Open File Envelope No. 8793

EL 1616

DREW HILL

FIRST PARTIAL SURRENDER REPORT FOR THE PERIOD 4/10/1989 TO 3/2/1994

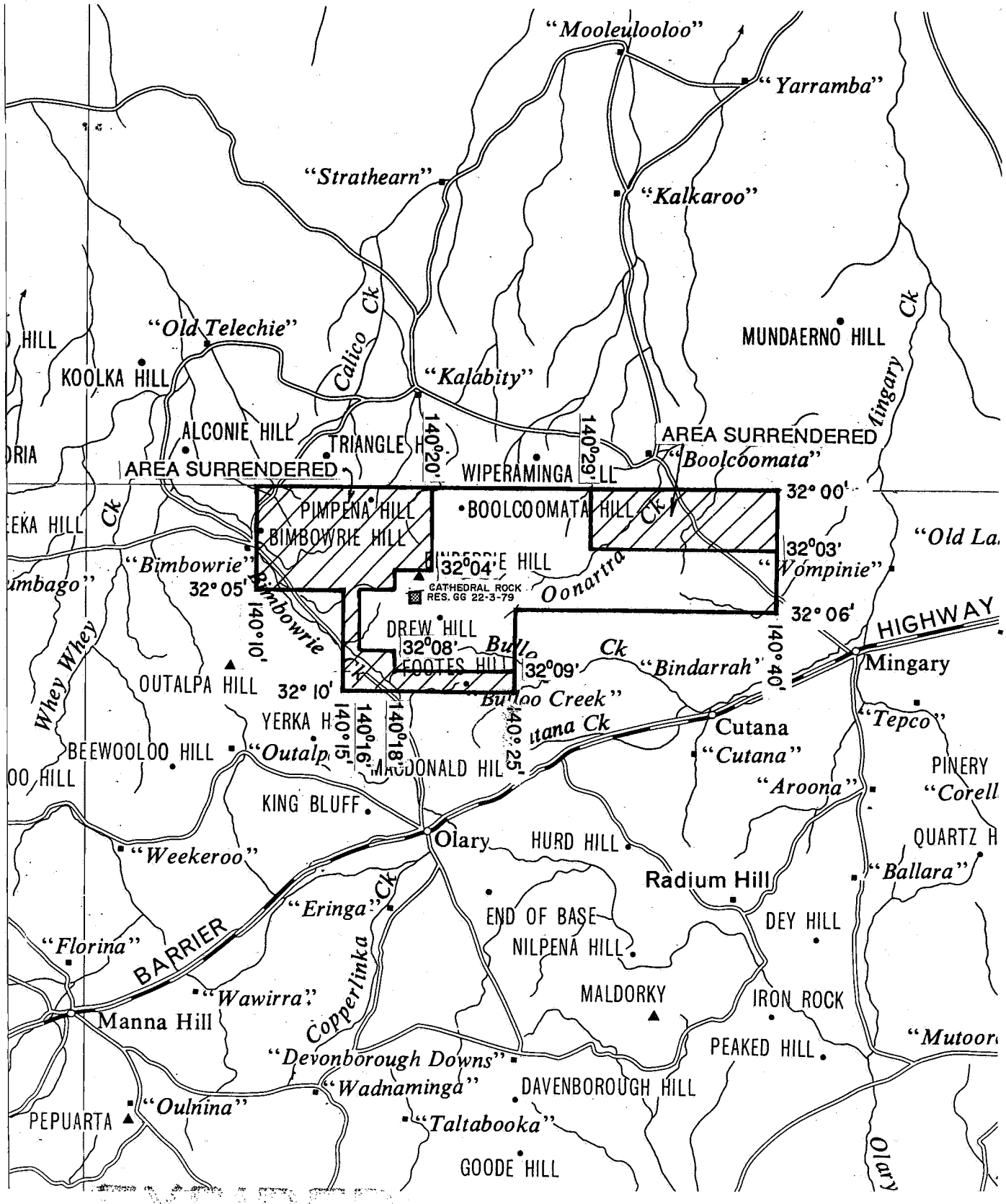
Submitted by
Aberfoyle Resources Ltd
1994

Enquiries: Customer Services Branch
Minerals and Energy Resources
7th Floor
101 Grenfell Street, Adelaide 5000

Telephone: (08) 8463 3000
Facsimile: (08) 8204 1880

Government of South Australia
Primary Industries and Resources SA

SCHEDULE A



SCALE 1:500,000

KILOMETRES 10 0 10 20 30 40 50 KILOMETRES

APPLICANT: ABERFOYLE RESOURCES LIMITED AND ~~POSEIDON MINERALS~~ NORMANDY EXPLORATION LIMITED

DM: 250/89

AREA: ~~625~~ 343 square kilometres (approx.)

1:250000 PLANS: OLARY

LOCALITY: DREW HILL AREA – Approx. 20km NORTH of OLARY

DATE GRANTED: 4.10.89

DATE EXPIRED: ~~3.10.90 91 92 93~~ ~~3.4.94~~ 3/10/94

EL No: 1616 ✓

8713

ENVELOPE 8793

TENEMENT: EL 1616, Drew Hill

TENEMENT HOLDER: Aberfoyle Resources Ltd

CONTENTS

END OF CONTENTS

SEPARATELY HELD DATA

DATA TAPES (held by Information Services Branch):

88 SA 15/1. Airborne mag. and radiomagnetics.

DRILLHOLE SAMPLES (held MESA Core Library):

For up to date information on available drillhole samples, contact the Supervisor, MESA Core Library and quote the Exploration Licence and drillhole number/s you wish to query.

Aberfoyle Resources Limited
A.C.N. 004 664 108

Exploration Division

91 Beulah Road
Norwood
South Australia 5067
Australia

Telephone (08) 363 1636
Facsimile (08) 363 1409

003

ABERFOYLE

EXPLORATION LICENCE 1616 "DREW HILL"

PARTIAL RELINQUISHMENT REPORT

Distribution:

MESA	**(2)**
ARL Adelaide	**(1)**
ARL Hawthorn	**(1)**
Normandy Minerals	**(1)**

Prepared By:

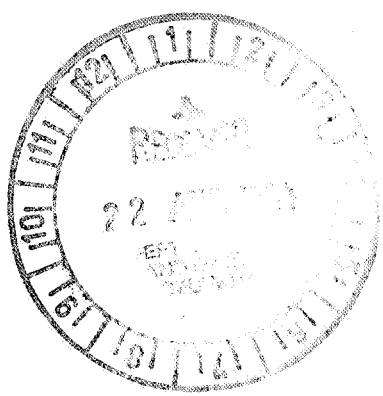
S. Toteff

S TOTEFF
Senior Geologist

Issued By:

A. M. Hespe

A M HESPE
Regional Exploration Manager



August 1994
ARL Report No. Drew Hill 14

CONTENTS

APPENDICES

FIGURES

Figure No.	Description	Plate No.	Scale
Figure 1	EL 1616 Drew Hill Location Plan Area Relinquished	DHL-126	1250 000
Figure 2	EL 1616 Drew Hill Drew Hill East Airborne Magnetic Survey Stacked Profiles	DHL-72	1:25 000
Figure 3	EL 1616 Drew Hill Drew Hill East Airborne Magnetic Survey Total Magnetic Intensity Contours	DHL-71	1:25 000
Figure 4	Olary Block Total Magnetic Field	DH-38	1:25 000
Figure 5	EL 1616 Drew Hill Drew Hill East Airborne Magnetic Survey Preliminary Interpretation	DHL-69	1:25 000
Figure 6	EL 1616 Drew Hill Regional Soil Survey Au Analyses & Contours	DHL-58	1:25 000
Figure 7	EL 1616 Drew Hill West Drew Hill Stream Sediment Survey Rock Chip and Stream Sediment Sample Locations	DHL-76	1:25 000
Figure 8	EL 1616 Drew Hill West Drew Hill Stream Sediment Survey Sample Locations and Analyses Pb Zn Ag	DHL-77	1:25 000

FIGURES cont.

Figure No.	Description	Plate No.	Scale
Figure 9	EL 1616 Drew Hill West Drew Hill Stream Sediment Survey Sample Locations and Analyses Cu Mn Au	DHL-78	1:25 000
Figure 10	EL 1616 Drew Hill West Drew Hill Stream Sediment Survey Reconnaissance Rock Chip Analyses	DHL-79	1:25 000
Figure 11	EL 1616 Drew Hill Shorts Dam Area Rock Chip Sample Locations After B. Cotton, Esso Minerals 1979	DHL-67	1:10 000
Figure 12	EL 1616 Drew Hill Shorts Dam Area RAB Traverse/Magnetic Anomaly	DHL-64	1:5 000

1. INTRODUCTION

This report summarises exploration results and provides data from areas relinquished from EL 1616 by Aberfoyle Resources and Normandy Minerals in February 1994.

The areas relinquished represent approximately 43% of the original exploration tenement of 625 square kilometres, and are shown in Figure 1.

2. AIRBORNE MAGNETIC AND RADIOMETRIC SURVEY

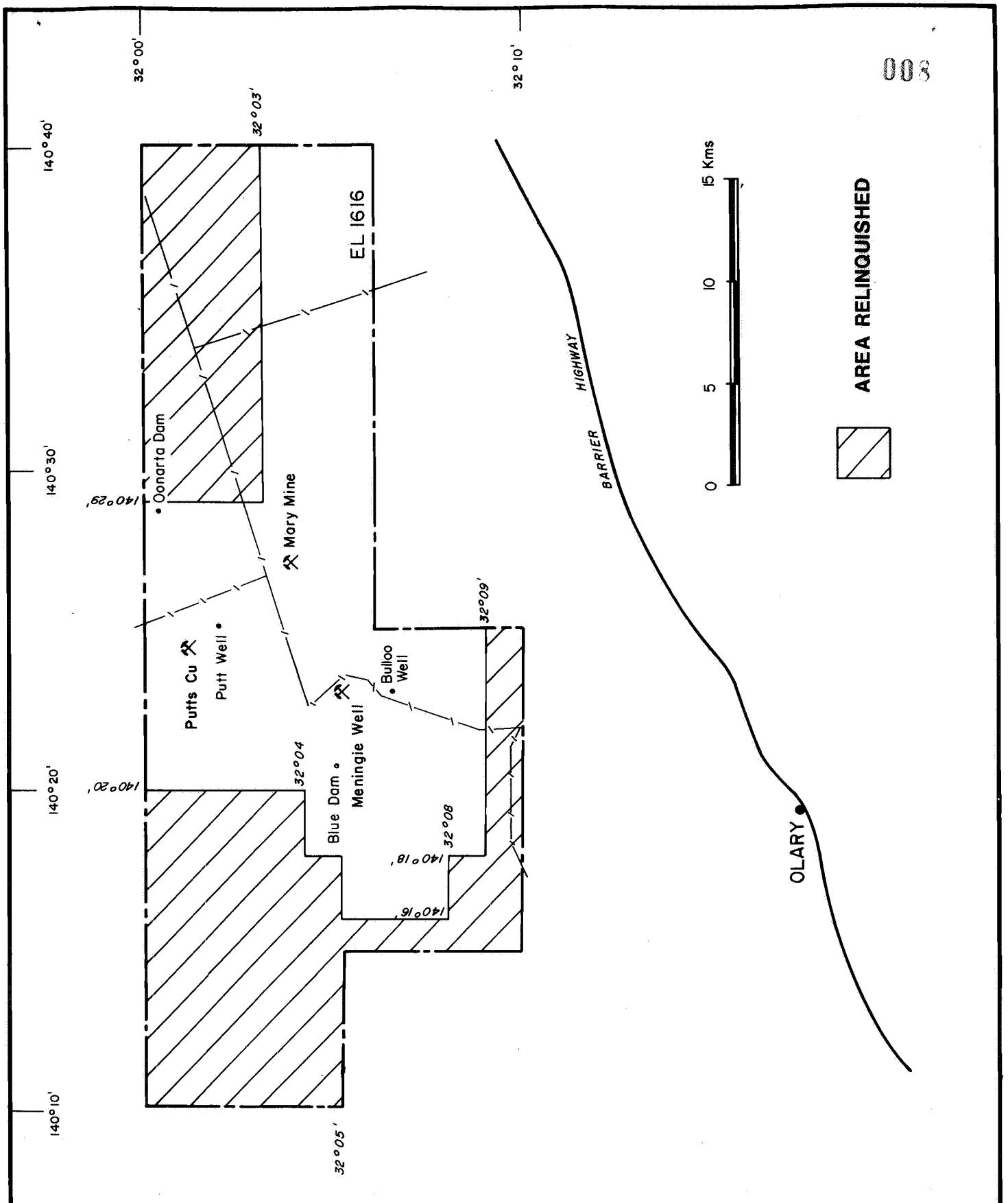
A 2,526 line kilometre detailed airborne magnetic and radiometric survey was completed by contractor Kevron Geophysics over the eastern half of the Drew Hill EL in late 1988. The survey specifications were 150m-spaced north-south lines flown at a height of 60 metres.

A caesium vapour magnetometer recorded the magnetic intensity at sensitivity and resolution of 0.01nT, eight times a second (i.e. about one reading every 8.5 metres).

The spectrometer featured a 33 litre NaI detector volume. Navigation was visual using airphotographs. Following correction of data for diurnal variation and variation of the earth's field across the survey area, stacked magnetic profile and magnetic total intensity contour maps were produced (Figures 2 and 3 respectively for portion of survey in relinquished area). Aberfoyle produced in-house enhancements of this data at a scale of 1:25,000 (Figure 4). An interpretation is shown in Figure 5.

Radiometric data were corrected for background radiation and for interaction effects between the Th, U and K windows. Colour pixel presentations of these channels as well as total count were produced in-house by Aberfoyle at a scale of 1:25,000.

Digital data tapes of that portion of the survey which covered the relinquished area are provided with this report.



Aberfoyle Resources Limited

EXPLORATION DIVISION

= FIGURE 1

REVISIONS			
Init.	Date	Init.	Date
Location Code :			

SOUTH AUSTRALIA

EL 1616 - DREW HILL

LOCATION PLAN

AREA RELINQUISHED

Scale : 1 : 250,000

Date : February, 1994

Compiled :	ST
Drawn :	RJE
Traced :	RJE
Checked :	ST
Plate No. :	DHL 126

1511

3. REGIONAL SOIL SURVEY

In 1989 a regional soil survey was undertaken over the eastern, generally flat to gently undulating portion of the tenement. An average sample density of one per square kilometre was employed.

Selection of sample sites was made using airphotos. Each sample, where topography permitted, was sited within 30-60m of the base of a hill, in an attempt to maximise the uniformity of the suite of samples. In the extreme east, a large proportion of the samples were collected on a square grid as hills are rare. An effort was made, however, not to sample obviously transported material.

Sampling (2-3kg) was undertaken by contractor Search Exploration. Samples were sieved at the laboratory, and the -200um fraction analysed for Au (only) by aqua regia digestion, carbon rod finish, as required by results of an earlier orientation survey. (Results in the relinquished area are shown in Figure 6).

4. REGIONAL STREAM SEDIMENT SURVEY

In the relatively well-incised western portion of the tenement, a regional stream sediment survey was selected as the most appropriate first phase of a methodical geochemical assessment of the area, aimed at locating stratiform base-precious metal prospects. A 6 kilometre overlap with the complimentary regional soil survey in the eastern half of the tenement was incorporated.

Sample locations, at an average density of one per square kilometre, were selected on a drainage plan compiled from 1:24 800 scale airphotographs. Large granite bodies and Adelaidean sediments were excluded from the survey. The survey, in 1990, was undertaken by contractor Search Exploration, and an Aberfoyle geologist who prospected in the vicinity of each sample locality and described the sample locations (Appendix 1).

At each sample site, 5kg (min.) samples were collected. At approximately every 15th sample site, however, a 7kg sample was taken and later split into 5kg and 2kg samples. It was intended that the 2kg samples be analysed for Au at a local laboratory but by the same method, to check the feasibility of using smaller sample weights.

4.1 Sample Analysis

All 5kg samples were sent to Australian Laboratory Services, Orange NSW where a split was taken for Cu Pb Zn Mn Ag analysis (aqua regia digest/AAS D.L. 2,5,2,10,0.1ppm respectively). The remainder (around 5kg) were analysed for Au by cyanide leach (24 hour constant agitation, solvent extraction) and C-Rod AAS determination, D.L. being 0.05ppb).

The abovementioned 2kg sub-samples were analysed for Au at Analabs, Adelaide by cyanide leach, 24 hour constant agitation, solvent extraction and again, C-Rod AAS determination, with D.L. 0.05ppb. Comparison of these results with the 5kg ALS analysis showed poor correlation.

4.2 Results

Stream sediment sample locations and analytical results are shown on Figures 7, 8 and 9. Using log - probability plots, thresholds for Cu Pb Zn Ag Mn and Au were estimated as 65, 50, 150, 1, 400ppm and 1ppb respectively (for the entire area sampled).

4.3 Prospecting

Prospecting during the stream sediment survey produced some increasing results. Several areas of interest have been described (Appendix 2). Analyses of rock chip samples (plotted in Figure 10) indicate the presence of weakly anomalous Au in ?pyritic quartz-magnetite rocks in the Mt. Bull-Calico Hill area (samples 647/224B, 230A, 231A). A quartz + sericite rock with gossanous pits and malachite staining (sample 647231C) assayed 1.87g/t Au. Further prospecting is needed in this area.

4.4 Follow-up of Stream Sediment Anomalies

Inspection of Figure 8 shows weakly anomalous Pb in stream sediments approximately 4kms southwest of Calico Hill. Prospecting upstream from the highest Pb anomaly recorded, at sample site 647214 (80ppm Pb) located a 10m wide exposure of the Bimba Unit, approximately 1.5kms upstream of the sample site (Figure 10). None of the samples collected (all gossanous ironstones), including ironstone float within the creek immediately upstream of the stream sediment sample site, were anomalous in Pb (all <5ppm). On the other hand, all samples were anomalous in Cu (440-1385ppm) and Ag (2-12ppm). The stream sediment anomaly therefore remains unexplained and may be spurious. In view of the anomalous Ag located, however, further prospecting in the area is warranted.

Resampling of highly anomalous stream sediment sample site 647208 which initially recorded 1.7ppm Ag did not duplicate the earlier result (repeat <0.5ppm Ag). This, combined with observations on Ag distribution in the retained area raised considerable doubts as to the value of Ag in stream sediments as an exploration tool in this region.

5. GENERAL RECONNAISSANCE WORK

Shorts Dam Area

Lying in the eastern part of the Drew Hill EL, the Shorts Dam area consists of numerous isolated small hills of granitoids and albitites with intervening soil covered plains. Numerous occurrences of Bimba ironstones have been mapped by Esso Minerals and the area has been explored by PEM surveys and 12 percussion drillholes (SP-series). The drillholes are concentrated in 4 areas (Figure 11) and were targeted on PEM anomalies and/or gossan outcrops. The ironstone outcrops sampled by Esso are generally anomalous in Cu (around 300-1200ppm) but contain only minor Pb or Zn (max. 290, 600ppm respectively). While the drillholes mostly intersected the target pyritic calc-silicates of the Bimba Unit, only minor base metal contents were reported.

The best Zn mineralisation intersected was in hole SP8, recording 6m of 0.24% Zn. Hole SP9 encountered 7m of 0.18% Cu. Hole SP4 intersected 14m of 0.1-0.27% Co.

Limited additional sampling of ironstones was undertaken by Aberfoyle (see Figure 11 for locations). A quartz-magnetite unit near the Bindarrah-Boolcoomatta boundary was also prospected and a sample of ?pyritic facies analysed (No. 593079). This contained insignificant levels of base metals or Au. The Bimba ironstones analysed have similar base metal contents to Esso samples, with a maximum of 1395ppm Cu, 450ppm Zn being reported. Pb contents are $\leq$60ppm. An exceptionally high Pb value (2255ppm) was reported in a sample of ?gossanous ironstone float amidst Tertiary lateritic ironstones on a small hill by the Mingary-Boolcoomatta road, immediately west of Shorts Dam. To test the possibility that the laterites may be developed over prospective Bimba ironstones, a shallow vertical percussion drillhole (SP13) was drilled into ironstones at the top of the hill, where outcropping ironstones occur. The hole intersected a 2m ironstone "capping" passing into kaolinised and locally ferringinous quartzo-feldspathic gneisses, and was terminated at 19m. No anomalous base metal or Au contents were reported from the 2m intervals sampled.

As no Pb anomaly was evident in the near-surface ironstones, it is concluded that either the Pb content of the "capping" is extremely inhomogeneous, or the Bimba Unit is relatively narrow, possibly vertically dipping, and not intersected by the drillhole. Either more detailed surface sampling or Pb isotope determination is needed to solve this.

6. ASSESSMENT OF AIRBORNE MAGNETIC ANOMALIES

Shorts Dam Area

Approximately 2.2kms southwest of Shorts Dam, is a circular magnetic anomaly. It is considered that a geological setting similar to that of the Cu Au Mary Mine (in retained area) was likely. The area is soil covered apart from minor magnetite ironstone and rare ?gossanous non-magnetic ironstone float. A sample of the latter (No. 593519B) contained 525ppm Zn, 390ppm Cu and <0.02ppm Au. Location of the anomaly peak by ground magnetics indicated that the ironstone float occurred almost at the centre of the magnetic anomaly. A line of RAB holes 25m apart was drilled to recognisable bedrock across the feature (Figure 12). Drilling encountered quartzo-feldspathic gneiss, granitoid and schist. No magnetite was noted in the drill chips. One hole (Sample No. 593516) encountered a kaolinised iron-stained rock with ferruginous patches, possibly a decomposed amphibolite or dolerite (745ppm Cu, 350ppm Zn, <0.02ppm Au). It was suggested that the source may be a narrow basic plug or dyke of short strike extent. With <0.02ppm Au and a maximum of 85ppm Cu being encountered in the other drillholes it was considered that further work on this feature was unwarranted.

7. EXPENDITURE

Total expenditure on the relinquished area is estimated at approximately $19,000.

APPENDIX 1

DREW HILL
STREAM SEDIMENT SURVEY
SAMPLE SITE DESCRIPTION

DREW HILL STREAM SEDIMENT SURVEY

Abbreviations

cs	calc-silicate
csg	garnet calc-silicate
grsch	graphitic schist
msch	micaschist
musch	muscovite schist
bisch	biotite schist
sil sch	sillimanite gneiss
gt	garnet/garnetiferous
lG	leucogranitoid
p	pegmatite
pm	pegmatite
pm	pegmatitic metasediment
mig	migmatite
A	albitite gA albitite with boxworks
eA	epidote-albitite
qfgn	quartz-feldspar gneiss
Dol	dolerite
Amp	amplibolite
mt	magnetite. (mt - as prefix indicates magnetic-bearing lithology)
fe	ferruginous (as prefix)
Mn	manganiferous
Fe	ironstone
gFe	ironstone with boxworks
M	marble
Mn-	maganiferous
qtz	quartz vein
qtze	quartzite
gs	garnet sandstone
gq	garnet quartzite
BIF	quartz-gt-mt rock
qmt	quartz-magnetite
Ba	barite
Kgn	K-feldspar gneiss/"chert"
g	gossanous

Date 10 September 1990 Technician Mark Bates Geologist Martin Grant

Sample No.	Creek Width	Nature of Bank	Creekbed Float/Outcrop Lithologies (- = none ie all sand base)		Creek Flanks Float/Outcrop Lithologies - indicate approx. proportions		Other (eg abundant mt in sand, calcrete pebbles etc.)
			Float	Outcrop	Float	Outcrop	
647257	6m	Rocky outcrop banks	Mig, bisch, bigfgn, P	Mig and P	–	Dominantly Mig lesser gfgn, P and bisch	Some A inclusions within Mig 1-50cm thick
647258	6m	"low rocky/ rubble banks	P, Mig, A	P	–	Dominantly PM with lesser P gfgn and rare A	

016

– | fgr, finely bedded and graded in places | ... stacking on gtz

WE[illegible]RE[illegible]LI[illegible]RE[illegible]SED[illegible]NT[illegible]VE

Date. 6 September 1990 Technician. Mark Bates Geologist.....

Sample No.	Creek Width	Nature of Bank	Creekbed Float/Outcrop Lithologies (- = none ie all sand base)		Creek Flanks Float/Outcrop Lithologies - indicate approx. proportions		Other (eg abundant mt in sand, calcrete pebbles etc.)
			Float	Outcrop	Float	Outcrop	
647205	25m	Alluvium	–	–	–	–	
647206	10m	Alluvium	P, qtze, mbiqf schist	–	–	–	
647207	3m	Alluvium	–	–	–	–	
647208	10m	Alluvium	–	–	–	–	
647208	5m	Alluvium	–	–	–	–	
647210	4m	Alluvium	–	–	–	–	
647211	2m	Alluvium	–	–	–	–	
647212	1.5m	Alluvium	–	–	–	–	
647213	4m	Alluvium	–	–	–	–	
647214	3m	Alluvium	mbiqtze schist	–	–	–	

Date 7 September 1990 Technician Mark Bates Geologist Martin Grant

Sample No.	Creek Width	Nature of Bank	Creekbed Float/Outcrop Lithologies (- = none ie all sand base)		Creek Flanks Float/Outcrop Lithologies - indicate approx. proportions		Other (eg abundant mt in sand, calcrete pebbles etc.)
			Float	Outcrop	Float	Outcrop	
647215	1.5m	low alluvial	bi qfgn	—	qfgn, bigfgn, P	—	
647216	1.5m	low alluvial	P, lesser qfgn and bisch and rare qtz to blue qtz	course grained msch	msch, P+PM	—	extensive dendritic erosion above sample site
647217	2m	high alluvial with some rubble	P	-	msch, P, and interbedded bisch/qfgn	P and bisch with lesser med. grained qfgn	
647218	3m	low rubble and alluvium	P, msch, bisch qfgn	qfgn and PM	P, qtz, qfgn	P and qfgn, lesser bisch	strongly sheared
647219	1.5m	low rubble and alluvium	calcrete PM	PM → granite	rare bisch	PM → granite	Duplicate
647220	4m	low alluvium banks with rare outcrop	PM and minor bisch	P, PM minor bisch	P	PM, mig	

Date 7 September 1990 Technician Mark Bates Geologist Martin Grant

Sample No.	Creek Width	Nature of Bank	Creekbed Float/Outcrop Lithologies (- = none ie all sand base)		Creek Flanks Float/Outcrop Lithologies - indicate approx. proportions		Other (eg abundant mt in sand, calcrete pebbles etc.)
			Float	Outcrop	Float	Outcrop	
647221	3m	low rubble/ outcrop banks	Mig, bisch qfgn	bisch, mig, qfgn	–	dominantly mig and bisch with lesser P and bi qfgn	
647222	3m	low alluvium and rare rubble	bisch, PM, Mig, qfgn	–	P	P lesser bisch	
647223	2m	low alluvium and common rubble	qfgn, P, msch	qfgn	Mt pebbles	bisch, P, mig and lesser A	Drains prominant mn pyrite bearing A hill 800m up stream
647224	1m	low - med rubble banks	P qfgn bisch, mt pyritic A	bisch, P	py A, P, qfgn, mt	Dominantly P, qfgn minor bisch	stream float samples a) py mt A b) granular qtz magnetite
647225	2.5m	low - med rocky banks	P, py A, PM	P, PM, mig	–	PM	Thick py A outcrops up stream
647226	1m	med rubble banks	P, bisch qfgn	P	–	P, mig	

Date.....7 September 1990 Technician.Mark Bates..... Geologist.Martin Grant.....

Sample No.	Creek Width	Nature of Bank	Creekbed Float/Outcrop Lithologies (- = none ie all sand base)		Creek Flanks Float/Outcrop Lithologies - indicate approx. proportions		Other (eg abundant mt in sand, calcrete pebbles etc.)
			Float	Outcrop	Float	Outcrop	
547227	2m	low rubble banks	PM bisch	PM qfgr	–	Dominantly qfgr, P mig with lesser bisch	
547228	2m	Steep rubble/outcrop banks "	P bsch, fe py A	P qfgr, bisch	–	Dominantly P, qfgr and fe A	
547229	2m	Steep outcrop banks 80% rock bed	Mig	Mig	–	Dominantly mig with lesser (10%) bi qfgr	Drains Mt Ball
547230	1-5m	Med rubble/outcrop banks	qfgr - mig granular fe (ox. mt) blue qtz, mt, fe py A	qfgr minor bisch	–	qfgr lesser bigch	Stream float samples a) granular qtz mt rock b) py A
547231	2m	low rubble/alluvial banks	P, qfgr, fe qtz, fe mt qtz	P, qfgr	–	P, qfgr - mig minor msch	Drains Mt Ball a) Mt Ball qtz mt b) qtz mt mus py fe oxide rock from shaft on S side 100m c) fe, cu siliceous rock from shallow cut 300m E
547232	3-4m	low alluvial and rubble banks	P, qfgr mt fe qtz rare bedded mt A	PM	–	Dominantly bi Mig lesser PM and rare msch	Drains Mt Ball Rock chip sample: a) Mt fe hm rock outcrop 400m dpwy stream on

020

Date. 8 September 1990 Technician. Mark Bates Geologist. Martin Grant

Sample No.	Creek Width	Nature of Bank	Creekbed Float/Outcrop Lithologies (- = none ie all sand base)		Creek Flanks Float/Outcrop Lithologies - indicate approx. proportions		Other (eg abundant mt in sand, calcrete pebbles etc.)
			Float	Outcrop	Float	Outcrop	
S47233	4-5m	Med rubble rock banks	PM, qfgn, mt, feqtz rare well bedded mtA	PM	—	Dominantly bi Mig and PM lesser msch	
S47234	2-3m	low soil banks	P, PM, Mig rare granular feqtz	PM	—	Dominantly Mig, lesser qfgn and PM	
S47235	3-4m	Low rocky/ outcrop banks	Mig, P, qfgn	qtz fd bi Mig, P	—	Dominantly qfgn lesser Mig	
S47236	2m	Med to steep outcrop banks Rock bottom	qfgn, P, msch mt qtz	bi Mig P	—	Dominantly bi Mig lesser qfgn and P. rare vein qtz and amp below sample site	
S47237	1m	low alluvial	—	—	—	—	
S47238	1m	low alluvial	—	qfgn - PM	—	Conglomerate (? meta) rounded to subangular clasts to 25cm ø. Meta? sedimentry fragments predominate	

021

Date..8...September...1990 Technician.Mark Bates..... Geologist.Martin Grant.....

Sample No.	Creek Width	Nature of Bank	Creekbed Float/Outcrop Lithologies (- = none ie all sand base)		Creek Flanks Float/Outcrop Lithologies - indicate approx. proportions		Other (eg abundant mt in sand, calcrete pebbles etc.)
			Float	Outcrop	Float	Outcrop	
447239	5m	low alluvial	Minimal P, msch qfgn and qtz	–	rare bisch	–	
447240	6m	~~sect~~ low alluvial	P, bisch, Mig, A	–	–	bisch, P, qfgn	
447241	25m	low alluvial	P, PM, qfgn, msch	–	minor P	Dominantly P, qfgn and rare amp	
447242	4m	low rubble banks	qfgn, P, bisch rare feA and fe/mt	biqfgn	–	Dominantly biqfgn with lesser Py A and bisch + P.	Duplicate
447243	25m	Med-high rocky alluvial banks	biqfgn, qfgn, P, PM	qfgn	trace amp	Dominantly qfgn with lesser amounts of P and bsch/Mig	
447244	9m	Low-med rocky banks	Mig qfgn P rare Py A	Mig 100m up	A	Mig biqfgn, P and lesser qfgn and rare A	Thick amp cnct 500m up stream

220

Date..9...September 1990 Technician.Mark Bates..... Geologist.Martin Grant.....

Sample No.	Creek Width	Nature of Bank	Creekbed Float/Outcrop Lithologies (- = none ie all sand base)		Creek Flanks Float/Outcrop Lithologies - indicate approx. proportions		Other (eg abundant mt in sand, calcrete pebbles etc.)
			Float	Outcrop	Float	Outcrop	
447245	7m	Med rocky banks	qfgn, Mig, P	qfgn	—	Dominantly qfgn minor P + Mig	
447246	2.5m	Rocky banks	Mig, P, qfgn	Mig + P	—	Dominantly Mig with lesser qfgn and P	small catchment
447247	9m	Rubble banks	P, Mig qfgn rare amp	P, Mig	—	Dominantly Mig + P minor qfgn	
447248	8m	Low rubble/rock	Mig qfgn P	Mig qfgn	P + Mig	Dominantly Mig + qfgn	
447249	7m	Med. steep outcrop/rocky banks	qfgn Mig P rare mt pebbles and amp	bi Mig minor qfgn	qfgn mig	Dominantly Mig lesser qfgn and rare P.	Rock chip sample. A Mt qtz hm A 400m up from sample site
447250	4m	low rocky alluvial banks	Mig qfgn amp mt	Mig qfgn	—	Dominantly Mig lesser qfgn	Duplicate

Date...9. September 1990 Technician. Mark Bates..... Geologist. Martin Grant.....

Sample No.	Creek Width	Nature of Bank	Creekbed Float/Outcrop Lithologies (- = none ie all sand base)		Creek Flanks Float/Outcrop Lithologies - indicate approx. proportions		Other (eg abundant mt in sand, calcrete pebbles etc.)
			Float	Outcrop	Float	Outcrop	
47251	4m	Steep outcrop banks	A, Mig, P	Mig	-	Dominantly Mig minor P rare A	
47252	2m	low soil/outcrop banks	P	PM some P	qfgn P	Dominantly PM lesser P and Mig rare qfgn	
47253	4.5m	Med high alluvial banks	P, qfgn A	-	P	A often finely bedded and x bedded	
47254	3m	low rocky/ alluvial banks	P, qfgn, amp bisch	qfgn	P	qfgn, bisch lesser P	
47255	25m	low rubble alluvial banks	P, qfgn, bisch G and rare mt A	sheared bi qfgn	few P boulders	G and P lesser PM	V. wide creek with multiple levels. Only lowest level sampled
47256	4-5m	Med "Steep outcrop rocky banks	PM, P, G	P, G	—	G lesser P and rare bisch inclusions	

Date. 25 September Technician. J. Murray Geologist. M. Grant

Sample No.	Creek Width	Nature of Bank	Creekbed Float/Outcrop Lithologies (- = none ie all sand base)		Creek Flanks Float/Outcrop Lithologies - indicate approx. proportions		Other (eg abundant mt in sand, calcrete pebbles etc.)
			Float	Outcrop	Float	Outcrop	
647492	4-8m	low soil/outcrop 50% sand 50% rock	granite, P and lesser A, bimsch	granite	granite	granite	
647493	6m	low-med rocky/ outcrop banks 80% sand 20% rock	granite rare A	granite	granite	granite	
647494	6m	med-high outcrop banks 50% sand 50% outcrop	granite lesser P and rare A, msch	granite	granite	granite and common A inclusions	A fe rich
647495	4m	med to steep outcrop banks 40% sand 60% rock	granite, A, P bigfgn rare amp	granite, A bigfgn	granite	granite with common A inclusions	A-fe rich Duplicate
647496	3-4m	low-med outcrop banks 70% sand 30% rock	granite lesser P rare A	granite	granite	granite	
647497	2-3m	"	"	T py-qtz	"	granite with small pyrite bearing qtz vein	al py qtz outcrop rockchips
647498	4m	low-med outcrop rubble banks 70% sand 30% rock	granite, lesser P rare common A, bisch	granite, A and bimsrsch	—	granite with common Aplan well laminated A inclusions and bimsrsch alongA/ granite contact.	

G20

Date 26 September 1990 Technician J. Murray Geologist M Grant

Sample No.	Creek Width	Nature of Bank	Creekbed Float/Outcrop Lithologies (- = none ie all sand base)		Creek Flanks Float/Outcrop Lithologies - indicate approx. proportions		Other (eg abundant mt in sand, calcrete pebbles etc.)
			Float	Outcrop	Float	Outcrop	
647510	4-8m	Steep outcrop banks 50% sand 40% float 10% o/c	granite	granite	granite	granite	Duplicate 920
647511	4-6m	Med outcrop banks					

APPENIDX 2

DREW HILL
STREAM SEDIMENT SURVEY
RECONNAISSANCE ROCK CHIP SAMPLE DESCRIPTIONS

DREW HILL

STREAM SEDIMENT SURVEY

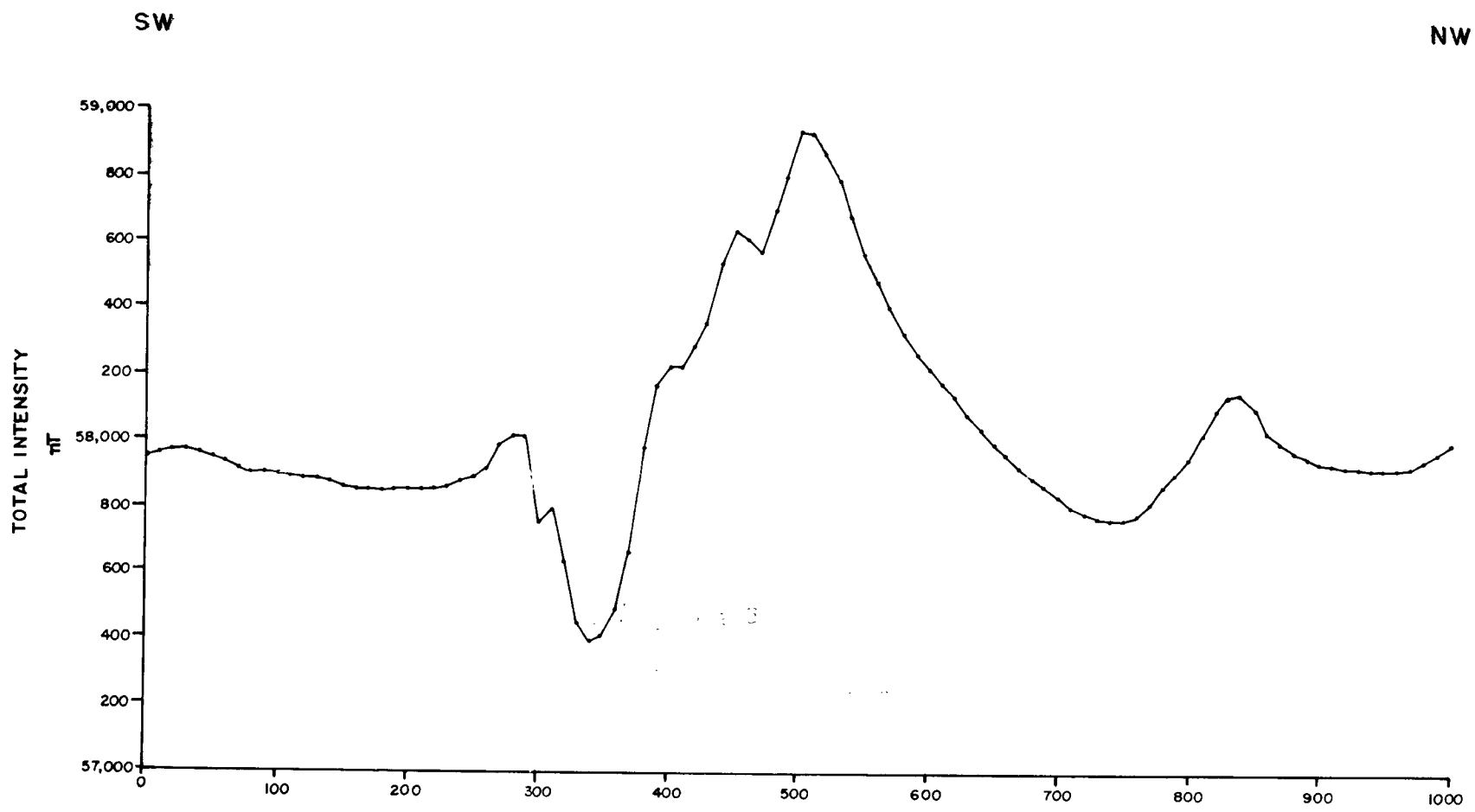
RECONNAISSANCE ROCK CHIP SAMPLE DESCRIPTIONS

647224A	sl leached haematitic albitite
224B	Granular q mt rock
230A	Granular q mt rock
230B	Fine grained mt fe rich A, sl leached haematitic albitite
231A	sl gossanous haem.-mt rock. Abundant vughs after sulphides (Mt Bull)
231B	Granular q bi rock + red/purple fe (?) laminae + py and Cu staining (Mt Bull)
231C	q sericite rock with minor gossanous pits
249A	q mt albite rock
491A	oxidised mt rock

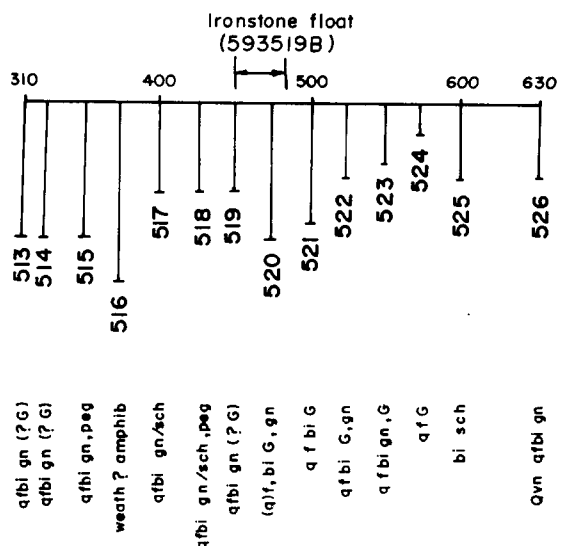
During the course of the survey, a number of lithologically prospective areas were identified. These are listed below.

Area 1 - Sample Sites 647223, 647224 and 647225
A fine grained pyrite bearing albitite unit crops out near sample sites 647223, 647224 and 647225. The unit(s) is thick (750m), strike extensive and commonly manganiferous. It is recommended that this unit, a possible gold host, be mapped and sampled.

Area 2 - Mt Bull Sample Sites 647230, 647231 and 647232
Quartz-magnetite and associated mineralised lithologies at Mt Bull require further assessment. Further sampling is suggested to identify possible base metal, Au and Co mineralisation.



All hole numbers prefixed by **593**



LEGEND

q	quartz
f	feldspar
bi	biotite
sch	schist
gn	gneiss
G	granitoid
Q	quartz
vn	veined

520 — Drillhole with number Scale 1:500

SCALE 1:5000

metres 100 0 100 200 300 400 500 metres

NOTE: Magnetic Anomaly AMG Co-ords 6455250N
459700 E

Aberfoyle Resources Limited

EXPLORATION DIVISION

FIGURE 12

REVISIONS			
Init.	Date	Init.	Date
Location Code :			

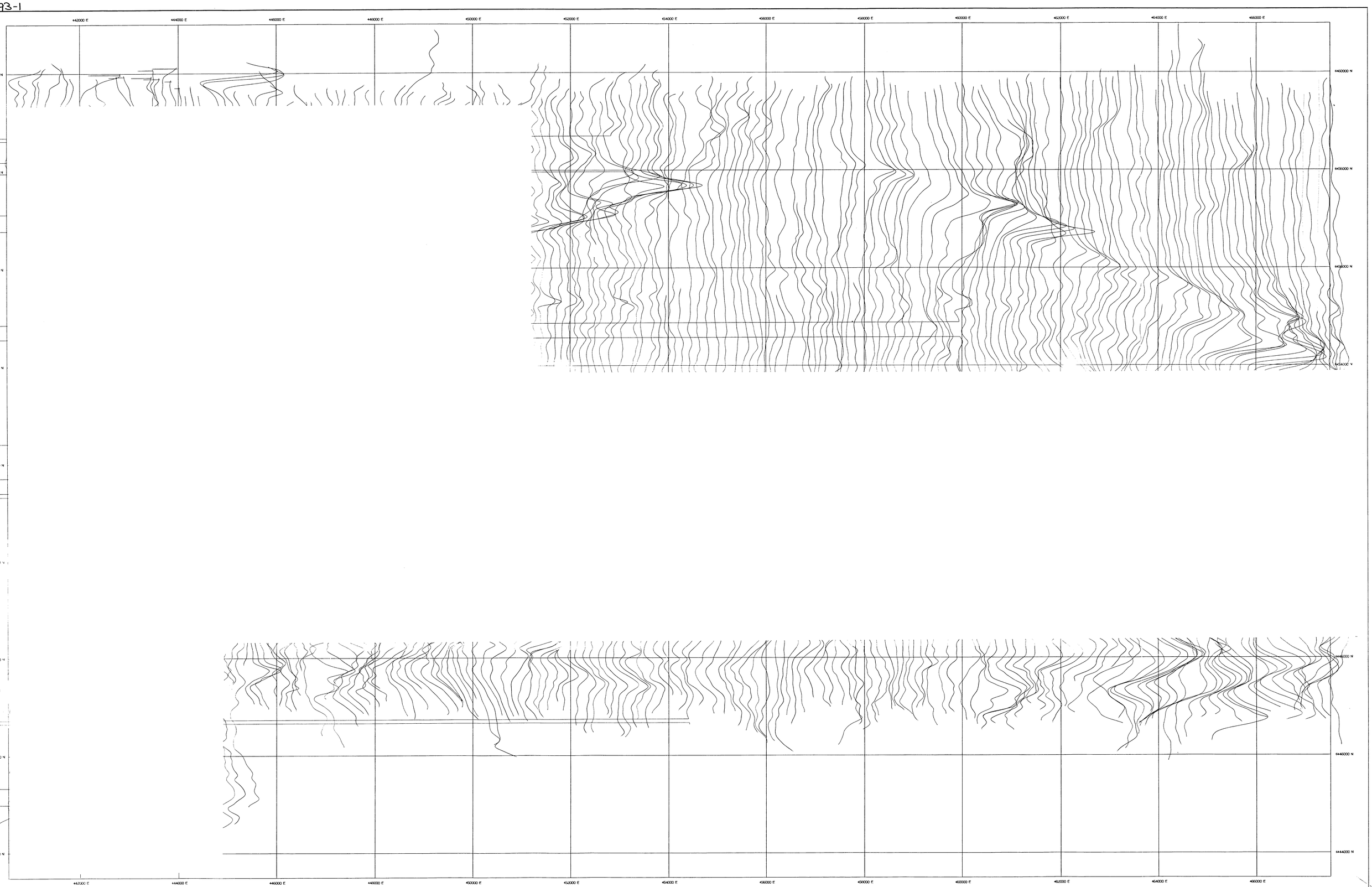
SOUTH AUSTRALIA
DREW HILL EL 1616
SHORTS DAM AREA
RAB TRAVERSE / MAGNETIC ANOMALY

Scale : 1:5000 | Date : JUNE 1990

Compiled : ST
Drawn :
Traced : NB
Checked :
Plate No. : DHL-64

151

8793-1



VERTICAL SCALE 250 nT/cm

BASE LEVEL 57400nT

250 0 250 500 750 1000 1250 metres

AUSTRALIAN MAP GRID

Aberfoyle Resources Limited
EXPLORATION DIVISION

FIGURE 2

REVISIONS			
Init.	Date	Init.	Date
Location Code :			

SOUTH AUSTRALIA
EL 1616 - DREW HILL
DREW HILL EAST AIRBORNE MAGNETIC SURVEY
STACKED PROFILES

Scale : 1:25000
Date : MARCH 1989

Compiled : JJR
Drawn : Apollo
Traced :
Checked : JJR
Plate No : DHL-72

8793-1

8793-2

442000 E
444000 E
446000 E
448000 E
450000 E
452000 E
454000 E
456000 E
458000 E
460000 E
462000 E
464000 E
466000 E

6460000 N
6458000 N
6456000 N
6454000 N
6452000 N
6450000 N
6448000 N
6446000 N
6444000 N

250 0 250 500 750 1000 1250 metres

AUSTRALIAN MAP GRID

Aberfoyle Resources Limited
EXPLORATION DIVISION

FIGURE 3

REVISIONS				
Init	Date	Init	Date	
Action Code :				

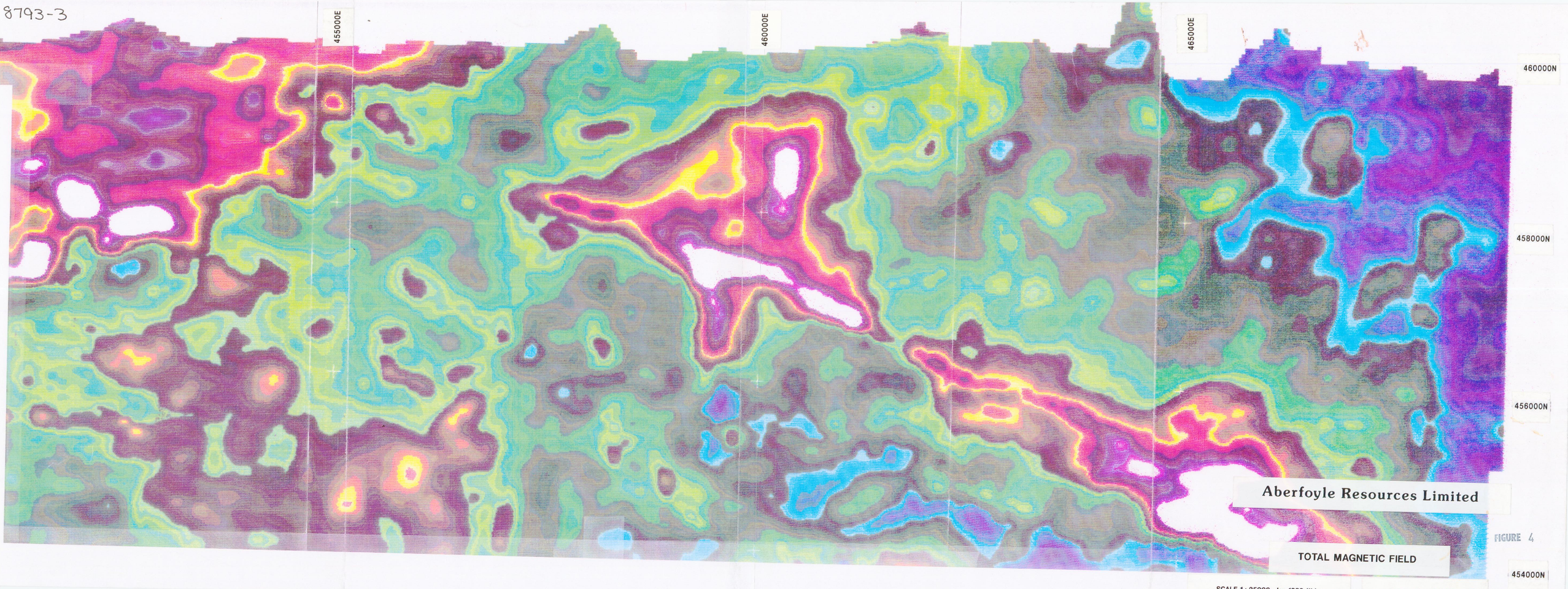
SOUTH AUSTRALIA
EL 1616-DREW HILL
DREW HILL EAST AIRBORNE MAGNETIC SURVEY
TOTAL MAGNETIC INTENSITY CONTOURS

Scale : 1:25000 | Date : MARCH 1989

Compiled : JJR
Drawn : APOLLO
Traced :
Checked : JJR
Plate No. : DHL-71

8793-2

8793-3



Aberfoyle Resources Limited

FIGURE 4

TOTAL MAGNETIC FIELD

SCALE 1 : 25000 Jan 1989 (jjr)

Plate No. DH38 8793-3

8793-4

440000mE 445000mE 450000mE 455000mE 460000mE 465000mE

6460000mN

RAB TRAVERSE
MAGNETIC ANOMALY

REFERENCE

- Fault
- Lineament, fracture
- Top of Upper Albite Unit (+ Bimba Position) outlining main areas of Pelitic - Carbonaceous Unit
- Prominent magnetic anomaly
- Granite outcrop
- Iron formation outcrop
- Gossanous ironstone outcrop

SCALE 1:25,000

-500 0 1000 2000 3000m

8793-4

FIGURE 5

Aberfoyle Resources Limited
EXPLORATION DIVISION

REVISIONS			
Init.	Date	Init.	Date
Location Code :			

SOUTH AUSTRALIA
EL 1616 - DREW HILL
DREW HILL EAST AIRBORNE MAGNETIC SURVEY
PRELIMINARY INTERPRETATION

Scale : 1:25,000 | Date : JUNE 1989

Compiled :
Drawn : ST
Traced : NB
Checked :
Plate No : DHL-69

8793-5

445000mE 450000mE 140°30' 455000mE 460000mE 465000mE 140°40'

6460000mN

32°00'

32°05'

SHORTS DAM

HEINRICH'S CATCH

SHORTS DAMS

LADY MAC DAM

LADY MAC BORE

8 = Au in soil (ppb) – 200 µm fraction

Method of analysis : fire assay fusion, carbon rod finish

D.L. 1ppb

Analytical Lab : ANALABS

0 1 2 KILOMETRES

8793-5

Aberfoyle Resources Limited

EXPLORATION DIVISION

FIGURE 6

REVISIONS			
Init.	Date	Init.	Date
Location Code :			

SOUTH AUSTRALIA

E.L. 1616 – DREW HILL

REGIONAL SOIL SURVEY

Au ANALYSES & CONTOURS

Scale : 1:25000 Date : MARCH 1990

Compiled : ST

Drawn : ST

Traced : EAC

Checked :

Plate No : DHL-58

8793-6

MT BULL
647231A
647231B
X 647231C
647230A,B(11)
647224 A,B(11)
OLD SPRING WELL
647491A
NATIONAL PARK WELL
DAM
'RIMSWORLD' STATION DAMS
OLD PIMPONDA WELL
MULGA DAMS
Vermin Proof Fence
FOOTES HILL
LADY MAC BORE
'BULLOO CREEK'
To OLARY
To OLARY
P8

LEGEND

- 201 — Stream sediment sample location (prefix 647)
- X 308 — Rock chip sample location (prefix 647) suffix A, B, C etc
- Geological boundary
- Unfoliated granite
- Foliated granite
- Granite/migmatite

SCALE 1:25000

metres 500 0 1000 2000 metres

8793-6

Aberfoyle Resources Limited
EXPLORATION DIVISION

FIGURE 7

REVISIONS			
Init.	Date	Init.	Date

Location Code :

SOUTH AUSTRALIA
EL 1616 - DREW HILL
WEST DREW HILL STREAM SEDIMENT SURVEY
ROCK CHIP AND STREAM SEDIMENT SAMPLE LOCATIONS

Scale : 1:25,000 Date : OCTOBER 1990

Compiled : ST
Drawn : ST
Traced : NB
Checked :

8793-7

Report 310987

MT BULL △

OLD SPRING WELL

NATIONAL PARK WELL

DAM

"WARNAWHILE" STATION DAMS

OLD PIMPONDA WELL

MULGA DAMS

FOOTES HILL △

LADY MAC BORE

BULLOO CREEK

Vermin Proof Fence

To OLARY

6 450 000mN

6 440 000mN

Pδ

Pwm

Pwδ

LEGEND

- 201 — Stream sediment sample location (prefix 6477)
- Geological boundary
- Pδ — Unfoliated granite
- Pwδ — Foliated granite
- Pwm — Granite/migmatite

STREAM SEDIMENT SURVEY

15,90,0 9 Pb,Zn,Ag — Stream Sediment Samples Pb (5 D.L.ppm), Zn (2 D.L.ppm), Ag (0·1 D.L.ppm) Aqua regia - AAS; acid digest - extraction - AAS

SCALE 1 : 25000

metres 500 0 1000 2000 metres

8793-7

Aberfoyle Resources Limited
EXPLORATION DIVISION

FIGURE 8

REVISIONS			
Init.	Date	Init.	Date
ST.MB	3/11		
Location Grids :			

SOUTH AUSTRALIA
EL 496 - DREW HILL
WEST DREW HILL STREAM SEDIMENT SURVEY
SAMPLE LOCATIONS AND ANALYSES
Pb, Zn, Ag

Scale : 1:25,000 | Date : OCTOBER 1980

Compiled : ST
Drawn : ST
Traced : MB
Checked :
Plate No : DHL-77


8793-8
140°15'
430000mE
440000mE
450000mE
32°00'
6450000mN
6440000mN
CALICO HILL
MT BULL
OLD SPRING WELL
NATIONAL PARK WELL
Ruins
BOOLCOOMATA HILL
PERIKILA HILL
MOOLEUSORE HILL
PUTT WELL
PUTT DAM
OONANTRA DAM
BIMBOWRIE STATION DAMS
OLD BLUE WELL
OLD MENINGIE WELL
Vermin Proof Fence
MARY MINE
MARTHA DAM
BINBERRIE HILL
OLD PIMPONDA WELL
BLUE DAM
CATHEDRAL ROCK
OLD WILK DAM
OLD MAC DAM
OLD BOOLCOOMATA
DREW HILL
LADY LOUISE
BLACK MARIA MINE
NORTH MULGA BORE
BULLOO WELL
LADY MAC BORE
WOMAN-IN-WHITE Cu, Au
MT MULGA MINE
OLD BULLOO CK DAM
SOAK DAM
MULGA DAMS
FOOTES HILL
To OLARY
'BULLOO CREEK'
LEGEND
201 Stream sediment sample location (prefix 647)
Geological boundary
Pϒ Unfoliated granite
Pwϒ Foliated granite
Pwm Granite/migmatite
STREAM SEDIMENT SURVEY
25, 240, ·05(30) Stream Sediment Samples
Cu, Mn, Au Cu (2 D.L.ppm), Mn (10 D.L.ppm), Au (0·05 D.L. ppb)
Aqua regia - AAS = 5kg cyanide leach constant agitation solvent extraction
(·30) = 2 kg Aus E Lab Services C Rod AAS, otherwise as above (Analabs)
SCALE 1:25000
metres 500 0 1000 2000 metres
8793-8
Aberfoyle Resources Limited
EXPLORATION DIVISION
FIGURE 9
REVISIONS
Init. Date Init. Date
SOUTH AUSTRALIA
EL 1616 - DREW HILL
WEST DREW HILL STREAM SEDIMENT SURVEY
SAMPLE LOCATIONS AND ANALYSES
Cu, Mn, Au
Compiled : ST
Drawn : ST
Traced : NB
Checked :
Location Code :
Scale : 1:25,000
Date : OCTOBER 1980
Plate No : DHL-78

3793-9

Pδ

Pwm

Pδ

Pδ

Pδ

OLD SPRING WELL

NATIONAL PARK WELL

DAM

"SHADOWVALE" STATION DAMS

OLD PIMPONDA WELL

MULGA DAMS

FOOTES HILL

Vermin Proof Fence

"BULLOO CREEK"

LADY MAC BORE

To OLARY

6450000mN

6440000mN

LEGEND

- Stream sediment sample location (prefix 647)
- Rock chip sample location (prefix 647) suffix A, B, C etc
- Geological boundary
- Pδ — Unfoliated granite
- Pwδ — Foliated granite
- Pwm — Granite/migmatite

ROCK CHIP SURVEY

Rock Chip Samples

Cu (2 D.L. ppm), Pb (5 D.L. ppm), Zn (2 D.L. ppm), Aqua regia/perchloric acid digestion, AAS finish

Mn (50 D.L. ppm), Ag (1 D.L. ppm), Au (0·008 D.L. ppm), Aqua regia/perchloric acid digestion, AAS finish — Fire assay fusion, AAS finish

Hg (0·005 D.L. ppm) Perchloric acid digestion. Vapour generation. AAS finish

SCALE 1 : 25000

metres 500 0 500 1000 metres

8793-9

Aberfoyle Resources Limited
EXPLORATION DIVISION

FIGURE 10

REVISIONS			
Init.	Date	Init.	Date
ST	4/91		

Location Code :

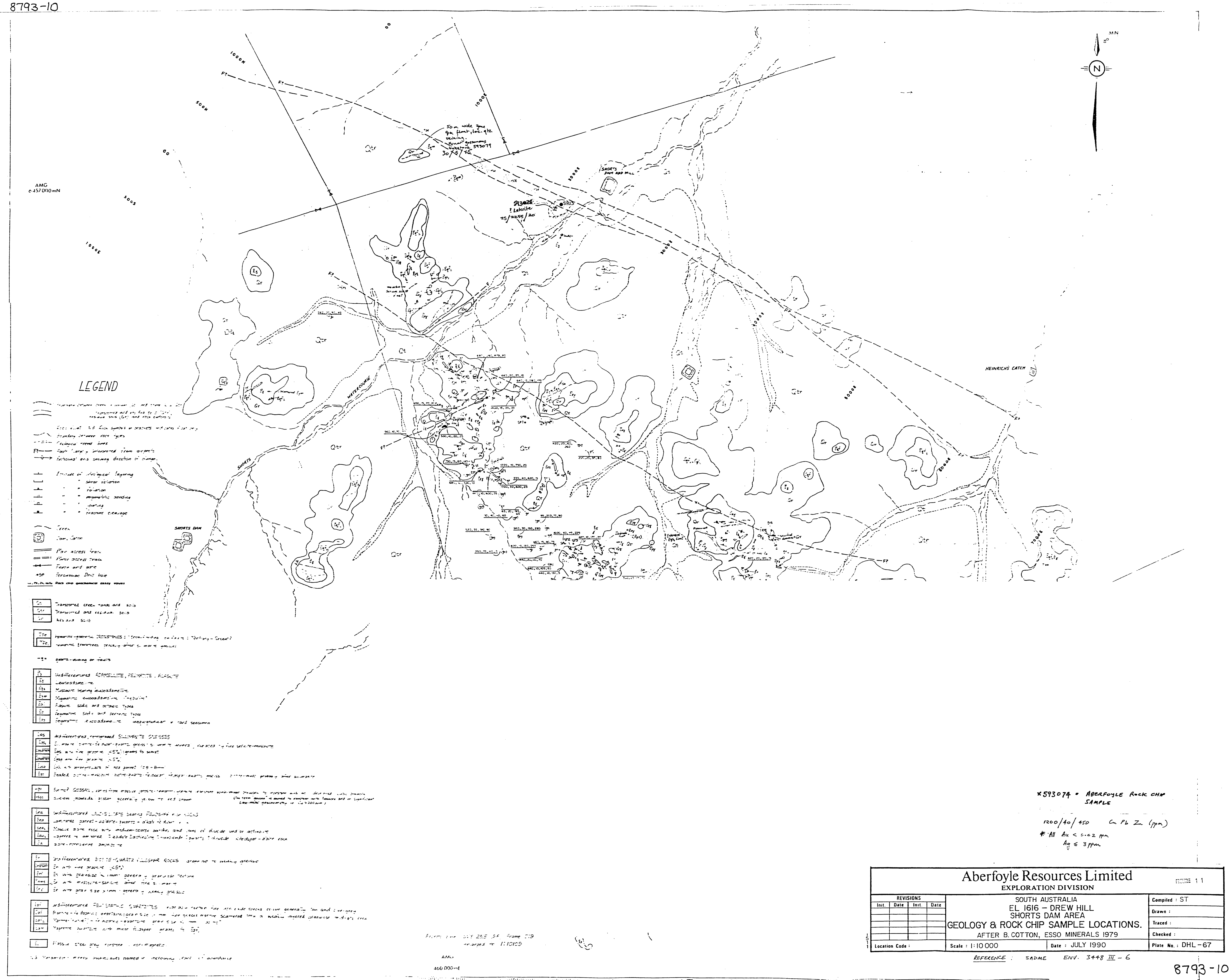
SOUTH AUSTRALIA
EL 1616 - DREW HILL
WEST DREW HILL STREAM SEDIMENT SURVEY
RECONNAISSANCE ROCK CHIP ANALYSES

Scale : 1:25,000

Date : OCTOBER 1990

Compiled : ST
Drawn : ST
Traced : MB
Checked :
Plate No : DHL-79

8793-10



Aberfoyle Resources Limited
EXPLORATION DIVISION

FIGURE 11

REVISIONS			
Init.	Date	Init.	Date

SOUTH AUSTRALIA
EL 1616 – DREW HILL
SHORTS DAM AREA
GEOLOGY & ROCK CHIP SAMPLE LOCATIONS.
AFTER B. COTTON, ESSO MINERALS 1979

Compiled : ST
Drawn :
Traced :
Checked :

Location Code :
Scale : 1:10 000
Date : JULY 1990
Plate No. : DHL-67

REFERENCE : SADME ENV. 3448 III – 6

8793-10