

PARTIAL RELINQUISHMENT REPORT

EXPLORATION LICENCE 8068 *"Foelsche River South"*

12th July, 1993 to 11th July, 1997

Licensee: Ashton Mining Limited

Operator: Ashton Mining Limited
BHP Minerals Pty Ltd

Sheet Reference: 1:250,000 Bauhinia Downs (SE53-03)
1:250,000 Wallhallow (SE 53-07)

Submitted to: Department of Mines and Energy, Darwin

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October, 1997
Report Number: 52149

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SUMMARY

During the period 12th July, 1993 to 11th July, 1997, Ashton Mining Limited, on behalf of the Australian Diamond Exploration Joint Venture (ADE JV), and BHP Minerals Pty Ltd, through the McArthur River (Metals) Joint Venture, carried out an exploration programme over Exploration Licence 8068. In June 1997, the licence was reduced from 6 blocks to 3 blocks. This report provides details of work undertaken on the relinquished portion of the licence.

Diamond Exploration

Gravel and loam sampling programmes were implemented in the first, second and fourth year of tenure, with a total of nine samples being collected from the relinquished portion of EL 8068.

Samples were dispatched to Ashton's Perth laboratory for microdiamond and indicator mineral analysis. All samples reported negative.

Base Metal Exploration

An airborne GEOTEM survey was flown in May 1996, which was interpreted in August. No conductive targets were delineated from this survey and thus no further work was done on the ground. As a result, BHP opted to withdraw this tenement from the McArthur River (Metals) Joint Venture. Work undertaken by BHP Minerals over the entire area of the licence, is reported herein.

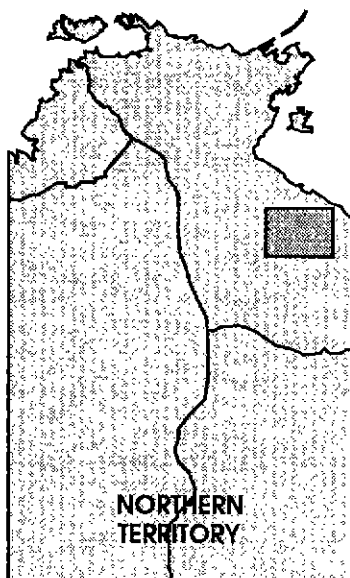
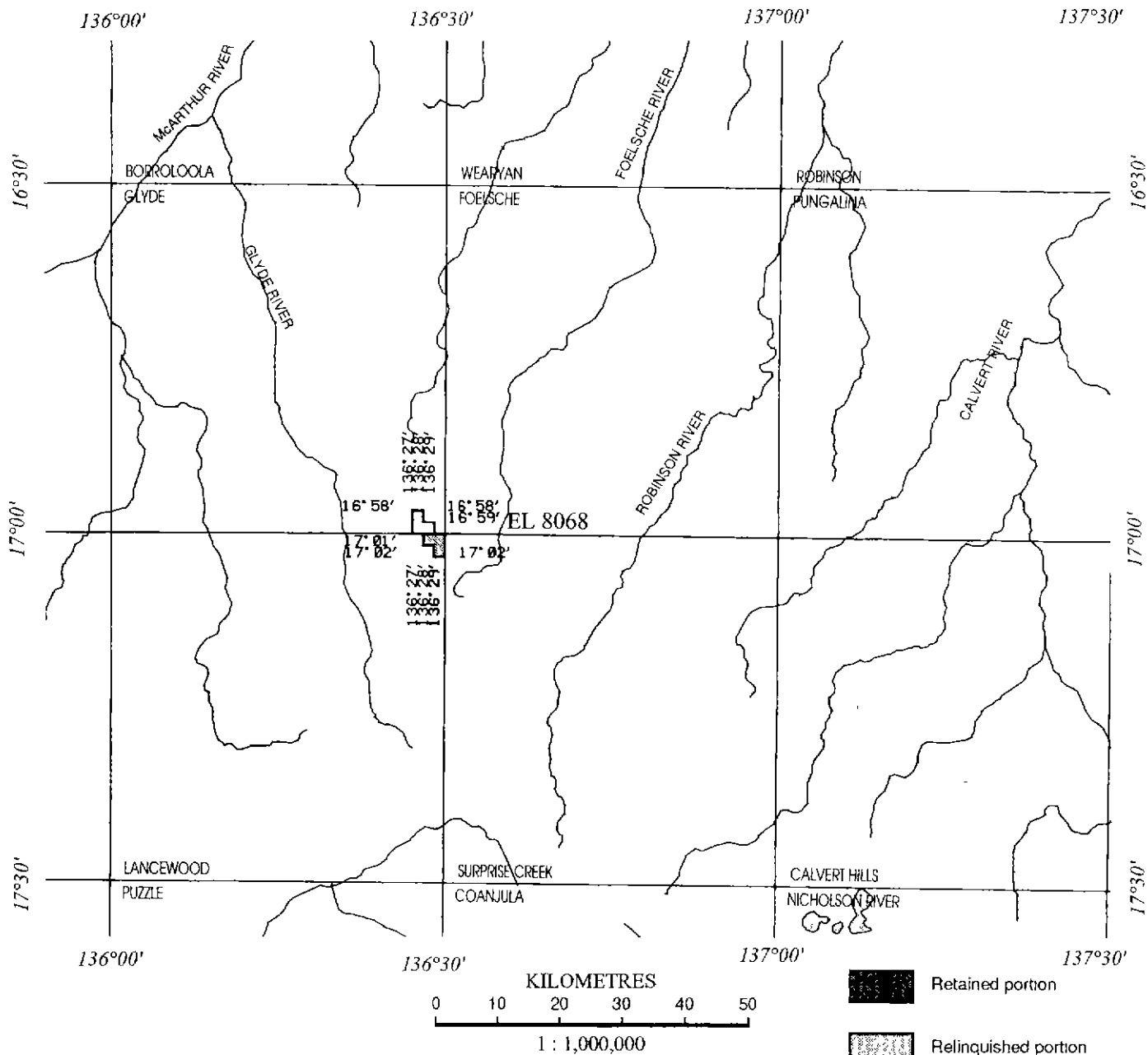
Exploration expenditure for the relinquished area amounted to \$ 19,361.

1.0 INTRODUCTION

This report details exploration activities carried out by Ashton Mining and BHP Minerals Pty Ltd over the relinquished portion of Exploration Licence 8068 for the period 12th July, 1993 to 11th July, 1997. Ashton Mining Limited is manager of the licence on behalf of the Australian Diamond Exploration Joint Venture (ADEJV). Parties to the ADEJV are Ashton Mining Limited and Aberfoyle Resources Limited.

Exploration Licence 8068 was granted to Ashton Mining Limited on the 12th July, 1993 for a period of six years. The licence originally covering an area of 12 blocks, was partially relinquished to six blocks in 1995. In 1996, an application for waiver of reduction was made, and subsequently granted by the Department of Mines & Energy, allowing the ADEJV to retain six blocks. In June 1997, a second reduction was made, reducing the title to three blocks. The licence is located on the Bauhinia Downs (SE53-03) and Wallhallow (SE53-07) 1:250,000 map sheets. A tenement location map showing the relinquished and retained areas is shown in Figure 1.

This tenement is situated in an area considered prospective for sediment-hosted base metal mineralisation. A joint venture was negotiated with BHP Minerals Pty Ltd on the 24th January, 1992 which allowed them to earn up to 80% of the base metal rights to designated licences. This joint venture was known as the McArthur River Joint Venture. On the 1st July, 1995 the agreement was renegotiated and all existing joint venture tenements became subject to the McArthur River (Metals) Joint Venture.



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A.D.E. JOINT VENTURE**

**EXPLORATION LICENCE 8068
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FIGURE 1
LOCATION MAP**

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A statement of expenditure is included in this report.

2.0 DIAMOND EXPLORATION

2.1 Data Review

Prior to commencing field work, a comprehensive data review of previous exploration and open file results in the tenement area was undertaken. This highlighted areas which had not been adequately explored. Proposed sample locations were selected and plotted in the office on the Glyde and Lancewood 1:100,000 map sheets

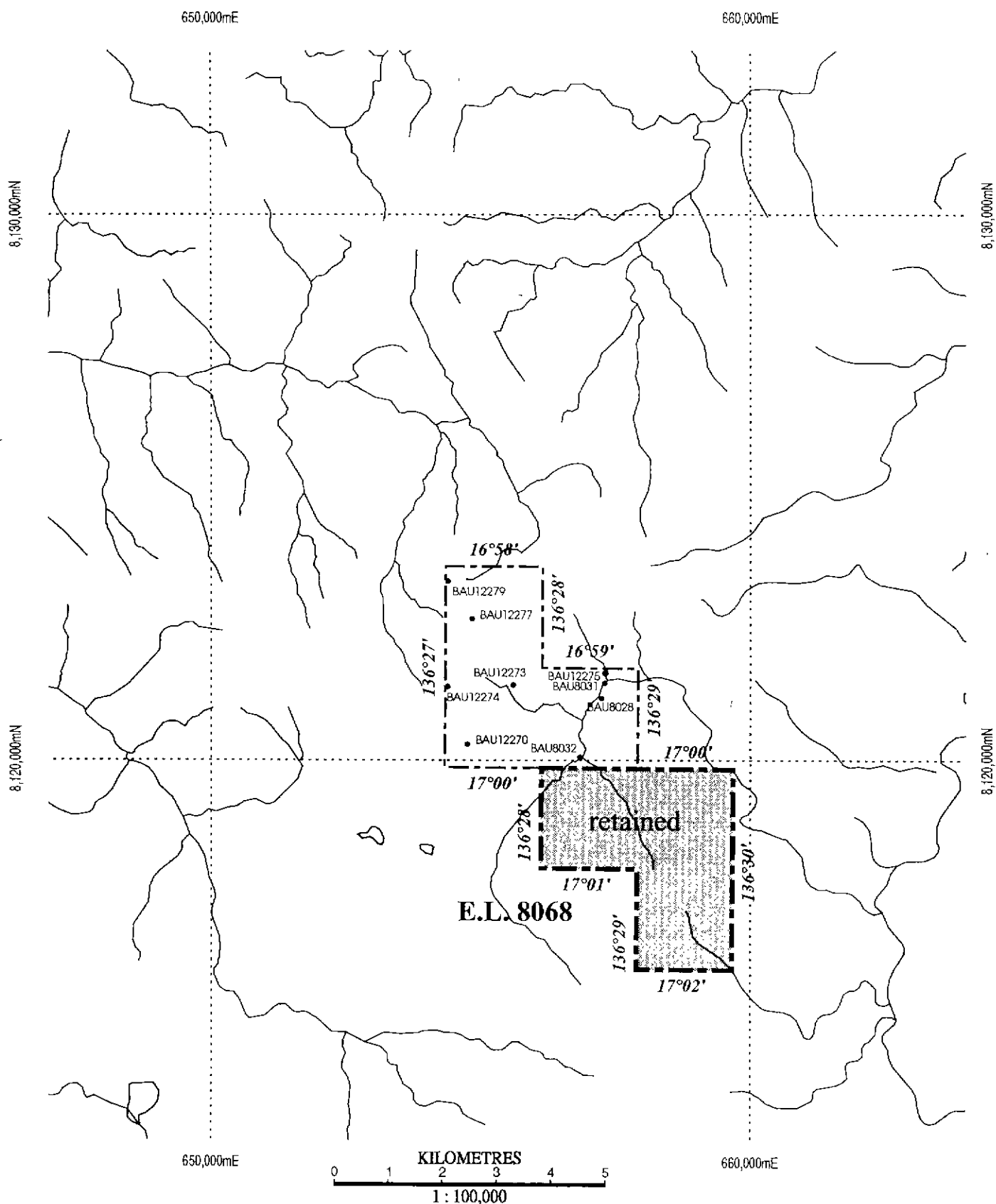
2.2 Sampling Programme

Following review of available data, reconnaissance sampling programmes were implemented in the first, second and fourth year of tenure, over the licence area. Three loam and six gravel samples were collected from the relinquished area, and dispatched to Ashton's Perth laboratory for indicator and microdiamond analysis. Processing of the samples returned negative results.

Sample locations are shown in Figure 2. A listing of samples is provided in Appendix 1.

2.3 Sampling Method

Sampling was completed using helicopters as they are the most practical mode of transport with the advantage of ease of access and navigation. They also enable the



LEGEND

- Sample - not yet processed
- Sample - negative
- ◆ Sample - chromite positive
- ◇ Sample - diamond positive
- ⊕ Sample - other indicators
- × Geochemical sample location

**ASHTON MINING LIMITED
A.D.E. JOINT VENTURE**

**EXPLORATION LICENCE 8068
FIGURE 2
SAMPLE LOCATIONS
PARTIAL RELINQUISHMENT**

OCTOBER, 1997

geologist to scan the area for prospective trap sites. The best quality heavy mineral trap in the vicinity of the pre-selected site was chosen for sampling.

Once a suitable site was located, approximately 40kg of gravel was gathered, sieved and the minus 4mm fraction collected in calico bags for laboratory examination. This fraction generally weighs between 25 and 30kg and is usually contained within two bags. The bags were sent to Ashton's Perth laboratory for diamond and indicator analysis.

3.4 Laboratory Procedure

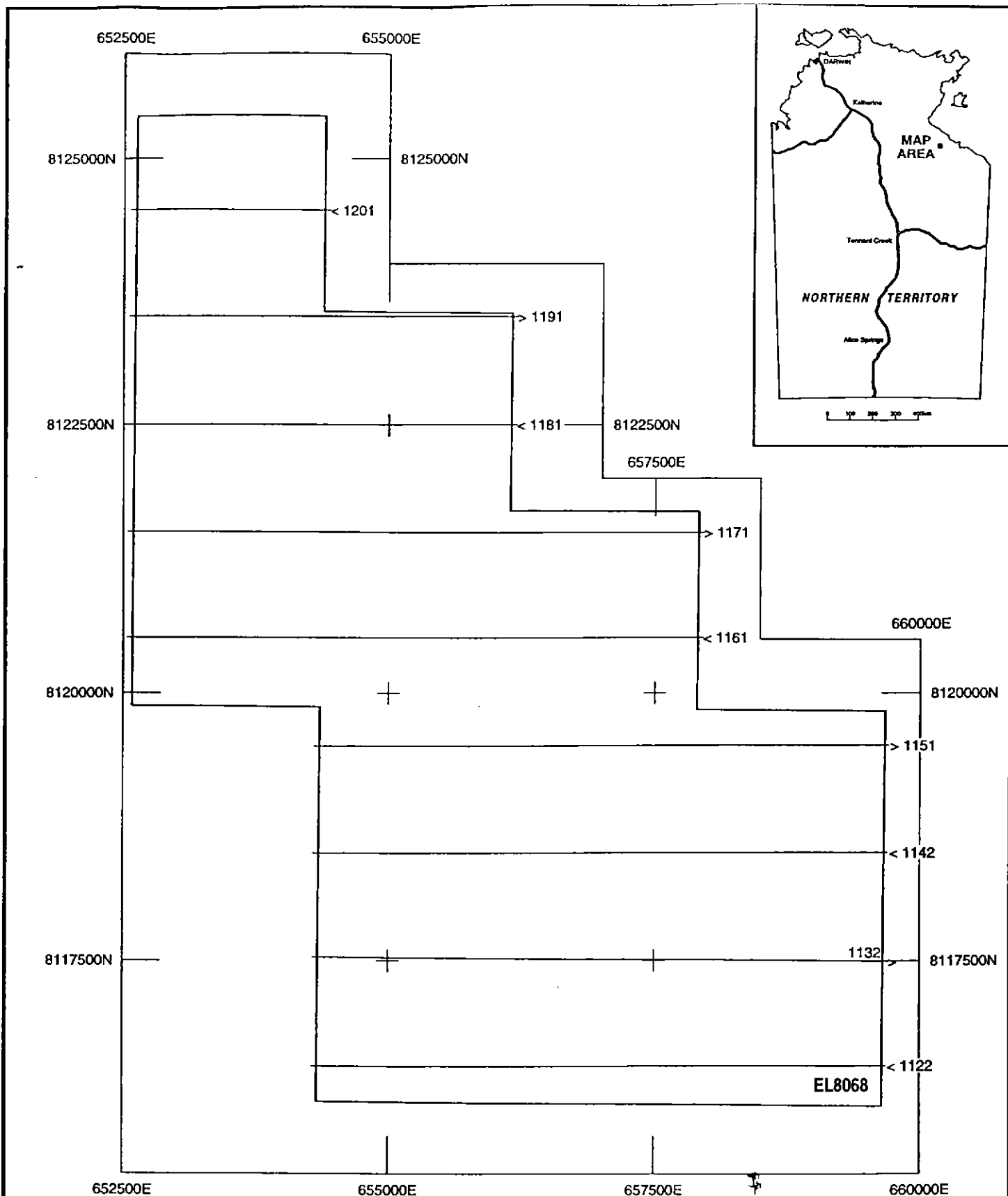
The samples were processed by the Ashton Mining Limited Laboratory in Perth, where they were concentrated by Wilfley Table and heavy liquid separation techniques.

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

3.0 BASE METAL EXPLORATION

3.1. GEOTEM SURVEY

An airborne GEOTEM survey (Boomerang Creek survey) was flown by Geoterrex Pty Ltd in May 1996 over EL 8068. Approximately 19.4 line kms were flown with lines oriented E-W, and spaced 1,000m apart. A flight line diagram is given in Figure 3.



AIRBORNE SURVEY SPECIFICATIONS

Contractor: Geotemex
 Magnetometer: Cesium Vapour
 Magnetometer Sample Interval: 1 second (approx 65 metres)
 Flight Path Recovery: Doppler and GPS
 Flight Line Direction: 90 degrees
 Flight Line Spacing: 1000 metres
 Flying Height: 105 metres
 Total line kms of survey: 3234 km
 Survey flown: May 1996

Scale 1 : 50,000
 0 1 2 3 4 km
 UTM Projection Zone 53

Prepared : T.Nunn

Drawn : A.R.Veale

Date : 10-10-96

Revised :



BOOMERANG CREEK PROJECT
 EL8068 FOELSCHER RIVER SOUTH, N.T.

BOOMERANG GEOTEM SURVEY FLIGHT LINES

Exploration - BHP Minerals
 BHP Minerals Pty Ltd., A.C.N. 008 494 782

Centre : Perth

Drg. No. : A4-6086

FIGURE 3

Airborne EM profiles were released in a separate report submitted to the NTGS, 18 October, 1996 (BHP CR 8783). Survey specifications are presented in Appendix 2.

The aim of this survey was to locate highly conductive horizons which could then be evaluated for their base metal potential. No conductors were found within EL 8068 and no further work was recommended.

4.0 EXPLORATION EXPENDITURE

Diamond exploration expenditure for the period 12th July, 1993 to 11th July, 1997 over the relinquished area amounted to \$ 19,361. A detailed breakdown of expenditure is given in Appendix 3.

5.0 CONCLUSIONS

5.1 Diamond Exploration

Reconnaissance sampling within the licence area has proved discouraging, with all samples reporting negative in the relinquished portion. The area was no longer considered prospective for diamond exploration, and relinquishment was recommended.

5.2 Base Metal Exploration

Exploration by BHP was dependant upon the outcome of a GEOTEM survey flown in May 1996. The results were not encouraging and consequently BHP withdrew this tenement from the joint venture.

6.0 REFERENCES

Reddicliffe, T.H. (July 1994) Annual report, Exploration Licence 8068, 12th July, 1993 to 11th July, 1994. Ashton Mining Limited. Report No.50913

Ong, N. (August 1995) Annual report, Exploration Licence 8068, 12th July, 1994 to 11th July, 1995. Ashton Mining Limited. Report No.51144

Rogers, T. (July 1996) Annual report, Exploration Licence 8068, "Foelsche River South", 12th July, 1995 to 11th July, 1996. Ashton Mining Limited. Report No.50913

Lewis, S.J. (July 1997) Annual report, Exploration Licence 8068, "Foelsche River South", 12th July 1996 to 11th July, 1997. Ashton Mining Limited. Report No. 52112.

APPENDIX 1

Sample Results

Sample Results for EL 8068

Relinquishment Report for the period 12/07/93 to 11/07/97

Sample	SampleType	Result	Diamond			
			Micro	Macro	Chromite	Other
BAU 8028	G	NEG	-	-	-	-
BAU 8031	G	NEG	-	-	-	-
BAU 8032	G	NEG	-	-	-	-
BAU 12270	L	NEG	-	-	-	-
BAU 12273	G	NEG	-	-	-	-
BAU 12274	L	NEG	-	-	-	-
BAU 12275	G	NEG	-	-	-	-
BAU 12277	L	NEG	-	-	-	-
BAU 12279	G	NEG	-	-	-	-

G = Gravel
L = Loam

APPENDIX 2

GEOTEM Survey Specifications

GEOTEM SPECIFICATIONS

Aircraft	-	CASA C212-200 Turbo Prop							
Magnetometer	-	Scintrex Cesium Vapour Optical Absorption							
Resolution	-	0.01 nT							
Cycle Rate	-	1.0 second							
Sample Interval	-	60 metres							
Electromagnetic System	-	GEOTEM III Time Domain EM							
Transmitter Base Frequency	-	25 Hz							
Receiver	-	x and z, dual axis receiver coil in towed bird							
Cycle Rate	-	4 msec							
Sample Interval	-	9 metres							
Window mean times (msec)	-								
em1	0.4609	em2	0.4766	em3	0.4922	em4	0.5156	em5	0.5469
em6	0.5859	em7	0.6328	em8	0.6875	em9	0.7578	em10	0.8438
em11	0.9453	em12	1.0625	em13	1.2031	em14	1.3750	em15	1.5938
em16	1.8594	em17	0.0469	em18	0.0781	em19	0.1094	em20	0.1406
Data Acquisition	-	RMS GR33 Thermal Dot Matrix Recorder							
	-	GEODAS Digital Acquisition System							
Flight Line Direction	-	090 - 270 degrees							
Flight Line Spacing	-	1,000 metres							
Mean Terrain Clearance	-	105 metres							
Navigation	-	GPS satellite positioning / Doppler							

APPENDIX 3

Statement of Expenditure

STATEMENT OF EXPENDITURE

EXPLORATION LICENCE 8068

Relinquishment Report

For the period
12th July, 1993 to 11th July, 1997

Geoscientist/Professional Staff	2,712
Field Support/Office Staff	2,846
Other Contractors	108
Travel/Accommodation/Meals	1,535
Field Supplies	842
Operating Costs	368
Equipment	261
Vehicles	1,532
Freight/Storage	149
Helicopter Charter	3,108
Geophysics	462
Laboratory	3,209
Drafting/Computing	362
Office Expenses	107
Sub-Total	<hr/> 17,601
Overheads	1,760
Total:	<hr/> \$ 19,361 <hr/>