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

Exploration Division

EXPLORATION LICENCE 9145
‘TINARKIE BORE’
(Napperby 1:250 000 Sheet)

ANNUAL REPORT ON EXPLORATION
FOR THE YEAR ENDED
18 AUGUST 1997

Distribution:
Aberfoyle Resources Ltd, Perth (1)
Aberfoyle Resources Ltd, Melbourne (1)
Dept Minerals and Energy, Darwin (1)

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ARL Report No
September 1997
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1. SUMMARY

Aberfoyle Resources is exploring the gold potential of EL 9145, with the Early Proterozoic sequences present on the licence seen as being potential host rocks for mineralisation of the type developed to the west in the Granites/Tanami inlier. Existing deposits within the Granites/Tanami are often intimately associated with magnetic anomalies and as such Aberfoyle’s exploration is directed towards the testing of magnetic features. Numerous such magnetic anomalies occur on EL 9145 and are targeted for exploration. The prospectivity of the area is enhanced by encouraging recent exploration results achieved by PosGold Limited at their Sabre Prospect, located along geological/structural strike in the Reynolds Ranges, to the west of EL 9145.
2. INTRODUCTION

2.1. Location and Access

EL 9145 'Tinarkie Bore' is located to the north of the settlement of Aileron, approximately 160 kilometres north of Alice Springs. The licence falls on the Napperby map sheet (Plate TNB01), occurring on both the Aileron and Pine Hill Station Pastoral Leases. The Stuart Highway transects the SE corner of EL 9145 for approximately 7km, 3km north of Prowse Gap. Alternatively access may be gained via Arden Soak Bore or Kerosene Well, both of which lie approximately 2km within the EL, on station tracks to the west of the Stuart Highway.

2.2. Tenure

EL 9145 'Tinarkie Bore' (1030 sq km) was granted to Aberfoyle Resources Limited on 19 August 1996 for a period of six years. An annual expenditure covenant of $35 000 applied to EL 9145 for the first year of tenure.

3. WORK COMPLETED

3.1. AAPA Site Survey

Aberfoyle Resources applied to the Aboriginal Areas Protection Authority (AAPA) for an Authority Certificate covering the entire area of EL 9145. The application was made on 16 January 1997 and the certificate was issued on the 23 June 1997.

No places of significance to Aboriginal peoples were identified. A copy of the AAPA's correspondence (including a copy of the Authority Certificate) is included in this report as Appendix 1.
3.2. Airborne Magnetics and Radiometrics Survey

To enable accurate targeting of surface and sub-surface geochemical exploration programmes, Aberfoyle contracted World Geoscience Corporation in November 1996 to conduct a magnetic and radiometric survey of EL 9145 (and adjoining EL 9146).

A Logistic Report by and Aberfoyle Geophysicist is shown as Appendix 1. A flight path plan, and a total magnetic intensity image are enclosed (Plates DSB12 and TNB2).

A series of large, highly complex magnetic anomalies exist in the southern part of the EL. Due to their complex nature, flight line spacing in this region was reduced from 500m to 250m. Folded and/or faulted, strongly magnetic anomalies within the south-west corner appear to be sourced from a cordierite granofels/felsic granulite within the Reynolds Range Group. Anomalies further to the east crosscut outcropping granotoids and may exist within alluvium/colluvium or an underlying source. A large WNW trending anomaly extends from the NW corner to the centre of the EL, appearing as a complex, moderate to highly magnetic body. Numerous anomalies of lesser intensity are noted within this region, cross-cutting the overall body with a more E-W trend. This structure correlates with the Atmatjira Range and may be sourced by a combination of mafic and felsic granulites.

A regional fault separating the north-eastern portion of the EL has been inferred. This area is comparatively subdued although the western edge of a highly magnetic anomaly extends into the eastern part of the EL. It appears as a large bullseye structure, possibly being faulted along its southern margin. A few, smaller magnetic anomalies lie within the NE area of the EL and are of moderate intensity. Thick Quaternary cover and the absence of outcrop prohibits any assumption as to the source of magnetic anomalies in
this area. A simplified preliminary interpretation of the aeromagnetic data is shown on Plate TNB03.

4. EXPENDITURE

Excluding tenement rentals and the cost of the AAPA certificate, Aberfoyle Resources expended a total of $39,058.71 on exploration of EL 9145 in the first year of tenure. A breakdown of expenditure is shown on page 7.

5. PROPOSED PROGRAMME AND BUDGET

With the acquisition of suitably detailed aeromagnetic data Aberfoyle's programme of exploration will concentrate upon the geochemical sampling of magnetic features and their environs located within EL 9145. Magnetic features considered to be significant will be targeted for surface and sub-surface geochemical coverage. Selected, attractive features within these anomalies will be more accurately located by reading ground magnetic traverses, the ground data modelled and the magnetic bodies tested. It is recommended that RAB/Aircore drilling is employed to increase the success rate of penetration to bedrock, as Quaternary cover, ground water and deep weathering may prohibit effect shallow geochemical sampling.

The estimated costing of this programme is as follows

1) Ground Magnetic Surveying $2000
2) Access $1500
3) RAB/Aircore drilling, geochemical sampling and assaying as appropriate $45000

TOTAL $48500
ABERFOYLE RESOURCES LIMITED  
EXPLORATION DIVISION

EXPLORATION LICENCE 9145 'TINARKI BORE'

SUMMARY OF EXPENDITURE  
FOR THE YEAR ENDED  
18 AUGUST 1997

GEOLOGY $1329.78
GEOPHYSICS $34278.17
OTHER SERVICES $57.58
ADMINISTRATION $3399.18
TOTAL $39058.71
APPENDIX 1

AAPA Correspondence and Authority Certificate
ABORIGINAL AREAS PROTECTION AUTHORITY

AUTHORITY CERTIFICATE

Issued in accordance with Section 22 of the Aboriginal Sacred Sites Act


APPLYING TO: EL 9145 in the Pine Hill Station area of the NT and
EL 9535 in the Anninge Station area of the NT, as shown on the
attached maps.

PROPOSED WORK OR USE: Track clearing for access, surface geochemical soil sampling, R.A.B./
vacuum drilling, surface geophysical surveys and percussion/diamond
drilling with a view to discovery of a mineable resource.

ISSUED TO: Aberfoyle Resources Limited
Level 31 South, 525 Collins Street
MELBOURNE VIC 3000

CONDITIONS:

1. It is the responsibility of the recipient of this Certificate to:
   (i) Include the conditions of this Certificate in any subsequent contract or
tender document commissioning works described in this Certificate.
   (ii) Otherwise inform agents and employees of the conditions of this Certificate
and obligations under the Aboriginal Sacred Sites (NT) Act 1989.

2. The proposed use or works covered by this Certificate must commence within 24
   months of the date of issue.

3. The information on the maps relate specifically to the areas of the Certificate as marked
and the fact that sites are not shown in other areas should not be taken as a definitive
indication of the existence or lack of existence of sites in these areas.

4. The maps attached to the Certificate form part of the Certificate.

5. No mining works permitted within the areas highlighted in red on the map plans
   attached to the Certificate.

6. EL9145
   Mining personnel wishing to access site area 5553-62 for mining purposes are required
to first consult with custodian Don Campbell at his Pine Hill outstation/living area,
adjacent to Pine Hill Station.

7. EL 9535
   Personnel requiring access to EL 9535 via the west or south sides should be aware of
   conditions in force as per Authority Certificate C95/035 issued to Aberfoyle Resources
   on 28/3/95 ie. areas 2 and 3.

The COMMON SEAL of the
ABORIGINAL AREAS PROTECTION AUTHORITY
was hereto affixed on the 23rd day of
1997

DAVID RITCHIE
Chief Executive Officer
File: D89/199;89/2044

23rd June 1997

Aberfoyle Resources Limited
Level 31 South, 525 Collins Street
MELBOURNE VIC 3000

ATTENTION: KEN DYBALL

RE: ISSUE OF AUTHORITY CERTIFICATE FOR EL 9145, PINE HILL
STATION AREA & EL 9535, ANNINGIE STATION AREA

I refer to your application for an Authority Certificate, received on the 20 January 1997, for
the above location.

Accordingly, under the powers delegated to me under Section 19 of the Aboriginal Sacred
Sites Act 1989 I am pleased to issue the attached Authority Certificate.

Please note carefully the conditions outlined in the Certificate. You should also note that the
Authority has issued you with two identical copies of the digitized map attached. One copy
should be retained with your original Certificate. The second is supplied for use by
contractors to avoid unnecessary photocopying of a colour coded document. If you have any
further queries regarding this Authority Certificate please contact Mr Anthony Gatti in our
Alice Springs office on 89526366.

Yours faithfully

[Signature]

DAVID RITCHIE
Chief Executive Officer
APPENDIX 2

Airborne Magnetic and Radiometric Survey

Geophysicists Report
ABERFOYLE RESOURCES

"DESERT BORE - TIHARKIE BORE"

AIRBORNE MAGNETIC & RADIOMETRIC SURVEY

October-November 1996

Logistic Report

Prepared By:

A D Thompson
Geophysicist

August 1997
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1. INTRODUCTION

An airborne magnetic and radiometric survey was conducted over EL9145 Tinarkie Bore and EL9146 Desert Bore in the Northern Territory near the town of Ti-Tree approximately 100 km North of Alice Springs (Fig. 1).

The survey took place in mid November over a period of 3-4 days and was conducted by World Geoscience Corporation for Aberfoyle Resources Limited.

A total of 5248 line kilometres of data were collected over approximately 275 North-South lines. The line spacing were 500m apart in the northern half of the survey however was closed up to 250m in the Southern half after it became apparent that a closer line spacing was required to resolve features in this location (Fig. 2).

The survey was designed as a first pass exploration tool to locate those areas with interesting magnetic characteristics and to determine those areas within the ELs where the depth to magnetic basement is shallow enough to effectively explore for mineralisation.
2. **DATA COLLECTION**

2.1 **Instrumentation**

The Airborne Magnetic and Radiometric data were collected using the following equipment.

- **Aircraft** - Cessna 206
- **Magnetic Sensor** - Scintrex VIW2321/CS2 split beam cesium vapour sensor.
- **Magnetometer** - Picodas PDAS 1000 acquisition system.
- **Spectrometer** - Picodas PGAM 256 channel self calibrating spectrometer.
- **Spec Sensor** - Two 16.75 litre NaI crystal sensors.
- **Elevation** - Radar Altimeter & Barometric Altimeter

2.2 **Survey Specifications**

The following specifications were used for data acquisition.

- **Flight Line Spacing** - 500 metres throughout the Northern half of the survey and 250 metres throughout most of the Southern half of the survey. The increased line density in the South was due to the increased complexity of the magnetic features.
- **Flight Line Direction** - N-S
- **Tie Line Spacing** - 5000m.
- **Tie Line Direction** - E-W
- **Sensor Height** - 80 metres. Which is fairly high due to the large line spacing and several hills in the Western part of the survey area.
- **Mag. Sample Interval** - 6m
- **Mag. Cycle Rate** - 0.1 seconds
- **Spec Sample Interval** - 60 m
- **Spec Cycle Rate** - 1 second
GPS cycle Rate - 1 second

2.3 Magnetic Base Station

A Geometrics G856 proton precession magnetometer with 0.1 nT resolution, 0.5nT noise envelope cycling every 5 seconds was used. The Base station and mobile magnetometer clocks were synchronised daily.

3.0 Comments

The survey was completed within the specified time however a slight delay was necessary when part of the navigation system broke down making location of flight lines unreliable. No other problems were encountered.

An image of the Total Magnetic Intensity with a Northeast-Southwest sunshade is included in Figure 3.