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EL 293

MURDIE ISLAND

PROGRESS REPORTS TO LICENCE EXPIRY/RENEWAL, FOR THE PERIOD 23/3/1977 TO 22/3/1979

Submitted by Western Mining Corp. Ltd 1979

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Resources and Energy Group

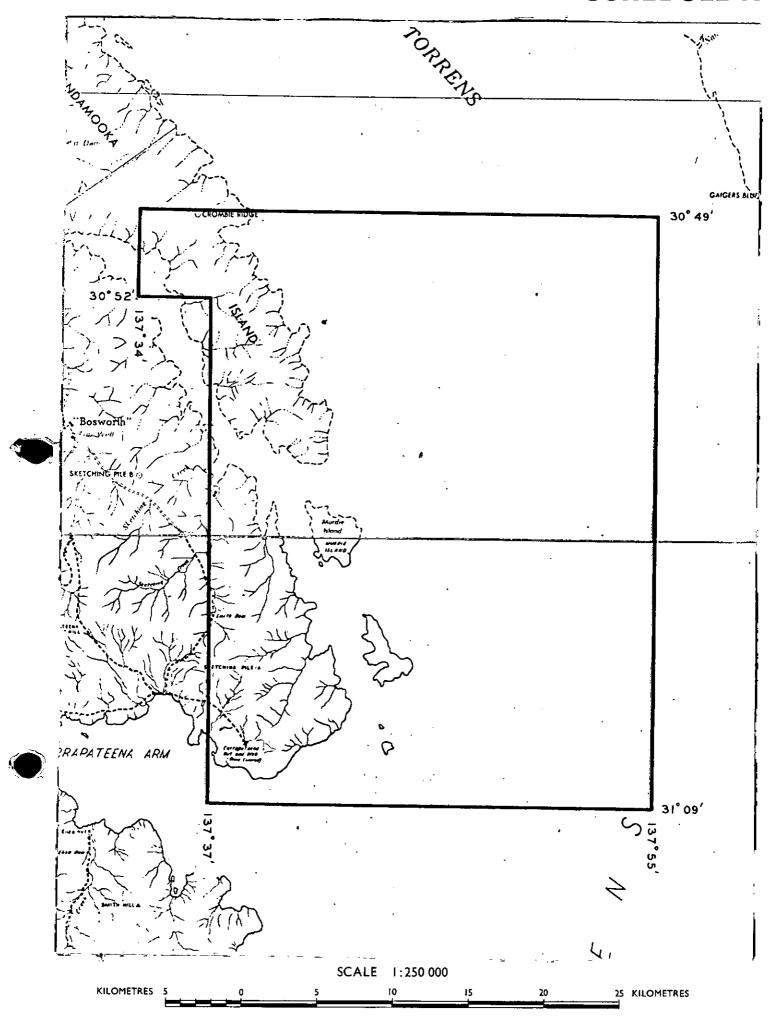
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SCHEDULE A



APPLICANT: WESTERN MINING CORORATION LIMITED

D.M. 597/76

AREA 1086

Square kilometres

1: 250 000 PLANS

ANDAMOOKA

EXPIRED

TORRENS

LOCALITY MURDIE ISLAND AREA - LAKE TORRENS

EXPIRY DATE 22.3.78 79

E.L. No. 293

EXPLORATION LICENCE 293 MURDIE QUARTERLY REPORT 23RD MARCH-23RD JUNE 1977



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This is the first quarterly report on Exploration Licence 293 recording exploration activities between 23rd March and 23rd June, 1977.

2. EXPLORATION COMPLETED DURING THE QUARTER

All available data on the area of the exploration licence was examined.

A programme of ground gravity and magnetics traversing was prepared and the survey will be completed during the next quarter.

The logistics of exploration upon Lake Torrens were considered and a vehicle suitable for geophysical traversing on the lake will be brought across from Kalgoorlie.

3. CONTINUATION

The results of the ground geophysical survey will be used to site a stratigraphic drill hole programmed for the area.

4. EXPENDITURE STATEMENT

The cost report will not be available for several weeks. It is anticipated that expenditure to date is approximately \$1,000.

Exploration Licence number 293 is included in the amalgamated: expenditure commitment for the Stuart Shelf area.

Data is not available for

- Ground Magnetic survey
 - Ground Gravity survey

EXPLORATION LICENCE 293

MURDIE

QUARTERLY REPORT 23RD JUNE 1977 - 23RD SEPTEMBER 1977



1	INTRODUCTION
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- 2. EXPLORATION COMPLETED DURING THE QUARTER
- 3. CONTINUATION
- 4.. EXPENDITURE STATEMENT

This is the second quarterly report on Exploration Licence 293 recording exploration activities between 23rd June and 23rd September 1977.

2. EXPLORATION COMPLETED DURING THE QUARTER

No exploration was completed during the quarter. Vehicles suitable for geophysical traversing on Lake Torrens have been purchased but are currently being employed elsewhere on the Lake.

3. CONTINUATION

It is anticipated that ground geophysics will be conducted during the next quarter, or early in the following quarter.

4. EXPENDITURE STATEMENT

The total expenditure to 23rd August 1977 on Exploration Licence 293 was \$2,113, distributed as follows:

	\$	%
Geological	1,044	49.4
Draughting	266	12.6
Administration	803	38.0
·	2 , 113	100.0

Exploration Licence number 293 is included in the amalgamated expenditure commitment to the Stuart Shelf area.

EXPLORATION LICENCE 293

MURDIE

QUARTERLY REPORT 23RD SEPTEMBER - 23RD DECEMBER 1977



- 1. INTRODUCTION
- 2. EXPLORATION COMPLETED DURING THE QUARTER
- 3. CONTINUATION
- 4. EXPENDITURE STATEMENT

This is the third quarterly report on Exploration Licence 293 recording exploration activities between 23rd September and 23rd December 1977.

2. EXPLORATION COMPLETED DURING THE QUARTER

No exploration was carried out during the quarter. A light-weight four-wheel-drive vehicle equipped with wide tyres has been purchased for sand-dune and salt-lake surveys and this together with a balloon-tyred three wheel motor cycle should enable access to Lake Torrens.

3. CONTINUATION

Ground geophysical traversing programmed to test regional anomalies over Lake Torrens should commence in February 1978. This work has been delayed because information was being gathered on vehicles suitable for traversing on the lake.

4. EXPENDITURE STATEMENT

The total expenditure to 13th December, 1977 on Exploration Licence 293 was \$2457 distributed as follows:

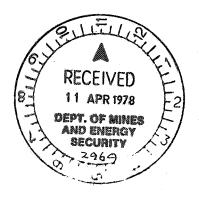
	\$	<u>x</u>
Geological	1210	49.2
Geophysical	19	0.8
Draughting	425	17.3
Administration	803	32.7
	2457	100.0
•		

Exploration Licence 293 is included in the amalgamated expenditure commitment for the Stuart Shelf area.

EXPLROATION LICENCE 293

MURDIE

QUARTERLY REPORT 23RD DECEMBER 1977 - 23RD MARCH 1978



- 1. INTRODUCTION
- 2. EXPLORATION COMPLETED DURING THE QUARTER
- 3. CONTINUATION
- 4. EXPENDITURE STATEMENT

This is the fourth quarterly report on Exploration Licence 293 recording exploration activities between 23rd December 1977 and 23rd March 1978. The Licence has been extended for a further 12 month period.

2. EXPLORATION COMPLETED DURING THE QUARTER

An extensive programme (350 line km.) of ground gravity and magnetic traversing was commenced during the quarter and is still in progress. Movement on Lake Torrens is being facilitated by the use of three wheeled, all-terrain motor cycles.

3. CONTINUATION

The geophysical survey in progress will be completed during the next quarter. Any further activity will be determined by results.

4. EXPENDITURE STATEMENT

The total expenditure to 7th March, 1978 on Exploration Licence 293 was \$10,570 distributed as follows.

		<u>%</u>
Geological	1,907	-18.0
Geophysical	6,590	62.4
Draughting	727	6.9
Administration	1,346	12.7
	10,570	100.0
•		

Exploration Licence 293 is included in the amalgamated expenditure commitment for the Stuart Shelf area.

Data is not available for

- Ground Magnetic survey
 - Ground Gravity survey

EXPLORATION LICENCE 293

MURDIE

REPORT FOR QUARTER ENDED 23RD JUNE 1978



- 1. INTRODUCTION
- 2. EXPLORATION COMPLETED DURING THE QUARTER
- 3. CONTINUATION
- 4. EXPENDITURE STATEMENT

LIST OF ILLUSTRATIONS

Plan	Details	Scale
WOODFORDE (Nth)	Total Magnetic Intensity	1:50,000
WOODFORDE (Nth)	Bouguer Anomaly Plan	1:50,000
SCOTT (Sth)	Total Magnetic Intensity	1:50,000
SCOTT (Sth)	Bouguer Anomaly Plan	1:50,000

This is the fifth quarterly report on Exploration Licence 293, recording exploration activities between 23rd March and 23rd June, 1978.

2. EXPLORATION COMPLETED DURING THE QUARTER

The programme of ground gravity and magnetic traversing over part of Lake Torrens has been completed. Contoured magnetics and bouguer gravity plans are included with this report.

3. CONTINUATION

The results of the geophysical survey will be examined and evaluated during the next quarter, and any further activity will be determined by the results.

4. EXPENDITURE STATEMENT

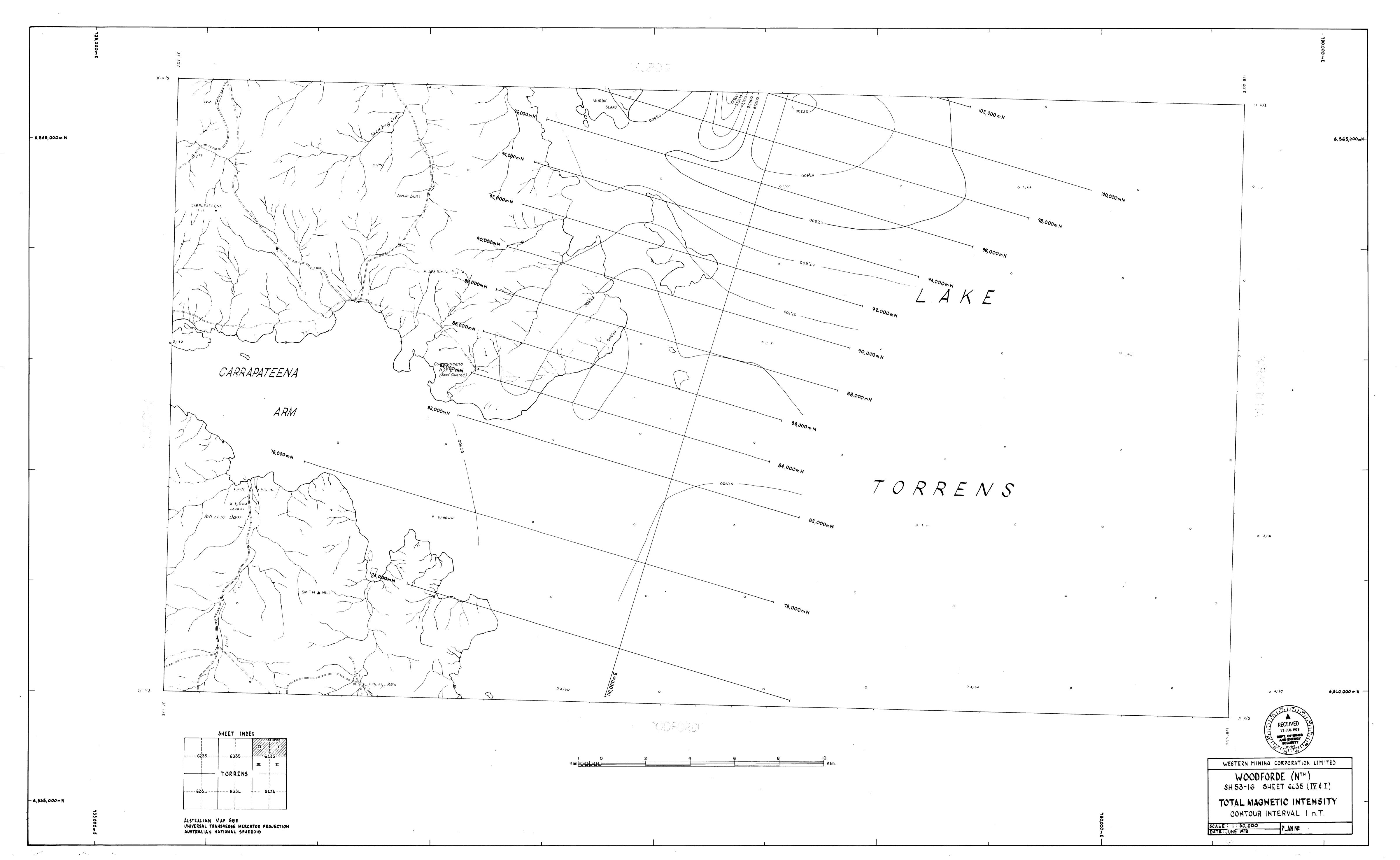
The total expenditure to the 30th May, 1978 on Exploration Licence 293 was \$35,505, distributed as follows:

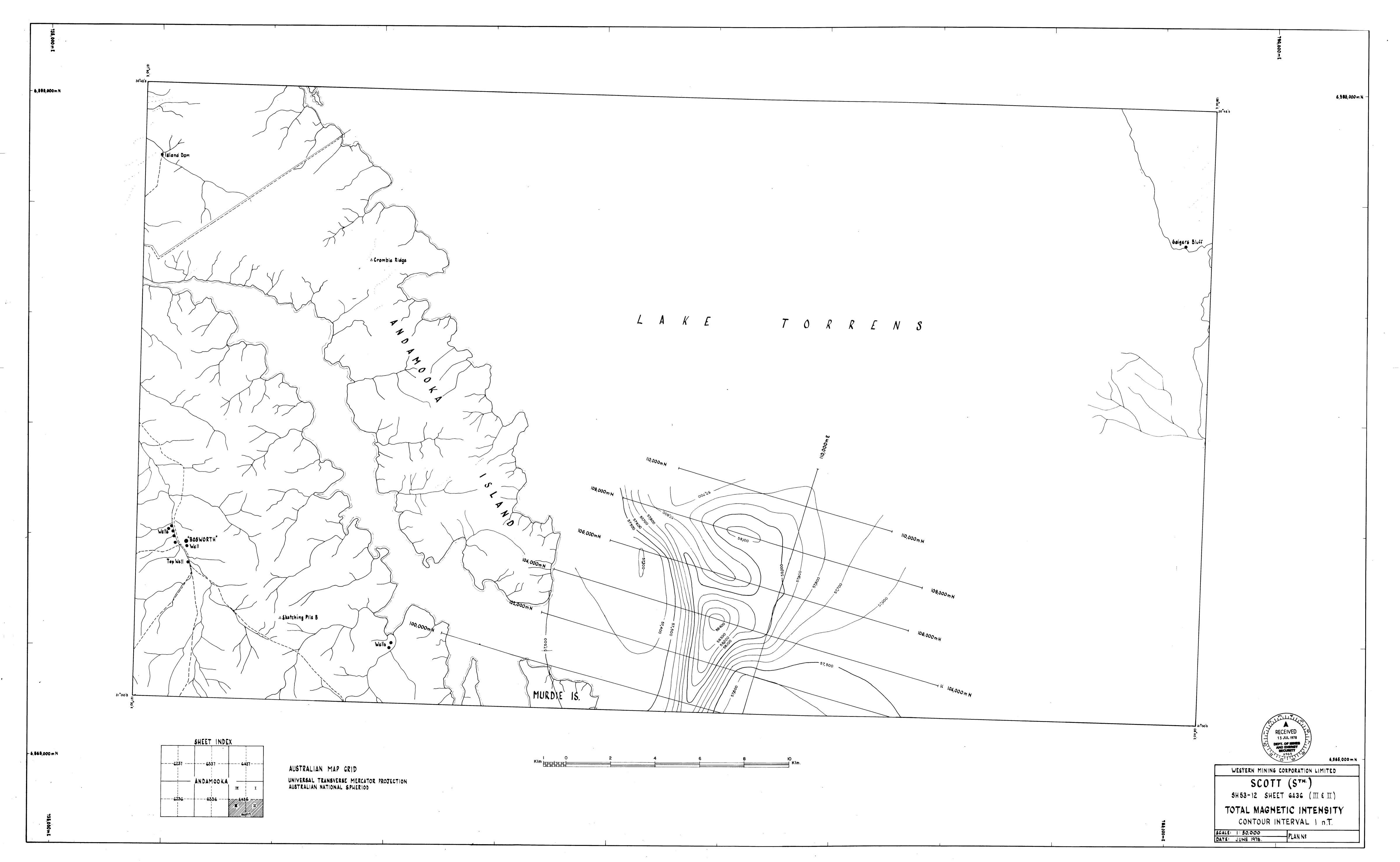
	\$	_%_
Geological	3,348	9.4
Geophysical	29,457	83.0
Draughting	1,081	3.0
Administration	1,619	4.6
	35 , 505	100.0

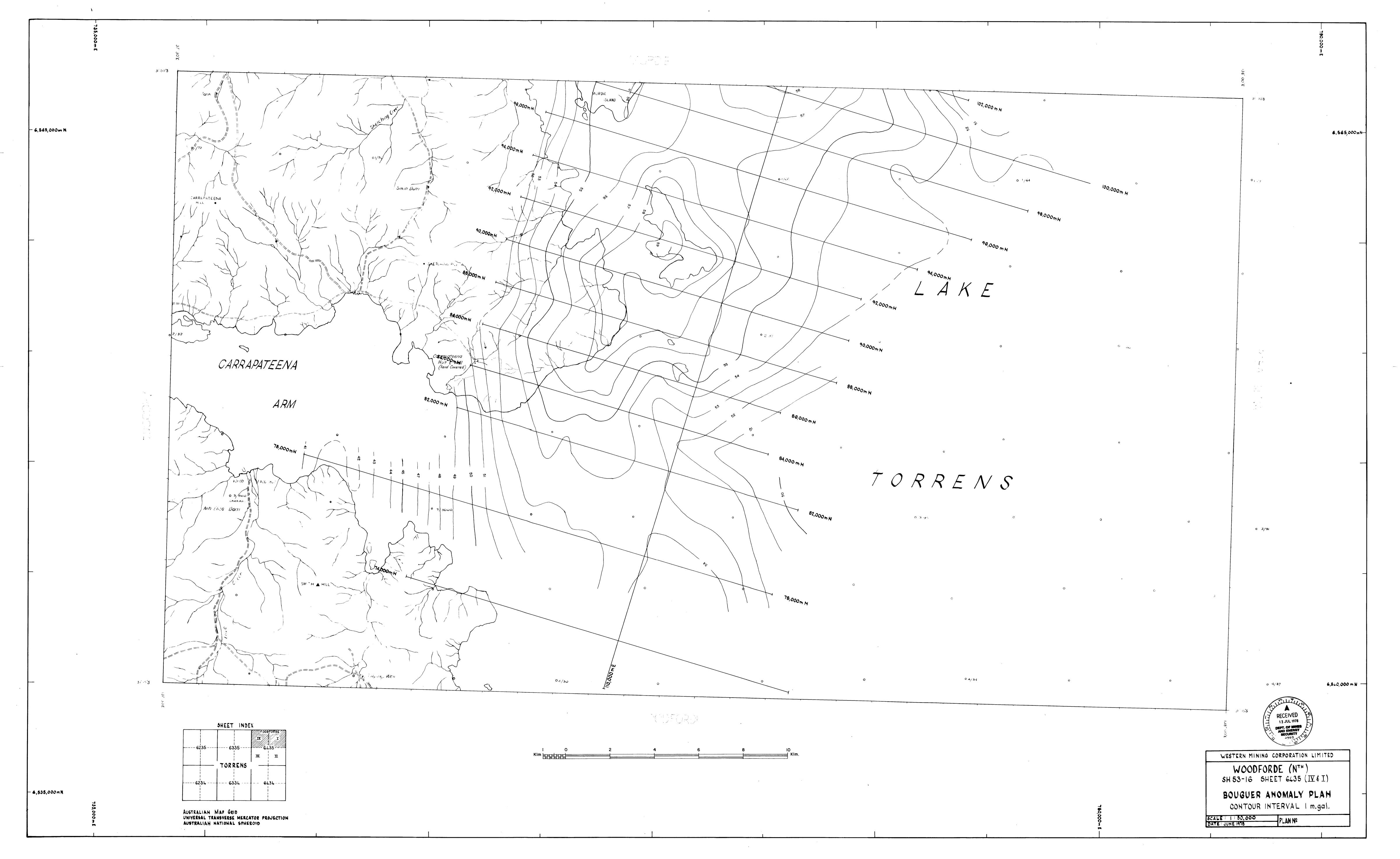
Exploration Licence 293 is included in the amalgamated expenditure commitment for the Stuart Shelf area.

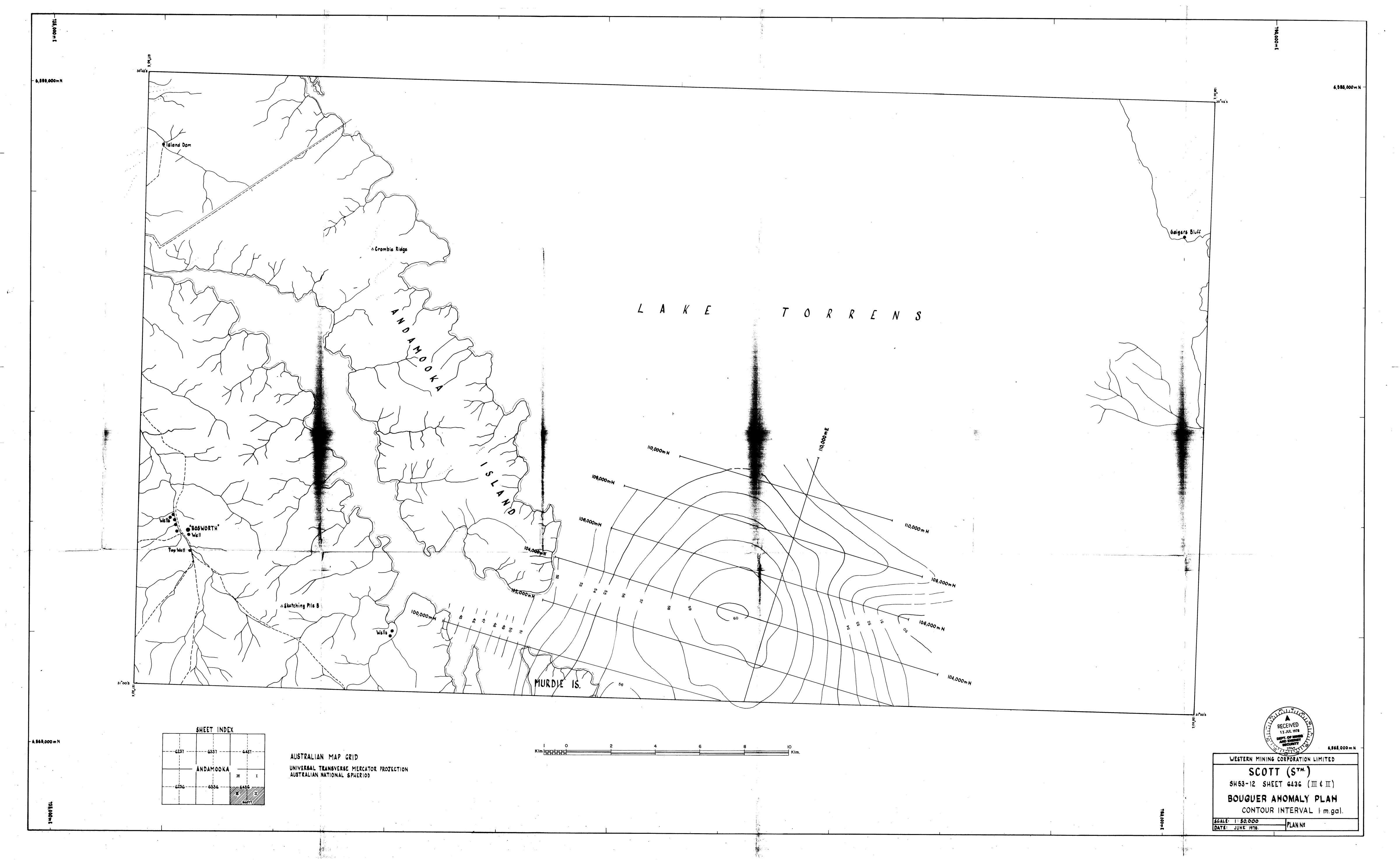
Data is not available for

- Ground Magnetic survey
 - Ground Gravity survey









EXPLORATION LICENCE 293

MURDIE

REPORT FOR QUARTER ENDED 23RD SEPTEMBER 1978

- 1. INTRODUCTION
- 2. EXPLORATION COMPLETED DURING THE QUARTER
- 3. CONTINUATION
- 4. EXPENDITURE STATEMENT

This is the sixth quarterly report on Exploration Licence 293, recording exploration activities between 23rd June and 23rd September 1978.

2. EXPLORATION COMPLETED DURING THE QUARTER

No field exploration took place during the quarter. The interpretation of geophysical anomalies is in progress.

3. CONTINUATION

Re-levelling of part of the Murdie geophysical grid will take place during the next period.

4. EXPENDITURE STATEMENT

Total expenditure on Exploration Licence 293 to 22nd August 1978 was \$42,091, distributed as follows:

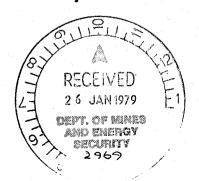
		<u>%</u>
Geological	3,861	9.2
Geophysical	34,416	81.8
Draughting	1,081	2.6
Administration	2,733	6.4
	42,091	100.0

Exploration Licence 293 is included in the amalgamated expenditure agreement for the Stuart Shelf area.

EXPLORATION LICENCE 293

MURDIE

REPORT FOR QUARTER ENDED 23RD DECEMBER, 1978



- 1. INTRODUCTION
- 2. EXPLORATION COMPLETED DURING THE QUARTER
- 3. CONTINUATION
- 4. EXPENDITURE

This is the seventh quarterly report on Exploration Licence 293, recording exploration activity between 23rd September, and 23rd December, 1978.

2. EXPLORATION COMPLETED DURING THE QUARTER

No field exploration took place during the quarter as was indicated in the last report. Interpretation of the geophysical anomalies indicates a depth to magnetic source of 500 - 1000 metres and of gravity source of 1.8km using a density contrast of 0.3.

3. CONTINUATION

Re-levelling of part of the georhysical grid has yet to be completed.

4. EXPENDITURE

. .

Total expenditure on Exploration Licence 293 to 14th November, 1978 was \$43,656 distributed as follows:

	\$	*
Geological	4801	11.0
Geophysical	35743	81.9
Draughting	1434	3.3
Administration	1678	3.8
•		
	\$43656	100.0

Exploration Licence 293 in included in the amalgamated expenditure commutment for the Stuart Shelf area.

EXPLOTATION LICENCE 293

MURDIE

REPORT FOR QUARTER ENDED 23RD MARCH, 1979



- 1. INTRODUCTION
- 2. EXPLORATION COMPLETED DURING THE QUARTER
- 3. CONTINUATION
- 4. EXPENDITURE STATEMENT

This is the eighth quarterly report on Exploration Licence 293, recording exploration activity between 23rd December 1978 and 23rd March, 1979.

2. EXPLORATION COMPLETED DURING THE QUARTER

No field exploration took place during the quarter.

3. CONTINUATION

No further ground exploration is proposed in the area until the regional geology is better understood from exploration to be carried out in adjacent areas.

4. EXPENDITURE STATEMENT

Total expenditure on Exploration Licence 293 to the 6th March 1979 was \$46,780 distributed as follows:

		<u>%</u>
Geological	5,517	11.8
Geophysical	38,142	81.5
Draughting	1,434	3.1
Administration	<u>1,687</u>	3.6
	46,780	100.0

Exploration Licence 293 is included in the amalgamated expenditure agreement for the Stuart Shelf Area.

The Geological formations of interest in the Stuart Shelf area are totally concealed by flat lying sediments and indirect geophysical techniques and deep drilling are the only viable methods for the evaluation of the regional geology. Detailed evaluation of particular areas and the results of stratigraphic scout drilling often quide subsequent regional reconnaissance.

EXPLORATION

Target selection of the Stuart Shelf is based upon detailed follow-up of gravity and magnetic highs indicated by the 1:250,000 BMR gravity and air-borne magnetic surveys. Ground gravity and magnetic surveys are conducted over areas of interest to define anomalies and to allow the accurate positioning of stratigraphic drill holes. The considerable thickness of cover sediments and the uncertainty of the basement geology contribute to the high risk of drilling operations that are both expensive and time consuming.

Fifteen areas have been surveyed by ground geophysical methods to date, and stratigraphic holes have been drilled in nine of these (Fig. 1.). Results have been encouraging in the majority of areas and follow-up is required to satisfactorily evaluate their potential.

Several areas, some of which have been tested by ground geophysical techniques or drilling, appear to offer little potential for the discovery of "Olympic Dam" style mineralisation and these could be relinquished, subject to the results of drilling that will take place over the next few months. These are indicated on Fig. 2. The northern part of the Bopeechee Exploration Licence No. 231 could be relinquished immediately, but the future of those parts of Exploration Licences 233, 292 and 294 indicated on Fig. 2 will be determined by the results of drilling at West Well and Whittata Hill which should be available within three months.

EXPENDITURE

Total expenditure on the Stuart Shelf Exploration Licences to 10th January, 1978 was \$1,727,174. The expenditure on individual licences is as follows:

Exploration Licence		Expenditure to 10/1/78
ANDAMOOKA	344	\$1,088,261
BOPEECHEE	231	133,211
ARCOONA	232	218,992
TORRENS	233	121,131
BILLS LOOKOUT	269	54,472
TODDS DAM	279	81,123
MURDIE	293	2,457
LAKE ARTHUR	292	19,322
WOODFORDE HILL	294	8,205
		\$1,727,174

These areas are shown on Fig. 2.



We have during the last twelve months maintained a balanced exploration programme as requested by you. The exception is E.L. 293 Murdie, where the area of interest lies mainly on Lake Torrens. Following our experience in conducting geophysical surveys on the Lake in E.L. 233 Torrens, we have now purchased vehicles suitable for traversing the lake surface and detailed geophysical traversing is planned for E.L. 293 Murdie, in the near future.

EXPLORATION PROGRAMME

The general programme for the coming year is outlined in the following sec ions. It should be pointed out that this programme may be modified from time to time for technical or legistical reasons.

Geophysical Programme

Ground magnetic and gravity geophysical traversing is planned for the following areas:

Pearson Hill

Cockys

Murdie

Torrens extension

Bopeechee extension to the West 25 km west of Bopeechee

Horse Well

Winjabbie

Wirda Well

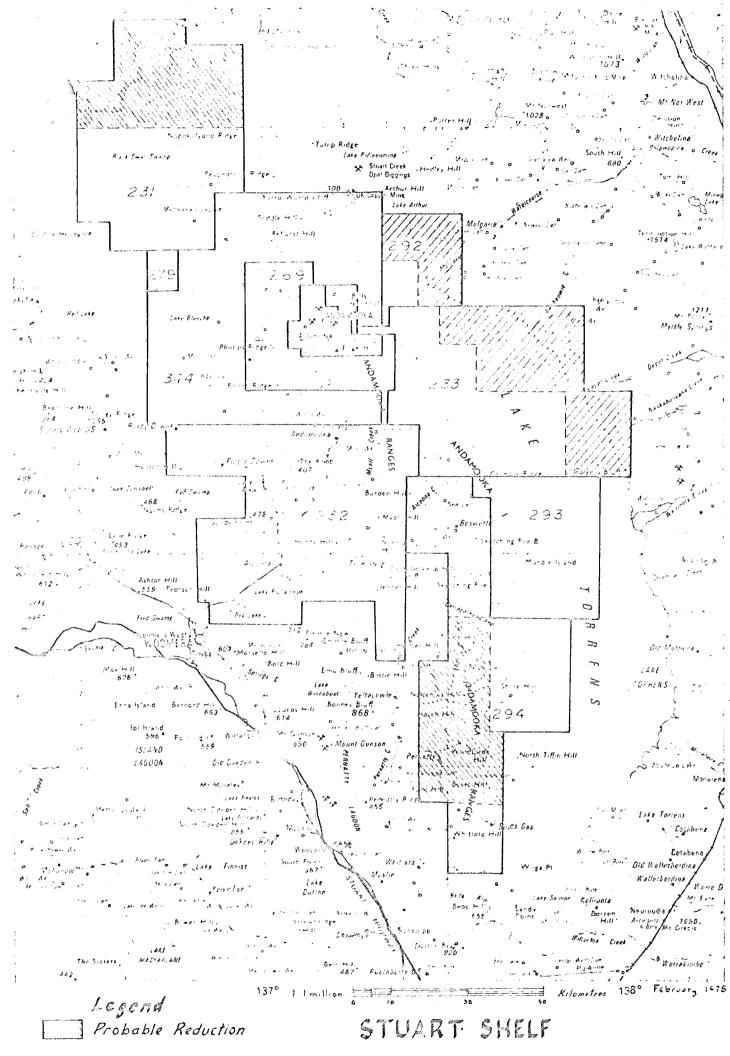
Diamond Drilling

Two diamond drills will operate for the year. In addition, a Schramm percussion drill will be used to precollar holes when needed.

One rig is currently drilling a stratigraphic hole at West Well (Fig. 1.) on the eastern side of Lake Torrens. The second rig will complete RD 19 at Olympic Dam and then move to Whittata Hill to drill a stratigraphic hole.

The ongoing programme will depend to some extent on the geophysical results, however, one further hole has already been planned for the Appendicitis area. (Fig. 1.).

Fire son Bill - Ori Boperchee - 101 Lake Arthur STUART SHELF Wellel. Regional Exploration Summery



ioration Licences fig. 2

Possible Reduction

W.M.C. Exploration Licences