

MIM EXPLORATION PTY LTD

TECHNICAL REPORT

No. 2562

TITLE: EXPLORATION LICENCE No. 8699 "ANNA"
NORTHERN TERRITORY
FINAL REPORT

HOLDER : MOUNT ISA MINES LIMITED

OPERATOR: M.I.M. EXPLORATION PTY. LTD.

1:250 000 SHEET : BAUHINIA DOWNS SE53-3

1:100 000 SHEET : MALLAPUNYAH (6064)

**INVESTIGATIONS
CONDUCTED BY :** R.D.M. WILSON AND M. McGEOUGH

AUTHOR: D. M. CRABB

SUBMITTED BY: E. ROTHERY

DATE : MARCH 1996

CRABB/305

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TECHNICAL REPORT No. 2562

SUMMARY

EXPLORATION LICENCE No. 8699 "ANNA" NORTHERN TERRITORY

FINAL REPORT

Date : March 1996

AIM OF PROJECT

To search for HYC style mineralisation within the Barney Creek Formation of the McArthur Group

OBJECT OF REPORT

To report on the exploration carried out on the Licence.

LOCATION

EL 8699, "Anna" was located 700 km south east of Darwin and centred on latitude 16°32' south and longitude 135°47'30"east.

TENURE

Exploration Licence 8699 was granted to Mount Isa Mines Limited over an area of 15 graticular blocks for a period of six years.

PRECIS

EL 8699 was selected as part of a program aimed at testing hidden or buried Barney Creek Formation of the Middle Proterozoic McArthur Group for HYC style silver-lead-zinc mineralisation. Review of data from surrounding tenements showed that the potential within EL 8699 was low.

POTENTIAL

No economic mineralisation was located.

CONCLUSION

The possibility of a thickened and mineralised sequence of Barney Creek Formation within EL 8699 "Anna" was low.

RECOMMENDATION

Relinquish EL 8699, "Anna".

1. INTRODUCTION

Exploration Licence No. 8699 "Anna", was granted to Mount Isa Mines Limited over an area of 15 graticular blocks (~48 km²) for a period of six years from July 7, 1995. The Licence was located approximately 700 km south-east of Darwin and 30 km west-south - west of the McArthur mine.

The area was selected as part of a program aimed at exploration for HYC style silver-lead-zinc mineralisation within the Barney Creek Formation. Review of data from surrounding areas showed this Licence had little potential for the target mineralisation.

2. LOCATION AND ACCESS

EL 8699 was located 700 km south-west of Darwin in the Northern Territory. The Licence area was bounded by latitudes 16°30' and 16°34' south and longitudes 135°45' and 135°50' east as shown on Figure 1.

Two tracks provided access to the EL; the southern part of the licence was reached via the old Three Knobs road which turned off the Carpentaria Highway at Leila Lagoon; the northern part of the EL could be reached via a station track which turned off the Carpentaria Highway 73 km south of Borroloola. Off road access within the licence was relatively good for four wheel drive vehicles.

3. TENURE

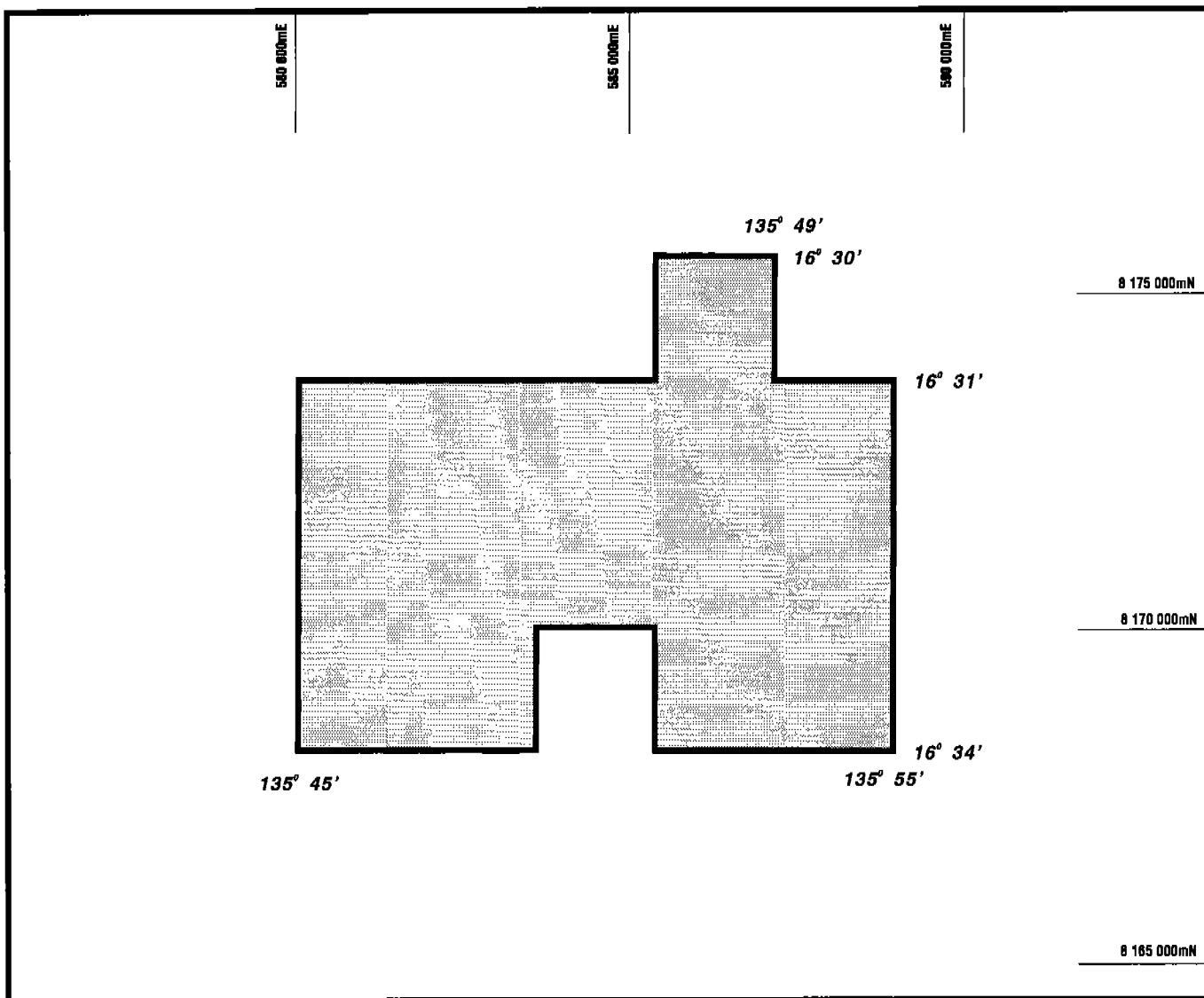
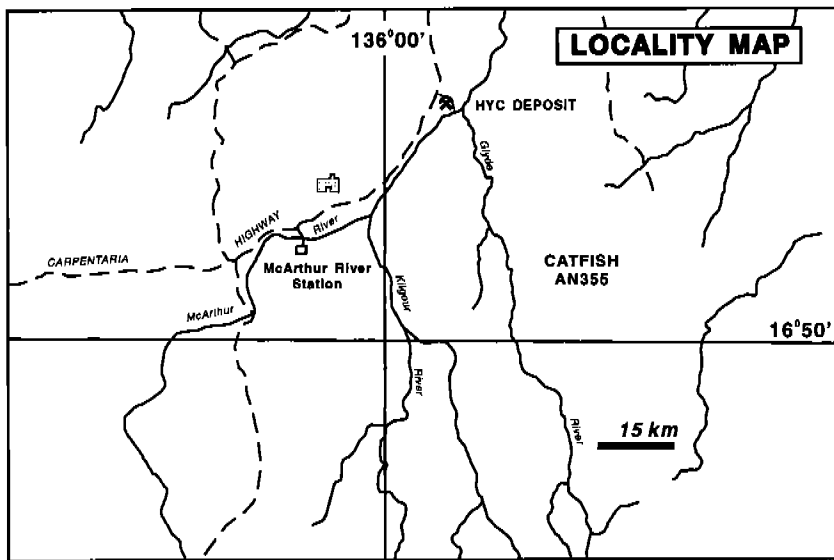
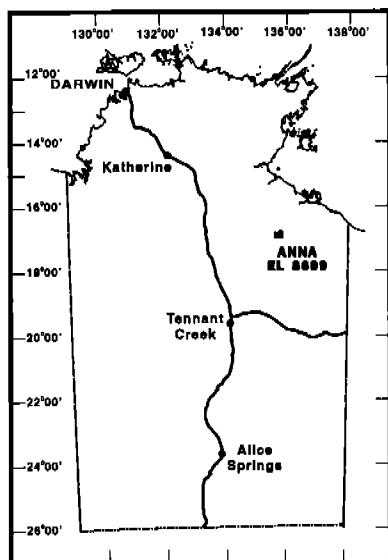
Exploration Licence 8699, "Anna", was granted to Mount Isa Mines Limited for a period of six years over an area of 15 graticular blocks (approximately 48 km²). The Department of Mines and Energy was advised on March 4, 1996 of the surrender of the Licence.

4. GEOLOGY

"Anna" was located within that part of the Middle Proterozoic McArthur Basin known as the Batten Trough which, in this area, is bordered to the east and west by the Emu and Tawallah Faults. The youngest rocks in the area, the Balbirini Dolomite of the Nathan Group outcrop in the western third of the EL and unconformably overlay the Batten Subgroup and the upper part of the Umbolooga Subgroup of the McArthur Group. Outcrop of the McArthur Group is moderately good in the central part of the licence but east of the Hot Springs Fault outcrop is poor.

5. WORK DONE BY M.I.M. EXPLORATION PTY. LTD.

EL 8699, "Anna" was taken up as part of a program to search for HYC style mineralisation within buried or hidden Barney Creek Formation, the host for the nearby HYC silver-lead-zinc mineralisation at McArthur. The available surface and subsurface data from adjacent



Scale 1:100 000

M.I.M. EXPLORATION PTY. LTD.
NORTHERN TERRITORY

PROJECT

ANNA EL 8699

TITLE

LOCATION DIAGRAM

Mining District: Northern

Author: M.A.McG.

Scale: 1:100 000

1:250 000: SE 53-3

Drawn: E.I.K.

Date: March 1996

1:100 000: 6064

Drawing No.: 41320

Figure No.: 1

areas were reviewed. This showed that there was no anomalous surface geochemistry and drilling results pointed to only a thin sequence of Barney Creek Formation being present (the locations of drill holes assessed in this review are listed in Table 1 and are shown on Figure 2). The potential for a thickened mineralised sequence of the Barney Creek Formation was low.

TABLE 1
STRATIGRAPHIC REVIEW DRILL HOLES

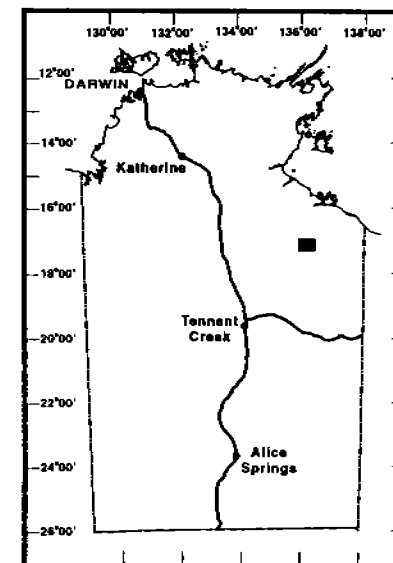
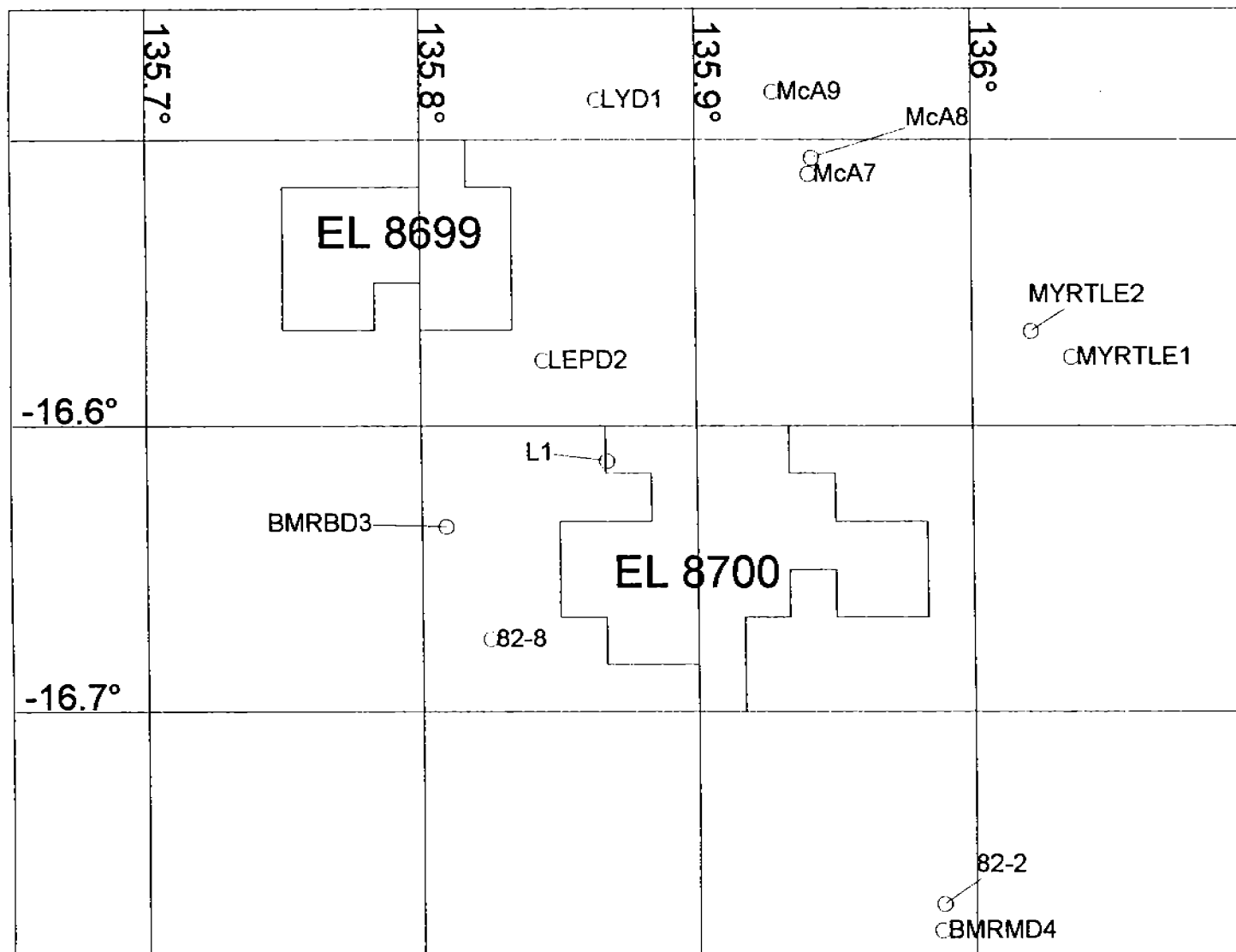
Hole Name	AMG Coordinates		Company	Tenement Number	Year
	East	North			
82-2	605 354	8 145 930	AMOCO	OP91	1983
82-8	587 909	8 156 284	AMOCO	OP91	1983
BMR-BD3	586 250	8 160 622	BMR		1979
BMR-BD4	605 269	8 144 906	BMR		1979
L1	592 495	8 163 113	SHELL	1203	1982
LEPD2	590 080	8 167 003	MIM	5649	1994
LYD1	604 830	8 185 889			
McA7	600 416	8 174 159	BHP	4363	1984
McA8	600 572	8 174 782	BHP	4363	1984
McA9	599 065	8 177 338	BHP	4363	1984
Myrtle1	610 525	8 167 043	AO	1203	1980
Myrtle2	608 964	8 168 002	AO	1203	1980

6. CONCLUSIONS

The possibility of a thickened mineralised sequence of Barney Creek Formation within EL 8699, "Bessie" was low.

7. RECOMMENDATIONS

Relinquish Exploration Licence No. 8699, "Bessie".



M.I.M. EXPLORATION PTY. LTD. NORTHERN TERRITORY		
PROJECT ANNA EL 8699, BESSIE EL 8700		
TITLE REVIEW DRILLHOLES LOCATION MAP		
Mining District: Northern	Author: D.C.	Scale: 1:250 000
1:250 000: SE 53-3	Drawn: E.I.K.	Date: March 1996
1:100 000: 6064	Drawing No.: 50401	Figure No.: 2

8. REFERENCES

- Jackson, M.J., Muir, M.D., & Plumb, K.A., 1987 : Geology of the southern McArthur Basin, Northern Territory. Bulletin 220, Bureau of Mineral Resources, Geology and Geophysics.
- Pietsch, B.A., Rawlings, D.J. Explanatory Notes Bauhinia Downs SE53-3 1:250 000
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& Findhammer, T.L.R., 1991 :