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Petroleum & Reservoir Engineering Services P/L
ABN 67 090 607 471

LAKES OIL NL

WOMBAT-2

DRILL STEM TEST ANALYSES

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Wombat-2 DST Analyses

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Wombat-2 DST Analyses

1.0 EXECUTIVE SUMMARY

The Wombat-2 well was drilled in April 2004 to a total depth of 1550m (1550 metresKB). The well is located in the PEP157 permit onshore Victoria and is a step out from the Wombat 1 discovery well. Wombat-2 is located approximately 4 kilometres west of Seaspray and 2 kilometres south west of Wombat 1.

During April 2004 Lakes Oil NL carried out a number of Drill Stem Tests(DSTs) of the Wombat-2 gas discovery well. At the request of Lakes Oil, Petroleum and Reservoir Engineering Services P/L (PARES) has carried out an analysis of the DST results..

In addition to the tests, a core was cut over the interval 1497–1515m at the base of the DST#3 interval. The recovered core from 1497–1505m consisted of very fine to medium grained sandstone, including two thin beds of shale clasts. Core analysis gave permeabilities up to 19md and a geometric average permeability of 2.0md. (arithmetic average is 3.2md) Electric logs were run over the interval to 1506m. Background gas to values in excess of 2000 units was recorded on the gas detection unit during the drilling.

The tests showed gas was present throughout the sections drilled below 1355m and confirmed the presence of producible hydrocarbons in the formation there. These sections are interpreted as Strzelecki Formation. It would appear from Wombat-1 and Wombat-2 that the Strzelecki is gas charged over a large interval in the Wombat structure.

The gas analyses for Wombat-1 and Wombat-2 show similar composition and properties. The samples for Wombat-2 from DST#2 and DST#3 indicate the reservoir fluid is a dry gas with 93% methane(C1), 3.4% C2, 1.2% C3, 0.5% C4 and less than 0.5% C5+. No significant CO2 or H2S is evident. Gas gravity is 0.61 and the Wobbe Index is 51. These results appear representative of the gas throughout the hydrocarbon bearing sections.

The five DSTs at Wombat-2 comprised four in open hole, DST#1, DST#1A, DST#2 and DST#3, and DST#4(CHDST#1) in cased hole over the DST#1/1A interval. Findings from these tests are provided in the following sections and summarized below. Detailed data for the DSTs is given in the appended Testers report, Wombat # 2 Report final.pdf.

DST#1 was carried out over the interval 1355-1391m on 16th April 2004. DST#1 initially produced gas on a 1/4" choke at a maximum rate of approximately 70MCFD (70,000 standard cubic feet of gas per day) but quickly plugged with sand. No analysis of the downhole data was feasible. The test was re-run on 17th as DST#1A but recovered only gas-cut fresh water. The final flowing pressure was 1837.2psia and the final build up pressure was 1840.5 psia. This is consistent with a normal hydrostatic pressure at gauge depth, 1319.8m, for gas cut fresh water. It is likely that the flow originated from the adjacent Latrobe formation based on the fluid and pressure. DST#4(CHDST#1, 1355-1391m) on 27 April 2004 was a cased hole re-test of the DST#1/1A interval and produced only water. Water recovered was apparently formation fluid from the lower Latrobe Formation. A permeable normally pressured water sand is indicated.

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Wombat-2 DST Analyses

DST#2(1400-1428m) was carried out on 18th April 2004 and produced from the Strzelecki Formation on a ½" choke at a calculated maximum rate of 225MCFD. A single flow period preceded a buildup the sequence for which is shown in the attached figure (Wombat-2 DST#2 sequence.pdf). The test did not reach stabilized (transient) flow so an accurate analysis is not feasible. Analysis of the pressure and flow data is therefore largely quantitative but yields a permeability range from 0.05md based on the test to 2md based on the core analysis results. This permeability range appears consistent with expectations for the Strzelecki Formation. A large positive, although unquantified, skin is also estimated indicative of damage. The extrapolated reservoir pressure at the gauge/datum of 1403m is 2103psia for DST#2 which likely represents the minimum value of extrapolated pressure.

DST#3(1464 to 1497 m, Strzelecki) was performed on 21 April and flowed gas to surface in six minutes. The Main Flow period gave a maximum rate of 485MCFD. This is believed to be the highest tested gas rate on record from the Strzelecki onshore. The core derived geometric average permeability of 2.0md is considered the most representative indicator of the virgin formation. The downhole pressure data appears anomalous. An estimate of the magnitude of the damage for the DST#3 interval gives a skin value of 191. This corresponds to an initial reservoir pressure of 2219psia from the Initial Buildup and the geometric average core permeability of 2md over 50 ft net.

DST#2 and DST#3 were carried out in open hole and significant skin damage is interpreted for both tests. This corresponds to poor pressure communication between the wellbore and virgin formation. This may be due to not perforating the specialized 'non-invasive' drilling mud. This mud is designed to form an impermeable mudcake barrier so as to minimize fluid loss into the formation. Alternatively or in addition the skin may be due to swelling of the native smectite clays which are known to be highly water sensitive. As for Wombat-1 we conclude that the tests only investigated a damaged zone adjacent to the wellbore and are representative of this zone rather than the formation at large.

The high reservoir pressure observed in #3 and inferred in DST#2 is consistent with the overpressure relative to a normal hydrostatic head seen in other gas tests at Wombat-1 and Wombat-2 and suggests the possibility of substantially deeper gas water contacts and sizable gas accumulation(s).

Proximity to existing facilities and the large gas market of south eastern Australia offers the possibility a low cost and rapid development. With some reason to believe that a large gas resource may exist at Wombat, the key issue to address is of well productivity. Maximum gas flow rate was 485MCFD on DST#3 which is currently sub-commercial. This is thought to have been less than the potential of the formation due to a high degree of skin damage. However, the potential exists to reduce the skin by stimulating the well such as by hydraulic fracturing in order to improve well productivity.

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Wombat-2 DST Analyses

2.0 INTRODUCTION

During April 2004 Lakes Oil NL carried out a series of Drill Stem Tests(DSTs) at the Wombat-2 gas well in the PEP157 permit onshore Gippsland Basin, in the State of Victoria, Australia. Lakes Oil is the Operator and has a 92.5% interest in the Wombat Block subject to a 5% overriding royalty held by Roma Petroleum N.L.

At the request of Lakes Oil, Petroleum and Reservoir Engineering Services P/L (PARES) has carried out an analysis of the results from the DSTs.

Wombat-2 was drilled to a total depth of 1550m (1550 metresKB) as a step out well following up on the Wombat-1 discovery well drilled in January 2004. Wombat-2 is located approximately 4 kilometres west of the town of Seaspray and 2 kilometres south west of Wombat 1. Wombat-1 is located 3.3 kilometres northeast of Seaspray.

The purpose of the wells was to test Latrobe Group sands, and the underlying Golden Beach Formation and Strzelecki Formation sands. Wombat-2 confirmed the presence of producible gas in the Strzelecki Formation of the onshore Gippsland area. Reservoir quality sandstones with significant gas shows were encountered over the gross interval from 1355 metres to TD at 1550m.

A number of wells have been drilled in the area drilled previously and two had indicated hydrocarbon potential, Macalister-1 and Merriman-1 (refer Figure 2). Macalister-1 drilled to the north east of Wombat-1 had encountered minor gas shows. Merriman-1, drilled by Arco in the 1960's, was drilled downdip at the north western edge of the structure and encountered good reservoir quality sands in the Golden Beach Formation and Latrobe Group. Minor gas shows were encountered in the Tertiary section. Gas has flowed from tight Strzelecki Formation sands in wells immediately north of Wombat-1, and there is some evidence including from Wombat-2 that Strzelecki Formation reservoir quality improves to the south in the Seaspray area.

Five tests were performed at Wombat-2 comprising four in open hole, DST#1, DST#1A, DST#2 and DST#3, and one in cased hole DST, DST#4. Detailed DST data is provided in Appendix 1. One core was cut during the drilling in the Strzelecki Formation sands at the base of the DST#3 interval. Core analysis results are attached.

Pressure transient analysis of downhole pressure data has been used to estimate reservoir and well parameters including permeability, skin factor and initial reservoir pressure. Real gas pseudo-pressures have been used with properties such as viscosity and compressibility based on correlations utilizing the gas composition. The primary analytic methods have been the log-log/pressure derivative and superposition (generalized Horner) plots. An internationally recognized well test analysis computer package, PIE, has been used for the calculations. The analyses have been based on buildup data due to the large variations in production rates during the drawdowns.

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Wombat-2 DST Analyses

3.0 DST#1/1A

DST#1 was carried out over the interval 1355-1391m on 16th April 2004. DST#1 initially produced gas on a 1/4" choke at a maximum rate of approximately 70MCFD (70,000 standard cubic feet of gas per day) but quickly plugged with sand. No analysis of the downhole data was feasible.

The tool string re-run for DST#1A was run on 17th June as an open hole test over the interval 1328.3-1391 m.

DST#1A recovered only gas-cut fresh water. The final flowing pressure was 1837.2psia and the final build up pressure was 1840.5 psia. This is consistent with a normal hydrostatic pressure at gauge depth, 1319.8m, for gas cut fresh water. It is likely that the flow originated from the adjacent Latrobe formation based on the fluid and pressure. No further analysis was performed on the data.

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Wombat-2 DST Analyses

4.0 DST#2

DST#2(1400-1428m) was carried out on 18th April 2004 and produced from the Strzelecki Formation on a ½" choke at a calculated maximum rate of 225MCFD. A single flow period preceded a buildup the sequence for which is shown in the attached figure (Wombat-2 DST#2 sequence.pdf). Pressure plots for the generalized Horner Plot (i.e., Superposition Plot: Wombat-2 DST#2 Horner.pdf) and the Derivative Plot (Wombat-2 DST#2 deriv.pdf) are attached.

The test did not reach stabilized flow (where semi-log analysis applies) by the end of the shutin period and was still influenced by wellbore storage, as seen by the end of wellbore storage line ("ENDWBS") on the pressure derivative curve.

Although no reliable semi-log (Horner) analysis is possible, extrapolating from the last lot of data may give an idea of a minimum permeability. A permeability of at least 0.05md is thus calculated (assuming net pay thickness is 50 ft) and a skin of 1.6. The permeability range is likely then from 0.05md to 2md based on the core analysis results. This appears consistent with expectations for the Strzelecki.

The skin is indicative of damage and the actual value is likely much higher, possibly well in excess of +10, consistent with a value of permeability towards the high end of the range. This is consistent with not reaching stabilized flow because the time to the end of wellbore storage varies exponentially with skin and an increasing positive skin therefore increases dramatically the time to achieve a reliable semi-log analysis.

The test was carried out in open hole and this skin damage may be due to the drilling mud used which usually requires perforation because it is designed to form a barrier and minimize fluid loss into the formation. Alternatively or in addition the skin may be due to swelling of the native smectite clays which are known to be highly water sensitive.

The extrapolated reservoir pressure at the gauge/datum of 1403m is 2103psia which likely represents the minimum value of extrapolated pressure. This pressure is consistent with the overpressure relative to a normal hydrostatic head to ground level seen in other gas tests at Wombat-1 and Wombat-2.

37 4602 5.45 psi Ht

4494 feek 63 Wombat-2 DST Report (cut down).doc Page 7 2103 27/06/2004

8961 2095 PM = 0.468 PS./H

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Wombat-2 DST Analyses

5.0 DST#3

DST#3(1464 to 1497 m, Strzelecki) was performed on 21 April and flowed gas to surface in six minutes. The Main Flow period commenced at 7pm and a maximum rate of 485MCFD was measured at 7:24pm declining to 416MCFD at 8pm, at which time the tool was shut in for three hours for formation pressure build up. This is the highest tested gas rate on record from the Strzelecki Formation onshore.

The DST#3 downhole pressure data is shown in the attached plot of the sequence of flows and build-ups (<u>Wombat-2 DST#3 sequence.pdf</u>). The log-log plots including pressure derivative are attached for the Initial Buildup (<u>Wombat-2 DST#3 pre deriv.pdf</u>) and the Main Flow Buildup (<u>Wombat-2 DST#3 deriv1.pdf</u>). The 'Horner' Plots are also attached for the Initial Buildup(<u>Wombat-2 DST#3 Horner plot.pdf</u>) and the Main Flow Buildup(<u>Wombat-2 DST#3 pre horner.pdf</u>).

The Main Buildup data appears anomalous because the pressures appear to trend to a value at least a hundred psi lower than in the Initial Buildup. A semi-log extrapolation of the last lot of pressure data confirms this (Wombat-2 DST#3 Horner plot.pdf). The anomaly is also reflected in the pressure derivative plots which show an upward trending wavy line for the derivative. Similarly the derived permeability estimate from the Horner plot is inconsistently low in relation to the core derived permeability estimate. Core was cut at the base of the DST#3 interval and is considered representative of the formation tested on DST#3.. Permeability estimates are therefore based on the core analysis average of 2.0md (geometric average; arithmetic average is 3.2md).

The discrepancy between test data and core results can be understood if there is a large skin factor in the near wellbore region. It is therefore concluded that the test only investigated a zone of significant damage adjacent to the wellbore so that any permeability calculated directly from the data is representative of the value of permeability in the invaded and damaged zone rather than the formation at large. This idea was proposed also for Wombat-1 (refer PARES Wombat-1 report of April 2004).

To obtain an estimate of the magnitude of the skin damage some assumptions are needed because the measured pressure data is not of sufficient duration to 'see' the virgin formation. We therefore assume that the extrapolated pressure is the same for the Initial and Main Buildups. (It is very unlikely that the apparent pressure difference of 100psi between the Initial and Main flows is due to depletion with a small production of less than 20MCF.) The best available estimate for this pressure is the extrapolated pressure from the Initial Buildup which corresponds to an initial reservoir pressure of 2219psia. Fixing this point on the pressure axis plus taking an average permeability of 2md from the core analysis allows us to define a 'Horner' line as shown in the superposition plot (Wombat-2 DST#3 main deriv 2md plot.pdf) and thereby derive an estimate for skin of 191. This very high degree of damage indicates poor pressure communication between the wellbore and virgin formation.

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Wombat-2 DST Analyses

6.0 DST#4(CHDST#1)

DST#4(CHDST#1) was run on 27th April 2004 as a cased hole hole test over the interval 1355-1391m. to re-test the DST#1/1A interval. The Test was unsuccessful, producing only water from the lower Latrobe Formation. Water recovered was apparently formation fluid. A permeable normally pressured water sand is indicated. Conclusions are similar for DST#1A in that the test produced normally pressured fresh water from the adjacent Latrobe formation sand.

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Wombat-2 DST Analyses

7.0 CONCLUSIONS & RECOMMENDATIONS

Throughout the hydrocarbon bearing sections at Wombat-2 and Wombat-1, the reservoir fluid is a dry gas with 93-95% methane(C1), 2.6-3.2% C2 and less than 0.8% C4+. No significant amounts of CO2 or H2S are evident. Gas gravity is 0.6 and the Wobbe Index is 51. The composition is ideal for minimum gas processing prior to sale.

Pressure transient analysis of the test data indicates that the gas flow was not necessarily representative of the formation capabilities. Rather the rates were likely retarded by skin damage. A number of lines of evidence suggest that the test has not investigated virgin formation and only 'saw' the near-wellbore region or skin zone. This is likely a zone of altered rock that is damaged with reduced permeability due to water sensitivity, i.e. an adverse reaction between the water based drilling fluid and the minerals such as smectite and kaolinite in the sands. The evidence includes:

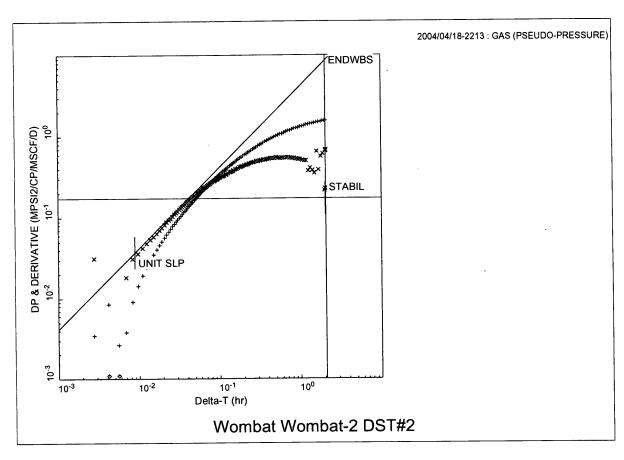
- Core derived permeability is considered the best indicator of reservoir potential for Wombat-2. In the time frame of the build-ups, results from the DST analyses are inconsistent with core data. This is likely due to high skin, i.e. damage, and because the time to achieve semi-log (transient) flow increases exponentially with the skin.
- Deep invasion by mud filtrate many feet into the formation before a mudcake forms. This occurs even for the Latrobe at Wombat-1 which has excellent permeability.
- The calculated radius of investigation is typically less than 5 ft indicating we have not 'seen' into the virgin reservoir
- Constant flowing bottomhole pressure was maintained through much of the main flow test for DST#3 which seems to be at odds with a very tight formation.

The extrapolated pressures for the gas tests are higher than expected for a normal hydrostatic pressure. Two conclusions are considered possible from this latter point, namely that either the extrapolated pressure is representative of a near-wellbore which is supercharged due to invasion of filtrate or that the gas water contact is very much deeper, if the pressure if representative of the virgin gas reservoir. These possibilities are not necessarily mutually exclusive.

Gas flow rates up to almost 500MCFD were obtained for Wombat-2 which is currently sub-commercial. However, it is considered likely that this was in some part due to skin damage. The potential therefore exists to stimulate the well by hydraulic fracturing to improve well productivity. Objectives of the stimulation exercise will be to establish maximum rate potential in the short term as well as long term productive capabilities such as would be required for a gas contract, farm-out, project finance etc. In addition with appropriate planning, the exercise may be able to provide information about reservoir geometry, gas in place and reserves

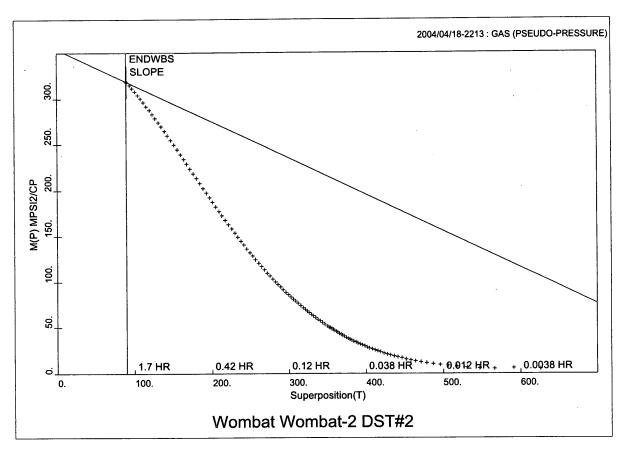
WOMBAT-2 CORE ANALYSIS

						CORREC	TED AIR PE	RMEABILITY(md)
		800PSI NOB						WEIGHTED	WEIGHTED
				<u>NET</u>	KH(md-				
<u>SAMPLE</u>	DEPTH(m)	PERM.(md)	REP.H(m)	<u>H(m)</u>	<u>ft)</u>	<u>ARITH.AV</u>	GEOM.AV	ARITH.AV	GEOM.AV
1	1497.3	4.61	0.20	0.20	0.90	4.61	4.61	4.61	4.61
2	1497.69	4.23	0.30	0.50	1.27	4.42	4.42	4.38	4.32
3	1497.9	3.44	0.25	0.74	0.84	4.09	4.06	4.07	4.00
4	1498.18	3.16	0.30	1.04	0.95	3.86	3.82	3.81	3.76
5	1498.5	3.85	0.31	1.35	1.19	3.86	3.82	3.82	3.77
6	1498.8	0.711	0.29	1.64	0.21	3.33	2.89	3.27	2.85
7	1499.08	0.032	0.30	1.94	0.01	2.86	1.52	2.77	1.50
8	1499.4	1.55	0.26	2.20	0.40	2.70	1.52	2.62	1.51
9	1499.6	2.6	0.41	2.61	1.07	2.69	1.62	2.62	1.59
10	1500.22	2.27	0.40	3.01	0.91	2.65	1.67	2.57	1.64
11	1500.4	1.6	0.24	3.25	0.38	2.55	1.66	2.50	1.63
12	1500.7	1.83	0.32	3.57	0.59	2.49	1.68	2.44	1.65
<u>13</u>	<u>1501.04</u>	<u>19.6</u>	<u>0.17</u>	<u>3.74</u>	<u>3.33</u>	<u>3.81</u>	<u>2.03</u>	<u>3.22</u>	<u>1.97</u>
OVERALI			3.74		12.05	3.22	2.03	3.22	1.97



well. storage = 0.00378 BBLS/PSI
Skin(mech) = 1.56
permeability = 0.0490 MD
Perm-Thickness = 2.45 MD-FEET
Turbulence = 0. 1/MSCF/D
P-extrap. = 2105.26 PSI
R(inv) at 2.045 hr = 11.5 FEET
Smoothing Coef = 0.,0.

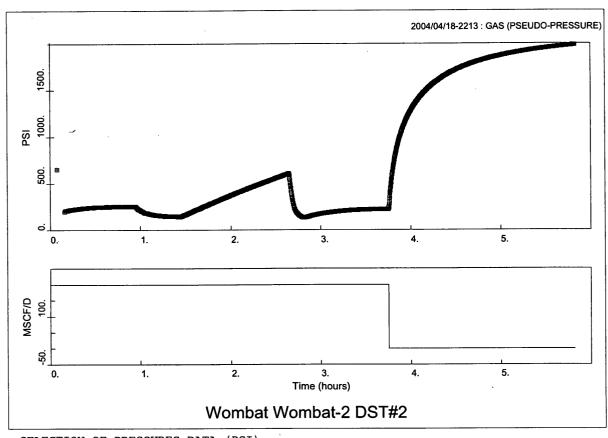
Static-Data and Constants
Volume-Factor = 2.525 RB/MSCF = 50.00 FEET Thickness Viscosity = 0.01330 CPTotal Compress = 0.0002700 1/PSI Rate = 200.0 MSCF/D= 0.002430 FEET/PSI Storivity = 19.98 FEET^2/HR Diffusivity = 4605. FEET = 4592. FEET = 4605. FEET Gauge Depth Perf. Depth Datum Depth Analysis-Data ID: DATA Based on Gauge ID: GAU002



slope of the line = -0.39770 MPSI2/CP/cycle Static-Data and Constants extrapolated pressure = 2103.23 PSI $\frac{1}{1000}$ Volume-Factor = 2.525 RB extrapolated pressure = 354.416 MPSI2/CP Thickness = 50.00 FE R(inv) at 2.045 hr = 11.5 FEET Viscosity = 0.01330

prod. time=3.751 hr at rate=200.0000 MSCF/D

Skin(mech) = 1.55 permeability = 0.0490 MD Perm-Thickness = 2.45 MD-FEET Turbulence = 0.1/MSCF/D Datum Press. = 2103.23 PSI Volume-Factor = 2.525 RB/MSCF Thickness = 50.00 FEET Viscosity = 0.01330 CP Total Compress = 0.0002700 1/PSI = 200.0 MSCF/D Storivity = 0.002430 FEET/PSI = 19.98 FEET²/HR = 4605. FEET Diffusivity Gauge Depth = 4592. FEET = 4605. FEET Perf. Depth Datum Depth Analysis-Data ID: DATA Based on Gauge ID: GAU002



Gauge-Data ID: GAU002
Analysis-Data ID: DATA
Total Raw points = 4080
First Mark at N/A hr
Last Mark at N/A hr
Set 2 rates (max=100000)
Loaded 251 points (max=100000)
Rates Cum. Prod.= 5569.55957 BBLS

Static-Data and Constants

Volume-Factor = 2.525 RB/MSCF

Thickness = 50.00 FEET

Viscosity = 0.01330 CP,

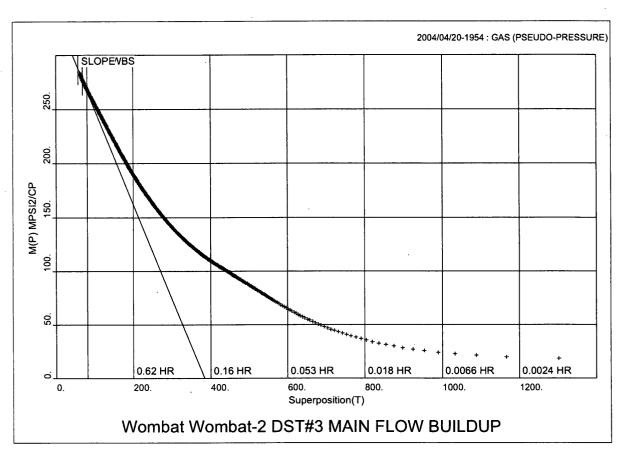
Total Compress = 0.0002700 1/PSI
Storivity = 0.002430 FEET/PSI
Gauge Depth = 4605. FEET

Perf. Depth = 4592. FEET

Datum Depth = 4605. FEET

Analysis-Data ID: DATA

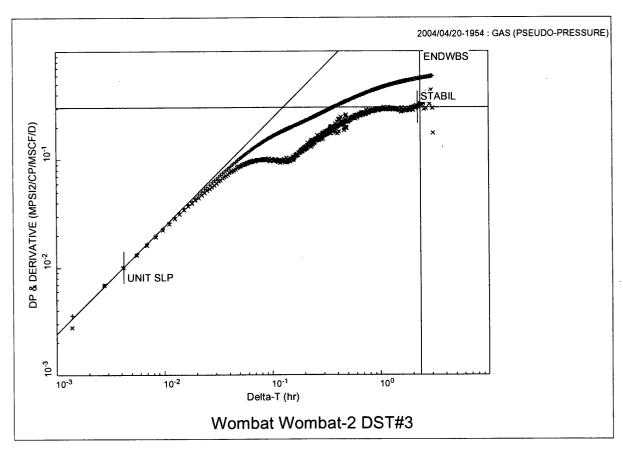
Based on Gauge ID: GAU002



slope of the line = -0.87853 MPSI2/CP/cycle Static-Data and Constants extrapolated pressure = 2104.75 PSI Volume-Factor = 2.811 RB/MSCF extrapolated pressure = 338.319 MPSI2/CP Thickness = 100.0 FEET R(inv) at 3.320 hr = 7.47 FEET R(inv) at 2.711 hr = 6.75 FEET Viscosity = 0.01360 CP Total Compress = 0.0002510 1/PSI Rate = 450.0 MSCF/Dprod. time=1.150 hr at rate=450.0000 MSCF/D Storivity = 0.004518 FEET/PSI Diffusivity = 5.098 FEET^2/HR = 4844. FEET = 4803. FEET = -1.28 Gauge Depth Skin (mech) Perf. Depth 1476

permeability = 0.0119 MDPerm-Thickness = 1.19 MD-FEET Turbulence = 0. 1/MSCF/DDatum Press. = 2104.76 PSI

Datum Depth = 4844. FEET Analysis-Data ID: W2DST3 Based on Gauge ID: GAU002



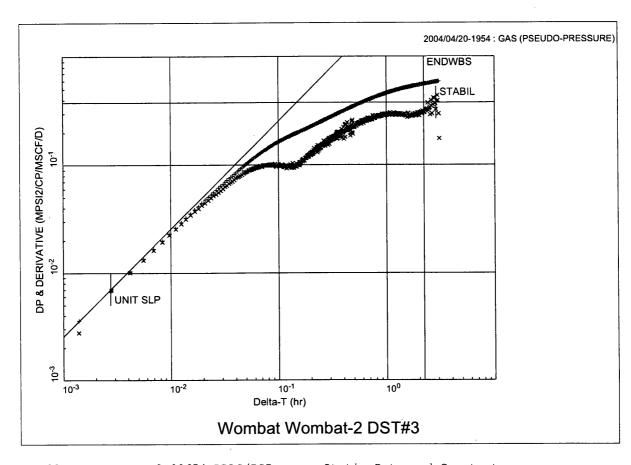
well. storage = 0.00695 BBLS/PSI = -1.21 Skin(mech) = 0.0148 MDpermeability Perm-Thickness = 1.48 MD-FEET = 0. 1/MSCF/DTurbulence = 2062.09 PSI R(inv) at 2.195 hr = 6.78 FEET

Smoothing Coef = 0.,0.

Static-Data and Constants

Volume-Factor = 2.811 RB/MSCF = 100.0 FEET Thickness Viscosity = 0.01360 CP; Total Compress = 0.0002510 1/PSI Rate = 450.0 MSCF/DStorivity = 0.004518 FEET/PSI $= 6.350 \text{ FEET}^2/\text{HR}$ Diffusivity

Gauge Depth = 4844. FEET Perf. Depth = 4803. FEET Datum Depth = 4844. FEET Analysis-Data ID: W2DST3 Based on Gauge ID: GAU002

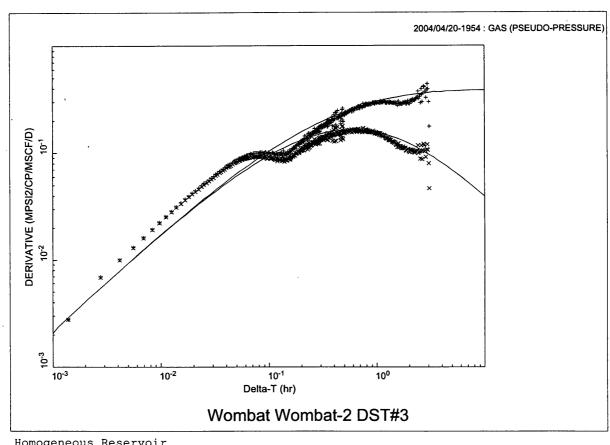


well. storage = 0.00654 BBLS/PSI = -1.28Skin(mech) permeability = 0.0120 MDPerm-Thickness = 1.20 MD-FEET = 0.1/MSCF/DTurbulence P-extrap. = 2103.10 PSI R(inv) at 2.860 hr = 6.97 FEET

Smoothing Coef = 0..0.

Static-Data and Constants
Volume-Factor = 2.811 RB/MSCF = 100.0 FEET Thickness Viscosity = 0.01360 CPTotal Compress = 0.0002510 1/PSI= 450.0 MSCF/D= 0.004518 FEET/PSI Storivity = 5.147 FEET^2/HR Diffusivity = 4844. FEET Gauge Depth = 4803. FEET = 4844. FEET Perf. Depth Datum Depth Analysis-Data ID: W2DST3

Based on Gauge ID: GAU002



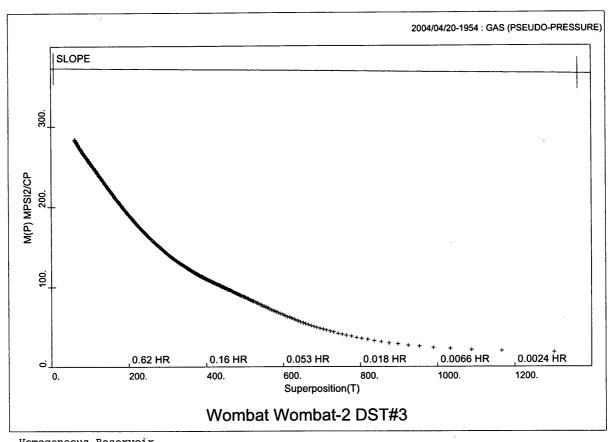
Homogeneous Reservoir ** Simulation Data ** well. storage = 0.00654 BBLS/PSI Skin (mech) -1.28 0.0120 MD permeability = Perm-Thickness = 1.20 MD-FEET Turbulence = 0. 1/MSCF/D Initial Press. = 2102.84 PSI Datum Press

Datum Press. = 2102.86 PSI

Skin(mech) + DQ = -1.28

Static-Data and Constants
Volume-Factor = 2.811 RB = 2.811 RB/MSCF Thickness = 100.0 FEET Viscosity = 0.01360 CPTotal Compress = 0.0002510 1/PSI Rate = 450.0 MSCF/D Storivity = 0.004518 FEET/PSI Diffusivity = 5.147 FEET²/HR Gauge Depth Perf. Depth = 4844. FEET = 4803. FEET

Datum Depth = 4844. FEET Analysis-Data ID: W2DST3 Based on Gauge ID: GAU002

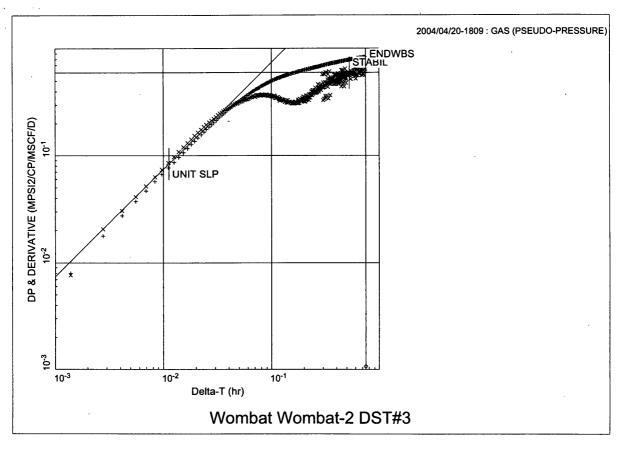


Homogeneous Reservoir
slope of the line = -.55E-02 MPSI2/CP/cycle Static-Data and Constants
extrapolated pressure = 2219.42 PSI Volume-Factor = 2.811 RB
extrapolated pressure = 372.969 MPSI2/CP Thickness = 100.0 FE
R(inv) at 32.88 hr = 297. FEET Viscosity = 0.01360 R(inv) at .961E-03 hr = 1.61 FEET Total Compress = 0.000251

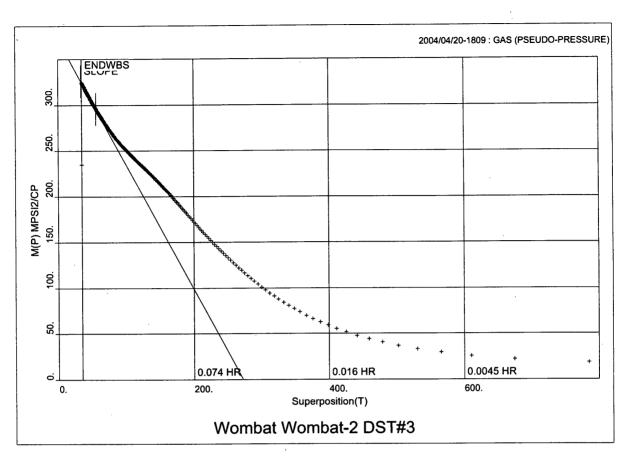
prod. time=1.150 hr at rate=450.0000 MSCF/D

Skin(mech) = 161.
permeability = 1.90 MD
Perm-Thickness = 190. MD-FEET
Turbulence = 0. 1/MSCF/D
Datum Press. = 2219.44 PSI

Volume-Factor = 2.811 RB/MSCF = 100.0 FEET = 0.01360 CP Total Compress = 0.0002510 1/PSI Rate = 450.0 MSCF/D = 0.004518 FEET/PSI = 814.3 FEET^2/HR = 4844. FEET Storivity Diffusivity Gauge Depth Perf. Depth = 4803. FEET = 4844. FEET Datum Depth Analysis-Data ID: W2DST3 Based on Gauge ID: GAU002



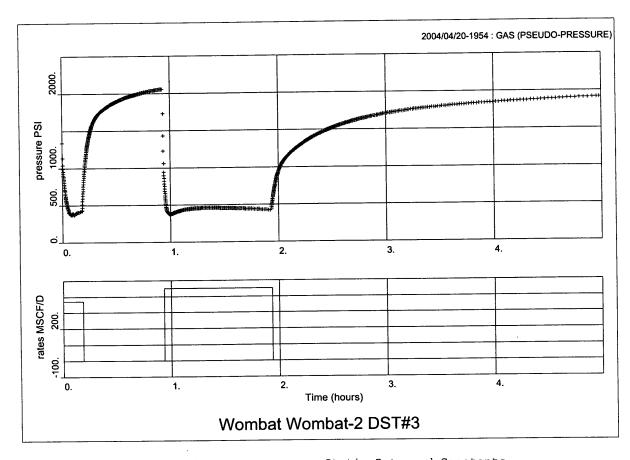
Static-Data and Constants Volume-Factor = 2.811 RB = 2.811 RB/MSCF Thickness = 100.0 FEET. Viscosity = 0.01360 CP Total Compress = 0.0002510 1/PSI = 370.0 MSCF/D Rate Storivity = 0.004518 FEET/PSI Diffusivity = 3.267 FEET²/HR = 4844. FEET Gauge Depth = 4803. FEET = 4844. FEET Perf. Depth Datum Depth Analysis-Data ID: W2DST3 Based on Gauge ID: GAU002



slope of the line = -1.37093 MPSI2/CP/cycle Static-Data and Constants extrapolated pressure = 2219.09 PSI Volume-Factor = 2.811 RB/MSCF extrapolated pressure = 372.866 MPSI2/CP Thickness = 100.0 FEET (inv) at 0.7683 hr = 2.88 FEET Viscosity = 0.01360 CP R(inv) at 0.4345 hr = 2.16 FEET Total Compress = 0.0002510 1/93

prod. time=0.1819 hr at rate=370.0000 MSCF/D Storivity

Skin(mech) = -0.291
permeability = 0.00761 MD
Perm-Thickness = 0.761 MD-FEET
Turbulence = 0.1/MSCF/D
Datum Press. = 2219.10 PSI



Analysis-Data ID: W2DST3 Gauge-Data ID: GAU002 Data starts at 2004-04-20 17:58:13 Data ends at 2004-04-20 22:57:03

Number of rates = 4

Cum. Production = 3839. BBLS

Static-Data and Constants Volume-Factor = 2.811 RB/MSCF = 100.0 FEET Thickness Viscosity = 0.01360 CP,Total Compress = 0.0002510 1/PSI = 0.004518 FEET/PSI Storivity Gauge Depth = 4844. FEET

Perf. Depth Datum Depth = 4803. FEET = 4844. FEET Analysis-Data ID: W2DST3 Based on Gauge ID: GAU002



LAKES OIL WOMBAT # 2 DST REPORTS



DST # 1 REPORT



COMPANY: Lakes Oil Well Name: Wombat # 2

PEP 157

Well Loc: Interval:

State: KB Elev:

Vict

14.65 m

GR Elev:

Date: 16/04/2004

Ticket No: 573 DST No:

RECORDER DATA:

Rec#		6883	3149	6886	6885
Range Ibs		10 k	3800	10 k	10 k
Clock hrs		Battery	24	Battery	Battery
Depth m		1341.69	1348.24	1349.8	1372.63
	PSI	PSI	PSI	PSI	PSI
Initial Hydrostatic		7 1		2432.86	2450.49
Initial Preflow				188.53	196.65
Final Preflow				576.93	729.99
Initial Shutin					
Initial Flow					
Final Flow					
Final Shutin			493.65	1887.03	1898.2
Final Hydrostatic				2414.25	2439.63
Inside Outside	Fluid	Fluid	In [In	Out

TIME DATA:

Preflow	15	mins
Initial Shutin	30	mins
Initial Flow	30	mins
Final Shutin	30	mins

Time Start	Time End
2:45	3:00
3:00	3:30
3:30	4:00
4:00	4:30

Time Start

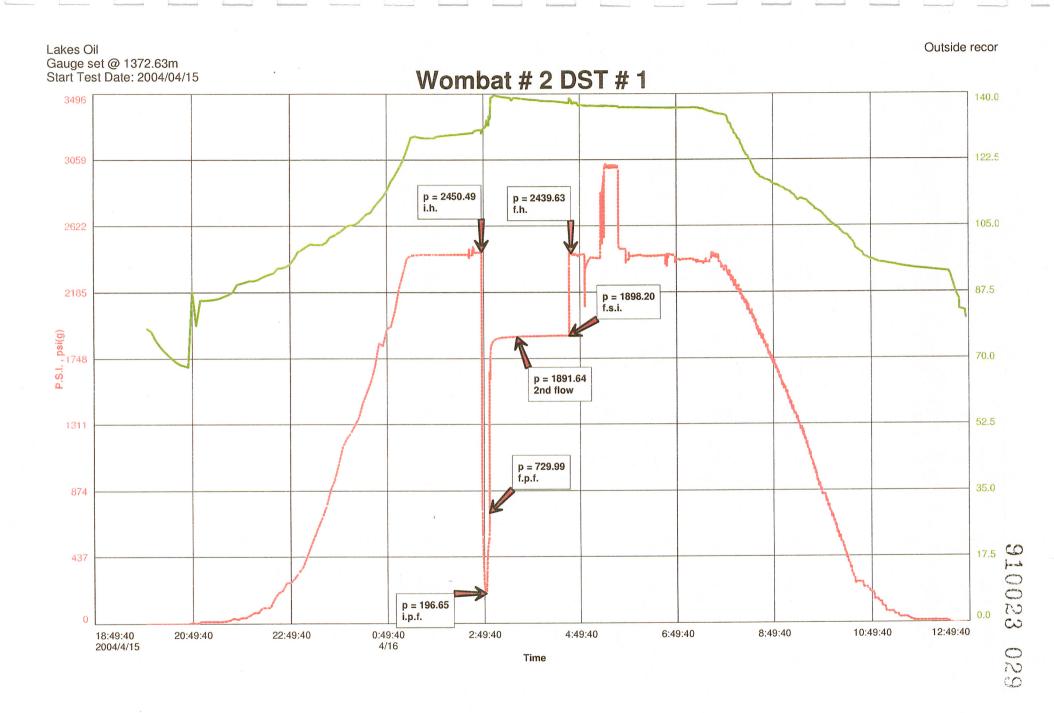
 20:00
 On Bottom
 2:43
 Time Open
 2:45
 Time Pulled
 4:30
 Time Out

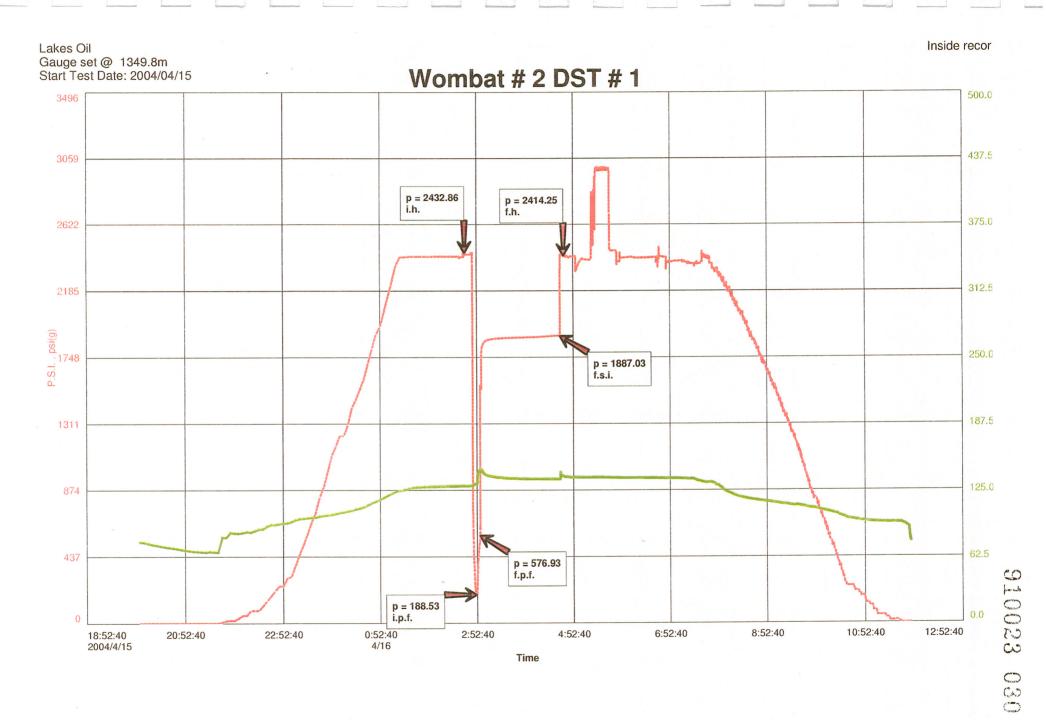
				7
TOOL DATA :				
TOOL DATA.		ID	Length	
	Drill Pipe	3.826 ins	1198.2 m	
Tool Weight 7 k lbs			The same of the sa	
Weight out on Factore	Drill Pipe	2 15/16ins	9.50 m	
Weight Pulled Looselbs	rill Collars	2 7/8ins	122.79 m	
Initial String Weight 90 k lbs				
Hole Size 8.5 ins				
Bottom Hole Choke 0.75 ins				<u> </u>
FLUID RECOVERY:		MUD DATA	<u>:</u>	
(m) of		Mud Type	Kcl / polymer	
	•	Weight	10.4	
(m) of	•	Vis.	44	
(m) of	•	W.L.	6.4	
(m) of	-	F.C.		
			1\32	
Total Fluid	-	Mud Drop	Nil	
BLOW DESCRIPTION AND REMARKS :	GASFLO	W RATES :		
BEOW DESCRIPTION AND REMARKS.	0/10/120	THE RESERVE THE PROPERTY OF THE PARTY OF THE		
Commente	TIME (mins)	CHOKE	PSI	M CFID
Comments	2:45			
Tool open	2:50	1/4	220	
Open thru 1/4 choke 220 psi		1/4	46	
Gas to surface @ 46 psi	2:57		40	
Shut in tool @ 46 psi . 2/3 metre flare	3:00			
Bubble on top of bucket weak	3:30			
Shut in tool . Buuble 1 in in bucket weak	4:00			
Pull out of hole .	4:30			
Comments - Tool plugged 9 mins into first flow . Top of tool				
tightly packed with formation sand.			4	
Due to sand packing wash pipe snaped when unscrewing				
to redress Shut-in tool				
Shut in tool was replaced (Learjet flight to DST Roma)				
Shat in tool was replaced (Escajet ing.it to 2.5. 1.5.1.5)				
		-		
				-
GENERAL DATA :				
Amount of Fill (m): 0 Cushion Amount (m): Nil		Tester:	Chad McGuin	n/Jason Noud
Amount of the (m).	- 00		Lou De Vattin	
Bottom Hole Temp (F): 139.67 Cushion Type: N.A.		npany Rep:		10
Hole Condition: Good Reversed Out: Yes	-	Contractor:	Hunt	
Packer Size: 7 1/2 Tool Chased: No		Rig Number:	2	
Number of Packers: 2				

Drill Pipe					
Pup Joint	WELL NAME:	Wombat # 2		DST#	1
Drill Pipe					
	FORMATION:	Golden Beach	n	AL AI	D.S.T. USTRALIA®
HWDP	TESTER:	Chad McGuin	n / Jason No	ud	
Drill Collars	720727				and a state of the
	Total Tool To Bott	om Packer			18.58
	Tool Interval				16.10
Drill Collars	Total Tool				34.68
	H.W. In Interval			1 std	18.26
Pump out sub	Drill Collars Above	Tool		6 stds + 1	122.79
, amp out out	Jars				9.59
Drill Collars	HWDP Above Too	ol		1	9.50
	Drill Pipe Above				1198.20
Drop bar sub	Pup Joint/s Above			63 stds + 1	0
	Total			Γ	1393.02
Drill collar	STICK UP			-2.02	
J 501101	Drill Pipe		63 stds + 1	Employed Superclast Store and Control	-2.02
X-over	Pup Jt/s		30 0.00 - 1		1196.18
7.000	Drill Pipe				1196.18
Rec.carrier	H.W. Drill Pipe		1	9.50	1196.18
. 100.0011161	Drill Collars		1 st + 1	28.14	1205.68
Rec.carrier	Jars			9.59	1233.82
1.00.0011101	Drill Collars		4 stds	75.80	1243.41
Shut-in tool	Pump Out Sub		. 5.55	0.30	1319.21
211dt 117 t001	Drill Collar		1	9.49	1319.51
Sampler	Drop Bar Sub			0.30	1329.00
p	Drill Collar		1	9.36	1329.30
Travel sub	Cross Over			0.40	1338.66
	Spacing			3.63	1339.06
	Fluid Electronic R	ec Carrier		1.55	1342.69
Hydraulic tool	Shut in Tool			1.70	1344.24
.,	Sampler			1.20	1345.94
Rec Carrier	Travel Sub			0.46	1347.14
Rec Carrier	Hyd Tool			1.68	1347.60
Jar	Inside Mechanica	I Rec Carrier		1.52	1349.28
Safety joint	Inside Electronic			1.83	1350.80
Packer	Jars			0.00	1352.63
	Safety Joint			0.66	1352.63
Packer	Packer			2.31	1353.29
	Packer			1.04	1355.60
Perf	DEPTH			1356.64	
Rec Carrier	Stick Down			1.01	1356.64
Rec Carrier	Perf			6.08	1357.65
	Outside Electroni	c Rec Carrier		1.52	1363.73
X- Over	Perf			4.56	1365.25
HWDP	Cross Over			0.40	1369.8
X- Over	H.W. Drill Pipe		1 std	18.26	1370.2
Perf	Cross Over		. 0.0	0.40	1388.4
1 611	Perf			1.52	1388.8
Bull Nose	Bullnose			0.61	1390.3
Dull 14036	TOTAL DEPTH			1391.00	. 55010



DST # 1
PLOTS AND DATA









DST # 1A REPORT



Company: Lakes Oil
Well Name: Wombat # 2
Well Loc: Pep 157

Interval:

Wombat # 2
Pep 157
1328.29 - 1391 m

T.D. (m) 13

 State:
 Vict

 KB Elev:
 14.65 m

 GR Elev:
 11 m

 Date:
 17/04/2004

 Ticket No:
 574

 DST No:
 1A

T.D. (m) 1391 m Test Type. Conventional bottom hole

RECORDER DATA:

Rec#		6883		6886	6883
Range Ibs		10 k		10 k	10 k
Clock hrs		Battery		Battery	Battery
Depth m		1311.92		1319.8	1339.94
	PSI	PSI	PSI	PSI	PSI
Initial Hydrostatic				2338.39	2375.31
Initial Preflow					
Final Preflow					
Initial Shutin					
Initial Flow				1483.83	1618.05
Final Flow				1837.17	1866.06
Final Shutin				1840.52	1869.35
Final Hydrostatic		1812.64		2325.56	2359.27
Temperature		143 F		143 F	143 F
	Fluid	Fluid	In	In	Out

TIME DATA:

Preflow mins
Initial Shutin 240 mins
Final Shutin 60 mins

Time Start Time End

6:40 10:40 10:40 11:40

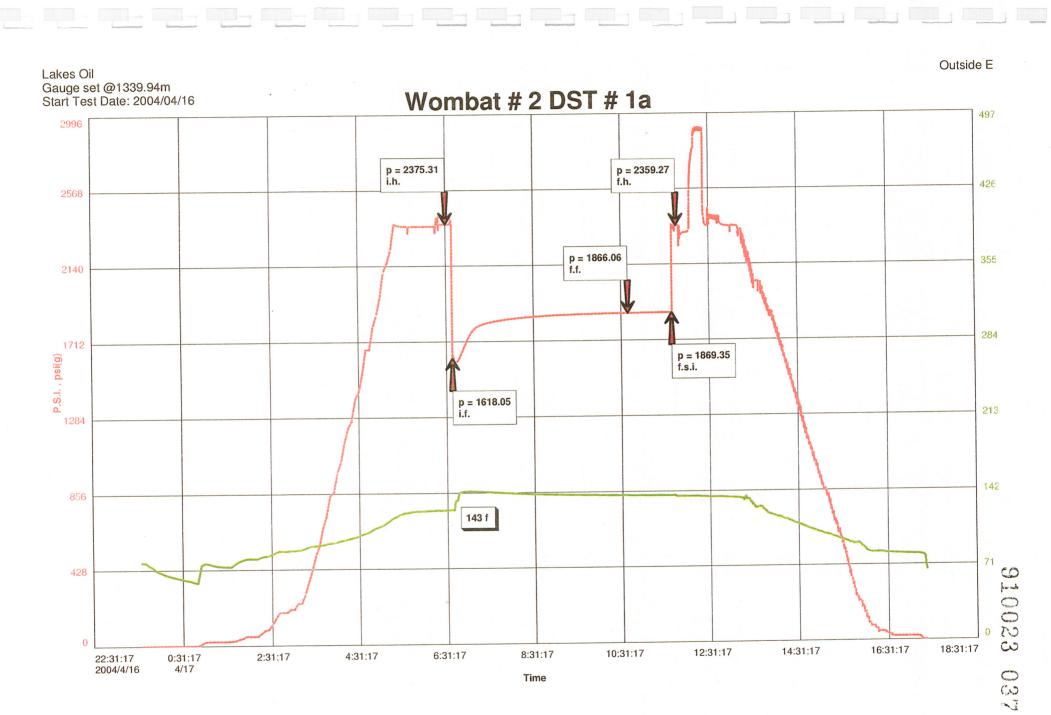
Time Start 0:00 On Bottom 6:38 Time Open 6:40 Time Pulled Time Out

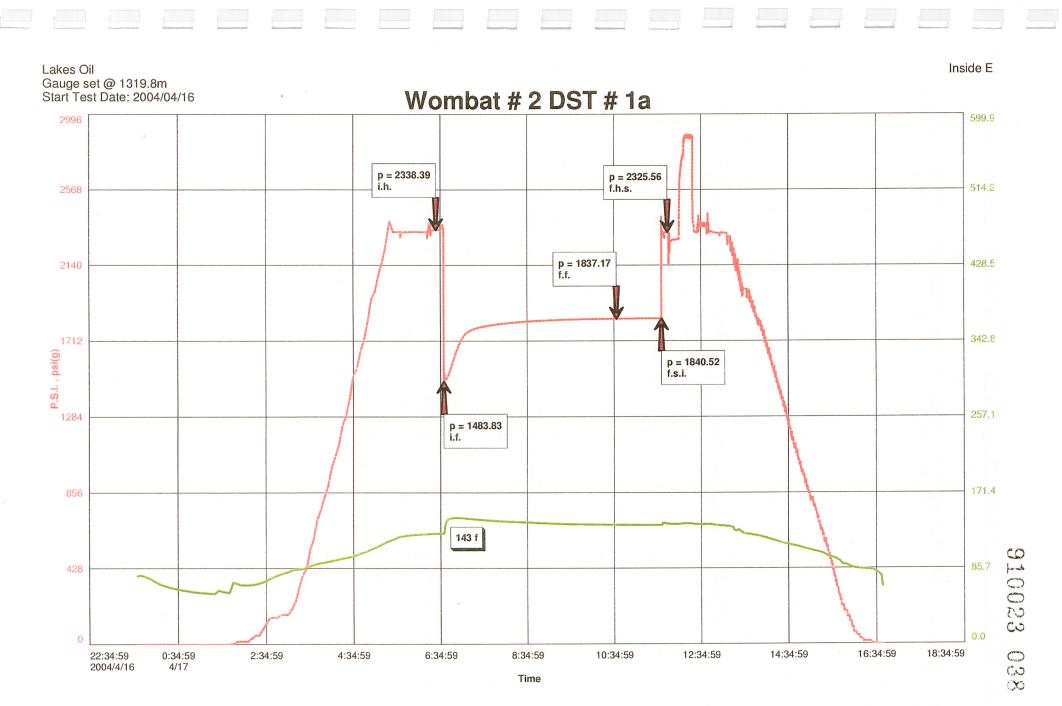
TOOL DATA:			<u>ID</u>	Length	
Tool Weight: 7 k /bs		Drill Pipe:	3 5/6	103.94m	
Weight Set on Packers: 40 k lbs		Drill Pipe:	3 3/0	0m	
Weight Pulled Loose: 105 k lbs		ill Collars:	2 7/8	1208.65 m	
Initial String Weight: 90 k lbs					
Hole Size: 8.5 ins					
Bottom Hole Choke: 0.75 ins					
FLUID RECOVERY:			MUD DATA	<u>ı:</u>	
(m) of			Mud Type	Kcl / polymer	
(m) of			Weight	10.4	
(m) of			Vis.	44	
(m) of		*	W.L.	6.4	
			F.C.	1\32	
Total Fluid 1275 m of formation was	ater	•	Mud Drop	Nil	Des same a ser se
BLOW DESCRIPTION AND REMARKS:		GAS FLO	W RATES:		
<u>Comments</u>		TIME (mins)	CHOKE	PSI	M CF/D
Tool open bubble on bucket strong .		6:40			
		6:45		8	
Open thru 1/4 choke @ 12 psi.		6:48	1/4	12	
		6:50		14	
		6:55		10	
		7:00		4	
Gas to surface 1/2 / 1 m lazy flare .		7:05		, 1	
Open manifold thru centre valve approx 13/16	0 - =:	7:15	-	0	
Surging bubble on top of bucket / lazy 1 m flare @ 0	J psi	8:40		-	
Shut in manifold & buble hose .		10:37		14	
Bleed off pressure . 1m flare dies immediately. Shut in tool		10:40		- '-	
Shutin tool		10.40			
Sample Chamber Recovery - gas cut water @ 300	psi				
•	Mineral Action Commission Commiss	Mikalada papaba ka ka ka panaka mura ari maka ya maka pamahan ka	Benchado Torro Section (Sept. 1905) and a facilities of the Committee of t		
GENERAL DATA:					
Amount of Fill (m): 0 Cushion Amount (<i>(m):</i> Nil		Tester:	Chad McGuini	n/Jason Nou
Amount of Fill (m): 0 Cushion Amount (Bottom Hole Temp (F): 143 Cushion Ty	AND DESCRIPTION OF THE PARTY OF	Com	npany Rep:	Lou De Vattim	The state of the s
Hole Condition: Good Reversed C	The state of the s		Contractor:	Hunt	U
Packer Size: 7 1/2 Tool Chase	CONTRACTOR OF THE PARTY OF THE		Rig Number:	2	
Number of Packers: 2	ed.		19 1401112011		
Number of Packers.					

Drill Pipe Pup Joint	WELL NAME:	Wombat # 2		DST#	1A	
Drill Pipe				70"		
HWDP	FORMATION:	Golden Beach		AL	D.S.T.	
	TESTER:	Chad McGuinr	n / Jason No	ud		
Drill Collars	Total Tool To Botto	om Packer			20.15	
	Tool Interval	on r dokor			16.10	
Drill Collars	Total Tool:				36.25	
	H.W. + D.Cs. In Int	erval			46.61	
Pump out sub	Drill Collars Above	Tool		5std + 1	103.94	
	Jars				0	
Drill Collars	HWDP Above Too				0.00	
	Drill Pipe Above T	ool		64 stds	1208.65	
Drop bar sub	Pup Joint/s Above	Tool			0	
	Total :				1395.45	
Drill collar	STICK UP :			-4.45		
	Drill Pipe		64 stds	1208.65	-4.45	
X-over	Pup Jt/s				1204.20	
	Drill Pipe			0.00	1204.20	
Rec.carrier	H.W. Drill Pipe			0.00	1204.20	
Doo og:::i-:	Drill Collars			0	1204.20 1204.20	
Rec.carrier	Jars Drill Collars		4stds + 1	84.95	1204.20	
Shut-in tool	Pump Out Sub		451U5 + 1	0.30	1289.15	
Shat-III (00)	Drill Collar		1	9.45	1289.45	
Sampler	Drop Bar Sub			0.30	1298.90	
Campion	Drill Collar		1	9.54	1299.20	
Travel sub	Cross Over			0.40	1308.74	
	Spacing			2.78	1309.14	
	Fluid Electronic Re	ec Carrier		1.52	1311.92	
Hydraulic tool	Shut in Tool			1.64	1313.44	2
	Sampler			1.02	1315.08	
Rec Carrier	Travel Sub			0.46	1316.10	
Rec Carrier	Hyd Tool			1.68	1316.56	
Jar	Inside Mechanical			1.56	1318.24	
Safety joint	Inside Electronic F	lec Carrier		1.78	1319.80	
Packer	Jars			2.70	1321.58	
D .	Safety Joint			0.66	1324.28	
Packer	Packer			2.31	1324.94	
Stick Down	Packer			1.04	1327.25	
Perf	DEPTH :			1328.29	1000.00	
Dog Comit	Stick Down			1.01 6.08	1328.29 1329.30	
Rec Carrier	Perf Perf			4.56	1335.38	
X- Over	Outside Electronic	Rec Carrier		1.52	1339.94	
3 HW+DC	Cross Over	nec camer		0.40	1341.46	
X- Over	3 H.W. + Std D.Cs			46.61	1341.86	
Perf	Cross Over			0.40	1388.47	
	Perf			1.52	1388.87	
Bull Nose	Bullnose			0.61	1390.39	
	TOTAL DEPTH :			1391.00	1	



DST # 1A PLOTS AND DATA









DST # 2 REPORT



COMPANY: Lakes Oil Well Name: Wombat # 1

Well Loc: Pep 157

State: KB Elev:

Vict 14.65 m

11 m

Date:

18/04/2004

Ticket No: DST No:

Interval:

1399.72 - 1428 m **T.D. (m):** 1428

GR Elev: Test Type. Conventional bottom hole

RECORDER DATA:

Rec #		6886		6883	6885
Range Ibs		10 k		10 k	10 k
Clock hrs		Battery		Battery	Battery
Depth m		1386.05		1393.93	1403.77
	PSI	PSI	PSI	PSI	PSI
Initial Hydrostatic				2498.51	2498.93
Initial Preflow					
Final Preflow					
Initial Shutin					
Initial Flow				201.25	201.25
Final Flow				225.79	222.69
Final Shutin		117.67		1994.89	1986.81
Final Hydrostatic				2490.03	2479.92
Temperature					
	Fluid	Fluid	In	In	Out

TIME DATA:

Preflow		mins
Initial Shutin		mins
Initial Flow	257	mins
Final Shutin	120	mins

Time Start Time End

22:15 18:28 22:15 0:15

Time Start:

13:00 <u>On Bottom:</u> 18:25 <u>Time Open:</u>

18:28 <u>Time Pulled:</u> 0:15 <u>Time Out:</u>

Weight Set o Weight Pu Initial Str		Drill Pipe V Drill Pipe Orill Collars	3.826 ins 2 15/16ins 2 7/8ins	Length 1246.47 m 9.5m 122.79 m	
	FLUID RECOVERY:		MUD DAT	<u>A:</u>	
	(m) of			Kcl / polymer 10.4 44 6.4 1\32 Nil	
	·				
	BLOW DESCRIPTION AND REMARKS:	GAS FLO	W RATES:		
Comments		TIME (mins)	CHOKE	PSI	M CF/D
	Tool open b.o.b.very strong	18:28			
	Open thru 1/4 choke @ 24 psi	18:29	1/4	24	
	Gas to surface @ 84 psi. 4 m flare	18:35		84	
	Stable flow of 18 psi thru 1/4 switch to 1/2 choke	19:24	1/2	18	-
	Stable flow of 26 psi thru 1/2 choke. Shut in manifold	19:54			
	425 psi @ manifold open thru centre valve .	21:06			
	Open thru 1/4 choke	21:15	1/4		
	Shut in down hole 106 psi thru 1/4 choke	22:15	1/4	106	
				,	
				-	
				-	
	GENERAL DATA:				
Amoun	t of Fill (m): 0 Cushion Amount (m): Nil		Tester:	Chad McGuinn	/Jason Noud
Bottom Hole		Com	pany Rep:	Lou De Vattime	0
1	Condition: Good Reversed Out: Yes		Contractor:	Hunt	
	cker Size: 7 1/2 Tool Chased: No	R	ig Number:	2	
1	of Packers: 2				

Colora Control Colorado

CALCULATION OF GAS FLOWS FROM FLOW PRESSURE BEHIND SURFACE CHOKE:

Gas Flow = 0.0555*C*(Pressure+15)



Coefficie	ent Table
Choke Size	Coefficient
(in)	(C)
1/8	6.25
3/16	14.44
1/4	26.51
5/16	43.64
3/8	61.21
7/16	85.13
1/2	112.72
5/8	179.74
3/4	260.99

	1/4 choke				
	Pressure	Gas Flow			
	(psi g)	(Mmcfd)			
18:28	24	0.057			
18:29	34	0.072			
18:30	40	0.081			
:31	54	0.102			
:32	60	0.110			
:34	78	0.137			
:36	88	0.152			
:37	92	0.157			
:39	102	0.172			
:41	108	0.181			
:43	112	0.187			
:44	116	0.193			
:46	120	0.199			
:48	124	0.205			
:52	128	0.210			
:53	129	0.212			
:56	132	0.216			
:59	134	0.219			
19:04	136	0.222			
:09	138	0.225			
:24	138	0.225			

CALCULATION OF GAS FLOWS FROM FLOW PRESSURE BEHIND SURFACE CHOKE:

D.S.T. AUSTRALIAD

Gas Flow = 0.0555*C*(Pressure+15)

1.	צו	ct	าก	ĸe

Coefficient Table					
Choke Size	Coefficient				
(in)	(C)				
1/8	6.25				
3/16	14.44				
1/4	26.51				
5/16	43.64				
3/8	61.21				
7/16	85.13				
1/2	112.72				
5/8	179.74				
3/4	260.99				

	Pressure	Gas Flow
	(psi g)	(Mmcfd)
19:24	118	0.832
:25	114	0.807
;26	0	0.094
:27	96	0.694
:28	78	0.582
:30	62	0.482
:32	54	0.432
:34	46	0.382
:36	40	0.344
:38	38	0.332
:41	32	0.294
:45	30	0.282
:47	28	0.269
:54	26	0.256

	COMPANY: La	kes Oil		DATE:	18/04/2004
Drill Pipe	MELL MARKE, W			DST#	2
Pup Joint	WELL NAME: W	ombat # 2		<u>D31 #</u>	
Drill Pipe	FORMATION: Go	lden Beach		AUS	D.S.T.
HWDP	TESTER: Ch	ad McGuinn /	Jason Moi	ud	
Drill Collars	TESTER. OI	lad McGullili /	043011110		
Dilli Collais	Total Tool To Bottom F	Packer			14.67
	Tool Interval	aona.			10.02
Drill Collars	Total Tool :				24.69
	H.W. In Interval			1 std	18.26
Pump out sub	Drill Collars Above To	ol		6 stds + 1	122.79
	Jars				9.59
Drill Collars	Hev - Waite Above To	ol		1	9.50
	Drill Pipe Above Tool				1246.47
Drop bar sub	Pup Joint/s Above Too	ol		63 stds + 1	0
	Total:				1431.30
Drill collar	STICK UP:			-3.30	
	Drill Pipe		66 stds	1246.47	-3.30
X-over	Pup Jt/s				1243.17
	Drill Pipe				1243.17
Rec.carrier	H.W. Drill Pipe		1	9.50	1243.17
	Drill Collars		1 st + 1	28.14	1252.67
Rec.carrier	Jars			9.59	1280.81
	Drill Collars		4 stds	75.80	1290.40 1366.20
Shut-in tool	Pump Out Sub		1	0.30 9.49	1366.50
	Drill Collar		1	0.30	1375.99
Sampler	Drop Bar Sub Drill Collar		1	9.36	1376.29
Travel sub	Cross Over			0.40	1385.65
114401 340	Spacing			0.00	1386.05
	Fluid Electronic Rec C	Carrier		1.52	1386.05
Hydraulic tool	Shut in Tool			1.64	1387.57
	Sampler			1.02	1389.21
Rec Carrier	Travel Sub			0.46	1390.23
Rec Carrier	Hyd Tool			1.68	1390.69
Jar	Inside Mechanical Re	c Carrier		1.56	1392.37
Safety joint	Inside Electronic Rec	Carrier		1.78	1393.93
Packer	Jars			0.00	1395.71
	Safety Joint			0.66	1395.71
Packer	Packer			2.31	1396.37
Stick Down	Packer			1.04	1398.68
Perf	DEPTH			1399.72	
	Stick Down			1.01	1399.72
Rec Carrier	Perf			3.04	1400.73
11.2	Outside Electronic Re	c Carrier		1.52	1403.77
X- Over	Perf			3.04	1405.29
1 Std HWDP	Cross Over		4 -4-1	0.40	1408.33
X- Over	H.W. Drill Pipe		1 std	18.26	1408.73 1426.99
Perf	Cross Over			0.40	1420.9
Bull Mass	Perf Bullnose			0.00 0.61	1427.39
Bull Nose	TOTAL DEPTH			1428.00	1427.3

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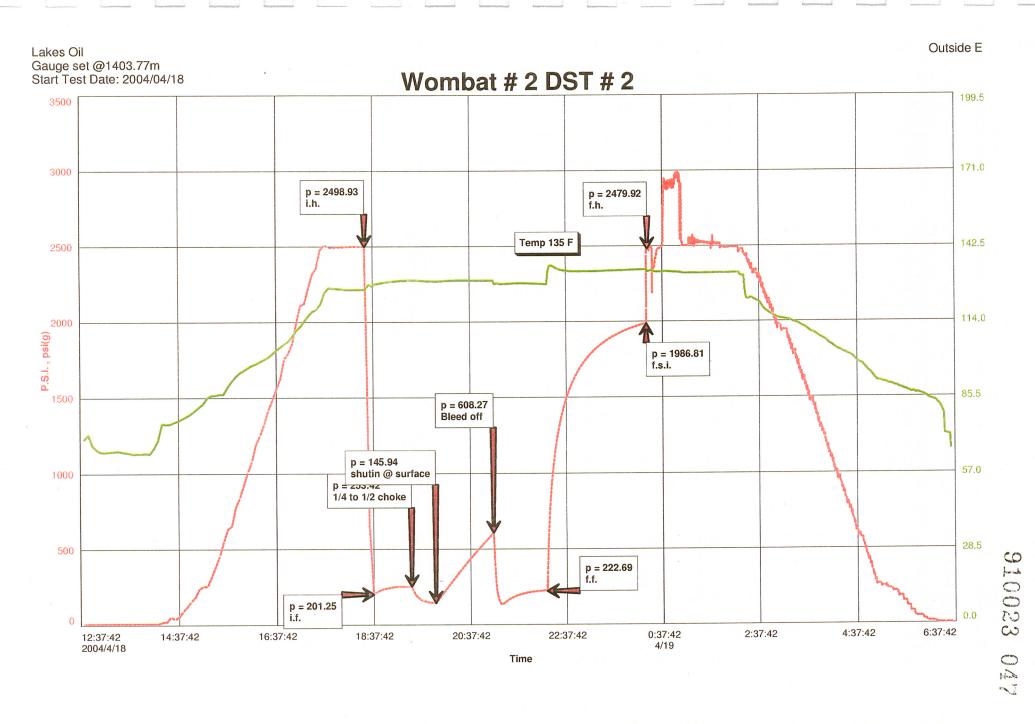
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DST # 2
PLOTS AND DATA









DST # 3 REPORT



COMPANY: Lakes Oil Well Name: Wombat # 1

Pep 157 Well Loc:

Interval:

State:

14.65 m

Date: Ticket No: DST No: 20/04/2004 576 3

KB Elev: GR Elev: 11 m

RECORDER DATA:

Rec #	COLUMN TO SERVICE STATE OF THE	6886	ade plante and an experience a	6883	6885
Range Ibs		10 k		10 k	10 k
Clock hrs		Battery		Battery	Battery
Depth m		1450.18	1456.5	1458.06	1475.5
	PSI	PSI	PSI	PSI	PSI
Initial Hydrostatic				2633.92	2672.73
Initial Preflow				336.86	374.07
Final Preflow				409.85	434.4
Initial Shutin				2049.22	2059.91
Initial Flow				360.07	380.71
Final Flow				414.99	429.24
Final Shutin		232.21		1902.26	1913.24
Final Hydrostatic				2617.19	2655.05
Temperature				141 F	143 F
	Fluid	Fluid	In	In	Out

TIME DATA:

Preflow	11	mins
Initial Shutin	45	mins
Initial Flow	60	_ mins
Final Shutin	180	_ mins

Time Start	Time End
18:04	18:15
18:15	19:00
19:00	20:00
20:00	23:00

Time Start

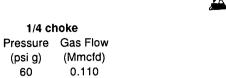
12:40 On Bottom 18:00 Time Open 18:04 Time Pulled 23:00 Time Out

TOOL DAT	<u>A:</u>				ID	Length	i
Ta -1 Wainbi	71.	lho	Dei	Il Pipe :	3.826 "	1293.95 m	
Tool Weight:	7 k	lbs		ill Pipe:	2 15/16 "	9.5m	
Weight Set on Packers:	40 k	lbs lbs		Collars:		141.50 m	
Weight Pulled Loose: _ Initial String Weight:	90 k 90 k	lbs	Dilli	oonars.	2170	141.00	
Hole Size:		ins					
Bottom Hole Choke:		ins					
201,011 71010 011010							
FLUID REC	OVERY:			MUD DATA :			
	(m) of				Mud Tyna	Kcł / polymer	
	(m) of				Weight	10.4	•
	(m) of (m) of				Vis.	44	
	(m) of				W.L.	6.4	
	(111) 01		····		F.C.	1\32	
	Total Fluid				Mud Drop	Nil	
BLOW DE	SCRIPTIOI	N AND REMARKS:	<u>G</u>	AS FLO	N RATES:		
Q			<u>Γτί</u>	ME (mins)	CHOKE	PSI	M CF/D
Comments Tool open bub	ble on bucket	strona	 "	18:04	Onone		07,2
Open thru 1/4				18:05	1/4	60	
Gas to surface				18:10		156	
Shutin tool				18:15		230	
Tool open				19:00		10	
Well flowing				19:24		307	
Tool closed				20:00		, 260	
Sample cham	ber recovery -	formation gas @ 330 psi					·
							
							-
					 		
					<u> </u>		
					T		
•							
<u>GENERAL</u>	DATA:						
Amount of Eill (m)	0	Cushion Amount (m):	Nil		Tester:	Chad McGuin	n/Jason Noud
Amount of Fill (m): Bottom Hole Temp (F):	0 143 F	_ Cusnion Amount (iii): _ Cushion Type:	N.A.	Comi	pany Rep:	Lou De Vattim	•
Hole Condition:	Good	_ Cusmon Type Reversed Out:	Yes	-	Contractor:	Hunt	;~
Packer Size:	7 1/2	_ Tool Chased:	No		g Number:	2	•
Number of Packers:	2				,	-	•
l		-					
cr5/2004							

D.S.T. AUSTRALIA

CALCULATION OF GAS FLOWS FROM FLOW PRESSURE BEHIND SURFACE CHOKE :

Gas Flow = $0.0555^*C^*(Pressure+15)$



Coefficient Table						
Choke Size Coefficient						
(in)	(C)					
1/8	6.25					
3/16	14.44					
1/4	26.51					
5/16	43.64					
3/8	61.21					
7/16	85.13					
1/2	112.72					
5/8	179.74					
3/4	260.99					

	(psi g)	(Mmcfd)
18:04	60	0.110
:06	80	0.140
:07	108	0.181
:08	122	0.202
:09	156	0.252
:11	200	0.316
:13	210	0.331
:14	230	0.360
Shut in		0.022
19:00	10	0.037
:01	100	0.169
:02	190	0.302
:03	240	0.375
:04	250	0.390
:05	260	0.405
:07	270	0.419
:09	280	0.434
:12	290	0.449
:15	300	0.463
:18	305	0.471
:21	306	0.472
:24	307	0.474
:27	305	0.471
:30	302	0.466
:33	300	0.463
:37	295	0.456
:40	290	0.449
:45	285	0.441
:50	275	0.427
:55	265	0.412
20:00	260	0.405

	Drill Pipe Pup Joint	COMPANY:	Lakes Oil		DATE:	20/04/2004
	Drill Pipe	WELL NAME:	Wombat # 2		DST#	3
					D.S.	
ŀ	HWDP	FORMATION:	Strzelecki	É	AUSTRA	LIAM
[Drill Collars	TESTER:	Chad McGuin	n / Jason No	ıd	
	Jar					
	D !!! O !!	Total Tool To Bott	om Packer			14.67
[Drill Collars	Tool Interval			г	14.89
		Total Tool :			L	29.56
1	Pump out sub	H.W. In Interval	T 1		1 std	18.26
	D-11 O-11	Drill Collars Above	1001		7 stds + 1	141.50
	Drill Collars	Jars Hev - Waite Above	a Tool		1	9.59
,	Dran har oub	Drill Pipe Above			68+1 stds	1293.95
	Drop bar sub	Pup Joint/s Above			0041 3103	0
	Drill collar	Total:	, 001		ſ	1502.36
	Jili oolal	STICK UP:			-5.36	
,	X-over	Drill Pipe		68 + 1 stds	1293.95	-5.36
	7. 0701	Pup Jt/s		00 1 1 0100	1200.00	1288.59
	Rec.carrier	Drill Pipe				1288.59
		H.W. Drill Pipe		1	9.50	1288.59
	Rec.carrier	Drill Collars		1	9.38	1298.09
		Jars			9.59	1307.47
	Shut-in tool	Drill Collars		6 stds	113.27	1317.06
		Pump Out Sub			0.30	1430.33
	Sampler	Drill Collar		1	9.49	1430.63
		Drop Bar Sub			0.30	1440.12
	Travel sub	Drill Collar		1	9.36	1440.42
		Cross Over			0.40	1449.78
		Spacing	•		0.00	1450.18
	Hydraulic tool	Fluid Electronic R	ec Carrier		1.52	1450.18
	Rec Carrier	Shut in Tool			1.64	1451.70 1453.34
	Rec Carrier	Sampler Travel Sub			0.46	1454.36
	nec Camer	Hyd Tool			1.68	1454.82
	Safety joint	Inside Mechanical	Rec Carrier		1.56	1456.50
	Packer	Inside Electronic F			1.78	1458.06
		Jars			0.00	1459.84
	Packer	Safety Joint			0.66	1459.84
		Packer			2.31	1460.50
	Perf	Packer			1.04	1462.81
	Rec Carrier	DEPTH:			1463.85	
	Rec Carrier	Stick Down			1.01	1463.85
	Perf	Perf			6.08	1464.86
	X- Over	Perf			4.56	1470.94
	HWDP	Outside Electronic	: Rec Carrier		1.83	1475.50
	X- Over	Cross Over			0.40	1477.33
	Perf	H.W. Drill Pipe		1 std	18.26	1477.73
	well Consisten	Cross Over			0.40	1495.99
	Bull Nose	Perf			0.00	1496.39
		Bullnose			0.61	1496.39
		TOTAL DEPTH:			1497.00	

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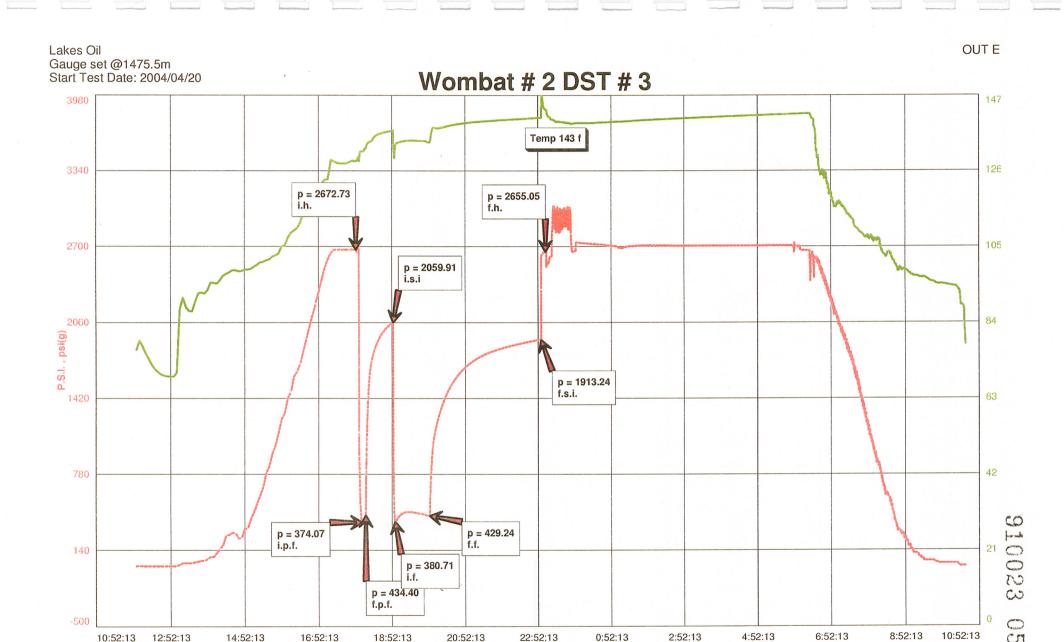
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Page 4



DST # 3
PLOTS AND DATA



Time

4/21

16:52:13

18:52:13

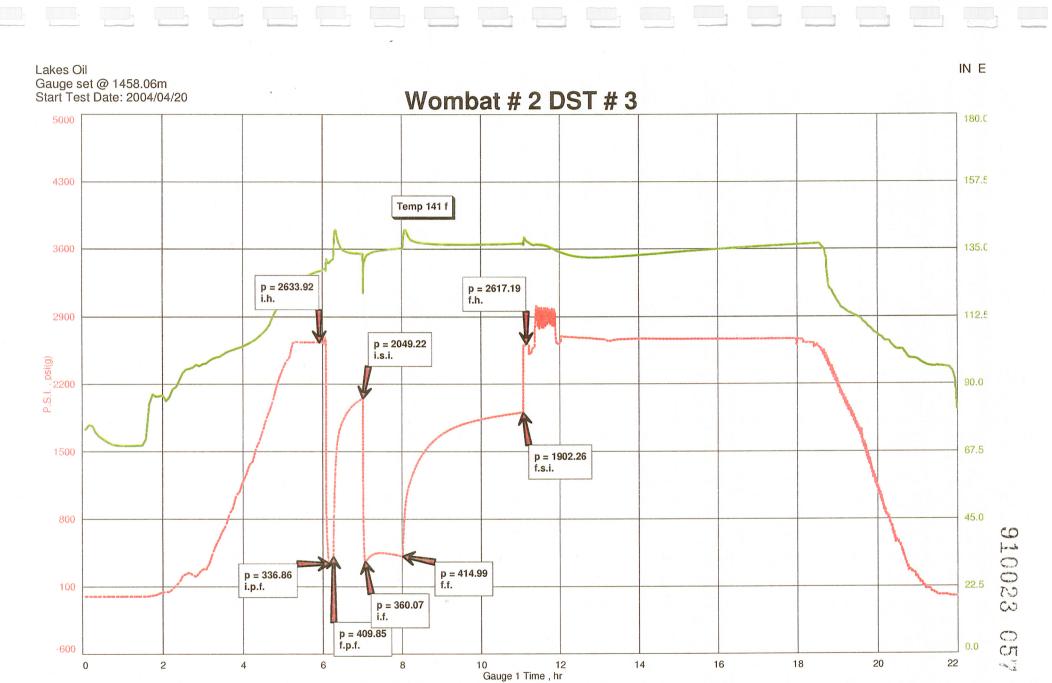
20:52:13

14:52:13

10:52:13

2004/4/20

12:52:13







CORE # 1
BHA/REPORT

COMPANY: Lakes Oil

BIT TYPE:

Diamant Boart CD 93

m CORED:

9

TIME START:

19:40

WELL:

Wombat # 2

SERIEL #:

Bel 7970035

m RECOVERED:

4.84

TIME END:

0:25

CORE #:

BIT SIZE:

8.5 x 4 in

% RECOVERY:

53.70%

DATE:

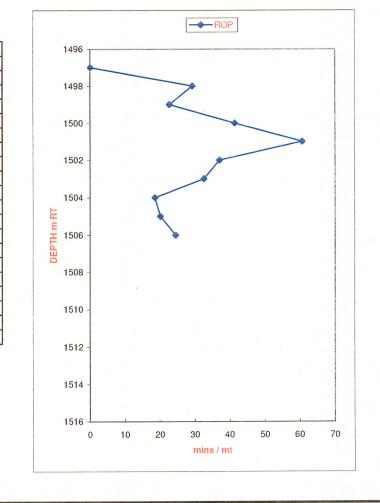
21/04/2004

CORED BY: Chad McGuinn

LINER TYPE:

5.5

DEPTH	ROP	WOB	RPM	SPM	GPM	PUMP	MW
m	mins / mt	lbs				psi	ppg
1497	0	0	0	0			10.4
1498	29.26	15 k	50	32	185	482	
1499	22.72	20 k	80	35	204	507	
1500	41.37	20k	100	36	214	501	
1501	60.6	25k	120	39	232	523	
1502	37.03	20k	120	44	258	533	
1503	32.6	20k	120	43	253	550	
1504	18.57	15k	100	32	184	602	
1505	20.1	15k	100	32	184	600	
1506	24.5	15k	100	32	184	610	
1507							
1508							
1509							
1510							
1511							
1512							
1513							
1514							***************************************
1515							







Wombat # 2 Core # 1

1322.44	70 stds d/p	Core Bit :	Type	CD 93
3.86	Pony d/c		Serial #	Bel 7970035
27.76	3 H.W.		Size	8.5 x 4 in
131.99	7 stds d/c			
0.21	upper safety joint			
0.39	lower safety joint			
0.61	stab			1
8.53	core barrel			
0.61	stab			
0.31	core head			
1496.71	Total Length			

