

Open File Envelope

No. 6654

EL 1333

WADDIKEE

PROGRESS REPORTS TO LICENCE SURRENDER FOR THE PERIOD 12/5/1986 TO 30/3/1988

Submitted by
Billiton Australia and Western Mining Corp. Ltd
1988

© 13/5/1988

This report was supplied as part of the requirement to hold a mineral or petroleum exploration tenement in the State of South Australia.
PIRSA accepts no responsibility for statements made, or conclusions drawn, in the report or for the quality of text or drawings.
This report is subject to copyright. Apart from fair dealing for the purposes of study, research, criticism or review as permitted under the Copyright Act, no part may be reproduced without written permission of the Chief Executive of Primary Industries and Resources South Australia, GPO Box 1671, Adelaide, SA 5001.

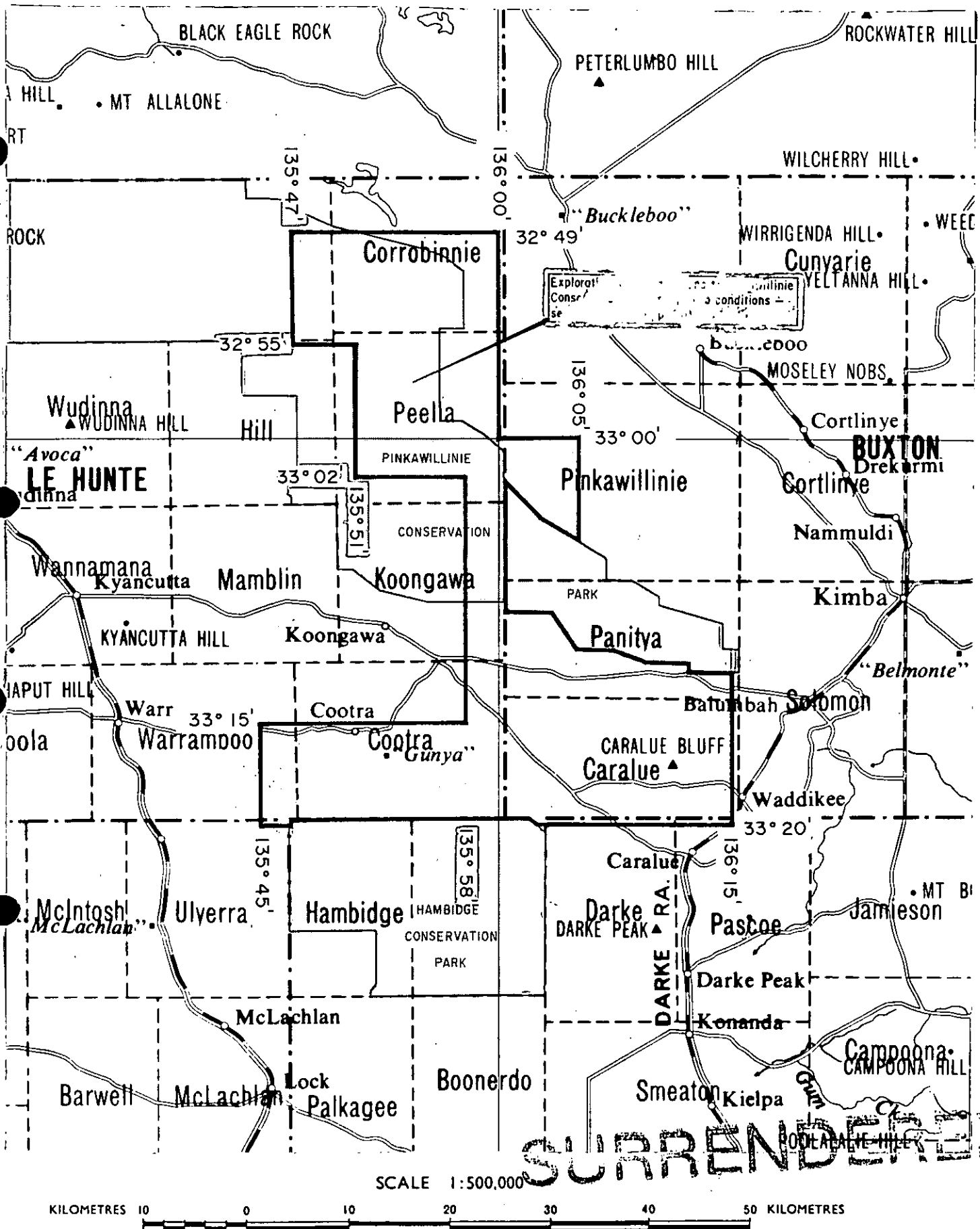
Enquiries: Customer Services Branch
Minerals and Energy Resources
7th Floor
101 Grenfell Street, Adelaide 5000

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



Government of South Australia
Primary Industries and Resources SA

SCHEDULE A ✓



APPLICANT: THE SHELL COMPANY OF AUSTRALIA LIMITED

DME 334/85

AREA: 1144 square kilometres (approx.)

1:250000 PLANS: KIMBA YARDEA

LOCALITY: WADDIKEE AREA — approx. 150 km west of Whyalla

DATE GRANTED: 12.5.86

DATE EXPIRED: 11.5.87

EL No: 1333

CONTENTS ENVELOPE 6654

TENEMENT: E.L. 1333 Waddikee.

TENEMENT HOLDER: Billiton Australia.

<u>REPORT</u> : Quarter Ending 11 August 1986.	Pgs. 3 - 12
<u>PLANS</u> : Location Plan. A/MT22/137.	Pg. 10
Tenements Search.	Pg. 11
<u>REPORT</u> : Quarter Ending 11 November 1986.	Pgs. 13 - 19
<u>PLANS</u> : Previous Exploration Licences. A/FD 08/001.	Pg. 20
<u>REPORT</u> : Quarter Ending 11 February 1987.	Pgs. 21 - 25
<u>REPORT</u> : Quarter Ending 11 May 1987.	Pgs. 26 - 27
<u>REPORT</u> : Quarter Ending 11 August 1987.	Pgs. 28 - 29
<u>REPORT</u> : Quarter Ending 11 November 1987.	Pgs. 30 - 31
<u>REPORT</u> : Quarter Ending 11 February 1988.	Pgs. 32 - 33

BILLITON AUSTRALIA

THE METALS DIVISION OF THE SHELL COMPANY OF AUSTRALIA LTD

WADDIKEE EL 1333, SOUTH AUSTRALIA

PROGRESS REPORT FOR THE QUARTER ENDING 11 AUGUST 1986

AUTHOR: R. C. BERG
DATE: AUGUST 1986

REPORT NO. 08.3342

Distribution:

Copy 1: Dept of Mines & Energy SA
Copy 2: Billiton/Melbourne
Copy 3: Billiton/Adelaide



LIST OF CONTENTS

	<u>Page</u>
1.0 INTRODUCTION	1
2.0 GEOLOGICAL SETTING AND CONCEPTS	2
3.0 PREVIOUS EXPLORATION	3
4.0 EXPENDITURE STATEMENT	4

LIST OF FIGURES

Figure No.	Title	Scale	Drawing No.
1	Waddikee EL 1333, Location Plan	1:500 000	A/MT22/137
2	Waddikee, Tenements Search	1:500 000	_____

1.0

INTRODUCTION

EL 1333, Waddikee, was granted on 12 May 1986 to Billiton Australia, The Metals Division of The Shell Company of Australia Limited. The area measures approximately 1144 km², and is located 150 km west of Whyalla (Figure 1).

The Pinkawillinie Conservation Park covers part of the licence area.

2.0 GEOLOGICAL SETTING AND CONCEPTS

The area is typified by poor outcrop of Lower Proterozoic Hutchison Group and basement gneisses.

The regional BMR aeromagnetic survey indicates the presence of weakly magnetic linear trends that could represent Hutchison Group metasediments under shallow cover. The southwest corner of the licence has been previously explored by BHP and flown with detailed aeromagnetics.

The chemical sediments of the Hutchison Group are considered to be prospective for massive Pb-Zn mineralisation of Broken Hill (NSW) and Balmat-Edwards (USA) type.

3.0

PREVIOUS EXPLORATION

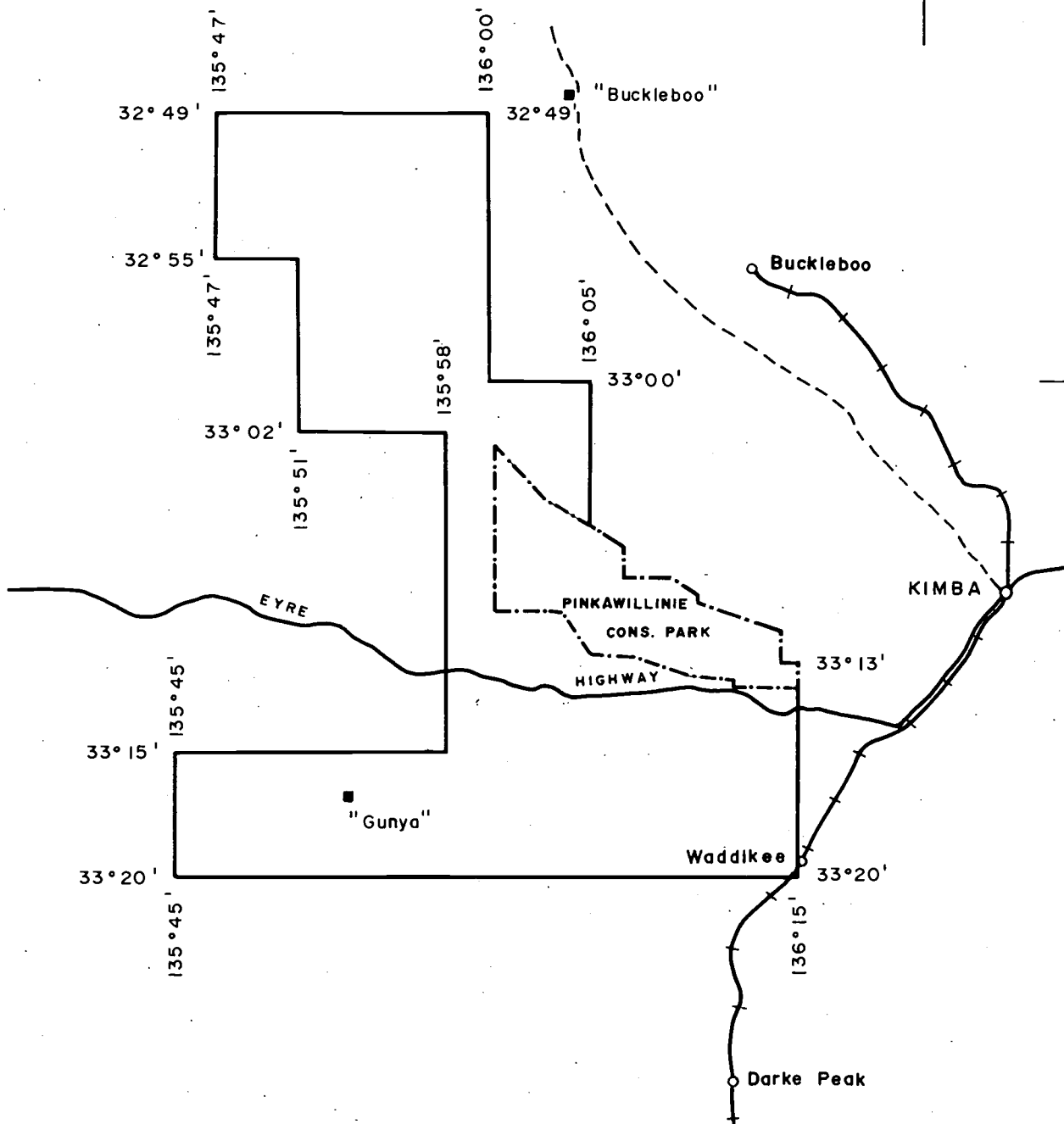
A search of previous titles and acquisition of relevant exploration data has been initiated (Figure 2). A review of all data is still in progress and will be described in the second quarterly report.

4.0 EXPENDITURE STATEMENT

	<u>Expenditure for Quarter</u> <u>Ending 30 June 1986</u>	<u>Project to Date</u>
Staffing/Support	858	3 347
Concession Payments	4	2 120
Geology, Geophysics, Drawing, Research and Computer		436
Overheads		302
	<hr/> \$ 862	<hr/> \$ 6 205



010



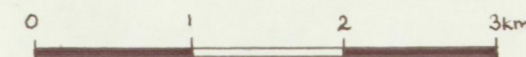
0 10 KM

Billiton Australia
The Value of the World's Largest Iron Ore Company of Australia LimitedProject **WADDIKEE E.L.A.**Title
Location PlanAuthor **R.C.B.** Date **DEC 85** Scale **1: 500 000**Drawn **B.J.O.** Office **ADEL** Revised DateDrawing No. **A/MT 22/137** Fig. No.

33°00

136°00

- Billiton
- Exre Peninsula Co P/L
- SML 62a
- Hudson + Wallace Pty Ltd
- SML 49
- Pechinery Old Pty Ltd
- SML 160
- Mines Adimin Pty Ltd
- SML 343, 469, 645
- W.B Nelson
- SML 387
- Sadex Pty Ltd
- SML 633
- EL 24 + 166, 264, 382
- Urangesellschaft Aust P/L
- EL 131
- Carpentaria Expl Ltd
- EL 540 + 913, 541 + 914
- EL 586 + 979
- North Broken Hill Ltd
- EL 756 + 980
- Stockdale Prospecting Ltd
- EL 1158



Billiton Australia
The Metals Division of The Shell Companies of Australia Limited

Project

Title

Waddikee + Corobinnie Hill
Tennament Search

Author	Date	Scale	1:500 000
Drawn	Office	Revised	Date
Drawing No.			Fig. No.

011

SHELL METALS REPORT DATABASE - DATA INPUT SHEET

CHAPTER NAME: _____

(Office use only)

TITLE WADDIKEE EL 1333, SOUTH AUSTRALIA, PROGRESS REPORT FOR

QUARTER ENDING 11 AUGUST 1986

DATE 27 / 8 / 86 (Publication date in Format dd/mm/yy)AUTHOR R. C. BERGSOURCE (If Non-SCOA)DESCRIPTOR (Not indexed)PROSPECT/PROJECT

WADDIKEE EL 1333, SOUTH AUSTRALIA

KEYWORDS

BASE METAL EXPLORATION, LOWER PROTEROZOIC, REGIONAL AEROMAGNETICS,

PREVIOUS EXPLORATION REVIEW

LOCATION

WADDIKEE EL 1333, SOUTH AUSTRALIA, GAWLER CRATON

SHEET NAME (1:250,000)

KIMBA SI-53-7, YARDEA SI-53-3

REPORT No. (Not indexed)

08.3342

BILLITON AUSTRALIATHE METALS DIVISION OF THE SHELL COMPANY OF AUSTRALIA LTDWADDIKEE EL 1333, SOUTH AUSTRALIASECOND PROGRESS REPORT FOR THE QUARTER ENDING 11 NOVEMBER 1986

AUTHOR: R. C. BERG
DATE: DECEMBER 1986

REPORT NO. 08.3474

Distribution:

Copy 1: Dept of Mines & Energy SA
Copy 2: Billiton/Melbourne
Copy 3: Billiton/Adelaide



LIST OF CONTENTS

	<u>Page</u>
1.0 INTRODUCTION	1
2.0 PREVIOUS EXPLORATION	2
3.0 EXPENDITURE STATEMENT	3

LIST OF FIGURES

Figure No.	Title	Scale	Drawing No.
1	Waddikee EL 1333, Location Plan	1:500 000	A/MT22/137
2	Waddikee, Tenements Search	1:500 000	A/FD08/001

1.0 INTRODUCTION

EL 1333, Waddikee, was granted on 12 May 1986 to Billiton Australia, The Metals Division of The Shell Company of Australia Limited, and negotiations are pending with prospective joint venture partners for the area. The future exploration programme will very depend very much on the outcome of the negotiations.

A brief study of previous work has been completed in this second reporting period from 12 August to 11 November 1986.

PREVIOUS EXPLORATION

Previous investigations in the area consisted mainly of uranium exploration and are not of great interest to our programme. However, the data were scanned and are briefly summarised below:

SUMMARY OF PREVIOUS EXPLORATION

<u>Reference</u>	<u>Licence</u>	<u>Company & Dates</u>	<u>Summary</u>
Env.4230	EL 756	North Broken Hill 1981-1983, after 8/82 CRAE JV	<ul style="list-style-type: none"> - Base metals and diamond exploration over Archaean. - Aeromag/radiometric survey tested by shallow drilling gave elevated Zn (500 ppm). Bedrock at 15 m, with calc-silicate, graphitic schist, granite gneiss. - DDH C1 (121.9 m) scheelite in granulite, followed up by 7 DDH and downgraded. - Re-assay of Warramboe DDH for Au - low results. - Selected magnetic/IP profiles.
Env.3717	EL 541	CEC - 1980	<ul style="list-style-type: none"> - U exploration by drilling 38 holes failed to locate palaeochannels. Exploration methods IP/resistivity. - Granite basement at 15 m in NE part of licence
Env.1331	EL 387	W.B. Nelson 1963	<ul style="list-style-type: none"> - Ground magnetic survey over BIF (inferred to be at depth). Outside Waddikee EL.
Env.2419	EL 131	Urangesellschaft Aust. - 1974	<ul style="list-style-type: none"> - U exploration by costeaning, rock chip sampling and radiometric traverses, and 8 shallow PDH (300 m total) with negative results. Good summary of previous work and borhole location plan.
Env.1326	SML 343	Mines Administration P/L - 1970	<ul style="list-style-type: none"> - U exploration to locate Tertiary erosion channel by gravity, 26 holes (3582 ft).

3.0 EXPENDITURE STATEMENT

	<u>Expenditure for Quarter</u> <u>Ending 30 Sept 1986</u>	<u>Project to Date</u>
Staffing/Support	1 618	4 965
Concession Payments		2 120
Geology, Geophysics, Drawing, Research and Computer	112	548
Overheads	116	418
	<hr/>	<hr/>
	\$ 1 846	\$ 8 051
	<hr/>	<hr/>

SHELL METALS REPORT DATABASE - DATA INPUT SHEET

CHAPTER NAME: _____

(Office use only)

=====

TITLE WADDIKEE EL 1333, SOUTH AUSTRALIA, PROGRESS REPORT FOR
 QUARTER ENDING 11 NOVEMBER 1986

DATE 9 / 12 / 86 (Publication date in Format dd/mm/yy)

AUTHOR R. C. BERG

SOURCE (If Non-SCOA)

DESCRIPTOR (Not indexed)

PROSPECT/PROJECT

WADDIKEE EL 1333, SOUTH AUSTRALIA

KEYWORDS

BASE METAL EXPLORATION, LOWER PROTEROZOIC, REGIONAL AEROMAGNETICS,
PREVIOUS EXPLORATION REVIEW

LOCATION

WADDIKEE EL 1333, SOUTH AUSTRALIA, GAWLER CRATON

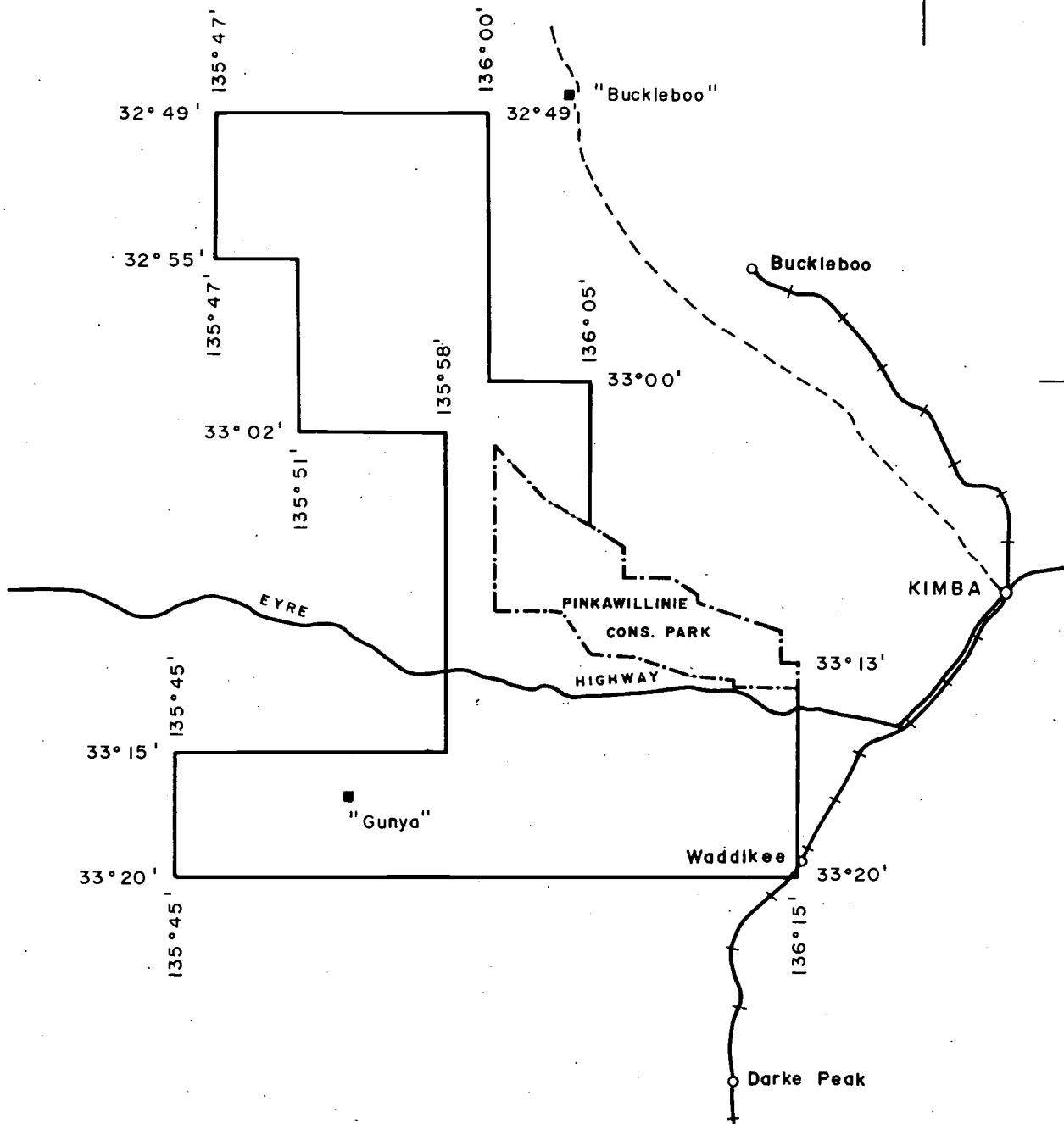
SHEET NAME (1:250,000)

KIMBA S1 53-7, YARDEA S1 53-3

REPORT No. (Not indexed)

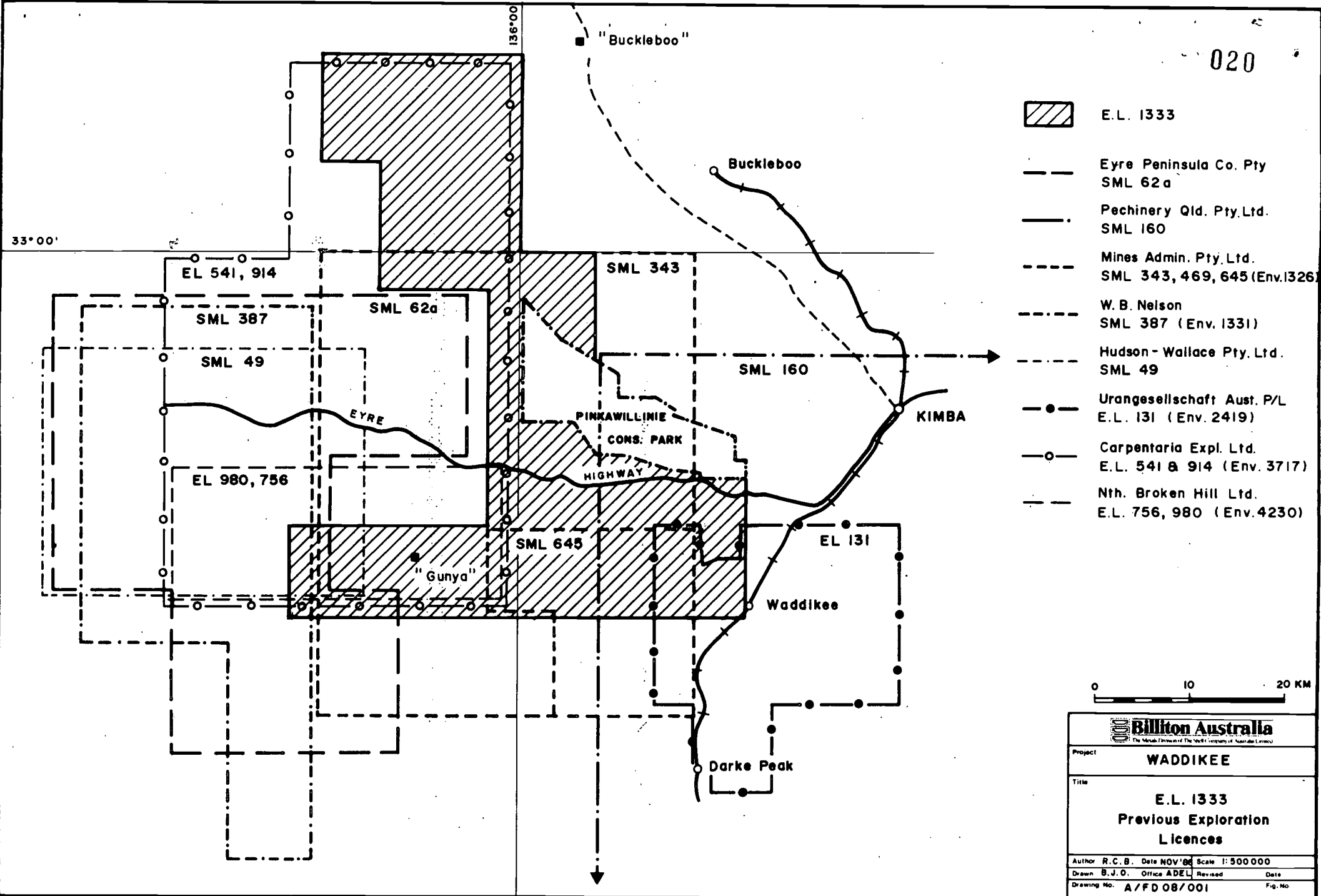


010



0 10 KM

Billiton Australia
The Value of the World's Natural ResourcesProject **WADDIKEE E.L.A.**Title
Location PlanAuthor **R.C.B.** Date **DEC 85** Scale **1: 500 000**Drawn **B.J.O.** Office **ADEL** Revised DateDrawing No. **A/MT 22/137** Fig. No.



BILLITON AUSTRALIATHE METALS DIVISION OF THE SHELL COMPANY OF AUSTRALIA LTDWADDIKEE EL 1333, SOUTH AUSTRALIATHIRD PROGRESS REPORT FOR THE QUARTER ENDING 11 FEBRUARY 1987

AUTHOR: R. C. BERG
DATE: FEBRUARY 1987

REPORT NO. 08.3592

Distribution:

Copy 1: Dept of Mines & Energy SA
Copy 2: Billiton/Melbourne
Copy 3: Billiton/Adelaide
Copy 4: WMC/Pasadena



LIST OF CONTENTS

		<u>Page</u>
1.0	INTRODUCTION	1
2.0	EXPENDITURE STATEMENT	2

LIST OF FIGURES

<u>Figure No.</u>	<u>Title</u>	<u>Scale</u>	<u>Drawing No.</u>
1	Waddikee EL 1333, Location Plan	1:500 000	A/MT22/137

1.0 INTRODUCTION

EL 1333, Waddikee, was granted on 12 May 1986 to Billiton Australia, The Metals Division of The Shell Company of Australia Limited.

Only a brief study of previous work has been completed to date.

During the current reporting period from 12 November 1986 to 11 February 1987, negotiations with our new joint venture partner, the Western Mining Corporation, have been finalised.

Results of programme and reports will, in future, be completed and submitted by WMC.

2.0 EXPENDITURE STATEMENT

	<u>Expenditure for Quarter</u> <u>Ending 31 Dec. 1986</u>	<u>Project to Date</u>
Staffing/Support	1 272	6 238
Concession Payments		2 120
Geology, Geophysics, Drawing, Research and Computer	140	688
Overheads	107	525
	<hr/>	<hr/>
	\$ 1 519	\$ 9 571
	<hr/>	<hr/>

SHELL METALS REPORT DATABASE - DATA INPUT SHEET

CHAPTER NAME: _____

(Office use only)

=====

TITLE WADDIKEE EL 1333, SOUTH AUSTRALIA, PROGRESS REPORT FOR
THE QUARTER ENDING 11 FEBRUARY 1987

DATE 17 / 2 / 87 (Publication date in Format dd/mm/yy)

AUTHOR R. C. BERG

SOURCE (If Non-SCOA)

DESCRIPTOR (Not indexed)

PROSPECT/PROJECT

WADDIKEE EL 1333, SOUTH AUSTRALIA

KEYWORDS

BASE METAL EXPLORATION. LOWER PROTEROZOIC, REGIONAL AEROMAGNETICS,

PREVIOUS EXPLORATION REVIEW, JOINT VENTURE NEGOTIATIONS

LOCATION

WADDIKEE EL 1333, SOUTH AUSTRALIA, GAWLER CRATON

SHEET NAME (1:250,000)

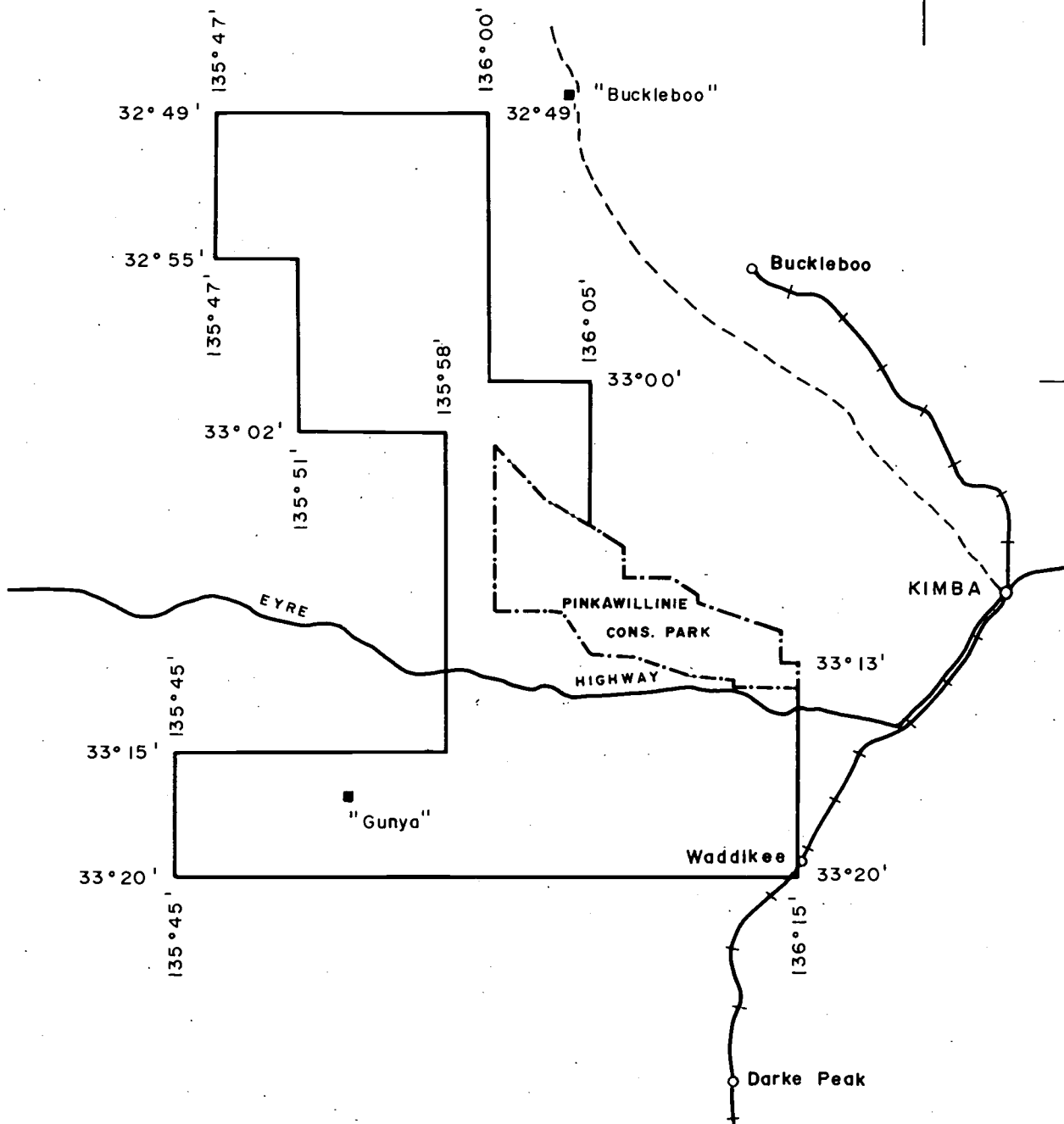
KIMBA S1 53-7, YARDEA S1 53-3

REPORT No. (Not indexed)

08.3592



010

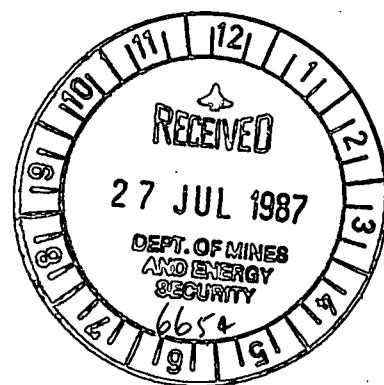


0 10 KM

Billiton Australia
The Value House of The Steel Company of Australia LimitedProject **WADDIKEE E.L.A.**Title
Location PlanAuthor **R.C.B.** Date **DEC 85** Scale **1: 500 000**Drawn **B.J.O.** Office **ADEL** Revised DateDrawing No. **A/MT 22/137** Fig. No.

WESTERN MINING CORPORATION LIMITED
EXPLORATION DIVISION

PROGRESS REPORT
FOR
EXPLORATION LICENCE 1333 - WADDIKEE
FOR QUARTER ENDING 11TH MAY, 1987



JULY, 1987

H. L. PATERSON
OFFICER-IN-CHARGE - SOUTH AUSTRALIA



1. INTRODUCTION

Exploration Licence 1333, Waddikee, was granted to Billiton Australia on 12th May, 1986. During the quarter, a joint venture was negotiated between Billiton Australia and Western Mining Corporation Limited to explore this and other Exploration Licences on the Eyre Peninsula, with WMC assuming management of the programs formerly operated by Billiton. The joint venture commenced on 1st February, 1987. Extension of the licence until 11th May, 1988 was granted on 30th April, 1987.

2. WORK COMPLETED

There has been no fieldwork during the quarter. Project activity has been limited to Joint Venture negotiations and to examination and assessment of the Billiton data by W.M.C.

3. FUTURE PROGRAM

Work in the next quarter will include assessment of all existing results and selection of targets for further exploration where warranted.

4. EXPENDITURE REPORT

	<u>Three Months ending</u> <u>31st March, 1987</u>	<u>Project to Date</u>
Staffing/Support	41	6,279
Concession Payments	-	2,120
Geology, Geophysics, Drawing, Research, Computing	-	688
Overheads	16	541
	----	-----
TOTAL	\$57	\$9,628
	===	=====

These figures represent the last significant expenditure by Billiton Australia on this Licence. Future reports will be based on W.M.C. expenditures.

WESTERN MINING CORPORATION LIMITED
EXPLORATION DIVISION

PROGRESS REPORT
FOR
EXPLORATION LICENCE 1333 - WADDIKEE
FOR QUARTER ENDING 11TH AUGUST, 1987



AUGUST, 1987

H. L. PATERSON
OFFICER-IN-CHARGE - SOUTH AUSTRALIA

1. INTRODUCTION

Exploration Licence 1333, Waddikee, was granted to Billiton Australia on 12th May, 1986. A joint venture was negotiated in February, 1987 between Billiton Australia and Western Mining Corporation Limited to explore this and other Exploration Licences on the Eyre Peninsula, with W.M.C. assuming management of the programs formerly operated by Billiton. The Joint Venture commenced on 1st February, 1987. Extension of the licence until 11th May, 1988 was granted on 30th April, 1987.

2. WORK COMPLETED

There has been no fieldwork during the quarter. Project activity has been limited to examination and assessment of the Billiton data by W.M.C.

3. FUTURE PROGRAM

Work in the next quarter will include continued assessment of all existing results and selection of targets for further exploration where warranted.

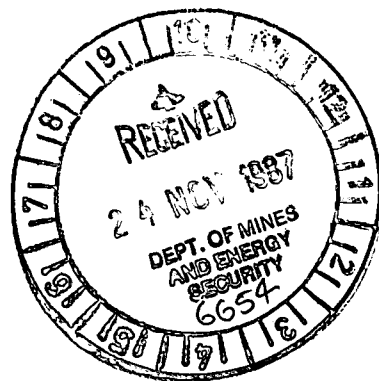
4. EXPENDITURE REPORT

Expenditure by Shell on this licence area prior to WMC assuming management of the joint venture was \$9,628.

	<u>Quarter ending</u> <u>June 30, 1987</u>	<u>Cumulative to June 30, 1987</u>	
		<u>\$</u>	<u>%</u>
Geology	965	965	15.6
Geophysics	1,246	1,246	20.0
Geochemistry	71	71	1.1
Drafting	738	738	11.9
Leasing	2,361	2,361	37.9
Administration	843	843	13.5
TOTAL	<u>-----</u> \$6,224 <u>=====</u>	<u>-----</u> \$6,224 <u>=====</u>	<u>-----</u> 100.0% <u>=====</u>

WESTERN MINING CORPORATION LIMITED
EXPLORATION DIVISION

PROGRESS REPORT
FOR
EXPLORATION LICENCE- 1333 - WADDIKEE
FOR QUARTER ENDING 11TH NOVEMBER, 1987



NOVEMBER, 1987

H. L. PATERSON
OFFICER-IN-CHARGE - SOUTH AUSTRALIA

1. INTRODUCTION

Exploration Licence 1333, Waddikee, was granted to Billiton Australia on 12th May, 1986. A joint venture was negotiated in February, 1987 between Billiton Australia and Western Mining Corporation Limited to explore this and other Exploration Licences on the Eyre Peninsula, with W.M.C. assuming management of the programs formerly operated by Billiton. The Joint Venture commenced on 1st February, 1987. Extension of the licence until 11th May, 1988 was granted on 30th April, 1987.

2. WORK COMPLETED

There has been no fieldwork during the quarter. Project activity has been limited to examination and assessment of the Billiton data by W.M.C., and to consideration of the requirement to obtain good quality aerial magnetic data over the Licence area.

3. FUTURE PROGRAM

Work in the next quarter will include continued assessment of all existing results and selection of targets for further exploration where warranted.

4. EXPENDITURE REPORT

Expenditure by Shell on this licence area prior to WMC assuming management of the joint venture was \$9,628.

	<u>Quarter ending</u> <u>September 22, 1987</u>	<u>Cumulative to September 22, 1987</u>	
		<u>\$</u>	<u>%</u>
Geology	653	1,618	23.2
Geophysics	-	1,246	17.8
Geochemistry	-	71	1.0
Drafting	-	738	10.6
Leasing	-	2,361	33.8
Administration	103	946	13.6
TOTAL	\$756	\$6,980	100.0%

WESTERN MINING CORPORATION LIMITED
EXPLORATION DIVISION

PROGRESS REPORT
FOR
EXPLORATION LICENCE- 1333 - WADDIKEE
FOR QUARTER ENDING 11TH FEBRUARY, 1988



FEBRUARY, 1988

H. L. PATERSON
SENIOR SUPERVISING GEOLOGIST - SOUTH AUSTRALIA

1. INTRODUCTION

Exploration Licence 1333, Waddikee, was granted to Billiton Australia on 12th May, 1986. A joint venture was negotiated in February, 1987 between Billiton Australia and Western Mining Corporation Limited to explore this and other Exploration Licences on the Eyre Peninsula, with W.M.C. assuming management of the programs formerly operated by Billiton. The Joint Venture commenced on 1st February, 1987. At the end of the first J.V. year, WMC advised Billiton that it would continue the J.V. only with respect to the Wilcherry Hill E.L., so that administration of the remaining E.L.'s would revert to Billiton as of that date. This report therefore finalises WMC's involvement with the licence, and future reports will be submitted by Billiton.

2. WORK COMPLETED

There has been no fieldwork during the quarter. Project activity has been limited to examination and assessment of the Billiton data by W.M.C., and to consideration of the requirement to obtain good quality aerial magnetic data over the Licence area. It was decided to await results of the proposed S.A.D.M.E. aeromagnetic survey, and with the decision to relinquish W.M.C.'s interest in this licence no further work was carried out.

3. FUTURE PROGRAM

Work in the next quarter will be reported separately by Billiton.

4. EXPENDITURE REPORT

Expenditure by Shell on this licence area prior to WMC assuming management of the joint venture was \$9,628.

	<u>Quarter ending</u> <u>February 9, 1987</u>	<u>Cumulative to February 9, 1988</u>	
		<u>\$</u>	<u>%</u>
Geology	168	1,786	24.4
Geophysics	107	1,353	18.5
Geochemistry	3	74	1.0
Drafting	21	759	10.3
Leasing	14	2,375	32.4
Administration	35	981	13.4
TOTAL	\$348	\$7,328	100.0%