018001

Half Yearly Reports Permits No's T/3P, T/4P, T/5P & T/6P

1st July 1977 to 31st December 1977

TPR-OR-036

018002

Half Yearly Exploration Report

Half Yearly Permit Reports No's T/3P, T/4P, T/5P & T/6P

1st July 1977 to 31st December 1977

Drawings:

OG –4374-1	HB77A Seismic Survey – Data Acquired
OG –4421-2	HB77A Seismic Survey – Data Acquired
OG 4427	Structure map on purple-dark blue-light blue horizon
OG 4428	Distribution of middle to Torquay group volcanics
OG 4429	Distribution of volcanic cones middle to upper Torquay group
OG 4430	Distribution of lower Torquay group volcanics
OG 4431	Distribution of upper eastern view coal measures
OG 4432	Distribution of upper Torquay group volcanics
OG 4433	Geothermal Gradient

TPR-OR-036

018003

HEMATITE PETROLEUM PTY. LTD.

HALF-YEARLY EXPLORATION REPORT

1ST. JULY 1977 TO 31ST DECEMBER 1977

PERMIT T/3P

CC & M | D.S.M.E.
Registrar
26 JAN 1978
E & IL

D & M | A.O. | P.G. | CC & M | D.S.M.E.
RECEIVED
26 JAN 1978
Registrar
E & IL
ANSWERED
DEPT OF MINES
REF. No. 386/78

Drilling Operations

No wells were drilled during the period.

Geophysical Operations

The HB77A Seismic Survey was shot by G.S.I. using the M.V. Eugene McDermott II between 1st December 1977 and 10th December 1977. Four days of this time were lost because of bad weather. Recording was carried out using an air-gun energy source consisting of an array totalling 1450 cubic inches (23·8 litres) and a 96-trace marine streamer with an overall length of 2400 metres. Total coverage was 319·15 kilometres (see enclosed map).

Geological Interpretation

Geological intrepretation during the period comprised regional mapping of the Bass Basin with the compilation of the following maps:-

PWS/JA/ED41

19.1.78

OR-036

018004

1) Distribution of Upper Torquay Group Volcanics

(e.g. line B70A-21 S.P. 5713, 0·670 secs)

2) Distribution of Volcanic Cones - Middle to Upper Torquay Group

(e.g. line B72A-73 S.P.S. 720-700, 0·905-1·100 secs)

3) Distribution of Middle Torquay Group Volcanics

(e.g. line B70A-24 S.P. 9424, 0·930 secs)

4) Distribution of Lower Torquay Group Volcanics

(e.g. line B70A-10 S.P. 4912, 1·150 secs)

5) Distribution of Upper Eastern View Coal Measures Volcanics

(e.g. line B72A-83 S.P. 2965, 1·590 secs)

6) Structure Map on Purple - Dark Blue - Light Blue Horizons (Lower Torquay Group)

This map shows regional structure at a level within the Torquay Group between the previously mapped "Green" and "Pink" horizons. Because of the discontinuity of seismic events it was necessary to compile a composite structural map which maps seismic events at approximately the same stratigraphic level in three different areas, e.g.

Purple - Line B71A-73 S.P. 1802, 1·285 secs (Poonboon-1)

Dark Blue - Line B70A-17 S.P. 1235, 1·046 secs (Pelican-1)

Light Blue - Line B69A-5 S.P. 2278, 0.425 secs (Durroon-1)

7) Geothermal Gradients

Based on available well data within the Bass Basin.

HEMATITE PETROLEUM PTY. LTD.

HALF-YEARLY EXPLORATION REPORT

1ST JULY 1977 TO 31ST DECEMBER 1977

PERMIT T/4P

Drilling Operations

No wells were drilled during the period.

Geophysical Operations

A 2·1 kilometre extension of line HB77A-301 of the HB77A Seismic Survey was shot in the permit by G.S.I. on 9th December 1977.

Geological Interpretation

Geological interpretation during the period comprised regional mapping of the Bass Basin with the compilation of the following maps:-

PWS/JA/ED42

19.1.78

OR-036

1) Distribution of Upper Torquay Group Volcanics

(e.g. line B70A-21 S.P. 5713, 0·670 secs)

2) Distribution of Volcanic Cones - Middle to Upper Torquay Group

(e.g. line B72A-73 S.P.S. 720-700, 0·905-1·100 secs)

3) Distribution of Middle Torquay Group Volcanics

(e.g. line B70A-24 S.P. 9424, 0.930 secs)

4) Distribution of Lower Torquay Group Volcanics

(e.g. line B70A-10 S.P. 4912, 1·150 secs)

5) Distribution of Upper Eastern View Coal Measures Volcanics

(e.g. line B72A-83 S.P. 2965, 1·590 secs)

6) Structure Map on Purple - Dark Blue - Light Blue Horizons (Lower Torquay Group)

This map shows regional structure at a level within the Torquay Group between the previously mapped "Green" and "Pink" horizons. Because of the discontinuity of seismic events it was necessary to compile a composite structural map which maps seismic events at approximately the same stratigraphic level in three different areas, e.g.

Purple - Line B71A-73 S.P. 1802, 1·285 secs (Poonboon-1)

Dark Blue - Line B70A-17 S.P. 1235, 1·046 secs (Pelican-1)

Light Blue - Line B69A-5 S.P. 2278, 0·425 secs (Durroon-1)

7) Geothermal Gradients

Based on available well data within the Bass Basin.

HEMATITE PETROLEUM PTY. LTD.

HALF-YEARLY EXPLORATION REPORT

1ST JULY 1977 TO 31ST DECEMBER 1977

PERMIT T/5P

Drilling Operations

No wells were drilled during the period.

Geophysical Operations

The HB77A Seismic Survey was shot by G.S.I. using the M.V. Eugene McDermott II between 11th December 1977 and 14th December 1977. Recording was carried out using an air-gun energy source consisting of an array totalling 1450 cubic inches (23·8 litres), and a 96-trace marine streamer with an overall length of 2400 metres. Total coverage was 150·5 kilometres (see enclosed map).

Geological Interpretation

Geological interpretation during the period comprised regional mapping of the Bass Basin with the compilation of the following maps:-

PWS/JA/ED43

19.1.78

OR - 036

1) Distribution of Upper Torquay Group Volcanics

(e.g. line B70A-21 S.P. 5713, 0·670 secs)

2) Distribution of Volcanic Cones - Middle to Upper Torquay Group

(e.g. line B72A-73 S.P.S. 720-700, 0·905-1·100 secs)

3) Distribution of Middle Torquay Group Volcanics

(e.g. line B70A-24 S.P. 9424, 0·930 secs)

4) Distribution of Lower Torquay Group Volcanics

(e.g. line B70A-10 S.P. 4912, 1·150 secs)

5) Distribution of Upper Eastern View Coal Measures Volcanics

(e.g. line B72A-83 S.P. 2965, 1·590 secs)

6) Structure Map on Purple - Dark Blue - Light Blue Horizons (Lower Torquay Group)

This map shows regional structure at a level within the Torquay Group between the previously mapped "Green" and "Pink" horizons. Because of the discontinuity of seismic events it was necessary to compile a composite structural map which maps seismic events at approximately the same stratigraphic level in three different areas, e.g.

Purple - Line B71A-73 S.P. 1802, 1·285 secs (Poonboon-1)

Dark Blue - Line B70A-17 S.P. 1235, 1·046 secs (Pelican-1)

Light Blue - Line B69A-5 S.P. 2278, 0·425 secs (Durroon-1)

7) Geothermal Gradients

Based on available well data within the Bass Basin.

HEMATITE PETROLEUM PTY. LTD.

HALF-YEARLY EXPLORATION REPORT

1ST. JULY 1977 TO 31ST DECEMBER 1977

PERMIT T/6P

Drilling Operations

No wells were drilled during the period.

Geophysical Operations

The HB77A Seismic Survey was shot by G.S.I. using the M.V. Eugene McDermott II between 11th December 1977 and 14th December 1977. Recording was carried out using an air-gun energy source consisting of an array totalling 1450 cubic inches (23·8 litres), and a 96-trace marine streamer with an overall length of 2400 metres. Total coverage was 181·75 kilometres (see enclosed map).

Geological Interpretation

Geological interpretation during the period comprised regional mapping of the Bass Basin with the compilation of the following maps:-

PWS/JA/ED44

19.1.78

OR-036

1) Distribution of Upper Torquay Group Volcanics

(e.g. line B70A-21 S.P. 5713, 0·670 secs)

2) Distribution of Volcanic Cones - Middle to Upper Torquay Group

(e.g. line B72A-73 S.P.S. 720-700, 0·905-1·100 secs)

3) Distribution of Middle Torquay Group Volcanics

(e.g. line B70A-24 S.P. 9424, 0·930 secs)

4) Distribution of Lower Torquay Group Volcanics

(e.g. line B70A-10 S.P. 4912, 1·150 secs)

5) Distribution of Upper Eastern View Coal Measures Volcanics

(e.g. line B72A-83 S.P. 2965, 1·590 secs)

6) Structure Map on Purple - Dark Blue - Light Blue Horizons (Lower Torquay Group)

This map shows regional structure at a level within the Torquay Group between the previously mapped "Green" and "Pink" horizons. Because of the discontinuity of seismic events it was necessary to compile a composite structural map which maps seismic events at approximately the same stratigraphic level in three different areas, e.g.

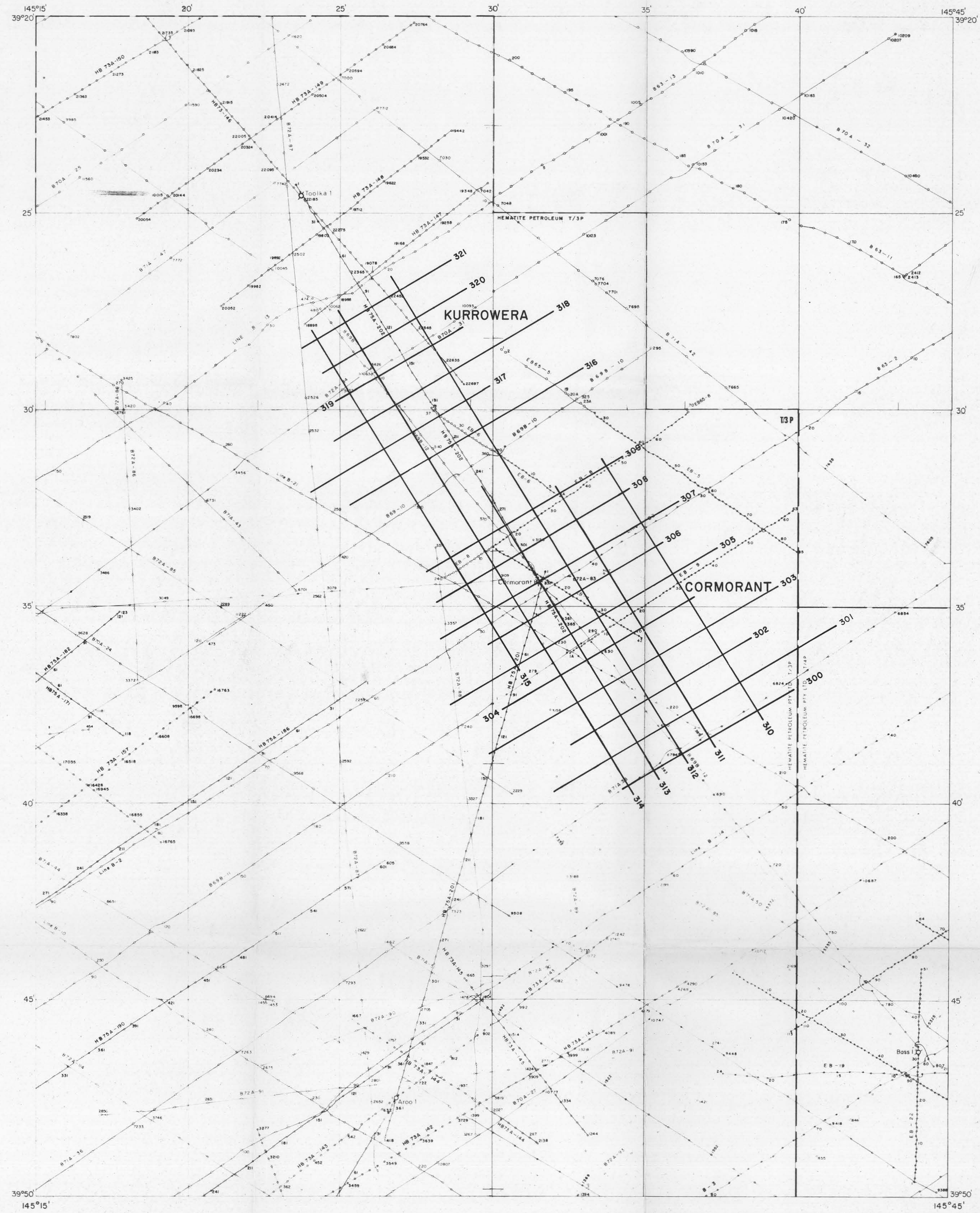
Purple - Line B71A-73 S.P. 1802, 1·285 secs (Poonboon-1)

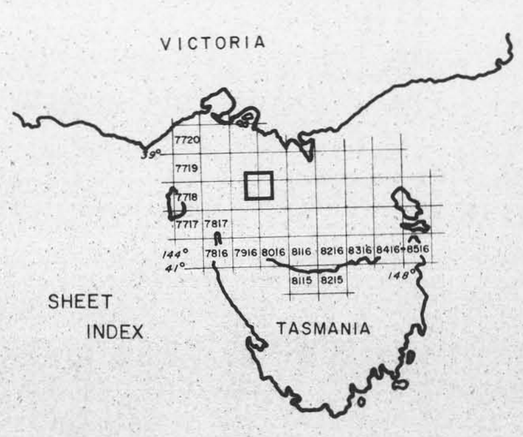
Dark Blue - Line B70A-17 S.P. 1235, 1·046 secs (Pelican-1)

Light Blue - Line B69A-5 S.P.2278, 0·425 secs (Durroon-1)

7) Geothermal Gradients

Based on available well data within the Bass Basin.





Scale 1 : 100,000

MILES

0 1 2 3 4 5 6 7

0 1 2 3 4 5 6 7 8 9 10

KILOMETRES

Compiled by Hematite Petroleum Pty. Ltd.

Projection : U.T.M. Zone : 55 C.M. : 147°

5 cm

THE BROKEN HILL PROPRIETARY CO. LTD.

OIL AND GAS DIVISION

(HEMATITE PETROLEUM PTY. LTD.)

BASS BASIN

HB77A SEISMIC SURVEY

DATA ACQUIRED

Author : B.R. Brown, B. Atkins, R.B. Marlow

Drawn by : S. Wheeler

Date : 18 th January 1978

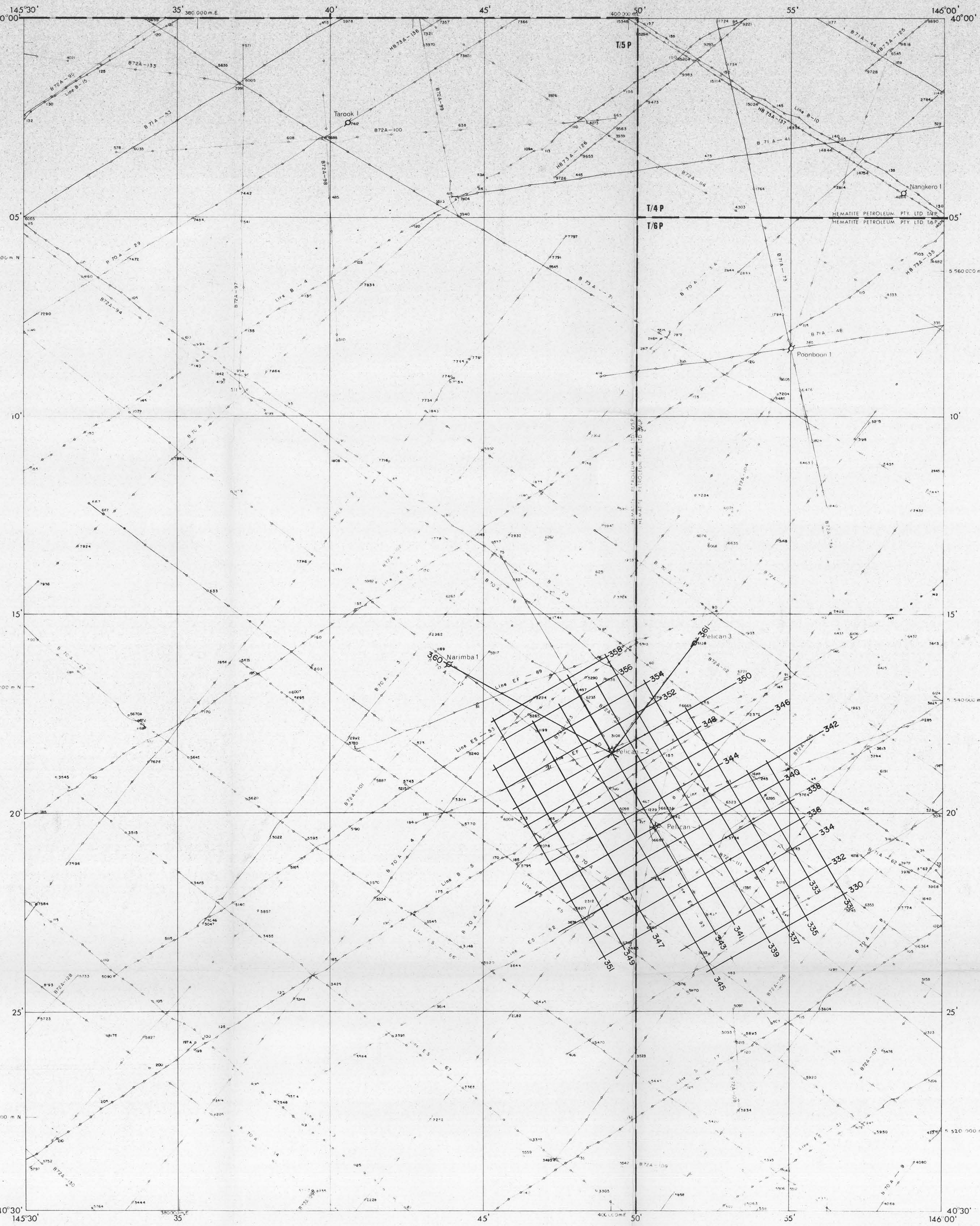
Revised : October 1977

C18011

OR-036

OG-4374-1

#51



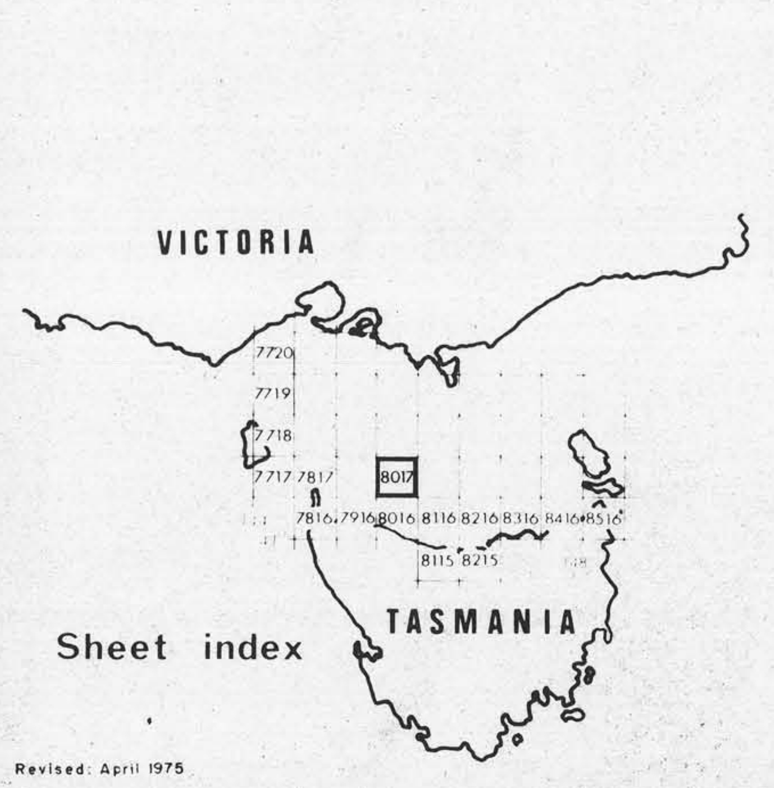
Scale 1 : 100,000

MILES 0 1 2 3 4 5 6 7

KILOMETRES 0 1 2 3 4 5 6 7 8 9 10

Compiled by Hematite Petroleum Pty. Ltd.

Projection, UTM. Zone 55 C.M. 147°E



Revised: April 1975

LEGEND

- ● Oil Well
- Gas Well
- Oil & Gas Well
- Oil show
- Gas show
- Oil & Gas shows
- ○ Drilling
- ø Dry hole (Abandoned)

5 cm

Full coverage distance	297 km.
Line ends 28X1.2 km	34km.
Total program	331 km

THE BROKEN HILL PROPRIETARY CO LTD

OIL AND GAS DIVISION

HEMATITE PETROLEUM PTY LTD

BASS BASIN

HB77A SEISMIC SURVEY

DATA ACQUIRED

Contour interval

Datum: Sea Level

Author R.B. Marlow, P.Spraggon

Drawn by : M.R.Benson

Date : 18th January 1978

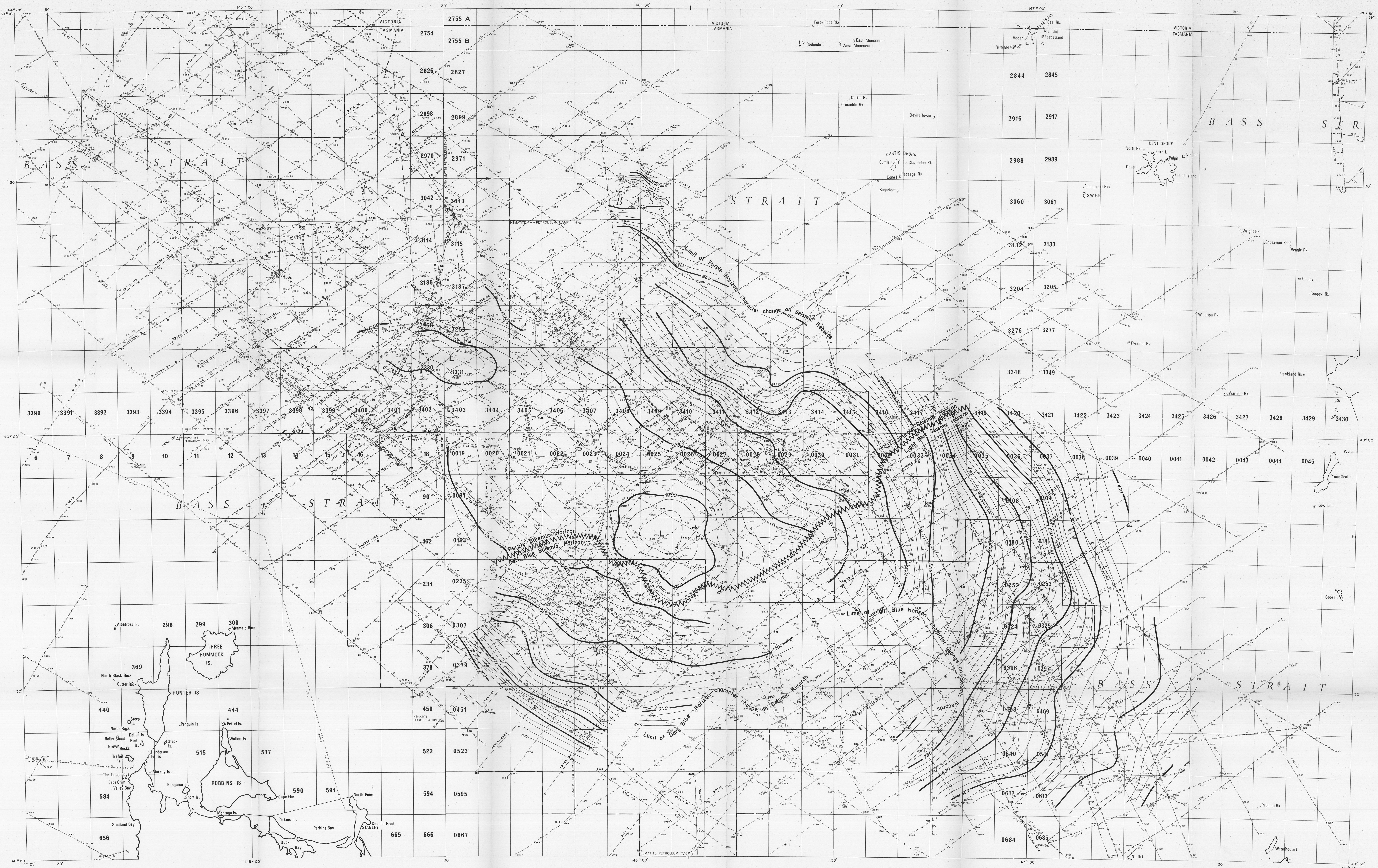
Checked by

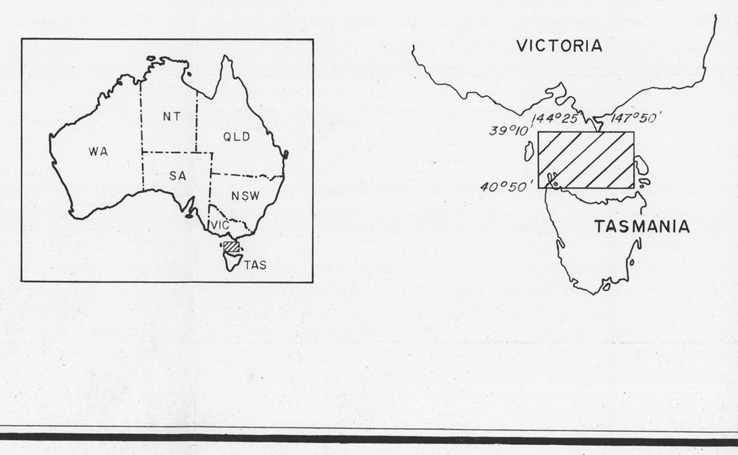
SHEET 8017

018012

OR-036

OG-4421-2





LEGEND

- ● ..... Oil Well
- ☼ ..... Gas Well
- ✸ ..... Oil & Gas Well
- ◐ ..... Oil Show
- ☼ ..... Gas Show
- ✸ ..... Oil & Gas Show
- ⌀ ..... Dry Hole (Abandoned)
- ○ ..... Drilling

Scale 1:250,000

MILES: 5 0 5 10 15

KILOMETRES: 5 0 5 10 15 20 25

5 cm

THE BROKEN HILL PROPRIETARY CO. LTD.
OIL AND GAS DIVISION
(HEMATITE PETROLEUM PROPRIETARY LIMITED)
BASS BASIN

STRUCTURE MAP ON PURPLE-DARK BLUE-LIGHT BLUE HORIZON

(LOWER TORQUAY GROUP)

TWO WAY TIME

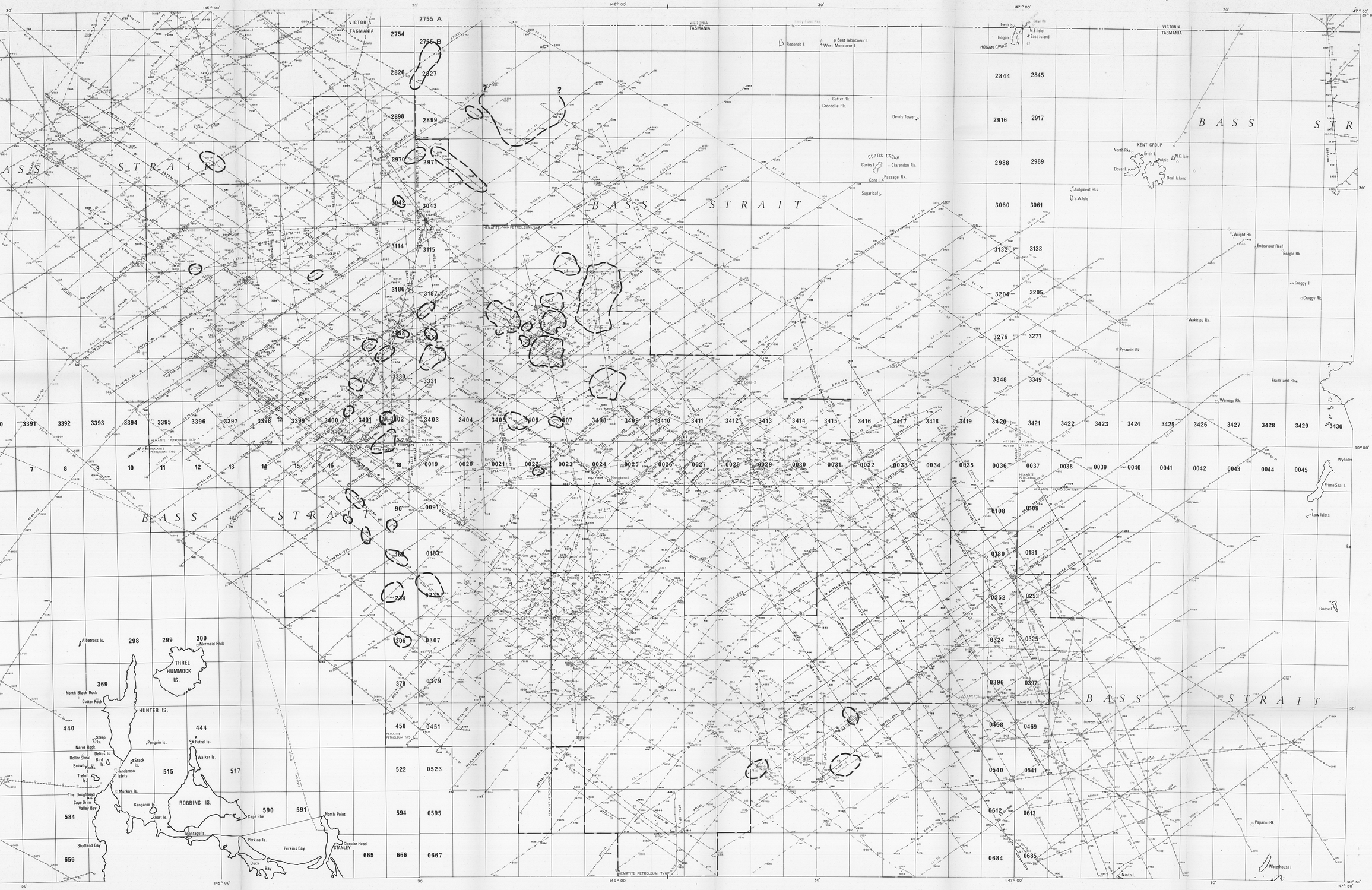
018013

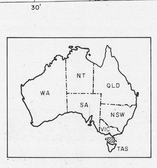
Contour interval : 20 m/sec.
Author : E.M.L. Tucker
Date : Nov 1977

Compilation and Contouring : B.N. Atkins
Datum :
Drawn by : J. Cattach, P.J. Dipietro

OG 4427

CR-036





LEGEND

- Oil Well
- Gas Well
- Oil & Gas Well
- Oil Show
- Gas Show
- Oil & Gas Show
- Dry Hole (Abandoned)
- Drilling

THE BROKEN HILL PROPRIETARY CO. LTD.
OIL AND GAS DIVISION
(HEMATITE PETROLEUM PROPRIETARY LIMITED)

BASS BASIN

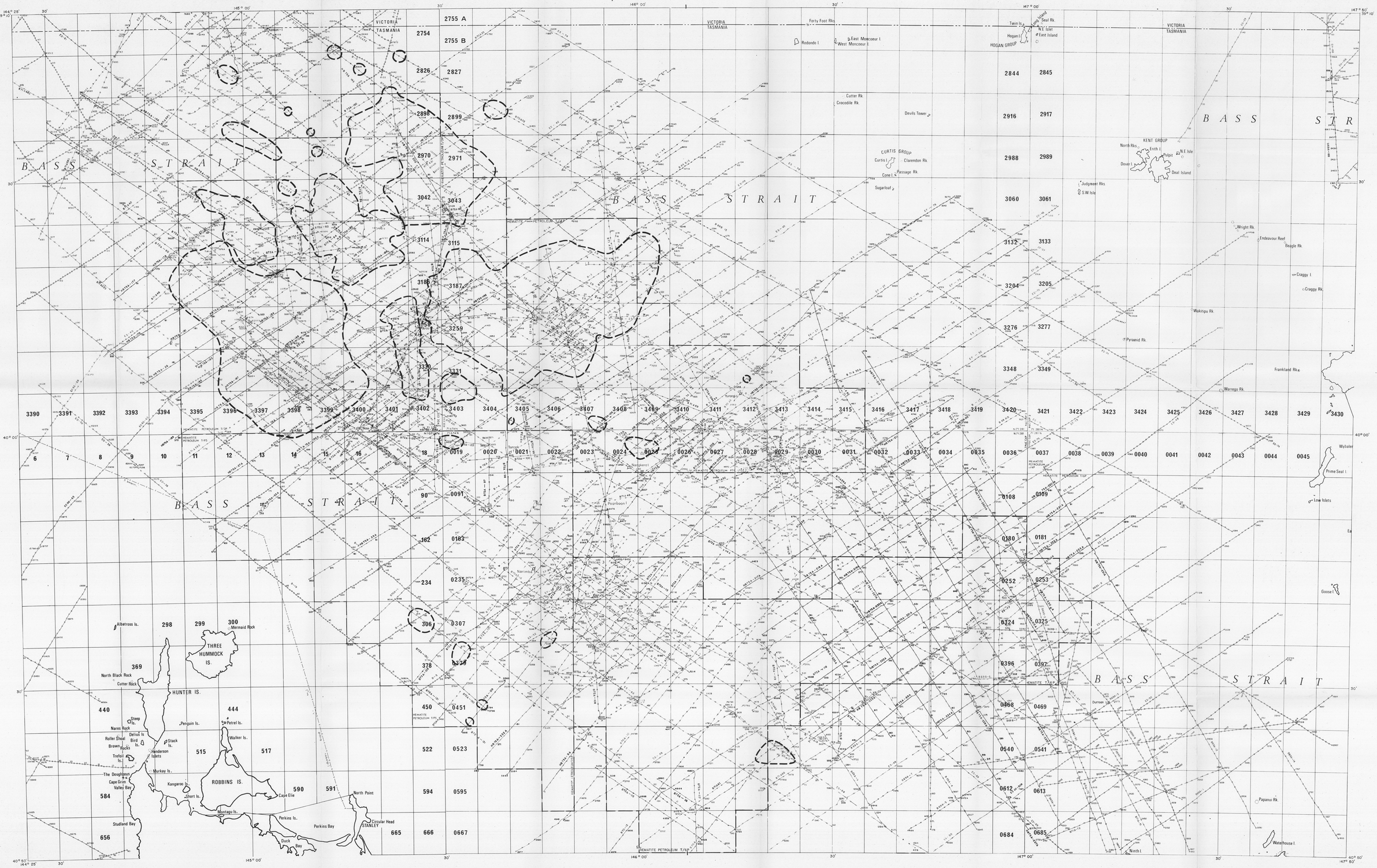
DISTRIBUTION OF VOLCANIC CONES MIDDLE TO UPPER TORQUAY GROUP

LIGHT BROWN HORIZON ("VC" IN DATABASE)

Contour interval
Author E.M.L. Tucker
Date Nov 1977
Compilation B.N. Atkins
Datum
Drawn by J. Cottrell

018014

OG 4429



LEGEND

- Oil Well
- Gas Well
- Oil & Gas Well
- Oil Show
- Gas Show
- Oil & Gas Show
- Dry Hole (Abandoned)
- Drilling

Scale 1:250,000

MILES

5 0 5 10 15

5 0 5 10 15 20 25

KILOMETRES

5 cm

THE BROKEN HILL PROPRIETARY CO. LTD.

OIL AND GAS DIVISION

(HEMATITE PETROLEUM PROPRIETARY LIMITED)

BASS BASIN

DISTRIBUTION OF MIDDLE TORQUAY GROUP VOLCANICS DARK RED AND ORANGE/RED HORIZONS ("VOL I" IN DATABASE)

Contour interval

Author E.M.L. Tucker

Date Nov 1977

Compilation B.N. Atkins

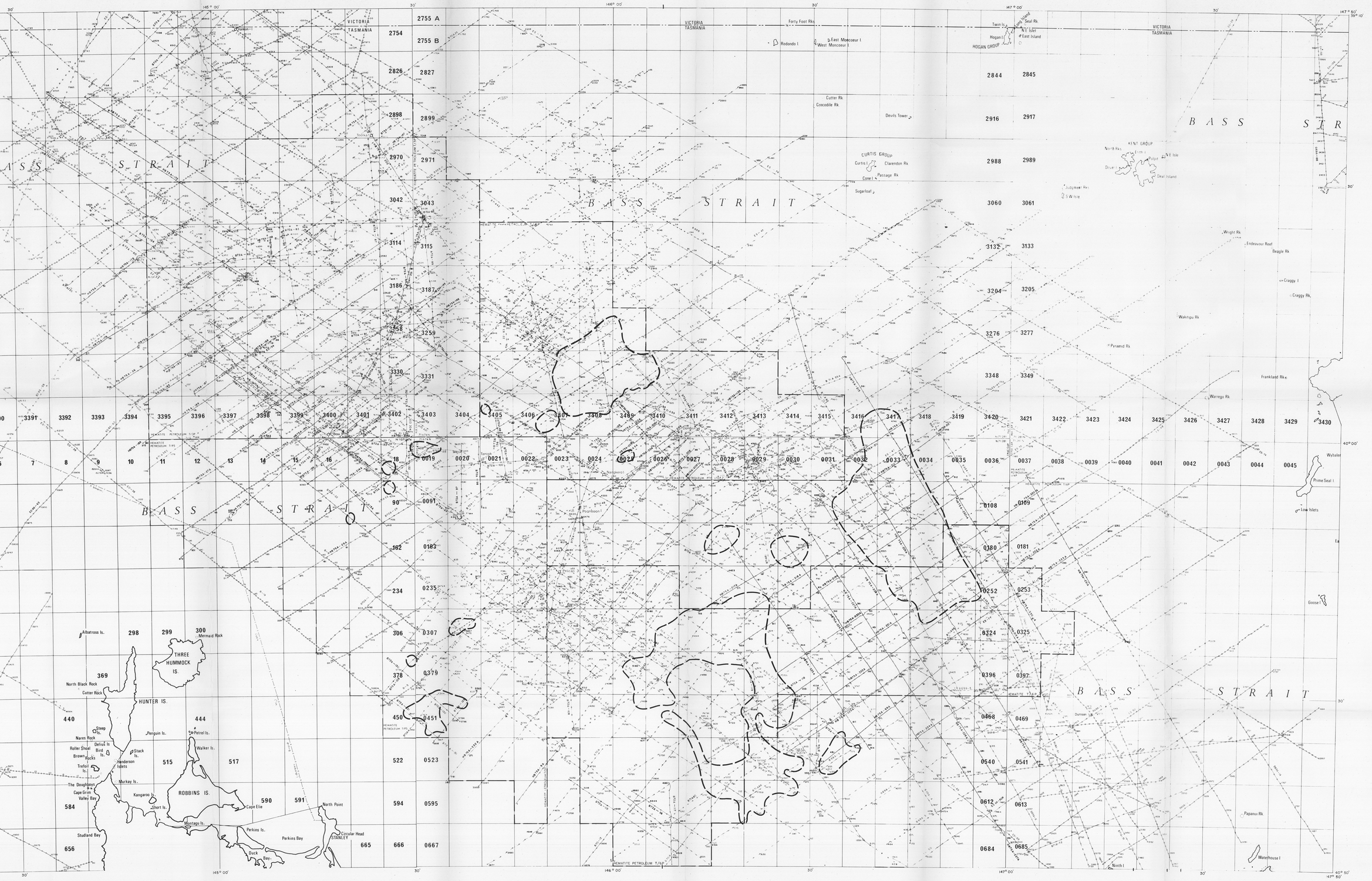
Datum

Drawn by J. Cattach

OG 4428

018015

02-036



LEGEND

- Oil Well
- Gas Well
- Oil & Gas Well
- Oil Show
- Gas Show
- Oil & Gas Show
- Dry Hole (Abandoned)
- Drilling

Scale 1:250,000

MILES 5 0 5 10 15

5 0 5 10 15 20 25

KILOMETRES

5 cm

THE BROKEN HILL PROPRIETARY CO. LTD.

OIL AND GAS DIVISION

(HEMATITE PETROLEUM PROPRIETARY LIMITED)

BASS BASIN

DISTRIBUTION OF LOWER TORQUAY GROUP VOLCANICS YELLOW AND YELLOW/ORANGE HORIZON ("VOL 3" IN DATABASE)

Contour interval

Author E.M.L. Tucker

Date Nov 1977

Compilation B.N. Atkins

Drawn

Drawn by J. Cattach

018016

OG 4430

OR-036

THE BROKEN HILL PROPRIETARY CO. LTD.

OIL AND GAS DIVISION

(HEMATITE PETROLEUM PROPRIETARY LIMITED)

BASS BASIN

DISTRIBUTION OF UPPER EASTERN VIEW COAL MEASURES VOLCANICS PALE GREEN HORIZON

018017

Contour interval — Data —

Author : E.M.L. Tucker Datum —

Date : Nov 1977 Drawn by —

Compilation : B.N. Atkins

OG 4431

QR 036

Scale 1:250,000

MILES 5 0 5 10 15

KILOMETRES 5 0 5 10 15 20 25

5 cm

LEGEND

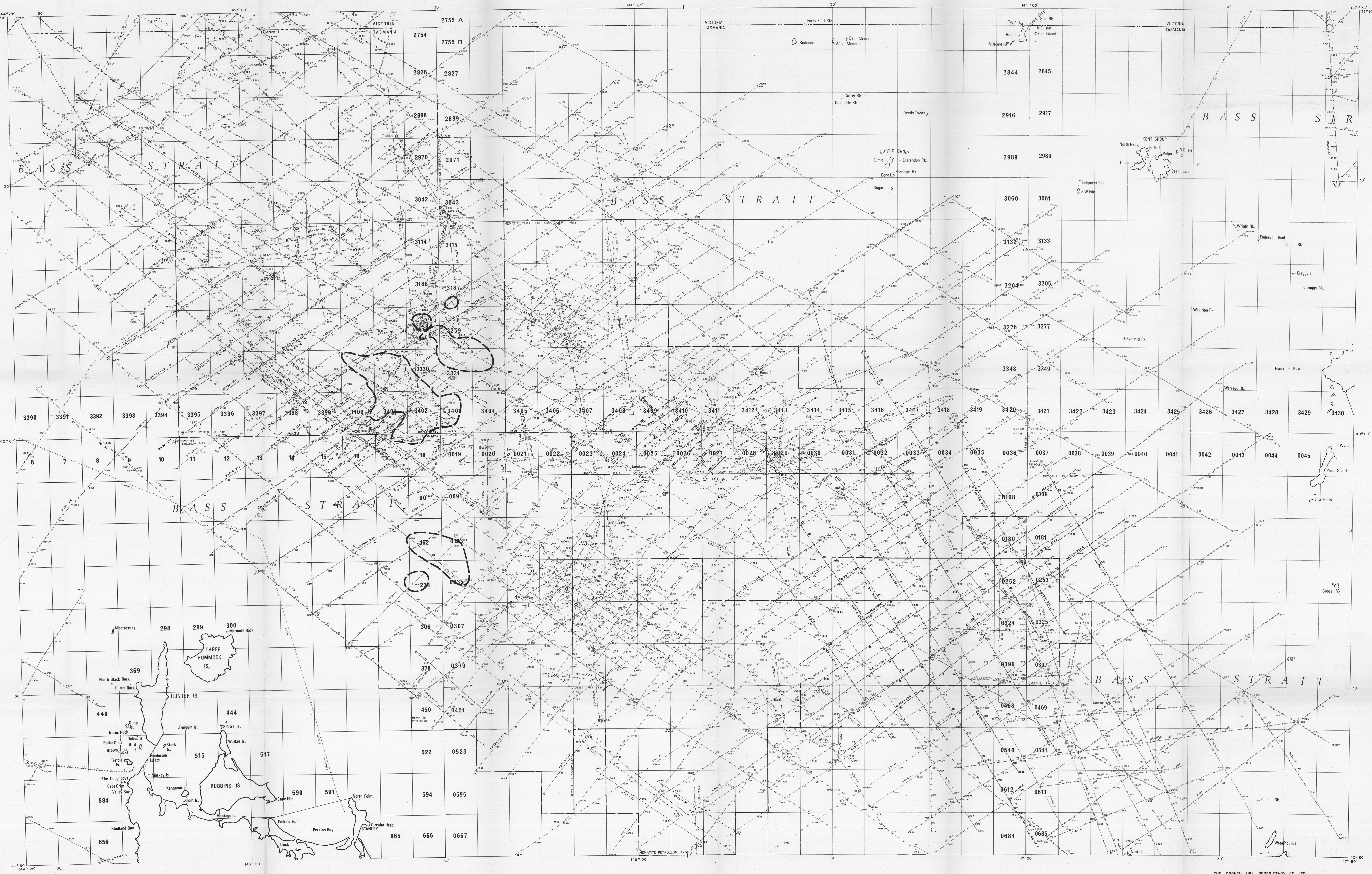
- Oil Well
- Gas Well
- Oil & Gas Well
- Oil Show
- Gas Show
- Oil & Gas Show
- Dry Hole (Abandoned)
- Drilling

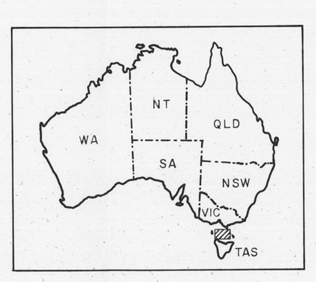
VICTORIA

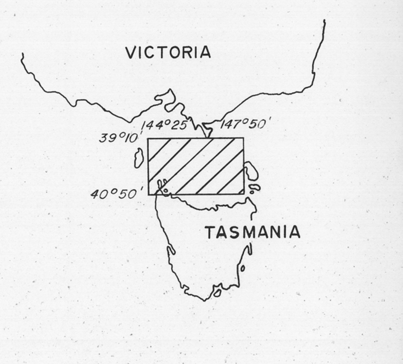
TASMANIA

NT QLD WA SA NSW TAS

144°25' 147°50' 39°10' 40°50'







LEGEND

- Oil Well
- Gas Well
- Oil & Gas Well
- Oil Show
- Gas Show
- Oil & Gas Show
- Dry Hole (Abandoned)
- Drilling

Scale 1:250,000

MILES
5 0 5 10 15
5 0 5 10 15 20 25
KILOMETRES

5 cm

THE BROKEN HILL PROPRIETARY CO. LTD.
OIL AND GAS DIVISION
(HEMATITE PETROLEUM PROPRIETARY LIMITED)

BASS BASIN

DISTRIBUTION OF UPPER TORQUAY GROUP VOLCANICS

(COMMONLY LAVA FLOWS AND TUFFS ASSOCIATED WITH VOLCANIC CONES)

LIGHT PINK HORIZON

018018

Contour interval
Author : E.M.L. Tucker
Date : Nov. 1977
Data
Datum
Drawn by
Compilation : B.N. Atkins.
OG 4432

CR-036

BASS STRAIT
VICTORIA
TASMANIA
HEMATITE PETROLEUM T/3P
HEMATITE PETROLEUM T/4P
HEMATITE PETROLEUM T/5P
HEMATITE PETROLEUM T/6P
1·97° F Konkon-1
1·93° F Toolka 1
1·55° F Cormorant 1
1·90° F Aroo 1
1·97° F Bass 1
1·91° F Bass 2
1·65° F Yurongi 1
2·06° F Dondu 1
1·55° F Tarcook 1
1·68° F Nangkero 1
1·60° F Poonboon 1
2·03° F Narimba
1·65° F Pelican 3
1·38° F Pelican 2
1·71° F Pelican
1·48° F Durroon 1
Forty Foot Rks
Rodondo I.
East Moncoeur I.
West Moncoeur I.
Cutter Rk
Crocodile Rk
Devils Tower
CURTIS GROUP
Curtis I.
Clarendon Rk
Cone I.
Passage Rk
Sugarloaf
Twin Is.
Long Island
Seal Rk.
N.E. Islet
East Island
Hogan I.
HOGAN GROUP
KENT GROUP
North Rks.
Erith I.
Pulpit
N.E. Isle
Dover I.
Deal Island
Judgment Rks
S.W. Isle
Wright Rk
Endeavour Reef
Beagle Rk
Craggy I.
Craggy Rk.
Wakitipu Rk
Pyramid Rk
Frankland Rk
Warrego Rk
Wybalena
Prime Seal I.
Low Islets
Goose I.
Papanui Rk
Waterhouse I.
Ninth I.
Albatross Is.
Mermaid Rock
THREE HUMMOCK IS.
North Black Rock
Cutter Rock
HUNTER IS.
Steep Is.
Nares Rock
Delius Is
Roller Shoal
Bird Is.
Brown Rocks
Stack Is.
Henderson Islets
Trefoil Is.
Penguin Is.
Petrel Is.
Walker Is.
Murkay Is.
The Doughboys
Cape Grim
Valley Bay
Kangaroo Is.
ROBBINS IS.
Short Is.
Cape Elie
North Point
Montagu Is.
Perkins Is.
Perkins Bay
Circular Head
STANLEY
Duck Bay
Studland Bay
144° 25'
145° 00'
146° 00'
147° 00'
147° 50'
39° 10'
40° 00'
40° 50'
VICTORIA
TASMANIA
WA
NT
QLD
SA
NSW
VIC
TAS
LEGEND
Oil Well
Gas Well
Oil & Gas Well
Oil Show
Gas Show
Oil & Gas Show
Dry Hole (Abandoned)
Drilling
° Fahrenheit
Scale 1:250,000
MILES
KILOMETRES
5 cm
THE BROKEN HILL PROPRIETARY CO. LTD.
OIL AND GAS DIVISION
(HEMATITE PETROLEUM PROPRIETARY LIMITED)
BASS BASIN
018019
GEOTHERMAL GRADIENT
Contour interval 0·1° F/100'
Author E.M.L. Tucker
Date Nov' 1977
Contoured by: B N Atkins
Datum
Drawn by P J Dipietro
OG 4433
OR-036