
Mithril Resources Ltd

247 Greenhill Road, Dulwich 5065, South Australia

Tel: +61 8 8366 6066 Fax: +61 8 8366 6067

Website www.mithrilresources.com.au

Email admin@mithrilresources.com.au

**ANDREW YOUNG PROJECT
EL 23628 – MT DOREEN O.**

**ANNUAL TECHNICAL REPORT FOR
THE PERIOD 7th April 2003 to 6th April 2004.**

**Barry van der Stelt
Geologist**

MAY 2004

MAP REFERENCE:
MOUNT DOREEN 250K – SF52-12

CONTENTS

1	INTRODUCTION.....	4
2	TENURE AND EXPLORATION ACCESS.....	5
3	GEOLOGY.....	6
4	EXPLORATION WORK COMPLETED.....	8
5	EXPENDITURE	9
6	PROPOSED EXPLORATION PROGRAM YEAR 2	9
7	REFERENCES	10

Figure 1:	Tenement Location plan.	4
Figure 2:	EL23628 Outcropping Proterozoic geology on magnetics.	6
Figure 3:	S v Zr geochemistry of Arunta Intrusives	7
Figure 4:	Andrew Young REE geochemistry	8
Figure 5:	Evidence for crustal contamination: Feldspar xenocrysts in gabbroic rocks.	9

Table 1:	Tenement details	5
Table 2:	E 23628 expenditure details	9
Table 3:	E23620 planned expenditure.....	10

SUMMARY

This annual report describes all work carried out by Joint Venturers BHP Billiton and Mithril Resources on EL 23628, Andrew Young Project, during the first year of tenure ended 8th April 2004.

Exploration work on the tenement is aimed at discovering Proterozoic ultramafic-related Ni-Cu mineralisation.

Throughout most of the reporting period work was confined to office-based studies, in particular the compilation of existing data, processing and modeling GEOTEM data flown in 1999 and generating targets from this data. A brief reconnaissance field trip was undertaken to the area.

Non-exploration work included the finalisation of an Exploration deed between the Joint Venture partners and the Central Land Council in March 2003.

Recent work on adjacent ground has indicated that the GEOTEM survey did not penetrate conductive cover and other methods of generating drill targets are currently being considered.

1 INTRODUCTION

This annual report describes all work carried out on EL 23628 by Joint Venturers BHP Billiton and Mithril Resources during the annual period ended 8th April 2004.

Exploration Licence 23628 is located 400km west of Alice Springs in the southwest part of the Northern Territory (Figure 1) on the Mount Doreen 1:250,000 topographic sheet (Ref SF52-12). Access to the area is via the Tanami Track and numerous unsealed station tracks.

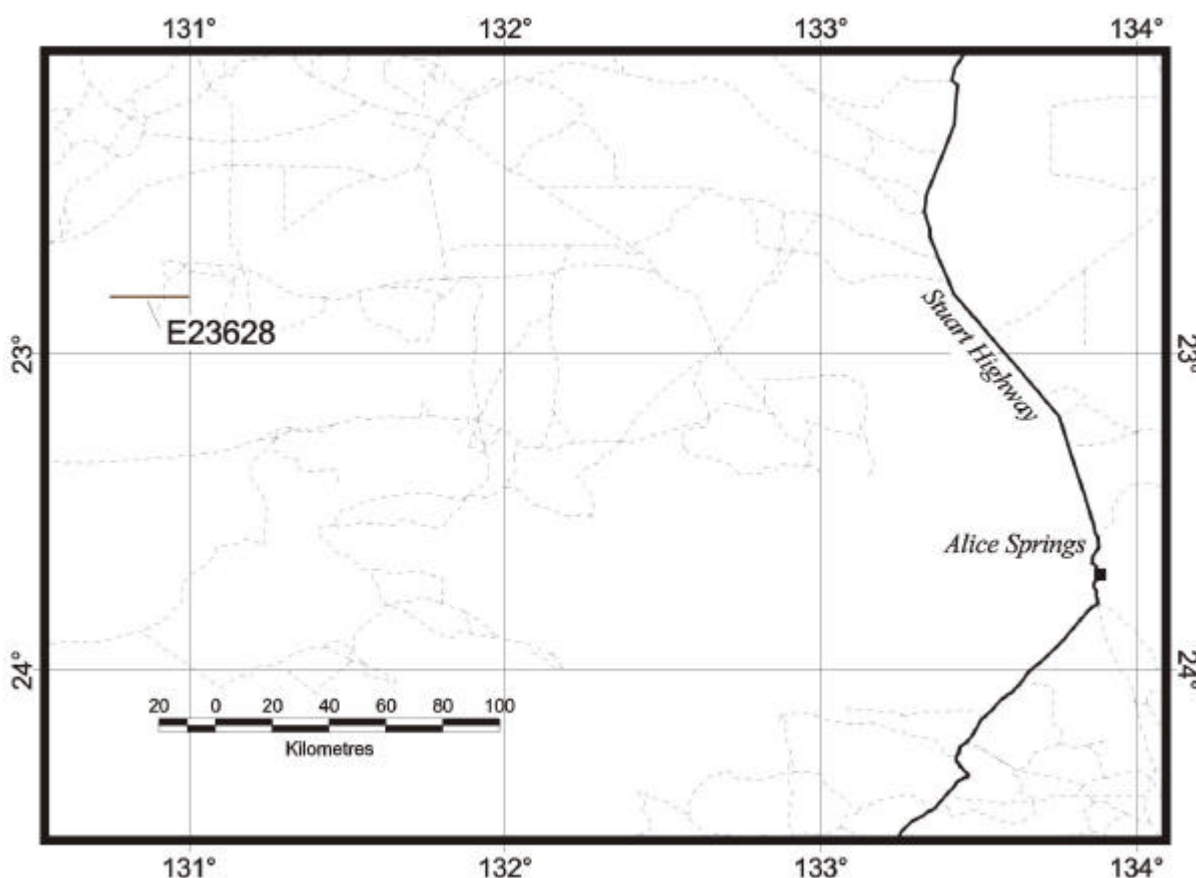


Figure 1: Tenement Location plan.

The tenement is located within the Arunta geological province which hosts large Palaeoproterozoic mafic-ultramafic magmatic systems, with intrusions occurring over a 90,000 square kilometres area. Recently completed incompatible element discrimination work identified the Western Arunta Intrusions as sulphur enriched (300-1200 ppm sulphur) and demonstrated they have potential for orthomagmatic nickel-copper-cobalt sulphide associations (Hoatson and Stewart 2001).

Mithril Resources, in Joint Venture with BHP Billiton, are exploring for nickel-copper mineralisation associated with Proterozoic mafic-ultramafic intrusions in this highly prospective region.

2 TENURE AND EXPLORATION ACCESS

Exploration Licence Application 23628 was lodged by BHP Billiton Minerals Proprietary Limited on 14 June 2002.

Background tenure for EL 22909 is NT Portion 2406, Newhaven Pastoral Lease, which is owned by Birds Australia (formerly the Royal Australasian Ornithologists Union).

EL	Name	No. Blocks	Application Date	Grant Date	Expiry Date
22909	Mount Doreen O	15	16/6/2002	7/4/2003	6/4/2009

Table 1: Tenement details

In the Annual Report for EL9695 (immediately abutting EL23628 to the north and east) Christensen, 2002 from BHP Billiton stated:

“Birds Australia has written to BHP Billiton to formally express their concern in relation to exploration activities on Newhaven Pastoral Lease. They advised they were undertaking extensive discussions and negotiations with the Traditional Owners through the Central Land Council, to include them in management and planning issues and processes.

BHP Billiton is still in discussions with Birds Australia in order to further their understanding of the proposed exploration program for EL 9695. In addition, BHP Billiton has been negotiation exploration access with the Central Land Council in order to satisfy Native Title Heritage matters. A draft Exploration Agreement is presently under discussion.

To summarise, BHP Billiton will only enter the area to carry out exploration when the concerns of the two other Parties that have an interest in the land have been addressed.”

BHP Billiton Joint Ventured EL 23628 (still under application) to Mithril Resources in late 2002. The Andrew Young Joint Venture Agreement was registered by the NT Dept of BIRD on 24 February 2003.

In March 2003 Mithril, BHPB and the Traditional Owners signed an Exploration Deed covering E9596, E10117, E22909 and (application) E23628.

On 7 April 2003 Exploration Licence 23628 was granted to BHP Billiton and Mithril Resources assumed project management.

3 GEOLOGY

From recent investigations by the Northern Territory Geological Survey and Geoscience Australia (eg Hoatson and Stewart, 2001), the Mesoproterozoic Andrew Young Complex crops out in five hills in a regional arcuate alignment within an area 4.5 by 6.5 km. Part of this outcrop falls within E23628. The alignment of the ranges parallels layering trends in interpreted mafic rocks evident on aeromagnetic data; indicating the aerial extent of the whole intrusion is some 30 kilometres westerly and 13 kilometres southerly (Figure 2).

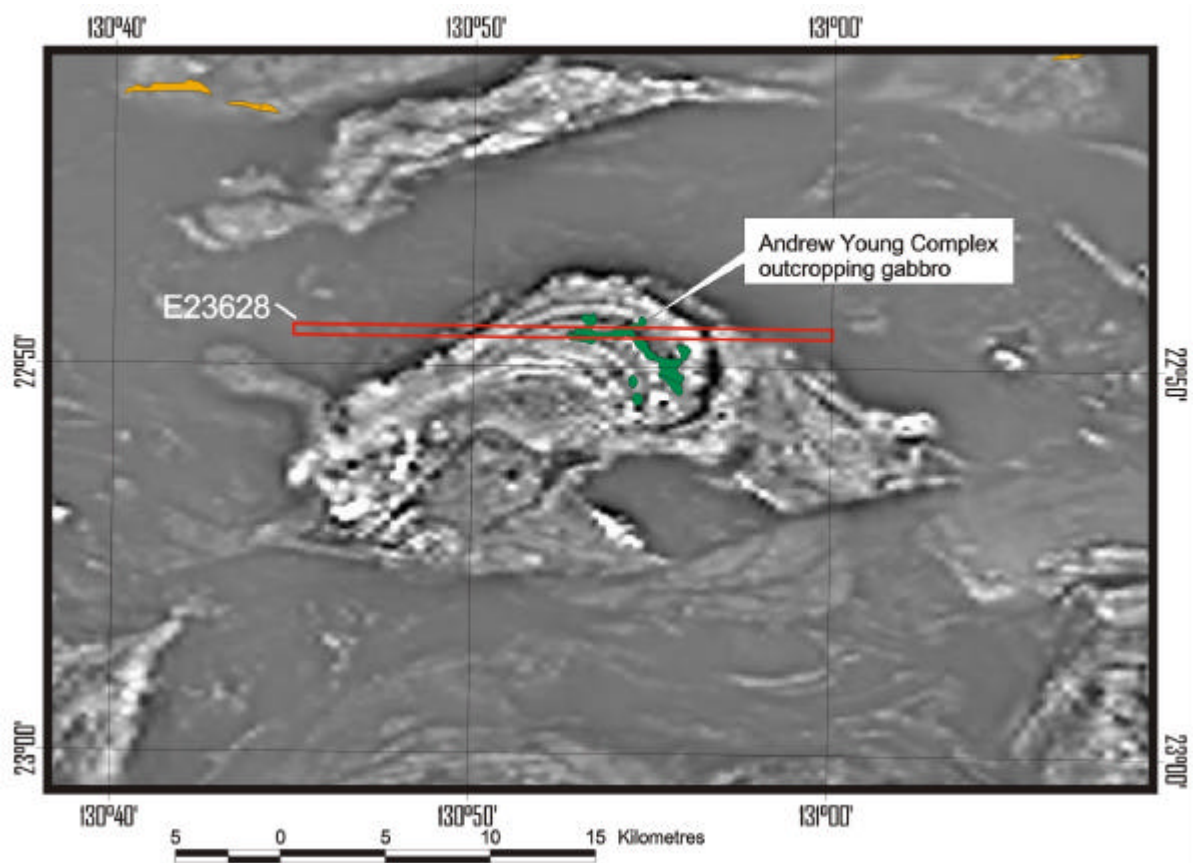


Figure 2: EL23628 Outcropping Proterozoic geology on magnetics.

The Andrew Young complex consists of a homogeneous mafic sequence of fine- to medium-grained, gabbro, hornblende tonalite and diorite. The rocks contain well-preserved igneous features and are not foliated or strongly recrystallized. Contacts between rock types tend to be diffuse and distinctive marker layers and compositional layering are absent; the most marked variation relates to the degree of felsic contamination.

The complex intruded greenschist facies pelites and psammites and is itself intruded by late stage hornblende granite, aplite and pegmatite. Regional occurrences of felsic volcanics and granitic rocks indicate that these rocks and the gabbroic intrusions are part of a large igneous province.

Geochemical data show that Andrew Young Complex is strongly contaminated with felsic crustal material and is sulphur enriched (Figure 3, after Hoatson). Copper and nickel ratios indicate that the magma was depleted in these elements and therefore that sulphides may have segregated prior to the current level of intrusion. The latter is similar to interpretations for the Noril'sk region, where segregated sulphides from early magmas were injected into country rock or carried by later magmas to basal parts of intrusions. This similarity to Noril'sk applies to the overall rare earth element distribution for Andrew Young Complex, which also shows a strong similarity to that for Noril'sk (Figure 4).

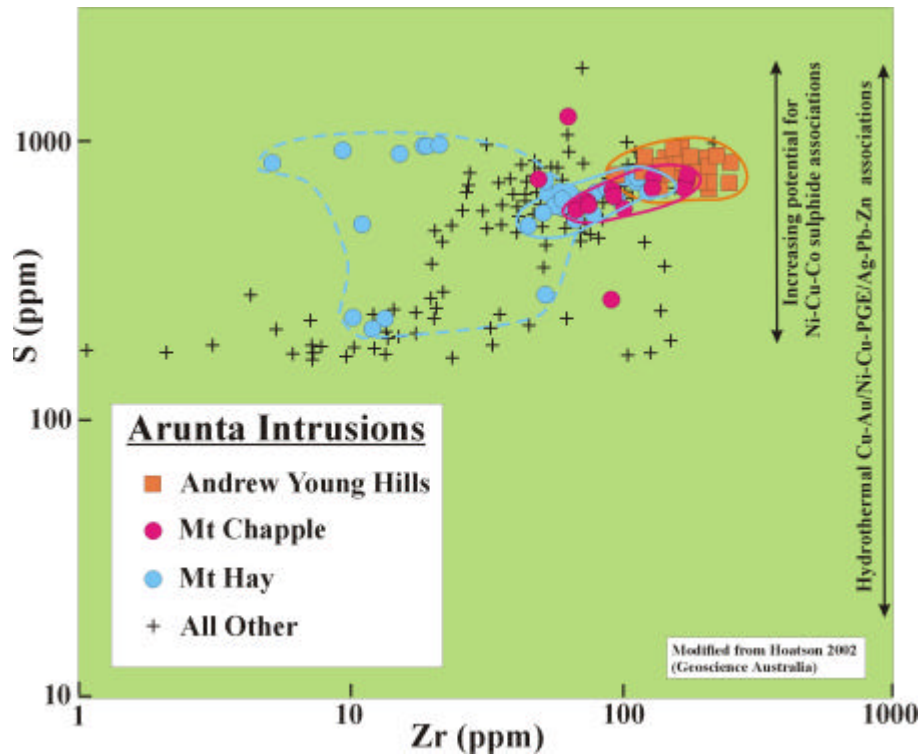


Figure 3: S v Zr geochemistry of Arunta Intrusives

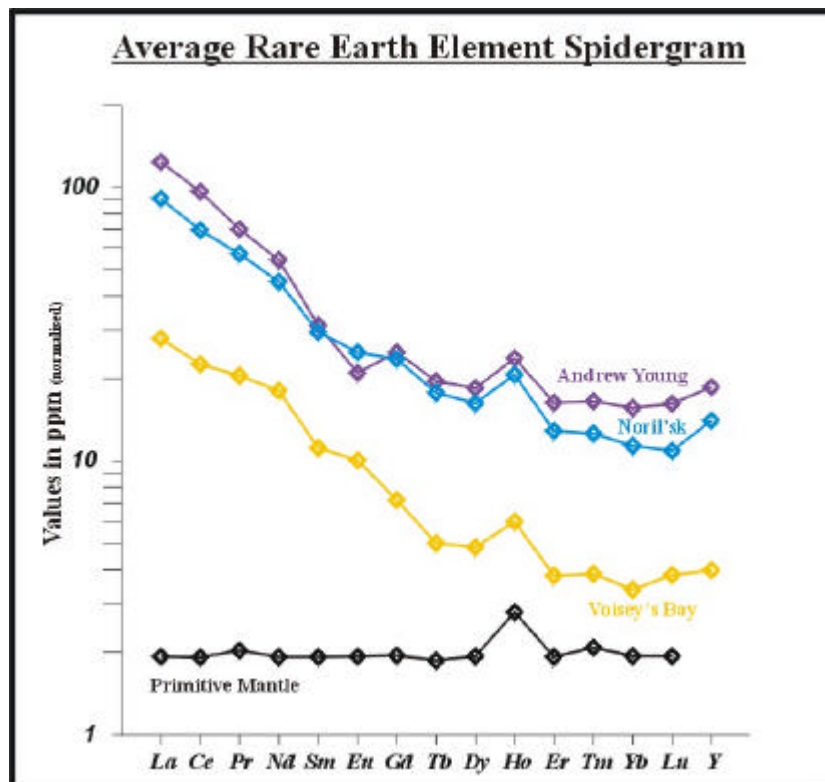


Figure 4: Andrew Young REE geochemistry

4 EXPLORATION WORK COMPLETED

Immediately following the execution of the Exploration Deed in late March, consent was given by the Traditional Owners (via the Central Land Council) for a brief field visit to examine outcrops of the Andrew Young complex and to assess the viability of ground electrical geophysics.

During this brief reconnaissance trip field evidence was found to support the geochemical evidence for crustal contamination (as discussed in section 3). This is illustrated in the gabbroic rock identified at the Andrew Young Complex, Figure 5.

Work during the first year of tenure was initially focused on processing and interpretation of airborne GEOTEM flown by BHPB in 1999. No basement conductors were identified within the lease area although two were identified just outside the lease boundary, on adjacent projects also part of the Andrew Young Joint Venture. Ground TEM follow-up was undertaken on similar targets in the adjacent leases and indicated that the airborne EM has not penetrated through highly conductive overburden. It is thus apparent that airborne EM is an ineffective technique for identifying drill targets.



Figure 5: Evidence for crustal contamination: Feldspar xenocrysts in gabbroic rocks.

5 EXPENDITURE

Combined project expenditure for the year ended 6 April 2004 totals \$14,060 against an annual commitment of \$13,000 (Table 2). . An additional \$1,115 of non-claimable expenditure (including salaries, legal costs, administrative costs) was incurred during negotiations for the Exploration Deed and Heritage Surveys.

	E23628
Computing	\$624
Employee costs	\$8,986
Maps and Drafting	\$27
Field expenses/equipment hire	\$636
Supplies	\$111
Travel & vehicles	\$1,054
Administration	\$2,622
TOTALS	\$14,060

Table 2: E 23628 expenditure details

6 PROPOSED EXPLORATION PROGRAM YEAR 2

Considering that Airborne EM is ineffective other exploration techniques are required for identifying drill targets. As a result Mithril and BHPB propose the following program for the next 12 months:

- Undertake an airborne gravity (possibly using BHPB's FALCON system) or ground gravity surveys
- Process and model results
- Aircore/RC drill priority targets
- Compile and analyse all results

Proposed expenditure will compromise:

	E23628
Employee costs	\$5,000
Geophysical surveys	\$1,000
Percussion drilling	\$10,000
Field expenses	\$1,500
Office expenses	\$1,500
TOTALS	\$19,000

Table 3: E23620 planned expenditure

7 REFERENCES

Christensen, A., 2002. Exploration Licence 9695, Mount Doreen E, Annual Report Year Ended 13 May 2002. CR 10488. BHP Billiton Minerals Exploration (unpublished).

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