0.5m. Looks very similar to unit in 113.75 - 115.56	60	0.5	16.7	0.34
BADD002	136.58	141.70	AMP	FRS	Coarse actinolite albite amphibolite. Moderately gneissic fabric defined by crudely aligned actinolite	68	0.5	0.76	0.02
BADD002	141.70	142.80	QZT	FRS	Diopside quartzite - Biotite ? Diopside schist. Unusual but distinct from the actinolitic amphibolite.	63	1	0.79	0.02
BADD002	142.80	150.20	SCHT		Coarse actinolite albite biotite ?diopside schist. Rare actinolite crystals to>1cm. Simila to biotite rich diopside quartzite above. Strongly biotitic and sulphidic at base.	68		0.99	0.02
BADD002	150.20	151.00	BIFSILI	FRS	Diopside actinolite quartz calc silicate Iron Formation.	65	2	9.81	0.2
BADD002	151.00	152.15	BIF	FRS	Diopside quartz actinolite magnetite BIF	65	25	666	13.4
BADD002	152.15	153.70	BIFSILI	FRS	Calc silicate iron formation as for 150-151	65	2	27	0.54
BADD002	153.70	153.90	BIF	FRS	Quartz magnetite BIF as for 151-152m		25	1060	21.3
BADD002	153.90	154.12	SCHT	FRS	Bronze coloured coarse biotite talc schist		0.5	0.8	0.02
BADD002	154.12	155.50	BIF	FRS	Quartz magnetite BIF as for 151-152.5	80	30	1263	25.4

EL2905 (Tod River) Geological Drill Log

HOLE	Depth from	Depth to	Lith code	Weath.	Lithological Description	Angle to CA	Est. % Magnetite	Wt Avg Mag Susc	Estimated DTR %
BADD002	155.50	167.50	BIFSILI	FRS	Biotite diopside actinolite quartz schist. Becoming less biotite rich towards the base of this unit. Variable unit in terms of composition and banding but generally taken as calc silicate skarn, iron formation. Large garnets 162-163.	44	2	11.9	0.24
BADD002	167.50	178.00	BIF	FRS	Quartz magnetite calc silicate BIF. Quartz rich and consequently lower grade	40	30	1265	25.4
BADD002	178.00	178.10	GOUG	FRS	Brittle fault developed in jaspilitic rock. Angular quartzite fragments set in green ? Actinolite chlorite matrix.		5	51.8	1.04
BADD002	178.10	179.45	QZT	FRS	Biotite and diopside rich quartzitic unit. Transition with biotite schist.			74.9	1.51
BADD002	179.45	181.92	BIF	FRS	Quartz magnetite BIF. Much higher grade than the BIF unit above. Very low angles to core axis <40 degrees compared with higher up, evidence of folding.	40		1843	37.0
BADD002	181.92	184.10	AMP	FRS	Weakly to moderately schistose medium grained actinolite albite +- quartz amphibolite. Angles to core axis quite low generally <45 degrees	60	0.5	0.77	0.02
BADD002	184.10	187.08	BIF	FRS	Quartz diopside magnetite BIF. High quartzite component lower grade	59	20	767	15.4
BADD002	187.08	189.50	SCHT	FRS	Quartz biotite schist with irregular and disrupted quartzite bands around 1 cm thick helping to define minor folds.	50	2	3.8	0.08
BADD002	189.50	191.74	BIFSILI	FRS	Banded quartz diopside jaspilite / calc silicate iron formation. Only minor magnetite.	62	10	4.44	0.09
BADD002	191.74	194.95	AMP	FRS	Actinolite albite amphibolite, wk to moderate cleavage developed rare minor folds which affect some early quartz veins.	50	1	0.8	0.02
BADD002	194.95	201.00	BIFSILI		Diopside bearing silicate facies iron formation. Carbonate bands and moderately to strongly sulphidic. Pyrrhotite as semi massive segregations 195 - 195.4 with 1-3% chalcopyrite.	53	2	14.4	0.29

EL2905 (Tod River) Geological Drill Log

HOLE	Depth from	Depth to	Lith code	Weath.	Lithological Description	Angle to CA	Est. % Magnetite	Wt Avg Mag Susc	Estimated DTR %
BADD002	201.00	219.40	AMP	FRS	Amphibolite minor quartz veins, some of them folded as above, Biotite rich (?stilpnomelane? With reddish bronze colour) in part, Also diopside and garnet bearing silicate facies iron formation in zones. Highly variable unit with moderate to strongly developed cleavage..		1	0.93	0.02
BADD002	219.40	224.65	BIFSILI		Banded calc silicate rich ?silicate facies iron formation. Interbedded with strongly biotite ? Stilpnomelane schist and with minor actinolite albite amphibolite. Moderately to strongly sulphidic with some semi massive pyrrhotite very minor chalcopyrite zones	46		3.64	0.07

Appendix 3

South Australian Iron Ore Group Pty. Limited

EL 2905 (Tod River) Drill Assay Ledger - Head ICP Assays

HoleID	From	To	SDA	Sample Number	Al2O3 %	CaO %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	S %	SiO2 %	TiO2 %	V ppm	Zn ppm
BADD001	53.5	55.35	020SA052	290293	1.6	1.96	35.9	0.14	3.29	0.09	0.12	0.5		55.8	0.055		30
BADD001	104.1	106	020SA052	290294	1.3	2.48	39.6	0.21	3.14	0.12	0.12	0.43		52.8	0.05		30
BADD001	106	108	020SA052	290295	0.88	2.54	38.5	0.09	3.01	0.05	0.09	0.43		54.7	0.03		-20
BADD001	108	110	020SA052	290296	0.96	2.41	40.6	0.14	3.56	0.07	0.12	0.42		51.6	0.035		20
BADD001	110	112	020SA052	290297	1.39	2.89	40	0.22	3.85	0.06	0.18	0.38		51.2	0.05		20
BADD001	112	114	020SA052	290298	1.98	2.75	37.9	0.51	4.07	0.07	0.17	0.38		52	0.08		30
BADD001	114	114.9	020SA052	290299	0.71	2.79	46	0.1	2.89	0.1	0.07	0.8		46.8	0.02		-20
BADD001	130.3	132	020SA052	290300	0.59	3.65	47.3	0.11	2.63	0.09	0.07	0.76		46.4	0.02		-20
BADD001	132	134	020SA052	290301	1.05	4.02	43.8	0.11	3.5	0.1	0.07	0.68		48.7	0.035		30
BADD001	134	136	020SA052	290302	1.32	2.06	40.5	0.24	4.07	0.1	0.15	0.58		51.7	0.045		-20
BADD001	136	138	020SA052	290303	1.59	2.08	37	0.49	4.16	0.09	0.28	0.44		53.8	0.06		-20
BADD001	138	140	020SA052	290304	1.45	1.85	40.9	0.41	4.16	0.07	0.37	0.42		50.7	0.06		-20
BADD001	138	140	020SA052	290308	1.36	1.99	41.9	0.38	4.14	0.07	0.33	0.43		50	0.055		-20
BADD001	140	142	020SA052	290305	1.8	1.55	40.9	0.7	4.29	0.06	0.34	0.33		50	0.06		20
BADD001	142	144	020SA052	290306	0.9	2.07	42.5	0.28	3.06	0.1	0.19	0.47		51.4	0.035		30
BADD001	144	145	020SA052	290307	1.23	4.33	39.9	0.36	2.38	0.21	0.13	0.58		52.3	0.04		50
BADD001	157.95	159.56	020SA052	290309	1.03	2.5	39.9	0.09	3.25	0.08	0.15	0.35		53.6	0.045		30
BADD002	48	49.2	020SA052	290311	1.37	2.6	41	0.11	2.93	0.1	0.12	0.57		52.1	0.055		20
BADD002	94.83	96.9	020SA052	290312	1.26	2.51	40.2	0.27	3.28	0.08	0.1	0.44		53.2	0.045		20
BADD002	103.92	106	020SA052	290313	0.63	3.81	42.7	0.09	3.01	0.13	0.09	0.69		50.2	0.02		-20
BADD002	106	107.8	020SA052	290314	0.57	4.17	44.9	0.07	2.84	0.15	0.08	0.72		47.5	0.02		-20

South Australian Iron Ore Group Pty. Limited

EL 2905 (Tod River) Drill Assay Ledger - Head ICP Assays

HoleID	From	To	SDA	Sample Number	Al2O3 %	CaO %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	S %	SiO2 %	TiO2 %	V ppm	Zn ppm
BADD002	111	113.32	020SA052	290315	0.86	3.58	44.3	0.08	2.37	0.08	0.03	0.71		49.2	0.03		20
BADD002	121.25	123	020SA052	290316	0.56	3.71	44.8	0.06	2.03	0.12	0.1	0.67		49.3	0.02		-20
BADD002	123	125	020SA052	290317	0.83	2.43	41.5	0.1	3.06	0.08	0.21	0.53		52.2	0.03		-20
BADD002	125	127	020SA052	290318	0.9	2.33	40.4	0.16	3.37	0.07	0.15	0.48		53.4	0.03		-20
BADD002	127	129	020SA052	290319	0.86	2.2	42.8	0.24	3.36	0.06	0.05	0.47		50.9	0.03		-20
BADD002	129	130.56	020SA052	290320	0.67	2.65	41.1	0.1	3.32	0.06	0.04	0.53		53.2	0.04		-20
BADD002	153.7	155.5	020SA052	290321	2.28	2.44	38.3	0.47	4.03	0.08	0.23	0.36		53.2	0.14		330
BADD002	167.5	168.7	020SA052	290322	0.7	5.95	33.8	0.08	3.16	0.34	0.13	0.45		56.3	0.025		100
BADD002	168.7	170	020SA052	290323	0.81	3.54	39.4	0.15	2.55	0.14	0.11	0.36		53.8	0.03		-20
BADD002	170	172	020SA052	290324	0.63	2.27	39.4	0.06	2.34	0.05	0.14	0.3		56.2	0.025		-20
BADD002	170	172	020SA052	290331	0.62	2.22	38.9	0.06	2.38	0.05	0.12	0.29		56.2	0.025		-20
BADD002	172	174	020SA052	290325	0.98	2.01	37.5	0.14	3.51	0.06	0.12	0.33		55.5	0.035		-20
BADD002	174	176	020SA052	290326	1.54	1.85	35.9	0.21	4.94	0.09	0.31	0.32		54.6	0.055		-20
BADD002	176	178	020SA052	290327	1.45	2.38	38.2	0.12	5.01	0.12	0.21	0.4		53.1	0.055		20
BADD002	179.45	181.92	020SA052	290328	0.87	2.85	40.4	0.08	2.79	0.08	0.11	0.4		53.7	0.035		20
BADD002	184.1	185	020SA052	290329	1.66	5.73	30.2	0.13	5.15	0.12	0.19	0.23		57.1	0.07		-20
BADD002	185	187.08	020SA052	290330	1.76	3.39	38.5	0.24	4.52	0.08	0.17	0.38		51.6	0.06		20

Appendix 4

South Australian Iron Ore Group Pty. Limited

EL2905 (Tod River) Drill Assay Ledger - Davis Tube Separations and XRF Assays

HoleID	From	To	SDA	Sample Number	Al2O3 %	CaO %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	S %	SiO2 %	TiO2 %	V ppm	Zn ppm	Mag Con %	Fe_%	Recoverable Fe % Grade
BADD001	53.5	55.35	024SA042	290293	0.23	0.3	94.5	0.01	0.38	0.03	-0.01	0.06	0.02	6.76	0.07	150	-50	24.93	66.10	16.48
BADD001	104.1	106	024SA042	290294	0.37	0.41	95.7	0.03	0.38	0.04	-0.01	0.05	0.02	5.45	0.09	150	-50	27.17	67.00	18.20
BADD001	106	108	024SA042	290295	0.35	0.38	96.6	0.01	0.41	0.03	-0.01	0.03	0.01	5.33	0.08	150	-50	26.96	67.60	18.22
BADD001	108	110	024SA042	290296	0.36	0.39	93.8	0.03	0.54	0.03	0.01	0.04	0.01	6.92	0.08	150	-50	26.32	65.60	17.27
BADD001	110	112	024SA042	290297	0.36	0.39	93.5	0.03	0.54	0.03	0.01	0.03	0.02	7.18	0.09	200	-50	24.31	65.40	15.90
BADD001	112	114	024SA042	290298	0.35	0.41	91.4	0.05	0.58	0.03	0.01	0.07	0.02	8.99	0.08	150	-50	18.26	64.00	11.69
BADD001	114	114.9	024SA042	290299	0.43	1.1	80.1	0.04	1.31	0.05	-0.01	0.23	0.01	17	0.04	100	-50	33.91	56.00	18.99
BADD001	130.3	132	024SA042	290300	0.38	0.98	86.2	0.02	0.78	0.05	-0.01	0.11	0.01	13.1	0.04	100	-50	30.10	60.30	18.15
BADD001	132	134	024SA042	290301	0.48	1.46	81	0.02	1.41	0.05	0.01	0.12	0.01	16.7	0.05	150	-50	28.69	56.60	16.24
BADD001	134	136	024SA042	290302	0.46	0.46	89.7	0.04	0.72	0.03	0.02	0.08	0.02	9.85	0.07	200	-50	22.04	62.70	13.82
BADD001	136	138	024SA042	290303	0.47	0.57	91.2	0.06	0.7	0.03	0.04	0.07	0.02	8.85	0.08	150	-50	24.55	63.80	15.66
BADD001	138	140	024SA042	290304	0.19	0.23	96.2	0.03	0.34	0.03	0.02	0.03	0.01	5.53	0.06	150	-50	29.93	67.30	20.14
BADD001	140	142	024SA042	290305	0.18	0.16	97.1	0.04	0.36	0.03	0.02	0.02	0.02	4.72	0.05	200	-50	29.87	67.90	20.28
BADD001	142	144	024SA042	290306	0.08	0.15	98.5	0.02	0.23	0.03	-0.01	0.03	0.01	3.95	0.04	100	-50	35.42	68.90	24.40
BADD001	144	145	024SA042	290307	0.31	0.75	93.2	0.03	0.46	0.09	-0.01	0.05	0.01	7.46	0.06	150	-50	31.95	65.20	20.83
BADD001	157.95	159.56	024SA042	290309	0.2	0.28	96.8	0.01	0.37	0.03	-0.01	0.03	0.01	4.91	0.1	150	-50	22.34	67.70	15.12
BADD002	48	49.2	024SA042	290311	0.31	0.41	94.6	0.02	0.43	0.03	-0.01	0.08	0.02	6.46	0.1	200	-50	25.66	66.20	16.99
BADD002	94.83	96.9	024SA042	290312	0.25	0.33	97.8	0.03	0.34	0.03	-0.01	0.05	0.02	4.32	0.07	200	-50	26.26	68.40	17.96
BADD002	103.92	106	024SA042	290313	0.28	0.72	93.8	0.01	0.54	0.04	0.01	0.06	0.01	7.33	0.05	150	-50	25.32	65.60	16.61

South Australian Iron Ore Group Pty. Limited

EL2905 (Tod River) Drill Assay Ledger - Davis Tube Separations and XRF Assays

HoleID	From	To	SDA	Sample Number	Al2O3 %	CaO %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	S %	SiO2 %	TiO2 %	V ppm	Zn ppm	Mag Con %	Fe_%	Recoverable Fe % Grade
BADD002	106	107.8	024SA042	290314	0.25	0.59	96.4	0.01	0.41	0.04	-0.01	0.05	0.01	5.16	0.04	150	-50	30.27	67.40	20.40
BADD002	111	113.32	024SA042	290315	0.32	0.7	95.2	0.01	0.41	0.04	-0.01	0.1	0.01	5.84	0.05	150	-50	34.54	66.60	23.00
BADD002	121.25	123	024SA042	290316	0.08	0.4	99	-0.01	0.21	0.09	-0.01	0.04	0.01	3.51	0.03	100	-50	40.31	69.20	27.89
BADD002	123	125	024SA042	290317	0.09	0.18	99.2	0.01	0.24	0.04	-0.01	0.03	0.01	3.43	0.04	150	-50	36.19	69.40	25.12
BADD002	125	127	024SA042	290318	0.11	0.18	99	0.01	0.26	0.03	-0.01	0.03	0.01	3.43	0.04	150	-50	33.79	69.30	23.42
BADD002	127	129	024SA042	290319	0.16	0.24	95.5	0.03	0.39	0.03	-0.01	0.03	-0.01	6.28	0.04	-100	-50	34.14	66.80	22.81
BADD002	129	130.56	024SA042	290320	0.33	0.28	95.7	-0.01	0.38	0.03	-0.01	0.04	0.04	5.62	0.1	350	-50	23.88	66.90	15.98
BADD002	153.7	155.5	024SA042	290321	0.33	0.37	93.5	0.03	0.43	0.03	-0.01	0.04	0.02	7.13	0.09	200	-50	17.15	65.40	11.22
BADD002	167.5	168.7	024SA042	290322	0.34	1.08	91.2	0.02	0.58	0.07	0.03	0.04	0.01	7.52	0.07	100	-50	15.90	63.80	10.14
BADD002	168.7	170	024SA042	290323	0.09	0.26	98.8	0.01	0.18	0.04	-0.01	0.01	0.01	3.72	0.05	100	-50	30.12	69.10	20.81
BADD002	170	172	024SA042	290324	0.09	0.21	97	-0.01	0.26	0.03	-0.01	-0.01	-0.01	5.06	0.04	100	-50	31.98	67.80	21.68
BADD002	172	174	024SA042	290325	0.1	0.19	98.9	-0.01	0.32	0.03	-0.01	0.01	0.02	3.62	0.04	150	-50	27.32	69.10	18.88
BADD002	174	176	024SA042	290326	0.16	0.18	98.5	0.01	0.36	0.03	-0.01	0.02	0.03	3.34	0.1	350	-50	15.63	68.90	10.77
BADD002	176	178	024SA042	290327	0.18	0.24	98.6	-0.01	0.38	0.03	-0.01	0.02	0.03	3.05	0.12	350	-50	15.23	69.00	10.51
BADD002	179.45	181.92	024SA042	290328	0.14	0.27	96.5	-0.01	0.25	0.03	-0.01	0.02	0.01	4.81	0.06	100	-50	28.11	67.50	18.97
BADD002	184.1	185	024SA042	290329	0.38	1.08	92.4	0.02	0.91	0.04	0.02	0.03	0.04	7.56	0.13	400	-50	12.59	64.60	8.13
BADD002	185	187.08	024SA042	290330	0.4	0.64	94.7	0.03	0.7	0.03	0.02	0.06	0.04	5.53	0.13	400	-50	14.61	66.30	9.69

Appendix 5

South Australian Iron Ore Group Pty. Limited

EL 2905 (Tod River) Drill Assay Ledger - Base Metal and Gold

HoleID	From	To	SDA	Sample Number	Ag ppm	As ppm	Au ppb	Au_D ppb	Bi ppm	Cd ppm	Co ppm	Co ppm	Cu ppm	Mo ppm	Ni ppm	Pb ppm	Sb ppm	Se ppm	Te ppm	U ppm
BADD001	53.5	55.35	020SA052	290293	0.1	-0.5	4		0.1	-0.1	5	5	28	0.3	5	13	-0.1	-0.5	-0.1	0.7
BADD001	104.1	106	020SA052	290294	0.05	-0.5	5		-0.1	-0.1	2	2	9	1.4	3	5	-0.1	-0.5	-0.1	0.52
BADD001	106	108	020SA052	290295	0.05	-0.5	1		-0.1	-0.1	0.9	0.9	3.2	0.1	2	2.3	-0.1	-0.5	-0.1	0.4
BADD001	108	110	020SA052	290296	0.1	-0.5	-1		0.2	-0.1	1	1	11.5	-0.1	3	4.5	-0.1	-0.5	-0.1	0.43
BADD001	110	112	020SA052	290297	0.05	0.5	6		-0.1	-0.1	1.2	1.2	5	0.3	4	5	-0.1	-0.5	-0.1	0.66
BADD001	112	114	020SA052	290298	0.05	-0.5	1		-0.1	-0.1	1.4	1.4	4.6	0.4	4	9	-0.1	-0.5	-0.1	1.3
BADD001	114	114.9	020SA052	290299	0.1	1.5	2		0.1	-0.1	1	1	25.5	0.1	4	7	-0.1	-0.5	-0.1	0.52
BADD001	115	117	021SA053	291045	-0.05	3.5	3		0.1	-0.1	2	2	79	2.1	7	4.4	0.2	0.5	-0.1	1.3
BADD001	117	119.6	021SA053	291046	-0.05	3	2		0.1	-0.1	4.9	4.9	120	3.1	14	5.5	0.1	0.5	-0.1	1.65
BADD001	130.3	132	020SA052	290300	0.1	3	2		0.2	-0.1	0.6	0.6	3.2	0.5	2	19.5	0.1	-0.5	-0.1	0.41
BADD001	132	134	020SA052	290301	0.1	44	3		0.1	-0.1	1.1	1.1	7	0.8	4	9	0.1	-0.5	-0.1	0.65
BADD001	134	136	020SA052	290302	0.05	35	3		0.1	-0.1	1.2	1.2	14	0.4	3	19.5	0.2	-0.5	-0.1	0.93
BADD001	136	138	020SA052	290303	0.05	0.5	1		-0.1	-0.1	1.7	1.7	4.9	0.3	4	11.5	0.3	-0.5	-0.1	0.7
BADD001	138	140	020SA052	290308	0.05	-0.5	2		0.2	-0.1	2	2	4.9	0.6	2	28.5	0.2	-0.5	-0.1	0.62
BADD001	138	140	020SA052	290304	0.15	1.5	2		0.2	-0.1	1.9	1.9	6	0.3	7	29.5	0.2	-0.5	-0.1	0.6
BADD001	140	142	020SA052	290305	0.15	0.5	16		0.1	-0.1	2	2	10	1.2	7	12.5	0.1	-0.5	-0.1	0.83
BADD001	142	144	020SA052	290306	-0.05	-0.5	4		-0.1	-0.1	1.2	1.2	-0.2	-0.1	2	6	-0.1	-0.5	-0.1	0.23
BADD001	144	145	020SA052	290307	0.1	-0.5	11		-0.1	-0.1	2.9	2.9	14.5	4.6	5	10	-0.1	-0.5	-0.1	0.9
BADD001	157.95	159.56	020SA052	290309	0.05	-0.5	1		-0.1	-0.1	1.5	1.5	32.5	-0.1	2	2.4	-0.1	-0.5	-0.1	1
BADD002	48	49.2	020SA052	290311	0.2	3	-1		-0.1	-0.1	4.7	4.7	5.5	0.7	8	4.1	-0.1	-0.5	-0.1	0.67

South Australian Iron Ore Group Pty. Limited

EL 2905 (Tod River) Drill Assay Ledger - Base Metal and Gold

HoleID	From	To	SDA	Sample Number	Ag ppm	As ppm	Au ppb	Au_D ppb	Bi ppm	Cd ppm	Co ppm	Co ppm	Cu ppm	Mo ppm	Ni ppm	Pb ppm	Sb ppm	Se ppm	Te ppm	U ppm
BADD002	83	85	021SA053	291047	-0.05	1.5	1		-0.1	-0.1	21	21	86	3.2	40	2.4	-0.1	-0.5	-0.1	0.85
BADD002	85	87	021SA053	291048	0.15	2.5	2		0.3	0.5	32	32	77	47.5	83	4.5	-0.1	-0.5	-0.1	5.5
BADD002	87	89	021SA053	291049	0.05	0.5	2		0.2	0.2	22	22	150	9.5	24	2.1	-0.1	0.5	-0.1	1.35
BADD002	89	91	021SA053	291050	-0.05	1	-1		-0.1	-0.1	16	16	24.5	2.3	25	1.4	-0.1	-0.5	-0.1	0.31
BADD002	91	93	021SA053	291051	-0.05	1	-1		-0.1	-0.1	17.5	17.5	16	1.9	34	2	-0.1	-0.5	-0.1	1.2
BADD002	93	94.83	021SA053	291052	-0.05	1	1		0.1	0.1	18.5	18.5	88	8.5	19	2.8	-0.1	-0.5	-0.1	1.2
BADD002	94.83	96.9	020SA052	290312	0.1	1	1		-0.1	-0.1	1.5	1.5	17.5	0.2	4	10	-0.1	-0.5	-0.1	0.53
BADD002	103.92	106	020SA052	290313	0.15	1	2		-0.1	-0.1	0.8	0.8	1.6	0.1	3	34	-0.1	-0.5	-0.1	0.56
BADD002	106	107.8	020SA052	290314	0.1	1	3		0.2	-0.1	0.7	0.7	0.9	0.1	3	22.5	-0.1	-0.5	-0.1	0.45
BADD002	111	113.32	020SA052	290315	0.05	0.5	1		-0.1	-0.1	1.1	1.1	2.6	0.7	2	2.7	-0.1	-0.5	-0.1	0.55
BADD002	121.25	123	020SA052	290316	0.1	1	2		-0.1	-0.1	1.3	1.3	1.7	0.1	3	14	-0.1	-0.5	-0.1	0.43
BADD002	123	125	020SA052	290317	0.1	0.5	2		-0.1	-0.1	1.6	1.6	1.6	0.1	4	16	-0.1	-0.5	-0.1	0.46
BADD002	125	127	020SA052	290318	0.1	0.5	1		-0.1	-0.1	1.4	1.4	3	0.2	3	17.5	-0.1	-0.5	-0.1	0.46
BADD002	127	129	020SA052	290319	0.1	-0.5	-1		-0.1	-0.1	1.8	1.8	3.9	0.3	3	20.5	-0.1	-0.5	-0.1	0.4
BADD002	129	130.56	020SA052	290320	-0.05	-0.5	1		0.1	-0.1	1.8	1.8	15	-0.1	2	9	-0.1	-0.5	-0.1	0.37
BADD002	153.7	155.5	020SA052	290321	0.05	0.5	2		-0.1	-0.1	5.5	5.5	22.5	-0.1	9	2.3	-0.1	-0.5	-0.1	0.55
BADD002	167.5	168.7	020SA052	290322	-0.05	165	63		0.2	-0.1	1.5	1.5	20.5	0.5	3	-0.2	-0.1	-0.5	-0.1	0.46
BADD002	168.7	170	020SA052	290323	-0.05	2	1		-0.1	-0.1	1.1	1.1	5.5	0.1	2	1.9	-0.1	-0.5	-0.1	0.42
BADD002	170	172	020SA052	290324	-0.05	1	2		-0.1	-0.1	1.1	1.1	5	-0.1	1	11	-0.1	-0.5	-0.1	0.31
BADD002	170	172	020SA052	290331	0.05	1	-1		-0.1	-0.1	1.1	1.1	0.9	-0.1	2	4.6	-0.1	-0.5	-0.1	0.28

South Australian Iron Ore Group Pty. Limited

EL 2905 (Tod River) Drill Assay Ledger - Base Metal and Gold

HoleID	From	To	SDA	Sample Number	Ag ppm	As ppm	Au ppb	Au_D ppb	Bi ppm	Cd ppm	Co ppm	Co ppm	Cu ppm	Mo ppm	Ni ppm	Pb ppm	Sb ppm	Se ppm	Te ppm	U ppm
BADD002	172	174	020SA052	290325	-0.05	-0.5	-1		-0.1	-0.1	1	1	3.5	-0.1	3	5.5	-0.1	-0.5	-0.1	0.54
BADD002	174	176	020SA052	290326	-0.05	-0.5	-1		-0.1	-0.1	1.1	1.1	11	0.1	3	2.5	-0.1	-0.5	-0.1	0.83
BADD002	176	178	020SA052	290327	-0.05	-0.5	-1		-0.1	-0.1	1	1	7.5	0.3	2	2.5	-0.1	-0.5	-0.1	0.82
BADD002	179.45	181.92	020SA052	290328	0.05	-0.5	-1		-0.1	-0.1	2.6	2.6	46.5	-0.1	3	5	-0.1	-0.5	-0.1	0.52
BADD002	184.1	185	020SA052	290329	-0.05	-0.5	-1		-0.1	-0.1	4.1	4.1	3.7	-0.1	4	2.8	-0.1	-0.5	-0.1	0.22
BADD002	185	187.08	020SA052	290330	0.05	-0.5	-1		-0.1	-0.1	1.6	1.6	16	-0.1	3	5.5	-0.1	-0.5	-0.1	0.6
BADD002	189.5	191.74	021SA053	291053	-0.05	0.5	1		0.1	-0.1	3.4	3.4	62	2.5	6	1.1	-0.1	-0.5	-0.1	1.4
BADD002	194.95	196	021SA053	291054	0.15	1.5	3		0.2	-0.1	10.5	10.5	700	1.4	10	5.5	-0.1	2	-0.1	0.86
BADD002	196	198	021SA053	291055	-0.05	1	2		0.3	-0.1	10.5	10.5	15	0.3	22	3.5	-0.1	-0.5	-0.1	0.38
BADD002	198	200	021SA053	291056	-0.05	1	-1		0.3	-0.1	15.5	15.5	100	2.5	27	4.7	-0.1	-0.5	-0.1	2
BADD002	200	201	021SA053	291057	-0.05	1	1		0.2	-0.1	22.5	22.5	27	1.5	39	3.5	-0.1	-0.5	-0.1	0.64
BADD002	205.7	208	021SA053	291058	-0.05	1	1		0.2	-0.1	13.5	13.5	78	1.6	23	3.2	-0.1	-0.5	-0.1	1.5
BADD002	208	210	021SA053	291059	-0.05	2.5	2		0.1	-0.1	18	18	51	1.1	20	2.1	-0.1	-0.5	-0.1	0.5
BADD002	210	212	021SA053	291064	-0.05	6.5	-1		0.1	-0.1	20.5	20.5	57	1.6	21	4.6	-0.1	-0.5	-0.1	0.52
BADD002	210	212	021SA053	291060	-0.05	4.5	-1		-0.1	-0.1	16.5	16.5	48.5	0.4	16	24	-0.1	-0.5	-0.1	0.06
BADD002	219.4	220.5	021SA053	291061	0.05	1.5	2		0.6	0.2	20.5	20.5	220	2.7	38	3.8	-0.1	2	0.1	3
BADD002	220.5	222.2	021SA053	291062	0.05	2.5	1		0.4	0.1	15	15	145	5.5	39	4.4	-0.1	1	-0.1	3.4
BADD002	222.2	224.65	021SA053	291063	0.05	1.5	-1		0.4	0.1	15.5	15.5	145	4.3	42	4.5	-0.1	0.5	-0.1	2.8

Appendix 6

Logistics Report

for a

DETAILED AIRBORNE MAGNETIC, RADIOMETRIC AND DIGITAL ELEVATION SURVEY

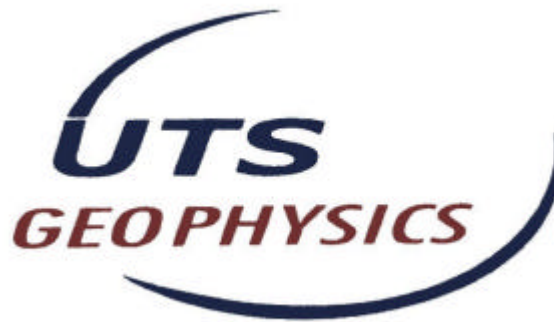
for the

PORT LINCOLN PROJECTS

carried out on behalf of

SOUTH AUSTRALIAN IRON ORE GROUP

by



(UTS Job #A473)

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1 GENERAL SURVEY INFORMATION

In January 2002, UTS Geophysics conducted a series of low level airborne geophysical surveys approximately 30km to 160km north of Port Lincoln for South Australian Iron Ore Group.

This report summarises the logistics, survey parameters and processing details of the survey.

The survey commenced on the 19th January 2002 and was completed on the 29th January 2001.

UTS Geophysics provided the described survey for the following company:

South Australian Iron Ore Group.
334 Glen Osmand Road
Myrtle Bank
SA 5064

2 SURVEY LOCATION

The areas surveyed were between 30km and 160km north of Port Lincoln in South Australia. Survey boundary coordinates are provided in Appendix C of this report.

The survey was flown using the AMG84 coordinate system (a Universal Transverse Mercator projection) derived from the Australian Geodetic Datum and was contained within zone 53 with a central meridian of 135 degrees. Details of the datum and projection system are provided in Appendix B of this report.

3 AIRCRAFT AND SURVEY EQUIPMENT

The UTS navigation flight control computer, data acquisition system and geophysical sensors were installed into a specialised geophysical survey aircraft.

The list of geophysical and navigation equipment used for the survey is as follows:

General Survey Equipment

- FU24-954 fixed wing survey aircraft.
- UTS proprietary flight planning and survey navigation system.
- UTS proprietary high speed digital data acquisition system.
- Novatel 3951R, 12 channel precision navigation GPS.
- Satellite transmitted differential GPS correction receiver.
- UTS LCD pilot navigation display and external track guidance display.
- UTS post mission data verification and processing system.
- Bendix King KRA-405 radar altimeter.

Magnetic Data Acquisition Equipment

- UTS tail stinger magnetometer installation.
- Scintrex Cesium Vapour CS-2 total field magnetometer.
- Fluxgate three component vector magnetometer.
- RMS Aeromagnetic Automatic Digital Compensator (AADC II).
- Diurnal monitoring magnetometer (Scintrex Envimag).

Radiometric Data Acquisition Equipment

- Exploranium GR-820 gamma ray spectrometer.
- Exploranium gamma ray detectors.
- Barometric altimeter (height and pressure measurements).
- Temperature and humidity sensor.

3.1 *Survey Aircraft*

The aircraft used was a FU24-954 fixed wing survey aircraft owned by UTS Geophysics, registrations VH-HVP.

Power Plant

- Engine Type Single engine, Lycoming, IO-720
- Brake Horse Power 400 bhp
- Fuel Type AV-GAS

Performance

- Cruise speed 105 Kn
- Survey speed 100 Kn
- Stall speed 45 Kn
- Range 970 Km
- Endurance (no reserves) 5 hours
- Fuel tank capacity 490 litres



3.2 *Data Positioning and Flight Navigation*

Survey data positioning and flight line navigation was derived using real-time differential GPS (Global Positioning System).

Navigation was provided through a UTS designed and built electronic pilot navigation system providing computer controlled digital navigation instrumentation mounted in the cockpit as well as an externally mounted track guidance system.

GPS derived positions were used to provide both aircraft navigation and survey data location information.

The GPS systems used for the survey were:

- Aircraft GPS Model Novatel 3951R
- GPS satellite tracking channels 12 parallel
- Typical differentially corrected accuracy 2-3 metres (horizontal)
- Real-time differential service RACAL Landstar

3.3 *UTS Data Acquisition System and Digital Recording*

All geophysical sensor data and positional information measured during the survey was recorded using a UTS developed, high speed, precision data acquisition system. Survey data was downloaded onto magnetic tape on completion of each survey flight.

Instrument synchronisation times were measured and removed in real-time by the UTS data acquisition system.

3.4 *Altitude Readings*

Accurate survey heights above the terrain were measured using a King radar altimeter installed in the aircraft. The height of each survey data point was measured by the radar altimeter and stored by the UTS data acquisition system.

- Radar altimeter model King KRA-405, twin antenna altimeter
- Accuracy 0.3 metres
- Resolution 0.1 metres
- Range 0 - 500 metres
- Sample rate 0.1 Seconds (10Hz)

3.5 *UTS Stinger Mounted Magnetometer System*

The installation platform used for the acquisition of magnetic data was a tail mounted stinger. This proprietary stinger system was constructed of carbon fibre and designed for maximum rigidity and stability.

Both the total field magnetometer and three component vector magnetometer were located within the tail stinger.



3.6 *Total Field Magnetometer*

Total field magnetic data readings for the survey were made using a Scintrex Cesium Vapour CS-2 Magnetometer. This precision sensor has the following specifications:



- Model Scintrex Cesium Vapour CS-2 Magnetometer
- Sample Rate 0.1 seconds (10Hz)
- Resolution 0.001nT
- Operating Range 15,000nT to 100,000nT
- Temperature Range -20°C to +50°C

3.7 *Aircraft Magnetic Compensation*

At the start of the survey, the system was calibrated for reduction of magnetic heading error. The heading and manoeuvre effects of the aircraft on the magnetic data was removed using an RMS Automatic Airborne Digital Compensator (AADC II).

Calibration of the aircraft heading effects were measured by flying a series of pitch, roll and yaw manoeuvres at high altitude while monitoring changes in the three axis magnetometer and the effect on total field readings. A 26 term model of the aircraft magnetic noise covering permanent, induced and eddy current fields was determined. These coefficients were then applied to the data collected during the survey in real-time.

UTS static compensation techniques were also employed to reduce the initial magnetic effects of the aircraft upon the survey data.

3.8 *Diurnal Monitoring Magnetometer*

A base station magnetometer was located in a low gradient area beyond the region of influence by any man made interference to monitor diurnal variations during the survey.

The specifications for the magnetometer used are as follows:

- Model Scintrex Envimag
- Resolution 0.1 nT
- Sample interval 10 seconds (0.1Hz)
- Operating range 20,000nT to 90,000nT
- Temperature -20°C to +50°C



3.9 *Barometric Altitude*

An Air DB barometric altimeter was installed in the aircraft so as to record and monitor barometric height and pressure. The data was recorded at 0.1 second intervals and is used for the reduction of the radiometric data.

- Model Air DB barometric altimeter
- Accuracy 2 metres
- Height resolution 0.1 metres
- Height range 0 - 3500 metres
- Maximum operating pressure: 1,300 mb
- Pressure resolution: 0.01 mb
- Sample rate 10 Hz

3.10 *Temperature and Humidity*

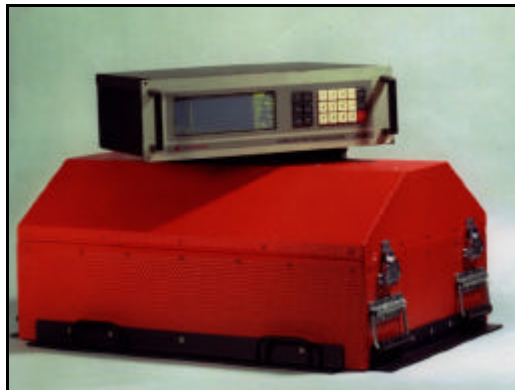
Temperature and humidity measurements were made during the survey at a sample rate of 10Hz. Ambient temperature was measured with a resolution of 0.1 degree Celsius and ambient humidity to a resolution of 0.1 percent.

3.11 *Radiometric Data Acquisition*

The gamma ray spectrometer used for the survey was capable of recording 256 channels and was self stabilising in order to minimise spectral drift. The detectors used contain thallium activated sodium iodide crystals.

Thorium, cesium and uranium source measurements were made each survey day to monitor system resolution and sensitivity. A calibration line was also flown at the start and end of each survey day to monitor ground moisture levels and system performance.

- Spectrometer model Exploranium GR820
- Detector volume 32 litres
- Sample rate 1 Hz



4 PERSONNEL

4.1 *Field Operations*

UTS Geophysics operator and data processors

Tom Steyer

UTS Geophysics Survey Pilots

Mike Smith
Justin Walker

4.2 *Project Management*

South Australian Iron Ore Group

Dave Fielding

UTS Geophysics Perth Office

Neil Goodey

5 SURVEY PARAMETERS

The survey data acquisition specifications for each area flown are specified in the following table:

PROJECT NAME	LINE SPACING	LINE DIRECTION	TIE LINE SPACING	TIE LINE DIRECTION	SENSOR HEIGHT	TOTAL LINE KM
Brennard	40	000-180	400	090-270	20	306
Carrow	40	125-305	400	035-215	20	428
Iron Mount	40	000-180	400	090-270	20	269
Koppio	40	000-180	400	090-270	20	300
Bald Hill	40	090-270	400	000-180	20	331
Bald Hill north	40	090-270	400	000-180	20	118
Koralla	40	127-307	400	037-217	20	242
Oolanta	40	130-310	400	040-220	20	320
Kapperna	40	000-180	400	090-270	20	153
Brennard infill	40	000-180			20	53
Carrow infill	40	125-305			20	78
Koppio infill	40	000-180			20	90
TOTAL						2688

The total number of line kilometres of survey data collected over the survey areas specified in the above table was 2688km.

The specified sensor height for the magnetic samples is as stated in the above table. This sensor height may be varied where topographic relief or laws pertaining to built up areas do not allow this altitude to be maintained, or where the safety of the aircraft and equipment is endangered.

The coordinate boundaries for the survey areas flown are detailed in Appendix C.

6 SURVEY LOGISTICS

The base location used for operating the aircraft and performing in-field quality control and data processing of the survey data was the Navigator Hotel in Port Lincoln, South Australia. The aircraft was operated from the Port Lincoln Airport.

6.1 Survey Flight Summary

The following table summarises the flight logs for the survey area flown:

Flight Date	Area No	Flight No	Area Name / Survey Details	Lines Flown	Line Km Flown
18/01/02			Mobilization		
19/01/02			Comp box & recon flight		
20/01/02	04	01	Koppio Project– Traverse Lines 400010-401050	151	253
20/01/02	04	T1	Koppio Project– Ties Lines 490010-490060	6	25
20/01/02	01	01	Brennard project- Traverse Lines 100010-101000	100	261
20/01/02	01	T1	Brennard project- Ties Lines 190010-190060	6	24
21/01/02			No flights-weather		
22/01/02	02	01	Carrow project- Traverse Lines 200010-201140	114	364
22/01/02	02	T1	Carrow project- Ties Lines 290010-290080	8	36
22/01/02	08	01	Oolanta project- Traverse Lines 800010-801270	127	264
22/01/02	08	T1	Oolanta project- Ties Lines 890010-890070	7	29
23/01/02	03	01	Iron Mount project- Traverse Lines 300010-301120	112	224
23/01/02	03	T1	Iron Mount project- Ties Lines 390010-390050	5	22
23/01/02			No flights – fuel problem		
24/01/02			No flights – aircraft maintenance		
25/01/02			No flights – aircraft maintenance		
26/01/02	05	01	Bald Hill project- Traverse Lines 500010-500650	65	117
26/01/02	06	01	Bald Hill north project- Traverse Lines 600010-600050	63	95
26/01/02	06	T1	Bald Hill north project- Ties Lines 690010-690050	4	10
26/01/02			No flights – due weather		
27/01/02	04	02	Koppio Project– refl Traverse Lines 400010-400140, 400270-400380, 400410-400450	31	75
27/01/02			No flights – due weather		
28/01/02	04	03	Koppio Project– refl Traverse Lines 400460-400760, 400260	32	84
28/01/02	12	01	Koppio infill Project– Traverse Lines 1200010-1200500	50	80
28/01/02	05	02	Bald Hill project- Traverse Lines 500660-501500	85	151
28/01/02	05	T1	Bald Hill project- Ties Lines 590010-5900505	5	30
28/01/02	10	01	Brennard infill project- Traverse Lines 1000010-1000400	40	48
28/01/02	11	01	Carrow infill project- Traverse Lines 110010-110550	52	62
29/01/02	09	01	Kapperna Project – Traverse Lines 900010-900650	65	127

	09	T1	Kapperna Project – Tie Lines 990010-990050	5	12
	05	03	Bald Hill Project – Traverse Line 501280	1	2
	10	02	Brennard Infill – Traverse Lines 1000050,1000200	2	2
	12	02	Koppio Infill – Traverse Line 1200320	1	2
	11	02	Carrow Infill – Traverse Lines 1100330,1100130,1100070	3	4
	07	T1	Koralla Project - Tie Lines 790010-790050	5	20
	07	01	Koralla Project Traverse Lines – 700010-701000	100	200

A complete survey kilometer report is contained in Appendix G of this report.

6.2 *Diurnal Magnetometer Locations*

The following table contains the approximate locations where the diurnal base station magnetometer was located for each survey area.

Area Name	Period	Base Station ID	Location
Brennard	20/01/02-29/01/02	31	200m north of Lincoln airport
Carrow	20/01/02-29/01/02	31	200m north of Lincoln airport
Iron Mount	20/01/02-29/01/02	31	200m north of Lincoln airport
Koppio	20/01/02-29/01/02	31	200m north of Lincoln airport
Bald Hill	20/01/02-29/01/02	31	200m north of Lincoln airport
Bald Hill north	20/01/02-29/01/02	31	200m north of Lincoln airport
Koralla	20/01/02-29/01/02	31	200m north of Lincoln airport
Oolanta	20/01/02-29/01/02	31	200m north of Lincoln airport
Kapperna	20/01/02-29/01/02	31	200m north of Lincoln airport
Brennard infill	20/01/02-29/01/02	31	200m north of Lincoln airport
Carrow infill	20/01/02-29/01/02	31	200m north of Lincoln airport
Koppio infill	20/01/02-29/01/02	31	200m north of Lincoln airport

6.3 *Spectrometer Calibration Results*

Appendix E of this report contains the results of the daily spectrometer resolution and sensitivity tests performed during the survey.

7 DATA PROCESSING PROCEDURES

7.1 *Magnetic Data Processing*

The raw magnetic survey data was loaded from the field tapes and the recorded data trimmed to the correct survey boundary extents. Lines subsequently reflowed were removed from the data. System parallax was removed from the raw data using corrections measured by the acquisition system.

The diurnal base station data was loaded, checked and suitably filtered for correction of the aircraft magnetic data. The filtered diurnal measurements were subtracted from the diurnal base field and the residual corrections applied to the survey data by synchronising the diurnal data time and the aircraft survey time.

The regional magnetic gradient was subtracted from the survey data by application of the IGRF model extrapolated to the date of the survey and interpolated on the survey position.

The data was then corrected to remove any residual parallax errors. Tie line levelling was applied to the parallax corrected data by measuring tie line crossover points with the survey traverse line data.

Final microlevelling techniques were then applied to the tie line leveled data to remove minor residual variations in profile intensities.

Located and gridded data were generated from the final processed magnetic data.

7.2 *Radiometric Data Processing*

The raw radiometric survey data was loaded from the field tapes and the recorded data trimmed to the correct survey boundary extents. Lines subsequently reflowed were removed from the data. System parallax was removed from the raw data using corrections measured by the acquisition system.

Statistical noise reduction of the 256 channel data was performed using the Maximum Noise Fraction (MNF) method described by Dickson and Taylor (1998). This method constructs a noise covariance model from the survey data, which is then decorrelated and re-scaled so that the model has unit variance and no channel-to-channel correlation.

A principal component transformation of the noise-whitened data is performed, and the number of components to be saved is determined by ranking the eigenvectors by signal-to-noise ratio. The signal-rich components are retained, and the spectral data reconstructed without the noise fraction. Typically, 32-42 MNF components are retained during this process.

Channels 30-250 only are noise-cleaned, as these contain the regions of interest and are not dominated by the lower end of the Compton continuum. The energy spectrum between the potassium and thorium peaks was recalibrated from the noise-cleaned 256 channel measurements.

The 256 channel data was then windowed to the 5 primary channels of total count, potassium, uranium, thorium and low-energy uranium. Dead time corrections were then applied to the data.

Cosmic and aircraft background corrections were applied. Radon background removal was performed using the Minty Spectral Ratio method (1992). Spectral stripping was then applied to the windowed data.

The radar altimeter data was corrected to standard temperature and pressure. Height corrections based on the STP radar altimeter were then performed to remove any altitude variation effects from the data (refer to Appendix E for stripping ratios and equations).

The corrected count rate data was then converted to ground concentrations for potassium, uranium and thorium. Final microlevelling of the total count, potassium, uranium and thorium data was then applied to remove minor residual variations in profile intensities.

For further information concerning the survey flown, please contact the following office:

Head Office Address:

UTS Geophysics
Fauntleroy Avenue, Perth Airport
REDCLIFFE WA 6104

Tel: +61 8 9479 4232
Fax: +61 8 9479 7361

Postal Address:

UTS Geophysics
P.O. Box 126
BELMONT WA 6104

Quoting reference number: A473

APPENDIX A - LOCATED DATA FORMATS

MAGNETIC LOCATED DATA

FIELD	FORMAT	DESCRIPTION	UNITS
1	I6	LINE NUMBER	
2	I5	FLIGHT/AREA NUMBER	AAFF (Area/Flight)
3	I8	DATE	YYMMDD
4	F11.1	TIME	sec
5	I8	FIDUCIAL NUMBER	
6	I3	UTM/AMG ZONE	
7	F10.2	EASTING (AMG84)	metres
8	F11.2	NORTHING (AMG84)	metres
9	F13.7	LATITUDE (WGS84)	degrees
10	F13.7	LONGITUDE (WGS84)	degrees
11	F10.2	EASTING (MGA94)	metres
12	F11.2	NORTHING (MGA94)	metres
13	F7.1	RADAR ALTIMETER HEIGHT	metres
14	F7.1	GPS HEIGHT (WGS84)	metres
15	F7.1	TERRAIN HEIGHT (WGS84)	metres
16	F10.2	RAW MAGNETIC INTENSITY	nT
17	F10.2	DIURNAL CORRECTION	nT
18	F10.2	LEVELLED MAGNETIC INTENSITY	nT
19	F10.2	IGRF CORRECTION	nT
20	F10.2	LEVELLED, IGRF CORRECTED	nT

DIGITAL TERRAIN MODEL LOCATED DATA

FIELD	FORMAT	DESCRIPTION	UNITS
1	I6	LINE NUMBER	
2	I8	FIDUCIAL NUMBER	
3	I3	UTM/AMG ZONE	
4	F10.2	EASTING (AMG84)	metres
5	F11.2	NORTHING (AMG84)	metres
6	F13.7	LATITUDE (WGS84)	degrees
7	F13.7	LONGITUDE (WGS84)	degrees
8	F10.2	EASTING (MGA94)	metres
9	F11.2	NORTHING (MGA94)	metres
10	F7.1	RADAR ALTIMETER HEIGHT	metres
11	F7.1	GPS HEIGHT (WGS84)	metres
12	F7.1	TERRAIN HEIGHT (WGS84)	metres

RADIOMETRIC LOCATED DATA

FIELD FORMAT DESCRIPTION			UNITS
1	I6	LINE NUMBER	
2	I5	FLIGHT/AREA NUMBER	AAFF (Area/Flight)
3	I8	DATE	YYMMDD
4	F11.1	TIME	sec
5	I8	FIDUCIAL NUMBER	
6	I3	UTM/AMG ZONE	
7	F10.2	EASTING (AMG84)	metres
8	F11.2	NORTHING (AMG84)	metres
9	F13.7	LATITUDE (WGS84)	degrees
10	F13.7	LONGITUDE (WGS84)	degrees
11	F10.2	EASTING (MGA94)	metres
12	F11.2	NORTHING (MGA94)	metres
13	F7.1	RADAR ALTIMETER HEIGHT	metres
14	F7.1	GPS HEIGHT (WGS84)	metres
15	I5	LIVE TIME	milli sec
16	F7.1	PRESSURE	hPa
17	F5.1	TEMPERATURE	Degrees Celcius
18	F8.1	TOTAL COUNT (RAW)	Counts/sec
19	F7.1	POTASSIUM (RAW)	Counts/sec
20	F7.1	URANIUM (RAW)	Counts/sec
21	F7.1	THORIUM (RAW)	Counts/sec
22	F7.1	COSMIC (RAW)	Counts/sec
23	F7.1	URANIUM LOW (RAW)	Counts/sec
24	F7.1	URANIUM UP (RAW)	Counts/sec
25	F8.1	TOTAL COUNT (CORRECTED)	Counts/sec
26	F7.1	POTASSIUM (CORRECTED)	Counts/sec
27	F7.1	URANIUM (CORRECTED)	Counts/sec
28	F7.1	THORIUM (CORRECTED)	Counts/sec
29	F7.3	POTASSIUM GRND CONCENTRATION	%
30	F7.3	URANIUM GRND CONCENTRATION	ppm
31	F7.3	THORIUM GRND CONCENTRATION	ppm

GRIDDED DATASET FORMATS

Gridding was performed using a bicubic spline algorithm.

The following grid formats have been provided:

- ER-Mapper format

LINE NUMBER FORMATS

Line numbers are identified with a six digit composite line number and have the following format - ALLLLB, where:

A	Survey area number
LLLL	Survey line number
	0001-8999 reserved for traverse lines
	9001-9999 reserved for tie lines
B	Line attempt number, 0 is attempt 1, 1 is attempt 2 etc..

UTS FILE NAMING FORMATS

Located and gridded data provided by UTS Geophysics uses the following 8 character file naming convention to be compatible with PC DOS based systems.

File names have the following general format - JJJAABB.EEE, where:

JJJJ	UTS Job number
AA	Area number if the survey is broken into blocks
BB	M Magnetic data
	R Radiometric data
	TC Total count data
	K Potassium counts
	U Uranium counts
	Th Thorium counts
	KC Potassium concentration
	UC Uranium concentration
	ThC Thorium concentration
	DT Digital terrain data
EEE	File name extension
	LDT Located digital data file
	FMT Located data format definition file
	ERS Ermapper gridded data header file
	Ermapper data portion has no extension
	GRD Geosoft gridded data file

APPENDIX B - COORDINATE SYSTEM DETAILS

Locations for the survey data are provided in both geographical latitude and longitude and Universal Transverse Mercator metric projection coordinate systems.

WGS84	World Geodetic System 1984
Coordinate Type	Geographical
Semi Major Axis	6378137m
Flattening	1/298.257223563
AMG84	Australian Map Grid 1984
Coordinate Type	Universal Transverse Mercator Projection Grid
Geodetic datum	Australian Geodetic Datum
Semi Major Axis	6378160m
Flattening	1/298.25
MGA94	Map Grid of Australia 1994
Coordinate type	Universal Transverse Mercator Projection Grid
Geodetic datum	Geodetic Datum of Australia
Semi major axis	6378137m
Flattening	1/298.257222101

APPENDIX C - SURVEY BOUNDARY DETAILS

Job ID code: A4730101
Client: SA Iron Ore
Job: Brennard
Coordinate System AMG84, Grid Zone 53
Include Point: 0.0 0.00

Surround

583168.062	6195581.586
583168.062	6195581.586
579162.292	6195581.585
579162.293	6194187.306
579162.293	6194187.306
579162.293	6193499.515
579162.293	6192969.635
579162.293	6192969.635
583168.521	6192969.637
583168.520	6194916.486
583168.520	6194916.486
583168.062	6195581.586

Job ID code: a4730201
Client: SA Iron Ore
Job: Carrow
Coordinate System AMG84, Grid Zone 53
Include Point: 0.0 0.00

Surround

621704.485	6227107.197
621704.485	6227107.197
624317.971	6230838.516
621677.250	6232690.136
619117.269	6228986.332
621704.485	6227107.197

Job ID code: A4730301
Client: SA Iron Ore
Job: Iron Mount
Coordinate System AMG84, Grid Zone 53
Include Point: 0.0 0.00

Surround

594986.881	6200642.604
594986.881	6200642.604
599458.344	6200642.605
599458.344	6202640.211
594986.881	6202640.209
594986.881	6200642.604

Job ID code: A4730401
Client: SA Iron Ore
Job: Koppio
Coordinate System AMG84, Grid Zone 53
Include Point: 0.0 0.00

Surround

579162.293	6194187.306
579162.293	6194187.306
574960.867	6194187.305
574960.867	6191779.849
579162.294	6191779.851
579162.293	6192969.635
579162.293	6192969.635
579162.293	6193499.515
579162.293	6194187.306

Job ID code: A4730501
Client: SA Iron Ore
Job: Bald Hill
Coordinate System AMG84, Grid Zone 53
Include Point: 0.0 0.00

Surround

571960.910	6185577.723
571960.910	6185577.723
573760.078	6185577.724
573760.077	6191583.772
571960.908	6191583.771
571960.910	6185577.723

Job ID code: A4730601
Client: SA Iron Ore
Job: Bald Hill North
Coordinate System AMG84, Grid Zone 53
Include Point: 0.0 0.00

Surround

571465.479	6182147.442
571465.479	6182147.442
572969.500	6182147.442
572969.499	6184654.144
571465.478	6184654.143
571465.479	6182147.442

Job ID code: a4730701
Client: SA Iron Ore
Job: Kooralla
Coordinate System AMG84, Grid Zone 53
Include Point: 0.0 0.00

Surround

685922.857	6270754.984
685922.857	6270754.984
688357.025	6273929.989
686769.523	6275147.072
684335.355	6271972.068
685922.857	6270754.984

Job ID code: a4730801

Client: SA Iron Ore

Job: Oolanta

Coordinate System AMG84, Grid Zone 53

Include Point: 0.0 0.00

Surround

589642.293	6200470.622
589642.293	6200470.622
591573.752	6202798.959
592301.358	6202269.791
593518.441	6203870.523
591573.751	6205444.795
588292.916	6201674.477
589642.293	6200470.622

Job ID code: a4730901

Client: SA Iron Ore

Job: Kapperana

Coordinate System AMG84, Grid Zone 53

Include Point: 0.0 0.00

Surround

583168.062	6195581.586
583168.062	6195581.586
583168.520	6194916.486
583168.520	6194916.486
585771.192	6194916.487
585771.191	6197115.568
584426.463	6197115.567
584426.463	6196602.832
583168.062	6196602.832
583168.062	6195581.586

Job ID code: a4731001

Client: SA Iron Ore

Job: Brennard Infill

Coordinate System AMG84, Grid Zone 53

Include Point: 583140.0 6192969.00

Surround

580712.852	6193388.492
580712.852	6193388.492

582105.474	6193388.492
582105.474	6194689.149
580712.852	6194689.149
580712.852	6193388.492

Job ID code: A4731101
Client: SA Iron Ore
Job: Carrow Infill
Coordinate System AMG84, Grid Zone 53
Include Point: 620005.0 6228342.00

Surround

620741.105	6228828.961
621991.102	6230613.956
622991.099	6229923.958
621721.102	6228138.963

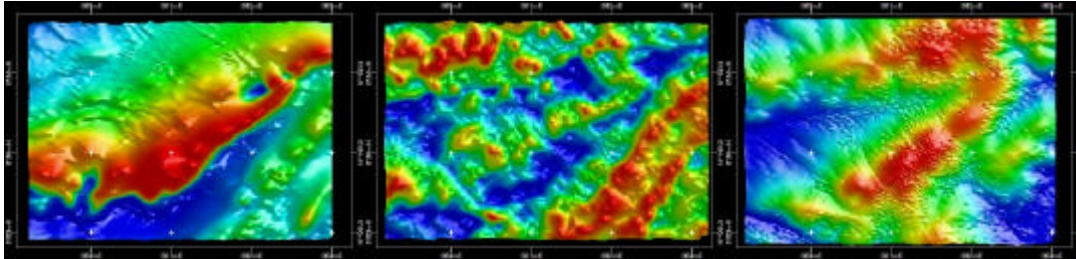
Job ID code: A4371201
Client: SA Iron Ore
Job: Koppio Infill
Coordinate System AMG84, Grid Zone 53
Include Point: 579140.0 6191779.00

Surround

576804.314	6192232.351
576804.314	6192232.351
578807.850	6192232.352
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576804.314	6193835.181
576804.314	6192232.351

APPENDIX D - PROJECT DATA OVERVIEW

Brennard Project

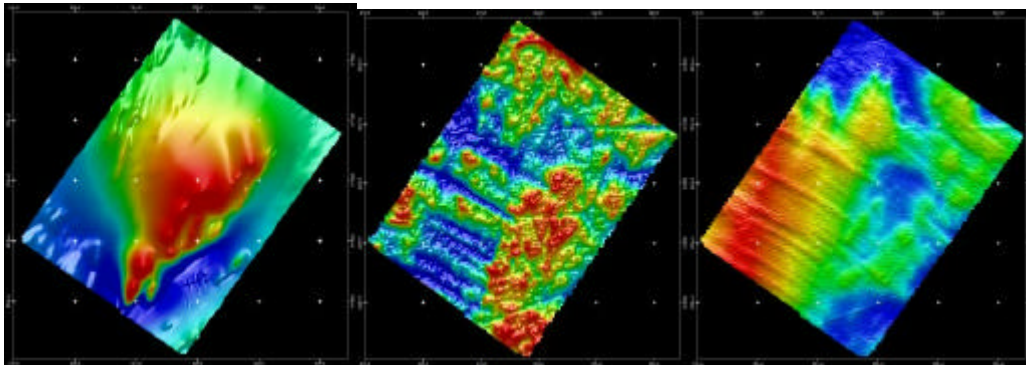


Total Magnetic Intensity

Radiometric Total Count

Digital Terrain Model

Carrow Project

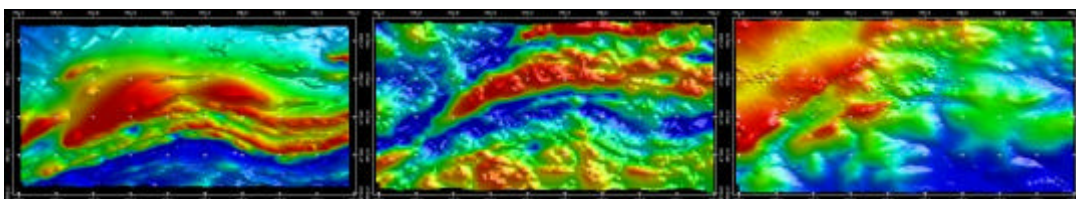


Total Magnetic Intensity

Radiometric Total Count

Digital Terrain Model

Iron Mount Project

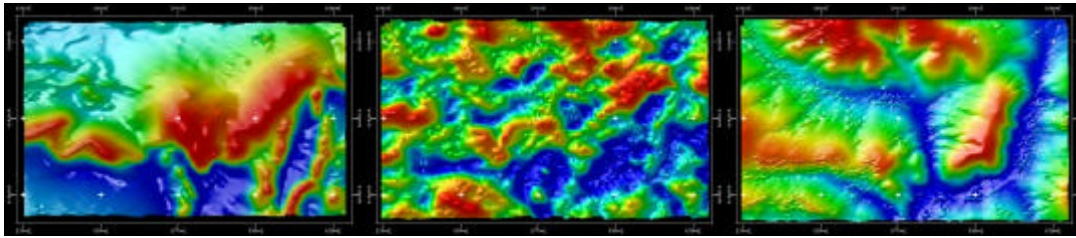


Total Magnetic Intensity

Radiometric Total Count

Digital Terrain Model

Koppio Project

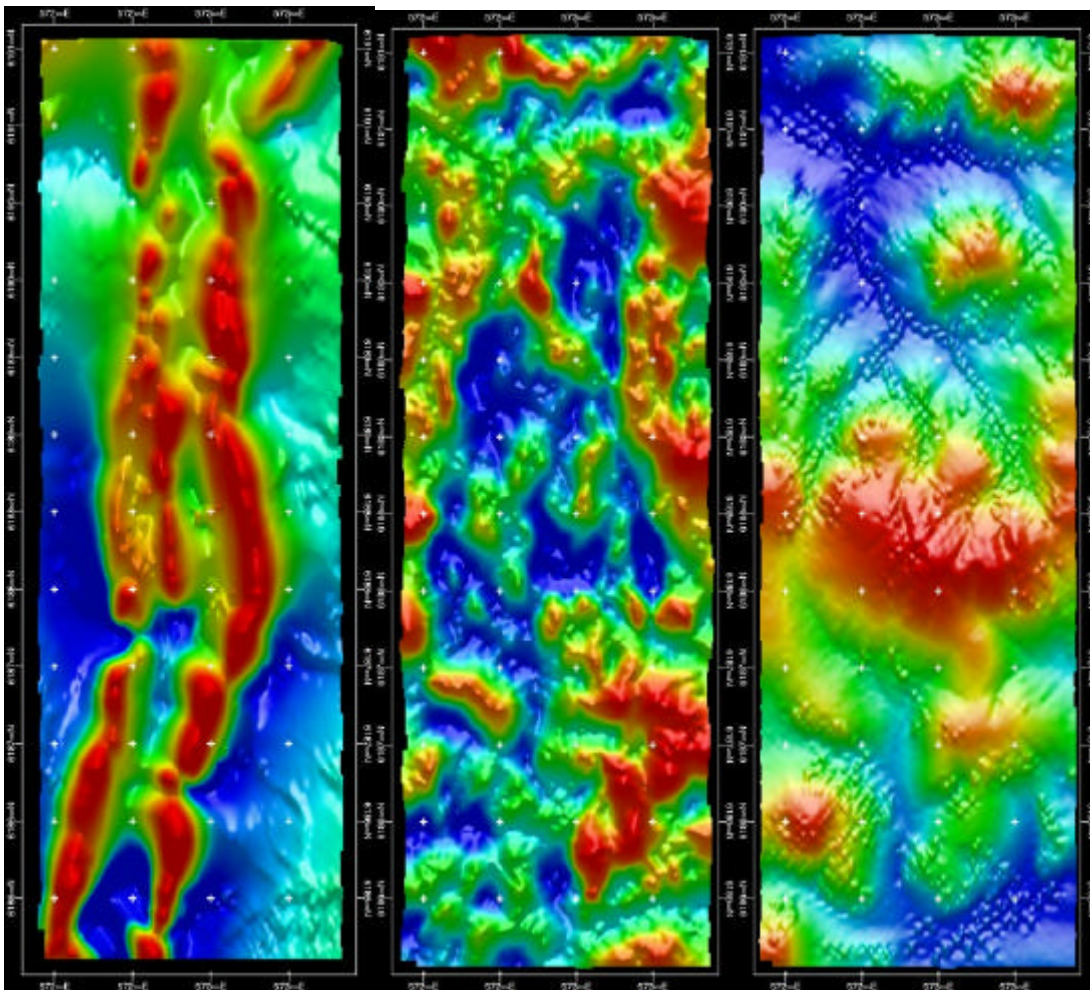


Total Magnetic Intensity

Radiometric Total Count

Digital Terrain Model

Bald Hill Project

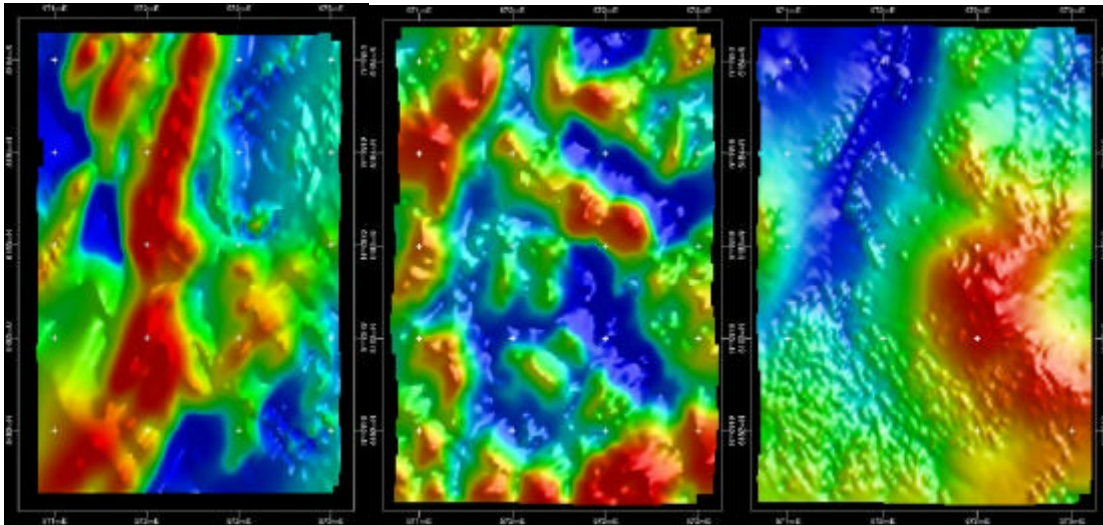


Total Magnetic Intensity

Radiometric Total Count

Digital Terrain Model

Bald Hill North Project

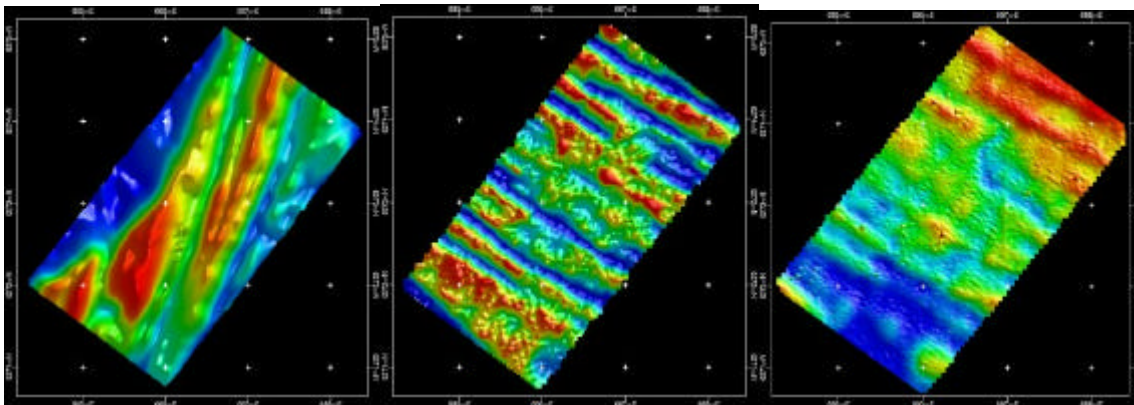


Total Magnetic Intensity

Radiometric Total Count

Digital Terrain Model

Koralla Project

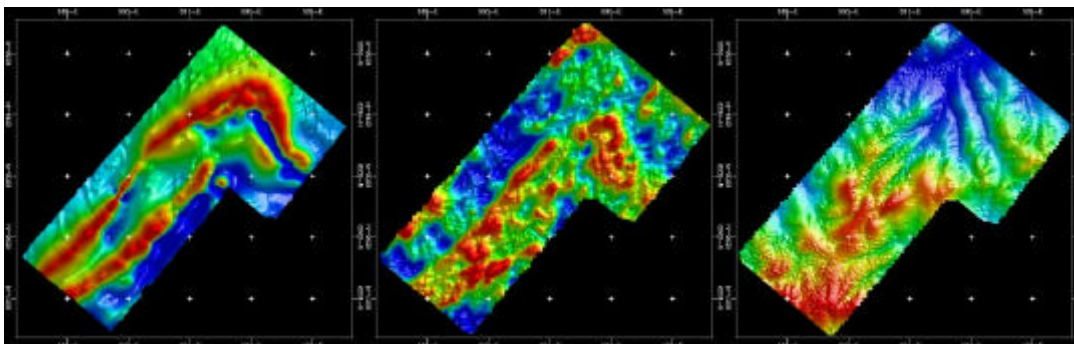


Total Magnetic Intensity

Radiometric Total Count

Digital Terrain Model

Oolanta Project

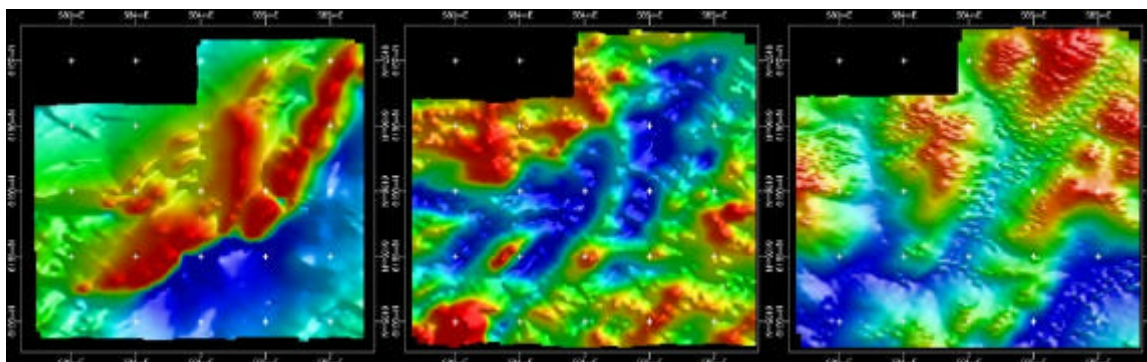


Total Magnetic Intensity

Radiometric Total Count

Digital Terrain Model

Kapperna Project

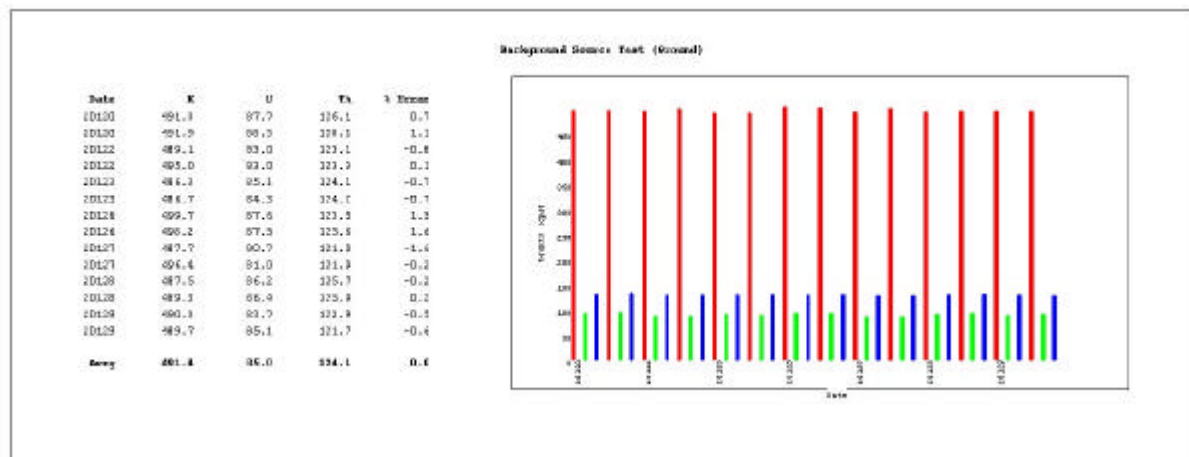
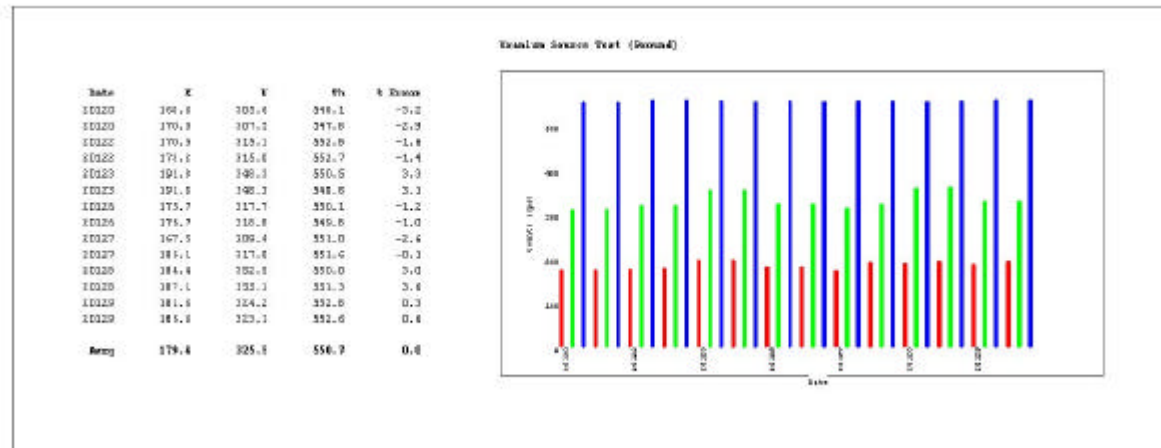
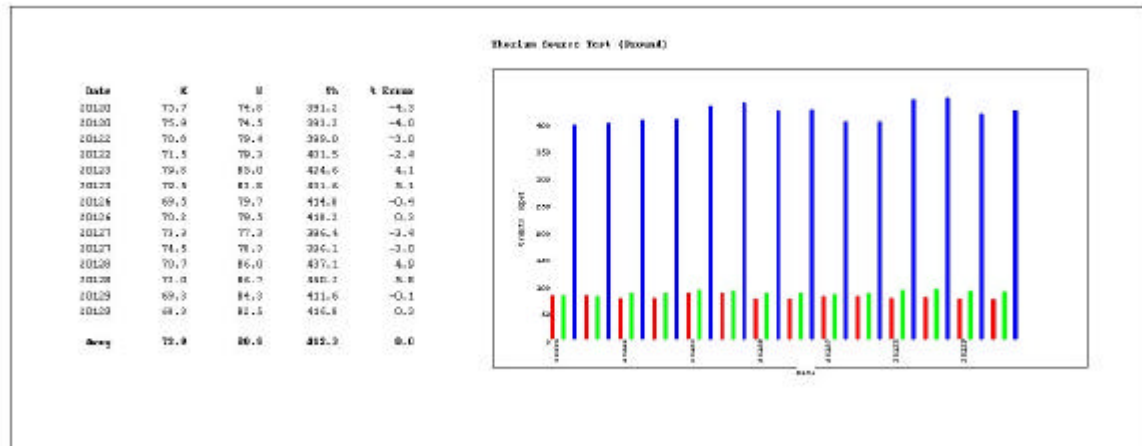


Total Magnetic Intensity

Radiometric Total Count

Digital Terrain Model

APPENDIX E – RADIOMETRIC CALIBRATION RESULTS



APPENDIX F – DATA PROCESSING PARAMETERS

Magnetic Data

Brennard Project

IGRF date - 2002.0684
IGRF mean value - 59465.5 nT
Magnetic inclination - -66.95 deg
Magnetic declination - 6.91 deg
Diurnal base value - 59795 nT

Carrow Project

IGRF date - 2002.068
IGRF mean value - 59268 nT
Magnetic inclination - -66.79 deg
Magnetic declination - 7.06 deg
Diurnal base value - 59795 nT

Iron Mount Project

IGRF date - 2002.068
IGRF mean value - 59419 nT
Magnetic inclination - -66.87 deg
Magnetic declination - 6.98 deg
Diurnal base value - 59795 nT

Koppio Project

IGRF date - 2002.068
IGRF mean value - 59476 nT
Magnetic inclination - -66.97 deg
Magnetic declination - 6.90 deg
Diurnal base value - 59795 nT

Bald Hill Project

IGRF date - 2002.068
IGRF mean value - 59500 nT
Magnetic inclination - -67.01 deg
Magnetic declination - 6.88 deg
Diurnal base value - 59795 nT

Bald Hill North Project

IGRF date - 2002.068
IGRF mean value - 59523 nT
Magnetic inclination - -67.06 deg
Magnetic declination - 6.89 deg
Diurnal base value - 59795 nT

Koralla Project

IGRF date - 2002.068
IGRF mean value - 59005 nT
Magnetic inclination - -66.14deg
Magnetic declination - 7.29 deg
Diurnal base value - 59795 nT

Oolanta Project

IGRF date - 2002.068
IGRF mean value - 59416 nT
Magnetic inclination - -66.87 deg
Magnetic declination - 6.95 deg
Diurnal base value - 59795 nT

Kapperna Project

IGRF date - 2002.068
IGRF mean value - 59454 nT
Magnetic inclination - -66.93 deg
Magnetic declination - 6.93 deg
Diurnal base value - 59795 nT

Radiometric Data

Sensitivity Constants at 40m flying height

Potassium:	232.1 cps/%k
Uranium:	33.0 cps/ppm
Thorium:	9.2 cps/ppm

APPENDIX G – SURVEY KILOMETRE REPORT

LINE KM REPORT FOR a47301m.ltd

LINE	FLT	DATE	START COORDINATE	END COORDINATE	LINE KM
190020	191	020120	579128	6193207	583245
190030	191	020120	583204	6193586	579096
190040	191	020120	579137	6193902	583242
190050	191	020120	583208	6194398	579087
190060	191	020120	579125	6194622	583235
100050	101	020120	583217	6195177	579075
100060	101	020120	582998	6192934	583007
100070	101	020120	582955	6195615	582960
100080	101	020120	582922	6192935	582920
100090	101	020120	582876	6195614	582878
100100	101	020120	582851	6192945	582843
100110	101	020120	582801	6195630	582801
100120	101	020120	582778	6192952	582762
100130	101	020120	582718	6195613	582723
100140	101	020120	582671	6192949	582677
100150	101	020120	582638	6195611	582645
100160	101	020120	582606	6192936	582600
100170	101	020120	582560	6195624	582558
100180	101	020120	582522	6192932	582525
100190	101	020120	582476	6195615	582475
100200	101	020120	582447	6192933	582443
100210	101	020120	582405	6195619	582396
100220	101	020120	582371	6192951	582361
100230	101	020120	582322	6195619	582315
100240	101	020120	582288	6192944	582280
100250	101	020120	582235	6195626	582244
100260	101	020120	582198	6192927	582196
100270	101	020120	582156	6195617	582162
100280	101	020120	582122	6192928	582118
100290	101	020120	582075	6195621	582086
100300	101	020120	582043	6192935	582038
100310	101	020120	582002	6195610	582006
100320	101	020120	581977	6192933	581962
100330	101	020120	581917	6195622	581922
100340	101	020120	581899	6192927	581879
100350	101	020120	581842	6195626	581843
100360	101	020120	581804	6192926	581794
100370	101	020120	581766	6195627	581758
100380	101	020120	581729	6192934	581721
100390	101	020120	581685	6195615	581680
100400	101	020120	581633	6192943	581642
100410	101	020120	581598	6195636	581601
100420	101	020120	581558	6192954	581567
100430	101	020120	581517	6195625	581521
100440	101	020120	581476	6192948	581484
100450	101	020120	581440	6195627	581436
100460	101	020120	581397	6192944	581402
100470	101	020120	581350	6195635	581358
100480	101	020120	581317	6192926	581331
100490	101	020120	581280	6195618	581276
100500	101	020120	581235	6192933	581239
100510	101	020120	581196	6195619	581203
100520	101	020120	581156	6192939	581163
100530	101	020120	581117	6195628	581117
100540	101	020120	581089	6192928	581082
100550	101	020120	581039	6195629	581041
100560	101	020120	581006	6192941	580999

100570	101	020120	580956	6195619	580956	6192899	2.7
100580	101	020120	580914	6192945	580915	6195663	2.7
100590	101	020120	580874	6195621	580884	6192901	2.7
100600	101	020120	580839	6192942	580831	6195644	2.7
100610	101	020120	580804	6195626	580808	6192899	2.7
100620	101	020120	580773	6192951	580756	6195663	2.7
100630	101	020120	580722	6195622	580721	6192883	2.7
100640	101	020120	580694	6192950	580689	6195666	2.7
100650	101	020120	580638	6195614	580638	6192886	2.7
100660	101	020120	580589	6192949	580599	6195639	2.7
100670	101	020120	580563	6195629	580564	6192888	2.7
100680	101	020120	580528	6192955	580517	6195659	2.7
100690	101	020120	580479	6195635	580488	6192899	2.7
100700	101	020120	580462	6192950	580435	6195644	2.7
100710	101	020120	580395	6195625	580413	6192887	2.7
100720	101	020120	580375	6192936	580362	6195655	2.7
100730	101	020120	580318	6195627	580323	6192899	2.7
100740	101	020120	580292	6192949	580281	6195629	2.7
100750	101	020120	580241	6195621	580237	6192897	2.7
100760	101	020120	580200	6192937	580200	6195663	2.7
100770	101	020120	580161	6195619	580163	6192891	2.7
100780	101	020120	580123	6192951	580121	6195645	2.7
100790	101	020120	580076	6195621	580092	6192891	2.7
100800	101	020120	580037	6192944	580047	6195646	2.7
100810	101	020120	580001	6195630	580002	6192890	2.7
100820	101	020120	579957	6192935	579964	6195635	2.7
100830	101	020120	579917	6195628	579925	6192897	2.7
100840	101	020120	579878	6192940	579878	6195663	2.7
100850	101	020120	579840	6195630	579845	6192903	2.7
100860	101	020120	579811	6192941	579807	6195659	2.7
100870	101	020120	579759	6195631	579765	6192890	2.7
100880	101	020120	579731	6192932	579726	6195648	2.7
100890	101	020120	579670	6195617	579666	6192891	2.7
100900	101	020120	579663	6192954	579636	6195645	2.7
100910	101	020120	579602	6195622	579601	6192900	2.7
100920	101	020120	579552	6192953	579560	6195659	2.7
100930	101	020120	579521	6195615	579517	6192903	2.7
100940	101	020120	579485	6192955	579479	6195658	2.7
100950	101	020120	579444	6195622	579442	6192896	2.7
100960	101	020120	579413	6192950	579409	6195663	2.7
100970	101	020120	579365	6195618	579375	6192900	2.7
100980	101	020120	579327	6192938	579327	6195646	2.7
100990	101	020120	579278	6195618	579284	6192884	2.7
101000	101	020120	579227	6192950	579241	6195645	2.7
150010	999	020128	579200	6195619	579202	6192898	2.7
150020	999	020128	582092	6193562	582096	6194771	1.2
150030	999	020128	582057	6194730	582057	6193525	1.2
150040	999	020128	582017	6193559	582022	6194758	1.2
150060	999	020128	581972	6194728	581976	6193515	1.2
150070	999	020128	581895	6194724	581902	6193521	1.2
150080	999	020128	581865	6193576	581858	6194763	1.2
150090	999	020128	581821	6194737	581824	6193516	1.2
150100	999	020128	581778	6193557	581782	6194768	1.2
150110	999	020128	581744	6194710	581744	6193502	1.2
150120	999	020128	581689	6193565	581701	6194773	1.2
150130	999	020128	581662	6194731	581668	6193499	1.2
150140	999	020128	581611	6193552	581616	6194777	1.2
150150	999	020128	581580	6194734	581584	6193522	1.2
150160	999	020128	581539	6193589	581543	6194760	1.2
150170	999	020128	581497	6194726	581503	6193299	1.4
150180	999	020128	581461	6193372	581467	6194771	1.4
150190	999	020128	581423	6194711	581419	6193301	1.4
150210	999	020128	581379	6193359	581391	6194771	1.4
150220	999	020128	581300	6193387	581303	6194757	1.4
150230	999	020128	581258	6194729	581263	6193345	1.4
150240	999	020128	581224	6193174	581213	6194776	1.6

150250	999	020128	581177	6194484	581179	6193116	1.4
150260	999	020128	581141	6193145	581135	6194550	1.4
150270	999	020128	581105	6194513	581098	6193103	1.4
150280	999	020128	581053	6193156	581059	6194565	1.4
150290	999	020128	581018	6194514	581020	6193107	1.4
150300	999	020128	580971	6193148	580981	6194556	1.4
150310	999	020128	580936	6194510	580940	6193115	1.4
150320	999	020128	580885	6193174	580903	6194551	1.4
150330	999	020128	580866	6194521	580862	6193098	1.4
150340	999	020128	580816	6193149	580824	6194560	1.4
150350	999	020128	580777	6194529	580785	6193120	1.4
150360	999	020128	580744	6193160	580745	6194560	1.4
150370	999	020128	580703	6194507	580701	6193103	1.4
150380	999	020128	580661	6193162	580667	6194324	1.2
150390	999	020128	580618	6194288	580623	6193119	1.2
150400	999	020128	580592	6193157	580588	6194358	1.2
150050	999	020129	580537	6194324	580537	6193112	1.2
150200	999	020129	581936	6194720	581936	6193503	1.2
150200	999	020129	581338	6193365	581334	6194768	1.4

TOTALS BY FLIGHT

FLIGHT	LINE KM
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1	261.2
91	24.7
99	52.5
TOTAL	338.4

LINE KM REPORT FOR a47302m.ltd

LINE	FLT	DATE	START COORDINATE	END COORDINATE	LINE KM
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290030	291	020122	619458	6228706	622114 6232486 4.6
290040	291	020122	622406	6232208	619750 6228422 4.6
290050	291	020122	620102	6228238	622763 6232016 4.6
290060	291	020122	623040	6231770	620407 6227965 4.6
290070	291	020122	620741	6227756	623428 6231558 4.7
290080	291	020122	623692	6231335	621048 6227479 4.7
200010	201	020122	621388	6227289	624085 6231111 4.7
200020	201	020122	621734	6227109	620720 6227812 1.2
200030	201	020122	619098	6229000	621804 6227107 3.3
200040	201	020122	621787	6227186	619073 6229072 3.3
200050	201	020122	619128	6229072	621843 6227174 3.3
200060	201	020122	621828	6227242	619134 6229122 3.3
200070	201	020122	619183	6229129	621898 6227234 3.3
200080	201	020122	621877	6227304	619180 6229186 3.3
200090	201	020122	619219	6229206	621936 6227305 3.3
200100	201	020122	621930	6227366	619220 6229263 3.3
200110	201	020122	619278	6229262	621992 6227366 3.3
200120	201	020122	621965	6227433	619268 6229323 3.3
200130	201	020122	619312	6229340	622040 6227430 3.3
200140	201	020122	622015	6227495	619308 6229390 3.3
200150	201	020122	619357	6229398	622076 6227505 3.3
200160	201	020122	622076	6227563	619348 6229458 3.3
200170	201	020122	619395	6229476	622110 6227577 3.3
200180	201	020122	622119	6227627	619402 6229521 3.3
200190	201	020122	619461	6229531	622160 6227639 3.3
200200	201	020122	622159	6227693	619439 6229593 3.3
200210	201	020122	619495	6229602	622211 6227698 3.3
200220	201	020122	622215	6227762	619486 6229653 3.3
200230	201	020122	619533	6229675	622256 6227770 3.3
200240	201	020122	622257	6227820	619543 6229721 3.3
200250	201	020122	619589	6229724	622310 6227825 3.3

200260	201	020122	622289	6227891	619592	6229786	3.3
200270	201	020122	619623	6229803	622358	6227888	3.3
200280	201	020122	622336	6227940	619630	6229855	3.3
200290	201	020122	619680	6229869	622405	6227954	3.3
200300	201	020122	622383	6228022	619670	6229923	3.3
200310	201	020122	619724	6229931	622444	6228027	3.3
200320	201	020122	622421	6228091	619720	6229983	3.3
200330	201	020122	619764	6229999	622480	6228098	3.3
200340	201	020122	622484	6228143	619762	6230056	3.3
200350	201	020122	619808	6230057	622540	6228149	3.3
200360	201	020122	622529	6228213	619812	6230116	3.3
200370	201	020122	619853	6230115	622569	6228232	3.3
200380	201	020122	622563	6228297	619848	6230187	3.3
200390	201	020122	619896	6230191	622628	6228287	3.3
200400	201	020122	622604	6228356	619897	6230252	3.3
200410	201	020122	619953	6230258	622670	6228355	3.3
200420	201	020122	622660	6228407	619943	6230315	3.3
200430	201	020122	620005	6230321	622720	6228420	3.3
200440	201	020122	622707	6228481	619981	6230385	3.3
200450	201	020122	620052	6230386	622760	6228487	3.3
200460	201	020122	622754	6228551	620024	6230451	3.3
200470	201	020122	620088	6230451	622803	6228554	3.3
200480	201	020122	622803	6228600	620084	6230506	3.3
200490	201	020122	620135	6230522	622852	6228613	3.3
200500	201	020122	622849	6228670	620117	6230585	3.3
200510	201	020122	620175	6230590	622905	6228684	3.3
200520	201	020122	622898	6228744	620179	6230639	3.3
200530	201	020122	620232	6230638	622942	6228750	3.3
200540	201	020122	622936	6228806	620223	6230707	3.3
200550	201	020122	620265	6230726	622996	6228813	3.3
200560	201	020122	622981	6228866	620253	6230781	3.3
200570	201	020122	620313	6230780	623047	6228872	3.3
200580	201	020122	623023	6228949	620309	6230841	3.3
200590	201	020122	620365	6230849	623086	6228942	3.3
200600	201	020122	623071	6229016	620343	6230912	3.3
200610	201	020122	620411	6230913	623130	6229012	3.3
200620	201	020122	623118	6229084	620402	6230976	3.3
200630	201	020122	620462	6230974	623183	6229073	3.3
200640	201	020122	623156	6229136	620440	6231044	3.3
200650	201	020122	620498	6231053	623229	6229136	3.3
200660	201	020122	623196	6229197	620498	6231101	3.3
200670	201	020122	620542	6231115	623265	6229211	3.3
200680	201	020122	623243	6229252	620533	6231179	3.3
200690	201	020122	620589	6231179	623320	6229266	3.3
200700	201	020122	623299	6229341	620579	6231242	3.3
200710	201	020122	620633	6231243	623355	6229343	3.3
200720	201	020122	623332	6229407	620618	6231307	3.3
200730	201	020122	620674	6231298	623417	6229398	3.3
200740	201	020122	623384	6229467	620672	6231370	3.3
200750	201	020122	620723	6231365	623446	6229470	3.3
200760	201	020122	623374	6229550	620719	6231438	3.3
200770	201	020122	620786	6231433	623490	6229537	3.3
200780	201	020122	623488	6229593	620757	6231502	3.3
200790	201	020122	620810	6231505	623540	6229603	3.3
200800	201	020122	623528	6229657	620803	6231570	3.3
200810	201	020122	620867	6231567	623591	6229668	3.3
200820	201	020122	623556	6229720	620845	6231636	3.3
200830	201	020122	620919	6231632	623641	6229728	3.3
200840	201	020122	623618	6229798	620896	6231702	3.3
200850	201	020122	620967	6231692	623690	6229789	3.3
200860	201	020122	623661	6229834	620944	6231763	3.3
200870	201	020122	621004	6231769	623717	6229867	3.3
200880	201	020122	623705	6229916	620990	6231832	3.3
200890	201	020122	621056	6231828	623762	6229934	3.3
200900	201	020122	623753	6229996	621045	6231883	3.3
200910	201	020122	621100	6231895	623818	6229989	3.3

200920	201	020122	623790	6230054	621071	6231963	3.3
200930	201	020122	621149	6231962	623864	6230055	3.3
200940	201	020122	623847	6230116	621122	6232031	3.3
200950	201	020122	621186	6232036	623908	6230125	3.3
200960	201	020122	623910	6230189	621169	6232093	3.3
200970	201	020122	621223	6232099	623956	6230187	3.3
200980	201	020122	623864	6230285	621254	6232130	3.2
200990	201	020122	621269	6232186	624004	6230255	3.3
201000	201	020122	623986	6230299	621269	6232214	3.3
201010	201	020122	621317	6232231	624040	6230322	3.3
201020	201	020122	624041	6230377	621313	6232289	3.3
201030	201	020122	621360	6232295	624093	6230387	3.3
201040	201	020122	624085	6230446	621353	6232353	3.3
201050	201	020122	621410	6232353	624137	6230441	3.3
201060	201	020122	624111	6230505	621396	6232424	3.3
201070	201	020122	621450	6232422	624188	6230519	3.3
201080	201	020122	624174	6230565	621434	6232487	3.3
201090	201	020122	621498	6232500	624236	6230576	3.3
201100	201	020122	624228	6230641	621500	6232543	3.3
201110	201	020122	621525	6232553	624279	6230641	3.4
201120	201	020122	624258	6230713	621528	6232624	3.3
201130	201	020122	621599	6232627	624334	6230707	3.3
201140	201	020122	624309	6230763	621574	6232682	3.3
250550	999	020128	621625	6232701	624363	6230784	3.3
250540	999	020128	622993	6229910	621920	6230666	1.3
250530	999	020128	621928	6230610	623024	6229844	1.3
250520	999	020128	622951	6229843	621883	6230599	1.3
250510	999	020128	621894	6230541	622985	6229770	1.3
250500	999	020128	622904	6229776	621837	6230530	1.3
250490	999	020128	621851	6230472	622948	6229705	1.3
250480	999	020128	622868	6229692	621790	6230465	1.3
250470	999	020128	621803	6230408	622898	6229638	1.3
250460	999	020128	622814	6229644	621747	6230395	1.3
250450	999	020128	621756	6230341	622840	6229582	1.3
250440	999	020128	622765	6229569	621698	6230342	1.3
250430	999	020128	621713	6230269	622806	6229502	1.3
250420	999	020128	622721	6229502	621644	6230272	1.3
250410	999	020128	621667	6230209	622757	6229449	1.3
250400	999	020128	622685	6229443	621608	6230203	1.3
250390	999	020128	621615	6230144	622702	6229382	1.3
250380	999	020128	622626	6229384	621556	6230141	1.3
250370	999	020128	621579	6230067	622656	6229317	1.3
250360	999	020128	622591	6229317	621513	6230075	1.3
250350	999	020128	621520	6230017	622608	6229251	1.3
250340	999	020128	622552	6229248	621465	6230009	1.3
250320	999	020128	621485	6229954	622572	6229179	1.3
250310	999	020128	621427	6229886	622509	6229131	1.3
250300	999	020128	622462	6229116	621377	6229880	1.3
250290	999	020128	621375	6229816	622473	6229054	1.3
250280	999	020128	622423	6229063	621332	6229810	1.3
250270	999	020128	621342	6229757	622420	6228996	1.3
250260	999	020128	622361	6228992	621274	6229752	1.3
250250	999	020128	621294	6229682	622386	6228923	1.3
250240	999	020128	622304	6228928	621243	6229679	1.3
250230	999	020128	621244	6229627	622333	6228859	1.3
250220	999	020128	622271	6228864	621190	6229622	1.3
250210	999	020128	621202	6229555	622289	6228794	1.3
250200	999	020128	622216	6228794	621144	6229545	1.3
250190	999	020128	621160	6229493	622233	6228733	1.3
250180	999	020128	622181	6228725	621097	6229484	1.3
250170	999	020128	621121	6229417	622196	6228665	1.3
250160	999	020128	622121	6228663	621046	6229424	1.3
250150	999	020128	621070	6229360	622148	6228599	1.3
250140	999	020128	622087	6228601	621010	6229352	1.3
250120	999	020128	621025	6229294	622114	6228532	1.3
250110	999	020128	620969	6229230	622064	6228462	1.3

250100	999	020128	621985	6228479	620909	6229229	1.3
250090	999	020128	620934	6229158	622012	6228402	1.3
250080	999	020128	621943	6228409	620876	6229154	1.3
250060	999	020128	620874	6229103	621966	6228336	1.3
250050	999	020128	620839	6229024	621926	6228267	1.3
250040	999	020128	621852	6228278	620780	6229027	1.3
250030	999	020128	620785	6228964	621872	6228205	1.3
250020	999	020128	621816	6228205	620736	6228956	1.3
250010	999	020128	620736	6228911	621823	6228144	1.3
250070	999	020129	621752	6228134	620685	6228897	1.3
250130	999	020129	621891	6228342	620822	6229091	1.3
250330	999	020129	620993	6229263	622077	6228501	1.3
250330	999	020129	622509	6229171	621418	6229943	1.3

TOTALS BY FLIGHT

FLIGHT	LINE KM
1	376.3
91	37.1
99	72.7
TOTAL	486.1

LINE KM REPORT FOR a47303m.ltd

LINE	FLT	DATE	START COORDINATE	END COORDINATE	LINE KM
390040	391	020123	599477	6202403	594918
390030	391	020123	594951	6202005	599540
390020	391	020123	599480	6201608	594900
390010	391	020123	594949	6201195	599538
301120	301	020123	599486	6200798	594919
301110	301	020123	594999	6200625	594993
301100	301	020123	595040	6202685	595044
301090	301	020123	595075	6200603	595077
301080	301	020123	595126	6202676	595118
301070	301	020123	595161	6200612	595155
301060	301	020123	595198	6202670	595195
301050	301	020123	595242	6200610	595240
301040	301	020123	595280	6202673	595279
301030	301	020123	595309	6200607	595324
301020	301	020123	595357	6202670	595365
301010	301	020123	595411	6200598	595402
301000	301	020123	595443	6202670	595440
300990	301	020123	595491	6200611	595486
300980	301	020123	595516	6202681	595524
300970	301	020123	595561	6200622	595561
300960	301	020123	595598	6202661	595599
300950	301	020123	595649	6200614	595642
300940	301	020123	595677	6202685	595683
300930	301	020123	595743	6200609	595720
300920	301	020123	595761	6202679	595764
300910	301	020123	595822	6200614	595801
300900	301	020123	595838	6202686	595840
300890	301	020123	595883	6200624	595886
300880	301	020123	595916	6202676	595916
300870	301	020123	595970	6200611	595954
300860	301	020123	595997	6202662	595998
300850	301	020123	596045	6200616	596040
300840	301	020123	596078	6202680	596086
300830	301	020123	596117	6200600	596123
300820	301	020123	596158	6202682	596153
300810	301	020123	596203	6200626	596198
300800	301	020123	596237	6202668	596240
300790	301	020123	596284	6200608	596274

300780	301	020123	596311	6202679	596321	6200574	2.1
300770	301	020123	596340	6200602	596358	6202722	2.1
300760	301	020123	596401	6202683	596401	6200587	2.1
300750	301	020123	596431	6200616	596440	6202701	2.1
300740	301	020123	596481	6202667	596472	6200583	2.1
300730	301	020123	596528	6200601	596521	6202723	2.1
300720	301	020123	596565	6202665	596559	6200577	2.1
300710	301	020123	596608	6200612	596601	6202710	2.1
300700	301	020123	596632	6202680	596641	6200588	2.1
300690	301	020123	596685	6200615	596681	6202703	2.1
300680	301	020123	596718	6202674	596726	6200574	2.1
300670	301	020123	596764	6200624	596759	6202708	2.1
300660	301	020123	596796	6202686	596796	6200578	2.1
300650	301	020123	596843	6200617	596843	6202719	2.1
300640	301	020123	596876	6202670	596874	6200575	2.1
300630	301	020123	596917	6200608	596913	6202713	2.1
300620	301	020123	596961	6202673	596958	6200568	2.1
300610	301	020123	597008	6200605	597000	6202723	2.1
300600	301	020123	597037	6202679	597036	6200577	2.1
300590	301	020123	597071	6200616	597083	6202705	2.1
300580	301	020123	597121	6202678	597120	6200562	2.1
300570	301	020123	597163	6200623	597162	6202699	2.1
300560	301	020123	597198	6202678	597202	6200566	2.1
300550	301	020123	597233	6200613	597236	6202723	2.1
300540	301	020123	597276	6202684	597284	6200580	2.1
300530	301	020123	597316	6200621	597313	6202718	2.1
300520	301	020123	597362	6202673	597358	6200576	2.1
300510	301	020123	597386	6200606	597405	6202714	2.1
300500	301	020123	597443	6202672	597443	6200566	2.1
300490	301	020123	597483	6200614	597468	6202722	2.1
300480	301	020123	597527	6202671	597512	6200575	2.1
300470	301	020123	597559	6200613	597560	6202715	2.1
300460	301	020123	597607	6202687	597598	6200575	2.1
300450	301	020123	597626	6200605	597644	6202701	2.1
300440	301	020123	597682	6202667	597684	6200576	2.1
300430	301	020123	597722	6200610	597711	6202706	2.1
300420	301	020123	597765	6202675	597757	6200577	2.1
300410	301	020123	597805	6200625	597803	6202718	2.1
300400	301	020123	597839	6202664	597838	6200577	2.1
300390	301	020123	597871	6200602	597885	6202723	2.1
300380	301	020123	597920	6202679	597919	6200575	2.1
300370	301	020123	597968	6200615	597960	6202720	2.1
300360	301	020123	598010	6202680	597999	6200562	2.1
300350	301	020123	598044	6200626	598043	6202706	2.1
300340	301	020123	598086	6202688	598078	6200575	2.1
300330	301	020123	598123	6200611	598121	6202724	2.1
300320	301	020123	598155	6202684	598162	6200581	2.1
300310	301	020123	598204	6200603	598202	6202719	2.1
300300	301	020123	598245	6202661	598244	6200586	2.1
300290	301	020123	598285	6200603	598279	6202724	2.1
300280	301	020123	598324	6202680	598316	6200566	2.1
300270	301	020123	598371	6200601	598362	6202720	2.1
300260	301	020123	598392	6202662	598400	6200582	2.1
300250	301	020123	598447	6200624	598439	6202723	2.1
300240	301	020123	598478	6202661	598481	6200576	2.1
300230	301	020123	598511	6200603	598516	6202709	2.1
300220	301	020123	598558	6202674	598555	6200563	2.1
300210	301	020123	598590	6200609	598604	6202721	2.1
300200	301	020123	598636	6202661	598637	6200575	2.1
300190	301	020123	598680	6200622	598680	6202716	2.1
300180	301	020123	598718	6202675	598720	6200571	2.1
300170	301	020123	598761	6200618	598759	6202723	2.1
300160	301	020123	598801	6202663	598804	6200571	2.1
300150	301	020123	598834	6200617	598836	6202706	2.1
300140	301	020123	598879	6202679	598875	6200581	2.1
300130	301	020123	598921	6200619	598921	6202704	2.1

300120	301	020123	598962	6202679	598957	6200572	2.1
300110	301	020123	598990	6200607	599003	6202707	2.1
300100	301	020123	599039	6202655	599038	6200577	2.1
300090	301	020123	599081	6200623	599085	6202709	2.1
300080	301	020123	599118	6202669	599119	6200584	2.1
300070	301	020123	599161	6200619	599164	6202716	2.1
300060	301	020123	599199	6202675	599196	6200579	2.1
300050	301	020123	599234	6200598	599237	6202711	2.1
300040	301	020123	599288	6202668	599286	6200577	2.1
300030	301	020123	599316	6200621	599319	6202708	2.1
300020	301	020123	599357	6202668	599358	6200564	2.1
300010	301	020123	599402	6200609	599406	6202708	2.1
300010	301	020123	599436	6202672	599439	6200568	2.1

TOTALS BY FLIGHT

FLIGHT	LINE KM
1	235.2
91	22.9
TOTAL	258.1

LINE KM REPORT FOR a47304m.ltd

LINE	FLT	DATE	START COORDINATE	END COORDINATE	LINE KM
490020	491	020120	574932	6192000	4.3
490030	491	020120	579193	6192404	4.3
490040	491	020120	574923	6192798	4.3
490050	491	020120	579195	6193207	4.3
490060	491	020120	574932	6193597	4.3
400150	401	020120	578961	6194006	4.1
400160	401	020120	578599	6194223	2.5
400170	401	020120	578557	6191747	2.5
400180	401	020120	578514	6194229	2.5
400190	401	020120	578476	6191748	2.5
400200	401	020120	578442	6194206	2.5
400210	401	020120	578398	6191761	2.5
400220	401	020120	578362	6194222	2.5
400230	401	020120	578320	6191740	2.5
400240	401	020120	578278	6194223	2.5
400250	401	020120	578246	6191756	2.5
400390	401	020120	578198	6194209	2.5
400400	401	020120	577638	6194224	2.5
400800	401	020120	577601	6191763	2.5
400810	401	020120	576008	6191746	2.5
400820	401	020120	575959	6194230	2.5
400830	401	020120	575917	6191746	2.5
400840	401	020120	575875	6194208	2.5
400850	401	020120	575847	6191756	2.5
400860	401	020120	575799	6194225	2.5
400870	401	020120	575771	6191747	2.5
400880	401	020120	575713	6194217	2.5
400890	401	020120	575686	6191760	2.5
400900	401	020120	575633	6194224	2.5
400910	401	020120	575610	6191746	2.5
400920	401	020120	575558	6194232	2.5
400930	401	020120	575522	6191755	2.5
400940	401	020120	575479	6194216	2.5
400950	401	020120	575441	6191760	2.5
400960	401	020120	575389	6194214	2.5
400970	401	020120	575361	6191761	2.5
400980	401	020120	575315	6194219	2.5
400990	401	020120	575284	6191761	2.5
401000	401	020120	575234	6194216	2.5

401010	401	020120	575203	6191741	575204	6194273	2.5
401020	401	020120	575153	6194226	575161	6191709	2.5
401030	401	020120	575124	6191741	575119	6194264	2.5
401040	401	020120	575083	6194221	575083	6191703	2.5
401050	401	020120	575060	6191761	575043	6194250	2.5
400010	402	020127	574996	6194215	574999	6191705	2.5
400020	402	020127	579158	6194208	579164	6191698	2.5
400030	402	020127	579115	6191740	579123	6194259	2.5
400040	402	020127	579077	6194225	579079	6191720	2.5
400050	402	020127	579035	6191750	579045	6194255	2.5
400060	402	020127	579000	6194208	579004	6191699	2.5
400070	402	020127	578964	6191744	578962	6194258	2.5
400080	402	020127	578920	6194213	578916	6191708	2.5
400090	402	020127	578873	6191743	578885	6194262	2.5
400100	402	020127	578843	6194216	578844	6191705	2.5
400110	402	020127	578803	6191744	578797	6194261	2.5
400120	402	020127	578760	6194208	578763	6191696	2.5
400130	402	020127	578717	6191747	578726	6194252	2.5
400140	402	020127	578680	6194212	578684	6191704	2.5
400270	402	020127	578642	6191755	578642	6194245	2.5
400280	402	020127	578120	6194229	578148	6191701	2.5
400290	402	020127	578079	6191764	578074	6194259	2.5
400300	402	020127	578047	6194215	578030	6191713	2.5
400310	402	020127	577994	6191762	577997	6194266	2.5
400320	402	020127	577958	6194229	577951	6191712	2.5
400330	402	020127	577920	6191748	577922	6194252	2.5
400340	402	020127	577880	6194214	577872	6191699	2.5
400350	402	020127	577837	6191770	577842	6194259	2.5
400360	402	020127	577793	6194228	577794	6191706	2.5
400370	402	020127	577758	6191750	577758	6194244	2.5
400380	402	020127	577716	6194216	577726	6191705	2.5
400410	402	020127	577682	6191765	577675	6194257	2.5
400420	402	020127	577561	6194210	577566	6191703	2.5
400430	402	020127	577526	6191765	577521	6194248	2.5
400440	402	020127	577474	6194229	577477	6191711	2.5
400450	402	020127	577431	6191761	577440	6194255	2.5
400260	403	020128	577407	6194211	577410	6191717	2.5
400460	403	020128	578163	6191759	578166	6194249	2.5
400470	403	020128	577356	6194204	577359	6191692	2.5
400480	403	020128	577325	6191763	577320	6194271	2.5
400490	403	020128	577277	6194215	577279	6191712	2.5
400500	403	020128	577242	6191760	577237	6194274	2.5
400510	403	020128	577196	6194207	577199	6191698	2.5
400520	403	020128	577169	6191762	577159	6194258	2.5
400530	403	020128	577114	6194221	577122	6191697	2.5
400540	403	020128	577085	6191763	577082	6194280	2.5
400550	403	020128	577037	6194222	577044	6191696	2.5
400560	403	020128	577005	6191756	577001	6194261	2.5
400570	403	020128	576960	6194202	576955	6191690	2.5
400580	403	020128	576923	6191769	576917	6194260	2.5
400590	403	020128	576873	6194203	576879	6191704	2.5
400600	403	020128	576839	6191762	576838	6194258	2.5
400610	403	020128	576797	6194221	576799	6191710	2.5
400620	403	020128	576757	6191760	576756	6194266	2.5
400630	403	020128	576715	6194197	576720	6191701	2.5
400640	403	020128	576680	6191769	576679	6194272	2.5
400650	403	020128	576635	6194208	576649	6191716	2.5
400660	403	020128	576603	6191748	576597	6194258	2.5
400670	403	020128	576553	6194202	576560	6191689	2.5
400680	403	020128	576522	6191763	576522	6194261	2.5
400690	403	020128	576481	6194209	576484	6191695	2.5
400700	403	020128	576442	6191756	576438	6194263	2.5
400710	403	020128	576399	6194226	576401	6191691	2.5
400720	403	020128	576360	6191771	576352	6194255	2.5
400730	403	020128	576304	6194210	576331	6191699	2.5
400740	403	020128	576284	6191746	576280	6194276	2.5

400750	403	020128	576234	6194223	576242	6191707	2.5
400760	403	020128	576205	6191750	576200	6194262	2.5
400770	403	020128	576160	6194205	576160	6191713	2.5
400780	403	020128	576122	6191745	576118	6194273	2.5
400790	403	020128	576077	6194226	576083	6191708	2.5
450010	999	020128	576054	6191769	576041	6194279	2.5
450020	999	020128	578776	6193860	578783	6192161	1.7
450030	999	020128	578735	6192224	578743	6193919	1.7
450040	999	020128	578698	6193867	578695	6192159	1.7
450050	999	020128	578661	6192220	578665	6193906	1.7
450060	999	020128	578621	6193868	578623	6192165	1.7
450070	999	020128	578572	6192207	578581	6193926	1.7
450080	999	020128	578542	6193876	578537	6192166	1.7
450090	999	020128	578502	6192218	578498	6193908	1.7
450100	999	020128	578459	6193882	578461	6192154	1.7
450110	999	020128	578420	6192197	578424	6193925	1.7
450120	999	020128	578379	6193865	578380	6192159	1.7
450130	999	020128	578342	6192206	578342	6193919	1.7
450140	999	020128	578297	6193875	578303	6192157	1.7
450150	999	020128	578257	6192208	578261	6193905	1.7
450160	999	020128	578220	6193863	578220	6192154	1.7
450170	999	020128	578182	6192199	578186	6193924	1.7
450180	999	020128	578142	6193870	578141	6192154	1.7
450190	999	020128	578105	6192192	578109	6193906	1.7
450200	999	020128	578060	6193880	578060	6192148	1.7
450210	999	020128	578018	6192197	578021	6193918	1.7
450220	999	020128	577984	6193884	577988	6192142	1.7
450230	999	020128	577933	6192197	577943	6193900	1.7
450240	999	020128	577902	6193863	577900	6192148	1.7
450250	999	020128	577863	6192213	577857	6193910	1.7
450260	999	020128	577818	6193885	577820	6192160	1.7
450270	999	020128	577783	6192198	577780	6193901	1.7
450280	999	020128	577741	6193868	577740	6192163	1.7
450290	999	020128	577700	6192208	577701	6193920	1.7
450300	999	020128	577659	6193856	577662	6192164	1.7
450310	999	020128	577625	6192202	577624	6193920	1.7
450330	999	020128	577590	6193864	577581	6192167	1.7
450340	999	020128	577502	6193855	577499	6192165	1.7
450350	999	020128	577456	6192216	577459	6193901	1.7
450360	999	020128	577422	6193869	577424	6192166	1.7
450370	999	020128	577384	6192193	577378	6193907	1.7
450380	999	020128	577342	6193872	577343	6192159	1.7
450390	999	020128	577303	6192205	577297	6193903	1.7
450400	999	020128	577253	6193874	577262	6192151	1.7
450410	999	020128	577224	6192212	577212	6193923	1.7
450420	999	020128	577177	6193858	577181	6192152	1.7
450430	999	020128	577139	6192218	577142	6193915	1.7
450440	999	020128	577097	6193855	577102	6192166	1.7
450450	999	020128	577067	6192213	577066	6193913	1.7
450460	999	020128	577019	6193866	577024	6192144	1.7
450470	999	020128	576987	6192206	576983	6193901	1.7
450480	999	020128	576935	6193862	576945	6192151	1.7
450490	999	020128	576904	6192200	576905	6193914	1.7
450500	999	020128	576866	6193843	576863	6192142	1.7
450321	999	020129	576819	6192207	576825	6193919	1.7
450321	999	020129	577533	6193877	577538	6192147	1.7

TOTALS BY FLIGHT

FLIGHT	LINE KM
1	98.0
2	77.7
3	87.8
91	25.6

99 85.5
TOTAL 374.6

LINE KM REPORT FOR a47305m.ldt

LINE	FLT	DATE	START COORDINATE	END COORDINATE	LINE KM
590020	591	020128	573595	6191622	573604 6185495 6.1
590030	591	020128	573199	6185553	573192 6191646 6.1
590040	591	020128	572819	6191636	572800 6185495 6.1
590050	591	020128	572414	6185553	572399 6191660 6.1
500010	501	020126	572025	6191620	572000 6185505 6.1
500020	501	020126	571917	6185604	573840 6185601 1.9
500030	501	020126	573785	6185634	571872 6185640 1.9
500040	501	020126	571935	6185682	573836 6185683 1.9
500050	501	020126	573788	6185712	571922 6185722 1.9
500060	501	020126	571918	6185760	573825 6185757 1.9
500070	501	020126	573789	6185796	571872 6185795 1.9
500080	501	020126	571929	6185836	573843 6185839 1.9
500090	501	020126	573800	6185879	571878 6185875 1.9
500100	501	020126	571937	6185915	573838 6185914 1.9
500110	501	020126	573795	6185961	571878 6185964 1.9
500120	501	020126	571938	6185999	573848 6185999 1.9
500130	501	020126	573788	6186037	571890 6186044 1.9
500140	501	020126	571922	6186070	573846 6186073 1.9
500150	501	020126	573798	6186117	571884 6186119 1.9
500160	501	020126	571937	6186157	573825 6186155 1.9
500170	501	020126	573798	6186193	571885 6186198 1.9
500180	501	020126	571926	6186228	573826 6186237 1.9
500190	501	020126	573798	6186275	571887 6186280 1.9
500200	501	020126	571942	6186318	573850 6186304 1.9
500210	501	020126	573803	6186357	571880 6186359 1.9
500220	501	020126	571936	6186402	573843 6186400 1.9
500230	501	020126	573806	6186439	571879 6186441 1.9
500240	501	020126	571923	6186483	573842 6186478 1.9
500250	501	020126	573800	6186523	571884 6186515 1.9
500260	501	020126	571938	6186555	573842 6186560 1.9
500270	501	020126	573808	6186601	571887 6186597 1.9
500280	501	020126	571934	6186633	573849 6186640 1.9
500290	501	020126	573794	6186681	571881 6186679 1.9
500300	501	020126	571936	6186726	573841 6186717 1.9
500310	501	020126	573792	6186755	571891 6186759 1.9
500320	501	020126	571928	6186777	573845 6186796 1.9
500330	501	020126	573808	6186839	571883 6186829 1.9
500340	501	020126	571941	6186876	573825 6186872 1.9
500350	501	020126	573806	6186916	571873 6186924 1.9
500360	501	020126	571941	6186956	573840 6186959 1.9
500370	501	020126	573807	6187001	571882 6186999 1.9
500380	501	020126	571931	6187039	573848 6187036 1.9
500390	501	020126	573804	6187078	571886 6187078 1.9
500400	501	020126	571929	6187115	573842 6187120 1.9
500410	501	020126	573810	6187150	571882 6187158 1.9
500420	501	020126	571927	6187201	573845 6187201 1.9
500430	501	020126	573801	6187239	571894 6187240 1.9
500440	501	020126	571920	6187279	573826 6187283 1.9
500450	501	020126	573809	6187312	571877 6187322 1.9
500460	501	020126	571936	6187362	573824 6187363 1.9
500470	501	020126	573790	6187396	571875 6187406 1.9
500480	501	020126	571937	6187441	573827 6187437 1.9
500490	501	020126	573785	6187474	571881 6187479 1.9
500500	501	020126	571933	6187515	573846 6187517 1.9
500510	501	020126	573786	6187556	571880 6187562 1.9
500520	501	020126	571942	6187598	573843 6187597 1.9
500530	501	020126	573791	6187636	571875 6187637 1.9
500540	501	020126	571927	6187657	573838 6187673 1.9
500550	501	020126	573798	6187718	571870 6187721 1.9

500560	501	020126	571935	6187757	573827	6187757	1.9
500570	501	020126	573806	6187808	571870	6187802	1.9
500580	501	020126	571928	6187833	573842	6187839	1.9
500590	501	020126	573804	6187884	571875	6187880	1.9
500600	501	020126	571924	6187933	573848	6187919	1.9
500610	501	020126	573789	6187960	571871	6187957	1.9
500620	501	020126	571931	6188002	573827	6187995	1.9
500630	501	020126	573804	6188043	571883	6188040	1.9
500640	501	020126	571941	6188070	573825	6188077	1.9
500650	501	020126	573790	6188119	571882	6188120	1.9
500660	502	020128	571933	6188146	573847	6188157	1.9
500670	502	020128	573780	6188199	571883	6188198	1.9
500680	502	020128	571946	6188248	573830	6188245	1.9
500690	502	020128	573797	6188286	571887	6188280	1.9
501500	502	020128	571933	6188297	573826	6188320	1.9
501490	502	020128	573802	6191550	571884	6191554	1.9
501480	502	020128	571938	6191510	573837	6191527	1.9
501470	502	020128	573792	6191487	571900	6191481	1.9
501460	502	020128	571932	6191432	573839	6191443	1.9
501450	502	020128	573810	6191405	571882	6191404	1.9
501440	502	020128	571947	6191368	573815	6191353	1.9
501430	502	020128	573699	6191340	571884	6191319	1.8
501420	502	020128	571949	6191277	573836	6191281	1.9
501410	502	020128	573801	6191245	571906	6191245	1.9
501400	502	020128	571935	6191200	573821	6191204	1.9
501390	502	020128	573802	6191162	571883	6191161	1.9
501380	502	020128	571947	6191132	573821	6191122	1.9
501370	502	020128	573786	6191082	571880	6191081	1.9
501360	502	020128	571932	6191033	573833	6191036	1.9
501350	502	020128	573782	6190999	571896	6191002	1.9
501340	502	020128	571941	6190965	573825	6190963	1.9
501330	502	020128	573802	6190921	571894	6190922	1.9
501320	502	020128	571937	6190880	573816	6190883	1.9
501310	502	020128	573804	6190838	571903	6190839	1.9
501300	502	020128	571946	6190797	573826	6190801	1.9
501290	502	020128	573785	6190765	571900	6190766	1.9
501270	502	020128	571938	6190724	573816	6190726	1.9
501260	502	020128	573797	6190645	571877	6190643	1.9
501250	502	020128	571931	6190603	573820	6190596	1.9
501240	502	020128	573784	6190563	571877	6190565	1.9
501230	502	020128	571917	6190520	573823	6190523	1.9
501220	502	020128	573787	6190488	571895	6190487	1.9
501210	502	020128	571941	6190438	573826	6190443	1.9
501200	502	020128	573787	6190406	571892	6190404	1.9
501190	502	020128	571933	6190363	573820	6190364	1.9
501180	502	020128	573800	6190323	571887	6190325	1.9
501170	502	020128	571933	6190287	573824	6190276	1.9
501160	502	020128	573801	6190238	571891	6190244	1.9
501150	502	020128	571942	6190207	573819	6190194	1.9
501140	502	020128	573804	6190155	571892	6190163	1.9
501130	502	020128	571937	6190115	573818	6190123	1.9
501120	502	020128	573808	6190080	571887	6190079	1.9
501110	502	020128	571944	6190033	573835	6190046	1.9
501100	502	020128	573794	6190005	571893	6190002	1.9
501090	502	020128	571924	6189952	573842	6189964	1.9
501080	502	020128	573796	6189926	571884	6189922	1.9
501070	502	020128	571923	6189882	573820	6189881	1.9
501060	502	020128	573785	6189844	571889	6189846	1.9
501050	502	020128	571936	6189799	573838	6189793	1.9
501040	502	020128	573799	6189758	571882	6189759	1.9
501030	502	020128	571937	6189719	573837	6189719	1.9
501020	502	020128	573795	6189683	571878	6189688	1.9
501010	502	020128	571918	6189640	573825	6189638	1.9
501000	502	020128	573792	6189601	571900	6189604	1.9
500990	502	020128	571929	6189568	573820	6189562	1.9
500980	502	020128	573789	6189513	571890	6189519	1.9

500970	502	020128	571928	6189476	573821	6189487	1.9
500960	502	020128	573780	6189448	571876	6189443	1.9
500950	502	020128	571939	6189409	573827	6189399	1.9
500940	502	020128	573807	6189360	571877	6189358	1.9
500930	502	020128	572004	6189328	573832	6189322	1.8
500920	502	020128	573798	6189282	571888	6189276	1.9
500910	502	020128	571925	6189244	573831	6189246	1.9
500900	502	020128	573784	6189198	571876	6189202	1.9
500890	502	020128	571928	6189165	573816	6189162	1.9
500880	502	020128	573799	6189118	571886	6189120	1.9
500870	502	020128	571934	6189079	573842	6189087	1.9
500860	502	020128	573804	6189040	571879	6189045	1.9
500850	502	020128	571935	6188996	573819	6189003	1.9
500840	502	020128	573801	6188953	571903	6188961	1.9
500830	502	020128	571924	6188916	573838	6188924	1.9
500820	502	020128	573796	6188877	571885	6188883	1.9
500810	502	020128	571944	6188853	573839	6188847	1.9
500800	502	020128	573802	6188805	571896	6188788	1.9
500790	502	020128	572001	6188759	573802	6188764	1.8
500780	502	020128	573794	6188721	571890	6188724	1.9
500770	502	020128	572128	6188673	573826	6188675	1.7
500760	502	020128	573789	6188642	571901	6188641	1.9
500750	502	020128	571931	6188597	573832	6188597	1.9
500740	502	020128	573807	6188551	571896	6188554	1.9
500730	502	020128	571928	6188521	573818	6188525	1.9
500720	502	020128	573785	6188482	571899	6188474	1.9
500710	502	020128	571926	6188439	573837	6188453	1.9
500700	502	020128	573786	6188398	571880	6188393	1.9
501280	503	020129	571936	6188359	573819	6188367	1.9
501280	503	020129	571928	6190683	573835	6190686	1.9

TOTALS BY FLIGHT

FLIGHT	LINE KM
1	124.2
2	159.1
3	1.9
91	30.6
TOTAL	315.9

LINE KM REPORT FOR a47306m.ltd

LINE	FLT	DATE	START COORDINATE	END COORDINATE	LINE KM		
690020	691	020126	572800	6182113	572797	6184731	2.6
690030	691	020126	572393	6184692	572397	6182087	2.6
690040	691	020126	572006	6182104	572007	6184733	2.6
600010	601	020126	571585	6184675	571602	6182084	2.6
600020	601	020126	573012	6182157	571384	6182161	1.6
600030	601	020126	571440	6182197	573041	6182201	1.6
600040	601	020126	573013	6182240	571392	6182242	1.6
600050	601	020126	571433	6182282	573050	6182276	1.6
600060	601	020126	573016	6182321	571381	6182316	1.6
600070	601	020126	571434	6182360	573054	6182360	1.6
600080	601	020126	572997	6182388	571395	6182404	1.6
600090	601	020126	571439	6182438	573061	6182442	1.6
600100	601	020126	572997	6182476	571389	6182474	1.6
600110	601	020126	571447	6182522	573053	6182518	1.6
600120	601	020126	572994	6182552	571389	6182562	1.6
600130	601	020126	571436	6182604	573040	6182595	1.6
600140	601	020126	572999	6182633	571386	6182632	1.6
600150	601	020126	571450	6182676	573048	6182678	1.6
600160	601	020126	573008	6182713	571392	6182715	1.6
600170	601	020126	571428	6182766	573055	6182762	1.6

600180	601	020126	573013	6182797	571390	6182804	1.6
600190	601	020126	571439	6182840	573048	6182840	1.6
600200	601	020126	572999	6182872	571375	6182874	1.6
600210	601	020126	571437	6182916	573056	6182919	1.6
600220	601	020126	573011	6182958	571382	6182960	1.6
600230	601	020126	571452	6182998	573044	6182996	1.6
600240	601	020126	572997	6183036	571389	6183028	1.6
600250	601	020126	571451	6183070	573039	6183074	1.6
600260	601	020126	573002	6183118	571388	6183115	1.6
600270	601	020126	571449	6183156	573046	6183152	1.6
600280	601	020126	573010	6183207	571377	6183200	1.6
600290	601	020126	571427	6183232	573037	6183235	1.6
600300	601	020126	573013	6183278	571387	6183268	1.6
600310	601	020126	571452	6183315	573043	6183313	1.6
600320	601	020126	572996	6183360	571387	6183356	1.6
600330	601	020126	571447	6183400	573039	6183401	1.6
600340	601	020126	573001	6183448	571378	6183440	1.6
600350	601	020126	571431	6183476	573063	6183473	1.6
600360	601	020126	573018	6183524	571391	6183514	1.6
600370	601	020126	571425	6183570	573043	6183561	1.6
600380	601	020126	573012	6183598	571394	6183602	1.6
600390	601	020126	571439	6183637	573049	6183633	1.6
600400	601	020126	573008	6183681	571377	6183681	1.6
600410	601	020126	571437	6183716	573046	6183717	1.6
600420	601	020126	573000	6183769	571383	6183755	1.6
600430	601	020126	571445	6183791	573053	6183806	1.6
600440	601	020126	573017	6183840	571376	6183829	1.6
600450	601	020126	571432	6183878	573050	6183892	1.6
600460	601	020126	573018	6183924	571392	6183919	1.6
600470	601	020126	571441	6183958	573037	6183959	1.6
600480	601	020126	572999	6184004	571422	6183998	1.6
600490	601	020126	571436	6184034	573062	6184039	1.6
600500	601	020126	573011	6184084	571388	6184076	1.6
600510	601	020126	571426	6184108	573048	6184124	1.6
600520	601	020126	572999	6184164	571395	6184162	1.6
600530	601	020126	571446	6184199	573056	6184202	1.6
600540	601	020126	573011	6184236	571389	6184242	1.6
600550	601	020126	571424	6184276	573055	6184272	1.6
600560	601	020126	573001	6184322	571384	6184329	1.6
600570	601	020126	571450	6184362	573049	6184349	1.6
600580	601	020126	573005	6184387	571388	6184400	1.6
600590	601	020126	571445	6184440	573058	6184436	1.6
600600	601	020126	572998	6184482	571391	6184487	1.6
600610	601	020126	571449	6184523	573051	6184524	1.6
600620	601	020126	573014	6184563	571376	6184565	1.6
600630	601	020126	571443	6184594	573051	6184599	1.6
600630	601	020126	572999	6184639	571395	6184637	1.6

TOTALS BY FLIGHT

FLIGHT	LINE KM
1	101.7
91	10.4
TOTAL	112.1

LINE KM REPORT FOR a47307m.ltd

LINE	FLT	DATE	START COORDINATE	END COORDINATE	LINE KM
790020	791	020129	684600	6271730	4.1
790030	791	020129	687365	6274735	4.1
790040	791	020129	685233	6271237	4.1
790050	791	020129	688004	6274259	4.1
701000	601	020129	685864	6270761	4.1

700990	601	020129	688364	6273924	686698	6275173	2.1
700980	601	020129	686702	6275108	688399	6273838	2.1
700970	601	020129	688327	6273861	686650	6275120	2.1
700960	601	020129	686660	6275046	688346	6273781	2.1
700950	601	020129	688270	6273787	686603	6275048	2.1
700940	601	020129	686602	6274990	688289	6273721	2.1
700930	601	020129	688226	6273720	686547	6274988	2.1
700920	601	020129	686558	6274933	688240	6273656	2.1
700910	601	020129	688173	6273662	686487	6274929	2.1
700900	601	020129	686498	6274871	688188	6273593	2.1
700890	601	020129	688136	6273601	686441	6274862	2.1
700880	601	020129	686455	6274807	688147	6273528	2.1
700870	601	020129	688075	6273538	686402	6274792	2.1
700860	601	020129	686419	6274730	688089	6273468	2.1
700850	601	020129	688037	6273458	686345	6274735	2.1
700840	601	020129	686364	6274671	688054	6273399	2.1
700830	601	020129	687987	6273407	686293	6274677	2.1
700820	601	020129	686305	6274619	688000	6273335	2.1
700810	601	020129	687932	6273341	686263	6274598	2.1
700800	601	020129	686262	6274553	687958	6273276	2.1
700790	601	020129	687895	6273280	686204	6274545	2.1
700780	601	020129	686211	6274483	687902	6273207	2.1
700770	601	020129	687843	6273211	686148	6274484	2.1
700760	601	020129	686176	6274434	687852	6273155	2.1
700750	601	020129	687782	6273158	686110	6274413	2.1
700740	601	020129	686120	6274355	687798	6273086	2.1
700730	601	020129	687751	6273085	686057	6274353	2.1
700720	601	020129	686070	6274291	687755	6273023	2.1
700710	601	020129	687698	6273017	686016	6274281	2.1
700700	601	020129	686028	6274228	687711	6272954	2.1
700690	601	020129	687636	6272941	685955	6274227	2.1
700680	601	020129	685972	6274163	687667	6272887	2.1
700670	601	020129	687600	6272893	685923	6274155	2.1
700660	601	020129	685929	6274094	687602	6272833	2.1
700650	601	020129	687547	6272842	685877	6274089	2.1
700640	601	020129	685883	6274030	687575	6272757	2.1
700630	601	020129	687504	6272775	685827	6274023	2.1
700620	601	020129	685829	6273966	687526	6272698	2.1
700610	601	020129	687460	6272702	685762	6273976	2.1
700600	601	020129	685768	6273915	687470	6272637	2.1
700590	601	020129	687405	6272637	685714	6273911	2.1
700580	601	020129	685719	6273854	687426	6272570	2.1
700570	601	020129	687356	6272578	685662	6273848	2.1
700560	601	020129	685679	6273776	687366	6272511	2.1
700550	601	020129	687313	6272510	685624	6273779	2.1
700540	601	020129	685631	6273713	687315	6272451	2.1
700530	601	020129	687262	6272448	685572	6273714	2.1
700520	601	020129	685573	6273660	687272	6272387	2.1
700510	601	020129	687209	6272395	685536	6273649	2.1
700500	601	020129	685538	6273587	687220	6272323	2.1
700490	601	020129	687166	6272313	685472	6273593	2.1
700480	601	020129	685482	6273529	687168	6272263	2.1
700470	601	020129	687108	6272256	685421	6273534	2.1
700460	601	020129	685440	6273469	687119	6272203	2.1
700450	601	020129	687059	6272193	685371	6273474	2.1
700440	601	020129	685379	6273406	687085	6272126	2.1
700430	601	020129	687004	6272139	685327	6273401	2.1
700420	601	020129	685336	6273342	687032	6272064	2.1
700410	601	020129	686951	6272075	685291	6273327	2.1
700400	601	020129	685294	6273263	686981	6272003	2.1
700390	601	020129	686921	6272002	685230	6273281	2.1
700380	601	020129	685239	6273210	686943	6271934	2.1
700370	601	020129	686860	6271944	685187	6273205	2.1
700360	601	020129	685190	6273148	686886	6271872	2.1
700350	601	020129	686832	6271882	685125	6273148	2.1
700340	601	020129	685141	6273075	686839	6271807	2.1

700330	601	020129	686774	6271824	685080	6273086	2.1
700320	601	020129	685092	6273026	686793	6271739	2.1
700310	601	020129	686715	6271752	685048	6273012	2.1
700300	601	020129	685053	6272954	686745	6271675	2.1
700290	601	020129	686685	6271681	684987	6272953	2.1
700280	601	020129	684996	6272892	686682	6271625	2.1
700270	601	020129	686617	6271631	684942	6272889	2.1
700260	601	020129	684945	6272837	686640	6271563	2.1
700250	601	020129	686574	6271561	684883	6272835	2.1
700240	601	020129	684898	6272769	686587	6271498	2.1
700230	601	020129	686512	6271503	684849	6272758	2.1
700220	601	020129	684844	6272708	686551	6271428	2.1
700210	601	020129	686485	6271428	684797	6272695	2.1
700200	601	020129	684804	6272641	686492	6271372	2.1
700190	601	020129	686431	6271367	684756	6272630	2.1
700180	601	020129	684752	6272578	686443	6271307	2.1
700170	601	020129	686388	6271311	684703	6272571	2.1
700160	601	020129	684716	6272506	686387	6271249	2.1
700150	601	020129	686328	6271250	684646	6272511	2.1
700140	601	020129	684655	6272452	686340	6271186	2.1
700130	601	020129	686279	6271173	684604	6272440	2.1
700120	601	020129	684616	6272378	686306	6271104	2.1
700110	601	020129	686225	6271116	684557	6272379	2.1
700100	601	020129	684558	6272321	686249	6271052	2.1
700090	601	020129	686177	6271054	684510	6272316	2.1
700080	601	020129	684503	6272265	686208	6270984	2.1
700070	601	020129	686147	6270979	684444	6272263	2.1
700060	601	020129	684470	6272190	686160	6270915	2.1
700050	601	020129	686080	6270939	684407	6272189	2.1
700040	601	020129	684407	6272140	686104	6270858	2.1
700030	601	020129	686036	6270858	684364	6272125	2.1
700020	601	020129	684369	6272063	686053	6270799	2.1
700010	601	020129	685992	6270807	684299	6272074	2.1
700010	601	020129	684313	6272014	685997	6270741	2.1

TOTALS BY FLIGHT

FLIGHT	LINE KM
1	211.1
91	20.6
TOTAL	231.6

LINE KM REPORT FOR a47308m.ltd

LINE	FLT	DATE	START COORDINATE	END COORDINATE	LINE KM
890020	891	020122	591614	6205451	5.1
890030	891	020122	588648	6201314	5.1
890040	891	020122	592225	6204966	5.2
890050	891	020122	589250	6200780	5.2
890060	891	020122	592844	6204467	5.2
890070	891	020122	591821	6202610	2.1
800010	801	020122	593478	6203942	2.1
800020	801	020122	588251	6201680	1.9
800030	801	020122	589695	6200513	1.9
800040	801	020122	588308	6201725	1.9
800050	801	020122	589757	6200555	1.9
800060	801	020122	588357	6201799	1.9
800070	801	020122	589817	6200630	1.9
800080	801	020122	588408	6201853	1.9
800090	801	020122	589862	6200690	1.9
800100	801	020122	588456	6201920	1.9
800110	801	020122	589904	6200749	1.9
800120	801	020122	588510	6201984	1.9

800130	801	020122	589973	6200814	588507	6202047	1.9
800140	801	020122	588566	6202043	590013	6200792	1.9
800150	801	020122	590013	6200893	588562	6202103	1.9
800160	801	020122	588613	6202102	590067	6200872	1.9
800170	801	020122	590011	6201005	588622	6202158	1.8
800180	801	020122	588666	6202161	590129	6200931	1.9
800190	801	020122	590121	6201002	588672	6202224	1.9
800200	801	020122	588729	6202214	590185	6200990	1.9
800210	801	020122	590153	6201075	588734	6202270	1.9
800220	801	020122	588780	6202270	590236	6201050	1.9
800230	801	020122	590218	6201125	588760	6202346	1.9
800240	801	020122	588828	6202342	590232	6201148	1.8
800250	801	020122	590264	6201182	588825	6202406	1.9
800260	801	020122	588881	6202394	590329	6201179	1.9
800270	801	020122	590308	6201262	588884	6202449	1.9
800280	801	020122	588932	6202451	590381	6201245	1.9
800290	801	020122	590364	6201305	588917	6202525	1.9
800300	801	020122	588995	6202513	590438	6201297	1.9
800310	801	020122	590418	6201365	588983	6202572	1.9
800320	801	020122	589041	6202574	590491	6201356	1.9
800330	801	020122	590464	6201440	589038	6202633	1.9
800340	801	020122	589097	6202636	590544	6201422	1.9
800350	801	020122	590528	6201496	589099	6202703	1.9
800360	801	020122	589139	6202709	590583	6201496	1.9
800370	801	020122	590574	6201562	589132	6202766	1.9
800380	801	020122	589185	6202766	590637	6201541	1.9
800390	801	020122	590619	6201626	589186	6202827	1.9
800400	801	020122	589244	6202835	590698	6201606	1.9
800410	801	020122	590688	6201683	589242	6202889	1.9
800420	801	020122	589295	6202892	590746	6201676	1.9
800430	801	020122	590723	6201741	589285	6202944	1.9
800440	801	020122	589340	6202942	590786	6201735	1.9
800450	801	020122	590780	6201805	589338	6203008	1.9
800460	801	020122	589406	6203002	590843	6201792	1.9
800470	801	020122	590821	6201881	589412	6203051	1.8
800480	801	020122	589454	6203069	590891	6201868	1.9
800490	801	020122	590786	6201984	589453	6203126	1.8
800500	801	020122	589516	6203121	590943	6201925	1.9
800510	801	020122	590909	6201985	589503	6203183	1.8
800520	801	020122	589557	6203187	590988	6201990	1.9
800530	801	020122	590959	6202065	589562	6203240	1.8
800540	801	020122	589609	6203244	591061	6202041	1.9
800550	801	020122	590964	6202164	589612	6203300	1.8
800560	801	020122	589674	6203303	591093	6202103	1.9
800570	801	020122	591074	6202180	589659	6203376	1.9
800580	801	020122	589724	6203362	591159	6202164	1.9
800590	801	020122	591132	6202233	589719	6203424	1.8
800600	801	020122	589769	6203429	591206	6202226	1.9
800610	801	020122	591182	6202293	589765	6203495	1.9
800620	801	020122	589819	6203492	591260	6202287	1.9
800630	801	020122	591241	6202347	589830	6203544	1.9
800640	801	020122	589874	6203554	591306	6202350	1.9
800650	801	020122	591280	6202415	589870	6203599	1.8
800660	801	020122	589938	6203606	591353	6202410	1.9
800670	801	020122	591322	6202489	589931	6203664	1.8
800680	801	020122	589997	6203661	591397	6202480	1.8
800690	801	020122	591375	6202553	589992	6203717	1.8
800700	801	020122	590048	6203723	591449	6202543	1.8
800710	801	020122	591428	6202588	590027	6203796	1.9
800720	801	020122	590096	6203788	591510	6202596	1.9
800730	801	020122	591480	6202659	590091	6203846	1.8
800740	801	020122	590137	6203851	591565	6202649	1.9
800750	801	020122	591509	6202740	590152	6203904	1.8
800760	801	020122	590198	6203901	591580	6202745	1.8
800770	801	020122	591559	6202815	590189	6203969	1.8
800780	801	020122	590247	6203974	592229	6202308	2.6

800790	801	020122	592278	6202310	590244	6204025	2.7
800800	801	020122	590301	6204024	592395	6202270	2.7
800810	801	020122	592374	6202338	590298	6204097	2.7
800820	801	020122	590344	6204095	592438	6202340	2.7
800830	801	020122	592422	6202406	590352	6204143	2.7
800840	801	020122	590410	6204146	592506	6202392	2.7
800850	801	020122	592466	6202463	590391	6204220	2.7
800860	801	020122	590451	6204220	592546	6202456	2.7
800870	801	020122	592520	6202550	590462	6204267	2.7
800880	801	020122	590504	6204275	592590	6202530	2.7
800890	801	020122	592585	6202590	590500	6204336	2.7
800900	801	020122	590554	6204337	592647	6202581	2.7
800910	801	020122	592636	6202662	590576	6204390	2.7
800920	801	020122	590616	6204388	592694	6202646	2.7
800930	801	020122	592685	6202720	590608	6204458	2.7
800940	801	020122	590668	6204447	592730	6202723	2.7
800950	801	020122	592713	6202798	590665	6204517	2.7
800960	801	020122	590715	6204507	592780	6202787	2.7
800970	801	020122	592769	6202837	590707	6204578	2.7
800980	801	020122	590765	6204575	592823	6202843	2.7
800990	801	020122	592817	6202919	590774	6204627	2.7
801000	801	020122	590843	6204623	592876	6202906	2.7
801010	801	020122	592873	6202971	590813	6204696	2.7
801020	801	020122	590878	6204690	592925	6202975	2.7
801030	801	020122	592919	6203036	590869	6204757	2.7
801040	801	020122	590943	6204746	592977	6203038	2.7
801050	801	020122	592972	6203109	590935	6204814	2.7
801060	801	020122	590985	6204814	593032	6203098	2.7
801070	801	020122	593012	6203171	590975	6204877	2.7
801080	801	020122	591033	6204882	593089	6203155	2.7
801090	801	020122	593066	6203233	591030	6204935	2.7
801100	801	020122	591082	6204941	593125	6203230	2.7
801110	801	020122	593106	6203295	591067	6205000	2.7
801120	801	020122	591139	6204993	593173	6203284	2.7
801130	801	020122	593149	6203362	591130	6205063	2.6
801140	801	020122	591184	6205058	593218	6203358	2.7
801150	801	020122	593206	6203431	591197	6205107	2.6
801160	801	020122	591240	6205127	593267	6203418	2.7
801170	801	020122	593259	6203502	591228	6205182	2.6
801180	801	020122	591294	6205177	593326	6203477	2.6
801190	801	020122	593291	6203555	591301	6205227	2.6
801200	801	020122	591346	6205244	593374	6203543	2.6
801210	801	020122	593341	6203624	591353	6205291	2.6
801220	801	020122	591401	6205308	593418	6203606	2.6
801230	801	020122	593383	6203694	591390	6205366	2.6
801240	801	020122	591460	6205358	593460	6203676	2.6
801250	801	020122	593448	6203743	591447	6205413	2.6
801260	801	020122	591514	6205414	593525	6203726	2.6
801270	801	020122	593500	6203822	591505	6205474	2.6
801270	801	020122	591568	6205472	593564	6203795	2.6

TOTALS BY FLIGHT

FLIGHT	LINE KM
1	278.2
91	30.0
TOTAL	308.2

LINE KM REPORT FOR a47309m.ltd

LINE	FLT	DATE	START COORDINATE	END COORDINATE	LINE KM
990020	991	020129	585794	6195199	2.7
990030	991	020129	583131	6195608	2.7

990040	991	020129	585797	6195960	583088	6195999	2.7
990050	991	020129	583140	6196393	585842	6196396	2.7
900020	901	020129	585795	6196796	584338	6196797	1.5
900030	901	020129	585719	6197138	585713	6194846	2.3
900040	901	020129	585680	6194898	585679	6197177	2.3
900050	901	020129	585639	6197139	585634	6194851	2.3
900060	901	020129	585599	6194883	585598	6197195	2.3
900070	901	020129	585565	6197150	585560	6194857	2.3
900080	901	020129	585533	6194887	585517	6197192	2.3
900090	901	020129	585488	6197160	585473	6194849	2.3
900100	901	020129	585433	6194879	585439	6197194	2.3
900110	901	020129	585404	6197148	585392	6194848	2.3
900120	901	020129	585364	6194881	585360	6197191	2.3
900130	901	020129	585321	6197154	585314	6194834	2.3
900140	901	020129	585272	6194872	585278	6197181	2.3
900150	901	020129	585239	6197165	585239	6194834	2.3
900160	901	020129	585191	6194877	585196	6197185	2.3
900170	901	020129	585157	6197165	585163	6194860	2.3
900180	901	020129	585128	6194874	585124	6197179	2.3
900190	901	020129	585077	6197150	585078	6194857	2.3
900200	901	020129	585047	6194880	585038	6197189	2.3
900210	901	020129	584998	6197146	585003	6194856	2.3
900220	901	020129	584965	6194884	584963	6197180	2.3
900230	901	020129	584921	6197150	584917	6194850	2.3
900240	901	020129	584872	6194876	584878	6197202	2.3
900250	901	020129	584837	6197150	584831	6194855	2.3
900260	901	020129	584795	6194890	584798	6197182	2.3
900270	901	020129	584762	6197157	584756	6194840	2.3
900280	901	020129	584715	6194881	584714	6197188	2.3
900290	901	020129	584671	6197149	584679	6194842	2.3
900300	901	020129	584638	6194870	584638	6197182	2.3
900310	901	020129	584603	6197147	584597	6194846	2.3
900320	901	020129	584562	6194891	584555	6197189	2.3
900330	901	020129	584523	6197141	584512	6194847	2.3
900340	901	020129	584477	6194882	584479	6197184	2.3
900350	901	020129	584445	6197134	584437	6194836	2.3
900360	901	020129	584399	6194886	584399	6196659	1.8
900370	901	020129	584350	6196617	584350	6194846	1.8
900380	901	020129	584325	6194873	584320	6196685	1.8
900390	901	020129	584272	6196644	584277	6194837	1.8
900400	901	020129	584246	6194879	584239	6196682	1.8
900410	901	020129	584196	6196638	584197	6194842	1.8
900420	901	020129	584163	6194876	584157	6196690	1.8
900430	901	020129	584117	6196650	584127	6194842	1.8
900440	901	020129	584086	6194882	584079	6196684	1.8
900450	901	020129	584041	6196648	584037	6194829	1.8
900460	901	020129	583995	6194871	584004	6196682	1.8
900470	901	020129	583953	6196625	583953	6194852	1.8
900480	901	020129	583916	6194879	583927	6196686	1.8
900490	901	020129	583877	6196635	583885	6194849	1.8
900500	901	020129	583848	6194879	583840	6196678	1.8
900510	901	020129	583803	6196626	583796	6194841	1.8
900520	901	020129	583759	6194878	583758	6196678	1.8
900530	901	020129	583718	6196638	583722	6194845	1.8
900540	901	020129	583682	6194890	583673	6196677	1.8
900550	901	020129	583643	6196641	583639	6194833	1.8
900560	901	020129	583611	6194876	583597	6196677	1.8
900570	901	020129	583562	6196630	583554	6194857	1.8
900580	901	020129	583526	6194897	583523	6196689	1.8
900590	901	020129	583479	6196634	583480	6194838	1.8
900600	901	020129	583444	6194889	583442	6196672	1.8
900610	901	020129	583380	6196635	583393	6194852	1.8
900620	901	020129	583367	6194881	583363	6196670	1.8
900630	901	020129	583317	6196641	583322	6194854	1.8
900640	901	020129	583286	6194895	583281	6196663	1.8
900650	901	020129	583235	6196631	583242	6194839	1.8

900010	901	020129	583204	6194904	583196	6196672	1.8
900010	901	020129	585760	6197149	585760	6194845	2.3

TOTALS BY FLIGHT

FLIGHT	LINE	KM

1		133.9
91		12.3
TOTAL		146.2

Appendix 7

Logistics Report

for a

DETAILED AIRBORNE MAGNETIC, RADIOMETRIC AND DIGITAL ELEVATION SURVEY

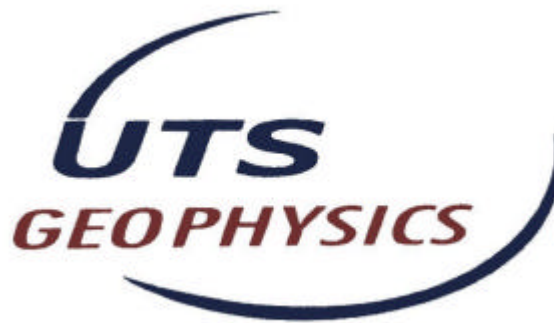
for the

**ARUNTA, BALD HILL INFILL, BEN'S HILL,
BUNGALOW, COLLINS, GREENPATCH,
KOORALLA AND MURPHY PROJECTS**

carried out on behalf of

GEOSURVEYS AUSTRALIA PTY LTD

by



(UTS Job #A505)

FAUNTLEROY AVENUE, PERTH AIRPORT
PO BOX 126, BELMONT WA 6104
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A.B.N. 31 058 054 603

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1 GENERAL SURVEY INFORMATION

In mid August 2002, UTS Geophysics conducted low level airborne geophysical surveys approximately 150km north west, 150km north east and 20km west of Port Lincoln for Geosurveys Australia Pty Ltd.

This report summarises the logistics, survey parameters and processing details of the survey.

The survey commenced on the 15th of August and was completed on the 22nd August 2002.

UTS Geophysics provided the described survey for the following company:

Geosurveys Australia Pty Ltd
334 Glen Osmond Rd
MYRTLE BANK, SA, 5064

2 SURVEY LOCATION

The areas surveyed were approximately 150km north west, 150km north east and 20km west of Port Lincoln in South Australia. Survey boundary coordinates are provided in Appendix C of this report.

The survey was flown using the AMG84 coordinate system (a Universal Transverse Mercator projection) derived from the Australian Geodetic Datum and was contained within zone 53 with a central meridian of 135 degrees. Details of the datum and projection system are provided in Appendix B of this report.

3 AIRCRAFT AND SURVEY EQUIPMENT

The UTS navigation flight control computer, data acquisition system and geophysical sensors were installed into a specialised geophysical survey aircraft.

The list of geophysical and navigation equipment used for the survey is as follows:

General Survey Equipment

- FU24-954 fixed wing survey aircraft.
- UTS proprietary flight planning and survey navigation system.
- UTS proprietary high speed digital data acquisition system.
- Novatel 3951R, 12 channel precision navigation GPS.
- Satellite transmitted differential GPS correction receiver.
- UTS LCD pilot navigation display and external track guidance display.
- UTS post mission data verification and processing system.
- Bendix King KRA-405 radar altimeter.

Magnetic Data Acquisition Equipment

- UTS tail stinger magnetometer installation.
- Scintrex Cesium Vapour CS-2 total field magnetometer.
- Fluxgate three component vector magnetometer.
- RMS Aeromagnetic Automatic Digital Compensator (AADC II).
- Diurnal monitoring magnetometer (Scintrex Envimag).

Radiometric Data Acquisition Equipment

- Exploranium GR-820 gamma ray spectrometer.
- Exploranium gamma ray detectors.
- Barometric altimeter (height and pressure measurements).
- Temperature and humidity sensor.

3.1 Survey Aircraft

The aircraft used was a FU24-954 fixed wing survey aircraft owned by UTS Geophysics, registrations VH-CYU.

Power Plant

- Engine Type Single engine, Lycoming, IO-720
- Brake Horse Power 400 bhp
- Fuel Type AV-GAS

Performance

- Cruise speed 105 Kn
- Survey speed 100 Kn
- Stall speed 45 Kn
- Range 970 Km
- Endurance (no reserves) 5 hours
- Fuel tank capacity 490 litres



3.2 Data Positioning and Flight Navigation

Survey data positioning and flight line navigation was derived using real-time differential GPS (Global Positioning System).

Navigation was provided through a UTS designed and built electronic pilot navigation system providing computer controlled digital navigation instrumentation mounted in the cockpit as well as an externally mounted track guidance system.

GPS derived positions were used to provide both aircraft navigation and survey data location information.

The GPS systems used for the survey were:

- Aircraft GPS Model Novatel 3951R
- GPS satellite tracking channels 12 parallel
- Typical differentially corrected accuracy 2-3 metres (horizontal)
- Real-time differential service RACAL Landstar

3.3 *UTS Data Acquisition System and Digital Recording*

All geophysical sensor data and positional information measured during the survey was recorded using a UTS developed, high speed, precision data acquisition system. Survey data was downloaded onto magnetic tape on completion of each survey flight.

Instrument synchronisation times were measured and removed in real-time by the UTS data acquisition system.

3.4 *Altitude Readings*

Accurate survey heights above the terrain were measured using a King radar altimeter installed in the aircraft. The height of each survey data point was measured by the radar altimeter and stored by the UTS data acquisition system.

- Radar altimeter model King KRA-405, twin antenna altimeter
- Accuracy 0.3 metres
- Resolution 0.1 metres
- Range 0 - 500 metres
- Sample rate 0.1 Seconds (10Hz)

3.5 *UTS Stinger Mounted Magnetometer System*

The installation platform used for the acquisition of magnetic data was a tail mounted stinger. This proprietary stinger system was constructed of carbon fibre and designed for maximum rigidity and stability.

Both the total field magnetometer and three component vector magnetometer were located within the tail stinger.



3.6 *Total Field Magnetometer*

Total field magnetic data readings for the survey were made using a Scintrex Cesium Vapour CS-2 Magnetometer. This precision sensor has the following specifications:



- Model Scintrex Cesium Vapour CS-2 Magnetometer
- Sample Rate 0.1 seconds (10Hz)
- Resolution 0.001nT
- Operating Range 15,000nT to 100,000nT
- Temperature Range -20°C to +50°C

3.7 *Aircraft Magnetic Compensation*

At the start of the survey, the system was calibrated for reduction of magnetic heading error. The heading and manoeuvre effects of the aircraft on the magnetic data was removed using an RMS Automatic Airborne Digital Compensator (AADC II).

Calibration of the aircraft heading effects were measured by flying a series of pitch, roll and yaw manoeuvres at high altitude while monitoring changes in the three axis magnetometer and the effect on total field readings. A 26 term model of the aircraft magnetic noise covering permanent, induced and eddy current fields was determined. These coefficients were then applied to the data collected during the survey in real-time.

UTS static compensation techniques were also employed to reduce the initial magnetic effects of the aircraft upon the survey data.

3.8 *Diurnal Monitoring Magnetometer*

A base station magnetometer was located in a low gradient area beyond the region of influence by any man made interference to monitor diurnal variations during the survey.

The specifications for the magnetometer used are as follows:

- Model Scintrex Envimag
- Resolution 0.1 nT
- Sample interval 10 seconds (0.1Hz)
- Operating range 20,000nT to 90,000nT
- Temperature -20°C to +50°C



3.9 *Barometric Altitude*

An Air DB barometric altimeter was installed in the aircraft so as to record and monitor barometric height and pressure. The data was recorded at 0.1 second intervals and is used for the reduction of the radiometric data.

- Model Air DB barometric altimeter
- Accuracy 2 metres
- Height resolution 0.1 metres
- Height range 0 - 3500 metres
- Maximum operating pressure: 1,300 mb
- Pressure resolution: 0.01 mb
- Sample rate 10 Hz

3.10 Temperature and Humidity

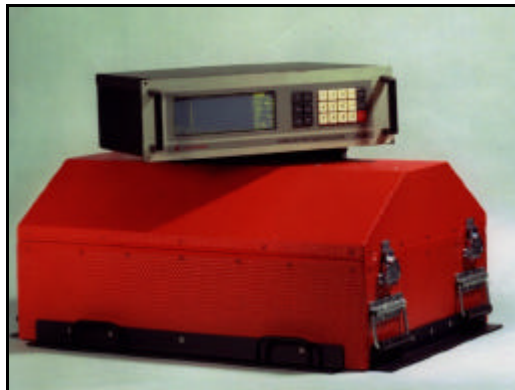
Temperature and humidity measurements were made during the survey at a sample rate of 10Hz. Ambient temperature was measured with a resolution of 0.1 degree Celsius and ambient humidity to a resolution of 0.1 percent.

3.11 Radiometric Data Acquisition

The gamma ray spectrometer used for the survey was capable of recording 256 channels and was self stabilising in order to minimise spectral drift. The detectors used contain thallium activated sodium iodide crystals.

Thorium, cesium and uranium source measurements were made each survey day to monitor system resolution and sensitivity. A calibration line was also flown at the start and end of each survey day to monitor ground moisture levels and system performance.

- Spectrometer model Exploranium GR820
- Detector volume 32 litres
- Sample rate 1 Hz



4 PERSONNEL

4.1 *Field Operations*

UTS Geophysics operator and data processors

Adam Schubert
James Wallis

UTS Geophysics Survey Pilots

Troy Wilhelmi
Adam King
Neil West

4.2 *Project Management*

Geosurveys Australia Pty Ltd

John Parker

UTS Geophysics Perth Office

Nino Tufilli

5 SURVEY PARAMETERS

The survey data acquisition specifications for each area flown are specified in the following table:

PROJECT NAME	LINE SPACING	LINE DIRECTION	TIE LINE SPACING	TIE LINE DIRECTION	SENSOR HEIGHT	TOTAL LINE KM
Arunta	50	035-215	400	125-305	20	34.1
Bald Hill Infill	40	090-270	400	000-180	20	63.4
Bens Hill	50	150-330	500	060-240	20	242.2
Bungalow	40	135-315	400	045-225	20	656.0
Collins	50	024-204	500	114-294	20	182.2
Greenpatch	40	135-315	400	045-225	20	522.7
Kooralla	40	127-307	400	037-217	20	35.2
Murphy	50	172-352	500	082-262	20	348.3
TOTAL						2084.1

The total number of line kilometres of survey data collected over the survey areas specified in the above table was 2084.

The specified sensor height for the magnetic samples is as stated in the above table. This sensor height may be varied where topographic relief or laws pertaining to built up areas do not allow this altitude to be maintained, or where the safety of the aircraft and equipment is endangered.

The coordinate boundaries for the survey area flown is detailed in Appendix C.

6 SURVEY LOGISTICS

The base location used for operating the aircraft and performing in-field quality control and data processing of the survey data was the Hilton Motel in Port Lincoln, South Australia. The aircraft was operated from the Port Lincoln airport.

6.1 Survey Flight Summary

The following table summarises the flight logs for the survey area flown:

Flight Date	Area No	Flight No	Area Name / Survey Details	Lines Flown	Line Km Flown
15/08/02	08	01	Murphy Project Traverse Lines: 800430-801530	111	240
		T1	Murphy Project Tie Lines: 890010-890050	5	33
16/08/02	08	02	Murphy Project Traverse Lines: 800010-800420	42	75
	03	T1	Bens Hill Project Tie Lines: 390010-390040	4	22
		01	Bens Hill Project Traverse Lines: 300010-300870	87	174
17/08/02	01	01	Arunta Project Traverse Lines: 100010-100270	27	27
		02	Arunta Project Traverse Lines: 100280-100300	3	3
		T1	Arunta Project Tie Lines: 190010-190030	3	5
	05	01	Collins Project Traverse Lines: 500310-501130	83	123
		02	Collins Project Traverse Lines: 500010-500300	30	42
		T1	Collins Project Tie Lines: 590010-590040	4	18
	03	02	Bens Hill Project Traverse Lines: 300880-301100	23	46
	06	01	Greenpatch Project Traverse Lines: 600010-600750	75	191
18/08/02	02	01	Bald Hill Infill Project Traverse Lines: 200010-200250	25	57
		T1	Bald Hill Infill Project Tie Lines: 290010-290060	6	6
20/08/02	06	02	Greenpatch Project Traverse Lines: 600760-600900	15	60
		T1	Greenpatch Project Tie Lines: 690010-690100	10	48
21/08/02	04	T1	Bungalow Project Tie Lines: 490010-490090	9	60
		01	Bungalow Project Traverse Lines: 400010-400990	99	279
		02	Bungalow Project Traverse Lines: 401000-401180, 401200-402010	100	275
22/08/02	04	03	Bungalow Project Traverse Lines: 401170-401190, 401720, 401940-402120	12	38
		T2	Bungalow Project Tie Lines: 490030	9	1
	06	03	Greenpatch Project Traverse Lines: 900910-601150	100	25
	07	01	Kooralla Project Traverse Lines: 700010-700160	32	16
		T1	Kooralla Project Tie Lines: 790010-790050	3	5
	08	03	Murphy Project Traverse Lines: 800380	3	1
		T2	Murphy Project Tie Lines: 890030	8	1
	06	04	Greenpatch Project Traverse Lines: 601160-601500	127	35

A complete survey kilometer report is contained in Appendix G of this report.

6.2 *Diurnal Magnetometer Locations*

The following table contains the approximate locations where the diurnal base station magnetometer was located for each survey area.

Area Name	Period	Base Station ID	Location
Pt Lincoln Airport	15/08/02-22/08/02	31	E end of trees 300m N of Tuna City Aviation

6.3 *Spectrometer Calibration Results*

Appendix E of this report contains the results of the daily spectrometer resolution and sensitivity tests performed during the survey.

7 DATA PROCESSING PROCEDURES

7.1 *Magnetic Data Processing*

The raw magnetic survey data was loaded from the field tapes and the recorded data trimmed to the correct survey boundary extents. Lines subsequently reflight were removed from the data. System parallax was removed from the raw data using corrections measured by the acquisition system.

The diurnal base station data was loaded, checked and suitably filtered for correction of the aircraft magnetic data. The filtered diurnal measurements were subtracted from the diurnal base field and the residual corrections applied to the survey data by synchronising the diurnal data time and the aircraft survey time.

The regional magnetic gradient was subtracted from the survey data by application of the IGRF model extrapolated to the date of the survey and interpolated on the survey position.

The data was then corrected to remove any residual parallax errors. Tie line levelling was applied to the parallax corrected data by measuring tie line crossover points with the survey traverse line data.

Final microlevelling techniques were then applied to the tie line leveled data to remove minor residual variations in profile intensities.

Located and gridded data were generated from the final processed magnetic data.

7.2 *Radiometric Data Processing*

The raw radiometric survey data was loaded from the field tapes and the recorded data trimmed to the correct survey boundary extents. Lines subsequently reflight were removed from the data. System parallax was removed from the raw data using corrections measured by the acquisition system.

Statistical noise reduction of the 256 channel data was performed using the Maximum Noise Fraction (MNF) method described by Dickson and Taylor (1998). This method constructs a noise covariance model from the survey data, which is then decorrelated and re-scaled so that the model has unit variance and no channel-to-channel correlation.

A principal component transformation of the noise-whitened data is performed, and the number of components to be saved is determined by ranking the eigenvectors by signal-to-noise ratio. The signal-rich components are retained, and the spectral data reconstructed without the noise fraction. Typically, 32-42 MNF components are retained during this process.

Channels 30-250 only are noise-cleaned, as these contain the regions of interest and are not dominated by the lower end of the Compton continuum. The energy spectrum between the potassium and thorium peaks was recalibrated from the noise-cleaned 256 channel measurements.

The 256 channel data was then windowed to the 5 primary channels of total count, potassium, uranium, thorium and low-energy uranium. Dead time corrections were then applied to the data.

Cosmic and aircraft background corrections were applied. Radon background removal was performed using the Minty Spectral Ratio method (1992). Spectral stripping was then applied to the windowed data.

The radar altimeter data was corrected to standard temperature and pressure. Height corrections based on the STP radar altimeter were then performed to remove any altitude variation effects from the data (refer to Appendix E for stripping ratios and equations).

The corrected count rate data was then converted to ground concentrations for potassium, uranium and thorium. Final microlevelling of the total count, potassium, uranium and thorium data was then applied to remove minor residual variations in profile intensities.

For further information concerning the survey flown, please contact the following office:

Head Office Address:

UTS Geophysics
Fauntleroy Avenue, Perth Airport
REDCLIFFE WA 6104

Tel: +61 8 9479 4232
Fax: +61 8 9479 7361

Postal Address:

UTS Geophysics
P.O. Box 126
BELMONT WA 6104

Quoting reference number: A505

APPENDIX A - LOCATED DATA FORMATS

MAGNETIC LOCATED DATA

FIELD	FORMAT	DESCRIPTION	UNITS
1	I6	LINE NUMBER	
2	I5	FLIGHT/AREA NUMBER	AAFF (Area/Flight)
3	I8	DATE	YYMMDD
4	F11.1	TIME	sec
5	I8	FIDUCIAL NUMBER	
6	I3	UTM/AMG ZONE	
7	F10.2	EASTING (AMG84)	metres
8	F11.2	NORTHING (AMG84)	metres
9	F13.7	LATITUDE (WGS84)	degrees
10	F13.7	LONGITUDE (WGS84)	degrees
11	F10.2	EASTING (MGA94)	metres
12	F11.2	NORTHING (MGA94)	metres
13	F7.1	RADAR ALTIMETER HEIGHT	metres
14	F7.1	GPS HEIGHT (WGS84)	metres
15	F7.1	TERRAIN HEIGHT (WGS84)	metres
16	F10.2	RAW MAGNETIC INTENSITY	nT
17	F10.2	DIURNAL CORRECTION	nT
18	F10.2	LEVELLED MAGNETIC INTENSITY	nT
19	F10.2	IGRF CORRECTION	nT
20	F10.2	LEVELLED, IGRF CORRECTED	nT

DIGITAL TERRAIN MODEL LOCATED DATA

FIELD	FORMAT	DESCRIPTION	UNITS
1	I6	LINE NUMBER	
2	I8	FIDUCIAL NUMBER	
3	I3	UTM/AMG ZONE	
4	F10.2	EASTING (AMG84)	metres
5	F11.2	NORTHING (AMG84)	metres
6	F13.7	LATITUDE (WGS84)	degrees
7	F13.7	LONGITUDE (WGS84)	degrees
8	F10.2	EASTING (MGA94)	metres
9	F11.2	NORTHING (MGA94)	metres
10	F7.1	RADAR ALTIMETER HEIGHT	metres
11	F7.1	GPS HEIGHT (WGS84)	metres
12	F7.1	TERRAIN HEIGHT (WGS84)	metres

RADIOMETRIC LOCATED DATA

FIELD FORMAT DESCRIPTION			UNITS
1	I6	LINE NUMBER	
2	I5	FLIGHT/AREA NUMBER	AAFF (Area/Flight)
3	I8	DATE	YYMMDD
4	F11.1	TIME	sec
5	I8	FIDUCIAL NUMBER	
6	I3	UTM/AMG ZONE	
7	F10.2	EASTING (AMG84)	metres
8	F11.2	NORTHING (AMG84)	metres
9	F13.7	LATITUDE (WGS84)	degrees
10	F13.7	LONGITUDE (WGS84)	degrees
11	F10.2	EASTING (MGA94)	metres
12	F11.2	NORTHING (MGA94)	metres
13	F7.1	RADAR ALTIMETER HEIGHT	metres
14	F7.1	GPS HEIGHT (WGS84)	metres
15	I5	LIVE TIME	milli sec
16	F7.1	PRESSURE	hPa
17	F5.1	TEMPERATURE	Degrees Celcius
18	F8.1	TOTAL COUNT (RAW)	Counts/sec
19	F7.1	POTASSIUM (RAW)	Counts/sec
20	F7.1	URANIUM (RAW)	Counts/sec
21	F7.1	THORIUM (RAW)	Counts/sec
22	F7.1	COSMIC (RAW)	Counts/sec
23	F7.1	URANIUM LOW (RAW)	Counts/sec
24	F7.1	URANIUM UP (RAW)	Counts/sec
25	F8.1	TOTAL COUNT (CORRECTED)	Counts/sec
26	F7.1	POTASSIUM (CORRECTED)	Counts/sec
27	F7.1	URANIUM (CORRECTED)	Counts/sec
28	F7.1	THORIUM (CORRECTED)	Counts/sec
29	F7.3	POTASSIUM GRND CONCENTRATION	%
30	F7.3	URANIUM GRND CONCENTRATION	ppm
31	F7.3	THORIUM GRND CONCENTRATION	ppm

GRIDDED DATASET FORMATS

Gridding was performed using a bicubic spline algorithm.

The following grid formats have been provided:

- ER-Mapper format

LINE NUMBER FORMATS

Line numbers are identified with a six digit composite line number and have the following format - ALLLLB, where:

A	Survey area number
LLLL	Survey line number
	0001-8999 reserved for traverse lines
	9001-9999 reserved for tie lines
B	Line attempt number, 0 is attempt 1, 1 is attempt 2 etc..

UTS FILE NAMING FORMATS

Located and gridded data provided by UTS Geophysics uses the following 8 character file naming convention to be compatible with PC DOS based systems.

File names have the following general format - JJJAABB.EEE, where:

JJJJ	UTS Job number
AA	Area number if the survey is broken into blocks
BB	M Magnetic data
	R Radiometric data
	TC Total count data
	K Potassium counts
	U Uranium counts
	Th Thorium counts
	KC Potassium concentration
	UC Uranium concentration
	ThC Thorium concentration
	DT Digital terrain data
EEE	File name extension
	LDT Located digital data file
	FMT Located data format definition file
	ERS Ermapper gridded data header file
	Ermapper data portion has no extension
	GRD Geosoft gridded data file

APPENDIX B - COORDINATE SYSTEM DETAILS

Locations for the survey data are provided in both geographical latitude and longitude and Universal Transverse Mercator metric projection coordinate systems.

WGS84	World Geodetic System 1984
Coordinate Type	Geographical
Semi Major Axis	6378137m
Flattening	1/298.257223563
AMG84	Australian Map Grid 1984
Coordinate Type	Universal Transverse Mercator Projection Grid
Geodetic datum	Australian Geodetic Datum
Semi Major Axis	6378160m
Flattening	1/298.25
MGA94	Map Grid of Australia 1994
Coordinate type	Universal Transverse Mercator Projection Grid
Geodetic datum	Geodetic Datum of Australia
Semi major axis	6378137m
Flattening	1/298.257222101

APPENDIX C - SURVEY BOUNDARY DETAILS

COORDINATES REPORT

Job ID code: A5050101
Client: Geosurveys Aust
Job: Arunta
Coordinates AMG 84, Zone 53
Include Point: 572255.0 6322585.00

Surround

572238.000	6322591.000
571664.000	6321800.000
572871.000	6320896.000
573445.000	6321707.000
572238.000	6322591.000

COORDINATES REPORT

Job ID code: A5050201
Client: Geosurveys Aust
Job: Bald Hill Infill
Coordinates AMG 84, Zone
Include Point: 6184640.0 0.00

Surround

571594.242	6185788.646
573888.849	6185788.646
573888.849	6184785.065
571594.242	6184785.065
571594.242	6185788.646

COORDINATES REPORT

Job ID code: A5050301
Client: Geosurveys Aust
Job: Bens Hill
Coordinates AMG 84, Zone 53
Include Point: 571950.0 6327460.00

Surround

566132.000	6324786.000
567143.000	6323083.000
571907.000	6325744.000
570896.000	6327500.000
566132.000	6324786.000

COORDINATES REPORT

Job ID code: A5050401
Client: Geosurveys Aust
Job: Bungalow
Coordinates AMG 84, Zone 53
Include Point: 0.0 0.00

Surround

676852.000	6285785.000
671371.000	6279309.000
673362.000	6277300.000
678832.000	6283805.000
676852.000	6285785.000

COORDINATES REPORT

Job ID code: A5050501
Client: Geosurveys Aust
Job: Collins
Coordinates AMG 84, Zone 53
Include Point: 0.0 45.00

Surround

557425.000	6323709.000
555766.000	6324475.000
555623.000	6324155.000
552171.000	6325729.000
551579.000	6324394.000
555699.000	6322547.000
557105.000	6323010.000
557425.000	6323709.000

COORDINATES REPORT

Job ID code: A5050601
Client: Geosurveys Aust
Job: Greenpatch
Coordinates AMG 84, Zone 53
Include Point: 0.0 60.00

Surround

571390.000	6168503.000
567139.000	6164253.000
568553.000	6162836.000
569619.000	6163902.000
569970.000	6163550.000
570678.000	6164259.000

571735.000	6163205.000
573505.000	6164975.000
573151.000	6165330.000
573857.000	6166035.000
571390.000	6168503.000

COORDINATES REPORT

Job ID code: A5050701
Client: Geosurveys Aust
Job: Kooralla
Coordinates AMG 84, Zone 53
Include Point: 0.0 0.00

Surround

684340.000	6271980.000
683949.000	6271477.000
685527.000	6270248.000
685918.000	6270751.000
684340.000	6271980.000

COORDINATES REPORT

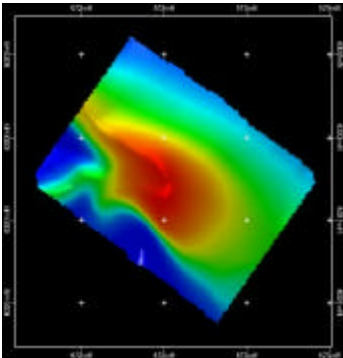
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Client: Geosurveys Aust
Job: Murphy
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Surround

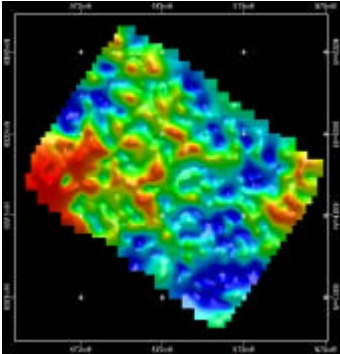
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564778.000	6322470.000
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APPENDIX D - PROJECT DATA OVERVIEW

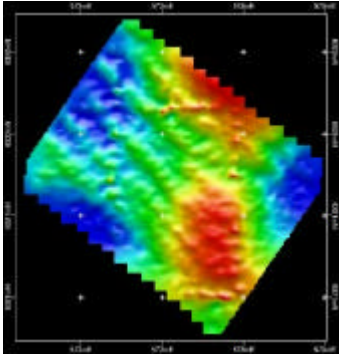
Arunta Project



Total Magnetic Intensity

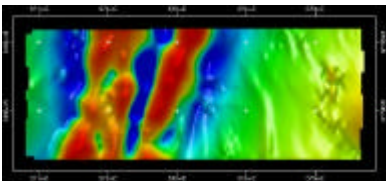


Radiometric Total Count

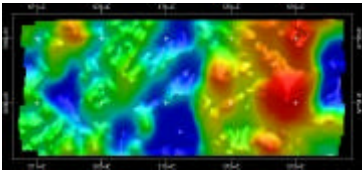


Digital Terrain Model

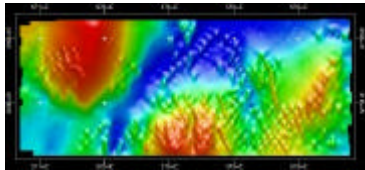
Bald Hill InfillProject



Total Magnetic Intensity

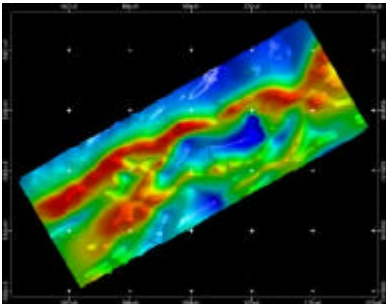


Radiometric Total Count

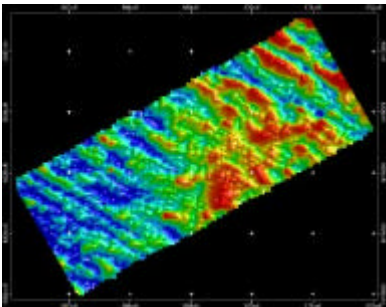


Digital Terrain Model

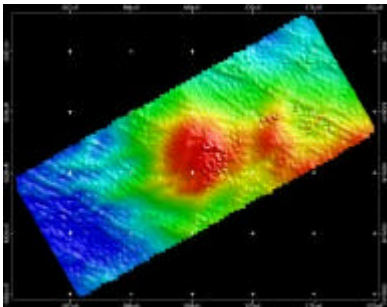
Bens Hill Project



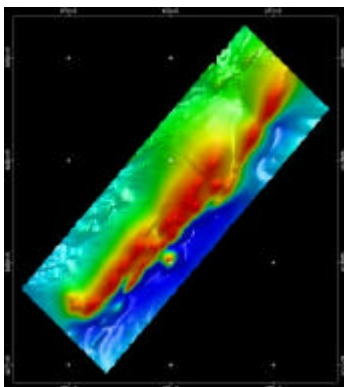
Total Magnetic Intensity



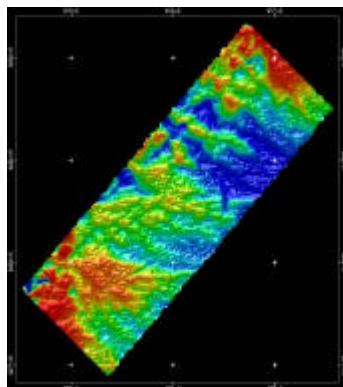
Radiometric Total Count



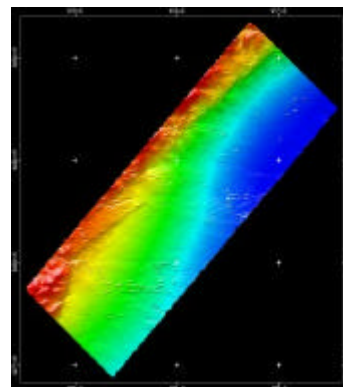
Digital Terrain Model

Bungalow Project

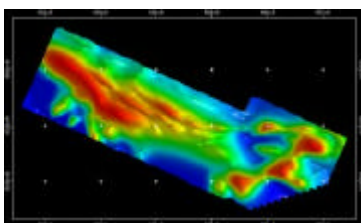
Total Magnetic Intensity



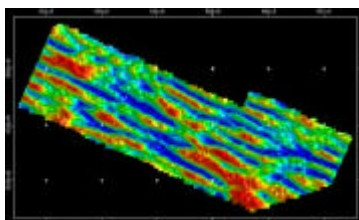
Radiometric Total Count



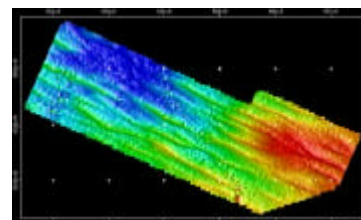
Digital Terrain Model

Collins Project

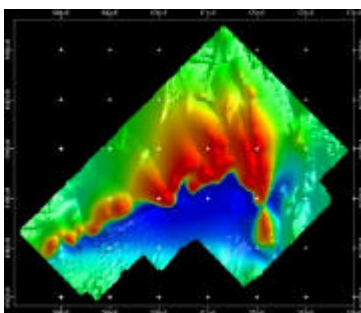
Total Magnetic Intensity



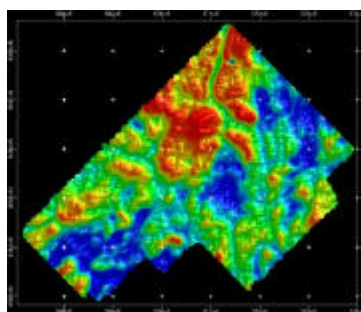
Radiometric Total Count



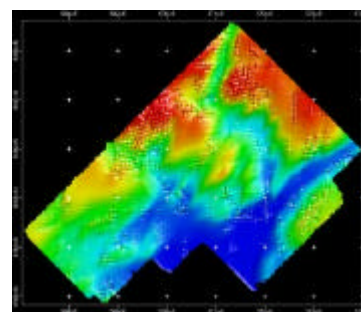
Digital Terrain Model

Greenpatch Project

Total Magnetic Intensity

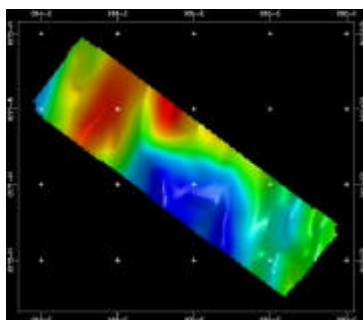


Radiometric Total Count

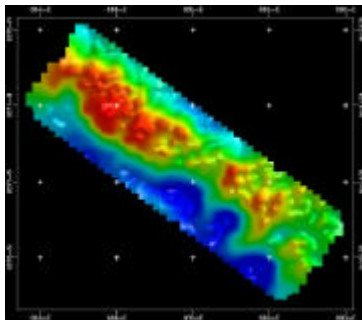


Digital Terrain Model

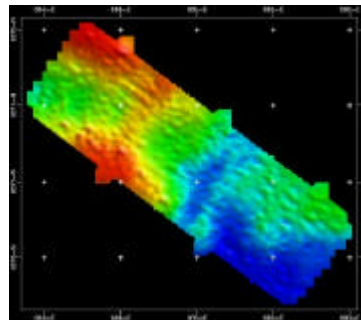
Kooralla Project



Total Magnetic Intensity

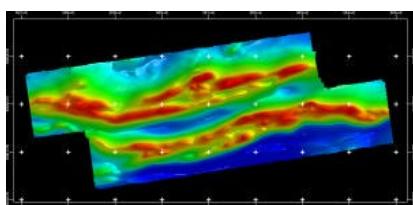


Radiometric Total Count

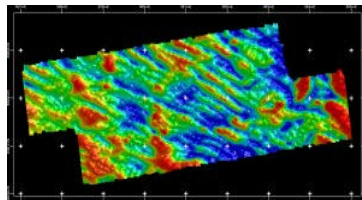


Digital Terrain Model

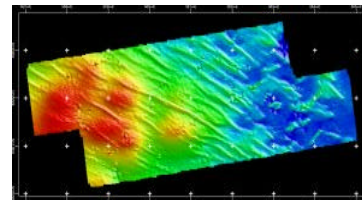
Murphy Project



Total Magnetic Intensity

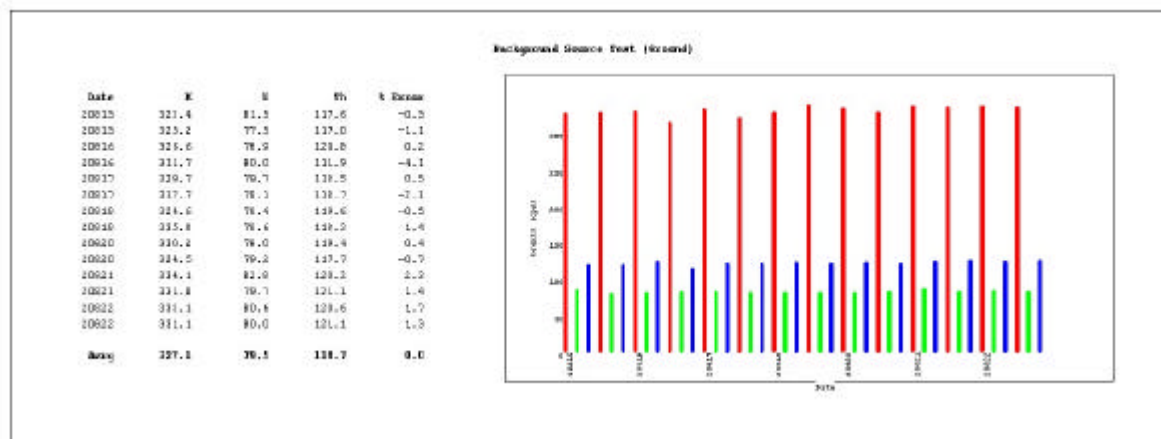
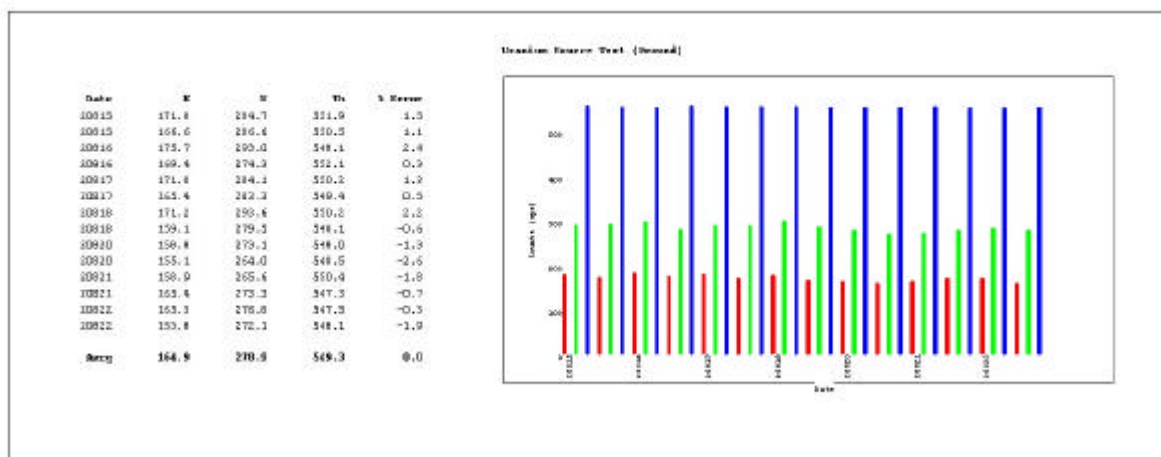
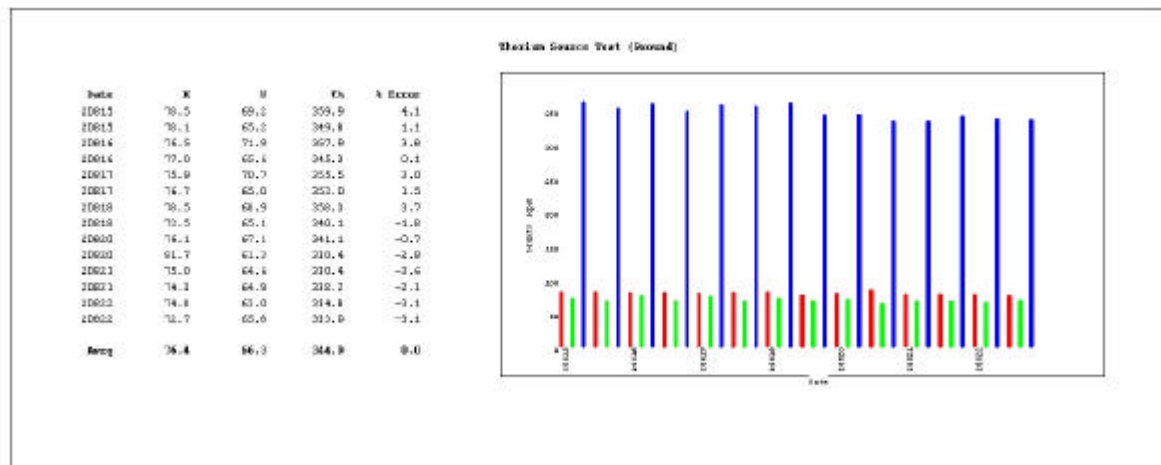


Radiometric Total Count



Digital Terrain Model

APPENDIX E – RADIOMETRIC CALIBRATION RESULTS



APPENDIX F – DATA PROCESSING PARAMETERS

Magnetic Data

Arunta Project

IGRF date	2001.20
IGRF mean value	58583 nT
Magnetic inclination	-65.620 deg
Magnetic declination	1.410 deg
Diurnal base value	58071 nT

Bald Hill Infill Project

IGRF date	2001.20
IGRF mean value	58583 nT
Magnetic inclination	-65.620 deg
Magnetic declination	1.410 deg
Diurnal base value	58071 nT

Bens Hill Project

IGRF date	2001.20
IGRF mean value	58583 nT
Magnetic inclination	-65.620 deg
Magnetic declination	1.410 deg
Diurnal base value	58071 nT

Bungalow Project

IGRF date	2001.20
IGRF mean value	58583 nT
Magnetic inclination	-65.620 deg
Magnetic declination	1.410 deg
Diurnal base value	58071 nT

Collins Project

IGRF date	2001.20
IGRF mean value	58583 nT
Magnetic inclination	-65.620 deg
Magnetic declination	1.410 deg
Diurnal base value	58071 nT

Greenpatch Project

IGRF date	2001.20
IGRF mean value	58583 nT
Magnetic inclination	-65.620 deg
Magnetic declination	1.410 deg
Diurnal base value	58071 nT

Kooralla Project

IGRF date	2001.20
IGRF mean value	58583 nT
Magnetic inclination	-65.620 deg
Magnetic declination	1.410 deg
Diurnal base value	58071 nT

Murphy Project

IGRF date	2001.20
IGRF mean value	58583 nT
Magnetic inclination	-65.620 deg
Magnetic declination	1.410 deg
Diurnal base value	58071 nT

Radiometric Data**Sensitivity Constants at 30m flying height**

Total Count:	41.34 cps/dose rate
Potassium:	181.71 cps/%k
Uranium:	15.00 cps/ppm
Thorium:	8.92 cps/ppm

APPENDIX G – SURVEY KILOMETRE REPORT

LINE KM REPORT FOR a50501m.ldt

LINE	FLT	DATE	START COORDINATE		END COORDINATE		LINE KM
190020	191	020817	571693	6321876	573004	6320957	1.6
190030	191	020817	573173	6321293	571894	6322222	1.6
100010	101	020817	572142	6322533	573467	6321603	1.6
100020	101	020817	573434	6321744	572799	6320836	1.1
100030	101	020817	572807	6320924	573421	6321800	1.1
100040	101	020817	573360	6321810	572729	6320910	1.1
100050	101	020817	572730	6320987	573343	6321872	1.1
100060	101	020817	573271	6321864	572653	6320977	1.1
100070	101	020817	572647	6321033	573261	6321927	1.1
100080	101	020817	573193	6321929	572573	6321037	1.1
100090	101	020817	572561	6321080	573181	6321990	1.1
100100	101	020817	573124	6321991	572491	6321097	1.1
100110	101	020817	572472	6321150	573096	6322044	1.1
100120	101	020817	573043	6322055	572413	6321156	1.1
100130	101	020817	572415	6321220	573015	6322107	1.1
100140	101	020817	572951	6322099	572328	6321205	1.1
100150	101	020817	572320	6321280	572946	6322174	1.1
100160	101	020817	572870	6322156	572240	6321259	1.1
100170	101	020817	572238	6321325	572868	6322240	1.1
100180	101	020817	572792	6322221	572171	6321334	1.1
100190	101	020817	572176	6321399	572782	6322301	1.1
100200	101	020817	572706	6322273	572084	6321387	1.1
100210	101	020817	572097	6321453	572696	6322344	1.1
100220	101	020817	572630	6322343	572011	6321452	1.1
100230	101	020817	571989	6321529	572622	6322411	1.1
100240	101	020817	572549	6322400	571921	6321502	1.1
100250	101	020817	571911	6321565	572545	6322478	1.1
100260	101	020817	572470	6322461	571851	6321574	1.1
100270	101	020817	571844	6321636	572449	6322519	1.1
100280	102	020817	572381	6322510	571772	6321629	1.1
100290	102	020817	571760	6321704	572377	6322582	1.1
100300	102	020817	572312	6322588	571686	6321683	1.1
100300	102	020817	571686	6321757	572294	6322639	1.1

TOTALS BY FLIGHT

FLIGHT	LINE KM
1	29.4
2	3.2
91	4.8
TOTAL	37.4

LINE KM REPORT FOR a50502m.ldt

LINE	FLT	DATE	START COORDINATE		END COORDINATE		LINE KM
290020	291	020818	573604	6185634	573599	6184539	1.1
290030	291	020818	573202	6184576	573202	6185701	1.1
290040	291	020818	572805	6185636	572804	6184531	1.1
290050	291	020818	572398	6184588	572407	6185689	1.1
290060	291	020818	572012	6185663	572004	6184549	1.1
200010	201	020818	571610	6184581	571601	6185696	1.1
200020	201	020818	571440	6184642	573835	6184637	2.4
200030	201	020818	573778	6184680	571381	6184676	2.4
200040	201	020818	571438	6184718	573832	6184720	2.4

200050	201	020818	573794	6184766	571383	6184756	2.4
200060	201	020818	571438	6184798	573825	6184794	2.4
200070	201	020818	573781	6184839	571379	6184843	2.4
200071	201	020818	571440	6184877	571709	6184866	0.3
200080	201	020818	572483	6184870	573850	6184877	1.4
200081	201	020818	573782	6184918	572454	6184928	1.3
200090	201	020818	571623	6184942	571378	6184938	0.2
200100	201	020818	571427	6184962	573839	6184950	2.4
200110	201	020818	573798	6184998	571396	6185000	2.4
200120	201	020818	571427	6185040	573846	6185039	2.4
200121	201	020818	573783	6185077	572975	6185085	0.8
200130	201	020818	572003	6185086	571380	6185080	0.6
200131	201	020818	571424	6185119	572254	6185120	0.8
200140	201	020818	572958	6185109	573841	6185120	0.9
200150	201	020818	573786	6185159	571387	6185157	2.4
200160	201	020818	571429	6185196	573836	6185200	2.4
200170	201	020818	573789	6185243	571400	6185243	2.4
200180	201	020818	571441	6185282	573849	6185283	2.4
200190	201	020818	573783	6185316	571378	6185322	2.4
200200	201	020818	571437	6185354	573850	6185362	2.4
200210	201	020818	573793	6185398	571382	6185399	2.4
200220	201	020818	571423	6185438	573850	6185440	2.4
200230	201	020818	573781	6185479	571386	6185480	2.4
200240	201	020818	571426	6185517	573833	6185520	2.4
200250	201	020818	573783	6185566	571381	6185560	2.4
200250	201	020818	571423	6185594	573838	6185605	2.4

TOTALS BY FLIGHT

FLIGHT	LINE KM
1	56.9
91	6.7
TOTAL	63.5

LINE KM REPORT FOR a50503m.ltd

LINE	FLT	DATE	START COORDINATE	END COORDINATE	LINE KM
390020	391	020816	566998	6323257	5.6
390030	391	020816	571513	6326449	5.6
390040	391	020816	566486	6324121	5.6
300010	301	020816	571034	6327276	5.6
300020	301	020816	566144	6324815	2.1
300030	301	020816	567202	6323084	2.1
300040	301	020816	566229	6324864	2.1
300050	301	020816	567282	6323140	2.1
300060	301	020816	566307	6324924	2.1
300070	301	020816	567381	6323170	2.1
300080	301	020816	566401	6324959	2.1
300090	301	020816	567459	6323239	2.1
300100	301	020816	566492	6325011	2.1
300110	301	020816	567558	6323271	2.1
300120	301	020816	566569	6325078	2.1
300130	301	020816	567634	6323330	2.1
300140	301	020816	566666	6325112	2.1
300150	301	020816	567724	6323372	2.1
300160	301	020816	566759	6325168	2.1
300170	301	020816	567815	6323417	2.1
300180	301	020816	566828	6325226	2.1
300190	301	020816	567902	6323464	2.1
300200	301	020816	566909	6325265	2.1
300210	301	020816	567986	6323526	2.1
300220	301	020816	567013	6325306	2.1
300230	301	020816	568067	6323576	2.1

300240	301	020816	567097	6325368	568141	6323552	2.1
300250	301	020816	568165	6323609	567117	6325432	2.1
300260	301	020816	567176	6325421	568234	6323592	2.1
300270	301	020816	568244	6323673	567197	6325496	2.1
300280	301	020816	567272	6325463	568309	6323662	2.1
300290	301	020816	568341	6323706	567287	6325542	2.1
300300	301	020816	567349	6325514	568398	6323710	2.1
300310	301	020816	568426	6323772	567374	6325588	2.1
300320	301	020816	567453	6325551	568495	6323744	2.1
300330	301	020816	568514	6323807	567459	6325640	2.1
300340	301	020816	567535	6325603	568581	6323792	2.1
300350	301	020816	568604	6323849	567553	6325675	2.1
300360	301	020816	567610	6325665	568670	6323839	2.1
300370	301	020816	568689	6323903	567640	6325726	2.1
300380	301	020816	567702	6325708	568758	6323887	2.1
300390	301	020816	568774	6323960	567717	6325794	2.1
300400	301	020816	567796	6325751	568846	6323935	2.1
300410	301	020816	568856	6324018	567803	6325844	2.1
300420	301	020816	567882	6325803	568934	6323982	2.1
300430	301	020816	568950	6324051	567901	6325881	2.1
300440	301	020816	567962	6325843	569021	6324031	2.1
300450	301	020816	569038	6324105	567984	6325935	2.1
300460	301	020816	568052	6325902	569111	6324078	2.1
300470	301	020816	569122	6324153	568065	6325988	2.1
300480	301	020816	568134	6325969	569198	6324128	2.1
300490	301	020816	569211	6324205	568162	6326019	2.1
300500	301	020816	568231	6326001	569277	6324192	2.1
300510	301	020816	569305	6324245	568246	6326076	2.1
300520	301	020816	568315	6326055	569368	6324225	2.1
300530	301	020816	569380	6324312	568337	6326121	2.1
300540	301	020816	568390	6326114	569453	6324286	2.1
300550	301	020816	569469	6324361	568421	6326173	2.1
300560	301	020816	568484	6326164	569541	6324330	2.1
300570	301	020816	569559	6324396	568503	6326234	2.1
300580	301	020816	568579	6326196	569627	6324388	2.1
300590	301	020816	569642	6324455	568598	6326271	2.1
300600	301	020816	568654	6326256	569713	6324432	2.1
300610	301	020816	569730	6324493	568678	6326330	2.1
300620	301	020816	568737	6326310	569806	6324471	2.1
300630	301	020816	569826	6324536	568763	6326382	2.1
300640	301	020816	568829	6326355	569886	6324545	2.1
300650	301	020816	569905	6324582	568855	6326421	2.1
300660	301	020816	568917	6326416	569971	6324586	2.1
300670	301	020816	569998	6324637	568940	6326474	2.1
300680	301	020816	569011	6326447	570055	6324637	2.1
300690	301	020816	570079	6324692	569029	6326523	2.1
300700	301	020816	569091	6326501	570148	6324680	2.1
300710	301	020816	570174	6324732	569118	6326569	2.1
300720	301	020816	569184	6326535	570246	6324712	2.1
300730	301	020816	570251	6324798	569193	6326632	2.1
300740	301	020816	569260	6326591	570322	6324777	2.1
300750	301	020816	570343	6324843	569287	6326673	2.1
300760	301	020816	569350	6326656	570410	6324820	2.1
300770	301	020816	570431	6324877	569373	6326724	2.1
300780	301	020816	569441	6326707	570506	6324862	2.1
300790	301	020816	570519	6324920	569469	6326763	2.1
300800	301	020816	569532	6326740	570582	6324929	2.1
300810	301	020816	570614	6324971	569554	6326813	2.1
300820	301	020816	569623	6326789	570681	6324964	2.1
300830	301	020816	570689	6325042	569639	6326861	2.1
300840	301	020816	569699	6326861	570769	6325007	2.1
300850	301	020816	570776	6325090	569716	6326929	2.1
300860	301	020816	569791	6326905	570852	6325059	2.1
300870	301	020816	570862	6325142	569815	6326964	2.1
300880	302	020817	569872	6326951	570941	6325106	2.1
300890	302	020817	569927	6326970	570972	6325146	2.1

300900	302	020817	571013	6325201	569938	6327047	2.1
300910	302	020817	570002	6327031	571073	6325180	2.1
300920	302	020817	571078	6325254	570028	6327086	2.1
300930	302	020817	570092	6327074	571163	6325226	2.1
300940	302	020817	571168	6325309	570122	6327128	2.1
300950	302	020817	570176	6327126	571251	6325276	2.1
300960	302	020817	571276	6325345	570201	6327188	2.1
300970	302	020817	570261	6327168	571332	6325324	2.1
300980	302	020817	571344	6325414	570289	6327231	2.1
300990	302	020817	570346	6327226	571417	6325383	2.1
301000	302	020817	571436	6325448	570374	6327293	2.1
301010	302	020817	570431	6327290	571501	6325436	2.1
301020	302	020817	571525	6325492	570458	6327341	2.1
301030	302	020817	570526	6327321	571596	6325473	2.1
301040	302	020817	571607	6325532	570543	6327397	2.1
301050	302	020817	570605	6327385	571685	6325519	2.2
301060	302	020817	571696	6325598	570631	6327441	2.1
301070	302	020817	570695	6327431	571761	6325582	2.1
301080	302	020817	571792	6325654	570719	6327496	2.1
301090	302	020817	570788	6327469	571845	6325635	2.1
301100	302	020817	571871	6325692	570804	6327541	2.1
301100	302	020817	570882	6327512	571921	6325709	2.1

TOTALS BY FLIGHT

FLIGHT	LINE KM
1	183.1
2	48.9
91	22.3
TOTAL	254.3

LINE KM REPORT FOR a50504m.ltd

LINE	FLT	DATE	START COORDINATE	END COORDINATE	LINE KM
490020	491	020821	673214	6277409	675114 6279255 2.7
490040	491	020821	672929	6277681	678000 6282762 7.2
490050	491	020821	672371	6278237	678429 6284322 8.6
490060	491	020821	678120	6284567	672057 6278509 8.6
490070	491	020821	671810	6278830	677869 6284890 8.6
490080	491	020821	677545	6285138	671493 6279076 8.6
490090	491	020821	671740	6279893	677292 6285444 7.9
490030	492	020822	676992	6285699	674949 6283599 2.9
400010	401	020821	678674	6283994	672613 6277941 8.6
400020	401	020821	671355	6279340	673440 6277253 3.0
400030	401	020821	673428	6277312	671344 6279402 3.0
400040	401	020821	671402	6279400	673471 6277331 2.9
400050	401	020821	673482	6277380	671403 6279460 2.9
400060	401	020821	671461	6279459	673536 6277387 2.9
400070	401	020821	673517	6277454	671458 6279520 2.9
400080	401	020821	671507	6279522	673587 6277444 2.9
400090	401	020821	673579	6277503	671497 6279592 2.9
400100	401	020821	671567	6279574	673648 6277501 2.9
400110	401	020821	673619	6277573	671560 6279641 2.9
400120	401	020821	671618	6279634	673687 6277575 2.9
400130	401	020821	673683	6277621	671611 6279702 2.9
400140	401	020821	671673	6279710	673736 6277640 2.9
400150	401	020821	673717	6277701	671661 6279768 2.9
400160	401	020821	671725	6279753	673789 6277695 2.9
400170	401	020821	673781	6277755	671706 6279835 2.9
400180	401	020821	671776	6279812	673836 6277760 2.9
400190	401	020821	673828	6277811	671770 6279882 2.9
400200	401	020821	671816	6279893	673893 6277819 2.9
400210	401	020821	673883	6277879	671813 6279953 2.9

400220	401	020821	671873	6279951	673947	6277876	2.9
400230	401	020821	673939	6277939	671860	6280020	2.9
400240	401	020821	671919	6280016	673998	6277934	2.9
400250	401	020821	673991	6278003	671911	6280081	2.9
400260	401	020821	671988	6280056	674044	6278005	2.9
400270	401	020821	674030	6278069	671975	6280131	2.9
400280	401	020821	672023	6280133	674103	6278063	2.9
400290	401	020821	674094	6278122	672026	6280193	2.9
400300	401	020821	672090	6280178	674150	6278126	2.9
400310	401	020821	674135	6278190	672070	6280260	2.9
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400330	401	020821	674198	6278240	672125	6280321	2.9
400340	401	020821	672194	6280302	674252	6278256	2.9
400350	401	020821	674247	6278318	672169	6280386	2.9
400360	401	020821	672238	6280372	674309	6278305	2.9
400370	401	020821	674294	6278374	672230	6280435	2.9
400380	401	020821	672296	6280439	674358	6278375	2.9
400390	401	020821	674351	6278430	672273	6280512	2.9
400400	401	020821	672348	6280508	674414	6278429	2.9
400410	401	020821	674399	6278491	672337	6280557	2.9
400420	401	020821	672395	6280552	674462	6278495	2.9
400430	401	020821	674461	6278546	672381	6280635	2.9
400440	401	020821	672452	6280603	674516	6278553	2.9
400450	401	020821	674511	6278614	672443	6280682	2.9
400460	401	020821	672489	6280682	674570	6278606	2.9
400470	401	020821	674553	6278686	672490	6280742	2.9
400480	401	020821	672557	6280730	674618	6278672	2.9
400490	401	020821	674616	6278732	672537	6280814	2.9
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400530	401	020821	674703	6278865	672634	6280942	2.9
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400560	401	020821	672748	6280995	674833	6278913	2.9
400570	401	020821	674817	6278989	672745	6281059	2.9
400580	401	020821	672802	6281053	674871	6278987	2.9
400590	401	020821	674870	6279047	672801	6281115	2.9
400600	401	020821	672872	6281097	674926	6279050	2.9
400610	401	020821	674923	6279104	672856	6281175	2.9
400620	401	020821	672918	6281166	674974	6279111	2.9
400630	401	020821	674966	6279174	672904	6281239	2.9
400640	401	020821	672967	6281228	675031	6279172	2.9
400650	401	020821	675017	6279243	672950	6281304	2.9
400660	401	020821	673014	6281287	675092	6279225	2.9
400670	401	020821	675068	6279302	673014	6281354	2.9
400680	401	020821	673059	6281358	675141	6279281	2.9
400690	401	020821	675123	6279357	673055	6281428	2.9
400700	401	020821	673127	6281411	675185	6279351	2.9
400710	401	020821	675174	6279419	673107	6281484	2.9
400720	401	020821	673177	6281479	675226	6279422	2.9
400730	401	020821	675235	6279466	673155	6281556	2.9
400740	401	020821	673224	6281536	675285	6279479	2.9
400750	401	020821	675276	6279543	673210	6281608	2.9
400760	401	020821	673273	6281601	675341	6279535	2.9
400770	401	020821	675327	6279609	673258	6281674	2.9
400780	401	020821	673338	6281648	675397	6279594	2.9
400790	401	020821	675378	6279664	673323	6281724	2.9
400800	401	020821	673394	6281719	675436	6279657	2.9
400810	401	020821	675428	6279728	673370	6281785	2.9
400820	401	020821	673438	6281784	675491	6279717	2.9
400830	401	020821	675473	6279786	673416	6281859	2.9
400840	401	020821	673490	6281827	675541	6279790	2.9
400850	401	020821	675529	6279841	673479	6281913	2.9
400860	401	020821	673533	6281907	675590	6279851	2.9
400870	401	020821	675587	6279900	673527	6281968	2.9

400880	401	020821	673586	6281970	675662	6279895	2.9
400890	401	020821	675627	6279969	673563	6282037	2.9
400900	401	020821	673636	6282031	675702	6279967	2.9
400910	401	020821	675685	6280036	673633	6282093	2.9
400920	401	020821	673704	6282084	675763	6280022	2.9
400930	401	020821	675747	6280083	673680	6282160	2.9
400940	401	020821	673745	6282147	675800	6280100	2.9
400950	401	020821	675793	6280152	673730	6282223	2.9
400960	401	020821	673803	6282209	675861	6280144	2.9
400970	401	020821	675847	6280213	673779	6282285	2.9
400980	401	020821	673862	6282275	675916	6280209	2.9
400990	401	020821	675894	6280286	673843	6282333	2.9
401000	402	020821	673907	6282325	675969	6280265	2.9
401010	402	020821	675946	6280359	673894	6282402	2.9
401020	402	020821	673950	6282394	676021	6280325	2.9
401030	402	020821	675996	6280406	673938	6282468	2.9
401040	402	020821	673999	6282459	676075	6280381	2.9
401050	402	020821	676049	6280485	673989	6282531	2.9
401060	402	020821	674054	6282507	676112	6280457	2.9
401070	402	020821	676104	6280533	674038	6282593	2.9
401080	402	020821	674103	6282574	676174	6280511	2.9
401090	402	020821	676166	6280582	674096	6282650	2.9
401100	402	020821	674164	6282625	676222	6280577	2.9
401110	402	020821	676212	6280657	674140	6282717	2.9
401120	402	020821	674196	6282694	676267	6280645	2.9
401130	402	020821	676259	6280711	674194	6282778	2.9
401140	402	020821	674260	6282750	676318	6280706	2.9
401150	402	020821	676315	6280767	674242	6282839	2.9
401160	402	020821	674300	6282825	676378	6280760	2.9
401180	402	020821	676360	6280842	674305	6282891	2.9
401200	402	020821	676410	6280897	674343	6282964	2.9
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401220	402	020821	676492	6280994	674433	6283042	2.9
401230	402	020821	674489	6283043	676560	6280975	2.9
401240	402	020821	676544	6281056	674475	6283114	2.9
401250	402	020821	674545	6283105	676618	6281028	2.9
401260	402	020821	676594	6281112	674538	6283164	2.9
401270	402	020821	674603	6283153	676660	6281097	2.9
401280	402	020821	674634	6283182	676685	6281131	2.9
401281	402	020821	676671	6281200	675794	6282076	1.2
401290	402	020821	675230	6282657	674604	6283264	0.9
401291	402	020821	674682	6283246	675189	6282727	0.7
401300	402	020821	675778	6282144	676740	6281193	1.4
401301	402	020821	676718	6281277	675920	6282076	1.1
401310	402	020821	675295	6282675	674665	6283325	0.9
401311	402	020821	674731	6283292	675284	6282767	0.8
401320	402	020821	675962	6282078	676790	6281254	1.2
401330	402	020821	676780	6281324	674699	6283381	2.9
401340	402	020821	674779	6283369	676833	6281323	2.9
401350	402	020821	676819	6281397	674763	6283444	2.9
401360	402	020821	674826	6283437	676903	6281370	2.9
401370	402	020821	676879	6281455	674811	6283509	2.9
401380	402	020821	674880	6283492	676955	6281428	2.9
401390	402	020821	676925	6281516	674868	6283554	2.9
401400	402	020821	674941	6283547	676991	6281505	2.9
401420	402	020821	676991	6281568	674914	6283624	2.9
401430	402	020821	677033	6281649	674975	6283693	2.9
401440	402	020821	675029	6283676	677091	6281629	2.9
401450	402	020821	677084	6281702	675014	6283758	2.9
401460	402	020821	675087	6283738	677149	6281685	2.9
401470	402	020821	677134	6281769	675072	6283813	2.9
401480	402	020821	675144	6283795	677200	6281750	2.9
401490	402	020821	677186	6281830	675121	6283886	2.9
401500	402	020821	675181	6283870	677254	6281801	2.9
401510	402	020821	677249	6281871	675173	6283946	2.9
401520	402	020821	675248	6283921	677309	6281868	2.9

401530	402	020821	677287	6281945	675232	6283990	2.9
401540	402	020821	675287	6283995	677360	6281929	2.9
401550	402	020821	677343	6282011	675285	6284056	2.9
401560	402	020821	675351	6284043	677407	6281988	2.9
401570	402	020821	677399	6282066	675327	6284122	2.9
401580	402	020821	675399	6284120	677471	6282041	2.9
401590	402	020821	677446	6282140	675387	6284181	2.9
401600	402	020821	675460	6284166	677522	6282105	2.9
401610	402	020821	677504	6282182	675432	6284254	2.9
401620	402	020821	675496	6284236	677570	6282169	2.9
401630	402	020821	677543	6282262	675484	6284315	2.9
401640	402	020821	675562	6284284	677624	6282229	2.9
401650	402	020821	677612	6282313	675541	6284371	2.9
401660	402	020821	675604	6284349	677665	6282300	2.9
401670	402	020821	677657	6282367	675593	6284433	2.9
401680	402	020821	675661	6284417	677724	6282349	2.9
401690	402	020821	677699	6282442	675644	6284487	2.9
401700	402	020821	675714	6284473	677770	6282421	2.9
401710	402	020821	677752	6282506	675695	6284560	2.9
401730	402	020821	675772	6284534	677829	6282474	2.9
401740	402	020821	675813	6284601	677870	6282547	2.9
401750	402	020821	677874	6282608	675797	6284684	2.9
401760	402	020821	675867	6284658	677932	6282602	2.9
401770	402	020821	677927	6282677	675854	6284730	2.9
401780	402	020821	675919	6284722	677973	6282671	2.9
401790	402	020821	677972	6282746	675900	6284790	2.9
401800	402	020821	675977	6284773	678034	6282721	2.9
401810	402	020821	678029	6282798	675955	6284854	2.9
401820	402	020821	676019	6284846	678082	6282778	2.9
401830	402	020821	678071	6282856	676009	6284919	2.9
401840	402	020821	676499	6284472	678127	6282859	2.3
401850	402	020821	678121	6282928	676651	6284412	2.1
401860	402	020821	676692	6284416	678184	6282907	2.1
401870	402	020821	678170	6282987	676477	6284690	2.4
401880	402	020821	676172	6285037	678232	6282978	2.9
401890	402	020821	678223	6283051	676162	6285104	2.9
401900	402	020821	676225	6285098	678296	6283025	2.9
401910	402	020821	678269	6283114	676213	6285174	2.9
401920	402	020821	676275	6285156	678347	6283091	2.9
401930	402	020821	678336	6283163	676260	6285230	2.9
401170	403	020822	676328	6285216	678389	6283160	2.9
401190	403	020822	674379	6282877	676420	6280830	2.9
401410	403	020822	676455	6280917	674371	6282996	2.9
401720	403	020822	674985	6283626	677049	6281566	2.9
401940	403	020822	677809	6282560	675743	6284619	2.9
401950	403	020822	676353	6285250	678414	6283191	2.9
401960	403	020822	678410	6283264	676344	6285319	2.9
401970	403	020822	676411	6285313	678465	6283256	2.9
401980	403	020822	678470	6283316	676395	6285384	2.9
401990	403	020822	676455	6285369	678516	6283317	2.9
402000	403	020822	678519	6283381	676453	6285439	2.9
402010	403	020822	676520	6285431	678575	6283372	2.9
402020	403	020822	678561	6283446	676503	6285503	2.9
402030	403	020822	676575	6285481	678618	6283441	2.9
402040	403	020822	678620	6283502	676556	6285574	2.9
402050	403	020822	676617	6285544	678681	6283491	2.9
402060	403	020822	678662	6283568	676609	6285622	2.9
402070	403	020822	676667	6285617	678719	6283569	2.9
402080	403	020822	678728	6283620	676659	6285690	2.9
402090	403	020822	676727	6285669	678778	6283619	2.9
402100	403	020822	678763	6283695	676705	6285745	2.9
402110	403	020822	676772	6285743	678822	6283688	2.9
402120	403	020822	678832	6283748	676757	6285817	2.9
402120	403	020822	676829	6285791	678891	6283734	2.9

TOTALS BY FLIGHT

FLIGHT	LINE KM
1	289.3
2	256.1
3	67.0
91	54.9
92	8.6
TOTAL	675.9

LINE KM REPORT FOR a50505m.ldt

LINE	FLT	DATE	START COORDINATE	END COORDINATE	LINE KM
590020	591	020817	556099	6322637	551611 6324640 4.9
590030	591	020817	551843	6325087	556877 6322839 5.5
590040	591	020817	557237	6323224	552018 6325547 5.7
501130	501	020817	555717	6324454	557482 6323663 1.9
501120	501	020817	552186	6325760	551546 6324319 1.6
501110	501	020817	551616	6324347	552252 6325784 1.6
501100	501	020817	552275	6325712	551635 6324271 1.6
501090	501	020817	551703	6324302	552344 6325738 1.6
501080	501	020817	552372	6325684	551726 6324231 1.6
501070	501	020817	551797	6324269	552429 6325686 1.6
501060	501	020817	552465	6325639	551819 6324189 1.6
501050	501	020817	551886	6324224	552532 6325667 1.6
501040	501	020817	552557	6325599	551915 6324161 1.6
501030	501	020817	551978	6324177	552614 6325609 1.6
501020	501	020817	552645	6325555	552002 6324108 1.6
501010	501	020817	552074	6324151	552711 6325577 1.6
501000	501	020817	552733	6325501	552096 6324080 1.6
500990	501	020817	552159	6324099	552799 6325538 1.6
500980	501	020817	552815	6325457	552181 6324029 1.6
500970	501	020817	552251	6324063	552887 6325490 1.6
500960	501	020817	552911	6325417	552274 6323987 1.6
500950	501	020817	552338	6324012	552973 6325436 1.6
500940	501	020817	553009	6325388	552364 6323943 1.6
500930	501	020817	552439	6323984	553073 6325407 1.6
500920	501	020817	553092	6325353	552460 6323910 1.6
500910	501	020817	552531	6323949	553166 6325377 1.6
500900	501	020817	553184	6325288	552553 6323879 1.5
500890	501	020817	552620	6323898	553257 6325333 1.6
500880	501	020817	553279	6325261	552641 6323825 1.6
500870	501	020817	552715	6323867	553343 6325281 1.5
500860	501	020817	553365	6325209	552735 6323793 1.6
500850	501	020817	552799	6323810	553432 6325242 1.6
500840	501	020817	553460	6325175	552826 6323746 1.6
500830	501	020817	552888	6323767	553528 6325200 1.6
500820	501	020817	553551	6325134	552916 6323703 1.6
500810	501	020817	552981	6323736	553621 6325167 1.6
500800	501	020817	553642	6325089	553013 6323676 1.5
500790	501	020817	553075	6323697	553713 6325122 1.6
500780	501	020817	553737	6325051	553097 6323615 1.6
500770	501	020817	553783	6325036	553147 6323606 1.6
500760	501	020817	553217	6323639	553841 6325049 1.5
500750	501	020817	553865	6324987	553232 6323555 1.6
500740	501	020817	553310	6323594	553939 6325024 1.6
500730	501	020817	553968	6324952	553323 6323511 1.6
500720	501	020817	553390	6323543	554026 6324967 1.6
500710	501	020817	554054	6324912	553422 6323492 1.6
500700	501	020817	553481	6323514	554116 6324926 1.5
500690	501	020817	554142	6324864	553509 6323440 1.6
500680	501	020817	553579	6323471	554215 6324894 1.6
500670	501	020817	554233	6324823	553601 6323400 1.6
500660	501	020817	553665	6323430	554300 6324847 1.6

500650	501	020817	554323	6324771	553699	6323367	1.5
500640	501	020817	553752	6323383	554391	6324808	1.6
500630	501	020817	554407	6324727	553780	6323311	1.5
500620	501	020817	553848	6323354	554489	6324773	1.6
500610	501	020817	554506	6324706	553870	6323266	1.6
500600	501	020817	553940	6323318	554568	6324713	1.5
500590	501	020817	554599	6324661	553967	6323245	1.6
500580	501	020817	554031	6323271	554663	6324669	1.5
500570	501	020817	554686	6324609	554053	6323186	1.6
500560	501	020817	554121	6323213	554757	6324643	1.6
500550	501	020817	554775	6324567	554147	6323152	1.5
500540	501	020817	554220	6323198	554850	6324608	1.5
500530	501	020817	554870	6324524	554238	6323105	1.6
500520	501	020817	554308	6323150	554940	6324566	1.6
500510	501	020817	554957	6324474	554336	6323082	1.5
500500	501	020817	554391	6323121	555022	6324509	1.5
500490	501	020817	555042	6324437	554428	6323041	1.5
500480	501	020817	554491	6323066	555117	6324476	1.5
500470	501	020817	555140	6324399	554511	6322982	1.6
500460	501	020817	554583	6323017	555208	6324430	1.5
500450	501	020817	555227	6324355	554603	6322947	1.5
500440	501	020817	554670	6322983	555300	6324394	1.5
500430	501	020817	555315	6324314	554695	6322904	1.5
500420	501	020817	554764	6322945	555393	6324353	1.5
500410	501	020817	555419	6324292	554784	6322861	1.6
500400	501	020817	554851	6322899	555484	6324314	1.5
500390	501	020817	555503	6324231	554872	6322822	1.5
500380	501	020817	554946	6322855	555697	6324542	1.8
500370	501	020817	555746	6324507	554962	6322775	1.9
500360	501	020817	555047	6322835	555803	6324535	1.9
500350	501	020817	555826	6324470	555058	6322740	1.9
500340	501	020817	555135	6322792	555892	6324491	1.9
500330	501	020817	555919	6324429	555152	6322707	1.9
500320	501	020817	555214	6322726	555984	6324448	1.9
500310	501	020817	556014	6324393	555238	6322656	1.9
500300	502	020817	555307	6322692	556084	6324425	1.9
500290	502	020817	555362	6322674	556121	6324380	1.9
500280	502	020817	556152	6324346	555383	6322609	1.9
500270	502	020817	555458	6322637	556220	6324360	1.9
500260	502	020817	555494	6322607	556263	6324337	1.9
500250	502	020817	556285	6324274	555522	6322553	1.9
500240	502	020817	555591	6322575	556354	6324294	1.9
500230	502	020817	556376	6324232	555611	6322489	1.9
500220	502	020817	555686	6322532	556439	6324241	1.9
500210	502	020817	556464	6324185	555702	6322467	1.9
500200	502	020817	555788	6322528	556533	6324203	1.8
500190	502	020817	556559	6324145	555827	6322504	1.8
500180	502	020817	555929	6322575	556627	6324171	1.7
500170	502	020817	556652	6324118	555949	6322535	1.7
500160	502	020817	556048	6322618	556709	6324107	1.6
500150	502	020817	556738	6324056	556087	6322592	1.6
500140	502	020817	556189	6322658	556809	6324089	1.6
500130	502	020817	556826	6324013	556210	6322619	1.5
500120	502	020817	556309	6322704	556891	6324028	1.4
500110	502	020817	556917	6323967	556347	6322675	1.4
500100	502	020817	556431	6322744	556982	6323986	1.4
500090	502	020817	557011	6323937	556465	6322709	1.3
500080	502	020817	556557	6322778	557079	6323949	1.3
500070	502	020817	557101	6323884	556592	6322746	1.2
500060	502	020817	556676	6322819	557168	6323911	1.2
500050	502	020817	557200	6323854	556726	6322794	1.2
500040	502	020817	556805	6322857	557261	6323876	1.1
500030	502	020817	557293	6323809	556860	6322847	1.1
500020	502	020817	556937	6322903	557352	6323838	1.0
500010	502	020817	557380	6323765	556984	6322885	1.0
500010	502	020817	557064	6322940	557450	6323796	0.9

TOTALS BY FLIGHT

FLIGHT	LINE KM
1	132.2
2	45.9
91	18.1
TOTAL	196.2

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LINE	FLT	DATE	START COORDINATE	END COORDINATE	LINE KM
690090	691	020820	571511	6168448	567221 6164063 6.1
690080	691	020820	567546	6163828	571853 6168135 6.1
690070	691	020820	572116	6167804	567786 6163493 6.1
690060	691	020820	568112	6163258	572419 6167566 6.1
690050	691	020820	572685	6167265	568354 6162938 6.1
690040	691	020820	569742	6163751	572994 6167007 4.6
690030	691	020820	573243	6166688	570420 6163867 4.0
690031	691	020820	570359	6163805	570210 6163650 0.2
690020	691	020820	570972	6163856	573554 6166433 3.6
690010	691	020820	573804	6166118	571253 6163570 3.6
600010	601	020817	571580	6163327	573419 6165169 2.6
600020	601	020817	567144	6164298	568419 6162997 1.8
600030	601	020817	568107	6163389	567137 6164351 1.4
600040	601	020817	567201	6164342	568474 6163065 1.8
600050	601	020817	568324	6163305	567182 6164423 1.6
600060	601	020817	567256	6164399	568734 6162911 2.1
600070	601	020817	568733	6162986	567242 6164477 2.1
600080	601	020817	567304	6164468	568798 6162977 2.1
600090	601	020817	568782	6163046	567304 6164528 2.1
600110	601	020817	567356	6164523	568852 6163034 2.1
600120	601	020817	567414	6164582	568914 6163084 2.1
600130	601	020817	568894	6163156	567415 6164636 2.1
600140	601	020817	567471	6164639	568967 6163136 2.1
600150	601	020817	568949	6163216	567475 6164696 2.1
600160	601	020817	567536	6164692	569021 6163197 2.1
600170	601	020817	569023	6163265	567537 6164744 2.1
600180	601	020817	567597	6164738	569093 6163244 2.1
600190	601	020817	569073	6163321	567574 6164818 2.1
600200	601	020817	567645	6164807	569147 6163304 2.1
600210	601	020817	569114	6163387	567645 6164864 2.1
600220	601	020817	567697	6164869	569196 6163369 2.1
600230	601	020817	569190	6163428	567697 6164920 2.1
600240	601	020817	567761	6164915	569250 6163426 2.1
600250	601	020817	569241	6163492	567750 6164982 2.1
600260	601	020817	567809	6164980	568637 6164145 1.2
600261	601	020817	569301	6163546	569135 6163723 0.2
600270	601	020817	568658	6164204	567805 6165041 1.2
600280	601	020817	567866	6165036	569369 6163530 2.1
600290	601	020817	569356	6163609	567860 6165101 2.1
600300	601	020817	567929	6165088	569417 6163597 2.1
600310	601	020817	569409	6163666	567929 6165142 2.1
600320	601	020817	567989	6165138	569478 6163655 2.1
600330	601	020817	569471	6163716	567972 6165212 2.1
600340	601	020817	568039	6165201	569534 6163710 2.1
600350	601	020817	569503	6163772	568045 6165251 2.1
600360	601	020817	568104	6165254	569600 6163757 2.1
600370	601	020817	569563	6163848	568084 6165326 2.1
600380	601	020817	568156	6165311	569655 6163816 2.1
600390	601	020817	569983	6163539	568142 6165384 2.6
600400	601	020817	568215	6165365	570062 6163522 2.6
600410	601	020817	570049	6163600	568209 6165427 2.6

600420	601	020817	568261	6165435	570117	6163579	2.6
600430	601	020817	570102	6163652	568266	6165481	2.6
600440	601	020817	568325	6165480	570179	6163629	2.6
600450	601	020817	570141	6163708	568323	6165541	2.6
600460	601	020817	568377	6165544	570234	6163690	2.6
600470	601	020817	570217	6163754	568384	6165590	2.6
600480	601	020817	568435	6165598	570275	6163758	2.6
600490	601	020817	570278	6163832	568428	6165662	2.6
600500	601	020817	568495	6165653	570335	6163811	2.6
600510	601	020817	570321	6163888	568495	6165707	2.6
600520	601	020817	568555	6165704	570395	6163869	2.6
600530	601	020817	570372	6163931	568546	6165775	2.6
600540	601	020817	568605	6165766	570425	6163945	2.6
600550	601	020817	570444	6163989	568606	6165830	2.6
600560	601	020817	568653	6165829	570505	6163980	2.6
600570	601	020817	570495	6164061	568657	6165888	2.6
600580	601	020817	568729	6165875	570574	6164030	2.6
600581	601	020817	570566	6164097	569792	6164847	1.1
600590	601	020817	569380	6165309	568720	6165937	0.9
600591	601	020817	568774	6165943	569494	6165220	1.0
600600	601	020817	570031	6164670	570628	6164083	0.8
600601	601	020817	570614	6164146	569870	6164862	1.0
600610	601	020817	569425	6165379	568775	6165998	0.9
600611	601	020817	568830	6165987	569443	6165425	0.8
600620	601	020817	570045	6164792	570712	6164119	0.9
600621	601	020817	570682	6164182	570079	6164804	0.9
600630	601	020817	569128	6165769	568782	6166103	0.5
600631	601	020817	568889	6166051	569479	6165476	0.8
600640	601	020817	570149	6164772	571786	6163148	2.3
600641	601	020817	571772	6163213	570193	6164806	2.2
600650	601	020817	569426	6165568	568894	6166102	0.8
600651	601	020817	568948	6166108	569399	6165649	0.6
600660	601	020817	570297	6164740	571637	6163412	1.9
600661	601	020817	571844	6163274	569953	6165157	2.7
600670	601	020817	569382	6165753	568941	6166168	0.6
600680	601	020817	569005	6166162	571599	6163562	3.7
600681	601	020817	571887	6163341	570409	6164809	2.1
600690	601	020817	569934	6165306	569004	6166220	1.3
600691	601	020817	569058	6166220	570040	6165236	1.4
600700	601	020817	570422	6164839	571952	6163325	2.2
600701	601	020817	571939	6163386	570506	6164830	2.0
600710	601	020817	569831	6165526	569067	6166273	1.1
600720	601	020817	569127	6166264	572013	6163384	4.1
600721	601	020817	572010	6163437	570590	6164872	2.0
600730	601	020817	569988	6165460	569114	6166328	1.2
600740	601	020817	569173	6166327	572080	6163427	4.1
600750	601	020817	572052	6163508	569162	6166399	4.1
600760	602	020820	569227	6166391	572135	6163486	4.1
600770	602	020820	572117	6163565	569221	6166455	4.1
600780	602	020820	569302	6166440	572178	6163554	4.1
600790	602	020820	572181	6163607	569282	6166508	4.1
600800	602	020820	569351	6166496	572241	6163604	4.1
600810	602	020820	572238	6163659	569332	6166569	4.1
600820	602	020820	569408	6166548	572308	6163651	4.1
600830	602	020820	572283	6163728	569387	6166627	4.1
600840	602	020820	569463	6166604	572346	6163729	4.1
600850	602	020820	572359	6163775	569450	6166676	4.1
600860	602	020820	569506	6166675	572421	6163768	4.1
600870	602	020820	572409	6163833	569513	6166734	4.1
600880	602	020820	569562	6166729	572465	6163832	4.1
600890	602	020820	572469	6163892	569564	6166794	4.1
600900	602	020820	569632	6166771	572532	6163880	4.1
600910	603	020822	572529	6163944	569626	6166843	4.1
600920	603	020822	569689	6166840	572578	6163951	4.1
600930	603	020822	572565	6164015	569684	6166896	4.1
600940	603	020822	569735	6166902	572640	6163997	4.1

600950	603	020822	572634	6164060	569737	6166955	4.1
600960	603	020822	569797	6166951	572700	6164050	4.1
600970	603	020822	572682	6164118	569799	6167006	4.1
600980	603	020822	569864	6167001	572761	6164101	4.1
600990	603	020822	572743	6164178	569851	6167071	4.1
601000	603	020822	569905	6167073	572807	6164167	4.1
601010	603	020822	572802	6164233	569902	6167132	4.1
601020	603	020822	569973	6167117	572869	6164222	4.1
601030	603	020822	572864	6164288	569963	6167182	4.1
601040	603	020822	570022	6167178	572915	6164286	4.1
601050	603	020822	572910	6164348	570025	6167234	4.1
601060	603	020822	570088	6167228	572972	6164342	4.1
601070	603	020822	572950	6164409	570081	6167295	4.1
601080	603	020822	570144	6167283	573028	6164399	4.1
601090	603	020822	573028	6164468	570130	6167364	4.1
601100	603	020822	570190	6167349	573091	6164451	4.1
601110	603	020822	573069	6164526	570191	6167410	4.1
601120	603	020822	570250	6167410	573146	6164510	4.1
601130	603	020822	573131	6164570	570237	6167475	4.1
601140	603	020822	570297	6167470	573213	6164561	4.1
601150	603	020822	573194	6164629	570306	6167515	4.1
601160	604	020822	570367	6167515	573265	6164621	4.1
601170	604	020822	573244	6164693	570368	6167570	4.1
601180	604	020822	570421	6167574	573311	6164682	4.1
601190	604	020822	573309	6164740	570410	6167646	4.1
601200	604	020822	570463	6167644	573379	6164729	4.1
601210	604	020822	573381	6164801	570463	6167700	4.1
601220	604	020822	570516	6167701	573433	6164791	4.1
601230	604	020822	573422	6164859	570525	6167753	4.1
601240	604	020822	570577	6167761	573490	6164846	4.1
601250	604	020822	573481	6164910	570591	6167803	4.1
601260	604	020822	570633	6167811	573549	6164898	4.1
601280	604	020822	573537	6164972	570640	6167862	4.1
601290	604	020822	570730	6167890	573438	6165182	3.8
601300	604	020822	573268	6165412	570734	6167944	3.6
601310	604	020822	570779	6167943	573335	6165394	3.6
601320	604	020822	573322	6165479	570795	6168002	3.6
601330	604	020822	570846	6167998	573379	6165465	3.6
601340	604	020822	573386	6165518	570839	6168058	3.6
601350	604	020822	570906	6168049	573435	6165520	3.6
601360	604	020822	573433	6165578	570899	6168113	3.6
601370	604	020822	570944	6168111	573499	6165571	3.6
601380	604	020822	573490	6165634	570953	6168176	3.6
601390	604	020822	571015	6168175	573564	6165616	3.6
601400	604	020822	573550	6165687	571010	6168230	3.6
601410	604	020822	571076	6168225	573623	6165675	3.6
601420	604	020822	573594	6165741	571073	6168276	3.6
601430	604	020822	571134	6168276	573668	6165738	3.6
601440	604	020822	573657	6165810	571117	6168351	3.6
601450	604	020822	571183	6168336	573730	6165786	3.6
601460	604	020822	573717	6165866	571183	6168394	3.6
601470	604	020822	571235	6168396	573780	6165852	3.6
601480	604	020822	573773	6165910	571237	6168455	3.6
601490	604	020822	571300	6168449	573846	6165906	3.6
601500	604	020822	573830	6165979	571284	6168519	3.6
601270	604	020822	571348	6168505	573895	6165961	3.6
600100	604	020822	573546	6165021	570668	6167891	4.1
600100	604	020822	568843	6163100	567364	6164578	2.1

TOTALS BY FLIGHT

FLIGHT	LINE KM
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1	178.6
2	61.5

3	102.3
4	134.2
91	49.2
TOTAL	525.8

LINE KM REPORT FOR a50507m.ldt

LINE	FLT	DATE	START COORDINATE	END COORDINATE	LINE KM
790020	791	020822	685354 6270343	685808 6270946	0.8
790030	791	020822	685467 6271157	685014 6270563	0.7
790040	791	020822	684722 6270828	685173 6271435	0.8
790050	791	020822	684825 6271635	684371 6271035	0.8
700010	701	020822	684105 6271346	684532 6271912	0.7
700020	701	020822	683933 6271493	685603 6270237	2.1
700030	701	020822	685607 6270283	683921 6271551	2.1
700040	701	020822	683975 6271563	685659 6270293	2.1
700050	701	020822	685659 6270351	683961 6271622	2.1
700060	701	020822	684020 6271612	685714 6270355	2.1
700070	701	020822	685706 6270421	684016 6271684	2.1
700080	701	020822	684073 6271687	685763 6270417	2.1
700090	701	020822	685757 6270475	684053 6271754	2.1
700100	701	020822	684118 6271749	685818 6270473	2.1
700110	701	020822	685798 6270543	684118 6271807	2.1
700120	701	020822	684181 6271808	685855 6270549	2.1
700130	701	020822	685839 6270614	684153 6271876	2.1
700140	701	020822	684216 6271881	685918 6270603	2.1
700150	701	020822	685885 6270680	684200 6271946	2.1
700160	701	020822	684284 6271933	685964 6270666	2.1
700160	701	020822	685957 6270732	684256 6271996	2.1

TOTALS BY FLIGHT

FLIGHT	LINE KM
1	33.8
91	3.7
TOTAL	37.5

LINE KM REPORT FOR a50508m.ldt

LINE	FLT	DATE	START COORDINATE	END COORDINATE	LINE KM
890020	891	020815	558520 6320544	565000 6321449	6.5
890030	891	020815	564898 6321926	558391 6321028	6.6
890040	891	020815	557366 6321360	564865 6322441	7.6
890050	891	020815	563378 6322741	557076 6321849	6.4
801530	801	020815	557041 6322341	563360 6323239	6.4
801520	801	020815	564751 6322484	564944 6321169	1.3
801510	801	020815	564884 6321218	564698 6322552	1.3
801500	801	020815	564658 6322477	564844 6321156	1.3
801490	801	020815	564785 6321188	564600 6322525	1.3
801480	801	020815	564561 6322450	564744 6321136	1.3
801470	801	020815	564690 6321175	564503 6322511	1.3
801460	801	020815	564461 6322446	564646 6321125	1.3
801450	801	020815	564592 6321154	564406 6322491	1.4
801440	801	020815	564364 6322433	564549 6321100	1.3
801430	801	020815	564494 6321146	564303 6322475	1.3
801420	801	020815	564257 6322429	564448 6321088	1.4
801410	801	020815	564394 6321137	564206 6322462	1.3
801400	801	020815	564165 6322414	564349 6321070	1.4
801390	801	020815	564294 6321107	564108 6322442	1.3
801380	801	020815	564066 6322377	564252 6321069	1.3
801370	801	020815	564195 6321091	564006 6322431	1.4
801360	801	020815	563968 6322379	564153 6321038	1.4

801350	801	020815	564096	6321089	563907	6322424	1.3
801340	801	020815	563869	6322367	564053	6321036	1.3
801330	801	020815	563995	6321071	563809	6322412	1.4
801320	801	020815	563761	6322342	563954	6321007	1.3
801310	801	020815	563899	6321055	563712	6322399	1.4
801300	801	020815	563668	6322338	563858	6321002	1.3
801290	801	020815	563799	6321043	563613	6322368	1.3
801280	801	020815	563569	6322320	563757	6320982	1.4
801270	801	020815	563705	6321013	563509	6322371	1.4
801260	801	020815	563449	6322469	563658	6320967	1.5
801250	801	020815	563603	6321015	563389	6322567	1.6
801240	801	020815	563323	6323135	563562	6320945	2.2
801230	801	020815	563501	6321004	563145	6323542	2.6
801220	801	020815	563104	6323462	563459	6320932	2.6
801210	801	020815	563403	6320989	563046	6323510	2.5
801200	801	020815	563006	6323441	563358	6320939	2.5
801190	801	020815	563301	6320950	562951	6323499	2.6
801180	801	020815	562905	6323438	563261	6320911	2.6
801170	801	020815	563208	6320944	562851	6323477	2.6
801160	801	020815	562806	6323433	563164	6320892	2.6
801150	801	020815	563109	6320934	562746	6323475	2.6
801140	801	020815	562715	6323409	563062	6320887	2.5
801130	801	020815	563011	6320921	562653	6323459	2.6
801120	801	020815	562612	6323397	562965	6320857	2.6
801110	801	020815	562905	6320909	562548	6323440	2.6
801100	801	020815	562515	6323378	562867	6320837	2.6
801090	801	020815	562811	6320882	562454	6323427	2.6
801080	801	020815	562412	6323373	562769	6320823	2.6
801070	801	020815	562716	6320861	562353	6323422	2.6
801060	801	020815	562311	6323352	562670	6320806	2.6
801050	801	020815	562616	6320854	562254	6323410	2.6
801040	801	020815	562217	6323352	562573	6320798	2.6
801030	801	020815	562514	6320829	562155	6323389	2.6
801020	801	020815	562114	6323322	562469	6320798	2.5
801010	801	020815	562408	6320832	562060	6323366	2.6
801000	801	020815	562017	6323301	562372	6320762	2.6
800990	801	020815	562322	6320810	561957	6323372	2.6
800980	801	020815	561916	6323290	562270	6320760	2.6
800970	801	020815	562217	6320791	561855	6323358	2.6
800960	801	020815	561826	6323280	562176	6320740	2.6
800950	801	020815	562119	6320779	561762	6323325	2.6
800940	801	020815	561726	6323267	562073	6320733	2.6
800930	801	020815	562021	6320759	561663	6323315	2.6
800920	801	020815	561615	6323256	561975	6320701	2.6
800910	801	020815	561927	6320759	561563	6323309	2.6
800900	801	020815	561518	6323246	561874	6320700	2.6
800890	801	020815	561829	6320721	561465	6323292	2.6
800880	801	020815	561420	6323234	561778	6320692	2.6
800870	801	020815	561725	6320715	561366	6323268	2.6
800860	801	020815	561339	6323233	561678	6320675	2.6
800850	801	020815	561627	6320713	561264	6323260	2.6
800840	801	020815	561240	6323207	561581	6320650	2.6
800830	801	020815	561516	6320695	561166	6323239	2.6
800820	801	020815	561132	6323184	561485	6320621	2.6
800810	801	020815	561434	6320667	561067	6323242	2.6
800800	801	020815	561032	6323182	561381	6320628	2.6
800790	801	020815	561331	6320667	560969	6323208	2.6
800780	801	020815	560936	6323164	561282	6320601	2.6
800770	801	020815	561233	6320657	560868	6323203	2.6
800760	801	020815	560825	6323150	561187	6320592	2.6
800750	801	020815	561138	6320615	560773	6323202	2.6
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800730	801	020815	561030	6320622	560668	6323185	2.6
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800710	801	020815	560935	6320588	560572	6323163	2.6
800700	801	020815	560535	6323092	560892	6320545	2.6

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800670	801	020815	560738	6320560	560376	6323122	2.6
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800620	801	020815	560134	6323036	560494	6320474	2.6
800610	801	020815	560438	6320509	560081	6323086	2.6
800600	801	020815	560033	6323044	560393	6320458	2.6
800590	801	020815	560336	6320510	559977	6323087	2.6
800580	801	020815	559934	6323012	560296	6320456	2.6
800570	801	020815	560243	6320496	559879	6323054	2.6
800560	801	020815	559840	6322997	560194	6320445	2.6
800550	801	020815	560146	6320469	559777	6323060	2.6
800540	801	020815	559736	6322998	560101	6320404	2.6
800530	801	020815	560049	6320462	559680	6323030	2.6
800520	801	020815	559641	6322971	560001	6320416	2.6
800510	801	020815	559950	6320429	559587	6323012	2.6
800500	801	020815	559543	6322963	559904	6320390	2.6
800490	801	020815	559849	6320417	559484	6323009	2.6
800480	801	020815	559440	6322962	559806	6320378	2.6
800470	801	020815	559752	6320400	559384	6322986	2.6
800460	801	020815	559348	6322917	559706	6320348	2.6
800450	801	020815	559648	6320381	559287	6322978	2.6
800440	801	020815	559252	6322925	559605	6320333	2.6
800430	801	020815	559553	6320377	559187	6322956	2.6
800420	802	020816	559145	6322913	559505	6320332	2.6
800410	802	020816	559451	6320361	559088	6322940	2.6
800400	802	020816	559043	6322884	559404	6320323	2.6
800390	802	020816	559353	6320344	558988	6322938	2.6
800370	802	020816	558951	6322882	559305	6320310	2.6
800360	802	020816	558847	6322864	559208	6320285	2.6
800350	802	020816	559156	6320327	558789	6322899	2.6
800340	802	020816	558750	6322857	559110	6320272	2.6
800330	802	020816	559058	6320290	558692	6322891	2.6
800320	802	020816	558651	6322840	559008	6320260	2.6
800310	802	020816	558959	6320281	558591	6322885	2.6
800300	802	020816	558553	6322821	558913	6320230	2.6
800290	802	020816	558864	6320271	558494	6322868	2.6
800280	802	020816	558453	6322808	558813	6320217	2.6
800270	802	020816	558761	6320244	558394	6322847	2.6
800260	802	020816	558361	6322791	558715	6320209	2.6
800250	802	020816	558665	6320230	558297	6322827	2.6
800240	802	020816	558263	6322767	558615	6320202	2.6
800230	802	020816	558560	6320228	558196	6322820	2.6
800220	802	020816	558151	6322775	558366	6321256	1.5
800210	802	020816	558295	6321435	558097	6322803	1.4
800200	802	020816	558057	6322745	558243	6321406	1.4
800190	802	020816	558194	6321440	557996	6322801	1.4
800180	802	020816	557960	6322728	558140	6321397	1.3
800170	802	020816	558094	6321425	557897	6322790	1.4
800160	802	020816	557860	6322730	558045	6321361	1.4
800150	802	020816	557998	6321396	557800	6322773	1.4
800140	802	020816	557761	6322724	557949	6321372	1.4
800130	802	020816	557894	6321402	557702	6322750	1.4
800120	802	020816	557665	6322696	557850	6321352	1.4
800110	802	020816	557789	6321376	557607	6322723	1.4
800100	802	020816	557563	6322684	557747	6321333	1.4
800090	802	020816	557692	6321384	557506	6322726	1.4
800080	802	020816	557460	6322665	557649	6321326	1.4
800070	802	020816	557595	6321349	557403	6322715	1.4
800060	802	020816	557362	6322655	557550	6321319	1.3
800050	802	020816	557491	6321344	557305	6322686	1.4
800040	802	020816	557260	6322641	557449	6321290	1.4
800030	802	020816	557393	6321344	557207	6322688	1.4

800020	802	020816	557166	6322624	557348	6321284	1.4
800010	802	020816	557299	6321314	557109	6322665	1.4
800380	803	020822	557064	6322614	557253	6321276	1.4
800380	803	020822	559253	6320330	558892	6322916	2.6

TOTALS BY FLIGHT

FLIGHT	LINE KM
-----	-----
1	252.1
2	78.5
3	2.6
91	33.4
TOTAL	366.6

Appendix 8

South Australian Iron Ore Group

SUPPLY OF ANALYTICAL SERVICES

Report No. N028LH02

22 August 2002

AMDEL LIMITED
A.B.N. 30 008 127 802
Mineral Services Laboratory
PO Box 338
TORRENSVILLE PLAZA SA 5031
AUSTRALIA

Telephone (Aust): (08) 8416 5200
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A subsidiary of The Gribbles Group

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Osman Place
Thebarton
South Australia 5031
AUSTRALIA

PO Box 338
Torrensville Plaza
South Australia 5031
AUSTRALIA

22 August 2002

South Australian Iron Ore
Group PO Box 2884
PORT LINCOLN
SA 5606

Attention: Mr Dave Fielding

REPORT N028LH02

SUPPLY OF ANALYTICAL SERVICES

YOUR REFERENCE:	LN1952.02 Amdel Quotation
SAMPLE IDENTIFICATION:	See report for sample numbers
MATERIAL:	HQ drill core and RC chip samples
LOCATION:	Port Lincon
DATE RECEIVED:	On-going
PROJECT MANAGER:	M.Pietrobon

Christopher J Greet
Manager, Mineral Processing

MP:msm

1. INTRODUCTION

HQ drill core samples and RC chip samples have been provided in batches to Amdel to undertake sample preparation and chemical analysis. This work has been on-going since February 2002. A significant amount of developmental work has gone into the sample preparation for generating composite samples for magnetic separation. More recently, a phone conference between Mr. David Fielding of SAIOG and Mr. Alan Ciplis/Mr. Michael Petrobon of Amdel Ltd. revisited the whole sample preparation procedure. The purpose for this report is to document the new procedure to be adopted and report the latest set of results.

The work has been carried out in 2 stages. In Stage 1, XRF or ICP techniques are used to analyse samples for major elements, base metals and gold. In stage 2, selected samples have been processed over a Davis Tube magnetic separator with the magnetic product analysed for major elements by XRF. Selection of samples for Stage 2 tests has been carried out by SAIOG and will be based on Stage 1 assay data.

2. PROCEDURE

The procedure adopted for the most recent set of tests has been detailed in the attached flowsheet in Appendix 1. Briefly the following protocol has been adopted:

- i. Core samples are submitted to Amdel and crushed using a combination of jaw crusher/Boyd crusher to -5mm.
- ii. Samples are riffle split, with a 150g portion (from the 1-2kg total) being pulverized to 90% passing 106µm. Fifty grams is submitted for XRF/IC4 assay and the results are reported to SAIOG.
- iii. After reviewing the results, SAIOG contacts Amdel with a list of samples to be composited. The remaining 100g that had been pulverised previously is used to make up the composites according to ratios provided by SAIOG.
- iv. The composite sample produced is a total of 100g. This is homogenised in a ring mill for 30 seconds and then riffled twice to produce a 25g sub-sample. The sub-sample is then pulverized to 100% passing 75µm.
- v. A Routine Davis Tube procedure with magnetic separation to assess magnetic recovery on a 20g sample is performed. The magnetic fraction is submitted for XRF analysis. The non-magnetic fraction is retained.

3. RESULTS

Chemical analysis (Table 1) and magnetic separation (Table 2) results have been included in Appendix 2.

Table 1

IDENT	Al2O3	CaO	Fe	Fe2O3	K2O	LOI	MgO	MnO
UNITS	%	%	%	%	%	%	%	%
SCHEME	XRF4	XRF4	XRF4	XRF4	XRF4	XRF4	XRF4	XRF4
DETECTION LIMIT	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	0.01A							
291065	0.59	1.24	55.4	79.2	0.02	-2.36	2.4	0.08
291066	0.39	2.9	54.7	78.1	0.03	-0.57	3.91	0.67
291067	0.06	0.51	69.3	99.1	<0.01	-2.54	0.46	0.5
291068	0.34	1.6	60.3	86.2	0.06	-1.74	1.74	0.12
291069	0.31	0.48	68.7	98.2	0.02	-2.85	0.39	0.22
291070	0.62	4.75	47.6	68.1	0.11	-0.41	6.2	0.35
291071	0.48	0.22	69.8	99.8	0.02	-2.42	0.17	0.08
291072	0.41	0.16	70.4	101	0.02	-2.54	0.11	0.03
291073	0.32	0.22	71	101	0.03	-2.91	0.15	0.03
291074	0.35	0.2	70.6	101	0.02	-2.9	0.15	0.04
291075	0.47	0.29	68.6	98.1	0.01	-1.82	0.14	0.04
291076	0.28	0.31	69.3	99	<0.01	-2.31	0.16	0.03
291077	0.65	0.68	62.7	89.6	0.03	-1.94	0.72	0.05
291078	0.44	0.23	69.4	99.2	0.01	-2.81	0.2	0.07
291079	0.72	0.66	66.5	95.1	0.01	-2.58	1	0.13
291080	0.15	0.15	70.6	101	<0.01	-2.85	0.1	0.04
291081	0.05	0.16	63.2	90.4	<0.01	-0.69	0.28	0.05
291082	0.15	0.49	70.1	100	<0.01	-2.63	0.41	0.32

TABLE 1

IDENT	Na2O	P2O5	SiO2	TiO2	Zn	V	S
UNITS	%	%	%	%	ppm	ppm	%
SCHEME	XRF4	XRF4	XRF4	XRF4	XRF4	XRF4	XRF4
DETECTION LIMIT	0.01	0.01	0.01	0.01	50	100	0.01
291065	0.01	0.02	17.6	0.06	100	<100	0.07
291066	<0.01	0.11	14	0.05	50	<100	<0.01
291067	<0.01	0.02	2.24	0.02	50	<100	<0.01
291068	<0.01	0.06	10.7	0.05	50	101	0.01
291069	<0.01	0.02	3.48	0.04	50	124	<0.01
291070	0.03	0.14	18.4	0.08	50	299	0.31
291071	0.05	<0.01	1.21	0.36	50	2279	<0.01
291072	0.05	0.05	1	0.2	50	2170	<0.01
291073	0.02	0.05	0.7	0.11	50	1953	<0.01
291074	0.05	0.03	1.04	0.12	50	2344	0.01
291075	0.01	0.02	2.94	0.21	50	295	<0.01
291076	0.01	0.04	2.22	0.13	50	139	<0.01
291077	0.05	0.06	9.5	0.16	50	203	0.1
291078	<0.01	0.03	2.51	0.14	50	168	0.02
291079	0.03	<0.01	4.41	0.24	100	227	0.05
291080	<0.01	<0.01	1.94	0.02	50	<100	<0.01
291081	<0.01	0.02	8.5	0.01	50	<100	<0.01
291082	<0.01	<0.01	1.63	0.03	50	106	<0.01

TABLE 2

IDENT	Tot Wt	Mag Wt	Magnetics
UNITS	grams	grams	%
SCHEME	DT1	DT1	
DETECTION LIMIT	0.01	0.01	
291065	19.53	3.45	17.7%
291066	19.45	4.92	25.3%
291067	19.42	7.85	40.4%
291068	19.25	5.64	29.3%
291069	19.51	8.54	43.8%
291070	19.63	3.41	17.4%
291071	19.43	6.55	33.7%
291072	19.53	5.79	29.6%
291073	19.52	6.82	34.9%
291074	19.55	4.83	24.7%
291075	19.02	3.23	17.0%
291076	19.18	5.16	26.9%
291077	19.26	2.35	12.2%
291078	19.3	4.86	25.2%
291079	19.53	4.53	23.2%
291080	19.32	13.29	68.8%
291081	19.09	2.39	12.5%
291082	19.46	6.59	33.9%

Centrex Metals Ltd

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**Exploration Licence 2905 (Mount Hill – Bald Hill Area) Eyre Peninsula,
South Australia
Second Annual Report on Exploration for the Period
13th March, 2003 to 12th March, 2004.**

**G Chrisp & T Pearce
December, 2004**

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Attachment.

Figure 1. Location Map – Eyre Peninsula EL 2905

1. Introduction

The Gawler Craton is a world ranked iron ore province with large areas of poorly outcropping or covered banded iron formations which are highly prospective for magnetite and hematite deposits.

The key advantages of location and simple metallurgy of coastal Eyre Peninsula magnetite ores presented Centrex with an opportunity to enter a new iron ore province and develop a new export business. This took into account excellent infrastructure with existing railways or spur lines, possibilities for road train haulage and potential for virgin deep water ports. These advantages coupled with the coarse grained nature of known magnetite deposits were likely to enhance early project viability and it was envisaged that exploration could rapidly progress to a small starter operation to be scaled up over time.

High quality magnetic data over the peninsula acquired under the TEISA programme simplified initial selection of high amplitude magnetic targets. Past exploration including geophysical surveys and drilling for iron ore by the SADM (now PIRSA) in the late 1950's provided valuable hard data on a number of magnetite deposits on the Eyre Peninsula. Potential for major undiscovered hematite deposits was recognised, given that initial targets are interpreted to be extensions of the same BIFs which host the Middleback Ranges hematite ores. Hematite prospectively was considered as part of the analysis of each prospect.

In 2000, a data review identified the key known iron ore prospects (Parker 2001). "Sighter" metallurgical testing of existing PIRSA diamond cores from prospects outside EL2905 (Carrow, Greenpatch and Koppio), achieved good magnetite recoveries with high iron and low impurities particularly phosphorous. This encouraged the company to apply for title where ground was available or to pursue joint ventures over targets already under title.

An exploration programme for magnetite iron ores was developed whereby simple targeting using low level aeromagnetic could be rapidly advanced to drilling. This optimised the exploration programme and eliminated the need for lengthy preparatory surveys and analyses.

EL2905 was granted to the South Australian Iron Ore Group a then wholly owned subsidiary of Portman Limited, on the 13th March 2002 for a period of 1 year, and field work commenced immediately. This Licence was renewed for a further 2 year period, and now the new renewal date is 13th March 2005.

The ownership of SAIOG including EL2905 was transferred by Portman Iron Ore Limited to Centrex Metals Ltd under a corporate agreement reached in late 2003.

2. Geology and Physiography

EL 2905 comprises 2 blocks along the eastern coast of the Eyre Peninsula. Topographic relief varies from very subdued in the northern (Mount Hill) block to moderately dissected hilly country in the southern Bald Hill block. (Figure 1)

The regional geology of the eastern Eyre Peninsula is described by Parker et al. (1988). The area is located on the southern margin of the Gawler Craton which comprises a variety of late Archaean to early Mesoproterozoic gneisses and granites. Banded Iron Formations (BIF) targeted by the current exploration programme form part of the Palaeoproterozoic Hutchison Group. This group has been subdivided into a basal quartzite unit (Warow Quartzite) and an upper psammopelitic unit (Yadnarie Schist) separated by a mixed clastic / chemical sedimentary unit (Middleback Subgroup). Target BIF's are assigned to the Middleback Subgroup.

The Hutchison Group was affected by the Kimban Orogeny, a major period of deformation, metamorphism and granite intrusion which extended between 1850 Ma and 1700 Ma. The Kimban Orogeny comprised three main tectonic events:

- An early high grade amphibolite to granulite facies event ca. 1850-1840 Ma (M1)
- A high grade isoclinal folding event with some possible thrusting ca. 1780-1720 Ma (D2)
- A lower grade open folding event ca. 1710 Ma (D3) with associated shearing along discrete mylonite zones.

Hutchison Group rocks have been extensively intruded by middle to late Palaeoproterozoic (ca. 1845-1710 Ma) granites which make up the Lincoln Complex.

Eyre Peninsula BIF's occur as sinuous belts of magnetite and hematite bearing rocks generally strongly deformed and recrystallised. They are dominated by quartz, magnetite/hematite/limonite, iron rich silicate minerals (hornblende, anthophyllite, grunerite, gedrite, hedenbergite, diopside and actinolite/tremolite), dolomitic and iron-rich carbonate and local accessories including apatite, garnet and pyrite. These rocks give rise to corridors of distinctive high amplitude magnetic anomalies.

BIF units appear to occur in two distinctive stratigraphic settings:

- The Greenpatch, Bungalow, Iron Mount and Carrow deposits occur in a dolomitic marble sequence probably equivalent to the Katunga Dolomite at the base of the Middleback Subgroup.
- The Koppio, Brennand, Kapperna, Oolanta deposits are interbanded with sillimanite – biotite schist suggesting a higher stratigraphic location at the top of the Middleback Subgroup.

High grade metamorphism and tectonism has resulted in coarsely crystalline magnetite with very low levels of deleterious elements eg P_2O_5 .

Rocks are moderately to strongly banded with magnetite rich layers alternating with iron silicate rich and quartz rich layers. This banding is considered to have been primary sedimentary bedding but it has been metamorphosed and strongly deformed leading to the development of a layer parallel foliation (termed S_1). The banding can be seen to be strongly deformed by F_2 isoclinal folds and overprinted by a second

foliation (termed S_2). Intrafolial F_2 folds can be seen in drill core to be refolded by more open F_3 folds and crenulations. There is clear evidence on a mesoscopic scale of thickening of individual magnetite layers in fold noses. This suggests strongly that the same process is happening on a macroscopic scale and, combined with multiple repetition of individual bands during folding, that the cumulative thickness of BIF units can be considerably enhanced.

On southern Eyre Peninsula, the Hutchison Group has been intruded by granites ranging in age from 1845 Ma to 1710 Ma. The older granites (Donington Granitoid Suite) have been intensely deformed and exposed along the eastern coastline from Port Lincoln to Port Neill. They are separated from the main BIF exposures by the Kalinjala Mylonite Zone which is a broad (>1km wide) dextral vergence shear zone extending from Sleaford Bay to the Middleback Ranges region. Dating of pegmatites in the shear zone suggest that it formed during D_3 at about 1710 Ma. West of the shear zone the Hutchison Group is intruded by slightly younger granitoids (Moody Suite) ca. 1750 – 1710 Ma. These range from ovoid shaped plutons several kilometres across to narrow pegmatite dykes.

No Mesoproterozoic granites or volcanics are known on southern Eyre Peninsula but immediately north of Bungalow and south of Iron Duke, the BIFs are intruded by the ca. 1590 Ma Charleston Granite (Hiltaba Suite).

The Proterozoic rocks of eastern Eyre Peninsula have been subjected to deep lateritic weathering and partly covered by Cainozoic fluvial and aeolian sands. This profile which coincides with low relief, is preserved in the northern part of the project area at Bungalow, Kooralla and Port Neill, while it has been partly stripped off in the more dissected southern blocks (Greenpatch, Bald Hill, Iron Mount and Koppio).

BIF units have generally been more resistant to weathering and erosion and frequently form strike ridges even when concealed beneath younger cover.

3. Previous Exploration

No specific iron ore exploration has previously been conducted within EL2905. The following has been compiled from a number of published and unpublished records of SADM now PIRSA.

The Bald Hill prospect is located in Section 42 of Wanilla, approximately 25km NNW of Port Lincoln, the Bald Hill prospect represents the northern extension of the Charleton Gully synform.

Bald Hill itself is located on the southern end of an 8-9km long moderately intense aeromagnetic anomaly that, on ground magnetics undertaken by Dominion Mining Ltd, comprises 2-4 discrete anomalies that coalesce to form the aeromagnetic anomaly. The Charleton Gully synform is interpreted to run along the length of the Bald Hill anomaly suggesting that this potential prospect is in the core of the fold. Numerous rock chip samples collected by Dominion Mining Ltd (for gold exploration) from scattered jaspilite outcrops in the Bald Hill area give assays ranging up to 59% Fe. Dominion drilled several aircore holes across parts of the aeromagnetic anomaly but didn't assay for Fe. However, they record bottom-hole lithologies including ferruginous quartzite and jaspilitic chert. One hole assayed 92ppb Au.

Afmeco Pty Ltd drilled several RAB holes across the northern end of the Bald Hill anomaly, on the western limb of the synform, and also intersected BIF.

Exploration carried out during the time Portman owned this tenement included:

- 519 line kilometres of low level high resolution aeromagnetics over 3 survey areas covering the Bald Hill prospect.
- A total of 2 diamond holes for a total of 323 metres of drilling at Bald Hill.
- A total of 38 Davis Tube determinations and XRF concentrate analyses.
- A total of 40 ICP Fusion OES iron ore suite assays.
- A total of 63 ARM2 Base Metal / Gold suite assays

Results confirmed potential for a modest resource of magnetite BIF although given the very large strike extent, high proportion of interbanded waste rocks (schist, amphibolite) and high likely waste to ore ratio, this prospect is unlikely to sustain a stand alone export operation. It is more likely that small resources within the overall extent of the prospect could provide incremental feed to a large scale project nearby.

4. Exploration

There was no field work carried out in the period of this report. Other relevant activities were:-

- Acquiring SAIIOG from Portman
- Compiling and transferring data from Portman to Centrex Metals
- Carrying out several field reconnaissances to this area as well as several other areas in the proximity.
- A detailed study has commenced into the establishment of an iron ore export business of both hematite ore and magnetite concentrates; a magnetite processing plant costing about \$130m would be required, with export via the existing rail & Port Lincoln.
- Setting up a Joint Venture Agreement with Kanowna Lights (now Peninsula Minerals) on 10th December, 2003.
- The preparation of statutory reports and project review reports.

Peninsula Minerals have only done very limited work during this period; they carried out a preliminary assessment of this tenement for gold and base metal potential.

5. Expenditure

Expenditure for 12 month period ending 13th March, 2004.

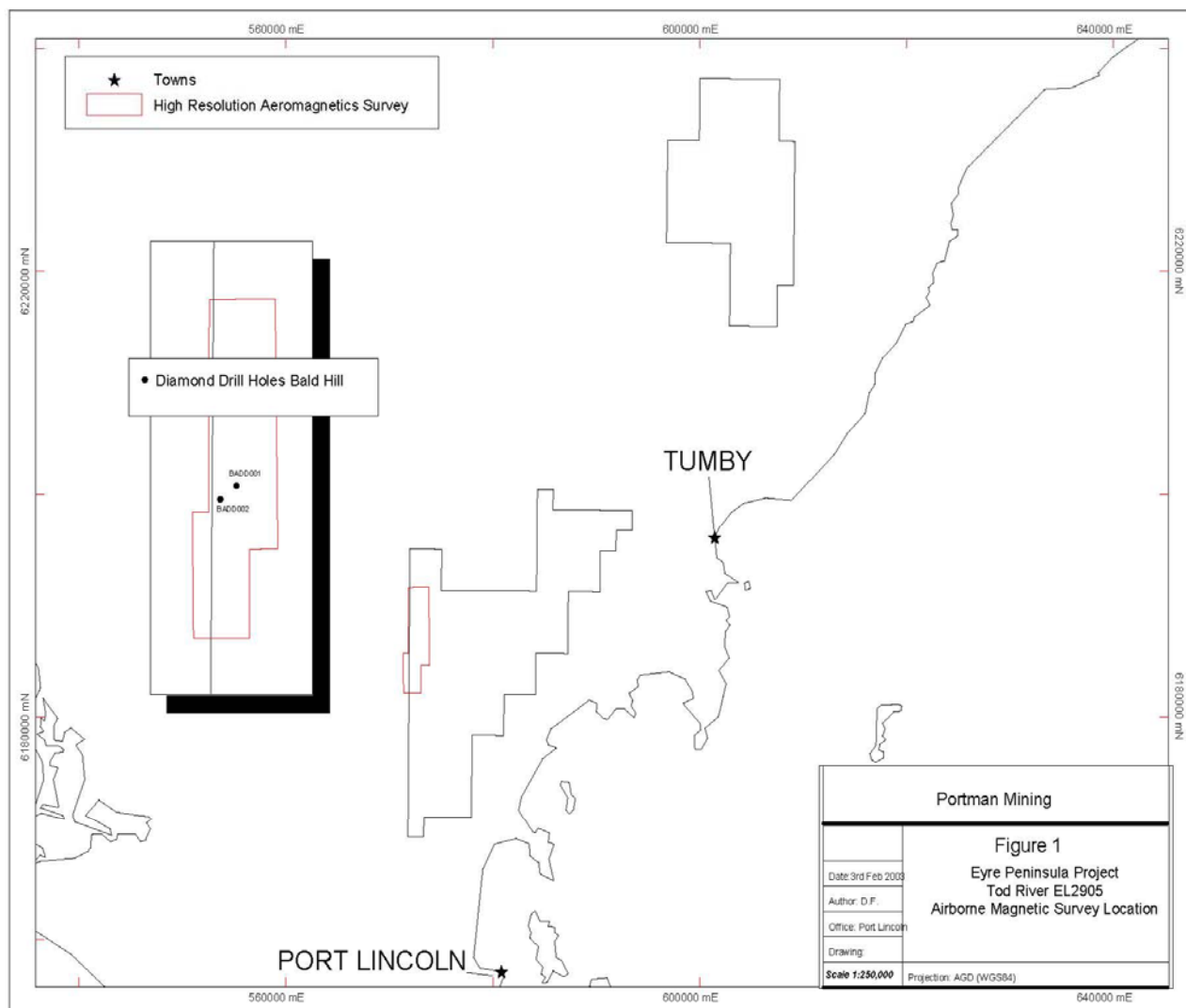
Cost Centre	Expenditure
Salaries and Wages	6600.00
Peninsula Minerals	1500.00
General Overheads	900.00
Total:	9000.00

6. Proposed Exploration

The proposed work to be carried out on this tenement is as follows:-

- A detail GPS gravity survey to be completed by Haines Survey during the May 2004 period. The details and results of this survey will be in the next Annual Technical Report.
- Centrex Metals directors have also completed a number of field trips to this and other tenements for sampling and field investigations and to show interested Iron Ore Investors the potential of Centrex's Eyre Peninsula projects.
- Jim Hanneson of Adelaide Mining Geophysics will carry out interpretation of the gravity and magnetic data with particular reference to potential hematite deposits.
- Joint venture partner Peninsula Minerals Limited (PEN), formerly Kanowna Lights Limited have completed an interpretation of available open file aeromagnetic and gravity data and Centrex's recently collected gravity data with the aim of generating copper and gold targets for follow up geochemistry and drilling. In addition PEN have completed two follow up field reconnaissance surveys to assess targets identified in the geophysical assessment. During these field surveys a total of 8 rock chip samples (PM 50208 to PM 50215) were collected.

Estimated cost of this work is \$26,000-.



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Email: Centrex@bigpond.com

**Exploration Licence 2905 (Mount Hill – Bald Hill Area) Eyre Peninsula,
South Australia**

**Third Annual Report on Exploration for the Period
13th March, 2004 to 12th March, 2005.**

**G Chrisp & T Pearce
July, 2005.**

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- 2. Haines Survey Pty Ltd – Bungalow-Bald Hill Gravity Survey
May 2004**
- 3. AMG – A Density-Susceptibility Model for Bald Hill Prospect,
Centrex Metals Ltd, South Australia – July 2004**

1. Introduction

The Gawler Craton is a world ranked iron ore province with large areas of poorly outcropping or covered banded iron formations which are highly prospective for magnetite and hematite deposits.

The key advantages of location and simple metallurgy of coastal Eyre Peninsula magnetite ores presented Centrex with an opportunity to enter a new iron ore province and develop a new export business. This took into account excellent infrastructure with existing railways or spur lines, possibilities for road train haulage and potential for virgin deep water ports. These advantages coupled with the coarse grained nature of known magnetite deposits were likely to enhance early project viability and it was envisaged that exploration could rapidly progress to a small starter operation to be scaled up over time.

High quality magnetic data over the peninsula acquired under the TEISA programme simplified initial selection of high amplitude magnetic targets. Past exploration including geophysical surveys and drilling for iron ore by the SADM (now PIRSA) in the late 1950's provided valuable hard data on a number of magnetite deposits on the Eyre Peninsula. Potential for major undiscovered hematite deposits was recognised, given that initial targets are interpreted to be extensions of the same BIFs which host the Middleback Ranges hematite ores. Hematite prospectively was considered as part of the analysis of each prospect.

In 2000, a data review identified the key known iron ore prospects (Parker 2001). "Sighter" metallurgical testing of existing PIRSA diamond cores from prospects outside EL2905 (Carrow, Greenpatch and Koppio), achieved good magnetite recoveries with high iron and low impurities particularly phosphorous. This encouraged the company to apply for title where ground was available or to pursue joint ventures over targets already under title.

An exploration programme for magnetite iron ores was developed whereby simple targeting using low level aeromagnetic could be rapidly advanced to drilling. This optimised the exploration programme and eliminated the need for lengthy preparatory surveys and analyses.

EL2905 was granted to the South Australian Iron Ore Group a then wholly owned subsidiary of Portman Limited, on the 13th March 2002 for a period of 1 year, and field work commenced immediately. This Licence was renewed for a further 2 year period, and now the new renewal date is 13th March 2005.

The ownership of SAIOG including EL2905 was transferred by Portman Iron Ore Limited to Centrex Metals Ltd under a corporate agreement reached in late 2003.

This licence has now been granted for another period of 12 month and now the renewal date is 12th March, 2006.

2. Geology and Physiography

EL 2905 comprises 2 blocks along the eastern coast of the Eyre Peninsula. Topographic relief varies from very subdued in the northern (Mount Hill) block to moderately dissected hilly country in the southern Bald Hill block. (Figure 1)

The regional geology of the eastern Eyre Peninsula is described by Parker et al. (1988). The area is located on the southern margin of the Gawler Craton which comprises a variety of late Archaean to early Mesoproterozoic gneisses and granites. Banded Iron Formations (BIF) targeted by the current exploration programme form part of the Palaeoproterozoic Hutchison Group. This group has been subdivided into a basal quartzite unit (Warow Quartzite) and an upper psammopelitic unit (Yadnarie Schist) separated by a mixed clastic / chemical sedimentary unit (Middleback Subgroup). Target BIF's are assigned to the Middleback Subgroup.

The Hutchison Group was affected by the Kimban Orogeny, a major period of deformation, metamorphism and granite intrusion which extended between 1850 Ma and 1700 Ma. The Kimban Orogeny comprised three main tectonic events:

- An early high grade amphibolite to granulite facies event ca. 1850-1840 Ma (M1)
- A high grade isoclinal folding event with some possible thrusting ca. 1780-1720 Ma (D2)
- A lower grade open folding event ca. 1710 Ma (D3) with associated shearing along discrete mylonite zones.

Hutchison Group rocks have been extensively intruded by middle to late Palaeoproterozoic (ca. 1845-1710 Ma) granites which make up the Lincoln Complex.

Eyre Peninsula BIF's occur as sinuous belts of magnetite and hematite bearing rocks generally strongly deformed and recrystallised. They are dominated by quartz, magnetite/hematite/limonite, iron rich silicate minerals (hornblende, anthophyllite, grunerite, gedrite, hedenbergite, diopside and actinolite/tremolite), dolomitic and iron-rich carbonate and local accessories including apatite, garnet and pyrite. These rocks give rise to corridors of distinctive high amplitude magnetic anomalies.

BIF units appear to occur in two distinctive stratigraphic settings:

- The Greenpatch, Bungalow, Iron Mount and Carrow deposits occur in a dolomitic marble sequence probably equivalent to the Katunga Dolomite at the base of the Middleback Subgroup.
- The Koppio, Brennand, Kapperna, Oolanta deposits are interbanded with sillimanite – biotite schist suggesting a higher stratigraphic location at the top of the Middleback Subgroup.

High grade metamorphism and tectonism has resulted in coarsely crystalline magnetite with very low levels of deleterious elements eg P_2O_5 .

Rocks are moderately to strongly banded with magnetite rich layers alternating with iron silicate rich and quartz rich layers. This banding is considered to have been primary sedimentary bedding but it has been metamorphosed and strongly deformed leading to the development of a layer parallel foliation (termed S_1). The banding can be seen to be strongly deformed by F_2 isoclinal folds and overprinted by a second

foliation (termed S_2). Intrafolial F_2 folds can be seen in drill core to be refolded by more open F_3 folds and crenulations. There is clear evidence on a mesoscopic scale of thickening of individual magnetite layers in fold noses. This suggests strongly that the same process is happening on a macroscopic scale and, combined with multiple repetition of individual bands during folding, that the cumulative thickness of BIF units can be considerably enhanced.

On southern Eyre Peninsula, the Hutchison Group has been intruded by granites ranging in age from 1845 Ma to 1710 Ma. The older granites (Donington Granitoid Suite) have been intensely deformed and exposed along the eastern coastline from Port Lincoln to Port Neill. They are separated from the main BIF exposures by the Kalinjala Mylonite Zone which is a broad (>1km wide) dextral vergence shear zone extending from Sleaford Bay to the Middleback Ranges region. Dating of pegmatites in the shear zone suggest that it formed during D_3 at about 1710 Ma. West of the shear zone the Hutchison Group is intruded by slightly younger granitoids (Moody Suite) ca. 1750 – 1710 Ma. These range from ovoid shaped plutons several kilometres across to narrow pegmatite dykes.

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Bald Hill itself is located on the southern end of an 8-9km long moderately intense aeromagnetic anomaly that, on ground magnetics undertaken by Dominion Mining Ltd, comprises 2-4 discrete anomalies that coalesce to form the aeromagnetic anomaly. The Charleton Gully synform is interpreted to run along the length of the Bald Hill anomaly suggesting that this potential prospect is in the core of the fold. Numerous rock chip samples collected by Dominion Mining Ltd (for gold exploration) from scattered jaspilite outcrops in the Bald Hill area give assays ranging up to 59% Fe. Dominion drilled several aircore holes across parts of the aeromagnetic anomaly but didn't assay for Fe. However, they record bottom-hole lithologies including ferruginous quartzite and jaspilitic chert. One hole assayed 92ppb Au.

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Results confirmed potential for a modest resource of magnetite BIF although given the very large strike extent, high proportion of interbanded waste rocks (schist, amphibolite) and high likely waste to ore ratio, this prospect is unlikely to sustain a stand alone export operation. It is more likely that small resources within the overall extent of the prospect could provide incremental feed to a large scale project nearby.

4. Exploration

During the current year a gravity survey was carried out for Centrex Metals Ltd over a portion of the tenement area by Haines Surveys. (As you will see in the map below.)

Joint venture partners Peninsula Minerals Limited have completed an interpretation of available open file aeromagnetic and gravity data and Centrex recently collected gravity data with the aim of generating copper and gold targets for follow up geochemistry and drilling. In addition PEN has completed two follow up field reconnaissance surveys to assess targets identified in the geophysical assessment. During these field surveys a total of 8 rock chip samples (PM50208 to PM50215) were collected.

Haines Surveys

Two detail GPS gravity surveys collectively designated as Bungalow-Bald Hill Gravity Survey have been carried out on Eastern Eyre Peninsula in South Australia over 17 days from 11 May 2004 to 27 May 2004 on behalf of Centrex Resources NL.

The proposed surveys were specified using plots (see the Appendix page 44) with the Bald Hill plot showing coordinate annotated corners and the Bungalow diagram requiring the corners to be scaled. For the Bungalow area a local grid rotated from AMG84 by approximately 45° was used to provide survey lines normal to the strike of the main gravity feature with line spacings of 200 and 400 metres and a station spacing of 50 metres for a total of 1647 stations in 44 lines (80.15 line kilometres). The Bungalow Grid was bounded by AMG84 Zone 53 671742 E 6277470 N in the southwest and 681112 E 6288430 N in the northeast. Bald Hill was coincident with AMG84 and defined as a regular polygon with its southern most line on 6181430 N between 571040 E and 572240E, and its northern most line on 6183830 N between 571040 E and 572840 E containing 223 stations in 7 lines (10.8 line kilometres) with 400 metre line spacing and 50 metre station spacing. Three of the Bald Hill lines were in heavily treed areas which inhibited production and

forced larger than normal station eccentricities especially for line 8223 where 16 stations were located south of the tree line. The surveys were completed as specified. There were 63 gravity observations repeated for quality control purposes giving a repeat rate of 3.3%.

The Bouguer anomaly processing has been performed using a country rock density of 2.67 g/cc.

Figure 1 below shows the location of the survey areas.

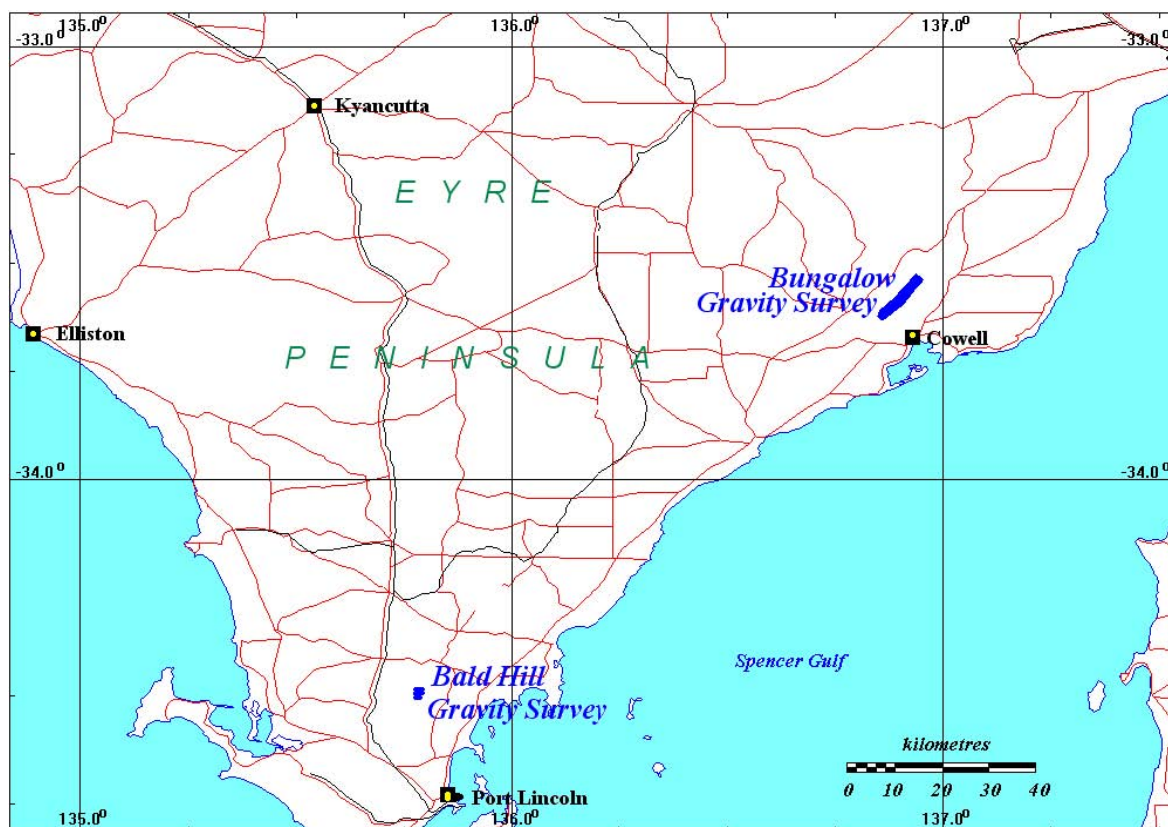


Figure 1. Location Diagram

The full report is in digital format on the CD included with this report.

The information from this report was then analysed and compiled and provided to Adelaide Geophysics for assessment and modeling.

That Memorandum is also included in digital format on the CD included with this report.

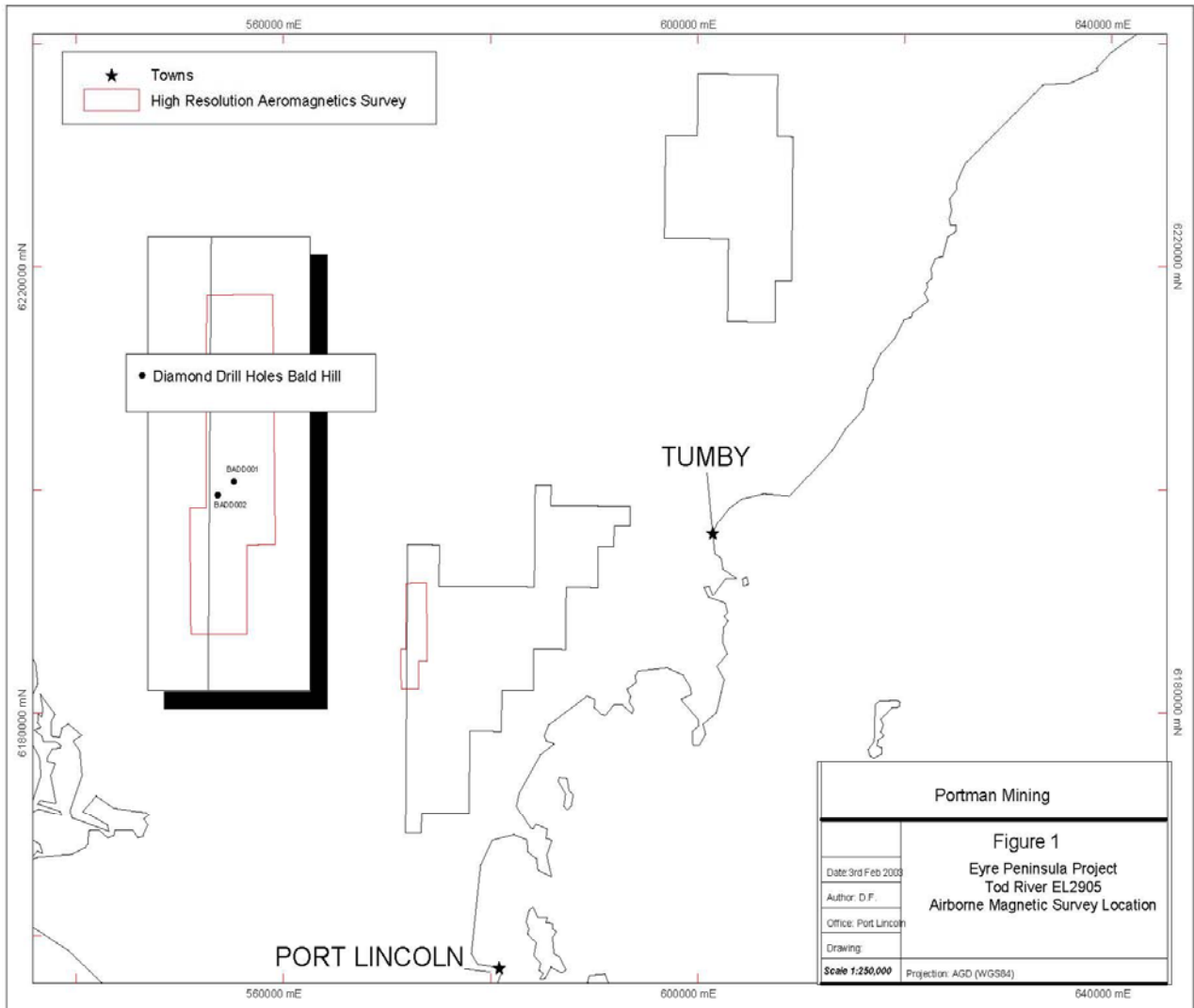
During this reporting period there have also been on-going discussions, field trips, and detail studies have begun into the establishment of an iron ore export business of both hematite ore and magnetite concentrates.

5. Expenditure

Expenditure for 12 month period ending 13th March, 2005.

Cost Centre	Expenditure
Salaries and Wages	11,500.00
Peninsula Minerals	4,500.00
Haines Survey	8,129.00
Adelaide Mining Geophysics	4,600.00
Consultants (Pro-rata Basis)	4,000.00
Field Trips (Pro-rata Basis)	4,950.00
General Overheads	1,250.00
TOTAL:	\$38929.00

APPENDIX 1 - Location Map



APPENDIX 2.

Haines Survey Pty Ltd – Bungalow-Bald Hill Gravity Survey May 2004

BUNGALOW-BALD HILL GRAVITY SURVEY
CENTREX RESOURCES NL
MAY 2004

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Introduction

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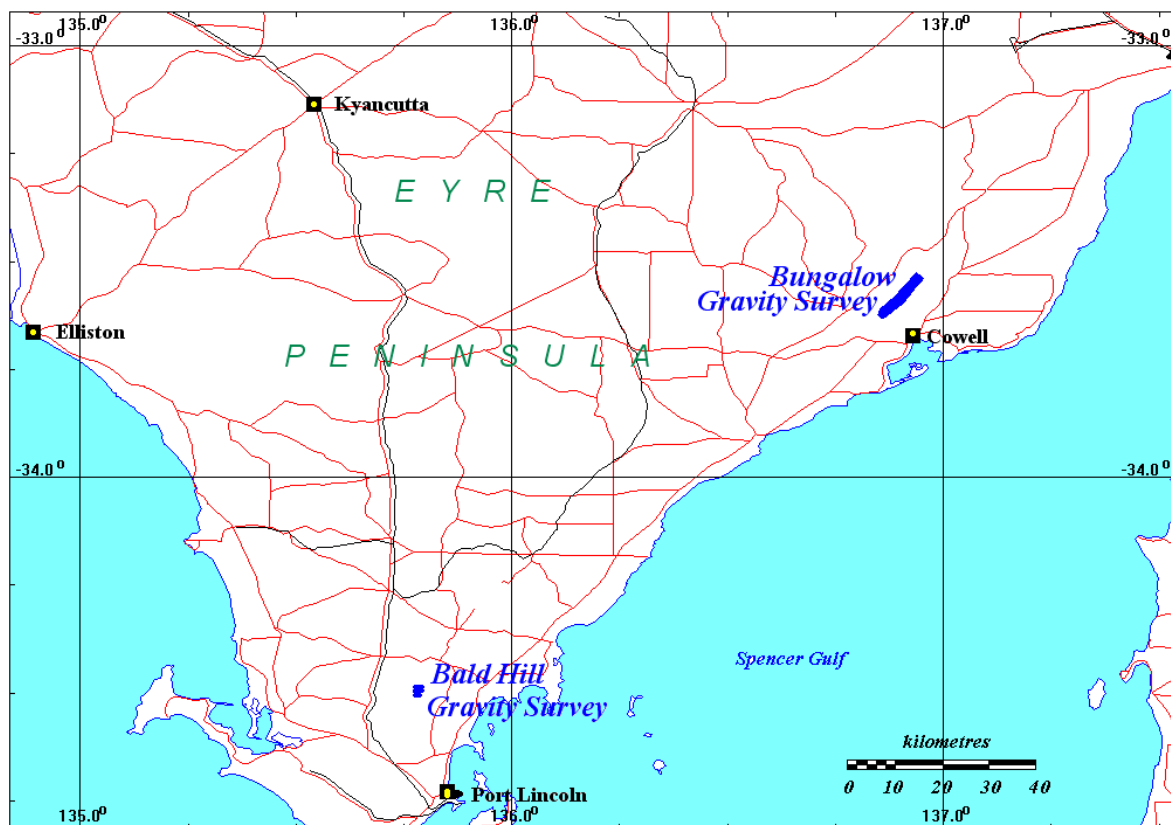


Figure 1. Location Diagram

Survey and Gravity Datum

Horizontal Datum: Australian Geodetic Datum 1984 (AGD84)
Australian Map Grid 1984 (AMG84)
Zone 53

Vertical Datum: Australian Height Datum (AHD)

Gravity Datum: Isogal 1984 / IGSN 71

Survey and Gravity Base Stations

Four base stations were established in the survey areas (3 for Bungalow and 1 for Bald Hill) in positions capable of providing good VHF radio coverage for the RTK system. The bases were designated as 2004.2501, 2004.2502, 2004.2511 (Bungalow) and 2004.2503 (Bald Hill). The base 2004.2501 was superseded by 2004.2511 when the former was deemed unsuitable due to a large tree.

Each actual base is marked with a short star picket driven flush with the natural surface. The base is witnessed by a long star picket within 0.3m of the ground mark standing about 1m tall and with two aluminium tags attached with the inscription "Haines Surveys" and "Gravity 2004.2501" etcetera as appropriate.

For the Bald Hill area a subsidiary base was located within 5 minutes drive of 2004.2503 to provide a backup base station in case loop ties to the main base were poor. This is not marked but the approximate coordinates (+/- 10m) listed in the table below define its location. The AGSO gravity base 9493.1132 was used as a subsidiary base for the Bungalow area.

Survey Control

Horizontal and vertical control for the four bases has been established using the AUSPOS online GPS processing service provided by Geoscience Australia. This method provides control in the GDA94 Datum to within +/- 5 cm. It largely replaces the need for finding local survey marks or allows accurate control to be established when local marks are not available.

For 2004.2501 a total of 9.0 hours (at 10 second intervals) of observations were logged over 1 day. The following outlines the cartesian coordinate precision obtained.

1 Sigma	sX(m)	sY(m)	sZ(m)	yyyy/mm/dd
2501	0.008	0.005	0.005	2004/05/11

A static GPS baseline was also observed between 2004.2511 and 2004.2501 which produced a difference with the AUSPOS solution of 0.007E, 0.006N and 0.016AHD. The baseline solution was adopted.

For 2004.2511 a total of 21.0 hours (at 10 second intervals) of observations were logged over 3 days. The following outlines the cartesian coordinate precision obtained for each day.

1 Sigma	sX(m)	sY(m)	sZ(m)	yyyy/mm/dd
2511	0.006	0.009	0.006	2004/05/12
2511	0.006	0.006	0.003	2004/05/13
2511	0.005	0.005	0.002	2004/05/14

For 2004.2502 a total of 23.8 hours (at 10 second intervals) of observations were logged over 3 days. The following outlines the cartesian coordinate precision obtained for each day.

1 Sigma	sX(m)	sY(m)	sZ(m)	yyyy/mm/dd
2502	0.005	0.003	0.003	2004/05/18
2502	0.005	0.002	0.002	2004/05/19
2502	0.005	0.005	0.005	2004/05/22

For 2004.2503 a total of 13.5 hours (at 10 second intervals) of observations were logged over 3 days. The following outlines the cartesian coordinate precision obtained for each day.

1 Sigma	X(m)	sY(m)	sZ(m)	yyyy/mm/dd
2503	0.008	0.006	0.006	2004/05/24
2503	0.005	0.010	0.005	2004/05/24
2503	0.006	0.006	0.006	2004/05/25

AGD84 values have been determined from the GDA94 values using the distortion grid method and the grid distortion parameter file National 84 (20.03.01) provided by Geoscience Australia. This process allows the survey to be conducted in the AGD84 Datum.

For the GPS processing the WGS84 control values were determined from the AGD84 Datum using the ICSM published 7 parameters for WGS84 to AGD84. This allowed all GPS calculations to be made on the WGS84 Datum. Final values for the gravity stations on the survey were then converted back to AGD84 from the WGS84 Datum using the same ICSM parameters.

Vertical control has been converted to an Australian Height Datum (AHD) height using the GDA94 height determined from AUSPOS (held fixed as the WGS84 height) and the AUSGEOID98 gravimetric geoid.

Since GDA94 and WGS84 (Global Positioning System Datum) are virtually equivalent the WGS84 height values can adopted from the GDA94.

Gravity Control

Gravity control for 2004.2501, 2004.2511 and 2004.2502 base stations has been established on the Australian Fundamental Gravity Network (Isogal 1984 / IGSN 71) using a repeated daily loop closures from Australian Geological Survey Office (AGSO) gravity station 9493.1132, Cowell Lutheran Church. The value for 9493.1132 was obtained from Geoscience Australia.

Gravity control for 2004.2503 has been established on the Australian Fundamental Gravity Network using an A-B-A-B-A tie from 9493.2307, Port Lincoln Harbour Master's Office. The value for 9493.2307 was obtained from Geoscience Australia.

Survey and Gravity Control Values

Control information (**WGS84 heights have been derived using AusGeoid98**):

BUNGALOW-BALD HILL SURVEY / GRAVITY CONTROL

Station	WGS 84			AMG84 Zone 53		AHD	Isogal84
	Latitude	Longitude	Height	Easting	Northing	Height	Gravity mgal
2004.2501	-33° 36' 21.53637"	136° 52' 03.91882"	127.022	673158.499	6279796.365	127.196	979600.243
2004.2502	-33° 33' 52.73234"	136° 53' 53.54676"	146.317	676068.237	6284328.693	146.354	979591.305
2004.2503	-34° 29' 17.25646"	135° 47' 23.74150"	263.536	572400.461	6183265.951	268.552	979664.970
2004.2511	-33° 36' 19.56015"	136° 52' 05.93074"	126.413	673211.456	6279856.304	126.585	979600.415
2004.2599	-34° 29' 41.9"	135° 47' 28.9"	205	572530	6182500	210	979673.315
9493.1132	-33° 40' 57"	136° 55' 11"	8	677820	6271220	8	979633.296
9493.2307	-34° 43' 20"	135° 52' 10"	-2	579477	6157245	3	979725.545

GPS Observations and Processing

Carrier phase GPS data has been collected using *Trimble 4000* series Geodetic receivers.

Measurements for detail gravity observations have been made using Real Time Kinematic (RTK) and Post Processed Kinematic techniques giving horizontal and vertical precisions of at least 5 cm.

The baseline between 2004.2511 and 2004.2501 was observed using the Post Processed Fast Static technique giving horizontal and vertical precisions of at least 2 cm.

RTK processing has been completed using Trimble TDC1 firmware and TRIMMAP version 6.50 software.

Measurements for post processed observations have been made using Static techniques with the baselines processed to a double difference fixed solution resulting in horizontal and vertical precision of approximately 2 cm.

Static baseline processing has been completed using Trimble GPSurvey version 2.30 software.

Gravity Observations

Gravity measurements have been made using a *Scintrex CG3 Autograv* instrument. The instrument numbered 908475 was used on this project.

Readings of 120 seconds were taken at base stations. Readings of 40 seconds were taken at all other gravity survey points. Base station readings were taken at the beginning and at the end of each day's fieldwork.

The CG3 instrument applies an instrument drift correction to its final gravity reading. Any residual drifts between base station readings are corrected by the gravity post processing software. The instrument also applies Earth Tide Correction to its final gravity reading at each station. The instrument calibration constants are contained in the daily gravity data files.

Bungalow Local Plane Grid Specification

Transformation parameters are derived from AMG84 and an arbitrary local coordinate set.

The transformation parameters for transforming from AMG84 to the local grid are:

Origin E	676515.433
Origin N	6282879.039
Translation E	-671777.933
Translation N	-6269129.039
Rotation	315° 11' 33.222
Scale	1.00000

Point Numbering and Marking

An 8 digit point number is used to identify each gravity station. The first 4 digits indicate the line number. The second 4 digits indicate the station number

For the Bald Hill survey the lines are west-east on AMG84 and the 8 digits are constructed from the planned coordinates for each gravity station using

$$\text{Line No} = (\text{AMG N} - 6100000)/10 \quad \text{Station No} = (\text{AMG E} - 500000)/10$$

For example, planned gravity station coordinates

6941400.000N 437400.000E

Line No = 4140 Station No = 3740

That is, Pt No = 41403740

For Bungalow the lines are west-east on the local grid and numbers are constructed by:

$$\text{Line No} = \text{Planned Local N} / 10 \quad \text{Station No} = \text{Planned Local E}$$

Station numbers have not been expanded in the processed data.

The gravity stations have not been marked in the field.

Gravity Processing

The gravity values for this survey are related to the *Australian Gravity Base Station Network* using the *Isogal84 (IGSN 71)* values at known Gravity Stations as provided by DMR.

Note that all gravity values shown in these surveys are expressed in units of milligals.

The field gravity observations have been processed using standard formulae and constants to produce a Bouguer Anomaly for each gravity station.

The meter reading as recorded in the raw Scintrex data file is corrected for instrument tilts, meter drift and Earth Tide. Post processing corrections are detailed below.

Drift

The residual drift between base station readings is calculated for each station reading proportionately by time. This is the drift value shown in the processing output.

$$\text{Drift} = [(t_1 - t_n) ((b_2 - b_1) / (t_2 - t_1))]$$

- t_n = time of meter reading at each station
- b_1 = base meter reading prior to station reading
- t_1 = time of base reading b_1
- b_2 = base meter reading after station reading
- t_2 = time of base reading b_2

Obs mgal

This is the observed gravity value in milligals.

$$\text{Obs} = b_g + (r_n - \text{drift}) - b_1$$

- b_g = base stn gravity value (Isogal84)
- r_n = meter reading at each station as shown in the CG3 .dat file
- drift = residual drift correction as shown above
- b_1 = base meter reading prior to station reading

Anom

This is the difference between the observed gravity and the theoretical gravity value at each station. The theoretical value is calculated using the *1967 International Gravity Formula*.

$$\text{Anom} = \text{Obs} - g_{th}$$

Obs = observed gravity as explained above

$$g_{th} = 978031.8 (1 + 0.0053024 \sin^2\phi - 0.0000059 \sin^2 2\phi)$$

ϕ = WGS84 Latitude

Freeair corrn

The freeair correction is calculated using

$$\text{Freeair corrn} = 0.3086 H$$

H = height above sea level (AHD height)

Bouguer corrn

$$\text{Bouguer corrn} = -0.04191 \rho H$$

ρ = density (2.67 g/cc used for this survey)

H = height above sea level (AHD height)

Bouguer Anom

$$\text{Bouguer Anom} = \text{Anom} + \text{Freeair corrn} + \text{Bouguer corrn}$$

Results Formats

Printed results of the gravity processing (with Bouguer corrections at density 2.67 g/cc) are included in the Appendix of this report. The results are also supplied in digital form on a compact disk with the following of files being supplied for each area in subdirectories named BUNGALOW and BALDHILL.

ALLCOR.XYZ ALLGEO.XYZ ALLCSV.CSV

Field gravity observation files with the extension .DAT and .DC and GPS solution summary files with the extension .GPS are also supplied in a subdirectory named Obs.

ALLCOR.XYZ format

This is a *GEOSOF*T compatible XYZ (space delimited columns) file. The data is sorted by Day then Line and Stn number. The column order is as follows:

AMG84 ZONE 53	GRID	drift	corr'd	obs	anom	freeair	bouguer	bouguer	height
E N	Line Stn		meter	mgal		corr	corr	anom	(AHD)
							(2.67)		

ALLGEO.XYZ format

This is a *GEOSOF*T format XYZ (space delimited columns) file. The data is sorted into Line and Stn number suitable for profiling. The column order is as follows:

GRID	AMG84 ZONE 53	drift	corr'd	obs	anom	freeair	Bouguer	bouguer	height
Line Stn	E N		meter	mgal		corr	corr	anom	(AHD)
							(2.67)		

ALLCSV.CSV Format

This is a Comma Separated Variable format file. This format facilitates data import into spreadsheet and database software. Each record (line) contains the following data fields:

Pt Number, Line No, Station No, Date, Day Number, Local Time, WGS84 Latitude, WGS84 Longitude, WGS84 Height, AMG84 (Zone 51) East, AMG84 (Zone 51) North, AHD Height, Meter reading, Meter reading standard deviation, Earth Tide Correction, drift correction, corrected meter reading, gravity difference (mgal) from base, observed gravity (mgals), gravity anomaly, freeair correction, Bouguer correction (2.67), Bouguer anomaly

*.DAT

These are the raw data files from the *Scintrex CG3* gravimeter. There is a separate file for each day's data. The files are identified by the Julian day number (001 = Jan 1st) with the prefix G. eg. G133 = day 133 (12th May).

*.DC

These are the GPS Real Time Kinematic Data Collector files. They are ASCII format files containing the GPS vectors from the base station. The data is structured in a Trimble format (DC file Version 4).

*.GPS

These are the GPS solution summaries for post processed Fast Static and Kinematic baselines. Each record (line) contains the following data fields:

Station, Solution Type, GPS Time, WGS84 Latitude, WGS84 Longitude, WGS84 Height, WGS84 dX, WGS84 dY, WGS84 dZ, Wgs84 dH, Baseline Distance, Solution Reference Variance, Solution RMSE, Rover Antenna Height, Baseline Standard Deviation, Solution Variance Ratio, Observation Count/Rejects, Observation Start time, Observation Finish time

PRODUCTION LOG

Bungalow-Bald Hill Gravity Survey Production Log

Date	GPS Day	Observed	Repeats	Comments
10-May-04	D131	0	0	Mobilise to Cowell, Gravity Control
11-May-04	D132	155	0	Commence Bungalow Gravity Survey
12-May-04	D133	125	3	Continue Gravity Survey
13-May-04	D134	124	6	Continue Gravity Survey
14-May-04	D135	162	5	Continue Gravity Survey
15-May-04	D136	118	6	Continue Gravity Survey
16-May-04	D137	169	5	Continue Gravity Survey
17-May-04	D138	82	2	Continue Gravity Survey, weather inhibited production
18-May-04	D139	127	5	Continue Gravity Survey
19-May-04	D140	116	6	Continue Gravity Survey
20-May-04	D141	162	5	Continue Gravity Survey
21-May-04	D142	156	2	Continue Gravity Survey
22-May-04	D143	155	4	Complete Bungalow Gravity Survey
23-May-04	D144	0	0	Relocate to Port Lincoln
24-May-04	D145	31	0	Commence Bald Hill Gravity Survey
25-May-04	D146	74	2	Continue Gravity Survey
26-May-04	D147	93	4	Continue Gravity Survey
27-May-04	D148	26	8	Complete Bald Hill Gravity Survey
28-May-04	D149			Depart Port Lincoln
	Total	1875	63	

Repeat Observation Results

Bald Hill

Pt	Day1	Day2	Diff E	Diff N	Diff Hgt	Diff g	Diff BAn	Vector	Abs Diff g	Abs Diff BAn
83837189	145	146	0.013	0.010	-0.010	-0.016	-0.018	0.016	0.016	0.018
83837194	145	146	0.000	0.000	0.000	0.015	0.015	0.000	0.015	0.015
83437239	145	147	-0.003	0.000	0.081	-0.033	-0.017	0.003	0.033	0.017
83437244	145	147	0.026	0.015	0.012	-0.034	-0.032	0.030	0.034	0.032
82637114	146	147	0.006	-0.019	0.017	0.008	0.011	0.020	0.008	0.011
83037169	146	147	-0.006	0.012	-0.044	0.025	0.016	0.013	0.025	0.016
83837174	146	148	0.011	0.004	-0.005	-0.011	-0.012	0.012	0.011	0.012
83837179	146	148	-0.126	-0.158	0.012	0.007	0.009	0.202	0.007	0.009
81437179	147	148	0.005	-0.099	-0.007	-0.022	-0.024	0.099	0.022	0.024
82237119	147	148	-0.005	0.031	-0.009	0.007	0.006	0.031	0.007	0.006
82237169	147	148	0.005	-0.034	0.027	-0.014	-0.009	0.034	0.014	0.009
82237194	147	148	-0.011	0.019	-0.001	-0.011	-0.012	0.022	0.011	0.012
82637249	147	148	-0.036	-0.010	-0.044	0.005	-0.004	0.037	0.005	0.004
83037209	147	148	0.002	0.013	-0.012	-0.026	-0.029	0.013	0.026	0.029

Mean	-0.007	-0.007	0.038	0.017	0.015
Min	-0.034	-0.032	0.000	0.005	0.004
Max	0.025	0.016	0.202	0.034	0.032
Count	14	14	14	14	14
SD	0.018	0.016	0.053	0.010	0.008

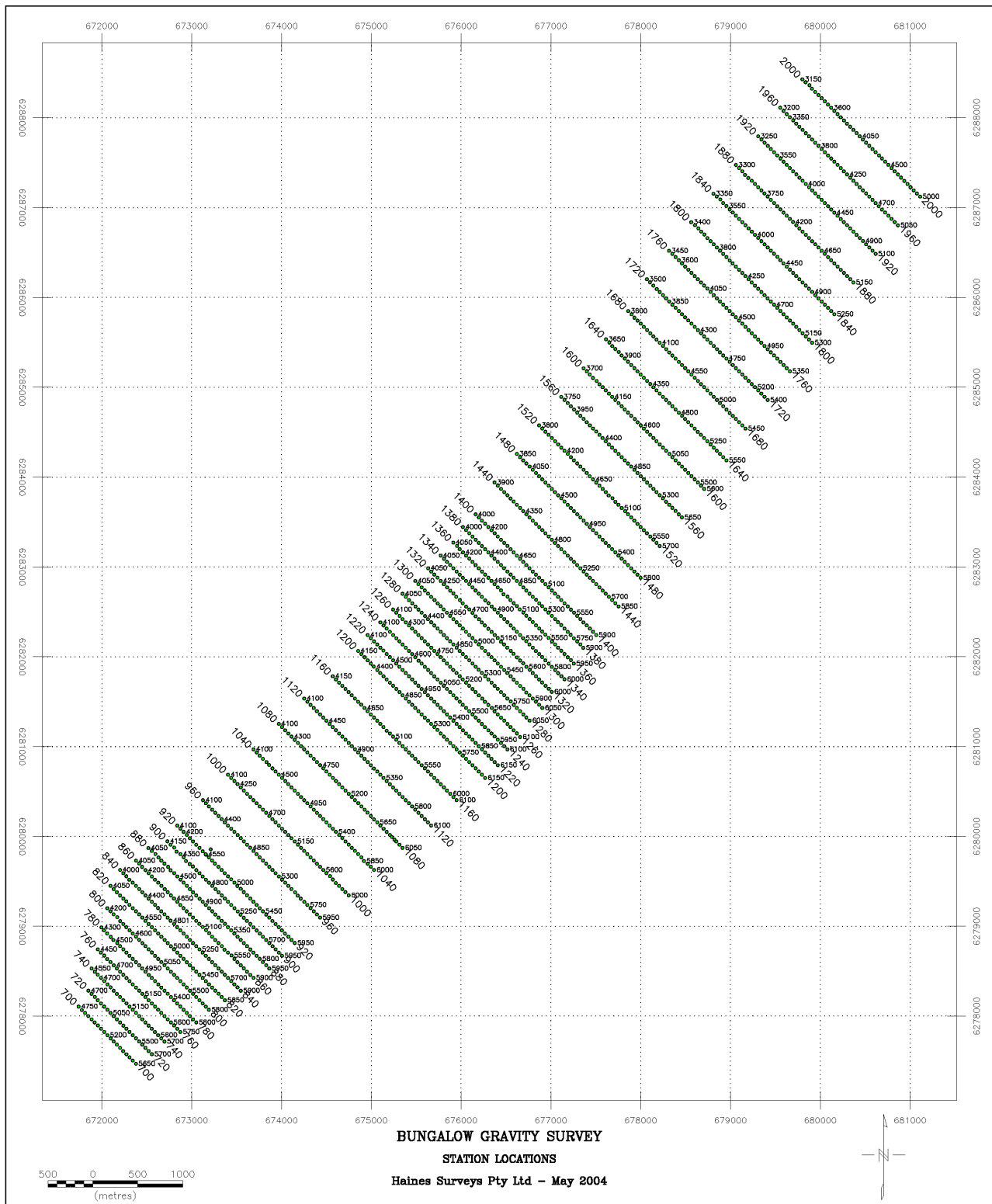
Bungalow

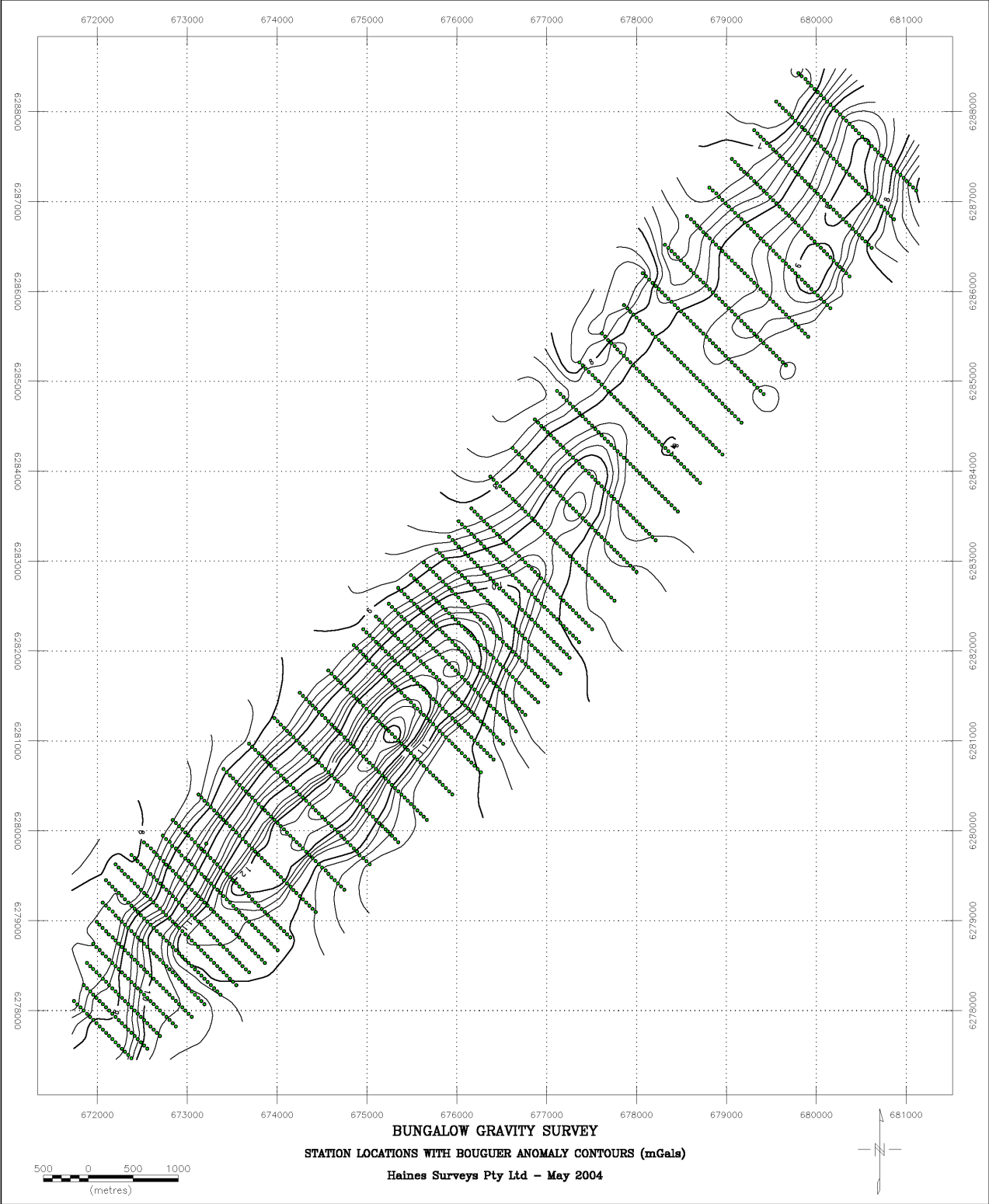
Pt	Day1	Day2	Diff E	Diff N	Diff Hgt	Diff g	Diff BAn	Vector	Abs Diff g	Abs Diff BAn
8604650	132	133	-0.039	-0.110	-0.014	0.012	0.009	0.117	0.012	0.009
8804350	132	133	-0.144	0.086	0.012	0.013	0.016	0.168	0.013	0.016
9204100	132	133	0.057	0.055	0.006	-0.027	-0.026	0.079	0.027	0.026
8604500	132	134	0.001	0.055	-0.017	0.021	0.018	0.055	0.021	0.018
8804400	132	134	0.000	-0.025	-0.002	0.003	0.003	0.025	0.003	0.003
7804950	133	134	0.330	0.005	0.000	-0.029	-0.029	0.330	0.029	0.029
8004350	133	134	-0.033	-0.095	0.001	0.025	0.025	0.101	0.025	0.025
8005350	133	134	0.168	0.029	-0.031	-0.030	-0.037	0.170	0.030	0.037
8205400	133	134	-0.181	0.144	0.007	-0.044	-0.043	0.231	0.044	0.043
9004800	132	135	-0.012	0.001	-0.005	-0.032	-0.033	0.012	0.032	0.033
9204250	132	135	0.016	0.034	0.029	-0.027	-0.021	0.038	0.027	0.021
9204650	132	135	-0.066	-0.079	0.009	-0.004	-0.002	0.103	0.004	0.002
9604250	134	135	0.003	0.010	-0.002	-0.010	-0.010	0.010	0.010	0.010
9604900	134	135	0.011	0.014	0.002	-0.010	-0.010	0.018	0.010	0.010
8605150	132	136	-0.048	0.038	-0.011	0.016	0.014	0.061	0.016	0.014
8405900	133	136	0.083	0.107	-0.001	0.002	0.002	0.135	0.002	0.002
10004250	135	136	0.002	0.012	0.006	0.027	0.028	0.012	0.027	0.028
10404300	135	136	0.155	0.064	0.062	-0.014	-0.002	0.168	0.014	0.002
11204500	135	136	-0.005	-0.014	0.002	-0.010	-0.010	0.015	0.010	0.010
11205150	135	136	-0.071	0.029	0.006	0.005	0.006	0.077	0.005	0.006
9604550	134	137	-0.017	0.035	0.025	-0.002	0.003	0.039	0.002	0.003
10004550	135	137	0.004	-0.016	0.022	-0.009	-0.005	0.016	0.009	0.005
11604550	136	137	-0.004	0.035	0.012	0.005	0.007	0.035	0.005	0.007
12004400	136	137	0.015	-0.013	-0.025	-0.009	-0.014	0.020	0.009	0.014
12205300	136	137	-0.006	0.032	0.005	-0.017	-0.016	0.033	0.017	0.016
12804300	137	138	0.036	0.214	-0.032	0.006	0.000	0.217	0.006	0.000
13005000	137	138	-0.069	-0.047	0.011	0.017	0.019	0.083	0.017	0.019
13005300	137	139	0.267	0.116	-0.055	-0.022	-0.033	0.291	0.022	0.033
13204350	138	139	0.125	-0.084	0.021	-0.007	-0.003	0.151	0.007	0.003
13205200	138	139	0.903	1.271	0.025	-0.010	-0.005	1.559	0.010	0.005
13405400	138	139	0.176	-0.022	0.012	-0.015	-0.013	0.177	0.015	0.013
13805900	138	139	0.227	-0.025	-0.015	-0.019	-0.022	0.228	0.019	0.022
11604450	136	140	0.030	0.011	-0.005	-0.032	-0.033	0.032	0.032	0.033
12204350	137	140	-0.013	-0.110	-0.014	0.030	0.028	0.111	0.030	0.028
12404300	137	140	-0.030	0.002	-0.022	0.017	0.013	0.030	0.017	0.013
12804250	137	140	-0.051	-0.036	-0.016	0.001	-0.002	0.062	0.001	0.002
14004700	139	140	0.020	0.013	0.021	-0.026	-0.022	0.024	0.026	0.022
14404700	139	140	-0.024	0.000	-0.008	-0.011	-0.013	0.024	0.011	0.013
14403900	139	141	0.209	-0.158	0.022	-0.001	0.003	0.262	0.001	0.003
14804150	140	141	-0.010	0.020	0.004	-0.005	-0.004	0.022	0.005	0.004
14804250	140	141	-0.010	0.009	0.010	0.008	0.010	0.013	0.008	0.010
15204700	140	141	0.005	0.014	-0.008	-0.013	-0.015	0.015	0.013	0.015
15205250	140	141	0.004	0.012	0.001	-0.023	-0.023	0.013	0.023	0.023
14805000	140	142	-0.012	-0.023	0.013	-0.010	-0.007	0.026	0.010	0.007
16805150	141	142	-0.008	0.151	-0.001	-0.015	-0.015	0.151	0.015	0.015
15205000	141	143	-0.002	0.006	0.007	0.002	0.004	0.006	0.002	0.004
15205050	141	143	-0.006	0.012	0.012	-0.017	-0.015	0.013	0.017	0.015
16805000	141	143	0.006	0.011	0.016	0.019	0.022	0.013	0.019	0.022
18404200	142	143	-0.016	0.037	0.014	0.011	0.014	0.040	0.011	0.014

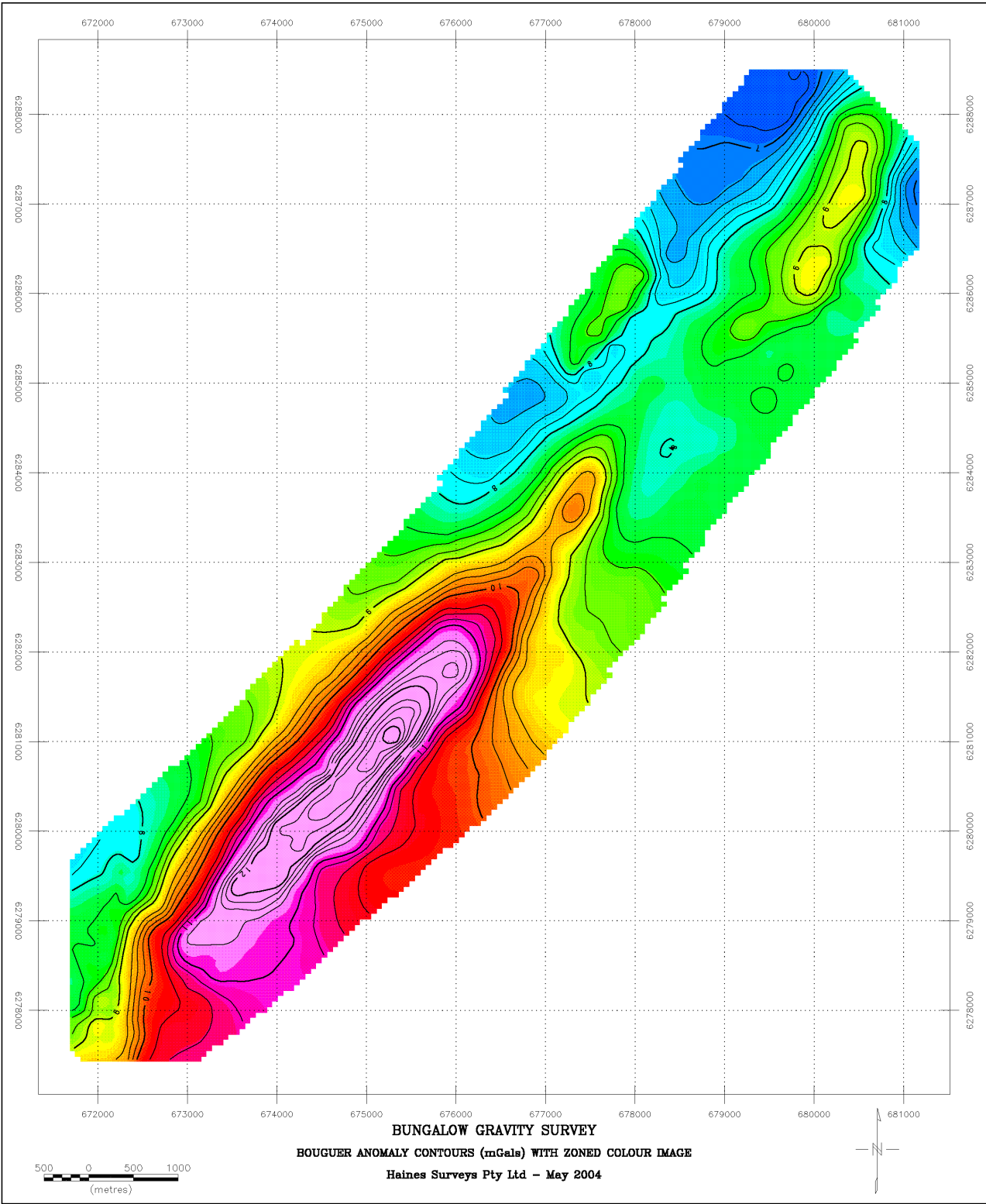
Mean	-0.005	-0.005	0.115	0.015	0.015
Min	-0.044	-0.043	0.006	0.001	0.000
Max	0.030	0.028	1.559	0.044	0.043
Count	49	49	49	49	49
SD	0.017	0.018	0.227	0.010	0.011

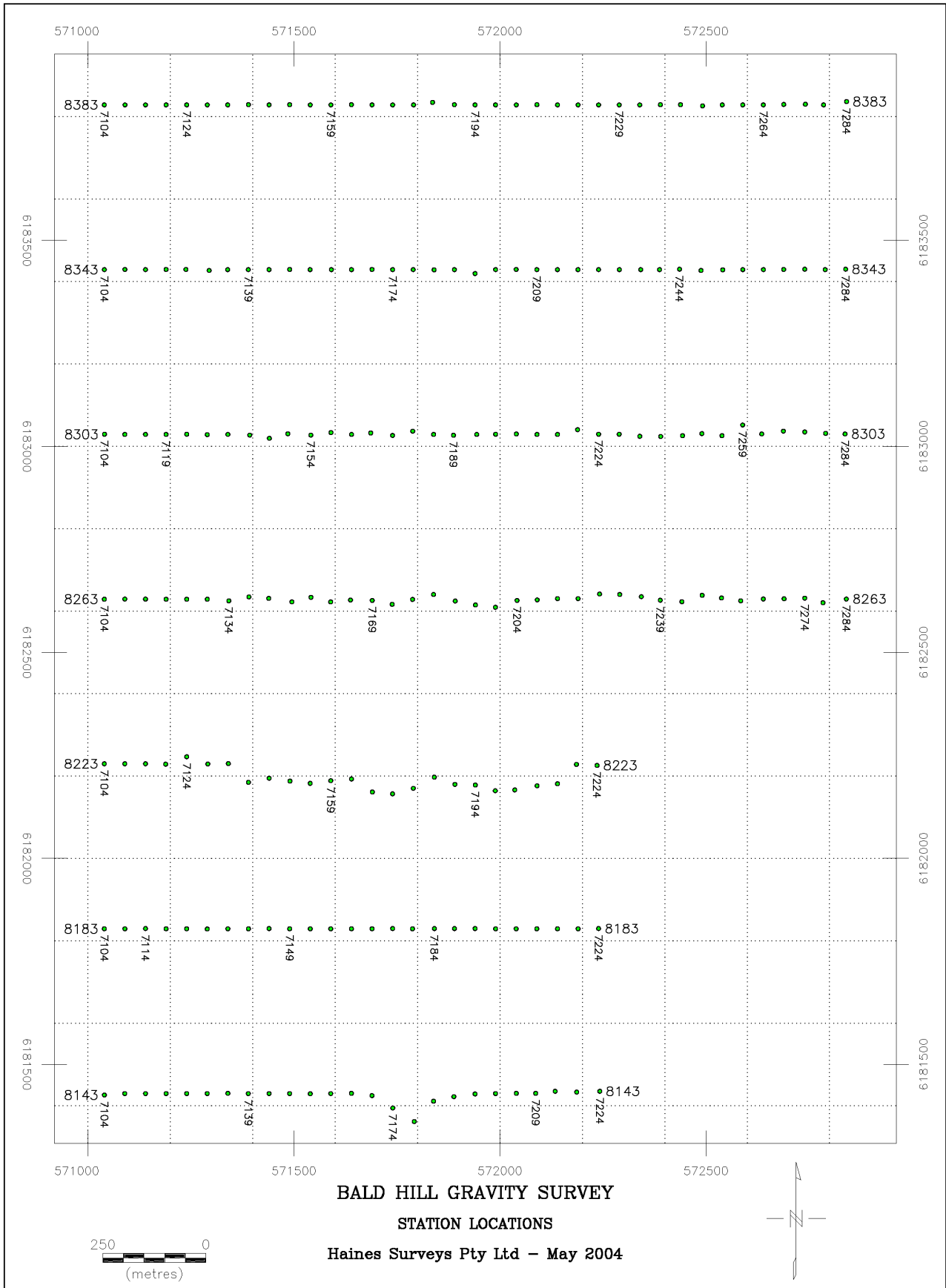
Plots

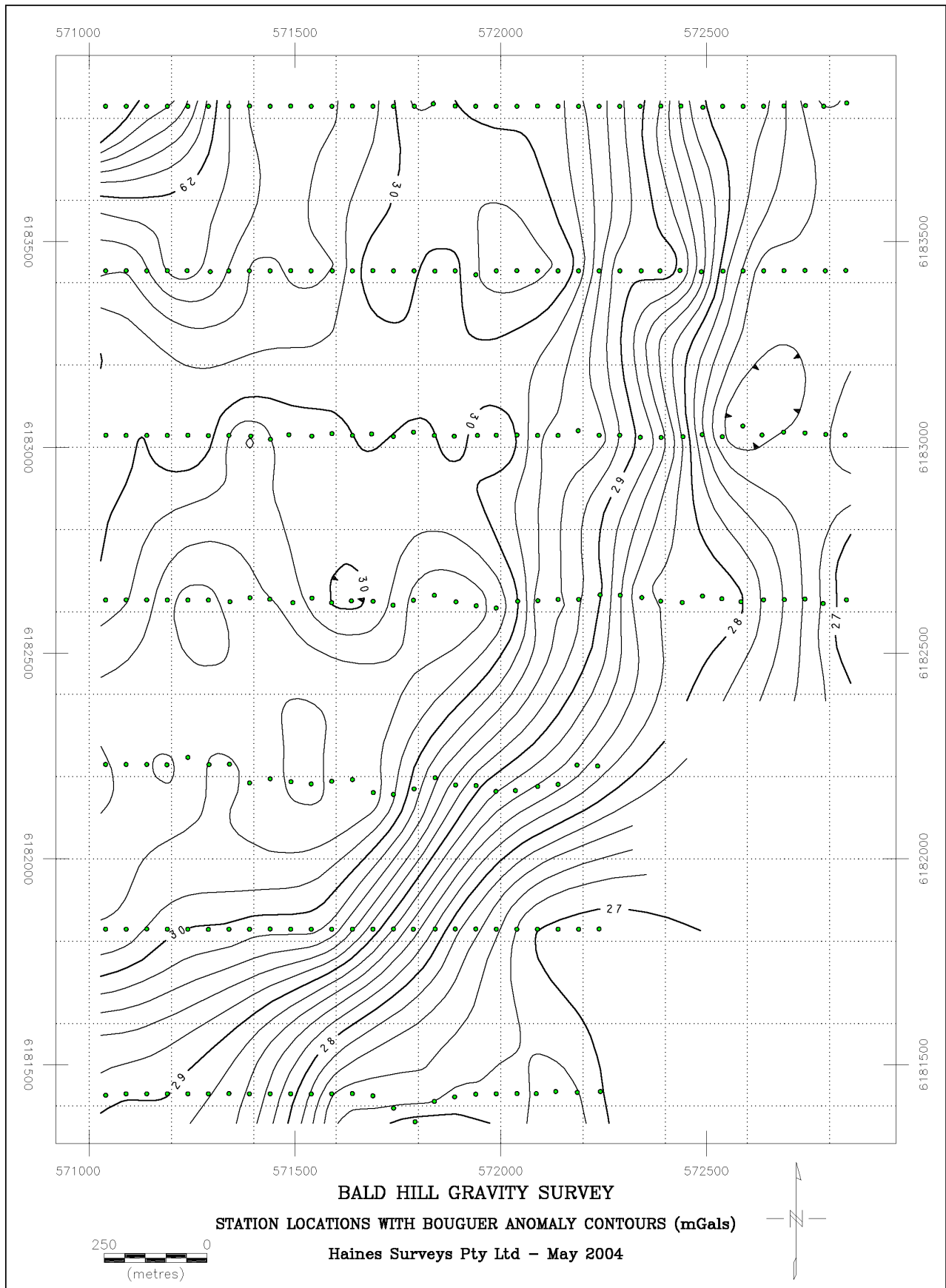
Station Locations Bungalow	13
Stations and Bouguer Anomaly Contours Bungalow	14
Bouguer Anomaly Contours and Zoned Colour Image Bungalow	15
Station Locations Bald Hill	16
Stations and Bouguer Anomaly Contours Bald Hill	17
Bouguer Anomaly Contours and Zoned Colour Image Bald Hill	18

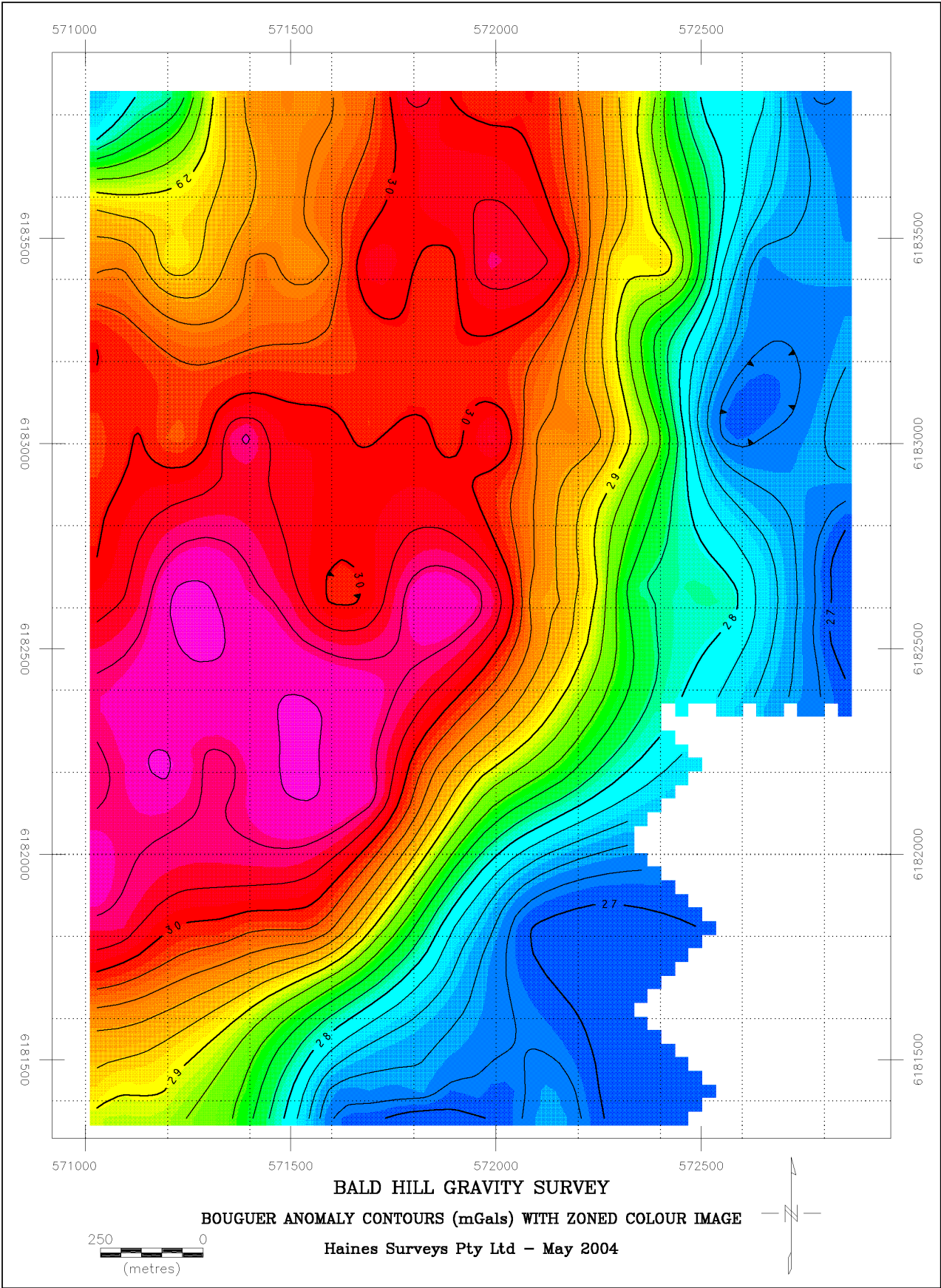












Gravity Processing Results

Bungalow

AMG84 E	ZONE 53 N	GRID Line	Stn	drift	corr'd meter	obs mgal	anom	freeair corr	bouguer corr (2.67)	bouguer anom	height (AHD)
D132											
673158.5	6279796.4	0	2501	+0.000	4275.974	979600.240	-15.301	39.253	-14.233	9.719	127.196
673158.5	6279796.4	0	2501	+0.000	4275.974	979600.240	-15.301	39.253	-14.233	9.719	127.196
673158.5	6279796.4	0	2501	-0.032	4275.974	979600.240	-15.301	39.253	-14.233	9.719	127.196
673158.5	6279796.4	0	2501	+0.000	4276.006	979600.240	-15.301	39.253	-14.233	9.719	127.196
672380.7	6279730.6	860	4050	-0.028	4271.263	979595.529	-20.072	43.845	-15.898	7.875	142.078
672414.5	6279698.0	860	4100	-0.028	4272.135	979596.401	-19.224	42.533	-15.423	7.886	137.825
672447.2	6279661.5	860	4150	-0.028	4272.777	979597.043	-18.609	41.813	-15.162	8.043	135.494
672486.0	6279625.2	860	4200	-0.028	4273.257	979597.523	-18.156	41.282	-14.969	8.158	133.773
672520.6	6279591.1	860	4250	-0.028	4273.595	979597.861	-17.843	40.952	-14.849	8.260	132.702
672556.5	6279554.7	860	4300	-0.027	4273.975	979598.241	-17.489	40.603	-14.723	8.391	131.573
672590.7	6279519.2	860	4350	-0.027	4274.284	979598.550	-17.207	40.303	-14.614	8.482	130.599
672626.9	6279485.2	860	4400	-0.027	4274.568	979598.834	-16.948	40.068	-14.529	8.591	129.837
672662.6	6279450.4	860	4450	-0.027	4274.918	979599.184	-16.623	39.759	-14.417	8.719	128.836
672699.7	6279413.3	860	4500	-0.027	4275.269	979599.535	-16.300	39.557	-14.343	8.914	128.181
672732.3	6279379.6	860	4550	-0.027	4275.614	979599.880	-15.980	39.300	-14.250	9.070	127.349
672768.3	6279343.8	860	4600	-0.027	4276.153	979600.419	-15.467	38.851	-14.088	9.296	125.894
672803.3	6279308.7	860	4650	-0.027	4276.588	979600.854	-15.058	38.500	-13.960	9.482	124.757
672839.4	6279272.6	860	4700	-0.026	4277.020	979601.286	-14.652	38.156	-13.836	9.668	123.643
672874.6	6279236.3	860	4750	-0.025	4277.429	979601.695	-14.270	37.841	-13.721	9.850	122.622
672908.4	6279202.5	860	4800	-0.025	4277.788	979602.054	-13.936	37.556	-13.618	10.002	121.697
672944.1	6279166.9	860	4850	-0.025	4278.171	979602.437	-13.579	37.266	-13.513	10.174	120.757
672978.6	6279131.6	860	4900	-0.025	4278.566	979602.832	-13.210	36.959	-13.401	10.347	119.762
673015.1	6279098.0	860	4950	-0.025	4279.014	979603.280	-12.787	36.643	-13.287	10.569	118.741
673051.0	6279060.9	860	5000	-0.025	4279.465	979603.731	-12.364	36.271	-13.152	10.755	117.533
673084.9	6279026.8	860	5050	-0.025	4279.919	979604.185	-11.935	36.003	-13.055	11.013	116.665
673122.5	6278992.3	860	5100	-0.024	4280.424	979604.690	-11.455	35.730	-12.956	11.319	115.781
673160.3	6278957.9	860	5150	-0.024	4280.884	979605.150	-11.020	35.466	-12.860	11.585	114.924
673194.2	6278923.1	860	5200	-0.024	4281.176	979605.442	-10.754	35.157	-12.748	11.655	113.923
673227.0	6278884.1	860	5250	-0.024	4281.397	979605.663	-10.562	34.809	-12.622	11.626	112.798
673261.7	6278848.5	860	5300	-0.024	4281.568	979605.834	-10.417	34.494	-12.508	11.569	111.776
673298.2	6278813.4	860	5350	-0.024	4281.720	979605.986	-10.291	34.195	-12.399	11.505	110.808
673335.7	6278779.6	860	5400	-0.024	4281.902	979606.168	-10.134	33.909	-12.296	11.480	109.881
673365.4	6278739.6	860	5450	-0.023	4281.979	979606.245	-10.087	33.745	-12.236	11.422	109.348
673403.6	6278707.6	860	5500	-0.023	4282.216	979606.482	-9.873	33.349	-12.092	11.383	108.064
673443.2	6278675.2	860	5550	-0.023	4282.414	979606.680	-9.699	32.970	-11.955	11.316	106.838
673475.3	6278636.4	860	5600	-0.023	4282.598	979606.864	-9.544	32.661	-11.843	11.275	105.837
673509.9	6278600.4	860	5650	-0.023	4282.779	979607.045	-9.389	32.339	-11.726	11.223	104.792
673546.6	6278566.3	860	5700	-0.023	4282.928	979607.194	-9.265	32.065	-11.627	11.173	103.904
673580.1	6278532.3	860	5750	-0.023	4283.068	979607.334	-9.150	31.840	-11.545	11.144	103.175
673615.2	6278494.9	860	5800	-0.022	4283.257	979607.523	-8.989	31.550	-11.440	11.121	102.236
673652.3	6278459.0	860	5850	-0.022	4283.381	979607.647	-8.892	31.319	-11.356	11.071	101.488
673688.9	6278425.5	860	5900	-0.022	4283.580	979607.846	-8.717	31.025	-11.250	11.059	100.536
672518.1	6279870.5	880	4050	-0.029	4271.687	979595.953	-19.541	43.248	-15.682	8.025	140.143
672555.6	6279838.7	880	4100	-0.029	4272.083	979596.349	-19.168	42.826	-15.529	8.129	138.776
672595.6	6279804.8	880	4150	-0.029	4272.515	979596.781	-18.761	42.371	-15.364	8.246	137.301
672630.6	6279765.8	880	4200	-0.029	4272.823	979597.089	-18.482	42.055	-15.249	8.324	136.278
672662.4	6279731.4	880	4250	-0.029	4273.189	979597.455	-18.141	41.671	-15.110	8.420	135.034
672696.7	6279697.3	880	4300	-0.029	4273.590	979597.856	-17.765	41.315	-14.981	8.569	133.880
672737.6	6279661.8	880	4350	-0.030	4274.033	979598.299	-17.349	40.960	-14.852	8.759	132.727
672766.0	6279623.7	880	4400	-0.030	4274.479	979598.745	-16.931	40.526	-14.695	8.901	131.323
672804.9	6279592.2	880	4450	-0.030	4274.844	979599.110	-16.589	40.230	-14.588	9.054	130.363
672839.9	6279555.7	880	4500	-0.030	4275.343	979599.609	-16.117	39.798	-14.431	9.251	128.964
672875.6	6279519.4	880	4550	-0.030	4275.743	979600.009	-15.744	39.471	-14.312	9.415	127.903
672910.2	6279485.5	880	4600	-0.030	4276.091	979600.357	-15.421	39.149	-14.196	9.533	126.860
672945.9	6279450.8	880	4650	-0.030	4276.526	979600.792	-15.011	38.738	-14.047	9.680	125.528
672980.0	6279413.9	880	4700	-0.018	4277.012	979601.278	-14.552	38.247	-13.868	9.826	123.936
672980.2	6279413.9	880	4701	-0.030	4277.002	979601.268	-14.562	38.252	-13.870	9.819	123.952
673015.4	6279377.5	880	4750	-0.018	4277.406	979601.672	-14.185	37.904	-13.744	9.975	122.827
673051.1	6279342.9	880	4800	-0.018	4277.816	979602.082	-13.801	37.536	-13.611	10.124	121.632
673088.2	6279307.0	880	4850	-0.018	4278.208	979602.474	-13.435	37.231	-13.500	10.296	120.645
673123.8	6279273.1	880	4900	-0.018	4278.587	979602.853	-13.081	36.965	-13.404	10.480	119.782
673157.4	6279237.9	880	4950	-0.018	4278.979	979603.245	-12.715	36.692	-13.305	10.672	118.898
673193.8	6279202.2	880	5000	-0.018	4279.363	979603.629	-12.357	36.377	-13.191	10.829	117.878
673228.8	6279166.9	880	5050	-0.018	4279.763	979604.029	-11.984	36.093	-13.087	11.022	116.957
673263.9	6279130.3	880	5100	-0.019	4280.253	979604.519	-11.521	35.759	-12.966	11.272	115.875
673298.7	6279095.7	880	5150	-0.019	4280.693	979604.959	-11.106	35.456	-12.856	11.493	114.892
673334.2	6279061.1	880	5200	-0.019	4280.973	979605.239	-10.852	35.112	-12.732	11.529	113.778
673370.0	6279027.1	880	5250	-0.020	4281.145	979605.411	-10.705	34.843	-12.634	11.504	112.907
673404.2	6278990.1	880	5300	-0.020	4281.423	979605.689	-10.454	34.480	-12.503	11.524	111.731
673440.3	6278954.8	880	5350	-0.020	4281.654	979605.920	-10.249	34.126	-12.374	11.503	110.582
673474.6	6278918.6	880	5400	-0.020	4281.847	979606.113	-10.083	33.843	-12.272	11.488	109.666
673510.5	6278884.2	880	5450	-0.021	4282.028	979606.294	-9.927	33.578	-12.175	11.475	108.806
673546.4	6278848.9	880	5500	-0.021	4282.195	979606.461	-9.786	33.279	-12.067	11.426	107.838

673581.7	6278812.8	880	5550	-0.021	4282.374	979606.640	-9.634	32.970	-11.955	11.381	106.838
673616.9	6278778.0	880	5600	-0.021	4282.538	979606.804	-9.496	32.673	-11.847	11.330	105.875
673652.5	6278741.7	880	5650	-0.021	4282.719	979606.985	-9.341	32.348	-11.730	11.278	104.823
673687.0	6278707.4	880	5700	-0.021	4282.841	979607.107	-9.244	32.048	-11.621	11.183	103.851
673723.5	6278671.6	880	5750	-0.021	4283.043	979607.309	-9.069	31.672	-11.484	11.119	102.632
673758.3	6278636.9	880	5800	-0.022	4283.225	979607.491	-8.912	31.308	-11.352	11.043	101.452
673792.6	6278601.6	880	5850	-0.022	4283.448	979607.714	-8.715	30.981	-11.234	11.032	100.393
673829.3	6278566.2	880	5900	-0.022	4283.675	979607.941	-8.515	30.671	-11.121	11.035	99.386
673864.2	6278529.5	880	5950	-0.022	4283.900	979608.166	-8.317	30.375	-11.014	11.045	98.430
672729.5	6279946.2	900	4150	-0.004	4272.594	979596.860	-18.574	42.314	-15.343	8.397	137.115
672765.3	6279907.2	900	4200	-0.004	4273.007	979597.273	-18.190	41.849	-15.175	8.485	135.609
672806.2	6279876.0	900	4250	-0.004	4273.444	979597.710	-17.776	41.429	-15.022	8.631	134.247
672831.3	6279831.0	900	4300	-0.005	4274.151	979598.417	-17.102	40.648	-14.739	8.807	131.718
672875.0	6279803.0	900	4350	-0.005	4274.360	979598.626	-16.914	40.562	-14.708	8.941	131.439
672910.8	6279769.7	900	4400	-0.005	4274.908	979599.174	-16.390	40.061	-14.526	9.145	129.816
672936.1	6279725.8	900	4450	-0.005	4274.940	979599.206	-16.391	40.178	-14.569	9.218	130.193
672977.0	6279693.1	900	4500	-0.005	4275.346	979599.612	-16.009	39.808	-14.434	9.365	128.994
673014.9	6279666.1	900	4550	-0.006	4275.910	979600.176	-15.465	39.226	-14.223	9.538	127.108
673052.1	6279624.9	900	4600	-0.006	4276.264	979600.530	-15.141	38.955	-14.125	9.689	126.232
673087.8	6279590.5	900	4650	-0.006	4276.548	979600.814	-14.882	38.741	-14.048	9.811	125.538
673121.5	6279554.2	900	4700	-0.007	4276.966	979601.232	-14.491	38.399	-13.924	9.985	124.431
673158.0	6279519.1	900	4750	-0.007	4277.366	979601.632	-14.117	38.024	-13.788	10.119	123.214
673193.0	6279484.7	900	4800	-0.007	4277.781	979602.047	-13.728	37.683	-13.664	10.291	122.108
673229.0	6279449.4	900	4850	-0.007	4278.221	979602.487	-13.314	37.372	-13.551	10.508	121.103
673265.3	6279413.1	900	4900	-0.007	4278.736	979603.002	-12.825	37.005	-13.418	10.762	119.912
673298.9	6279379.0	900	4950	-0.007	4279.198	979603.464	-12.388	36.702	-13.308	11.005	118.930
673334.9	6279344.1	900	5000	-0.007	4279.638	979603.904	-11.974	36.428	-13.209	11.245	118.044
673369.7	6279308.3	900	5050	-0.007	4280.174	979604.440	-11.464	36.103	-13.091	11.548	116.990
673404.6	6279273.6	900	5100	-0.008	4280.584	979604.850	-11.080	35.766	-12.969	11.717	115.896
673440.4	6279237.2	900	5150	-0.008	4280.925	979605.191	-10.766	35.413	-12.841	11.806	114.755
673477.1	6279201.7	900	5200	-0.008	4281.158	979605.424	-10.559	35.123	-12.736	11.829	113.815
673512.4	6279165.6	900	5250	-0.008	4281.252	979605.518	-10.492	34.765	-12.606	11.668	112.655
673545.2	6279129.7	900	5300	-0.008	4281.370	979605.636	-10.400	34.469	-12.499	11.571	111.695
673580.4	6279094.2	900	5350	-0.008	4281.454	979605.720	-10.342	34.264	-12.424	11.498	111.032
673615.1	6279059.7	900	5400	-0.008	4281.667	979605.933	-10.155	33.938	-12.306	11.477	109.975
673652.1	6279026.1	900	5450	-0.008	4281.846	979606.112	-10.001	33.601	-12.184	11.416	108.881
673688.0	6278989.2	900	5500	-0.009	4282.089	979606.355	-9.785	33.205	-12.040	11.380	107.599
673723.5	6278953.8	900	5550	-0.009	4282.318	979606.584	-9.582	32.813	-11.898	11.333	106.327
673759.1	6278918.8	900	5600	-0.009	4282.524	979606.790	-9.402	32.505	-11.787	11.317	105.332
673793.9	6278883.9	900	5650	-0.009	4282.616	979606.882	-9.336	32.256	-11.696	11.225	104.525
673828.4	6278848.2	900	5700	-0.009	4282.780	979607.046	-9.198	31.914	-11.572	11.144	103.415
673864.4	6278813.1	900	5750	-0.009	4282.960	979607.226	-9.044	31.558	-11.443	11.071	102.262
673900.3	6278778.0	900	5800	-0.009	4283.245	979607.511	-8.784	31.186	-11.308	11.094	101.058
673935.4	6278742.4	900	5850	-0.010	4283.401	979607.667	-8.655	30.951	-11.223	11.073	100.294
673971.1	6278706.1	900	5900	-0.010	4283.676	979607.942	-8.406	30.531	-11.071	11.054	98.933
674006.0	6278672.0	900	5950	-0.010	4283.857	979608.123	-8.251	30.253	-10.970	11.033	98.034
672839.6	6280120.1	920	4100	-0.004	4272.441	979596.707	-18.595	42.283	-15.332	8.356	137.017
672874.6	6280086.4	920	4150	-0.003	4272.902	979597.168	-18.159	41.778	-15.149	8.471	135.380
672910.2	6280051.2	920	4200	-0.003	4273.266	979597.532	-17.821	41.426	-15.021	8.584	134.240
672945.7	6280016.3	920	4250	-0.003	4273.631	979597.897	-17.482	41.166	-14.927	8.758	133.397
672979.7	6279979.5	920	4300	-0.003	4274.024	979598.290	-17.116	40.856	-14.815	8.926	132.392
673014.4	6279945.5	920	4350	-0.003	4274.347	979598.613	-16.818	40.595	-14.720	9.058	131.547
673050.1	6279908.5	920	4400	-0.003	4274.694	979598.960	-16.498	40.353	-14.632	9.223	130.762
673087.5	6279872.4	920	4450	-0.003	4275.081	979599.347	-16.138	40.028	-14.514	9.376	129.707
673087.5	6279872.3	920	4451	-0.015	4275.113	979599.379	-16.106	40.037	-14.518	9.414	129.739
673123.7	6279834.0	920	4500	-0.002	4275.548	979599.814	-15.699	39.621	-14.367	9.555	128.389
673123.6	6279834.0	920	4501	-0.014	4275.574	979599.840	-15.673	39.615	-14.364	9.577	128.369
673123.6	6279834.0	920	4501	-0.014	4275.563	979599.829	-15.684	39.615	-14.364	9.566	128.369
673123.6	6279834.0	920	4501	-0.014	4275.559	979599.825	-15.688	39.615	-14.364	9.562	128.369
673156.0	6279802.1	920	4550	-0.014	4275.913	979600.179	-15.357	39.306	-14.252	9.696	127.368
673192.4	6279768.6	920	4600	-0.014	4276.399	979600.665	-14.896	38.867	-14.093	9.877	125.946
673226.7	6279732.3	920	4650	-0.014	4276.832	979601.098	-14.490	38.494	-13.958	10.046	124.737
673258.6	6279696.8	920	4700	-0.014	4277.222	979601.488	-14.126	38.125	-13.824	10.175	123.542
673297.7	6279661.5	920	4750	-0.014	4277.641	979601.907	-13.733	37.753	-13.689	10.330	122.336
673333.4	6279626.6	920	4800	-0.013	4278.109	979602.375	-13.291	37.474	-13.588	10.595	121.432
673368.3	6279591.4	920	4850	-0.013	4278.572	979602.838	-12.854	37.028	-13.426	10.748	119.986
673404.9	6279555.9	920	4900	-0.013	4279.022	979603.288	-12.430	36.715	-13.313	10.972	118.972
673439.9	6279522.4	920	4950	-0.013	4279.568	979603.834	-11.909	36.362	-13.185	11.268	117.828
673474.9	6279485.8	920	5000	-0.013	4280.085	979604.351	-11.419	36.107	-13.093	11.596	117.004
673508.6	6279448.4	920	5050	-0.013	4280.652	979604.918	-10.879	35.873	-13.008	11.986	116.245
673546.5	6279416.8	920	5100	-0.012	4281.151	979605.417	-10.404	35.491	-12.869	12.219	115.007
673580.1	6279380.6	920	5150	-0.012	4281.383	979605.649	-10.198	35.173	-12.754	12.221	113.975
673615.5	6279345.6	920	5200	-0.012	4281.528	979605.794	-10.079	34.909	-12.658	12.172	113.122
673652.1	6279308.4	920	5250	-0.012	4281.531	979605.797	-10.104	34.634	-12.559	11.972	112.230
673687.5	6279273.7	920	5300	-0.012	4281.772	979606.038	-9.888	34.177	-12.393	11.896	110.748
673723.1	6279237.8	920	5350	-0.012	4281.961	979606.227	-9.726	33.849	-12.274	11.850	109.686
673757.9	6279202.0	920	5400	-0.012	4282.190	979606.456	-9.523	33.501	-12.147	11.830	108.557
673793.6	6279166.3	920	5450	-0.011	4282.311	979606.577	-9.428	33.229	-12.049	11.752	107.675
673828.4	6279130.3	920	5500	-0.011	4282.364	979606.630	-9.402	32.986	-11.961	11.623	106.889
673864.1	6279096.0	920	5550	-0.011	4282.418	979606.684	-9.373	32.715	-11.863	11.479	106.011
673899.7	6279059.2	920	5600	-0.011	4282.562	979606.828	-9.256	32.320	-11.719	11.344	104.730
673935.0	6279025.0	920	5650	-0.011	4282.605	979606.871	-9.238	32.066	-11.627	11.200	103.908
673970.4	6278990.2	920	5700	-0.011	4282.733	979606.999	-9.136	31.769	-11.520	11.113	102.945

674004.3	6278954.5	920	5750	-0.011	4282.828	979607.094	-9.068	31.526	-11.431	11.027	102.157
674039.6	6278918.0	920	5800	-0.010	4283.116	979607.382	-8.807	31.128	-11.287	11.034	100.868
674077.3	6278883.6	920	5850	-0.010	4283.317	979607.583	-8.631	30.805	-11.170	11.005	99.823
674112.2	6278847.7	920	5900	-0.010	4283.555	979607.821	-8.419	30.482	-11.053	11.010	98.774
674148.0	6278814.2	920	5950	-0.010	4283.765	979608.031	-8.234	30.239	-10.965	11.041	97.989
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673158.5	6279796.4	0	2501	-0.004	4276.053	979600.249	-15.292	39.253	-14.233	9.728	127.196
673158.5	6279796.4	0	2501	-0.005	4276.047	979600.243	-15.298	39.253	-14.233	9.722	127.196
673211.5	6279856.3	0	2511	+0.000	4276.229	979600.415	-15.080	39.064	-14.165	9.819	126.585
673211.5	6279856.3	0	2511	+0.010	4276.229	979600.415	-15.080	39.064	-14.165	9.819	126.585
673211.5	6279856.3	0	2511	-0.008	4276.219	979600.415	-15.080	39.064	-14.165	9.819	126.585
673211.5	6279856.3	0	2511	+0.006	4276.227	979600.415	-15.080	39.064	-14.165	9.819	126.585
673211.5	6279856.3	0	2511	-0.061	4276.221	979600.415	-15.080	39.064	-14.165	9.819	126.585
673211.5	6279856.3	0	2511	+0.011	4276.282	979600.415	-15.080	39.064	-14.165	9.819	126.585
672449.1	6278530.5	780	4950	-0.050	4277.790	979601.984	-14.517	37.804	-13.708	9.579	122.501
672485.8	6278495.0	780	5000	-0.050	4278.230	979602.424	-14.103	37.337	-13.539	9.695	120.989
672522.0	6278458.6	780	5050	-0.051	4278.599	979602.793	-13.761	36.908	-13.383	9.764	119.597
672555.9	6278424.4	780	5100	-0.051	4278.972	979603.166	-13.413	36.499	-13.235	9.852	118.274
672591.5	6278389.3	780	5150	-0.051	4279.416	979603.610	-12.995	36.019	-13.061	9.964	116.719
672627.3	6278352.6	780	5200	-0.051	4279.823	979604.017	-12.615	35.553	-12.892	10.046	115.208
672662.1	6278318.1	780	5250	-0.052	4280.166	979604.360	-12.298	35.146	-12.744	10.104	113.888
672698.1	6278282.8	780	5300	-0.052	4280.574	979604.768	-11.916	34.645	-12.562	10.167	112.265
672733.2	6278247.9	780	5350	-0.052	4280.947	979605.141	-11.569	34.184	-12.395	10.220	110.770
672768.3	6278212.2	780	5400	-0.052	4281.292	979605.486	-11.250	33.800	-12.256	10.294	109.527
672803.6	6278176.8	780	5450	-0.053	4281.510	979605.704	-11.058	33.553	-12.166	10.328	108.725
672838.9	6278141.5	780	5500	-0.053	4281.689	979605.883	-10.905	33.321	-12.082	10.334	107.976
672874.3	6278106.9	780	5550	-0.053	4281.984	979606.178	-10.635	32.929	-11.940	10.354	106.705
672909.9	6278070.4	780	5600	-0.053	4282.315	979606.509	-10.331	32.508	-11.787	10.389	105.339
672945.1	6278035.4	780	5650	-0.054	4282.555	979606.749	-10.117	32.205	-11.678	10.410	104.357
672980.2	6278000.0	780	5700	-0.054	4282.635	979606.829	-10.063	32.134	-11.652	10.419	104.127
673015.6	6277964.8	780	5750	-0.054	4282.837	979607.031	-9.887	31.882	-11.560	10.434	103.311
673051.2	6277929.4	780	5800	-0.055	4283.081	979607.275	-9.669	31.599	-11.458	10.472	102.395
672171.0	6279100.8	800	4350	-0.045	4270.852	979595.046	-21.030	46.438	-16.839	8.569	150.479
672204.3	6279058.0	800	4400	-0.044	4272.963	979597.157	-18.951	43.258	-15.686	8.622	140.176
672237.6	6279025.4	800	4450	-0.044	4272.946	979597.140	-18.992	43.059	-15.613	8.453	139.529
672272.4	6278990.0	800	4500	-0.043	4273.566	979597.760	-18.398	42.348	-15.355	8.594	137.225
672308.7	6278954.8	800	4550	-0.043	4274.267	979598.461	-17.723	41.616	-15.097	8.803	134.855
672343.7	6278919.5	800	4600	-0.043	4274.974	979599.168	-17.042	40.853	-14.814	8.997	132.382
672378.4	6278885.0	800	4650	-0.043	4275.568	979599.762	-16.474	40.269	-14.602	9.194	130.489
672413.9	6278848.9	800	4700	-0.042	4276.229	979600.423	-15.839	39.574	-14.350	9.385	128.237
672450.6	6278813.2	800	4750	-0.042	4276.798	979600.992	-15.297	38.993	-14.139	9.557	126.353
672485.2	6278778.5	800	4800	-0.042	4277.312	979601.506	-14.808	38.485	-13.955	9.722	124.709
672521.0	6278742.9	800	4850	-0.041	4277.794	979601.988	-14.353	37.996	-13.778	9.866	123.124
672556.0	6278708.3	800	4900	-0.041	4278.254	979602.448	-13.918	37.477	-13.589	9.970	121.443
672591.3	6278670.9	800	4950	-0.059	4278.657	979602.851	-13.543	37.020	-13.424	10.054	119.962
672627.0	6278636.4	800	5000	-0.059	4279.052	979603.246	-13.173	36.596	-13.270	10.153	118.587
672662.3	6278601.6	800	5050	-0.059	4279.402	979603.596	-12.849	36.189	-13.122	10.218	117.268
672697.4	6278565.8	800	5100	-0.059	4279.848	979604.042	-12.429	35.648	-12.926	10.293	115.514
672733.4	6278530.5	800	5150	-0.058	4280.282	979604.476	-12.021	35.134	-12.740	10.373	113.850
672767.8	6278495.1	800	5200	-0.058	4280.664	979604.858	-11.665	34.701	-12.583	10.453	112.448
672803.5	6278459.6	800	5250	-0.058	4281.012	979605.206	-11.344	34.289	-12.433	10.512	111.110
672839.0	6278424.4	800	5300	-0.058	4281.284	979605.478	-11.097	33.939	-12.306	10.535	109.977
672873.7	6278389.1	800	5350	-0.057	4281.547	979605.741	-10.860	33.555	-12.167	10.527	108.733
672910.0	6278354.2	800	5400	-0.057	4281.850	979606.044	-10.583	33.161	-12.024	10.554	107.457
672944.9	6278318.9	800	5450	-0.057	4282.117	979606.311	-10.342	32.818	-11.900	10.576	106.346
672980.4	6278282.5	800	5500	-0.057	4282.377	979606.571	-10.109	32.477	-11.776	10.592	105.240
673015.8	6278247.7	800	5550	-0.056	4282.655	979606.849	-9.857	32.124	-11.648	10.619	104.097
673051.2	6278212.5	800	5600	-0.056	4282.851	979607.045	-9.687	31.806	-11.533	10.586	103.064
673086.4	6278177.0	800	5650	-0.056	4283.051	979607.245	-9.513	31.466	-11.410	10.543	101.964
673121.6	6278141.5	800	5700	-0.056	4283.240	979607.434	-9.350	31.159	-11.298	10.510	100.968
673157.2	6278106.2	800	5750	-0.055	4283.377	979607.571	-9.239	30.984	-11.235	10.510	100.402
673191.9	6278070.7	800	5800	-0.055	4283.597	979607.791	-9.045	30.717	-11.138	10.533	99.535
672096.6	6279450.6	820	4050	-0.011	4266.133	979590.327	-25.488	52.583	-19.067	8.028	170.391
672131.6	6279414.2	820	4100	-0.011	4267.710	979591.904	-23.938	50.329	-18.249	8.142	163.088
672167.1	6279378.8	820	4150	-0.011	4268.274	979592.468	-23.400	49.625	-17.994	8.231	160.806
672201.7	6279343.2	820	4200	-0.012	4268.999	979593.193	-22.701	48.785	-17.690	8.394	158.084
672237.9	6279308.3	820	4250	-0.012	4269.954	979594.148	-21.772	47.435	-17.200	8.463	153.710
672272.4	6279276.9	820	4300	-0.012	4271.289	979595.483	-20.460	45.082	-16.347	8.275	146.087
672306.3	6279238.4	820	4350	-0.013	4272.573	979596.767	-19.204	42.835	-15.532	8.098	138.803
672344.2	6279202.1	820	4400	-0.013	4273.676	979597.870	-18.128	41.467	-15.036	8.302	134.370
672379.1	6279166.9	820	4450	-0.013	4274.323	979598.517	-17.507	40.853	-14.814	8.533	132.382
672414.8	6279131.9	820	4500	-0.014	4274.789	979598.983	-17.067	40.492	-14.682	8.743	131.211
672450.4	6279096.6	820	4550	-0.014	4275.242	979599.436	-16.640	40.125	-14.550	8.936	130.024
672485.3	6279060.8	820	4600	-0.014	4275.782	979599.976	-16.126	39.685	-14.390	9.169	128.597
672520.7	6279025.4	820	4650	-0.014	4276.275	979600.469	-15.660	39.311	-14.254	9.397	127.386
672556.1	6278990.0	820	4700	-0.015	4276.798	979600.992	-15.163	38.844	-14.085	9.597	125.872
672591.7	6278954.8	820	4750	-0.015	4277.295	979601.489	-14.692	38.406	-13.926	9.788	124.452
672626.9	6278919.1	820	4800	-0.015	4277.808	979602.002	-14.205	37.958	-13.764	9.989	123.000
672662.2	6278884.1	820	4850	-0.015	4278.341	979602.535	-13.698	37.501	-13.598	10.205	121.520
672698.5	6278848.6	820	4900	-0.017	4278.761	979602.955	-13.304	37.080	-13.446	10.331	120.157
672732.6	6278813.3	820	4950	-0.017	4279.157	979603.351	-12.934	36.596	-13.270	10.393	118.588
672768.1	6278777.7	820	5000	-0.018	4279.555	979603.749	-12.562	36.201	-13.127	10.512	117.306
672803.6	6278742.6	820	5050	-0.018	4280.037	979604.231	-12.106	35.705	-12.947	10.652	115.701

672839.2	6278707.4	820	5100	-0.018	4280.525	979604.719	-11.644	35.235	-12.776	10.815	114.178
672874.3	6278671.8	820	5150	-0.019	4280.912	979605.106	-11.283	34.869	-12.644	10.942	112.991
672909.6	6278636.7	820	5200	-0.019	4281.197	979605.391	-11.024	34.567	-12.534	11.009	112.011
672946.3	6278600.2	820	5250	-0.019	4281.447	979605.641	-10.801	34.267	-12.425	11.041	111.040
672980.2	6278565.5	820	5300	-0.019	4281.624	979605.818	-10.650	34.031	-12.340	11.042	110.276
673015.5	6278530.5	820	5350	-0.020	4281.789	979605.983	-10.510	33.760	-12.241	11.008	109.397
673051.0	6278495.3	820	5400	-0.020	4281.968	979606.162	-10.357	33.464	-12.134	10.972	108.438
673086.5	6278459.7	820	5450	-0.020	4282.103	979606.297	-10.249	33.196	-12.037	10.911	107.571
673121.8	6278424.5	820	5500	-0.020	4282.317	979606.511	-10.061	32.885	-11.924	10.900	106.563
673157.7	6278389.0	820	5550	-0.021	4282.506	979606.700	-9.898	32.630	-11.832	10.901	105.736
673192.5	6278353.9	820	5600	-0.021	4282.756	979606.950	-9.674	32.325	-11.721	10.930	104.747
673227.9	6278318.4	820	5650	-0.021	4283.032	979607.226	-9.424	31.902	-11.568	10.911	103.377
673263.5	6278283.2	820	5700	-0.022	4283.271	979607.465	-9.211	31.520	-11.429	10.880	102.138
673299.2	6278248.1	820	5750	-0.022	4283.572	979607.766	-8.936	31.039	-11.255	10.848	100.579
673333.9	6278212.3	820	5800	-0.022	4283.742	979607.936	-8.792	30.752	-11.151	10.809	99.649
673369.6	6278177.0	820	5850	-0.022	4283.980	979608.174	-8.580	30.413	-11.028	10.805	98.551
672202.5	6279626.4	840	4000	-0.010	4267.523	979591.717	-23.964	50.317	-18.245	8.108	163.049
672237.5	6279591.2	840	4050	-0.010	4268.333	979592.527	-23.180	49.144	-17.820	8.144	159.248
672272.2	6279556.3	840	4100	-0.010	4269.622	979593.816	-21.917	47.415	-17.193	8.305	153.645
672304.9	6279517.2	840	4150	-0.009	4269.474	979593.668	-22.094	47.443	-17.203	8.146	153.735
672343.3	6279485.2	840	4200	-0.009	4271.604	979595.798	-19.988	43.784	-15.876	7.921	141.881
672379.3	6279449.4	840	4250	-0.009	4272.785	979596.979	-18.833	42.169	-15.291	8.046	136.647
672414.6	6279414.7	840	4300	-0.008	4273.323	979597.517	-18.320	41.556	-15.068	8.167	134.660
672450.3	6279378.9	840	4350	-0.008	4273.767	979597.961	-17.903	40.945	-14.847	8.195	132.679
672485.7	6279343.7	840	4400	-0.008	4274.320	979598.514	-17.376	40.442	-14.665	8.402	131.051
672521.0	6279308.0	840	4450	-0.008	4274.804	979598.998	-16.918	39.892	-14.465	8.509	129.269
672556.1	6279272.9	840	4500	-0.007	4275.246	979599.440	-16.502	39.444	-14.303	8.640	127.817
672591.3	6279239.2	840	4550	-0.007	4275.734	979599.928	-16.039	38.967	-14.129	8.798	126.269
672625.4	6279203.2	840	4600	-0.007	4276.210	979600.404	-15.589	38.584	-13.991	9.004	125.030
672660.5	6279166.9	840	4650	-0.007	4276.652	979600.846	-15.174	38.249	-13.869	9.206	123.943
672697.5	6279132.8	840	4700	-0.006	4277.028	979601.222	-14.823	37.953	-13.762	9.368	122.985
672731.6	6279096.3	840	4750	-0.006	4277.456	979601.650	-14.422	37.655	-13.654	9.579	122.019
672765.1	6279062.1	840	4800	-0.006	4277.881	979602.075	-14.023	37.375	-13.552	9.800	121.111
672765.1	6279062.1	840	4801	-0.029	4277.882	979602.076	-14.022	37.379	-13.554	9.804	121.124
672803.6	6279025.5	840	4850	-0.029	4278.327	979602.521	-13.603	37.070	-13.442	10.025	120.122
672838.9	6278989.9	840	4900	-0.028	4278.774	979602.968	-13.183	36.774	-13.334	10.257	119.164
672874.4	6278954.8	840	4950	-0.028	4279.203	979603.397	-12.780	36.523	-13.243	10.500	118.351
672909.7	6278919.4	840	5000	-0.028	4279.644	979603.838	-12.365	36.215	-13.132	10.718	117.352
672945.0	6278884.2	840	5050	-0.027	4280.183	979604.377	-11.852	35.847	-12.998	10.997	116.160
672980.5	6278848.6	840	5100	-0.027	4280.695	979604.889	-11.366	35.560	-12.894	11.300	115.229
673015.7	6278813.6	840	5150	-0.027	4281.110	979605.304	-10.977	35.266	-12.788	11.502	114.278
673050.9	6278777.9	840	5200	-0.027	4281.293	979605.487	-10.820	35.029	-12.702	11.508	113.511
673086.3	6278742.7	840	5250	-0.026	4281.445	979605.639	-10.694	34.739	-12.597	11.449	112.571
673121.5	6278706.8	840	5300	-0.026	4281.498	979605.692	-10.668	34.503	-12.511	11.325	111.805
673156.8	6278671.9	840	5350	-0.026	4281.630	979605.824	-10.561	34.201	-12.401	11.238	110.825
673192.1	6278636.6	840	5400	-0.026	4281.781	979605.975	-10.436	33.907	-12.295	11.176	109.875
673227.4	6278601.1	840	5450	-0.025	4281.986	979606.180	-10.257	33.540	-12.162	11.121	108.686
673263.0	6278565.7	840	5500	-0.025	4282.185	979606.379	-10.085	33.218	-12.045	11.089	107.641
673298.2	6278530.0	840	5550	-0.025	4282.455	979606.649	-9.841	32.876	-11.921	11.115	106.534
673334.0	6278495.3	840	5600	-0.025	4282.755	979606.949	-9.567	32.554	-11.804	11.183	105.490
673369.3	6278459.8	840	5650	-0.024	4282.941	979607.135	-9.407	32.302	-11.713	11.183	104.674
673404.6	6278424.7	840	5700	-0.024	4283.062	979607.256	-9.312	32.108	-11.642	11.154	104.043
673440.0	6278389.0	840	5750	-0.024	4283.174	979607.368	-9.226	31.889	-11.563	11.100	103.333
673474.6	6278353.3	840	5800	-0.024	4283.319	979607.513	-9.107	31.606	-11.461	11.039	102.418
673510.3	6278319.8	840	5850	-0.023	4283.437	979607.631	-9.014	31.349	-11.367	10.968	101.585
673546.6	6278283.0	840	5900	-0.023	4283.652	979607.846	-8.826	31.049	-11.258	10.964	100.611
672803.3	6279308.8	860	4650	-0.033	4276.648	979600.842	-15.070	38.504	-13.962	9.473	124.771
672737.8	6279661.7	880	4350	-0.004	4274.092	979598.286	-17.362	40.956	-14.851	8.743	132.715
672839.6	6280120.0	920	4100	-0.003	4272.540	979596.734	-18.568	42.282	-15.331	8.382	137.011
D134											
673211.5	6279856.3	0	2511	+0.000	4276.314	979600.415	-15.080	39.064	-14.165	9.819	126.585
673211.5	6279856.3	0	2511	+0.008	4276.314	979600.415	-15.080	39.064	-14.165	9.819	126.585
673211.5	6279856.3	0	2511	-0.042	4276.306	979600.415	-15.080	39.064	-14.165	9.819	126.585
673211.5	6279856.3	0	2511	+0.000	4276.348	979600.415	-15.080	39.064	-14.165	9.819	126.585
671741.1	6278106.4	700	4750	-0.029	4269.063	979593.172	-23.657	50.164	-18.190	8.317	162.553
671776.4	6278068.6	700	4800	-0.029	4268.567	979592.676	-24.181	51.057	-18.513	8.362	165.446
671813.3	6278034.8	700	4850	-0.029	4269.004	979593.113	-23.769	50.608	-18.351	8.488	163.991
671847.7	6278001.6	700	4900	-0.029	4270.417	979594.526	-22.381	48.515	-17.592	8.543	157.210
671884.9	6277964.5	700	4950	-0.029	4272.744	979596.853	-20.081	45.177	-16.381	8.715	146.393
671919.1	6277929.6	700	5000	-0.030	4273.576	979597.685	-19.275	44.123	-15.999	8.849	142.979
671955.7	6277894.9	700	5050	-0.030	4274.321	979598.430	-18.555	43.270	-15.690	9.025	140.214
671991.3	6277860.1	700	5100	-0.030	4274.806	979598.915	-18.096	42.677	-15.475	9.107	138.293
672025.8	6277824.0	700	5150	-0.030	4275.242	979599.351	-17.687	42.148	-15.283	9.179	136.578
672061.5	6277788.0	700	5200	-0.030	4275.417	979599.526	-17.538	41.763	-15.144	9.082	135.332
672097.6	6277752.1	700	5250	-0.032	4275.876	979599.985	-17.106	40.906	-14.833	8.968	132.555
672132.0	6277717.5	700	5300	-0.032	4276.056	979600.165	-16.951	40.692	-14.755	8.986	131.860
672167.5	6277682.5	700	5350	-0.032	4276.273	979600.382	-16.760	40.469	-14.674	9.035	131.138
672202.7	6277646.7	700	5400	-0.033	4276.711	979600.820	-16.348	40.026	-14.514	9.164	129.701
672237.0	6277611.2	700	5450	-0.033	4277.103	979601.212	-15.983	39.608	-14.362	9.263	128.346
672273.1	6277575.5	700	5500	-0.033	4277.474	979601.583	-15.638	39.183	-14.208	9.337	126.971
672308.6	6277540.4	700	5550	-0.033	4277.842	979601.951	-15.296	38.804	-14.070	9.438	125.741
672344.0	6277504.9	700	5600	-0.033	4278.344	979602.453	-14.820	38.342	-13.903	9.619	124.245
672379.2	6277469.7	700	5650	-0.034	4278.804	979602.913	-14.386	37.937	-13.756	9.795	122.932

671850.1	6278283.2	720	4700	-0.028	4271.068	979595.177	-21.518	46.951	-17.025	8.409	152.143
671884.4	6278247.7	720	4750	-0.028	4271.021	979595.130	-21.591	47.214	-17.120	8.503	152.994
671920.8	6278213.5	720	4800	-0.028	4271.431	979595.540	-21.206	46.760	-16.955	8.598	151.523
671954.9	6278177.0	720	4850	-0.027	4273.213	979597.322	-19.451	44.164	-16.014	8.699	143.111
671990.5	6278141.7	720	4900	-0.027	4273.922	979598.031	-18.768	43.432	-15.749	8.915	140.739
672025.9	6278105.8	720	4950	-0.027	4274.282	979598.391	-18.435	43.018	-15.598	8.985	139.397
672061.3	6278070.9	720	5000	-0.027	4274.798	979598.907	-17.945	42.291	-15.335	9.012	137.041
672096.4	6278035.3	720	5050	-0.027	4275.448	979599.557	-17.321	41.120	-14.910	8.889	133.246
672132.0	6278000.2	720	5100	-0.026	4275.808	979599.917	-16.987	40.417	-14.655	8.775	130.969
672167.0	6277965.1	720	5150	-0.026	4276.406	979600.515	-16.414	39.706	-14.398	8.894	128.665
672203.1	6277929.4	720	5200	-0.026	4276.938	979601.047	-15.909	39.144	-14.194	9.042	126.844
672238.4	6277894.1	720	5250	-0.026	4277.328	979601.437	-15.545	38.785	-14.064	9.177	125.682
672273.0	6277858.9	720	5300	-0.026	4277.597	979601.706	-15.302	38.529	-13.971	9.256	124.850
672308.3	6277823.3	720	5350	-0.035	4277.851	979601.960	-15.074	38.311	-13.892	9.345	124.144
672344.4	6277787.9	720	5400	-0.035	4278.012	979602.121	-14.939	38.212	-13.856	9.417	123.823
672379.3	6277752.8	720	5450	-0.035	4278.267	979602.376	-14.710	37.980	-13.772	9.498	123.072
672414.7	6277717.4	720	5500	-0.035	4278.628	979602.737	-14.375	37.633	-13.646	9.612	121.948
672449.9	6277682.0	720	5550	-0.034	4279.006	979603.115	-14.023	37.284	-13.519	9.741	120.815
672485.3	6277646.4	720	5600	-0.034	4279.428	979603.537	-13.628	36.922	-13.388	9.906	119.643
672520.4	6277611.4	720	5650	-0.034	4279.850	979603.959	-13.231	36.566	-13.259	10.076	118.490
672556.0	6277576.2	720	5700	-0.034	4280.295	979604.404	-12.812	36.184	-13.120	10.251	117.252
671884.6	6278530.5	740	4550	-0.021	4269.791	979593.900	-22.609	48.763	-17.682	8.473	158.015
671920.3	6278493.9	740	4600	-0.020	4269.980	979594.089	-22.447	48.604	-17.624	8.533	157.498
671954.2	6278462.4	740	4650	-0.020	4270.604	979594.713	-21.846	47.711	-17.300	8.565	154.606
671990.1	6278426.3	740	4700	-0.020	4271.239	979595.348	-21.238	46.656	-16.918	8.501	151.186
672025.5	6278389.4	740	4750	-0.020	4273.268	979597.377	-19.236	43.476	-15.765	8.476	140.881
672061.2	6278353.2	740	4800	-0.020	4274.249	979598.358	-18.282	42.225	-15.311	8.633	136.829
672097.3	6278319.8	740	4850	-0.019	4274.685	979598.794	-17.870	41.744	-15.136	8.737	135.268
672131.8	6278283.0	740	4900	-0.017	4274.989	979599.098	-17.593	41.445	-15.028	8.824	134.301
672167.0	6278247.0	740	4950	-0.017	4275.335	979599.444	-17.274	40.937	-14.844	8.820	132.655
672202.6	6278212.6	740	5000	-0.016	4275.844	979599.953	-16.790	40.236	-14.590	8.856	130.381
672237.8	6278176.9	740	5050	-0.016	4276.371	979600.480	-16.290	39.575	-14.350	8.936	128.242
672273.3	6278141.8	740	5100	-0.016	4276.910	979601.019	-15.776	38.983	-14.135	9.071	126.322
672308.6	6278106.2	740	5150	-0.016	4277.421	979601.530	-15.292	38.498	-13.960	9.247	124.752
672343.9	6278070.8	740	5200	-0.016	4277.992	979602.101	-14.747	37.856	-13.727	9.383	122.670
672379.7	6278034.8	740	5250	-0.015	4278.469	979602.578	-14.296	37.374	-13.552	9.525	121.107
672415.3	6278000.1	740	5300	-0.015	4278.884	979602.993	-13.907	37.023	-13.425	9.692	119.971
672449.8	6277965.0	740	5350	-0.015	4279.228	979603.337	-13.589	36.714	-13.313	9.812	118.969
672484.9	6277929.6	740	5400	-0.015	4279.439	979603.548	-13.404	36.562	-13.257	9.900	118.476
672520.3	6277893.8	740	5450	-0.015	4279.615	979603.724	-13.254	36.564	-13.258	10.052	118.484
672554.9	6277859.8	740	5500	-0.014	4279.863	979603.972	-13.032	36.347	-13.180	10.136	117.781
672590.9	6277822.7	740	5550	-0.014	4280.098	979604.207	-12.824	36.098	-13.089	10.185	116.972
672626.6	6277787.9	740	5600	-0.014	4280.488	979604.597	-12.460	35.706	-12.947	10.300	115.704
672661.9	6277752.6	740	5650	-0.014	4280.824	979604.933	-12.150	35.323	-12.808	10.365	114.461
672696.7	6277717.1	740	5700	-0.014	4281.156	979605.265	-11.844	34.981	-12.684	10.453	113.354
671955.0	6278742.6	760	4450	-0.021	4266.891	979591.000	-25.348	52.913	-19.187	8.378	171.462
671988.5	6278706.3	760	4500	-0.022	4268.385	979592.494	-23.881	50.696	-18.382	8.432	164.276
672026.3	6278673.6	760	4550	-0.022	4269.966	979594.075	-22.324	48.313	-17.519	8.470	156.556
672059.1	6278635.3	760	4600	-0.022	4271.493	979595.602	-20.826	45.808	-16.610	8.372	148.438
672096.0	6278601.4	760	4650	-0.022	4273.486	979597.595	-18.858	42.553	-15.430	8.266	137.891
672132.1	6278565.7	760	4700	-0.024	4273.980	979598.089	-18.390	42.060	-15.251	8.419	136.292
672167.2	6278530.6	760	4750	-0.024	4274.420	979598.529	-17.976	41.736	-15.134	8.627	135.243
672202.5	6278495.1	760	4800	-0.024	4275.007	979599.116	-17.415	41.103	-14.904	8.784	133.191
672237.8	6278459.8	760	4850	-0.024	4275.547	979599.656	-16.901	40.597	-14.721	8.976	131.553
672273.7	6278424.0	760	4900	-0.010	4276.086	979600.195	-16.388	39.984	-14.498	9.097	129.565
672308.5	6278389.1	760	4950	-0.010	4276.625	979600.734	-15.875	39.384	-14.281	9.229	127.623
672343.9	6278353.5	760	5000	-0.010	4277.084	979601.193	-15.442	38.836	-14.082	9.312	125.846
672379.7	6278318.1	760	5050	-0.011	4277.507	979601.616	-15.046	38.358	-13.909	9.404	124.297
672415.1	6278283.3	760	5100	-0.011	4278.026	979602.135	-14.552	37.807	-13.709	9.546	122.510
672450.1	6278247.5	760	5150	-0.011	4278.609	979602.718	-13.996	37.223	-13.497	9.730	120.620
672484.9	6278212.2	760	5200	-0.011	4279.040	979603.149	-13.591	36.748	-13.325	9.833	119.081
672520.6	6278176.9	760	5250	-0.011	4279.516	979603.625	-13.141	36.267	-13.151	9.976	117.521
672556.4	6278141.3	760	5300	-0.011	4279.931	979604.040	-12.752	35.806	-12.983	10.071	116.027
672591.5	6278105.9	760	5350	-0.012	4280.169	979604.278	-12.540	35.522	-12.880	10.101	115.106
672626.6	6278071.1	760	5400	-0.012	4280.516	979604.625	-12.219	35.168	-12.752	10.197	113.959
672662.0	6278035.5	760	5450	-0.012	4280.659	979604.768	-12.102	35.008	-12.694	10.212	113.440
672697.7	6277999.9	760	5500	-0.012	4280.921	979605.030	-11.866	34.730	-12.593	10.270	112.539
672732.7	6277964.6	760	5550	-0.012	4281.198	979605.307	-11.615	34.414	-12.479	10.320	111.516
672768.5	6277929.7	760	5600	-0.013	4281.456	979605.565	-11.383	34.149	-12.383	10.384	110.659
672804.0	6277894.4	760	5650	-0.013	4281.732	979605.841	-11.133	33.845	-12.272	10.440	109.674
672839.6	6277858.3	760	5700	-0.013	4281.974	979606.083	-10.918	33.563	-12.170	10.476	108.760
672874.1	6277823.3	760	5750	-0.013	4282.227	979606.336	-10.690	33.270	-12.064	10.516	107.811
671995.6	6278986.8	780	4300	-0.005	4270.054	979594.163	-22.001	47.698	-17.296	8.401	154.563
672023.4	6278955.0	780	4350	-0.005	4269.057	979593.166	-23.022	49.479	-17.941	8.516	160.333
672059.2	6278920.4	780	4400	-0.005	4268.379	979592.488	-23.726	50.571	-18.337	8.508	163.871
672098.5	6278881.8	780	4450	-0.006	4269.915	979594.024	-22.218	48.319	-17.521	8.580	156.574
672127.8	6278846.3	780	4500	-0.006	4271.307	979595.416	-20.852	45.816	-16.613	8.351	148.465
672171.0	6278813.9	780	4550	-0.006	4273.930	979598.039	-18.253	41.713	-15.125	8.335	135.169
672202.5	6278778.3	780	4600	-0.007	4274.616	979598.725	-17.593	40.939	-14.845	8.502	132.662
672238.1	6278743.0	780	4650	-0.007	4275.184	979599.293	-17.051	40.402	-14.650	8.701	130.919
672273.2	6278706.8	780	4700	-0.007	4275.704	979599.813	-16.558	39.968	-14.492	8.917	129.513
672308.4	6278671.4	780	4750	-0.007	4276.135	979600.244	-16.153	39.615	-14.365	9.098	128.371
672344.0	6278636.2	780	4800	-0.007	4276.621	979600.730	-15.693	39.160	-14.200	9.267	126.895

672379.2	6278601.1	780	4850	-0.008	4277.112	979601.221	-15.228	38.651	-14.015	9.408	125.245
672414.6	6278565.9	780	4900	-0.008	4277.551	979601.660	-14.815	38.180	-13.844	9.521	123.720
672448.8	6278530.5	780	4950	-0.008	4277.904	979602.013	-14.488	37.804	-13.708	9.608	122.501
672060.1	6279201.3	800	4200	-0.004	4267.981	979592.090	-23.912	50.568	-18.336	8.319	163.861
672096.1	6279167.6	800	4250	-0.004	4269.172	979593.281	-22.746	48.899	-17.731	8.422	158.454
672130.2	6279133.2	800	4300	-0.004	4269.930	979594.039	-22.014	47.809	-17.336	8.459	154.921
672171.1	6279100.9	800	4350	-0.004	4270.912	979595.021	-21.055	46.438	-16.838	8.544	150.478
672873.6	6278389.1	800	5350	-0.036	4281.662	979605.771	-10.830	33.565	-12.171	10.564	108.764
673051.2	6278495.1	820	5400	-0.036	4282.097	979606.206	-10.313	33.462	-12.133	11.015	108.431
672699.7	6279413.2	860	4500	-0.003	4275.405	979599.514	-16.321	39.562	-14.345	8.896	128.198
672766.0	6279623.8	880	4400	-0.002	4274.633	979598.742	-16.934	40.527	-14.695	8.898	131.325
673125.4	6280404.0	960	4100	-0.038	4272.743	979596.852	-18.233	42.021	-15.237	8.551	136.167
673157.7	6280368.8	960	4150	-0.039	4273.184	979597.293	-17.818	41.476	-15.040	8.619	134.402
673192.1	6280333.2	960	4200	-0.039	4273.540	979597.649	-17.488	41.018	-14.873	8.657	132.918
673228.3	6280297.7	960	4250	-0.039	4274.059	979598.168	-16.995	40.506	-14.688	8.823	131.256
673262.9	6280263.0	960	4300	-0.039	4274.548	979598.657	-16.532	40.074	-14.531	9.011	129.857
673299.0	6280227.4	960	4350	-0.039	4275.099	979599.208	-16.007	39.596	-14.358	9.231	128.308
673334.1	6280192.1	960	4400	-0.040	4275.647	979599.756	-15.485	39.139	-14.192	9.462	126.827
673369.2	6280156.8	960	4450	-0.040	4276.169	979600.278	-14.989	38.718	-14.039	9.690	125.465
673404.5	6280121.6	960	4500	-0.040	4276.653	979600.762	-14.531	38.303	-13.889	9.883	124.117
673440.1	6280086.1	960	4550	-0.040	4277.152	979601.261	-14.058	37.887	-13.738	10.091	122.772
673475.0	6280050.8	960	4600	-0.040	4277.503	979601.612	-13.734	37.669	-13.659	10.276	122.063
673511.1	6280016.0	960	4650	-0.041	4277.919	979602.028	-13.343	37.368	-13.550	10.475	121.090
673546.5	6279980.3	960	4700	-0.041	4278.293	979602.402	-12.995	37.101	-13.453	10.653	120.225
673582.1	6279945.4	960	4750	-0.041	4278.718	979602.827	-12.596	36.792	-13.341	10.855	119.223
673617.0	6279909.1	960	4800	-0.041	4279.093	979603.202	-12.248	36.500	-13.235	11.017	118.275
673652.0	6279874.2	960	4850	-0.041	4279.393	979603.502	-11.974	36.240	-13.141	11.125	117.433
673688.2	6279838.5	960	4900	-0.042	4279.840	979603.949	-11.553	35.884	-13.012	11.319	116.279
D135											
673211.5	6279856.3	0	2511	+0.000	4276.403	979600.415	-15.080	39.064	-14.165	9.819	126.585
673211.5	6279856.3	0	2511	-0.002	4276.403	979600.415	-15.080	39.064	-14.165	9.819	126.585
673211.5	6279856.3	0	2511	-0.028	4276.405	979600.415	-15.080	39.064	-14.165	9.819	126.585
673211.5	6279856.3	0	2511	+0.008	4276.433	979600.415	-15.080	39.064	-14.165	9.819	126.585
673193.0	6279484.7	900	4800	-0.001	4278.069	979602.079	-13.696	37.684	-13.664	10.324	122.113
672945.7	6280016.2	920	4250	-0.028	4273.914	979597.924	-17.455	41.157	-14.924	8.779	133.368
673226.7	6279732.4	920	4650	-0.001	4277.092	979601.102	-14.486	38.491	-13.957	10.048	124.728
673228.3	6280297.7	960	4250	-0.027	4274.168	979598.178	-16.985	40.506	-14.688	8.833	131.258
673688.2	6279838.5	960	4900	-0.002	4279.949	979603.959	-11.543	35.883	-13.011	11.329	116.277
673722.8	6279802.7	960	4950	-0.004	4280.490	979604.500	-11.029	35.582	-12.902	11.651	115.301
673758.0	6279767.9	960	5000	-0.004	4281.036	979605.046	-10.508	35.272	-12.790	11.975	114.298
673793.7	6279732.7	960	5050	-0.004	4281.564	979605.574	-10.006	34.831	-12.630	12.195	112.868
673828.9	6279697.2	960	5100	-0.004	4281.797	979605.807	-9.799	34.422	-12.482	12.141	111.542
673864.3	6279661.7	960	5150	-0.004	4282.075	979606.085	-9.547	34.119	-12.372	12.200	110.560
673899.6	6279626.3	960	5200	-0.004	4282.013	979606.023	-9.636	33.885	-12.287	11.963	109.802
673934.8	6279591.2	960	5250	-0.005	4282.224	979606.234	-9.450	33.525	-12.156	11.919	108.636
673970.6	6279555.7	960	5300	-0.005	4282.572	979606.582	-9.129	33.205	-12.040	12.036	107.600
674005.9	6279520.5	960	5350	-0.005	4282.958	979606.968	-8.768	32.889	-11.926	12.195	106.575
674041.2	6279485.0	960	5400	-0.005	4283.297	979607.307	-8.456	32.620	-11.828	12.336	105.702
674076.3	6279449.7	960	5450	-0.005	4283.273	979607.283	-8.505	32.365	-11.736	12.124	104.878
674111.8	6279414.5	960	5500	-0.005	4283.109	979607.119	-8.696	32.064	-11.627	11.742	103.902
674150.8	6279377.3	960	5550	-0.005	4282.996	979607.006	-8.836	31.767	-11.519	11.412	102.938
674180.8	6279341.1	960	5600	-0.005	4283.034	979607.044	-8.825	31.494	-11.420	11.249	102.054
674214.6	6279308.2	960	5650	-0.005	4283.082	979607.092	-8.801	31.214	-11.318	11.095	101.147
674253.8	6279272.1	960	5700	-0.006	4283.245	979607.255	-8.665	30.858	-11.189	11.004	99.995
674288.5	6279237.6	960	5750	-0.006	4283.377	979607.387	-8.558	30.602	-11.097	10.948	99.165
674324.1	6279202.4	960	5800	-0.006	4283.569	979607.579	-8.392	30.281	-10.980	10.909	98.125
674359.2	6279166.9	960	5850	-0.006	4283.753	979607.763	-8.234	30.005	-10.880	10.891	97.228
674394.5	6279131.5	960	5900	-0.006	4283.913	979607.923	-8.100	29.730	-10.780	10.849	96.337
674429.9	6279096.2	960	5950	-0.006	4284.059	979608.069	-7.980	29.452	-10.679	10.792	95.437
673404.7	6280687.1	1000	4100	-0.011	4273.665	979597.675	-17.194	40.972	-14.856	8.922	132.766
673439.8	6280651.8	1000	4150	-0.011	4274.174	979598.184	-16.711	40.362	-14.635	9.016	130.790
673475.5	6280616.3	1000	4200	-0.011	4274.553	979598.563	-16.358	39.926	-14.477	9.091	129.378
673510.6	6280583.2	1000	4250	-0.011	4274.854	979598.864	-16.081	39.634	-14.371	9.181	128.431
673546.2	6280545.8	1000	4300	-0.011	4275.323	979599.333	-15.640	39.212	-14.218	9.354	127.063
673581.5	6280510.5	1000	4350	-0.011	4275.738	979599.748	-15.251	38.924	-14.114	9.559	126.132
673616.9	6280474.8	1000	4400	-0.011	4276.174	979600.184	-14.841	38.591	-13.993	9.757	125.052
673652.1	6280439.7	1000	4450	-0.011	4276.609	979600.619	-14.432	38.232	-13.863	9.937	123.890
673687.5	6280404.2	1000	4500	-0.010	4277.028	979601.038	-14.039	37.887	-13.738	10.110	122.772
673722.7	6280369.1	1000	4550	-0.010	4277.517	979601.527	-13.576	37.499	-13.597	10.325	121.512
673758.3	6280333.7	1000	4600	-0.010	4278.093	979602.103	-13.026	37.083	-13.447	10.611	120.166
673793.4	6280298.3	1000	4650	-0.010	4278.552	979602.562	-12.593	36.722	-13.316	10.814	118.996
673828.9	6280263.1	1000	4700	-0.010	4278.969	979602.979	-12.202	36.360	-13.184	10.974	117.824
673864.3	6280227.6	1000	4750	-0.010	4279.293	979603.303	-11.904	36.048	-13.071	11.072	116.810
673899.6	6280192.2	1000	4800	-0.010	4279.663	979603.673	-11.561	35.700	-12.945	11.194	115.683
673933.9	6280158.3	1000	4850	-0.010	4280.086	979604.096	-11.162	35.371	-12.826	11.383	114.618
673970.2	6280121.6	1000	4900	-0.009	4280.683	979604.693	-10.592	34.987	-12.686	11.708	113.373
674005.8	6280085.9	1000	4950	-0.009	4281.459	979605.469	-9.843	34.555	-12.530	12.182	111.973
674040.6	6280050.8	1000	5000	-0.008	4282.039	979606.049	-9.289	34.119	-12.372	12.458	110.559
674076.4	6280015.3	1000	5050	-0.008	4282.381	979606.391	-8.973	33.731	-12.231	12.527	109.303
674111.5	6279980.1	1000	5100	-0.008	4282.540	979606.550	-8.840	33.335	-12.087	12.408	108.019
674147.9	6279944.8	1000	5150	-0.008	4282.772	979606.782	-8.634	32.958	-11.951	12.373	106.797
674182.3	6279909.0	1000	5200	-0.008	4282.930	979606.940	-8.502	32.756	-11.877	12.376	106.143
674217.9	6279873.7	1000	5250	-0.008	4283.253	979607.263	-8.205	32.388	-11.744	12.438	104.950

674253.4	6279838.7	1000	5300	-0.008	4283.482	979607.492	-8.002	32.177	-11.668	12.508	104.269
674288.6	6279803.3	1000	5350	-0.008	4283.756	979607.766	-7.754	31.760	-11.516	12.489	102.915
674323.7	6279767.9	1000	5400	-0.008	4283.629	979607.639	-7.907	31.437	-11.399	12.131	101.870
674359.3	6279732.6	1000	5450	-0.008	4283.522	979607.532	-8.040	31.099	-11.277	11.782	100.775
674394.4	6279696.4	1000	5500	-0.007	4283.372	979607.382	-8.217	30.838	-11.182	11.439	99.930
674429.7	6279662.1	1000	5550	-0.007	4283.233	979607.243	-8.382	30.619	-11.103	11.135	99.220
674465.9	6279626.7	1000	5600	-0.007	4283.146	979607.156	-8.495	30.449	-11.041	10.914	98.669
674500.3	6279591.5	1000	5650	-0.007	4283.257	979607.267	-8.409	30.145	-10.931	10.805	97.683
674540.3	6279557.8	1000	5700	-0.007	4283.382	979607.392	-8.309	29.852	-10.824	10.718	96.733
674571.4	6279520.5	1000	5750	-0.007	4283.533	979607.543	-8.186	29.604	-10.735	10.684	95.930
674604.8	6279482.5	1000	5800	-0.007	4283.697	979607.707	-8.050	29.341	-10.639	10.652	95.079
674642.2	6279449.9	1000	5850	-0.007	4283.901	979607.911	-7.870	29.037	-10.529	10.638	94.093
674676.5	6279414.5	1000	5900	-0.007	4284.057	979608.067	-7.740	28.780	-10.436	10.604	93.259
674711.8	6279380.5	1000	5950	-0.007	4284.232	979608.242	-7.590	28.496	-10.333	10.573	92.339
674748.3	6279343.9	1000	6000	-0.006	4284.369	979608.379	-7.480	28.240	-10.240	10.520	91.509
673687.8	6280969.6	1040	4100	-0.012	4273.994	979598.004	-16.649	40.027	-14.514	8.864	129.704
673723.5	6280934.6	1040	4150	-0.012	4274.486	979598.496	-16.183	39.481	-14.316	8.983	127.937
673758.4	6280899.1	1040	4200	-0.012	4274.966	979598.976	-15.729	39.053	-14.161	9.164	126.550
673793.6	6280864.0	1040	4250	-0.012	4275.417	979599.427	-15.304	38.668	-14.021	9.343	125.300
673833.0	6280828.0	1040	4300	-0.012	4275.826	979599.836	-14.921	38.323	-13.896	9.506	124.184
673862.8	6280794.5	1040	4350	-0.012	4276.307	979600.317	-14.465	37.884	-13.737	9.682	122.761
673899.5	6280757.5	1040	4400	-0.012	4276.857	979600.867	-13.942	37.439	-13.576	9.921	121.319
673934.5	6280722.2	1040	4450	-0.012	4277.279	979601.289	-13.546	37.116	-13.458	10.111	120.272
673970.2	6280687.4	1040	4500	-0.012	4277.719	979601.729	-13.132	36.759	-13.329	10.299	119.116
674005.7	6280651.7	1040	4550	-0.013	4278.125	979602.135	-12.752	36.380	-13.191	10.436	117.886
674041.6	6280616.3	1040	4600	-0.013	4278.561	979602.571	-12.342	35.976	-13.045	10.589	116.578
674075.9	6280581.6	1040	4650	-0.013	4278.934	979602.944	-11.995	35.663	-12.932	10.737	115.564
674111.9	6280545.7	1040	4700	-0.013	4279.295	979603.305	-11.660	35.340	-12.814	10.865	114.517
674147.0	6280510.4	1040	4750	-0.013	4279.682	979603.692	-11.299	34.988	-12.687	11.002	113.376
674182.4	6280475.2	1040	4800	-0.013	4280.105	979604.115	-10.902	34.666	-12.570	11.194	112.332
674217.5	6280438.8	1040	4850	-0.013	4280.548	979604.558	-10.486	34.329	-12.448	11.396	111.242
674253.4	6280404.1	1040	4900	-0.013	4281.014	979605.024	-10.046	33.942	-12.308	11.589	109.987
674288.4	6280368.9	1040	4950	-0.013	4281.509	979605.519	-9.576	33.606	-12.186	11.844	108.898
674324.0	6280334.0	1040	5000	-0.013	4282.053	979606.063	-9.058	33.262	-12.061	12.143	107.783
674359.0	6280297.9	1040	5050	-0.014	4282.635	979606.645	-8.503	32.879	-11.922	12.454	106.543
674394.9	6280263.1	1040	5100	-0.014	4283.123	979607.133	-8.041	32.556	-11.805	12.710	105.495
674430.1	6280227.5	1040	5150	-0.014	4283.449	979607.459	-7.741	32.238	-11.690	12.808	104.466
674465.5	6280192.8	1040	5200	-0.014	4283.533	979607.543	-7.682	31.937	-11.581	12.674	103.491
674500.6	6280156.6	1040	5250	-0.014	4283.652	979607.662	-7.590	31.690	-11.491	12.609	102.690
674535.7	6280121.5	1040	5300	-0.014	4283.812	979607.822	-7.456	31.432	-11.397	12.579	101.853
674571.4	6280086.1	1040	5350	-0.014	4284.012	979608.022	-7.282	30.993	-11.238	12.473	100.431
674606.8	6280050.8	1040	5400	-0.014	4284.029	979608.039	-7.291	30.647	-11.113	12.244	99.311
674642.7	6280015.3	1040	5450	-0.014	4284.063	979608.073	-7.283	30.292	-10.984	12.025	98.160
674676.9	6279983.0	1040	5500	-0.017	4283.988	979607.998	-7.382	30.086	-10.909	11.795	97.493
674712.1	6279944.3	1040	5550	-0.017	4284.083	979608.093	-7.316	29.787	-10.801	11.670	96.522
674748.2	6279909.3	1040	5600	-0.017	4284.362	979608.372	-7.062	29.239	-10.602	11.574	94.747
674783.2	6279873.6	1040	5650	-0.017	4284.471	979608.481	-6.980	28.864	-10.466	11.418	93.532
674818.5	6279839.0	1040	5700	-0.017	4284.575	979608.585	-6.901	28.506	-10.337	11.269	92.373
674854.7	6279803.3	1040	5750	-0.018	4284.681	979608.691	-6.822	28.164	-10.213	11.130	91.265
674889.7	6279768.2	1040	5800	-0.018	4284.704	979608.714	-6.824	27.905	-10.119	10.963	90.426
674918.7	6279726.2	1040	5850	-0.018	4284.555	979608.565	-7.005	27.788	-10.076	10.707	90.044
674960.1	6279696.9	1040	5900	-0.018	4284.680	979608.690	-6.901	27.429	-9.946	10.582	88.881
674995.8	6279662.0	1040	5950	-0.018	4284.783	979608.793	-6.824	27.118	-9.833	10.462	87.875
675031.2	6279626.5	1040	6000	-0.018	4284.851	979608.861	-6.782	26.877	-9.746	10.350	87.094
673970.0	6281252.9	1080	4100	-0.024	4274.605	979598.615	-15.821	39.006	-14.144	9.041	126.396
674005.7	6281217.6	1080	4150	-0.024	4274.978	979598.988	-15.474	38.553	-13.980	9.100	124.929
674041.0	6281182.1	1080	4200	-0.024	4275.359	979599.369	-15.119	38.161	-13.837	9.205	123.659
674076.5	6281146.4	1080	4250	-0.024	4275.788	979599.798	-14.717	37.765	-13.694	9.355	122.375
674111.8	6281110.8	1080	4300	-0.024	4276.271	979600.281	-14.260	37.255	-13.509	9.486	120.721
674147.1	6281075.2	1080	4350	-0.023	4276.559	979600.569	-13.998	37.044	-13.432	9.614	120.038
674182.6	6281040.8	1080	4400	-0.023	4277.138	979601.148	-13.444	36.509	-13.238	9.826	118.306
674218.0	6281005.6	1080	4450	-0.023	4277.577	979601.587	-13.032	36.155	-13.110	10.014	117.158
674253.2	6280969.9	1080	4500	-0.023	4278.004	979602.014	-12.631	35.793	-12.979	10.184	115.985
674288.6	6280934.8	1080	4550	-0.023	4278.429	979602.439	-12.232	35.415	-12.842	10.342	114.760
674323.9	6280899.4	1080	4600	-0.023	4278.802	979602.812	-11.885	35.094	-12.725	10.484	113.720
674359.4	6280863.7	1080	4650	-0.023	4279.196	979603.206	-11.517	34.735	-12.595	10.623	112.557
674394.7	6280828.3	1080	4700	-0.023	4279.578	979603.588	-11.161	34.411	-12.478	10.773	111.508
674430.3	6280793.3	1080	4750	-0.023	4280.004	979604.014	-10.761	34.058	-12.350	10.948	110.364
674465.8	6280758.1	1080	4800	-0.022	4280.390	979604.400	-10.401	33.622	-12.192	11.030	108.951
674500.6	6280722.6	1080	4850	-0.022	4280.741	979604.751	-10.076	33.268	-12.063	11.129	107.803
674536.3	6280687.1	1080	4900	-0.022	4281.137	979605.147	-9.706	32.901	-11.930	11.265	106.614
674572.2	6280652.1	1080	4950	-0.022	4281.634	979605.644	-9.235	32.524	-11.793	11.496	105.392
674607.1	6280616.9	1080	5000	-0.021	4282.268	979606.278	-8.627	32.218	-11.682	11.909	104.400
674641.8	6280581.4	1080	5050	-0.021	4283.119	979607.129	-7.802	31.868	-11.556	12.511	103.267
674677.2	6280545.8	1080	5100	-0.021	4283.542	979607.552	-7.406	31.518	-11.428	12.684	102.131
674712.7	6280510.6	1080	5150	-0.021	4283.802	979607.812	-7.171	31.258	-11.334	12.753	101.291
674748.2	6280475.1	1080	5200	-0.021	4284.096	979608.106	-6.904	30.862	-11.191	12.767	100.005
674783.4	6280439.7	1080	5250	-0.021	4284.360	979608.370	-6.666	30.498	-11.059	12.774	98.827
674818.6	6280404.3	1080	5300	-0.021	4284.674	979608.684	-6.378	30.119	-10.921	12.820	97.599
674855.8	6280370.6	1080	5350	-0.020	4284.640	979608.650	-6.437	29.781	-10.799	12.546	96.505
674889.6	6280333.9	1080	5400	-0.020	4284.598	979608.608	-6.506	29.386	-10.655	12.225	95.222
674925.1	6280298.9	1080	5450	-0.020	4284.603	979608.613	-6.526	29.032	-10.527	11.979	94.077
674957.5	6280264.3	1080	5500	-0.020	4284.481	979608.491	-6.674	28.918	-10.486	11.758	93.708

674995.4	6280227.3	1080	5550	-0.020	4284.693	979608.703	-6.489	28.369	-10.287	11.593	91.927
675029.4	6280191.0	1080	5600	-0.020	4284.754	979608.764	-6.455	28.075	-10.180	11.440	90.975
675066.0	6280156.9	1080	5650	-0.020	4284.821	979608.831	-6.413	27.733	-10.056	11.264	89.868
675101.5	6280121.3	1080	5700	-0.020	4284.829	979608.839	-6.432	27.419	-9.942	11.045	88.850
675137.2	6280085.8	1080	5750	-0.020	4284.888	979608.898	-6.399	27.052	-9.809	10.845	87.661
675172.3	6280050.7	1080	5800	-0.019	4285.028	979609.038	-6.284	26.691	-9.678	10.729	86.491
675208.2	6280015.4	1080	5850	-0.019	4285.198	979609.208	-6.140	26.378	-9.565	10.673	85.475
675228.9	6279994.3	1080	5880	-0.019	4285.291	979609.301	-6.063	26.205	-9.502	10.640	84.917
675257.3	6279964.9	1080	5920	-0.019	4285.419	979609.429	-5.957	25.971	-9.417	10.597	84.158
675278.4	6279944.9	1080	5950	-0.019	4285.568	979609.578	-5.822	25.738	-9.333	10.583	83.403
675313.6	6279909.0	1080	6000	-0.019	4285.743	979609.753	-5.674	25.397	-9.209	10.514	82.297
675348.3	6279873.0	1080	6050	-0.019	4285.924	979609.934	-5.520	25.094	-9.099	10.475	81.315
674253.1	6281536.0	1120	4100	-0.024	4275.279	979599.289	-14.931	37.977	-13.770	9.275	123.061
674289.0	6281500.6	1120	4150	-0.024	4275.563	979599.573	-14.673	37.608	-13.637	9.299	121.868
674323.7	6281464.7	1120	4200	-0.025	4275.917	979599.927	-14.345	37.216	-13.495	9.376	120.595
674358.7	6281429.4	1120	4250	-0.025	4276.342	979600.352	-13.946	36.831	-13.355	9.530	119.349
674394.5	6281394.3	1120	4300	-0.025	4276.819	979600.829	-13.495	36.400	-13.199	9.706	117.951
674429.9	6281358.9	1120	4350	-0.025	4277.276	979601.286	-13.064	35.995	-13.052	9.879	116.641
674465.4	6281323.4	1120	4400	-0.025	4277.608	979601.618	-12.758	35.676	-12.936	9.982	115.607
674500.7	6281288.1	1120	4450	-0.025	4278.031	979602.041	-12.361	35.250	-12.782	10.107	114.225
674536.3	6281252.6	1120	4500	-0.025	4278.471	979602.481	-11.948	34.793	-12.616	10.229	112.744
674570.9	6281217.0	1120	4550	-0.025	4278.763	979602.773	-11.682	34.542	-12.525	10.335	111.931
674606.8	6281183.0	1120	4600	-0.025	4279.278	979603.288	-11.192	34.077	-12.357	10.529	110.425
674642.2	6281146.6	1120	4650	-0.025	4279.752	979603.762	-10.745	33.636	-12.197	10.695	108.997
674678.1	6281111.7	1120	4700	-0.026	4280.199	979604.209	-10.323	33.258	-12.059	10.875	107.769
674712.7	6281076.2	1120	4750	-0.026	4280.693	979604.703	-9.856	32.829	-11.904	11.069	106.380
674748.3	6281040.7	1120	4800	-0.026	4281.190	979605.200	-9.385	32.426	-11.758	11.283	105.074
674783.4	6281005.3	1120	4850	-0.026	4281.696	979605.706	-8.905	32.067	-11.628	11.535	103.911
674818.8	6280970.0	1120	4900	-0.026	4282.203	979606.213	-8.424	31.729	-11.505	11.800	102.816
674854.0	6280934.9	1120	4950	-0.026	4282.731	979606.741	-7.922	31.378	-11.378	12.079	101.680
674889.4	6280899.2	1120	5000	-0.026	4283.285	979607.295	-7.394	31.013	-11.246	12.374	100.497
674924.7	6280864.0	1120	5050	-0.026	4283.773	979607.783	-6.932	30.600	-11.096	12.572	99.156
674959.9	6280828.7	1120	5100	-0.026	4284.122	979608.132	-6.609	30.336	-11.000	12.727	98.301
674995.4	6280793.2	1120	5150	-0.027	4284.715	979608.725	-6.042	29.885	-10.837	13.007	96.842
674995.4	6280793.2	1120	5150	-0.027	4284.715	979608.725	-6.042	29.885	-10.837	13.007	96.842
D136											
673211.5	6279856.3	0	2511	+0.000	4276.496	979600.415	-15.080	39.064	-14.165	9.819	126.585
673211.5	6279856.3	0	2511	+0.009	4276.496	979600.415	-15.080	39.064	-14.165	9.819	126.585
673211.5	6279856.3	0	2511	-0.067	4276.487	979600.415	-15.080	39.064	-14.165	9.819	126.585
673211.5	6279856.3	0	2511	+0.002	4276.554	979600.415	-15.080	39.064	-14.165	9.819	126.585
673546.5	6278282.9	840	5900	-0.006	4283.916	979607.844	-8.828	31.049	-11.258	10.962	100.612
673160.4	6278957.9	860	5150	-0.005	4281.206	979605.134	-11.036	35.469	-12.861	11.571	114.935
673510.6	6280583.2	1000	4250	-0.003	4274.909	979598.837	-16.108	39.632	-14.371	9.153	128.425
673832.9	6280827.9	1040	4300	-0.004	4275.922	979599.850	-14.907	38.304	-13.889	9.508	124.122
674536.3	6281252.6	1120	4500	-0.066	4278.563	979602.491	-11.938	34.792	-12.616	10.239	112.742
674995.5	6280793.2	1120	5150	-0.018	4284.792	979608.720	-6.047	29.884	-10.836	13.001	96.836
675029.1	6280756.0	1120	5200	-0.018	4285.084	979609.012	-5.783	29.553	-10.716	13.054	95.766
675066.1	6280722.4	1120	5250	-0.019	4285.214	979609.142	-5.677	29.195	-10.586	12.932	94.606
675101.0	6280687.1	1120	5300	-0.019	4285.082	979609.010	-5.835	28.906	-10.482	12.590	93.669
675136.3	6280651.7	1120	5350	-0.020	4284.985	979608.913	-5.958	28.570	-10.360	12.252	92.579
675172.0	6280616.3	1120	5400	-0.020	4284.913	979608.841	-6.057	28.252	-10.244	11.951	91.548
675207.8	6280581.0	1120	5450	-0.020	4284.826	979608.754	-6.170	27.900	-10.117	11.613	90.407
675242.2	6280545.1	1120	5500	-0.021	4284.802	979608.730	-6.220	27.532	-9.983	11.329	89.217
675277.8	6280510.4	1120	5550	-0.021	4284.736	979608.664	-6.312	27.206	-9.865	11.030	88.160
675313.2	6280475.3	1120	5600	-0.022	4284.720	979608.648	-6.354	26.895	-9.752	10.789	87.151
675348.6	6280439.6	1120	5650	-0.022	4284.812	979608.740	-6.288	26.566	-9.633	10.645	86.086
675383.8	6280403.4	1120	5700	-0.022	4284.961	979608.889	-6.166	26.229	-9.511	10.552	84.993
675419.2	6280368.9	1120	5750	-0.022	4285.162	979609.090	-5.990	25.906	-9.394	10.522	83.946
675454.7	6280333.7	1120	5800	-0.023	4285.352	979609.280	-5.826	25.576	-9.274	10.476	82.877
675490.0	6280298.2	1120	5850	-0.023	4285.597	979609.525	-5.607	25.182	-9.131	10.444	81.600
675525.7	6280263.0	1120	5900	-0.023	4285.797	979609.725	-5.433	24.812	-8.997	10.382	80.402
675561.0	6280227.2	1120	5950	-0.024	4285.987	979609.915	-5.269	24.519	-8.891	10.359	79.452
675597.0	6280191.7	1120	6000	-0.024	4286.184	979610.112	-5.099	24.215	-8.780	10.336	78.466
675631.1	6280156.9	1120	6050	-0.024	4286.427	979610.355	-4.881	23.906	-8.669	10.357	77.467
675666.8	6280121.9	1120	6100	-0.025	4286.636	979610.564	-4.698	23.648	-8.575	10.375	76.630
674570.7	6281783.0	1160	4150	-0.042	4275.990	979599.918	-14.112	36.786	-13.339	9.335	119.202
674606.4	6281747.9	1160	4200	-0.042	4276.415	979600.343	-13.713	36.267	-13.151	9.404	117.522
674641.5	6281712.5	1160	4250	-0.041	4276.908	979600.836	-13.246	35.728	-12.955	9.527	115.776
674677.0	6281676.7	1160	4300	-0.041	4277.486	979601.414	-12.694	35.106	-12.729	9.682	113.758
674712.2	6281641.5	1160	4350	-0.041	4278.167	979602.095	-12.039	34.436	-12.487	9.910	111.588
674747.5	6281606.4	1160	4400	-0.040	4278.619	979602.547	-11.613	33.981	-12.322	10.047	110.115
674782.9	6281571.1	1160	4450	-0.040	4278.789	979602.717	-11.469	33.950	-12.311	10.171	110.014
674818.5	6281535.4	1160	4500	-0.039	4279.533	979603.461	-10.751	33.245	-12.055	10.439	107.727
674853.2	6281499.7	1160	4550	-0.039	4279.985	979603.913	-10.326	32.946	-11.946	10.674	106.760
674888.0	6281466.2	1160	4600	-0.039	4280.393	979604.321	-9.942	32.653	-11.840	10.871	105.810
674924.5	6281429.5	1160	4650	-0.035	4280.957	979604.885	-9.406	32.264	-11.699	11.159	104.550
674959.0	6281393.8	1160	4700	-0.034	4281.356	979605.284	-9.033	31.993	-11.601	11.359	103.670
674994.9	6281358.3	1160	4750	-0.034	4281.952	979605.880	-8.463	31.451	-11.404	11.584	101.916
675030.0	6281323.3	1160	4800	-0.034	4282.401	979606.329	-8.040	31.075	-11.268	11.767	100.696
675065.8	6281288.0	1160	4850	-0.033	4282.805	979606.733	-7.662	30.819	-11.175	11.982	99.867
675100.5	6281252.9	1160	4900	-0.033	4283.297	979607.225	-7.196	30.481	-11.052	12.233	98.771
675135.9	6281217.4	1160	4950	-0.033	4283.735	979607.663	-6.784	30.190	-10.947	12.459	97.829
675171.8	6281177.6	1160	5000	-0.032	4284.017	979607.945	-6.531	30.112	-10.919	12.662	97.575

675207.7	6281146.3	1160	5050	-0.032	4284.617	979608.545	-5.954	29.644	-10.749	12.941	96.059
675242.5	6281111.2	1160	5100	-0.032	4285.041	979608.969	-5.556	29.284	-10.619	13.110	94.894
675278.3	6281075.9	1160	5150	-0.031	4285.433	979609.361	-5.190	28.861	-10.465	13.206	93.521
675313.3	6281040.6	1160	5200	-0.031	4285.719	979609.647	-4.930	28.471	-10.324	13.217	92.260
675349.4	6281005.2	1160	5250	-0.031	4285.845	979609.773	-4.830	28.086	-10.184	13.072	91.012
675383.9	6280970.0	1160	5300	-0.030	4285.684	979609.612	-5.017	27.729	-10.055	12.657	89.855
675419.6	6280934.7	1160	5350	-0.030	4285.396	979609.324	-5.331	27.366	-9.923	12.112	88.678
675454.5	6280898.8	1160	5400	-0.030	4285.203	979609.131	-5.551	26.987	-9.786	11.651	87.449
675490.2	6280864.0	1160	5450	-0.030	4285.120	979609.048	-5.659	26.644	-9.661	11.323	86.338
675525.4	6280828.2	1160	5500	-0.029	4285.117	979609.045	-5.689	26.268	-9.525	11.055	85.121
675560.8	6280793.1	1160	5550	-0.029	4285.116	979609.044	-5.716	25.945	-9.408	10.822	84.073
675596.2	6280757.8	1160	5600	-0.029	4285.097	979609.025	-5.761	25.686	-9.314	10.611	83.233
675631.6	6280722.5	1160	5650	-0.028	4285.248	979609.176	-5.636	25.301	-9.174	10.491	81.985
675666.6	6280686.7	1160	5700	-0.028	4285.342	979609.270	-5.568	25.020	-9.072	10.380	81.076
675702.1	6280652.0	1160	5750	-0.028	4285.518	979609.446	-5.417	24.675	-8.947	10.310	79.957
675737.7	6280616.4	1160	5800	-0.027	4285.746	979609.674	-5.216	24.312	-8.816	10.281	78.783
675772.9	6280581.0	1160	5850	-0.027	4285.925	979609.853	-5.063	24.013	-8.707	10.243	77.814
675808.6	6280545.8	1160	5900	-0.027	4286.083	979610.011	-4.931	23.723	-8.602	10.190	76.872
675843.4	6280510.7	1160	5950	-0.027	4286.239	979610.167	-4.801	23.471	-8.511	10.160	76.055
675879.6	6280474.8	1160	6000	-0.026	4286.416	979610.344	-4.650	23.186	-8.407	10.129	75.134
675914.2	6280439.0	1160	6050	-0.026	4286.676	979610.604	-4.417	22.862	-8.290	10.155	74.082
675949.6	6280404.4	1160	6100	-0.026	4286.866	979610.794	-4.252	22.590	-8.191	10.147	73.203
674853.7	6282065.2	1200	4150	-0.043	4276.860	979600.788	-13.026	35.054	-12.711	9.318	113.592
674889.0	6282030.4	1200	4200	-0.043	4277.343	979601.271	-12.569	34.570	-12.535	9.466	112.021
674924.6	6281995.1	1200	4250	-0.043	4277.649	979601.577	-12.289	34.325	-12.446	9.590	111.228
674959.9	6281960.1	1200	4300	-0.044	4278.217	979602.145	-11.747	33.757	-12.240	9.770	109.388
674995.0	6281924.2	1200	4350	-0.044	4278.439	979602.367	-11.551	33.604	-12.185	9.868	108.891
675027.7	6281891.1	1200	4400	-0.045	4278.856	979602.784	-11.158	33.223	-12.047	10.018	107.656
675066.0	6281853.1	1200	4450	-0.045	4279.574	979603.502	-10.468	32.543	-11.800	10.274	105.453
675100.6	6281818.8	1200	4500	-0.045	4280.131	979604.059	-9.937	32.027	-11.613	10.477	103.783
675136.6	6281783.2	1200	4550	-0.046	4280.679	979604.607	-9.415	31.520	-11.429	10.676	102.139
675171.8	6281747.1	1200	4600	-0.046	4281.135	979605.063	-8.986	31.118	-11.283	10.849	100.835
675207.1	6281712.1	1200	4650	-0.046	4281.624	979605.552	-8.523	30.782	-11.162	11.098	99.748
675242.8	6281677.1	1200	4700	-0.047	4282.103	979606.031	-8.069	30.396	-11.022	11.305	98.497
675278.7	6281641.5	1200	4750	-0.047	4282.571	979606.499	-7.627	30.045	-10.894	11.523	97.359
675313.7	6281606.3	1200	4800	-0.047	4283.084	979607.012	-7.140	29.635	-10.746	11.749	96.031
675348.8	6281570.8	1200	4850	-0.048	4283.571	979607.499	-6.679	29.223	-10.596	11.947	94.695
675383.9	6281535.3	1200	4900	-0.048	4284.005	979607.933	-6.272	28.852	-10.462	12.118	93.493
675419.4	6281500.2	1200	4950	-0.049	4284.436	979608.364	-5.867	28.519	-10.341	12.311	92.414
675454.8	6281465.1	1200	5000	-0.049	4284.678	979608.606	-5.651	28.344	-10.278	12.416	91.848
675490.1	6281429.4	1200	5050	-0.049	4284.965	979608.893	-5.390	28.055	-10.173	12.492	90.911
675525.7	6281394.7	1200	5100	-0.050	4285.223	979609.151	-5.157	27.797	-10.079	12.560	90.073
675560.8	6281358.8	1200	5150	-0.050	4285.449	979609.377	-4.958	27.533	-9.984	12.592	89.219
675595.7	6281323.2	1200	5200	-0.050	4285.709	979609.637	-4.724	27.106	-9.829	12.553	87.834
675631.4	6281288.3	1200	5250	-0.051	4285.682	979609.610	-4.777	26.749	-9.699	12.273	86.677
675666.6	6281252.6	1200	5300	-0.051	4285.612	979609.540	-4.873	26.345	-9.553	11.919	85.368
675702.1	6281217.0	1200	5350	-0.054	4285.565	979609.493	-4.946	25.988	-9.423	11.618	84.213
675737.6	6281184.8	1200	5400	-0.054	4285.349	979609.277	-5.186	25.811	-9.359	11.266	83.640
675772.7	6281146.9	1200	5450	-0.054	4285.310	979609.238	-5.253	25.497	-9.245	10.999	82.623
675808.5	6281111.2	1200	5500	-0.055	4285.303	979609.231	-5.286	25.224	-9.146	10.791	81.737
675843.7	6281076.2	1200	5550	-0.055	4285.287	979609.215	-5.328	24.989	-9.061	10.600	80.976
675879.2	6281040.1	1200	5600	-0.055	4285.268	979609.196	-5.374	24.742	-8.972	10.397	80.176
675914.4	6281005.5	1200	5650	-0.056	4285.332	979609.260	-5.335	24.509	-8.887	10.287	79.420
675949.4	6280969.8	1200	5700	-0.056	4285.402	979609.330	-5.292	24.256	-8.795	10.169	78.600
675985.1	6280934.6	1200	5750	-0.056	4285.610	979609.538	-5.109	23.898	-8.665	10.123	77.439
676020.5	6280899.1	1200	5800	-0.056	4285.829	979609.757	-4.917	23.519	-8.528	10.074	76.213
676055.8	6280863.9	1200	5850	-0.057	4286.003	979609.931	-4.769	23.233	-8.424	10.040	75.286
676091.3	6280828.4	1200	5900	-0.057	4286.221	979610.149	-4.577	22.934	-8.316	10.041	74.316
676126.8	6280793.0	1200	5950	-0.058	4286.413	979610.341	-4.411	22.687	-8.226	10.050	73.516
676162.1	6280757.8	1200	6000	-0.058	4286.581	979610.509	-4.269	22.421	-8.130	10.022	72.655
676197.3	6280722.4	1200	6050	-0.058	4286.737	979610.665	-4.139	22.181	-8.043	9.999	71.876
676232.7	6280687.1	1200	6100	-0.058	4286.923	979610.851	-3.979	21.933	-7.953	10.001	71.071
676268.4	6280651.4	1200	6150	-0.059	4287.106	979611.034	-3.822	21.687	-7.864	10.001	70.276
675808.2	6281394.4	1220	5300	-0.065	4285.512	979609.440	-4.865	25.744	-9.335	11.545	83.423
675843.5	6281359.1	1220	5350	-0.064	4285.524	979609.452	-4.879	25.454	-9.230	11.346	82.483
675878.8	6281323.8	1220	5400	-0.064	4285.606	979609.534	-4.823	25.116	-9.107	11.186	81.388
675914.5	6281287.7	1220	5450	-0.064	4285.655	979609.583	-4.800	24.831	-9.004	11.027	80.462
675949.6	6281252.7	1220	5500	-0.063	4285.603	979609.531	-4.878	24.669	-8.945	10.846	79.938
675984.8	6281217.6	1220	5550	-0.063	4285.687	979609.615	-4.820	24.286	-8.806	10.660	78.697
676020.6	6281181.9	1220	5600	-0.063	4285.671	979609.599	-4.862	24.047	-8.720	10.465	77.923
676055.7	6281146.6	1220	5650	-0.062	4285.660	979609.588	-4.899	23.837	-8.643	10.294	77.241
676091.0	6281111.4	1220	5700	-0.062	4285.855	979609.783	-4.730	23.436	-8.498	10.208	75.944
676126.5	6281076.0	1220	5750	-0.062	4285.932	979609.860	-4.679	23.213	-8.417	10.117	75.220
676161.9	6281040.7	1220	5800	-0.061	4286.107	979610.035	-4.530	22.876	-8.295	10.050	74.127
676196.8	6281005.6	1220	5850	-0.061	4286.186	979610.114	-4.477	22.722	-8.239	10.006	73.630
676232.6	6280969.9	1220	5900	-0.061	4286.273	979610.201	-4.417	22.505	-8.160	9.928	72.925
676267.9	6280934.5	1220	5950	-0.060	4286.486	979610.414	-4.230	22.236	-8.063	9.943	72.053
676303.2	6280899.1	1220	6000	-0.060	4286.662	979610.590	-4.080	21.971	-7.967	9.925	71.196
676338.5	6280863.9	1220	6050	-0.060	4286.832	979610.760	-3.936	21.698	-7.868	9.895	70.312
676374.1	6280828.4	1220	6100	-0.060	4287.028	979610.956	-3.766	21.407	-7.762	9.879	69.369
676409.5	6280793.2	1220	6150	-0.059	4287.233	979611.161	-3.587	21.119	-7.658	9.874	68.434
676409.5	6280793.2	1220	6150	-0.059	4287.233	979611.161	-3.587	21.119	-7.658	9.874	68.434

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673211.5	6279856.3	0	2511	+0.000	4276.576	979600.415	-15.080	39.064	-14.165	9.819	126.585
673211.5	6279856.3	0	2511	+0.000	4276.576	979600.415	-15.080	39.064	-14.165	9.819	126.585
673211.5	6279856.3	0	2511	-0.058	4276.576	979600.415	-15.080	39.064	-14.165	9.819	126.585
673211.5	6279856.3	0	2511	+0.008	4276.634	979600.415	-15.080	39.064	-14.165	9.819	126.585
673440.2	6280086.1	960	4550	-0.003	4277.424	979601.263	-14.056	37.880	-13.735	10.088	122.747
673722.7	6280369.1	1000	4550	-0.004	4277.697	979601.536	-13.567	37.492	-13.595	10.330	121.490
674853.2	6281499.7	1160	4550	-0.005	4280.069	979603.908	-10.331	32.942	-11.945	10.667	106.748
675027.7	6281891.1	1200	4400	-0.057	4278.954	979602.793	-11.149	33.230	-12.049	10.032	107.681
674959.8	6282242.4	1220	4100	-0.012	4277.351	979601.190	-12.490	33.912	-12.297	9.126	109.889
674995.2	6282207.3	1220	4150	-0.012	4277.783	979601.622	-12.084	33.500	-12.147	9.269	108.554
675030.5	6282171.6	1220	4200	-0.011	4278.156	979601.995	-11.737	33.175	-12.029	9.409	107.500
675065.7	6282136.4	1220	4250	-0.011	4278.583	979602.422	-11.336	32.784	-11.888	9.560	106.234
675101.1	6282101.6	1220	4300	-0.011	4279.049	979602.888	-10.896	32.340	-11.727	9.718	104.795
675135.0	6282069.4	1220	4350	-0.011	4279.460	979603.299	-10.508	32.022	-11.611	9.903	103.765
675171.9	6282030.6	1220	4400	-0.010	4279.885	979603.724	-10.112	31.730	-11.505	10.113	102.819
675207.2	6281995.3	1220	4450	-0.010	4280.232	979604.071	-9.791	31.472	-11.412	10.269	101.983
675242.8	6281960.1	1220	4500	-0.010	4280.686	979604.525	-9.363	31.080	-11.270	10.448	100.713
675278.3	6281924.7	1220	4550	-0.010	4281.202	979605.041	-8.873	30.656	-11.116	10.667	99.339
675313.3	6281889.2	1220	4600	-0.009	4281.738	979605.577	-8.363	30.156	-10.935	10.858	97.719
675348.7	6281853.7	1220	4650	-0.009	4282.280	979606.119	-7.847	29.668	-10.758	11.063	96.138
675384.1	6281819.0	1220	4700	-0.009	4282.735	979606.574	-7.418	29.300	-10.624	11.258	94.945
675419.1	6281783.2	1220	4750	-0.009	4283.204	979607.043	-6.975	28.886	-10.474	11.437	93.604
675454.9	6281747.8	1220	4800	-0.008	4283.559	979607.398	-6.646	28.605	-10.372	11.586	92.692
675490.0	6281712.3	1220	4850	-0.008	4283.965	979607.804	-6.266	28.249	-10.243	11.739	91.538
675525.1	6281676.9	1220	4900	-0.008	4284.360	979608.199	-5.898	27.889	-10.113	11.879	90.372
675560.7	6281641.7	1220	4950	-0.008	4284.656	979608.495	-5.628	27.602	-10.009	11.966	89.444
675596.3	6281606.3	1220	5000	-0.008	4284.926	979608.765	-5.384	27.315	-9.904	12.027	88.512
675631.4	6281571.1	1220	5050	-0.007	4285.182	979609.021	-5.153	27.004	-9.792	12.059	87.504
675667.0	6281534.6	1220	5100	-0.007	4285.366	979609.205	-4.996	26.735	-9.694	12.044	86.633
675702.3	6281499.9	1220	5150	-0.007	4285.532	979609.371	-4.856	26.476	-9.600	12.020	85.795
675737.5	6281464.6	1220	5200	-0.007	4285.549	979609.388	-4.865	26.302	-9.537	11.900	85.229
675772.2	6281429.3	1220	5250	-0.006	4285.596	979609.435	-4.844	26.014	-9.433	11.737	84.296
675808.2	6281394.4	1220	5300	-0.006	4285.618	979609.457	-4.848	25.743	-9.334	11.561	83.418
675101.1	6282383.5	1240	4100	-0.012	4278.486	979602.325	-11.247	32.027	-11.613	9.167	103.782
675136.8	6282348.5	1240	4150	-0.013	4278.802	979602.641	-10.957	31.782	-11.524	9.301	102.989
675172.1	6282313.7	1240	4200	-0.013	4279.080	979602.919	-10.704	31.587	-11.454	9.429	102.356
675207.4	6282278.2	1240	4250	-0.013	4279.409	979603.248	-10.402	31.342	-11.365	9.576	101.563
675243.3	6282242.1	1240	4300	-0.013	4279.737	979603.576	-10.100	31.091	-11.274	9.717	100.748
675278.5	6282207.1	1240	4350	-0.014	4280.102	979603.941	-9.761	30.812	-11.173	9.879	99.845
675313.2	6282172.1	1240	4400	-0.014	4280.476	979604.315	-9.413	30.545	-11.076	10.057	98.979
675348.7	6282136.1	1240	4450	-0.014	4280.920	979604.759	-8.995	30.156	-10.935	10.226	97.718
675384.2	6282101.0	1240	4500	-0.014	4281.361	979605.200	-8.580	29.791	-10.802	10.409	96.536
675419.2	6282066.1	1240	4550	-0.015	4281.827	979605.666	-8.140	29.400	-10.661	10.600	95.270
675454.9	6282030.6	1240	4600	-0.015	4282.221	979606.060	-7.772	29.097	-10.551	10.774	94.286
675490.2	6281994.8	1240	4650	-0.015	4282.706	979606.545	-7.313	28.710	-10.410	10.987	93.034
675526.7	6281957.2	1240	4700	-0.015	4283.190	979607.029	-6.857	28.311	-10.266	11.188	91.740
675560.6	6281924.3	1240	4750	-0.015	4283.643	979607.482	-6.428	27.902	-10.118	11.357	90.416
675596.3	6281887.8	1240	4800	-0.016	4284.082	979607.921	-6.016	27.510	-9.975	11.519	89.146
675632.3	6281854.0	1240	4850	-0.016	4284.493	979608.332	-5.630	27.117	-9.833	11.654	87.871
675666.6	6281818.6	1240	4900	-0.016	4284.742	979608.581	-5.407	26.842	-9.733	11.702	86.980
675701.5	6281782.2	1240	4950	-0.016	4284.996	979608.835	-5.180	26.525	-9.618	11.727	85.954
675737.5	6281747.2	1240	5000	-0.016	4285.307	979609.146	-4.895	26.153	-9.483	11.775	84.746
675773.5	6281712.0	1240	5050	-0.017	4285.551	979609.390	-4.677	25.827	-9.365	11.785	83.690
675807.4	6281676.8	1240	5100	-0.017	4285.785	979609.624	-4.469	25.493	-9.244	11.781	82.610
675843.5	6281642.1	1240	5150	-0.017	4286.029	979609.868	-4.250	25.127	-9.111	11.766	81.422
675879.2	6281606.0	1240	5200	-0.017	4286.173	979610.012	-4.133	24.870	-9.018	11.719	80.589
675914.4	6281571.0	1240	5250	-0.018	4286.198	979610.037	-4.134	24.700	-8.956	11.610	80.039
675948.5	6281536.4	1240	5300	-0.018	4286.171	979610.010	-4.186	24.524	-8.893	11.446	79.470
675985.1	6281500.7	1240	5350	-0.020	4286.195	979610.034	-4.189	24.278	-8.803	11.286	78.672
676020.0	6281465.0	1240	5400	-0.020	4286.234	979610.073	-4.176	24.044	-8.719	11.150	77.914
676056.3	6281429.5	1240	5450	-0.020	4286.303	979610.142	-4.133	23.822	-8.638	11.051	77.194
676091.3	6281393.9	1240	5500	-0.021	4286.416	979610.255	-4.046	23.549	-8.539	10.964	76.309
676126.3	6281359.1	1240	5550	-0.021	4286.328	979610.167	-4.160	23.381	-8.478	10.743	75.765
676162.0	6281323.5	1240	5600	-0.021	4286.270	979610.109	-4.244	23.176	-8.404	10.528	75.101
676197.3	6281288.0	1240	5650	-0.021	4286.186	979610.025	-4.354	23.026	-8.349	10.322	74.613
676231.9	6281252.1	1240	5700	-0.021	4286.054	979609.893	-4.513	23.002	-8.341	10.149	74.537
676266.0	6281216.5	1240	5750	-0.022	4286.233	979610.072	-4.360	22.622	-8.203	10.059	73.306
676303.4	6281182.1	1240	5800	-0.022	4286.287	979610.126	-4.331	22.406	-8.124	9.950	72.605
676338.7	6281146.9	1240	5850	-0.022	4286.532	979610.371	-4.112	22.012	-7.982	9.919	71.330
676374.4	6281111.8	1240	5900	-0.022	4286.615	979610.454	-4.055	21.800	-7.905	9.840	70.642
676408.5	6281076.6	1240	5950	-0.023	4286.753	979610.592	-3.943	21.559	-7.817	9.799	69.860
676444.3	6281040.2	1240	6000	-0.023	4286.841	979610.680	-3.882	21.382	-7.753	9.747	69.288
676479.5	6281005.3	1240	6050	-0.023	4287.017	979610.856	-3.732	21.117	-7.657	9.728	68.428
676515.7	6280969.4	1240	6100	-0.023	4287.122	979610.961	-3.653	20.952	-7.597	9.702	67.895
675242.6	6282525.5	1260	4100	-0.038	4278.622	979602.461	-11.002	31.560	-11.444	9.114	102.267
675278.0	6282490.0	1260	4150	-0.038	4279.141	979602.980	-10.509	31.050	-11.259	9.282	100.617
675315.4	6282455.0	1260	4200	-0.037	4279.544	979603.383	-10.132	30.681	-11.125	9.424	99.421
675348.7	6282419.5	1260	4250	-0.037	4279.907	979603.746	-9.796	30.356	-11.007	9.553	98.367
675384.0	6282383.5	1260	4300	-0.037	4280.316	979604.155	-9.413	29.991	-10.875	9.703	97.185
675419.1	6282348.9	1260	4350	-0.037	4280.737	979604.576	-9.018	29.614	-10.738	9.858	95.961
675455.0	6282313.4	1260	4400	-0.036	4281.087	979604.926	-8.694	29.328	-10.634	10.000	95.035
675490.8	6282278.1	1260	4450	-0.036	4281.505	979605.344	-8.302	28.971	-10.505	10.165	93.880

675525.7	6282242.7	1260	4500	-0.036	4281.885	979605.724	-7.948	28.699	-10.406	10.345	92.998
675560.9	6282207.5	1260	4550	-0.036	4282.237	979606.076	-7.622	28.464	-10.321	10.521	92.236
675595.9	6282172.0	1260	4600	-0.035	4282.646	979606.485	-7.239	28.200	-10.225	10.736	91.380
675631.5	6282136.5	1260	4650	-0.035	4283.144	979606.983	-6.767	27.745	-10.060	10.918	89.905
675667.4	6282101.0	1260	4700	-0.035	4283.597	979607.436	-6.340	27.362	-9.921	11.100	88.664
675701.8	6282066.0	1260	4750	-0.035	4284.021	979607.860	-5.942	26.978	-9.782	11.253	87.419
675736.9	6282030.5	1260	4800	-0.035	4284.432	979608.271	-5.557	26.593	-9.643	11.393	86.172
675772.1	6281995.3	1260	4850	-0.034	4284.771	979608.610	-5.244	26.241	-9.515	11.482	85.034
675807.4	6281959.3	1260	4900	-0.034	4285.114	979608.953	-4.927	25.899	-9.391	11.581	83.925
675843.2	6281924.3	1260	4950	-0.034	4285.576	979609.415	-4.491	25.423	-9.219	11.713	82.382
675879.2	6281888.8	1260	5000	-0.034	4285.861	979609.700	-4.233	25.094	-9.099	11.763	81.317
675912.3	6281853.8	1260	5050	-0.030	4286.143	979609.982	-3.976	24.817	-8.999	11.842	80.417
675948.8	6281819.2	1260	5100	-0.029	4286.380	979610.219	-3.765	24.469	-8.872	11.831	79.289
675985.1	6281782.8	1260	5150	-0.029	4286.657	979610.496	-3.515	24.120	-8.746	11.859	78.159
676019.9	6281747.6	1260	5200	-0.028	4286.905	979610.744	-3.293	23.749	-8.611	11.845	76.957
676056.0	6281712.1	1260	5250	-0.028	4286.987	979610.826	-3.237	23.454	-8.505	11.713	76.002
676089.9	6281677.6	1260	5300	-0.028	4286.934	979610.773	-3.315	23.211	-8.416	11.479	75.214
676126.6	6281641.3	1260	5350	-0.028	4286.859	979610.698	-3.417	22.977	-8.332	11.229	74.456
676161.6	6281606.5	1260	5400	-0.028	4286.816	979610.655	-3.486	22.764	-8.254	11.024	73.764
676197.6	6281570.2	1260	5450	-0.027	4286.795	979610.634	-3.533	22.591	-8.192	10.866	73.204
676235.1	6281533.6	1260	5500	-0.027	4286.612	979610.451	-3.743	22.552	-8.177	10.631	73.078
676266.2	6281498.6	1260	5550	-0.027	4286.439	979610.278	-3.942	22.532	-8.170	10.419	73.012
676302.9	6281464.3	1260	5600	-0.027	4286.377	979610.216	-4.030	22.324	-8.095	10.200	72.341
676342.4	6281430.8	1260	5650	-0.026	4286.538	979610.377	-3.893	21.872	-7.931	10.048	70.875
676373.2	6281391.5	1260	5700	-0.026	4286.571	979610.410	-3.889	21.681	-7.862	9.930	70.256
676408.9	6281358.7	1260	5750	-0.026	4286.718	979610.557	-3.766	21.367	-7.748	9.853	69.240
676445.4	6281322.8	1260	5800	-0.026	4286.766	979610.605	-3.745	21.217	-7.693	9.779	68.753
676480.0	6281289.6	1260	5850	-0.026	4286.880	979610.719	-3.655	20.997	-7.614	9.728	68.039
676515.6	6281252.1	1260	5900	-0.025	4287.046	979610.885	-3.517	20.713	-7.511	9.686	67.119
676550.7	6281218.0	1260	5950	-0.025	4287.154	979610.993	-3.434	20.525	-7.442	9.649	66.509
676585.8	6281182.1	1260	6000	-0.025	4287.208	979611.047	-3.406	20.397	-7.396	9.595	66.094
676621.2	6281147.7	1260	6050	-0.025	4287.227	979611.066	-3.413	20.334	-7.373	9.548	65.891
676656.9	6281107.1	1260	6100	-0.024	4287.316	979611.155	-3.354	20.233	-7.336	9.542	65.563
675348.3	6282701.5	1280	4050	-0.038	4277.934	979601.773	-11.557	32.092	-11.637	8.899	103.992
675384.1	6282666.9	1280	4100	-0.039	4278.434	979602.273	-11.082	31.558	-11.443	9.033	102.262
675419.0	6282631.2	1280	4150	-0.039	4278.900	979602.739	-10.642	31.057	-11.261	9.153	100.639
675455.4	6282596.6	1280	4200	-0.039	4279.361	979603.200	-10.207	30.576	-11.087	9.282	99.079
675491.5	6282559.9	1280	4250	-0.039	4279.669	979603.508	-9.926	30.280	-10.980	9.374	98.120
675525.8	6282525.3	1280	4300	-0.040	4280.279	979604.118	-9.342	29.660	-10.755	9.563	96.110
675560.9	6282490.3	1280	4350	-0.040	4280.723	979604.562	-8.923	29.252	-10.607	9.722	94.788
675599.3	6282453.1	1280	4400	-0.040	4281.214	979605.053	-8.460	28.799	-10.443	9.896	93.321
675631.4	6282419.2	1280	4450	-0.040	4281.588	979605.427	-8.111	28.509	-10.338	10.061	92.382
675667.5	6282384.3	1280	4500	-0.041	4282.163	979606.002	-7.561	27.993	-10.151	10.282	90.711
675702.4	6282348.0	1280	4550	-0.041	4282.602	979606.441	-7.149	27.654	-10.027	10.477	89.610
675738.9	6282314.5	1280	4600	-0.041	4283.037	979606.876	-6.739	27.346	-9.916	10.691	88.612
675772.4	6282278.4	1280	4650	-0.041	4283.473	979607.312	-6.330	27.001	-9.791	10.881	87.495
675807.9	6282242.2	1280	4700	-0.042	4283.861	979607.700	-5.968	26.683	-9.675	11.039	86.464
675843.0	6282207.6	1280	4750	-0.042	4284.217	979608.056	-5.638	26.391	-9.569	11.184	85.517
675878.4	6282172.6	1280	4800	-0.042	4284.534	979608.373	-5.346	26.116	-9.470	11.300	84.627
675914.6	6282136.8	1280	4850	-0.042	4284.883	979608.722	-5.024	25.762	-9.341	11.397	83.481
675949.7	6282101.6	1280	4900	-0.042	4285.236	979609.075	-4.697	25.379	-9.203	11.480	82.240
675984.8	6282065.6	1280	4950	-0.043	4285.555	979609.394	-4.405	24.998	-9.064	11.529	81.004
676020.0	6282031.1	1280	5000	-0.043	4285.843	979609.682	-4.142	24.632	-8.932	11.559	79.820
676056.2	6281995.2	1280	5050	-0.043	4286.179	979610.018	-3.832	24.241	-8.790	11.619	78.553
676090.6	6281960.0	1280	5100	-0.043	4286.432	979610.271	-3.605	23.879	-8.658	11.615	77.377
676126.7	6281924.9	1280	5150	-0.044	4286.663	979610.502	-3.400	23.492	-8.518	11.574	76.123
676161.6	6281889.5	1280	5200	-0.046	4286.762	979610.601	-3.327	23.228	-8.423	11.479	75.270
676195.9	6281854.8	1280	5250	-0.046	4286.880	979610.719	-3.235	22.859	-8.289	11.335	74.072
676232.3	6281819.4	1280	5300	-0.046	4286.835	979610.674	-3.306	22.623	-8.203	11.114	73.309
676267.6	6281782.4	1280	5350	-0.046	4286.937	979610.776	-3.231	22.234	-8.062	10.941	72.049
676303.1	6281747.4	1280	5400	-0.047	4286.972	979610.811	-3.222	21.928	-7.951	10.755	71.058
676339.0	6281713.1	1280	5450	-0.047	4287.059	979610.898	-3.160	21.592	-7.829	10.603	69.967
676374.1	6281677.0	1280	5500	-0.047	4287.006	979610.845	-3.240	21.354	-7.743	10.371	69.195
676407.2	6281644.5	1280	5550	-0.047	4286.980	979610.819	-3.290	21.094	-7.649	10.156	68.354
676444.7	6281606.6	1280	5600	-0.048	4286.924	979610.763	-3.374	20.828	-7.552	9.902	67.493
676479.8	6281571.8	1280	5650	-0.048	4286.906	979610.745	-3.417	20.660	-7.491	9.751	66.947
676515.0	6281534.6	1280	5700	-0.048	4286.922	979610.761	-3.429	20.445	-7.413	9.603	66.250
676552.7	6281502.2	1280	5750	-0.048	4287.068	979610.907	-3.306	20.156	-7.309	9.541	65.315
676586.8	6281464.2	1280	5800	-0.049	4287.204	979611.043	-3.199	19.912	-7.220	9.493	64.524
676621.0	6281429.3	1280	5850	-0.049	4287.261	979611.100	-3.167	19.767	-7.168	9.432	64.053
676656.9	6281394.2	1280	5900	-0.049	4287.233	979611.072	-3.221	19.767	-7.168	9.378	64.054
676692.4	6281359.1	1280	5950	-0.049	4287.411	979611.250	-3.069	19.501	-7.071	9.361	63.191
676727.2	6281323.8	1280	6000	-0.049	4287.579	979611.418	-2.927	19.246	-6.979	9.340	62.364
676763.3	6281288.9	1280	6050	-0.050	4287.759	979611.598	-2.773	19.005	-6.891	9.341	61.586
676162.1	6282171.9	1300	5000	-0.056	4285.663	979609.502	-4.214	23.974	-8.693	11.067	77.687
676197.1	6282136.5	1300	5050	-0.055	4285.802	979609.641	-4.101	23.741	-8.609	11.031	76.932
676232.5	6282101.3	1300	5100	-0.055	4285.879	979609.718	-4.050	23.558	-8.542	10.965	76.337
676268.3	6282065.8	1300	5150	-0.055	4286.221	979610.060	-3.734	23.016	-8.346	10.936	74.582
676303.2	6282030.2	1300	5200	-0.055	4286.417	979610.256	-3.565	22.656	-8.215	10.877	73.417
676338.8	6281995.3	1300	5250	-0.055	4286.513	979610.352	-3.494	22.408	-8.125	10.789	72.613
676374.0	6281959.4	1300	5300	-0.054	4286.690	979610.529	-3.344	22.005	-7.979	10.682	71.306
676409.2	6281924.5	1300	5350	-0.054	4286.826	979610.665	-3.234	21.661	-7.854	10.573	70.190
676444.8	6281887.8	1300	5400	-0.054	4286.923	979610.762	-3.164	21.283	-7.717	10.402	68.967

676480.1	6281853.2	1300	5450	-0.054	4286.922	979610.761	-3.190	21.017	-7.621	10.206	68.105
676515.0	6281819.2	1300	5500	-0.053	4286.870	979610.709	-3.267	20.797	-7.541	9.989	67.392
676551.6	6281783.6	1300	5550	-0.053	4286.877	979610.716	-3.286	20.504	-7.435	9.783	66.441
676584.5	6281745.6	1300	5600	-0.053	4286.771	979610.610	-3.420	20.435	-7.410	9.605	66.219
676621.7	6281711.6	1300	5650	-0.053	4286.921	979610.760	-3.295	20.046	-7.269	9.482	64.957
676657.8	6281675.6	1300	5700	-0.052	4287.097	979610.936	-3.146	19.697	-7.142	9.409	63.826
676695.2	6281642.9	1300	5750	-0.052	4287.194	979611.033	-3.073	19.453	-7.054	9.326	63.036
676726.2	6281602.3	1300	5800	-0.051	4287.440	979611.279	-2.857	19.050	-6.907	9.285	61.729
676763.0	6281570.4	1300	5850	-0.051	4287.629	979611.468	-2.691	18.739	-6.795	9.253	60.722
676798.7	6281535.6	1300	5900	-0.051	4287.755	979611.594	-2.591	18.515	-6.714	9.211	59.998
676832.8	6281500.7	1300	5950	-0.051	4287.859	979611.698	-2.513	18.349	-6.653	9.183	59.459
676868.7	6281465.3	1300	6000	-0.051	4287.987	979611.826	-2.411	18.138	-6.577	9.150	58.776
676905.0	6281429.8	1300	6050	-0.050	4288.149	979611.988	-2.275	17.930	-6.501	9.153	58.100
676905.0	6281429.8	1300	6050	-0.050	4288.149	979611.988	-2.275	17.930	-6.501	9.153	58.100
D138											
676068.2	6284328.7	0	2502	-0.005	4267.551	979591.301	-20.798	45.165	-16.377	7.990	146.354
676068.2	6284328.7	0	2502	-0.006	4267.557	979591.307	-20.792	45.165	-16.377	7.996	146.354
673211.5	6279856.3	0	2511	+0.000	4276.663	979600.415	-15.080	39.064	-14.165	9.819	126.585
673211.5	6279856.3	0	2511	-0.002	4276.663	979600.415	-15.080	39.064	-14.165	9.819	126.585
673211.5	6279856.3	0	2511	-0.082	4276.665	979600.415	-15.080	39.064	-14.165	9.819	126.585
673211.5	6279856.3	0	2511	+0.008	4276.747	979600.415	-15.080	39.064	-14.165	9.819	126.585
675525.8	6282525.0	1280	4300	-0.080	4280.362	979604.112	-9.348	29.669	-10.758	9.563	96.142
675704.1	6282632.0	1300	4350	-0.033	4280.863	979604.613	-8.764	28.756	-10.427	9.565	93.181
675739.6	6282594.2	1300	4400	-0.033	4281.443	979605.193	-8.212	28.169	-10.214	9.743	91.279
675772.5	6282562.4	1300	4450	-0.033	4281.888	979605.638	-7.790	27.775	-10.071	9.913	90.004
675805.9	6282528.1	1300	4500	-0.032	4282.421	979606.171	-7.283	27.298	-9.898	10.117	88.458
675842.5	6282491.4	1300	4550	-0.032	4282.958	979606.708	-6.773	26.815	-9.723	10.319	86.893
675878.7	6282456.7	1300	4600	-0.031	4283.410	979607.160	-6.346	26.416	-9.579	10.491	85.599
675914.5	6282418.3	1300	4650	-0.025	4283.823	979607.573	-5.962	26.024	-9.436	10.626	84.329
675950.0	6282383.8	1300	4700	-0.024	4284.117	979607.867	-5.693	25.757	-9.340	10.725	83.464
675985.2	6282349.3	1300	4750	-0.024	4284.443	979608.193	-5.392	25.496	-9.245	10.859	82.617
676021.0	6282313.8	1300	4800	-0.023	4284.778	979608.528	-5.083	25.211	-9.142	10.986	81.695
676055.1	6282278.2	1300	4850	-0.023	4285.004	979608.754	-4.884	24.983	-9.059	11.040	80.956
676091.1	6282242.6	1300	4900	-0.022	4285.270	979609.020	-4.644	24.654	-8.940	11.071	79.891
676126.6	6282207.3	1300	4950	-0.022	4285.472	979609.222	-4.468	24.344	-8.827	11.049	78.886
676162.1	6282171.9	1300	5000	-0.021	4285.735	979609.485	-4.231	23.971	-8.692	11.048	77.676
675844.9	6282772.3	1320	4350	-0.079	4280.819	979604.569	-8.701	28.418	-10.304	9.412	92.086
675879.6	6282737.1	1320	4400	-0.079	4281.268	979605.018	-8.278	28.021	-10.160	9.583	90.800
675915.6	6282705.3	1320	4450	-0.079	4281.704	979605.454	-7.865	27.606	-10.010	9.731	89.454
675946.5	6282666.9	1320	4500	-0.078	4282.233	979605.983	-7.364	27.112	-9.831	9.917	87.854
675985.8	6282631.4	1320	4550	-0.034	4282.626	979606.376	-6.998	26.701	-9.682	10.021	86.522
676019.2	6282595.1	1320	4600	-0.035	4283.060	979606.810	-6.590	26.218	-9.507	10.121	84.958
676056.9	6282557.4	1320	4650	-0.036	4283.469	979607.219	-6.209	25.737	-9.332	10.196	83.399
676092.0	6282526.1	1320	4700	-0.036	4283.847	979607.597	-5.854	25.287	-9.169	10.264	81.942
676127.7	6282488.9	1320	4750	-0.037	4284.256	979608.006	-5.473	24.835	-9.005	10.357	80.475
676161.6	6282450.3	1320	4800	-0.037	4284.705	979608.455	-5.052	24.436	-8.860	10.523	79.182
676199.6	6282417.0	1320	4850	-0.038	4285.111	979608.861	-4.671	24.050	-8.721	10.659	77.932
676230.3	6282382.8	1320	4900	-0.038	4285.220	979608.970	-4.587	23.912	-8.671	10.655	77.486
676265.3	6282348.5	1320	4950	-0.040	4285.726	979609.476	-4.106	23.323	-8.457	10.760	75.576
676303.5	6282311.5	1320	5000	-0.043	4285.906	979609.656	-3.954	23.105	-8.378	10.773	74.869
676339.4	6282277.1	1320	5050	-0.044	4286.021	979609.771	-3.864	22.849	-8.285	10.700	74.041
676374.9	6282242.8	1320	5100	-0.044	4286.217	979609.967	-3.693	22.490	-8.155	10.642	72.878
676408.3	6282208.5	1320	5150	-0.046	4286.438	979610.188	-3.497	22.153	-8.033	10.623	71.786
676445.4	6282169.1	1320	5200	-0.046	4286.639	979610.389	-3.325	21.821	-7.912	10.583	70.710
676478.4	6282136.9	1320	5250	-0.047	4286.722	979610.472	-3.266	21.567	-7.820	10.481	69.886
676270.0	6282629.1	1340	4750	-0.056	4284.101	979607.851	-5.521	24.568	-8.908	10.139	79.611
676306.0	6282596.9	1340	4800	-0.056	4284.575	979608.325	-5.070	24.079	-8.731	10.278	78.028
676341.1	6282560.5	1340	4850	-0.055	4284.881	979608.631	-4.791	23.755	-8.614	10.351	76.978
676373.7	6282527.5	1340	4900	-0.055	4285.190	979608.940	-4.506	23.388	-8.481	10.401	75.788
676409.0	6282490.2	1340	4950	-0.054	4285.474	979609.224	-4.250	22.967	-8.328	10.389	74.424
676443.7	6282455.0	1340	5000	-0.054	4285.739	979609.489	-4.011	22.588	-8.190	10.387	73.195
676480.9	6282420.0	1340	5050	-0.053	4285.990	979609.740	-3.786	22.167	-8.038	10.344	71.831
676515.4	6282384.8	1340	5100	-0.053	4286.210	979609.960	-3.591	21.811	-7.909	10.311	70.678
676552.3	6282348.5	1340	5150	-0.052	4286.401	979610.151	-3.427	21.474	-7.787	10.260	69.585
676587.2	6282312.9	1340	5200	-0.051	4286.523	979610.273	-3.331	21.193	-7.685	10.177	68.676
676622.1	6282277.9	1340	5250	-0.051	4286.626	979610.376	-3.254	20.939	-7.593	10.092	67.851
676657.4	6282241.5	1340	5300	-0.050	4286.706	979610.456	-3.201	20.611	-7.474	9.936	66.788
676691.4	6282206.9	1340	5350	-0.050	4286.773	979610.523	-3.160	20.327	-7.371	9.797	65.869
676726.7	6282173.2	1340	5400	-0.049	4286.815	979610.565	-3.142	20.059	-7.273	9.643	64.999
676760.5	6282136.3	1340	5450	-0.049	4286.883	979610.633	-3.102	19.772	-7.169	9.501	64.069
676409.1	6282771.5	1360	4750	-0.077	4283.948	979607.698	-5.565	24.242	-8.790	9.887	78.556
676445.3	6282739.1	1360	4800	-0.077	4284.160	979607.910	-5.376	24.063	-8.725	9.962	77.976
676473.5	6282696.0	1360	4850	-0.076	4284.796	979608.546	-4.773	23.349	-8.466	10.110	75.660
676518.2	6282669.5	1360	4900	-0.076	4285.081	979608.831	-4.507	22.912	-8.308	10.098	74.246
676550.1	6282631.5	1360	4950	-0.075	4285.310	979609.060	-4.306	22.632	-8.207	10.120	73.338
676586.3	6282597.1	1360	5000	-0.066	4285.602	979609.352	-4.039	22.210	-8.054	10.118	71.971
676621.5	6282565.1	1360	5050	-0.065	4285.867	979609.617	-3.798	21.786	-7.900	10.089	70.597
676653.4	6282526.8	1360	5100	-0.064	4286.059	979609.809	-3.634	21.509	-7.799	10.076	69.698
676693.3	6282492.5	1360	5150	-0.064	4286.347	979610.097	-3.371	21.057	-7.635	10.051	68.235
676726.9	6282456.6	1360	5200	-0.063	4286.461	979610.211	-3.284	20.722	-7.514	9.925	67.149
676763.6	6282420.7	1360	5250	-0.062	4286.630	979610.380	-3.141	20.301	-7.361	9.798	65.783
676799.2	6282387.5	1360	5300	-0.062	4286.728	979610.478	-3.068	19.970	-7.241	9.661	64.710
676834.4	6282349.5	1360	5350	-0.061	4286.899	979610.649	-2.925	19.522	-7.079	9.518	63.259

676870.3	6282314.3	1360	5400	-0.061	4287.021	979610.771	-2.828	19.182	-6.956	9.398	62.159
676903.4	6282280.3	1360	5450	-0.060	4287.188	979610.938	-2.686	18.845	-6.833	9.325	61.066
676938.5	6282247.2	1360	5500	-0.060	4287.333	979611.083	-2.566	18.510	-6.712	9.232	59.981
676974.1	6282210.0	1360	5550	-0.059	4287.627	979611.377	-2.299	18.041	-6.542	9.200	58.462
677012.9	6282170.7	1360	5600	-0.059	4287.727	979611.477	-2.228	17.882	-6.484	9.169	57.944
677047.1	6282137.8	1360	5650	-0.058	4287.864	979611.614	-2.116	17.651	-6.400	9.135	57.197
676836.0	6282633.9	1380	5150	-0.075	4286.198	979609.948	-3.412	20.690	-7.502	9.776	67.045
676870.9	6282594.9	1380	5200	-0.074	4286.269	979610.019	-3.370	20.369	-7.386	9.613	66.003
676903.3	6282562.4	1380	5250	-0.074	4286.430	979610.180	-3.233	19.990	-7.248	9.509	64.775
676940.1	6282526.5	1380	5300	-0.073	4286.603	979610.353	-3.086	19.591	-7.104	9.401	63.485
676973.0	6282491.4	1380	5350	-0.073	4286.804	979610.554	-2.911	19.188	-6.958	9.320	62.179
677011.6	6282454.6	1380	5400	-0.073	4286.954	979610.704	-2.788	18.859	-6.839	9.233	61.113
677048.0	6282419.1	1380	5450	-0.072	4287.129	979610.879	-2.639	18.492	-6.705	9.148	59.923
677079.2	6282385.6	1380	5500	-0.072	4287.282	979611.032	-2.511	18.193	-6.597	9.085	58.952
677116.0	6282352.3	1380	5550	-0.071	4287.508	979611.258	-2.310	17.784	-6.449	9.026	57.629
677152.9	6282313.0	1380	5600	-0.071	4287.780	979611.530	-2.066	17.346	-6.290	8.990	56.208
677187.7	6282276.9	1380	5650	-0.071	4287.994	979611.744	-1.879	17.028	-6.174	8.974	55.177
677221.2	6282243.8	1380	5700	-0.070	4288.222	979611.972	-1.676	16.695	-6.054	8.966	54.100
677255.5	6282206.2	1380	5750	-0.070	4288.422	979612.172	-1.503	16.423	-5.955	8.965	53.218
677293.3	6282171.4	1380	5800	-0.069	4288.621	979612.371	-1.330	16.072	-5.828	8.914	52.081
677329.3	6282138.1	1380	5850	-0.069	4288.754	979612.504	-1.221	15.881	-5.759	8.901	51.462
677361.1	6282099.7	1380	5900	-0.068	4288.921	979612.671	-1.083	15.630	-5.667	8.880	50.647
677361.1	6282099.7	1380	5900	-0.068	4288.921	979612.671	-1.083	15.630	-5.667	8.880	50.647
D139											
676068.2	6284328.7	0	2502	+0.000	4267.651	979591.305	-20.794	45.165	-16.377	7.994	146.354
676068.2	6284328.7	0	2502	+0.005	4267.651	979591.305	-20.794	45.165	-16.377	7.994	146.354
676068.2	6284328.7	0	2502	-0.044	4267.646	979591.305	-20.794	45.165	-16.377	7.994	146.354
676068.2	6284328.7	0	2502	+0.004	4267.690	979591.305	-20.794	45.165	-16.377	7.994	146.354
675490.4	6282843.5	1300	4050	-0.033	4278.072	979601.731	-11.490	31.924	-11.576	8.858	103.448
675524.9	6282808.4	1300	4100	-0.033	4278.597	979602.256	-10.991	31.320	-11.357	8.973	101.492
675560.8	6282772.9	1300	4150	-0.033	4279.093	979602.752	-10.521	30.731	-11.143	9.066	99.582
675596.2	6282737.8	1300	4200	-0.032	4279.419	979603.078	-10.221	30.343	-11.003	9.120	98.325
675631.6	6282702.4	1300	4250	-0.032	4280.029	979603.688	-9.637	29.660	-10.755	9.268	96.111
675667.0	6282666.7	1300	4300	-0.031	4280.535	979604.194	-9.158	29.188	-10.584	9.447	94.583
676373.7	6281959.3	1300	5300	-0.013	4286.892	979610.551	-3.322	22.022	-7.985	10.715	71.361
675632.4	6282985.1	1320	4050	-0.029	4278.357	979602.016	-11.097	31.245	-11.329	8.818	101.246
675666.9	6282949.6	1320	4100	-0.029	4278.784	979602.443	-10.696	30.779	-11.160	8.922	99.736
675702.3	6282914.6	1320	4150	-0.029	4279.139	979602.798	-10.367	30.358	-11.008	8.983	98.373
675737.9	6282879.8	1320	4200	-0.030	4279.662	979603.321	-9.870	29.754	-10.789	9.095	96.415
675772.9	6282843.8	1320	4250	-0.030	4280.087	979603.746	-9.471	29.266	-10.612	9.183	94.834
675808.4	6282808.2	1320	4300	-0.030	4280.525	979604.184	-9.059	28.804	-10.445	9.301	93.339
675844.8	6282772.3	1320	4350	-0.030	4280.917	979604.576	-8.694	28.411	-10.302	9.415	92.065
676444.5	6282167.8	1320	5200	-0.003	4286.740	979610.399	-3.316	21.813	-7.910	10.588	70.685
676514.0	6282102.4	1320	5300	-0.012	4287.025	979610.684	-3.080	21.206	-7.690	10.437	68.718
676552.5	6282066.5	1320	5350	-0.012	4287.128	979610.787	-3.003	20.871	-7.568	10.300	67.632
676583.7	6282032.4	1320	5400	-0.012	4287.182	979610.841	-2.974	20.578	-7.462	10.143	66.683
676622.3	6281993.9	1320	5450	-0.012	4287.219	979610.878	-2.965	20.260	-7.346	9.949	65.652
676656.9	6281958.9	1320	5500	-0.012	4287.279	979610.938	-2.931	19.952	-7.235	9.786	64.652
676692.3	6281927.0	1320	5550	-0.011	4287.261	979610.920	-2.973	19.726	-7.153	9.601	63.920
676727.7	6281888.8	1320	5600	-0.011	4287.430	979611.089	-2.832	19.373	-7.025	9.517	62.778
676764.7	6281854.6	1320	5650	-0.011	4287.554	979611.213	-2.733	19.068	-6.914	9.421	61.790
676798.1	6281818.9	1320	5700	-0.011	4287.670	979611.329	-2.643	18.827	-6.827	9.357	61.007
676834.4	6281783.1	1320	5750	-0.010	4287.747	979611.406	-2.593	18.617	-6.751	9.274	60.328
676868.8	6281747.1	1320	5800	-0.009	4287.925	979611.584	-2.441	18.307	-6.638	9.227	59.322
676902.4	6281713.7	1320	5850	-0.009	4288.057	979611.716	-2.334	18.069	-6.552	9.184	58.553
676940.8	6281677.2	1320	5900	-0.009	4288.368	979612.027	-2.050	17.632	-6.394	9.189	57.136
676976.3	6281643.5	1320	5950	-0.009	4288.570	979612.229	-1.873	17.338	-6.287	9.179	56.183
677009.5	6281608.8	1320	6000	-0.009	4288.684	979612.343	-1.784	17.191	-6.233	9.173	55.706
675772.9	6283127.1	1340	4050	-0.029	4278.384	979602.043	-10.961	30.880	-11.197	8.722	100.065
675809.1	6283090.8	1340	4100	-0.029	4278.793	979602.452	-10.579	30.452	-11.042	8.831	98.678
675843.7	6283056.0	1340	4150	-0.028	4279.226	979602.885	-10.172	29.951	-10.861	8.919	97.056
675878.8	6283020.5	1340	4200	-0.028	4279.707	979603.366	-9.717	29.411	-10.665	9.030	95.306
675914.1	6282985.3	1340	4250	-0.028	4280.092	979603.751	-9.358	28.982	-10.509	9.115	93.916
675949.7	6282949.7	1340	4300	-0.028	4280.483	979604.142	-8.993	28.540	-10.349	9.198	92.483
675985.1	6282914.3	1340	4350	-0.028	4280.912	979604.571	-8.590	28.091	-10.186	9.315	91.028
676020.5	6282879.1	1340	4400	-0.027	4281.329	979604.988	-8.199	27.657	-10.029	9.429	89.621
676055.7	6282843.7	1340	4450	-0.027	4281.745	979605.404	-7.809	27.228	-9.873	9.546	88.230
676091.0	6282808.6	1340	4500	-0.027	4282.226	979605.885	-7.354	26.699	-9.681	9.664	86.518
676127.0	6282773.1	1340	4550	-0.027	4282.654	979606.313	-6.952	26.236	-9.513	9.770	85.016
676161.4	6282737.8	1340	4600	-0.027	4283.040	979606.699	-6.592	25.803	-9.356	9.854	83.612
676197.3	6282702.2	1340	4650	-0.026	4283.448	979607.107	-6.211	25.328	-9.184	9.934	82.075
676232.9	6282666.9	1340	4700	-0.026	4283.837	979607.496	-5.848	24.892	-9.026	10.019	80.662
676726.5	6282173.2	1340	5400	-0.004	4286.921	979610.580	-3.127	20.055	-7.272	9.656	64.987
676798.7	6282102.7	1340	5500	-0.006	4287.010	979610.669	-3.090	19.562	-7.093	9.379	63.391
676832.7	6282063.9	1340	5550	-0.006	4287.227	979610.886	-2.902	19.181	-6.955	9.324	62.156
676869.5	6282030.7	1340	5600	-0.007	4287.428	979611.087	-2.726	18.816	-6.823	9.268	60.973
676903.7	6281996.1	1340	5650	-0.007	4287.623	979611.282	-2.556	18.523	-6.717	9.251	60.024
676939.6	6281959.4	1340	5700	-0.007	4287.799	979611.458	-2.407	18.204	-6.601	9.196	58.989
676976.4	6281922.6	1340	5750	-0.007	4288.006	979611.665	-2.227	17.909	-6.494	9.188	58.033
677011.5	6281887.1	1340	5800	-0.007	4288.248	979611.907	-2.011	17.604	-6.383	9.210	57.045
677048.0	6281852.4	1340	5850	-0.008	4288.436	979612.095	-1.849	17.334	-6.285	9.200	56.170
677081.1	6281818.2	1340	5900	-0.008	4288.574	979612.233	-1.736	17.091	-6.197	9.158	55.382
677117.3	6281783.7	1340	5950	-0.008	4288.780	979612.439	-1.556	16.798	-6.091	9.152	54.433

677152.4	6281749.5	1340	6000	-0.008	4288.993	979612.652	-1.368	16.510	-5.987	9.156	53.501
675913.1	6283271.1	1360	4050	-0.020	4278.421	979602.080	-10.815	30.223	-10.959	8.450	97.936
675954.1	6283234.7	1360	4100	-0.020	4278.893	979602.552	-10.369	29.696	-10.768	8.559	96.229
675984.9	6283198.3	1360	4150	-0.020	4279.552	979603.211	-9.737	28.952	-10.498	8.717	93.817
676021.6	6283161.6	1360	4200	-0.020	4279.668	979603.327	-9.648	28.854	-10.463	8.743	93.499
676056.3	6283126.6	1360	4250	-0.021	4280.033	979603.692	-9.309	28.446	-10.315	8.823	92.178
676092.5	6283091.8	1360	4300	-0.021	4280.424	979604.083	-8.944	28.008	-10.156	8.909	90.759
676126.4	6283056.1	1360	4350	-0.021	4280.881	979604.540	-8.513	27.549	-9.989	9.047	89.271
676161.6	6283020.4	1360	4400	-0.021	4281.218	979604.877	-8.202	27.211	-9.867	9.142	88.175
676197.3	6282985.4	1360	4450	-0.021	4281.668	979605.327	-7.778	26.759	-9.703	9.278	86.710
676233.1	6282949.7	1360	4500	-0.025	4282.037	979605.696	-7.435	26.319	-9.543	9.340	85.285
676267.7	6282914.8	1360	4550	-0.025	4282.446	979606.105	-7.052	25.857	-9.376	9.429	83.787
676303.6	6282879.1	1360	4600	-0.025	4282.861	979606.520	-6.663	25.426	-9.219	9.543	82.390
676338.7	6282844.5	1360	4650	-0.026	4283.244	979606.903	-6.306	25.004	-9.067	9.632	81.024
676373.7	6282808.5	1360	4700	-0.026	4283.642	979607.301	-5.934	24.611	-8.924	9.753	79.751
677080.7	6282101.6	1360	5700	-0.006	4288.160	979611.819	-1.937	17.419	-6.316	9.165	56.444
677116.3	6282067.0	1360	5750	-0.005	4288.406	979612.065	-1.717	17.094	-6.198	9.179	55.393
677150.9	6282031.6	1360	5800	-0.005	4288.622	979612.281	-1.527	16.817	-6.098	9.192	54.493
677188.6	6281994.6	1360	5850	-0.005	4288.867	979612.526	-1.309	16.487	-5.978	9.200	53.426
677223.2	6281962.5	1360	5900	-0.005	4289.000	979612.659	-1.200	16.231	-5.885	9.146	52.596
677254.4	6281923.9	1360	5950	-0.005	4289.184	979612.843	-1.044	15.964	-5.789	9.132	51.732
676020.4	6283444.6	1380	4000	-0.019	4278.408	979602.067	-10.696	29.692	-10.766	8.230	96.215
676055.9	6283409.4	1380	4050	-0.019	4278.874	979602.533	-10.256	29.149	-10.570	8.324	94.456
676091.3	6283374.6	1380	4100	-0.019	4279.273	979602.932	-9.882	28.713	-10.411	8.419	93.043
676126.6	6283338.0	1380	4150	-0.019	4279.620	979603.279	-9.562	28.317	-10.268	8.487	91.759
676162.1	6283303.0	1380	4200	-0.019	4279.961	979603.620	-9.247	27.947	-10.134	8.566	90.559
676197.2	6283268.1	1380	4250	-0.018	4280.298	979603.957	-8.936	27.601	-10.008	8.657	89.439
676232.7	6283232.7	1380	4300	-0.018	4280.661	979604.320	-8.599	27.262	-9.885	8.778	88.342
676268.0	6283196.5	1380	4350	-0.018	4280.969	979604.628	-8.318	26.953	-9.773	8.862	87.341
676303.4	6283161.8	1380	4400	-0.018	4281.322	979604.981	-7.990	26.570	-9.635	8.946	86.100
676338.0	6283126.7	1380	4450	-0.018	4281.678	979605.337	-7.660	26.184	-9.495	9.030	84.849
676373.2	6283091.8	1380	4500	-0.018	4282.085	979605.744	-7.279	25.725	-9.328	9.118	83.360
676409.4	6283055.9	1380	4550	-0.017	4282.335	979605.994	-7.055	25.496	-9.245	9.196	82.618
676444.5	6283020.3	1380	4600	-0.017	4282.684	979606.343	-6.733	25.135	-9.114	9.288	81.447
676478.1	6282986.4	1380	4650	-0.017	4283.134	979606.793	-6.307	24.640	-8.935	9.399	79.846
676515.2	6282950.0	1380	4700	-0.017	4283.420	979607.079	-6.048	24.387	-8.843	9.496	79.026
676551.3	6282915.1	1380	4750	-0.017	4283.802	979607.461	-5.692	23.975	-8.693	9.589	77.688
676586.5	6282879.3	1380	4800	-0.017	4284.198	979607.857	-5.322	23.562	-8.544	9.696	76.350
676621.6	6282843.6	1380	4850	-0.016	4284.699	979608.358	-4.847	23.003	-8.341	9.814	74.539
676657.7	6282807.9	1380	4900	-0.016	4285.033	979608.692	-4.540	22.622	-8.203	9.879	73.304
676692.6	6282773.0	1380	4950	-0.016	4285.370	979609.029	-4.229	22.209	-8.053	9.927	71.966
676727.0	6282737.4	1380	5000	-0.016	4285.638	979609.297	-3.987	21.866	-7.929	9.950	70.855
676762.9	6282702.1	1380	5050	-0.016	4285.984	979609.643	-3.667	21.406	-7.762	9.977	69.366
676798.3	6282667.0	1380	5100	-0.015	4286.159	979609.818	-3.518	21.078	-7.643	9.918	68.303
677360.8	6282099.7	1380	5900	-0.004	4289.031	979612.690	-1.064	15.634	-5.669	8.902	50.662
676161.9	6283586.1	1400	4000	-0.039	4278.162	979601.821	-10.834	29.617	-10.739	8.044	95.972
676198.0	6283550.6	1400	4050	-0.039	4278.664	979602.323	-10.358	29.065	-10.539	8.168	94.183
676231.7	6283516.1	1400	4100	-0.039	4279.060	979602.719	-9.987	28.624	-10.379	8.258	92.755
676267.6	6283481.5	1400	4150	-0.039	4279.423	979603.082	-9.650	28.225	-10.234	8.341	91.460
676303.1	6283444.6	1400	4200	-0.038	4279.790	979603.449	-9.310	27.821	-10.088	8.423	90.152
676338.7	6283409.0	1400	4250	-0.038	4280.222	979603.881	-8.904	27.321	-9.907	8.510	88.533
676374.3	6283373.8	1400	4300	-0.038	4280.609	979604.268	-8.543	26.900	-9.754	8.603	87.168
676409.2	6283338.4	1400	4350	-0.038	4280.920	979604.579	-8.258	26.551	-9.628	8.666	86.038
676444.9	6283303.1	1400	4400	-0.038	4281.237	979604.896	-7.967	26.185	-9.495	8.723	84.852
676479.8	6283268.0	1400	4450	-0.037	4281.692	979605.351	-7.538	25.702	-9.320	8.844	83.285
676515.6	6283233.8	1400	4500	-0.037	4282.048	979605.707	-7.207	25.331	-9.185	8.939	82.084
676550.8	6283197.2	1400	4550	-0.037	4282.364	979606.023	-6.918	25.006	-9.067	9.021	81.031
676586.3	6283161.6	1400	4600	-0.037	4282.758	979606.417	-6.551	24.595	-8.918	9.126	79.698
676621.6	6283125.4	1400	4650	-0.037	4283.233	979606.892	-6.102	24.103	-8.740	9.261	78.103
676656.2	6283090.8	1400	4700	-0.037	4283.617	979607.276	-5.744	23.734	-8.606	9.384	76.908
676373.5	6283940.1	1440	3900	-0.040	4276.241	979599.900	-12.486	31.744	-11.510	7.747	102.864
676409.5	6283904.5	1440	3950	-0.040	4276.836	979600.495	-11.917	31.007	-11.243	7.847	100.477
676445.1	6283868.5	1440	4000	-0.040	4277.490	979601.149	-11.290	30.187	-10.946	7.952	97.820
676480.1	6283833.7	1440	4050	-0.040	4278.116	979601.775	-10.689	29.428	-10.671	8.068	95.361
676515.3	6283798.2	1440	4100	-0.041	4278.666	979602.325	-10.165	28.713	-10.411	8.136	93.043
676550.7	6283762.0	1440	4150	-0.041	4279.105	979602.764	-9.753	28.165	-10.213	8.199	91.266
676586.4	6283727.8	1440	4200	-0.041	4279.595	979603.254	-9.289	27.537	-9.985	8.264	89.233
676621.8	6283692.4	1440	4250	-0.041	4280.104	979603.763	-8.806	26.911	-9.758	8.347	87.203
676657.1	6283656.8	1440	4300	-0.041	4280.521	979604.180	-8.415	26.427	-9.583	8.430	85.636
676692.1	6283621.4	1440	4350	-0.041	4280.965	979604.624	-7.997	25.908	-9.394	8.517	83.952
676727.5	6283586.2	1440	4400	-0.042	4281.384	979605.043	-7.604	25.452	-9.229	8.620	82.477
676762.7	6283550.9	1440	4450	-0.042	4281.787	979605.446	-7.227	24.989	-9.061	8.701	80.974
676798.2	6283515.4	1440	4500	-0.042	4282.229	979605.888	-6.811	24.503	-8.885	8.808	79.402
676833.5	6283480.1	1440	4550	-0.042	4282.683	979606.342	-6.383	24.020	-8.710	8.927	77.834
676869.1	6283444.6	1440	4600	-0.042	4283.152	979606.811	-5.940	23.552	-8.540	9.072	76.319
676904.6	6283409.5	1440	4650	-0.043	4283.541	979607.200	-5.577	23.163	-8.399	9.187	75.057
676939.6	6283373.9	1440	4700	-0.043	4283.867	979607.526	-5.277	22.850	-8.285	9.287	74.043
D140											
676068.2	6284328.7	0	2502	+0.000	4267.748	979591.305	-20.794	45.165	-16.377	7.994	146.354
676068.2	6284328.7	0	2502	+0.002	4267.748	979591.305	-20.794	45.165	-16.377	7.994	146.354
676068.2	6284328.7	0	2502	-0.061	4267.746	979591.305	-20.794	45.165	-16.377	7.994	146.354
676068.2	6284328.7	0	2502	+0.004	4267.807	979591.305	-20.794	45.165	-16.377	7.994	146.354
674782.9	6281571.0	1160	4450	-0.059	4279.190	979602.749	-11.437	33.952	-12.311	10.204	110.019

675135.0	6282069.5	1220	4350	-0.059	4279.710	979603.269	-10.538	32.026	-11.613	9.875	103.779
675243.4	6282242.1	1240	4300	-0.058	4280.000	979603.559	-10.117	31.098	-11.276	9.704	100.770
675491.5	6282559.9	1280	4250	-0.057	4279.948	979603.507	-9.927	30.285	-10.981	9.376	98.136
676656.2	6283090.8	1400	4700	-0.039	4283.743	979607.302	-5.718	23.727	-8.604	9.406	76.887
676692.0	6283055.8	1400	4750	-0.038	4284.129	979607.688	-5.357	23.335	-8.462	9.517	75.617
676727.5	6283020.1	1400	4800	-0.038	4284.526	979608.085	-4.987	22.944	-8.320	9.638	74.350
676763.0	6282985.1	1400	4850	-0.038	4284.889	979608.448	-4.649	22.565	-8.182	9.734	73.122
676798.6	6282950.0	1400	4900	-0.037	4285.206	979608.765	-4.358	22.239	-8.064	9.817	72.063
676833.3	6282914.5	1400	4950	-0.037	4285.451	979609.010	-4.140	21.959	-7.963	9.857	71.158
676868.9	6282879.3	1400	5000	-0.037	4285.709	979609.268	-3.907	21.624	-7.841	9.876	70.070
676904.4	6282843.9	1400	5050	-0.036	4286.014	979609.573	-3.629	21.212	-7.691	9.892	68.735
676939.7	6282808.5	1400	5100	-0.036	4286.022	979609.581	-3.647	20.980	-7.607	9.726	67.984
676974.8	6282773.1	1400	5150	-0.036	4286.228	979609.787	-3.467	20.428	-7.407	9.554	66.195
677010.9	6282737.7	1400	5200	-0.035	4286.392	979609.951	-3.329	19.967	-7.240	9.398	64.701
677045.4	6282702.4	1400	5250	-0.035	4286.546	979610.105	-3.201	19.544	-7.087	9.257	63.332
677080.9	6282666.8	1400	5300	-0.035	4286.724	979610.283	-3.049	19.140	-6.940	9.151	62.022
677116.1	6282631.7	1400	5350	-0.034	4286.914	979610.473	-2.885	18.741	-6.795	9.060	60.728
677151.9	6282596.2	1400	5400	-0.034	4287.087	979610.646	-2.738	18.438	-6.686	9.015	59.748
677187.4	6282561.1	1400	5450	-0.034	4287.292	979610.851	-2.559	18.106	-6.565	8.982	58.672
677223.1	6282525.1	1400	5500	-0.034	4287.525	979611.084	-2.352	17.704	-6.420	8.932	57.369
677257.9	6282490.4	1400	5550	-0.033	4287.704	979611.263	-2.199	17.381	-6.302	8.880	56.322
677293.1	6282454.7	1400	5600	-0.033	4287.903	979611.462	-2.026	17.055	-6.184	8.845	55.267
677328.5	6282420.0	1400	5650	-0.033	4288.110	979611.669	-1.845	16.744	-6.071	8.828	54.257
677362.2	6282382.8	1400	5700	-0.032	4288.329	979611.888	-1.653	16.433	-5.959	8.821	53.251
677399.2	6282348.9	1400	5750	-0.032	4288.561	979612.120	-1.446	16.114	-5.843	8.825	52.216
677434.6	6282313.5	1400	5800	-0.032	4288.808	979612.367	-1.225	15.784	-5.723	8.836	51.148
677470.2	6282278.2	1400	5850	-0.031	4289.034	979612.593	-1.025	15.453	-5.603	8.824	50.073
677505.0	6282241.6	1400	5900	-0.031	4289.317	979612.876	-0.769	15.095	-5.473	8.852	48.914
676939.6	6283373.9	1440	4700	-0.023	4283.978	979607.537	-5.266	22.852	-8.286	9.300	74.051
676974.8	6283339.3	1440	4750	-0.023	4284.406	979607.965	-4.864	22.365	-8.109	9.391	72.471
677010.2	6283303.2	1440	4800	-0.023	4284.750	979608.309	-4.546	21.949	-7.959	9.444	71.124
677045.2	6283267.2	1440	4850	-0.024	4285.057	979608.616	-4.266	21.553	-7.815	9.472	69.842
677081.2	6283232.6	1440	4900	-0.024	4285.276	979608.835	-4.072	21.201	-7.688	9.441	68.700
677116.5	6283197.5	1440	4950	-0.024	4285.372	979608.931	-4.002	20.935	-7.591	9.342	67.840
677151.8	6283161.8	1440	5000	-0.025	4285.518	979609.077	-3.883	20.580	-7.462	9.235	66.687
677187.2	6283126.4	1440	5050	-0.025	4285.657	979609.216	-3.770	20.270	-7.350	9.151	65.684
677222.5	6283091.2	1440	5100	-0.025	4285.832	979609.391	-3.620	19.927	-7.225	9.081	64.571
677257.8	6283055.7	1440	5150	-0.026	4286.002	979609.561	-3.477	19.623	-7.115	9.031	63.588
677293.1	6283020.5	1440	5200	-0.026	4286.167	979609.726	-3.337	19.312	-7.003	8.972	62.581
677328.6	6282985.0	1440	5250	-0.026	4286.362	979609.921	-3.169	18.986	-6.884	8.933	61.523
677363.5	6282949.8	1440	5300	-0.027	4286.525	979610.084	-3.032	18.661	-6.766	8.863	60.469
677399.2	6282914.6	1440	5350	-0.027	4286.718	979610.277	-2.865	18.371	-6.661	8.845	59.529
677434.8	6282879.1	1440	5400	-0.027	4286.901	979610.460	-2.708	18.069	-6.552	8.810	58.552
677469.8	6282843.7	1440	5450	-0.027	4287.096	979610.655	-2.539	17.765	-6.442	8.785	57.566
677505.4	6282808.4	1440	5500	-0.028	4287.290	979610.849	-2.371	17.459	-6.331	8.757	56.574
677540.6	6282772.9	1440	5550	-0.028	4287.449	979611.008	-2.238	17.179	-6.229	8.712	55.669
677576.1	6282737.5	1440	5600	-0.028	4287.660	979611.219	-2.053	16.891	-6.125	8.713	54.735
677611.4	6282702.2	1440	5650	-0.029	4287.911	979611.470	-1.828	16.589	-6.015	8.746	53.757
677646.7	6282667.0	1440	5700	-0.029	4288.128	979611.687	-1.637	16.324	-5.919	8.768	52.896
677682.1	6282631.4	1440	5750	-0.029	4288.330	979611.889	-1.461	16.056	-5.822	8.773	52.030
677717.4	6282596.4	1440	5800	-0.030	4288.415	979611.974	-1.402	15.977	-5.793	8.781	51.771
677753.7	6282560.4	1440	5850	-0.030	4288.661	979612.220	-1.182	15.656	-5.677	8.797	50.733
676621.5	6284258.1	1480	3850	-0.009	4276.427	979599.986	-12.158	31.009	-11.244	7.607	100.482
676656.4	6284221.9	1480	3900	-0.008	4277.019	979600.578	-11.593	30.304	-10.988	7.723	98.197
676691.9	6284186.7	1480	3950	-0.008	4277.574	979601.133	-11.064	29.631	-10.744	7.823	96.017
676727.7	6284152.1	1480	4000	-0.008	4278.068	979601.627	-10.595	29.063	-10.538	7.930	94.178
676763.7	6284117.0	1480	4050	-0.007	4278.517	979602.076	-10.172	28.495	-10.332	7.991	92.337
676798.2	6284081.5	1480	4100	-0.007	4278.990	979602.549	-9.725	27.959	-10.138	8.096	90.601
676833.7	6284046.0	1480	4150	-0.007	4279.381	979602.940	-9.360	27.550	-9.990	8.200	89.275
676869.0	6284010.6	1480	4200	-0.006	4279.786	979603.345	-8.981	27.080	-9.819	8.280	87.752
676904.1	6283974.8	1480	4250	-0.006	4280.261	979603.820	-8.533	26.520	-9.616	8.371	85.937
676939.7	6283939.3	1480	4300	-0.006	4280.677	979604.236	-8.143	26.080	-9.457	8.481	84.512
676974.2	6283904.4	1480	4350	-0.005	4281.090	979604.649	-7.755	25.658	-9.304	8.599	83.142
677010.6	6283869.2	1480	4400	-0.005	4281.568	979605.127	-7.303	25.202	-9.138	8.760	81.665
677045.0	6283833.7	1480	4450	-0.005	4281.993	979605.552	-6.905	24.750	-8.974	8.871	80.201
677081.1	6283797.8	1480	4500	-0.018	4282.447	979606.006	-6.477	24.315	-8.817	9.021	78.791
677116.3	6283763.6	1480	4550	-0.017	4282.870	979606.429	-6.079	23.942	-8.681	9.181	77.582
677151.6	6283728.2	1480	4600	-0.017	4283.274	979606.833	-5.701	23.538	-8.535	9.302	76.275
677187.1	6283692.2	1480	4650	-0.017	4283.698	979607.257	-5.304	23.168	-8.401	9.463	75.073
677222.4	6283656.7	1480	4700	-0.016	4284.106	979607.665	-4.922	22.792	-8.265	9.606	73.857
677257.4	6283621.7	1480	4750	-0.043	4284.520	979608.079	-4.534	22.380	-8.115	9.731	72.521
677293.8	6283585.8	1480	4800	-0.043	4284.955	979608.514	-4.125	21.938	-7.955	9.858	71.090
677329.1	6283551.8	1480	4850	-0.044	4285.202	979608.761	-3.903	21.594	-7.830	9.861	69.974
677363.9	6283515.3	1480	4900	-0.044	4285.340	979608.899	-3.792	21.185	-7.682	9.711	68.650
677399.3	6283480.2	1480	4950	-0.044	4285.367	979608.926	-3.791	20.834	-7.554	9.489	67.511
677434.6	6283444.7	1480	5000	-0.045	4285.401	979608.960	-3.783	20.455	-7.417	9.255	66.283
677470.0	6283409.3	1480	5050	-0.045	4285.481	979609.040	-3.729	20.093	-7.286	9.078	65.110
677505.5	6283374.0	1480	5100	-0.045	4285.572	979609.131	-3.664	19.779	-7.172	8.943	64.092
677540.4	6283338.6	1480	5150	-0.046	4285.711	979609.270	-3.551	19.451	-7.053	8.847	63.031
677576.1	6283303.2	1480	5200	-0.046	4285.831	979609.390	-3.457	19.144	-6.942	8.745	62.034
677611.5	6283268.2	1480	5250	-0.046	4285.955	979609.514	-3.359	18.826	-6.827	8.641	61.006
677646.8	6283232.8	1480	5300	-0.047	4286.130	979609.689	-3.210	18.522	-6.716	8.595	60.018
677682.0	6283197.5	1480	5350	-0.047	4286.326	979609.885	-3.040	18.196	-6.598	8.558	58.962

677717.4	6283162.8	1480	5400	-0.047	4286.530	979610.089	-2.862	17.882	-6.484	8.536	57.945
677752.8	6283126.5	1480	5450	-0.048	4286.751	979610.310	-2.668	17.560	-6.367	8.525	56.903
677788.4	6283091.9	1480	5500	-0.048	4286.972	979610.531	-2.472	17.275	-6.264	8.539	55.980
677823.5	6283055.5	1480	5550	-0.048	4287.178	979610.737	-2.293	16.994	-6.162	8.539	55.069
677858.9	6283020.4	1480	5600	-0.049	4287.396	979610.955	-2.101	16.693	-6.053	8.539	54.093
677894.0	6282985.5	1480	5650	-0.049	4287.616	979611.175	-1.907	16.403	-5.948	8.549	53.154
677929.4	6282949.8	1480	5700	-0.049	4287.865	979611.424	-1.684	16.119	-5.845	8.590	52.233
677964.8	6282914.3	1480	5750	-0.050	4288.143	979611.702	-1.432	15.788	-5.725	8.631	51.160
678000.3	6282879.0	1480	5800	-0.050	4288.364	979611.923	-1.237	15.515	-5.626	8.652	50.275
676868.7	6284575.8	1520	3800	-0.010	4275.658	979599.217	-12.685	31.748	-11.512	7.551	102.877
676904.3	6284540.8	1520	3850	-0.010	4276.216	979599.775	-12.153	31.050	-11.259	7.638	100.617
676939.4	6284505.1	1520	3900	-0.010	4276.805	979600.364	-11.590	30.358	-11.008	7.760	98.372
676975.1	6284470.1	1520	3950	-0.010	4277.356	979600.915	-11.065	29.688	-10.765	7.858	96.201
677010.5	6284434.7	1520	4000	-0.011	4277.882	979601.441	-10.565	29.050	-10.534	7.952	94.136
677046.6	6284399.5	1520	4050	-0.011	4278.371	979601.930	-10.102	28.466	-10.322	8.042	92.243
677081.4	6284363.9	1520	4100	-0.011	4278.837	979602.396	-9.662	27.927	-10.126	8.138	90.495
677116.5	6284328.5	1520	4150	-0.012	4279.220	979602.779	-9.305	27.512	-9.976	8.231	89.151
677151.8	6284293.3	1520	4200	-0.012	4279.586	979603.145	-8.965	27.084	-9.821	8.298	87.765
677188.2	6284257.9	1520	4250	-0.012	4280.015	979603.574	-8.562	26.674	-9.672	8.440	86.437
677222.8	6284222.0	1520	4300	-0.013	4280.445	979604.004	-8.159	26.238	-9.514	8.565	85.023
677257.1	6284187.0	1520	4350	-0.013	4280.847	979604.406	-7.782	25.802	-9.356	8.664	83.609
677293.4	6284151.9	1520	4400	-0.013	4281.253	979604.812	-7.403	25.421	-9.218	8.801	82.376
677328.7	6284116.3	1520	4450	-0.014	4281.729	979605.288	-6.953	24.959	-9.050	8.956	80.878
677364.0	6284081.2	1520	4500	-0.014	4282.207	979605.766	-6.501	24.520	-8.891	9.128	79.455
677399.1	6284046.1	1520	4550	-0.015	4282.671	979606.230	-6.062	24.094	-8.737	9.295	78.075
677432.5	6284008.9	1520	4600	-0.015	4282.923	979606.482	-5.838	23.893	-8.664	9.392	77.425
677469.9	6283975.2	1520	4650	-0.015	4283.379	979606.938	-5.407	23.408	-8.488	9.513	75.851
677505.4	6283939.7	1520	4700	-0.016	4283.643	979607.202	-5.169	23.033	-8.352	9.512	74.636
677894.5	6283550.7	1520	5250	-0.054	4285.183	979608.742	-3.915	19.058	-6.910	8.232	61.756
677929.5	6283516.0	1520	5300	-0.054	4285.478	979609.037	-3.646	18.638	-6.758	8.234	60.396
677964.8	6283480.2	1520	5350	-0.053	4285.703	979609.262	-3.447	18.298	-6.635	8.216	59.294
677999.5	6283444.6	1520	5400	-0.053	4285.988	979609.547	-3.188	17.915	-6.496	8.231	58.054
678035.9	6283409.2	1520	5450	-0.053	4286.307	979609.866	-2.895	17.484	-6.340	8.249	56.657
678069.4	6283375.3	1520	5500	-0.052	4286.611	979610.170	-2.617	17.137	-6.214	8.306	55.530
678106.3	6283338.7	1520	5550	-0.052	4286.891	979610.450	-2.364	16.763	-6.078	8.321	54.319
678141.8	6283303.3	1520	5600	-0.052	4287.193	979610.752	-2.088	16.420	-5.954	8.379	53.209
678177.2	6283268.2	1520	5650	-0.051	4287.446	979611.005	-1.860	16.113	-5.843	8.410	52.212
678211.9	6283232.5	1520	5700	-0.051	4287.670	979611.229	-1.663	15.832	-5.741	8.429	51.302
678211.9	6283232.5	1520	5700	-0.051	4287.670	979611.229	-1.663	15.832	-5.741	8.429	51.302
D141											
676068.2	6284328.7	0	2502	+0.000	4267.830	979591.305	-20.794	45.165	-16.377	7.994	146.354
676068.2	6284328.7	0	2502	+0.004	4267.830	979591.305	-20.794	45.165	-16.377	7.994	146.354
676068.2	6284328.7	0	2502	-0.048	4267.826	979591.305	-20.794	45.165	-16.377	7.994	146.354
676068.2	6284328.7	0	2502	+0.010	4267.874	979591.305	-20.794	45.165	-16.377	7.994	146.354
676373.3	6283940.2	1440	3900	-0.002	4276.422	979599.901	-12.485	31.737	-11.508	7.744	102.842
676833.7	6284045.9	1480	4150	-0.047	4279.466	979602.945	-9.355	27.549	-9.989	8.204	89.271
676904.1	6283974.8	1480	4250	-0.003	4280.333	979603.812	-8.541	26.517	-9.615	8.361	85.927
677505.4	6283939.7	1520	4700	-0.004	4283.736	979607.215	-5.156	23.035	-8.353	9.527	74.644
677541.0	6283904.1	1520	4750	-0.004	4283.999	979607.478	-4.919	22.565	-8.182	9.464	73.120
677576.1	6283869.2	1520	4800	-0.004	4284.166	979607.645	-4.778	22.157	-8.034	9.345	71.798
677612.1	6283833.5	1520	4850	-0.004	4284.264	979607.743	-4.706	21.763	-7.892	9.166	70.523
677643.4	6283794.9	1520	4900	-0.005	4284.311	979607.790	-4.687	21.425	-7.769	8.969	69.427
677685.5	6283765.6	1520	4950	-0.005	4284.336	979607.815	-4.684	21.155	-7.671	8.800	68.550
677718.1	6283724.8	1520	5000	-0.005	4284.385	979607.864	-4.665	20.901	-7.579	8.658	67.730
677752.4	6283692.4	1520	5050	-0.005	4284.520	979607.999	-4.554	20.528	-7.444	8.531	66.521
677789.0	6283655.7	1520	5100	-0.005	4284.678	979608.157	-4.423	20.133	-7.300	8.410	65.239
677825.8	6283619.8	1520	5150	-0.005	4284.840	979608.319	-4.287	19.784	-7.174	8.323	64.109
677859.3	6283586.4	1520	5200	-0.006	4285.041	979608.520	-4.111	19.437	-7.048	8.278	62.984
677894.5	6283550.7	1520	5250	-0.006	4285.286	979608.765	-3.892	19.058	-6.910	8.255	61.755
677115.3	6284893.3	1560	3750	-0.015	4274.229	979597.708	-13.952	33.690	-12.216	7.522	109.170
677152.1	6284858.9	1560	3800	-0.015	4274.760	979598.239	-13.447	32.742	-11.872	7.423	106.099
677187.2	6284823.8	1560	3850	-0.015	4275.413	979598.892	-12.819	31.855	-11.551	7.485	103.224
677222.4	6284788.2	1560	3900	-0.015	4276.074	979599.553	-12.185	31.018	-11.247	7.586	100.511
677258.1	6284752.8	1560	3950	-0.014	4276.722	979600.201	-11.563	30.208	-10.953	7.691	97.886
677293.6	6284717.6	1560	4000	-0.014	4277.243	979600.722	-11.068	29.577	-10.725	7.784	95.842
677328.8	6284682.0	1560	4050	-0.014	4277.684	979601.163	-10.653	29.066	-10.539	7.874	94.186
677364.0	6284647.3	1560	4100	-0.014	4277.969	979601.448	-10.394	28.754	-10.426	7.934	93.177
677399.0	6284611.1	1560	4150	-0.014	4278.428	979601.907	-9.961	28.234	-10.238	8.035	91.490
677434.5	6284576.0	1560	4200	-0.013	4278.791	979602.270	-9.624	27.839	-10.095	8.121	90.211
677469.7	6284540.9	1560	4250	-0.013	4279.153	979602.632	-9.288	27.490	-9.968	8.234	89.080
677504.1	6284507.0	1560	4300	-0.013	4279.600	979603.079	-8.866	27.025	-9.799	8.360	87.573
677540.8	6284469.9	1560	4350	-0.011	4279.911	979603.390	-8.582	26.723	-9.690	8.451	86.593
677575.9	6284434.7	1560	4400	-0.011	4280.410	979603.889	-8.109	26.172	-9.490	8.573	84.809
677611.6	6284399.4	1560	4450	-0.011	4280.808	979604.287	-7.737	25.723	-9.327	8.658	83.353
677646.9	6284363.7	1560	4500	-0.011	4281.204	979604.683	-7.368	25.242	-9.153	8.721	81.794
677682.0	6284328.7	1560	4550	-0.011	4281.533	979605.012	-7.064	24.786	-8.988	8.734	80.318
677717.4	6284293.1	1560	4600	-0.010	4281.810	979605.289	-6.813	24.336	-8.824	8.698	78.860
677753.2	6284258.0	1560	4650	-0.010	4282.063	979605.542	-6.586	23.867	-8.654	8.627	77.341
677788.5	6284222.3	1560	4700	-0.010	4282.303	979605.782	-6.373	23.428	-8.495	8.560	75.917
677823.6	6284187.2	1560	4750	-0.010	4282.596	979606.075	-6.106	22.933	-8.316	8.512	74.313
677858.6	6284151.7	1560	4800	-0.010	4282.883	979606.362	-5.845	22.455	-8.142	8.468	72.764
677894.2	6284116.6	1560	4850	-0.010	4283.063	979606.542	-5.691	22.080	-8.006	8.383	71.548
677929.9	6284080.7	1560	4900	-0.009	4283.147	979606.626	-5.633	21.839	-7.919	8.287	70.769

677965.3	6284046.1	1560	4950	-0.009	4283.516	979606.995	-5.289	21.243	-7.703	8.251	68.838
678001.3	6284010.0	1560	5000	-0.009	4283.739	979607.218	-5.093	20.826	-7.552	8.182	67.486
678035.8	6283975.1	1560	5050	-0.009	4283.943	979607.422	-4.915	20.477	-7.425	8.138	66.356
678071.3	6283939.4	1560	5100	-0.009	4284.186	979607.665	-4.698	20.092	-7.285	8.108	65.107
678106.3	6283904.3	1560	5150	-0.008	4284.427	979607.906	-4.483	19.691	-7.140	8.068	63.808
678142.2	6283869.0	1560	5200	-0.008	4284.717	979608.196	-4.219	19.284	-6.992	8.073	62.488
678177.1	6283833.8	1560	5250	-0.008	4285.028	979608.507	-3.934	18.817	-6.823	8.060	60.976
678212.1	6283798.5	1560	5300	-0.008	4285.302	979608.781	-3.686	18.464	-6.695	8.083	59.831
678247.6	6283763.0	1560	5350	-0.008	4285.615	979609.094	-3.399	18.079	-6.556	8.125	58.584
678283.0	6283725.4	1560	5400	-0.008	4285.933	979609.412	-3.109	17.639	-6.396	8.134	57.158
678318.7	6283692.6	1560	5450	-0.007	4286.239	979609.718	-2.827	17.249	-6.255	8.168	55.894
678352.2	6283657.7	1560	5500	-0.007	4286.530	979610.009	-2.562	16.906	-6.130	8.215	54.784
678388.4	6283622.4	1560	5550	-0.007	4286.850	979610.329	-2.268	16.536	-5.996	8.272	53.583
678424.2	6283585.4	1560	5600	-0.007	4287.193	979610.672	-1.952	16.149	-5.856	8.342	52.330
678459.5	6283550.9	1560	5650	-0.007	4287.494	979610.973	-1.676	15.795	-5.727	8.391	51.183
677365.0	6285211.1	1600	3700	-0.016	4274.898	979598.377	-13.042	33.857	-12.277	8.539	109.712
677399.6	6285177.1	1600	3750	-0.017	4274.228	979597.707	-13.736	34.283	-12.431	8.115	111.091
677433.7	6285141.9	1600	3800	-0.019	4274.599	979598.078	-13.392	33.134	-12.015	7.728	107.370
677469.7	6285104.2	1600	3850	-0.019	4275.150	979598.629	-12.868	32.134	-11.652	7.614	104.129
677510.0	6285070.6	1600	3900	-0.020	4275.304	979598.783	-12.739	31.935	-11.580	7.617	103.485
677540.1	6285034.5	1600	3950	-0.020	4275.491	979598.970	-12.579	31.698	-11.494	7.625	102.714
677576.7	6285000.5	1600	4000	-0.020	4275.785	979599.264	-12.310	31.386	-11.381	7.696	101.705
677611.4	6284965.1	1600	4050	-0.020	4276.301	979599.780	-11.820	30.739	-11.146	7.773	99.608
677646.9	6284929.7	1600	4100	-0.021	4276.842	979600.321	-11.305	30.087	-10.910	7.873	97.496
677682.3	6284893.8	1600	4150	-0.021	4277.309	979600.788	-10.864	29.582	-10.726	7.991	95.858
677716.9	6284859.0	1600	4200	-0.021	4277.772	979601.251	-10.427	28.995	-10.514	8.054	93.955
677752.9	6284823.6	1600	4250	-0.021	4278.245	979601.724	-9.980	28.342	-10.277	8.085	91.840
677788.1	6284788.6	1600	4300	-0.021	4278.695	979602.174	-9.556	27.780	-10.073	8.152	90.020
677823.3	6284752.8	1600	4350	-0.022	4279.171	979602.650	-9.106	27.155	-9.847	8.203	87.994
677859.1	6284717.8	1600	4400	-0.022	4279.597	979603.076	-8.706	26.604	-9.647	8.251	86.208
677894.3	6284682.3	1600	4450	-0.022	4279.929	979603.408	-8.400	26.157	-9.485	8.272	84.760
677934.1	6284646.3	1600	4500	-0.022	4280.232	979603.711	-8.123	25.753	-9.338	8.291	83.450
677965.6	6284610.0	1600	4550	-0.022	4280.668	979604.147	-7.714	25.150	-9.119	8.316	81.496
678001.2	6284576.1	1600	4600	-0.023	4280.919	979604.398	-7.488	24.744	-8.972	8.284	80.182
678035.6	6284540.4	1600	4650	-0.023	4281.201	979604.680	-7.232	24.295	-8.810	8.253	78.727
678071.2	6284505.4	1600	4700	-0.023	4281.470	979604.949	-6.989	23.889	-8.662	8.238	77.411
678106.2	6284470.0	1600	4750	-0.023	4281.715	979605.194	-6.770	23.460	-8.507	8.183	76.021
678141.6	6284434.5	1600	4800	-0.023	4281.950	979605.429	-6.562	23.047	-8.357	8.128	74.682
678177.0	6284399.3	1600	4850	-0.024	4282.200	979605.679	-6.337	22.616	-8.201	8.078	73.286
678212.7	6284363.9	1600	4900	-0.024	4282.455	979605.934	-6.108	22.220	-8.057	8.054	72.001
678247.8	6284328.6	1600	4950	-0.024	4282.726	979606.205	-5.863	21.806	-7.907	8.036	70.662
678283.2	6284293.0	1600	5000	-0.024	4282.978	979606.457	-5.638	21.385	-7.754	7.993	69.296
678320.3	6284257.7	1600	5050	-0.026	4283.225	979606.704	-5.417	20.987	-7.610	7.960	68.007
678353.8	6284222.5	1600	5100	-0.026	4283.540	979607.019	-5.128	20.569	-7.458	7.983	66.653
678389.2	6284187.1	1600	5150	-0.027	4283.862	979607.341	-4.832	20.130	-7.299	8.000	65.231
678424.9	6284151.8	1600	5200	-0.027	4284.238	979607.717	-4.482	19.638	-7.121	8.036	63.635
678459.9	6284116.6	1600	5250	-0.027	4284.619	979608.098	-4.127	19.163	-6.948	8.088	62.095
678495.2	6284081.1	1600	5300	-0.027	4284.948	979608.427	-3.824	18.718	-6.787	8.107	60.654
678530.6	6284045.7	1600	5350	-0.027	4285.287	979608.766	-3.511	18.254	-6.619	8.124	59.152
678566.0	6284010.6	1600	5400	-0.027	4285.572	979609.051	-3.252	17.867	-6.479	8.137	57.898
678600.9	6283975.0	1600	5450	-0.028	4285.870	979609.349	-2.980	17.482	-6.339	8.163	56.650
678636.7	6283940.1	1600	5500	-0.028	4286.309	979609.788	-2.567	16.956	-6.148	8.241	54.946
678672.0	6283904.3	1600	5550	-0.028	4286.643	979610.122	-2.259	16.568	-6.008	8.301	53.687
678707.4	6283869.1	1600	5600	-0.028	4286.959	979610.438	-1.969	16.197	-5.873	8.355	52.484
677614.1	6285534.0	1640	3650	-0.036	4274.400	979597.879	-13.294	34.357	-12.458	8.606	111.333
677651.2	6285498.3	1640	3700	-0.036	4274.600	979598.079	-13.120	34.000	-12.329	8.552	110.176
677683.8	6285458.2	1640	3750	-0.035	4274.736	979598.215	-13.014	33.405	-12.113	8.278	108.246
677718.0	6285425.7	1640	3800	-0.035	4274.539	979598.018	-13.235	32.985	-11.961	7.790	106.887
677756.3	6285392.8	1640	3850	-0.035	4274.744	979598.223	-13.054	32.495	-11.783	7.658	105.297
677788.1	6285353.7	1640	3900	-0.035	4275.345	979598.824	-12.482	31.684	-11.489	7.714	102.669
677823.8	6285318.6	1640	3950	-0.035	4275.738	979599.217	-12.114	31.140	-11.292	7.734	100.908
677859.2	6285284.5	1640	4000	-0.034	4276.323	979599.802	-11.555	30.356	-11.007	7.794	98.367
677894.1	6285248.0	1640	4050	-0.034	4276.706	979600.185	-11.198	29.910	-10.845	7.866	96.920
677929.8	6285212.5	1640	4100	-0.034	4277.287	979600.766	-10.644	29.156	-10.572	7.940	94.478
677964.9	6285177.0	1640	4150	-0.034	4277.897	979601.376	-10.060	28.374	-10.288	8.025	91.943
678000.3	6285141.8	1640	4200	-0.034	4278.402	979601.881	-9.581	27.731	-10.055	8.095	89.861
678035.4	6285105.7	1640	4250	-0.033	4278.861	979602.340	-9.148	27.132	-9.838	8.146	87.920
678071.0	6285071.2	1640	4300	-0.033	4279.178	979602.657	-8.857	26.726	-9.691	8.178	86.604
678106.4	6285035.8	1640	4350	-0.033	4279.540	979603.019	-8.521	26.269	-9.525	8.223	85.122
678141.8	6285000.4	1640	4400	-0.033	4279.907	979603.386	-8.180	25.787	-9.351	8.257	83.562
678177.1	6284965.0	1640	4450	-0.033	4280.222	979603.701	-7.891	25.387	-9.205	8.291	82.264
678212.3	6284929.8	1640	4500	-0.033	4280.436	979603.915	-7.703	25.044	-9.081	8.260	81.153
678248.0	6284894.2	1640	4550	-0.032	4280.710	979604.189	-7.455	24.640	-8.935	8.250	79.844
678282.8	6284859.1	1640	4600	-0.032	4280.967	979604.446	-7.224	24.194	-8.773	8.197	78.399
678318.6	6284823.6	1640	4650	-0.032	4281.212	979604.691	-7.005	23.776	-8.621	8.150	77.044
678354.1	6284788.3	1640	4700	-0.032	4281.443	979604.922	-6.800	23.387	-8.480	8.107	75.784
678389.3	6284753.0	1640	4750	-0.032	4281.644	979605.123	-6.625	23.056	-8.360	8.071	74.710
678424.8	6284717.5	1640	4800	-0.031	4281.915	979605.394	-6.380	22.616	-8.201	8.035	73.286
678459.9	6284682.3	1640	4850	-0.031	4282.173	979605.652	-6.148	22.206	-8.052	8.006	71.957
678495.1	6284646.5	1640	4900	-0.031	4282.521	979606.000	-5.826	21.717	-7.875	8.016	70.372
678530.4	6284611.6	1640	4950	-0.031	4282.873	979606.352	-5.500	21.245	-7.704	8.042	68.844
678566.0	6284576.0	1640	5000	-0.031	4283.206	979606.685	-5.194	20.799	-7.542	8.064	67.398
678601.3	6284540.7	1640	5050	-0.031	4283.532	979607.011	-4.894	20.337	-7.374	8.069	65.900

678636.2	6284503.7	1640	5100	-0.030	4283.749	979607.228	-4.704	20.034	-7.264	8.066	64.919
678671.5	6284470.0	1640	5150	-0.030	4283.949	979607.428	-4.529	19.742	-7.158	8.055	63.972
678707.1	6284434.7	1640	5200	-0.030	4284.190	979607.669	-4.313	19.385	-7.029	8.043	62.817
678742.7	6284399.3	1640	5250	-0.030	4284.513	979607.992	-4.017	18.931	-6.865	8.050	61.346
678778.1	6284363.9	1640	5300	-0.030	4284.781	979608.260	-3.775	18.549	-6.726	8.048	60.106
678813.6	6284328.5	1640	5350	-0.030	4285.045	979608.524	-3.537	18.170	-6.588	8.045	58.878
678848.4	6284293.1	1640	5400	-0.029	4285.323	979608.802	-3.285	17.791	-6.451	8.055	57.650
678884.2	6284258.2	1640	5450	-0.029	4285.568	979609.047	-3.066	17.493	-6.343	8.085	56.685
678919.0	6284222.9	1640	5500	-0.029	4285.943	979609.422	-2.717	17.082	-6.194	8.171	55.353
678955.2	6284187.1	1640	5550	-0.029	4286.273	979609.752	-2.413	16.722	-6.064	8.246	54.187
677861.1	6285848.0	1680	3600	-0.037	4271.800	979595.279	-15.655	38.272	-13.878	8.740	124.019
677898.8	6285811.8	1680	3650	-0.037	4272.092	979595.571	-15.390	37.575	-13.625	8.561	121.760
677930.0	6285774.7	1680	3700	-0.037	4272.894	979596.373	-14.615	35.991	-13.050	8.326	116.626
677965.6	6285742.6	1680	3750	-0.038	4273.513	979596.992	-14.019	34.448	-12.491	7.938	111.626
678000.8	6285707.4	1680	3800	-0.038	4274.181	979597.660	-13.377	33.076	-11.993	7.705	107.180
678035.1	6285671.5	1680	3850	-0.038	4275.102	979598.581	-12.483	31.734	-11.507	7.745	102.833
678070.9	6285637.3	1680	3900	-0.038	4275.679	979599.158	-11.931	30.961	-11.227	7.804	100.327
678106.4	6285601.3	1680	3950	-0.038	4276.084	979599.563	-11.552	30.435	-11.036	7.847	98.623
678141.6	6285566.3	1680	4000	-0.039	4276.534	979600.013	-11.128	29.868	-10.830	7.910	96.787
678177.0	6285530.7	1680	4050	-0.039	4277.043	979600.522	-10.646	29.193	-10.585	7.962	94.597
678212.3	6285495.6	1680	4100	-0.039	4277.609	979601.088	-10.105	28.434	-10.310	8.018	92.138
678248.4	6285460.3	1680	4150	-0.039	4277.981	979601.460	-9.759	27.918	-10.123	8.036	90.467
678283.2	6285424.4	1680	4200	-0.039	4278.416	979601.895	-9.351	27.338	-9.913	8.075	88.588
678318.1	6285388.6	1680	4250	-0.039	4278.774	979602.253	-9.019	26.817	-9.724	8.074	86.900
678353.5	6285353.7	1680	4300	-0.040	4279.219	979602.698	-8.600	26.184	-9.494	8.090	84.848
678389.4	6285318.8	1680	4350	-0.040	4279.620	979603.099	-8.224	25.606	-9.285	8.097	82.976
678424.5	6285283.2	1680	4400	-0.040	4280.009	979603.488	-7.862	25.107	-9.104	8.141	81.357
678459.6	6285247.8	1680	4450	-0.040	4280.324	979603.803	-7.573	24.669	-8.945	8.151	79.940
678495.4	6285212.3	1680	4500	-0.040	4280.626	979604.105	-7.297	24.271	-8.801	8.174	78.649
678530.7	6285178.0	1680	4550	-0.041	4280.939	979604.418	-7.009	23.865	-8.654	8.202	77.334
678565.9	6285141.9	1680	4600	-0.041	4281.230	979604.709	-6.745	23.479	-8.513	8.221	76.081
678601.5	6285106.3	1680	4650	-0.041	4281.562	979605.041	-6.439	23.012	-8.344	8.229	74.569
678636.7	6285070.8	1680	4700	-0.043	4281.893	979605.372	-6.134	22.535	-8.171	8.230	73.024
678671.7	6285035.7	1680	4750	-0.043	4282.172	979605.651	-5.881	22.145	-8.030	8.234	71.758
678778.2	6284929.5	1680	4900	-0.044	4282.993	979606.472	-5.138	21.110	-7.654	8.317	68.405
678813.2	6284894.5	1680	4950	-0.044	4283.283	979606.762	-4.874	20.731	-7.517	8.340	67.179
678849.0	6284859.0	1680	5000	-0.044	4283.566	979607.045	-4.617	20.329	-7.372	8.341	65.876
678919.5	6284788.2	1680	5100	-0.044	4283.996	979607.475	-4.239	19.604	-7.108	8.256	63.525
678956.3	6284751.3	1680	5150	-0.045	4284.163	979607.642	-4.099	19.350	-7.017	8.235	62.704
678990.2	6284714.0	1680	5200	-0.045	4284.692	979608.171	-3.598	18.619	-6.751	8.270	60.335
679025.7	6284681.8	1680	5250	-0.045	4284.741	979608.220	-3.572	18.556	-6.729	8.255	60.130
679061.0	6284646.8	1680	5300	-0.045	4284.968	979608.447	-3.371	18.189	-6.595	8.222	58.941
679096.3	6284611.6	1680	5350	-0.045	4285.229	979608.708	-3.136	17.813	-6.459	8.218	57.721
679131.6	6284576.2	1680	5400	-0.046	4285.478	979608.957	-2.913	17.460	-6.331	8.216	56.577
679167.1	6284540.7	1680	5450	-0.046	4285.792	979609.271	-2.626	17.065	-6.188	8.251	55.297
679167.1	6284540.7	1680	5450	-0.046	4285.792	979609.271	-2.626	17.065	-6.188	8.251	55.297
D142											
676068.2	6284328.7	0	2502	+0.000	4267.909	979591.305	-20.794	45.165	-16.377	7.994	146.354
676068.2	6284328.7	0	2502	+0.000	4267.909	979591.305	-20.794	45.165	-16.377	7.994	146.354
676068.2	6284328.7	0	2502	-0.064	4267.909	979591.305	-20.794	45.165	-16.377	7.994	146.354
676068.2	6284328.7	0	2502	+0.003	4267.973	979591.305	-20.794	45.165	-16.377	7.994	146.354
677434.6	6283444.7	1480	5000	-0.003	4285.574	979608.970	-3.773	20.451	-7.416	9.262	66.270
678956.3	6284751.2	1680	5150	-0.063	4284.261	979607.657	-4.085	19.351	-7.017	8.250	62.705
678069.4	6286202.7	1720	3500	-0.010	4271.487	979594.883	-15.782	38.461	-13.946	8.733	124.630
678104.4	6286168.3	1720	3550	-0.011	4271.845	979595.241	-15.449	37.666	-13.658	8.559	122.055
678141.1	6286131.8	1720	3600	-0.011	4272.474	979595.870	-14.847	36.518	-13.242	8.430	118.336
678178.8	6286093.6	1720	3650	-0.011	4272.948	979596.344	-14.401	35.296	-12.798	8.096	114.373
678212.4	6286060.6	1720	3700	-0.011	4273.886	979597.282	-13.487	33.429	-12.122	7.821	108.326
678248.0	6286025.9	1720	3750	-0.012	4274.777	979598.173	-12.622	31.878	-11.559	7.697	103.298
678282.8	6285989.9	1720	3800	-0.012	4275.401	979598.797	-12.024	30.870	-11.194	7.652	100.033
678318.4	6285955.0	1720	3850	-0.012	4275.940	979599.336	-11.511	30.120	-10.922	7.687	97.601
678353.3	6285919.1	1720	3900	-0.012	4276.465	979599.861	-11.013	29.418	-10.667	7.738	95.327
678389.3	6285884.5	1720	3950	-0.013	4277.000	979600.396	-10.503	28.727	-10.417	7.808	93.089
678425.1	6285848.7	1720	4000	-0.013	4277.589	979600.985	-9.940	28.009	-10.156	7.913	90.762
678459.6	6285813.6	1720	4050	-0.013	4278.069	979601.465	-9.486	27.410	-9.939	7.985	88.822
678495.3	6285778.4	1720	4100	-0.013	4278.411	979601.807	-9.170	26.969	-9.779	8.020	87.390
678530.6	6285743.7	1720	4150	-0.014	4278.770	979602.166	-8.837	26.569	-9.634	8.098	86.096
678566.3	6285707.7	1720	4200	-0.014	4279.115	979602.511	-8.518	26.151	-9.482	8.151	84.741
678602.1	6285672.2	1720	4250	-0.014	4279.397	979602.793	-8.262	25.804	-9.357	8.185	83.617
678636.7	6285636.7	1720	4300	-0.014	4279.704	979603.100	-7.981	25.448	-9.228	8.239	82.463
678672.2	6285601.4	1720	4350	-0.015	4280.047	979603.443	-7.665	25.022	-9.073	8.284	81.081
678707.4	6285565.8	1720	4400	-0.015	4280.345	979603.741	-7.393	24.633	-8.932	8.309	79.823
678742.6	6285530.9	1720	4450	-0.015	4280.704	979604.100	-7.060	24.208	-8.778	8.371	78.446
678778.3	6285495.2	1720	4500	-0.015	4280.989	979604.385	-6.801	23.869	-8.655	8.414	77.347
678813.6	6285460.0	1720	4550	-0.016	4281.373	979604.769	-6.443	23.388	-8.480	8.465	75.786
678849.1	6285424.6	1720	4600	-0.016	4281.581	979604.977	-6.261	23.149	-8.394	8.494	75.012
678883.7	6285389.2	1720	4650	-0.018	4281.828	979605.224	-6.040	22.810	-8.271	8.499	73.913
678918.9	6285353.6	1720	4700	-0.019	4282.161	979605.557	-5.733	22.378	-8.115	8.531	72.516
678955.0	6285319.2	1720	4750	-0.019	4282.424	979605.820	-5.495	21.969	-7.966	8.508	71.189
678990.1	6285283.3	1720	4800	-0.019	4282.649	979606.045	-5.297	21.555	-7.816	8.442	69.848
679025.5	6285247.9	1720	4850	-0.020	4282.782	979606.178	-5.190	21.271	-7.713	8.368	68.927
679060.7	6285212.3	1720	4900	-0.020	4283.072	979606.468	-4.926	20.834	-7.555	8.354	67.512
679096.3	6285176.9	1720	4950	-0.020	4283.304	979606.700	-4.720	20.486	-7.428	8.338	66.383

679131.7	6285141.3	1720	5000	-0.020	4283.565	979606.961	-4.485	20.105	-7.290	8.329	65.148
679166.7	6285106.5	1720	5050	-0.021	4283.832	979607.228	-4.244	19.711	-7.147	8.320	63.871
679202.3	6285071.3	1720	5100	-0.021	4284.111	979607.507	-3.991	19.328	-7.008	8.329	62.630
679237.4	6285035.6	1720	5150	-0.021	4284.350	979607.746	-3.778	18.979	-6.882	8.319	61.501
679273.1	6285000.4	1720	5200	-0.021	4284.642	979608.038	-3.512	18.602	-6.745	8.345	60.280
679308.9	6284965.3	1720	5250	-0.022	4284.911	979608.307	-3.269	18.273	-6.626	8.378	59.211
679343.4	6284929.8	1720	5300	-0.022	4285.169	979608.565	-3.037	17.922	-6.499	8.387	58.076
679379.1	6284894.4	1720	5350	-0.022	4285.485	979608.881	-2.747	17.550	-6.364	8.439	56.871
679414.8	6284858.6	1720	5400	-0.023	4285.763	979609.159	-2.496	17.229	-6.247	8.486	55.830
678314.9	6286519.0	1760	3450	-0.009	4269.428	979592.824	-17.600	39.687	-14.391	7.697	128.604
678353.5	6286485.2	1760	3500	-0.008	4271.005	979594.401	-16.048	36.544	-13.251	7.245	118.418
678389.1	6286449.6	1760	3550	-0.008	4271.905	979595.301	-15.174	35.145	-12.744	7.227	113.885
678424.6	6286414.4	1760	3600	-0.008	4272.568	979595.964	-14.537	34.267	-12.425	7.305	111.041
678459.7	6286378.9	1760	3650	-0.008	4273.010	979596.406	-14.121	33.691	-12.217	7.354	109.174
678495.2	6286344.1	1760	3700	-0.007	4273.442	979596.838	-13.715	33.125	-12.011	7.399	107.341
678531.0	6286308.6	1760	3750	-0.007	4273.964	979597.360	-13.219	32.459	-11.770	7.470	105.180
678565.5	6286273.6	1760	3800	-0.007	4274.479	979597.875	-12.730	31.735	-11.507	7.498	102.836
678601.2	6286237.5	1760	3850	-0.007	4274.975	979598.371	-12.260	31.058	-11.262	7.536	100.643
678636.3	6286202.3	1760	3900	-0.006	4275.465	979598.861	-11.796	30.413	-11.028	7.589	98.552
678671.9	6286167.3	1760	3950	-0.006	4275.966	979599.362	-11.321	29.745	-10.786	7.638	96.386
678706.8	6286131.9	1760	4000	-0.006	4276.410	979599.806	-10.903	29.193	-10.585	7.704	94.598
678743.9	6286098.1	1760	4050	-0.006	4276.818	979600.214	-10.520	28.658	-10.392	7.747	92.865
678778.1	6286061.2	1760	4100	-0.030	4277.168	979600.564	-10.197	28.253	-10.245	7.811	91.551
678813.5	6286025.8	1760	4150	-0.029	4277.598	979600.994	-9.793	27.770	-10.069	7.907	89.986
678848.6	6285990.5	1760	4200	-0.029	4277.955	979601.351	-9.462	27.348	-9.916	7.969	88.619
678884.1	6285955.0	1760	4250	-0.029	4278.347	979601.743	-9.096	26.918	-9.760	8.061	87.225
678919.7	6285919.8	1760	4300	-0.029	4278.743	979602.139	-8.726	26.477	-9.601	8.150	85.796
678955.0	6285884.1	1760	4350	-0.028	4279.148	979602.544	-8.348	26.007	-9.430	8.229	84.275
678990.1	6285849.0	1760	4400	-0.028	4279.526	979602.922	-7.995	25.552	-9.265	8.292	82.801
679025.7	6285813.6	1760	4450	-0.028	4279.874	979603.270	-7.673	25.168	-9.126	8.369	81.555
679060.9	6285779.7	1760	4500	-0.028	4280.248	979603.644	-7.324	24.774	-8.983	8.467	80.280
679096.4	6285742.9	1760	4550	-0.028	4280.580	979603.976	-7.019	24.420	-8.855	8.546	79.132
679131.1	6285707.5	1760	4600	-0.027	4280.919	979604.315	-6.706	24.036	-8.716	8.614	77.887
679167.0	6285671.9	1760	4650	-0.027	4281.248	979604.644	-6.404	23.665	-8.581	8.680	76.685
679202.3	6285636.9	1760	4700	-0.027	4281.551	979604.947	-6.127	23.272	-8.439	8.707	75.412
679237.9	6285601.5	1760	4750	-0.026	4281.849	979605.245	-5.855	22.868	-8.292	8.721	74.102
679273.2	6285565.9	1760	4800	-0.026	4282.060	979605.456	-5.670	22.533	-8.170	8.693	73.016
679308.6	6285530.5	1760	4850	-0.026	4282.257	979605.653	-5.499	22.193	-8.047	8.647	71.916
679342.8	6285495.0	1760	4900	-0.026	4282.405	979605.801	-5.377	21.922	-7.949	8.596	71.037
679379.1	6285459.7	1760	4950	-0.025	4282.489	979605.885	-5.319	21.624	-7.841	8.464	70.072
679414.7	6285424.0	1760	5000	-0.025	4282.653	979606.049	-5.181	21.225	-7.696	8.347	68.778
679450.1	6285389.1	1760	5050	-0.025	4282.806	979606.202	-5.054	20.861	-7.564	8.243	67.599
679485.3	6285354.1	1760	5100	-0.025	4283.050	979606.446	-4.836	20.427	-7.407	8.184	66.191
679520.5	6285318.6	1760	5150	-0.024	4283.341	979606.737	-4.571	20.015	-7.258	8.187	64.858
679556.3	6285283.0	1760	5200	-0.024	4283.640	979607.036	-4.298	19.657	-7.128	8.231	63.696
679591.7	6285248.2	1760	5250	-0.024	4284.006	979607.402	-3.958	19.212	-6.966	8.288	62.254
679626.6	6285212.6	1760	5300	-0.024	4284.411	979607.807	-3.579	18.767	-6.805	8.383	60.812
679662.3	6285177.3	1760	5350	-0.023	4284.782	979608.178	-3.234	18.386	-6.667	8.485	59.579
678562.9	6286837.4	1800	3400	-0.056	4270.470	979593.866	-16.316	37.360	-13.547	7.498	121.064
678604.6	6286804.0	1800	3450	-0.056	4271.289	979594.685	-15.521	35.675	-12.936	7.218	115.602
678641.5	6286769.4	1800	3500	-0.056	4271.891	979595.287	-14.945	34.790	-12.615	7.230	112.734
678673.3	6286733.6	1800	3550	-0.057	4272.516	979595.912	-14.346	33.977	-12.320	7.311	110.102
678709.4	6286699.3	1800	3600	-0.057	4273.236	979596.632	-13.651	33.103	-12.003	7.448	107.267
678742.9	6286661.7	1800	3650	-0.057	4273.903	979597.299	-13.012	32.275	-11.703	7.560	104.586
678778.3	6286626.5	1800	3700	-0.057	4274.391	979597.787	-12.550	31.697	-11.493	7.653	102.711
678813.3	6286591.0	1800	3750	-0.058	4274.856	979598.252	-12.111	31.152	-11.296	7.745	100.945
678848.5	6286555.0	1800	3800	-0.058	4275.216	979598.612	-11.778	30.762	-11.154	7.830	99.683
678884.7	6286520.1	1800	3850	-0.058	4275.557	979598.953	-11.462	30.386	-11.018	7.906	98.464
678919.9	6286485.0	1800	3900	-0.059	4275.886	979599.282	-11.159	30.000	-10.878	7.963	97.212
678955.3	6286449.5	1800	3950	-0.059	4276.241	979599.637	-10.830	29.602	-10.734	8.038	95.924
678990.8	6286412.2	1800	4000	-0.059	4276.656	979600.052	-10.443	29.117	-10.558	8.117	94.353
679024.7	6286379.3	1800	4050	-0.059	4276.912	979600.308	-10.211	28.822	-10.451	8.160	93.396
679060.9	6286343.6	1800	4100	-0.060	4277.263	979600.659	-9.886	28.382	-10.292	8.205	91.971
679096.5	6286308.5	1800	4150	-0.060	4277.625	979601.021	-9.550	27.975	-10.144	8.281	90.650
679131.7	6286273.0	1800	4200	-0.060	4277.925	979601.321	-9.276	27.590	-10.004	8.310	89.404
679166.7	6286237.7	1800	4250	-0.060	4278.221	979601.617	-9.006	27.205	-9.865	8.334	88.156
679202.3	6286202.2	1800	4300	-0.061	4278.457	979601.853	-8.796	26.869	-9.743	8.330	87.069
679237.3	6286166.7	1800	4350	-0.035	4278.706	979602.102	-8.573	26.530	-9.620	8.337	85.970
679272.8	6286131.5	1800	4400	-0.035	4279.021	979602.417	-8.284	26.088	-9.460	8.344	84.536
679308.2	6286096.2	1800	4450	-0.036	4279.305	979602.701	-8.026	25.709	-9.322	8.360	83.308
679343.9	6286060.7	1800	4500	-0.036	4279.634	979603.030	-7.723	25.279	-9.166	8.389	81.914
679379.6	6286025.2	1800	4550	-0.036	4279.942	979603.338	-7.442	24.877	-9.021	8.415	80.614
679414.7	6285990.1	1800	4600	-0.036	4280.268	979603.664	-7.142	24.496	-8.882	8.472	79.377
679449.6	6285954.9	1800	4650	-0.037	4280.624	979604.020	-6.811	24.076	-8.730	8.535	78.017
679484.8	6285919.6	1800	4700	-0.037	4281.002	979604.398	-6.459	23.647	-8.575	8.613	76.628
679520.6	6285884.4	1800	4750	-0.037	4281.322	979604.718	-6.165	23.228	-8.422	8.640	75.268
679555.8	6285848.8	1800	4800	-0.038	4281.681	979605.077	-5.832	22.768	-8.256	8.680	73.779
679591.4	6285813.4	1800	4850	-0.038	4281.976	979605.372	-5.564	22.347	-8.103	8.680	72.413
679626.7	6285778.2	1800	4900	-0.038	4282.267	979605.663	-5.298	21.936	-7.954	8.684	71.083
679661.9	6285743.0	1800	4950	-0.038	4282.518	979605.914	-5.073	21.567	-7.820	8.673	69.886
679697.4	6285707.5	1800	5000	-0.039	4282.696	979606.092	-4.922	21.215	-7.693	8.601	68.746
679732.8	6285672.1	1800	5050	-0.039	4282.820	979606.216	-4.824	20.914	-7.584	8.507	67.771
679768.2	6285636.8	1800	5100	-0.039	4282.983	979606.379	-4.687	20.577	-7.461	8.429	66.678

679803.3	6285601.5	1800	5150	-0.039	4283.165	979606.561	-4.531	20.197	-7.323	8.343	65.447
679838.9	6285566.1	1800	5200	-0.040	4283.408	979606.804	-4.314	19.786	-7.174	8.298	64.114
679874.3	6285530.9	1800	5250	-0.040	4283.630	979607.026	-4.117	19.457	-7.055	8.284	63.049
679909.4	6285495.7	1800	5300	-0.040	4283.905	979607.301	-3.868	19.100	-6.926	8.306	61.892
678809.6	6287155.1	1840	3350	-0.055	4270.583	979593.979	-15.961	36.138	-13.104	7.074	117.103
678847.1	6287124.1	1840	3400	-0.054	4271.188	979594.584	-15.379	35.211	-12.768	7.065	114.099
678886.9	6287090.3	1840	3450	-0.054	4271.894	979595.290	-14.697	34.246	-12.418	7.131	110.972
678918.1	6287049.9	1840	3500	-0.053	4272.495	979595.891	-14.126	33.491	-12.144	7.221	108.524
678954.5	6287017.3	1840	3550	-0.053	4272.902	979596.298	-13.743	33.064	-11.989	7.331	107.141
678990.7	6286980.1	1840	3600	-0.052	4273.363	979596.759	-13.310	32.541	-11.799	7.432	105.446
679025.9	6286945.2	1840	3650	-0.052	4273.825	979597.221	-12.873	31.996	-11.602	7.521	103.681
679061.1	6286909.3	1840	3700	-0.052	4274.381	979597.777	-12.344	31.326	-11.359	7.623	101.510
679096.7	6286873.5	1840	3750	-0.052	4274.890	979598.286	-11.861	30.752	-11.151	7.740	99.650
679131.7	6286838.6	1840	3800	-0.051	4275.271	979598.667	-11.506	30.331	-10.998	7.827	98.286
679167.0	6286803.6	1840	3850	-0.051	4275.598	979598.994	-11.205	29.993	-10.876	7.913	97.190
679202.4	6286767.9	1840	3900	-0.051	4275.916	979599.312	-10.913	29.642	-10.748	7.981	96.054
679238.2	6286732.7	1840	3950	-0.051	4276.273	979599.669	-10.582	29.240	-10.603	8.056	94.752
679272.7	6286697.6	1840	4000	-0.050	4276.642	979600.038	-10.239	28.845	-10.459	8.147	93.472
679308.6	6286662.8	1840	4050	-0.050	4276.991	979600.387	-9.915	28.450	-10.316	8.218	92.189
679344.2	6286626.7	1840	4100	-0.050	4277.352	979600.788	-9.541	28.005	-10.152	8.310	90.749
679379.4	6286590.5	1840	4150	-0.049	4277.738	979601.134	-9.221	27.619	-10.015	8.383	89.497
679415.0	6286556.4	1840	4200	-0.049	4278.075	979601.471	-8.909	27.275	-9.890	8.476	88.384
679449.8	6286521.7	1840	4250	-0.049	4278.411	979601.807	-8.599	26.888	-9.750	8.539	87.129
679484.6	6286486.4	1840	4300	-0.049	4278.783	979602.179	-8.253	26.454	-9.592	8.608	85.721
679523.1	6286451.7	1840	4350	-0.046	4279.173	979602.569	-7.889	25.966	-9.415	8.662	84.140
679555.9	6286414.5	1840	4400	-0.046	4279.412	979602.808	-7.677	25.704	-9.320	8.706	83.291
679590.4	6286380.0	1840	4450	-0.046	4279.682	979603.078	-7.433	25.348	-9.191	8.724	82.140
679626.4	6286343.7	1840	4500	-0.045	4280.018	979603.414	-7.123	24.906	-9.031	8.752	80.706
679662.4	6286308.9	1840	4550	-0.045	4280.328	979603.724	-6.839	24.542	-8.899	8.804	79.526
679697.5	6286273.1	1840	4600	-0.045	4280.626	979604.022	-6.567	24.219	-8.782	8.870	78.480
679732.7	6286237.8	1840	4650	-0.045	4280.967	979604.363	-6.252	23.836	-8.643	8.941	77.238
679768.1	6286202.2	1840	4700	-0.044	4281.303	979604.699	-5.942	23.447	-8.502	9.003	75.980
679803.5	6286167.0	1840	4750	-0.044	4281.561	979604.957	-5.710	23.125	-8.385	9.029	74.935
679838.7	6286131.9	1840	4800	-0.044	4281.831	979605.227	-5.466	22.788	-8.263	9.059	73.844
679874.2	6286096.6	1840	4850	-0.043	4282.142	979605.538	-5.181	22.406	-8.124	9.100	72.604
679909.3	6286061.0	1840	4900	-0.043	4282.383	979605.779	-4.966	22.047	-7.994	9.086	71.441
679945.0	6286026.1	1840	4950	-0.043	4282.619	979606.015	-4.756	21.687	-7.864	9.068	70.277
679980.4	6285989.9	1840	5000	-0.042	4282.823	979606.219	-4.579	21.327	-7.733	9.015	69.110
680015.6	6285954.9	1840	5050	-0.042	4283.015	979606.411	-4.412	20.954	-7.598	8.943	67.899
680051.0	6285919.3	1840	5100	-0.042	4283.105	979606.501	-4.349	20.625	-7.479	8.798	66.833
680086.3	6285884.1	1840	5150	-0.041	4283.116	979606.512	-4.364	20.321	-7.369	8.589	65.850
680121.8	6285848.7	1840	5200	-0.041	4283.086	979606.482	-4.420	20.076	-7.280	8.377	65.054
680157.0	6285813.2	1840	5250	-0.041	4283.112	979606.508	-4.420	19.765	-7.167	8.179	64.048
680157.0	6285813.2	1840	5250	-0.041	4283.112	979606.508	-4.420	19.765	-7.167	8.179	64.048
D143											
676068.2	6284328.7	0	2502	+0.000	4268.024	979591.305	-20.794	45.165	-16.377	7.994	146.354
676068.2	6284328.7	0	2502	+0.001	4268.024	979591.305	-20.794	45.165	-16.377	7.994	146.354
676068.2	6284328.7	0	2502	-0.033	4268.023	979591.305	-20.794	45.165	-16.377	7.994	146.354
676068.2	6284328.7	0	2502	+0.008	4268.056	979591.305	-20.794	45.165	-16.377	7.994	146.354
677718.1	6283724.8	1520	5000	-0.002	4284.580	979607.862	-4.667	20.899	-7.578	8.654	67.723
677752.4	6283692.4	1520	5050	-0.002	4284.734	979608.016	-4.537	20.525	-7.442	8.546	66.509
678707.5	6285000.6	1680	4800	-0.003	4282.638	979605.920	-5.638	21.773	-7.895	8.240	70.553
678742.8	6284965.3	1680	4850	-0.003	4282.893	979606.175	-5.409	21.457	-7.780	8.268	69.530
678849.0	6284859.0	1680	5000	-0.003	4283.744	979607.026	-4.636	20.324	-7.370	8.319	65.860
678884.1	6284823.7	1680	5050	-0.003	4283.991	979607.273	-4.415	19.927	-7.226	8.286	64.572
679415.0	6286556.4	1840	4200	-0.032	4278.178	979601.460	-8.920	27.271	-9.889	8.462	88.370
679061.0	6287474.2	1880	3300	-0.007	4269.904	979593.186	-16.511	37.165	-13.476	7.178	120.431
679096.1	6287440.2	1880	3350	-0.007	4270.841	979594.123	-15.599	35.632	-12.920	7.113	115.464
679131.1	6287404.5	1880	3400	-0.007	4271.282	979594.564	-15.184	34.967	-12.679	7.104	113.310
679162.1	6287363.8	1880	3450	-0.006	4271.848	979595.130	-14.649	34.163	-12.388	7.127	110.702
679198.0	6287329.7	1880	3500	-0.006	4272.068	979595.350	-14.454	33.865	-12.280	7.132	109.738
679238.2	6287298.0	1880	3550	-0.006	4272.483	979595.765	-14.062	33.395	-12.109	7.224	108.215
679273.5	6287263.0	1880	3600	-0.006	4272.885	979596.167	-13.685	32.912	-11.934	7.293	106.651
679308.5	6287228.2	1880	3650	-0.006	4273.316	979596.598	-13.280	32.388	-11.744	7.364	104.950
679343.7	6287192.3	1880	3700	-0.006	4273.741	979597.023	-12.882	31.873	-11.557	7.434	103.282
679378.9	6287157.1	1880	3750	-0.006	4274.170	979597.452	-12.479	31.322	-11.357	7.486	101.497
679414.5	6287121.4	1880	3800	-0.006	4274.670	979597.952	-12.005	30.683	-11.126	7.553	99.428
679449.4	6287086.4	1880	3850	-0.005	4275.127	979598.409	-11.573	30.138	-10.928	7.637	97.661
679485.6	6287050.8	1880	3900	-0.005	4275.602	979598.884	-11.125	29.627	-10.743	7.760	96.005
679520.7	6287015.3	1880	3950	-0.005	4276.002	979599.284	-10.751	29.206	-10.590	7.865	94.640
679556.2	6286980.5	1880	4000	-0.005	4276.353	979599.635	-10.425	28.852	-10.462	7.965	93.493
679591.0	6286944.2	1880	4050	-0.005	4276.735	979600.017	-10.070	28.477	-10.326	8.081	92.279
679625.5	6286909.8	1880	4100	-0.005	4277.116	979600.398	-9.714	28.076	-10.181	8.181	90.980
679661.2	6286875.2	1880	4150	-0.005	4277.528	979600.810	-9.328	27.695	-10.042	8.325	89.744
679697.0	6286839.8	1880	4200	-0.004	4277.970	979601.252	-8.912	27.228	-9.873	8.443	88.230
679733.2	6286803.6	1880	4250	-0.031	4278.348	979601.630	-8.561	26.851	-9.736	8.554	87.009
679767.8	6286767.6	1880	4300	-0.031	4278.647	979601.929	-8.288	26.533	-9.621	8.624	85.980
679803.5	6286732.4	1880	4350	-0.031	4279.012	979602.294	-7.949	26.156	-9.484	8.723	84.757
679839.0	6286697.4	1880	4400	-0.031	4279.386	979602.668	-7.601	25.755	-9.339	8.815	83.459
679873.9	6286661.9	1880	4450	-0.031	4279.739	979603.021	-7.274	25.363	-9.197	8.892	82.187
679909.4	6286626.0	1880	4500	-0.030	4280.013	979603.295	-7.026	25.000	-9.065	8.909	81.011
679945.4	6286590.8	1880	4550	-0.030	4280.386	979603.668	-6.679	24.567	-8.908	8.980	79.608
679980.0	6286555.5	1880	4600	-0.030	4280.627	979603.909	-6.464	24.244	-8.791	8.989	78.561

680016.2	6286520.1	1880	4650	-0.030	4280.893	979604.175	-6.224	23.892	-8.663	9.004	77.421
680050.5	6286486.1	1880	4700	-0.030	4281.049	979604.331	-6.093	23.692	-8.591	9.008	76.773
680086.4	6286449.3	1880	4750	-0.030	4281.350	979604.632	-5.820	23.338	-8.463	9.056	75.626
680121.4	6286414.2	1880	4800	-0.030	4281.627	979604.909	-5.568	22.999	-8.339	9.091	74.526
680157.6	6286378.7	1880	4850	-0.030	4281.922	979605.204	-5.300	22.556	-8.179	9.077	73.090
680192.6	6286344.1	1880	4900	-0.029	4282.163	979605.445	-5.084	22.173	-8.040	9.049	71.849
680227.5	6286308.4	1880	4950	-0.029	4282.252	979605.534	-5.021	21.833	-7.917	8.895	70.750
680263.0	6286273.1	1880	5000	-0.029	4282.277	979605.559	-5.022	21.542	-7.811	8.709	69.804
680299.0	6286237.6	1880	5050	-0.029	4282.311	979605.593	-5.014	21.184	-7.681	8.488	68.644
680334.5	6286202.6	1880	5100	-0.029	4282.369	979605.651	-4.982	20.853	-7.562	8.310	67.574
680369.5	6286166.3	1880	5150	-0.029	4282.403	979605.685	-4.975	20.545	-7.450	8.121	66.575
679308.1	6287793.9	1920	3250	-0.007	4269.640	979592.922	-16.532	36.792	-13.341	6.920	119.223
679344.5	6287758.4	1920	3300	-0.008	4270.462	979593.744	-15.736	35.411	-12.840	6.835	114.747
679379.5	6287722.3	1920	3350	-0.008	4271.223	979594.505	-15.001	34.315	-12.443	6.871	111.197
679415.7	6287687.3	1920	3400	-0.008	4271.875	979595.157	-14.375	33.416	-12.117	6.924	108.282
679449.9	6287651.7	1920	3450	-0.008	4272.341	979595.623	-13.936	32.827	-11.903	6.989	106.375
679485.5	6287616.1	1920	3500	-0.008	4272.682	979595.964	-13.621	32.412	-11.753	7.039	105.028
679520.2	6287581.7	1920	3550	-0.008	4273.101	979596.383	-13.227	31.946	-11.584	7.135	103.518
679556.8	6287546.3	1920	3600	-0.008	4273.451	979596.733	-12.903	31.624	-11.467	7.254	102.477
679591.5	6287510.6	1920	3650	-0.008	4273.848	979597.130	-12.532	31.182	-11.307	7.343	101.042
679627.2	6287475.2	1920	3700	-0.009	4274.244	979597.526	-12.162	30.776	-11.159	7.454	99.727
679661.4	6287440.3	1920	3750	-0.009	4274.640	979597.922	-11.792	30.386	-11.018	7.576	98.464
679697.4	6287404.2	1920	3800	-0.009	4275.129	979598.411	-11.330	29.843	-10.821	7.692	96.706
679733.3	6287369.9	1920	3850	-0.009	4275.553	979598.835	-10.931	29.418	-10.667	7.820	95.328
679768.4	6287333.1	1920	3900	-0.009	4275.979	979599.261	-10.532	28.953	-10.499	7.923	93.822
679803.3	6287298.6	1920	3950	-0.009	4276.424	979599.706	-10.112	28.494	-10.332	8.050	92.332
679838.8	6287263.1	1920	4000	-0.009	4276.894	979600.176	-9.669	28.029	-10.163	8.197	90.826
679874.3	6287227.7	1920	4050	-0.009	4277.285	979600.567	-9.304	27.599	-10.008	8.288	89.434
679909.7	6287192.0	1920	4100	-0.010	4277.601	979600.883	-9.014	27.221	-9.870	8.337	88.207
679944.9	6287157.3	1920	4150	-0.010	4277.869	979601.151	-8.771	26.994	-9.788	8.435	87.474
679980.6	6287122.0	1920	4200	-0.010	4278.309	979601.591	-8.357	26.523	-9.617	8.548	85.946
680015.0	6287087.1	1920	4250	-0.026	4278.710	979601.992	-7.982	26.095	-9.462	8.651	84.558
680050.8	6287050.3	1920	4300	-0.026	4279.078	979602.360	-7.641	25.739	-9.333	8.765	83.405
680086.3	6287015.8	1920	4350	-0.026	4279.482	979602.764	-7.262	25.357	-9.195	8.900	82.168
680122.0	6286979.4	1920	4400	-0.026	4279.809	979603.091	-6.962	25.000	-9.065	8.972	81.010
680156.1	6286943.3	1920	4450	-0.027	4280.158	979603.440	-6.640	24.588	-8.916	9.033	79.677
680192.3	6286908.4	1920	4500	-0.027	4280.485	979603.767	-6.339	24.186	-8.770	9.078	78.373
680227.6	6286873.2	1920	4550	-0.027	4280.489	979603.771	-6.361	24.154	-8.758	9.035	78.268
680262.6	6286838.9	1920	4600	-0.027	4280.731	979604.013	-6.144	23.799	-8.629	9.025	77.118
680298.5	6286803.8	1920	4650	-0.027	4280.992	979604.274	-5.909	23.417	-8.491	9.017	75.882
680333.6	6286768.2	1920	4700	-0.027	4281.204	979604.486	-5.723	23.019	-8.347	8.950	74.591
680369.1	6286732.8	1920	4750	-0.027	4281.409	979604.691	-5.544	22.674	-8.222	8.909	73.475
680404.1	6286696.8	1920	4800	-0.028	4281.500	979604.782	-5.479	22.371	-8.112	8.780	72.493
680440.0	6286662.0	1920	4850	-0.028	4281.594	979604.876	-5.411	22.012	-7.982	8.619	71.328
680476.2	6286627.4	1920	4900	-0.028	4281.653	979604.935	-5.377	21.649	-7.850	8.422	70.152
680510.5	6286591.2	1920	4950	-0.028	4281.724	979605.006	-5.333	21.306	-7.726	8.247	69.040
680545.7	6286555.6	1920	5000	-0.028	4281.808	979605.090	-5.275	20.927	-7.588	8.064	67.812
680581.3	6286521.1	1920	5050	-0.028	4281.856	979605.138	-5.253	20.651	-7.488	7.911	66.919
680616.5	6286485.3	1920	5100	-0.028	4281.923	979605.205	-5.212	20.373	-7.387	7.774	66.017
679554.8	6288112.5	1960	3200	-0.014	4269.382	979592.664	-16.547	36.607	-13.274	6.786	118.622
679591.3	6288076.5	1960	3250	-0.014	4269.957	979593.239	-15.999	35.406	-12.838	6.569	114.732
679626.6	6288040.9	1960	3300	-0.014	4270.612	979593.894	-15.370	34.418	-12.480	6.568	111.529
679661.7	6288005.3	1960	3350	-0.014	4271.274	979594.556	-14.734	33.477	-12.139	6.604	108.479
679698.1	6287970.3	1960	3400	-0.014	4271.803	979595.085	-14.231	32.845	-11.910	6.704	106.433
679732.2	6287935.1	1960	3450	-0.014	4272.361	979595.643	-13.699	32.211	-11.680	6.832	104.379
679767.6	6287899.2	1960	3500	-0.013	4272.905	979596.187	-13.181	31.627	-11.468	6.978	102.487
679804.1	6287864.6	1960	3550	-0.013	4273.515	979596.797	-12.597	30.997	-11.240	7.161	100.443
679838.7	6287828.2	1960	3600	-0.013	4274.120	979597.402	-12.018	30.368	-11.011	7.338	98.405
679873.9	6287793.3	1960	3650	-0.013	4274.589	979597.871	-11.575	29.890	-10.838	7.477	96.858
679909.5	6287757.9	1960	3700	-0.013	4275.029	979598.311	-11.162	29.469	-10.686	7.622	95.492
679944.5	6287722.1	1960	3750	-0.013	4275.448	979598.730	-10.769	29.067	-10.540	7.759	94.190
679980.6	6287687.4	1960	3800	-0.013	4275.769	979599.051	-10.473	28.789	-10.439	7.877	93.288
680015.0	6287652.2	1960	3850	-0.012	4276.230	979599.512	-10.038	28.311	-10.266	8.007	91.740
680050.9	6287616.3	1960	3900	-0.012	4276.649	979599.931	-9.646	27.986	-10.148	8.193	90.688
680086.0	6287581.1	1960	3950	-0.012	4277.043	979600.325	-9.277	27.647	-10.025	8.345	89.589
680122.1	6287546.3	1960	4000	-0.012	4277.474	979600.756	-8.872	27.273	-9.889	8.512	88.377
680156.8	6287511.0	1960	4050	-0.012	4277.860	979601.142	-8.512	26.888	-9.750	8.627	87.130
680192.6	6287475.3	1960	4100	-0.012	4278.283	979601.565	-8.115	26.438	-9.587	8.736	85.672
680227.8	6287440.1	1960	4150	-0.025	4278.621	979601.903	-7.803	26.059	-9.449	8.807	84.442
680263.0	6287403.7	1960	4200	-0.025	4278.926	979602.208	-7.525	25.735	-9.332	8.878	83.392
680298.6	6287368.9	1960	4250	-0.025	4279.201	979602.483	-7.276	25.410	-9.214	8.921	82.340
680334.1	6287333.6	1960	4300	-0.024	4279.544	979602.826	-6.959	25.056	-9.085	9.012	81.192
680369.4	6287298.1	1960	4350	-0.024	4279.809	979603.091	-6.720	24.728	-8.967	9.042	80.130
680404.4	6287262.9	1960	4400	-0.024	4280.048	979603.330	-6.507	24.402	-8.848	9.047	79.072
680439.6	6287227.7	1960	4450	-0.024	4280.304	979603.586	-6.277	24.090	-8.735	9.078	78.062
680475.2	6287192.4	1960	4500	-0.024	4280.550	979603.832	-6.057	23.775	-8.621	9.098	77.043
680511.1	6287157.0	1960	4550	-0.024	4280.793	979604.075	-5.840	23.440	-8.500	9.101	75.957
680546.1	6287121.9	1960	4600	-0.024	4281.049	979604.331	-5.609	23.111	-8.380	9.122	74.890
680581.5	6287086.4	1960	4650	-0.024	4281.148	979604.430	-5.536	22.822	-8.275	9.010	73.954
680616.3	6287050.7	1960	4700	-0.023	4281.186	979604.468	-5.525	22.521	-8.166	8.830	72.978
680651.8	6287015.6	1960	4750	-0.023	4281.146	979604.428	-5.591	22.243	-8.065	8.587	72.077
680687.4	6286978.5	1960	4800	-0.023	4281.127	979604.409	-5.637	21.932	-7.953	8.342	71.069
680722.9	6286945.1	1960	4850	-0.023	4281.161	979604.443	-5.628	21.595	-7.831	8.137	69.978

680758.6	6286909.2	1960	4900	-0.023	4281.168	979604.450	-5.647	21.307	-7.726	7.934	69.043
680793.4	6286874.5	1960	4950	-0.023	4281.269	979604.551	-5.572	20.936	-7.592	7.773	67.843
680829.3	6286839.0	1960	5000	-0.023	4281.349	979604.631	-5.518	20.610	-7.473	7.619	66.785
680864.9	6286803.0	1960	5050	-0.023	4281.460	979604.742	-5.433	20.316	-7.367	7.516	65.832
679800.9	6288427.6	2000	3150	-0.015	4269.112	979592.394	-16.578	36.789	-13.340	6.871	119.212
679836.6	6288394.7	2000	3200	-0.015	4269.355	979592.637	-16.359	36.179	-13.119	6.701	117.235
679879.9	6288362.3	2000	3250	-0.016	4269.847	979593.129	-15.890	35.425	-12.845	6.690	114.794
679907.2	6288322.4	2000	3300	-0.016	4270.208	979593.490	-15.559	35.002	-12.692	6.751	113.421
679944.1	6288287.5	2000	3350	-0.016	4270.619	979593.901	-15.173	34.487	-12.505	6.809	111.754
679980.4	6288253.0	2000	3400	-0.016	4271.130	979594.412	-14.688	33.914	-12.297	6.929	109.895
680015.6	6288217.8	2000	3450	-0.016	4271.611	979594.893	-14.233	33.395	-12.109	7.053	108.215
680050.9	6288182.4	2000	3500	-0.017	4272.160	979595.442	-13.710	32.843	-11.909	7.224	106.427
680086.0	6288147.1	2000	3550	-0.017	4272.803	979596.085	-13.093	32.201	-11.676	7.432	104.346
680121.7	6288111.5	2000	3600	-0.017	4273.344	979596.626	-12.578	31.706	-11.497	7.632	102.743
680157.1	6288076.5	2000	3650	-0.017	4273.801	979597.083	-12.147	31.297	-11.349	7.802	101.417
680192.1	6288041.2	2000	3700	-0.017	4274.402	979597.684	-11.572	30.735	-11.145	8.018	99.595
680226.9	6288005.4	2000	3750	-0.017	4274.831	979598.113	-11.169	30.330	-10.998	8.163	98.283
680263.9	6287970.3	2000	3800	-0.018	4275.522	979598.804	-10.504	29.659	-10.754	8.400	96.107
680297.8	6287935.0	2000	3850	-0.018	4276.052	979599.334	-10.000	29.166	-10.576	8.590	94.511
680333.7	6287900.1	2000	3900	-0.018	4276.403	979599.685	-9.675	28.854	-10.463	8.717	93.499
680369.3	6287864.5	2000	3950	-0.018	4276.796	979600.078	-9.308	28.440	-10.312	8.820	92.158
680404.5	6287829.4	2000	4000	-0.018	4277.131	979600.413	-8.999	28.074	-10.180	8.895	90.971
680439.4	6287793.3	2000	4050	-0.018	4277.463	979600.745	-8.693	27.661	-10.030	8.938	89.633
680474.5	6287758.5	2000	4100	-0.018	4277.721	979601.003	-8.461	27.330	-9.910	8.959	88.561
680510.7	6287722.5	2000	4150	-0.019	4278.027	979601.309	-8.182	26.939	-9.768	8.989	87.293
680545.7	6287687.5	2000	4200	-0.019	4278.363	979601.645	-7.871	26.518	-9.616	9.031	85.931
680581.4	6287651.6	2000	4250	-0.019	4278.591	979601.873	-7.670	26.198	-9.500	9.029	84.893
680616.3	6287616.3	2000	4300	-0.020	4278.870	979602.152	-7.417	25.736	-9.332	8.987	83.396
680653.8	6287581.4	2000	4350	-0.020	4279.088	979602.370	-7.224	25.289	-9.170	8.895	81.947
680687.5	6287547.2	2000	4400	-0.021	4279.293	979602.575	-7.044	24.920	-9.036	8.840	80.752
680723.5	6287511.1	2000	4450	-0.021	4279.403	979602.685	-6.961	24.562	-8.906	8.695	79.593
680757.6	6287475.2	2000	4500	-0.021	4279.554	979602.836	-6.836	24.147	-8.756	8.555	78.247
680793.8	6287440.0	2000	4550	-0.021	4279.615	979602.897	-6.801	23.783	-8.624	8.358	77.069
680828.7	6287404.0	2000	4600	-0.021	4279.657	979602.939	-6.786	23.440	-8.500	8.155	75.957
680864.8	6287368.8	2000	4650	-0.021	4279.734	979603.016	-6.735	23.075	-8.367	7.973	74.772
680899.8	6287333.9	2000	4700	-0.021	4279.770	979603.052	-6.724	22.746	-8.248	7.774	73.708
680935.8	6287297.1	2000	4750	-0.021	4279.764	979603.046	-6.758	22.454	-8.142	7.554	72.760
680971.0	6287263.1	2000	4800	-0.022	4279.906	979603.188	-6.641	22.045	-7.994	7.411	71.437
681005.6	6287227.6	2000	4850	-0.022	4279.987	979603.269	-6.586	21.741	-7.883	7.272	70.449
681040.9	6287192.1	2000	4900	-0.022	4280.051	979603.333	-6.548	21.473	-7.786	7.139	69.583
681075.8	6287156.8	2000	4950	-0.022	4280.106	979603.388	-6.519	21.306	-7.726	7.062	69.042
681112.3	6287121.6	2000	5000	-0.022	4280.227	979603.509	-6.424	21.053	-7.634	6.995	68.220
681112.3	6287121.6	2000	5000	-0.022	4280.227	979603.509	-6.424	21.053	-7.634	6.995	68.220

Bald Hill

AMG84 E	ZONE 53 N	GRID Line	Stn	drift	corr'd meter	obs mgal	anom	freeair corr	bouguer corr (2.67)	bouguer anom	height (AHD)
D145											
572400.5	6183266.0	0	2503	+0.000	4341.887	979664.970	-24.524	82.875	-30.051	28.300	268.552
572400.5	6183266.0	0	2503	-0.001	4341.887	979664.970	-24.524	82.875	-30.051	28.300	268.552
572400.5	6183266.0	0	2503	+0.018	4341.888	979664.970	-24.524	82.875	-30.051	28.300	268.552
572400.5	6183266.0	0	2503	+0.000	4341.870	979664.970	-24.524	82.875	-30.051	28.300	268.552
572387.4	6183429.2	8343	7239	+0.007	4348.932	979672.014	-17.356	72.896	-26.432	29.108	236.215
572435.8	6183430.2	8343	7244	+0.007	4348.454	979671.536	-17.833	73.579	-26.680	29.066	238.428
572487.9	6183426.9	8343	7249	+0.008	4346.211	979669.293	-20.078	76.233	-27.642	28.513	247.028
572540.6	6183428.4	8343	7254	+0.008	4342.614	979665.696	-23.674	80.795	-29.297	27.825	261.812
572589.3	6183429.2	8343	7259	+0.008	4342.347	979665.429	-23.940	80.898	-29.334	27.624	262.145
572639.5	6183429.0	8343	7264	+0.009	4342.121	979665.203	-24.166	80.604	-29.227	27.211	261.193
572688.6	6183429.3	8343	7269	+0.009	4342.764	979665.846	-23.522	79.842	-28.951	27.369	258.722
572739.7	6183430.0	8343	7274	+0.009	4343.764	979666.846	-22.521	78.273	-28.382	27.369	253.638
572789.1	6183429.1	8343	7279	+0.009	4345.267	979668.349	-21.019	75.873	-27.512	27.342	245.862
572838.9	6183429.8	8343	7284	+0.010	4346.891	979669.973	-19.394	73.301	-26.579	27.328	237.526
571836.4	6183835.1	8383	7184	+0.017	4361.281	979684.363	-4.701	54.838	-19.885	30.252	177.700
571889.4	6183829.6	8383	7189	+0.016	4360.595	979683.677	-5.392	55.479	-20.117	29.971	179.778
571939.5	6183829.2	8383	7194	+0.016	4360.208	979683.290	-5.779	56.152	-20.361	30.013	181.958
571989.4	6183829.1	8383	7199	+0.015	4359.373	979682.455	-6.613	57.334	-20.790	29.932	185.789
572039.5	6183829.1	8383	7204	+0.015	4358.451	979681.533	-7.535	58.831	-21.332	29.964	190.638
572089.7	6183829.3	8383	7209	+0.015	4358.228	979681.310	-7.758	59.240	-21.481	30.002	191.965
572139.8	6183829.2	8383	7214	+0.015	4358.158	979681.240	-7.827	59.148	-21.447	29.874	191.667
572189.6	6183829.2	8383	7219	+0.014	4357.058	979680.140	-8.927	60.464	-21.924	29.613	195.929
572239.5	6183829.1	8383	7224	+0.014	4355.507	979678.589	-10.478	62.718	-22.742	29.499	203.234
572289.4	6183829.2	8383	7229	+0.014	4353.920	979677.002	-12.064	64.784	-23.491	29.229	209.930
572339.2	6183829.1	8383	7234	+0.014	4352.514	979675.596	-13.470	66.732	-24.197	29.064	216.240
572389.3	6183829.3	8383	7239	+0.014	4351.028	979674.110	-14.956	68.649	-24.892	28.801	222.453
572438.2	6183829.6	8383	7244	+0.013	4349.815	979672.897	-16.168	69.797	-25.309	28.320	226.174
572491.7	6183826.5	8383	7249	+0.013	4348.825	979671.907	-17.160	70.863	-25.695	28.007	229.626
572539.4	6183829.1	8383	7254	+0.012	4348.658	979671.740	-17.325	70.873	-25.699	27.850	229.661

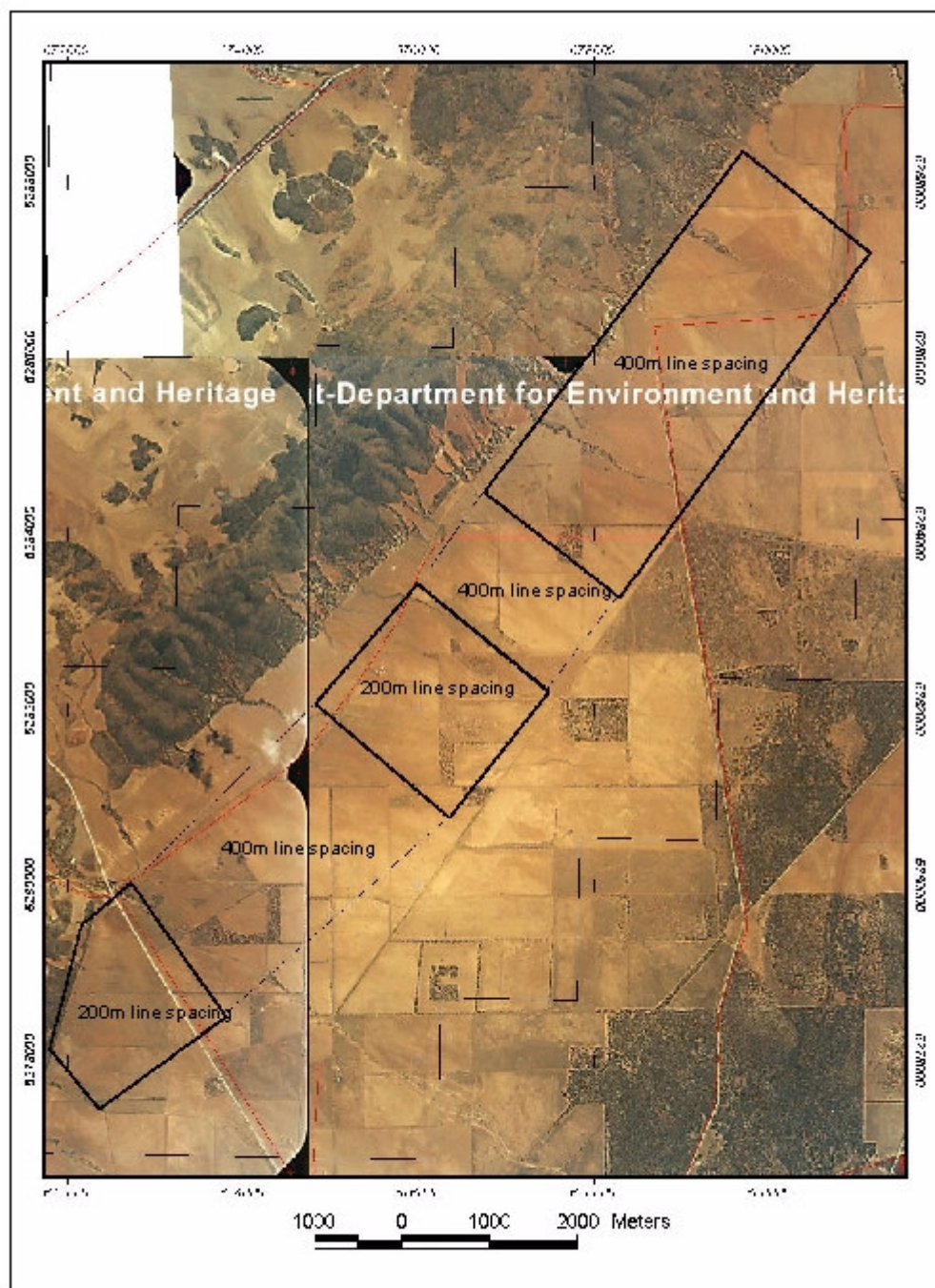
572589.1	6183829.1	8383	7259	+0.012	4349.065	979672.147	-16.918	70.422	-25.535	27.969	228.197
572639.2	6183829.2	8383	7264	+0.012	4349.221	979672.303	-16.761	70.040	-25.397	27.882	226.961
572688.6	6183829.9	8383	7269	+0.012	4349.021	979672.103	-16.960	69.950	-25.364	27.625	226.668
572741.2	6183830.3	8383	7274	+0.012	4348.552	979671.634	-17.429	70.232	-25.466	27.337	227.583
572785.5	6183828.9	8383	7279	+0.011	4348.874	979671.956	-17.108	69.434	-25.177	27.149	224.996
572841.2	6183837.2	8383	7284	+0.011	4350.249	979673.331	-15.726	67.407	-24.442	27.239	218.429
D146											
572400.5	6183266.0	0	2503	+0.000	4341.957	979664.970	-24.524	82.875	-30.051	28.300	268.552
572400.5	6183266.0	0	2503	-0.001	4341.957	979664.970	-24.524	82.875	-30.051	28.300	268.552
572400.5	6183266.0	0	2503	-0.006	4341.958	979664.970	-24.524	82.875	-30.051	28.300	268.552
572400.5	6183266.0	0	2503	-0.005	4341.964	979664.970	-24.524	82.875	-30.051	28.300	268.552
571039.9	6182629.1	8263	7104	-0.005	4357.087	979680.099	-9.888	62.799	-22.771	30.140	203.497
571089.7	6182629.4	8263	7109	-0.005	4357.360	979680.372	-9.614	62.439	-22.641	30.184	202.329
571139.6	6182629.2	8263	7114	-0.005	4357.813	979680.825	-9.161	61.922	-22.453	30.308	200.656
571189.8	6182629.2	8263	7119	-0.005	4358.288	979681.300	-8.686	61.535	-22.313	30.536	199.399
571239.8	6182629.1	8263	7124	-0.005	4358.749	979681.761	-8.224	61.081	-22.148	30.709	197.929
571289.7	6182629.2	8263	7129	-0.005	4358.461	979681.473	-8.512	61.470	-22.289	30.669	199.191
571342.0	6182624.8	8263	7134	-0.005	4357.050	979680.062	-9.926	63.484	-23.020	30.539	205.716
571390.8	6182634.4	8263	7139	-0.005	4356.050	979679.062	-10.918	64.908	-23.536	30.453	210.329
571438.9	6182630.9	8263	7144	-0.005	4355.901	979678.913	-11.070	65.072	-23.595	30.407	210.862
571541.3	6182633.4	8263	7154	-0.006	4355.848	979678.860	-11.120	64.690	-23.457	30.113	209.625
571589.2	6182622.5	8263	7159	-0.006	4355.824	979678.836	-11.152	64.542	-23.403	29.987	209.145
571040.3	6183029.5	8303	7104	-0.005	4352.881	979675.893	-13.789	68.475	-24.829	29.857	221.889
571089.6	6183029.2	8303	7109	-0.005	4353.901	979676.913	-12.769	66.975	-24.285	29.921	217.027
571139.7	6183029.2	8303	7114	-0.005	4355.033	979678.045	-11.636	65.427	-23.724	30.066	212.011
571189.6	6183029.1	8303	7119	-0.005	4355.750	979678.762	-10.919	63.896	-23.169	29.808	207.052
571239.8	6183029.3	8303	7124	-0.005	4356.715	979679.727	-9.954	62.312	-22.595	29.764	201.918
571289.7	6183028.7	8303	7129	-0.005	4357.716	979680.728	-8.953	60.966	-22.106	29.906	197.556
571339.7	6183029.1	8303	7134	-0.005	4358.809	979681.821	-7.860	59.768	-21.672	30.237	193.676
571392.7	6183027.4	8303	7139	-0.004	4359.840	979682.852	-6.829	58.576	-21.240	30.507	189.811
571440.4	6183019.7	8303	7144	-0.004	4359.519	979682.531	-7.156	58.569	-21.237	30.176	189.790
571485.3	6183030.3	8303	7149	-0.004	4358.825	979681.837	-7.842	59.474	-21.566	30.067	192.722
571541.0	6183027.7	8303	7154	-0.004	4358.058	979681.070	-8.611	60.705	-22.012	30.083	196.711
571589.9	6183033.7	8303	7159	-0.004	4357.725	979680.737	-8.938	61.247	-22.209	30.100	198.468
571639.9	6183028.8	8303	7164	-0.004	4357.846	979680.858	-8.821	60.944	-22.098	30.024	197.484
571686.4	6183032.3	8303	7169	-0.004	4358.350	979681.362	-8.314	59.932	-21.732	29.886	194.206
571739.4	6183026.6	8303	7174	-0.004	4359.468	979682.480	-7.200	58.426	-21.185	30.041	189.325
571788.4	6183036.9	8303	7179	-0.004	4359.622	979682.634	-7.038	58.179	-21.096	30.045	188.524
571839.0	6183029.1	8303	7184	-0.004	4358.699	979681.711	-7.967	59.593	-21.609	30.018	193.108
571887.2	6183026.9	8303	7189	-0.004	4357.891	979680.903	-8.776	60.741	-22.025	29.940	196.827
571943.6	6183029.2	8303	7194	-0.004	4357.082	979680.094	-9.583	62.127	-22.528	30.017	201.320
571989.5	6183029.3	8303	7199	-0.004	4356.686	979679.698	-9.979	63.188	-22.912	30.297	204.756
571040.0	6183428.9	8343	7104	-0.002	4352.187	979675.199	-14.179	68.547	-24.855	29.512	222.122
571089.8	6183429.3	8343	7109	-0.002	4351.378	979674.390	-14.987	70.022	-25.390	29.645	226.903
571139.7	6183429.2	8343	7114	-0.002	4349.865	979672.877	-16.500	72.028	-26.118	29.410	233.403
571189.8	6183429.3	8343	7119	-0.002	4348.674	979671.686	-17.691	73.459	-26.637	29.132	238.041
571237.8	6183429.6	8343	7124	-0.002	4349.286	979672.298	-17.078	72.439	-26.267	29.094	234.733
571294.2	6183427.1	8343	7129	-0.002	4350.947	979673.959	-15.419	70.117	-25.425	29.273	227.210
571339.2	6183429.2	8343	7134	-0.002	4352.044	979675.056	-14.320	68.573	-24.865	29.388	222.208
571389.4	6183429.1	8343	7139	-0.002	4353.893	979676.905	-12.471	66.039	-23.946	29.622	213.996
571439.6	6183429.2	8343	7144	-0.002	4355.596	979678.608	-10.767	63.490	-23.022	29.701	205.737
571489.6	6183429.4	8343	7149	-0.002	4356.796	979679.808	-9.567	61.379	-22.256	29.555	198.894
571539.2	6183429.1	8343	7154	-0.002	4357.794	979680.806	-8.569	59.737	-21.661	29.507	193.574
571590.8	6183429.1	8343	7159	-0.002	4358.917	979681.929	-7.446	58.059	-21.052	29.561	188.137
571639.7	6183429.2	8343	7164	-0.002	4360.132	979683.144	-6.230	56.676	-20.551	29.895	183.655
571689.5	6183429.3	8343	7169	-0.002	4360.981	979683.993	-5.381	55.772	-20.223	30.168	180.725
571739.6	6183429.2	8343	7174	-0.002	4360.816	979683.828	-5.546	55.954	-20.289	30.119	181.315
571789.5	6183429.1	8343	7179	-0.003	4360.427	979683.439	-5.935	56.434	-20.463	30.036	182.871
571840.2	6183428.6	8343	7184	-0.003	4359.904	979682.916	-6.458	57.014	-20.673	29.883	184.750
571889.4	6183429.2	8343	7189	-0.003	4359.373	979682.385	-6.988	57.867	-20.983	29.896	187.513
571939.7	6183419.5	8343	7194	-0.003	4358.705	979681.717	-7.663	59.432	-21.550	30.219	192.587
571989.5	6183429.2	8343	7199	-0.003	4357.837	979680.849	-8.523	60.973	-22.109	30.341	197.581
572039.4	6183429.5	8343	7204	-0.003	4356.887	979679.899	-9.473	62.295	-22.588	30.234	201.863
572089.4	6183429.2	8343	7209	-0.003	4355.910	979678.922	-10.450	63.836	-23.147	30.240	206.858
572139.5	6183429.1	8343	7214	-0.003	4354.755	979677.767	-11.605	65.634	-23.799	30.230	212.682
572189.4	6183429.1	8343	7219	-0.003	4353.236	979676.248	-13.123	67.593	-24.510	29.960	219.031
572239.4	6183429.1	8343	7224	-0.003	4351.436	979674.448	-14.923	69.557	-25.222	29.413	225.396
572289.9	6183429.0	8343	7229	-0.003	4349.807	979672.819	-16.552	71.531	-25.937	29.042	231.791
572341.6	6183429.1	8343	7234	-0.003	4349.081	979672.093	-17.277	72.592	-26.322	28.993	235.231
571039.8	6183829.1	8383	7104	-0.002	4353.913	979676.925	-12.149	62.315	-22.596	27.571	201.928
571089.9	6183829.0	8383	7109	-0.002	4353.325	979676.337	-12.736	63.737	-23.111	27.889	206.536
571139.6	6183828.9	8383	7114	-0.002	4353.128	979676.140	-12.933	64.446	-23.368	28.144	208.832
571189.7	6183829.0	8383	7119	-0.001	4352.950	979675.962	-13.111	64.721	-23.468	28.142	209.725
571239.9	6183829.1	8383	7124	-0.001	4353.192	979676.204	-12.868	64.717	-23.466	28.382	209.710
571289.8	6183829.2	8383	7129	-0.001	4353.808	979676.820	-12.252	64.475	-23.379	28.844	208.927
571339.3	6183829.0	8383	7134	-0.001	4354.619	979677.631	-11.441	63.820	-23.142	29.238	206.806
571389.6	6183829.3	8383	7139	-0.001	4355.397	979678.409	-10.662	62.895	-22.806	29.427	203.808
571439.7	6183829.2	8383	7144	-0.001	4356.128	979679.140	-9.931	61.884	-22.439	29.513	200.531
571489.6	6183829.3	8383	7149	-0.001	4356.834	979679.846	-9.225	60.898	-22.082	29.591	197.336
571539.7	6183829.2	8383	7154	-0.001	4357.320	979680.332	-8.739	60.022	-21.764	29.519	194.499
571589.6	6183829.2	8383	7159	-0.001	4357.897	979680.909	-8.161	59.181	-21.459	29.560	191.771
571639.5	6183829.3	8383	7164	-0.001	4358.646	979681.658	-7.412	58.188	-21.099	29.677	188.555
571689.5	6183829.2	8383	7169	-0.001	4359.896	979682.908	-6.162	56.274	-20.405	29.707	182.354

571739.7	6183829.1	8383	7174	-0.001	4361.134	979684.146	-4.924	54.751	-19.853	29.974	177.416
571790.4	6183828.8	8383	7179	-0.001	4361.771	979684.783	-4.286	54.189	-19.649	30.253	175.596
571889.4	6183829.6	8383	7189	+0.000	4360.681	979683.693	-5.376	55.483	-20.118	29.989	179.788
571939.5	6183829.2	8383	7194	+0.000	4360.263	979683.275	-5.794	56.152	-20.361	29.998	181.958
D147											
572400.5	6183266.0	0	2503	+0.000	4342.039	979664.970	-24.524	82.875	-30.051	28.300	268.552
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571040.0	6181425.6	8143	7104	-0.029	4354.226	979677.154	-13.748	67.250	-24.385	29.117	217.919
571089.5	6181429.2	8143	7109	-0.029	4353.277	979676.205	-14.694	68.557	-24.859	29.004	222.154
571139.7	6181428.8	8143	7114	-0.029	4352.598	979675.526	-15.373	69.698	-25.273	29.052	225.852
571189.7	6181429.1	8143	7119	-0.029	4352.232	979675.160	-15.739	70.228	-25.465	29.024	227.569
571239.8	6181428.9	8143	7124	-0.029	4352.045	979674.973	-15.925	70.291	-25.488	28.878	227.775
571289.6	6181429.0	8143	7129	-0.028	4352.098	979675.026	-15.872	70.110	-25.422	28.816	227.186
571339.7	6181429.3	8143	7134	-0.028	4351.199	979674.127	-16.771	71.331	-25.865	28.696	231.145
571389.4	6181429.2	8143	7139	-0.028	4350.308	979673.236	-17.661	72.539	-26.303	28.575	235.057
571439.7	6181429.1	8143	7144	-0.028	4349.474	979672.402	-18.495	73.482	-26.645	28.342	238.114
571489.7	6181429.0	8143	7149	-0.028	4348.949	979671.877	-19.020	73.871	-26.786	28.065	239.373
571539.6	6181428.3	8143	7154	-0.028	4348.662	979671.590	-19.307	73.868	-26.785	27.776	239.364
571589.5	6181429.2	8143	7159	-0.027	4348.524	979671.452	-19.444	73.497	-26.650	27.403	238.163
571639.5	6181429.4	8143	7164	-0.027	4349.084	979672.012	-18.884	72.424	-26.261	27.279	234.685
571689.4	6181423.9	8143	7169	-0.027	4350.393	979673.321	-17.579	70.439	-25.541	27.319	228.253
571739.9	6181394.2	8143	7174	-0.027	4349.996	979672.924	-17.998	70.880	-25.701	27.181	229.681
571792.0	6181361.0	8143	7179	-0.027	4348.884	979671.812	-19.135	72.145	-26.160	26.850	233.782
571888.1	6181421.5	8143	7189	-0.025	4353.211	979676.139	-14.761	65.674	-23.814	27.099	212.813
571939.6	6181428.2	8143	7194	-0.025	4353.437	979676.365	-14.530	65.472	-23.741	27.202	212.159
571989.4	6181429.1	8143	7199	-0.025	4353.363	979676.291	-14.603	65.408	-23.717	27.088	211.951
572039.7	6181429.4	8143	7204	-0.025	4352.922	979675.850	-15.043	66.083	-23.962	27.077	214.137
572086.6	6181429.3	8143	7209	-0.024	4354.236	979677.164	-13.729	64.303	-23.316	27.257	208.369
572133.9	6181434.5	8143	7214	-0.024	4354.945	979677.873	-13.016	63.355	-22.973	27.366	205.298
572186.4	6181432.4	8143	7219	-0.024	4354.055	979676.983	-13.907	64.525	-23.397	27.221	209.090
572242.4	6181434.4	8143	7224	-0.023	4351.578	979674.506	-16.382	68.070	-24.683	27.006	220.578
571039.8	6181829.0	8183	7104	-0.030	4353.872	979676.800	-13.795	69.211	-25.096	30.320	224.274
571089.8	6181829.2	8183	7109	-0.030	4353.855	979676.783	-13.812	69.275	-25.119	30.344	224.481
571139.7	6181829.3	8183	7114	-0.030	4353.932	979676.860	-13.734	68.888	-24.979	30.174	223.226
571189.8	6181829.1	8183	7119	-0.030	4353.814	979676.742	-13.852	68.874	-24.974	30.048	223.181
571239.6	6181829.1	8183	7124	-0.030	4353.584	979676.512	-14.082	69.134	-25.068	29.984	224.024
571289.6	6181828.3	8183	7129	-0.019	4353.337	979676.265	-14.329	69.489	-25.197	29.963	225.174
571339.7	6181829.2	8183	7134	-0.019	4353.151	979676.079	-14.514	69.807	-25.312	29.980	226.204
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571439.6	6181829.3	8183	7144	-0.020	4353.219	979676.147	-14.446	69.505	-25.203	29.857	225.226
571489.6	6181829.2	8183	7149	-0.020	4353.178	979676.106	-14.487	69.554	-25.221	29.847	225.385
571539.6	6181829.2	8183	7154	-0.020	4353.048	979675.976	-14.616	69.826	-25.319	29.891	226.266
571589.4	6181829.2	8183	7159	-0.020	4352.739	979675.667	-14.925	70.069	-25.407	29.737	227.054
571639.7	6181829.2	8183	7164	-0.020	4352.266	979675.194	-15.398	70.318	-25.497	29.423	227.860
571689.6	6181829.2	8183	7169	-0.020	4351.773	979674.701	-15.890	70.614	-25.605	29.119	228.820
571739.6	6181829.3	8183	7174	-0.021	4351.231	979674.159	-16.432	70.935	-25.721	28.782	229.860
571787.7	6181828.8	8183	7179	-0.021	4350.919	979673.847	-16.744	70.985	-25.740	28.502	230.024
571840.9	6181829.3	8183	7184	-0.021	4350.523	979673.451	-17.139	71.081	-25.774	28.168	230.335
571889.7	6181829.3	8183	7189	-0.021	4350.178	979673.106	-17.484	71.129	-25.792	27.853	230.488
571939.7	6181829.4	8183	7194	-0.021	4349.959	979672.887	-17.703	71.155	-25.801	27.652	230.575
571989.5	6181829.1	8183	7199	-0.022	4349.787	979672.715	-17.875	71.111	-25.785	27.451	230.432
572039.4	6181829.2	8183	7204	-0.022	4349.566	979672.494	-18.095	71.000	-25.745	27.160	230.071
572089.4	6181829.1	8183	7209	-0.022	4349.316	979672.244	-18.345	71.134	-25.793	26.996	230.505
572139.6	6181828.9	8183	7214	-0.022	4349.021	979671.949	-18.640	71.559	-25.948	26.972	231.884
572189.6	6181829.2	8183	7219	-0.022	4348.707	979671.635	-18.953	71.990	-26.104	26.933	233.278
572239.4	6181829.5	8183	7224	-0.022	4348.490	979671.418	-19.170	72.273	-26.206	26.897	234.196
571039.8	6182229.4	8223	7104	-0.017	4354.038	979676.966	-13.325	68.568	-24.863	30.381	222.192
571089.6	6182229.3	8223	7109	-0.017	4354.561	979677.489	-12.801	67.814	-24.590	30.423	219.746
571139.7	6182229.3	8223	7114	-0.018	4355.383	979678.311	-11.979	66.778	-24.214	30.585	216.389
571188.6	6182228.5	8223	7119	-0.018	4356.211	979679.139	-11.151	65.723	-23.832	30.741	212.973
571239.9	6182246.7	8223	7124	-0.033	4355.541	979678.469	-11.807	66.280	-24.033	30.439	214.776
571291.1	6182229.1	8223	7129	-0.033	4354.974	979677.902	-12.387	67.110	-24.334	30.388	217.466
571340.8	6182229.9	8223	7134	-0.034	4354.962	979677.890	-12.398	67.082	-24.324	30.359	217.375
571389.7	6182184.6	8223	7139	-0.034	4354.976	979677.904	-12.418	67.230	-24.378	30.434	217.854
571439.8	6182194.6	8223	7144	-0.034	4355.284	979678.212	-12.103	66.911	-24.262	30.546	216.820
571490.4	6182187.5	8223	7149	-0.034	4355.395	979678.323	-11.997	66.879	-24.251	30.632	216.718
571539.5	6182182.2	8223	7154	-0.034	4355.270	979678.198	-12.125	67.093	-24.328	30.640	217.412
571589.5	6182188.3	8223	7159	-0.034	4355.133	979678.061	-12.258	67.201	-24.367	30.576	217.761
571639.7	6182192.4	8223	7164	-0.035	4355.338	979678.266	-12.049	66.628	-24.160	30.420	215.905
571690.3	6182161.0	8223	7169	-0.035	4356.569	979679.497	-10.842	64.907	-23.536	30.530	210.327
571739.3	6182156.5	8223	7174	-0.035	4355.243	979678.171	-12.171	66.563	-24.136	30.256	215.693
571789.6	6182170.0	8223	7179	-0.036	4354.006	979676.934	-13.397	67.920	-24.628	29.895	220.090
571840.6	6182196.8	8223	7184	-0.036	4353.656	979676.584	-13.727	67.972	-24.647	29.599	220.259
571890.6	6182179.3	8223	7189	-0.036	4353.306	979676.234	-14.090	68.125	-24.702	29.333	220.755
571940.2	6182178.2	8223	7194	-0.036	4353.200	979676.128	-14.196	67.835	-24.597	29.041	219.814
571139.6	6182629.3	8263	7114	-0.032	4357.889	979680.817	-9.169	61.917	-22.451	30.297	200.639
572490.6	6182638.6	8263	7249	-0.015	4350.146	979673.074	-16.897	70.689	-25.632	28.160	229.063
572537.7	6182632.0	8263	7254	-0.014	4349.571	979672.499	-17.477	71.611	-25.967	28.168	232.052
572584.3	6182624.9	8263	7259	-0.013	4348.877	979671.805	-18.175	72.510	-26.292	28.042	234.963
572639.1	6182629.3	8263	7264	-0.013	4347.749	979670.677	-19.300	73.793	-26.758	27.736	239.123
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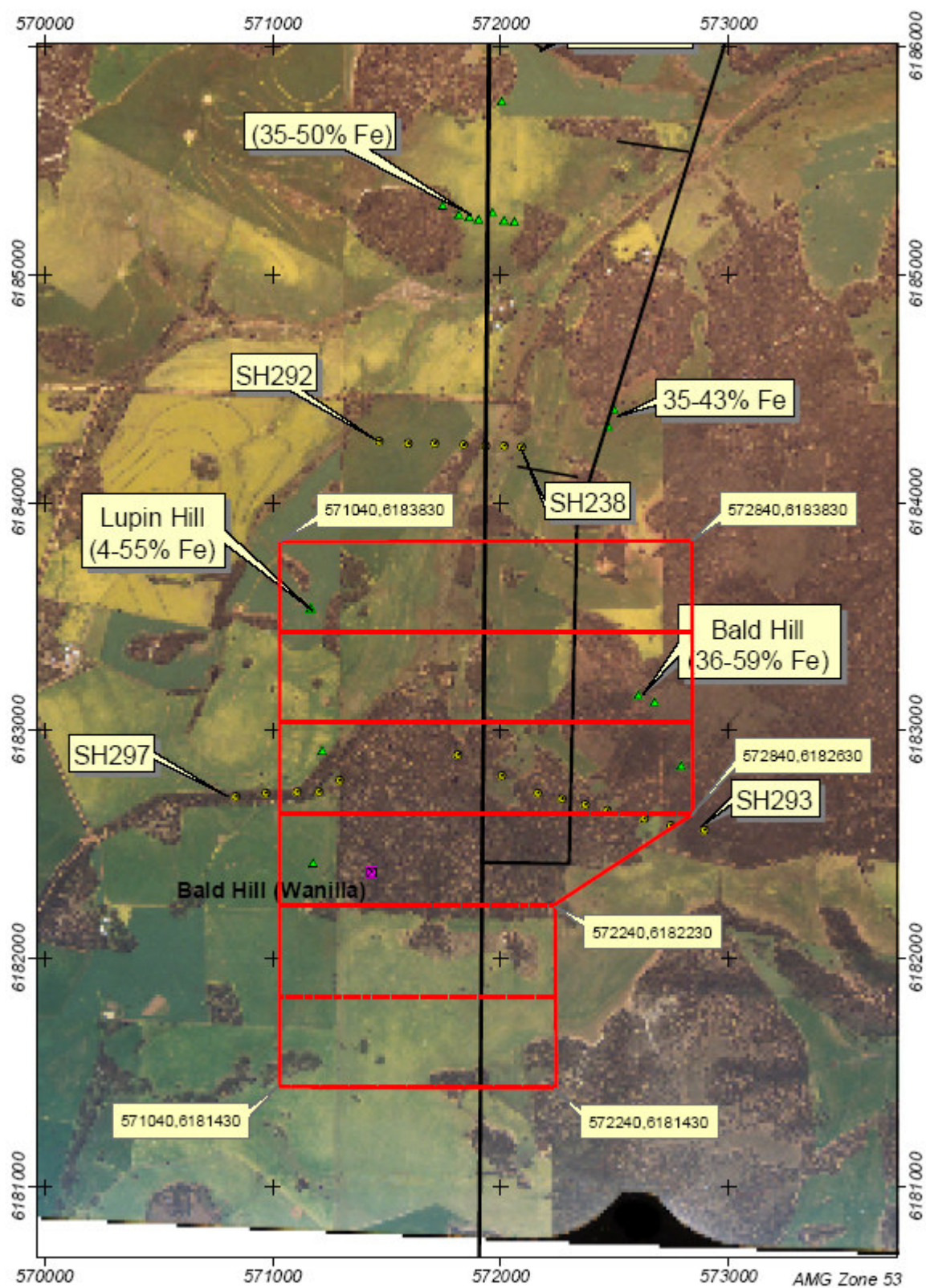
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572840.7	6182629.6	8263	7284	-0.012	4344.462	979667.390	-22.586	77.527	-28.112	26.830	251.222
571686.4	6183032.3	8303	7169	-0.005	4358.409	979681.337	-8.339	59.946	-21.737	29.870	194.250
572039.7	6183030.0	8303	7204	-0.007	4355.737	979678.665	-11.011	64.445	-23.368	30.067	208.831
572089.9	6183029.1	8303	7209	-0.007	4354.426	979677.354	-12.322	65.704	-23.825	29.557	212.910
572139.6	6183028.9	8303	7214	-0.007	4353.638	979676.566	-13.110	66.879	-24.250	29.518	216.716
572188.5	6183040.3	8303	7219	-0.007	4352.850	979675.778	-13.889	68.241	-24.745	29.608	221.132
572239.5	6183029.3	8303	7224	-0.007	4351.756	979674.684	-14.991	69.822	-25.318	29.513	226.255
572289.4	6183029.3	8303	7229	-0.007	4350.005	979672.933	-16.742	72.041	-26.122	29.177	233.444
572339.4	6183024.7	8303	7234	-0.008	4348.063	979670.991	-18.687	74.756	-27.107	28.963	242.244
572390.1	6183023.8	8303	7239	-0.008	4346.307	979669.235	-20.443	77.176	-27.984	28.748	250.083
572443.1	6183025.9	8303	7244	-0.008	4343.767	979666.695	-22.981	80.336	-29.130	28.225	260.324
572490.0	6183031.0	8303	7249	-0.008	4340.667	979663.595	-26.077	84.173	-30.521	27.574	272.756
572538.9	6183026.1	8303	7254	-0.009	4339.511	979662.439	-27.237	85.451	-30.985	27.230	276.900
572588.9	6183052.1	8303	7259	-0.009	4338.880	979661.808	-27.847	86.036	-31.197	26.991	278.793
572635.4	6183030.2	8303	7264	-0.010	4340.754	979663.682	-25.990	83.423	-30.249	27.183	270.326
572687.9	6183037.1	8303	7269	-0.010	4342.075	979665.003	-24.663	81.379	-29.508	27.207	263.704
572739.7	6183035.0	8303	7274	-0.010	4343.937	979666.865	-22.803	78.541	-28.479	27.259	254.507
572790.3	6183031.6	8303	7279	-0.011	4345.771	979668.699	-20.971	75.876	-27.513	27.392	245.871
572837.5	6183030.0	8303	7284	-0.011	4347.194	979670.122	-19.549	73.794	-26.758	27.487	239.124
572387.4	6183429.2	8343	7239	-0.002	4349.119	979672.047	-17.323	72.871	-26.423	29.125	236.134
572435.8	6183430.2	8343	7244	-0.002	4348.642	979671.570	-17.799	73.575	-26.679	29.098	238.416
D148											
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572400.5	6183266.0	0	2503	-0.004	4342.125	979664.970	-24.524	82.875	-30.051	28.300	268.552
572400.5	6183266.0	0	2503	+0.001	4342.129	979664.970	-24.524	82.875	-30.051	28.300	268.552
571792.0	6181361.1	8143	7179	-0.001	4348.989	979671.834	-19.113	72.147	-26.161	26.874	233.789
571838.9	6181410.5	8143	7184	-0.001	4352.755	979675.600	-15.309	66.887	-24.253	27.324	216.742
571188.6	6182228.4	8223	7119	-0.002	4356.287	979679.132	-11.158	65.726	-23.833	30.735	212.982
571690.3	6182161.1	8223	7169	-0.001	4356.666	979679.511	-10.828	64.899	-23.533	30.539	210.300
571940.2	6182178.1	8223	7194	-0.001	4353.294	979676.139	-14.185	67.835	-24.597	29.053	219.815
571988.6	6182164.1	8223	7199	-0.001	4353.685	979676.530	-13.805	66.847	-24.239	28.803	216.613
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572090.0	6182175.8	8223	7209	-0.001	4352.333	979675.178	-15.147	68.602	-24.875	28.580	222.300
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572185.7	6182228.1	8223	7219	-0.001	4352.684	979675.529	-14.756	67.861	-24.607	28.498	219.899
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571495.1	6182622.7	8263	7149	-0.002	4356.098	979678.943	-11.046	64.901	-23.533	30.322	210.307
571637.2	6182627.2	8263	7164	-0.002	4356.134	979678.979	-11.005	64.237	-23.293	29.939	208.156
571690.0	6182625.9	8263	7169	-0.002	4356.523	979679.368	-10.617	63.755	-23.118	30.020	206.595
571738.4	6182616.7	8263	7174	-0.002	4357.444	979680.289	-9.703	62.677	-22.727	30.247	203.100
571787.9	6182628.7	8263	7179	-0.002	4358.355	979681.200	-8.782	61.569	-22.325	30.462	199.511
571838.9	6182640.4	8263	7184	-0.002	4359.063	979681.908	-8.065	60.628	-21.984	30.579	196.460
571891.3	6182624.3	8263	7189	-0.002	4359.003	979681.848	-8.137	60.675	-22.001	30.537	196.613
571940.6	6182615.0	8263	7194	-0.002	4358.738	979681.583	-8.409	61.021	-22.126	30.485	197.734
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572090.3	6182627.3	8263	7209	-0.003	4356.666	979679.511	-10.471	62.512	-22.667	29.374	202.567
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572189.7	6182630.5	8263	7219	-0.003	4355.136	979677.981	-11.997	64.576	-23.415	29.163	209.254
572241.7	6182641.3	8263	7224	-0.003	4354.226	979677.071	-12.899	65.904	-23.897	29.108	213.559
572290.6	6182640.5	8263	7229	-0.003	4353.119	979675.964	-14.006	66.808	-24.225	28.577	216.488
572343.2	6182635.2	8263	7234	-0.003	4352.152	979674.997	-14.977	67.735	-24.561	28.196	219.490
572389.0	6182626.3	8263	7239	-0.004	4351.520	979674.365	-15.616	68.749	-24.929	28.205	222.777
572441.5	6182623.2	8263	7244	-0.004	4350.717	979673.562	-16.421	69.841	-25.325	28.096	226.315
572490.6	6182638.6	8263	7249	-0.004	4350.224	979673.069	-16.902	70.702	-25.637	28.164	229.107
572089.9	6183029.1	8303	7209	-0.004	4354.535	979677.380	-12.296	65.708	-23.826	29.586	212.922
571739.7	6183829.1	8383	7174	+0.000	4361.312	979684.157	-4.913	54.752	-19.853	29.986	177.421
571790.5	6183828.9	8383	7179	+0.000	4361.931	979684.776	-4.293	54.185	-19.648	30.244	175.584
571790.5	6183828.9	8383	7180	+0.000	4361.954	979684.799	-4.270	54.186	-19.648	30.268	175.587
571790.5	6183828.9	8383	7180	+0.000	4361.954	979684.799	-4.270	54.186	-19.648	30.268	175.587

Survey Specification Diagrams

Bungalow



Bald Hill



APPENDIX 3.

AMG – A Density-Susceptibility Model for Bald Hill Prospect, Centrex Metals Ltd, South Australia – July 2004

MEMORANDUM

To: Mr Graham Chrisp
Managing Director
Via email: centrex@bigpond.com

Affiliation: Centrex Metals Ltd.,
3 Keys Court, SA, 5048

From: Jim Hanneson

Costing:

Cc: John Parker
Via email: john@geosurveys.com.au

Date: 20 July 2004

Reference: AMG04/23

Subject: A Density-Susceptibility Model for the Bald Hill Prospect, Centrex Metals Ltd, South Australia

1. INTRODUCTION AND SUMMARY

A density and magnetic susceptibility model is presented below for the Bald Hill Prospect, Eyre Peninsula, SA, which is about 4 sq-km in area. The model comprises an initial assessment of gravity and magnetic data, and may be useful for siting drill holes or in planning the next stage of work. In addition to providing an interpretation of the density and susceptibility distribution at Bald Hill, an important objective is to apply a phase/scatter diagram methodology to assess the various bodies of the model in terms of the magnetite and hematite content of the rocks that they represent.

In summary, magnetic depths appear to be largely in the 20 to 60 metre depth range, and the majority of magnetic sources are estimated to contain up to about 10 percent magnetite. In the most magnetic parts of the study area sources may contain 11 to 16 percent magnetite. In some cases the magnetite content inferred from the magnetic response is enough to explain the gravity response; however, the model contains several dense non-magnetic bodies, and it is interpreted that the rocks that these bodies represent may contain 40 to 50 percent hematite. In some cases, interpreting smaller bodies with higher concentrations of hematite might be permitted by the data.

2. DATA

2.1 Gravity Data and the choice of a Bouguer reduction density

The gravity data comprises 50m spaced readings along 400m spaced east-west lines, and the station elevations are shown contoured in Figure 1. The Bouguer gravity, reduced using the standard density of 2.67 gm/cc, is shown in Figure 2.1. A residual gravity image, shown in Figure 2.2, was prepared by smoothing the image (via 64 passes of the Geosoft default Hanning filter) and subtracting the smoothed image from the original image. By removing regional trends, residual maps help to focus attention on smaller shallower features that tend to have greater economic significance.

It seems noteworthy that the hill near (572600E, 6183200N) in Figure 1 correlates with a low in the residual gravity in Figures 2.1 and 2.2. When the final corrected gravity mirrors the topography it is often taken as evidence that the Bouguer correction is over compensating for the hills and that the reduction density (2.67 gm/cc in this case) is too high. Nettleton (1940) proposed that when nothing is known of the densities of the land forms, the best reduction density is that which minimises the covariance between the topography and the final gravity. Other reduction densities were investigated and the results are summarised in Table 1.

Table 1. Comparison of reduction densities by covariance

REDUCTION DENSITY	COVARIANCE	
	Gravity vs. Elevation	Resid Grav vs. Resid Elev
2.67	-.6287	-.5260
2.40	-.4529	-.1278
2.35	-.4116	-.0379
2.32	-.3858	+.0164
2.30	-.3675	+.0527
2.20	-.2737	+.2273
2.00	-.0610	+.5112

A regional bias in the form of high ground in the east where the reduced gravity is generally low makes the gravity-elevation covariance misleading, and a covariance minimising reduction density of less than 2.00, suggested by Table 1, seems unreasonably low. Estimating the covariance between the residual gravity and the residual elevation suggests that a reduction density of 2.32 gm/cc is near optimum, and given that the hill comprises slates, soils, and saprolites (A.J. Parker, 2004, *pers. comm.*) this value may be reasonable. (Telford *et al.*, 1980, indicate that slates can have densities as low as 2.39.) After some email discussion the gravity image in Figure 3.1 was selected to constrain the density model.

2.2 Magnetic Data

Magnetic data was received via email from A.J. Parker and was collected on east-west lines with 50m spacings and a nominal sensor elevation of 30m. The data was decimated (saving every second station) to yield a value about every 14 metres to make it more manageable for the modelling code. Figure 5.1 is a contoured image of the total magnetic intensity after levelling and removal of the International Geomagnetic Reference Field.

A residual magnetic image is shown in Figure 5.2 and was derived via 64 passes of the Geosoft Hanning filter. Residual maps enhance shorter wavelength anomalies associated with near surface features, and residuals of both magnetics and gravity were useful in the initial design stage of the model.

3. DENSITY-SUSCEPTIBILITY MODEL

3.1 Preamble

It is noted that there is considerably more magnetic data (50m line spacing) than gravity data (400m line spacing). The model was developed by comparing profiles of the observed and calculated responses along certain transect lines, some of which coincide with the lines of gravity data.

The phase/scatter diagram method discussed below relies on the availability of both magnetic and gravity data, and the study area has therefore been reduced to the extent of the overlap. The model can be readily revised to if intermediate lines of gravity become available, or extended to cover the two southernmost lines of gravity if additional magnetic data is provided.

3.2 Demagnetisation considerations

For highly magnetic bodies, the uncompensated poles induced on the surfaces may interact, exhibiting a phenomenon known as demagnetisation. The strength of the interactions depends on the shape of the body and its orientation with respect to the Earth's ambient magnetic field, and, if the intrinsic susceptibility of the target is high enough, the effect may be strong enough that the susceptibility is significantly underestimated if not accounted for in the modeling code.

A density-susceptibility model was devised, first using Talwani style algorithms (Talwani, 1960, 1961) which are rapid but ignore demagnetisation. This allowed an assessment the magnetite concentrations necessary to generate the anomalies observed in the data. Then, for one of the most magnetic bodies of the model, demagnetisation effects were simulated using the method of Christensen (1991) and the difference was judged significant. A magnetic peak requiring a susceptibility of 0.41SI with the Talwani algorithm required a susceptibility of 0.47SI using the Christensen algorithm. Using a common power law relationship (see Hanneson, 2003), a susceptibility of 0.41SI is estimated to arise from about 10.3% magnetite while a susceptibility of 0.47SI equates with about 11.7% magnetite.

All bodies in the most magnetic parts of the image were then replaced and their magnetic responses were calculated using Christensen's method. Body numbers that have suffix "d" indicate that demagnetisation effects have been included in the calculations.

3.3 Model Bodies and Calculated Gravity and Magnetic Responses

Using Talwani's method for weakly magnetic bodies and Christensen's method for bodies in the most magnetic parts of the image, a density and susceptibility model was developed whose calculated gravity and magnetic responses, shown in Figures 6 and 7, approximate the data shown in Figures 3.1 and 5.1. Figures 6 and 7 also present polygonal outlines of the tops of the model bodies which are shown alone in Figure 8.

The model was developed by comparing profiles of the calculated magnetic and gravity responses with profiles of the data along nine east-west transects. The transects have 200 metre spacings and their locations are indicated in Figure 9 by lines annotated P1, P2, ..., P9. Figures 9.1 to 9.9 show the observed and calculated profiles over cross-sections of the model along the transects.

3.4 Combined Scatter Diagram and Phase Diagram

The model bodies shown alone in Figure 8 are coloured in a manner that depends on their density and susceptibility, as defined by the background colour in the inset density vs. susceptibility scatter diagram. The colour scheme enhances the "readability" of the model where dense magnetic bodies have a strong cyan component, dense non-magnetic bodies are magenta, and bodies with no anomalous properties are yellow. The scatter diagram is also a phase diagram by virtue of contours of concentrations of gross mineral categories that can be drawn thereon. The mineral categories are magnetite, hematite+sulphide, and barren (felsic) matrix rock, percentages of which at any point on the phase diagram sum to 100%. See Hanneson, 2003. For a rock with a given density and susceptibility that plots on the scatter diagram, the contours at the same point on the phase diagram indicate how much magnetite and how much hematite+sulphide must be added to a barren felsic matrix to take on the density and susceptibility for that point.

A felsic rock sample with no anomalous physical properties plots at the yellow lower-left vertex. If magnetite (which is both dense and magnetic) is added, the plot point moves upwards and to the right toward the magnetite vertex along the left margin of the diagram, also known as the Magnetite Line. A barren mafic rock plots on the lower axis near 3.0gm/cc , and proceeds with the addition of magnetite toward the Magnetite Vertex along the dashed green Gabbo Line.

3.5 Ambiguity of Potential Field Data

All potential field data (e.g. magnetics and gravity) is ambiguous, meaning that for any given response there are many models whose responses can simulate the data. Any model is

therefore an *interpretation* of the data, and inasmuch as its calculated response adequately simulates the data, the model may be *permitted* by the data but it is *never required* by the data.

For example, a dike like model body, with a given density contrast and whose depth is significantly greater than its thickness, could be replaced by a similar body having twice the density contrast and half the thickness and still yield the same gravity response. By way of an optimistic comment, bodies in the Bald Hill model tend to be thicker than they are deep, suggesting that this type of ambiguity may be less problematic than in areas with thicker cover.

4. DISCUSSION AND CONCLUSION

Figure 10 is an enlarged phase/scatter diagram on which are plotted all the bodies of the model. Many bodies plot on the Magnetite Line suggesting that they have a density consistent with that expected for the amount of magnetite inferred from the magnetic susceptibility (in turn inferred from the observed magnetic response). Other bodies in the model seem to represent rocks that are much denser than what would be expected for the interpreted amount of magnetite, while others still, appear to be quite dense and essentially non-magnetic.

In addition to the graphical presentation discussed above, further details of the model are provided in Table 2 at the rear of this report. Therein, the two right most columns give estimates of the percent magnetite and the percent hematite (assuming felsic matrix rock) for all bodies of the model that lie within the limits of the axes of the phase diagram.

Bodies 34 and 31 on Profile 5 (Figure 9.5) suggest units having upwards of 50 percent hematite in the core of a magnetic antiform, the limbs of which are Body 1d and Body 43 – the latter largely obscured by shallow Body 65. See Figure 8. Bodies 34 and 31 in the core might alternatively have been depicted as a single flat-lying body with shallower depth extent and much higher density.

Body 5d may be too deep for economic considerations, but the rocks it represents could be narrower and denser and more magnetic than depicted in the model.

It must be noted that the even numbered transects have magnetic data but no actual gravity data. What are indicated as gravity data profiles on these transects are in fact estimated values interpolated from adjacent lines of gravity which are 200m to the north and/or to the south. For example, the very dense magnetic Body 3d near the centre of Profile 8 must be regarded as doubtful because there is no gravity within 200m of the line. Also, Bodies 63 and 66 on Profile 4 have high densities but low credibility since there is no gravity data on this line. The actual gravity profiles, if data were collected along these lines, are likely to show local peaks not seen in the interpolated profiles which are probably only correct in terms of general trends.

The model suggests that the southern end of the study area (and beyond) where the gravity is the strongest may also be prospective. The model could be extended southward but purely as a density model since the phase/scatter diagram appraisal cannot be carried out without magnetic data. Intermediate lines of gravity (yielding 200m spaced lines) and additional magnetic data to the south would further benefit the economic appraisal of the area.

Some difficulties were encountered developing the model until a synformal arrangement of bodies was suggested by John Parker. A drill section was provided by you, and while I should perhaps have sought further geological instructions, the model rapidly progressed to a point where the simulation of the data seemed reasonable. There remains room for improvement in the simulation, and the model presented here is merely the best that could be achieved with five days' effort.

5. REFERENCES

Christensen, A.L.A, 1991, Magnetic Field Modelling, B.Sc. (Hons) Thesis, University of Queensland.

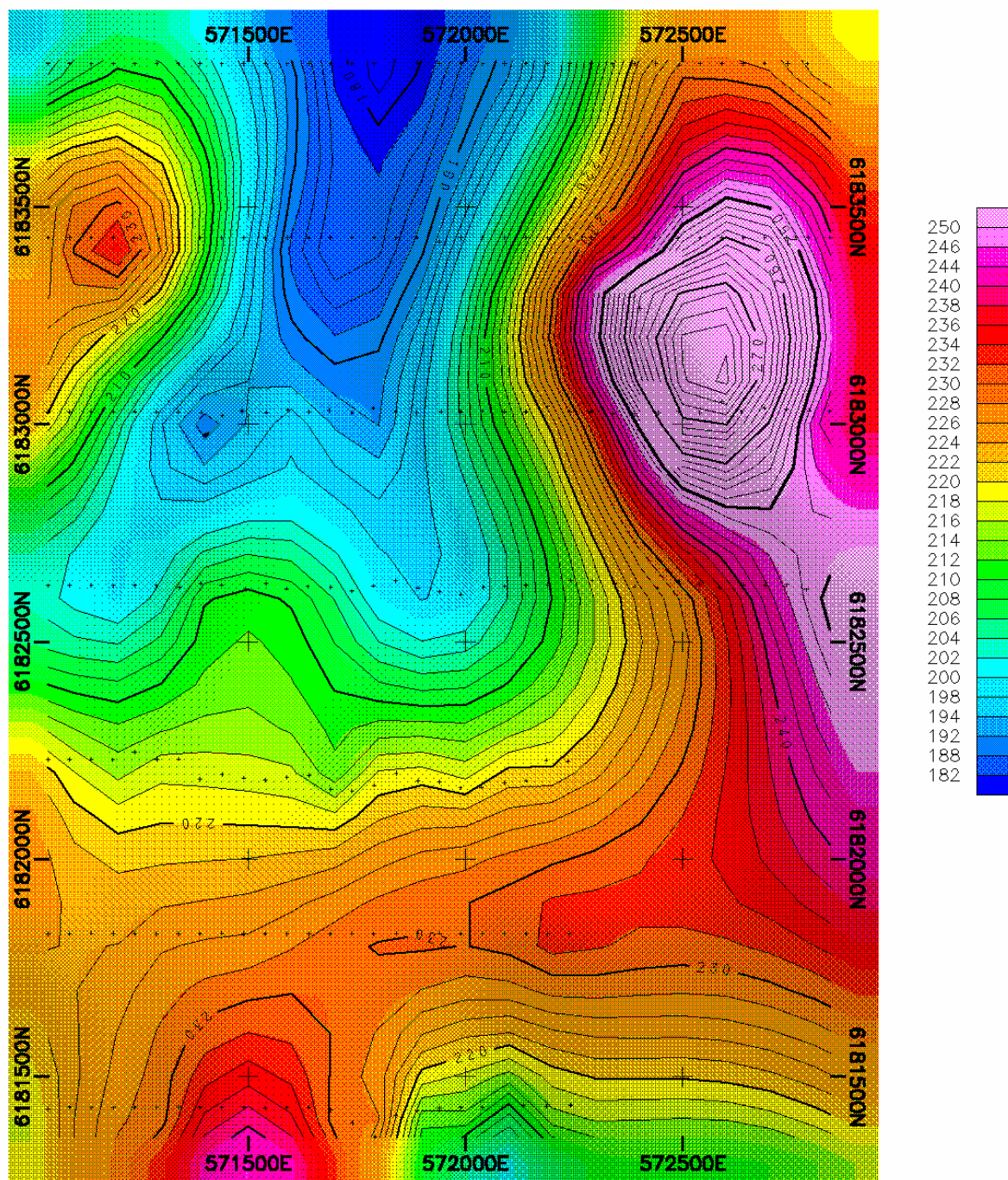
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 Base northing: 0.0
 Base elevation: 0.000m
 Base value: 0.000 m
 Survey date:
 Author:
 Data File: BH_0407.232

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 (metres)

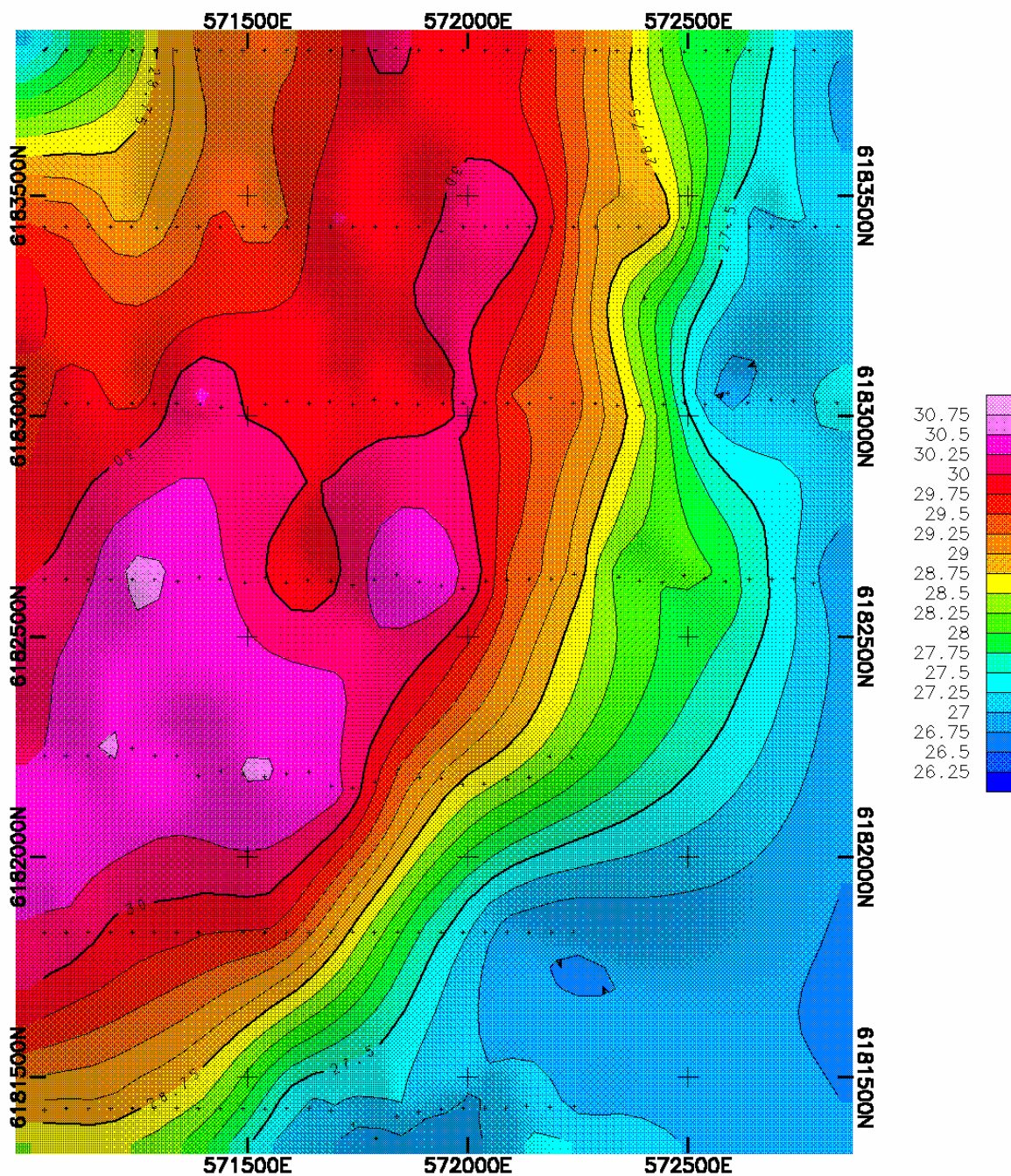
Centrex Metals Ltd

Bald Hill Prospect
 Gravity Station Elevations

Adelaide Mining Geophysics Pty Ltd

Figure 1

04\07\13



Min Contour Interval: 0.25 mgal
 Grid cell size: 50
 Datum: IGSN71
 Base easting: 0.0
 Base northing: 0.0
 Base elevation: 0.000m
 Base value: 0.000 m
 Survey date:
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 Data File: BH_0407.267

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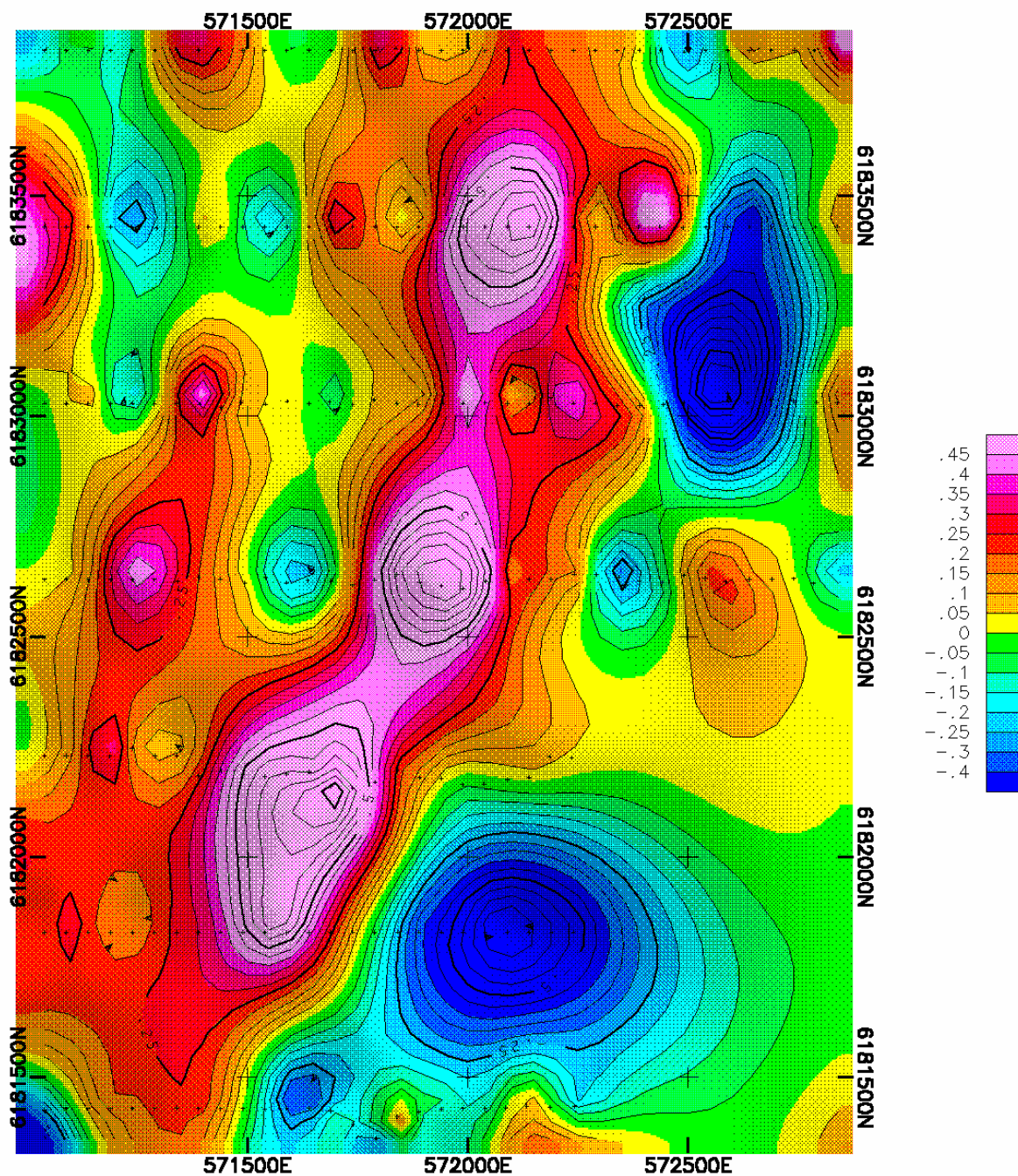
Centrex Metals Ltd

Bald Hill Prospect
 Bouguer Gravity Map
 Density = 2.67 gm/cc

Adelaide Mining Geophysics Pty Ltd

Figure 2.1

04\07\13



Min Contour Interval = 0.05
 Hanning passes = 64
 Grid cell size: 50
 Datum: IGSN71
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 Base northing: 0.0
 Base elevation: 0.000m
 Base value: 0.000 m
 Survey date:
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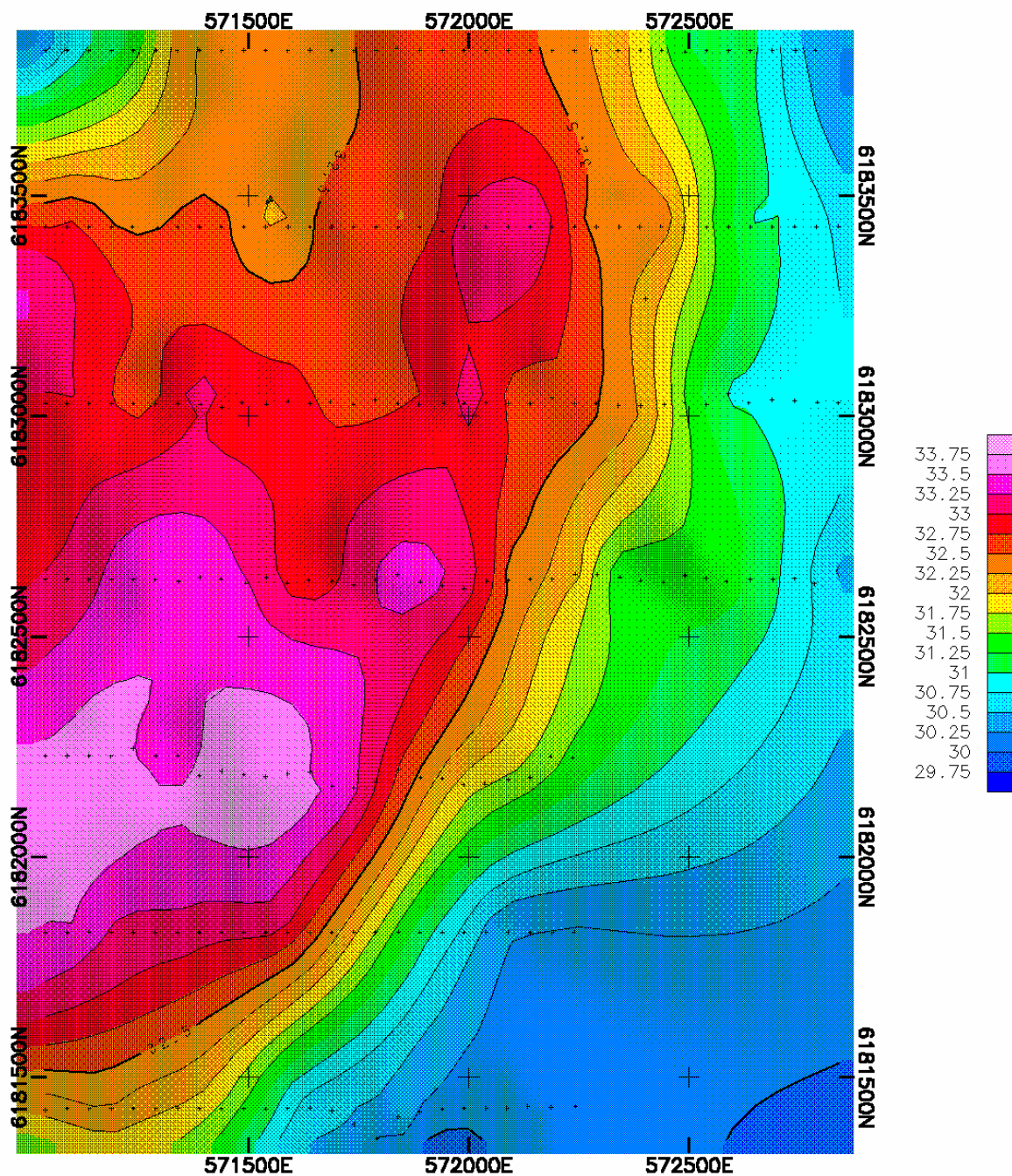
Scale 1:15000
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 (metres)

Centrex Metals Ltd

Bald Hill Prospect
 Hanning Residual
 Density = 2.67 gm/cc

Adelaide Mining Geophysics Pty Ltd

Figure 2.2



Min Contour Interval: 0.25 mgal
 Grid cell size: 50
 Datum: IGSN71
 Base easting: 0.0
 Base northing: 0.0
 Base elevation: 0.000m
 Base value: 0.000 m
 Survey date:
 Author:
 Data File: BH_0407.232

Scale 1:15000
 250 0 250
 (metres)

Centrex Metals Ltd

Bald Hill Prospect
 Bouguer Gravity Map
 Density = 2.32 gm/cc

Adelaide Mining Geophysics Pty Ltd

Figure 3.1

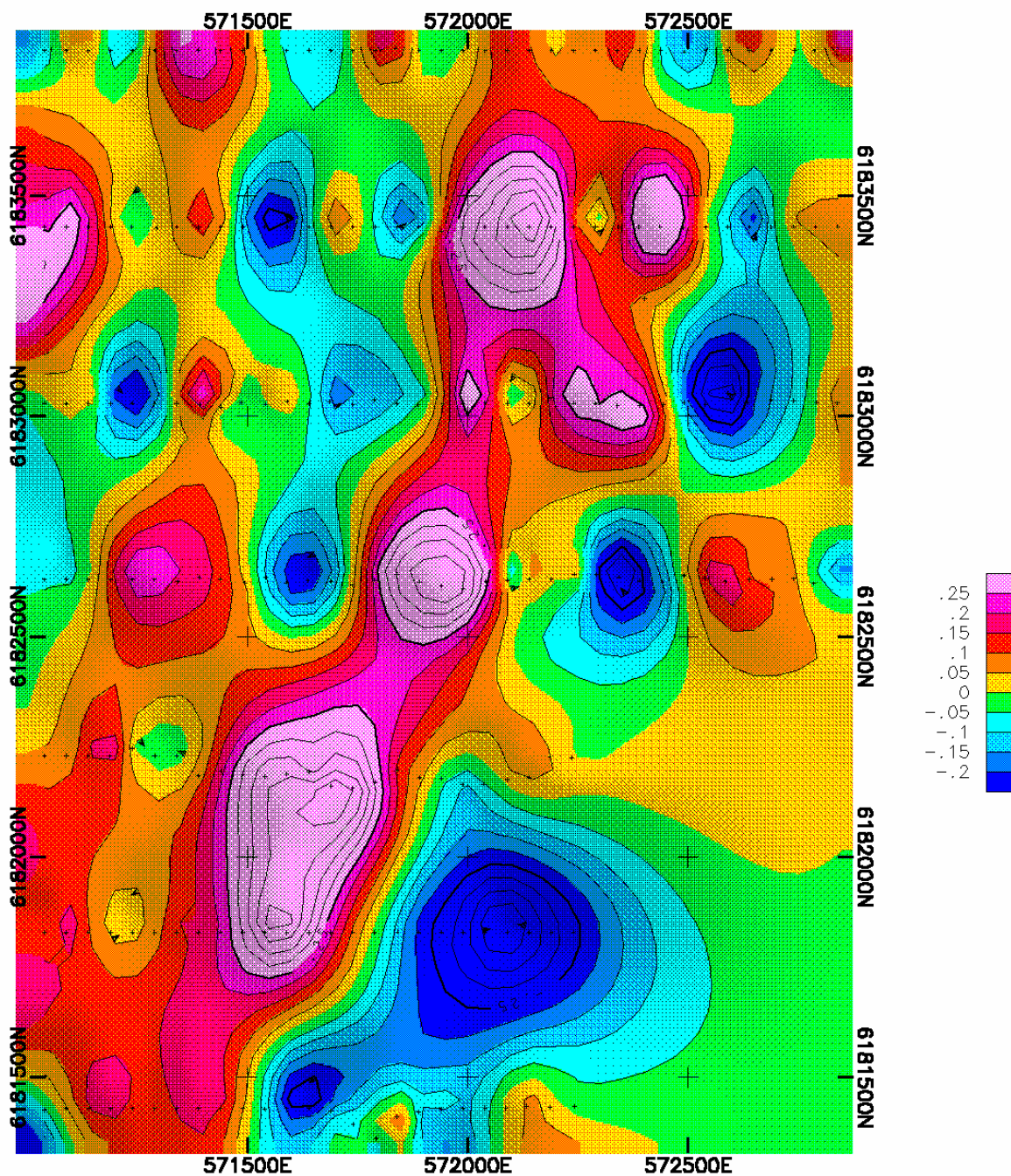
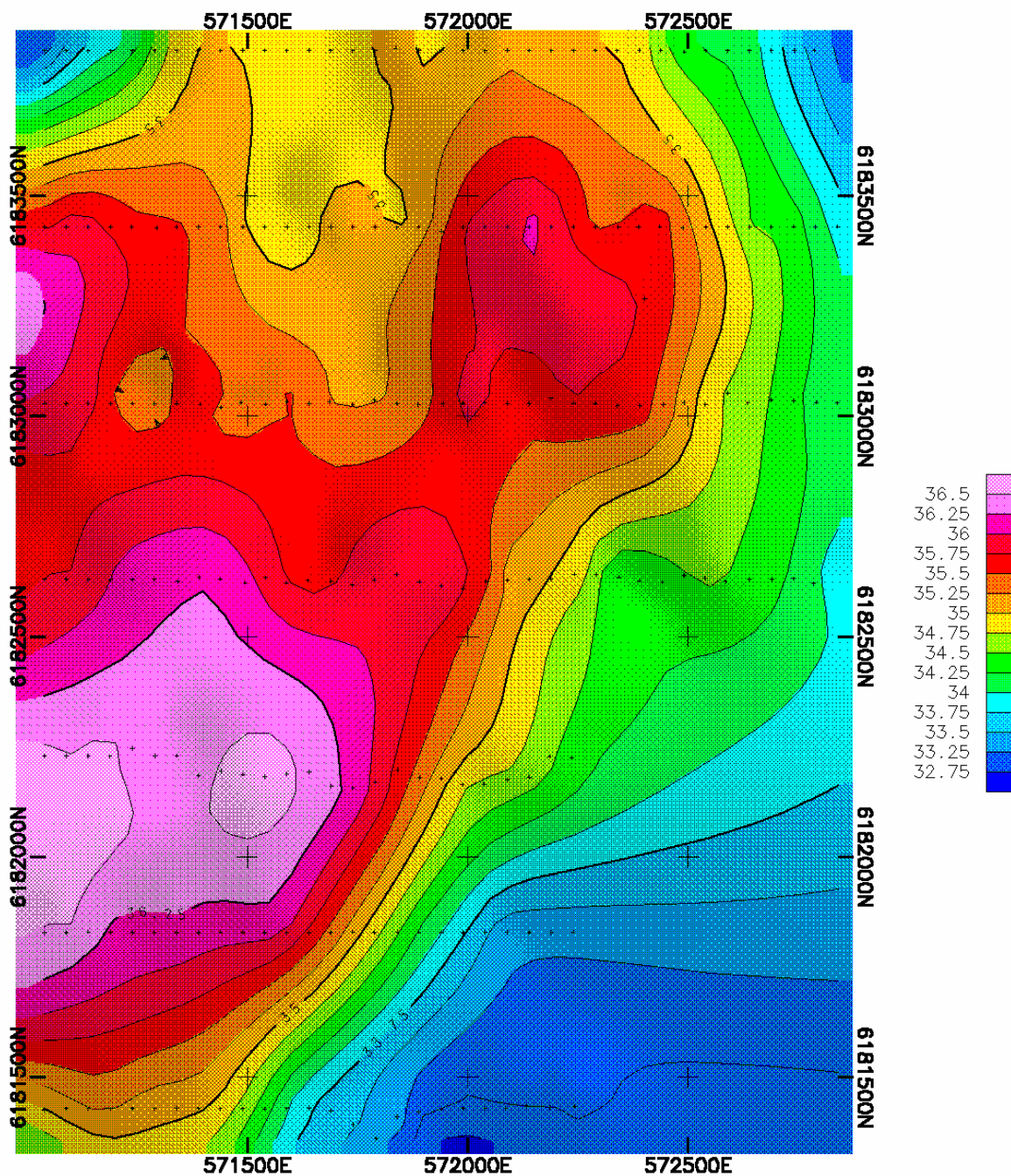


Figure 3.2

04\07\14



Min Contour Interval: 0.25 mgal
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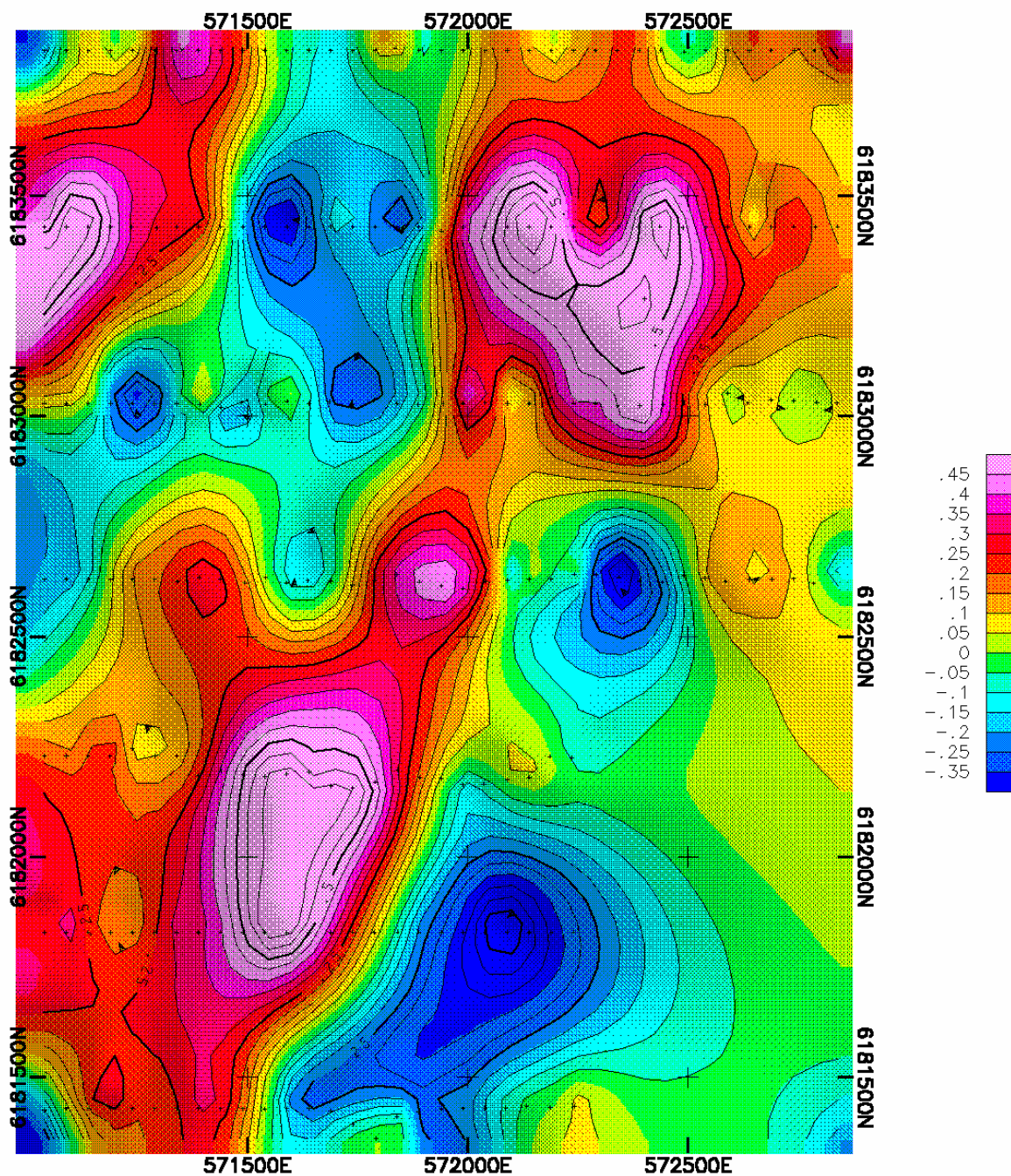
Scale 1:15000
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 (metres)

Centrex Metals Ltd

Bald Hill Prospect
 Bouguer Gravity Map
 Density = 2.00 gm/cc

Adelaide Mining Geophysics Pty Ltd

Figure 4.1



Min Contour Interval = 0.05
 Hanning passes = 64
 Grid cell size: 50
 Datum: IGSN71
 Base easting: 0.0
 Base northing: 0.0
 Base elevation: 0.000m
 Base value: 0.000 m
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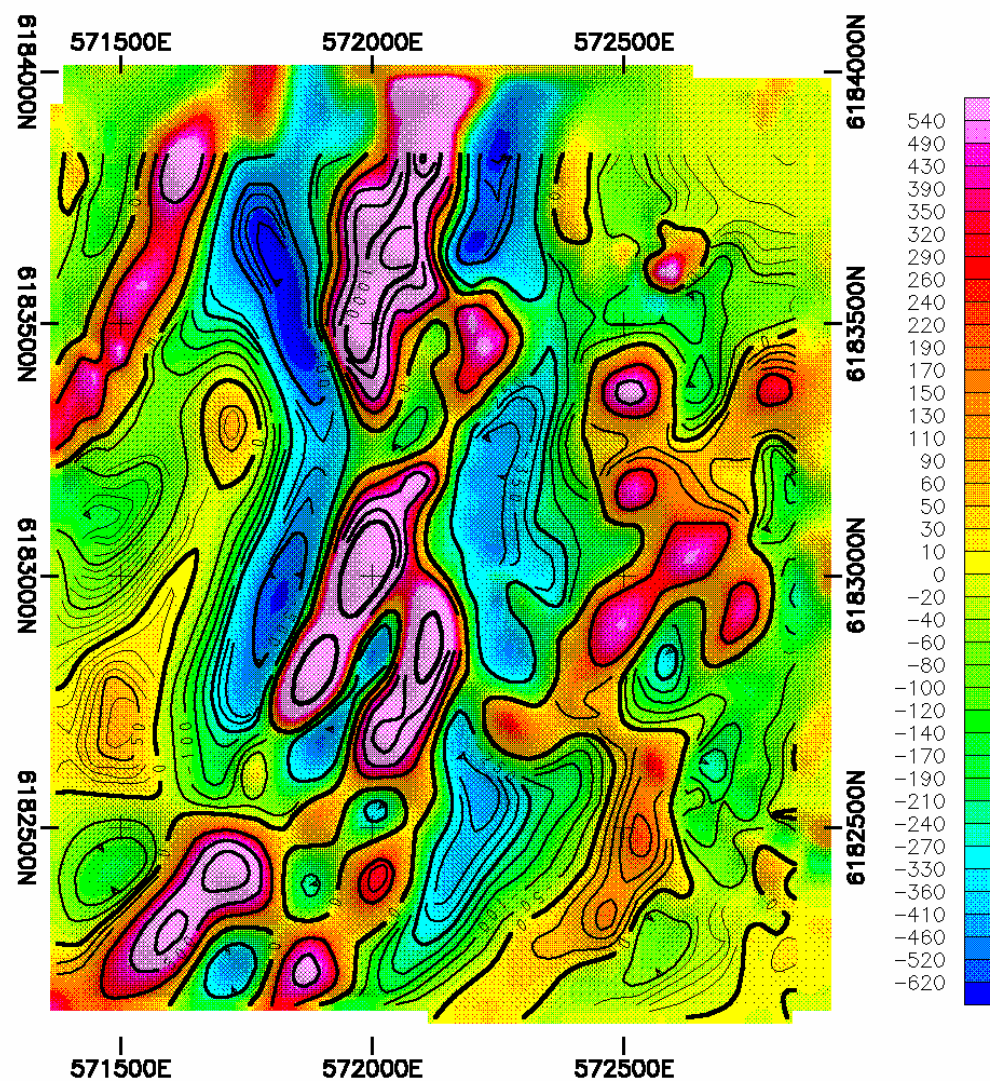
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 (metres)

Centrex Metals Ltd

Bald Hill Prospect
 Hanning Residual
 Density = 2.00 gm/cc

Adelaide Mining Geophysics Pty Ltd

Figure 4.2



Min Contour Interval = 10.00nT
 Hanning passes = 32
 Grid cell size = 25
 Base easting = 0
 Base northing = 0
 Base elevation = 0.0m
 Base value = 0.0nT
 Survey date =
 Author: JEH
 Data File: BALDHILL.MA2

Scale 1:15000
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 (metres)

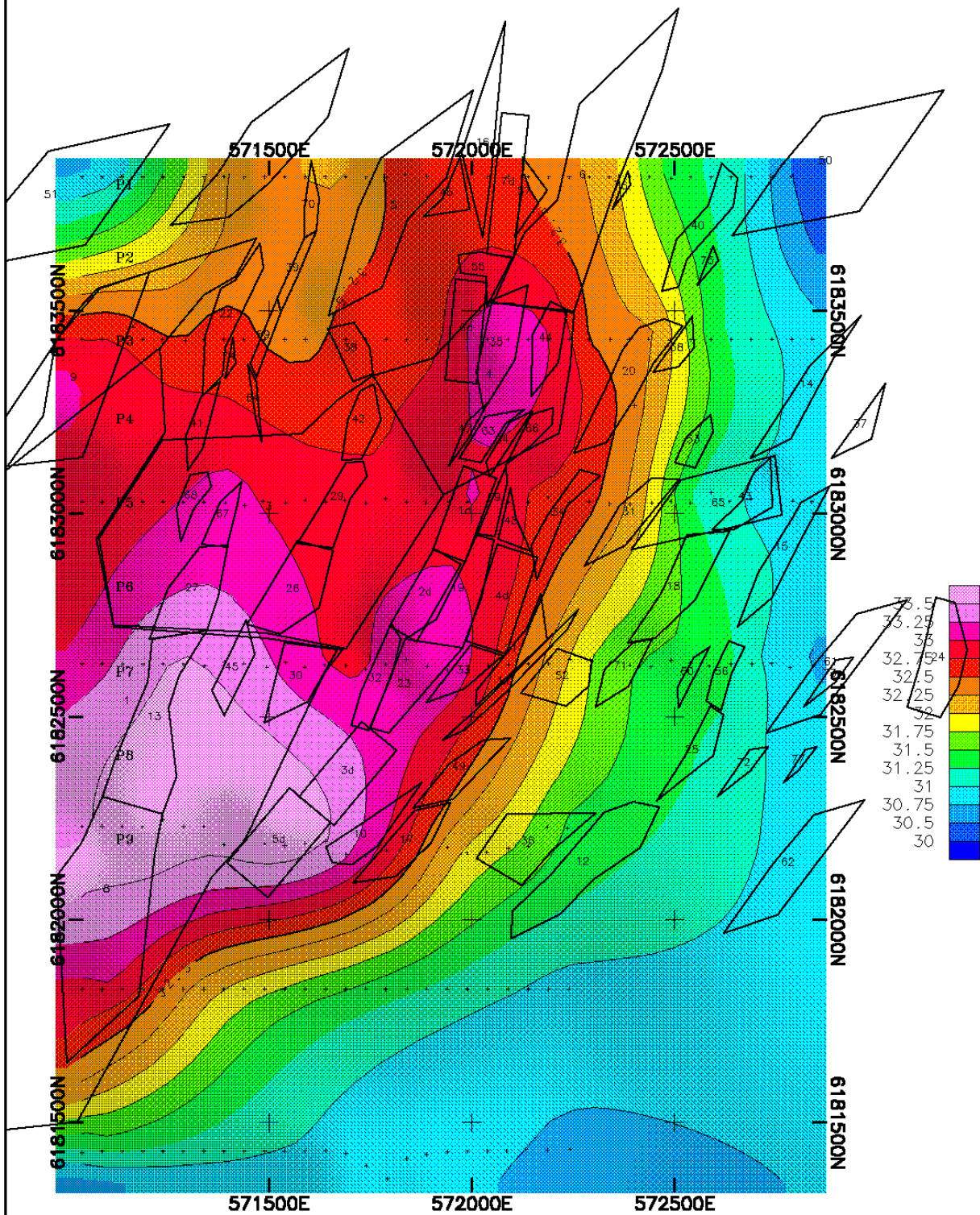
Centrex Metals Ltd

Bald Hill Prospect
 Hanning Residual Magnetics
 Aeromagnetic Map
 Sensor Ht = 25m

Adelaide Mining Geophysics Pty Ltd

Figure 5.2

04\07\19



Min Contour Interval: 0.25 mgal
 Grid cell size: 50
 Datum: -
 Base easting: 0.0
 Base northing: 0.0
 Base elevation: 0.000m
 Base value: 0.000 m
 Survey date:
 Author:
 Data File: WMCGRAM.GRV

Scale 1:15000
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 (metres)

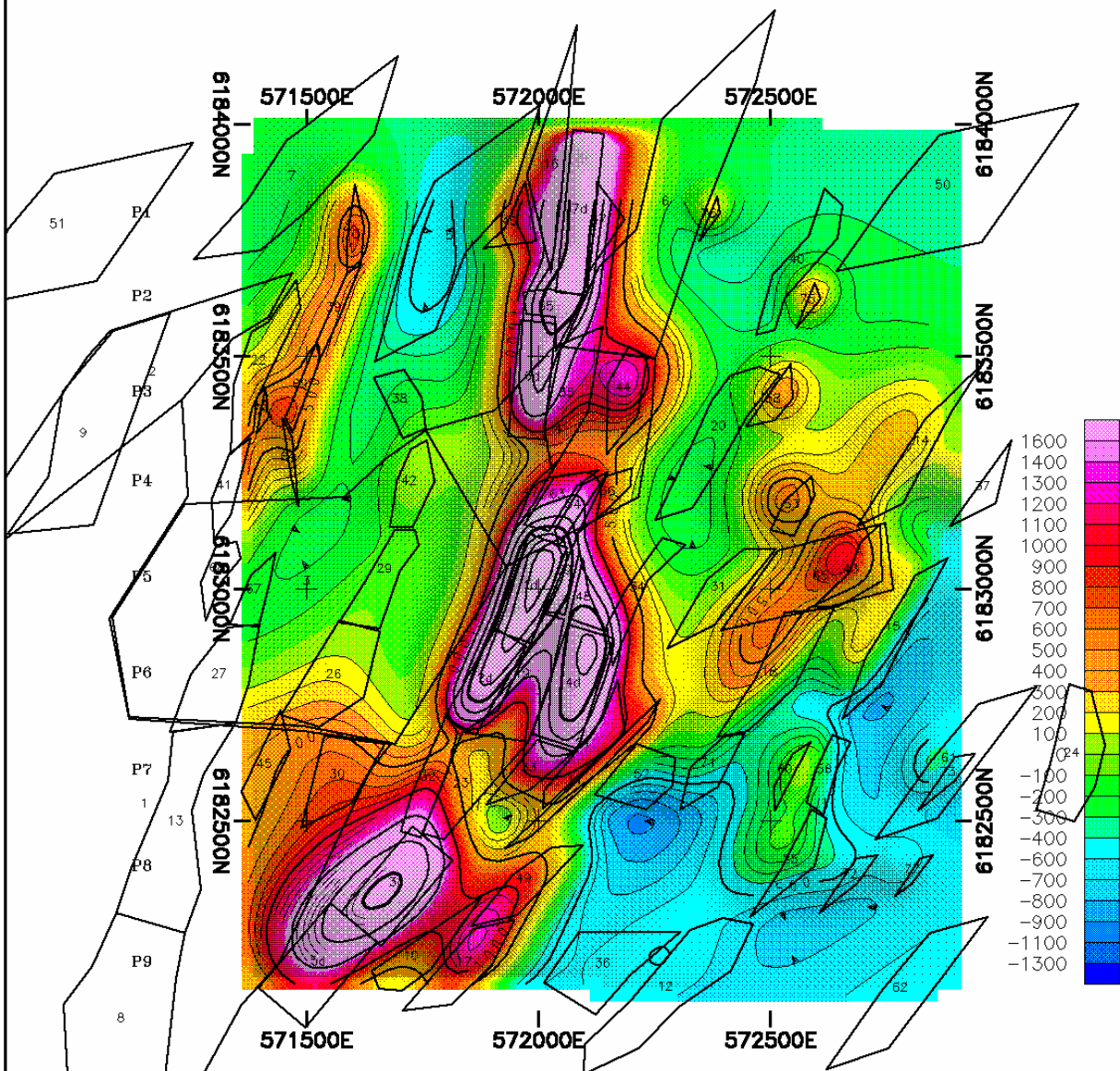
Centrex Metals Ltd

Bald Hill Prospect
 Gravity Model Response

Adelaide Mining Geophysics Pty Ltd

Figure 6

04\07\19



Min. Contour Interval = 100.nT
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 Base easting = 0
 Base northing = 0
 Base elevation = 0.m
 Base value = 0.nT
 Survey date =
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 Data File: WMOGRAM.MAG

Scale 1:15000
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 (metres)

Centrex Metals Ltd

Bald Hill Prospect
 Magnetic Model Response
 Sensor Ht = 25m

Adelaide Mining Geophysics Pty Ltd

Figure 7

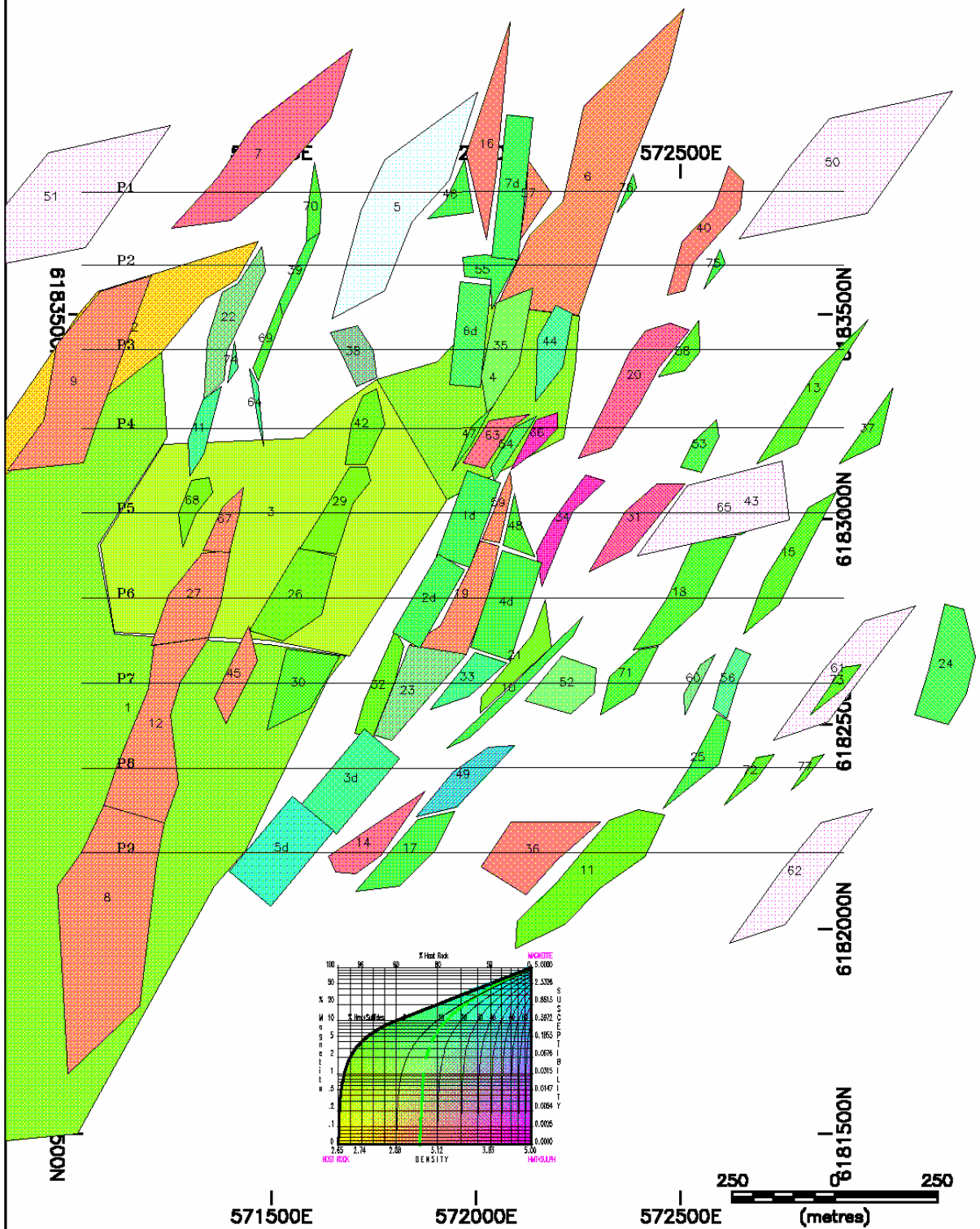
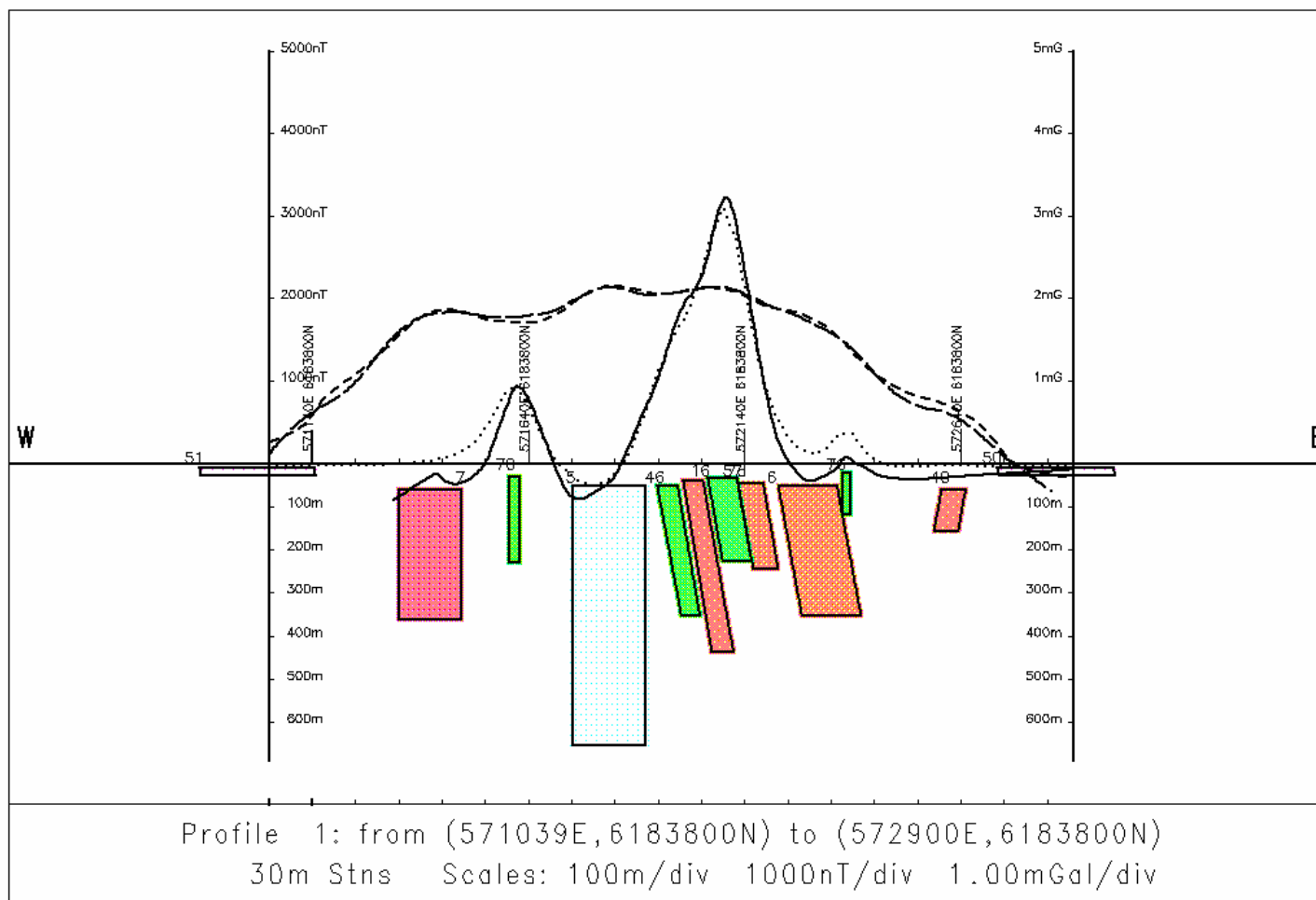
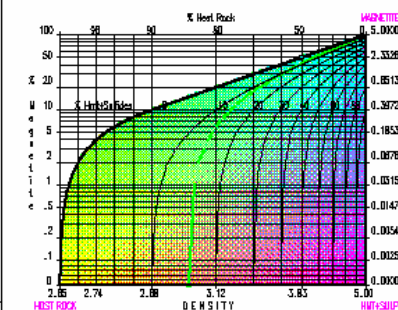


Figure 8

04/07/19



Body	Susc(contrast)	Den(contrast)	Depth
5	-0.030(-0.030)	3.050(0.400)	50.
6	0.000(0.000)	2.980(0.330)	50.
7	0.000(0.000)	3.200(0.550)	60.
16	0.000(0.000)	3.050(0.400)	40.
40	0.000(0.000)	3.050(0.400)	60.
46	0.410(0.410)	2.892(0.242)	50.
50	0.000(0.000)	2.050(-0.600)	10.
51	0.000(0.000)	2.050(-0.600)	10.
57	0.000(0.000)	3.000(0.350)	45.
70	0.310(0.310)	2.838(0.188)	30.
76	0.410(0.410)	2.892(0.242)	20.
7d	0.500(0.500)	2.940(0.290)	35.



MAGNETIC PROFILES:
Solid: data
Dotted: model response

GRAVITY PROFILES:
Long dash: data
Shrt dash: model response

DEPTH SECTION:
Dashed = faults
Dotted/solid = bodies

Profile azimuth: 90.
Mag Data file: BALDHILL.2ND
Grv Data file: BH_0407.232

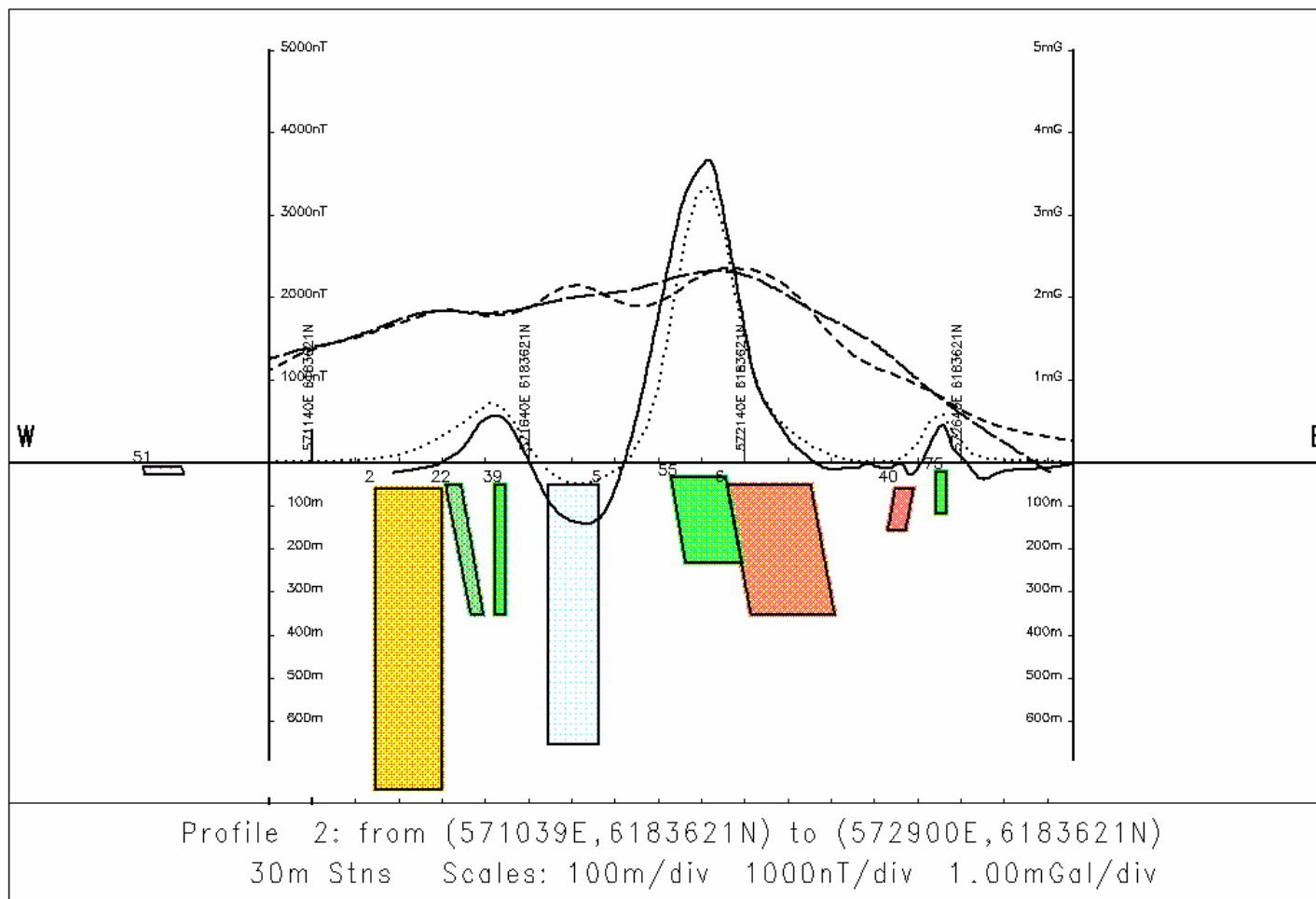
Centrex Metals Ltd

Bald Hill SA
Magnetic & Gravity Model
Profile \ Depth section

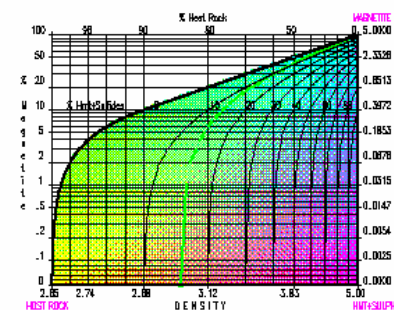
Adelaide Mining Geophysics Pty Ltd

Figure 9.1

04/07/19



Body	Susc(contrast)	Den(contrast)	Depth
2	0.000(0.000)	2.780(0.130)	60.
5	-0.030(-0.030)	3.050(0.400)	50.
6	0.000(0.000)	2.980(0.330)	50.
22	0.050(0.050)	3.200(0.550)	50.
39	0.410(0.410)	2.892(0.242)	50.
40	0.000(0.000)	3.050(0.400)	60.
51	0.000(0.000)	2.050(-0.600)	10.
55	0.450(0.450)	2.913(0.263)	32.
75	0.410(0.410)	2.892(0.242)	20.



MAGNETIC PROFILES:
Solid: data
Dotted: model response

GRAVITY PROFILES:
Long dash: data
Shrt dash: model response

DEPTH SECTION:
Dashed = faults
Dotted/solid = bodies

Profile azimuth: 90.
Mag Data file: BALDHILL.2ND
Grv Data file: BH_0407.232

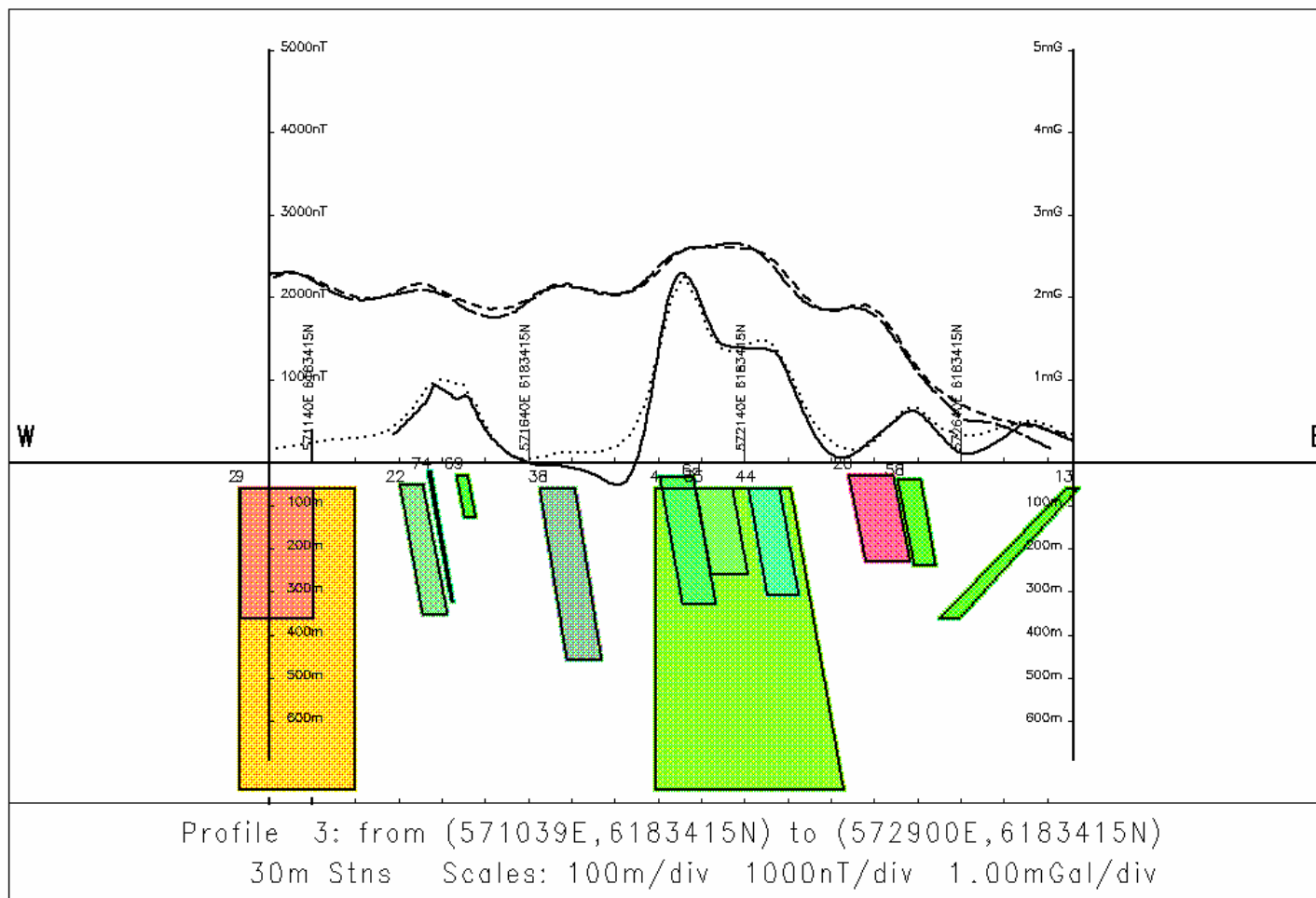
Centrex Metals Ltd

Bald Hill SA
Magnetic & Gravity Model
Profile \ Depth section

Adelaide Mining Geophysics Pty Ltd

Figure 9.2

04/07/19



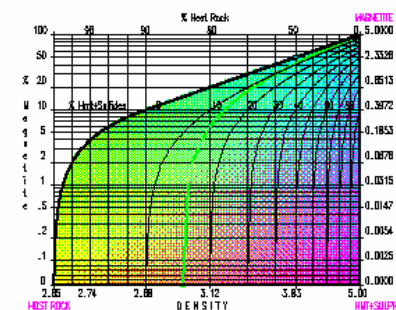
MAGNETIC PROFILES:
 Solid: data
 Dotted: model response

GRAVITY PROFILES:
 Long dash: data
 Shrt dash: model response

DEPTH SECTION:
 Dashed = faults
 Dotted/solid = bodies

Profile azimuth: 90.
 Mag Data file: BALDHILL.2ND
 Grv Data file: BH_0407.232

Body	Susc(contrast)	Den(contrast)	Depth
2	0.000(0.000)	2.780(0.130)	60.
4	0.040(0.040)	2.780(0.130)	60.
9	0.000(0.000)	3.000(0.350)	60.
13	0.200(0.200)	2.776(0.126)	60.
20	0.000(0.000)	3.250(0.600)	30.
22	0.050(0.050)	3.200(0.550)	50.
35	0.070(0.070)	2.950(0.300)	60.
38	0.040(0.040)	3.350(0.700)	60.
44	0.300(0.300)	3.360(0.710)	60.
58	0.200(0.200)	2.776(0.126)	40.
69	0.300(0.300)	2.832(0.182)	30.
74	0.410(0.410)	3.206(0.556)	20.
6d	0.320(0.320)	2.960(0.310)	35.



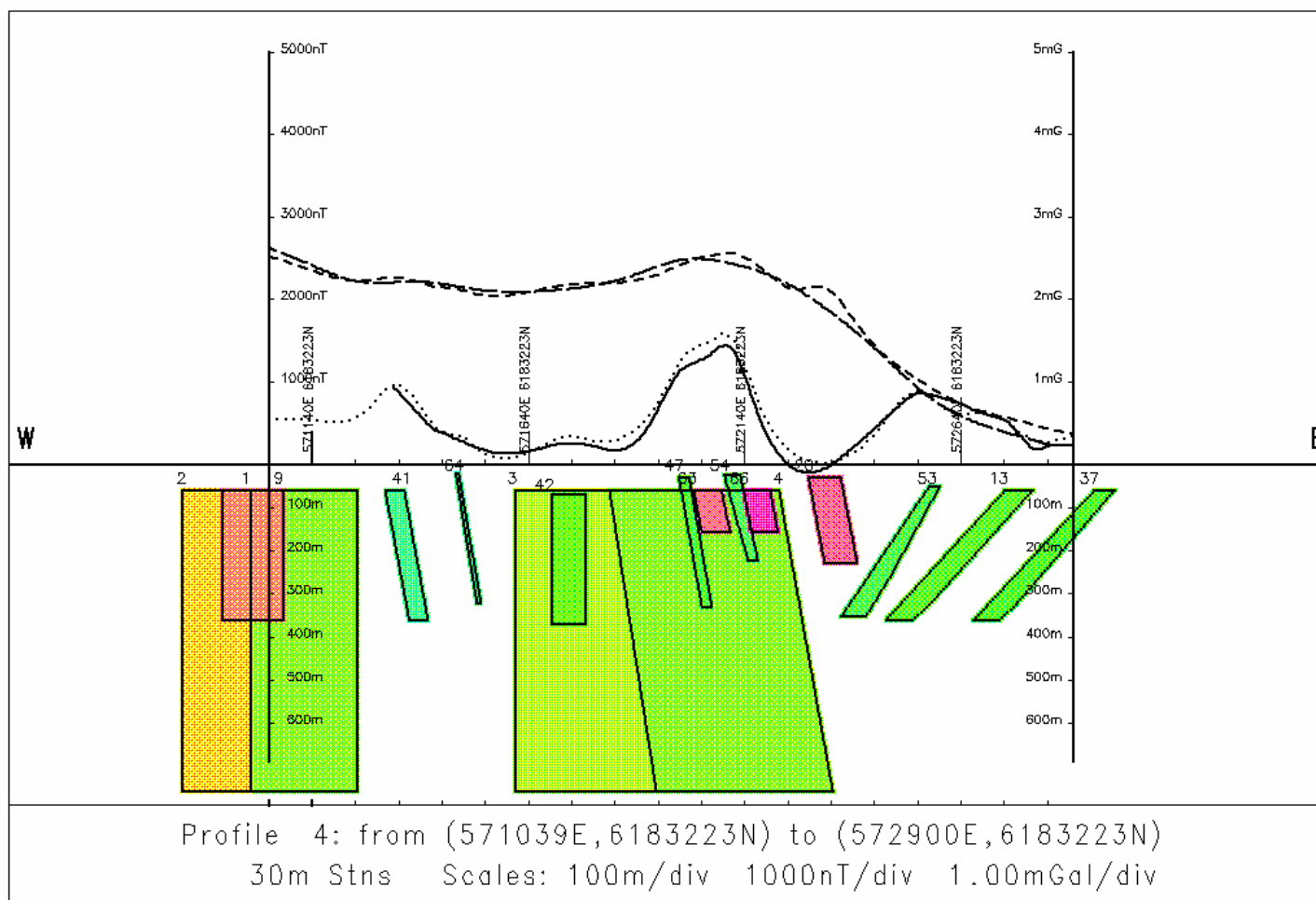
Centrex Metals Ltd

Bald Hill SA
Magnetic & Gravity Model
Profile \ Depth section

Adelaide Mining Geophysics Pty Ltd

Figure 9.3

04/07/19



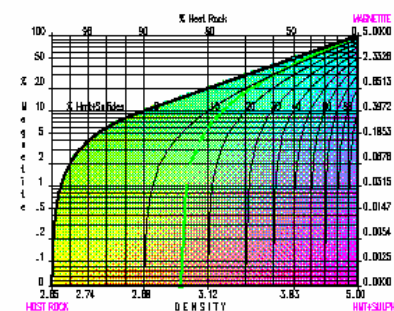
MAGNETIC PROFILES:
 Solid: data
 Dotted: model response

GRAVITY PROFILES:
 Long dash: data
 Shrt dash: model response

DEPTH SECTION:
 Dashed = faults
 Dotted/solid = bodies

Profile azimuth: 90.
 Mag Data file: BALDHILL.2ND
 Grv Data file: BH_0407.232

Body	Susc(contrast)	Den(contrast)	Depth
1	0.040(0.040)	2.780(0.130)	60.
2	0.000(0.000)	2.780(0.130)	60.
3	0.010(0.010)	2.780(0.130)	60.
4	0.040(0.040)	2.780(0.130)	60.
9	0.000(0.000)	3.000(0.350)	60.
13	0.200(0.200)	2.776(0.126)	60.
20	0.000(0.000)	3.250(0.600)	30.
37	0.300(0.300)	2.776(0.126)	60.
41	0.410(0.410)	3.206(0.556)	60.
42	0.110(0.110)	2.723(0.073)	70.
47	0.310(0.310)	2.838(0.188)	30.
53	0.310(0.310)	2.892(0.242)	50.
54	0.300(0.300)	2.950(0.300)	24.
63	0.000(0.000)	3.150(0.500)	60.
64	0.410(0.410)	3.206(0.556)	20.
66	0.000(0.000)	3.750(1.100)	60.



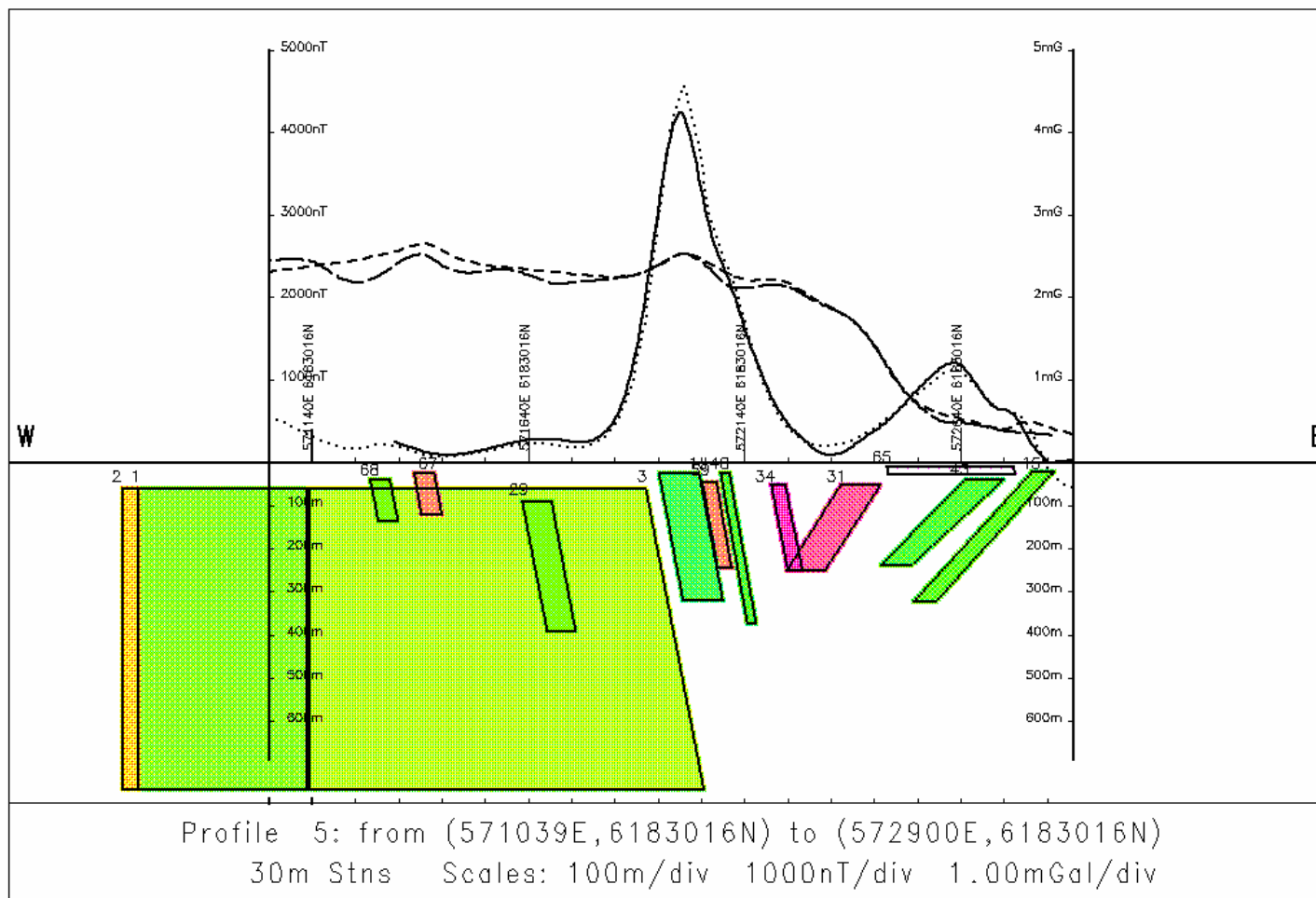
Centrex Metals Ltd

Bald Hill SA
Magnetic & Gravity Model
Profile \ Depth section

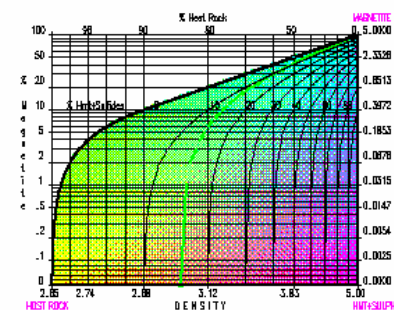
Adelaide Mining Geophysics Pty Ltd

Figure 9.4

04/07/19



Body	Susc(contrast)	Den(contrast)	Depth
1	0.040(0.040)	2.780(0.130)	60.
2	0.000(0.000)	2.780(0.130)	60.
3	0.010(0.010)	2.780(0.130)	60.
15	0.180(0.180)	2.765(0.115)	20.
29	0.080(0.080)	2.705(0.055)	90.
31	0.000(0.000)	3.300(0.850)	50.
34	0.000(0.000)	3.750(1.100)	50.
43	0.310(0.310)	2.838(0.188)	40.
48	0.300(0.300)	2.832(0.182)	25.
59	0.000(0.000)	3.000(0.350)	45.
65	0.000(0.000)	2.250(-0.400)	10.
67	0.000(0.000)	3.000(0.350)	25.
68	0.080(0.080)	2.705(0.055)	40.
1d	0.470(0.470)	2.924(0.274)	24.



MAGNETIC PROFILES:
 Solid: data
 Dotted: model response

GRAVITY PROFILES:
 Long dash: data
 Shrt dash: model response

DEPTH SECTION:
 Dashed = faults
 Dotted/solid = bodies

Profile azimuth: 90.
 Mag Data file: BALDHILL.2ND
 Grv Data file: BH_0407.232

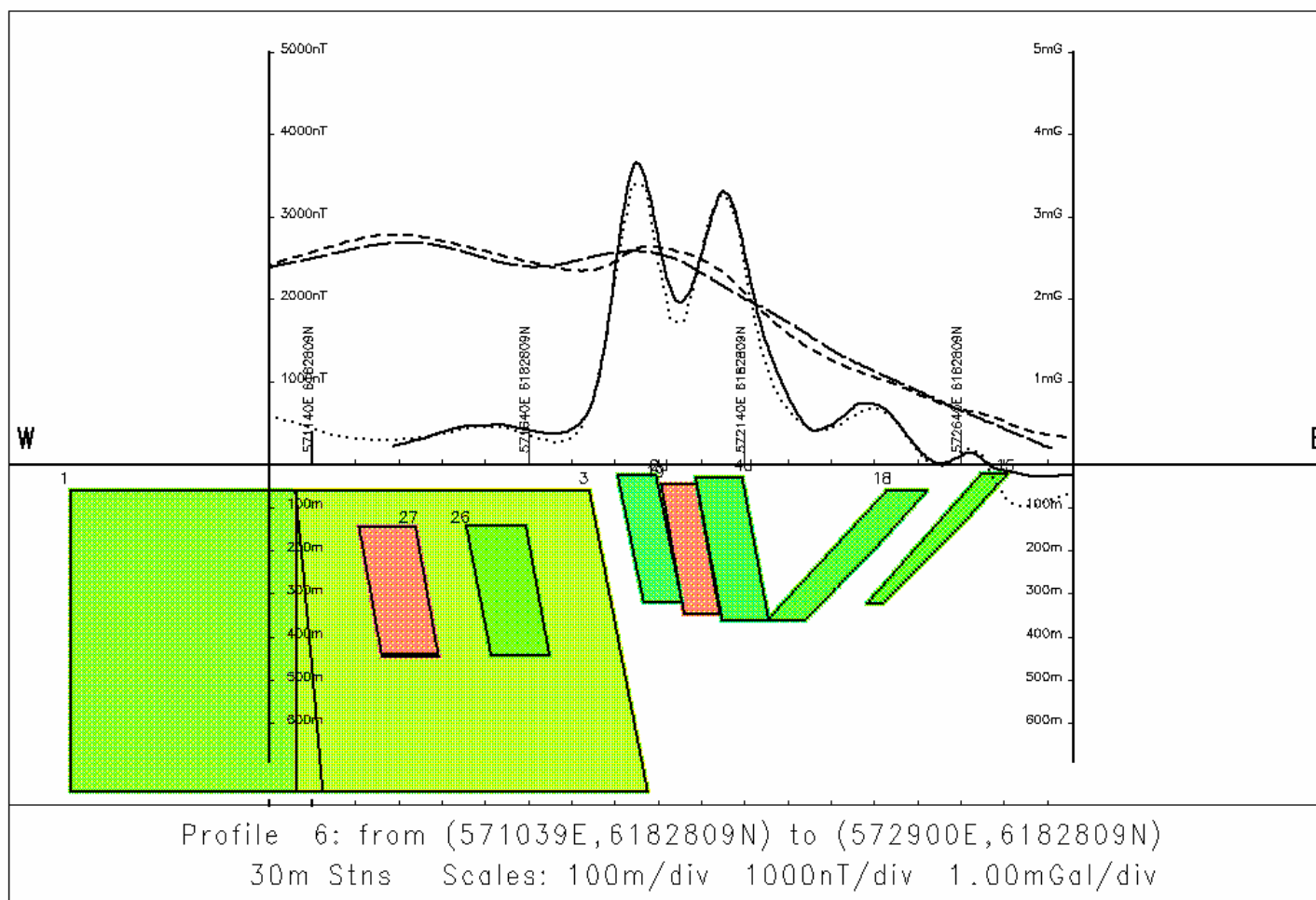
Centrex Metals Ltd

Bald Hill SA
Magnetic & Gravity Model
Profile \ Depth section

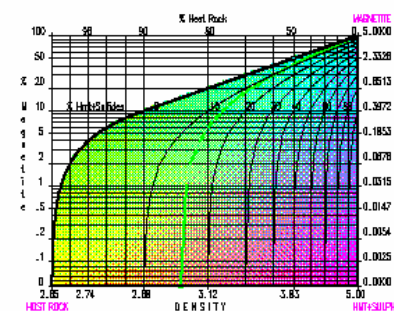
Adelaide Mining Geophysics Pty Ltd

Figure 9.5

04/07/19



Body	Susc(contrast)		Den(contrast)		Depth
1	0.040	(0.040)	2.780	(0.130)	60.
3	0.010	(0.010)	2.780	(0.130)	60.
15	0.180	(0.180)	2.765	(0.115)	20.
18	0.260	(0.260)	2.810	(0.160)	60.
19	0.000	(0.000)	3.000	(0.350)	45.
26	0.100	(0.100)	2.717	(0.067)	140.
27	0.000	(0.000)	3.000	(0.350)	145.
2d	0.470	(0.470)	2.924	(0.274)	24.
4d	0.370	(0.370)	2.870	(0.220)	30.



MAGNETIC PROFILES:
Solid: data
Dotted: model response

GRAVITY PROFILES:
Long dash: data
Shrt dash: model response

DEPTH SECTION:
Dashed = faults
Dotted/solid = bodies

Profile azimuth: 90.
Mag Data file: BALDHILL.2ND
Grv Data file: BH_0407.232

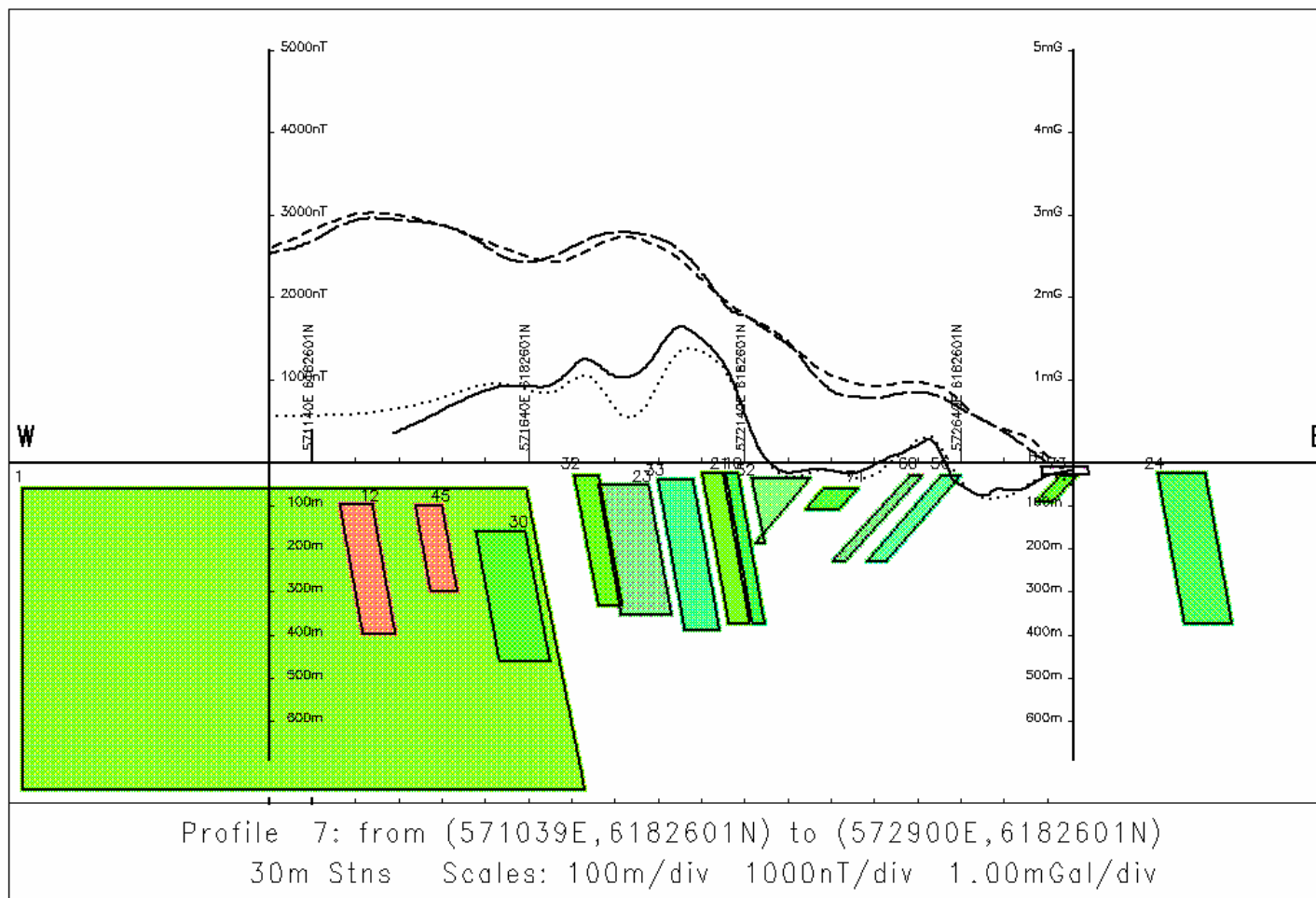
Centrex Metals Ltd

Bald Hill SA
Magnetic & Gravity Model
Profile \ Depth section

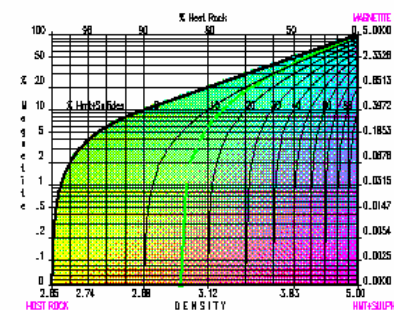
Adelaide Mining Geophysics Pty Ltd

Figure 9.6

04/07/19



Body	Susc(contrast)		Den(contrast)		Depth
1	0.040	(0.040)	2.780	(0.130)	60.
10	0.420	(0.420)	2.897	(0.247)	25.
12	0.000	(0.000)	3.000	(0.350)	95.
21	0.080	(0.080)	2.750	(0.100)	25.
23	0.060	(0.060)	3.200	(0.550)	50.
24	0.300	(0.300)	2.950	(0.300)	25.
30	0.220	(0.220)	2.787	(0.137)	160.
32	0.130	(0.130)	2.735	(0.085)	30.
33	0.400	(0.400)	3.150	(0.500)	40.
45	0.000	(0.000)	3.000	(0.350)	100.
52	0.060	(0.060)	3.050	(0.400)	37.
56	0.200	(0.200)	3.250	(0.600)	30.
60	0.070	(0.070)	3.150	(0.500)	30.
61	0.000	(0.000)	2.050	(-0.600)	10.
71	0.300	(0.300)	2.832	(0.182)	60.
73	0.200	(0.200)	2.776	(0.126)	30.



MAGNETIC PROFILES:
Solid: data
Dotted: model response

GRAVITY PROFILES:
Long dash: data
Shrt dash: model response

DEPTH SECTION:
Dashed = faults
Dotted/solid = bodies

Profile azimuth: 90.
Mag Data file: BALDHILL.2ND
Grv Data file: BH_0407.232

Centrex Metals Ltd

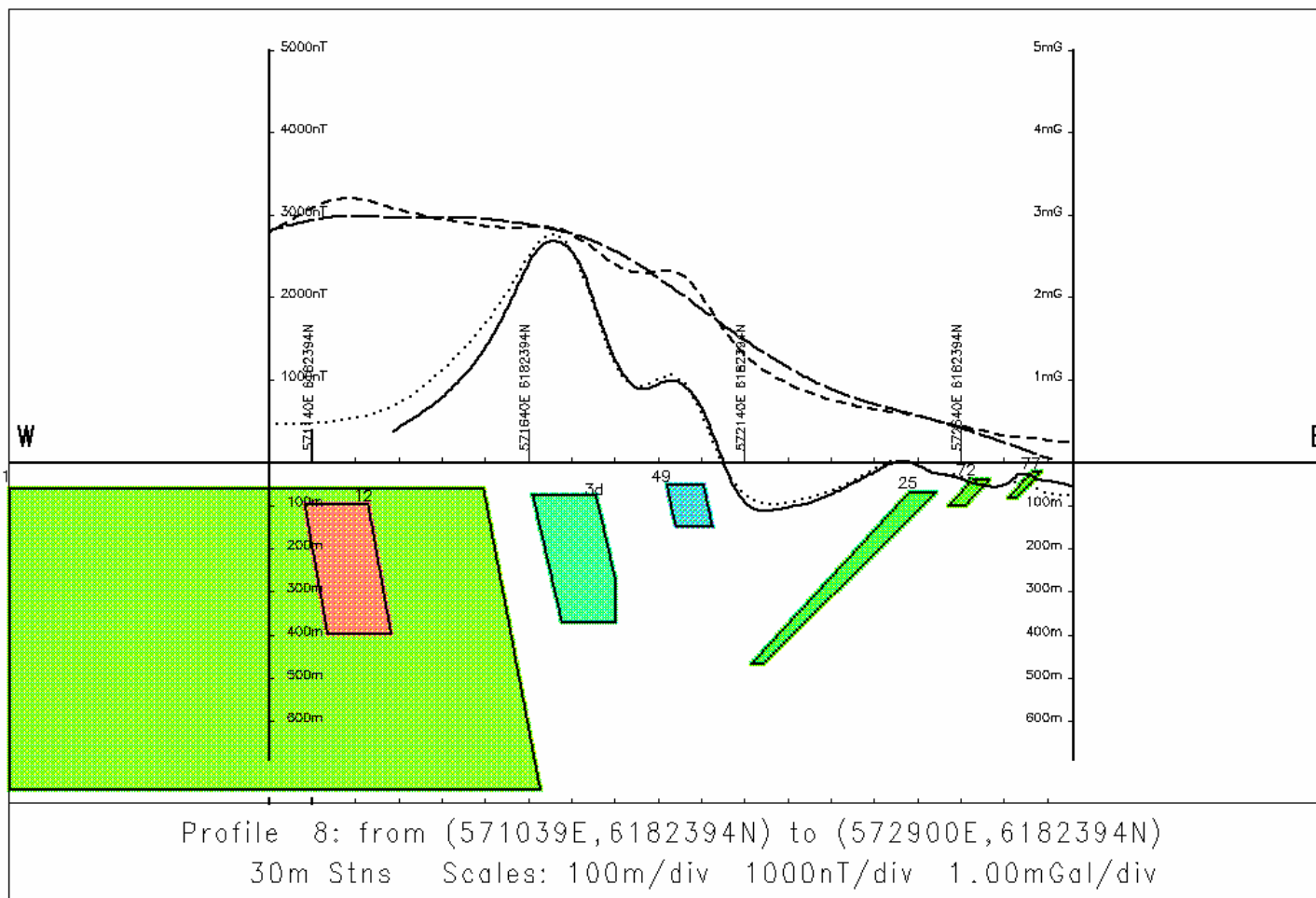
Bald Hill SA
Magnetic & Gravity Model
Profile \ Depth section

Adelaide Mining Geophysics Pty Ltd

Figure 9.7

04/07/19

Body	Susc(contrast)	Den(contrast)	Depth
1	0.040(0.040)	2.780(0.130)	60.
12	0.000(0.000)	3.000(0.350)	95.
25	0.350(0.350)	2.860(0.209)	70.
49	0.370(0.370)	3.950(1.300)	50.
72	0.200(0.200)	2.776(0.126)	40.
77	0.200(0.200)	2.776(0.126)	20.
3d	0.500(0.500)	3.250(0.600)	77.

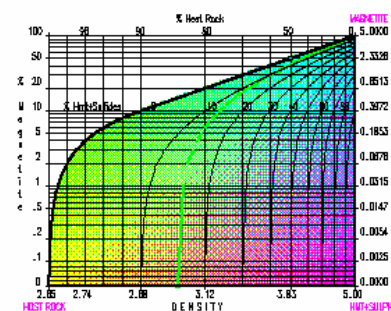


MAGNETIC PROFILES:
 Solid: data
 Dotted: model response

GRAVITY PROFILES:
 Long dash: data
 Shrt dash: model response

DEPTH SECTION:
 Dashed = faults
 Dotted/solid = bodies

Profile azimuth: 90.
 Mag Data file: BALDHILL.2ND
 Grv Data file: BH_0407.232



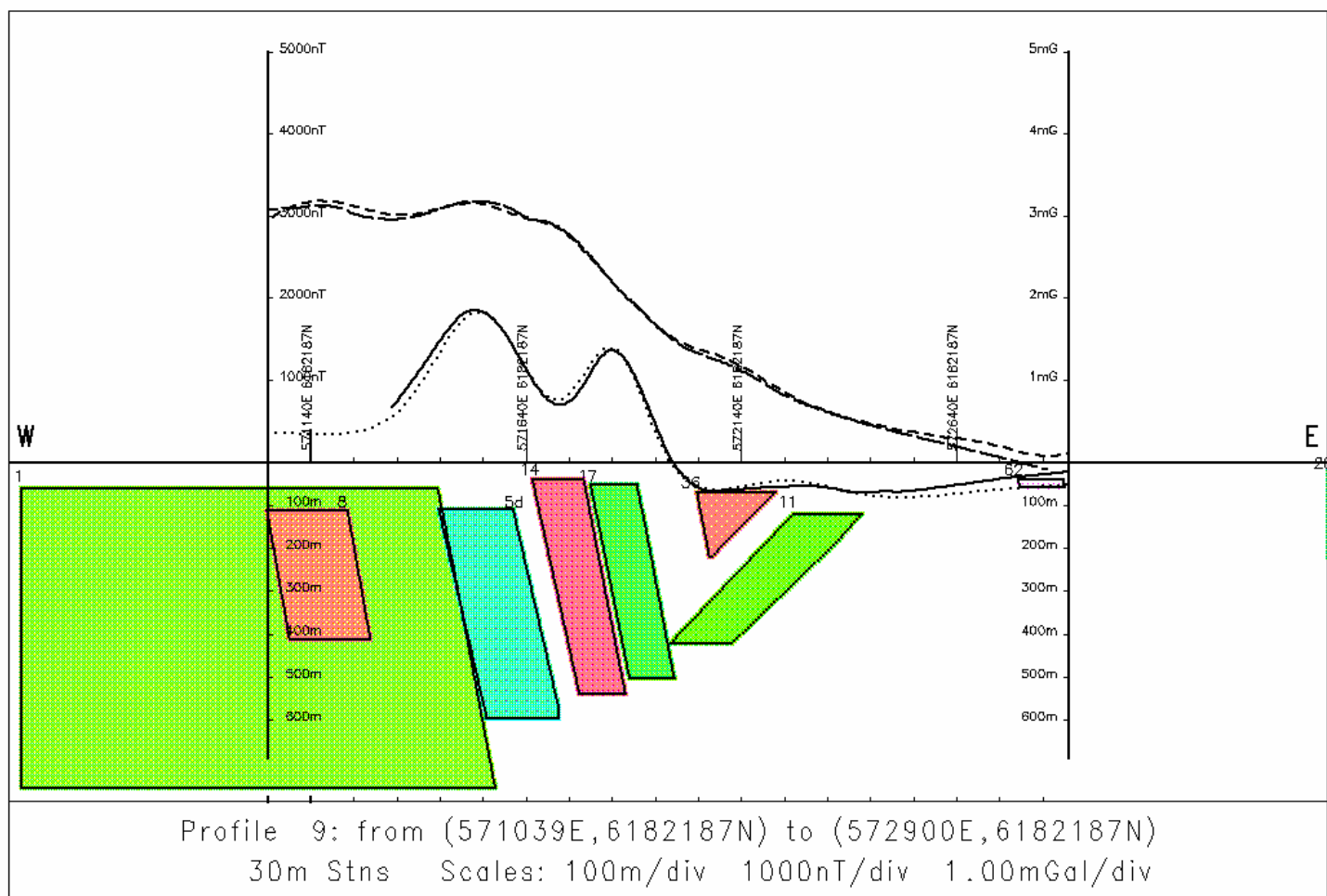
Centrex Metals Ltd

Bald Hill SA
Magnetic & Gravity Model
Profile \ Depth section

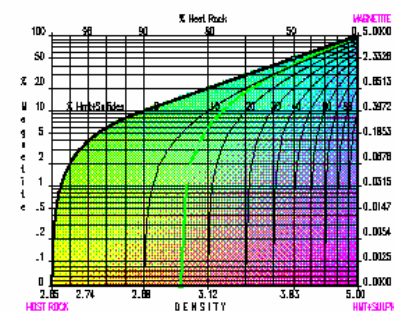
Adelaide Mining Geophysics Pty Ltd

Figure 9.8

04/07/19



Body	Susc(contrast)	Den(contrast)	Depth
1	0.040(0.040)	2.780(0.130)	60.
8	0.000(0.000)	3.000(0.350)	110.
11	0.110(0.110)	2.723(0.073)	120.
14	0.000(0.000)	3.200(0.550)	40.
17	0.350(0.350)	2.880(0.230)	50.
28	0.350(0.350)	2.860(0.209)	20.
36	0.000(0.000)	3.050(0.400)	70.
62	0.000(0.000)	2.250(-0.400)	40.
5d	0.650(0.650)	3.750(1.100)	110.



MAGNETIC PROFILES:
 Solid: data
 Dotted: model response

GRAVITY PROFILES:
 Long dash: data
 Shrt dash: model response

DEPTH SECTION:
 Dashed = faults
 Dotted/solid = bodies

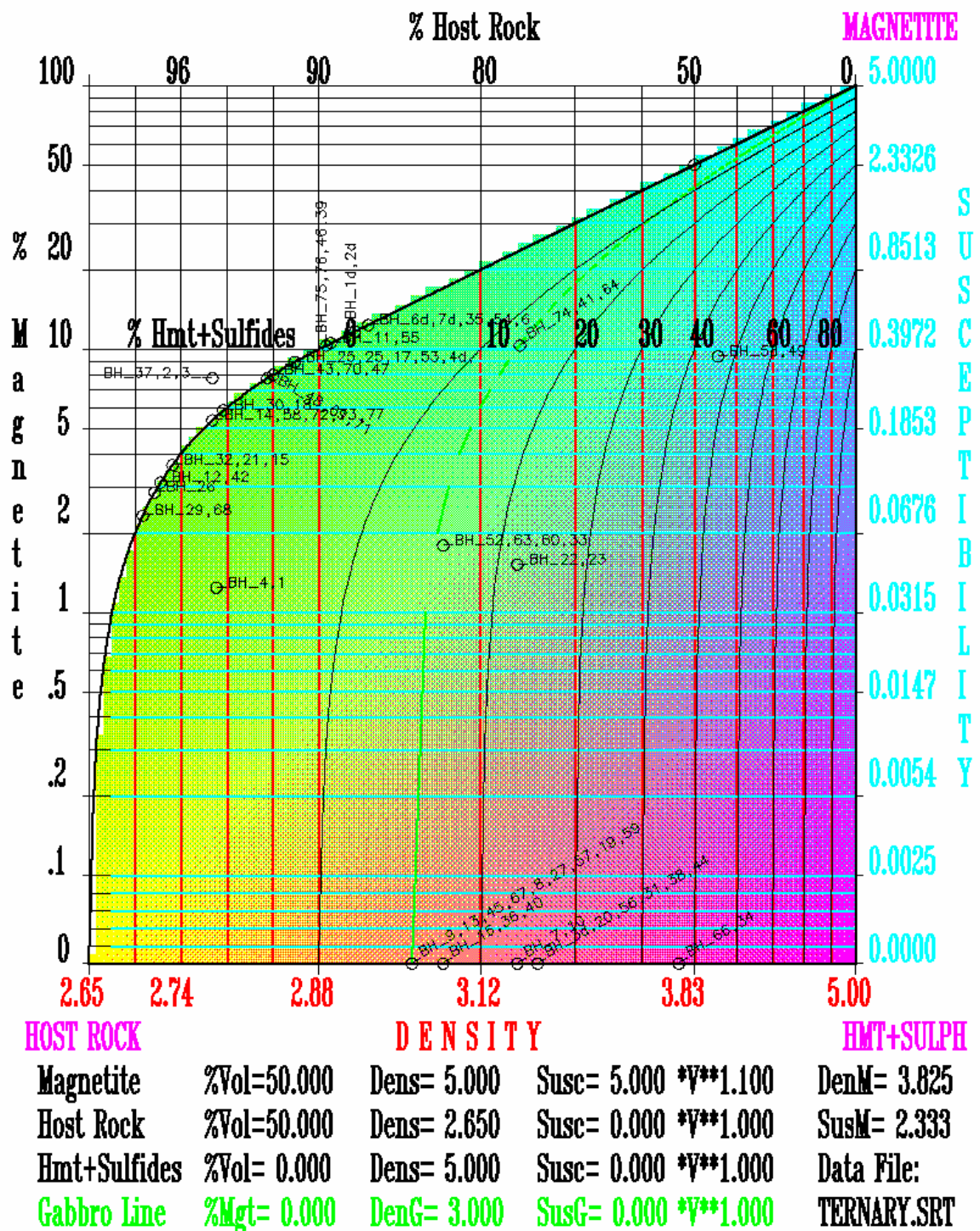
Profile azimuth: 90.
 Mag Data file: BALDHILL.2ND
 Grv Data file: BH_0407.232

Centrex Metals Ltd

Bald Hill SA
Magnetic & Gravity Model
Profile \ Depth section

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Figure 9.9



Centrex Metals Ltd

Bald Hill Prospect
Model Body Tops
Attributes: Phase Diagram

Adelaide Mining Geophysics Pty Ltd

Figure 10

Table 2. Magnetic/Gravity Model specification report for use with Plan Map of Body Tops

Title: Bald Hill SA
 Client: Centrex Metals Ltd
 User: Adelaide Mining Geophysics Pty Ltd

Magnetic data file name: BALDHILL.2ND
 Gravity data file name: BH_0407.232

Intensity = 59460. Declination = 7.
 Inclination = -67. Magnetometer height: 30.0 m
 Gravimeter height: 0.0 m

Hmt+sulf Density = 5.00 Magnetite Density = 5.00
 Magnetite MagSus = 5.00 Power Law Exponent = 1.10
 Matrix Rock Dens = 3.00

Number of Bodies = 77 Number of Faults = 0
 Number of Profiles = 9 Gauss quad order = 10
 Station Interval = 30 Scales =1000nT/div & 1.00mGal/div

Polygonal Bodies

Body	No of Verts	Depth	Dip Extnt	Plng Azmth	Plng	Susc (SI)	Rem Dec	Rem Inc	K- Ratio	Density (gm/cc)	App%Mgt	App%Hmt_Felsic
1	13	60.	700.	0.	90.	0.0400	0.	90.	0.00	0.130	1.24	4.34
		(Except:	Az= 100.,	Plg=	90. at	571076.2E,	6182937.0N)					
		(Except:	Az= 100.,	Plg=	80. at	571117.5E,	6182720.0N)					
		(Except:	Az= 100.,	Plg=	80. at	571493.3E,	6182694.0N)					
		(Except:	Az= 100.,	Plg=	80. at	571681.9E,	6182666.0N)					
		(Except:	Az= 100.,	Plg=	80. at	571637.8E,	6182608.0N)					
		(Except:	Az= 100.,	Plg=	80. at	571439.4E,	6182193.0N)					
		(Except:	Az= 100.,	Plg=	80. at	571361.3E,	6182106.0N)					
		(Except:	Az= 100.,	Plg=	80. at	571027.9E,	6181501.0N)					
2	7	60.	700.	0.	90.	0.0000	0.	90.	0.00	0.130	0.00	5.58
3	9	60.	700.	0.	90.	0.0100	0.	90.	0.00	0.130	0.35	5.23
		(Except:	Az= 100.,	Plg=	80. at	571757.8E,	6183341.0N)					
		(Except:	Az= 100.,	Plg=	80. at	571930.4E,	6183047.0N)					
		(Except:	Az= 100.,	Plg=	80. at	571691.1E,	6182667.0N)					
4	7	60.	700.	0.	90.	0.0400	0.	90.	0.00	0.130	1.24	4.34
		(Except:	Az= 100.,	Plg=	80. at	571757.8E,	6183341.0N)					
		(Except:	Az= 100.,	Plg=	80. at	572252.1E,	6183495.0N)					
		(Except:	Az= 100.,	Plg=	80. at	572242.3E,	6183370.0N)					
		(Except:	Az= 100.,	Plg=	80. at	572215.2E,	6183198.0N)					
		(Except:	Az= 100.,	Plg=	80. at	571930.4E,	6183047.0N)					
5	7	50.	600.	90.	90.	-0.0300	0.	90.	0.00	0.400	-	-
6	8	50.	300.	0.	90.	0.0000	0.	90.	0.00	0.330	0.00	14.16
		(Except:	Az= 100.,	Plg=	80. at	572052.1E,	6183521.0N)					
		(Except:	Az= 100.,	Plg=	80. at	572130.6E,	6183692.0N)					
		(Except:	Az= 100.,	Plg=	80. at	572211.8E,	6183774.0N)					
		(Except:	Az= 100.,	Plg=	80. at	572263.7E,	6184009.0N)					
		(Except:	Az= 100.,	Plg=	80. at	572508.7E,	6184245.0N)					
		(Except:	Az= 100.,	Plg=	80. at	572469.3E,	6184091.0N)					
		(Except:	Az= 100.,	Plg=	80. at	572348.5E,	6183789.0N)					
		(Except:	Az= 100.,	Plg=	80. at	572251.1E,	6183498.0N)					
7	7	60.	300.	90.	90.	0.0000	0.	90.	0.00	0.550	0.00	23.61
8	7	110.	300.	90.	80.	0.0000	0.	90.	0.00	0.350	0.00	15.02
9	7	60.	300.	90.	90.	0.0000	0.	90.	0.00	0.350	0.00	15.02
10	6	25.	350.	90.	80.	0.4200	0.	90.	0.00	0.247	10.52	0.09
11	9	120.	300.	100.	130.	0.1100	0.	90.	0.00	0.073	3.11	0.02
12	9	95.	300.	90.	80.	0.0000	0.	90.	0.00	0.350	0.00	15.02
13	5	60.	300.	100.	130.	0.2000	0.	90.	0.00	0.126	5.36	0.05
14	6	40.	500.	100.	80.	0.0000	0.	90.	0.00	0.550	0.00	23.61
15	7	20.	300.	100.	130.	0.1800	0.	90.	0.00	0.115	4.87	0.04
16	4	40.	400.	100.	80.	0.0000	0.	90.	0.00	0.400	0.00	17.17
17	5	50.	450.	100.	80.	0.3500	0.	90.	0.00	0.230	8.91	0.96
18	6	60.	300.	100.	130.	0.2600	0.	90.	0.00	0.160	6.80	0.06
19	7	45.	300.	90.	80.	0.0000	0.	90.	0.00	0.350	0.00	15.02
20	9	30.	200.	100.	80.	0.0000	0.	90.	0.00	0.600	0.00	25.75
21	5	25.	350.	90.	80.	0.0800	0.	90.	0.00	0.100	2.33	1.96
22	8	50.	300.	100.	80.	0.0500	0.	90.	0.00	0.550	1.52	22.09
23	4	50.	300.	90.	80.	0.0600	0.	90.	0.00	0.550	1.79	21.81
24	7	25.	350.	90.	80.	0.3000	0.	90.	0.00	0.300	7.75	5.13
25	6	70.	400.	100.	130.	0.3500	0.	90.	0.00	0.209	8.91	0.08
26	5	140.	300.	100.	80.	0.1000	0.	90.	0.00	0.067	2.85	0.03
27	6	145.	300.	90.	80.	0.0000	0.	90.	0.00	0.350	0.00	15.02
28	7	20.	200.	100.	80.	0.3500	0.	90.	0.00	0.209	8.91	0.08
29	7	90.	300.	100.	80.	0.0800	0.	90.	0.00	0.055	2.33	0.02
30	4	160.	300.	100.	80.	0.2200	0.	90.	0.00	0.137	5.84	0.05
31	5	50.	200.	100.	120.	0.0000	0.	90.	0.00	0.650	0.00	27.90
32	6	30.	300.	100.	80.	0.1300	0.	90.	0.00	0.085	3.62	0.03

33	4	40.	350.	90.	80.	0.4000	0.	90.	0.00	0.500	10.06	11.39
34	6	50.	200.	100.	80.	0.0000	360.	90.	0.00	1.100	0.00	47.21
35	5	60.	200.	90.	80.	0.0700	0.	90.	0.00	0.300	2.06	10.81
36	5	70.	150.	100.	130.	0.0000	0.	90.	0.00	0.400	0.00	17.17
(Except: Az= 100., Plg= 80. at 572011.9E, 6182152.0N)												
(Except: Az= 100., Plg= 80. at 572086.8E, 6182261.0N)												
37	3	60.	300.	100.	130.	0.3000	0.	90.	0.00	0.126	7.75	-2.34
38	6	60.	400.	100.	80.	0.0400	0.	90.	0.00	0.700	1.24	28.80
39	5	50.	300.	0.	90.	0.4100	0.	90.	0.00	0.242	10.29	0.09
40	8	60.	100.	100.	100.	0.0000	0.	90.	0.00	0.400	0.00	17.17
41	5	60.	300.	100.	80.	0.4100	0.	90.	0.00	0.556	10.29	13.56
42	6	70.	300.	0.	90.	0.1100	0.	90.	0.00	0.073	3.11	0.02
43	6	40.	200.	100.	130.	0.3100	0.	90.	0.00	0.188	7.98	0.07
44	5	60.	250.	100.	80.	0.3000	0.	90.	0.00	0.710	7.75	22.72
45	4	100.	200.	90.	80.	0.0000	0.	90.	0.00	0.350	0.00	15.02
46	4	50.	300.	100.	80.	0.4100	0.	90.	0.00	0.242	10.29	0.09
47	4	30.	300.	90.	80.	0.3100	0.	90.	0.00	0.188	7.98	0.07
48	4	25.	350.	90.	80.	0.3000	0.	90.	0.00	0.182	7.75	0.07
49	5	50.	100.	100.	80.	0.3700	0.	90.	0.00	1.300	9.38	46.42
50	5	10.	20.	100.	80.	0.0000	0.	90.	0.00	-0.600	-	-
51	5	10.	20.	100.	80.	0.0000	0.	90.	0.00	-0.600	-	-
52	5	37.	150.	100.	130.	0.0600	0.	90.	0.00	0.400	1.79	15.37
(Except: Az= 100., Plg= 80. at 572120.8E, 6182558.0N)												
(Except: Az= 100., Plg= 80. at 572211.1E, 6182667.0N)												
53	5	50.	300.	100.	120.	0.3100	0.	90.	0.00	0.242	7.98	2.40
54	4	24.	200.	110.	80.	0.3000	0.	90.	0.00	0.300	7.75	5.13
55	6	32.	200.	100.	80.	0.4500	0.	90.	0.00	0.263	11.20	0.10
56	6	30.	200.	100.	130.	0.2000	0.	90.	0.00	0.600	5.36	20.39
57	4	45.	200.	90.	80.	0.0000	0.	90.	0.00	0.350	0.00	15.02
58	4	40.	200.	100.	80.	0.2000	100.	90.	0.00	0.126	5.36	0.05
59	5	45.	200.	90.	80.	0.0000	0.	90.	0.00	0.350	0.00	15.02
60	4	30.	200.	100.	130.	0.0700	0.	90.	0.00	0.500	2.06	19.40
61	5	10.	20.	100.	80.	0.0000	0.	90.	0.00	-0.600	-	-
62	5	40.	20.	100.	80.	0.0000	0.	90.	0.00	-0.400	-	-
63	5	60.	100.	100.	80.	0.0000	360.	90.	0.00	0.500	0.00	21.46
64	4	20.	300.	100.	80.	0.4100	0.	90.	0.00	0.556	10.29	13.56
65	5	10.	20.	100.	80.	0.0000	0.	90.	0.00	-0.400	-	-
66	5	60.	100.	100.	80.	0.0000	360.	90.	0.00	1.100	0.00	47.21
67	5	25.	100.	90.	80.	0.0000	0.	90.	0.00	0.350	0.00	15.02
68	6	40.	100.	100.	80.	0.0800	0.	90.	0.00	0.055	2.33	0.02
69	4	30.	100.	100.	80.	0.3000	0.	90.	0.00	0.182	7.75	0.07
70	5	30.	200.	0.	90.	0.3100	0.	90.	0.00	0.188	7.98	0.07
71	5	60.	50.	100.	130.	0.3000	0.	90.	0.00	0.182	7.75	0.07
72	4	40.	60.	100.	130.	0.2000	0.	90.	0.00	0.126	5.36	0.05
73	4	30.	60.	100.	130.	0.2000	0.	90.	0.00	0.126	5.36	0.05
74	3	20.	300.	100.	80.	0.4100	0.	90.	0.00	0.556	10.29	13.56
75	3	20.	100.	0.	90.	0.4100	0.	90.	0.00	0.242	10.29	0.09
76	3	20.	100.	0.	90.	0.4100	0.	90.	0.00	0.242	10.29	0.09
77	4	20.	60.	100.	130.	0.2000	0.	90.	0.00	0.126	5.36	0.05

Demagnetised Prisms

Body	Depth	Length	Width	Dip Extnt	Stk	Dip	Susc (SI)	Rem Dec	Rem Inc	K- Ratio	Density (gm/cc)	App% Mgt	App% Hmt_Felsic
1d	23	220	85	300	20	80	0.4700	0	0	0.00	0.2739	11.65	0.10
2d	23	220	75	300	30	80	0.4700	0	0	0.00	0.2739	11.65	0.10
3d	76	240	110	300	40	80	0.5000	0	0	0.00	0.6000	12.33	13.42
4d	29	250	100	339	18	80	0.3700	0	0	0.00	0.2203	9.38	0.08
5d	109	240	130	497	40	80	0.6500	0	0	0.00	1.1000	15.65	31.56
6d	34	250	75	300	6	80	0.3200	0	0	0.00	0.3100	8.22	5.09
7d	34	350	65	196	6	80	0.5000	0	0	0.00	0.2897	12.33	0.11