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EPP 5, EPP 6, EPP 7, EPP 10 AND EPP 11

EUCLA BASIN, BIGHT BASIN AND DUNTROON BASIN

1971 SHELL R 6 MARINE SEISMIC SURVEY

INTERPRETATIVE REPORTS FOR THE PERIOD APRIL TO JUNE 1973

Submitted by

Shell Development (Australia) Pty Ltd
1973

Enquiries: Customer Services
Ground Floor
101 Grenfell Street, Adelaide 5000

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

PRIMARY INDUSTRIES AND RESOURCES SA

ENVELOPE 2234

TENEMENT: EPPs 5, 6, 7, 10 and 11; Eucla, Bight and Duntroon Basins

TENEMENT HOLDER: Shell Development (Aust.) Pty Ltd (operator)

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EVALUATION REPORT

ON

SOUTH AUSTRALIA OFFSHORE

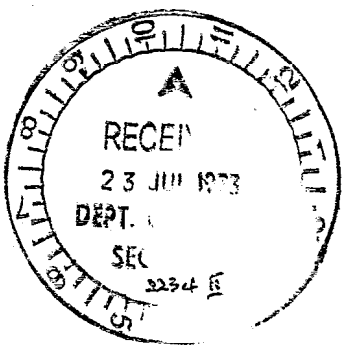
PERMITS SA-6 AND SA-7

BY

SHELL DEVELOPMENT (AUSTRALIA) PTY. LTD.

MELBOURNE

JUNE 1973



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APPENDICES

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2. Geochemical Evaluation Well Echidna-1, Duntroon Basin, Offshore South Australia, K. Reiman and J.E.A.M. Dielwart.

I INTRODUCTION

Shell Development (Australia) Pty. Ltd. was engaged in the following activities in the offshore permits SA-6 and SA-7 during the period October 1971-1972.

(1) a marine seismic survey (R6) of 1375 kms (SA-6 700 kms; SA-7 675 kms) during October/November 1971.

(2) two wells drilled in the first half of 1972.

Echidna-1 (SA-7; TD. 12,572') and Platypus-1 (SA-6; TD. 12,772').

These data have been incorporated, integrated and evaluated during the second half of 1972 - first half 1973. A review of the activities and the results of the evaluation study are presented below.

Previous activities in the permit areas SA-6 and SA-7 were reported on in "Exploration in the Great Australian Bight : Results of the 1970-71 Marine Geophysical Survey" lodged with the Designated Authority on 25th January, 1972.

II EXPLORATION ACTIVITIES - MID 1971 - MID 1972

1. Seismic Data Acquisition and Processing 1971 Survey

(a) General

The 1971 seismic survey in permits SA-6 and SA-7 was contracted out to Geophysical Service International (G.S.I.).
The positioning control was subcontracted to Offshore Navigation Incorporated.
The survey started on 29th October 1971 and the last line of the SA-6, SA-7 (1375 kms) programme was recorded on 12th November 1971.
Seismic Data Processing was handled by G.S.I.

All relevant data on the marine seismic survey i.e. Operations Report, Processing Report, Positioning Report (ONI), Shot Point Location Maps and all final seismic sections have been submitted to the Designated Authority (16th November 1972).

(b) Positioning

A Shoran XR radiopositioning system was employed to provide horizontal control for the survey. The system was supplied and operated by Offshore Navigation Inc. (ONI).
Four onshore base station sites were occupied during the operations i.e. Cape Du Couedic, Point Avoid, Streaky Bay and Wedge Island.

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(c) Seismic Recording

The survey of 1375 kms was conducted by Geophysical Service International's (G.S.I.) M.V. 'R.C. Dunlap'. The energy source for the survey consisted of a tuned airgun array of 1300 cubic inch total capacity. A 2400 metre, 48 trace acceleration noise cancelling cable was used. Subsurface coverage was 24 fold. The digital recording instrument was a Texas Instrument DFS III system.

(d) Magnetometer Recording

No magnetometer data was recorded with this survey. Consequently the magnetic data as presented with our previous report on the permits SA-6 and SA-7 (25th January, 1972, encls. 18 and 19, page 1 and appendix 3) still serve as reference.

(e) Seismic Processing

Processing was carried out by Geophysical Service International in their Sydney Centre.

The basic processing sequence was as follows : True Amplitude Recovery, Time Variant Deconvolution before stack (one area only) velocity analysis and corrections, stack, Time Variant Deconvolution after stack, Time Variant Filtering.

Experimental processing had indicated that deconvolution before stack did not significantly improve the data quality. Only in one small area where improvement was obtained this process was applied.

Velocity information obtained during the extensive 1969/70 seismic survey supplemented by Constant Velocity Gathers on the new data at interval of 2 miles was used for velocity corrections.

Final results were presented as variable area sections on a horizontal scale of 24 traces/inch and a vertical scale of 5 cm. per second.

2. Drilling

(a) General

Two wells Echidna-1 (permit SA-7) and Platypus-1 (permit SA6) were drilled in the first half of 1972. The semi-submersible rig 'Ocean Digger' under contract from ODECO was used.

Echidna-1 was spudded on 16th January 1972 and abandoned as a dry hole on 16th March 1972. Platypus-1 was spudded on 21st March and abandoned as a dry hole on 30th April, 1972.

A comprehensive evaluation of the well data was given in the well completion reports which have been submitted to the Designated Authority (Echidna-1, 7th July 1972; Platypus-1, 26th October 1972).

A summary of the well information is given below.

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(b) Echidna-1 (TD 12,572') was planned to test a large domal shaped closure for hydrocarbons in postulated Jurassic sandstones. The mapped closure was characterized by a relatively strong reflection culminating in Echidna at ± 2.4 secs.

The well drilled through a Miocene-Upper Eocene carbonate sequence with minor clastics in the lower part. The base of the carbonates corresponding to the seismic 'A' horizon (encl. 4) was found at 3,965 feet. Below this disconformity 300 feet sandstones of Middle-Upper Eocene age unconformably overlie a Lower Cretaceous sequence almost exclusively composed of silty clays and shales.

The well bottomed at 12,572' in shales of Neocomian age. The mapped seismic reflection was reached at 11,490'. It appeared to be due to a pronounced velocity/density contrast at the base of a shale zone with an anomalous high water content and a different mineralogy from the underlying shales.

Platypus-1 (TD 12,772') was located on a structural plateau and was planned to test the Upper Cretaceous clastics. The base of the Miocene-Upper Eocene carbonates (seismic 'A' horizon, encl. 4) was found at 5,340'. It overlies 215 feet Middle Eocene Glauconite sands and some 920 feet sandstones and interbedded clays of Lower Eocene and Middle Campanian age. The boundary Tertiary-Cretaceous is found within this sequence and is placed at 6,202'.

A 3000 feet clay sequence was drilled before the objective, was reached at 9,492'. It consists of 2,800' alternating sandstones, shales and coals. Porosity of the sandstones varies from 10-24%. The Upper-Lower Cretaceous boundary falls in a zone between 11,077-11,600'. From thereon down to TD Lower Cretaceous silty shales were drilled.

III EVALUATION OF THE DATA

1. General

The newly acquired data has been incorporated and integrated during the period mid 1972-mid 1973.

A playmap showing the structural and stratigraphical setting is presented on encl. 1. The results of the seismic review are shown on encls 4 and 5. Encl. 4 represents a time contour map on the seismic 'A' horizon corresponding to the base of the Tertiary Carbonates. Encl. 5 represents a time contour map on an Intra Cretaceous event corresponding in the Platypus area to the top of a 3,000' thick sandstone section. Due to areas of poor seismic data quality and to the large number of faults the map is in places conjectural.

The review is based on the seismic grid shown on encl. 2. An updated waterdepth map is included (encl. 3).

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2. Stratigraphy

The stratigraphy within the permits SA-6 and SA-7 is based on the results of the two wells drilled in the area i.e. Echidna-1 and Platypus-1.

The uppermost sedimentary section, from seafloor down to the strong seismic 'A' reflector consists of Tertiary carbonates of Miocene-Upper Eocene. The carbonate section is thickest in the Echidna/Platypus area and thins to the SW and NE.

The seismic 'A' reflection is related to the velocity reversal at the interface between the high velocity/high density carbonates and the lower velocity/lower density underlying clastic sequence.

It is disconformably underlain by clastics of Eocene age.

An unconformity, in places clearly angular, separates the Tertiary clastics from the Upper Cretaceous section. The degree of erosion of the latter section depends on the deformation that took place at the end of the Cretaceous. Upper Cretaceous is completely missing on the anticlinal structures in the inner shelf area, but rather complete on the down-faulted blocks in the outer shelf area. The top of the prospective Upper Cretaceous reservoir section found in Platypus-1 and our main objective in the area is represented by a fair seismic reflection event (encl. 5).

The Upper Cretaceous is disconformably underlain by Lower Cretaceous silty clays and shales. The Lower Cretaceous sequence is characterized by a near-absence of reflections on the seismic sections. If this correlation can be extrapolated to undrilled areas and undrilled depths this Lower Cretaceous section may reach in places a thickness of over ten thousand feet. No older sedimentary sequences than Lower Cretaceous have been penetrated in the permit areas SA-6 and SA-7.

An extension of the Gawler Shield probably consisting of Pre-Cambrian metamorphics and covered by a thin Tertiary section appears to form the shallow basement in the NE part of the permit areas. The edge of the Shield is marked by a series of south-hading basement block-faults which bring basement rapidly down to great depths.

3. Source Rocks and Maturity

Analysis of samples from Platypus-1 indicate source rocks for gas and oil interbedded in the intra Upper Cretaceous reservoir section and the Lower Cretaceous sequence immediately below (Appendix 1). The samples of Platypus-1 show that maturity is only just reached at total depth of the well.

Analysis of samples from Echidna-1 indicate a post-maturity level for the lower part of the Lower Cretaceous shale section (Appendix 2).

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4. Reservoir Rocks

The 3000' thick clastic Upper Cretaceous sequence drilled in Platypus-1 between 9,400 - T.D. is the main proven potential reservoir section. This zone with the associated source rocks is the primary objective for our future hydrocarbon search especially in areas where it can be expected at a maturity level favourable for generation of oil or gas. Individual sandstone beds in the Platypus section are up to 90' thick. Porosities range from 15-24%.

Highly porous Tertiary - uppermost Cretaceous sandstones, beneath the 'A' reflector constitute a secondary objective.

There is no evidence for the existence of older reservoirs which would be below the thick lower Cretaceous shales and therefore at excessive depth.

5. Structural Framework

Based on the results of the re-interpretation incorporating all newly acquired well and seismic information, the permit areas are now subdivided into 4 structural zones (encl. 1).

(i) Monoclinal Zone.
(ii) Folded Zone.
(iii) Step faulted Zone.
(iv) Synsedimentary faulted Zone.

The first three coincide with the shelf area, the fourth covers the deeper water parts. The boundary, can be conveniently taken at the 600' water depth contour.

In the monoclinal zone the structural configuration is a result of basement topography whereas the other zones the structures are mainly related to a late Cretaceous phase of deformation.

In the folded zone an alternation of synclines and anticlines occurs. On all the anticlinal structures the Upper Cretaceous sandstone reservoir complex is partly or wholly eroded.

The step faulted zone is divided into a number of fault blocks by two series of faults, one trending NW-SE and the second E-W. These faults do not show any associated roll-over structures and are considered to reflect deepseated basement movement.

The synsedimentary faulted zone is characterized by a series of NW-SE trending synsedimentary faults showing a varying degree of growth. The zone forms structurally and stratigraphically part of the deep water acreage covered by SA-10 and SA-11 (refer "Evaluation Report on S.A. Deep Water Acreage SA-10 and SA-11", sent to the Designated Authority 26th April 1973). The zone occupies the deep water part of SA-6 and SA-7 with waterdepths ranging from 600-10,000 feet.

6. Prospects

At present five prospects are recognized, namely Wallaroo, Bandicoot, Jerboa, Cuscus and Koala (encl. 1).

The first two are located in the stepfaulted zone. This is the most prospective zone because the Upper Cretaceous sandstone reservoirs occur at generally drillable depth while the associated source rocks are expected to lie in the mature zone. Wallaroo would test a fault closure in this zone.

In Bandicoot, located on the southern edge of the zone, the depth to these sandstones falls however below drilling depths, but here a younger Upper Cretaceous section, eroded in Platypus-1, would constitute the postulated reservoir objective. This prospect has the additional advantage of having dipclosure.

Areal closure of both prospects is small and probably at the limit of economical exploitation.

Jerboa is situated on the southern edge of the monoclinal zone where a shallow basement high is intersected by a Cretaceous anticline. Upfolding brought the basement probably very close to the Tertiary unconformity. It is impossible to predict which part of the Mesozoic if any, has been preserved, and thus although the Jerboa prospect is a pronounced high it has considerable stratigraphic risks.

The prospects Cuscus and Koala are located in the folded zone and would have to rely on possible dip reversals along the plunging axis of the anticlines mapped in this zone. In addition only a relatively thin reservoir section of sandstones is expected to be preserved below the base-Tertiary unconformity.

Sizeable leads can be recognized in the synsedimentary faulted zone. Further seismic would be required to mature these leads into prospects. Waterdepth of the leads ranges from 4,000-10,000'. To further detail these prospects and to cover some other potential prospect areas a marine seismic survey of 900 miles approximately was programmed for 1973.

This survey has just been conducted by Geophysical Service International (G.S.I.) during the period 1st-25th April, 1973.

The data are presently in G.S.I.'s Sydney processing centre. Processing is expected to be completed by the second half of July 1973.

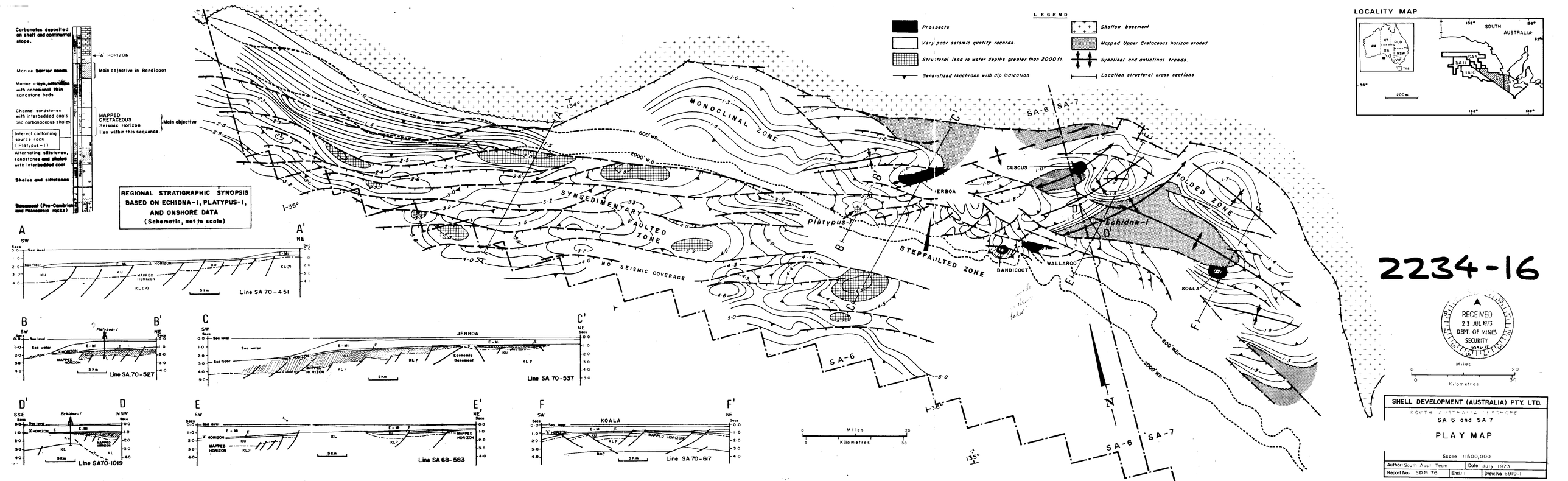
IV CONCLUSIONS

In the Shelf area of the permits SA-6 and SA-7 the results of the 1971 seismic survey and the 1972 Platypus-1 and Echidna-1 provided the tools for more detailed and integrated mapping, and a better assessment of the available prospects. A further seismic effort of 932 miles (approx.) required to firm up drilling locations has been meanwhile completed (April 1973).

../7

Based on the present knowledge the step faulted zone seems to be the most prospective as it can be expected that the source rocks associated with the objective reservoir sequence encountered in Platypus will be found here at a maturity level favourable for the generation of hydrocarbons. Structurally however the prospects present in the shelf area are small with a limited amount of vertical closure.

In the Deep Water area, with depths between 4000 and 10,000 feet, promising leads can be recognized. Further seismic detail work will be required to confirm these prospects. The rapid technical advance in deep water drilling techniques may enable a drill test in these waterdepths within the next five years.



2234-16

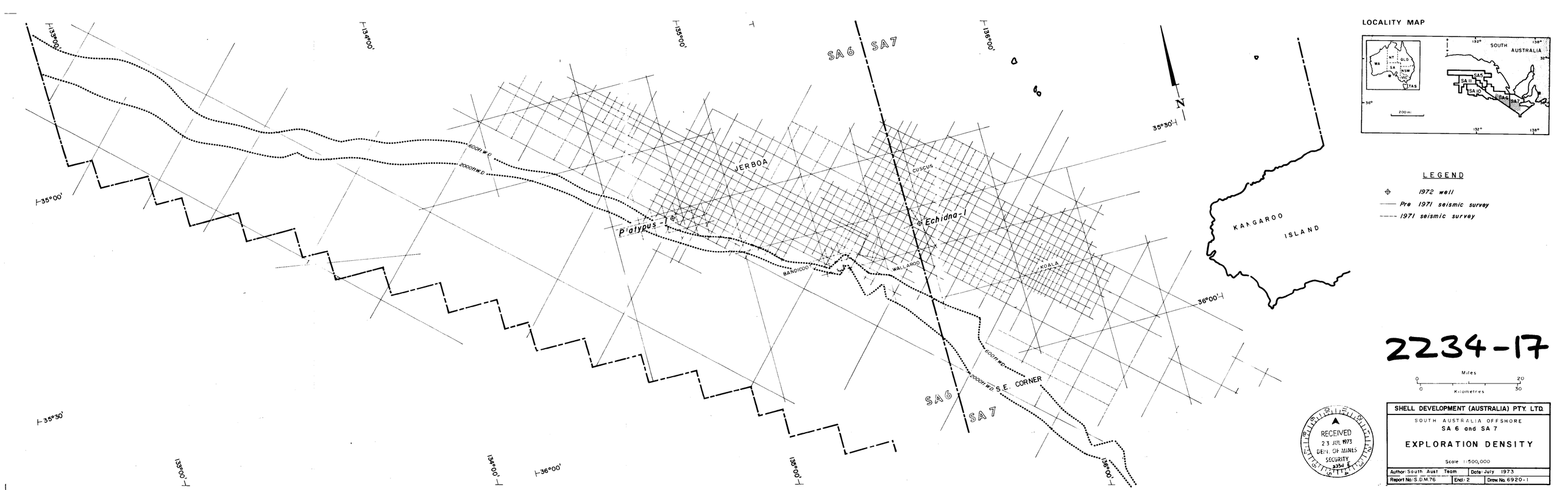
SHELL DEVELOPMENT (AUSTRALIA) PTY. LTD.
SOUTH AUSTRALIA TENURE

SA 6 and SA 7

PLAY MAP

Scale 1:500,000

Author: South Aust Team		Date: July 1973
Report No.: S.D.M. 76	Encl: 1	Drow No. 6919-1


LOCALITY MAP
SOUTH AUSTRALIA
WA
NT
QLD
SA
NSW
VIC
TAS
SA5
SA11
SA10
SA6
SA7
200 m.
LEGEND
1972 well
Pre 1971 seismic survey
1971 seismic survey
KANGAROO ISLAND
JERBOA
CUSCUS
Platypus
Echidna-1
BANDICOOT
WALLAROO
KOALA
SA6
SA7
600ft WD
2000ft WD
S.E. CORNER
N
35°30'
36°00'
134°00'
135°00'
136°00'
Miles
Kilometres
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23 JUL 1973
DEPT. OF MINES
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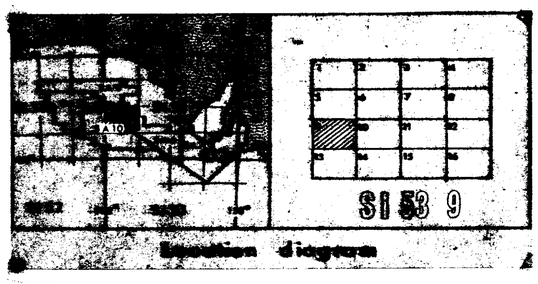
SHELL DEVELOPMENT (AUSTRALIA) PTY. LTD.
SOUTH AUSTRALIA OFFSHORE
SA 6 and SA 7
EXPLORATION DENSITY
Scale 1:500,000
Author: South Aust Team
Date: July 1973
Report No: S.D.M.76
Encl: 2
Drawing No. 6920-1

2234-17

132°00'
34°00'
133°30'
34°00'
35°00'
132°00'
35°00'
133°30'

SA5
SA6
SA10

2000'
3000'
4000'
4200'
500'
450'
550'
600'
1000'
400'
350'
600'
1000'
2000'
3000'
3800'
400'



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5 0 5 10 15 kilometres

Universal Transverse Mercator projection (Clarke 1858)

SHELL DEVELOPMENT (AUSTRALIA) PTY. LTD.

SOUTH AUSTRALIA OFFSHORE

BATHYMETRY

Scale 1:250,000

Author: South Aust. Team	Date: July 1973	Sheet No.
Report: S.D.M. 76	Encl: 3A Drawing No. 7046	SI 53-9

2234-18

S.P. March, 1972

SA 6

SA6

350'

400'

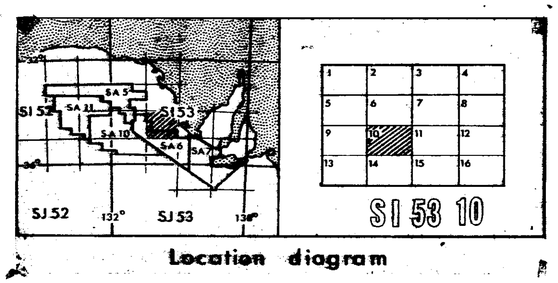
450'

500'

600'

1000'

400'



Location diagram

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DEPT. OF Mines
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Scale
5 0 5 10 mi
5 0 5 10 15 ki

Universal Transverse Mercator projection (Clarke 1858)

SHELL DEVELOPMENT (AUSTRALIA) PTY. LTD.

SOUTH AUSTRALIA OFFSHORE

BATHYMETRY

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Report: S.D.M. 76	Encl: 38 Drawing No. 7047	SI53-10

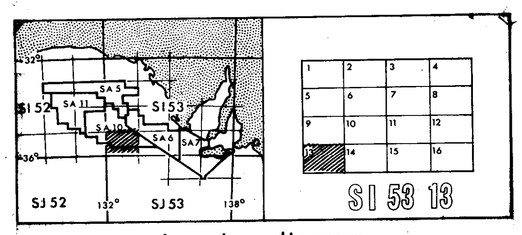
2234-19

S.P. March, 1972

132°00'
35°00'
133°30'
35°00'

3000'
4200'
3800'
4000'
SA 6
SA10
4000'
5000'
5000'
6000'
6000'
7000'
5000'
8000'
7000'
7000'
6000'

36°00'
132°00'
36°00'
133°30'



Location diagram

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23 JUL 1973
DEPT. OF MINES
SECURITY
2234

Scale
5 0 5 10 mi
5 0 5 10 15 ki

Universal Transverse Mercator projection (Clarke 1858)

SHELL DEVELOPMENT (AUSTRALIA) PTY. LTD.

SOUTH AUSTRALIA OFFSHORE

BATHYMETRY

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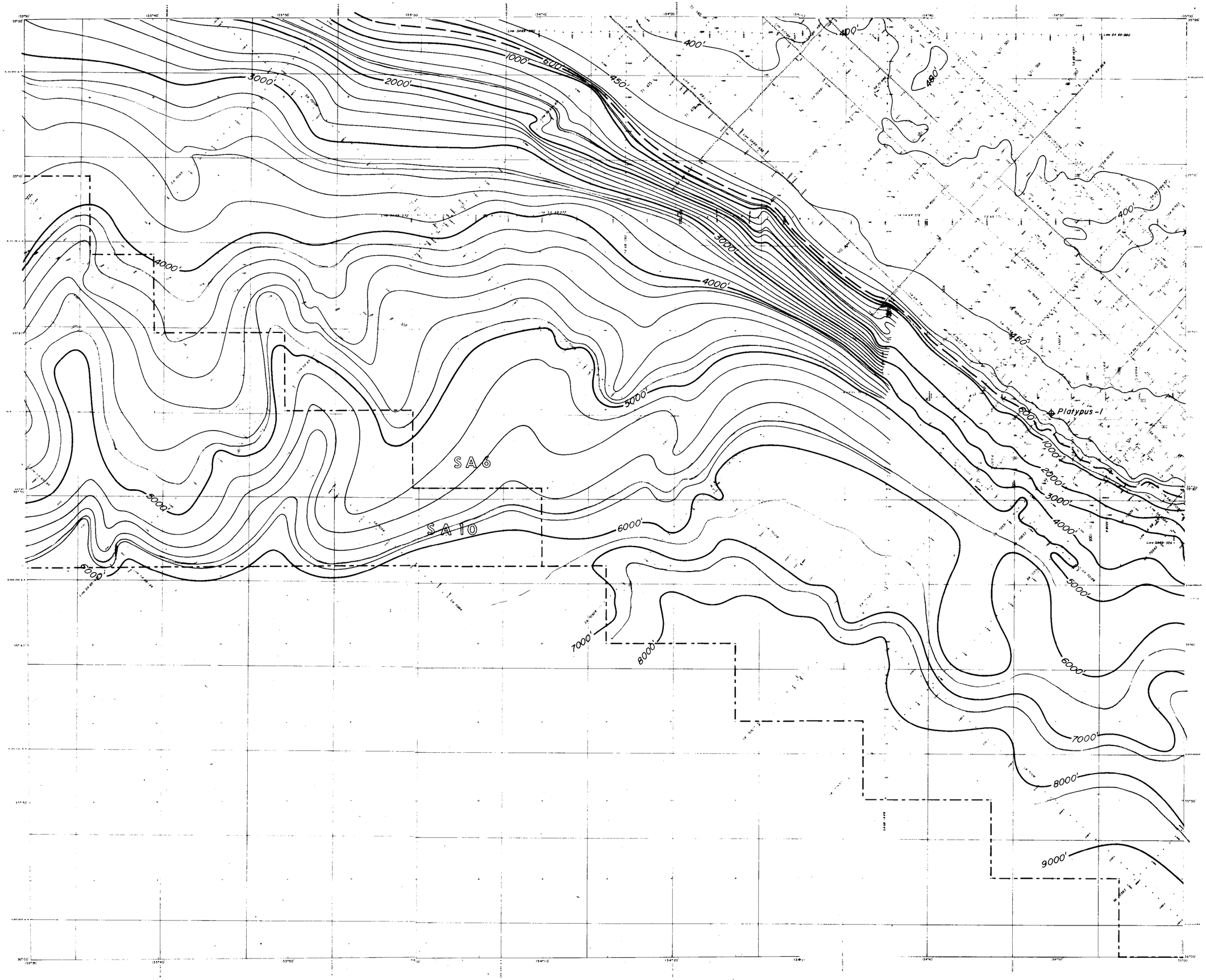
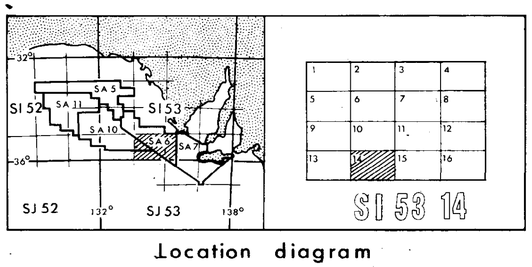
S.P. March, 1972





Location diagram

Scale

5 0 5 10 miles

5 0 5 10 15 km

Universal Transverse Mercator projection (Clarke 1858)

SHELL DEVELOPMENT (AUSTRALIA) PTY. LTD.

SOUTH AUSTRALIA OFFSHORE

BATHYMETRY

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Author: South Aust. Team	Date: July 1973		Sheet No.
Report: S.D.M. 76	Encl: 3D	Drawing No. 7050	SI53-14

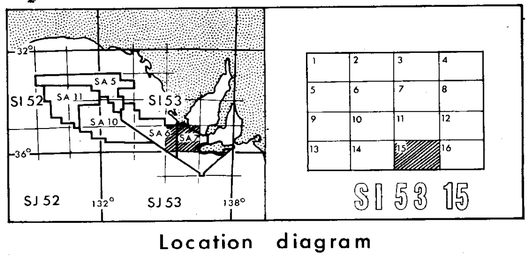
2234-21

S.P. March 1972

SA 6 SA 7

Echidna-1

350'
400'
450'
500'
550'
600'
1000'
2000'
3000'
4000'
5000'
6000'
7000'
8000'
9000'
10,000'
300'



1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16

SI 53 15

Location diagram

Scale
5 0 5 10 miles
5 0 5 10 15 kilometres

Universal Transverse Mercator projection (Clarke 1858)

SHELL DEVELOPMENT (AUSTRALIA) PTY. LTD.

SOUTH AUSTRALIA OFFSHORE

BATHYMETRY

Scale 1:250,000

Author: South Aust. Team	Date: July 1973		Sr... No.
Report: S.D.M. 76	Encl: 3E	Drawing No. 7051	SI53-15

2234-22

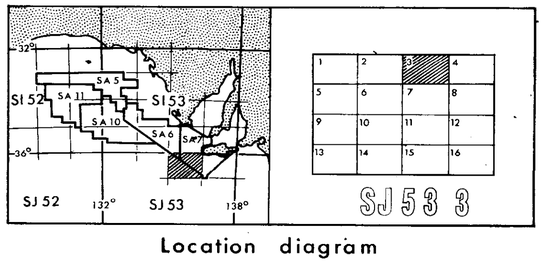
S.P. March, 1972.

SA6

SA7

300'
350'
400'
450'
500'
550'
600'
1000'
2000'
3000'
4000'
5000'
6000'
7000'
8000'
9000'
10,000'
11,000'
12,000'

5000'
6000'
7000'
8000'
9000'
10000'
11,000'
12,000'
13,000'



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Location diagram

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23 JUL 1973
DEPT. OF MIN.
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2234-23

Scale
5 0 5 10 miles
5 0 5 10 15 kilometres

Universal Transverse Mercator projection (Clarke 1858)

SHELL DEVELOPMENT (AUSTRALIA) PTY. LTD.

SOUTH AUSTRALIA OFFSHORE

BATHYMETRY

Scale 1:250,000

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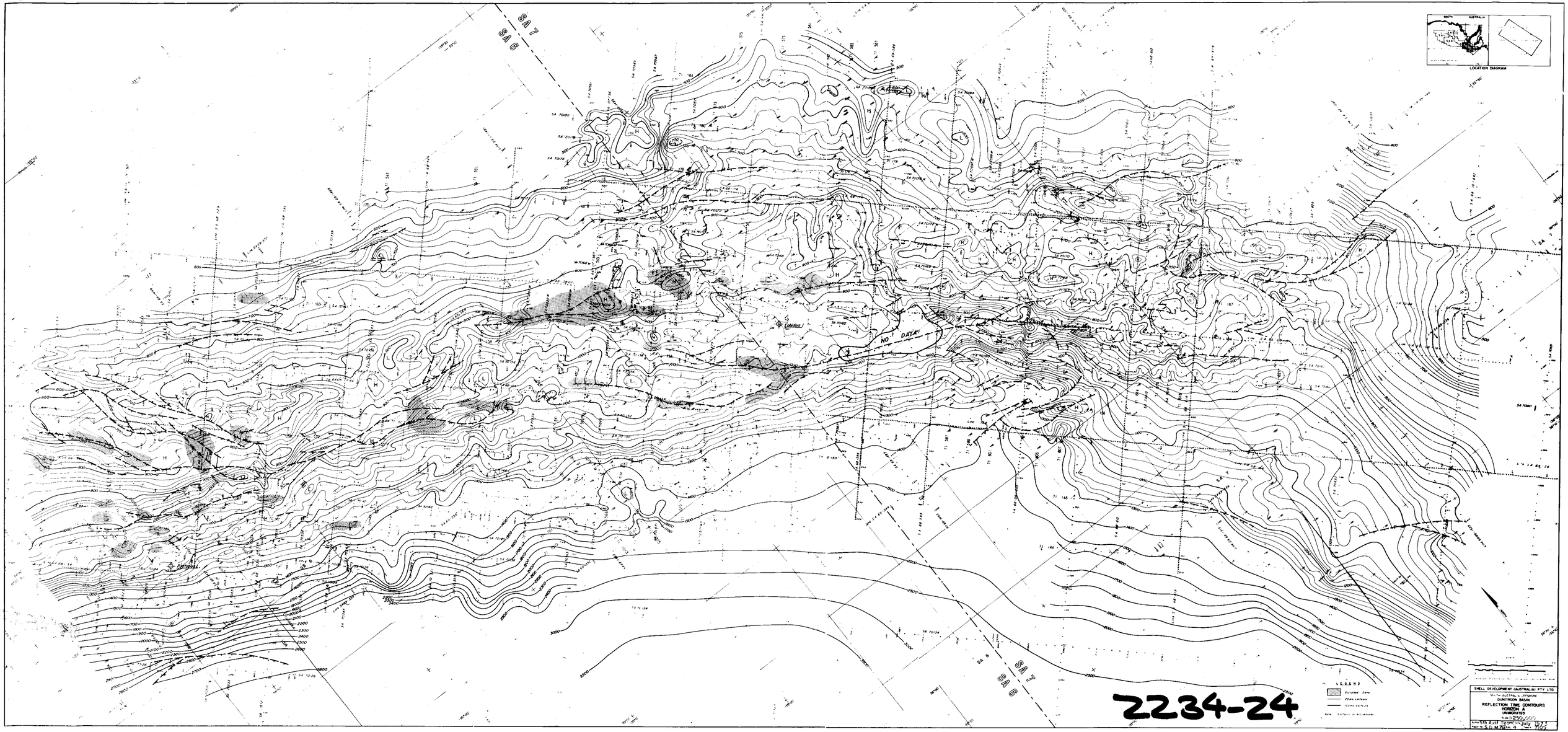
2234-23

S.P. March 1972


SA 7
SA 6
SA 7
SA 6
LOCATION DIAGRAM
SOUTH AUSTRALIA
Penola
Caroline 1
NO DATA
LEGEND
Outcrop Edge
20ms contours
100ms contours
Note: Contours in Milliseconds
SHELL DEVELOPMENT (AUSTRALIA) PTY LTD
DUNTROON BASIN
REFLECTION TIME CONTOURS
HORIZON A
UNMIGRATED
1:250,000
2234-24

132°00'
34°00'
132°10'
132°20'
132°30'
132°40'
132°50'
133°00'
133°10'
133°20'
133°30'
34°00'

SA 5

SA 6

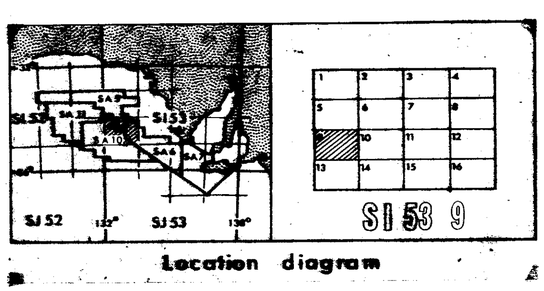
SA 10

SHALLOW

BASEMENT

2000
1800
2200
2600
2300
2900
1000
1500
1700
2500
2400
2200
1700
2800
2600
3000
2400
2600
2800
2500
2500

34°10'
34°20'
34°30'
34°40'
34°50'
35°00'
132°00'
133°30'



Location diagram

CONTOUR RELIABILITY
Based on data quality, grid density, and complexity of tectonic style.

GOOD
FAIR
POOR
CONJECTURAL

Contour interval 100 m secs.

Scale
5 0 5 10 mi
5 0 5 10 15 ki

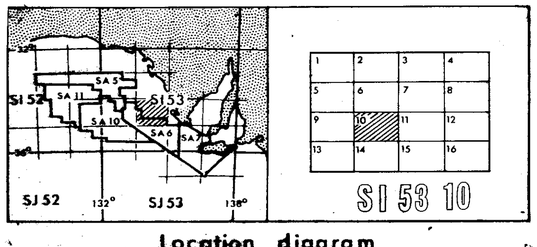
Universal Transverse Mercator projection (Clarke 1858)

SHELL DEVELOPMENT (AUSTRALIA) PTY. LTD.			
SOUTH AUSTRALIA OFFSHORE			
S.A. 6 and 7			
REFLECTION TIME CONTOURS			
INTRA-CRETACEOUS			
Scale 1:250,000			
Author: South Aust. Team	Date: June 1973		Sheet No. SI 53-9
Report: S.D.M. 76	Encl: 5A	Drawing No. 7110	

2234-25

S.P. March, 1972

133°30'
34°00'
135°00'
34°00'
SA 6
SA6
SHALLOW
BASEMENT
900
1000
1500
1700
2000
1100
1200
1500
35°00'
133°30'
35°00'
135°00'



Location diagram

CONTOUR RELIABILITY

Based on data quality, grid density, and complexity of tectonic style.

GOOD
FAIR
POOR
CONJEC -TURAL

Contour interval 50 msecs and 100 msecs.

Scale
5 0 5 10 mi
5 0 5 10 15 ki

Universal Transverse Mercator projection (Clarke 1858)

RECF
23 JUN 1973
DEPT. C
SECL

SHELL DEVELOPMENT (AUSTRALIA) PTY. LTD.

SOUTH AUSTRALIA OFFSHORE

S.A. 6 and 7

REFLECTION TIME CONTOURS INTRA-CRETACEOUS

Scale 1:250,000

Author: South Aust. Team	Date: July 1973	Sheet No.
Report: S.D.M. 76	Encl: 5B	Drawing No. 7111	SI53-10

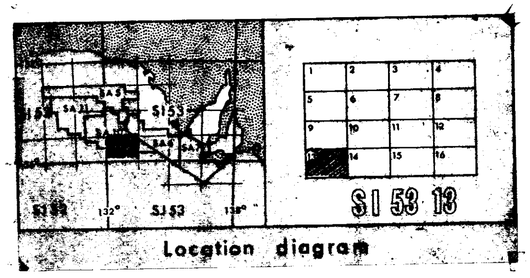
2234-26

S.P. March, 1972

132°00'
35°00'
133°30'
35°00'
36°00'
132°00'
36°00'
133°30'

SA 6
SA 10

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600



CONTOUR RELIABILITY
Based on data quality, grid density, and complexity of tectonic style.

GOOD
FAIR
POOR
CONJEC-TURAL

Contour interval 100 m secs.

Scale
5 0 5 10 miles
5 0 5 10 15 kilometres

Universal Transverse Mercator projection (Clarke 1858)

SHELL DEVELOPMENT (AUSTRALIA) PTY. LTD.

SOUTH AUSTRALIA OFFSHORE
S.A. 6 and 7

REFLECTION TIME CONTOURS INTRA-CRETACEOUS

Scale 1:250,000

Author: South Aust. Team	Date: July 1973	Sheet No.
Report: S.D.M. 76	Encl: 5C	Drawing No. 7112	SI 53-13

2234-27

S.P. March, 1972

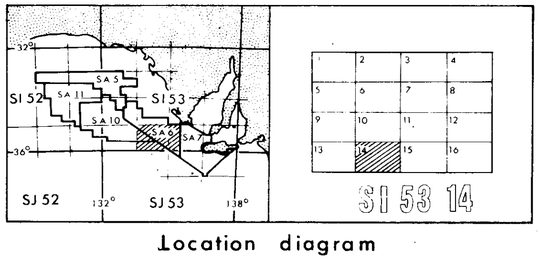
133°30'
135°00'
35°00'
36°00'

SA 6

?

HALLORAN BASEMENT

Platypus-1



Location diagram

CONTOUR RELIABILITY
Based on data quality, grid density, and complexity of tectonic style.

GOOD
FAIR
POOR
CONJEC -TURAL

Contour interval 50 msecs and 100 msecs.
Note: Datum change possible across some faults.

Scale
5 0 5 10 15 km

Universal Transverse Mercator projection (Clarke 1858)

SHELL DEVELOPMENT (AUSTRALIA) PTY. LTD.

SOUTH AUSTRALIA OFFSHORE
S.A. 6 and 7

REFLECTION TIME CONTOURS. INTRA-CRETACEOUS

Scale 1:250,000

Author: South Aust. Team	Date: July 1973	Sheet No.
Report: S.D.M. 76	Encl: 50 Drawing No. 7113	S153-14

2234-28

S. P. March 1972

135°00'
35°00'
136°30'
35°00'

SA 6 SA 7

SHALLOW BASEMENT

SHALLOW BASEMENT

SHALLOW BASEMENT

SHALLOW BASEMENT

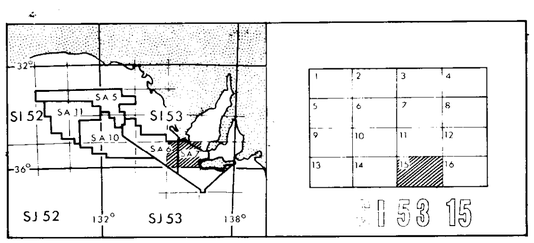
Echuca-Tyntynder Axis
LOWER CRETACEOUS

LOWER CRETACEOUS AXIS

TERTIARY CHANNEL
VERY POOR DATA
IN CRETACEOUS

36°00'
136°00'

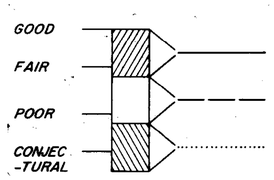
36°00'
136°30'



Location diagram

CONTOUR RELIABILITY

Based on data quality, grid density, and complexity of tectonic style.



Contour interval 50 m secs.
Note: Datum change possible across some faults.

Scale
5 0 5 10 miles
5 0 5 10 15 kilometres

Universal Transverse Mercator projection (Clarke 1858)

SHELL DEVELOPMENT (AUSTRALIA) PTY. LTD.

SOUTH AUSTRALIA OFFSHORE
S.A. 6 and 7

REFLECTION TIME CONTOURS INTRA-CRETACEOUS

Scale 1:250,000

Author: South Aust. Team	Date: July 1973		Sheet No.
Report: S.D.M. 76	Encl: 5E	Drawing No. 7114	SI 53-15

S.P. March, 1972.

2234-29

135°00'
36°00'
136°30'
36°00'

SA6

SA7

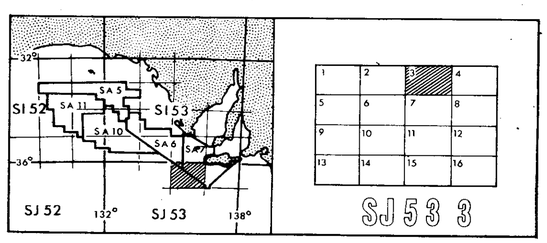
SHALLOW BASEMENT

SHALLOW BASEMENT

SHALLOW BASEMENT

SHALLOW BASEMENT

37°00'
135°00'
37°00'
136°30'



Location diagram

CONTOUR RELIABILITY

Based on data quality, grid density, and complexity of tectonic style.

GOOD

FAIR

POOR

CONJECTURAL

Contour interval 50 m secs.

RECEIVED
23 JUL 1973
DEPT. OF MINES
SECURITY
2234 E

Scale
5 0 5 10 miles
5 0 5 10 15 kilometres

Universal Transverse Mercator projection (Clarke 1858)

SHELL DEVELOPMENT (AUSTRALIA) PTY. LTD.

SOUTH AUSTRALIA OFFSHORE

S.A. 6 and 7

REFLECTION TIME CONTOURS

INTRA-CRETACEOUS

Scale 1:250,000

Author: South Aust. Team	Date: July 1973		Sheet No: SJ 53-3
Report: S.D.M. 76	Encl: 5F	Drawing No. 7118	

2234-30

S.P. March 1972