COMMONWEALTH OF AUSTRALIA

DEPARTMENT OF NATIONAL DEVELOPMENT

BUREAU OF MINERAL RESOURCES, GEOLOGY AND GEOPHYSICS

Petroleum Search Subsidy Acts

PUBLICATION No. 46

SUMMARY OF DATA AND RESULTS

SURAT BASIN, QUEENSLAND

A.A.O. Winnathoola No. 1

A.A.O. Kooringa No. 1

A.A.O. Pleasant Hills No. 1

OF

ASSOCIATED AUSTRALIAN OILFIELDS N.L.

Issued under the Authority of the Hon. David Fairbairn
Minister for National Development

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COMMONWEALTH OF AUSTRALIA

DEPARTMENT OF NATIONAL DEVELOPMENT

MINISTER: THE HON. DAVID FAIRBAIRN, D.F.C., M.P.

SECRETARY: R. W. BOSWELL

BUREAU OF MINERAL RESOURCES, GEOLOGY AND GEOPHYSICS

DIRECTOR: J. M. RAYNER

THIS REPORT WAS PREPARED FOR PUBLICATION IN THE PETROLEUM EXPLORATION BRANCH

ASSISTANT DIRECTOR: M. A. CONDON

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Canberra A.C.T.

FOREWORD

Under the Petroleum Search Subsidy Act 1959-1961, agreements relating to subsidized operations provide that the information obtained may be published by the Commonwealth Government six months after the completion of field work.

The growth of the exploration effort has greatly increased the number of subsidized projects and this increase has led to delays in publishing the results of operations.

The detailed results of subsidized operations may be examined at the office of the Bureau of Mineral Resources in Canberra (after the agreed period) and copies of the reports may be purchased.

In order to make the main results of operations available early, short summaries are being prepared for publication. These will be grouped by area and date of completion as far as practicable. Drilling projects and geophysical projects will be grouped separately. In due course, full reports will be published concerning those operations which have produced the more important new data.

This Publication contains summaries of data and results of three drilling operations undertaken in the Surat Basin, Queensland: A.A.O. Winnathoola No. 1, A.A.O. Kooringa No. 1, and A.A.O. Pleasant Hills No. 1. The information has been abstracted by the Petroleum Exploration Branch of the Bureau of Mineral Resources from well completion reports furnished by Associated Australian Oilfields N.L.

J.M. RAYNER
DIRECTOR

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of

ASSOCIATED AUSTRALIAN OILFIELDS N.L.

SUMMARY OF DATA AND RESULTS

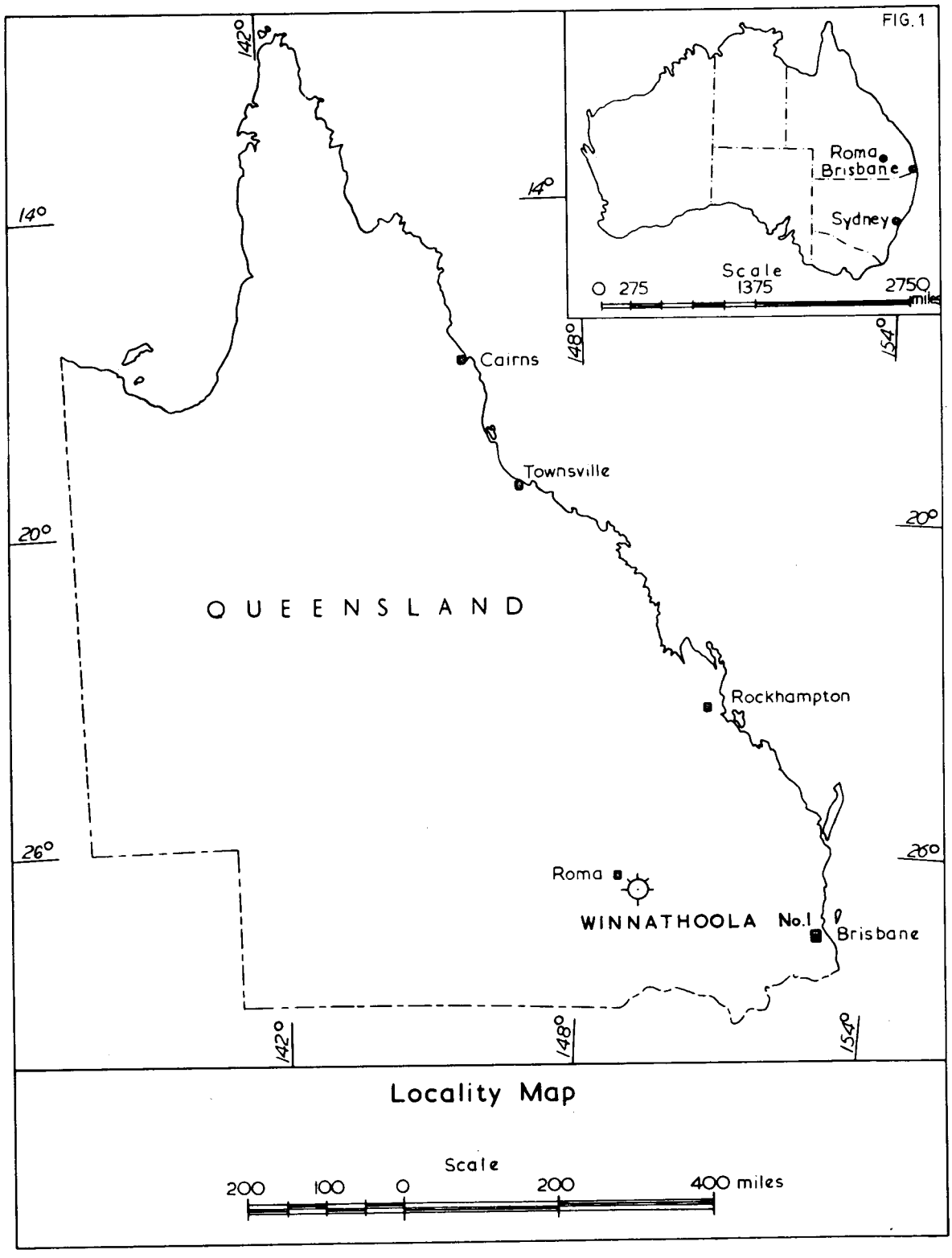
FIG. 1
Roma
Brisbane
Sydney
Scale
0 275 1375 2750 miles
142°
140°
148°
154°
20°
26°
Cairns
Townsville
Rockhampton
QUEENSLAND
Roma
WINNATHOOLA No.1
Brisbane
Locality Map
Scale
200 100 0 200 400 miles

A.A.O. WINNATHOOLA No. 1

SUMMARY OF DATA AND RESULTS*

SUMMARY

A.A.O. Winnathoola No. 1, located approximately 8 miles north-west of A.A.O. Combarngo No. 1, and 22 miles south-east of Roma in Queensland, was drilled by Mines Administration Pty Limited for Associated Australian Oilfields N.L., to a total depth of 5342 feet. Drilling commenced on 1st September, 1961 and was completed on 22nd September, 1961. A full programme of logging, testing, and coring was undertaken.

The well penetrated 4919 feet of Mesozoic sediments, 207 feet of Permian sediments, and 216 feet of of sediments of (?) Devonian Timbury Hills Formation.

Two drillstem tests were carried out. The first tested the interval 4521 to 4465 feet (basal Jurassic sands) for 120 minutes and yielded a flow of gas at the rate of 616 Mcf/D. The second tested the interval 5342 to 5035 feet (base of Permian) and yielded a trace of gas.

The stratigraphic drilling operation at A.A.O. Winnathoola No. 1 was subsidized under the Petroleum Search Subsidy Act 1959 for the section below the Jurassic Injune Creek Beds to total depth.

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* Abstracted from Well Completion Report No. Q/55P/102, February, 1962.

WELL HISTORY

General Data

Location:	Latitude 26° 45'20" S. Longitude 149° 05'26" E.
Total Depth:	5342 feet
Date drilling commenced:	1st September, 1961
Date drilling completed:	22nd September, 1961
Date well abandoned:	23rd September, 1961
Date rig released:	30th September, 1961
Elevation (ground):	1010 feet
Elevation (rotary table):	1020 feet (datum for depths)
Status:	Dry hole; plugged and abandoned. It was subsequently completed as a water well producing from the Blythesdale Formation.
Cost:	£20,255 (Pro-rated cost of operation from 3469 feet to T.D.)

Drilling Data

Drilling Plant:

Make:	National-Ideal
Type:	55
Hole sizes and depths:	17 1/2" to 320 feet 8 1/2" to 5342 feet

Casing details:

Size:	13 3/8"
Weight:	48 lb./ft
Grade:	H.40
Range:	2
Setting depth:	310 feet

Logging and Testing

Ditch Cuttings:

Interval:	10 feet from 80 to 5340 feet

Coring:	4345 - 4353 feet 4818 - 4828 feet 4938 - 4948 feet 5293 - 5300 feet 35 feet cored; 86% recovery
Sidewall sampling:	19 samples taken between 4230 - 5120 feet

Electric and other logging:

Electrical Log:	311 - 5341 feet (4 runs)
Microlog:	4350 - 4518 feet (1 run)
Section Gauge:	4600 - 5338 feet (1 run)

GEOLOGY

Stratigraphy

Hutton Sandstone (Jurassic): 3469 to 4103 feet (634 feet)

White, medium to coarse-grained, quartzose sandstone, with interbeds of greyish-brown, micaceous and carbonaceous siltstone, and dark brown carbonaceous shale.

Evergreen Shale (Jurassic): 4103 to 4458 feet (355 feet)

The section is predominantly argillaceous, comprising greyish-brown, micaceous and carbonaceous siltstone with interbeds of dark brown, carbonaceous shale with rare coal.

Precipice Sandstone (Jurassic): 4458 to 4513 feet (55 feet)

White, fine to coarse-grained, slightly calcareous, quartzose sandstone; grey carbonaceous shale; minor coal.

Moolayember Formation (Triassic): 4513 to 4744 feet (231 feet)

Dark grey shale with thin interbeds of quartzose siltstone; grey, fine-grained, quartzose, kaolinitic sandstone.

Pickanjinnie Formation (Triassic): 4744 to 4919 feet (175 feet)

Interbedded, grey, coarse-grained, lithic sandstone, micaceous siltstone, and dark brown, carbonaceous shale containing minor coal.

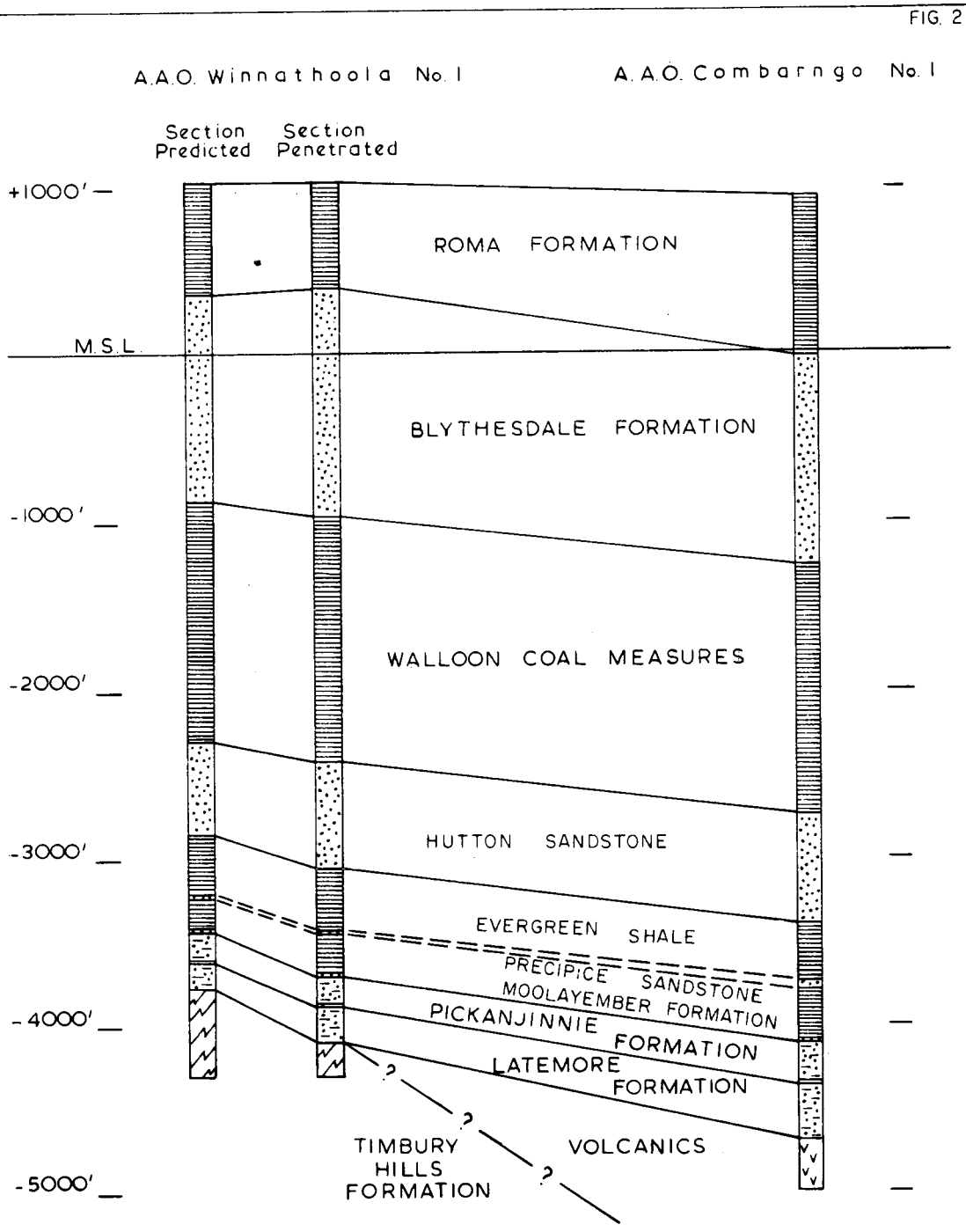
Latemore Formation (Permian): 4919 to 5126 feet (207 feet)

Interbedded, pale grey, coarse-grained, quartzose sandstone; grey to brown siltstone, and grey to brown, carbonaceous shale containing coal.

Timbury Hills Formation (Devonian ?): 5126 to 5342 feet (216 feet +)

Greyish-green, quartzose, indurated siltstone with 80-degree dips. Thin quartz and calcite veins.

FIG. 2



Correlation

A.A.O. Winnathoola No.1 to A.A.O. Combarngo No.1

Vertical Scale 1" = 1000'

Structure

The well was drilled on the crest of a seismic structure showing approximately 100 feet of closure over an area of approximately 1.2 square miles within the Evergreen Shale.

REFERENCE

ASSOCIATED AUSTRALIAN OILFIELDS N.L., 1962 : Well Completion Report, A.A.O. Winnathoola No. 1. Report No. Q/55P/102 (Unpubl.).

ADDITIONAL DATA FILED IN THE BUREAU OF MINERAL RESOURCES

The following additional data relating to A.A.O. Winnathoola No. 1, have been filed in the Bureau of Mineral Resources, Canberra, and are available for reference:

(i) Well Completion Report — 13 pp.

Appendix 1 - Petrological report, by B.R. Houston — 1 p.

Appendix 2 - Palynological report, by P.R. Evans — 2 pp.

Appendix 3 - Gas analysis — 1 p.

(ii) Daily drilling reports for period 1st September, 1961 to 22nd September, 1961.

(iii) Well logs including the following:

(a) Electrical Logs

Run 1, 311-4352 feet (2" = 100 ft)
Run 1, 311-4352 feet (5" = 100 ft)
Run 2, 4252-4520 feet (2" = 100 ft)
Run 2, 4252-4520 feet (5" = 100 ft)
Run 3, 4420-4817 feet (2" = 100 ft)
Run 3, 4420-4817 feet (5" = 100 ft)
Run 4, 4717-5341 feet (2" = 100 ft)
Run 4, 4717-5341 feet (5" = 100 ft)

(b) Microlog

Run 1, 4350-4518 feet (2" = 100 ft)
Run 1, 4350-4518 feet (5" = 100 ft)

(c) Section Gauge

Run 1, 4600-5338 feet (2" = 100 ft)

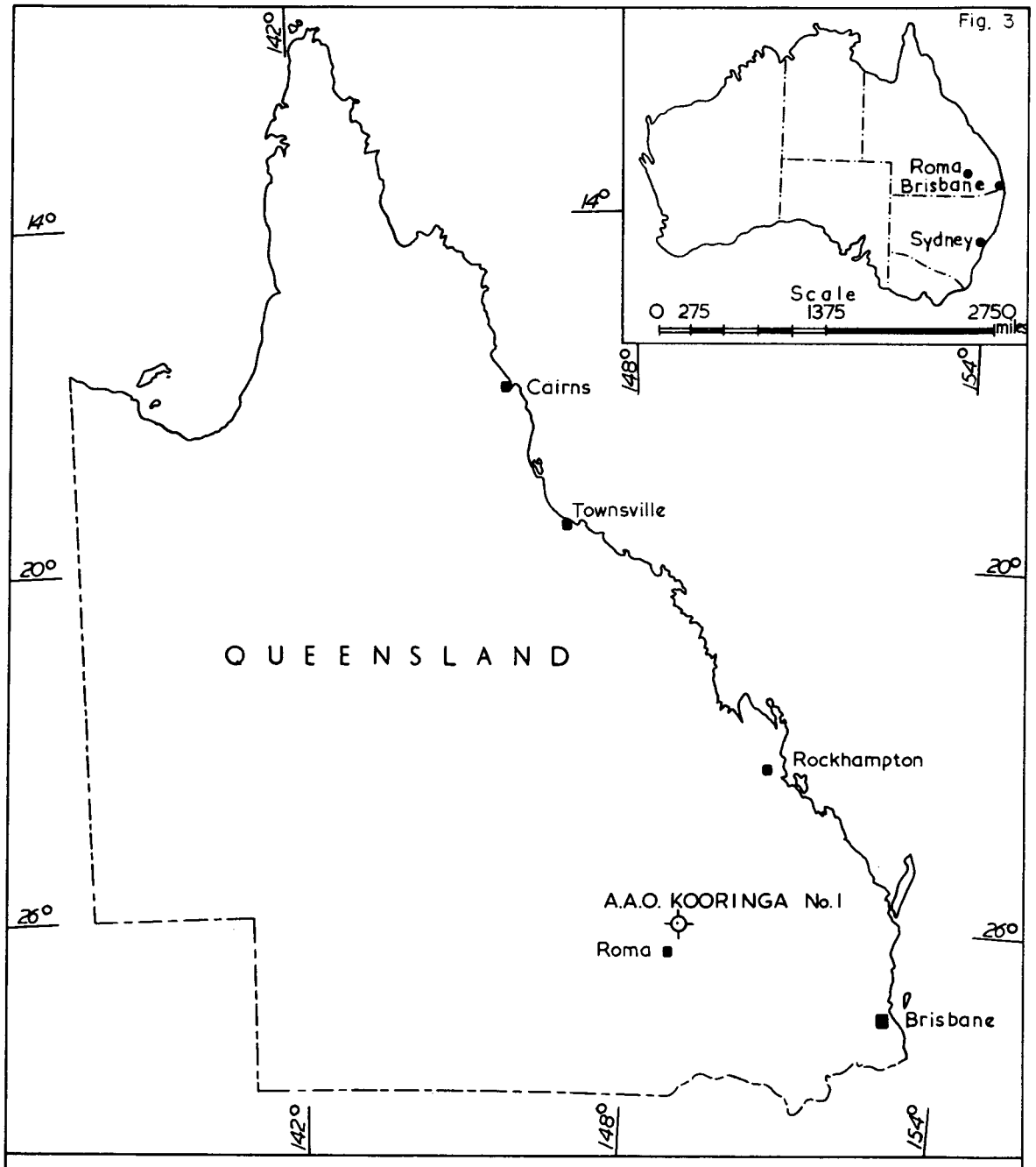
(iv) Seismic contour map, Winnathoola area.

A.A.O. KOORINGA No. 1

of

ASSOCIATED AUSTRALIAN OILFIELDS N.L.

SUMMARY OF DATA AND RESULTS



Locality Map

Scale

200 100 0 200 400 miles

A.A.O. KOORINGA No.. 1

SUMMARY OF DATA AND RESULTS*

SUMMARY

A.A.O. Kooringa No. 1, located 34 miles north-north-east of Roma, was drilled by Mines Administration Pty Limited for Associated Australian Oilfields N.L., to a total depth of 1823 feet. Drilling commenced on 27th July, 1962 and was completed on 9th August, 1962. A full programme of logging, testing, and coring was undertaken.

The well penetrated 1653 feet of Jurassic, 107 feet of Permian, and 63 feet of (?) Devonian (locally regarded as basement) sediments. The Jurassic sediments include sandstone, siltstone, and shale of the Injune Creek Beds, Hutton Sandstone, Evergreen Shale and Precipice Sandstone. The beds of Permian age are tentatively equated with the Bandanna Formation and consist of sandstone, siltstone, mudstone, and shale. The (?) Devonian sediments are siltstones and sandstones of the Timbury Hills Formation.

Two drill stem tests were carried out during the drilling of the well. No oil or gas shows were encountered and the well was plugged back to 517 feet in preparation for conversion to a water well.

The well was subsidized under the Petroleum Search Subsidy Act 1959-1961, from surface to total depth.

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* Abstracted from Well Completion Report No. Q/55-56P/113, September, 1962.

WELL HISTORY

General Data

Location:	Latitude 26°07'10" S. Longitude 148°58'40" E.
Total Depth:	1823 feet
Date drilling commenced:	27th July, 1962
Date drilling completed:	9th August, 1962
Date well abandoned:	11th August, 1962
Date rig released:	14th August, 1962
Elevation (ground):	1163 feet
Elevation (rotary table):	1168 feet (datum for depths)
Status:	Plugged and abandoned. Prepared for conversion to a water well.
Cost:	£15,676

Drilling Data

Drilling Plant:

Make:	Sullivan
Type:	300A
Hole sizes and depths:	10 5/8" to 205 feet 7 5/8" to 340 feet 5 5/8" to 1823 feet

Casing details:

Size:	8 5/8"
Weight:	28 lb./ft
Grade:	J.55
Range:	2
Setting depth:	200 feet

Logging and Testing

Ditch Cuttings:

Interval:	10 feet from surface to 1810 feet

Coring: 814- 829 feet
1126-1136 feet
1275-1279 feet
1482-1489 feet
1811-1823 feet
48 feet cored; 88% recovery

Sidewall sampling: None

GEOLOGY

Stratigraphy

Injune Creek Beds (Jurassic): Surface to 482 feet (482 feet +)

Interbedded greenish-grey, fine to medium-grained, lithic sandstone; grey, carbonaceous siltstone and black, very carbonaceous shale with coal.

Hutton Sandstone (Jurassic): 482 to 1144 feet (662 feet)

Mainly pale grey, fine to medium-grained, lithic sandstone with some interbeds of grey, carbonaceous siltstone containing stringers of coal.

Evergreen Shale (Jurassic): 1144 to 1552 feet (408 feet)

Mainly dark grey, carbonaceous shale with minor interbeds of grey, carbonaceous siltstone.

Precipice Sandstone (Jurassic): 1552 to 1653 feet (101 feet)

Mainly white to pale grey, fine to coase-grained, quartzose sandstone with minor interbeds of grey, carbonaceous siltstone.

Bandanna Formation (?) (Permian): 1653 to 1760 feet (107 feet)

Interbedded grey, fine-grained quartzose sandstone, siltstone and black, carbonaceous mudstone and shale.

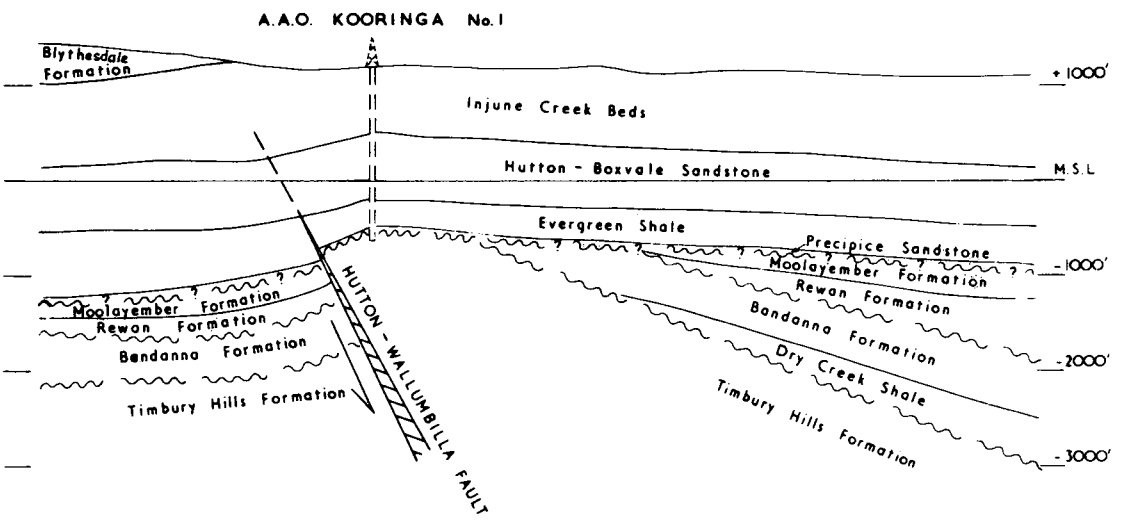
Timbury Hills Formation (Devonian ?): 1760 to 1823 feet (63 feet +)

Green, slightly silicified siltstone cut by quartz veins.

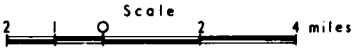
Structure

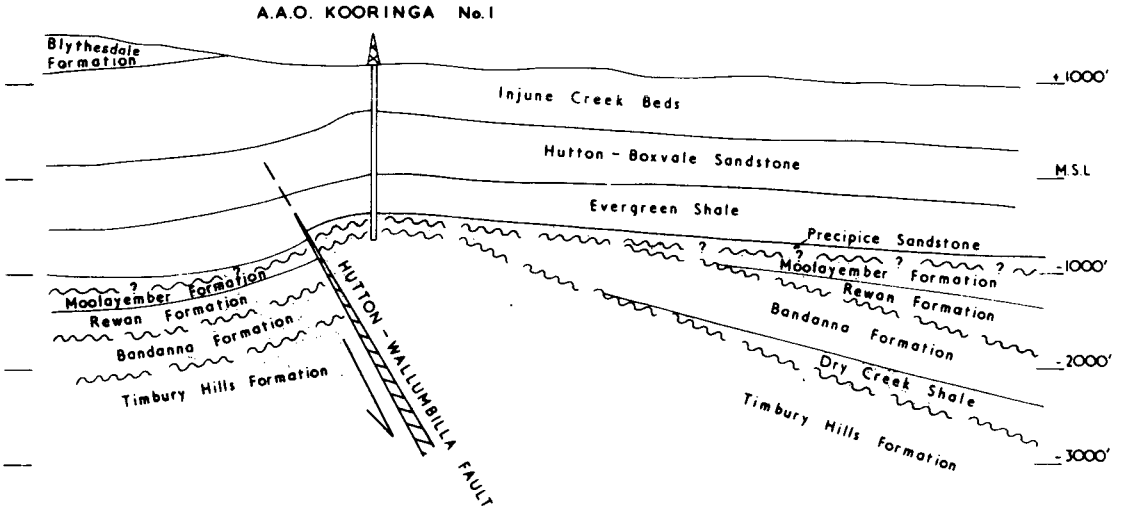
The interpretation of the structural configuration in the Kooringa area was established by seismic reflection methods. This interpretation shows a reverse fault trending north-west, the upthrown side forming an anticlinal structure having proven closure to the south. Poor seismic records were obtained in the northern area of the structure and closure could not be proved. The interpretation also indicated a probable pinch-out of the Permian section against the upthrown side of the Hutton-Wallumbilla Fault.

Fig. 4



SECTION THROUGH A.A.O. KOORINGA No.1





REFERENCE

ASSOCIATED AUSTRALIAN OILFIELDS N.L., 1962 : Well Completion Report, A.A.O Kooringa No. 1. Report No. Q/55-56P/113 (Unpubl.).

ADDITIONAL DATA FILED IN THE BUREAU OF MINERAL RESOURCES

The following additional data relating to A.A.O. Kooringa No. 1, have been filed in the Bureau of Mineral Resources, Canberra, and are available for reference :

(i)	Well Completion Report	11 pp.
	Appendix 1 - Palynological report by P.R. Evans	1 p.
	Appendix 2 - Oil, gas and water analyses	1 p.
	Appendix 3 - Core descriptions	1 p.
	Appendix 4 - Core analyses	2 pp.
	Appendix 5 - Drill Stem Tests	6 pp.

(ii) Daily drilling reports for period 27th July, 1962 to 11th August, 1962.

(iii) Well logs including the following:

Electical Log, 200-1823 feet (2" = 100 feet)

Gamma Ray Log, 100-1815 feet (5" = 100 feet)

(iv) Stratigraphic section before drilling

(v) Seismic contour map on pre-Mesozoic reflectors.

A.A.O. PLEASANT HILLS No. 1

of

ASSOCIATED AUSTRALIAN OILFIELDS N.L.

SUMMARY OF DATA AND RESULTS

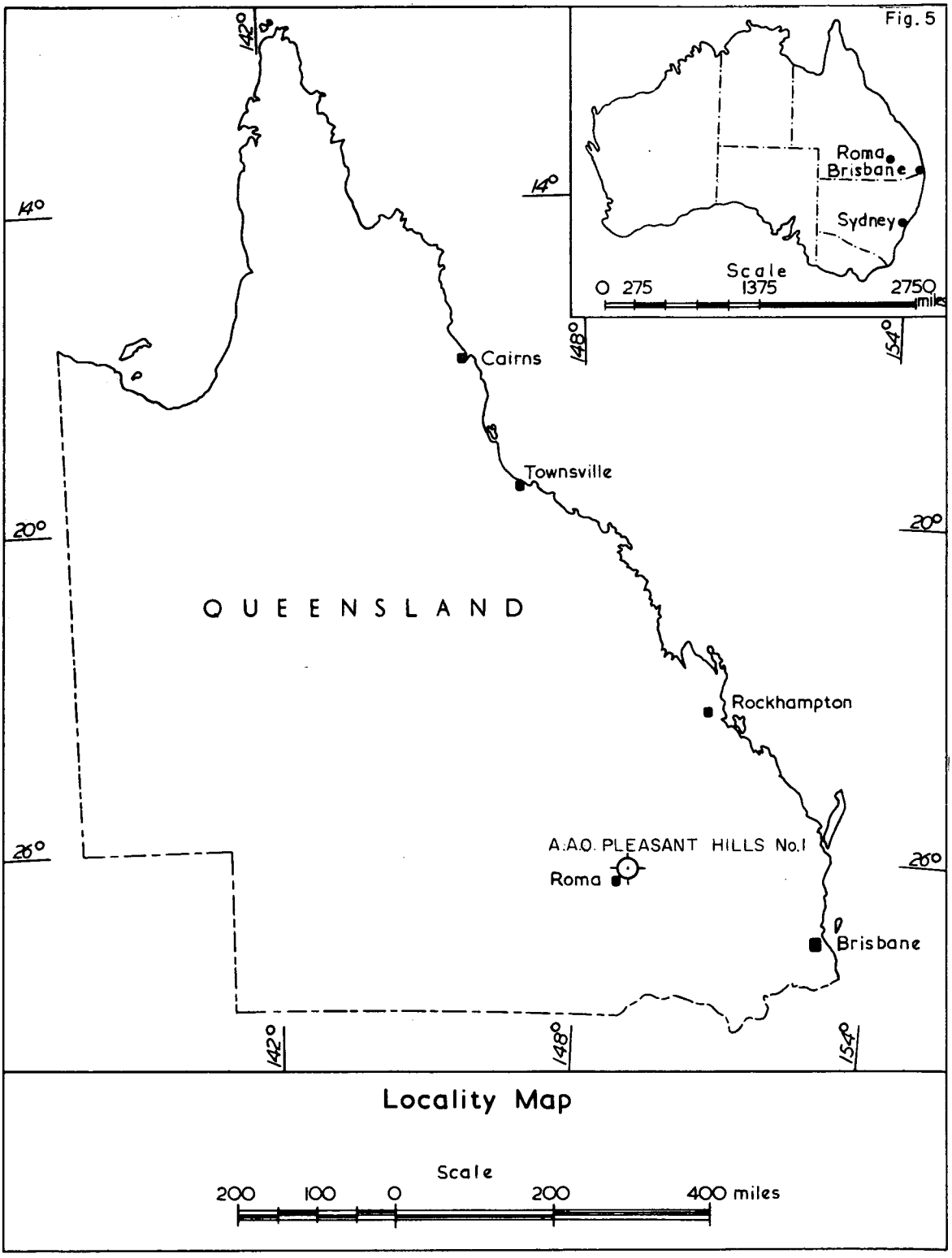


Fig. 5
Roma
Brisbane
Sydney
Scale
0 275 1375 2750 miles
142°
140°
148°
154°
Cairns
Townsville
20°
QUEENSLAND
Rockhampton
A.A.O. PLEASANT HILLS No.1
Roma
26°
Brisbane
Locality Map
Scale
200 100 0 200 400 miles

A.A.O. PLEASANT HILLS No. 1

SUMMARY OF DATA AND RESULTS*

SUMMARY

A.A.O. Pleasant Hills No. 1, located approximately 18 miles north-east of Roma and 21 miles south of A.A.O. Kooringa No. 1, was drilled by Richter Bawden Drilling Pty Limited for Associated Australian Oilfields N.L., to a total depth of 3485 feet. Drilling commenced on 20th August, 1962 and was completed on 8th September, 1962. A full programme of logging, testing, and coring was undertaken.

The well penetrated the Blythesdale Formation, Injune Creek Beds, Hutton Sandstone, Evergreen Shale, and Precipice Sandstone, all of Jurassic age, and bottomed in (?) Lower Carboniferous granite.

The well was drilled to test the Pleasant Hills structure for hydrocarbon accumulation, to examine the stratigraphic section, and to provide data for seismic interpretation. The Pleasant Hills structure, defined by seismic methods, is an easterly elongated dome showing a closure of 150 feet over an area of about five square miles.

Open hole formation tests of the interval 955 feet to 1017 feet (Injune Creek Beds) gave no indication of hydrocarbons. Tests of the interval 3292 feet to 3485 feet (Precipice Sandstone) were abortive because of packer failure. The well was plugged back for conversion to a water well.

The test drilling operation at A.A.O. Pleasant Hills No. 1 was subsidized under the Petroleum Search Subsidy Act 1959-1961, from surface to total depth.

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* Abstracted from Well Completion Report No. Q/55-56P/116, February, 1963.

WELL HISTORY

General Data

Location:	Latitude 26°25'10" S. Longitude 149°00'10" E.
Total Depth:	3485 feet
Date drilling commenced:	20th August, 1962
Date drilling completed:	8th September, 1962
Date well abandoned:	10th September, 1962
Date rig released:	12th September, 1962
Elevation (ground):	1248 feet
Elevation (rotary table):	1253 feet (datum for depths)
Status:	Dry hole-plugged and abandoned and handed over for conversion to a water well.
Cost:	£20,550

Drilling Data

Drilling Plant:

Make:	Sullivan
Type:	300A
Hole sizes and depths:	10 5/8" to 255 feet 7 7/8" to 480 feet 5 5/8" to 3485 feet

Casing details:

Size:	8 5/8"
Weight:	28 lb./ft
Grade:	J.55
Range:	2
Setting depth:	250 feet

Logging and Testing

Ditch Cuttings:

Interval:	10 feet from surface to 3470 feet

Coring:	3476-3485 feet 9 feet cored; 100% recovery
Sidewall sampling:	None
Formation testing:	DST 1. 955-1017 feet DST 2. 3306-3485 feet DST 3. 3314-3485 feet DST 4. 3292-3485 feet DST 5. 3335-3485 feet

GEOLOGY

Stratigraphy

Blythesdale Formation (Jurassic): Surface to 678 feet (678 feet +)

White to grey-green, fine to medium-grained, porous feldspathic lithic quartzose sandstone with minor thin beds of grey polymictic conglomerate and grey-brown to buff quartzose carbonaceous siltstone. The basal 540 feet (the Gubberamunda Sandstone) are garnetiferous.

Injune Creek Beds (Jurassic): 678 to 1987 feet (1309 feet)

Grey, brown, and buff, carbonaceous siltstone and shale with subordinate grey, fine to medium-grained, quartzose sandstone having an argillaceous cement. A few very thin coal seams occur.

Hutton Sandstone (Jurassic): 1987 to 2856 feet (869 feet)

White, medium to coarse-grained, quartzose sandstone with interbedded grey-green, fine to medium-grained, lithic and quartzose sandstone, alternating with grey, calcareous, carbonaceous, quartzose siltstone and brown carbonaceous shale. Thin bituminous coal seams occur in the bottom 600 feet.

Evergreen Shale (Jurassic): 2856 to 3310 feet (454 feet)

Grey to brown, carbonaceous and calcareous, quartzose siltstone interbedded with grey to chocolate, carbonaceous shale containing thin interbeds of coal and white to grey, fine to medium-grained sandstone.

Precipice Sandstone (Jurassic): 3310 to 3385 feet (75 feet)

White to grey, coarse-grained, quartzose sandstone, grey carbonaceous shale, and subordinate grey carbonaceous siltstone. A little coal is present.

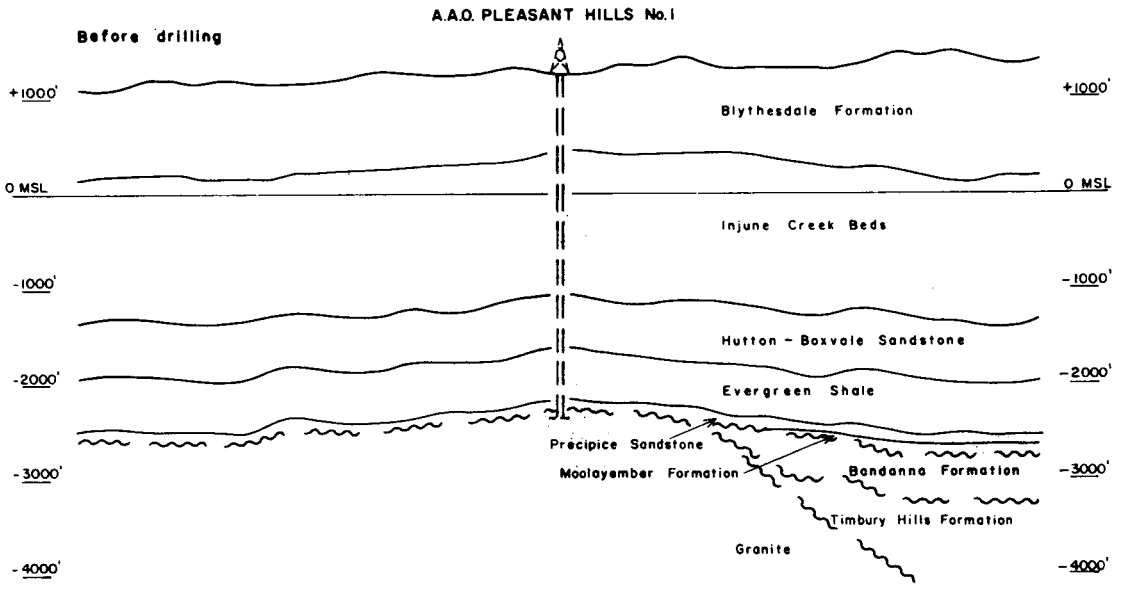
Granite (Lower Carboniferous?): 3385 to 3485 feet (100 feet +)

The upper 75 feet were logged as sandstone and shale and are thought to consist of deeply weathered granite or granite wash. The lower 25 feet is granite. An age determination of 324 million years has been obtained for this rock.

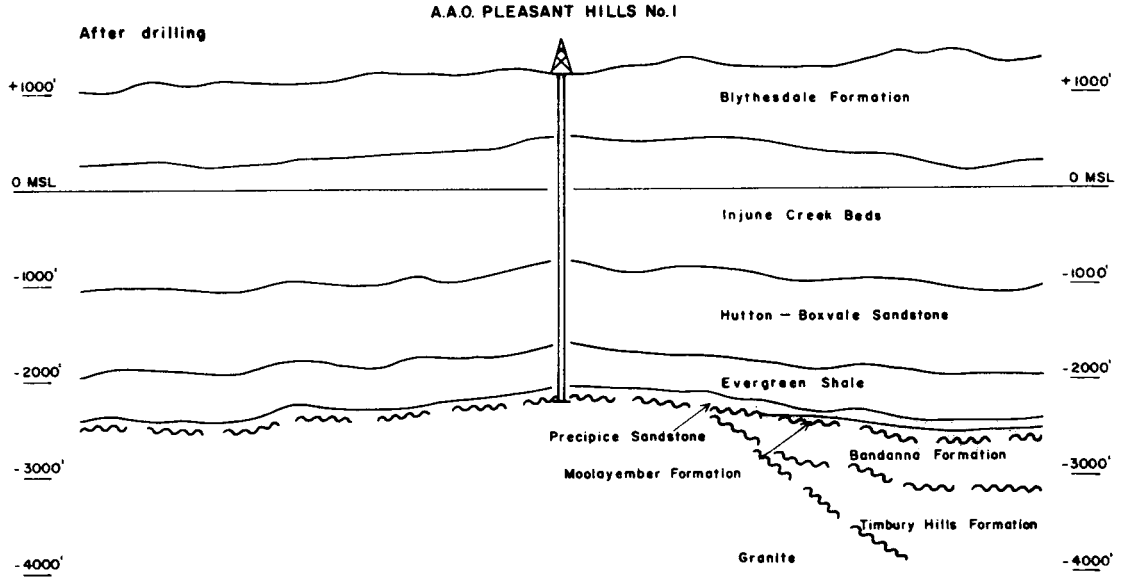
Structure

The Pleasant Hills structure is a gentle easterly-trending dome in Mesozoic beds. Closure to the north-west was not proved.

Fig. 6



SECTION THROUGH A.A.O. PLEASANT HILLS No.1



REFERENCE

ASSOCIATED AUSTRALIAN OILFIELDS N.L., 1963 : Well Completion Report, A.A.O. Pleasant Hills No. 1. Report No. Q/55-56P/116 (Unpubl.).

ADDITIONAL DATA FILED IN THE BUREAU OF MINERAL RESOURCES

The following additional data relating to A.A.O. Pleasant Hills No. 1, have been filed in the Bureau of Mineral Resources, Canberra, and are available for reference :

(i) Well Completion Report 12 pp.

Appendix 1 - Petrological report by B.R. Houston 1 p.

Appendix 2 - Palynological report by P.R. Evans 1 p.

Appendix 3 - Water, oil, and gas analyses 1 p.

Appendix 4 - Core descriptions and analyses by R.W. Stephens 2 pp.

Appendix 5 - List of logs 1 p.

Appendix 6 - Details of drill stem testing by R.W. Stephens 12 pp.

(ii) Daily drilling reports for period 20th August, 1962 to 10th September, 1962.

(iii) Well logs including the following:

Electrical Log, 250-3484 feet (2" = 100 feet).

(iv) Map of regional geology, Injune-Wallumbilla area

(v) Seismic contour map on 'Zone B' (within the Evergreen Shale).

COMPOSITE WELL LOG

COMPANY *ASSOCIATED AUSTRALIAN OILFIELDS N.L.*

PETROLEUM TENEMENT *AUTHORITY TO PROSPECT 55P* WELL NUMBER *WINNATHOOLA No. 1*

STATE *QUEENSLAND* 4-MILE SHEET *ROMA* BASIN *BOWEN* WELL STATUS *ABANDONED*

LOCATION - Lat. *26°45'20"S* Long. *149°05'26"E*

ELEVATION - Reference Pt. (RT/Floor) *1020'* ASL
Ground *1010'* ASL

Date Spudded *1 September 1961*
Date Drilling Stopped *22 September 1961*
Date Rig Off. *30 September 1961*
Total Depth Driller *5342'*, E.Log *5342'*

Hole Size	In	From	To
	17½"	0	320'
	8½"	320'	5342'

Casing	In	Wt	Gr	Depth	Cmt.	Cmt'd To
	13⅜"	48 lb	H-40	310'	192 Sx	Surface

Cement Plugs	From	To	Sacks
	5100'	5200'	33
	4200'	4300'	33
	4400'	4550'	48

Perforation	Type	Size	From	To	No/ft
	-	-	-	-	-

Well Head Fittings: *Doughnut between 13⅜ & 8.5 WWC with 2" valved outlets.*

Drilled by: *Mines Administration Pty. Ltd* Cemented by: *Minad*
Logged by *Schlumberger* Mud logging by *Minad*
Drilling Method: *Rotary*

ELECTRIC LOG DATA

Run Number	1	2	3	4
Date	13-9-'61	14-9-'61	15-9-'61	22-9-'61
Footage Logged	4041	268	397	624
Logged From	311	4252	4420	4717
Logged To	4352	4520	4817	5341
Total Depth-Electric Log	4353	4521	4818	5342
Total Depth-Driller	4353	4521	4818	5342
Casing Shoe - Electric Log	311	311	311	311
Casing Shoe - Driller	310	310	310	310
Bit Size	8½"	8½"	8½"	8½"
Mud - Kind	Bentonite	Bentonite	Bentonite	Bentonite
- Treatment	Caus/Myr	Caus/Myr	Caus/Myr	Caus/Myr
Water Loss cc/30min	8.2	10	7.8	13
Weight lb/cu.ft	SG 1.27	SG 1.25	SG 1.27	SG 1.25
Viscosity (Marsh)Sec	50	43	41	43
pH	9	8.5	8.75	9.5
Resistivity Ω m²/m & Temp	4.4@60°F	3.5@86°F	3.2@64°F	2.9@85°F
	2.2@34°F	2.2@36°F	1.0@46°F	1.75@48°F
Max Recorded Temp	134°F	136°F	146°F	148°F
Electrode Spacing Symmetrical	16"	16"	16"	16"
	64"	64"	64"	64"
	18'8"	18'8"	18'8"	18'8"
Non-Symmetrical				
Recorded by	A.Boudot	A.Boudot	A.Boudot	A.Boudot

RADIOMETRIC LOG DATA

Type of Log								
Run Number								
Date								
Total Depth - Driller								
Top of Logged Interval								
Bottom of Logged Interval								
Type of Fluid in Hole								
Fluid Level								
Maximum Recorded Temperature								
Neutron Source, Strength & Type								
Source Spacing - In								
Length of Measuring Device								
O.D. of Instrument - In								
Time Constant - Secs.								
Logging Speed - Ft/Min								
Statistical Variation - In								
Sensitivity Reference								
Recorded by								

CASING RECORD					OPEN HOLE RECORD		
Run No.	Size - In	Wt. - Lbs	Interval - Ft From	Interval - Ft To	Bit Size - In	Interval - Ft From	Interval - Ft To
1	13⅜"	48	0	310	17½"	0	320'
					8½"	320	5342

LITHOLOGIC REFERENCE

- Conglomerate
- Breccia
- Tillite
- Quartz sandstone
- Arkose
- Greywacke
- Siltstone
- Claystone
- Shale
- Limestone
- Coal
- Dolomite
- Calcarenite
- Calcilutite
- Marl
- Evaporite Salt
- Igneous rocks gr. Granite, b. Basalt
- Metamorphic rocks gn. Gneiss
- cal: Calcareous
- gl: Glauconitic
- py: Pyritic
- c. Carbonaceous
- mi: Micaceous
- ch Cherty

WELL SYMBOLS

- Gas show, slight
- Gas show, strong
- Oil show, slight
- Oil show, strong
- Oil and gas show
- Fluorescence
- Circulation loss, partial and s.g. mud
- Circulation loss, complete, and s.g. mud
- Flow into well and s.g. mud
- Blowout
- Core, interval, number and recovery
- Sidewall core
- Perforated interval
- Formation test interval and tool: ⊕ O.H. ⊕ in Csg.
- Plugged interval
- Fossils: Ø Macro, A Micro, ❦ Plant, ⊙ Spore, pollen

Lithology by: *M.J. Mahoney, B.H. Self*

OTHER BORE-HOLE LOGS

Temperature
Micro - Caliper 4350' - 4518'
Velocity
Section Gauge 4717' - 5341'

SPONTANEOUS POTENTIAL 100 millivolts, −20 mV ... +20 mV

RESISTIVITY 50 ohms m²/m: 16" short normal 0–50–500; 18'8" lateral 0–50–500; 64" long normal 0–50–500

GAMMA RAY — Radiation intensity increases

BIT TYPES & REMARKS

DRILLING RATE (min/5ft) 10 20 30 40 50

LITHOLOGY % age of cuttings: sst, s/st, s/s

MUD GAS DETECTION (Arbitrary Units): 1/ volt, 2/ volt, Live Oil 1 2 3; 0 50 100

DEPTH

DEVIATION & CASINGS & PLUGS & DIPS Vertical Measured

CORES & DETAILED LITHOLOGY

FORMATION TEST and other RESERVOIR ENGINEERING DATA

STRATIGRAPHIC COLUMN

1 12¼" Hughes OSC 17½ Reed 410

2 8½" Hughes OSC-3J

3 8½" Reed YTL

4 8½" Hughes OSC-1J

STRATIGRAPHIC COLUMN: Roma Formation — CRETACEOUS; Blythesdale Formation; Walloon Coal Measures — JURASSIC

BIT TYPES & REMARKS

DRILLING RATE (min/5ft) 10 20 30 40 50

LITHOLOGY % age of cuttings ssf sf sh

MUD GAS DETECTION (Arbitrary Units) 1-1 volt 2-2 volt 1 2 3 Live Oil 0 50 100

DEPTH

DEVIATION ½° CASING & MUDS Wireline Measured DIPS

SPONTANEOUS POTENTIAL 100 millivolts -|- +|+ 20 mV

SPECIFIC GRAVITY

CORES & DETAILED LITHOLOGY

RESISTIVITY 50 ohms m²/m 0 16" short normal 50 0 500

RESISTIVITY 50 ohms m²/m 0 64" long normal 50 0 500

RESISTIVITY 50 ohms m²/m 0 18'8" Lateral 50 0 500

GAMMA RAY Radiation intensity increases

FORMATION TEST and other RESERVOIR ENGINEERING DATA

STRATIGRAPHIC COLUMN

5 6¼" Reed YTL

6 6¼" Hughes OSC-3J

7 6¼" Hughes OSC-3J

8 6¼" Hughes OSC-3J

9 6¼" Hughes OSC-1GJ

10 6¼" Hughes OSC-1GJ

11 HFCH

12 6¼" Reed YTL

13 6¼" Hughes OSC-1GJ

14 6¼" Hughes OSC-1GJ

15 6¼" Hughes OSC-1GJ

16 HFCH

17 6¼" Hughes OSC-1J

18 HFCH

19 6¼" Hughes OSQ-2

20 6¼" Hughes OSQ-2

21 6¼" Hughes W7 R

22 HFCH

23 6¼" Hughes OSQ-2

5342' TD

Stuck pipe

Recorder U/S

Run 1 Run 2 Run 3 Run 4

n/l v/s 0.5 v/s n/l v/s 1° 80° v/s

600 MCFD gas Rec 150' GCM

Gas TSTM Rec 263' GCM

Precipice Sandstone

Evergreen Shale

Hutton Sandstone

Walloon Coal Measures

JURASSIC

Moolayember Formation

TRIASSIC

Precipice Sandstone

Evergreen Shale

Hutton Sandstone

Walloon Coal Measures

JURASSIC

Moolayember Formation

TRIASSIC

Clematis Formation

Tinbury Hills Formation

PERMIAN

? DEVONIAN

PLATE. 2.

COMPOSITE WELL LOG

COMPANY *ASSOCIATED AUSTRALIAN OILFIELDS N.L.*

PETROLEUM TENEMENT *AUTHORITY TO PROSPECT 55 / 56 R* WELL NUMBER *K O O R I N G A No. 1.*

STATE *QUEENSLAND* 4-MILE SHEET *ROMA* BASIN *BOWEN* WELL STATUS *DRY HOLE PLUGGED and ABANDONED*

LOCATION - Lat. *26°07'10"* Long *148°58'40"*

ELEVATION - Reference Pt (RT/Floor) *1168'* ASL
Ground *1163'* ASL

Date Spudded *27 July 1962*
Date Drilling Stopped *9 August 1962*
Date Rig Off. *14 August 1962*
Total Depth Driller *1823'* E.Log *1822'*

Hole Size	In	From	To
	10 5/8"	*Surface*	*205'*
	7 5/8"	*205'*	*340'*
	5 5/8"	*340*	*1823'*

Casing

In.	Wt	Gr	Depth	Cmt.	Cmt'd To
8 5/8"	*28 lb*	*J 55*	*200'*	*53 Sx*	*Surface*

Cement Plugs	From	To	Sacks
	1482'	*1532'*	*8*
	517'	*567'*	*8*

Perforation	Type	Size	From	To	No/ft
	-	-	-	-	-

Well Head Fittings: *Sealed with a steel cap.*

Drilled by: *Mines Administration Pty. Ltd.* Cemented by: *Minad*
Logged by *Minad / Schlumberger* Mud logging by: *Minad*
Drilling Method. *Rotary*

ELECTRIC LOG DATA

Run Number	*1*									
Date	*10-8-'62*									
Footage Logged	*1622'*									
Logged From	*199'*									
Logged To	*1822'*									
Total Depth-Electric Log	*1822'*									
Total Depth-Driller	*1823'*									
Casing Shoe - Electric Log	*199'*									
Casing Shoe - Driller	*200'*									
Bit Size	*5 5/8"*									
Mud - Kind	*Bentonite*									
-Treatment	*CMC MIC*									
Water Loss ccs/30min	*6·8 cc*									
Weight ~~lbs/cu.ft~~	*1·21SG*									
Viscosity (Marsh) Sec	*45*									
pH	*7*									
Resistivity Ω m^2/m & Temp	*10·1@64°F*									
	5·8@96°F									
Max. Recorded Temp	*98°F*									
Electrode Spacing										
Symmetrical	*16"*									
	64"									
Non-Symmetrical	*18'8"*									
Recorded by	*G.Ollier*									

RADIOMETRIC LOG DATA

Type of Log	*GR*				
Run Number	*1*				
Date	*10-8-'62*				
Total Depth - Driller	*1823'*				
Top of Logged Interval	*100'*				
Bottom of Logged Interval	*1815'*				
Type of Fluid in Hole	*Mud*				
Fluid Level	*GL*				
Maximum Recorded Temperature	*98°*				
Neutron Source, Strength & Type	-				
Source Spacing - In	-				
Length of Measuring Device	*4'*				
O.D. of Instrument - In.	*3 1/8"*				
Time Constant - Secs.	*4*				
Logging Speed - Ft/Min	*14*				
Statistical Variation - In.	*1/4*				
Sensitivity Reference	-				
Recorded by	*G.Ollier*				

CASING RECORD

Run No.	Size - In.	Wt. - Lbs.	Interval - Ft To	
1	*8 5/8"*	*28*	*0'*	*200'*

OPEN HOLE RECORD

Bit Size - In.	Interval - Ft. To	
10 5/8"	*0'*	*205'*
7 5/8"	*205'*	*340'*
5 5/8"	*340'*	*1823'*

LITHOLOGIC REFERENCE

- *Conglomerate*
- *Breccia*
- *Tillite*
- *Quartz sandstone*
- *Arkose*
- *Greywacke*
- *Siltstone*
- *Claystone*
- *Shale*
- *Limestone*
- *Dolomite*
- *Calcarenite*
- *Calcilutite*
- *Marl*
- *Evaporite* s : *Salt*
- *Coal*
- *Igneous rocks* gr *Granite*
- *Volcanic rocks* b *Basalt*
- *Metamorphic rocks* gn. *Gneiss*
- mi : *Micaceous*
- cal : *Calcareous*
- gl : *Glauconitic*
- py : *Pyritic*
- c : *Carbonaceous*
- ch : *Cherty*

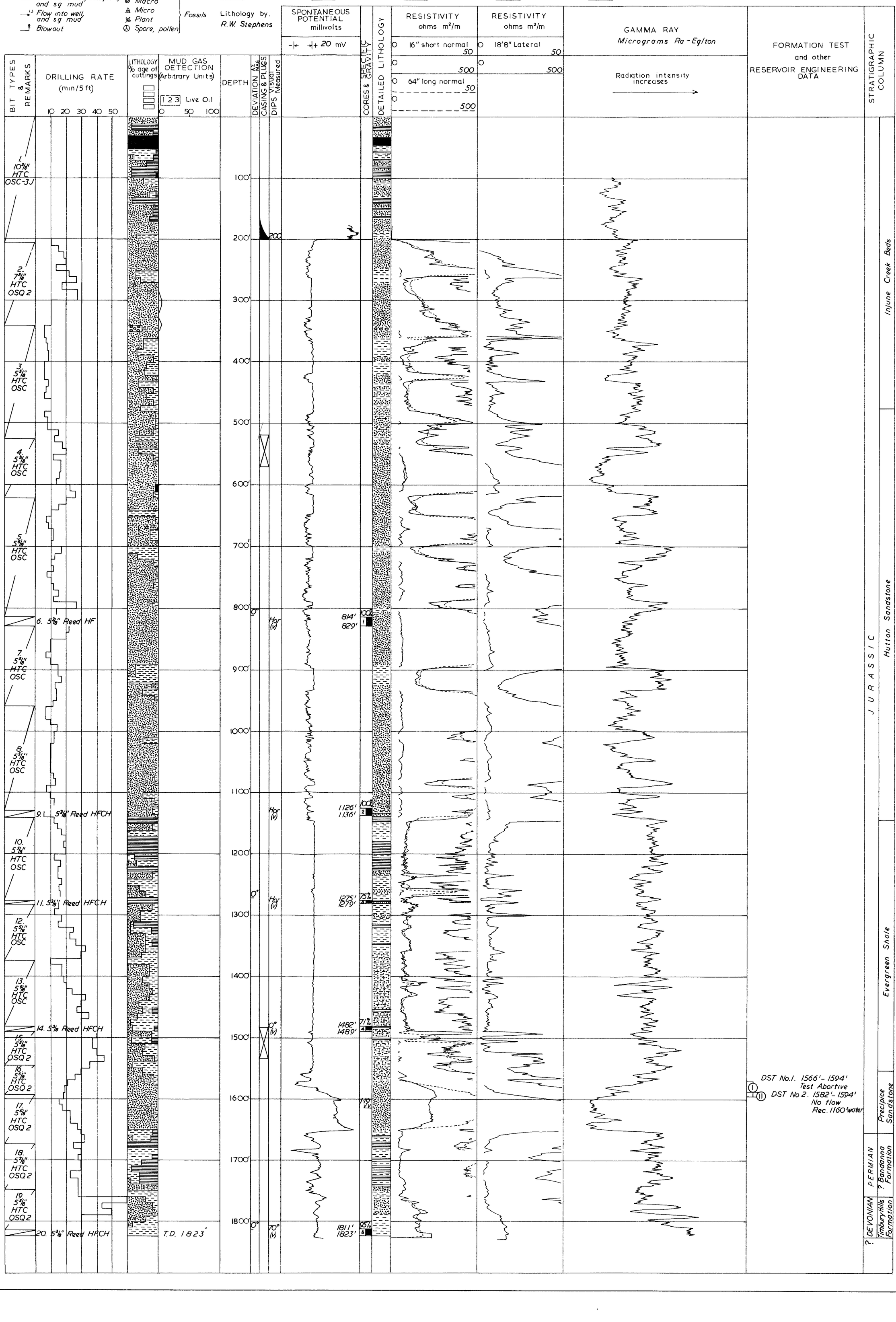
Lithology by. *R.W. Stephens*

WELL SYMBOLS

- *Gas show, slight*
- *Gas show, strong*
- *Oil show, slight*
- *Oil show, strong*
- *Oil and gas show*
- *Fluorescence*
- *Circulation loss partial, and s.g. mud*
- *Circulation loss complete, and sg mud*
- *Flow into well, and sg mud*
- *Blowout*
- *Core, interval, number and recovery*
- *Sidewall core*
- *Perforated interval*
- *Formation test interval, and no* (12) O.H (2) *in csg*
- *Plugged interval*
- *Fossils*: *Macro*, *Micro*, *Plant*, *Spore, pollen*

OTHER BORE-HOLE LOGS

Temperature
Micro - Caliper
Velocity



COMPOSITE WELL LOG

COMPANY *ASSOCIATED AUSTRALIAN OILFIELDS N.L*

PETROLEUM TENEMENT *AUTHORITY TO PROSPECT 55 / 56 P* WELL NUMBER *PLEASANT HILLS No 1.*

STATE *QUEENSLAND* 4-MILE SHEET *ROMA* BASIN *BOWEN* WELL STATUS *Dry hole, plugged and handed over for conversion to a water well*

LOCATION - Lat *26°25'10"S.* Long *149°00'10"E.*

ELEVATION - Reference Pt (RT/Floor) *1253'* ASL
Ground *1248'* ASL

Date Spudded *20 August 1962*
Date Drilling Stopped *8 September 1962*
Date Rig Off *12 September 1962*
Total Depth Driller *3485'* E Log *3485'*

Hole Size	In	From	To
	10 3/16"	Surface	255'
	7 7/8"	255'	480'
	5 5/8"	480'	3485'

Casing

In	Wt	Gr	Depth	Cmt	Cmt'd To
8 5/8"	28 lb	J55	250'	51 Sx	Surface

Cement Plugs	From	To	Sacks
	850'	700'	24
	2050'	1900'	24
	2950'	2800'	24
	3300'	3150'	24

Perforation	Type	Size	From	To	No/ft
	Nil				

Well Head Fittings: *Sealed with a steel cap*

Drilled by *Richter - Bawden Drilling Pty Ltd.* Cemented by *Richter - Bawden Drilling Pty Ltd*
Logged by *Schlumberger* Mud logging by *Mines Administration Pty Ltd*
Drilling Method *Rotary*

ELECTRIC LOG DATA

Run Number	1									
Date	8-9-'62									
Footage Logged	3234'									
Logged From	3484'									
Logged To	250'									
Total Depth-Electric Log	3485'									
Total Depth-Driller	3485'									
Casing Shoe - Electric Log	250'									
Casing Shoe - Driller	250'									
Bit Size	7 7/8" 5 5/8"									
Mud - Kind	Bentonite									
- Treatment	None									
Water Loss ccs/30min	7·2									
Weight lbs/cu ft	1 28									
Viscosity (Marsh) Sec	45									
pH	7·6									
Resistivity Ω m²/m & Temp	11 at 65°F									
	6·6 at 116°F									
Max Recorded Temp	116°F									
Electrode Spacing										
Symmetrical	16"									
	64"									
Non-Symmetrical	18'8"									
Recorded by	L Chareyron.									

RADIOMETRIC LOG DATA

Type of Log					
Run Number					
Date					
Total Depth - Driller					
Top of Logged Interval					
Bottom of Logged Interval					
Type of Fluid in Hole					
Fluid Level					
Maximum Recorded Temperature					
Neutron Source, Strength & Type					
Source Spacing - In					
Length of Measuring Device					
O D of Instrument - In					
Time Constant - Secs.					
Logging Speed - Ft/Min					
Statistical Variation - In					
Sensitivity Reference					
Recorded by					

CASING RECORD				OPEN HOLE RECORD	
Run No	Size - In	Wt - Lbs	Interval - Ft From / To	Bit Size - In	Interval - Ft From / To

LITHOLOGIC REFERENCE

- Conglomerate
- Breccia
- Tillite
- Quartz sandstone
- Arkose
- Greywacke
- Siltstone
- Claystone
- Shale
- Limestone
- Dolomite
- Calcarenite
- Calcilutite
- Marl
- Evaporite s. Salt
- Coal
- gr Igneous rocks, Granite
- b Volcanic rocks, Basalt
- gn Metamorphic rocks, Gneiss
- mi Micaceous
- cal Calcareous
- gl Glauconitic
- py Pyritic
- c Carbonaceous
- ch Cherty

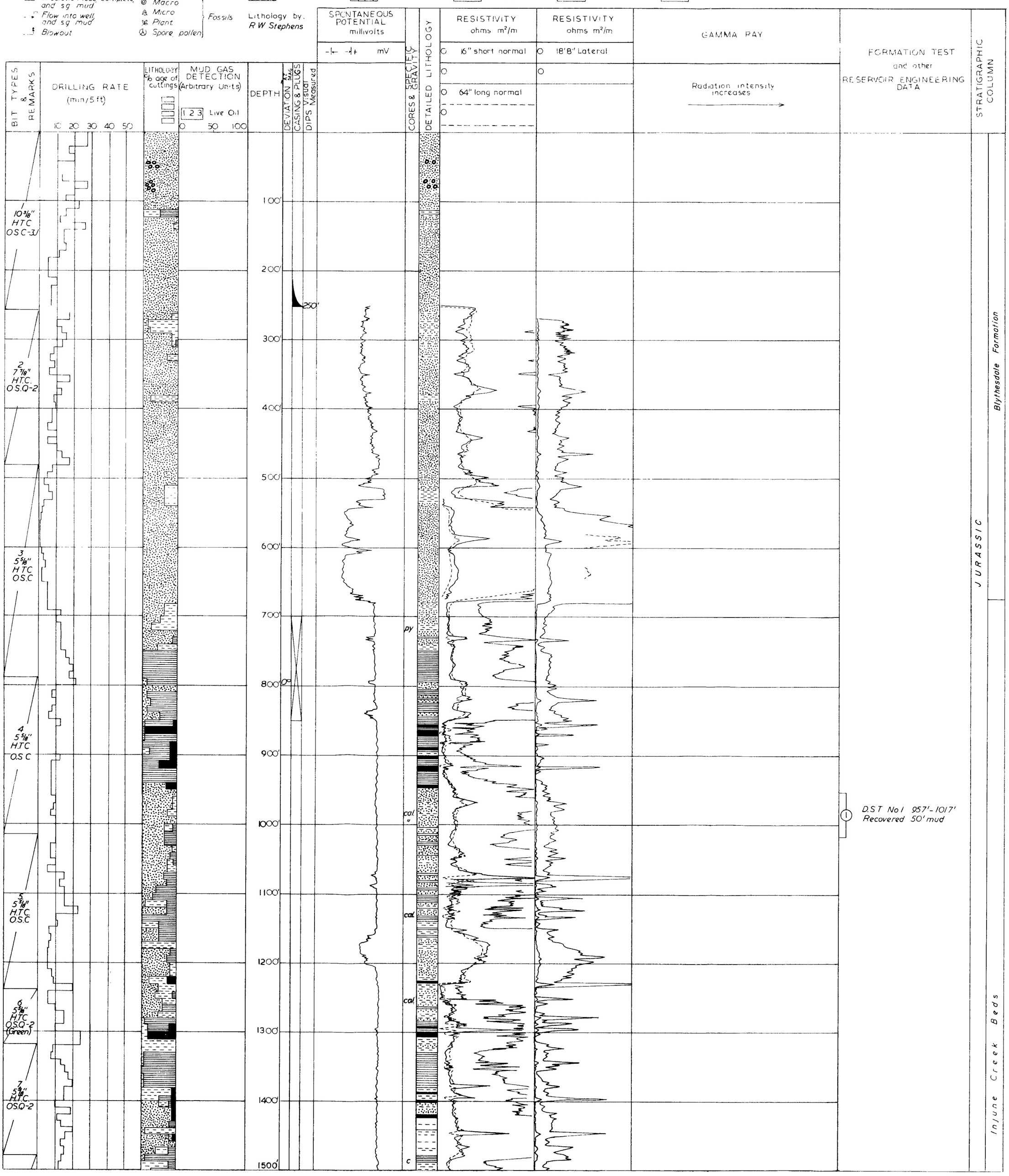
Lithology by. *R W Stephens*

WELL SYMBOLS

- Gas show, slight
- Gas show, strong
- Oil show, slight
- Oil show, strong
- Oil and gas show
- Fluorescence
- Circulation loss, partial, and s.g. mud
- Circulation loss complete, and s.g. mud
- Flow into well, and s.g. mud
- Blowout
- Core, interval, number and recovery
- Sidewall core
- Perforated interval
- Formation test, interval and no., O.H. or in csg.
- Plugged interval
- Fossils: Macro, Micro, Plant, Spore, pollen

OTHER BORE-HOLE LOGS

Temperature
Micro - Caliper
Velocity



BIT TYPES & REMARKS

8 5⅜" HTC OSQ-2
9 5⅜" HTC OSQ-2
10 5⅜" HTC OSQ-2
11 5⅜" HTC OSQ-2
12 5⅜" HTC OSQ-2
13 5⅜" HTC OSQ-2
14 5⅜" HTC OSQ-2
15 5⅜" HTC O.W.S.
16 5⅜" H.T.C O.W.S.
17 5⅜" HTC OSQ-2
18 5⅜" HTC OSQ-2
19 5⅜" H.T.C OSQ-2
20 5⅜" M3 security
21 5⅜" HTC OSQ-2
22 5⅜" HTC OSQ-2
23 5⅜" HTC OSQ-2
24 5⅜" HTC OSQ-2
25 5⅜" HTC OWS
26 5⅜" HTC OWS.
27 5⅜" HTC OWS
28 5⅜" HTC OWS. 29. 5⅜" Reed HFCH

DRILLING RATE (min/5ft)
10 20 30 40 50

LITHOLOGY % age of cuttings

MUD GAS DETECTION (Arbitrary Units)
1 2 3 Live Oil
0 50 100

DEPTH
1500'
1600'
1700'
1800'
1900'
2000'
2100'
2200'
2300'
2400'
2500'
2600'
2700'
2800'
2900'
3000'
3100'
3200'
3300'
3400'
3500'

DEVIATION
1½°
7°

CASING & PLUGS
Visual
Measured

DIPS

SPONTANEOUS POTENTIAL millivolts
− ← → + mV

CORES & SPECIFIC GRAVITY
cal
c. cal
cal
cal
cal
cal
100%

DETAILED LITHOLOGY

RESISTIVITY ohms m²/m
0 16" short normal
0
0 64" long normal
0

RESISTIVITY ohms m²/m
0 18' 8" Lateral
0

GAMMA RAY
Radiation intensity increases →

Continuous operation of instrument doubtful above 2470'
Power failure
Detector U/S
TD. 3485'

FORMATION TEST and other RESERVOIR ENGINEERING DATA

D.S.T. No 2. 3306'-3485' Test abortive P.S.F.
D.S.T. No 3. 3314'-3485' Test abortive P.S.F.
D.S.T. No 4. 3292'-3485' Test abortive P.S.F.
D.S.T. No 5. 3335'-3485' Test abortive P.S.F.

II III IV V

STRATIGRAPHIC COLUMN

JURASSIC
Hutton Sandstone
Injune Creek Beds
Evergreen Shale
Precipice Sandstone
? LOWER CARBONIFEROUS
Granite