WELL: Balmain 1 CRAE No: RD DD 92MB23

Status: Suspended

Hole Size:

2¼" to 12.5m

8½" to 58m 6" to 604m 4.35" to 1050m 9½" to 12.5m

7" to 56.5m 5" to 601m 4" to 990.5m

Perforations: Nil

Plugs: Bottom hole plug 1050-1000m

(Class "A" Cement)

Operator: Pacific Oil & Gas Pty Limited

Participants: Pacific Oil & Gas Pty Limited 90%

Omega Oil N.L. 10% (Non-Contributory

Interest)

Tenement: EP18

Location: Lat: 160 37 13.6 South

Long: 1330 34' 38.5" East

AMG: Zone 53, 348 256.mE 8161 886mN

Basin: Beetaloo sub-Basin, McArthur Basin

Elevation: DF 230.5m AHD (Datum)

Spudded: 8th October 1992

Rig Released: 7th November 1992

Rig: Rockdril Rig 23

Drilling Contractor: Rockdril Contractors

| | | | | | <u> </u> | | | | | | |
|--|--------------------------|-----------------------|-----------------|---|----------|--|---|--|-------------------------|-------------------------|-------------------------------|
| STRATIGRAPHY: | | | | | | | | | | | |
| | | | ND SUB | D SUB-UNIT | | | MBDF | | Metres AHD | | Thickness |
| | | | | | | | Logger |) | (Log | ger) | (m) |
| Cretaceous/Tertiary | Undifferentiated Surface | | | | 3.5 | 3.5 | | 227 | | 49 | |
| Cambrian | Jinduckin Formation | | | | 52.5 | 52.5 | | 174.5 | | 29 | |
| | Tindall | Limeston | e | | | 81.5 | 5 | | 145.5 | | 181.5 |
| Antrim Plateau Vo Bukalara Sandstor | | | olcanics | | 263 | 263 | | -36 | | §83 | |
| | | | ne | | | | 346 404 779.9 (to 790.0) | | -119 -177 - 552.9 | | 58 |
| Proterozoic "Hayfield Mudston" - "Hayfield Sand" | | ne" | 450 | | | | | | | | |
| | | • | 10.1 | | | | | | | | |
| | "Jamiso | on Sandsto | ne" | | | 854 | - | | -627 | | 84.5 |
| | 1 | n Formati a Member | _ | | | 938 | .5 | | -711.5 | | +111.5 |
| Total Doubh (Driller) (m) | | | | | 105 | 1050 | | 823 | · · · · | | |
| Total Depth (Driller) (m) | | | | | 1050 | | | 823 | | | |
| Total Depth (Logger (| 111) | | | | HOKE: | | | <u> </u> | | | <u> </u> |
| FORMATION TESTS: | TO CC (| : | - -T | <u> </u> | | ESSU | | | DSI | | RESULT |
| I | TIMES (1 | | 77.77 | IDD | | | | | FBP | FHH | RESULT |
| PF | FSI | F SSI | ІНН | IPP | FPP | BP | IFP | FFP | Tron | Luu | |
| | | | | | OUTSIDE | GUAGE | r | T | | | |
| DST I 16 | 60 251 | 570 | 1163.2 | 709.4 | 709.7 | 1092.6 | 702.4 | 67.9 | 1043.2 | 1162 | Recovered 4.5 litres oil and |
| 777.55 to 790.5m | | | j | 1 | ŀ | l | 1 | | | | 24.5 litres oil and water cut |
| | | | | | <u> </u> | <u>. </u> | 1 | <u>. </u> | <u>. I</u> | <u> </u> | at-hole mud |
| | | | | | OUTSIDI | E GUAGE | | | | | |
| DST 2 16 | 121 211 | 1 840 | 1324.0 | 720.4 | 727.8 | 1241.8 | 726.4 | 145.2 | 1207.4 | 1260.3 | Recovered 80.5 litres footid |
| 879.78 to 887.07m | | | | 1 | | <u> </u> | | 1 | 1 | 1 | salty formation water |
| Note: Both tests were conduc | ted using a n | utrogen cust | | | | | ring the n | | period | | <u> </u> |
| PF: Preflow Period | | | IHH: | | | | | IFP: Initial Flove | | | |
| FSI: First Shut In F: Flow Period | | | IPP : FPP : | • | | | FFP : Final Flow I FBP : Final Build | | | Pressure Up Pressure | |
| SSI: Second Shut In | | | BP: | | | | | FHH: Hydrostatic H | | | |

| LOGS: | | · · · · · · · · · · · · · · · · · · · | | |
|----------|--------|---------------------------------------|----------|--|
| TYPE LOG | RUN NO | INTERVAL (m) | DATE | |
| RR2 | 1 | 55-14 | 8/10/92 | |
|] | 2 | 573-317 | 16/10/92 | |
| 1 | 3 | 340-106 | 16/10/92 | |
| 1 | 4 | 1048-600 | 4/11/92 | |
| MG1 | 2 | 573-317 | 16/10/92 | |
| | 3 | 340-112 | 16/10/92 | |
| | 4 | 1049-600 | 4/11/92 | |
| MS1 | 2 | 570-317 | 16/10/92 | |
| MS2 | 3 | 565-107 | 16/10/92 | |
| ļ | 4 | 1047-600 | 4/11/92 | |
| DD#3 | 4 | 1047-600 | 4/11/92 | |
| NNI | 4 | 1048-Surface | 4/11/92 | |

| ANALYSES | | |
|--|--------|---|
| Type of Analysis | DPO No | Comments |
| Core Photography | 78141 | "Hayfield Mudstone", 701.72-706.53m |
| | 78142 | "Hayfield Sand" |
| | 78149 | Oil zone in "Jamison Sandstone" |
| Whole Oil Analysis | 78143 | Oil recovered from DST#1, 777.55-790.5m |
| Water Analysis | 78143 | Mud recovered from DST#1, 777.55-790.5m |
| | 78145 | Water recovered from DST#2, 879.78 - 887.07m |
| | 78146 | Mud filtrate from mud sample taken prior to DST#1 |
| Oil Analysis | 78143 | Oil recovered from mud samples, DST#1 |
| (Gas chromatography) | 78145 | Oil recovered from water sample, DST#2 |
| | 78149 | Oil recovered from core, 880.92-881.20m |
| Gas Analysis | 78144 | Gas sample taken during final chamber blowdown, DST#1 |
| par | 78145 | Gas sample taken during final chamber blowdown, DST#2 |
| Core Analysis | 78148 | Im samples through the "Jamison Sandstone" |
| • | 78149 | 5 samples through the oil zone in the "Jamison Sandstone" |
| , salar | 77801 | 3 whole core, 22 plug samples through the "Hayfield Sand" |
| TOC, Rock Eval Pyrolysis 78150 19 samples in the Kyalla Member | | 19 samples in the Kyalla Member |
| SUMMARY & CONCLUSION | ONS: | |

Balmain 1 was designed to test a lateral resistivity anomaly identified using the compensated transient electromagnetic (CTEM) technique. The anomaly was interpreted to occur at the approximate depth of the "Jamison Sandstone" which flowed minor amounts of oil and gas in Jamison 1. A secondary objective existed within a sandy interval near the base of the "Hayfield Mudstone" which flowed minor amounts of gas in Jamison 1 and Mason 1.

The well came in within expectations down to the base of the Cambrian Tindall Limestone. The Antrium Plateau Volcanics were thinner and the Bukalara Sandstone thicker than prognosed. These thickness changes, compared with previous well intersections, appear to be a facies effect as the "Hayfield Mudstone" came in only 16m high to prognosis.

Horizons within the Proterozoic section came in significantly lower than prognosed. Fluorescence and oil bleeds were common in fractures and siltstones in the "Hayfield Mudstone" below 637.6m (Driller) and oil was recovered from the "Hayfield Sand". It is possible that this zone of hydrocarbons caused the lateral CTEM anomaly at this location. The "Jamison Sandstone" came in 50.7m low to prognosis and was water wet. The "Jamison Sandstone" was approximately 14m thinner than that intersected in Jamison 1 and Mason 1. This appears to be a facies rather than structural effect.

Balmain 1 was suspended such that further formation evaluation and possibly reservoir stimulation can be carried out in the future.

| WELLSITE GEOLOGIST: | CARD PREPARED BY: | APPROVED BY: | DATE: |
|---------------------|-------------------|--------------|-------|
| S.A. Menpes | S.A. Menpes | | |