FINAL REPORT E.L. 2294

7th May, 1980
to
14th April, 1982

OPEN FILE

Licensee: Aberfoyle Exploration Pty. Ltd.

Operator: Ashton Mining Limited

Sheet Reference: Waterloo (SE 52-3) 1:250,000

ASHTON MINING LIMITED
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November, 1982.

ABSTRACT

During the period 7th May, 1980 to 14th April, 1982, Ashton Mining Limited as Manager of the A.D.E. Joint Venture carried out an exploration program in E.L. 2294 aimed at the location of kimberlite pipes.

Work undertaken included regional and follow-up gravel sampling, airborne magnetic and EM surveys, photo-geological studies and follow-up loam sampling as well as geochemical investigations.

No kimberlite pipes were located.

L I S T O F C O N T E N T S

L I S T O F F I G U R E S

L I S T O F T A B L E S

L I S T O F A P P E N D I C E S

L I S T O F P L A N S

1.00 INTRODUCTION

Exploration Licence 2294 covered an area of 494.40 square miles (1,280.37 square kilometres) on the Waterloo 1:250,000 sheet.

The licence was granted to Aberfoyle Exploration Pty.Ltd. on 7th May, 1980 for an initial period of twelve months and was subsequently renewed for a further twelve months.

Exploration licence 2294 is subject of the A.D.E. Joint Venture Agreement between Ashton Mining Limited, A.O.G. Minerals Limited and Aberfoyle Exploration Pty.Ltd., concluded on 9th September, 1980. Ashton Mining Limited is the Manager of the Joint Venture.

An intensive exploration program including regional gravel sampling, airborne magnetics and EM surveys, photogeology and geochemistry was completed in the licence. All work was directed towards the location of kimberlite pipes.

This report gives a summary of the work carried out in E.L. 2294 during the period 7th May, 1980 to 14th April, 1982 - the date of surrender of the licence.

A statement of expenditure covering this period is included in the report.

E.L. 2294

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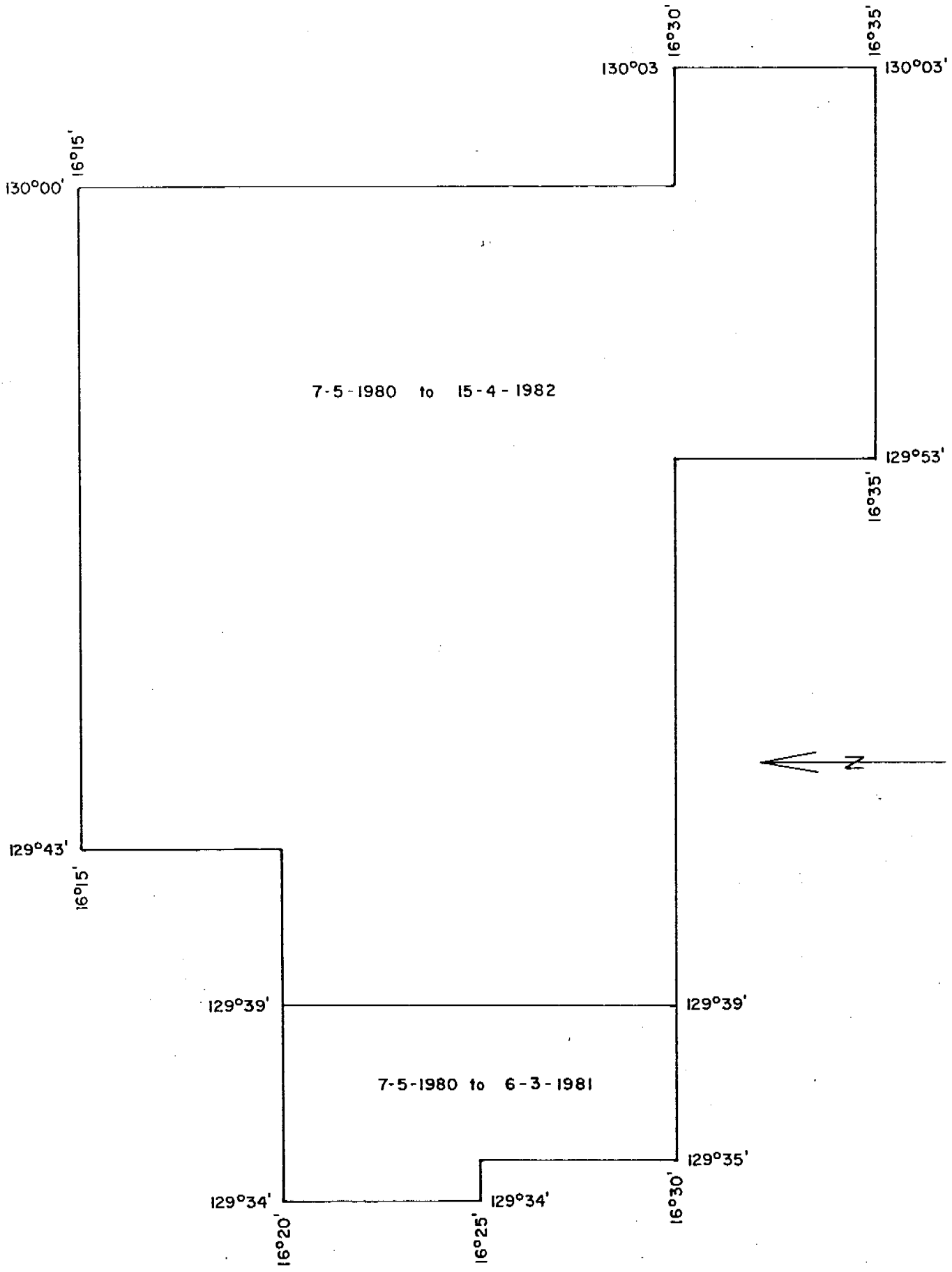

TENEMENT MAP

FIGURE 1

ASHTON MINING LIMITED

Scale 1:250 000

NOVEMBER, 1982

2.00 TENURE

Exploration Licence 2294 was held on behalf of the A.D.E. Joint Venture by Aberfoyle Exploration Pty.Ltd. The licence initially covered 1,280.37 square kilometres and the original area is outlined in Figure 1 and described fully below:

Commencing at the intersection of latitude 16 degrees 15 minutes with longitude 129 degrees 43 minutes thence proceeding to the intersection of latitude 16 degrees 15 minutes with longitude 130 degrees 00 minutes thence proceeding to the intersection of latitude 16 degrees 30 minutes with longitude 130 degrees 00 minutes thence proceeding to the intersection of latitude 16 degrees 30 minutes with longitude 130 degrees 03 minutes thence proceeding to the intersection of latitude 16 degrees 35 minutes with longitude 130 degrees 03 minutes thence proceeding to the intersection of latitude 16 degrees 35 minutes with longitude 129 degrees 53 minutes thence proceeding to the intersection of latitude 16 degrees 30 minutes with longitude 129 degrees 53 minutes thence proceeding to the intersection of latitude 16 degrees 30 minutes with longitude 129 degrees 35 minutes thence proceeding to the intersection of latitude 16 degrees 25 minutes with longitude 129 degrees 35 minutes thence proceeding to the intersection of latitude 16 degrees 25 minutes with longitude 129 degrees 34 minutes thence proceeding to the intersection of latitude 16 degrees 20 minutes with longitude 129 degrees 34 minutes thence proceeding to the intersection of latitude 16 degrees 20 minutes with longitude 129 degrees 43 minutes thence proceeding to the intersection of latitude 16 degrees 15 minutes with longitude 129 degrees 43 minutes, subject to all applications for mining tenements and excluding therefrom all mining tenements granted or registered and all reserves included within the definition of "reserve" in section 7 of the Mining Act.

Exploration Licence 2294 was voluntarily reduced to 1,131.79 square kilometres on 6th March, 1981 (refer to Figure 1).

3.00 REGIONAL GRAVEL SAMPLING

3.10 Field Phase

A field program involving the collection of ninety-one regional gravel samples was undertaken.

Gravel sampling was considered an effective exploration method for the location of kimberlites within the licence as there is a well developed drainage pattern over most of the area, with the degree of relief and outcrop conditions providing potential for suitable heavy mineral trapsites within the drainage system.

Prior to the commencement of field work, gravel sample locations were plotted in the office on the Kildurk, Kimon and Wickham River 1:100,000 sheets so that sample sites were approximately six kilometres apart and distributed uniformly over the area.

During the field program, individual sample sites were selected on the basis of the quality of the available heavy mineral traps in the vicinity of the preselected site, care being taken to sample the most suitable trap site. Helicopter was the most practical mode of transport as it had the advantages of ease of access and navigation and enabled the geologist to scan the area for suitable trap sites.

Once a suitable sample site was located, approximately 40 kg of gravel were gathered, sieved and the minus 4 mm fraction collected for laboratory examination. Generally the minus 4 mm samples weighed 25 - 30 kg. The sample sites were accurately plotted in the field on a prepared 1:100,000 base plan. Within E.L. 2294 a total of 91 regional gravel samples were collected corresponding to a sample density of one sample per 14.07 square kilometres. A series of seven follow-up gravel samples were also collected from selected sites within the licence. Sample locations are given in Plan 1.

3.20 Laboratory Phase

The samples were processed at the Ashton Mining Limited laboratory in Perth where they were concentrated by Wilfley Table and heavy liquid separation techniques.

The heavy liquid used was tetrabromoethane with a specific gravity of 2.96. The concentrates were then screened into various size fractions, further concentrated, where required, by magnetic and electrostatic separation techniques and a comprehensive grain by grain examination carried out on the minus 1.0 mm plus 0.425 mm fraction.

Of the ninety-one regional gravel samples processed, seventy-six contained no detectable kimberlite indicator minerals. Chromite grains were identified in the remainder

but these were considered to be of non-kimberlitic origin. One sample (WAT 509) also contained a diamond. However, resampling of the WAT 509 site and potential trapsites further upstream yielded negative results.

A complete listing of results of the laboratory examinations is given in Appendix 1.

4.00 AIRPHOTO STUDY

4.10 Hunting Geology and Geophysics (Aust) Pty.Ltd.

4.11 Introduction

A large regional airphoto study was undertaken on behalf of the A.D.E. Joint Venture by Hunting Geology and Geophysics (Australia) Pty. Limited. All of Exploration Licence 2294 was included in the study area.

Aerial photographs of 1948 vintage (1:50,000 scale) were selected by the consultant in preference to more recent photography (1:80,000 scale approximately) because it was considered that the larger scale would be beneficial, and would offset any advantage accruing from the greater vertical exaggeration of relief afforded by the more recent "RC9" photography.

Monoscopic viewing of all the runs of photographs preceded any stereoscopic study. This allowed an overall appreciation of the geology and the geomorphology and by this process it was recognized, inter alia, that annotation of "circular features" would be futile. The greater region is either covered by horizontal basic volcanic flows (Antrim Plateau Basalt) or has been exposed, owing to erosion of the basalt, only in the recent geological past. Vast areas therefore show the effects of recent removal of basalt outliers, many subcircular. This includes the sandstone plateau country east of the West Baines River. Elsewhere, extensive

lateritised surfaces predominate and circular and subcircular patterns (spurious anomalies) can be annotated at will.

A mental threshold was applied to the recognition of surface features that could conceivably represent a pipe-like intrusion, and innumerable simple tonal and textural "anomalies" were disregarded after initial stereoscopic consideration. Ideally, a morphological and/or structural component was sought in addition to tone, texture and pattern, in those features selected for listing.

Kimberlite dykes are commonly only a metre or less in width. Innumerable lineaments exist in the basalt, sandstone, and less dominant rocks, and there is no way of telling on the photographs which (if any) are filled by such narrow intrusions. At the scale of the photographs, a dyke 50m wide has a width of 1mm on the print, so the identification of any lesser lineament under the stereoscope is suspect. Few lineaments were selected for attention and these are thought to have some possibility of representing dykes. (Probably basaltic, in view of the pre-ponderance of this rock type.)

4.12 Results

The targets selected by Hunting were rated on a low, moderate or high priority scale. No high priority anomalies were recognized in the regional study area.

TABLE 1. : RESULTS AIR PHOTO INTERPRETATION IN E.L. 2294

Photo Anomaly	Run and Photo Nos.	Characteristics	Rating	Chosen by
K5	5-5065	Very large irregular U-shaped depression in Jasper Gorge Sandstone. Very limited drainage. Dimensions of U about 2x3km	Low	Consultants
K6	6-5099	Dark-toned, slightly negative, circular feature in Jasper Gorge Sandstone; about 400m in diameter. Probably an isolated outlier of basalt.	Moderate to Low	Consultants
K7	6-5097	Irregular, negative geomorphic feature in sandstone, similar in origin to K5 but dimensions are only 750x300m.	Low	Consultants
K8	5-5059	Dark toned, elevated, subcircular feature at intersection of two creeks.	Low	Ashton Mining
K9	5-5063	Strongly defined, N trending lineament. Probably a fault.	Low	Ashton Mining
KIM 1	8-5177	Elongate anomalous depression 700x250m, in lateritised sandstone.	Low	Consultants
KIM 2	8-5174	Two small pans in lateritised terrain.	Low	Consultants

Within E.L. 2294, low and moderate priority targets were outlined and details of these are listed in Table 1. Anomaly locations are shown in Plan 1.

4.20 In-house Study

The air photographs used by Hunting were also scanned by Ashton Mining geologists and additional features were listed for field follow-up (refer to Table 1).

4.30 Follow-up Program

4.31 Field Work

A helicopter supported program was implemented to determine the nature of the airphoto anomalies identified. This work was carried out by one sampling crew (i.e. geologist, assistant and pilot) and backed up by a ground vehicle for collection of samples and the dumping of fuel at convenient localities.

The investigation procedure adopted was as follows:

(a) identification from air photos and the relevant topographic sheet of the feature's exact locality in the field.

(b) circular reconnaissance of the feature to obtain an appreciation of the topography, geomorphology, and to pinpoint suitable sampling sites and outcrop occurrences.

Photo Anomaly	Field Comments	Sample Number	Sample Type	Sample Weight
KIM 1	A 750m long, peanut shaped (~250m wide) headwater breaching a laterite layer atop the sandstone. Sandstone outcrops throughout the anomaly.	WAT 1330	loam	34kg (double sample)
	Distinguishing feature is the lushness of vegetation due to the presence of a running spring.	WAT 1329	gravel	
KIM 2	Large, subcircular feature distinguished by slight negative elevation and low density of tree cover. Appears to be a water collection point and site of erosion into a laterite layer which is exposed at the head of the feature.	WAT 1331	loam	34kg (double sample)

TABLE 2 : FIELD FOLLOW-UP OF AIR PHOTO FEATURES IN E.L. 2294

Photo Anomaly	Field Comments	Sample Number	Sample Type	Sample Weight
K 5	U-shaped depression within Jasper Gorge Sandstone, 3km long x 2km wide. The valley is bound by flat lying 5-10m walls of sandstone and is infilled with deep colluvial and fluvial drifts of fine white quartz sand. Patches of outcrop occur sporadically throughout the feature. Very few trees are present with only spinifex grass on the sand. The sand reflects the anomalous tone seen on the air photo. Gravel sample taken downstream of feature.	WAT 1378	gravel	
K 6	450m diameter circular feature defined by vegetation and situated on the plateau. The Jasper Gorge Sandstone outcrops occasionally within the feature. Vitrually no tree growth with only knee high bushes and spinifex. Has a surface cover of laterised sandstone pebbles and sphericules of laterite and quartz sand.	WAT 1372 WAT 1373	loam gravel	35kg (doubl sampl
K 7	Negative geomorphic feature, 12m deep of irregular shape lying within the Jasper Gorge Sandstone. The sandstone outcrops intermittently across the feature and forms the 12m high retaining walls. The feature is drained by two, 0.5m wide creeks, has very little tree cover, and a surface cover of spinifex although large areas are left exposed. *NOTE:* K7 type features are not unique to this plateau within the Jasper Gorge Sandstone.	WAT 1371	loam	33kg (doubl sampl
K 8	A dark toned area (as seen on air photo) consisting of 2 dried mud holes on a creek bend, and ringed by trees - only a drainage pan.			
K 9	20^{o} trending major lineament - possibly a major fault within the Jasper Gorge Sandstone - leaving a discontinuous 30km long linear valley some 25m deep by up to 50m wide. Sandstone outcrops in the 60^{o} valley walls and within the valley floor. The feature transects major drainage patterns in the area. A gravel sample was obtained in the southern part of the feature where a creek had incised along the valleys length.	WAT 1379	gravel	

./(ii)

(c) loam sampling of exposed areas and/or gravel sampling (in suitable drainages) and examination of outcrop and colluvial occurrences.

Most of the airphoto targets were loam sampled, with the samples consisting of material scraped from exposed surfaces within the feature. Several features though, owing to drainage suitability or cover peculiarities, were gravel sampled using the same criteria employed in the regional gravel sampling program.

Table 2 summaries the type of sample taken for each feature and notes relevant field details.

4.32 Laboratory Results

All the samples collected were forwarded to Ashton Mining's laboratory in Perth and were processed and observed in the manner outlined in Section 3.20.

Results were negative (refer to Appendix 1).

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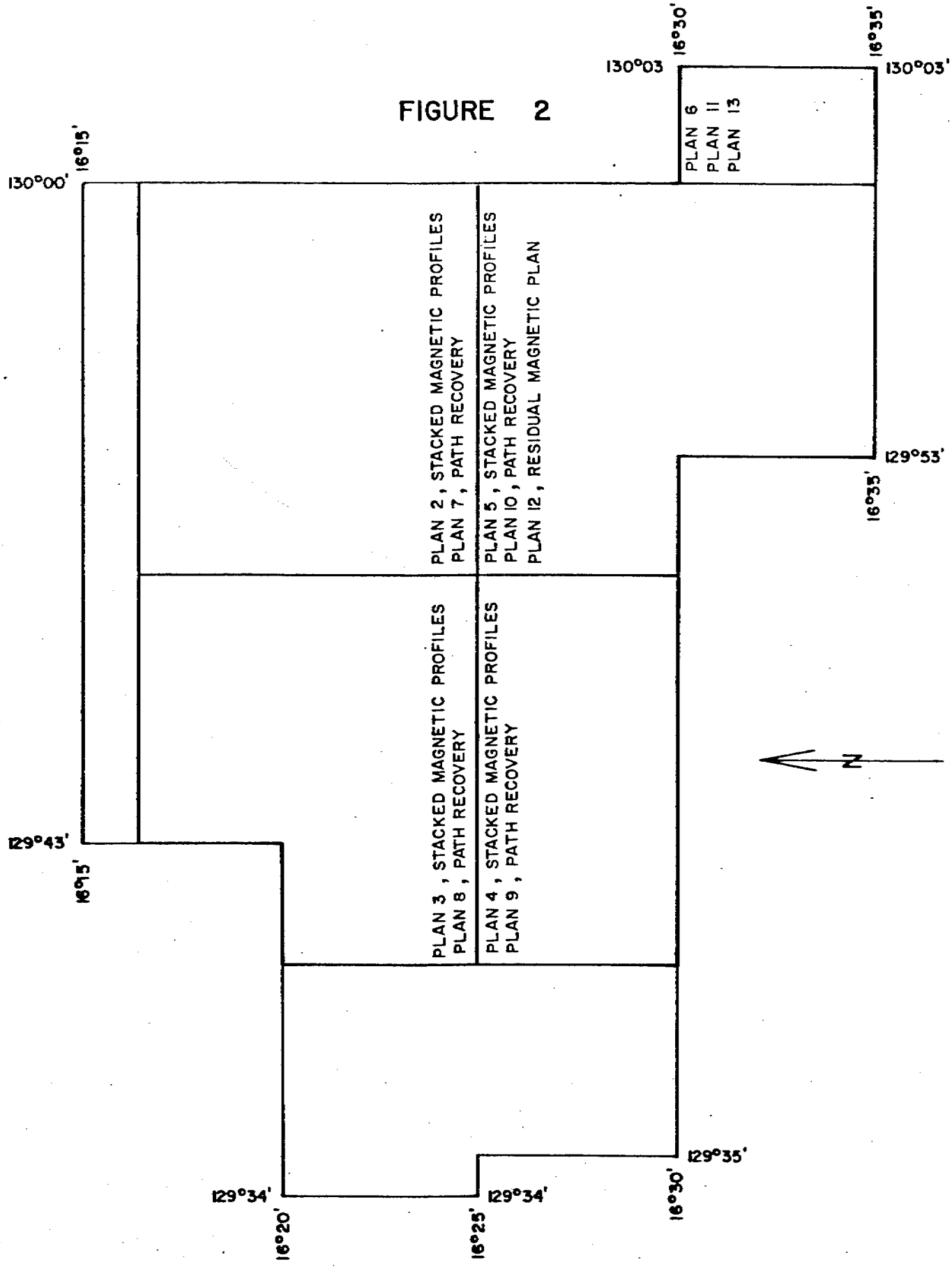
FIGURE 2



AREA OF AIRBORNE MAGNETIC SURVEY
SHOWING PLAN LOCATION

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5.00 AIRBORNE MAGNETIC SURVEY

5.10 General

A fixed wing airborne magnetic survey was flown by Geometrics International Incorporation over an area of approximately 940 square kilometres in the eastern two-thirds of the licence (refer to Figure 2). This work was carried out as part of a larger regional airborne magnetic program by the A.D.E. Joint Venture in the Waterloo area. Flight line spacing was 300 metres with lines oriented in a north-south direction. Additional survey specifications are listed in the legend to Plan 2. Results within E.L. 2294 are presented as stacked profiles and selected contour plots (refer to Plans 2 to 13).

5.20 Interpretation and Follow-up

The data collected from the survey was interpreted by R.K. Jones and Associates and a number of potential target areas were selected for further investigation. Anomalies were chosen from the compiled stacked profiles and priority was attached to those discrete anomalies which could not be readily accounted for by the available geology. The position of the anomaly in relation to major structural features was also noted.

A number of difficulties were encountered in the areas of extensive laterite and basalt. To overcome these problems contouring of the results in specific areas was undertaken -

TABLE 3 : MAGNETIC ANOMALIES AND RESULTS OF FIELD FOLLOW-UP IN E.L. 2294

Anomaly Number	Description	Follow-up Results
19/1	11nT dipole in lateritic area	Red clay soil in depression - weathered basalt overlies sandstone to the south and dips towards depression. Double volume loam samples WAT 1475 (34 kg) and WAT 1476 (34 kg) collected. Results negative.
19/2	50-60nT dipole anomalies in laterite area.	Numerous sharp dipoles in an east west zone. Possibly a remnant of basalt or pisolitic laterite. Double volume loam sample WAT 1470 (32 kg) collected. Negative result.
19/3	18nT dipoles in laterite	Numerous dipole anomalies with outcrops of pisolitic laterite. Double volume loam samples WAT 1477 (30 kg) and WAT 1478 (31 kg) collected. Results negative.
19/4	One line 10nT dipole in laterite	Lateritic rubble between sandstone ridges - but no basalt found. Double volume loam sample WAT 1484 (30 kg) collected. Negative result.
19/4B	No aeromagnetic anomaly recorded but anomaly found during helimag survey.	Complex dipole over lateritic rubble - similar to 19/4 and 19/6. No basalt found. Double volume loam sample WAT 1483 (33 kg) collected. Result negative.

Anomaly Number	Description	Follow-up Results
19/6	No aeromagnetic anomaly recorded but anomaly found during helimag survey.	Low rounded hills of weathered basalt. Double volume loam samples WAT 1481 (30 kg) and WAT 1482 (32 kg) collected. Negative result.
24/2	6nT dipole in "noisy" drainage area.	Small sharp anomalies in alluvial mud in Baines River - possible fossil drainage. Double volume loam samples WAT 1489 (30 kg) and WAT 1490 (34 kg) collected. Results negative.
25/1	Noisy area in Baines River drainage.	Similar to 24/2 in areas of alluvial muds in Baines River. Probable fossil drainage. Double volume loam sample WAT 1488 (30 kg) collected. Negative result.

the aim being to isolate discrete bulls-eye type anomalies.

Field checking of the target areas was undertaken by Ashton Mining Limited using a helicopter borne magnetometer system. All of the anomalies selected were recovered by the helimag system. Loam samples were collected on all the magnetic features checked within E.L. 2294.

During the initial selection of the target areas, it was considered highly likely that a number of the anomalies would be related to unmapped remnant basalt layers or laterite. The follow-up program confirmed these suspicions and also showed that extensive areas of anomalous magnetic response, which when plotted on the known geology suggested magnetic units within the Hughie Sandstone and Jasper Gorge Sandstone, were in fact large areas of thinly bedded basalt.

The characteristics of the selected anomalies and the results of the follow-up program are summarized in Table 3.

The follow-up program did not discover a kimberlite source to any of the magnetic anomalies. A very high percentage coincided with remnant basalt or laterite overlying weathered basalt sometimes preserved in depressions in the bedrock. The results of the loam sampling were negative (refer to Plan 1 and Appendix 1).

TABLE 4 : SPECIFICATIONS REGIONAL INPUT SURVEY

Flight line direction	:	North-south
Average line length	:	50 kilometres
Minimum line length	:	8 kilometres
Navigation	:	visual from 1:25,000 photo enlargements
Mean terrain clearance	:	120 metres
Aircraft	:	Super Canso PBY-5A
Equipment	:	Barringer Mark V INPUT EM system
		Geometrics 803 nuclear precession magnetometer
		Honeywell 1912 visicorder
		Sperry RT220 radio altimeter
		35 mm continuous strip tracking camera
		Crystal controlled fiducial numbering system
		50Hz noise monitor
		MADACS digital acquisitor unit

TABLE 5: EVALUATION OF INPUT ANOMALIES IN E.L. 2294

ANOMALOUS ZONE	FLIGHT LINES	GEOTERREX		ASSESSMENT BY DICKSON & ASSOCIATES
		Priority	Interpretation	
W1-40	2763 - 2771	3	Large amplitude distinguishes anomalies within a large unit.	Surface response. No obvious features on photography.
W1-56	2811	3	Broad shape, probably part of a larger conductor, some altitude effect.	Half space - lies directly in the drainage system.
W1-57	2861	3	Sharp, asymmetric shape is distinctive within the larger unit.	Moderate conductor of excellent shape. No obvious topographic features. Could be formational anomaly.
W1-58	2981 - 3032	3	Some of the anomalies have a better shape than those in the larger unit.	Edge of larger surficial response occurring on elevated country, basalt?
W1-59	2891 - 2901	3	Best response is on Line 2891, fairly broad, rapid decay, magnetic association, isolated.	Mainly half space response. Anomaly situated on hills.
W1-60	2972 - 2981	3	Possibility of altimeter effects.	Half space response.

E.L. 2294

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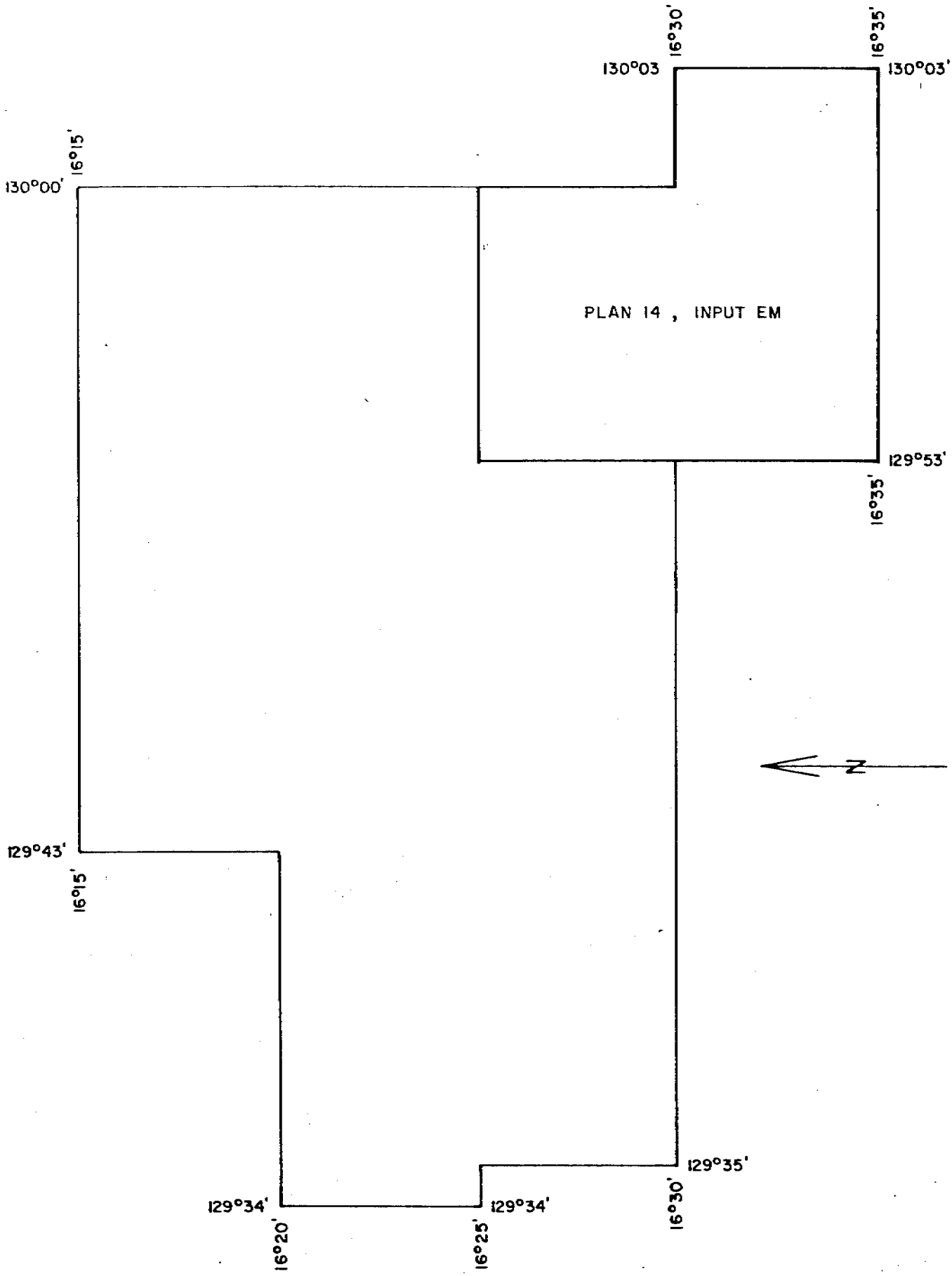


FIGURE 3

AREA OF INPUT EM SURVEY

ASHTON MINING LIMITED | Scale 1:250 000 | NOVEMBER, 1982

6.00 INPUT SURVEY

An INPUT EM survey was flown by Geoterrex Pty. Ltd. over an area of approximately 280 square kilometres in the southeastern portion of the licence (refer to Figure 3). This work was carried out as part of a larger regional INPUT program by the A.D.E. Joint Venture in the Waterloo area. Specifications for the survey are given in Table 4 and the results for the area flown in E.L. 2294 are presented in Plan 14.

The data collected from the survey was initially interpreted by Geoterrex Pty. Ltd. and later reassessed by G.O. Dickson & Associates Pty. Limited.

Geoterrex rated the anomalous zones selected from the regional survey as priority 1, 2 or 3 targets. Within E.L. 2294, six priority 3 targets were outlined (refer to Plan 14) and the relevant comments by Geoterrex regarding these anomalies are given in Table 5.

After examining in detail the anomalies selected by Geoterrex, Dickson & Associates reached the conclusion that none of the anomalies in E.L. 2294 warranted ground follow-up. Consequently no field follow-up sampling was undertaken.

TABLE 6: GEOCHEMICAL RESULTS OF SELECTED REGIONAL GRAVEL SAMPLES IN E.L. 2294

Sample No.	Cu	Pb	Zn	Co	Ni	Mn	Cr	Ba	Rb	U	La	Nb	Zr	Sr
WAT 102	4	5	2	x	5	10	x	50	16	x	30	x	800	13
WAT 103	2	5	4	x	5	x	x	45	14	x	20	x	1050	11
WAT 507	x	x	6	x	5	5	x	63	24	6	30	4	1450	19
WAT 525	2	x	8	x	15	75	20	35	4	6	x	6	5400	7
WAT 526	x	x	10	5	5	150	10	90	8	4	30	x	4550	9
WAT 527	x	x	4	5	5	50	10	30	6	4	20	x	1200	6
WAT 528	x	x	10	5	10	50	10	60	11	8	20	4	3800	12
WAT 610	6	5	10	5	10	130	10	70	17	4	30	x	720	14
WAT 611	4	x	2	5	10	95	10	35	9	6	20	4	3600	10
WAT 612	8	x	10	10	15	85	20	50	22	4	30	4	2600	18
WAT 615	4	x	x	x	x	40	10	70	22	x	20	x	960	10
WAT 617	26	10	34	55	50	2000	10	400	85	x	50	8	370	70
WAT 618	12	5	14	25	20	680	10	130	42	x	30	x	330	28
WAT 619	4	5	2	x	x	25	10	65	18	6	30	4	720	10
WAT 620	2	x	x	x	5	40	10	40	17	x	30	x	1200	9
WAT 621	12	10	100	25	20	710	10	220	42	x	30	24	380	46
WAT 622	x	x	x	5	5	45	10	60	13	10	30	8	8000	10
WAT 623	x	x	x	5	5	15	10	55	18	x	x	4	1250	12
WAT 624	2	5	x	5	15	30	10	75	20	4	20	x	1150	12
WAT 625	2	x	x	5	5	20	10	45	18	8	20	x	2150	11
WAT 626	2	5	x	5	5	30	10	55	22	x	20	x	500	14
WAT 907	8	5	55	5	5	200	10	150	42	4	30	10	1700	28
WAT 920	2	5	8	x	5	55	x	100	36	6	20	8	2800	18
WAT 928	6	5	42	5	15	160	10	150	36	6	30	12	1150	34
WAT 929	6	5	65	10	15	210	10	170	40	10	20	16	4000	34
WAT 930	4	5	38	10	15	150	10	140	38	x	50	8	840	32
WAT 931	x	x	8	5	5	55	x	130	20	10	30	4	5600	24
WAT 932	4	5	22	25	15	950	x	360	32	6	30	4	2150	28
WAT 933	8	15	140	20	25	430	20	140	26	34	20	60	3.16%	32
WAT 934	4	10	48	10	15	200	10	170	42	4	30	8	290	38
WAT 935	x	x	2	x	5	10	x	75	13	8	40	x	3250	13
WAT 936	6	5	36	15	20	190	10	220	80	6	30	10	680	60
WAT 938	2	5	10	x	5	40	10	55	16	6	20	4	2540	14

Sample No.	Cu	Pb	Zn	Co	Ni	Mn	Cr	Ba	Rb	U	La	Nb	Zr	Sr
WAT 939	2	5	20	x	5	95	x	130	32	4	40	10	2050	28
WAT 1047	4	5	16	10	5	35	10	95	11	8	30	6	3900	11
WAT 1049	8	5	6	x	x	30	x	60	15	8	30	4	1450	17
WAT 1054	2	x	8	x	x	5	x	50	15	8	20	x	5500	13
WAT 1055	2	5	12	x	x	5	x	80	24	10	30	6	4400	22
WAT 1058	2	5	6	5	5	55	x	160	48	x	50	8	4500	24
WAT 1062	8	x	4	x	x	x	x	85	32	4	30	x	2500	22
WAT 1178	2	5	6	x	x	x	x	60	20	10	x	4	7500	19
WAT 1179	x	5	10	5	x	35	x	70	28	x	30	x	1400	20
WAT 1180	2	5	10	5	x	50	x	65	32	x	x	4	720	13
WAT 1181	6	10	10	5	x	110	x	210	70	4	40	x	1750	14
WAT 1182	2	5	2	x	5	5	x	60	24	10	20	x	1050	15
Detection Limit	(2)	(5)	(2)	(5)	(5)	(5)	(10)	(10)	(2)	(4)	(20)	(4)	(4)	(2)

x = below limit of detection
all results in ppm unless otherwise stated.

7.00 GEOCHEMISTRY

A total of 45 tabled concentrates of selected regional gravel samples from E.L.2294 were assayed by Amdel for a range of elements considered characteristic of kimberlites, namely for Cu, Pb, Zn, Co, Ni, Mn, Cr, Ba, Rb, U, La, Nb, Zr, Sr.

The analytical techniques employed were as follows:

Atomic Absorption Code C1 (perchloric acid digestion)	Cu, Pb, Zn, Co, Ni, Mn, Cr
XRF Code B1/1 Code B1/2	Ba, Rb, U, La Nb, Zr, Sr

No anomalies of significance were located and it was considered that the technique of assaying the tabled concentrates was probably not as useful as analysis of normal minus 80 mesh stream sediment samples.

Geochemical results are listed in Table 6 and plotted on Plans 15 to 19.

8.00 CONCLUSIONS

During the twenty-three months E.L. 2294 was explored by the A.D.E. Joint Venture, a variety of proven techniques including classical gravel sampling, airborne magnetics and Input EM surveys were applied in the search for kimberlites but without success.

The results of the surveys led the Manager to conclude, that the likelihood of locating a kimberlite pipe in E.L. 2294 was remote and that the licence should therefore be surrendered.

APPENDIX 1.

RESULTS OF LABORATORY EXAMINATIONS: E.L. 2294

The following fractions of each sample were studied:

-1.0 mm	+0.8 mm;	denoted by +0.8
-1.8 mm	+0.5 mm;	" " +0.5
-0.5 mm	+0.425 mm;	" " +0.4

Sample No.	Results	Comments
WAT 102	NIL	
WAT 103	NIL	
WAT 478	NIL	
WAT 479	NIL	
WAT 480	NIL	
WAT 496	NIL	
WAT 501	NIL	
WAT 502	NIL	
WAT 503	NIL	
WAT 504	NIL	
WAT 505	NIL	
WAT 506	NIL	
WAT 507	NIL	
WAT 508	NIL	
WAT 509	1 +0.4 diamond	White octa-dodecahedron. Heavily textured with growth lines, ragged apeces. No fluorescence, no resorption grooves.
	2 +0.4 chromite	Fresh, finely pitted even surface matte lustre, submetallic in some positions, vitreous fracture.
WAT 510	Nil	
WAT 511	Nil	

./(ii)

E.L. 2294 (Contd.)

Sample No.	Results	Comments
WAT 525	70 x 0.5 Chromite 500 x 0.4 "	Very Fresh to Fresh, anhedral, subhedral, finely pitted or smooth matte surfaces. Some coarsely pitted subvitreous. Some finely stepped high sheen with fine grained intergrowths on surface. Soft to hard brittle streak.
WAT 526	NIL	
WAT 527	12 +0.5 Chromite 100 +0.4 "	Fresh, mostly rounded or subrounded, finely pitted or 'cokey' matte to subvitreous surfaces. Rare euhedral grain with flat faces, zoned or growth features on truncated surfaces.
WAT 528	19 +0.4 Chromite	Fresh, anhedral, rounded, smooth, fine or coarsely pitted matte surfaces, vitreous cores.
WAT 610	2 +0.5 Chromite 33 +0.4 "	Fresh, subhedral, some anhedral rounded. Fine or coarsely pitted matte surfaces. Some smooth, subvitreous, some truncated, zoned. Vitreous cores, very hard streak.
WAT 611	14 +0.5 Chromite 65 +0.4 "	Fresh/Worn, euhedral to anhedral, rounded. Fine to coarse pitting, matte surfaces vitreous cores.
WAT 612	10 +0.5 Chromite 74 +0.4 "	Fresh to Fresh/Worn, euhedral to anhedral, rounded. Fine to coarse pitting, matte surfaces, vitreous cores.
WAT 615	6 +0.4 Chromite	Fresh/Worn, anhedral, irregular holed and pitted surfaces, matte to subvitreous lustre, some convex vitreous patches.
WAT 616	NIL	
WAT 617	NIL	
WAT 618	NIL	
WAT 619	3 +0.4 Chromite	Fresh/Worn, rounded, pitted cokey surfaces, subvitreous or matte lustre, vitreous core.
WAT 620	2 +0.5 Chromite 5 +0.4 "	Fresh/Worn, rounded, pitted cokey surfaces, subvitreous or matte lustre, vitreous core.
WAT 621	NIL	
WAT 622	3 +0.5 Chromite 13 +0.4 "	Fresh, mainly anhedral. Some finely pitted matte to subvitreous surfaces, some coarsely pitted. Vitreous convex patches, vitreous fracture.

./(iii)

Sample No.	Results	Comments
WAT 623	1 +0.4 chromite	Fresh, subhedral, finely pitted irregular matte surfaces, relict patches of smooth matte face, truncated and grooved.
WAT 624	1 +0.5 chromite 5 +0.4 "	Fresh, euhedral rounded, pitted matte surfaces, vitreous core, some grooves.
WAT 625	1 +0.5 chromite 1 +0.4 "	Fresh, one subhedral, rounded edges, other anhedral. Matte pitted surfaces, vitreous fracture, rare groove.
WAT 626	NIL	
WAT 810	NIL	
WAT 811	NIL	
WAT 812	NIL	
WAT 813	NIL	
WAT 905	NIL	
WAT 906	NIL	
WAT 907	NIL	
WAT 908	NIL	
WAT 909	NIL	
WAT 910	NIL	
WAT 911	NIL	
WAT 912	NIL	
WAT 913	NIL	
WAT 914	NIL	
WAT 915	NIL	
WAT 916	NIL	
WAT 917	NIL	
WAT 918	NIL	
WAT 919	NIL	
WAT 920	NIL	

Sample No.	Results	Comments
WAT 921	NIL	
WAT 922	NIL	
WAT 923	NIL	
WAT 924	NIL	
WAT 925	NIL	
WAT 926	NIL	
WAT 928	NIL	
WAT 929	NIL	
WAT 930	NIL	
WAT 931	NIL	
WAT 932	NIL	
WAT 933	1 +0.4 chromite	Fresh/Worn, subhedral, rounded. Dull matte irregular and shallowly pitted surfaces, truncated zoned subvitreous core.
WAT 934	NIL	
WAT 935	NIL	
WAT 936	NIL	
WAT 938	NIL	
WAT 939	NIL	
WAT 1041	NIL	
WAT 1042	NIL	
WAT 1043	NIL	
WAT 1044	NIL	
WAT 1045	NIL	
WAT 1046	NIL	
WAT 1047	NIL	
WAT 1049	NIL	

./(v)

Sample No.	Results	Comments
WAT 1053	NIL	
WAT 1054	NIL	
WAT 1055	NIL	
WAT 1056	NIL	
WAT 1057	NIL	
WAT 1058	NIL	
WAT 1059	NIL	
WAT 1060	NIL	
WAT 1061	NIL	
WAT 1062	NIL	
WAT 1178	NIL	
WAT 1179	NIL	
WAT 1180	NIL	
WAT 1181	NIL	
WAT 1182	NIL	
WAT 1183	NIL	
WAT 1242	NIL	
WAT 1329	NIL	
WAT 1330	NIL	
WAT 1331	NIL	
WAT 1371	NIL	
WAT 1372	NIL	
WAT 1373	NIL	
WAT 1378	NIL	
WAT 1379	NIL	

./(vi)

Sample No.	Results	Comments
WAT 1470	NIL	
WAT 1475	NIL	
WAT 1476	NIL	
WAT 1477	NIL	
WAT 1478	NIL	
WAT 1481	NIL	
WAT 1482	NIL	
WAT 1483	NIL	
WAT 1484	NIL	
WAT 1488	NIL	
WAT 1489	NIL	
WAT 1490	NIL	

APPENDIX 2.

ADE JOINT VENTURE

EXPLORATION LICENCE NO. 2294

FINAL EXPENDITURE FOR THE PERIOD 7th May 1980 to 14th April 1982

		$
Salaries		6,215
Field & Laboratory Expenses		74,247
Miscellaneous		6,590
Total Expenditure	$	87,052

Date Licence Granted: 7th May 1980

JPC: 22/6/82

E.L.2294

DIAMOND

RIVER

WEST BAINES

"KILDURK" Aerodrome

K 8 K 9 K 6 K 7 K5 KIM 1 KIM 2

25/1 24/2 19/6 19/4B 19/3 19/2 19/4 19/1

WAT496 WAT103 WAT102 WAT919 WAT480 WAT479 WAT478 WAT505 WAT506 WAT502 WAT1178 WAT1180 WAT509 WAT1179 WAT1181 WAT508 WAT510 WAT1182 WAT1242 WAT1041 WAT1379 WAT1042 WAT1183 WAT501 WAT503 WAT507 WAT504 WAT511 WAT935 WAT1043 WAT1060/WAT1378 WAT526 WAT931 WAT917 WAT939 WAT938 WAT936 WAT626 WAT528 WAT527 WAT525 WAT933 WAT934 WAT1059 WAT918 WAT1061 WAT1062 WAT1044 WAT1057 WAT1046 WAT1045 WAT1053 WAT932 WAT930 WAT914 WAT915 WAT1058 WAT1055 WAT610 WAT611 WAT625 WAT913 WAT1372 WAT1373 WAT1056 WAT612 WAT925 WAT926 WAT1054 WAT1371 WAT924 WAT929 WAT1489 WAT1490 WAT623 WAT928 WAT622 WAT624 WAT910 WAT916 WAT1482 WAT1481 WAT905 WAT906 WAT909 WAT907 WAT911 WAT912 WAT908 WAT923 WAT922 WAT1484 WAT1483 WAT1478 WAT1477 WAT1470 WAT920 WAT921 WAT1475 WAT1476 WAT1331 WAT813 WAT810 WAT1330 WAT1329 WAT1047 WAT812 WAT811 WAT1049 WAT620 WAT619 WAT618 WAT616 WAT615 WAT617 WAT621

16°15' 129°43' 130°00' 16°20' 129°34' 16°25' 129°34' 16°30' 129°35' 16°35' 129°53' 130°03'

- WAT908 REGIONAL GRAVEL SAMPLE
- x *WAT1178* FOLLOW-UP GRAVEL SAMPLE
- o *WAT1373* AIRPHOTO ANOMALY GRAVEL SAMPLE
- \+ WAT1372 LOAM SAMPLE

K6 AIRPHOTO ANOMALY NUMBER

19/4 MAGNETIC ANOMALY NUMBER

CR82/356A

ABERFOYLE EXPLORATION PTY. LTD

REGIONAL GRAVEL SAMPLING

E.L. 2294

SAMPLE LOCATIONS

PLAN 1

0 1 2 3 4 5km

SCALE 1:100000

Date:- NOVEMBER, 1982

16 15 00S

590000E

600000E

8200000N

16 20 00S

8190000N

16 25 00S

129 50 00E

129 55 00E

130 00 00E

AIRBORNE SURVEY SPECIFICATIONS

MAGNETOMETER :	GEOMETRICS G803 RECORDING TO 0.5nT
SPECTROMETER :	GEOMETRICS GR800 DETECTOR VOLUME 2048CU. IN. DIFFERENTIAL RECORDING Th.U.K.TOTAL COUNT
DATA RECORDING :	GEOMETRICS G-714
RECORDING INTERVAL :	1.0 SEC..AIRSPEED 50 metres per SEC
FLIGHT PATH RECORD :	GEOCAM 35mm CONTINUOUS TRACKING CAMERA
DETECTOR AV. CLEARANCE :	BOTH DETECTORS IN AIRCRAFT AT 80m
NOMINAL LINE SPACING :	TRAVERSE LINES 250m . TIE LINES 5.0 km
NOMINAL LINE SPACING :	[illegible]
FLIGHT LINE RECOVERY :	VISUALLY TO 1:25000 PHOTO ENLARGEMENTS

STACKED MAGNETIC PROFILE PLOT
GRID NOTATION REFERS TO AUSTRALIAN MAP GRID

MAGNETICS :	LEVELLED AND DIURNALLY CORRECTED
IGRF :	REMOVED . DATUM 2000 nT REMOVED
BASE VALUE :	2300 nT
VERTICAL SCALE :	10 nT

N

0 2 Km

SCALE 1:25000

FLOWN BY GEOMETRICS INT. CORP
COMPILED BY EXPLORATION COMPUTER SERVICES PTY LTD

ASHTON MINING LTD CR82/356A

E.L. 2294

PLAN 2

STACKED MAGNETIC PROFILES

DATE: NOVEMBER, 1982

16 15 00S

580000E

8200000N

16 20 00S

8190000N

25/1

16 25 00S

129 40 00E

129 45 00E

129 50 00E

AIRBORNE SURVEY SPECIFICATIONS

MAGNETOMETER :	GEOMETRICS G803 RECORDING TO 0.5nT
SPECTROMETER :	GEOMETRICS GR800 DETECTOR VOLUME 2048CU. IN. DIFFERENTIAL RECORDING Th,U,K,TOTAL COUNT
DATA RECORDING :	GEOMETRICS G-714
RECORDING INTERVAL :	1.0 SEC..AIRSPEED 50 metres per SEC
FLIGHT PATH RECORD :	GEOCAM 35mm CONTINUOUS TRACKING CAMERA
DETECTOR AV. CLEARANCE :	BOTH DETECTORS IN AIRCRAFT AT 80m
NOMINAL LINE SPACING :	TRAVERSE LINES 250m . TIE LINES 5.0 km
FLIGHT LINE RECOVERY :	VISUALLY TO 1:25000 PHOTO ENLARGEMENTS

STACKED MAGNETIC PROFILE PLOT
GRID NOTATION REFERS TO AUSTRALIAN MAP GRID

MAGNETICS :	LEVELLED AND DIURNALLY CORRECTED
IGRF :	REMOVED . DATUM 2000 nT REMOVED
BASE VALUE :	2300 nT
VERTICAL SCALE :	10 nT

0 1 2 Km

SCALE 1:25000

FLOWN BY GEOMETRICS INT. CORP
COMPILED BY EXPLORATION COMPUTER SERVICES PTY LTD

ASHTON MINING LTD CR82/356A

E.L. 2294

PLAN 3
STACKED MAGNETIC PROFILES

DATE: NOVEMBER , 1982

16 25 00S

24/2

16 30 00S

16 35 00S

129 40 00E

129 50 00E

8180000N

8170000N

580000E

AIRBORNE SURVEY SPECIFICATIONS

MAGNETOMETER :	GEOMETRICS G803 RECORDING TO 0.5nT
SPECTROMETER :	GEOMETRICS GR800 DETECTOR VOLUME 2048CU. IN. DIFFERENTIAL RECORDING Th.U.K.TOTAL COUNT
DATA RECORDING :	GEOMETRICS G-714
RECORDING INTERVAL :	1.0 SEC..AIRSPEED 50 metres per SEC
FLIGHT PATH RECORD :	GEOCAM 35mm CONTINUOUS TRACKING CAMERA
DETECTOR AV. CLEARANCE :	BOTH DETECTORS IN AIRCRAFT AT 80m
NOMINAL LINE SPACING :	TRAVERSE LINES 250m , TIE LINES 5.0 km
FLIGHT LINE RECOVERY :	VISUALLY TO 1:25000 PHOTO ENLARGEMENTS

STACKED MAGNETIC PROFILE PLOT
GRID NOTATION REFERS TO AUSTRALIAN MAP GRID

MAGNETICS	: LEVELLED AND DIURNALLY CORRECTED
IGRF	: REMOVED , DATUM 2000 nT REMOVED
BASE VALUE	: 2300 nT
VERTICAL SCALE	: 10 nT

0 1 2 Km
SCALE 1:25000

FLOWN BY GEOMETRICS INT. CORP
COMPILED BY EXPLORATION COMPUTER SERVICES PTY LTD

ASHTON MINING LTD GR82/356A

E.L. 2294

PLAN 4
STACKED MAGNETIC PROFILES

DATE: NOVEMBER , 1982

16 25 00S

16 30 00S

490 000E

600 000E

130 00 00E

8180000N

8170000N

19/4

19/3

19/2

19/1

AIRBORNE SURVEY SPECIFICATIONS

MAGNETOMETER :	GEOMETRICS G803 RECORDING TO 0.5nT
SPECTROMETER :	GEOMETRICS GR800 DETECTOR VOLUME 2048CU. IN. DIFFERENTIAL RECORDING Th,U,K,TOTAL COUNT
DATA RECORDING :	GEOMETRICS G-714
RECORDING INTERVAL :	1.0 SEC.,AIRSPEED 50 metres per SEC
FLIGHT PATH RECORD :	GEOCAM 35mm CONTINUOUS TRACKING CAMERA
DETECTOR AV. CLEARANCE :	BOTH DETECTORS IN AIRCRAFT AT 80m
NOMINAL LINE SPACING :	TRAVERSE LINES 250m . TIE LINES 5.0 km
FLIGHT LINE RECOVERY :	VISUALLY TO 1:25000 PHOTO ENLARGEMENTS

STACKED MAGNETIC PROFILE PLOT
GRID NOTATION REFERS TO AUSTRALIAN MAP GRID

MAGNETICS	: LEVELLED AND DIURNALLY CORRECTED
IGRF	: REMOVED , DATUM 2000 nT REMOVED
BASE VALUE	: 2300 nT
VERTICAL SCALE	: 10 nT

0 1 2 Km

SCALE 1:25000

FLOWN BY GEOMETRICS INT. CORP
COMPILED BY EXPLORATION COMPUTER SERVICES PTY LTD

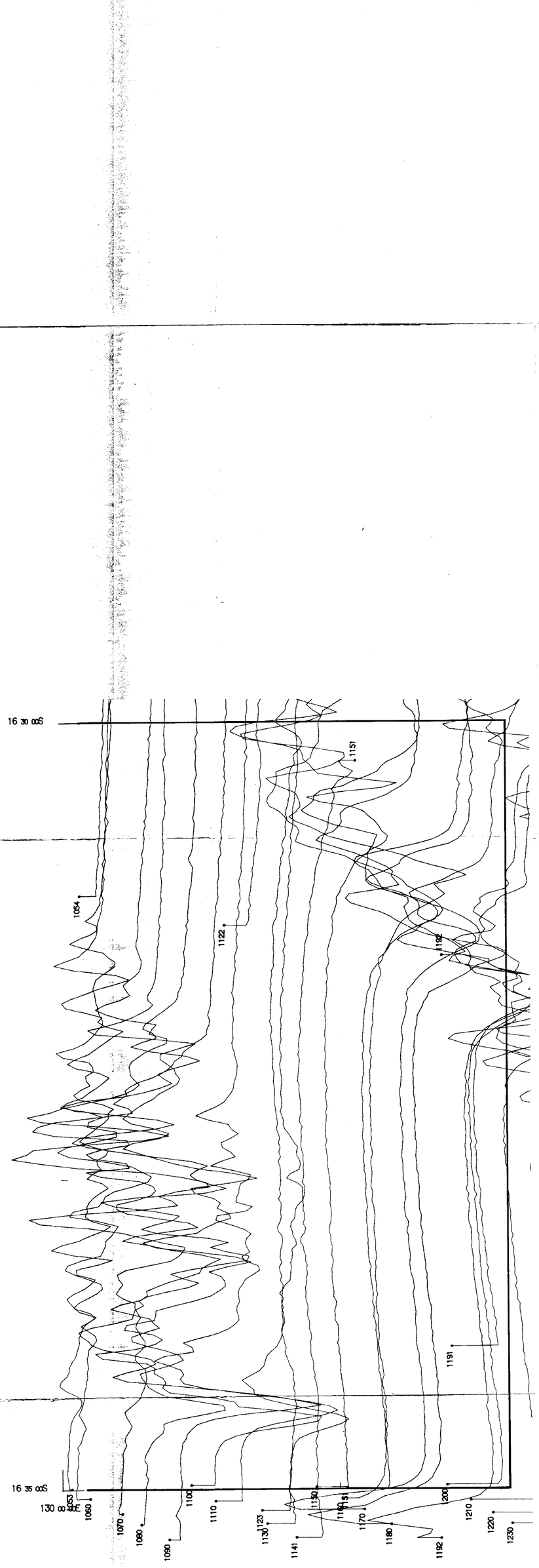
ASHTON MINING LTD CR82/356A

E.L. 2294

PLAN 5

STACKED MAGNETIC PROFILES

DATE: NOVEMBER, 1982



AIRBORNE SURVEY SPECIFICATIONS

MAGNETOMETER :	GEOMETRICS G803 RECORDING TO 0.5nT
SPECTROMETER :	GEOMETRICS GR800 DETECTOR VOLUME 2048CU. IN. DIFFERENTIAL RECORDING Th.U.K.TOTAL COUNT
DATA RECORDING :	GEOMETRICS G-714
RECORDING INTERVAL :	1.0 SEC..AIRSPEED 50 metres per SEC
FLIGHT PATH RECORD :	GEOCAM 35mm CONTINUOUS TRACKING CAMERA
DETECTOR AV. CLEARANCE :	BOTH DETECTORS IN AIRCRAFT AT 80m
NOMINAL LINE SPACING :	TRAVERSE LINES 250m , TIE LINES 5.0 km
FLIGHT LINE RECOVERY :	VISUALLY TO 1:25000 PHOTO ENLARGEMENTS

STACKED MAGNETIC PROFILE PLOT
GRID NOTATION REFERS TO AUSTRALIAN MAP GRID

MAGNETICS	: LEVELLED AND DIURNALLY CORRECTED
IGRF	: REMOVED , DATUM 2000 nT REMOVED
BASE VALUE	: 2300 nT
VERTICAL SCALE	: 10 nT

0 1 2 Km
SCALE 1:25000

FLOWN BY GEOMETRICS INT. CORP
COMPILED BY EXPLORATION COMPUTER SERVICES PTY LTD

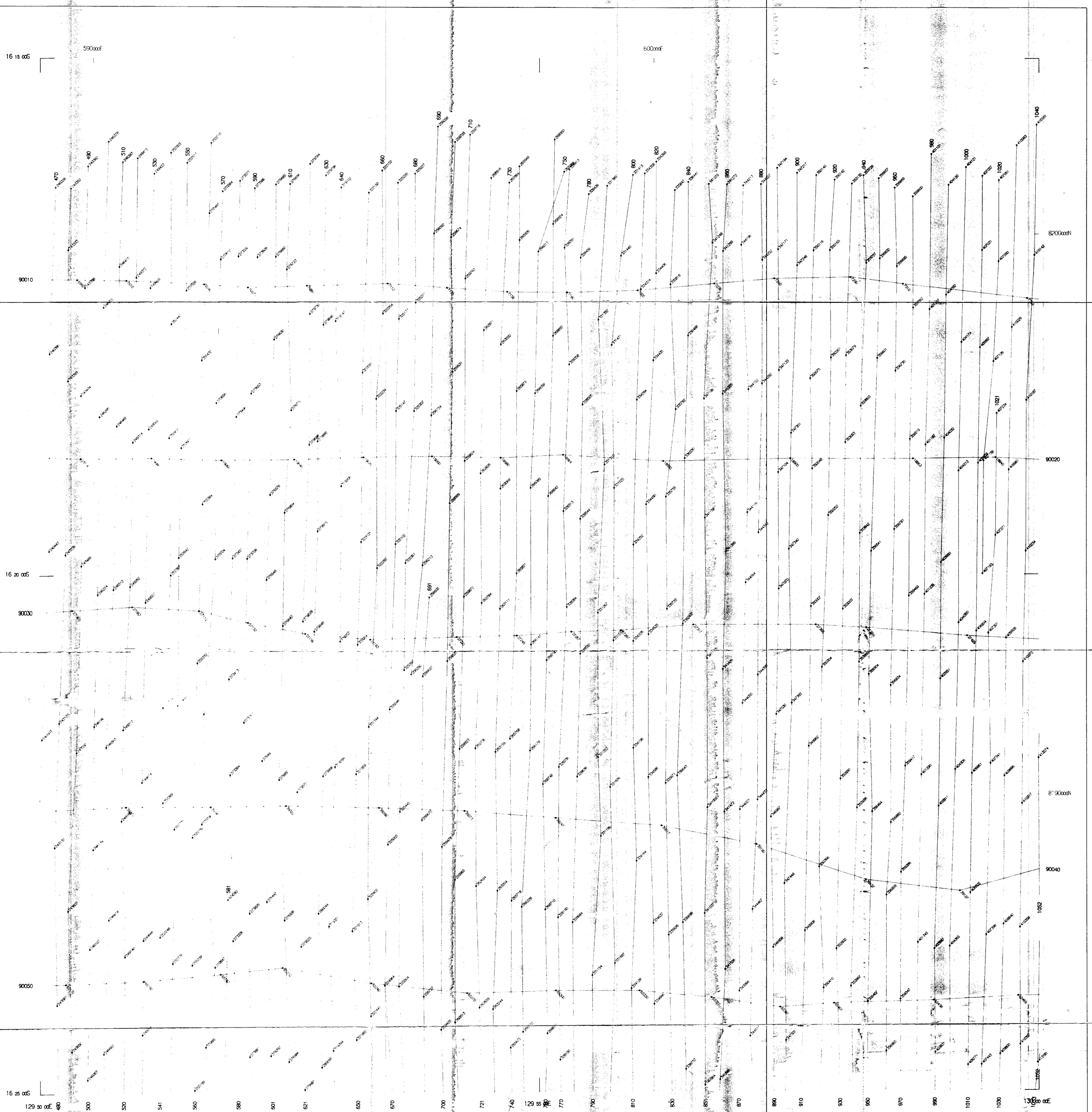
ASHTON MINING LTD CR82/356 A

E.L. 2294

PLAN 6

STACKED MAGNETIC PROFILES

DATE: NOVEMBER , 1982



AIRBORNE SURVEY SPECIFICATIONS

MAGNETOMETER :	GEOMETRICS G803 RECORDING TO 0.5nT
SPECTROMETER :	GEOMETRICS GR800 DETECTOR VOLUME 2048CU. IN. DIFFERENTIAL RECORDING Th.U.K.TOTAL COUNT
DATA RECORDING :	GEOMETRICS G-714
RECORDING INTERVAL :	1.0 SEC..AIRSPEED 50 metres per SEC
FLIGHT PATH RECORD :	GEOCAM 35mm CONTINUOUS TRACKING CAMERA
DETECTOR AV. CLEARANCE :	BOTH DETECTORS IN AIRCRAFT AT 80m
NOMINAL LINE SPACING :	TRAVERSE LINES 250m . TIE LINES 5.0 km
FLIGHT LINE RECOVERY :	VISUALLY TO 1:25000 PHOTO ENLARGEMENTS

PATH RECOVERY PLOT
GRID NOTATION REFERS TO AUSTRALIAN MAP GRID

MAGNETICS	: LEVELLED AND DIURNALLY CORRECTED
IGRF	: REMOVED , DATUM 2000 nT REMOVED

0 1 2 Km
SCALE 1:25000

FLOWN BY GEOMETRICS INT. CORP
COMPILED BY EXPLORATION COMPUTER SERVICES PTY LTD

ASHTON MINING LTD CR82/356A

E.L. 2294

PLAN 7
PATH RECOVERY

DATE: NOVEMBER , 1982

16 15 00S

16 20 00S

16 25 00S

129 40 00E

129 45 00E

129 50 00E

5800mE

8200mN

90020

8190mN

90040

90030

90050

20 40 61 80 100 120 140 160 170 200 220 240 260 280 300 320 340 360 380 400 420 441 460

470

181

AIRBORNE SURVEY SPECIFICATIONS

MAGNETOMETER :	GEOMETRICS G803 RECORDING TO 0.5nT
SPECTROMETER :	GEOMETRICS GR800 DETECTOR VOLUME 2048CU. IN. DIFFERENTIAL RECORDING Th.U.K.TOTAL COUNT
DATA RECORDING :	GEOMETRICS G-714
RECORDING INTERVAL :	1.0 SEC..AIRSPEED 50 metres per SEC
FLIGHT PATH RECORD :	GEOCAM 35mm CONTINUOUS TRACKING CAMERA
DETECTOR AV. CLEARANCE :	BOTH DETECTORS IN AIRCRAFT AT 80m
NOMINAL LINE SPACING :	TRAVERSE LINES 250m . TIE LINES 5.0 km
FLIGHT LINE RECOVERY :	VISUALLY TO 1:25000 PHOTO ENLARGEMENTS

PATH RECOVERY PLOT
GRID NOTATION REFERS TO AUSTRALIAN MAP GRID

MAGNETICS	: LEVELLED AND DIURNALLY CORRECTED
IGRF	: REMOVED . DATUM 2000 nT REMOVED

0 1 2 Km
SCALE 1:25000

FLOWN BY GEOMETRICS INT. CORP
COMPILED BY EXPLORATION COMPUTER SERVICES PTY LTD

ASHTON MINING LTD CR82/356 A

E.L. 2294

PLAN 8
PATH RECOVERY

DATE: NOVEMBER , 1982

16 25 00S

580000E

90060

90070

8180000N

90080

16 30 00S

0000N

16 35 00S

129 40 00E

129 50 00E

AIRBORNE SURVEY SPECIFICATIONS

MAGNETOMETER :	GEOMETRICS G803 RECORDING TO 0.5nT
SPECTROMETER :	GEOMETRICS GR800 DETECTOR VOLUME 2048CU. IN. DIFFERENTIAL RECORDING Th.U.K.TOTAL COUNT
DATA RECORDING :	GEOMETRICS G-714
RECORDING INTERVAL :	1.0 SEC.,AIRSPEED 50 metres per SEC
FLIGHT PATH RECORD :	GEOCAM 35mm CONTINUOUS TRACKING CAMERA
DETECTOR AV. CLEARANCE :	BOTH DETECTORS IN AIRCRAFT AT 80m
NOMINAL LINE SPACING :	TRAVERSE LINES 250m , TIE LINES 5.0 km
FLIGHT LINE RECOVERY :	VISUALLY TO 1:25000 PHOTO ENLARGEMENTS

PATH RECOVERY PLOT
GRID NOTATION REFERS TO AUSTRALIAN MAP GRID

MAGNETICS	: LEVELLED AND DIURNALLY CORRECTED
IGRF	: REMOVED , DATUM 2000 nT REMOVED

N

0 1 2 Km
SCALE 1:25000

FLOWN BY GEOMETRICS INT. CORP
COMPILED BY EXPLORATION COMPUTER SERVICES PTY LTD

ASHTON MINING LTD CR82/356 A

E.L. 2294

PLAN 9
PATH RECOVERY

DATE: NOVEMBER, 1982

AIRBORNE SURVEY SPECIFICATIONS

MAGNETOMETER :	GEOMETRICS G803 RECORDING TO 0.5nT
SPECTROMETER :	GEOMETRICS GR800 DETECTOR VOLUME 2048CU. IN. DIFFERENTIAL RECORDING Th,U.K,TOTAL COUNT
DATA RECORDING :	GEOMETRICS G-714
RECORDING INTERVAL :	1.0 SEC..AIRSPEED 50 metres per SEC
FLIGHT PATH RECORD :	GEOCAM 35mm CONTINUOUS TRACKING CAMERA
DETECTOR AV. CLEARANCE :	BOTH DETECTORS IN AIRCRAFT AT 80m
NOMINAL LINE SPACING :	TRAVERSE LINES 250m . TIE LINES 5.0 km
FLIGHT LINE RECOVERY :	VISUALLY TO 1:25000 PHOTO ENLARGEMENTS

PATH RECOVERY PLOT
GRID NOTATION REFERS TO AUSTRALIAN MAP GRID

MAGNETICS	: LEVELLED AND DIURNALLY CORRECTED
IGRF	: REMOVED , DATUM 2000 nT REMOVED

SCALE 1:25000

FLOWN BY GEOMETRICS INT. CORP
COMPILED BY EXPLORATION COMPUTER SERVICES PTY LTD

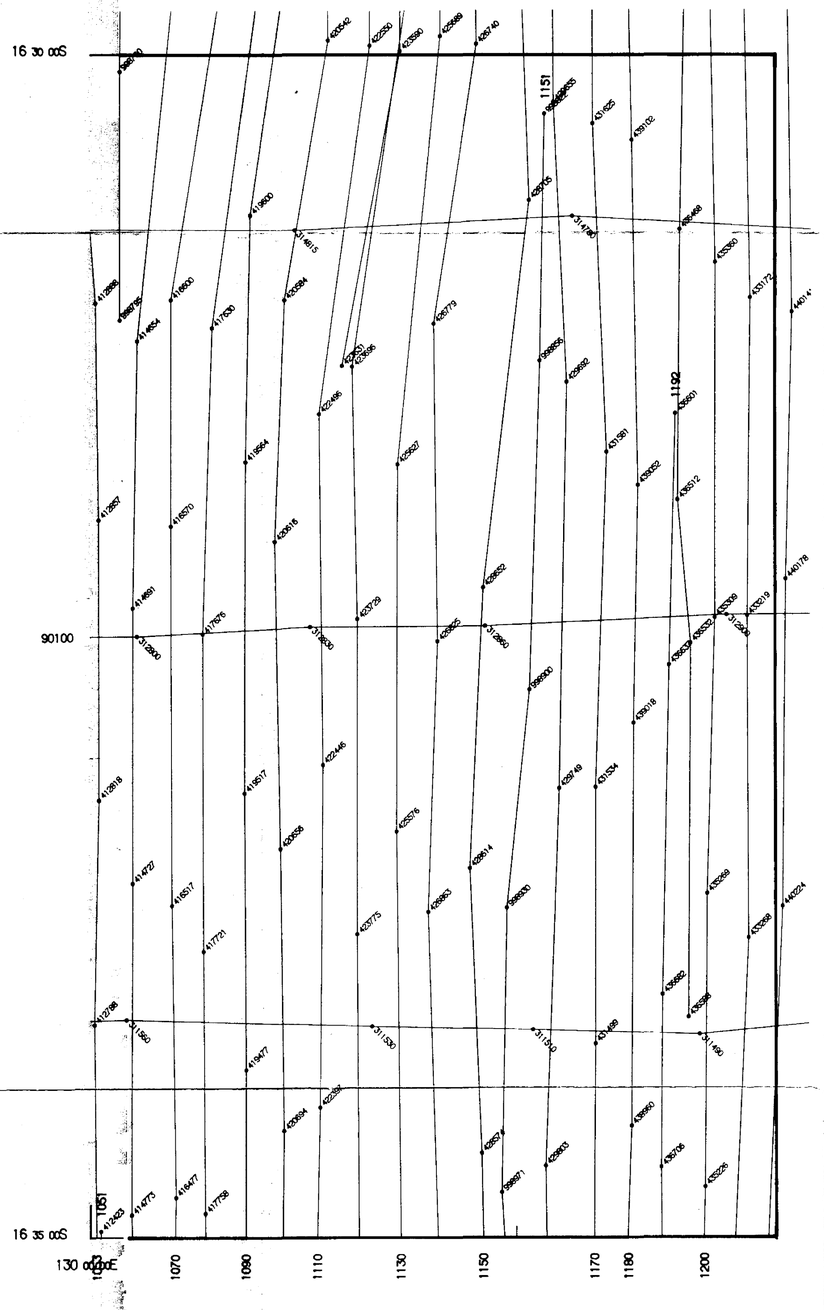
ASHTON MINING LTD

CR82/356 A

E.L. 2294

PLAN 10
PATH RECOVERY

DATE: NOVEMBER, 1982



AIRBORNE SURVEY SPECIFICATIONS

MAGNETOMETER :	GEOMETRICS G803 RECORDING TO 0.5nT
SPECTROMETER :	GEOMETRICS GR800 DETECTOR VOLUME 2048CU. IN. DIFFERENTIAL RECORDING Th.U.K.TOTAL COUNT
DATA RECORDING :	GEOMETRICS G-714
RECORDING INTERVAL :	1.0 SEC..AIRSPEED 50 metres per SEC
FLIGHT PATH RECORD :	GEOCAM 35mm CONTINUOUS TRACKING CAMERA
DETECTOR AV. CLEARANCE :	BOTH DETECTORS IN AIRCRAFT AT 80m
NOMINAL LINE SPACING :	TRAVERSE LINES 250m , TIE LINES 5.0 km
FLIGHT LINE RECOVERY :	VISUALLY TO 1:25000 PHOTO ENLARGEMENTS

PATH RECOVERY PLOT
GRID NOTATION REFERS TO AUSTRALIAN MAP GRID

MAGNETICS	: LEVELLED AND DIURNALLY CORRECTED
IGRF	: REMOVED , DATUM 2000 nT REMOVED

N

0 1 2 Km
SCALE 1:25000

FLOWN BY GEOMETRICS INT. CORP
COMPILED BY EXPLORATION COMPUTER SERVICES PTY LTD

ASHTON MINING LTD CR82/356 A

E.L. 2294

PLAN II
PATH RECOVERY

DATE: NOVEMBER , 1982

590000E

600000E

16 25 00S

16 30 00S

8180000N

8170000N

16 35 00S

129 55 00E

130 00 00E

AIRBORNE SURVEY SPECIFICATIONS

MAGNETOMETER :	GEOMETRICS G803 RECORDING TO 0.5nT
SPECTROMETER :	GEOMETRICS GR800 DETECTOR VOLUME 2048CU. IN. DIFFERENTIAL RECORDING Th,U,K,TOTAL COUNT
DATA RECORDING :	GEOMETRICS G-714
RECORDING INTERVAL :	1.0 SEC..AIRSPEED 50 metres per SEC
FLIGHT PATH RECORD :	GEOCAM 35mm CONTINUOUS TRACKING CAMERA
DETECTOR AV. CLEARANCE :	BOTH DETECTORS IN AIRCRAFT AT 80m
NOMINAL LINE SPACING :	TRAVERSE LINES 250m , TIE LINES 5.0 km
FLIGHT LINE RECOVERY :	VISUALLY TO 1:25000 PHOTO ENLARGEMENTS

RESIDUAL MAGNETIC CONTOUR PLOT
GRID NOTATION REFERS TO AUSTRALIAN MAP GRID

MAGNETICS	: LEVELLED AND DIURNALLY CORRECTED
IGRF	: REMOVED , DATUM 2000 nT REMOVED
CONTOUR INTERVAL	:5 nT

0 1 2 Kms
SCALE 1:25000

FLOWN BY GEOMETRICS INT. CORP
COMPILED BY EXPLORATION COMPUTER SERVICES PTY LTD

ASHTON MINING LTD CR82/356 A

E.L. 2294

PLAN 12

RESIDUAL MAGNETIC PLAN

DATE: NOVEMBER , 1982

16 25 00S

620000E

8180000N

16 30 00S

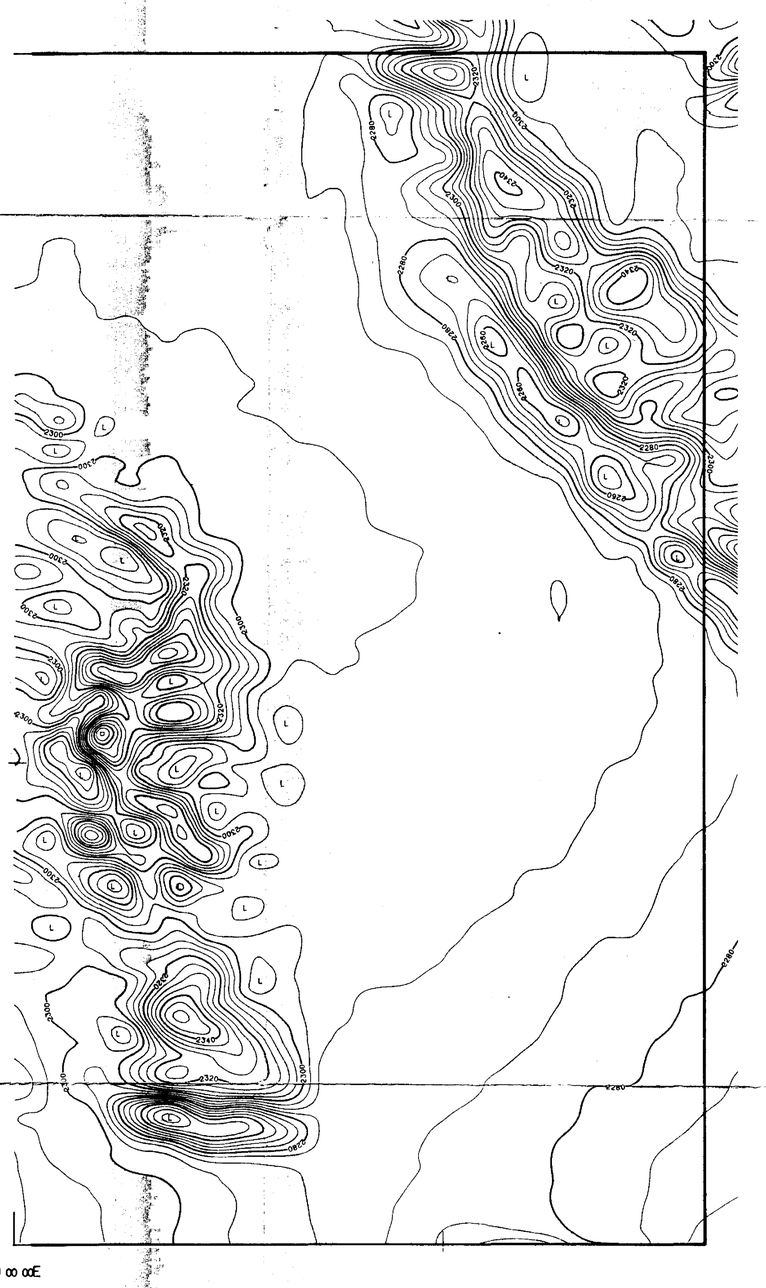
8170000N

16 35 00S

130 00 00E

130 05 00E

130 10 00E



AIRBORNE SURVEY SPECIFICATIONS

MAGNETOMETER :	GEOMETRICS G803 RECORDING TO 0.5nT
SPECTROMETER :	GEOMETRICS GR800 DETECTOR VOLUME 2048CU. IN. DIFFERENTIAL RECORDING Th.U.K.TOTAL COUNT
DATA RECORDING :	GEOMETRICS G-714
RECORDING INTERVAL :	1.0 SEC..AIRSPEED 50 metres per SEC
FLIGHT PATH RECORD :	GEOCAM 35mm CONTINUOUS TRACKING CAMERA
DETECTOR AV. CLEARANCE :	BOTH DETECTORS IN AIRCRAFT AT 80m
NOMINAL LINE SPACING :	TRAVERSE LINES 250m . TIE LINES 5.0 km
FLIGHT LINE RECOVERY :	VISUALLY TO 1:25000 PHOTO ENLARGEMENTS

RESIDUAL MAGNETIC CONTOUR PLOT
GRID NOTATION REFERS TO AUSTRALIAN MAP GRID

MAGNETICS	: LEVELLED AND DIURNALLY CORRECTED
IGRF	: REMOVED . DATUM 2000 nT REMOVED
CONTOUR INTERVAL	:5 nT

N

0 2 Km

SCALE 1:25000

FLOWN BY GEOMETRICS INT. CORP
COMPILED BY EXPLORATION COMPUTER SERVICES PTY LTD

ASHTON MINING LTD CR82/356 A

E.L. 2294

PLAN 13

RESIDUAL MAGNETIC PLAN

DATE: NOVEMBER, 1982

595000E

600000E

605000E

129°53'

130°00'

130°03'

16°25'

16°30'

16°35'

8175000N

8170000N

WI-60

WI-59

WI-58

WI-57

WI-56

WI-40

INPUT LEGEND

6 CHANNEL ANOMALY

5 CHANNEL ANOMALY

4 CHANNEL ANOMALY

3 CHANNEL ANOMALY

PEAK POSITION

2nd and 5th CHANNEL AMPLITUDES

ALTITUDE (METRES)

OFFSET MAGNETIC ANOMALY

INTERPRETATION LEGEND

SELECTED CONDUCTOR OUTLINE

IDENTIFICATION NUMBER W-2

SURFICIAL CONDUCTOR

N

0 1 2 Km

SCALE 1:25000

ASHTON MINING LIMITED

CR82/356A

E.L. 2294

INPUT EM

PLAN 14

Date NOVEMBER 1982

E.L.2294

16°15' 129°43' 130°00'

16°20' 129°34'

16°25' 129°34'

16°30' 129°35' 130°03'

16°35' 129°53' 130°03'

WAT103 2,5,4
WAT102 4,5,2
WAT919
WAT480
WAT479
WAT478
WAT496
WAT505
WAT506
WAT502
WAT1178 2,X,6
WAT1180 2,5,10
WAT509
WAT1179 X,5,10
WAT1181 6,10,10
WAT508
WAT510
WAT1182 2,5,2
WAT1242
WAT1183
WAT1041
WAT1379
WAT1042
WAT501
WAT503
X,X,6
WAT507
WAT504
K 8
WAT935 X,X,2
WAT511
K 9
WAT1043
WAT1060/WAT1378
K5
WAT526 X,X,10
WAT931 X,X,8
WAT917
WAT939 2,5,20
WAT938 2,5,10
WAT528 X,X,10
WAT626 2,5,X
WAT936 6,5,36
WAT527 X,X,4
WAT918
WAT1061
WAT1062 8,X,4
WAT1044
WAT1059
WAT933 8,15,140
WAT934 4,10,48
WAT525 2,X,8
WAT1046
WAT1045
WAT1057
WAT1053
WAT932 4,5,22
25/1
WAT930 4,5,38
WAT1488
WAT914
WAT915
WAT913
WAT1372
WAT1373
K6
WAT1055 2,5,12
2,5,6 WAT1058
WAT610 6,5,10
WAT611 4,X,2
WAT625 2,X,X
WAT612 8,X,10
WAT925
WAT926
K7
WAT1371
WAT1054 2,X,8
WAT1056
WAT929 6,5,65
WAT1489
24/2
WAT1490
WAT623 X,X,X
WAT928 6,5,42
WAT622 X,X,X
WAT624 2,5,X
WAT924
WAT916
WAT910
19/6
WAT1482
WAT1481
WAT906
WAT905
WAT909
WAT907 8,5,35
WAT911
WAT912
WAT908
WAT923
WAT922
19/4B
WAT1483
19/3
WAT1478
WAT1477
19/2
WAT1470
WAT620 2,X,X
WAT619 4,5,2
12,5,14 WAT618
WAT616
WAT615 4,X,X
WAT617 26,10,34
WAT621 12,10,100
WAT921
WAT920 2,5,3
19/1
WAT1475
WAT1476
19/4 WAT1484
WAT1331
KIM 2
WAT813
KIM 1
WAT810
WAT1330
WAT329
4,5,16 WAT1047
WAT812
WAT1049 8,5,6
WAT811

KILDURK
AERODROME
WESTAIRES
BAINES RIVER

- WAT908 REGIONAL GRAVEL SAMPLE
- x WAT1178 FOLLOW-UP GRAVEL SAMPLE
- o WAT1373 AIRPHOTO ANOMALY GRAVEL SAMPLE
- + WAT1372 LOAM SAMPLE
- K6 ⬭ AIRPHOTO ANOMALY NUMBER
- 19/4 ○ MAGNETIC ANOMALY NUMBER
- X BELOW LIMIT OF DETECTION

CR82/356 A

ABERFOYLE EXPLORATION PTY. LTD.

REGIONAL GRAVEL SAMPLING

E.L. 2294
GEOCHEMICAL RESUTS
Cu, Pb, Zn (ppm)
- PLAN 15 -

0 1 2 3 4 5 km
SCALE 1:100000
Date :- NOVEMBER, 1982

E.L.2294

16°15'
16°20'
16°25'
16°30'
16°35'
129°43'
129°34'
129°35'
129°53'
130°00'
130°03'

WAT496 WAT103 X,5 WAT102 X,5 WAT919 WAT480 WAT479 WAT478 WAT505 WAT506 WAT502
WAT1178 X,X WAT1180 5,X WAT509 WAT1179 5,X WAT1181 5,X WAT508 WAT510
WAT1182 X,5 WAT1242 WAT1041 WAT1379 WAT1183 WAT1042 WAT501 WAT503 X,5 WAT507 WAT504
K 8 WAT935 X,5 WAT511 K 9 WAT1043 WAT1060/WAT1378 K5
WAT526 5,5 WAT931 5,5 WAT917 WAT1059
WAT939 X,5 WAT938 X,5 WAT528 5,10 WAT626 5,5 WAT936 15,20 WAT527 5,5 WAT933 20,25 WAT918 WAT1044 WAT1061 WAT1062 X,X
WAT934 10,15 WAT525 X,15 WAT1057 WAT1046 WAT1045
WAT932 25,15 25/1 WAT930 10,15 WAT1053 WAT1058 5,5
WAT610 5,10 WAT611 5,10 WAT625 5,5 WAT488 WAT913 WAT914 WAT915 WAT1055 X,X
WAT612 10,15 WAT1372 K 6 WAT1373 WAT925 WAT926 K7 WAT1371 WAT1054 X,X WAT1056
WAT929 10,15 WAT1489 WAT1490 24/2 WAT623 5,5 WAT928 5,15 WAT924
WAT622 5,5 WAT624 5,15 WAT910 WAT916 19/6 WAT1482 WAT1481
WAT905 WAT906 WAT909
WAT620 X,5 WAT619 X,X WAT907 5,5 WAT911 WAT912 WAT908 WAT923 WAT922 19/4B WAT1483
25,20 WAT618 WAT616 WAT615 X,X WAT617 55,50 WAT621 25,20 19/3 WAT1478 WAT1477 19/2 WAT1470
WAT920 X,5 WAT921 19/1 WAT1475 WAT1476
19/4 WAT1484 WAT1331 KIM 2 WAT813
KIM 1 WAT1330 WAT329 WAT810 10,5 WAT1047 WAT812
WAT1049 X,X WAT811

- WAT908 REGIONAL GRAVEL SAMPLE
- x WAT1178 FOLLOW-UP GRAVEL SAMPLE
- o WAT1373 AIRPHOTO ANOMALY GRAVEL SAMPLE
- + WAT1372 LOAM SAMPLE

K6 ⬭ AIRPHOTO ANOMALY NUMBER

19/4 ○ MAGNETIC ANOMALY NUMBER

X BELOW LIMIT OF DETECTION

CR82/356A

ABERFOYLE EXPLORATION PTY LTD

REGIONAL GRAVEL SAMPLING

E.L. 2294
GEOCHEMICAL RESUTS
Co, Ni (ppm)
- PLAN 16 -

0 1 2 3 4 5 km
SCALE 1:100000

Date :- NOVEMBER, 1982

E.L.2294

129°43' 130°00' 16°15' 16°20' 129°34' 16°25' 129°34' 16°30' 129°35' 16°35' 129°53' 130°03'

WAT103 X,X,30
WAT102 10,X,45
WAT919
WAT480
WAT479
WAT478
WAT496
WAT505
WAT506
WAT502
WAT1178 X,X,60
WAT1180 80,X,65
WAT509
WAT1179 35,X,70
WAT1181 110,X,210
WAT508
WAT510
WAT1182 5,X,60
WAT1242
WAT1183
WAT1041
WAT1379
WAT1042
WAT501
5,X,63
WAT507
WAT503
WAT504
K 8
WAT935 10,X,75
WAT511
K 9
WAT1043
WAT1060/WAT1378
K5
WAT526 150,10,90
WAT931 55,X,130
WAT939 95,X,130
WAT917
WAT1059
WAT938 40,10,55
WAT528 30,10,60
WAT936 190,10,220
WAT626 30,10,55
WAT527 50,10,30
WAT918
WAT1061
WAT1062 X,X,85
WAT1044
WAT933 430,20,140
WAT934 200,10,170
WAT525 75,20,35
WAT1046
WAT1045
WAT1057
WAT1053
55,X,160
WAT1058
WAT932 450,X,360
25/1
WAT930 150,10,140
WAT914
WAT915
WAT1055 5,X,80
WAT610 130,10,70
WAT611 85,10,35
WAT488
WAT913
WAT1372
K 6
WAT625 20,10,45
WAT1373
WAT1056
WAT612 85,20,50
WAT925
WAT926
K 7
WAT1371
WAT1054 5,X,50
WAT929 210,10,170
WAT1459
WAT1490
24/2
WAT623 15,10,55
WAT924
WAT622 45,10,60
WAT928 160,10,150
WAT624 30,10,75
WAT910
WAT916
19/6
WAT1482
WAT1481
WAT905
WAT906
WAT909
WAT907 200,10,150
WAT911
WAT912
WAT908
WAT923
WAT922
19/4B
WAT1483
19/3
WAT1478
WAT1477
19/2
WAT1470
WAT620 40,10,40
WAT619 25,10,65
680,10,130
WAT618
WAT616
WAT617 2000,10,400
WAT615 40,10,70
WAT621 710,10,220
55,X,100
WAT920
WAT921
19/1
WAT1475
WAT1476
19/4
WAT1484
WAT331
KIM 2
WAT813
KIM I
WAT1330
WAT1329
WAT810
35,10,95
WAT1047
WAT912
30,X,60
WAT1049
WAT811

- WAT908 REGIONAL GRAVEL SAMPLE
x WAT1178 FOLLOW-UP GRAVEL SAMPLE
o WAT1373 AIRPHOTO ANOMALY GRAVEL SAMPLE
+ WAT1372 LOAM SAMPLE

K6 AIRPHOTO ANOMALY NUMBER

19/4 MAGNETIC ANOMALY NUMBER

X BELOW LIMIT OF DETECTION

CR82/356

ABERFOYLE EXPLORATION PTY. LTD.

REGIONAL GRAVEL SAMPLING

E.L. 2294
GEOCHEMICAL RESUTS
Mn, Cr, Ba (ppm)
- PLAN 17 -

0 1 2 3 4 5 km
SCALE 1:100000
Date -- NOVEMBER, 1982

E.L.2294

16°15'
16°20'
16°25'
16°30'
16°35'
129°34'
129°43'
130°00'
130°03'

WAT103 14,X,20
WAT102 16,X,30
WAT919
WAT480
WAT479
WAT478
WAT496
WAT505
WAT506
WAT502
WAT1178 20,10,X
WAT1180 22,X,X
WAT509 24,X,X
WAT1179 28,X,30
WAT1181 70,4,40
WAT508
WAT510
WAT1182 24,10,20
WAT1242
WAT1041
WAT1379
WAT1042
WAT1183
WAT501
WAT503
WAT507
WAT504
24,6,30
K 8
WAT935 13,8,40
WAT511
K 9
WAT1043
WAT1060/WAT1378
K5
WAT931 20,10,30
WAT917
WAT526 8,4,30
WAT939 32,4,40
WAT938 16,6,20
WAT528 11,8,20
WAT626 22,X,20
WAT936 80,6,30
WAT527 6,4,20
WAT933 26,34,20
WAT934 42,4,30
WAT525 4,6,X
WAT918
WAT1061
WAT1062 32,4,30
WAT1059
WAT1044
WAT1046
WAT1045
WAT1057
WAT1053
48,X,50
WAT1058
WAT932 32,6,30
25/1
WAT930 38,X,50
WAT1488
WAT913
WAT914
WAT915
WAT1055 24,10,30
WAT610 17,4,30
WAT611 9,6,20
WAT625 18,8,20
WAT1372
K 6
WAT1373
WAT925
WAT926
K7
WAT1371
WAT1054 15,8,20
WAT1056
WAT612 22,4,30
WAT929 40,10,20
WAT1489
WAT1490
24/2
WAT623 18,X,X
WAT622 13,10,30
WAT624 20,4,20
WAT928 36,6,30
WAT924
WAT910
WAT916
19/6
WAT1482
WAT1481
WAT905
WAT906
WAT909
WAT907 42,4,30
WAT911
WAT912
WAT908
WAT923
WAT922
19/4B
WAT1483
19/3
WAT1478
WAT1477
19/2
WAT1470
36,6,20
WAT920
WAT921
19/1
WAT1475
WAT1476
WAT620 17,X,30
WAT619 18,6,30
42,X,30
WAT618
WAT616
WAT615 22,X,20
WAT617 85,X,50
WAT621 42,X,30
19/4
WAT1484
WAT1331
KIM 2
WAT813
KIM 1
WAT810
WAT1330
WAT1329
11,8,30
WAT1047
WAT812
15,8,30
WAT1049
WAT811

KILDURK
Aerodrome
RIVER
WEST BAINES

- WAT908 REGIONAL GRAVEL SAMPLE
- x WAT1178 FOLLOW-UP GRAVEL SAMPLE
- o WAT1373 AIRPHOTO ANOMALY GRAVEL SAMPLE
- \+ WAT1372 LOAM SAMPLE

K6 ⬭ AIRPHOTO ANOMALY NUMBER

19/4 ⬭ MAGNETIC ANOMALY NUMBER

X BELOW LIMIT OF DETECTION

CR82/356 A

ABERFOYLE EXPLORATION PTY LTD

REGIONAL GRAVEL SAMPLING

E.L. 2294
GEOCHEMICAL RESUTS
Rb, U, La (ppm)
- PLAN 18 -

0 1 2 3 4 5 km
SCALE 1:100,000
Date:- NOVEMBER, 1982

E.L.2294

WAT103 X, 1050, 11
WAT102 X, 800, 13
WAT496
WAT919
WAT480
WAT479
WAT478
WAT505
WAT506
WAT502
WAT1178 4, 1500, 19
WAT1180 4, 720, 13
WAT509
WAT1179 X, 1400, 20
WAT1181 X, 1750, 14
WAT508
WAT510
WAT1182 X, 1650, 15,
WAT1379
WAT1242
WAT1041
WAT1042
WAT1183
WAT501
WAT503
WAT507
WAT504
4, 1450, 19
K 8
WAT935 X, 3250, 13
WAT511
K 9
WAT1043
WAT1060/WAT1378
K5
WAT526 X, 4550, 9
WAT931 4, 5600, 24
WAT939 10, 2050, 28
WAT917
WAT1059
WAT528 4, 3800, 12
WAT938 4, 2540, 14
WAT626 X, 500, 14
WAT936 10, 680, 60
WAT527 X, 1200, 6
WAT918
WAT1044
WAT1061
WAT1062 X, 2500, 22
WAT933 60, 3168, 32
WAT1057
WAT934 8, 290, 38
WAT1046
WAT525 6, 5400, 7
WAT1045
WAT1053
8, 4500, 24
WAT1058
WAT932 4, 2150, 28
25/1
WAT930 8, 840, 32
WAT1055 6, 8400, 22
WAT914
WAT915
WAT610 X, 720, 14
WAT611 4, 3600, 10
WAT1488
WAT913
WAT1372
K 6
WAT625 X, 3150, 11
WAT1373
WAT1056
WAT612 4, 2600, 18
WAT925
WAT926
K7
WAT1054 X, 5500, 13
WAT929 16, 4000, 34
WAT1489
WAT1490
24/2
WAT1371
WAT623 4, 1250, 12
WAT924
WAT928 12, 1150, 34
WAT622 8, 8000, 10
WAT624 X, 1150, 12
WAT916
19/6
WAT1482
WAT1481
WAT910
WAT905
WAT906
WAT909
19/4B
WAT1483
WAT907 10, 1700, 28
WAT620 X, 1200, 9
WAT619 4, 720, 10
WAT911
WAT912
19/3
WAT1478
WAT1477
19/2
WAT1470
WAT908
WAT923
WAT922
8, 2800, 18
WAT920
WAT921
19/1
WAT1475
WAT1476
WAT618 X, 330, 28
WAT616
WAT615 X, 960, 10
WAT617 8, 370, 70
WAT621 24, 380, 46
19/4
WAT1484
WAT1331
KIM 2
WAT813
KIM 1
WAT810
WAT1330
WAT1329
6, 3900, 11
WAT1047
WAT812
4, 1450, 17
WAT1049
WAT811

RIVER
WEST PALMER
KILDURK
Aerodrome

16°15' 129°43' 130°00'
16°20' 129°34'
16°25' 129°34'
16°30' 129°35'
16°35' 129°53' 130°03'

- WAT908 REGIONAL GRAVEL SAMPLE
- x *WAT1178* FOLLOW-UP GRAVEL SAMPLE
- o *WAT1373* AIRPHOTO ANOMALY GRAVEL SAMPLE
- \+ WAT1372 LOAM SAMPLE

K6 ⬭ AIRPHOTO ANOMALY NUMBER

19/4 ⬭ MAGNETIC ANOMALY NUMBER

X BELOW LIMIT OF DETECTION

CR82/356

ABERFOYLE EXPLORATION PTY. LTD.

REGIONAL GRAVEL SAMPLING

E.L. 2294
GEOCHEMICAL RESUTS
Nb, Zr, Sr (ppm)
- PLAN 19 -

0 1 2 3 4 5 km
SCALE 1:100 000

Date - NOVEMBER, 1982